OWENS RIVER WATER TRAIL

Final Environmental Impact Report
SCH No. 2018051049

Prepared for
County of Inyo

January 2026

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OWENS RIVER WATER TRAIL FINAL EIR

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CHAPTER 1
Introduction

The County of Inyo acting through the Inyo County Water Department (the County or ICWD) as the Lead Agency under the California Environmental Quality Act (CEQA), has prepared the Final Environmental Impact Report (Final EIR) for the proposed Owens River Water Trail Project (ORWT or project). This document, in conjunction with the Draft EIR, comprises the Final EIR.

1.0 Purpose of the Final EIR

The purpose of this Final EIR is to inform decision-makers and the public of the potential environmental impacts that could result from the project as well as the mitigation measures or alternatives that would avoid or minimize potential significant impacts.

As described in Sections 15088, 15089, 15090 and 15132 of the State *CEQA Guidelines*, the Lead Agency must evaluate comments received on the Draft EIR and prepare written responses and consider the information contained in a Final EIR before approving a project. Pursuant to State *CEQA Guidelines* Section 15132, a Final EIR consists of: a) the Draft EIR; b) comments and recommendations received on the Draft EIR either verbatim or in summary; c) a list of persons, organizations, and public agencies commenting on the Draft EIR; d) responses of the Lead Agency to significant environmental points raised in the review and consultation process; and e) any other information added by the Lead Agency.

2.0 Project Summary

The project area is located in the Owens Valley, which is nestled between the Sierra Nevada mountain range on the west and the Inyo and West mountain ranges on the east, along an approximately 6.3-mile segment of the Lower Owens River immediately east of the unincorporated town of Lone Pine. More specifically, the project would encompass the stretch of river between Lone Pine Narrow Gauge Road and Highway 136 [California State Route (SR)].

Currently, sections of the Lower Owens River corridor are non-navigable due to the channel being partially or fully obstructed by emergent aquatic vegetation and associated sediment accumulation as well as by large and small woody debris. The County proposes to construct and maintain the ORWT to allow public recreational access for non-motorized watercraft on an approximately 6.3-mile segment of the Owens River. The extent of the river to be used for the water trail represents approximately 10 percent of the length of the newly-rewatered, 62-mile Lower Owens River. The proposed project would develop facilities for recreational users to safely enter and exit the river and allow unimpeded navigation for non-motorized watercraft, such as kayaks, stand-up paddle boards, and canoes.

Construction of the ORWT would consist of two phases: 1) in-channel work for the water trail, and 2) construction of the boat launch and take-out facilities. Construction associated with the water trail would involve the following activities to remove occlusions and establish a single continuous navigable waterway in the dominant channel: 1) clearing of emergent vegetation to a width of approximately 15 feet; 2) relocation of large woody debris (LWD); and 3) removal of bulrush and cattail root masses and sediments associated with vegetation removal and excavation of a short channel segment.

Clearing of emergent vegetation would occur by one or a combination of hand labor and equipment. Paddle boats and low ground pressure all-terrain utility vehicles would support hand-clearing efforts. Boat-based or amphibious equipment, which generally mows or masticates emergent vegetation, would be utilized as practicable to clear vegetation. It is estimated that between 6,462 cubic yards (cy) and 8,530 cy of emergent vegetation would be cleared from the river channel.

At occlusions where emergent vegetation is growing across the channel, light excavation to a width of 15 feet and an average depth of one foot would occur to remove root masses. In total, excavated materials from removal of the occlusions and channel excavation are anticipated to result in up to approximately 5,200 cy of spoils material, which would most likely consist of a mixture of organic debris (e.g., tubers, roots, and shoots of tules), muck, and mineral soil. Based on input from contractors and field observations, spoils would likely consist of approximately 20 to 50 percent mineral soil by volume.

Spoils generated from the vegetation removal and excavation at the occlusions would be transported to spoils placement areas using existing informal dirt ranch roads along the river where possible. Spoils placement areas would vary in geographic location as well as size, ranging from approximately 2,650 to 67,000 square feet in size covering a total of approximately 6.66 acres. The majority of the 27 spoils areas would be located within proximity to the river segments from which occlusions would be removed.

Combining the material from the in-channel excavation with the above water vegetation removal, the project would result in approximately 11,662 to 13,730 cy of wet material.[1] The emergent vegetation and material from channel excavation spread on the spoils areas could result in piles ranging from 0.6 to 3.65 feet deep, with an average depth of approximately 1.6 feet. The actual depth of piles may vary slightly in the field; methods for distributing spoils would be based on actual materials excavated and the objective to spread materials as thinly as possible to encourage deflation and the recolonization of spoils areas by native vegetation.

LWD blocking the navigable channel would be relocated to nearby banks or inlet embayments. Small LWD pieces would be moved manually by hand or with winches. Larger LWD pieces would be relocated by shore-based equipment and lodged in emergent vegetation out of the main

[1] In the area of relic beaver dams (occlusions 8-11 on the figures provided in Appendix B-3 of the Draft EIR), the combined volume of emergent vegetation and material from channel excavation would be approximately 3,700 cy of material or approximately 27% of the total materials to be generated by the project.

channel. Due to relatively small fluctuations of water surface elevation and small variation in channel velocities, LWD is not currently envisioned as requiring anchors or ballast.

The boat launch and take-out facilities, which would be adjacent to the river, would consist of a ramp or dock or similar appurtenance to allow all-abilities loading and unloading of watercraft. The boat launch and take-out facilities would require limited grading, construction of roads/parking, placement of concrete pads (2), and construction of accessible launch facilities capable of serving the disabled. To support the disabled at the boat launch and take-out facilities, a prefabricated, contained vault restroom would be installed as well as a changing area in close proximity to the staging area that meets the design criteria of the Americans with Disabilities Act (ADA). A gently sloping hardened ramp (e.g., pre-cast concrete or vinyl, or gravel/geotextile) would allow all-abilities entry and exit at water surface elevations. The boat launch and take-out would be about a maximum of 500 square feet with assorted boulders strategically placed to provide bank stabilization. Native vegetation would be used for biotechnical bank stabilization in addition to boulder placement. The boat launch and take-out facilities would allow easy and safe access to the water trail for people of all abilities, including the disabled through the provision of transfer step, transfer board, grab bars and/or surface textures.

Weather resistant signage protected by a kiosk would be included at the boat launch and take-out facilities, which would convey water and wildfire safety information, rules, emergency contacts and interpretative information. The County would coordinate with Tribes, LADWP, law enforcement, and local ranchers regarding the information to be included on the signs. Additional signage could be provided along the water trail itself, which could include, but not be limited to, topics such as the region's ranching history, history and information on the local Native American tribes, and surrounding scenic views. In addition, reflective mileage signposts would be installed every half-mile as a safety precaution, allowing a known location if rescue were to be required. A prominent sign would be installed above the river just before the takeout to alert paddlers of the location of the takeout (i.e., which side of the river and the number of feet remaining).

Construction Schedule

Construction could commence in 2019 and would occur over an approximately seven-month period, any time between the months of September and March (considered a work season). Construction activities would generally avoid the spring and summer months to avoid bird nesting season. However, construction of the boat launch and take-out facilities may occur any time of year independent of the in-channel work. If construction were to occur during the nesting season a qualified biologist would be on site to conduct a pre-construction survey and monitor. Construction activities would occur Monday through Friday from 7:00 a.m. to 5:00 p.m. in accordance with the County Ordinance. In the circumstance of inclement weather or to maintain project schedule, the contractor, may seek approval from the County to extend construction days to occur during weekends. In addition, the construction schedule may be required to be extended or spread over two work seasons to account for unforeseen circumstances that may arise.

Operation and Maintenance

Ongoing maintenance activities are anticipated to maintain the integrity of the water trail as well as the boat launch and exit facilities. Manual work and/or mechanical clearing activities would be implemented on an as-needed basis to remove emergent vegetation below the waterline from the channel in order to maintain an open, navigable water trail. Maintenance activities would remove vegetation above, and up to 3 feet below the water surface elevation to maintain the integrity of the water trail at 15 feet wide. Channel maintenance would consist of vegetation management only, and would be limited to the clearing of woody debris, harvest of shoots, stalk, and leaves and would not include any excavation of the channel bed. The technique of underwater cutting deprives the rhizome mass of oxygen which otherwise would be translocated down emergent stems.

Maintenance is planned to occur during late fall and early winter to coincide with dormancy, at which time shoots do not resprout when cut. Cutting of shoots at this time deprives the rhizomes, diminishing plant vigor and inhibiting future regrowth. As such, the amount of emergent vegetation needing to be cleared in the first year would be approximately 10 percent of the volume of vegetation initially cleared during project construction (approximately 600 to 800 cy) and would lessen with each successive year as the amount and density of regrowth decreases over time.

The emergent vegetation removed during annual maintenance would be piled in areas at least 15 feet from the water edge and above the 200-cfs inundation zone, which are characterized by saltgrass and without mesic vegetation. During maintenance activities, the emergent vegetation removed from the channel would not be placed on top of spoils associated with initial project construction or subsequent maintenance to avoid interference with the integration of organic material and recolonization of native species in previously placed spoils.

In addition to maintaining the river channel portion of the water trail, Inyo County would also be responsible for maintenance of the boat launch and take-out facilities. Maintenance would include tasks such as: trash collection and removal; collection donations from the iron ranger; servicing of vault toilets; maintaining signage; occasional repairs to the access roads and parking areas; as-needed repairs to livestock exclusion fencing; and landscape maintenance.

3.0 CEQA Environmental Review Process

As described in the Draft EIR, a Notice of Preparation (NOP) was circulated to State, regional, and local agencies, and members of the public for a 30-day review period, from May 24, 2018 to June 25, 2018. In addition, on June 11, 2018, the County conducted a public scoping meeting to obtain comments from interested parties on the scope of the Draft EIR. The NOP formally informed the public that the County was preparing a Draft EIR for the project, and solicited input regarding the scope and content of the environmental information to be included in the Draft EIR. As indicated in the Draft EIR, the written comment letters responding to the NOP and a summary of comments received at the scoping meeting are included in Appendix A of the Draft EIR.

In accordance with State *CEQA Guidelines* Section 15085, upon completion of the Draft EIR, a Notice of Completion and Availability as well as CD copies of the Draft EIR were submitted to the State Clearinghouse, Governor's Office of Planning and Research for distribution to State Agencies. The Draft EIR was circulated from May 8, 2019 through June 21, 2019 in compliance with Section 15105(a) of the State *CEQA Guidelines*.

As required under Section 15086 of the State *CEQA Guidelines*, a Notice of Availability (NOA) requesting comments on the Draft EIR, and in some instances a hard copy or CD of the Draft EIR, were distributed to public agencies and other interested parties. In compliance with State *CEQA Guidelines*, Section 15087, the NOA was posted in the office of the Inyo County Clerk to be published from May 8, 2019 through June 21, 2019.

Copies of the Draft EIR were available during the comment period at the Inyo County Water Department (135 S. Jackson Street, Independence), County Libraries, and the Inyo County Planning Department's website at: https://www.inyocounty.us/EnvironmentalDocuments/EnvDocs.php

During the public review period, the County received 30 comment letters on the Draft EIR from agencies, organizations, individuals, and tribes through written correspondence and emails. Comments received during the public review period are presented and responded to in Chapter 2, Comments and Responses.

4.0 Organization of the Final EIR

The Final EIR consists of the following four chapters:

Chapter 1.0, Introduction. This chapter describes the purpose of the Final EIR, provides a summary of the proposed project, summarizes the public review process, and presents the contents of this Final EIR.

Chapter 2.0, Comments and Responses. This chapter presents all of the comments received by the County during the public review period of the Draft EIR as well as the responses to those comments.

Chapter 3.0, Modifications. This chapter includes revisions to the Draft EIR that represent minor changes or additions in response to some of the comments received on the Draft EIR and additional edits to provide clarification. Changes to the Draft EIR are shown with ~~strikethrough~~ text for deletions and underline text for additions. These changes are minor and do not add significant new information that would affect the analysis or conclusions presented in the Draft EIR.

Chapter 4.0, Mitigation Monitoring and Reporting Program. The Mitigation Monitoring and Reporting Program (MMRP) is the document that will be used by the County for the implementation of the project's mitigation measures. Mitigation measures are listed by environmental topic.

CHAPTER 2.0
Responses to Comments

Section 15088(a) of the State CEQA Guidelines states that "[t]he lead agency shall evaluate comments on environmental issues received from persons who reviewed the draft EIR and shall prepare a written response. The Lead Agency shall respond to comments that were received during the noticed comment period and any extensions and may respond to late comments." In accordance with these requirements, this Chapter 2 of the Final EIR provides responses to each of the written comments on the Draft EIR received during the public comment period. The responses describe the disposition of significant environmental issues raised (e.g., revisions to the proposed project to mitigate anticipated impacts or objections). In particular, where necessary, the responses provide reasons why specific suggestions were not accepted when the County's position is at variance with recommendations and objections raised in the comments.

This chapter provides all comment letters submitted on the Draft EIR, immediately followed by the corresponding response(s). **Table 2-1**, *List of Commenters on the Draft EIR,* provides a list of the comment letters received on the Draft EIR. The letters are each assigned a number and arranged by agencies first, and then by other interested parties, as indicated in Table 2-1. Each comment that requires a response within the letters is also assigned a number. For example, the first State Agency letter is Letter A1, and the first comment in the letter is numbered as A1-1. The responses to each comment are correspondingly numbered, (i.e., Response A1-1).

As required by the State CEQA Guidelines, Section 15088 (c), the focus of the responses to comments is on "the disposition of significant environmental issues raised." Therefore, detailed responses are not provided for comments that do not relate to environmental issues.

TABLE 2-1
LIST OF COMMENTERS ON THE DRAFT EIR

Letter No.	Commenter
Agencies	
A1	State Clearinghouse (June 25, 2019) Morgan Scott 1400 Tenth St, PO Box 3044 Sacramento, CA 95812
A2	Caltrans, District 9 Gayle J. Rosander 500 South Main Street Bishop, CA 93514

Letter No.	Commenter
A3	Eastern California Museum Jon Klusmire 115 N. Grant Street, PO Box 206 Independence, CA 93526
A4	Los Angeles Department of Water & Power (LADWP) Clarence E. Martin, Manager of Aqueduct PO Box 51111 Los Angeles, CA 90051-5700
A5	Lahontan Regional Water Quality Control Board Tiffany Steinert 15095 Amargosa Road, Bldg 2, Suite 210 Victorville, CA 92394
A6	US Department of Interior, Death Valley National Park Michael Reynolds PO Box 579 Death Valley, CA 92328
A7	State Clearinghouse (July 1, 2019) Morgan Scott 1400 Tenth St, PO Box 3044 Sacramento, CA 95812
A8	California Department of Fish and Wildlife, Inland Deserts Region Scott Wilson 3602 Inland Empire Blvd., Suite C-220 Ontario, CA 91764
Organizations	
O1	LA River Expeditions Scott Cher 1416 Electric Ave. Venice, CA 90291
O2	Disabled Sports Eastern Sierra Kathy Copeland PO Box 7275 Mammoth Lakes, CA 93546
O3	Community Conservation Solutions Esther Feldman 2554 Lincoln Blvd, Suite 223 Los Angeles, CA 90291
O4	Nelson Adventure Company Brendan Nelson 920 N. Spaulding Ave. #4 Los Angeles, CA 90046
O5	Team River Runner Dale Osborn
O6	American Canoe Association Anthea Raymond 2600 Jeffries Avenue Los Angeles, CA 90065

Letter No.	Commenter
O7	Owens Valley Committee Mary Roper PO Box 77 Bishop, CA 93515
O8	LA River Expeditions George Wolfe 1416 Electric Ave. Venice, CA 90291
Individuals	
I1	Alan Carlton 408 Sunset Rd Alameda, CA 94501
I2	Esther Feldman
I3	Carol Hart 210 Alabama Drive Lone Pine, CA 93545
I4	Ken Hayes 1940 Joan Drive San Leandro , CA 94578
I5	Eva Nipp
I6	Tom Noland
I7	Randy Short
I8	Juanita Smith
I9	Denise Waterbury PO Box 13 Bishop, CA 93515
I10	Richard Woolsey
Tribes	
T1	Big Pine Tribe of the Owens Valley Genevieve Jones 825 South Main Street, PO Box 700 Big Pine, CA 93513
T2	Lone Pine Paiute-Shoshone Reservation Katherine J. Bancroft 975 Teya Road, PO Box 747 Lone Pine, CA 93545
T3	Lone Pine Paiute-Shoshone Reservation Mary L. Wuester 1103 South Main Street, PO Box 747 Lone Pine, CA 93545
T4	Torres Martinez Desert Cahuilla Indians Michael Mirelez PO Box 1160 Thermal, CA 92274

2.1 COMMENTS AND RESPONSES

Agency Responses

Letter A1

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit

Gavin Newsom
Governor

Kate Gordon
Director

June 25, 2019

RECEIVED
JUN 27 2019
Inyo County Water Dept.

Larry Freilich
Inyo County
PO Box 337
Independence, CA 93526

Subject: Owens River Water Trail
SCH#: 2018051049

Dear Larry Freilich:

A1-1

The State Clearinghouse submitted the above named EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on 6/24/2019, and the comments from the responding agency (ies) is (are) available on the CEQA database for your retrieval and use. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

Check the CEQA database for submitted comments for use in preparing your final environmental document: https://ceqanet.opr.ca.gov/2018051049/2 . Should you need more information or clarification of the comments, **we recommend that you contact the commenting agency directly**.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

cc: Resources Agency

Letter No. A1

Scott Morgan, Director
State of California – Governor's Office of Planning and Research
State Clearinghouse and Planning Unit
1400 Tenth Street
P.O. Box 3044
Sacramento, CA 95812-3044

Response No. A1-1

The comment indicates that the County has complied with the State Clearinghouse review requirements for the Draft EIR, pursuant to CEQA. The comment indicates that the comment period ended on June 24, 2019 and directs the County to the CEQA database for submitted comments. The County has checked the CEQA database for agency letters, which are included in this Final EIR. As indicated in Letter A7 from the State Clearinghouse, a letter was received after the close of the comment period. Comments provided in Letter A8 are responded to as well below.

DEPARTMENT OF TRANSPORTATION
DISTRICT 9
500 South Main Street
Bishop, CA 93514
PHONE (760) 872-0785
FAX (760) 872-0678
TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life.

May 28, 2019

Mr. Larry Freilich, Mitigation Manager
Inyo County Water Department
P.O. Box 337
Independence, CA 93526

File: Iny-136-2.68
DEIR
SCH #: 2018051049

Owens River Water Trail – Draft Environmental Impact Report (DEIR)

Dear Mr. Freilich:

The California Department of Transportation (Caltrans) District 9 appreciates the opportunity to review the DEIR for the Owens River water trail for non-motorized watercraft. We offer the following: A2-1

- Per the DEIR Appendix B-3, the State Route 136 access will be at an existing road east of the Owens River. As noted, access improvements will be per Caltrans standards under an encroachment permit. The paved approach will need to be enlarged to deter debris tracking due to the additional use. If grazing no longer occurs in this area, the cattle guard could be removed. Otherwise, the County will need to regularly maintain it. For access design and permitting interaction please contact Stephen Winzenread at (760) 872-5222 or stephen.winzenread@dot.ca.gov.

- On page 5-13, the first phrase under heading "**Would the project substantially increase hazards**…." should be deleted to read: ~~The project would not alter existing roadways in the surrounding vicinity, and~~ There are no existing hazardous…" A2-2

We value our cooperative working relationship with Inyo County regarding project impacts to the State transportation system and its travelers. Feel free to contact me at (760) 872-0785 or gayle.rosander@dot.ca.gov for any questions. A2-3

Sincerely,

Gayle J. Rosander

GAYLE J. ROSANDER
External Project Liaison

c: State Clearinghouse
Mark Reistetter, Caltrans District 9

Letter No. A2

Gayle J. Rosander, External Project Liaison
State of California – California State Transportation Agency
Department of Transportation – District 9
500 South Main Street
Bishop, CA 93514

Response No. A2-1

The County is aware that an encroachment permit will be required in order to implement the necessary access improvements from State Route 136. This approval is listed in Draft EIR Section 2.6, Required Permits and Approvals. The County will coordinate with Caltrans relative to the access improvements to ensure that the improvements comply with Caltrans standards. The County will coordinate with LADWP regarding cattle management as it relates to transportation, and maintenance of the cattle guard if it will remain in place.

Response No. A2-2

The comment is noted, and the text in the Draft EIR has been revised in Chapter 5 on page 5-13. Please see Chapter 3 of this Final EIR for the revision.

Response No. A2-3

The comment expresses appreciation of the working relationship with the County regarding the project and provides a contact name and number. The comment does not raise an environmental issue, and no further response is necessary.

Letter A3

Jon Klusmire
Museum Services Administrator

jklusmire@inyocounty.us
Phone: 760-878-0258

COUNTY OF INYO

EASTERN CALIFORNIA MUSEUM

155 N. GRANT ST. P.O. BOX 206, INDEPENDENCE, CA 93526
www.inyocounty.us/ecmuseum

June 18, 2019

To: Larry Frelich, Inyo County Water Department Mitigation Manager
RE: Comments on Lower Owens River Water Trail EIR

The Eastern California Museum would like to propose some additional measures regarding the handling of archeological, paleontological, and historic artifacts/specimens/resources that could be discovered during the construction phase of the LORP Water Trail Project. A3-1

The Draft EIR notes such artifacts/specimens will be taken to the Natural History Museum of Los Angeles or probably any other similar facility based on a determination from the landowner, the Los Angeles Department of Water and Power, and the kind and type of artifact/specimen.

This comment centers on what comes next.

The Museum would like to see a requirement that a list or inventory of the uncovered artifacts/specimens is prepared and shared with local all Paiute Shoshone Tribes and local Museums (The Eastern California Museum; Laws Museum; The Museum of Western Film; Maturango Museum, The Southern Inyo Museum in Lone Pine).

In addition, there should be provisions for offering to loan or donate the artifacts/specimens to all Inyo County Paiute Shoshone Tribes and the aforementioned museums. The tribes and museums will then decide if the artifacts/specimens fit with their collections guidelines and overall goals, and can be stored or exhibited.

This proposed measure should not create the impression that the tribes or museums are mandated or forced to take any artifacts/specimens. But they should be provided the opportunity to add the items to their collections if they desire.

After those entities have made a yes/no determination, the artifacts/specimens should then be offered to local schools and colleges for educational purposes, as stated in the DEIR.

If no local entities accept any or part of the collected artifacts/specimens, the LADWP or the institution where they will be stored should provide local tribes, museums and schools the ability to access or study the artifacts/specimens at the institution where they are housed. Any scientific or academic research or papers using the artifacts/specimens should be available to the local tribes, museums and schools.

Thank you for your consideration,

Jon Klusmire,
Museum Services Administrator
Inyo County Eastern California Museum
Independence, California

Letter No. A3

Jon Klusmire, Museum Services Administrator
County of Inyo
Eastern California Museum
155 N. Grant St., P.O. Box 206
Independence, CA 93526

Response No. A3-1

Mitigation Measure CUL-5, which addresses measures to be carried out in the event of unanticipated discoveries of archaeological resources, will be revised to include a provision that recommends the landowner offer/donate archaeological collections recovered during project construction to local Paiute Shoshone Tribes and/or appropriate local museums. Similarly, Mitigation Measure GEO-3, which addresses measures to be carried out in event of inadvertent discovery of paleontological resources, will be revised to include a provision that recommends the landowner offer/donate fossil specimens to local museums that meet Society of Vertebrate Paleontology curation guidelines.

Please see Chapter 3 of this Final EIR for the revisions made to Mitigation Measure CUL-5 and Mitigation Measure GEO-3.

Letter A4

June 19, 2019

Mr. Larry Freilich, Mitigation Manager
Inyo County Water Department
P.O. Box 337
Independence, CA 93526-0337

Dear Mr. Freilich:

Subject: Los Angeles Department of Water and Power Comments on the Proposed Owens River Water Trail Draft Environmental Impact Report

The Los Angeles Department of Water and Power (LADWP) has reviewed the County of Inyo's (County) Draft Environmental Impact Report (DEIR) dated May 2019 for the proposed Owens River Water Trail (ORWT). General comments on the DEIR are included below and specific comments referenced by section (and page where relevant) are enclosed.

General Comments:

Project Objectives: ORWT project is described as a recreational project for the purpose of facilitating non-motorized watercraft along a 6.3-mile reach of the Lower Owens River. The project objectives would result in impacts to biological resources and reducing overbank flow to the adjacent floodplain. The impacts would likely trigger the need for mitigation. Project objectives referencing "implementing habitat restoration activities" is not consistent with the project description and should be revised or omitted. A4-1

Hydraulic Model, Groundwater & Biological Impacts: The conclusion that there will be no impacts to adjacent wetlands following project implementation due to the presence of groundwater is not supported by site-specific groundwater data. An evaluation of the surface water-groundwater interaction needs to be conducted to ensure that the anticipated 1-foot to 3-foot drop in Water Surface Elevation (WSE), and the reduction in channel depth and wetted perimeter does not cause significant impacts to adjacent wetland habitat. LADWP recommends that piezometers and/or groundwater monitoring wells be installed and data collected for a minimum of 12 months along the 6.3-mile reach. This groundwater data should be correlated with the hydraulic model to accurately determine anticipated project wetland and other biological impacts. Currently there is no data to support the proposed biological impact findings, and these findings A4-2

could be under-represented. Impacts could be significantly larger if groundwater fluctuations would not support the change in the hydrodynamics of the system. A4-2 cont'd

Access Roads Impacts: The analysis of potential permanent and temporary impacts as a result of the use and establishment of access roads should be re-examined. Many of the access roads that were identified as available for use during initial and ongoing vegetation management are either in wetlands or do not currently exist. New roads established for the project would be utilized over the 20 plus year maintenance period and thus would be classified as permanent, not temporary impacts. Some proposed haul roads are wetland habitats that would not be passable by large equipment, thus would require filling of wetlands to use, triggering mitigation requirements. A4-3

Spoil Pile Placement Impacts: The analysis of potential permanent and temporary impacts as a result of the spoil pile placement should also be re-examined. Spoil pile placement locations identified are also within jurisdictional wetlands/waters according to the prepared maps, and are on the floodplain of the Lower Owens River. LADWP does not support depositing spoils on the floodplain. Spoil pile placement in these jurisdictional areas may also trigger permanent impacts requiring mitigation if they are left hydrologically isolated from the floodplain and/or groundwater. Placement of spoil piles 12-18 inches deep may result in this condition. Due to the low likelihood of successful passive revegetation as a result of the spoil pile placement, active revegetation would be needed. Impacts to spoil pile placement may need to be reclassified as permanent, and the costs of mitigation considered. A4-4

Land Use Impacts: Changes to land use as a result of project implementation would directly impact the livestock ranching operation that is in current use over this area. The document needs to address impacts on the livestock ranching operation as it relates to land use. A4-5

Alternative 4 Off-Site Disposal of Materials Alternative: As stated previously it is understood that hauling the material offsite is costly, however a cost analysis of moving these materials offsite should be compared with the costs of active revegetation costs of initial and ongoing spoil pile placement. Spoil pile placement will occur at various intervals over the 20-year project lifespan, which each new location would need to be revegetated. It is unlikely that the spoils piles will revegetate naturally with native species, and therefore LADWP would require active revegetation and long-term monitoring of the spoil placement sites. This may add substantial long-term costs to the project which needs to be considered in the evaluation. A4-6

Operations and Maintenance Plan & Cost Estimate: There will be long-term costs associated with the maintenance of the project such as channel maintenance, spoil pile placement & revegetation, infrastructure and amenities maintenance, etc. An Operations and Maintenance Plan should be developed that covers these long-term activities and all anticipated long-term costs developed. A4-7

LADWP in general supports the creation of an ORWT. However, the current proposed project may have significant unavoidable environmental impacts as well as long-term mitigation and management costs. Potential environmental impacts to wetlands, fish, elk calving grounds, and sensitive plants may not outweigh the recreational benefits to implementing the project in this reach. Long-term mitigation and management costs have not been thoroughly analyzed and may be considerable. A4-8

In light of the proposed project's potential significant impacts and associated costs, LADWP would like to work with the County to find a less environmentally damaging reach of the Owens River, even if it is outside of the LORP.

Please see the detailed comments enclosed. Thank you for the opportunity to comment on the DEIR. If you have any questions or need additional information, please contact Ms. Lori Dermody, Watershed Resources Supervisor, at (760) 873-0408.

Sincerely,

Clarence E. Martin
Manager of Aqueduct

JF:jsc
Enclosure
c: Dr. Aaron Steinwand, ICWD
Ms. Lori S. Dermody

Letter No. A4

Clarence E. Martin, Manager of Aqueduct
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Los Angeles, CA 90051-5700

The comment letter includes a 3-page cover letter and an attached table titled "Owens River Water Trail Draft EIR and Appendices, LADWP Comments – June 14, 2019." The cover letter summarizes LADWP's general comments and the attached table includes 125 specific comments organized by page number of the Draft EIR. The County has prepared Master Responses to the general comments presented in the cover letter. The Master Responses also address many of the specific comments in the table. After the Master Responses below, the County has reproduced the LADWP's table and has added a column with a response to all 125 comments, some of which cross-reference to the Master Responses where appropriate.

Master Response No. A4-1

Project Objectives

As indicated in the Executive Summary and Chapter 2, Project Description, of the Draft EIR, first and foremost, the project is the proposed creation of a recreational resource that would allow people of all abilities to paddle in or on non-motorized watercraft on a portion of the Owens River and to experience and enjoy the natural splendor of the area. A key objective of the project is to provide recreational access to a river for physically and emotionally wounded veterans. Engagement in kayaking and paddlesports has proven social, physical, and emotional benefits for wounded veterans. The ORWT is uniquely suited to this use and would be the only such river facility in the western U.S.

Currently, sections of the Lower Owens River corridor are non-navigable due to the channel being partially or fully obstructed by emergent aquatic vegetation and associated sediment accumulation as well as by large and small woody debris. The project objectives were developed considering the LORP and the Draft Recreation Use Plan and with the intent to ensure the proposed Owens River Water Trail would be consistent with the LORP and Draft Recreation Use Plan. In light of the comment letter, the County has revised the project objectives to more clearly define the purpose or intentions of the development of the Owens River Water Trail. The objectives are revised as shown below using strikethrough to show the deleted bullets and underline to show the new bullets:

- Provide all-abilities access to the ORWT as a recreational resource;
- Provide recreational and educational opportunities for the surrounding community and visitors;
- <u>Develop a water trail and associated facilities in such a way so as to preserve the cultural heritage of the area;</u>

- Implement a water trail that does not conflict with the LORP and Draft Recreation Use Plan;
- Satisfy a LORP goal of sustainable recreation by establishing an area for open-water river recreation that has been compromised due to excessive recruitment of emergent vegetation;
- Create signage that clearly outlines area use guidelines and restrictions and locate strategically in the facilities areas and along the river, as appropriate; and
- Develop a water trail and associated facilities that are compatible with adjacent uses, such as cattle grazing and LADWP activities.
- ~~Implement restoration activities for the natural habitats and species of the Owens River to be consistent with the restoration efforts of the LORP. The LORP calls for the creation and enhancement of natural habitats to be consistent with the needs of certain habitat indicator species through the application of appropriate flow and land management practices; and~~
- ~~Remain consistent with the habitat, environmental, economic, and social goals of the LORP and the Lower Owens River Draft Recreation Use Plan, which include:~~
  - ~~Continue to prioritize LORP goals and the ecological restoration of riparian habitat over recreation;~~
  - ~~Minimize conflict between recreation, ranching and LADWP operations by appropriately locating improvements, installing signs, cattle guards, and gates where needed and by improving some roads;~~
  - ~~Protect existing cultural resources, artifacts and areas by collaborating with local Tribes and steering recreation away from sensitive areas; and~~
  - ~~Place clear and frequent signage in strategic locations to outline area use guidelines and restrictions, and to share information about existing operations.~~

Section 2.2, Project Objectives, and Section 4.2, Project Purpose and Objectives, of the EIR are revised to reflect the revisions. Please refer to Chapter 3 of this Final EIR for modifications to the Draft EIR. The Draft EIR contains analyses relative to potential impacts to biological resources and hydrology/water quality. The revisions to the objectives do not warrant additional analyses to be completed in the EIR. In addition, the revisions to the objectives do not change the conclusions reached in the Draft EIR relative to the technical analyses or the selection and analyses of alternatives.

Master Response No. A4-2

Hydraulic Model, Groundwater and Biological Impacts

Groundwater, Surface Water, and Gaining Stream

The LADWP's comments relative to groundwater and surface water elevations are largely focused on the discussion in Draft EIR, Chapter 3, Section 3.7, *Hydrology and Water Quality*, pages 3.7-8 through 3.7-10, that the reach of the Owens River through the project site is a gaining stream. LADWP's comments conclude that the site-specific groundwater data presented in the Draft EIR do not support this conclusion and recommend further field investigation including the installation of wells or piezometers. LADWP's comments do not provide rationale for the conclusion, other than to claim there is no supporting data.

The Draft EIR does provide supporting information and data on pages 3.7-8 through 3.7-10. In addition, observations based on aerial imagery captured over many years note and display the continued presence of riparian vegetation largely independent of variations in climate and flow, also supporting the conclusion regarding a gaining stream. The discussion below summarizes supporting information and data.

Hydraulic Model Results and Groundwater

As discussed in the Draft EIR, Section 3.7, Hydrology and Water Quality, Section 3.7.4, page 3.7-23, the hydraulic model used to inform construction scenarios for the proposed project only considers surface water and does not include groundwater data. Using only surface water data, the hydraulic model estimated surface water elevation decreases in the river to be about 1 to 3 feet, varying spatially over the length of the river. However, by design the hydraulic model does not include data input for whether the river is a gaining or losing stream. As discussed in the Draft EIR Section 3.7, Hydrology and Water Quality, Section 3.7.1, pages 3.7-8 through 3.7-10, and as discussed in the sections below, other available data and previous studies support the conclusion that the Owens River is a gaining stream through the project site reach. Therefore, the hydraulic model is a conservative estimate of the amount of surface water elevation decrease because groundwater discharge to the river and surrounding floodplain was not included in the modeled decrease. Groundwater discharge is expected to maintain river flows and lessen impacts to river water surface elevations than predicted by the model. Multiple lines of evidence from several sources that support the conclusion of a gaining reach are provided in the sections below.

USGS Study of Owens River Hydrologic System

As discussed in Draft EIR Section 3.7, Hydrology and Water Quality, page 3.7-8, the USGS study published in 1998 conducted a detailed evaluation of the Owens Valley hydrologic system that considered data on precipitation, evapotranspiration, surface water, and groundwater; developed surface water and groundwater budgets; and developed a valley-wide groundwater flow model. The USGS study noted that until recently, the entire extent of the Owens River was almost entirely a gaining stream, that is, groundwater discharged into the floodplain and channel to support its flow for the entire length down to Owens Lake. Currently, the majority of the Owens River still is a gaining stream. In localized areas with significant groundwater pumping, such as around Big Pine, groundwater flow directions have been altered and the local section of Owens River around Big Pine is sometimes a losing stream (surface water in the river infiltrates down into the groundwater). However, south of the Big Pine area, the Owens River continues to be a gaining stream year-round all the way to Owens Lake. This extent includes the reach that passes through the project site.

LADWP's comments ask whether the results of the USGS study published in 1998 would still be reasonably accurate. The use of surface water and groundwater in the Owens Valley has been heavily regulated and monitored for compliance with those regulations since at least 1991. As discussed in Draft EIR Section 3.7, Hydrology and Water Quality, pages 3.7-17 and 3.7-18, the Inyo/Los Angeles Long Term Water Agreement was approved in 1991 and established requirements for pumpback capacity, including in the reach of the river through the project site. In addition, the Agreement includes regulations that manage existing groundwater pumping and limit the addition of new pumping to prevent groundwater mining. Those regulatory requirements were in effect at the time of the USGS study, and the surface water and groundwater conditions

that are the result of those requirements are still in effect. The project area is adjacent to the Lone Pine wellfield. Pumping in the wellfield is relatively small (less than 1200 acre-feet per year most years since 1994) and has decreased since 1970. Because of the relatively constant and small pumping stress, water levels have been relatively stable since the late 1980's (Inyo County Water Department Annual Report, 2019). Consequently, the results of the USGS evaluation continue to be valid.

Evaluation of Extant Groundwater Elevation Data at North End of Project Site

Field surveys were conducted on May 10 and 11, 2018, to inform the proposed project description for the vegetation clearing and excavation treatment (see Appendices B-1 and C of Draft EIR). This field survey consisted of several tasks, including conducting elevation surveys to map out the existing riverbed cross-sectional configuration at several locations on the river. The cross section locations included the bridge at Lone Pine Narrow Gauge Road, which is at the northern end of the proposed project (see Draft EIR Figure 2-2 for location). The surveyed elevations were taken sequentially from the above-water bank on one side of the river to below-water survey measurements on the riverbed to above-water bank elevations on the other side of the river. These surveyed elevations also provide a surface water elevation on the dates of the surveys, May 10 and 11, 2018.

The surface water elevation in the riverbed survey section just downstream of the bridge measured on May 10, 2018, was about 3,621 feet amsl. LADWP Well T378, located about 4,000 feet east of the riverbed section, had a groundwater elevation of 3,649 feet amsl on April 16, 2018 (LADWP Test Well Database, 2018). Groundwater elevations in LADWP Well T593, located about 7,000 feet west of the riverbed survey section, had a groundwater elevation of 3,690.6 feet amsl on May 14, 2018 (LADWP Test Well Database, 2018). The groundwater elevations in the LADWP wells were tens of feet higher than the surface water elevation in the river, which indicates the river is a gaining reach at the northern portion of the proposed project.

Local Stream Gage Data

Flow data recorded by LADWP (LADWP, Totals and Means Database, 2018) and available from Inyo County from LADWP LORP Intake ID 88, Lone Pine Station Road ID 219 (upstream end of project site), and Keeler Bridge ID 76 (downstream end of project site) LORP gauging stations demonstrate that the ORWT section of the Lower Owens River has historically and is currently a gaining stream. For example, in the 1993 water year (October 1992 to September 1993), pre-LORP surface flows and after six years of a historic drought, there was no surface flow gauged at Lone Pine Station Road (upstream), but there was flow at Keeler Bridge (downstream) with monthly averages ranging from 13 cubic feet per second (cfs) in the winter to 2 cfs in the summer. During water year 1993, more than 8,000 acre-feet of groundwater discharged into the section of the Lower Owens River that flows through the proposed ORWT project area (LADWP, Totals and Means Database, 2018).

LADWP's Owens Lake Groundwater Evaluation

In LADWP's 2012 Final Report on the Owens Lake Groundwater Evaluation Project, MWH/Stantec performed a hydrographic analysis of pre- and post-LORP flow implementation to determine if work by previous investigators (Jackson, 2009; and Camp, Dresser, and McKee,

1999, 2000, 2007) was correct, that the section of the Lower Owens River that flows through the proposed ORWT project area is in fact a gaining reach (see Appendix H, Report: Updated Conceptual Model, Section 6.5.2 "Lower Owens River Project"). LADWP's consultant concurred with the previous studies: "Although some of the lower reaches of the LORP were dry before the project [re-watering of LORP] began, groundwater was at or near the surface, meaning that water from the LOR could not substantially change the groundwater regime." (MWH/Stantec, 2012, pg. 3-31) They conclude that "However, the change in [hydraulic] gradient is minimal, and there does not appear to be a significant change in gradient when looking at pre- and post-LORP conditions." (MWH/Stantec, 2012, pg. 3-31)

LADWP's Owens Lake Fault Study

In LADWP's *Fault Investigation of Northwestern Owens Lake Area* (MWH/Stantec, 2016), shallow groundwater contours based on groundwater data collected in October 2014 are depicted on Figure 15, which is included below for reference as **Figure 1**. The shallow groundwater elevation contour of 3,640 feet amsl crosses the Lower Owens River at the proposed ORWT take-out area, near where the river crosses SR 136. The groundwater elevations at the closest LADWP wells were similarly 3,639 feet amsl at the Down Valley well to the east, and 3,643.3 feet amsl at the T892 well to the west of the river (see Figure 1). The ground surface elevation at the proposed take-out area is approximately 3,615 feet amsl, and the river's water surface elevation would be even lower. The elevation difference indicates that groundwater elevations east and west of the Lower Owens River are tens of feet higher than the surface water elevation in the river, which in turn indicates conditions for groundwater discharge to the river and gaining stream conditions in October 2014, during the fourth year of the most severe drought in the historic record.

Phreatophytic Vegetation as Evidence of Gaining Reach.

LADWP states that if shallow groundwater from the alluvial fans was a significant source of water to the Lower Owens River and wetland habitat it would be evident as seeps and springs along the west bluff. LADWP states there is no evidence of seeps or springs.

Seeps and springs or shallow groundwater that are at elevations greater than the hyporheic zone (i.e., the saturated zone below and adjacent to the river channel where there is mixing of surface water and groundwater) of the Lower Owens River channel would indicate a groundwater gradient that is evidence of a gaining reach. LADWP's mapping efforts, published in the LORP Annual Reports in 2000, 2014, and 2017, show phreatophytic communities (i.e., plants that depend upon groundwater that lies within reach of their roots for their water supply) upslope of the Lower Owens River hyporheic zone, which indicates the presence of shallow groundwater. Phreatophytic vegetation (e.g. common rabbitbrush, salt grass, alkali sacaton and willow) is present at elevation of 1,115 meters, which is up to 10 meters (approximately 32 feet) above the Lower Owens River channel's elevation of 1,105 meters and thus must be maintained by shallow groundwater on the western bank of the historic floodplain, as shown on **Figure 2**. Salt grass and alkali sacaton have an effective rooting depth of 2 meters (approximately 6-½ feet), therefore the groundwater supporting this vegetation would need to be over 8 meters (approximately 26 feet) above the Lower Owens River channel and the hyporheic zone.

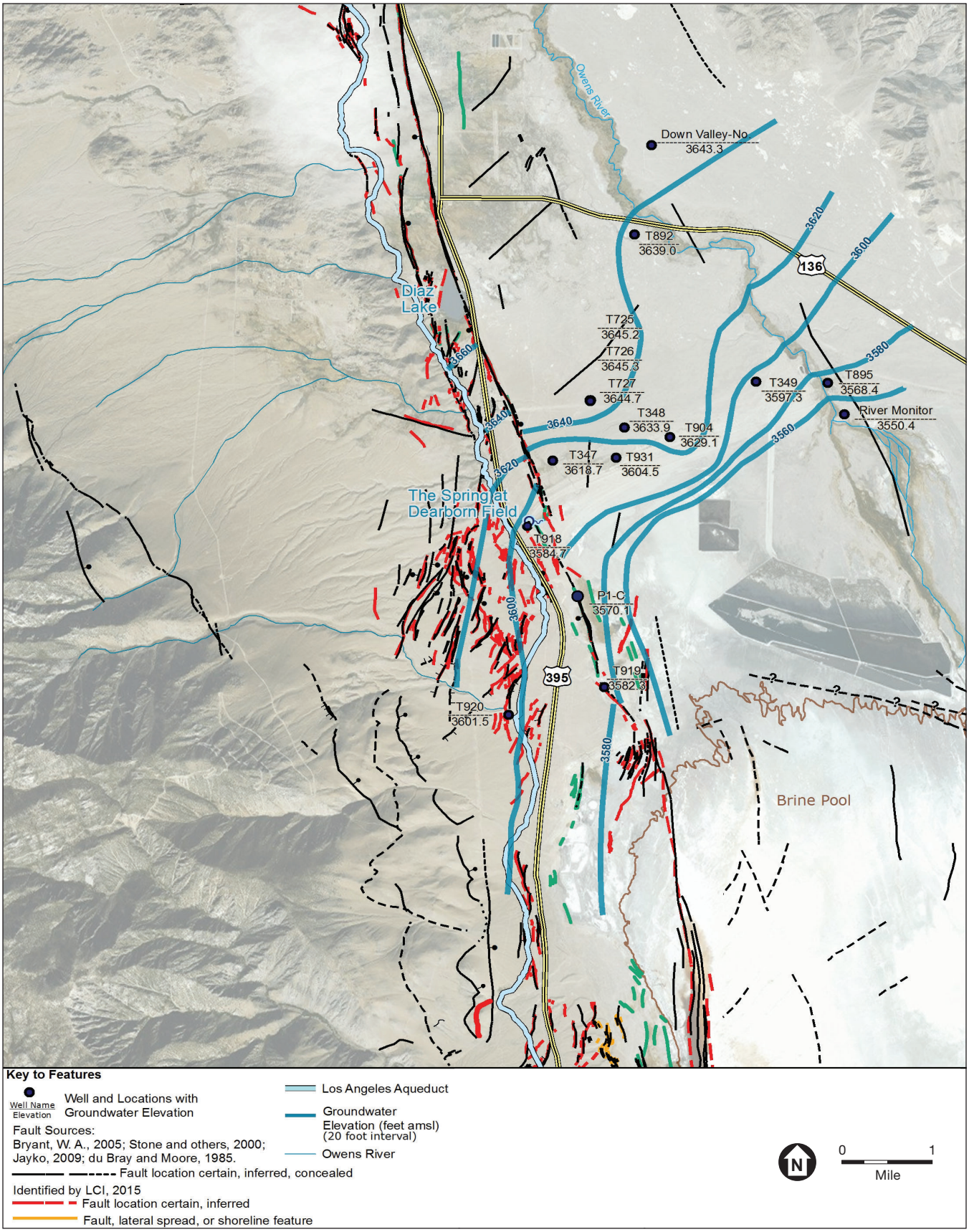
Summary

In summary, as demonstrated above, available data on the groundwater gradient near the project site demonstrate that the river is a gaining reach. The floodplain and channel are part of a regional groundwater discharge area; as such, the predicted 1-foot to 3-foot changes in surface water elevation in the channel following removal of occlusions should: 1) be considered a conservative prediction; and 2) have no effect on groundwater gradients.

Biological Impacts

Based on the analysis provided in Draft EIR Section 3.7, Hydrology and Water Quality, and further supported by the information provided above, the Owens River is a gaining stream year-round through the project area. Since the hydraulic model that estimated surface water elevation decreases in the river to be about 1 to 3 feet only considers surface water and does not include groundwater discharge input, the hydraulic model overestimates the amount of surface water elevation decrease because groundwater inflow contributions to the river will attenuate the modeled decrease. This is further supported by LADWP's 2012 Final Report on the Owens Lake Groundwater Evaluation Project, (MWH/Stantec, 2012, pg. 3-31) that concurred that water from the Lower Owens River could not substantially change the groundwater regime, and the change in hydraulic gradient is minimal since there does not appear to be a significant change in gradient when looking at pre- and post-LORP conditions. Thus, as stated in Section 3.3 of the Draft EIR, groundwater discharge will buffer any impacts of change in water surface elevation on phreatophytes.

Aerial imagery supports that riparian and meadow vegetation persisted in the floodplain subsequent to LADWP's complete dewatering of the Lower Owens River in the early 1900's. For example, the spatial extent of phreatophytic vegetation (i.e., plants that depend upon groundwater that lies within reach of their roots for their water supply) has not changed since 1981, when the channel flow was largely supported by groundwater discharge. **Figure 3** compares the 1981 and 2016 aerial photographs for the project area immediately east of Lone Pine. The primary composition changes have been a loss of tree cover and encroachment of marsh vegetation blocking the channel and leading to progressive aggradation. For the proposed project, the largest predicted change in channel stage of 5 feet is located in an area where extensive marsh vegetation has occluded the free-flowing channel (boxed area on Figure 3) and upstream about 4,000 feet. The phreatophytic vegetation present in 1981 was maintained by groundwater discharge into the floodplain while the river channel was routinely dry in the summer. For the proposed project, the predicted drop in stage associated with removing occlusions would be negligible compared to conditions existing in 1981, when phreatophytic vegetation was supported by groundwater discharge, not bank storage from the dry river.

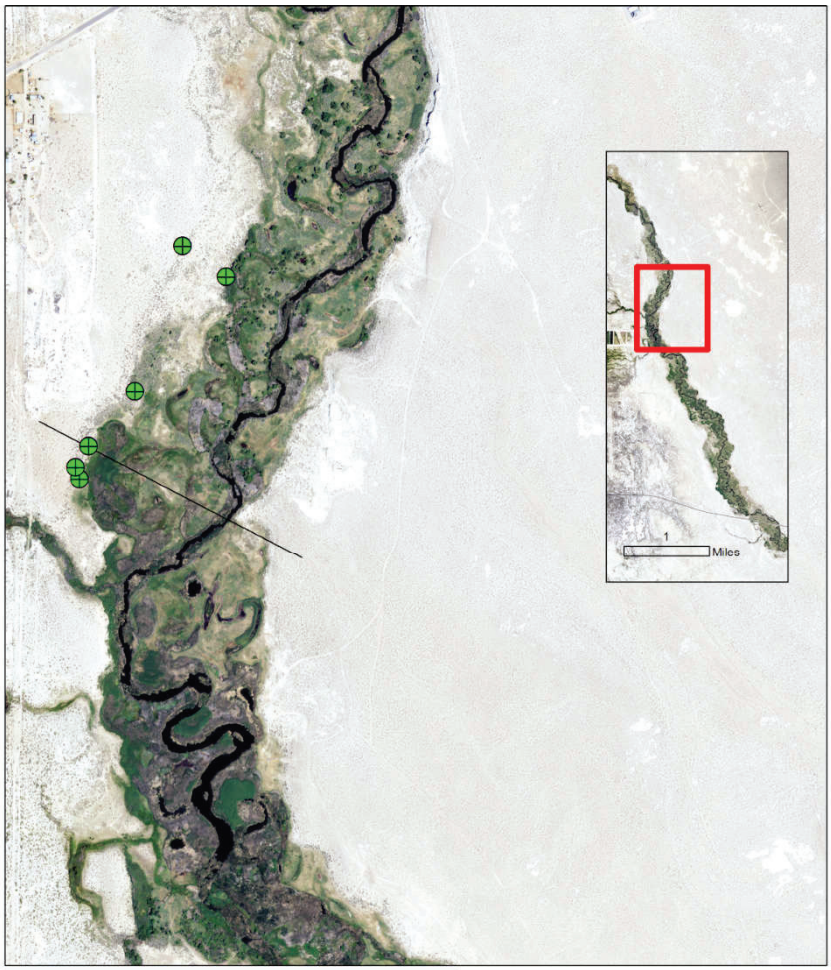


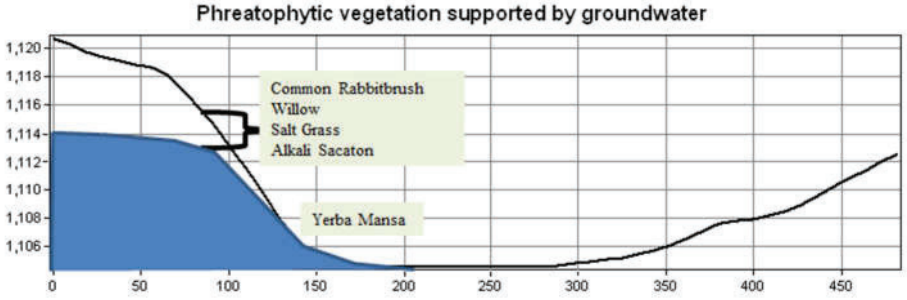
SOURCE: MWH/Stantec, 2016

Owens River Water Trail

Figure 1
Shallow Groundwater Contours of Equal Elevation

ESA

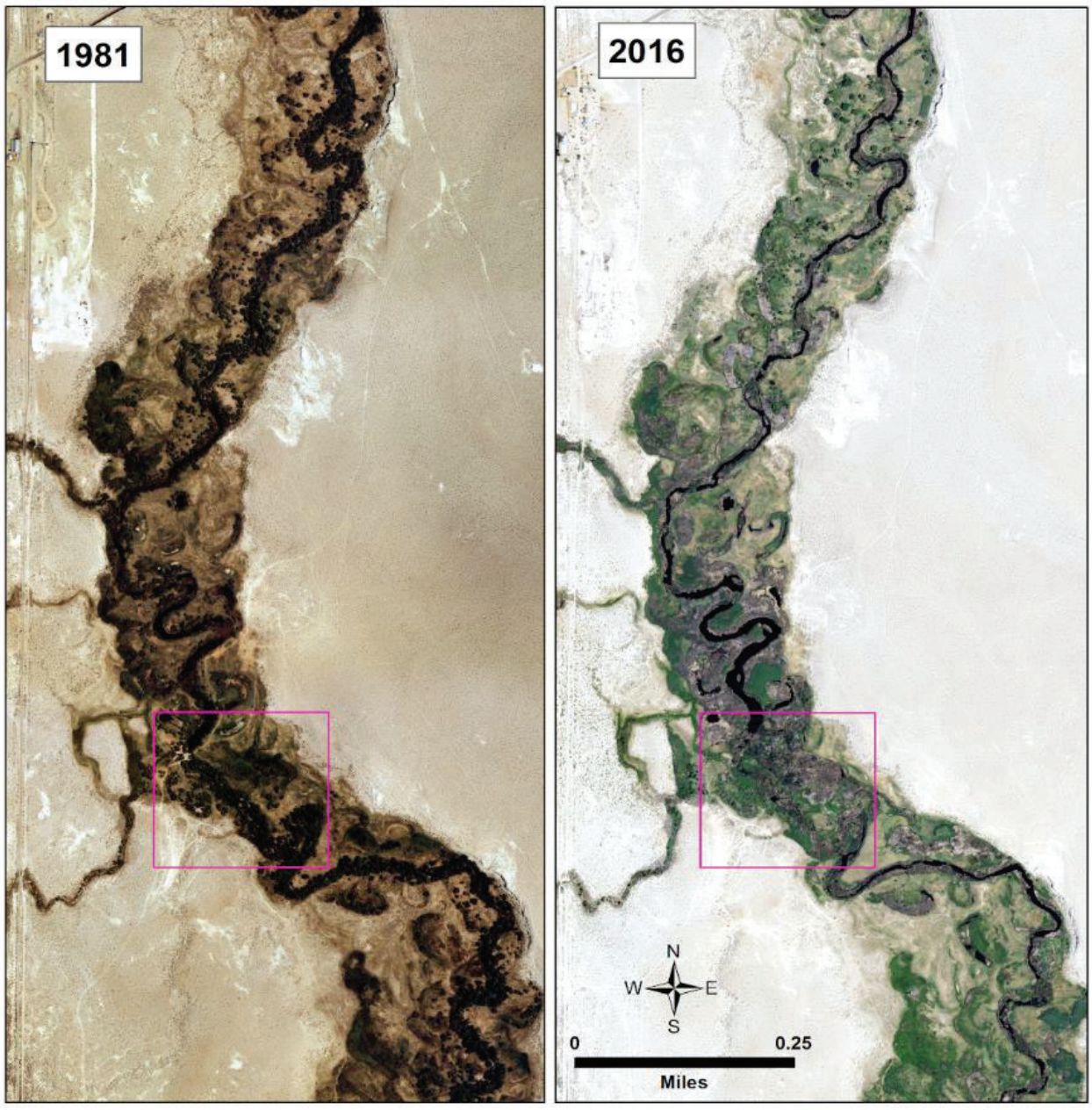




Notes: Green dots are seep/spring locations. Elevation cross section (in meters) on above map where phreatophytic vegetation is maintained on the western bank of the historic floodplain by shallow groundwater discharging above the current LOR channel stage. Groundwater elevation compatible with species observed on the western bank is depicted in blue.

SOURCE: Inyo County 2019

Figure 2
Phreatophytic Vegetation



Note: Road in the far northwest corner is Lone Pine Narrow Gauge Road, which is the northern extent of the project. Box identifies area where extensive marsh vegetation has occluded flow.

SOURCE: Inyo County 2019

Figure 3

1981 and 2016 Aerial Photographs

Groundwater has supported phreatophytic vegetation[1] for decades in this area through several multi-year droughts and continues to support such vegetation. Phreatophytes found on-site include Nevada saltbush (*Atriplex torreyi*), rubber rabbitbrush (*Ericameria nauseosus* var. *oreophila*), salt grass (*Distichlis spicata*), alkali sacaton (*Sporobolus airoides*), common reed (*Phragmites australis*), and willow (*Salix* spp.), which comprise the dominant species of the majority of the natural communities found within the project area. Additionally, there would be no change to the mandated daily average flow of 40 cfs required in the LORP. Since there is no anticipated change to the groundwater supporting the phreatophytic vegetation comprising these natural communities on-site (black willow woodland, sandbar willow woodland, common reed marsh, saltgrass flats, rubber rabbitbrush – Nevada saltbush scrub, and rubber rabbitbrush scrub – saltgrass flats), impacts would be less than significant, and no mitigation would be required.

However, the hardstem bulrush marsh and saltmarsh bulrush marsh communities on-site may be more dependent on surface water for survival. In light of groundwater contributing to this gaining reach of the Owens River, and the potential for surface water elevation decreases in the river of 1 to 3 feet to be overestimated, impacts to these riparian communities as a result of a drop in surface water elevation are not anticipated. However, Mitigation Measures BIO-5 and BIO-6 will be revised to include monitoring efforts of these communities within proximity to occlusion removal activities. See below in Master Responses A4-3 and A4-4 for revisions to Mitigation Measures BIO-5 and BIO-6. Please also refer to Chapter 3 of this Final EIR for modifications to the Draft EIR.

In addition, special-status plant species may be more dependent on precipitation for survival since these species in the project area are not phreatophytes. Thus, if any special-status plant species are found on-site, Mitigation Measure BIO-1 is revised to include monitoring efforts of these special-status plant species within proximity to occlusion removal activities. Please refer to Chapter 3 of this Final EIR for modifications to the Draft EIR.

Master Response No. A4-3

Access Roads Impacts

In the Draft EIR, Figures 3.3-3A through 3.3-3C show the natural communities within the biological study area, which includes the areas that may be disturbed by the proposed project. Areas where existing roads occur that are large enough to be delineated as "disturbed" communities are shown on the map; however, all other areas are classified by the natural vegetation community that occurs on-site, and impacts to these natural communities are analyzed in Section 3.3 of the Draft EIR (as shown in Figures 3.3-3 and 3.3-4, and summarized in Tables 3.3-3 through 3.3-5). The dirt roads on top of the bluff east of the project area are not part of the proposed project. These dirt roads are on private property owned by LADWP, and under existing conditions, these dirt roads are accessible to the public. The proposed project would not change the public's accessibility to these dirt roads relative to existing conditions.

[1] Robinson, T.W. 1958. Phreatophytes. Geological Survey Water-Supply Paper 1423. United States Department of the Interior. Geological Survey. https://pubs.usgs.gov/wsp/1423/report.pdf.

Also, on page 3.3-27, the Draft EIR states that "a large portion of the temporary impacts will be to saltgrass flats, which is very durable and expected to reestablish easily." However, it should also be noted that a large portion of the temporary impacts will also occur to other riparian communities as well, such as hardstem bulrush marsh (marsh) and saltmarsh bulrush marsh (wet meadow), which may not be as resilient and durable as saltgrass flats. Regardless, the Draft EIR acknowledges that there are access routes proposed in wetlands and/or that currently do not exist. The Draft EIR (page 3.3-27) states that "access routes would mostly follow already existing dirt roads, or would temporarily crush vegetation for a short duration where dirt roads do not exist for equipment to access areas where excavation must occur. Thus, it is expected that any crushed vegetation would reestablish and regrow naturally." Additionally, Mitigation Measures BIO-4, BIO-5, and BIO-6 will ensure that construction access routes where sensitive natural communities, California Department of Fish and Wildlife (CDFW) jurisdictional riparian habitat, and U.S. Army Corps of Engineers (USACE)/Regional Water Quality Control Board (RWQCB) jurisdictional wetlands occur will be returned to pre-project conditions (i.e., native pre-existing vegetation communities), and monitoring will be conducted for two years, or until a qualified biologist determines that the project site has returned to pre-project conditions. If determined necessary by the qualified biologist where plants are not reestablished via natural recruitment, a revegetation plan would be prepared, and subsequently monitored by a qualified biologist until the project site has returned to pre-project conditions.

Maintenance would occur for 20 years, the duration of the project; however, maintenance by light equipment would be of limited duration and be conducted twice per year or less and would be infrequent. The amount of emergent vegetation needing to be cleared in the first year is conservatively estimated to be approximately 10 percent of the volume of vegetation initially cleared during project construction (approximately 600 to 800 cy) and would lessen with each successive year as the amount and density of regrowth decreases over time (see Draft EIR Section 2.5).[2] The on-going use of access routes for maintenance would only temporarily crush vegetation that has reestablished and not remove the vegetation or its roots; thus, vegetation would regrow, and this temporary disturbance during semi-annual maintenance would not be considered a permanent impact. Additionally, temporary impacts will be monitored for two years, or until a qualified biologist determines that the project site has returned to pre-project conditions. Therefore, if it is determined that access routes are not reestablishing to pre-project conditions, whether that be following construction and/or following maintenance, then a revegetation plan would be prepared, and subsequently monitored by a qualified biologist until the project site has returned to pre-project conditions.

Proposed haul roads within wetland habitat may not be passable by large equipment without potentially rutting and compacting the soil; thus, additional protection provisions are added to Mitigation Measure BIO-6 as shown in Chapter 3 of this Final EIR. No filling of wetlands to reinforce the access routes is proposed, and as stated in the Project Description (Draft EIR Section 2.4, Page 2-9), "no road improvements are anticipated to be required for the mobilization of proposed equipment." Construction of the water trail is anticipated to require the use of a

[2] Estimates of regrowth are based on personal communication between Larry Freilich, Inyo County Water Department and the following persons: Reid Plumb, Project Manager and Bryce Olsen, Project Biologist, Emergent Vegetation Project, Voyageurs National Park, MN; Lance W. Dohman, Solitude Lake Management; Benicia, CA.

combination of in-channel and land-based equipment while construction of boat launch and take-out facilities features is anticipated to be constructed solely with land-based equipment. For example, the types of equipment could include amphibious mowing equipment, amphibious long reach excavator, excavator, dump truck, skid steer, and all-terrain utility vehicles (see Draft EIR Section 2.4). Construction equipment for the in-channel work associated with the water trail would consist of or be similar to, but not be limited to, standard excavator with low ground pressure appurtenances, amphibious excavator, wheeled or rubber tracked dump trucks (e.g., "Marookas"), tracked or wheeled skid steer loaders, and all-terrain utility vehicles (see Draft EIR Section 2.4). Areas that are saturated at the time of construction would be avoided to the extent possible to minimize rutting, or use low ground pressure appurtenances.

Master Response No. A4-4

Spoils Piles Placements Impacts

There are a number of comments regarding the placement of the spoil materials that would result from the construction of the proposed project. The County acknowledges that LADWP does not support depositing spoils on the floodplain. However, as the project is defined and described in the Draft EIR, Chapter 2, Project Description, the materials would be placed within proximity of the river channel in identified spoils placement areas as a way to reduce the handling and transport of the materials. As described in the Draft EIR Section 2.4, spoils areas were identified based on certain criteria, including locations above the 200-cfs inundation zone to ensure that spoils would not wash back into the river channel. In addition, spoils locations were selected with the intent of excluding sensitive habitats and wetland areas based on vegetation maps available at the time the areas were identified (e.g., locating spoils piles on saltgrass flats). However, based on the updated current vegetation maps used in the analysis in the Draft EIR, the spoils areas do not exclude all sensitive natural communities and potential wetland areas. Additionally, since a formal jurisdictional delineation was not conducted by ESA, the analysis of potential wetland areas contained in the Draft EIR is based on the conservative mapping assumptions that all communities mapped, for instance, as saltgrass flats are conservatively included as potential USACE/RWQCB jurisdictional wetlands; however, based on site conditions and micro-topography observed during the general biological survey, it is likely that portions of this community are slightly higher in elevation and could be excluded as wetlands with further detailed analysis and/or a jurisdictional delineation (as stated in Draft EIR Section 3.3.1, page 3.3-3). Acreages for potential wetlands, non-wetlands, and riparian areas are presented in Table 3.3-2 of the Draft EIR. Based on the updated vegetation mapping and conservative mapping assumptions for wetlands, the text in Draft EIR, Section 2.4, page 2-18 has been revised and the statement that the spoils areas excluded sensitive habitats and wetland areas has been deleted. (Please refer to Chapter 3 of this Final EIR for modifications to the Draft EIR.)

While the intent during the conceptual design for the proposed project was to locate the spoils placement areas to exclude sensitive habitats and wetland areas, the Draft EIR analysis evaluates impacts based on current vegetation maps and conservative mapping assumptions for wetlands. In other words, impacts to sensitive natural communities and wetlands were analyzed in Draft EIR Section 3.3 for all components of the project as described and illustrated in the Draft EIR

Chapter 2, Project Description. Both temporary and permanent impacts are considered in the analysis. Temporary impacts would occur in areas only used for the construction and maintenance of the project, such as the temporary construction access roads and spoils placement areas. Permanent impacts would occur at the boat launch and take-out areas and associated permanent access roads. Mitigation measures are prescribed for potentially significant temporary and permanent impacts that were identified to these biological resources. Mitigation Measures BIO-4, BIO-5, and BIO-6 would ensure that potential temporary impacts from construction of the water trail in areas where sensitive natural communities, CDFW jurisdictional riparian habitat, and USACE/RWQCB jurisdictional wetlands occur would be returned to pre-project conditions (i.e., native pre-existing vegetation communities). In addition, monitoring would be conducted for two years, or until a qualified biologist determines that the areas disturbed by the implementation of the project have returned to pre-project conditions. Therefore, while more up-to-date information indicated that the identified spoils placement areas do not exclude all sensitive habitats and potential wetland areas, the potential impacts are disclosed in the Draft EIR Section 3.3, and mitigation measures are recommended. With the implementation of mitigation measures, significant impacts would be reduced to a less than significant level. Revisions to Mitigation Measures BIO-4, BIO-5, and BIO-6 have been added in response to LADWP comments to provide further clarification that if a revegetation plan needs to be prepared, it would include performance standards and success criteria, and that although impacts from spoils piles are expected to be temporary, if successful revegetation to pre-project conditions is not achieved, then impacts would be reclassified from temporary to permanent, and the mitigation outlined for permanent impacts would apply. Please refer to Chapter 3 of this Final EIR for modifications to Mitigation Measures BIO-4, BIO-5, and BIO-6.

Operations and Maintenance (O&M)

As described in Draft EIR Section 2.5, maintenance activities would remove vegetation above, and up to 3 feet below, the water surface elevation to maintain the integrity of the water trail at 15 feet wide. Maintenance would consist of vegetation management only, and would be limited to clearing any channel-obstructing woody debris, the harvest of shoots, stalk, and leaves to allow free passage and reduce plant vigor and would not include any excavation of the channel bed. After the initial removal of roots and vegetation, the amount of emergent vegetation needing to be cleared in the first year is conservatively estimated to be approximately 10 percent of the volume of vegetation initially cleared during project construction (approximately 600 to 800 cy) and would lessen with each successive year as the plants are stressed and amount and density of regrowth decreases over time.[3] The emergent vegetation removed during annual maintenance would be spread thinly to a depth no greater than 6 inches in areas at least 15 feet from the water edge and above the 200-cfs inundation zone, which are characterized by saltgrass and without mesic vegetation. During maintenance activities, the emergent vegetation removed from the channel would not be placed on top of spoils associated with initial project construction or subsequent maintenance to avoid interference with the integration and recolonization of native species in previously placed spoils.

[3] Estimates of regrowth are based on personal communication between Larry Freilich, Inyo County Water Department and the following persons: Reid Plumb, Project Manager and Bryce Olsen, Project Biologist, Emergent Vegetation Project, Voyageurs National Park, MN; Lance W. Dohman, Solitude Lake Management; Benicia, CA.

The emergent vegetation cut to maintain the channel would be placed along the riverbank, similar to the way in which such maintenance is handled by the County currently (similar to locations described in Alternative 2, Alternative Construction Approach). The materials would be located a minimum of 15 feet from the edge of water in order to ensure that materials would not re-enter the channel.

Spoils Placement Alternatives

With regard to not placing spoils on the floodplain, the Draft EIR, Chapter 4 Alternatives, evaluates the No Project Alternative as well as three build alternatives. Alternative 4, Off-Site Disposal of Materials Alternative, which would result in the hauling of materials to the Lone Pine Landfill rather than placing the materials within the floodplain, was evaluated to address concerns raised by LADWP during the preparation of the Draft EIR with regard to leaving materials in the identified spoil areas to decompose. As indicated in the Draft EIR, Alternative 4 would result in an increase in air and greenhouse gas emissions compared to the project as a result of the additional equipment to move materials and haul trucks that would be necessary to transport the materials to the Lone Pine Landfill. In addition, as with the proposed project, Alternative 4 would restore the area to pre-construction conditions although the amount of area to be restored to pre-project conditions would be greater under Alternative 4 compared to the project because of the increase in the amount of land that would be disturbed. The additional effort could result in the potential for the introduction of weeds in the area, which would be similar to the proposed project relative to the construction of the water channel, but greater than the proposed project from the spoils areas through the areas that must be accessed to haul the material off-site.

As indicated in CEQA Guidelines Section 15126.6, "[a]n EIR need not consider every conceivable alternative to a project." However, an alternative that combines both the proposed project with Alternative 4 could be implemented. This is referred to in this discussion as Alternative 4A, Project With Some Off-Site Disposal Alternative. Such an alternative would include hauling some of the spoil materials to the Lone Pine Landfill and leaving some of the material in the spoil placement areas. As explained below, potential environmental impacts associated with Alternative 4A would fall between the impacts identified under the proposed project and those that would occur under Alternative 4.

As indicated in Chapter 2 of the Draft EIR, combining the material from the in-channel excavation with the vegetation removal, the project would result in approximately 11,662 to 13,730 cy of wet material. Of this amount, approximately 3,700 cy or approximately 27% to 32% would be materials removed from the area of the relic beaver dams (occlusions 8-11 on the figures provided in Draft EIR Appendix B-3). Under Alternative 4A, this material would be placed in the identified spoils pile areas associated with occlusions 8-11 to dewater. Using the same assumptions as in Alternative 4, dewatering of the material would reduce the mass by about 50 percent leaving approximately 1,850 cy to be hauled to the landfill. The material from occlusions 8-11 would then be hauled to Lone Pine Landfill for use as alternative daily cover. (Alternative 4A would not include any hauling of material from the east side of the river as would occur under Alternative 4.) As in Alternative 4, a Marooka, which has a capacity of 10 cubic yards, would be used to haul the material to the landfill. The material from occlusions 8-11

would result in 185 trips from the spoils placement area to the landfill. As with Alternative 4, the material would be transported along existing routes from the project site. The route would connect to Substation Road at the northern end then follow Substation Road to the landfill. Based on timing of dewatering, speed of loading and ability of the landfill to accept the material, it is estimated that between 6 and 25 trips per day would occur to export the material to the landfill. The hauling of material would likely occur over a timeframe of between 8 and 31 days. Material export to the landfill would require the operation of one Marooka, one Skid Steer Loader and two workers. This would be in addition to the equipment and workers needed for channel clearing, which would remain the same as the project.

Given the proximity of these areas to the landfill, hauling of these materials would substantively reduce the quantity of material to remain within the floodplain thereby reducing the depth of material. The potential environmental impacts for each of the issue areas evaluated in the EIR would fall between those identified for the proposed project and those identified under Alternative 4. For example, under Alternative 4A there would be an increase in air quality and greenhouse gas emissions compared to the project as a result of the hauling of material to the landfill. Under Alternative 4A there would be 185 trips from the west side of the river to the landfill and no trips from the east side. Under Alternative 4 there would be 313 trips from the west side via Marooka transport, and on the east side there would be 315 Marooka trips from the spoils placement areas to on-road transport staging areas and 183 on-road trips to the landfill. Transport to the landfill under Alternative 4A would be anticipated to take between 8 and 31 days, whereas under the proposed project no haul trips to export material would occur. Under Alternative 4, trips to the landfill would take between 13 and 53 days from the west side and an additional 13 to 53 days for the east side. Therefore, with other activities remaining the same, total emissions from Alternative 4A would be greater than the proposed project as a result of the export of material. Emissions under Alternative 4A would be less than the emissions that would occur under Alternative 4 since Alternative 4A comparatively would have less haul trips.

Similarly, impacts to biological resources would be similar to those of the proposed project since the same areas would be disturbed during construction. However, assuming use of all of the identified spoils placement areas, the depth of the spoils would be reduced compared to the project. This reduction in the depth of spoils would potentially reduce temporary impacts where the piles are placed, since the thicker the spoils piles are, the longer it may take to recover and reestablish to pre-project conditions. If the identified spoils areas near occlusions 8-11 were not used, the temporary impacts that would result in those areas would be avoided, although the depth of materials in the other spoils placement areas would then remain the same as under the proposed project. Impacts under Alternative 4A with regard to cultural resources, geology and soils, hydrology and water quality, land use and planning, recreation, and tribal cultural resources would fall in between the impacts identified under the proposed project and under Alternative 4. Per the assessment of Alternative 4 on pages 4-25 through 4-32 of the Draft EIR, all mitigation measures that apply to the proposed project would also apply to Alternative 4. Thus all mitigation measures would also apply to Alternative 4A.

Master Response No. A4-5
Land Use Impacts

The County is aware that LADWP has managed grazing leases in Long Valley over the last approximately 25 years. The leases allow for short duration, high intensity grazing in relatively small pastures. As indicated in the Draft EIR Chapter 2, Project Description, at the boat launch, cattle fencing would be installed around the eastern perimeter of the amenities to separate the boat launch facility from the existing, surrounding grazing activities. At the take-out, fencing and cattle guards could be provided to avoid user conflicts with cattle if necessary. Comments were received by the County during the public review period for the Draft EIR from the ranching community, whereby the proposed cattle guards and some fencing were requested to be eliminated from the project description (see Comment Letter No. I6, Response No. I6-1).

The Draft EIR includes an analysis of potential project-related conflicts with neighboring land uses in Section 3.8, Land Use and Planning. As indicated in the Draft EIR Section 3.8, on page 3.8-10, the proposed project could conflict with the existing cattle grazing that occurs in the area. However, separation between the proposed ORWT facilities and the cattle would be provided through the installation of cattle guards and cattle exclusion fencing, as necessary, to confine recreationalists to the developed areas and separate visitors from cattle. Therefore, the installation of the cattle guards and fencing would allow the existing cattle grazing operations to continue concurrently with the operation of the project and would avoid conflicts between the uses.

With regard to construction activities relative to the cattle ranching operation that typically uses the area from January through March and sometimes in May, since the construction would occur in an active, "working landscape," whereby the public and cattle may share the same space, the topic would be addressed in all pre-construction meetings that would take place. The County would ensure that a construction contract provision includes that cattle are to be avoided and that any damage to fences or other enclosure structures shall be reported and repaired to maintain animal confinement. The construction provisions would also include that all gates shall be maintained closed at all times when cattle are in the area. While some areas may be excluded from grazing access temporarily during the proposed ORWT construction, these areas would be small relative to the total floodplain area available for grazing in the project area, which is also part of a larger grazing lease. As shown on Table 3.3-1 of the Draft EIR there is a total of approximately 685 acres within the study area, and this study area is part of Grazing Lease RLI-456 that encompasses 7,926 acres. Similar to project operation, cattle grazing operations would continue to operate concurrently with construction of the proposed ORWT.

With respect to maintenance of the proposed ORWT, as shown in the Draft EIR Table 2-2, Anticipated Maintenance, removal of vegetation to maintain the river channel would occur once or twice per year and is expected to require a decreasing level of effort over time. The clearing of vegetation in the channel would be of short duration. There could be a temporary loss of cattle feed in some of the spoils placement areas until the tule piles break down. However, such impacts would be of short duration and would have minimal impact on grazing.

Master Response No. A4-6
Alternative 4 Off-Site Disposal of Materials Alternative

The County acknowledges that LADWP does not support depositing spoils on the floodplain. The potential environmental impacts resulting from the disposal of materials off-site is provided in the Draft EIR, Chapter 4 Alternatives, as Alternative 4, Off-Site Disposal of Materials Alternative. The potential impacts associated with Alternative 4 are compared with the project impacts in the discussions contained in Section 4.6.6 and summarized in Table 4-2, Comparison of the Impacts of the Project and Alternatives. As can be seen in Table 4-2, Alternative 4 would result in an increase in air quality emissions, GHG emissions, as well as an increase in potential impacts to biological resources compared to the proposed project. More specifically, air and GHG emissions would be greater under Alternative 4 compared to the project as a result of the additional equipment to move materials and haul trucks that would be necessary to transport the materials to the Lone Pine Landfill. In addition, while Alternative 4 would restore the area to pre-construction conditions, this alternative would result in an increase in the need for restoration. The additional effort could result in the potential for the introduction of weeds in the area, which would be similar to the proposed project relative to the construction of the water channel, but greater than the proposed project due to the additional disturbance associated with hauling material off-site from the spoils areas. Therefore, the County preference is to implement the project as defined in the Draft EIR based not solely on the increase in cost of Alternative 4 but also because of the increase in potential physical impacts that would occur.

As discussed in Master Response A4-4, with regard to biological resources, both temporary and permanent impacts are considered in the Draft EIR. Temporary impacts would occur in areas used for the construction of the project as well as long-term maintenance of the project, such as the temporary construction access roads and spoils placement areas. Permanent impacts would occur at the boat launch and take-out areas. Mitigation measures are prescribed for potentially significant temporary and permanent impacts that were identified to these biological resources. Mitigation Measures BIO-4, BIO-5, and BIO-6 would ensure that potential impacts from construction of the water trail in areas where sensitive natural communities, CDFW jurisdictional riparian habitat, and USACE/RWQCB jurisdictional wetlands occur would be returned to pre-project conditions. In addition, monitoring would be conducted for two years, or until a qualified biologist determines that the areas disturbed by the implementation of the project have returned to pre-project conditions. Revisions to Mitigation Measures BIO-4, BIO-5, and BIO-6 have been added in response to other LADWP comments to provide further clarification that if a revegetation plan needs to be prepared, it would include performance standards and success criteria, and that although impacts from spoils piles are expected to be temporary, if successful revegetation to pre-project conditions is not achieved, then impacts would be reclassified from temporary to permanent, and the mitigation outlined for permanent impacts would apply.

The basic purposes of CEQA are to inform the public and decision makers about potential, significant environmental effects of proposed activities; identify ways to avoid or reduce significant impacts; prevent significant damage to the environment through mitigation measure or alternatives; and to disclose to the public reasons why a project is approved if significant

environmental impacts would result (CEQA Guidelines Section 15002). In other words, the intent of CEQA is to identify potential adverse impacts to the physical environment. The cost for project implementation is not required in an EIR. However, in response to the comment, it should be noted that long-term maintenance activities associated with controlling emergent vegetation growth and in-channel maintenance of the river trail are anticipated to lessen over time, as stated in the Draft EIR, Chapter 2, Section 2.5 on pages 2-23 and 2-24 and Table 2-2. As such, costs associated with in-channel maintenance also would decrease over time.

With regard to minimizing the placement of spoils in the floodplain, Master Response No. A4-4 provides a discussion regarding a hybrid scenario that could be implemented in which some of the materials could be hauled off-site to the Lone Pine Landfill and some of the materials could remain on the floodplain.

Master Response No. A4-7

Operations and Maintenance Plan & Cost Estimate

CEQA does not require an EIR to include information about costs associated with project implementation. As also stated above under Master Response No. A4-6, CEQA Guidelines Section 15002, General Concepts, indicates that the basic purposes of CEQA are to inform the public and decision makers about potential, significant environmental effects of proposed activities; identify ways to avoid or reduce significant impacts; prevent significant damage to the environment through mitigation measure or alternatives; and to disclose to the public reasons why a project is approved if significant environmental impacts would result. In other words, the intent of CEQA is to identify potential adverse impacts to the physical environment. CEQA also does not require an EIR to include an Operations and Maintenance Plan. The operation and maintenance activities that would occur if the proposed project is approved and implemented are described in the Draft EIR Chapter 2, Project Description. (The County will prepare an Operations and Maintenance Plan at the appropriate time, consistent with the maintenance activities described in the EIR.) The Draft EIR also includes mitigation measures that may require long-term commitments during project operation and maintenance. As described in Section 1.3.5 and 1.3.6 of Chapter 1 of the Draft EIR, if the County certifies the Final EIR and approves the proposed project, the County will prepare a Mitigation Monitoring and Reporting Plan (MMRP) that identifies the mitigation commitments and the procedures for monitoring and documenting the implementation of such commitments. At that time, the County may estimate costs associated with project operation and maintenance as well as mitigation requirements. Such operation and maintenance activities would be further refined as the County proceeds with the design and permitting process upon completion of the environmental review process.

Master Response No. A4-8

General Comments

The County thanks LADWP for its general support of the proposed ORWT. The comment does not suggest an alternative location but suggests that there be further coordination in determining the location, even if it is outside of the LORP. However, as demonstrated in the Draft EIR and the responses to LADWP's comments in this Final EIR, there would be no significant unavoidable impacts associated with the proposed ORWT as defined in Chapter 2, Project Description, of the

Draft EIR; the County proposes mitigation measures to ensure all potentially significant impacts would be mitigated to less than significant levels. Potential impacts to wetlands and sensitive plants are addressed above in Master Responses A4-2, A4-3, and A4-4. Potential impacts to fish are addressed in the accompanying matrix under Items 54, 55, 72, 73, 78, and 93. Potential impacts to elk and elk calving grounds are addressed in the accompanying matrix under Items 75, 94, 123. Long-term mitigation and management costs are addressed above in Master Responses A4-6 and A4-7.

With regard to the selected location for the ORWT, as indicated in Chapter 4, Alternatives, Section 4.3.1 of the Draft EIR, the County considered the potential for the proposed ORWT to be located in other reaches of the Lower Owens River. As described in the Draft EIR, the project would implement the south segment of the water trail identified in the Lower Owens River Recreation Use Plan. The Plan, which identifies the Lower Owens River Paddle Trail, includes two paddle segments with signed and improved access to the river from the riparian shore. The County considered the north paddle trail segment, which would run much of the length of the Blackrock Waterfowl Management Area, beginning just north of Upper Twin Lake and ending near the Management Area boundary. (The two river trails are shown on the Preferred Recreation Concept figure contained in the Lower Owens River Recreation Use Plan.) The river in the north segment is incised and narrow and the surface of the river is approximately six to seven feet below the floodplain in some locations. The development of the trail would be more difficult given the continuous, uninterrupted tule growth fringing the channel. The north segment is adjacent to the LORP Blackrock Waterfowl Management Area, where access would be more complicated to develop in light of the higher level of maintenance and activity in the area by LADWP for operational needs and wetland management. The remote location of the northern section would create challenges for developing, maintaining, and servicing the project. As well, Independence, the nearest town with resources for visitors, including lodging and emergency services, is 14.3 road miles from a potential launch site at Blackrock Ditch.

With regard to the south segment or the project location, this area has more open water than other reaches of the river, resulting in less volume of material to be removed. In addition, there are numerous ranch roads that exist in the floodplain that can provide partial access for construction and maintenance of the water trail. This results in equipment using some already disturbed areas rather than being on non-disturbed soils. In addition, this segment allows for surveillance from the bluffs above the floodplain. The implementation of the trail on the south segment would locate the water trail within proximity to tourist services in Lone Pine as well as being accessible for law enforcement patrol and emergency services. The area is used for recreational purposes more than other areas in the LORP. The project would formalize the launch and take-out areas and would provide services such as parking, trash cans, vault restrooms, and educational signage that can serve to provide protection of resources in light of the increase in use in an area.

Based on the environmental constraints of the north segment as well as the benefits of the south segment that are discussed above, the County has concluded that the Lower Owens River reach currently described in the Draft EIR, between Lone Pine Narrow Gauge Road and Highway 136, is the preferred location for implementation of the proposed ORWT. As an objective of the ORWT, the project seeks to provide those with disabilities access to gentle water with low and

predictable flows. Sections of the Owens River outside the LORP were not considered due to design challenges and safety considerations affecting disabled users. The Owens River above the LORP intake is characterized by highly variable flow rates and associated changes in water surface elevation. While these conditions may be acceptable to many, the disabled users would be disadvantaged. Relocating the project to another section of the LORP would not meet the project objectives and potentially would require similar mitigation to reduce impacts to less than significant.

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1		Global	Appendices List	Due to the potential for impacts to biological resources, the Biological Resources Technical Report (BTR) should be included as an appendix, not referred to a document that is not readily available for review at the County.	As indicated in the Draft EIR on page 3.3-1, the BTR was available to the public during the comment period. However, in response to this request, the BTR has been included in the Final EIR. Please see Appendix G, Biological Resources Technical Report. As stated in Chapter 3, the information contained in this Final EIR supersedes the Biological Resources Technical Report.
2		Global	Hydrology Report vs Biology Impacts	The conclusions in the hydrology report, stating that the WSE elevation will drop 1 to 3 feet under the proposed project (PP), do not correspond to the impact calculations in the BTR. ESA has assumed that the river is a gaining system and therefore there would be no impacts to adjacent vegetation. This assumption cannot be based upon an observation in the field but rather needs to be addressed in a scientifically-based approach and analyzed for potential wetland losses using collected groundwater data.	Please refer to Master Response A4-2, Hydraulic Model, Groundwater and Biological Impacts.
3A		Global	Spoil & Vegetation Placement & Access Routes; Operations & Maintenance Plan	Spoil and vegetation placement locations should be re-evaluated. Under the Proposed Project (PP), spoils and vegetation would be placed in a manner that would be within the floodplain (not acceptable to LADWP), cover native vegetation (including new areas during maintenance), and may prevent re-establishment of native vegetation through stockpiling of removed vegetation. Ongoing maintenance would place spoil piles in new areas and these locations need to be identified, and impacts calculated as part of the EIR. An Operation & Maintenance Plan (O&M Plan) for long-term spoil placement should be prepared that describes and	See Master Response A4-4, Spoil Pile Placement Impacts and Master Response A4-7, Operations and Maintenance Plan & Cost Estimate.

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				depicts the locations, potential impacts and revegetation & monitoring location of these areas.	
3B		Global	Spoil & Vegetation Placement & Access Routes; Operations & Maintenance Plan	Many of the access routes identified in the PP do not exist and would be too wet to use without placement of fill. Any new access routes, due to the need for ongoing maintenance within the Owens River (OR), which would flow through jurisdictional wetlands/waters would be considered a permanent impact. These impacts have not been calculated in the PP or in the Alternatives Analysis.	See Master Response A4-3, Access Routes Impacts.
4		Global	Alternative Selection of Water Trail Reach	LADWP supports the establishment of a water trail, however in light of potential significant environmental impacts and unknown future maintenance costs, an alternative less environmentally damaging location should be examined.	Please refer to Master Response A4-8, General Comments.
5	ES-10	Areas of Controversy / Issues to be Resolved	Wetlands & Ranching Operations	There is no mention of wetland issues or other concerns stated by LADWP in the ADEIR comments submitted to the County on March 1, 2019. There would be impacts to wetlands and to ranching operations.	The comments submitted by LADWP were reviewed and considered by the County during the preparation of the Draft EIR. Regarding wetlands, please refer to Master Response A4-2, Hydraulic Model, Groundwater and Biological Impacts; Master Response A4-3, Access Routes Impacts; and Master Response A4-4, Spoil Pile Placement Impacts. Regarding ranching operations, please refer to Master Response A4-5, Land Use Impacts. In response to the comment, page ES-10 of the Draft EIR has been modified to include wetlands and ranching in the list of areas of controversy and issues to be resolved. Please refer to Chapter 3 of this Final EIR for the revisions.

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6	ES-10	Significant and Unavoidable Environmental Impacts	Indicates no impacts following mitigation	The impact analysis assumes that because portions of the LORP are gaining, that dropping the WSE an average of 1-3 feet will not have a significant impact on 100s of acres of existing wetland on the floodplain. True impacts need to be evaluated.	Please refer to Master Response A4-2, Hydraulic Model, Groundwater and Biological Impacts.
7	ES-13	Environmentally Superior Alternative	The no project Alternative would not include restoration activities for natural habitats, and would not meet the habitat, environmental, and social goals of the LORP and the Lower Owens River Draft Recreational Use Plan	This is a recreation project, not a habitat restoration project. Habitat will be impacted as a result of the proposed recreational activities of this project. This statement should be amended, removing habitat and environmental goals.	This sentence has been deleted in the Draft EIR, Executive Summary, page ES-12 to ES-13, and in Section 4.6.1, page 4-10, in subsection Relationship of the Alternative to the Project Objectives. Please see Chapter 3 of the Final EIR for the revisions.
8	ES- 13	Environmentally Superior Alternative	Alternative 4 would result in an increase in the need for restoration	There are mitigation measures available to control introduction of weeds. As stated numerous times, LADWP does not support depositing spoils on the floodplain.	The sentence in the Executive Summary refers to the more detailed discussion in the Draft EIR on page 4-30. Alternative 4 consists of hauling all spoils materials offsite to the Lone Pine Landfill; this alternative was evaluated in the Draft EIR in response to LADWP's comments about not depositing spoils on the floodplain. As indicated in the discussion regarding biological resources, Alternative 4 compared with the project would result in an increase in equipment activity to haul the materials from the spoils areas to the Lone Pine Landfill. The increase in activity would result in greater risk of soil compaction and damage to existing vegetation. While these would be restored to pre- construction conditions, there would be an increase in the need for restoration. The additional effort could result in the potential for the introduction of weeds in the area, which would be similar to the proposed project relative to the construction of the water

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					channel, but greater than the proposed project from the spoils areas through the areas that must be accessed to haul the material off-site. As indicated in the comment, there are methods to control the introduction of weeds. Non-native weedy species are discussed in the Draft EIR on pages 3.3-20, particularly perennial pepperweed and tamarisk. As stated in the Draft EIR, although the project site is relatively free of invasive, non-native weeds, both of these non-native species are a concern within the Lower Owens River area and are actively being treated/removed by LADWP and the County. In addition, Mitigation Measure BIO-1 includes requirements for cleaning of heavy equipment to be used at the project site in order to reduce the potential for the introduction of weed seeds. Mitigation Measure BIO-1 would also apply to Alternative 4. For a discussion of a potential hybrid scenario of hauling some of the spoils out of the floodplain for disposal, please see Master Response A4-4, Spoils Piles Placements Impacts.
9	1-1	1.1 Purpose of the EIR	The County of Inyo (County) is the project applicant proposing to construct the Owens River Water Trail (ORWT or project) to allow public recreational access solely for non-motorized watercraft on an approximately 6.3-mile segment of the Owens River.	LADWP keeps 75% of its land open to the general public. By only allowing non-motorized watercraft the proposed project would be isolating past and current recreational users using motorized watercraft or no motorcraft. This statement should be revised to fit with LADWP policies, removing the word "solely", and perhaps use "primarily" instead.	The proposed project would not change the existing uses and motorized boaters are not prohibited from using the river. A requirement of the County's funder is that water entry/exit points be designed solely for non-motorized watercraft. The project as defined in the Draft EIR would provide launch and take-out facilities solely for non-motorized boats. However, while the project would not provide amenities or access for motorized boats at the launch and take-out, the project would not prevent the use of

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					motorized craft. The County anticipates it is unlikely that this section of the river would be popular with motorized boaters since there would be no trailer launch developed and obstacles such as submerged woody debris, as currently exists, will largely remain for aquatic habitat purposes and would continue conditions not conducive to motorized boating.
10	1-1	1.1 Purpose of the EIR	In addition to providing recreational access, the proposed project would provide instream and riparian habitat benefits and improve water quality.	By removing emergent vegetation and associated sediment accumulation, as well as large and small woody debris from the channel, instream and riparian habitat would be removed. The project will not provide long-term improvement of water quality on the LORP. Increased flow through the project area alone cannot increase dissolved oxygen levels, nor can it remove organic sediments from the water, as supported by the results of the Geomorphic Assessment. This statement should be removed or revised.	The sentence has been deleted from the text of the Draft EIR in Chapter 1, Introduction, and Chapter 2, Project Description. Please see Chapter 3 of the Final EIR for revisions.
11	1-1	1.1 Purpose of the EIR	... by offering a gentle stretch of river with controlled flows that is ideal for safe paddling .	By labeling this paddle trail as "safe" suggest that there are no hazards. Consider removing this statement or removing or revising the word "safe".	The word "safe" has been deleted in this sentence in Chapter 1, Introduction, and Chapter 2, Project Description. Please see Chapter 3 of the Final EIR for the revisions.
12	2-1	Project Description	The County of Inyo (County) is the project applicant proposing to construct the Owens River Water Trail (ORWT or project) to allow public recreational access solely for non-motorized Watercraft...	Same as comment 9.	Please refer to the Response to Item 9.

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13	2-1; ES-4	Project Description; Statement also in Executive Summary	The proposed project would provide instream and riparian habitat benefits and improve water quality.	Same as comment 10. This statement requires justification in light of conflicting information between the hydrology report and BTR. Dropping WSE 1-3 feet may significantly impact instream and riparian habitat and water quality.	Please refer to the Response to Item 10.
14	2-6	2.2 Project Objectives	Implement restoration activities for the natural habitats and species of the Owens River to be consistent with the restoration efforts of the LORP. The LORP calls for the creation and enhancement of natural habitats to be consistent with the needs of certain habitat indicator species through the application of appropriate flow and land management practices.	This project should not be construed as a habitat restoration project. Removal of wetland vegetation, the drop in the WSE and the loss of floodplain connection (per the Hydraulic Report and Bio Technical Report) indicates it is not. This project is a recreational project and all activities are a result of opening up waterways for the benefit of people. This objective should be revised or removed.	Please refer to Master Response A4- 1, Project Objectives.
15	2-6	2.2 Project Objectives	Remain consistent with the habitat, environmental, economic, and social goals of the LORP and the Lower Owens River Draft Recreation Use Plan, which include: - Continue to prioritize LORP goals and the ecological restoration of riparian habitat over recreation;	The project as it stands does not provide consistent with the LORP regarding habitat or the environment, and does not prioritize ecological restoration over recreation. The result of this proposed recreational activity will result in impacts to habitat and the floodplain system. This objective should be revised or removed.	Please refer to Master Response A4-1, Project Objectives.

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16	2-6	2.3 Project Components	The ORWT would provide recreational access to an approximately 6.3-mile section of the newly rewatered, 62-mile Lower Owens River.	There is already recreational access to these 6.3 miles of Lower Owens River.	The County acknowledges that LADWP keeps 75% of its land open to the general public as indicated in Comment 9. While there is currently recreational access to this stretch of the river, during the development of the 2012 LORP Recreation Use Plan, there was public interest in developing this type of water trail to facilitate safe access to and entry into the river. With the introduction of water in the Lower Owens River, abundant emergent vegetation has encroached into the channel river-wide and as a result has reduced open water recreation opportunities. The ORWT opens the only significant length of navigable river within the LORP, as well as the only ADA designed access to any water feature in LORP.
17	2-7	2.3.1 Water Trail	...Inyo County estimates that over time annual use could reach approximately 4,400 launches, which includes private parties as concessionaires.	The basis for the 4,400 launches appears to be based on how many kayaks fit on a trailer and how many trips might be necessary to sustain a concession. Clarify who would contract and administer the concessionaires.	Currently, the County is not anticipating contracting with concessionaires. The County would ensure that all users including private concessionaires launching from County facilities are complying with applicable permits, County rules and regulations, and LADWP lease terms.
18	2-8	2.3.2 Boat Launch Facility	The road shoulder would be graded and resurfaced with an all-weather surface (such as gravel) to create approximately 1,090 feet of parallel parking spaces	The text says 1,090 feet of parallel parking spaces will be available while figure 2-4 says that 1,105 feet of parallel parking will be available.	The text has been revised to reflect that 1,105 feet of parallel parking would be available. Please see Chapter 3 of the Final EIR for revisions.

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19	2-8	2.3.2 Boat Launch Facility	Parallel parking would be provided along the Lone Pine Narrow Gauge Road shoulder at the top of the ORWT.	Possible impacts to Digital 395 Fiber Optic located along Lone Pine Narrow Gauge road is not addressed. Clarify if the parking area would be on LADWP land or located within the road right of way. During heavy precipitation runoff will flow down Lone Pine Narrow Gauge Road and will flow through this parking lot. While most vehicle fluid leaks will be small the accumulation of small leaks over many years could lead to soil or water contamination. There is also a possibility of a large gas, diesel, oil, or coolant leak from a vehicle.	The County is aware that a Digital 395 (CA Broadband Cooperative 760-873-8000) Fiber Optic cable distribution line is buried a minimum of 36 inches deep on the north side of Lone Pine Narrow Gage Road in the vicinity of the boat launch parking. The cable distribution line is located approximately 25 feet north of the centerline of the road. The line is directionally bored under the river at least 20 feet below the culverts. The proposed designated parking at the boat launch facility would be located along Lone Pine Narrow Gauge Rd within the County right-of-way. The shoulder would be graded and an all-weather surface would be laid down to provide a firm durable surface. As is standard construction practice, prior to any work in the field, the line would be located, marked, and avoided. With regard to runoff and the potential for contaminants to reach the river, as indicated in Section 3.7, Hydrology and Water Quality, of the Draft EIR, most automotive-related pollutants are released in very small volumes. In addition, most automotive-related pollutants are hydrophobic and tend to adsorb to sediments near to its release point. Additionally, the use of gravel over geotextile rather than paved roads would reduce erosion and help to ensure that runoff volumes from the site would be minimized. Therefore, impacts to water quality during operation of the ORWT would be less than significant. Please see the discussion of operation and maintenance under Impact Statement HYD-1 (page 3.7-27).

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20	2-9	Figure 2-3		Many of the proposed access roads in the floodplain may not exist as displayed on this figure. Field verification is needed. Impacts would need to be updated based upon this information. See Comment 3.	See Master Response A4-3, Access Routes Impacts.
21	2-11	2.3.3 Boat Take- Out Facility	The road would be approximately 15 feet wide and about 2,500 feet long, with a few passing shoulders and three cattle guards.	This road would need to be improved should the proposed project be implemented. Currently, there are multiple low spots on this dirt road that fill with rainwater in the winter. A passenger car may not be able to drive through these large puddles. This road should also be permanently covered with an all-weather road surface to prevent dust and mud.	The road from State Route 136 to Keeler Bridge, that is often impassible after heavy rains, is maintained by LADWP under the LORP Post-Implementation Funding Agreement (PIA) Section II.B.3. This road is to be maintained passable by LADWP. Additional improvements to this road related to the ORWT, such as improved road surface, turn-outs, and the road spur leading to the take-out would be developed and maintained by the County. The County would be responsible for maintaining improvements made to the access road to facilitate traffic related to the ORWT.
22	2-11	2.3.3 Boat Take- Out Facility	Parking would be provided in a parking area consisting of approximately 488 linear feet along the all-weather surface road. Additional structured parking located in the powerline right-of-way would require LADWP approval through a special use permit. Pedestrian paths between the parking area and the staging would also be constructed. As with the boat launch facility, cattle exclusion fencing would be installed along the northern boundary of the facility.	The impacts of building parking under a transmission line right of way needs to be addressed. County's operation and extent of use would include all areas no longer accessible to cattle for ranching as a result of the cattle exclusion fencing.	County staff has coordinated with LADWP Real Estate Department in Los Angeles regarding obtaining ROW and Special Use Permits for the construction of a road under transmission lines and parking in the right-of-way. In addition, County staff met in the project area with the Patrol Area Foreman to assess potential impacts and measure line clearances above the proposed road and parking. Clearances were measured and CPUC General Order 95 rules would be met. Parking would be confined to protect tower bases. Regarding compatibility of the proposed project with cattle ranching and fencing, please refer to Master Response A4-5, Land Use Impacts.

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23	2-12	2.3.4 Signage	Additional signage could be provided along the water trail itself...	LADWP typically licenses signs on its land.	The County would obtain the necessary licenses from LADWP for signage on its land.
24	2-12	2.3.4 Signage	Reflective mileage signposts would be installed every half-mile as a safety precaution, allowing a known location if rescue were to be required.	Half a mile separation between mileage signposts does not seem adequate to identify the location in case of an emergency, particularly if help is needed between signposts and the paddler has not been keeping track.	The County is not aware of a standard for distance between mileage sign points for water trails. Most established water trails do not have mile markers. However, the County determined it to be important to ensure the safety of boaters. The kiosks at the boat launch and take out would include maps of the water trail and mileage marker location.
25	2-17; ES-7	2.4 Construction; Statement also in Executive Summary	In channel excavation is currently anticipated to occur roughly between RM 45.1 and 45.3.	There are 39 occlusions identified in Appendix B-3. This statement assumes only 0.2 mile will be excavated. Clarify how the remaining occlusions will be addressed.	As stated on page 2-17 of the Draft EIR, light excavation would occur only in places where emergent vegetation is growing across the channel, which includes a 0.2-mile length of river between RM 45.1 and 45.3, or occlusions 8 through 11 shown in Figure 3 of Appendix B-3 of the Draft EIR. The removal of all other occlusions would not require excavation. The description of how all other occlusions would be removed is included on page 2-17 of the Draft EIR.
26	2-18; ES-7	2.4 Construction; Statement also in Executive Summary	Spoils generated from vegetation removal and excavation at the occlusions would be transported to spoil placement areas using existing dirt ranch roads along the river....	The access routes from the river to the spoil areas do not exist and the vast majority of these routes may be through jurisdictional wetlands. The principal vegetation component along these routes is deep marsh that will not support tracked or wheeled equipment. Wet meadow that is susceptible to rutting by equipment is also present that may require the addition of fill over wetlands. The access routes (new roads) identified by ESA total 3.9 miles. New roads are needed to facilitate both construction and maintenance of the ORWT. Assuming 10	See Master Response A4-3, Access Routes Impacts and See Master Response A4-4, Spoil Pile Placement Impacts.

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				feet total width, access routes will impact about 4.8 acres of vegetation, of which 4.2 acres is hydric (wetland). About 1.5 linear miles of new road crosses deep marsh that may be impossible to cross with tracked or wheeled vehicles. Another 1.8 linear miles crosses wet meadow susceptible to rutting. Impacts from access routes are not addressed. ESA identified 33 areas totaling 7.2 acres of which 5.2 acres are hydric (wetland) vegetation. Spoil areas do not exclude wetland areas. Spoil transport should to be re- evaluated and impacts calculated where routes are not currently present. Due to the ongoing nature of maintenance that would be required as part of the project, any new road would constitute a permanent impact.	
27	2-18		In addition, the spoils areas excluded sensitive habitats and wetland areas.	This statement is incorrect and needs revision. See comment 26 above. About 6 acres (95%) of the spoil areas fall within jurisdictional wetlands. LADWP, as the land owner, has clearly stated that spoils shall not be placed in the floodplain. Spoil pile placement needs to be re-evaluated and new spoil pile locations identified which are outside the floodplain. Same for ongoing maintenance.	See Master Response A4-4, Spoil Pile Placement Impacts.
28	2-18	2.4 Construction	Considering just in channel excavation, approximately 98 percent of spoils areas would have piles less than 12 inches. Considering just emergent vegetation, approximately 87 to 95 percent of spoils areas would have piles less than 18 inches. To the extent	Spoil pile placement is within jurisdictional wetlands/water and may be considered a "fill" under State and Federal jurisdiction, and may result in the permanent loss of these jurisdictional features due to the depth of the fill, and not receiving overbank flow (see Hydraulic Report results) or accessing ground water. In reference to "where not practicable", a	See Master Response A4-4, Spoil Pile Placement Impacts. It is possible that USACE may consider some spoils piles as fill; however, that is to be determined during regulatory permitting in coordination with the USACE. The County had preliminary discussions with the USACE about the project activities and impacts to jurisdictional features such as wetlands. To

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			practicable, the emergent vegetation would be placed on top of the muck and mineral soils to deter the establishment of weedy species.	statement & map needs to be added defining where to the alternative placement of emergent vegetation would be, if not on native soil. It is assumed that the muck and mineral soils are barren of vegetation. A mitigation measure needs to be added if vegetation is covered as a result of the spoil pile placement.	clarify, "to the extent practicable" is in reference to cut emergent vegetation being placed on top of muck and mineral soils to deter weedy species. If not practicable, some piles of muck and mineral soils may not be covered by cut vegetation or cut vegetation may be placed below and covered by much and mineral soils. However, any spoils whether muck, mineral soils, or cut emergent vegetation, will remain in the spoils pile locations.
29	2-18	2.4 Construction	Where spoil depths would exceed 12 inches, material would be wind-rowed (i.e., placed as low berms) to leave uncovered areas of saltgrass (Distichilis spicata or similar) or native bunchgrasses to ensure that a stock reserve of native vegetation would remain intact to colonize the deeper piles. Spoil layers less than 12 inches, where saltgrass is expected to penetrate the layer and begin recolonization in a growing season, would be "contoured" (i.e., placed and smoothed in such a manner as to blend in with adjacent terrain, while not blocking local flow paths	Spoils that are wind-rowed would look unnatural and out of place and could likely be seen from the east side bluff. See Global Comment 3 and BIO Mitigation Measures comments for spoil piles.	Draft EIR, Section 3.1, Aesthetics, provides an analysis of the potential visual effects of the project relative to three thresholds, which address scenic vistas, visual character or quality of public views, and damage to scenic resources. As indicated in Section 3.1, the majority of the river channel within the project area is not visible from surrounding roadways. In addition, the majority of the spoils placement areas would be located within proximity to the river segments from which the occlusions would be removed. Nonetheless, the purpose of placing the materials as low berms or contouring the materials in the spoils areas is so that the materials would blend in with the adjacent terrain thereby reducing the visual effects of the spoils. Therefore, visual impacts would be less than significant. In addition, as indicated in Response to Global Comment 3 (Item 3A and 3B), please see Master Response A4-4, Spoil Pile Placement Impacts, Master Response A4-7, Operations and Maintenance Plan & Cost Estimate and Master Response A4-3, Access Routes Impacts.

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30	2-19	2.4 Construction	The staging area would be approximately 9,000 square feet and would be located on an existing dirt road segment.	The document needs to address whether a temporary construction easement will be sought and for how long.	The County is aware that construction on LADWP property will require a temporary construction easement during the construction phase of the project. The County would obtain all necessary permits required for the construction of the project. The Draft EIR, Section 2.6, Required Permits and Approvals have been revised to include the temporary construction easement. Please see Chapter 3 of the Final EIR for revisions.
31	2-19	2.4 Construction	Construction equipment for the in- channel work associated with the water trail would consist of or be similar to, but not be limited to: standard excavator with low ground pressure appurtenances (e.g., timber crane mats, marsh mats, etc.), amphibious excavator, wheeled or rubber tracked dump trucks (e.g., " Marookas"), tracked or wheeled skid steer loaders, and all-terrain utility vehicles.	Clarify how, if an excavator needs a low ground pressure appurtenances to track around the floodplain, would a rubber tracked dump truck loaded with spoil material navigate the floodplain.	The comment is not clear. The sentence provides the type of equipment that would be used for the in-channel work. A standard heavy excavator cannot operate in marsh unless it is supported, for example, with mats that protect the equipment from sinking. However, the project would use specialized low-ground pressure aquatic equipment, such as a rubber tracked dump truck which can operate largely without additional support. Please refer to photos of construction equipment included in the Draft EIR, Figures 2-6a and 2-6b.
32	2-21	2.4 Construction Schedule - Boat Launch and Take out Facilities	General -acreages for lease and construction.	The total area for lease purposes and for temporary staging construction purposes needs to be included in this section.	Based on the conceptual plans shown in Figures 2-4 and 2-5 of the Draft EIR, the footprint of the proposed facilities at the boat launch would be approximately 0.75 acres, and the footprint of the proposed facilities at the take-out would be approximately 1.75 acres, for a total of approximately 2.5 acres. The construction staging area would occupy approximately 9,000 square feet of area. However, it should be noted that the exact acreages may vary based on the final design that would prepared prior to implementation of the project.

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33	2-21	2.4 Construction Schedule - Boat Launch and Take out Facilities	The staging area would be located at the terminus of one branch of the access route. The staging area would be up to 3,500 square feet. Construction access for the boat take-out facility would be located off of SR 136. The construction access route would follow an existing gravel/dirt road and would be approximately 0.5-miles long.	Same as Comment 43. The temporary staging area requires a separate agreement with LADWP. This information should be added to the document.	As indicated in Section 2.6, Required Permits and Approvals, of the Draft EIR, the list of approvals and permits may include, but are not limited to, those provided in the bullets that follow. The County will obtain all necessary permits required for the construction of the project. However, for clarification Section 2.6, Required Permits and Approvals, of the EIR has been revised to include the construction staging agreement. Please see Chapter 3 of the Final EIR for revisions.
34	2-22	2.4 Construction Schedule	Construction could commence in 2019 and would occur over an approximately seven-month period, any time between the months of September and March (considered a work season).	Bio Measure 7 states that work will not be conducted in September due to dissolved oxygen concerns. Due to the permit procurement requirements, which may take 8+ months this schedule seems unlikely. This statement needs revision.	Mitigation Measure BIO-7 contained in the Draft EIR does not include any timeframe for construction. Any adjustments to the date of actual construction commencement would not alter the conclusions in the Draft EIR.
35	2-22	2.4 Construction Schedule	However, construction of the boat launch and take-out facilities may occur any time of year independent of the in-channel work.	How construction activities will impact the cattle ranching operation that typically uses the area from Jan- March and sometimes in May has not been addressed and needs to be added.	See Master Response A4-5, Land Use Impacts.
36	2-22	2.5 Operation and Maintenance	Adhering to LADWP's policy, use of the ORWT would occur during daylight hours.	LADWP permits "day use" of up to 75% of City property in the Owens Valley. This statement needs to be revised.	In response to the comment. Section 2.5 of the Draft EIR has been revised to reflect LADWP's comment. Please see Chapter 3 of the Final EIR for revisions.
37	2-22- 23	2.5 Operation and Maintenance	Furthermore, improvements would be minimal, and operation of the ORWT as a recreational facility would not authorize other recreational uses, such as camping or fires, along the channel.	Provide clarification on who would be responsible to patrol and enforce these rules.	Patrol and enforcement in the area of the ORWT would be conducted as it is on other LADWP lands in Inyo County, which is described in the Owens Valley Land Management Plan (LADWP 2010), chapter 4, section 4.3. The Inyo County Sherriff substation in Lone Pine is located 2.12 miles from the launch. Patrol of the project area is available via the east bluff road,

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					which overlooks the river and allows for surveillance of the area. Law enforcement staff regularly patrol both Lone Pine Narrow Gage Road and SR 136. If surveillance were to indicate that public notifications on the ORWT kiosks and signage is not deterring camping, and camping is regularly occurring in the project area, “No parking after sunset” signs along with LADWP “No Camping” signs could be installed in the parking areas. In addition, patrols could be increased in the area until the issue is resolved. As the Draft EIR goes on to describe on page 2-23, the proposed project’s interpretive signage would include a QR code that brings up camping and lodging information and maps in the area. Other literature about the project would include information that the ORWT is for day-use only and that camping is not allowed.
38	2-23	2.5 Operation and Maintenance	Ongoing maintenance activities are anticipated to maintain the integrity of the water trail as well as the boat launch and exit facilities.	Address the potential effects of ongoing maintenance activities on the cattle ranching operation.	Please see Master Response A4-5, Land Use Impacts.
39	2-23	2.5 Operation and Maintenance	...the County would provide regular maintenance and pump out the vault toilets.	Provide greater details what condition would trigger "regular maintenance". This detail should be incorporated into the recommended O&M Plan (see Comment 3).	The proposed ORWT facilities would be maintained by the County in conjunction with existing service of campgrounds and parks. The proposed ORWT maintenance would be incorporated into the existing County maintenance schedule. A contractor would be retained to pump the vault toilets; the frequency of service would be determined by seasonal usage and total number of users.

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40	2-23	2.5 Operation and Maintenance	As such, the amount of emergent vegetation needing to be cleared in the first year would be approximately 10 percent of the volume of vegetation initially cleared during project construction (approximately 600 to 800 cy) and would lessen with each successive year as the amount and density of regrowth decreases over time.	The hydraulic report states there will be a 1-3 foot drop in WSE and a reduction of average water depth of 1.9 feet. Minimum channel depth would be reduced by 0.3-0.7 feet. The hydraulic analysis suggests that there is insufficient velocity and water depth to prevent the need for future natural vegetation management. Is it possible the proposed conditions could result in the depth of the WSE to be shallow enough for tules to emerge where it was too deep before? Should this occur this would increase the amount of maintenance needed, not decrease.	Please refer to Master Response A4-2, Hydraulic Model, Groundwater and Biological Impacts. The Draft EIR estimates referred to expected regrowth in existing tule patches. Maintenance of open channel is a component of the project and would address areas that may not have previously supported tules.
41	2-23; ES-9	2.5 Operation and Maintenance; Statement also in Executive Summary .	...emergent vegetation removed from the channel would not be placed on top of spoil piles. The emergent vegetation removed during annual maintenance would be piled in areas other than the spoil piles designated for construction of the ORWT	There is no graphic to depict or impact analysis provided on where these spoils would be placed each year during the 20+ years of ongoing maintenance. An Operations & Maintenance (O&M) Plan should be prepared to depict the proposed locations (by year if spoil piles are placed in a new location each year), anticipated impacts and revegetation & monitoring requirements for ongoing spoil placement. These impacts need to be included in the impact analysis. Long-term maintenance permits (State and Federal) would need to be procured for this O&M need should they occur within wetlands or waters of the US/State.	See Master Response A4-4, Spoil Pile Placement Impacts. Implementation of monitoring of the revegetation of spoils piles and annual reporting will be included in the Mitigation Monitoring and Reporting Program that will accompany this Final EIR. Regarding permit associated with long-term project maintenance, the list of potential agency approvals and permits are included in the Draft EIR, Chapter 2, Section 2.6.
42	2-24	2.5 Operation and Maintenance	Inyo County, in addition to maintaining the river channel portion of the water trail, would also be responsible for maintenance of the boat launch and take-out facilities.	It is anticipated that there will be increased maintenance needed on the dirt roads that parallel the project area on the east side. Project users will use the roads to shuttle vehicles from the launch to take out to avoid driving into Lone Pine. This extra traffic will quickly degrade the sandy roads. Current maintenance of this road is	The proposed project includes the use of existing dirt roads within the floodplain as described in the Draft EIR, Chapter 2, Project Description and as further explained in Master Response 3, Access Routes Impacts. The dirt roads on top of the bluff east of the project area are not part of the proposed project. These dirt roads are on

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			Maintenance would include tasks such as:	performed by the landowner LADWP. Should the road become degraded as a result of ongoing use as a result of the project implementation, conditions set forth in the LADWP- County Site Access Agreement and Ground Lease will memorialize the triggers for the County to assume responsibilities for road maintenance in this area. The following should be added to the list: patrol for illegal camping and other unauthorized use along entire stretch maintain road accessibility to Emergency response vehicles for entire stretch	property owned by LADWP, and under existing conditions, these dirt roads are accessible to the public. The proposed project would not change the public's accessibility to these dirt roads relative to existing conditions. As stated in the Draft EIR, Chapter 2 Project Description, Section 2.3.4 Signage, the County would coordinate with LADWP to identify information to be included on kiosks at the boat launch and take-out. The signage could identify the publically-accessible routes that paddlers should use to shuttle vehicles from the launch to the take out. The roads that would be identified include Lone Pine Narrow Gauge Road, SR 395, and SR 136. The County anticipates that these roads would be preferred by recreational users of the ORWT given the ease of access, speed of travel, and safety for cars towing boat trailers that would be afforded by using improved public roadways. In addition, the County understands that the conditions of the LADWP/County lease agreement would stipulate the County's responsibilities. Regarding illegal camping and unauthorized use, see response to Item 37 above. Regarding accessibility for emergency response, this issue was evaluated in the Initial Study, and a summary of the impact assessment is included in the Draft EIR, Chapter 5 on page 5-13.

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43	2-24	2.6 Required Permits and Approvals	Los Angeles Department of Water and Power: Lease and special use permit for parking within powerline right-of-way	Add to the language under LADWP Permits: Temporary construction easements/agreements for construction staging and access during construction. The LADWP permits would include County responsibility to remove and or restore improvement at its own expense in the event the improvements need to be removed to service or replace transmission lines.	The list of required permits and approvals has been revised to reflect the need for temporary construction easements/agreements. Please see Chapter 3 of the Final EIR. In addition, the County understands that a lease will stipulate the County's responsibilities as indicated in the comment. No further revisions to the Draft EIR are necessary.
44	3.2-20	3.2.4 Project Impacts Operations	The project site is located in Inyo County and is subject to the County General Plan and the Lower Owens River [Project], which provides mitigation for impacts related to historical groundwater pumping of the river.	The last part of the sentence "of the river" should be removed and read "and surface water diversion".	The text in Section 3.2.4 has been revised as suggested in the comment. Please see Chapter 3 of the Final EIR.
45	3.2-25	3.2.4 Project Impacts Toxic Air Contaminants	Additionally, the length of the project (6 miles) from launch to take-out minimizes the amount of time any single activity is near any given receptor, thus risk to receptors over 1,000 feet from the active portion of the development would [be] negligible.	The project is 6 river miles in length but is only 3.1 miles as a crow flies from the launch to the take out. How would reducing the length of the project by half impact the air quality?	Reducing the project length from 6 miles (length of the river) to 3 miles (overland distance) will not alter the air quality analysis contained in the Draft EIR. Regional emissions are based on daily emissions from construction operations and area, not length, of disturbance. Localized emissions analysis (including toxic air contaminants) takes into account distance of sensitive receptors from the site. However, with respect to localized analysis distances between project sites and sensitive receptors of greater than 1,000 feet for health risk and 500 meters for localized impacts are typically not analyzed. Any one sensitive receptor along the 3-mile distance is greater than 1,000 feet from the project site and health risk wasn't quantified. Text of the Draft EIR on page 3.2-25 has been edited to clarify the distance. Please see Chapter 3 of the Final EIR for revisions.

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46	3.2-27	Table 3.2-6	Hand Clearing with spoils placement: CO = 21 Mechanical Clearing with spoils placement: CO = 15	According to this table hand clearing produces more CO than mechanical clearing. These numbers should be verified.	Emissions values for CO have been verified. The reason the hand clearing is greater than the mechanical clearing is because of the use of utility ATVs which are gasoline powered whereas the mechanical clearing uses predominantly diesel equipment. Gasoline has higher CO emission than diesel equipment in general. Additionally, ATVs do not have the same emissions regulations that typical construction equipment has, and ATVs have a fairly long usage life. Because of not knowing specifics on the ATVs being used, the analysis conservatively used the greater of the emission factors associated with ATVs. Therefore, because of the type and amount of equipment being used for this project, the use of the ATVs results in greater emissions of CO for hand clearing than for mechanical clearing. No changes to the text of the Draft EIR were made.
47		3.3 Bio Resources	Global	Same comment as Comment 2. The biological impacts of this project are one of the significant issues associated with this project, in addition to hydraulic modification of the Lower Owens River. The Bio Technical Report should be included in the appendices of this document.	Please refer to Response to Item 1 and Master Response A4-2, Hydraulic Model, Groundwater and Biological Impacts.
48	3.3.2	3.3.1 Environmental Setting	A formal jurisdictional delineation was not conducted.	Considering this project is a water-based project, a full delineation should be prepared and approved by the CDFW, RWQCB and Corps in order to adequately determine impacts.	As stated in DEIR Section 3.3.1, potentially jurisdictional areas were conservatively identified based on aerial photographs, vegetation mapping of communities dominated by wetland indicator species, and review of the National Wetlands Inventory Wetland Mapper. The County consulted with the USACE during preliminary scoping and preparation of the

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					Draft EIR in determining that a jurisdictional delineation of the biological study area was not necessary for purposes of CEQA. The conservatively-mapped, potentially-jurisdictional areas are adequate for the analysis of impacts to wetlands and riparian habitat that is provided in Section 3.3 of the Draft EIR. Based on site conditions and micro-topography observed during the general biological survey, it is likely that portions of salt grass flats and other communities slightly higher in elevation could be excluded from the County's estimates of wetlands/riparian communities in the Draft EIR, with further detailed analysis and/or a jurisdictional delineation. In addition, the County would conduct any additional studies or analysis as required by the permitting agencies.
49	3.3-3	3.3.1 Environmental Setting	Table 3.3-2	This table acknowledges that most of the project area is wetland/riparian, but it is also states that spoil areas are not wetland.	See Master Response A4-4, Spoil Pile Placement Impacts.
50	3.3-3	3.3.1 Environmental Setting	...however, due to problematic soils, it was not conclusive whether or not all areas of saltgrass were wetland {wetland data forms are included in the Biological Technical Report prepared by ESA, which is available at Inyo County Water Department). Thus, it should be noted that all communities mapped as saltgrass flats are conservatively included as	Determining the problematic soils jurisdictional status would be important in verifying impacts and should be incorporated into the FEIR. The reader should be able to have ready access to this information. The Biological Technical Report needs to be included as an appendix to the EIR.	See Responses to Items 2, 47, and 48.

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			potential USACE/RWQCB jurisdictional wetlands; however, based on site conditions and micro-topography observed during the general biological survey, it is likely that portions of this community are slightly higher in elevation and could be excluded as wetlands with further detailed analysis and/or a jurisdictional delineation.		
51	3.3-19	3.3.4 Project Impacts- Special-Status Species	These species were not observed on-site during the general biological survey conducted by ESA in June 2018; however, the general biological survey did not thoroughly cover all of the potentially suitable habitats for these species. Thus, focused surveys during the appropriate blooming period for these species should be conducted within the project site prior to project implementation.	If the County wants to start construction of the ORWT in December of 2019, were these focused surveys conducted in the spring of 2019 (April-June)? If so, then the results should be incorporated into the FEIR. If surveys were not conducted, the project start date should be revised.	No focused surveys were conducted by ESA for special-status plant species. However, special- status plant surveys were conducted by ICWD biologists in May 2019 within the study area as part of an annual rare plant monitoring program, and no special-status plant species were located.
52	3.3-19	3.3.4 Project Impacts- Special-Status Species	However, as detailed in Section 3.7 of this EIR, the stretch of the Owens River from south of the Big Pine Area all the way to Owens lake is a gaining stream year-round. This means that groundwater discharged into the river is supporting its flow for the entire length down to Owens · Lake. This gaining stream condition includes the	The statement that the system is a gaining stream system year round has not been substantiated in any of the ESA documents, nor is it mentioned anywhere until this point. Page 13 in the ESA Hydraulic Report states: "It is hypothesized that the inundation in secondary channels is driven by the level of the groundwater table. No piezometer or well data were available for the project site to assess surface water-groundwater interactions."	The quoted text is from the Hydraulic Report that is included in an appendix and described in the Draft EIR. However, data is presented in the Draft EIR to support the evaluation of project impacts to groundwater. Please refer to Master Response A4-2, Hydraulic Model, Groundwater and Biological Impacts.

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			proposed project area, which has never been observed to go dry. The project area is located towards the lower elevation southernmost portion of Owens Valley. Consequently, the floodplain in the project area is less sensitive to river water surface elevation because groundwater levels, and the floodplain it supports are not entirely dependent on the river's surface flow within the project area. Although the removal of occlusions may result in a drop of WSE, it is likely to have a limited effect on the surrounding vegetation that is supported by a gaining stream fed by groundwater.	There is no data to support whether surface water-groundwater interactions would or would not maintain adjacent wetland habitat. If examining only the results of the Hydraulic Analysis, the water surface elevation {WSE) would drop 1-3 feet, channel depth would be reduced by 1-2 feet, and the wetted width would be reduced between 12 and 127 feet, subsequently resulting in significant impacts. In order to confirm this statement, LADWP recommends piezometer and monitoring well be installed and data analyzed to adequately inform the surface-groundwater interactions and adequately to predict wetland impacts	
53	3.3-20	3.3.4 Project Impacts- Special-Status Species	Although the removal of occlusions may result in a drop in surface water elevation, it is likely to have a limited effect on the surrounding vegetation since the proposed project area is within a reach of the Owens River that is supported by a gaining stream fed by groundwater. Thus, if any special- status plant species occur on-site, impacts would be less than significant, and no mitigation would be required.	Same as comment 52. This statement should be supported by data.	Please refer to Master Response A4-2, Hydraulic Model, Groundwater and Biological Impacts.

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54	3.3-20	3.3.4 Project Impacts- Special-Status Species	Five special-status fish species (Owens sucker, Owens pupfish, California golden trout, Owens speckled dace, and Owens tui chub) were determined to have a low potential to occur. While the study area supports suitable or marginally suitable habitat, the study area is outside of the known distribution for these species.	The Owens sucker is native to the Owens River and therefore could be present within the project area. It is unknown whether this species is actually present since surveys have not been conducted. However suitable habitat exists. This statement and assessment needs to be modified to include the potential for this species to occur, and mitigation measures incorporated to ensure no impact occurs. See Comment 55.	Draft EIR Section 3.3.4 (page 3.3-19) acknowledges the possibility for fish species to swim downstream into the study area, although it is not expected. Nonetheless, Mitigation Measure BIO-7 has been revised to include a pre-construction fish survey in the event fish migrate in from other reaches. Please also see Response to Item 55 for further discussion regarding the issue.
55	3.3-20	3.3.4 Project Impacts- Special-Status Species	Based on a personal conversation with Nick Buckmaster (Environmental Scientist with CDFW Bishop Field Office) during a project site visit in March 2018, the potential for Owens sucker, Owens pupfish, Owens speckled dace, and Owens tui chub is low within the study area (Buckmaster, pers. comm. 2018).	Based upon LADWP staff conversation with Nick Buckmaster at CDFW, the assumption that there is low potential for Owens sucker to occur within the project area was based on the understanding that most of the fish in this reach died during the 2017 fish kill. As detailed in Section 3.7 of the EIR the stretch of Owens River from south of Big Pine to Owens Lake is a seasonally gaining stream year-round. Based on this assumption it is likely that fish within the project area could find refuge in groundwater sources that have high enough dissolved oxygen levels to sustain themselves. One would assume that if all the fish died during the fish kill that it would take months or years for fish to re-populate this reach, yet fish were observed just weeks later. Given suitable habitat exists determination should be based upon field surveys. Previous surveys in the lower river encountered more than 100 individuals and published	The County acknowledges the two additional references that have been provided in this comment. The references clarify that: 1) CDFW's general assessment that there is low potential for Owens sucker to occur within the project area was based on the understanding that most of the fish in this reach died during the 2017 fish kill (based upon LADWP staff conversation with Nick Buckmaster at CDFW, date unknown); and 2) a CDFW publication documented that Owens sucker were previously found and well-established in the Lower Owens River (lower 60 miles) based on CDFW personal communication with M. Hill in 2009.[4] Draft EIR Section 3.3.4 (page 3.3-19) acknowledges the possibility for fish species to swim downstream into the study area, although it is not expected. Nonetheless, Mitigation Measure BIO-7 has been revised to include a pre-construction fish survey to address the low potential for fish to migrate into the project area from other reaches. As

[4] California Department of Fish and Wildlife (CDFW). Date Unknown. Owens Sucker. *Catostomus fumeiventris* (Miller). https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID= 104359&inline.

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				information from the CDFW believe they are well established in the lower Owens River {lower 60 miles) [https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=104359&inline] The potential for this species to occur should be re- evaluated and appropriate mitigation measures added, as needed.	stated in Draft EIR Section 3.3.4, although fish use aquatic vegetation (e.g. tules) for food and refuge, there would still be an abundance of vegetation along the river banks, cut banks, and side channels to provide these resources. Even if water level drops to the predicted 1-3 feet, fish species would still be able to recolonize and to seek and find refuge within the remaining vegetation, as well as debris (rocks, boulders, wood, logs, etc.). Mitigation Measure BIO-7 has been revised to provide additional protection provisions for fish. Please see Chapter 3 of the Final EIR for revisions to Mitigation Measure BIO-7.
56	3.3.21	3.3.4 Project Impacts- Special-Status Species	The proposed project would permanently impact 3.8 acres of natural communities {including 0.1 acre of black willow woodland, 3.1 acres of hardstem bulrush marsh, 0.1 acre of saltmarsh bulrush marsh, 0.4 acre of saltgrass flats, and 0.1 acre of allscale scrub) due to the boat launch and take-out facilities as well as the removal of occlusions to create and maintain the water t rail ,	The removal of the occlusions from the Owens River would not constitute a permanent impact, only a type conversion from tule wetlands (wetlands waters of the US/State) to open water (non-wetland waters of the US/State), The Corps considers an permanent impact when "fill" is permanently placed in wetlands, and this is not the case the removal of the occlusions. Since the occlusions would be removed, the removal action would not be fill. However, if the spoils are placed in jurisdictional wetlands/waters that would constitute a "fill" resulting in permanent impacts if the loss of wetlands/waters occur (see Comment 57 below). The impacts calculated need to be revised based upon this, and Comment 52 above (determining surface water- groundwater interactions). A mitigation measure should be added to include wetland vegetation monitoring during the initial 3 years to determine if additional impacts result.	It should be clarified that permanent impacts to biological resources (e.g., special-status species and natural communities) were based on impacts that would permanently alter the currently existing conditions (i.e., removal of the occlusions). A type conversion (e.g., from tule wetlands to open water) can also be considered a permanent impact. Although this is not considered USACE regulated "fill", it would still constitute a permanent impact to wetland habitat although it would still be considered USACE waters of the U.S. See Master Response A4-2, Hydraulic Model, Groundwater & Biological Impacts and Master Response A4-4, Spoil Pile Placement Impacts.

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57A	3.3.21	3.3.4 Project Impacts - Special-Status Species	...and temporarily impact 37.0 acres of natural communities (including 0.6 acre of black willow woodland, 0.1 acre of sandbar willow woodland, 10.1 acres of hardstem bulrush marsh, 0.2 acre of common reed marsh, 14.7 acres of saltmarsh bulrush marsh, 6.6 acres of saltgrass flats, 0.5 acre of rubber rabbitbrush scrub - Nevada saltbush scrub, 0.3 acre of rubber rabbitbrush scrub - saltgrass flats, and 3.9 acres of allscale scrub) due to access routes and staging areas for construction, and spoils generated from the removed occlusions.	See additional comments on spoil placement and access routes in global comments, and the Section 2 comments. Access routes should be considered as permanent impact wetlands and non-wetland waters of the US/State. Many of the proposed roads do not exist, run through wetlands, and will be used for the next 20+ years for maintenance.	See Master Response A4-3, Access Routes Impacts.
57B	3.3.21	3.3.4 Project Impacts - Special-Status Species	...and temporarily impact 37.0 acres of natural communities (including 0.6 acre of black willow woodland, 0.1 acre of sandbar willow woodland, 10.1 acres of hardstem bulrush marsh, 0.2 acre of common reed marsh, 14.7 acres of saltmarsh bulrush marsh, 6.6 acres of saltgrass flats, 0.5 acre of rubber rabbitbrush scrub - Nevada saltbush scrub, 0.3 acre of rubber rabbitbrush scrub - saltgrass flats, and 3.9 acres of allscale scrub) due to access routes and staging areas for construction, and spoils generated from the removed occlusions.	Spoil placement, according Figure 3.3-4 will occur within jurisdictional areas. Depths of spoil from 12-18", in addition to the hydromodifications stated in the Hydraulic Report may result in a permanent impact to jurisdictional resources where they are placed - and thus would be considered a permanent impact. This determination should be made post surface water- groundwater evaluation determination and numbers modified accordingly.	See Master Response A4-2, Hydraulic Model, Groundwater and Biological Impacts and Master Response A4-4, Spoil Pile Placement Impacts.

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58	3.3-22	3.3.4 Project Impacts - Special-Status Species	In addition, three special-status mammal species (Owens Valley vole and American badger [all are SC]) have a moderate potential to occur within the study area. As mentioned above, the proposed project would permanently impact 3.8 acres of natural communities and temporarily impact 37.0 acres of natural communities, which provide habitat for these special-status mammal species. With the available 621.8 acres of natural areas within the study area that will be avoided by the proposed project, as well as natural areas within the surrounding vicinity, potential impacts are not expected to threaten regional populations of these species. Direct impacts would also be avoided as these species are mobile and would be expected to move away from the construction area, if present. Thus, any potential direct impacts to these species are considered less than significant.	It is likely that the Owens Valley vole is in the project area. While little is known about the Owens Valley vole (Microtus californicus vallicola) they are a subspecies of the California vole (Microtus californicus). Voles in general are known to spend much of their time below ground in burrows and when above ground searching for food use vegetative covered runways. Home range of the California vole is typically small (approximately 103 square meters). Driving on the floodplain while considered to be a temporary impact could collapse the underground burrows as well as the above ground runways. Due to the small home range any disturbance could be significant and it would be reckless to believe that because they are mobile they could move away from the construction area. This project could significantly impact this species. Mitigation measures need to be incorporated so that impacts to this species is avoided or minimized.	Section 3.3.4 of the Draft EIR under Impact Statement BIO-1 recognizes the moderate potential for Owens Valley vole to occur within the study area. As indicated in the discussion, the proposed project would permanently impact 3.8 acres of natural communities and temporarily impact 37.0 acres of natural communities, which provide habitat for these special-status mammal species. With the available 621.8 acres of natural areas within the study area that would be avoided by the proposed project, as well as natural areas within the surrounding vicinity, potential impacts are not expected to threaten regional populations of these species and impacts would not be significant. County and LADWP staff have observed this species within the study area during an annual rapid assessment, but the exact density and distribution of Owens Valley vole is unknown. In response to the comment, and as a voluntary measure for the added protection of this species, the County will incorporate a pre-construction survey as a project element that shall be conducted by a qualified biologist with experience identifying voles and their sign. If any Owens Valley voles are found within the study area, their burrows will be avoided to the maximum extent practicable, and exclusion fencing shall be erected around the burrow area or around the work area based on the recommendations of the qualified biologist to prevent voles from entering the work area. To ensure that this voluntary pre-construction survey is incorporated into the proposed project, text has been added to page 3.3-22 of the Draft EIR as shown in Chapter 3 of this Final EIR.

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59	3.3-27	3.3.4 Project Impacts- Special-Status Species	...within the study area .	Is this a typo at the top of the page? There seems to be some text missing as the first sentence of this page is a fragment and the last text page {3.3-20) ended with a period.	The text at the top of page 3.3-27 of the Draft EIR is part of the previous sentence. As such, the text has been revised so that the last sentence on page 3.3-22 reads: "The project would avoid 16.3 acres of black willow woodland within the study area." Please see Chapter 3 of this Final EIR for revisions.
60	3.3-27	3.3.4 Project Impacts - Sensitive Natural Communities	Temporary impacts would consist of access routes and staging areas for construction, and spoils generated from the removed occlusions…access routes would mostly follow existing dirt roads.	See comment 57. Due to ongoing need for regular maintenance using the access routes, impacts associated with new roads would be a permanent, not temporary impacts. LADWP's assessment has determined that the proposed access routes do not consistently follow existing dirt roads.	See Master Response A4-3, Access Routes Impacts.
61	3.3-27	3.3.4 Project Impacts- Sensitive Natural Communities	(with respect to access routes and spoil areas) A large portion of the temporary impacts will be to saltgrass flats, which is very durable and expected to reestablish easily.	This is statement is incorrect. Meadow comprises only 5% of access routes; marsh and wet meadow comprise 84% of access routes. Similarly, meadow comprises 22% of spoil areas; wet meadow and marsh comprise 73% of spoil areas.	See Master Response A4-3, Access Routes Impacts and Master Response A4-4, Spoil Pile Placement Impacts.
62	3.3-28	3.3.4 Project Impacts- Sensitive Natural Communities	CDFW does not consider removal of occlusions as significant.	There should be a statement included of the feedback from the other two resource agencies as well (Corps and RWQCB). Removal of occlusions should only be considered a habitat type conversion .	The County coordinated with both the RWQCB and USACE during the CEQA scoping period. The NOP and Draft EIR were sent to both the RWQCB and USACE. The RWQCB sent a comment letter and did not raise any specific concerns about this topic. In subsequent email correspondence to the County on September 5, 2019, the RWQCB confirmed that the Water Board regulates aquatic habitat conversions under the Clean Water Act, Section 401, and that is it possible for the conversion to be considered restoration or a creation depending on the circumstances (e.g.,

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					taking a degraded aquatic habitat and converting it to a higher functioning aquatic habitat more suitable to current site conditions). Removal of occlusions is not a Corps-regulated activity. The USACE did not send a comment letter; however, early coordination with the USACE occurred during the CEQA scoping process and during preparation of the Draft EIR regarding various permitting options to consider for the project.
63	3.3-28	3.3.4 Project Impacts- Sensitive Natural Communities	Tables 3.3-3 and 3.3-4 Tables 3.3-5 Figure 3.3-4	See Comments 52 & 57. Update according to updated analysis .	See Master Response A4-2, Hydraulic Model, Groundwater and Biological Impacts; Master Response 3, Access Routes Impacts; and Master Response 4, Spoil Pile Placement Impacts.
64	3.3-33	3.3.4 Project Impacts- Wetlands	The proposed project would permanently impact 3.7 acres of potential USACE/RWQCB wetlands and 2.0 acres of USACE/RWQCB "waters of the U.S.", of which 3.2 acres of USACE/RWQCB wetlands and 2.0 acres of USACE/RWQCB "waters of the U.S." would be turned into open water from in-channel occlusion removal and would therefore still be under USACE/RWQCB jurisdiction (i.e., changed from jurisdictional wetland to jurisdictional "waters of the U.S.").	Same as Comment 57.	See Master Response A4-2, Hydraulic Model, Groundwater and Biological Impacts; Master Response A4-3, Access Routes Impacts; and Master Response A4-4, Spoil Pile Placement Impacts.

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65	3.3-33	3.3.4 Project Impacts- Wetlands	As reported in the Draft LORP 2018 Annual Report, the LORP is aggrading (i.e., increasing in land elevation due to deposition of sediment) and "the river channel is expected to become more occluded and the extent of marsh will increase at the expense of open water. As the LORP continues to aggrade, its functional character becomes more like an elongated marsh and less like a riverine system" (LADWP and Inyo County 2018a). Thus, creation of the water trail would have the benefit of helping to maintain the open water within the river channel (i.e., by removal of occlusions via mechanical equipment) .	LADWP has no groundwater data sufficiently close to the Owens River to evaluate the potential impact on lowering the water surface elevation as a result of the removal of the occlusions. The statement that the creation of the water trail would help maintain open water needs to be re-evaluated. This can only be determined based upon the findings of the surface water- groundwater relationship. If groundwater cannot sustain current water surface elevations, then the channel would be less deep (Hydraulic model predicts 1-2 feet less deep), potentially creating more area where tule can become newly established, and thus making it less navigable to non- motorized watercraft.	Please refer to Master Response A4-2, Hydraulic Model, Groundwater and Biological Impacts.
66	3.3-33	3.3.4 Project Impacts- Wetlands	The proposed project would also temporarily impact 32.3 acres of potential USACE/RWQCB wetlands and 2.4 acres of USACE/RWQCB "waters of the U.S."	Same as Comment 57.	See Master Response A4-2, Hydraulic Model, Groundwater and Biological Impacts; Master Response A4-3, Access Routes Impacts; and Master Response A4-4, Spoil Pile Placement Impacts.
67	3.3-33	3.3.4 Project Impacts - Wetlands	The project would avoid 383.6 acres of USACE/RWQCB wetlands and 21.8 acres of USACE/RWQCB "waters of the U.S." within the study area.	These acreages would need to be updated in light of potential changes in spoil pile placement and access road impacts.	See Master Response A4-3, Access Routes Impacts and Master Response A4-4, Spoil Pile Placement Impacts.

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68	3.3- 33; 3.3-35	3.3.4 Project Impacts- Wetlands & Migratory Species & Wildlife Corridor (similar text)	Temporary impacts would occur to "waters of the U.S." and wetlands as a result of access routes and staging areas for construction, and spoils generated from the removed occlusions. It is anticipated that access routes would mostly follow already existing dirt roads, or would temporarily crush vegetation for a short duration where dirt roads do not exist for equipment to access areas where excavation must occur. Thus, it is expected that any crushed vegetation would reestablish and regrow naturally. It is also anticipated that spoils will breakdown (e.g., through natural decomposition; trampling, bedding, and grazing by cattle; natural recruitment of saltgrass and other plants on top of and through the spoils). Therefore, temporary impacts from the access routes, staging areas, and spoils are expected to passively recover and reestablish naturally to pre- project conditions.	See Comment 57. Access road impacts have not been accurately calculated and impacts would be permanent. Spoil piles would likely not break down and would require active revegetation, and could potentially be considered permanent impacts. Temporary impacts would require active revegetation.	See Master Response A4-3, Access Routes Impacts and Master Response A4-4, Spoil Pile Placement Impacts.

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69	3.3-33	3.3.4 Project Impacts - Wetlands	Permanent impacts would occur to wetlands with installation of the boat launch and take- out facilities, and the removal of tules (i.e., occlusions) to create and maintain the water trail.	Same as Comment 57. Tule removal would not be considered a permanent impact.	A type conversion (e.g., from tule wetlands to open water) can also be considered a permanent impact to the existing habitat.
70	3.34	3.3.4 Project Impacts - Wetlands	As such, the removal of occlusions would help to achieve some of the goals outlined in the LORP Memorandum of Understanding (MOU) especially by controlling tules and cattails, redistributing muck and other river bottom material onto banks and floodplain terraces, and enhancing the river channel.	See Comment 57. This statement should be re-evaluated following the surface water- groundwater interaction analysis.	Please refer to Master Response A4-2, Hydraulic Model, Groundwater and Biological Impacts.
71	3.3-35	3.3.4 Project Impacts - Migratory Species and Wildlife Corridors	Bats were not included in the EIR	Bats were not discussed in this EIR and needs to be addressed as the project area contains bat habitat and bats. CDFW typically requires bat surveys. Sensitive species of bats have been recorded within the project vicinity.	ESA coordinated with CDFW on special-status bat species with a potential to occur within the study area. Three special-status species, pallid bat, Townsend's big-eared bat, and spotted bat, were identified as having a low potential to occur, and these species were not known to occur within the study area based on information provided by CDFW (Nick Buckmaster, personal communication), as documented in the Biological Resources Technical Report, which has been included in the Final EIR. Please see Appendix G, Biological Resources Technical Report.

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72	3.3-36	3.3.4 Project Impacts Migratory Species and Wildlife Corridors	Although fish use aquatic vegetation (e.g. tules) for food and refuge, there will still be an abundance of vegetation along the river banks, cut banks, and side channels to provide these resources.	See Comment 55. Presence or absence of the Owens sucker should be determined based upon field verified information, given suitable habitat exists. A mitigation measure should be added should this species be found to be present. Given the proposed average WSE drop of 1-3 feet, vegetation along river banks will likely be of limited extent, cut banks will likely be prominent, and side channels will likely be high and dry.	Please see Response to Item 55. As indicated, Mitigation Measure BIO-7 has been revised to include a pre-construction fish survey. In addition, as stated in Draft EIR Section 3.3.4, although fish use aquatic vegetation (e.g. tules) for food and refuge, there would still be an abundance of vegetation along the river banks, cut banks, and side channels to provide these resources. Even if water level drops by 1-3 feet, fish species would still be able to recolonize and to seek and find refuge within the remaining structure and habitat. Mitigation Measure BIO-7 has been revised to provide additional protection provisions for special-status fish. Please see Chapter 3 of the Final EIR for revisions to Mitigation Measure BIO-7.
73	3.3-36	3.3.4 Project Impacts Migratory Species and Wildlife Corridors	Nonetheless, implementation of mitigation measure B1O-7 would reduce impacts to a less than significant level.	See comments 55 & 72. Language needs to be added to protect spawning fish in the project area. Fish could start spawning as early as late April and in channel work should be complete by May 1st or sooner if fish are observed digging redds.	Please see Response to Items 55 and 72 for a more detailed response to address special-status fish. As indicated, Mitigation Measure BIO-7 has been revised to provide additional protection provisions for fish. With the exception of the special-status fish species addressed above, no other native fish species use the Lower Owens River project site as a nursery site or migratory wildlife corridor. Furthermore, there is no gravel or appropriate bottom material in this section of the Lower Owens River to dig redds.

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74	3.3-37	3.3.4 Project Impacts - Migratory Species and Wildlife Corridors	The proposed project would avoid over 640 acre of habitat, including 104 acres of hardstem bulrush marsh; thus, even with removal of occlusions, there will be ample habitat available for nesting birds immediately surrounding the water trail, as well as within adjacent areas upstream and downstream.	With approximately 4,400 launches per year there would be approximately 12 launches per day over 365 days or 29 launches per day from May through September (warmer months). With this amount of recreation use, available nesting habitat along the ORWT may not be utilized by marsh nesting birds due to the increased disturbance. This impact needs to be addressed.	The effects of increased human activity on wildlife are discussed in the Draft EIR on page 3.3-37. As stated in the Draft EIR, there will still be ample amounts of habitat for marsh nesting birds within the study area and vicinity of the project. Although human activities would increase along the water trail, avian species would acclimate to the limited noise and activities from human use of non-motorized watercraft, and more secretive avian species can still utilize marsh habitat farther away from the trail within the study area.
75	3.3-37	3.3.4 Project Impacts Migratory Species and Wildlife Corridors	Thus, impacts to elk nursery sites would be considered potentially significant. Implementation of mitigation measure B1O- 9 would reduce impacts to a less than significant level.	The proposed fence (page 3.8-10) along the entire ORWT to separate the public from cattle could significantly impact this elk nursery site by limiting movement across the floodplain. This impact needs to be addressed.	Elk fencing is not proposed along the entire river trail. Cattle exclusion fencing would be installed along the boat launch and as necessary in the area of the take-out facilities to confine recreationalists to the developed areas and to separate visitor from cattle. See also Master Response A4-5, Land Use impacts. The ranch lessee will be consulted when determining the need for fencing as well as locations of fences before installation.
76	3.3-38	3.3.4 Project Impacts - Migratory Species and Wildlife Corridors	Regardless, the introduction of Quagga mussels into the study area would be considered potentially significant. Implementation of Mitigation Measure B1O- 10 would reduce impacts to a less than significant level.	LADWP is very concerned that the ORWT could expose LADWP's water system to quagga and zebra mussels. Due to these concerns, Mitigation Measure B1O-10 is inadequate at protecting LADWP's water system. A mitigation measure needs to be added addressing these specific threats. Should the project be implemented the County would be responsible for developing a Quagga and Zebra Prevention Program for the ORWT that will include, but not be limited to: Controlling ALL access to the ORWT to prevent illegal launches at ALL times All	The potential introduction of Quagga and zebra mussels is analyzed in Draft EIR Section 3.3, Impact Statement BIO-4, and potentially significant impacts are addressed by Mitigation Measure BIO-10. Non-motorized watercraft are considered lower risk as a vector of aquatic invasive species than motorized watercraft. As such, CDFW does not require the County to implement a quagga/zebra mussel prevention program for the proposed project. Nonetheless, in response to the comment, the County has coordinated with CDFW (Ian Ralston) on Quagga mussel

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				watercraft are to be inspected by a trained and qualified quagga and zebra inspector. Any watercraft that fails the inspection are then decontaminated using water that is 140°F. Decontaminated water will be properly disposed. Should LADWP's water system become contaminated due to the ORWT the County will be responsible for all cost associated with ongoing maintenance related to quagga and zebra mussels.	prevention efforts, and Mitigation Measure BIO-10 has been revised to include voluntary preparation of a self-compliance program for prevention, as well as to further clarify the locations of signage. Please see Chapter 3 of this Final EIR for revisions.
77		BIO Mitigation Measures	Global - Spoil Pile & Excavated Vegetation Placement - Active Revegetation	Due to the depth of the spoil piles and lack of connection to mesic soil conditions, wind and heat, LADWP believes that passive revegetation of the spoil piles is unlikely. Without active revegetation it is likely that weedy species may quickly colonize. A mitigation measure needs to be developed that specifically addresses the revegetation of spoil piles, including initial and new placement areas during ongoing maintenance (text states new locations for ongoing maintenance). It is assumed that the muck and mineral soils where the initial spoils placed are barren of vegetation. The mitigation measure needs to include the proposed action if vegetation is covered as a result of the spoil pile placement. The biological Mitigation Measure (MM) needs to include a habitat mitigation and monitoring plan (HMMP) specifically for temporary impacts associated with spoil pile and excavated vegetation placement. The HMMP should address how native bunchgrass (upland) or saltgrass would be reestablished, considering the 12- 18" of new spoils may disconnect it from the	See Master Response A4-4, Spoil Pile Placement Impacts. Note that Mitigation Measures BIO-1 and BIO-4 include measures to avoid and minimize the introduction of weedy species to the project area. Regarding the HMMP, as required by CEQA, a Mitigation Monitoring and Reporting Program will accompany the Final EIR to identify the steps for implementing, documenting, and reporting all mitigation measures, which may include preparation of HMMP-like documents such as a revegetation plan. Regarding permits associated with long-term spoil placement, the list of potential agency approvals and permits are included in the Draft EIR, Chapter 2, Section 2.6. Regarding an O&M Plan, refer to Response to Item 3A.

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				groundwater table (particularly if groundwater is not sufficiently high) and lack of irrigation infrastructure in these locations. See Comment 3. An O&M Plan and separate permits should be procured for long-term spoil placement, should they occur within jurisdictional wetlands/waters of the US/State, and separate long-term permits procured for maintenance.	
78		BIO Mitigation Measures	Global -Additional Mitigation Measures	Per previous comments the following additional mitigation measures should be added: Presence/absence fish surveys and construction monitoring Quagga/Zebra Mussel Prevention Program Vegetation monitoring of the habitat to monitor if additional/few impacts are results of the project implementation Active revegetation of spoil piles (not passive)	As discussed in Response to Item 54, Mitigation Measure BIO-7 has been revised to provide pre-construction fish surveys and additional protection provisions for potential nesting sites. As discussed in Response to Item 76, with regard to Quagga/Zebra Mussels, Mitigation Measure BIO-10 has been revised to include implementation of a voluntary Dreissenid Mussel Prevention Program, as well as to further clarify the locations of signage. With regard to the spoils piles, as outlined in Mitigation Measures BIO-4 through BIO-6, the County shall retain a qualified biologist to monitor temporary impact areas for two years to ensure the project site returns to pre-project conditions (revegetated). If determined necessary by the qualified biologist, if plants are not established via natural recruitment, a revegetation plan would be prepared, and subsequently monitored by a qualified biologist until the project site has returned to pre-project conditions.

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79	3.3-40	3.3.6 Mitigation Measures BIO-1- b.	If any special-status plant species are found, these species or population shall be flagged (or otherwise delineated) by a biologist and shall be avoided to the greatest extent feasible (i.e., no work will occur within a 50-foot buffer of special- status plants). If work occurs within a 50- foot buffer of a special-status plant species individual and/or population, a qualified biologist shall be on-site during any ground disturbing activities .	BIO-1 B should read: If any special-status plant species are found, these species or population shall be flagged (or otherwise delineated) by a biologist and shall be avoided (i.e., no work will occur within a 50-foot buffer of special-status plants).	Comment is acknowledged, but as written, Mitigation Measure BIO-1 provides flexibility for the on-site qualified biologist to make a determination on a site-specific, case- by-case basis.
80	3.3-40	3.3.6 Mitigation Measures BIO-1- c.	To minimize indirect impacts to special- status plant species within the project site, prior to construction activities, all heavy equipment proposed for use on- site shall be cleaned (including wheels, tracks, undercarriages, and bumpers, as applicable) before delivery to the project site to reduce the potential for the spread of weed seeds during the project .	BIO-1-C need to include decontamination protocols for quagga and zebra mussels for all aquatic construction equipment.	As discussed in Response to Item 76, with regard to Quagga/Zebra Mussels, Mitigation Measure BIO-10 has been revised to include implementation of a Dreissenid Mussel Prevention Program, as well as to further clarify the locations of signage.

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81	3.3-40	3.3.6 Mitigation Measures BIO-1-d .	If avoidance of a special-status plant species is not feasible (i.e., no work will occur within a 50-foot buffer of special- status plants), and potential impacts to special status plant species is considered significant (i.e., impacts would threaten regional populations of these species), coordination with Inyo County staff biologist (s) would be required to confirm suitable mitigation prior to ground- disturbing activities.	Language needs to be added that, as the lessee, Inyo County will coordinate with the land owner LADWP before any decision is made on mitigation. LADWP will have final approval on any mitigation.	The County acknowledges that coordination with LADWP, as the land owner, will be necessary. The County anticipates that procedural matters such as this would be specified in the lease agreement that the County will enter into with LADWP.
82	3.3-40	3.3.6 Mitigation Measures BIO-1-e.	Owens Valley checkerbloom is State Endangered. If this species is found within the project site and avoidance is not feasible....	This language should be modified to include any state or federal threatened or endangered species.	The Draft EIR language is appropriately specific to this species since it was the only state or federal threatened or endangered species determined to have potential to occur on-site. Additionally, special-status plant surveys were conducted and documented by trained Inyo County staff biologists in May 2019 within the study area, and no special- status plant species were located.
83	3.3-40	3.3.6 Mitigation Measures BIO-1-e- 1.	A mitigation and monitoring plan shall be prepared. The plan shall focus on the preservation and/or replacement of the resource (e.g., transplantation, seeding, painting; salvage/dispersal of duff and seed bank; removal of large stands of invasive species); and maintenance and future monitoring.	Language should be added requiring implementation within 18 months of project impacts.	Mitigation Measure BIO-1e.1 has been revised to require that if necessary, the plan shall be implemented within 18 months of the occurrence of the project impacts. Please see Chapter 3 of the Final EIR for the revision.

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84	3.3-41	3.3.6 Mitigation Measures BIO-2 -a	During the bird nesting season {February 1 to September 30), a qualified biologist shall conduct a pre-construction survey of all suitable habitat for the presence of nesting birds no more than 5 days prior to construction and/or maintenance activities. The results of the pre- construction survey would be valid for 5 days; if vegetation removal activities do not commence within 5 days following the survey, a new pre-construction nesting bird survey shall be conducted before these activities begin again.	The language of this mitigation measure should be modified to read: During the bird nesting season {February 1 to September 30), a qualified biologist approved by LADWP shall conduct a pre-construction survey of all suitable habitat for the presence of nesting birds no more than 5 days prior to construction and/ or maintenance activities. The results of the pre-construction survey would be valid for 5 days and suitable habitat would need to be surveyed every 5 days while construction activities occur during nesting season.	Comment is acknowledged; however, the qualified biologist will be approved by the County based on experience (e.g., two years or more of avian surveys and experience with identifying nesting behaviors). Suitable habitat would not need to be resurveyed every 5 days while construction activities occur during the nesting season since any birds establishing new nests since the initial pre- construction survey can be presumed not to be disturbed by construction activities to build a nest while work is on-going. However, if work does not commence within 5 days or ceases for more than 5 days, a new pre-construction nesting bird survey shall be conducted. Additionally, given that the project area is a long, linear area, it is likely that multiple pre-construction surveys may be needed as the project progresses into new areas where work has not yet occurred. No modifications are made to the Draft EIR.
85	3.3-41	3.3.6 Mitigation Measures BIO-2 -b	If any active nests are found during a pre- construction nesting bird survey, a buffer of 300 feet (500 feet for raptors), or as determined appropriate by the qualified biologist (based on species-specific tolerances and site-specific conditions), would be delineated, flagged, and avoided until the nesting cycle is complete {i. e., the qualified biologist determines that the young have fledged or the nest has failed).	Language should be added requiring a Nesting Bird Plan to be prepared and approved by the CDFW and LADWP.	The County will need to obtain a Streambed Alteration Agreement for the project, at which time CDFW will approve a Nesting Bird Plan.

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86	3.3- 41; ES- 19	3.3.6 Mitigation Measures BIO-3	The County shall implement an Environmental Awareness Program intended to educate the public of the biological resources and special-status species associated with the Owen River. The intention of the program shall be to encourage active conservation efforts among the public to help conserve the natural resources of the area. At a minimum, the Environmental Awareness Program shall include the following components:	The language of this mitigation measure should be modified to read: The County will need to also develop a Worker Environmental Awareness Program {WEAP) intended to educate construction staff of the biological resources and special -status species associated with the Owen River.	While a requirement to provide a WEAP is generally included in a regulatory permit, Mitigation Measure BIO-3 has been revised to ensure the incorporation of a WEAP. Please see Chapter 3 of the Final EIR for the revision.
87	3.3- 41; ES- 19	3.3.6 Mitigation Measures BIO-3- b	Signage shall be incorporated to deter unauthorized public access off of the Owens River Water Trail. Public access shall be limited to the boat launch and take-out facilities and water trail only.	See Comment 9. LADWP keeps 75% of its land open to the general public. Lessees are required to make all riparian areas accessible to the public.	See Response to Item 9. In addition, in response to the comment, Mitigation Measure BIO-3 is revised to delete subsection (b). Please see Chapter 3 of this Final EIR for revisions.
88	3.3- 42-43	Mitigation Measures	Mitigation Measures Bio-4-6	These mitigation measures all read similar (or the same). They should be combined into one mitigation measure. A mitigation measure that spells out a federal and state permit that is already legally required is not a mitigation measure. Consider removing that language and just keep the bullet points.	Although similar, these mitigation measures are slightly different and tailored to each biological resource (e.g., sensitive natural communities, CDFW jurisdiction, USACE/RWQCB wetlands). The comment is correct in pointing out that the requirement for obtaining federal and state permits is not considered mitigation. However, it is included as context for consideration in what mitigation should be included to offset impacts as a part of each regulatory process.

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89	3.3-42	3.3.6 Mitigation Measures BIO-4 b.	To discourage non-native or invasive weed species from establishing on the piles within the spoils areas, any muds shall be covered with cut native vegetation to act as a protective mulch as the materials decompose.	This statement contradicts Section 2.5, pg 2-23 which states: "...emergent vegetation removed from the channel would not be placed on top of spoil piles." It is assumed other vegetation would not be specifically cut and placed over spoil piles. The Mitigation Measures Bio-4 language needs to be consistent with other statements in the document.	To clarify, Mitigation Measure BIO-4b states "any muds shall be covered with cut native vegetation", which applies to construction since this is the only time mud/muck will be excavated from the channel. Section 2.5 discusses Operations and Maintenance during which maintenance would consist of vegetation management only, and would be limited to the harvest of shoots, stalk, and leaves and would not include any excavation of the channel bed. Maintenance activities would remove vegetation above, and up to 3 feet below the water surface elevation to maintain the integrity of the water trail at 15 feet wide. During maintenance activities, the emergent vegetation removed from the channel would not be placed on top of spoils associated with initial project construction or subsequent maintenance to avoid interference with the integration and recolonization of native species in previously placed spoils.
90	3.3-42	3.3.6 Mitigation Measures BIO-4 c; BIO- 5 b; BIO-6 b	Temporary impacts to sensitive natural communities are expected to passively recover and reestablish naturally to pre- project conditions based on project design and construction methodologies. The County shall retain a qualified biologist to monitor temporary impact areas for two years to ensure the project site returns to pre-project conditions (i.e., pre-project elevation contours and revegetated). If determined necessary by the qualified	A HMMP covering all temporary impacts should be prepared in advance of all temporary impacts and all impacts be actively restored. All future spoil placement areas that would occur during the 20 years of maintenance should be included in this plan. The area should be revegetated immediately, not wait two years, which opens up a window for invasive species establishment and fugitive dust. Monitoring should occur for 5 years or until the success criteria stipulated in the HMMP are met.	The comment is acknowledged; however, monitoring will determine if invasive non-native plants are an issue, and the need for a revegetation plan, which is possible to be prepared sooner than two years if the monitoring biologist determines it to be necessary sooner. Dust issues are not anticipated since spoils piles will be covered by cut vegetation to deter dust and invasive species. In addition, the County discussed with Great Basin Unified Air Pollution Control District (GBUAPCD) the potential for the spoils piles to cause emissions of fugitive dust. According to GBUAPCD, LADWP has not incurred any violations or complaints with the air district

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			biologist, if plants are not reestablished via natural recruitment, a revegetation plan would be prepared, and subsequently monitored by a qualified biologist until the project site has returned to pre-project conditions.		regarding dust emitting from ditch, pond, or river spoils created by LADWP (Jon Becknell, Air Quality Specialist II (6/16/2016). Monitoring will occur until the project site has returned to pre-project conditions. Please see Chapter 3 of this Final EIR for changes that have been made to Mitigation Measures BIO-4, BIO-5, and BIO-6.
91	3.3-42	3.3.6 Mitigation Measures BIO-4 d, BIO- 5 c, BIO-6 c	For permanent impacts to sensitive natural communities/ jurisdictional riparian habitat/ wetlands, the County shall provide one of the following options, or a combination thereof: On- and/or off-site preservation of sensitive natural communities at a ratio no less than 1:1 for permanent impacts. On- and/or off- site creation, restoration, and/or enhancement of sensitive natural communities at a ratio no less than 2:1 for permanent impacts. A mitigation and monitoring plan shall be prepared. The plan shall focus on the creation, restoration, and/or enhancement of equivalent habitats within disturbed habitat areas of the project site and/or off-site.	A full HMMP should be prepared, subject to approval by the landowner (LADWP), for all for permanent impacts where mitigation occurs within their property. According to the CWA "no net loss policy" preservation of wetlands would not be permitted as a mitigation measure for permanent impacts to their jurisdiction. The language currently reads "and/or" and thus would need to be modified. Permanent loss of wetlands would not be acceptable to LADWP and therefore preservation only should be removed from the language. LADWP recommends some advance planning for mitigation to permanent impacts, once the surface-water- groundwater analysis has been completed and all impacts updated. Advance planning should identify potential areas of mitigation and anticipated costs and funding for the mitigation.	Please refer to Master Response A4-2, Hydraulic Model, Groundwater and Biological Impacts. Preservation is proposed as a potential mitigation option; however, mitigation proposed will be subject to the approval of the appropriate regulatory agencies issuing the project-specific permits, and the regulatory agency (e.g., USACE) will determine the mitigation sufficient to satisfy their "no net loss" of wetlands policy. No changes have been made to the amounts of temporary and permanent impacts based on these comments. With regard to the location and cost for implementing mitigation measures, the County will consider these items as the project is further designed and the amount of necessary mitigation is finalized.

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92	3.3- 42-43	3.3.6 Mitigation Measure BIO- 5 a & BIO-6 a	The following measures, prescribed below, would only apply to those areas actually impacted (e.g., in case it is less than those maximum impact acreages calculated and analyzed in this report), which would be documented by a qualified biologist experienced in jurisdictional delineations.	This language is limited to if the areas impacts were less than maximum. The language should be modified to read less than or greater than maximum impacted acreage calculated and analyzed in this report. An additional Mitigation Measure should be added for monitoring of vegetation changes adjacent to the modified channel to determine if additional impacts have resulted from project implementation.	The Draft EIR analyzes the maximum acreage of impact of the proposed project. The language cited provides flexibility if actual impacts are less than the maximum impacts analyzed. See also Master Response A4-2, Hydraulic Model, Groundwater & Biological Impacts.
93	3.3-44	3.3.6 Mitigation Measures BIO-7	At the start of in-water work, a hydrologist/biologist shall monitor water quality (e.g., based on thresholds determined appropriate by the County hydrologist) and fish stress (e.g., indicated by surface mouthing, schooling and leaving an area, or observation of invertebrates crawling out of the water to get air) during the initial construction. If determined necessary by the monitoring hydrologist/biologist, a sediment curtain or other measures to minimize/limit turbidity would be installed within the project area.	All monitoring of fish stress should occur during construction, not after they show signs of stress. The following mitigation measures should be added: Dissolved oxygen levels should be monitored before construction begins in- channel to establish a baseline DO level. During construction activity DO levels should also be monitored at a specific time interval and should DO levels decrease a predetermined amount from baseline all in channel construction should cease until level return to baseline levels. A hydrologist is not a fisheries biologist and should not be monitoring fish for stress. Remove reference to hydrologist.	As indicated in the Response to Items 54 and 55 above, Mitigation Measure BIO-7 has been revised to include a pre-construction fish survey. In addition, Mitigation Measure BIO-7 has been revised to include that prior to and during in-water work, dissolved oxygen (DO), pH, and turbidity (Nephelometric Turbidity Units; NTU) levels shall be monitored. These changes to Mitigation Measure BIO-7 provide additional detail regarding the water quality monitoring requirements, and do not result in changes to the conclusions reached in the Draft EIR. Please see Chapter 3 of this Final EIR for revisions to Mitigation Measure BIO-7.
94	3.3-44	3.3.6 Mitigation Measures BIO-9	Impacts to elk nursery sites would be avoided by conducting all construction and maintenance activities outside of the elk calving season	Language needs to be added addressing long-term impacts of increased human activity during elk calving season.	Long-term, indirect impacts of increased human activity to wildlife, including elk, are addressed in the Draft EIR on pages 3.3-36 and 3.3-37. Mitigation Measure BIO-8 is proposed to reduce potential impacts to a less than significant level. As stated in Mitigation Measure BIO-8, "The Environmental Awareness Program shall

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					include information about the wildlife corridor associated with the Owens River. Signage shall inform recreationalists about the wildlife corridor and the importance of staying on the water trail or boat launch and take- out facilities only, respecting wildlife and stay a safe distance away, and not feeding wildlife."
95	3.3-44	3.3.6 Mitigation Measures BIO-10	Signage shall be installed to inform recreationalists about Quagga mussels and how to sanitize their gear and equipment before entering and after exiting the water trail to prevent the spread of this invasive species.	This mitigation measure is inadequate in terms of protecting LADWP water system from quagga and zebra mussels. Signage relating to these invasive species should be placed at in put-in and take-out locations	As discussed in Response to Item 76, with regard to Quagga/Zebra Mussels, Mitigation Measure BIO-10 has been revised to include preparation of a Dreissenid Mussel Prevention Program, as well as to further clarify the locations of signage.
96			Global	It is likely that boaters will use the east road to shuttle vehicles because it is shorter than going around through Lone Pine. This road is very sandy and it's easy to get stuck, increasing likelihood of impacts to cultural resources. How will use of the east road be limited?	Please refer to the Response to Item 42.
97	3.4-25	3.4.6 Mitigation Measures CUL-3	Prior to any ground disturbing activities associated with the proposed project, exclusionary fencing shall be installed to ensure that the 33 archaeological sites within or immediately adjacent to (within 150 feet of) the proposed project access roads are not inadvertently impacted during project implementation.	The approximately 66 archaeological site should not be fenced with exclusionary fencing. Exclusionary fencing would likely draw attention to these cultural resources sites.	Mitigation Measure CUL-3 was revised to include a process by which the County would conduct a pre-construction assessment of access routes together with a Tribal representative. The goal would be to establish signage that delineates the limits of construction access in a manner that protects archaeological resources, but does not call attention to the resources. The preconstruction assessment would determine on a case-by-case basis the amount of signage (or flagging/fencing if necessary) to protect archaeological resources at each site, while not drawing undue attention to such resources.

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98	3.4-26	3.7 Hydrology and Water Quality Surface Water Quality	These parameters, as well as temperature, dissolved oxygen, and a handful of other physical water quality parameters are monitored through targeted water quality sampling and monitoring, conducted by the LADWP as a requirement of the Lower Owens River Program (LORP) during infrequent events that could cause detrimental water quality (LADWP and Inyo County, 2015).	LADWP is not required to conduct water quality monitoring as part of the LORP, unless agreed upon with Inyo County and adopted as part of the LORP work plan and budget that are developed each fiscal year for the LORP Post-Implementation Phase. Water quality monitoring is not conducted each year in the LORP. This statement needs to be modified.	For clarification, the text is on page 3.7-6 of the Draft EIR. The text has been revised to delete reference to LADWP conducting monitoring.
99			General Comment	The results of hydraulic analysis technical report and the biological impacts analysis do not correspond. The hydraulic analysis (Appendix B1} predicts a drop of water surface elevation, reduction in the wetted width and a reduction in overbank flow, which would result in a significant impacts to adjacent wetlands that are not reported in the Section 3.3, Biological Resources. In the DEIR there is a discussion on groundwater but Section 3.7 does not supply data on site specific groundwater level fluctuations, site specific data, or the predicted change in any of these parameters post project implementation. Given that no piezometer or well data was available predictions of potential wetland loss are just guesses. It appears that no site-specific study was done, examining the surface water-groundwater interactions, to determine if there would be impacts to adjacent wetlands or floodplain. The results of the biological impact analysis suggests there would be no impact, but this is not supported by any	Please refer to Master Response A4-2, Hydraulic Model, Groundwater and Biological Impacts.

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				site- specific data. The potential for significant impacts to adjacent wetlands and the floodplain need to be analyzed and the report of findings provided in the EIR, based upon surface water-ground water interactions of the proposed project. Until this has been done, determining the long-term permanent impacts on wetland resources cannot be adequately addresses.	
100	3.7-8	3.7.1 Environmental Setting- Groundwater Hydrology	The USGS study noted that until recently, the Owens River was almost entirely a gaining stream, that is, groundwater discharged into the river supporting its flow for the entire length down to Owens Lake (Danskin, 1998). Currently, the majority of the Owens River still is a gaining stream. In localized areas with significant pumpage, such as around Big Pine, groundwater flow directions have been altered and the·1ocal section of Lower Owens River around Big Pine is sometimes a losing stream (surface water in the river infiltrates down into the groundwater). However, south of the Big Pine area, the Lower Owens River continues to be a gaining stream year-round all the way to Owens Lake.	Clarify if this 30 year old USGS study included specific information on this specific reach, or if it is extrapolated information. It is unclear what level of analysis was done in the specific reach of the ORWT, and how relevant it is to this level of analysis.	Please refer to Master Response A4-2, Hydraulic Model, Groundwater and Biological Impacts.

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101	3.7-8	3.7.1 Environmental Setting- Groundwater Hydrology	This gaining stream condition includes the proposed project area, which has never been observed to go dry (Danskin, 1998).	Adjacent floodplain wetlands have observed to go dry in years with below-average snowpack, indicating that there is fluctuations in the groundwater that may affect wetlands.	Please refer to Master Response A4-2, Hydraulic Model, Groundwater and Biological Impacts.
102	3.7-9	3.7.1 Environmental Setting- Groundwater Hydrology	General - Lone Pine Landfill groundwater data	Groundwater data at the landfill may demonstrate that in general the Owens River it is a gaining system, but there is no site-specific information sufficient to demonstrate that the adjacent wetland will remain wet, despite the predicted surface water level changes, reduction of the wetted width, or isolation of the floodplain.	Please refer to Master Response A4-2, Hydraulic Model, Groundwater and Biological Impacts.
103	3.7-9	3.7.1 Environmental Setting- Groundwater Hydrology	This also means that groundwater is always supporting flow in the river; that is, the Lower Owens River within this area is a gaining stream. Note that the elevation of the edge of the nearby Lower Owens River is about 3,630 feet, with center portions being at lower elevations.	The elevation of the river adjacent to these monitoring wells is 3,615 feet. Elevation of ox-bows and ponds on the east side of the river are also 3,615 feet. Water surface across the floodplain is synonymous with WSE in the channel. If shallow groundwater from the alluvial fans was a significant source of water to the river and wetland habitat it would be evident as seeps and springs along the west bluff. It is not evident. Clarify if the data suggest this is a continuous gaining system or a seasonally gaining system.	Please refer to Master Response A4-2, Hydraulic Model, Groundwater and Biological Impacts.
104	3.7-18	3.7.3 Thresholds and Methodology - Threshold of Significance	General Comment: HYD-3: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surface, in a manner which would: result in substantial erosion or siltation on- or offsite;	None of the Hydrology Thresholds of Significance address substantial changes in hydrology that would negatively affect biological resources. Thus LADWP's comments are included under Section 3.3	The comment is noted and responses are provided to the comments related to Section 3.3 of the EIR.

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			substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows		
105	3.7-19	3.7.3 Thresholds and Methodology - Hydraulic Modeling	ESA adapted existing hydraulic models of a portion of the project area to evaluate the effects of various proposed vegetation clearing and excavation scenarios to inform environmental review.	There is no mention of any groundwater-surface water interaction in the hydraulic models to evaluate the effects of the various proposed vegetation clearing and excavation to inform environmental review. Groundwater is only brought into the discussion in the EIR. There is no mention in the Hydraulic Report (Appendix B-1), of which the results contradicts the predicted biological impacts reported.	The quoted text is from page 3.7-19 of the Draft EIR, which is the beginning of the summary of the hydraulic modeling conducted for the proposed project, which continues through page 3.7-23. On page 3.7-23 of the Draft EIR it is clearly stated that the hydraulic modeling, as described in the Hydraulic Report (Draft EIR Appendix B-1), does not evaluate groundwater-surface water interaction. The baseline existing conditions for groundwater are presented in the Draft EIR on pages 3.7-8 through 3.7-11. The analysis of the proposed project's potential impacts to groundwater are provided in the Draft EIR on pages 3.7-19, and 3.7- 25 through 3.7-28 under Impact Statement HYD-1. For additional information, please refer to Master Response A4-2, Hydraulic Model, Groundwater and Biological Impacts.

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106	3.7-23	3.7.3 Thresholds and Methodology	It is hypothesized that the inundation in secondary channels is supported by the level of the groundwater table.... However, as noted above in Model Limitations, the constant discharge of groundwater to the river maintains flow in the river, which in turn maintains water flow in some secondary channels.	See Comment 52. A hypothesis should not be used to predict wetland impacts. In order support the biological impact analysis statement that there would be no loss of adjacent wetlands, localized groundwater data is needed. Piezometers or groundwater monitoring wells should be installed and data collected for 12 months, and utilized in order to accurately estimate hydrologic changes and potential impacts to vegetation.	Please refer to Master Response A4-2, Hydraulic Model, Groundwater and Biological Impacts.
107	3.7-26	3.7.4 Project Impacts Release of Sediments Operation and Maintenance	Compliance with the requirements of the Construction General Permit would also require management of stormwater on site, measures to avoid and minimize release of stormwater pollutants into the environment, monitoring and reporting requirements, and adherence to site specific requirements, to be determined by the RWQCB.	Technically the RWQCB reviews the SWPPP and does not determine what site specific requirements are needed. LADWP suggests revising the last part of the sentence to read “approved by the RWQCB” over “determined by”, to make the statement more technically accurate.	The sentence on page 3.7-26 of the Draft EIR has been revised to indicate that the RWQCB would approve the specific requirements to be used during the construction of the water trail. Please see Chapter 3 of the Final EIR for revisions.
108	3.7-27	3.7.4 Project Impacts Water Quality Standards and Waste Discharge Requirements - Release of Sediments Operation and Maintenance	Vehicles at the launch and take-out may release oil, brake dust, or spilled fuels that would be considered water quality pollutants if introduced into the river system as a result of stormwater runoff. However, accumulated water quality pollution from these sources is expected to be limited. Most automotive-related pollutants are released in very small volumes. Additionally, most	While most vehicle leaks are small the accumulation of small leaks over the life of the project (20 years) may lead to water or soil contamination. There is also a possibility that one of the thousands of vehicles that visit the ORWT could have a large enough leak that could lead to direct water contamination. A mitigation measure may be warranted to cover the event that the proposed project could result in possible soil or water contamination.	As explained in the Draft EIR on page 3.7-26, in accordance with the Construction General Permit, the County will be required to prepare and implement a Storm Water Pollution Prevent Plan (SWPPP) that includes best management practices (BMPs). As described in the Draft EIR Section 3.7-2 Regulatory Framework on page 3.7-16, the Construction General Permit not only sets BMPs for construction but also “sets post-construction standards (i.e., implementation of BMPs to reduce pollutants in stormwater discharges from

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			automotive- related pollutants- particularly motor oil-is hydrophobic and tends to adsorb to sediments near to its release point. Road areas covered in gravel would reduce erosion potential, thereby minimizing the potential for transfer of such sediment into the waterway. Additionally, the use of gravel rather than paved roads- functionally similar to porous pavement from a water quality perspective- would help to ensure that runoff volumes from the site would be minimized since more of rainfall would infiltrate down into the underlying soil instead of flowing as runoff and pollutant contact with and sorption to underlying sediments would minimize transport of those pollutants into the waterway. Therefore, increases in vehicular traffic are not expected to significantly degrade water quality.		the site following construction).” As such, if necessary to protect water quality, the SWPPP will identify BMPs for the County to implement to minimize water pollution due to vehicle fluids and leaks during operation of the proposed ORWT. Additional mitigation is not added because the SWPPP is a regulatory requirement.
109	3.7-29	3.7.4 Project Impacts	A modeled reduction in water surface elevations under all flow conditions due to reduced ponding and removal of backwater areas ...does not account for groundwater currently discharged to the river.	Regardless, groundwater will come to equilibrium with WSE in the channel.	Please refer to Master Response A4-2, Hydraulic Model, Groundwater and Biological Impacts.

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110	3.7-30	3.7.4 Project Impacts	Vegetation outside of the proposed navigable water trail would remain intact.	Dropping WSE without sufficient groundwater could impact hydrophytic vegetation. In order to confirm this statement there needs to be groundwater data to predict the groundwater surface elevational changes post-implementation as it relates to the root zone of the wetland vegetation.	Please refer to Master Response A4-2, Hydraulic Model, Groundwater and Biological Impacts.
111		3.7.6 Mitigation Measures - Mitigation Measure HYD-2: Floodplain Erosion Management	Place and lightly compact spoils in such a manner as to reduce erosion, Revegetate by broadcast seeding with native vegetation including, but not limited to, salt grass or native bunch grasses Encircle spoils placement areas with 100% biodegradable straw wattles. Stake spoils placement areas using 100% biodegradable wooden stakes.	See comments in the biological resources section. LADWP recommends a BIO mitigation measure to be added to require a HMMP be prepared for spoils placement which would detail the locations, methods of placement, revegetation criteria, and monitoring requirement for both initial placement and spoils placement during maintenance. This could replace the language in MM HYD-2.	See Master Response A4-4, Spoils Placement Impacts. As outlined in Mitigation Measures BIO-4 through BIO-6, the County shall retain a qualified biologist to monitor temporary impact areas for two years to ensure the project site returns to pre-project conditions (i.e., pre-project elevation contours and revegetated). If determined necessary by the qualified biologist, if plants are not established via natural recruitment, a revegetation plan would be prepared, and subsequently monitored by a qualified biologist until the project site has returned to pre-project conditions. In addition, regarding the HMMP, as required by CEQA, a Mitigation Monitoring and Reporting Program will accompany the Final EIR to identify the steps for implementing, documenting, and reporting all mitigation measures, which may include preparation of HMMP-like documents such as a revegetation plan.

Item	Page No.	Section	Commenting Text/Topic	Comments	Response
112	3.8-10	3.8.4 Project Impacts County of Inyo/City of Los Angeles Department of Water and Power Long Term Water Agreement - Lower Owens River Project	The project would be consistent with the restoration goals of the LORP the project would provide instream and riparian habitat benefits and improve water quality. Specifically, by removing existing occlusions in the river channel, the proposed project could improve water flow, increase dissolved oxygen, and improve water quality, since excessive tule biomass can have a deleterious effect on dissolved oxygen, and a negative effect on water quality (e.g., caused by tule abundance and decomposition) (ESA, 2019).	See Comment 7. This statement should be modified since it is not a restoration project. It is a recreation project with impacts to instream and riparian habitat.	The Draft EIR has been revised on page 3.8-10 and 3.8-11 based on the revisions to the project objectives. Please see Chapter 3 of the Final EIR for revisions.
113	3.8-9- 10	3.8.4 Project Impacts County of Inyo General Plan and Inyo County Code; ES-30	Furthermore, implementation of the project would preserve the existing river resources as this stretch of river would be maintained and fenced off from surrounding cattle grazing operations. & However, the project could conflict with the existing cattle grazing that occurs in the area. In order to provide separation, the project would install cattle guards and fences at the junction of Lone Pine Narrow Gauge Road and the Bluff Road, around the boat-launch and boat take- out facilities as well as along the	Document does not address the impacts to the ranching operation. The proposed cattle fencing for both the launch and take-out removes that area for grazing, affecting the rancher and its cattle operation. The proposed land use change for ranching would be impacted by additional traffic, cattle fencing, etc. The effects on the cattle ranching operation needs to be addressed in greater detail. Over the last 25 years LADWP has managed grazing leases in Long Valley, using short duration, high intensity grazing in relatively small riparian pastures. This grazing system results in high numbers of livestock interacting with high numbers of anglers. Over the last two decades negative interactions between cattle and anglers have been negligible. LADWP strongly recommends that any fencing in	Please see Master Response A4-5, Land Use Impacts.

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			river channel, as necessary, to separate the surrounding cattle grazing lands from the future users of the ORWT. The installation of the cattle guards and fencing would allow the existing cattle grazing operations to continue concurrently with the operation of the project, where neither would be impacted by the other.	the area should be kept at an absolute minimum and opposes the idea of any fencing outside the designated parking areas. Based on 15 years of monitoring data, and the ongoing managing of grazing utilization along the river, additional fencing would be counterproductive. Livestock generally arrive on the river in mid-December and vacate the pasture by mid-May. Water temperatures on the river are low at this time and the overlap between recreationalists and livestock will be at a minimum.	
114	3.8-13	3.8.6 Mitigation Measures & 3.8.7 Level of Significance After Mitigation	Implementation of the project would not conflict with any applicable land use plans, policies, or regulations. Therefore, no mitigation measures are required	The proposed project would impact land use on the existing cattle ranching operation. These impacts need to be addressed and mitigation measures incorporated as needed. This statement may need to be revised once analysis is completed.	Please see Master Response A4-5, Land Use Impacts.
115	3.9-10	3.9.4 Project Impacts Existing Neighborhood Parks and Regional Parks	Currently boating opportunities in the Owens Valley are limited to small bodies of water including Klondike Lake (176 acres), Diaz Lake (76 acres), Buckley Ponds (total 46 acres), Farmers Ponds (31 acres), Saunders Pond (15 acres), and Millpond (7 acres).18 Combined, these Owens Valley water bodies total 351 acres.	Pleasant Valley Reservoir, Duck Pond, Upper and Lower Twin Lakes, Goose Lake, and Billy Lake were left off the list of boating opportunities in the Owens Valley. In addition, Mono County provides a large range of boating activities. This language needs to be modified in light of the many boating opportunities there are available.	As indicated in Draft EIR Section 3.9, there are waters in Owens Valley that are open to boating, including the additional ones provided in the comment. However, these areas are not designed to accommodate water entry access for persons with varying abilities. The proposed project is designed to provide facilities for people of all abilities to experience the Lower Owens River. The proposed project would be a first of its kind and would also implement a component of the Draft Recreation Use Plan, which identifies boating as the number one recreational activity that residents would like to participate in along the Lower Owens River. This project would fill an essential need in the Eastern Sierra and would

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					improve the water opportunities for families with varying abilities in a large portion of the Owens Valley, south of Mazourka Canyon Road. Please see Chapter 3 of the Final EIR for revisions.
116		Alternatives	Global	An Alternative Project Location should be added and analyzed as an alternative, considering the potential significant impacts to wetlands. See Comment 57.	Please refer to Master Response A4-8 General Comments, which includes a discussion of alternative project locations considered and discussed in Draft EIR in Chapter 4, Alternatives.
117		Alternatives	Global	Cost considerations for the habitat mitigation for temporary and permanent impacts should be calculated and analyzed for each alternative. Revegetation of spoil piles and temporary disturbed areas in this remote area could be costly if irrigation needs to be established. The cost for establishment, restoration or enhancement based upon impacts should be considered.	Determining the cost for the project relative to each alternative is not required in an EIR. The County will develop the cost upon approval and further design of a project.
118	4-10	4.6.1 Alternative 1: No Project Alternative Relationship of the Alternative to the Project Objectives	Additionally, the No Project Alternative would not include restoration activities for natural habitats, and would not meet the habitat, environmental, and social goals of the LORP and the Lower Owens River Draft Recreation Use Plan. Therefore, no objectives of the proposed project would be met by this alternative.	Same as Comment 7.	As indicated in the Response to Item 7 above, this sentence has been deleted in the Draft EIR Section 4.6.1, page 4-10 as well as in the Executive Summary. Please see Chapter 3 of the Final EIR for the revisions.

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119	4-18	4.6.3 Alternative 3: Alternative Location of Put-In Facility Biological Resources Species Status Species	Alternative 3 would permanently impact 3.8 acres of natural communities (including 0.1 acre of black willow thicket, 3.1 acres of hardstem bulrush marsh, 0.1 acre of saltmarsh bulrush marsh, 0.3 acre of saltgrass flats, 0.1 acre of rubber rabbitbrush scrub -saltgrass flats, and 0.1 acre of allscale scrub).	All permanent and temporary impact calculations will need to be updated, per comments in Section 3.3 and 3.7.	As indicated in responses above, based on the comments there are no revisions with regards to the impact acreages calculated for permanent impacts to natural communities under the proposed project. Therefore, no changes to the calculations provided for Alternative 3 are necessary.
120	4-5	4.3.1 Alternative Off-Site Locations	The north paddle trail segment would run much of the length of the Blackrock Wetland Management Area (WMA), beginning just north of Upper Twin Lake and ending near the WMA boundary. The restoration of the river that would result from the implementation of the project would not occur.	Acronym should read Blackrock Waterfowl Management Area (BWMA), not Wetland Management Area.	The reference in Draft EIR Section 4.3.1, page 4-5 has been corrected to reflect the terminology used in the Recreation Use Plan.: Blackrock Waterfowl Management Area (BWMA). Please see Chapter 3 of the Final EIR for revisions.
121	4-7	4.6.1 Alternative 1: No Project Alternative Description of the Alternative	The restoration of the river that would result from the implementation of the project would not occur.	Same as Comment 7. This statement needs revision. The project is a recreation project, not a restoration project. There is no habitat restoration proposed other than required as part of the impacts.	This sentence has been deleted from the Draft EIR page 4-7. Please see Chapter 3 of the Final EIR for the revision.
122	5-7	5.1.6 Hazards and Hazardous Materials - Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	Therefore, potential impacts on people or structures associated with fire hazards would be less than significant.	The last large wildland fire in this area started in February of 2013 and was wind driven. Most of the large fires in the Owens Valley are wind driven and are fast moving. Wind driven fires usually burn hot and dry out vegetation in front of the fire including green grasses and shrubs. With the increased number of people recreating in the project area the risk of fire increases whether its vehicle related or human	The analysis addresses the potential impacts that would result from the project as required under CEQA. However, the County acknowledges the potential risk to users of the water trail. Educational signage that clearly conveys the project area's potential for wildfire risk, wildfire reporting instructions, and safety instructions would be provided at the boat launch and take-out facilities. The project would not preclude

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				caused (warming fire, camp stove, BBQ, cigarette, etc.). People using the water trail when a wind driven wildland fire starts could potentially be exposed to injury or death should they not be able to get out of the river and off the flood plain in time. Based upon the above information, this statement should be modified or mitigation measures added.	access to the river and the floodplain in the event the emergency providers need to respond to an incident in the area.
123	5-9	5.1.9 Noise	With regard to wildlife, construction and maintenance associated with the project would be short-term, temporary and periodic, and would occur outside of the migratory bird breeding season (approximately March 1 through September 1). Thus, the project is not expected to contribute to substantial temporary increases in ambient noise levels and would not indirectly impact local wildlife.	While construction and maintenance associated with the project will be temporary and periodic, use of the project will not. The County is expecting 4,400 launches a year from this project which would be 12 launches/day every day of the year or 29 launched/day from May through September. This amount of disturbance will produce an increase in ambient noise levels that could directly impact nesting birds, as well calving elk the utilize this area.	Long-term, indirect impacts of increased human activity to wildlife, including elk and nesting birds, are addressed in the Draft EIR on pages 3.3-36 and 3.3-37. Mitigation Measure BIO-8 is proposed to reduce potential impacts to a less than significant level. As stated in Mitigation Measure BIO-8, "The Environmental Awareness Program shall include information about the wildlife corridor associated with the Owens River. Signage shall inform recreationalists about the wildlife corridor and the importance of staying on the water trail or boat launch and take- out facilities only, respecting wildlife and stay a safe distance away, and not feeding wildlife." Although human activities would increase along the water trail, avian species and elk would acclimate to the limited noise and activities as they have throughout the Owens Valley, and more secretive avian species and elk can still utilize habitat farther away from the trail within the study area.
124	5-10	5.1.11 Public Services Fire protection & 5.1.12 Transportation Would the project result in	While the project could place additional demands on the LPFD's ability to provide emergency services, river flow in the channel is controlled and the launch/take- out	Access to the river would be difficult for most fire apparatus and ambulances in the project area due to sandy or wet roads, low ground clearance vehicles, and heavy apparatus. Should someone have a life threatening emergency (heart attack,	Emergency access and accessibility for emergency response was evaluated in the Initial Study, and a summary of the impact assessment is included in the Draft EIR, Chapter 5 on page 5-13. The proposed ORWT would not change the existing

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		inadequate emergency access?	structures would allow safe access to the ORWT for people of all abilities, including the disabled. However, there are a number of primitive roads that provide access to the project area from the bluffs as well as numerous primitive ranch roads located in the floodplain. In addition, the proposed project's natural environment is relatively flat. Therefore, emergency vehicles would be able to access the area and any potential emergency incidents can also be reached on foot by emergency personnel. To reduce the amount of instances where emergency services would be needed, weather resistant signage would be installed at the launch/take-out structures to provide recreational visitors with water safety information, rules, emergency contacts, and interpretive information. To provide user location information, reference navigational mile markers would be located along the waterway. Fencing would be installed to separate the launch point from grazing activities. Therefore, impacts would be less than significant.	allergic reaction to bee sting, possible drowning, etc.) the response time would be lengthy due to poor access, difficulty finding the victim in the river, and administering appropriate care. If it is a true emergency signage provided recreational visitors with water safety information, rules, emergency contacts, and interpretive information will be of little use.	condition relative to general public access to the project area and, as such, would not change existing risks associated with recreational activities in the project area, or existing response times for emergency services. The proposed ORWT would provide information to users on kiosks and signage regarding risks that accompany the choice to engage in recreational activities in remote areas, including contact and location information for the closest emergency services.

Item	Page No.	Section	Commenting Text/Topic	Comments	Response
125	7-2	Organizations and Persons Consulted	Iowa Department of Natural Resources; San Francisco Bay Estuary Institute	Verify that these agencies were consulted. If the USFWS was consulted for the project it should be added to this list.	The list has been verified. The Iowa Department of Natural Resources and San Francisco Bay Estuary Institute were consulted during the process. However, the U.S. Fish and Wildlife Service was not consulted during preparation of the Draft EIR.

CALIFORNIA Water Boards

GAVIN NEWSOM GOVERNOR

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Lahontan Regional Water Quality Control Board

June 28, 2019

File: Environmental Doc Review
Inyo County

Larry Freilich, Mitigation Manager
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Comments on the Draft Environmental Impact Report, Owens River Water Trail Project, Inyo County, State Clearinghouse Number 2018051049

The California Regional Water Quality Control Board, Lahontan Region (Water Board) staff received a Draft Environmental Impact Report (DEIR) for the above-referenced Project (Project) on May 13, 2019. The DEIR was prepared by Inyo County (County) and submitted in compliance with provisions of the California Environmental Quality Act (CEQA). Based on our review of the DEIR, we recommend the following: (1) the DEIR acknowledge that future or long-term maintenance of Project components may require a permitting action by the Water Board; and (2) the DEIR address how water quality objectives for dissolved oxygen and turbidity will be attained throughout project construction. Our comments are outlined below.

A5-1

WATER BOARD'S AUTHORITY

All groundwater and surface waters are considered waters of the State. All waters of the State are protected under California law. State law assigns responsibility for protection of water quality in the Lahontan Region to the Lahontan Water Board. Some waters of the State are also waters of the United States. The Federal Clean Water Act (CWA) provides additional protection for those waters of the State that are also waters of the United States.

The *Water Quality Control Plan for the Lahontan Region* (Basin Plan) contains policies that the Water Board uses with other laws and regulations to protect the quality of waters of the State within the Lahontan Region. The Basin Plan sets forth water quality standards for surface water and groundwater of the Region, which include designated beneficial uses as well as narrative and numerical objectives which must be maintained or attained to protect those uses. The Basin Plan can be accessed via the Water Board's web site at http://www.waterboards.ca.gov/lahontan/water_issues/programs/basin_plan/references.shtml.

WATER QUALITY CONCERNS

A5-2

We agree that the Project will improve the recreational beneficial uses of the Lower Owens River. However, poor Project implementation and inadequate mitigation has the potential to negatively affect water quality. Our comments on the Project are outlined below.

1. The DEIR identifies the need for ongoing maintenance activities. Please be advised that any maintenance needed to maintain waterways, including drainage and vegetation management, will likely require a permitting action by the Water Board. Early consultation with Water Board staff is recommended.

A5-3

2. **Mitigation Measure HYD-1a: In-Stream Measures to Minimize Pollution, Sediment Loading, and Dissolved Oxygen Impacts** – Mitigation measure HYD-1a fails to adequately address how changes in dissolved oxygen and turbidity in-stream water quality will be minimized during Project construction. Avoiding work during storm flows or during periods when in-channel flows exceed 70 cubic feet per second will not necessarily prevent dissolved oxygen and/or turbidity in the Owens River. The DEIR should include adequate mitigation measures that, when implemented, will reduce potential impacts to water quality to a less than significant level. Water quality monitoring and adaptive management strategies should be included as part of the mitigation strategy for this Project.

A5-4

3. The Project must comply with all applicable discharge prohibitions, as specified in the Basin Plan. The Basin Plan (Chapter 4) prescribes the following region-wide waste discharge prohibition.

   "The discharge of waste that causes violation of any numeric water quality objective contained in this Plan is prohibited."

A5-5

4. The Owens River below Tinemaha Reservoir is assigned the following beneficial uses: municipal and domestic supply (MUN); agricultural supply (AGR); groundwater recharge (GWR); contact and noncontact water recreation (REC-1, REC-2); commercial and sportfishing (COMM); cold freshwater habitat (COLD); wildlife habitat (WILD); rare, threatened, or endangered species (RARE); and spawning, reproduction, and development (SPWN). To maintain these beneficial uses, the Project must comply with all applicable water quality objectives for the Owens River, as specified in the Basin Plan.

   The main water quality concerns associated with this Project are dissolved oxygen and turbidity, though other constituents may also be of concern such as pH, changes in temperature, and oil and grease. The water quality objectives for dissolved oxygen and turbidity are defined below.

a. The Basin Plan (Chapter 3) prescribes the following numeric water quality objective for dissolved oxygen that applies to all surface waters, including the Owens River.

A5-5 cont'd

> *"The dissolved oxygen concentration, as percent saturation, shall not be depressed by more than 10 percent, nor shall the minimum dissolved oxygen concentration be less than 80 percent of saturation. For waters with the beneficial uses of COLD, COLD with SPWN, WARM, and WARM with SPWN, the minimum dissolved oxygen concentration shall not be less than that specified in Table 3-6."*

Table 3-6
WATER QUALITY CRITERIA FOR
AMBIENT DISSOLVED OXYGEN CONCENTRATION[1,2]

	Beneficial Use Class			
	COLD & SPWN[3]	COLD	WARM & SPWN[3]	WARM
30 Day Mean	NA[4]	6.5	NA	5.5
7 Day Mean	9.5 (6.5)	NA	6.0	NA
7 Day Mean Minimum	NA	5.0	NA	4.0
1 Day Minimum[5,6]	8.0 (5.0)	4.0	5.0	3.0

1 From: USEPA. 1986. Ambient water quality criteria for dissolved oxygen. Values are in milligrams per liter (mg/L).
2 These are water column concentrations recommended to achieve the required intergravel dissolved oxygen concentrations shown in parentheses. For species that have early life stages exposed directly to the water column (SPWN), the figures in parentheses apply.
3 Includes all embryonic and larval stages and all juvenile forms to 30-days following hatching (SPWN).
4 NA (Not Applicable).
5 For highly manipulatable discharges, further restrictions apply.
6 All minima should be considered as instantaneous concentrations to be achieved at all times.

b. The Basin Plan (Chapter 3) prescribes the following narrative water quality objective for turbidity that applies to all surface waters, including the Owens River.

> *"Waters shall be free of changes in turbidity that cause nuisance or adversely affect the water for beneficial uses. Increases in turbidity shall not exceed natural levels by more than 10 percent."*

5. **Mitigation Measure HYD-2** – The DEIR indicates that the Project would reduce the likelihood of overbank topping that causes flooding, though there was little discussion or evaluation as to why this mitigation measure was necessary to avoid potential impacts to water quality and hydrology. Please evaluate in the DEIR why overbank topping is a concern and how implementation of this mitigation measure with avoid or reduce potential impacts to a less than significant level.

A5-6

6. All excess soil excavated as part of the Project that is not used onsite should be stockpiled in an upland location such that it will not be transported by wind or water into a surface water. An adequate combination of sediment and erosion control Best Management Practices must be implemented and maintained to temporarily stabilize the stockpiled soils until such time that they are reused and/or permanently stabilized. A5-7

7. Equipment staging areas and hazardous materials (i.e. oils and fuels) should be sited in upland areas outside surface waters and adjacent flood plain areas. A5-8

PERMITTING REQUIREMENTS A5-9

A number of activities associated with the proposed Project may have the potential to impact waters of the State and, therefore, may require permits issued by either the State Water Board or Lahontan Water Board. The required permits may include the following.

8. Streambed alteration and/or discharge of fill material to a surface water may require a CWA, section 401 water quality certification for impacts to federal waters (waters of the U.S.), or dredge and fill waste discharge requirements for impacts to non-federal waters, both issued by the Lahontan Water Board. All unavoidable permanent impacts to waters of the State must be mitigated to ensure no net loss of beneficial use and wetland function and value. Water Board staff coordinate mitigation requirements with staff from federal and other state regulatory agencies. In determining appropriate mitigation ratios for impacts to waters of the State, we consider Basin Plan requirements (minimum 1.5 to 1 mitigation ratio for impacts to wetlands) and utilize 12501-SPD Regulatory Program Standard Operating Procedure for Determination of Mitigation Ratios, published December 2012 by the US Army Corps of Engineers, South Pacific Division.

9. Land disturbance of more than 1 acre may require a CWA, section 402(p) storm water permit, including a National Pollutant Discharge Elimination System General Construction Storm Water Permit, Water Quality Order 2009-0009-DWQ, obtained from the State Water Board, or individual storm water permit obtained from the Lahontan Water Board.

We request that the draft DEIR recognize the potential permits that may be required for the Project, as outlined above, and identify the specific activities that may trigger these permitting actions in the appropriate sections of the environmental document. Information regarding these permits, including application forms, can be downloaded from our website at http://www.waterboards.ca.gov/lahontan/. Early consultation with Water Board staff regarding potential permitting is recommended.

Thank you for requesting our consultation. If you have any questions regarding this letter, please contact me at (760) 241-7305 (tiffany.steinert@waterboards.ca.gov) or Jan Zimmerman, Senior Engineering Geologist, at (760) 241-7376 (jan.zimmerman@waterboards.ca.gov). Please send all future correspondence regarding this Project to the Water Board's email address at Lahontan@waterboards.ca.gov and be sure to include the Project name in the subject line. A5-10

Per

Tiffany Steinert, GIT
Engineering Geologist

cc: Nick Buckmaster, CA Dept. of Fish and Wildlife (nick.buckmaster@wildlife.ca.gov)
State Clearinghouse (SCH 2018051049) (state.clearinghouse@opr.ca.gov)

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Letter No. A5

Tiffany Steinert, Engineering Geologist
State of California – California Water Boards
Lahontan Regional Water Quality Control Board
2501 Lake Tahoe Blvd., So. Lake Tahoe, CA 96150 | 15095 Amargosa Road, Bldg 2. Ste 210, Victorville, CA 92394

Response No. A5-1

The County thanks the Water Board for its review of the Draft EIR and its comments. Responses to the Water Board's recommendations are found below in Response A5-2 through A5-9. The Draft EIR includes information about the Water Board's authority, the federal Clean Water Act, and the Basin Plan in Chapter 2, Project Description on page 2-24; and in Chapter 3, Section 3.7 Hydrology and Water Quality on pages 3.7-12 to 3.7-16.

Response No. A5-2

The Draft EIR recognizes the permit authority of the Water Board in Chapter 2, Project Description on page 2-24 and throughout Chapter 3, Section 3.7 Hydrology and Water Quality. The County looks forward to early coordination with Water Board staff regarding the required permits, which may include a Clean Water Action Section 401 Water Quality Certification as well as National Pollutant Discharge Elimination System permits.

Response No. A5-3

As stated on page 3.7-32 of the Draft EIR, Mitigation Measure HYD-1a is required in conjunction with Mitigation Measure BIO-7. Mitigation Measure BIO-7 requires water quality monitoring during construction activities in the channel. In response to the comment, this measure has been revised to add specificity regarding the specific constituents to be monitored, in particular dissolved oxygen and turbidity. The revised mitigation measure is included in Chapter 3 of this Final EIR, which summarizes all modifications made to the Draft EIR.

Response No. A5-4

The Draft EIR acknowledges the applicability of the Basin Plan in Chapter 3, Section 3.7 Hydrology and Water Quality starting on page 3.7-13. In response to the comment, the quoted text has been added to this page of the Draft EIR. Please refer to Chapter 3 of this Final EIR for modifications to the Draft EIR.

Response No. A5-5

The beneficial uses for the Owens River below Tinemaha Reservoir are included in the Draft EIR in Chapter 3, Section 3.7 Hydrology and Water Quality on page 3.7-14. The primary water quality constituents of concern in the project area are described on page 3.7-5 to 3.7-7, including dissolved oxygen, turbidity, pH, and temperature.

A discussion of the Basin Plan beneficial uses (per Table 2.1 of the Basin Plan) and water quality objectives is included in the Draft EIR in Section 3.7 on page 3.7-14, with a focus on dissolved oxygen. In response to the comment, the page 3.7-14 of the Draft EIR has been modified to refine

the discussion of applicable beneficial uses and water quality objectives. Mitigation Measure BIO-7 has been modified to add specificity regarding the water quality constituents to be monitored during in-water work, including dissolved oxygen, turbidity, pH, conductivity, and temperature. Please refer to Chapter 3 of this Final EIR for modifications to the Draft EIR.

Response No. A5-6

Under existing conditions, the portion of the Lower Owens River within the project area does not experience overbank topping due to the controlled nature of flows in the river. One exception was in 2017, when the Sierra snowpack reached record-setting conditions causing emergency runoff conditions; flows of 325 cfs were released by LADWP into the Lower Owens River during this year. Otherwise and ordinarily, as stated in the Draft EIR on page 1-2, page 2-2, and elsewhere, up to 200 cfs of seasonal habitat flow is released by LADWP 43.7 miles upstream of the project area, resulting in 80 to 90 cfs flow in the project area. These existing conditions do not cause overbank topping. The proposed project would not affect the amount of water released by LADWP into the river, and would not affect or cause overbank topping. In response to the comment, the text of the Draft EIR has been modified on page 3.7-23 to remove mention of overbank topping. In addition, Impact Statement HYD-2 on page 3.7-29 has been modified to remove mention of overbank topping. Please refer to Chapter 3 of this Final EIR for modifications to the Draft EIR.

Response No. A5-7

As stated in the Draft EIR, Chapter 2 Project Description on page 2-18, spoils will be placed in locations above the 200-cfs inundation zone to prevent the erosion of stockpiled material back into the river channel in order to protect water quality. In addition, the Draft EIR includes Mitigation Measure HYD-2 to require the stabilization of stockpiled spoils using best management practices to ensure water and wind erosion do not occur.

Response No. A5-8

As shown in the Draft EIR in Figure 2-3, construction equipment staging areas would be located in upland areas. As discussed in the Draft EIR in Chapter 3, Section 3.7 Hydrology and Water Quality, a Storm Water Pollution Prevention Plan (SWPPP) would be prepared and implemented for the proposed project in accordance with state regulations and the required NPDES Construction General Permit. As stated on page 3.7-15 of the Draft EIR, a SWPPP:

> "…includes specific best management practices (BMPs) designed to prevent sediment and pollutants from contacting stormwater from moving off site into receiving waters. The BMPs fall into several categories, including erosion control, sediment control, waste management, and good housekeeping, and are intended to protect surface water quality by preventing the off-site migration of eroded soil and construction-related pollutants from the construction area. Routine inspection of all BMPs is required under the provisions of the Construction General Permit."

Response No. A5-9

As mentioned in Response No A5-2 above, the Draft EIR recognizes the permit authority of the Water Board in Chapter 2, Project Description on page 2-24. The Clean Water Action Section 401 Water Quality Certification is listed on page 2-24 and is discussed in Chapter 3, Section 3.7 Hydrology and Water Quality on page 3.7-12. The Draft EIR evaluates impacts to beneficial uses in Chapter 3, Section 3.7 Hydrology and Water Quality and includes mitigation where necessary to ensure impacts are mitigated to levels that are less than significant. Impacts to wetlands and associated mitigation ratios are discussed in the Draft EIR in Chapter 3, Section 3.3 Biological Resources. Recognizing that state and federal agencies coordinate in the determination of mitigation, the County has conducted early consultation meetings with the Lahontan RWQCB, the U.S. Army Corps of Engineers, and CDFW. The information gathered during consultation meetings have been considered in the preparation of this Draft EIR.

The Draft EIR discusses the Clean Water Act Section 402 storm water permit and the NPDES General Construction permit in Chapter 3, Section 3.7 Hydrology and Water Quality on page 3.7-12. The Draft EIR acknowledges that project construction would require compliance with the Construction General Permit including preparation of a SWPPP. The County looks forward to early coordination with Water Board staff regarding the required permits.

Response No. A5-10

The County has noted the contact information for Water Board staff and will use this information for future questions and correspondence regarding consultation for permitting.

United States Department of the Interior

NATIONAL PARK SERVICE
Death Valley National Park
P.O. Box 579
Death Valley, CA 92328

June 4, 2019

Larry Freilich
Mitigation Manager
Inyo County Water Department
PO Box 337
Independence, CA 93526

Dear Mr. Freilich,

Thank you for the opportunity to comment on the Draft Environmental Impact Report for the Owens River Water Trail. The plan addresses the need for the project to bring additional recreational opportunities to the Eastern Sierra and Inyo County. Death Valley National Park supports this effort and acknowledges the analysis of significant impacts to the area. Mitigation measures have been applied to the Environmental Effects of the project, particularly the biological, cultural, hydrologic, and air quality resources to reduce these impacts in a systematic and thoughtful manner. The plan is also consistent with the Lower Owens River Project, which provides permanent water to the Owens River and prioritizes ecological restoration, while providing opportunities for non-motorized access for river travel. A6-1

We appreciate the sensitivity given to cultural resources, particularly those of significance to the Lone Pine Paiute-Shoshone Tribe. We encourage the County to work closely with the Tribe in the project's implementation and offer opportunities for Tribal members to participate in monitoring or interpretation if they desire to.

Sincerely,

Mike Reynolds
Superintendent

Letter No. A6

Mike Reynolds, Superintendent
United States Department of the Interior – National Park Service
Death Valley National Park
P.O. Box 579
Death Valley, CA 92328

Response No. A6-1

The comment provides support for the project and indicates that the plan is consistent with the Lower Owens River Project. For clarification, the Draft EIR contains mitigation measures to reduce significant impacts to less than significant levels for biological resources, cultural resources, geology and soils, and hydrology and water quality. Relative to air quality, there are no mitigation measures since the project would result in less than significant impacts.

The comment acknowledges the sensitivity given to cultural resources by the County and encourages the County to work closely with the Lone Pine Paiute-Shoshone Tribe in the implementation of the project and offer opportunities for Tribal member to participate in monitoring or interpretation. The comment will be forwarded to the decision makers for consideration. As stated in the Draft EIR, Chapter 2, Section 2.4, the project would include interpretive signage, and the County would coordinate with the Tribes, as well as other entities such as LADWP and local ranchers, regarding the information to be included on the signs. In addition, as stated in Mitigation Measures CUL-4 and CUL-5, Native American monitors would be present during ground disturbing activities associated with construction and maintenance of the project.

Letter A7

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit

Gavin Newsom
Governor

Kate Gordon
Director

July 1, 2019

RECEIVED

JUL 10 2019

Inyo County Water Dept.

Larry Freilich
Inyo County
PO Box 337
Independence, CA 93526

Subject: Owens River Water Trail
SCH#: 2018051049

Dear Larry Freilich:

A7-1

The comment (s) on your EIR was (were) received by the State Clearinghouse after the end of the state review period, which closed on 6/24/2019. **Please check the CEQA database for these comments**: https://ceqanet.opr.ca.gov/2018051049/2 because they provide information or raise issues that should be addressed in your final environmental document.

The California Environmental Quality Act does not require Lead Agencies to respond to late comments. However, we encourage you to incorporate these additional comments into your final environmental document and to consider them prior to taking final action on the proposed project.

Please contact the State Clearinghouse at (916) 445-0613 if you have any questions concerning the environmental review process. If you have a question regarding the above-named project, please refer to the ten-digit State Clearinghouse number (2018051049) when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

cc: Resources Agency

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Gavin Newsom
Governor

Kate Gordon
Director

June 25, 2019

RECEIVED

JUN 27 2019

Inyo County Water Dept.

Larry Freilich
Inyo County
PO Box 337
Independence, CA 93526

Subject: Owens River Water Trail
SCH#: 2018051049

Dear Larry Freilich:

The State Clearinghouse submitted the above named EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on 6/24/2019, and the comments from the responding agency (ies) is (are) available on the CEQA database for your retrieval and use. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

Check the CEQA database for submitted comments for use in preparing your final environmental document: https://ceqanet.opr.ca.gov/2018051049/2 . Should you need more information or clarification of the comments, **we recommend that you contact the commenting agency directly**.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

cc: Resources Agency

Letter No. A7

Scott Morgan, Director
State of California – Governor's Office of Planning and Research
State Clearinghouse and Planning Unit
1400 Tenth Street
P.O. Box 3044
Sacramento, CA 95812-3044

Response No. A7-1

The comment advises the County of a letter received after the close of the Draft EIR comment period. The County checked the CEQA database, and three agency letters were transmitted to the State Clearinghouse and uploaded. These letters are from the California Department of Transportation (see Letter A2), Lahontan Regional Water Quality Control Board (see Letter A5), and the California Department of Fish and Wildlife (see Letter A8). These letters are included and responded to in this Final EIR.

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Inland Deserts Region
3602 Inland Empire Blvd., Suite C-220
Ontario, CA 91764
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

July 12, 2019

Larry Freilich
Mitigation Manager
Inyo County Water Department
135 S. Jackson Street
Independence, CA 93526

Subject: Owens River Water Trail (PROJECT)
DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR)
SCH# 2018051049

Dear Mr. Freilich:

The California Department of Fish and Wildlife (CDFW) received a Notice of Availability of a Draft Environmental Impact Report (DEIR) from the Inyo County Water Department (ICWD; Lead Agency) for the Owens River Water Trail Project (Project) pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1] A8-1

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources, and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.) Similarly for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

CDFW is also submitting comments as a **Responsible Agency** under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 et seq.)

A8-1 cont'd

PROJECT DESCRIPTION SUMMARY

Proponent: Inyo County Water Department

Objective: The Project proposes to construct the Owens River Water Trail to allow public recreational access solely for non-motorized watercraft on an approximately 6.3-mile segment of the Owens River. The Project would develop facilities for recreational users to enter and exit the river and allow unimpeded navigation for non-motorized watercraft, such as kayaks, stand-up paddle boards, and canoes. The Project would involve removal of emergent vegetation and excavation within the river channel to remove occlusions. In addition, boat launch and take-out facilities that would provide limited amenities (i.e., vault restroom, wildlife resistant trash receptacles, signage), in addition to access to the river, would be developed.
Location: Approximately 6.3-mile segment of the Owens River near Lone Pine, in Inyo County, California.

COMMENTS AND RECOMMENDATIONS

A8-2

Based on the Project's avoidance of significant impacts on biological resources with implementation of mitigation measures, CDFW concludes that an Environmental Impact Report is appropriate for the Project. During pre-consultation between CDFW and ICWD, no significant issues or concerns arose that have not been addressed in the DEIR, or will not be addressed in the Lake and Streambed Alteration Agreement. CDFW has no objections to the Project as proposed, provided all avoidance and minimization measures are implemented, including those in the DEIR as well as those that will be further developed through the Lake and Streambed Alteration Agreement. As discussed during pre-consultation, CDFW recommends post-project monitoring to ensure habitat quality is not negatively impacted by implementation of the proposed project.

ENVIRONMENTAL DATA

A8-3

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNNDB field survey form can be found at the following link: http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/CNDDB_FieldSurveyForm.pdf. The completed form can be mailed electronically to CNDDB at the following email address:

CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: http://www.dfg.ca.gov/biogeodata/cnddb/plants_and_animals.asp. A8-3 cont'd

FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.) A8-4

CONCLUSION

CDFW appreciates the opportunity to comment on the DEIR, as well as early consultation during Project development, to assist the ICWD in identifying, avoiding, minimizing, and mitigating Project impacts on biological resources. A8-5

Questions regarding this letter or further coordination should be directed to Rose Banks, Environmental Scientist, at (760) 873-4412 or Rose.Banks@wildlife.ca.gov.

Sincerely,

Scott Wilson
Environmental Program Manager
Inland Deserts Region

cc: Office of Planning and Research, State Clearinghouse, Sacramento

Letter No. A8

Scott Wilson, Environmental Program Manager
State of California – Natural Resources Agency
Department of Fish and Wildlife
Inland Deserts Region
3602 Inland Empire Blvd., Suite C-220
Ontario, CA 91764

Response No. A8-1

The comment expresses appreciation for the opportunity to comment and provide recommendations on the Draft EIR, summarized CDFW's role as a Trustee Agency for fish and wildlife resources and as a Responsible Agency under CEQA, and summarizes the project description. The comment does not raise an environmental issue and no further response is necessary.

Response No. A8-2

The comment concludes that all significant issues or concerns that arose during pre-consultation between CDFW and the County were addressed in the Draft EIR, or will be addressed in the Lake and Streambed Alteration Agreement. CDFW expresses no objections to the project as proposed with the implementation of all avoidance and minimization measures included in the Draft EIR and that will be further developed through the Lake and Streambed Alteration Agreement. CDFW recommends post-project monitoring to ensure habitat quality is not negatively impacted by implementation of the proposed project, which is also required by Draft EIR Mitigation Measure BIO-5.

Response No. A8-3

The County will coordinate with CDFW to upload the data collected during biological surveys conducted for this EIR into the California Natural Diversity Database (CNDDB).

Response No. A8-4

The County is aware that filing fees for environmental review by CDFW are necessary and payable upon filing of the Notice of Determination by the Lead Agency.

Response No. A8-5

The comment expresses appreciation for the opportunity to comment on the Draft EIR, as well as early consultation with the County during project development to assist with identifying, avoiding, minimizing, and mitigating project impacts to biological resources. Contact information is provided for further questions or coordination regarding the letter. The comment does not raise an environmental issue, and no further response is necessary.

2.2 COMMENTS AND RESPONSES

Organizational Responses

LA River Expeditions c/o Electric Lodge, 1416 Electric Ave., Venice, CA 90291 310.306.1854

June 21, 2019

Larry Freilich, Mitigation Manager
Inyo County Water Department
P.O. Box 337
Independence, CA 93526

Re: Letter of Support for Owens River Water Trail, e-mailed to lfreilich@inyocounty.us

Dear Mr. Freilich:

I am writing in strong support of implementation of the Owens River Water Trail. LA River Expeditions has watched the project grow for several years, and we are eager to continue giving back to the Owens Valley community through participation in events that encourage recreation and habitat improvement in Inyo County, especially in this reach of the Owens River. O1-1

River access is a transformative experience for environmental education. LA River Expeditions has made education as a key part of our kayak program on the Los Angeles River since 2011, inviting more than 150 educators from public agencies, non-profit organizations, community groups, and educational institutions to share professional and experiential knowledge of the river from distinct perspectives. We have found that kayaking is an exciting and engaging platform to foster stewardship and pro-environmental values.

The Owens River Water Trail would provide an excellent opportunity to enhance knowledge of local hydrology, ecology, human geography, and water resources. Likewise, it would expand opportunities to connect communities with the natural environment. Given the Owens River's significance to both the Eastern Sierra and Southern California, the Owens River Water Trail would be an invaluable asset to Californians and others seeking to learn about the state's waterscape.

Sincerely,

Scott Cher
Education Director, LA River Expeditions
larivxeducation@gmail.com

Letter No. O1

Scott Cher, Education Director
LA River Expeditions
c/o Electric Lodge, 1416 Electric Ave.
Venice, CA 90291

Response No. O1-1

The comment provides support for the project and does not raise an environmental issue. Therefore, no further response is necessary. The comment will be forwarded to the decision makers for consideration.

Letter O2

DISABLED SPORTS EASTERN SIERRA

P. O. Box 7275
Mammoth Lakes, CA 93546
760.934.0791
FAX 760.934.0729

May 21, 2019

Larry Freilich
Mitigation Manager, Inyo County
135 S. Jackson Street
PO Box 337
Independence, CA 93526

Dear Mr. Freilich,

It is with great enthusiasm that we at Disabled Sports Eastern Sierra support the Lower Owens River project. As you know we have many programs that provide access to unique opportunities for people "of all abilities". Among the many programs that we provide, our Wounded Warrior program is very special. As you are aware Wounded Warriors have some very unique needs and this easy flowing river will provide a healing process to occur like no other. The controlled flows of the Lower Owens River will allow us to take some of our severely wounded on this river. I am unaware of any other opportunity that similarly exists in California. This river experience will become an important part of the programs that we offer at Disabled Sports and be such an asset to the Eastern Sierra. O2-1

Sincerely yours,

Kathy Copeland

Kathy Copeland
Executive Director
760.934.0609
KCopeland@DisabledSportsEasternSierra.org

Letter No. O2

Kathy Copeland, Executive Director
Disabled Sports Eastern Sierra
P.O. Box 7275
Mammoth Lakes, CA 93546

Response No. O2-1

The comment provides support for the project and does not raise an environmental issue. Therefore, no further response is necessary. The comment will be forwarded to the decision makers for consideration.

Letter O3

2554 Lincoln Blvd. Suite 223
Los Angeles, CA 90291
310-398-8584 *fax* 310-398-8564
www.conservationsolutions.org

Solving problems where people and nature intersect

June 19, 2019

VIA E-mail lfreilich@inyocounty.us.
Larry Freilich
Mitigation Manager
Inyo County Water Department
P.O. Box 337, Independence, CA 93526

RE: Comments on Draft Environmental Impact Report for the Owens River Water Trail
SCH No. 2018051049

Dear Mr. Freilich:

On behalf of Community Conservation Solutions (CCS), I submit these comments on the Draft Environmental Impact Report (DEIR) for the Owens River Water Trail, proposed for the Lower Owens River in the vicinity of Lone Pine. CCS strongly supports the Owens River Water Trail (ORWT) project and associated restoration of native habitat and stream flows in the Lower Owens River. This project is badly needed, and can become a showcase for restoring natural stream functions and providing appropriate public access, and a model for partnerships between Inyo County, Los Angeles Department of Water and Power (L.A. DWP), the Lone Pine Paiute-Shoshone Tribe and non-profit organizations.

CCS has been a leader in restoring native habitat and developing public access along the Los Angeles River, and recently completed the L.A. River Greenway Trail and Native Habitat Restoration project in the San Fernando Valley, which included planting nearly 4,000 native trees, shrubs and plants in an ecosystem-focused design.

The Lower Owens River is unique and remarkable, and is unparalleled in the Western United States. The ORWT would restore critical natural habitat and function to the Owens River, while also making the river accessible to people for appropriate recreation. I was able to kayak the Lower Owens River when flow was first established, and witnessed first-hand both the incomparable beauty and scenery as well as the destruction and over-growth of non-native vegetation after nearly 100 years of being de-watered and used by cattle.

The Lower Owens River needs to be restored so that it can both support healthy native habitat and wildlife and accommodate non-motorized boats. The proposed 6.3 mile paddle trail has some of the most extraordinary scenery on the Lower Owens River, is close to visitor services in Lone Pine, and will provide an economic boost to the region. The proposed paddle trail is only 10% of the dewatered Owens River, and, once the ORWT is completed, would be the only navigable section of the Owens River worth exploring.

O3-1

Today, the Lower Owens River is not able to be boated due to the lack of natural river flows. Lack of natural flows, particularly during the spring, when high flows would normally flush sediment and emergent vegetation downstream, has caused the Owens River to become more of a linear marsh than a river. Natural flows should be established on the Lower Owens to naturally achieve the objectives of the RWT, including restoring a healthy ecosystem with natural vegetation and maintaining a navigable channel. O3-1 cont'd

Vegetation that is removed, or "spoils", should be left in the floodplain to decompose. This is both desirable and affordable. Trucking all the organic material out of the project area and burying it in a dump creates multiple negative impacts that are avoidable, including truck traffic that contributes noise and pollutants, adds greenhouse gases, and creates an additional carbon footprint that California is working hard to reduce, not expand. Removed vegetation can be managed in a way that allows natural decomposition and recycling of nutrients. O3-2

CCS strongly supports implementation of the ORWT project with the greatest emphasis on restoration and maintenance in perpetuity of natural river flows, restoration of native habitat, and development of public recreation and access opportunities consistent with the goals of protecting and restoring the Lower Owens River's ecosystem. We look forward to seeing the results of this badly-needed habitat restoration and public access and recreation project. O3-3

Sincerely,

Esther Feldman

Esther Feldman
President

Letter No. O3

Esther Feldman, President
Community Conservation Solutions
2554 Lincoln Blvd. Suite 223
Los Angeles, CA 90291

Response No. O3-1

The comment provides support for the project and does not raise an environmental issue. While the comment refers to restoration of the river, a revision has been made to the EIR to more clearly define the project as a recreational project. Please refer to Chapter 3 of this Final EIR for modifications to the Draft EIR. The comment will be forwarded to the decision makers for consideration.

Response No. O3-2

The comment expresses an opinion that the spoils should be left in the floodplain to decompose, rather than being hauled off-site for disposal as evaluated in Alternative 4 in the Draft EIR. The comment does not raise an issue with the contents of the EIR and will be forwarded to the decision makers for consideration.

Response No. O3-3

Similar to Comment No. O3-1, this comment expresses support for the project and does not raise an environmental issue. The comment will be forwarded to the decision makers for consideration.

Nelson Adventure Company, LLC

323-930-9037 info@nelsonadventure.co 920 N. Spaulding Ave., #4, Los Angeles, CA 90046

June 21, 2019

Larry Freilich, Mitigation Manager
Inyo County Water Department
P.O. Box 337
Independence, CA 93526

Re: Letter of Support, e-mailed to lfreilich@inyocounty.us

Dear Mr. Freilich,

This is a letter of support for implementing a Owens River Water Trail. As a kayak instructor and water adventure guide, access to the water has always been important to me to grow the sport and to share enjoyment of the outdoors with my fellow paddlers.

Though years of regularly guiding trips on the Colorado River, the Kern River, and the Los Angeles River, I've seen participants appreciation of rivers grow into a passion for protecting and cleaning them. As a kayak instructor, many of my students and friends have been involved in supporting the Owens River and I have supported them.

The community generated by river support and its economic resource as a recreation destination enriches every locality and I'm excited for the Owens River to become a water trail and enjoy this increase in support.

O4-1

Sincerely,

Brendan Nelson

Owner, Nelson Adventure Company

323-930-9037

aquakarrot@gmail.com

Letter No. O4

Brendan Nelson, Owner
Nelson Adventure Company
920 N. Spaulding Ave. #4
Los Angeles, CA 90046

Response No. O4-1

The comment provides support for the project and does not raise an environmental issue. Therefore, no further response is necessary. The comment will be forwarded to the decision makers for consideration.

Larry

I have reviewed the ORWT Draft Environmental Impact Report and have found the project as envisioned will provide a valuable addition to resources available to not only Team River Runner in San Diego but also to our other chapters across the country for the purpose of Veteran recreation and Leadership Training. These activities require a peaceful, natural environment in which Veterans can learn and enjoy kayaking skills and also the skills needed to become leaders of TRR. Such activities are quite helpful in healing the effects of Post Traumatic Stress and Traumatic Brain Injury, from which many Veterans suffer. O5-1

Of course the ORWT will also be a great asset to Veterans that already take advantage of the Owens Valley in the winter for skiing opportunities and are looking for summer activities.

Looking forward to utilizing the ORWT in the future.

Best regards,

Dale Osborn

Team River Runner San Diego
Chapter Coordinator

Letter No. O5

Dale Osborn, Chapter Coordinator
Team River Runner San Diego
dosborn@thinkgroupinc.com

Response No. O5-1

The comment provides support for the project and does not raise an environmental issue. Therefore, no further response is necessary. The comment will be forwarded to the decision makers for consideration.

June 18, 2019

Larry Freilich, Mitigation Manager
Inyo County Water Department
P.O. Box 337
Independence, CA 93526

Dear Mr. Freilich:

So nice to see the progress on your project, which I first became aware of in 2015 as a director on the American Canoe Association's California Executive Council based in Los Angeles.

By virtue of our regions' interconnected histories, it will have an undeniable recreational, educational, and symbolic impact for years to come.

Physically it has already connected people from Inyo and Southern California in clean ups, test paddles and advocacy. Emotionally and intellectually, it has re-ignited an awareness of the debt Southern California owes to the Owens Valley for the predictable water supply that sustains us.

O6-1

As we see in our increasingly mediated world, people are looking for REAL experiences with REAL meaning. A gentle paddle through the recovering Owens River on the planned water trail will work on many levels for many types of users, especially those with disabilities.

The draft EIR predicts no unmitigatable impact on the surrounding environment. Indeed, as efforts to restore rivers around the world have shown us, facilitating access to the river will only attract additional help and concern.

Thank you Inyo County and LADWP for your support of the ground breaking project, which I fully support.

O6-1 cont'd

Cordially,

Anthea Raymond
Public Policy Director
American Canoe Association - California
2600 Jeffries Avenue
Los Angeles, CA 90065
(323) 388-7207

Letter No. O6

Anthea Raymond, Public Policy Director
American Canoe Association - California
2600 Jeffries Avenue
Los Angeles, CA 90065

Response No. O6-1

The comment provides support for the project and does not raise an environmental issue. Therefore, no further response is necessary. The comment will be forwarded to the decision makers for consideration.

the Owens Valley Committee

June 22, 2019

Larry Freilich
Mitigation Manager
Inyo County Water Department
P O Box 337
Independence, CA 93526

Delivered by electronic mail to:
lfreilich@inyocounty.us

Dear Mr. Freilich

Please accept the Owens Valley Committee's comment on the Draft Environmental Impact Report (DEIR) for the Owens River Water Trail. The Owens Valley Committee is an organization that was founded in 1984 to protect Owens Valley's water resources, and the plants and animals that rely on water, from damaging groundwater pumping and export. The Committee is a party to the Memorandum of Understanding that amends and defines the 1991 Inyo Los Angeles EIR in several areas, including the Lower Owens River Project and the Owens Valley Land Management Plan (OVLMP). OVC also has a commitment to the small communities that rely on the natural resources of the Valley for environmentally compatible economic benefits, including agriculture, hunting and fishing, and tourism. O7-1

The Owens Valley Committee participated in the development of a recreation use plan for the lower Owens River. The Owens River Water Trail is one of the elements of the recreation use plan. We have been in support of the Owens River Water Trail since its inception.

Preparation of the river channel by removing obstructions such as submerged woody material and tules will yield improved flows and potentially better water quality. The Owens Valley Committee requests that data be collected by the Inyo County Water Department to inform future river management practices throughout the Lower Owens River. O7-2

The Owens Valley Committee is hopeful that mechanical vegetation removal will yield a healthier river system, especially with the failure of the Los Angeles Department of Water and Power to take advantage of scouring water flows in high water run-off years.

O7-2 cont'd

With the collection of water quality data and utilizing mechanical methods to open the river channel, the Owens River Water Trail project may serve as a model for river restoration in other reaches of the Owens River.

Sincerely,

Mary Roper, President Owens Valley Committee

Letter No. O7

Mary Roper, President
Owens Valley Committee
PO Box 77
Bishop, CA 93515

Response No. O7-1

The comment provides support for the project and does not raise an environmental issue. The comment provides information regarding the organization and the organization's participation in the development of the Recreation Use Plan, of which the project is an element. No further response is necessary; the comment will be forwarded to the decision makers for consideration.

Response No. O7-2

The comment states that removal of obstructions will yield improved flows and potentially improve water quality. The comment requests that the County collect data to inform future river management practices throughout the Lower Owens River. Mitigation Measure BIO-7 has been revised to require that prior to and during in-water work, the following five water quality parameters shall be monitored: temperature, dissolved oxygen, pH, conductivity, and turbidity. In addition, during all phases of in-water work, the five water quality parameters will be measured and documented for increased/decreased levels relative to baseline conditions. Therefore, with implementation of Mitigation Measure BIO-7 data will be collected that can be used to inform future river management practices. Please see Chapter 3 of this Final EIR for revisions to the mitigation measure.

The comment also suggests that mechanical vegetation removal would result in a healthier river system. As indicated in Draft EIR Chapter 2, Project Description, annual removal of vegetation would be completed by hand or mechanically with a Truxor 5000, or other multi-functional amphibious machine for cutting and collection of water plants. The comment regarding collection of water quality data and the method for annual removal of emergent vegetation is noted and will be forwarded to the decision makers for consideration.

Letter O8

LA River Expeditions c/o Electric Lodge, 1416 Electric Ave., Venice, CA 90291 310.306.1854

June 20, 2019

Larry Freilich, Mitigation Manager
Inyo County Water Department
P.O. Box 337
Independence, CA 93526

Re: Letter of Support, e-mailed to lfreilich@inyocounty.us

Dear Mr. Freilich,

O8-1

We wholeheartedly support the implementation of the Owens River Water Trail. From Los Angeles we've been following this exciting project for several years, and people from our organization have been eager to give back to the Owens Valley community through participation in periodic events that encourage recreation and habitat improvement in Inyo County, especially in this area of the Owens River.

LA River Expeditions has had wonderful success in helping to revitalize the Los Angeles River through its innovative guided kayak tours, run each year since 2011. The City and its citizens have benefitted substantially through the recreational activities we offer (we've put more than 10,000 people in kayaks on the river); we believe that the Owens River could also be an exemplary go-to destination that could enrich the community and the lives of Californians all across the state. These things create jobs and serve the community as well as visitors.

Over the years we've also brought to bear our stewardship volunteers who help clean up the LA River via trash removal; we believe that the Owens River community could also build a strong volunteer force that would be eager to assist with things like cleanups and invasive weed abatement which clogs the lower section of the Owens.

Our environmental education component ensures that experts in various environmental fields are able to share their expertise with those who come to learn about the river and enjoy their time learning about the river. We're confident that the Water Trail would be yet another fine source of environmental education that would enrich the lives of those in Inyo County, plus visitors and tourists alike.

And finally, we've managed to include a number of special needs groups. Other nonprofits with overlapping missions (e.g., Wheels to Water, a group that outfits people with physical impairments for boating activities, is just one of many examples). Schools and tribal communities are also groups that might be a great fit for the Water Trail. We believe you'd get people from LA and other areas who'd want to visit and become involved in what the Water Trail has to offer.

In short, LA has enjoyed many positive social and economic benefits that can be traced back to the opening of the river to public recreation. The general welfare has been served many times over. After so many years of inactivity, the prospect of an Owens River revitalization is quite an exciting thing. From Youth to Seniors, there's plenty of room for all generations and people from all walks of life to become involved in the river community and to officially start enjoying this fantastic natural resource as a sanctioned recreational area.

O8-1 cont'd

Sincerely,

George Wolfe
Founder & President, LA River Expeditions

310.804.0354
gwolfe.mail@gmail.com

Letter No. O8

George Wolfe, President
LA River Expeditions
c/o Electric Lodge, 1416 Electric Ave.
Venice, CA 90291

Response No. O8-1

The comment provides support for the project and does not raise an environmental issue. The comment provides information on the organization and identifies positive results, such as creation of a strong volunteer force and environmental education that could occur with the implementation of the project. No further response is necessary, and the comment will be forwarded to the decision makers for consideration.

2.3 COMMENTS AND RESPONSES

Individual Responses

From: Alan Carlton [mailto:carltonal@yahoo.com]
Sent: Tuesday, June 11, 2019 8:39 AM
To: Larry Freilich
Subject: I support the Owens River Water trail I-1

Alan Carlton
408 Sunset Rd.
Alameda CA 94501
(510) 759-5387

Letter No. I1

Alan Carlton
408 Sunset Rd.
Alameda, CA 94501

Response No. I1-1

The comment provides support for the project and does not raise an environmental issue. Therefore, no further response is necessary. The comment will be forwarded to the decision makers for consideration.

From: Esther Feldman [mailto:Esther@feldman-consulting.com]
Sent: Thursday, June 6, 2019 11:28 AM
To: Larry Freilich
Subject: Owens River Water Trail

Dear Larry:

I received the DEIR notice in the mail this week for the Owns River Water Trial, which made me do a double-take and then laugh. [redacted] I2-1

Thanks for being the instigator moving this so very important project forward. It's always remarkable how long it takes to get good work done, especially with government funding – and it only happens if there is someone who shepherds it along through all the myriad checkpoints. SO thank you! This will be a landmark and showcase project, and you should be very proud!

Looking forward to ground-breaking!

[redacted]

Best,
Esther

Esther Feldman
PRINCIPAL
310-929-7770
cell: 310-890-0424

FELDMAN CONSULTING

Letter No. I2

Esther Feldman
Feldman Consulting
Esther@feldman-consulting.com

Response No. I2-1

The comment provides support for the project and does not raise an environmental issue. Therefore, no further response is necessary. The comment will be forwarded to the decision makers for consideration.

From: carol hart [carolhart821@gmail.com]
Sent: Friday, June 21, 2019 4:14 PM
To: Larry Freilich
Cc: Stephen Hart
Subject: Lower Owens River Water Trail Project

To Larry Freilich and all parties concerned:

I am a property owner in Lone Pine, CA and am writing to voice my general approval of the Lower Owens River Water Trail Project. I have read through some of the CEQA summary documents including https://saoprceqap001.blob.core.windows.net/24392-2/attachment/2eCTUqtYtuj2n47g8NaOY6ZICnUbEp1u4ipfXJKu-2VhlTGYmDRFWWLSbex0H2aL2cKvsg8TYMZCJW-A0.
I consider myself to be an environmentalist and would be against any watershed engineering that would damage aquatic wildlife and fauna, but this alternative construction project appears to cover environmental sensitivities while reducing project costs. Recreation is an important component of life in Inyo County and I applaud you for taking steps to enhance our collective life experience here while protecting the natural environment. I3-1

--
Carol Hart
210 Alabama Drive
Lone Pine, CA 93545
carolhart821@gmail.com<mailto:carolhart821@gmail.com>

Letter No. I3

Carol Hart
210 Alabama Drive
Lone Pine, CA 93545

Response No. I3-1

The comment provides support for the project and does not raise an environmental issue. Therefore, no further response is necessary. The comment will be forwarded to the decision makers for consideration.

From: Ken Hayes [mailto:stringridge@gmail.com]
Sent: Tuesday, June 11, 2019 2:35 PM
To: Larry Freilich
Subject: [SPAM] Owens River Water Trail

Dear Mr. Larry Freilich, Mitigation Manager, Inyo County Water Department;

My name is Ken Hayes, I actually live near San Francisco Bay, but the East Side is one of my favorite spots. I4-1

My first visit to Death Valley was in about 1959, when I was about 3 years old.

Anyway, many trips later, including the 2019 Owens Lake Bird Festival, has provided me the opportunity to enjoy the many INYO County, and environs, offerings, as far as Nature is concerned.
During this recent festival I took the opportunity to attend walks and discussions along Cottonwood creek, and upland areas around the valley, including field trips on Geology and Botany Etc.

I know the River Trail will only add to Owens River habitat protection/restoration work, as well as provide recreational and environmental stewardship opportunities in the southern Owens Valley.

If done right, with mitigations in place as recommended, and managed over the coming years, I believe the Plan as Described in the Owens River Water Trail Draft E.I.R., dated May 2019, prepared by ESA of Los Angeles, **is a good course of action.**

I would say I am **MOST** in favor of what is referred to as **Alternative #2**, where the spoils from channel widening and improvement, would be spread in particular areas near the River, but above the agreed flood zone, and allowed to re-vegetate. I4-2
Thereby decreasing costs it seems to me, and the spoils would widen and enlarge the enrichment of soils in the area, as well as avoid wider impacts to the Valley, and Surrounding community, that would come from moving all the debris offsite.
By cycling the spoils back on the land it seems we could decrease the need for importing foreign soil and possible non-native plant introductions, etc.

On further reading, it also seems to make sense to utilize floating dredging equipment, thus limiting impacts to the soils in the area.
I also think ongoing vegetation removal could be done by hand, or with lower impact equipment.

As far as Input, and Output areas, parking, trail improvements and facilities, hopefully others in the area, and those actually **getting on the water** will express their opinions. I4-3
Saying that, I would be in favor of Alternative #3, moving the Input area to the west and away from current wetlands, perhaps?!

I would like to see the County, the Water Department, and others involved, continue to coordinate with local citizens, and Stewardship Groups, to see this project through. I4-4

Thank You for all you do!

Sincerely,
Ken Hayes
(530) 295-7564
1940 Joan Drive
San Leandro, California 94578

PS: I will be at the Public Hearing June 17 at Statham hall, Lone Pine, in spirit only! It is *unfortunately* an 8 hour drive from my house,
and I have more local trail maintenance/stewardship activities to attend to, particularly in Las Trampas Regional Wilderness.
Let's all love, protect, and improve natural habitat, in this, our Beautiful State.

PSS: I was involved in later stages of stream restoration work in Tamales Bay, east of Point Reyes National Seashore. We restored willow and other stream habitat and features, carefully excluded grazing in critical parts of creek watersheds,
removing invasive species etc., and local testimony as to species sightings and diversity, as well as the fishery improvements made it all very worthwhile work!

Letter No. I4

Ken Hayes
1940 Joan Drive
San Leandro, CA 94578

Response No. I4-1

The comment provides support for the project. With regard to mitigation measures, if the project is approved, a Mitigation Monitoring and Reporting Program will be adopted that will ensure that the mitigation measures are implemented and monitored. As with all of the comment letters, the comments will be forwarded to the decision makers for consideration.

Response No. I4-2

The comment indicates support for Alternative 2, Alternative Construction Approach. For clarification, the spoils areas for Alternative 2 would be the same as for the project and would be placed a minimum of 15 feet from the edges of water. It appears that the comment provides support for the placement of spoils within the floodplain rather than hauling the material offsite, which is considered under Alternative 4, Off-Site Disposal of Materials Alternative. The primary difference under Alternative 2 would be the method of construction for the water trail with the work proceeding from the upstream project limit to the downstream limit in a single step process. (For more detail regarding the equipment, please see Appendix F of the Draft EIR.) With regard to maintenance, Alternative 2 assumes maintenance would be done by hand or using a small CAT marsh buggy or similar multifunctional amphibious equipment designed for cutting and collection of vegetation. This approach under Alternative 2 seems to be consistent with the comment that ongoing maintenance could be done by hand or with lower impact equipment.

Response No. I4-3

This comment addresses the location of the boat launch and provides support for Alternative 3, Alternative Location of Put-In Facility. As indicated in the description and shown in Figure 4-1, Alternative 3 would locate the put-in facility further away from the river channel. The majority of the facility would be placed outside of the existing riparian habitat along the river channel.

Response No. I4-4

As with Comment No. I4-1, this comment provides support for the project. In addition, information regarding the connection with the area and other stream restoration is provided. The comment does not raise an environmental issue regarding the Draft EIR, and the comment will be forwarded to the decision makers for consideration.

Letter I5

From: Eva Nipp [mailto:enipp@bak.rr.com]
Sent: Tuesday, June 11, 2019 9:56 AM
To: Larry Freilich
Subject: Owens River Water Trail

Please proceed on the Owens River Water Trail, taking care to leave as much riparian ecosystem as possible. What joy it will be to kayak down the Owens in close proximity to all the plant and animal life that exists in this ecosystem. I5-1
Thank you,
Eva Nipp

Letter No. I5

Eva Nipp
enipp@bak.rr.com

Response No. I5-1

The comment provides support for the project, with the caveat of minimizing significant impacts on the riparian ecosystem. Draft EIR Chapter 3, Section 3.3, Biological Resources, contains an analysis of potential impacts to biological resources including riparian vegetation. As indicated, with the implementation of mitigation measures, impacts to biological resources and riparian vegetation would be reduced to a less than significant level. The comment will be forwarded to the decision makers for consideration.

Inyo County Water Commission public hearing regarding the Owens River Water Trail. June 17, 2019.

Copies of the Draft EIR for this Project are available for review at the Inyo County Water Department (135 S. Jackson Street, Independence) and all County Libraries. Online you can find the report at www.inyowater.org under "Recent Projects."

The 45-day review period began on May 8, 2019 and will end on June 21, 2019 at 5 P.M. Written comments and all questions should be addressed to Larry Freilich, Mitigation Manager, Inyo County Water Department at P.O. Box 337, Independence, CA 93526; faxed to (760) 878-2552; or emailed to lfreilich@inyocounty.us.

Tips: Comments are most helpful when they disclose additional impacts, alternatives, or when they address the methods of analysis used to evaluate the project. Commenters should explain the basis for their comments and should support them by substantial evidence such as data, references, expert opinion, or other facts. Mere opinions about the document or the underlying project, while permissible, are not helpful to the agency in developing an adequate EIR. At the same time, commenters should be aware that the adequacy of an EIR is determined in terms of what is reasonable. CEQA does not require the lead agency to conduct every test or perform all research, study, or experimentation recommended or demanded by commenters. (Bass, Ronald E. *CEQA deskbook*. Port Arena, CA: Solano Press Books, 2012. Print.)

Reference: Owens River Water Trail, draft EIR

Commenter Name: Tom Noland

Commenter contact information: 760 920-2147 Tomanchorranch@hotmail.com

Date: June 17, 2019

Comments:

Don't need cattle guards or new fencing at the south end. (Take out area) Fencing would take away good grazing area. I6-1

(Put in area.) - keep to the east side of river. Alt site on west side of river not ok for Spainhower Ranch. I6-2

Don't improve dirt roads especially on east side. I6-3

Letter No. I6

Tom Noland
tomanchorranch@hotmail.com

Response No. I6-1

The commenter suggests that the proposed cattle guards and fencing that are described in Chapter 2, Project Description and shown on Figure 2-5, Conceptual Boat Take-Out Facility, of the EIR are not necessary. The intent of the cattle guards and fencing are to create separation to ensure protection of the users of the area (i.e., the cattle, ranchers, and boaters). In response to the comment, the County has removed the proposed fencing and cattle guards shown in Figure 2-5 and modified the text of the Draft EIR on page 2-11 accordingly. Please refer to Chapter 3 of this Final EIR for revisions. Future management of the proposed project may include fencing as necessary.

Response No. I6-2

The comment provides support for the location of the boat launch area on the eastern side of the river as described in Chapter 2, Section 2.3.2 of the Draft EIR. The comment will be forwarded to the decision makers for consideration.

Response No. I6-3

The comment requests that dirt roads, especially on the east side of the river, not be improved. The project does not propose improvement of the dirt roads. Under the project as well as the alternatives, some of the informal roads would be used for the movement of spoils. However, after construction of the water trail all temporary floodplain access roads would be treated in a manner that stabilizes, restores, and camouflages the route (see Mitigation Measure CUL-6) to prevent future use that is above and beyond current ranch use.

Letter I7

From: Randy Short [rshort@almar.com]
Sent: Friday, June 21, 2019 3:01 PM
To: Larry Freilich
Subject: DEIR Owens River Water Trail

Response to the Owens River Water Trail DEIR

Dear Mr. Freilich,

Having now had the opportunity to review the Draft EIR regarding the trail I want to express my support for this important project.

In my role as Chairman of the CA State Parks, Boating and Waterways Commission it was a pleasure to have our staff and Commission have the opportunity to visit the site of the Lower Owens River Paddle Trail. Now with nearing completion of the environmental work, it is great to see this project one step closer. I was and remain an enthusiastic supporter of this project that will bring opportunities to so many. The project will provide a safe, unique, controlled river experience that is only available here at this site. Nowhere else in the State is this available and then you add the incredible views of the famous Alabama Hills, the setting for so many Hollywood films, Mt Whitney, the tallest mountain in the lower 48 states.

I am a Vietnam combat veteran and work regularly with Wounded Warriors and veterans. This project will be an important asset to help slow down the 22 veterans a day that are committing suicide in the country.

This project will truly be one of the treasures of California's experiences.

Randy Short

I7-1

Letter No. I7

Randy Short
rshort@almar.com

Response No. I7-1

The comment provides support for the project and does not raise an environmental issue. Therefore, no further response is necessary. The comment will be forwarded to the decision makers for consideration.

Inyo County Water Commission public hearing regarding the Owens River Water Trail. June 17, 2019.

Copies of the Draft EIR for this Project are available for review at the Inyo County Water Department (135 S. Jackson Street, Independence) and all County Libraries. Online you can find the report at www.inyowater.org under "Recent Projects."

The 45-day review period began on May 8, 2019 and will end on June 21, 2019 at 5 P.M. Written comments and all questions should be addressed to Larry Freilich, Mitigation Manager, Inyo County Water Department at P.O. Box 337, Independence, CA 93526; faxed to (760) 878-2552; or emailed to lfreilich@inyocounty.us.

Tips: Comments are most helpful when they disclose additional impacts, alternatives, or when they address the methods of analysis used to evaluate the project. Commenters should explain the basis for their comments and should support them by substantial evidence such as data, references, expert opinion, or other facts. Mere opinions about the document or the underlying project, while permissible, are not helpful to the agency in developing an adequate EIR. At the same time, commenters should be aware that the adequacy of an EIR is determined in terms of what is reasonable. CEQA does not require the lead agency to conduct every test or perform all research, study, or experimentation recommended or demanded by commenters. (Bass, Ronald E. *CEQA deskbook*. Port Arena, CA: Solano Press Books, 2012. Print.)

Reference: Owens River Water Trail, draft EIR

Commenter Name: Juanita Smith

Commenter contact information: (831) 521-0466 / jpsmith.desertdog@gmail.com

Date: 6/19/19

Comments:

(1) There are proposed signs to notify people about not disturbing / vandalizing or otherwise interfering with cultural resources -
Will there be any monitors who will be enforcing that sites are not disturbed?

I8-1

I8-2

(2) Do the funds for the project include future maintenance, to be sure that the channel doesn't get overgrown with vegetation again?

Letter No. I8

Juanita Smith
jpsmith.desertdog@gmail.com

Response No. I8-1

As discussed in Draft EIR Chapter 3, Section 3.4, Cultural Resources, the increased recreational use in the vicinity of the cultural resources has the potential to result in indirect effects including long term degradation of the sites as a result of recreational users leaving the intended use areas, inadvertently wandering into archaeological sites, and purposeful looting and vandalism. Therefore, Mitigation Measure CUL-6 requires that the proposed signage to be installed at the boat launch and take out kiosks shall include language stating that all water trail users are to stay within the designated recreational areas and shall provide interpretative information regarding the prehistory of the area. The signage shall also define site looting and vandalism and shall include consequences should such activities occur. Mitigation Measure CUL-7 allows for woody debris removed from the Owens River channel during construction to be placed at access points to roads near the channel, to form barriers and limit the ability of recreational users to leave the water trail and access archaeological sites located on the margins of the Owens River floodplain and the adjacent terraces. Mitigation Measures CUL-8 requires that a qualified archaeologist conduct an annual site condition verification program to monitor whether recreational use in the area is indirectly impacting known cultural resources. If the site condition verification program identified impacts to the resources, or if at any time the County becomes aware of such impacts, additional protective measures shall be implemented immediately as recommended by the qualified archaeologist in coordination with local Native American Tribes. If no impacts to resources are observed following the first three years, the annual site conditional verification program may be discontinued.

Response No. I8-2

As described in Draft EIR Chapter 2, Project Description, ongoing maintenance activities are anticipated to maintain the integrity of the water trail as well as the boat launch and exit facilities. In terms of maintaining the channel, such maintenance would occur during late fall and early winter to coincide with dormancy of vegetation and to avoid bird breeding and nesting season. Maintenance activities would remove vegetation above, and up to 3 feet below the water surface elevation to maintain the integrity of the water trail at up to 15 feet wide. Maintenance would consist of vegetation management only, and would be limited to clearing woody debris, the harvest of shoots, stalk, and leaves and would not include any excavation of the channel bed. As described in the Draft EIR, Chapter 2, Section 2.5, the County anticipates that the amount of vegetation required to be cleared for maintenance would decrease with successive years. Funding would be necessary for the channel maintenance and/or volunteer groups may be involved.

June 21, 2019
Re: Owens Valley Water Trail

To whom it may concern,

I am writing in support of the DEIR for the Owens River Water Trail. I have looked the DEIR over and it seems adequate. I9-1

The City of Los Angeles should be commended for cooperating to make the Owens River Water Trail an actuality. I have lived in the Owens Valley for over 40 years and this is one project that I find is most interesting, creative, sustainable, and well thought out.

The Owens River is underutilized for recreation (other than fishing). The Owens River Water Trail would add a whole new dimension to recreation for visitors and locals alike. Importantly, it would also provide an interesting and fun source of recreation for our wounded veterans. People would finally find a section of open river in which to boat and enjoy the river and the views that would be provided from a different vantage point.

Sincerely,

Denise Waterbury
P.O. Box 13
Bishop, CA 93515

Letter No. I9

Denise Waterbury
P.O. Box 13
Bishop, CA 93515

Response No. I9-1

The comment provides support for the project and does not raise an environmental issue. Therefore, no further response is necessary. The comment will be forwarded to the decision makers for consideration.

From: Richard Woolsey [mailto:richardwoolsey@me.com]
Sent: Wednesday, June 12, 2019 1:02 PM
To: Larry Freilich
Subject: Lower Owens River

I generally support initiatives that increase economic opportunities for local and nearby communities, but the question is . . . at what cost to the overall environment? I10-1

Can you assure residents and users that there will be no degradation of the Lower Owens River and adjacent land and flora fauna?

I am opposed to taking a stretch of the Lower Owens River and turning it into a playground, including: I10-2

- Continue to support/promote access for permitted seasonal fishing.
- Opposed to creating a campground(s) which risks the potential for trash, pollution and noise that will negatively impact the ecosystem
- Against watercraft for fear it will turn this stretch into a mini water park.
- Not in favor of swimming, floatation devices and sunscreen which risks tainting the river waters
- Noise pollution. Risk disturbing sensitive wildlife habitat and nesting t by introducing more visitors into the area; loud music, unruly visitors
- Air quality. Increase in air pollution from personal vehicles; shuttles

Unfortunately, I am seeing an increase in indiscriminate, reckless behavior by people who visit our wilderness areas. I am concerned such behavior will negatively impact the Lower Owens River, a risk I don't see worth taking.

Thank you.

Richard Woolsey
richardwoolsey@me.com

Letter No. I10

Richard Woolsey
richardwoolsey@me.com

Response No. I10-1

The comment expresses concern regarding the project and will be forwarded to the decision makers for consideration. The comment raises general issues regarding potential degradation of the Lower Owens River and adjacent land and flora/fauna. Currently, LADWP makes the project area accessible to the public, and it is currently used for limited boating, fishing, and outdoor recreation activities. The project would establish improved boat launch and take-out facilities, which would provide parking, vault restrooms, signage, trash cans, and ADA-level water access. The signage will provide guidance regarding the allowed use of the area to address potential concerns that arise in recreational areas. The Draft EIR evaluates the potential impacts that could occur as a result of the project. The Draft EIR concludes that with the implementation of mitigation measures and compliance with applicable regulations, the project would not result in significant impacts to the physical environment.

Response No. I10-1

The comment expresses support for the continued access for permitted seasonal fishing. The comment raises various general concerns, which are addressed below.

The comment expresses opposition to the creation of a campground. However, the project would not develop a campground, and use of the water trail and associated facilities would be allowed only during daylight hours per LADWP public land use restrictions. As stated in the Draft EIR, Chapter 3, Section 3.9, the County is considering including information on the project signage that would guide visitors to appropriate campgrounds nearby.

The comment expresses opposition to watercraft. As stated above, the project area is currently accessible to public and is used for limited boating and fishing; as such, there are watercraft already present in the project area. The purpose of the project, as expressed in Draft EIR Chapter 2, Project Description, is to create a water trail to allow all-abilities recreational access for non-motorized watercraft on a portion of the Owens River. A key objective of the project is to provide recreational access to a river for physically and emotionally wounded veterans. Engagement in kayaking and paddlesports has proven social, physical, and emotional benefits for wounded veterans. The ORWT is uniquely suited to this use and would be the only such river facility in the western U.S. The County does not intent to create a mini water park.

The comment expresses opposition to swimming, flotation devices, and sunscreen. As stated above, the project area is currently accessible to public and is used for limited boating, fishing, and other outdoor recreation activities. The proposed project would result in the development of a water trail specifically to promote the use of non-motorized watercraft. The proposed signage at the launch and take-out would warn visitors of the personal safety risks associated with swimming or wandering from the designated trail and facilities.

In terms of noise impacts to biological resources, Draft EIR Section 3.3, Biological Resources, indicates that increased public use could indirectly impact special-status species by trampling plants (e.g., from off-trail hiking), or deterring wildlife from using an area (e.g., due to increased noise and human presence, off-leash dogs could predate on wildlife, increased trash could attract nuisance wildlife predators/ competitors to the area). Therefore, potential indirect impacts would be potentially significant. In order to reduce the potentially significant impact, Mitigation Measure BIO-3 requires that the County shall implement an Environmental Awareness Program intended to educate the public of the biological resources and special-status species associated with the Owens River. The intention of the program shall be to encourage active conservation efforts among the public to help conserve the natural resources of the area. With the implementation of mitigation measure BIO-3, potential impacts would be reduced to a less than significant level.

With regard to air quality, Draft EIR, Chapter 3, Section 3.2, Air Quality, provides an analysis of the construction and operation of the water trail. The analysis considers the emissions from personal vehicles arriving and departing the site. Mobile source emissions conservatively assume that each launch would result in one round-trip per launch, rather than projecting the number of shuttles that may be used. Even with the conservative assumptions, the analysis concludes that air quality impacts during operation would be less than significant.

The comment concludes with an observation of users' behavior in wilderness areas and that such behaviors could adversely impact the Owens River. As indicated in Section 3.9, Recreation, of the Draft EIR, County staff met one-on-one with recreation staff from the BLM and USFS during the preparation of the Draft EIR to discuss recreational impacts on public lands they manage. In addition, County staff called Cultural Resource staff from NPS to discuss recreational impacts on public lands they manage. This was for the purpose of anticipating and preparing for impacts associated with increased recreational use of the Lower Owens River. The information obtained from the agencies has been considered and has shaped the proposed mitigation. The comment will be forwarded to the decision makers for consideration.

2.4 COMMENTS AND RESPONSES

Tribal Organization Responses

Letter T1

GENEVIEVE JONES
TRIBAL COUNCIL CHAIR

BIG PINE PAIUTE TRIBE OF THE OWENS VALLEY
Big Pine Paiute Indian Reservation
P.O. BOX 700 · 825 SOUTH MAIN STREET · BIG PINE, CA 93513
(760) 938-2003 · FAX (760) 938-2942
www.bigpinepaiute.org

June 20, 2019

Rick Pucci, Chairperson
Inyo County Board of Supervisors
P. O. Drawer N
224 N. Edwards Street
Independence, CA 93526

Ms. Cathreen Richards
Inyo County Planning Director
Inyo County Planning Department
P. O. Box L
Independence, CA 93526

Dear Chairperson Pucci and Director Richards:

Subject: AB 52 Consultation: Lower Owens River Water Trail Draft EIR

The Big Pine Paiute Tribe of the Owens Valley ("Tribe") thanks you for providing the Draft Environmental Impact Report ("EIR") on the Lower Owens River Water Trail and for reaching out to the Tribe by letter dated June 3, 2019, regarding the conclusion of AB 52 Tribal Consultation which had been ongoing for this project. The Tribe has reviewed the potential impacts discussed in the Draft EIR and the mitigations proposed to address the impacts. As the County of Inyo is aware, the California Environmental Quality Act ("CEQA") requires lead agencies to adopt a Mitigation Monitoring and Reporting Program ("MMRP") which the agency will implement in order to mitigate or avoid significant effects to environmental/cultural resources. With assurances that the mitigation measures and monitoring listed in the Draft EIR are included in the final EIR and thoroughly described in the MMRP, the Tribe sees no further need for discussing the project at this time. T1-1

Sincerely,

Genevieve Jones
Tribal Chairwoman

C: Larry Freilich, Inyo County Water Department
Danelle Gutierrez, Tribal Historic Preservation Officer
Sally Manning, Tribal Environmental Director

Letter No. T1

Genevieve Jones, Tribal Chairwoman
Big Pine Paiute Tribe of the Owens Valley
Big Pine Paiute Indian Reservation
P.O. Box 700
825 South Main Street
Big Pine, CA 93513

Response No. T1-1

The comment indicates that the Big Pine Paiute Tribe of the Owens Valley sees no need for additional discussion at this time regarding the project should a Mitigation Monitoring Reporting Program based on the current mitigation measures be implemented. As stated in the Draft EIR, Chapter 1, Section 1.3.6 Mitigation Monitoring and Reporting Program, CEQA requires the County to prepare a Mitigation Monitoring and Reporting Program (MMRP) for the project. The County will make the MMRP available to the public at the same time as the Final EIR.

Letter T2

Lone Pine Paiute-Shoshone Reservation

P.O. Box 747 • 975 Teya Road
Lone Pine, CA 93545
(760) 876-1034 Fax (760) 876-4500
Web Site: www.lppsr.org

June 21, 2019

Larry Freilich, Mitigation Manager
Inyo County Water Department
PO Box 337
Independence, CA 93526

RE: Comment to the Draft Owens River Water Trail Project

Dear Mr. Freilich,

Thank you for the opportunity to make public comment to the Draft EIR for the Owens River Water Trail Project and specifically the Cultural Resources Assessment Report. The Lone Pine Paiute-Shoshone Reservation (LPPSR) is adjacent to this project, so we are very familiar with this section of the River and its history. We have met with the county and other organizations in past to express our concerns and offer our assistance in the planning of this proposed project. It seems as if many of our concerns have been overlooked in the drafting of this document. Because protecting cultural resources is a high priority for our Tribe, as Tribal Historic Preservation Officer, I will be addressing these issues to reflect the concerns of the LPPSR Cultural Resources Protection Committee and Tribal members. T2-1

First and most importantly, the report is written from an archaeologist's perspective. The discussion about cultural resources is confused and confusing. A small example of this is using the present tense to describe the indigenous people living the Late Prehistoric lifestyle. There are many gaps and unexplained statements. Several contested theories are also used. The description of Prehistoric Setting is strictly from an archaeological perspective and is highly controversial. There is no acknowledgement of Indigenous accounts. T2-2

One does not have to be aware of all the nuances of the "Numic Spread" to be a good field technician to spot artifacts and features. However, the careless presentation and discussion in the Report undermines the survey as well as the document. A survey line of people 50 feet apart is going to miss more than it finds. No Tribal Monitors were a part of this survey because the Tribe was never informed. I considering the results, the vegetation is very dense along the river, so the only place artifacts were found was along the roads and higher in the less dense brush. That is why almost every new site is bisected or adjacent to a road. Here is where the vegetation is less and the ground can be seen. The entire APE is a site. The record search of Sacred Sites revealed no known sites, but was not stated was that the reply directed them to directly contact the Tribes to know for sure. Nobody contacted the Tribe on this matter. T2-3

Signage as described, not only deteriorates the aesthetic scenery of the River and surrounding landscape, so must be strategically placed as to not interfere with the experience. A major concern of the Tribes is who will be creating these signs. Whose interpretation of the Indigenous people of this valley and the surrounding landscapes. The LPPSR must approve these signs, especially if they are not even going to be asked about the creation of them T2-4

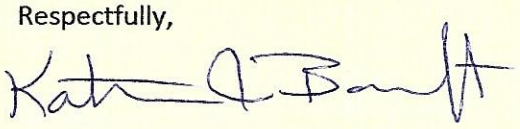
There are several concerns about the construction of the project. More research needs to be done on the equipment used for construction and maintenance. We have monitored their use on the Owens Lake Dust Mitigation and they are not as low impact as they are advertised to be. They also need a gentle slope to enter the river, so it will be able to enter at a few locations. Construction needs access and these roads appear on the maps, when we were assured that the two track roads in the area would not be used by river users. Improvements to roads will certainly be performed during construction. This is sure to impact sites when are bisected and more by access roads. T2-5

Mitigation measures include prevention of ,and solutions to, impacts to cultural resources. There are several issues with this section, but I must comment on the most distressful. Exclusionary fencing installed around cultural resources only serves to point out where the cultural resources are. Anybody wishing to loot or just out of curiosity will be drawn to these fenced areas. T2-6

The biggest concern for most of the local people is the fact that when you open up new areas to recreation, there is no way to control the crowds. We have time and time again seen our precious resources be destroyed, many times only by ignorance. Education must be put in place, but then education only goes so far with those who have no respect for our homeland. In places like this, even though it is not that remote, people will exit and enter the river as they please and leave their trash all along the way. T2-7

Tribes must be consulted!

Respectfully,



Katherine J. Bancroft
Tribal Historic Preservation Officer

Letter No. T2

Katherine J, Bancroft, Tribal Historic Preservation Officer
Lone Pine Paiute-Shoshone Reservation
P.O. Box 747 | 975 Teya Road
Lone Pine, CA 93545

Response No. T2-1

As part of the Assembly Bill 52 (AB 52) consultation process conducted by the County, the Lone Pine Paiute Shoshone were contacted via notification letter on May 8, 2018. No response was received from the Lone Pine Paiute Shoshone regarding consultation; however, Mary Wuester, Tribal Chairperson of the Lone Pine Paiute Shoshone, responded to the Notice of Preparation on June 20, 2018 and expressed that the Lone Pine Paiute Shoshone reservation supports the project. Further, Ms. Wuester sent a letter dated June 20, 2019 thanking the County for the opportunity to comment on the DEIR, and expressed continued support for the project.

Response No. T2-2

A public draft of the cultural resources assessment report was provided to the Lone Pine Paiute Shoshone on February 28, 2019 for review and comment. No comments or other input on the report were received from the Lone Pine Paiute Shoshone prior to the release of the Draft EIR for public comment in May 2019.

Response No. T2-3

The 15-meter (approx. 50-foot) transect interval used as part of the survey is standard for cultural resources surveys and constitutes intensive survey.

As part of the consultation outreach between the County and the Lone Pine Paiute Shoshone, no request was made for the presence of tribal monitors during the cultural resources survey. Although no tribal monitors were present during the survey, Mitigation Measure CUL-4 requires monitoring for archaeological resources during ground-disturbing activities associated with the proposed project and also provides for a Native American monitor from a locally-affiliated tribe. In addition, Mitigation Measure CUL-8, which requires annual site inspections, has been revised to include a provision for a Native American monitor during the site inspections. Please refer to Chapter 3 of this Final EIR for modifications made to the Draft EIR.

The Sacred Lands File results search provided by the California Native American Heritage Commission included a list of tribal contacts. The contact identified on the list for the Lone Pine Paiute Shoshone is Mary Wuester, who was contacted as part of the County's AB 52 outreach and consultation efforts.

Response No. T2-4

Mitigation Measure CUL-6 has been revised to include a provision that local tribes shall be consulted regarding the content and design of the informational/interpretive signage presented at the kiosks. Please refer to Chapter 3 of this Final EIR for modifications made to the Draft EIR.

Response No. T2-5

As indicated in the Draft EIR, Chapter 2, Project Description, equipment would use existing dirt and two track roads to access the project area, and these existing roads would not be improved. Additionally, Mitigation Measure CUL-7 requires that woody debris removed from the Owens River channel during construction would be strategically placed at points where existing ranch and access roads bound the channel to form a visual and pedestrian barrier that discourages disembarking mid-river to access the floodplain and ranch roads. As stated in the Draft EIR, Chapter 2, Project Description, recreational users of the river would use the existing, improved Lone Pine Narrow Gauge Road and SR 136 to access the river launch and take out.

Response No. T2-6

Mitigation Measure CUL-3, which requires that during construction exclusionary fencing be established around the perimeters of 33 archaeological resources within or immediately adjacent to access roads, has been revised to require that the County's contractor agree to specific conditions regarding staying on access roads, temporary signage along the access roads reminding construction personnel to stay on access roads, and additional measures to be implemented should construction vehicles/equipment leave the designated access road. The mitigation measure is revised in order to not draw attention to or to identify the location of resources. The revised mitigation measure would provide similar protection in that construction personnel would be notified in daily tailboards and signage to remain on the access roads. If it is found that construction personnel are leaving the access roads, the contractor would be responsible for taking corrective actions, such as establishing additional protective measures that could include fencing. Please refer to Chapter 3 of this Final EIR for modifications made to the Draft EIR.

Response No. T2-7

Mitigation Measure CUL-8 requires that annual site inspections be conducted by a qualified archaeologist to determine if the identified archaeological resources in closest proximity to the water trail and its facilities are being impacted by increased recreational use of the area. If the site inspections indicate the sites are being disturbed by an increase in visitors, then additional measures shall be taken to further protect the resources in coordination with local Native American Tribes.

Letter T3

Lone Pine Paiute-Shoshone Reservation
P.O. Box 747 • 1103 South Main Street
Lone Pine, CA 93545
(760) 876-1034 Fax (760) 876-8302
Web Site: www.lppsr.org

June 20, 2019

Mr. Larry Freilich, Mitigation Manager
Inyo County Water Department
P.O. Box 337
Independence, CA 93526

Re: Owens River Water Trail Draft Environmental Impact Report (DEIR)

Mr. Freilich;

The Lone Pine Paiute-Shoshone Reservation (LPPSR) appreciates the opportunity to comment on the Owens River Water Trail Draft Environmental Impact Report. LPPSR has long been supportive of the concept to restore access to the river that has traditionally been critical to the life and wellbeing of this valley's native people. Indeed, for many in our community, private property restrictions, water diversion, fencing and impassible overgrowth have discouraged generations from enjoying and utilizing this vital resource. T3-1

As stated in the Executive Summary, the County will coordinate with LPPSR on public informative displays where Tribal cultural resources are provided. Confidence in this fact is shown by the extensive communication and collaborative design discussions between Inyo County Water Department personnel and LPPSR Tribal Leadership and staff over the planning years.

LPPSR appreciates the very low construction footprint design. Taking into account access for all physical capabilities, you have produced a project that ensures easy access, but not at the expense of destruction to the very natural environment the river experience is offering.

The river restoration is ambitious and attainable. Though only a small percentage of its unrestricted size, the compromises between agencies and governments should be taken advantage of while there remains agreement and spirit of cooperation.

Again, LPPSR appreciates the opportunity to comment on this draft document.

Sincerely,

Mary L. Wuester, Tribal Chairperson
Lone Pine Paiute-Shoshone Reservation

Cc: Mel O. Joseph, LPPSR Environmental Director

Letter No. T3

Mary L. Wuester, Tribal Chairperson
Lone Pine Paiute-Shoshone Reservation
P.O. Box 747 | 1103 South Main Street
Lone Pine, CA 93545

Response No. T3-1

This comment expresses appreciation to the County for the opportunity to comment on the project and that the Lone Pine Paiute-Shoshone are supportive of the restored access to the river. The comment also expresses appreciation to the County for the low construction footprint design and for including the Lone Pine Paiute Shoshone in collaborative design discussion over the years of project planning. While the comment refers to restoration of the river, a revision has been made to the EIR to more clearly define the project as a recreational project. Please refer to Chapter 3 of this Final EIR for modifications to the Draft EIR. The comment does not raise an environmental issue; therefore, no further response is necessary. The comment will be forwarded to the decision makers for consideration.

TORRES MARTINEZ DESERT CAHUILLA INDIANS
P.O. Box 1160
Thermal, CA 92274
(760) 397-0300 – FAX (760) 397-8146

MAU - WAL - MAH
SU-KUTT MENYIL

June 3, 2019

Attn: Larry Freilich

Re: Owens River Water Trails

The Torres – Martinez Desert Cahuilla appreciates your response to our AB52 notification request. And in light of said information concerning your agencies location, the Tribe wishes to defer all future project notifications to Tribes that are closer to your area. T4-1

Respectfully,

Michael Mirelez
Cultural Resource Coordinator
Torres-Martinez Desert Cahuilla Indians
Office: 760-397-0300 Ext: 1213
Cell:760-399-0022
Email: mmirelez@tmdci.org

Inyo County Water Department
135 S. Jackson Street
P.O. Box 337
Independence, CA 93526

Phone: (760) 878-0001
FAX: (760) 878-2552
Email: lfreilich@inyocounty.us

NOTICE OF AVAILABILITY OF A DRAFT ENVIRONMENTAL IMPACT REPORT

Date: May 7, 2019

Project Title: Owens River Water Trial

CEQA Lead Agency: County of Inyo

The County of Inyo has completed the preparation of a Draft Environmental Impact Report (Draft EIR) (State Clearinghouse No. 2018051049) for the Owens River Water Trail, which is summarized below. The Draft EIR has been prepared in accordance with the California Environmental Quality Act (CEQA), as amended (Public Resources Code Section 21000 et seq.), and the State CEQA Guidelines for Implementation of CEQA (California Code of Regulations, Title 14, Section 15000 et seq.).

Project Description: The County of Inyo (project applicant) is proposing to implement the Owens River Water Trail Project (ORWT or project) within the perimeter of the Lower Owens River floodplain from Lone Pine Narrow Gauge Road south to Highway 136, just east of Lone Pine, California. The project area is largely a natural setting and is owned by the Los Angeles Department of Water and Power. The site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

Implementation of the Project would allow recreational access for non-motorized watercraft to an approximately 6.3-mile segment of the Owens River representing approximately 10 percent of the length of the newly rewatered, 62-mile Lower Owens River. The project would develop facilities for recreational users to enter and exit the river and allow unimpeded navigation for non-motorized watercraft, such as kayaks, stand-up paddle boards, and canoes. The project would involve removal of emergent vegetation and excavation within the river channel to remove occlusions. In addition, boat launch and take-out facilities that would provide limited amenities (i.e., vault restroom, wildlife resistant trash receptacles, signage) in addition to access to the river, would be developed. The County would provide ongoing maintenance of the water trail.

Letter No. T4

Michael Mirelez, Cultural Resources Coordinator
Torres-Martinez Desert Cahuilla Indians
P.O. Box 1160
Thermal, CA 92274

Response No. T4-1

This comment states that the Torres-Martinez Desert Cahuilla Indians defers all future project notification to tribal groups in closer proximity to the project area. The comment provides support for the project and does not raise an environmental issue. Therefore, no further response is necessary. The comment will be forwarded to the decision makers for consideration.

CHAPTER 3
Modifications to the Draft EIR

In accordance with the State CEQA Guidelines Section 15132(a), this chapter of the Final EIR provides changes to the Draft EIR that have been made to clarify, correct, or supplement the information provided in that document. These changes and additions are due to recognition of inadvertent errors or omissions, and/or in response to comments received on the Draft EIR during the public review period. The changes described in this chapter do not add significant new information to the Draft EIR that would require recirculation of the Draft EIR.

More specifically, CEQA requires recirculation of a Draft EIR only when "significant new information" is added to a Draft EIR after public notice of the availability of the Draft EIR has occurred (refer to California Public Resources Code Section 21092.1 and State CEQA Guidelines Section 15088.5), but before the EIR is certified. Section 15088.5 of the State CEQA Guidelines specifically states:

> *"New information added to an EIR is not 'significant' unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement. 'Significant new information' requiring recirculation includes, for example, a disclosure showing that:*
>
> - *A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.*
> - *A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted to reduce the impact to a level of insignificance.*
> - *A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it.*
> - *The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded."*

State CEQA Guidelines Section 15088.5 also provides that "[re]circulation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR... A decision not to recirculate an EIR must be supported by substantial evidence in the administrative record."

As demonstrated in this Final EIR, the changes presented in this chapter do not constitute new significant information warranting recirculation of the Draft EIR as set forth in State CEQA

Guidelines Section 15088.5. Rather, the Draft EIR is comprehensive and has been prepared in accordance with CEQA.

Changes to the Draft EIR are indicated below under the respective EIR section heading, page number, and paragraph. Paragraph reference is to the first full paragraph on the page. Deletions are shown with ~~strikethrough~~ and additions are shown with an underline.

Executive Summary

Page ES-7.

Footnote number 2 on page 2-17 is revised as follows:

> ~~Approximately 2,380 linear feet of occlusions and approximately 1,890 square feet of narrow channel would be removed from~~ In the area of relic beaver dams (occlusions 8-11 on the figures provided in Appendix B-3 of this EIR)~~. The~~ the combined volume of emergent vegetation and material from channel excavation would be approximately 3,700 ~~5,000~~ cy of material or approximately 27% of the total materials to be generated by the project.

Page ES-8.

Revise the fifth sentence in the first full paragraph as follows:

The boat launch and take-out ~~bout~~ would be a maximum of 500 square feet with assorted boulders strategically placed to provide bank stabilization.

Page ES-10, Areas of Controversy/Issues to Be Resolved.

Revise the last three bullets of the list as follows:

- ~~Concern of potential impacts resulting from increase in use of area~~
- Disposal of emergent vegetation and excavated materials
- Impacts resulting from an increase in activity and people in the area
- Impacts to ranching operations
- Impacts to wetlands

Page ES-12 and ES-13.

Delete the last sentence of the last paragraph on the page as follows:

> ~~In addition, the No Project Alternative would not include restoration activities for natural habitats, and would not meet the habitat, environmental, and social goals of the LORP and the Lower Owens River Draft Recreation Use Plan.~~

Pages ES-15 through ES-31.

Table ES-1, Summary of Project Impacts and Mitigation Measures, summarizes the potential impacts, lists mitigation measures, and provides the level of significance for all issue areas addressed in the Draft EIR. As a result of the comments on the Draft EIR, some of the mitigation measures have been revised. All of the mitigation measure revisions made below in various sections of Chapter 3 of the Draft EIR are hereby incorporated in to Table ES-1. All mitigation measures from Chapter 3 of the Draft EIR as revised herein are provided in the Mitigation Monitoring and Reporting Program contained in Chapter 4 of this Final EIR.

Chapter 1 Introduction

Page 1-1, Section 1.1, Purpose of the EIR.

Revise the first paragraph as follows:

> The County of Inyo (County) is the project applicant proposing to construct the Owens River Water Trail (ORWT or project) to allow public recreational access solely for non-motorized watercraft on an approximately 6.3-mile segment of the Owens River. The extent of the river to be used for the water trail represents approximately 10 percent of the length of the newly rewatered, 62-mile Lower Owens River. The proposed project would develop facilities for recreational users to safely enter and exit the river and allow unimpeded navigation for non-motorized watercraft, such as kayaks, stand-up paddle boards, and canoes. ~~In addition to providing recreational access, the proposed project would provide instream and riparian habitat benefits and improve water quality.~~ The proposed project would be a first-of-its-kind designated water trail in the western United States and would benefit recreational opportunities in the Owens Valley region by offering a gentle stretch of river with controlled flows that is ideal for ~~safe~~ paddling.

Chapter 2 Project Description

Page 2-1.

Revise the first paragraph as follows:

> The County of Inyo (County) is the project applicant proposing to construct the Owens River Water Trail (ORWT or project) to allow public recreational access solely for non-motorized watercraft on an approximately 6.3-mile segment of the Owens River. The extent of the river to be used for the water trail represents approximately 10 percent of the length of the newly rewatered, 62-mile Lower Owens River. The proposed project would develop facilities for recreational users to safely enter and exit the river and allow unimpeded navigation for non-motorized watercraft, such as kayaks, stand-up paddle boards, and canoes. ~~In addition to providing recreational access, the proposed project would provide instream and riparian habitat benefits and improve water quality.~~ The proposed project would be a first-of-its-kind designated water trail in the western United States and would benefit recreational opportunities in the Owens Valley region by offering a gentle stretch of river with controlled flows that is ideal for ~~safe~~ paddling.

Page 2-6, Section 2.2, Project Objectives.

Revise the bulleted objectives in the section as follows:

- Provide all-abilities access to the ORWT as a recreational resource;
- Provide recreational and educational opportunities for the surrounding community and visitors;
- Develop a water trail and associated facilities in such a way so as to preserve the cultural heritage of the area;
- Implement a water trail that does not conflict with the LORP and Draft Recreation Use Plan;
- Satisfy a LORP goal of sustainable recreation by establishing an area for open-water river recreation that has been compromised due to excessive recruitment of emergent vegetation;
- Create signage that clearly outlines area use guidelines and restrictions and locate strategically in the facilities areas and along the river, as appropriate; and
- Develop a water trail and associated facilities that are compatible with adjacent uses, such as cattle grazing and LADWP activities.
- ~~Implement restoration activities for the natural habitats and species of the Owens River to be consistent with the restoration efforts of the LORP. The LORP calls for the creation and enhancement of natural habitats to be consistent with the needs of certain habitat indicator species through the application of appropriate flow and land management practices; and~~
- ~~Remain consistent with the habitat, environmental, economic, and social goals of the LORP and the Lower Owens River Draft Recreation Use Plan, which include:~~
  - ~~Continue to prioritize LORP goals and the ecological restoration of riparian habitat over recreation;~~
  - ~~Minimize conflict between recreation, ranching and LADWP operations by appropriately locating improvements, installing signs, cattle guards, and gates where needed and by improving some roads;~~
  - ~~Protect existing cultural resources, artifacts and areas by collaborating with local Tribes and steering recreation away from sensitive areas; and~~
  - ~~Place clear and frequent signage in strategic locations to outline area use guidelines and restrictions, and to share information about existing operations.~~

Page 2-8. Section 2.3.2, Boat Launch Facility.

Revise the last sentence of the third paragraph as follows:

> The road shoulder would be graded and resurfaced with an all-weather surface (such as gravel) to create approximately ~~1,090~~1,105 feet of parallel parking ~~spaces~~area.

Page 2-11. Section 2.3.3, Boat Take-out Facility.

Revise the last paragraph as follows:

Parking would be provided in a parking area consisting of approximately 488 linear feet along the all-weather surface road. Additional structured parking located in the powerline right-of-way would require LADWP approval through a special use permit. Pedestrian paths between the parking area and the staging would also be constructed. ~~As with the boat launch facility, cattle exclusion fencing would be installed along the northern boundary of the facility.~~ All improvements associated with the boat take-out facility would be constructed outside the right-of-way of SR 136.

Page 2-13. Figure 2-5 Conceptual Boat Take-out Facility

Figure 2-5 has been revised to remove proposed cattle guards and fencing. The revised figure is included at the end of this chapter.

Page 2-17.

Footnote number 5 on page 2-17 is revised as follows:

~~Approximately 2,380 linear feet of occlusions and approximately 1,890 square feet of narrow channel would be removed from~~ In the area of relic beaver dams (occlusions 8-11 on the figures provided in Appendix B-3 of this EIR)~~. The~~ the combined volume of emergent vegetation and material from channel excavation would be approximately 3,700 ~~5,000~~ cy of material or approximately 27% of the total materials to be generated by the project.

Page 2-18.

Delete the following sentence in the first full paragraph:

~~In addition, the spoils areas excluded sensitive habitats and wetland areas.~~

Page 2-22, Subsection 1.5, Operation and Maintenance.

Revise the third sentence as follows:

In accordance with~~Adhering to~~ LADWP's requirements~~policy~~, ~~use of~~ the ORWT would be available for "day use"~~occur during daylight hours~~.

Page 2-24. Section 2.6, Require Permits and Approvals.

Revise the first bullet as follows:

- Los Angeles Department of Water and Power: Lease and special use permit for parking within powerline right-of-way; temporary construction easement/agreements for construction staging and access

Section 3.2 Air Quality

Page 3.2-20.

Revise the first sentence of the second paragraph under Operations as follows:

The project site is located in Inyo County and is subject to the County General Plan and the Lower Owens River Plan, which provides mitigation for impacts related to historical groundwater pumping ~~of the river~~ and surface water diversion.

Page 3.2-25.

Revise the third and fourth sentences of the second paragraph under Toxic Air Contaminants as follows:

Additionally, the length of the project ~~(6 miles)~~ from launch to take-out minimizes the amount of time any single activity is near any given receptor, thus risk to receptors over 1,000 feet from the active portion of the development would negligible. Because the nearest sensitive receptors are located over 1,000 feet from construction areas~~and the project is over 6 miles in length~~, a quantitative health risk assessment is not warranted, and risk to sensitive receptors would be minimal. Impacts would be less than significant.

Section 3.3 Biological Resources

Page 3.3-3.

Revise the table to read as follows:

TABLE 3.3-1
POTENTIALLY JURISDICTIONAL AREAS

Jurisdiction Types	Acres
USACE/RWQCB Wetlands	419.6
USACE/RWQCB Non-Wetlands	26.2
CDFW Riparian	445.8~~470.1~~

SOURCE: ESA, 2018

Page 3.3-4.

Revise the first full paragraph to read as follows:

Areas identified as potential CDFW jurisdiction are comprised of USACE and RWQCB jurisdiction, which include vegetation communities dominated by wetland indicator species (as detailed above)~~, as well as rubber rabbitbrush – Nevada saltbush scrub (Upland [UPL][1]/Facultative Upland [FACU][2]) and rubber rabbitbrush scrub-saltgrass flats (FACU/FAC) vegetation communities within the floodplain. Upland species almost never occur in wetlands, and FACU species usually occur in non-wetlands but may occur in wetlands. Although rubber rabbitbrush – Nevada saltbush scrub is UPL/FACU, greasewood scrub (FACU) and bush seepweed scrub (OBL) are prevalent as co-dominants in some patches within the shrub layer of this community; therefore, for purposes of this analysis, this community is being considered as~~

1 Upland – Indicates species that almost never occur in wetlands.

2 Facultative Upland – Indicates species that usually occur in non-wetlands, but may occur in wetlands.

~~riparian habitat under CDFW jurisdiction. Additionally, since rubber rabbitbrush-saltgrass flats is considered FACU/FAC, and because saltgrass flats are a co-dominant component of this community and are considered FAC, for purposes of this analysis, this community is also being considered as riparian habitat under CDFW jurisdiction~~.

Conversely, rubber rabbitbrush – Nevada saltbush scrub (Upland [UPL][3]/Facultative Upland [FACU][4]), rubber rabbitbrush scrub-saltgrass flats (FACU/FAC), and allscale scrub (FACU) are~~is~~ not being considered as riparian habitat under CDFW jurisdiction based on confirmation by CDFW, the location of this community being primarily outside of the floodplain, as well as the presence of upland desert species (e.g., shadscale, white bursage) found in association with this community.

Page 3.3-20

Four ~~Five~~ special-status fish species (~~Owens sucker,~~ Owens pupfish, California golden trout, Owens speckled dace, and Owens tui chub) were determined to have a low potential to occur. While the study area supports suitable or marginally suitable habitat, the study area is outside of the known distribution for these species. For the federal and state endangered species, Owens pupfish and Owens tui chub, sanctuaries and refuge sites have been created in order to improve and reestablish their populations. The sanctuaries and refuge sites connected to the Owens River are all located at least 45 miles north from the study area. One refuge is located 11.5 miles away, but lacks a surface water connection with the Owens River. While it is entirely possible for one of the fish species to swim downstream into the study area, it is not expected. Based on a personal conversation with Nick Buckmaster (Environmental Scientist with CDFW's Bishop Field Office) during a project site visit in March 2018, the potential for ~~Owens sucker,~~ Owens pupfish, Owens speckled dace, and Owens tui chub is low within the study area (Buckmaster, pers. comm. 2018). These species are not discussed further in this analysis. Based on previous studies of the Owens sucker and documentation of its historic range in the lower 60 miles of the Lower Owens River, the potential for Owens sucker to be present in the project area is considered to be moderate (See California Department of Fish and Wildlife (CDFW). Date Unknown. Owens Sucker. Catostomus fumeiventris (Miller), at https://nrm.dfg.ca. gov/FileHandler.ashx?DocumentlD= 104359&inline).

Page 3.3-22.

Add the following text at the end of the partial paragraph at the top of page 3.3-22 as follows:

Direct impacts would also be avoided as these species are mobile and would be expected to move away from the construction area, if present. Thus, any potential direct impacts to these species are considered less than significant. However, the County voluntarily would have a qualified biologist with experience identifying voles and their signs conduct a pre-construction survey. The pre-construction survey may include identification by fecal pellets and sign (e.g., runways, burrows, grass clippings), camera trapping, and/or live trapping, as determined appropriate by the qualified biologist and in consideration that voles are often "trap shy". If any Owens Valley voles are found within the study area, their burrows would be avoided to the maximum extent practicable, and exclusion fencing would be erected around the burrow area or around the work area based on the recommendations of the qualified biologist to prevent voles from entering the

[3] Upland – Indicates species that almost never occur in wetlands.

[4] Facultative Upland – Indicates species that usually occur in non-wetlands, but may occur in wetlands.

work area. Construction equipment would be limited to speeds of 15 miles per hour. If necessary, Owens Valley voles that cannot be avoided would be captured and relocated to similar habitat that is outside of the work area by the qualified biologist. The relocation area would be pre-determined by the qualified biologist in coordination with CDFW.

Page 3.3-22.

Revise the first paragraph under Impact State BIO-2 to read as follows:

However, because hardstem bulrush marsh, saltmarsh bulrush marsh, and rubber rabbitbrush – Nevada saltbush scrub are regionally common and widely distributed, they are not considered a vulnerable community in the region in the context for the management objectives for the LORP within this particular area, which was confirmed by CDFW (Buckmaster 2019b, Banks and Moyer 2019); therefore, impacts are not considered significant.

Page 3.3-22 and 3.3-27.

Revise the last sentence on page 3.3-22 and the beginning of page 3.3-27 to read as follows:

The project would avoid 16.3 acres of black willow woodlands. within the study area.

Pages 3.3-27.

Revise the second paragraph to read as follows:

The proposed project would permanently impact 5.7 acres of potential CDFW jurisdictional streambed and associated riparian habitat, of which 5.2 acres would be turned into open water from in-channel occlusion removal and would therefore still be CDFW jurisdictional streambed, and temporarily impact 34.735.5 acres of CDFW jurisdictional streambed and associated riparian habitat.

The project would avoid 405.4428.9 acres of CDFW jurisdictional streambed and associated riparian habitat within the study area.

Pages 3.3-28.

Revise the second table to read as follows:

TABLE 3.3-4
IMPACTS TO CDFW POTENTIALLY JURISDICTIONAL AREAS

Jurisdiction Types	Existing (Acres)	Permanent Impacts (Acres)	Temporary Impacts (Acres)	Total Impacts (Acres)	Avoided (Acres)
CDFW Riparian	445.8470.1	5.7 (5.2)*	34.735.5	40.441.2 (5.2)*	405.4428.9
Total	**445.8470.1**	**5.7 (5.2)***	**34.735.5**	**40.441.2 (5.2)***	**405.4428.9**

* Acreage in parentheses indicate in-channel occlusion removal areas that would be turned into open water, and would still be CDFW jurisdictional streambed.

Page 3.3-36

During occlusion removal within the project area, Owens sucker (if present), bass and other warm-water species may temporarily travel upstream, downstream, or other locations of refuge due to in-water construction noise and activity, turbidity increase, and fluctuating water levels. The fishes however, will be able to recolonize this area after construction ends or slows down. Although fish use aquatic vegetation (e.g., tules) for food and providing refuge, there will still be an abundance of vegetation along the river banks, cut banks, and side channels to provide these resources. Additionally, aquatic vegetation may also eventually reestablish within the project area, creating more refuge opportunities for fish. However, turbidity associated with project construction and maintenance could have a potentially significant impact on movement of ~~common~~ fish species and their spawning sites. In 2001, beaver dams were removed via helicopter and a pilot operated "grabber jaw" attached to a cable (LADWP 2002). Water quality (dissolved oxygen, turbidity, and electrical conductivity) was measured before, during, and after dam removal. During most dam removals, a decrease in dissolved oxygen was not observed and turbidity only slightly increased due to plumes stirred up during dam removal. Electrical conductivity also did not have a significant change. During beaver dam removal, no aquatic species were observed as injured or dead. Similar results may be expected during implementation of the proposed project. Nonetheless, implementation of mitigation measure BIO-7 would reduce impacts to a less than significant level by requiring a pre-construction fish survey, relocation of special-status fishes if found, monitoring of water quality and aquatic species stress, and installation of a sediment curtain or other measures to minimize impacts to aquatic species during the proposed in-channel construction and maintenance activities.

Page 3.3-40 through 3.3-44.

Revise Mitigation Measures BIO-1, BIO-3, BIO-4, BIO-5, BIO-6, BIO-7, and BIO-10 as follows:

> **Mitigation Measure BIO-1**: The following mitigation shall be implemented for avoidance and minimization of impacts to special-status plant species within the project site:
>
> a. Prior to construction activities, a focused rare plant survey shall be conducted by a qualified biologist/botanist to confirm presence/absence of special-status plant species within the project site (i.e., within the project footprint where direct permanent or temporary impacts due to ground disturbance may occur, and within 100 feet of where occlusion removals will occur) within the appropriate blooming periods of each species (unless a qualified biologist confirms that special-status plant species can be definitively identified outside of the blooming period).
>
> b. If any special-status plant species are found, these species or population shall be flagged (or otherwise delineated) by a biologist and shall be avoided to the greatest extent feasible (i.e., no work will occur within a 50-foot buffer of special-status plants). If work occurs within a 50-foot buffer of a special-status plant species individual and/or population, a qualified biologist shall be on-site during any ground disturbing activities.
>
> c. To minimize indirect impacts to special-status plant species within the project site, prior to construction activities, all heavy equipment proposed for use on-site

shall be cleaned (including wheels, tracks, undercarriages, and bumpers, as applicable) before delivery to the project site to reduce the potential for the spread of weed seeds during the project. In addition, to discourage non-native or invasive weed species from establishing on the piles within the spoils areas, any muds shall be covered with cut native vegetation to act as a protective mulch as the materials decompose.

d. If avoidance of a special-status plant species is not feasible (i.e., no work will occur within a 50-foot buffer of special-status plants), and potential impacts to special status plant species is considered significant (i.e., impacts would threaten regional populations of these species), coordination with Inyo County staff biologist(s) would be required to confirm suitable mitigation prior to ground-disturbing activities. The mitigation strategy may include avoidance, on-site or off-site translocation, seed collection, and/or restoration, and shall be outlined in a mitigation plan to be approved by Inyo County in coordination with LADWP. At a minimum, the plan shall include a description of the existing conditions, methodology, site preparation and planting methods, and maintenance and monitoring schedule.

e. Owens Valley checkerbloom is State Endangered. If this species is found within the project site and avoidance is not feasible (i.e., no work will occur within a 50-foot buffer of special-status plants), the County shall obtain a 2081 Incidental Take permit under CESA from the CDFW. The following would be incorporated, as a minimum, into the permitting, subject to approval by CDFW.

    1. A mitigation and monitoring plan shall be prepared. The plan shall focus on the preservation and/or replacement of the resource (e.g., transplantation, seeding, planting; salvage/dispersal of duff and seed bank; removal of large stands of invasive species); and maintenance and future monitoring. The plan will also include performance standards to document the success of the mitigation efforts. If necessary, the plan shall be implemented within 18 months of the occurrence of the project impacts.

f. Additionally, in accordance with the Native Plant Protection Act (FGC, Division 2, Chapter 10, Section 1913), the Project Proponent (i.e., Inyo County)[5] shall notify the CDFW ~~"~~at least 10 days in advance of project impacts to special-status plants ~~changing the land use~~ to allow for salvage of such plant(s). In the event that CDFW does not ~~The failure by the department to~~ salvage ~~such~~ special-status plant(s) within 10 days of notification work will be allowed to proceed~~shall entitle the owner of the land to proceed without regard to this chapter~~.~~"~~

g. Even if avoided, for any special-status plant species found within 100 feet of occlusion removals, water surface elevation shall be monitored for changes. If any changes in water surface elevation are detected due to implementation of the project, then special-status plant species shall be monitored for three years after occlusion removal to document any changes in special-status plant species abundance or populations. However, due to the variability of climate, precipitation, and site-specific conditions that may influence plant species, and because special-status plants are not guaranteed to come up every year, monitoring will also focus on noting changes in vegetation cover immediately surrounding a special-status plant species/population, as well as changes to water

[5] LADWP would designate authority to the County for such notification.

surface elevation in the adjacent river channel. Should monitoring indicate that indirect impacts are occurring to special-status plant species due to the project, impacts would be considered permanent, and a mitigation and monitoring plan shall be prepared as outlined above under item (e)(1).

Mitigation Measure BIO-3: The County shall implement an Environmental Awareness Program intended to educate the public of the biological resources and special-status species associated with the Owens River. The intention of the program shall be to encourage active conservation efforts among the public to help conserve the natural resources of the area. At a minimum, the Environmental Awareness Program shall include the following components:

a. An informational kiosk shall be installed at the entrance point to the water trail that informs the public about the natural resources of the area. The intent of the kiosk is to bring awareness to the biological resources associated with the Owen River, and inform recreationalists to stay on the water trail, that dogs shall be kept on-leash, and that trash shall be properly disposed of in trash receptacles.

~~b. Signage shall be incorporated to deter unauthorized public access off of the Owens River Water Trail. Public access shall be limited to the boat launch and take-out facilities and water trail only.~~

In addition, prior to construction, the County shall develop a Worker Environmental Awareness Program (WEAP) intended to educate construction staff of the sensitive biological resources and special-status species associated with the Owen River, and that shall be presented to the construction staff immediately prior to the start of project work.

Mitigation Measure BIO-4: The County shall implement the following measure to ensure temporary and permanent impacts to sensitive natural communities are less than significant:

a. Prior to construction, a qualified biologist would flag any sensitive natural communities (i.e., black willow woodland) in the field, which will be avoided to the maximum extent practicable. It should be noted that no willow trees are anticipated to be removed by the project. The following measures, prescribed below, would only apply to those areas actually impacted (e.g., in case areas impacted are ~~it is~~ less than those ~~maximum~~ impact acreages calculated and analyzed in this report), which would be documented by a qualified biologist.

b. To discourage non-native or invasive weed species from establishing on the piles within the spoils areas, any muds deposited shall be covered with cut native vegetation to act as a protective mulch as the materials decompose.

c. Although no willow trees are anticipated to be removed by the project, ~~T~~temporary impacts to sensitive natural communities (i.e., black willow woodland and its associated understory) are expected to passively recover and reestablish naturally to pre-project conditions based on project design and construction methodologies. The County shall retain a qualified biologist to monitor temporary impact areas for two years, or until ~~to ensure~~ the project site returns to pre-project conditions (i.e., native pre-existing vegetation communities~~pre-project elevation contours and revegetated~~). If determined necessary by the qualified biologist, if plants are not reestablished via natural recruitment, a revegetation plan would be prepared that would include

performance standards, success criteria, maintenance, and provisions for remedial measures, and subsequently be monitored by a qualified biologist for an additional three years, or until the project site has returned to pre-project conditions based on the performance standards identified above.

1. If remedial measures such as spreading out spoils and/or removal of spoils off-site is not feasible, and successful revegetation to pre-project conditions is not achieved, then impacts would be reclassified from temporary to permanent, and the mitigation outlined for permanent impacts would apply.

d. For permanent impacts to sensitive natural communities, the County shall adopt~~provide~~ one of the following mitigation options, or a combination thereof:

1. On- and/or off-site preservation of identified sensitive natural communities at a ratio no less than 1:1 for permanent impacts.

2. On- and/or off-site creation, restoration, and/or enhancement of identified sensitive natural communities at a ratio no less than 2:1 for permanent impacts. A mitigation and monitoring plan shall be prepared. The plan shall focus on the creation, restoration, and/or enhancement of equivalent habitats within disturbed habitat areas of the project site and/or off-site.

Mitigation Measure BIO-5: The County shall obtain a Streambed Alteration Agreement permit under Section 1602 of the California Fish and Wildlife Code from the CDFW. ~~The following would be incorporated, as a minimum, into the permitting, subject to approval by CDFW~~ Additionally, the following mitigation would be required for impacts to jurisdictional riparian habitat:

a. The following measures, prescribed below, would only apply to those areas of jurisdictional riparian habitat actually impacted (e.g., in case areas impacted are~~it is~~ less than those ~~maximum~~ impact acreages calculated and analyzed in this report), which would be documented by a qualified biologist experienced in jurisdictional delineations.

b. Temporary impacts to jurisdictional riparian habitat would be returned to pre-project conditions (i.e., native pre-existing vegetation communities ~~pre-project elevation contours and revegetated~~), and will be monitored for two years, or until a qualified biologist determines that the project site has returned to pre-project conditions. If determined ~~necessary~~ by the qualified biologist~~, if~~ that plants ~~are~~ have not reestablished via natural recruitment, a revegetation plan would be prepared that would include performance standards, success criteria, maintenance, and provisions for remedial measures, and subsequently be monitored by a qualified biologist for an additional three years, or until the project site has returned to pre-project conditions based on the performance standards identified above.

1. If remedial measures such as spreading out spoils and/or removal of spoils off-site is not feasible, and successful revegetation to pre-project conditions is not achieved, then impacts would be reclassified from temporary to permanent, and the mitigation outlined for permanent impacts would apply.

As a part of the monitoring effort, water surface elevation shall be monitored for changes. If any changes in water surface elevation are detected due to implementation of the project, then any jurisdictional riparian habitat found

within 100 feet of occlusion removals shall be monitored for three years. In addition to detecting any changes to these jurisdictional riparian habitats persisting, monitoring will also focus on noting changes in vegetation cover immediately surrounding these communities as well as changes to water surface elevation in the adjacent river channel. Should monitoring indicate that indirect impacts are occurring to these jurisdictional riparian habitats due to the project, impacts would be considered permanent, and a mitigation plan shall be prepared as outlined below.

c. For permanent impacts to jurisdictional riparian habitat, the County shall provide one of the following options, or a combination thereof:

    1. On- and/or off-site preservation of CDFW jurisdictional riparian habitat at a ratio no less than 1:1 for permanent impacts, or a reduced ratio if mutually-agreed upon with CDFW.

    2. On- and/or off-site creation, restoration, and/or enhancement of CDFW jurisdictional riparian habitat at a ratio no less than 2:1 for permanent impacts, or a reduced ratio if mutually-agreed upon with CDFW. A mitigation and monitoring plan shall be prepared. The plan shall focus on the creation, restoration, and/or enhancement of equivalent habitats within disturbed habitat areas of the project site and/or off-site.

Mitigation Measure BIO-6: The County shall obtain a CWA Section 404 permit from the USACE and a CWA Section 401 permit from the RWQCB. ~~The following would be incorporated, as a minimum, into the permitting, subject to approval by the USACE and RWQCB~~ Additionally, the following mitigation would be required for impacts to wetlands:

a. The following measures, prescribed below, would only apply to those wetland areas actually impacted (e.g., in case areas impacted are ~~it is~~ less than those ~~maximum~~ impact acreages calculated and analyzed in this report), which would be documented by a qualified biologist.

b. For temporarily impacted areas, rubber tracked or low ground pressure or aquatic equipment will be used for construction and maintenance to avoid and minimize potential disturbance to jurisdictional wetland areas due to rutting and compaction by equipment. Areas of jurisdictional wetlands temporarily impacted by the project shall be monitored for two years, or until a qualified biologist determines that the project site has returned to pre-project conditions. If determined necessary by the qualified biologist, if plants are not reestablished via natural recruitment, a revegetation plan would be prepared that would include performance standards, success criteria, maintenance, and provisions for remedial measures, and subsequently be monitored by a qualified biologist for an additional three years, or until the project site has returned to pre-project conditions based on the performance standards identified above.

    1. If remedial measures such as spreading out spoils and/or removal of spoils off-site is not feasible, and successful revegetation to pre-project conditions is not achieved, then impacts would be reclassified from temporary to permanent, and the mitigation outlined for permanent impacts would apply.

    As a part of the monitoring effort, water surface elevation shall be monitored for changes. If any changes in water surface elevation are detected due to

implementation of the project, then any jurisdictional wetlands found within 100 feet of occlusion removals shall be monitored for three years. In addition to detecting any changes to these jurisdictional wetlands persisting, monitoring will also focus on noting changes in vegetation cover immediately surrounding these communities as well as changes to water surface elevation in the adjacent river channel. Should monitoring indicate that indirect impacts are occurring to these jurisdictional wetlands due to the project, impacts would be considered permanent, and a mitigation plan shall be prepared as outlined below.

c. For permanent impacts to jurisdictional wetlands, the County shall provide one of the following options, or a combination thereof:

    1. On- and/or off-site preservation of USACE/RWQCB jurisdictional "waters of the U.S." at a ratio no less than 1:1 for permanent impacts, or reduced ratio if mutually-agreed upon with regulatory agencies.

    2. On- and/or off-site creation, restoration, and/or enhancement of USACE/RWQCB jurisdictional "waters of the U.S." at a ratio no less than 2:1 for permanent impacts, or reduced ratio if mutually-agreed upon with regulatory agencies. A mitigation and monitoring plan shall be prepared. The plan shall focus on the creation, restoration, and/or enhancement of equivalent features within disturbed areas of the project site and/or off-site. In addition, the plan shall provide details as to the implementation, performance standards, success criteria, maintenance, and future monitoring.

Mitigation Measure BIO-7: Prior to the start of in-water work, a pre-construction survey (e.g., via electroshocking) will be conducted to determine if special-status fish species are present in the project area (e.g., Owens sucker, Owens pupfish, Owens speckled dace, and Owens tui chub). If the federally and state endangered Owens pupfish and/or the federally and state endangered Owens tui chub are found within the study area, prior to project construction, the County shall obtain a FESA Section 7 Biological Opinion from the USFWS, and compliance with CESA Section 2080.1 precludes the need for a separate Incidental Take Permit from the CDFW.

If any special-status fish species are found within the study area, they will be captured and relocated to similar aquatic habitat within the Lower Owens River that is outside of the work area by a qualified fisheries biologist. The relocation area will be pre-determined by CDFW and all individuals relocated will be monitored for stress and abnormalities.

Prior to in-water work, the following five water quality parameters shall be measured to establish baseline water quality conditions: temperature, dissolved oxygen (DO), pH, conductivity, and turbidity. ~~At the start of in-water work, a hydrologist/biologist shall monitor water quality~~ During all phases of in-water work, the five water quality parameters will be measured and documented hourly for increased/decreased levels relative to baseline conditions. If observed that water quality parameters remain at baseline levels and/or in compliance with Basin Plan water quality objectives, sampling intervals will be reassessed depending on the phase of project and project activities.

In addition, aquatic species stress will be monitored as ~~(e.g., based on thresholds determined appropriate by the County hydrologist) and fish stress (e.g.,~~ indicated by surface mouthing, schooling and leaving an area, or observation of invertebrates crawling out of the water to get air~~) during the initial construction~~. If determined necessary ~~by the~~

~~monitoring hydrologist/biologist~~, a sediment curtain or other measures will be installed within the area of disturbance to minimize/limit changes in DO, pH, turbidity, and other constituent parameters such that signs of aquatic species stress are eliminated~~would be installed within the project area~~.

Mitigation Measure BIO-10: ~~Signage~~ Clean, Drain, Dry requirement signage shall be ~~installed~~ prominently displayed to inform recreationalists about the threat of Quagga mussels and instruct on how to sanitize their gear and equipment before entering and after exiting the water trail ~~to prevent the spread of this invasive species~~. Signage shall be placed at boat launch and take-out locations. The County has already preliminarily coordinated with the CDFW regional aquatic invasive species lead biologist and will develop a Dreissenid Mussel Prevention Program in accordance with CDFW and LADWP guidance documents. Prevention measures shall also apply to all aquatic construction equipment.

Section 3.4 Cultural Resources

Pages 3.4-25 and 3.4-26.

Revise Mitigation Measure CUL-3, CUL-4, CUL-5, CUL-6, and CUL-8 as follows:

Mitigation Measure CUL-3: To ensure the 33 archaeological sites within or immediately adjacent to (within 150 feet of) the proposed project access roads are not inadvertently impacted during project implementation, the County shall include the following conditions in its agreement with its construction contractor:

1. The contractor shall convey to all construction personnel during daily tailboard meetings that all equipment and vehicles must stay on existing access roads and within bounds of staked floodplain routes and that no off-road travel is permitted.
2. The contractor shall place temporary signage at regular intervals along all access roads indicating that all equipment and vehicles are not to leave the designated access roads under any conditions.
3. Should County staff, construction contractor staff, and/or cultural resource monitors observe non-compliance or evidence of non-compliance with this requirement, the contractor shall be required to establish additional protective measures, such as temporary fencing, along the access roads to prevent potential impacts to archaeological resources.

~~Prior to any ground disturbing activities associated with the proposed project, exclusionary fencing shall be installed to ensure that the 33 archaeological sites within or immediately adjacent to (within 150 feet of) the proposed project access roads are not inadvertently impacted during project implementation. For the 14 archaeological sites located immediately adjacent to proposed project access roads (P-14-000035, -000068, and -000308; and ESA-ORWT-Site-001P, -002H, -003M, -004H, -005M, -016P, -018P, -021P, -022P, -024P, and -026P), the exclusionary fencing shall encompass the mapped site boundaries plus a 10-foot radius to ensure an appropriate buffer is maintained between the sites and project-related ground disturbing activities. For the 19 archaeological resources bisected by project access roads (P-14-000081, -000310 and -009230; and ESA-ORWT-Site-006P, -007P, -008P, -009P, -010P, -011P, -012P, -013P, -014P, -015P, -017P, -019P, -020P, -023P, -025P, and -027P), the exclusionary fencing~~

~~shall be established along the shoulder of the existing roads. For the portion of archaeological site P-14-000310 that overlaps the proposed staging area, the exclusionary shall be established along the margins of the graded pull out area to inhibit access to the undisturbed portions of the site. To ensure avoidance, the exclusionary fencing shall be marked with signs indicating that staff associated with the proposed project are not to go beyond the limits of the fencing. The exclusionary fencing shall not identify the protected areas as demarcating archaeological resources in order to discourage unauthorized disturbance, vandalism, or collection of artifacts.~~

Mitigation Measure CUL-4: Prior to the start of ground disturbing activities associated with the proposed project, an archaeological monitor, working under the supervision of the Qualified Archaeologist, and a Native American monitor associated with a locally affiliated tribe~~,~~ shall be retained to conduct monitoring of project-related ground-disturbing activities ~~including installation of exclusionary fencing, excavations~~ occurring within 50 feet of the 33 known archaeological resources, as well as the construction of all facilities associated with the boat launch and take-out. Based on observations of subsurface soil stratigraphy or other factors during initial ground disturbing activities, and in consultation with the County and Native American monitor, the Qualified Archaeologist may modify monitoring as warranted if the Qualified Archaeologist determines that the sensitivity is contrary to what was predicted. Archaeological monitors shall maintain daily logs documenting their observations. Monitoring activities shall be documented in a Monitoring Report to be prepared by the Qualified Archaeologist at the completion of construction and shall be provided to the County and filed with the Eastern Information Center within six (6) months of project completion.

Mitigation Measure CUL-5: In the event of the unanticipated discovery of archaeological materials during project implementation, all work shall immediately cease in the area (within approximately 100 feet) of the discovery until it can be evaluated by the Qualified Archaeologist. Construction shall not resume until the Qualified Archaeologist has conferred with the County and the Native American monitor on the significance of the resource. The Army Corps of Engineers shall also be notified and afforded the opportunity to determine whether the discovery requires addressing under Section 106 Post-Review Discoveries provisions provided in 36 CFR 800.13.

If it is determined that the discovered archaeological resource constitutes a significant resource, avoidance and preservation in place is the preferred manner of mitigation. Preservation in place may be accomplished by, but is not limited to, avoidance, incorporating the resource into open space, or capping~~, or deeding the site into a permanent conservation easement~~. In the event that preservation in place is demonstrated to be infeasible and data recovery through excavation is the only feasible mitigation available, a Cultural Resources Treatment Plan shall be prepared and implemented by the Qualified Archaeologist in consultation with the County and Native American monitor that provides for the adequate recovery of the scientifically consequential information contained in the archaeological resource.

All prehistoric and protohistoric archaeological resources collected during project construction shall be offered/donated to locally affiliated tribes with appropriate facilities for the curation of archaeological collections. Similarly, all historic-period archaeological resources collected during project construction shall be offered/donated to local museums including but not limited to Eastern California Museum, the Laws Museum, the Museum

of Western Film, the Maturango Museum, and the Southern Inyo Museum in Lone Pine. Should the tribal groups and/or museums decline the artifact collections, they shall be curated at an acceptable curation facility outside the project vicinity such as University of California, Riverside.

Mitigation Measure CUL-6: The proposed signage to be installed at the boat launch and take out kiosks shall include language stating that all water trail users are to stay within the designated recreational areas of the water trail. The language shall include interpretative information regarding the prehistory of the area, as well as definitions of site looting, vandalism, and pertinent public resources codes for the conviction of vandalism to archaeological resources including but not limited to PRC Sections 5097.993 and 5097.994 (Native American Historic Resource Protection Act), which establishes as a misdemeanor the removal or destruction of Native American archeological or historic sites on public or on private lands, punishable by a fine of up to $10,000 and/or imprisonment. Locally affiliated tribes shall be consulted regarding the content and design of the interpretive signage presented at the kiosks.

Mitigation Measure CUL-8: An annual site condition verification program shall be undertaken to document the condition of the three archaeological sites bisected by or located immediately adjacent to the existing dirt road that would be used to access the boat take out (P-14-000035, -000068, and -000081) as well as the five sites located on the margins of the Owens River floodplain (ESA-ORWT-Site-011P, -012P, -023P, -026P, and -027P). The site verification program shall be implemented by a qualified archaeologist on an annual basis for the first three years of the project's use as a recreational water trail. The site verification shall be conducted by the qualified archaeologist or an archaeologist working under the supervision of the qualified archaeologist; a Native American monitor from a locally-affiliated tribe also will be requested to be present during site verification.

The goal of the annual site condition verification program is to monitor on an annual basis whether recreational use of the project area is indirectly impacting the eight archaeological sites identified above as a result of an increase in vehicle and foot traffic, inadvertent wandering into archaeological sites, purposeful looting and/or vandalism, and other disturbances that could be an inadvertent result of project operation. The results of the annual site condition verification shall be documented in a brief memorandum and shall include: confirmation of resource boundaries with ~~sub-meter~~ GPS; relocation of previously identified diagnostic artifacts and features; confirmation of locations, quantities, and types of artifacts present; general condition and disturbances observed; and photography to document whether any change in resource condition has occurred. California Department of Parks and Recreations (DPR) 523 form updates, following California Office of Historic Preservation's (OHP) *Instructions for Recording Historical Resources,* shall be prepared and filed with the Eastern Information Center for all resources where changes in setting or condition are observed.

If no impacts to archaeological sites are observed following the first three years, the annual site condition verification program may be discontinued. If the annual site condition verification program identifies impacts to archaeological sites resulting from project operations, or if, at any time, the County becomes aware of such impacts, additional protective measures shall be implemented immediately as recommended by the qualified archaeologist and in coordination with local Native American Tribes. If

protective measures are implemented, annual verification of the measures' success shall be conducted for a period of three years.

Section 3.5 Geology and Soils

Page 3.5-22

Revise Mitigation Measure GEO-3 as follows:

> **Mitigation Measure GEO-3:** The Qualified Paleontologist shall supervise a paleontological monitor meeting the Society for Vertebrate Paleontology standards (2010) who shall be present during all ground excavations occurring within areas mapped as older lake deposits (Qlo) including the boat launch and take-out facilities, as well as all ground excavation activities exceeding 5 feet in depth for all project components in areas mapped as active alluvium (Qa) and Aeolian sands (Qs), which have the potential to extend into older lake deposits (Qlo) at depth (see Figure 3.5-2). Monitoring shall consist of visually inspecting fresh exposures of rock for larger fossil remains and, where appropriate, collecting wet or dry screened sediment samples of promising horizons for smaller fossil remains. Monitoring can be reduced to part-time inspections or ceased entirely if determined adequate by the Qualified Paleontologist in consultation with the County. Monitoring activities shall be documented in a Paleontological Resources Monitoring Report to be prepared by the Qualified Paleontologist at the completion of construction and shall be provided to the County and filed with the Natural History Museum of Los Angeles County within six (6) months of project completion. Paleontological resources collected during project construction shall be offered/donated to local museums with facilities that meet the Society for Vertebrate Paleontology (2010) curation guidelines. Should the local museums not have appropriate curation facilities or otherwise decline the paleontological specimens, they shall be curated at an acceptable curation facility outside the project vicinity such as the Los Angeles County Natural History Museum.

Section 3.7 Hydrology and Water Quality

Page 3.7-6

Revise the last sentence on the page as follows:

These parameters, as well as temperature, dissolved oxygen, and a handful of other physical water quality parameters are monitored through targeted water quality sampling ~~and monitoring~~, conducted by the County, CDFW, and LADWP ~~as a requirement of the Lower Owens River Program (LORP)~~ during releases of seasonal habitat flow~~infrequent events that could cause detrimental water quality (LADWP and Inyo County, 2015)~~.

Pages 3.7-13 to 3.7-14

Lahontan Regional Water Quality Control Board Basin Plan

The project area is located within Inyo County, which is governed by the Lahontan RWQCB. The Lahontan RWQCB's Basin Plan identifies beneficial uses and sets water quality standards for the surface and ground waters of the region, as discussed previously. It also identifies general types of water quality problems that can threaten beneficial uses

in the region, then identifies control measures for these problems. Water quality objectives are intended to protect the public health and welfare, and to maintain or enhance water quality in relation to the existing and/or potential beneficial uses of the water. The discharge of waste that causes violation of any numeric water quality objective contained in the Basin Plan is prohibited. The following beneficial uses are identified in Table 2.1 of the Basin Plan for the Owens River (below intake dam), within and in the vicinity of the project area,

- Municipal and Domestic Supply (MUN)
- Agricultural Supply (AGR)
- Groundwater Recharge (GWR)
- Freshwater Replenishment (FRSH)
- Contact Recreation (REC-1)
- Noncontact Recreation (REC-2)
- Commercial and Sportfishing (COMM)
- Warm Freshwater Habitat (WARM)
- Cold Freshwater Habitat (COLD)
- Wildlife Habitat (WILD)
- Preservation of Biological Habitats of Special Significance (BIOL)
- Rare, Threatened, or Endangered Species (RARE)
- Spawning, Reproduction, and Development (SPWN)

The RWQCB also outlines various water quality objectives that apply to all surface waters in its jurisdiction. These include multiple parameters; however, dissolved oxygen has been identified as being especially relevant within the target segment of the Lower Owens River, including within the project area. The Lahontan RWQCB's water quality objective for dissolved oxygen is as follows:

- Dissolved oxygen concentration, as a percent saturation, shall not be depressed by more than 10%, nor shall the minimum dissolved oxygen concentration be less than 80% of saturation. [The concentration of dissolved oxygen at the saturation point decreases with increasing temperature.]
- For waters with the beneficial use of WARM with SPWN, which consists of the project area, the minimum dissolved oxygen concentration will not be less than that specified in Table 3.6 of the Basin Plan.

The Lahontan RWQCB's water quality objective for turbidity is as follows:

- Waters shall be free of changes in turbidity that cause nuisance or adversely affect the water for beneficial uses. Increases in turbidity shall not exceed natural levels by more than 10 percent.

In addition to these thresholds, the LORP ~~implementation process~~management guidance has identified a target minimum threshold of 1.0 mg/L of dissolved oxygen in the river in order to ensure that harm to fish and/or fishkills are avoided.

Page 3.7-23.

Revise the last paragraph under the subheading Results as follows:

> Results of the hydraulic simulations are provided in the Hydraulic Analysis in Appendix B-1 of this EIR. Model results for all design scenario simulations at base flow show a decrease in average water surface elevation relative to the baseline scenario model results. Removing occlusions or excavating a uniform channel through the marsh region results in a reduction in wetted width. Design scenario simulation results suggest that channel clearing, widening, or excavation will increase conveyance and decrease the water depth over the project area. This is supported by an increase in average channel velocity across all modeled design scenarios relative to the baseline scenario model. Hydraulic model results suggest that for all design scenarios recreational passage of paddle craft would be possible. While no minimum depth value was established for recreational passage, the minimum depth for all design scenarios predicted was 1.6 feet (Scenario 1 in Plot 5), while average depth values were in the range of 3.4 to 5.1 feet. The project description is based on Scenario 5, which is modeled to have a minimum depth of 1.7 feet and average depth of 4.1 feet. (See Chapter 4, Alternatives, for an explanation of why Scenarios 1 through 4 were not selected for the proposed project.) ~~The decrease in water surface elevations for design scenarios suggest that overbank inundation will be reduced in frequency and magnitude for all design scenarios.~~ However, as noted above in Model Limitations, the constant discharge of groundwater to the river maintains flow in the river, which in turn maintains water flow in some secondary channels.

Page 3.7-26.

The first full paragraph, next to last sentence is revised as follows:

> Compliance with the requirements of the Construction General Permit would also require management of stormwater on site, measures to avoid and minimize release of stormwater pollutants into the environment, monitoring and reporting requirements, and adherence to site specific requirements, ~~to be determined~~ as approved by the RWQCB.

Page 3.7-29.

Revise the Impact Statement HYD-2 as follows:

> **Impact Statement HYD-2:** *Construction and operation of the proposed project could result in increased erosion and siltation through removal of in-channel vegetation and occlusions; stockpiling of spoils; and new impervious surfaces. These potential impacts would be reduced to less than significant levels through incorporation of mitigation that would deploy best management practices to manage sediment releases from spoils. Hydraulic analysis indicates that the project would not substantially alter the overall flowpath of the river, would not result in shifting the river system to an unstable (i.e., eroding) state and would not impede flood flows~~reduce the likelihood of overbank topping that causes flooding~~.*

Section 3.8 Land Use and Planning

Pages 3.8-10 and 3.8-11.

Revise the subsection beginning at the bottom of page 3.8-10 as follows:

County of Inyo/City of Los Angeles Department of Water and Power Long Term Water Agreement – Lower Owens River Project

The project would ~~be consistent~~ not conflict with the restoration goals of the LORP. ~~the project would provide instream and riparian habitat benefits and improve water quality. Specifically, by removing existing occlusions in the river channel, the proposed project could improve water flow, increase dissolved oxygen, and improve water quality, since excessive tule biomass can have a deleterious effect on dissolved oxygen, and a negative effect on water quality (e.g., caused by tule abundance and decomposition) (ESA, 2019). Please see Section 3.7, Hydrology and Water Quality, for a detailed analysis of the effects of the project on water quality. In addition, the removal of the occlusions would also benefit common fish species and warm-water fisheries (ESA, 2019).~~ While construction and maintenance activities associated with the project would result in temporary water quality impacts, implementation of mitigation measures HYD-1a, HYD-1b and HYD-2 would ensure that all impacts would be mitigated to a less than significant level.

In addition, water quality during operation would be improved through the removal of occlusions that currently block various segments of the river, which would help improve water flow and allow for better movement along the river for aquatic species. Furthermore, the project would create a water trail that would provide sustainable recreation in an area that was compromised in the past due to excessive recruitment of emergent vegetation. The project would be implemented so as to not conflict with other uses in the area by providing separation of uses, for example using fencing, if necessary. In addition, signage would provide public education as to the appropriate use of the water trail and respect for the cultural and biological resources in the area. ~~two objectives of the proposed project are to remain consistent with the habitat, environmental, and social goals of the LORP and to implement restoration activities for the natural habitats and species of the Owens River to be consistent with the restoration efforts of the LORP. With these objectives, all restoration activities implemented under the project would be conducted in accordance with the goals and requirements established in the LORP.~~ Therefore, the project would be consistent with the Long Term Water Agreement and the LORP. Environmental impacts caused by land use conflicts with the Long Term Water Agreement and the LORP would be less than significant.

Section 3.9 Recreation and Parks

Pages 3.9-10.

Currently boating opportunities in the Owens Valley are limited to small bodies of water including Klondike Lake (176 acres), Diaz Lake (76 acres), Buckley Ponds (total 46

acres), Farmers Ponds (31 acres), Saunders Pond (15 acres), and Millpond (7 acres).[6] Combined, these Owens Valley water bodies total 351 acres. Other water bodies that provide boating opportunities include Pleasant Valley Reservoir, Duck Pond, Upper and Lower Twin Lakes, Goose Lake, and Billy Lake. The actual acreage is less if waters congested by cattail and bulrush is considered. The County had expected expanded water-based recreation under the Long Term Water Agreement. The Agreement identifies Haiwee Reservoir (642 acres) as an opportunity for water recreation, but Haiwee is closed to boating and fishing based on security concerns. The cleared section of the Owens River Water Trail would add a minimum of 11.45 acres of open water for non-motorized watercraft.

Chapter 4 Alternatives

Section 4.2.1, Alternative Off-Site Locations

Page 4-2, Section 4.2, Project Purpose and Objectives.

Revise the bulleted objectives in the section as follows:

- Provide all-abilities access to the ORWT as a recreational resource;
- Provide recreational and educational opportunities for the surrounding community and visitors;
- Develop a water trail and associated facilities in such a way so as to preserve the cultural heritage of the area;
- Implement a water trail that does not conflict with the LORP and Draft Recreation Use Plan;
- Satisfy a LORP goal of sustainable recreation by establishing an area for open-water river recreation that has been compromised due to excessive recruitment of emergent vegetation;
- Create signage that clearly outlines area use guidelines and restrictions and locate strategically in the facilities areas and along the river, as appropriate; and
- Develop a water trail and associated facilities that are compatible with adjacent uses, such as cattle grazing and LADWP activities.
- ~~Implement restoration activities for the natural habitats and species of the Owens River to be consistent with the restoration efforts of the LORP. The LORP calls for the creation and enhancement of natural habitats to be consistent with the needs of certain habitat indicator species through the application of appropriate flow and land management practices; and~~
- ~~Remain consistent with the habitat, environmental, economic, and social goals of the LORP and the Lower Owens River Draft Recreation Use Plan, which include:~~
  - ~~Continue to prioritize LORP goals and the ecological restoration of riparian habitat over recreation;~~

6 County of Inyo, Consideration of potential new enhancement/mitigation projects in the Owens Valley. May 30, 2018. http://www.inyowater.org/wp-content/uploads/2018/08/Item-7-New-EM-Projects-Memo.pdf

- ~~Minimize conflict between recreation, ranching and LADWP operations by appropriately locating improvements, installing signs, cattle guards, and gates where needed and by improving some roads;~~
- ~~Protect existing cultural resources, artifacts and areas by collaborating with local Tribes and steering recreation away from sensitive areas; and~~
- ~~Place clear and frequent signage in strategic locations to outline area use guidelines and restrictions, and to share information about existing operations.~~

Page 4-5.

The second paragraph, next to last sentence is revised as follows:

> The north paddle trail segment would run much of the length of the Blackrock ~~Wetland~~ Waterfowl Management Area (BWMA),…

Page 4-7.

The last sentence in the subsection entitled Description of the Alternative, is deleted as follows:

> ~~The restoration of the river that would result from the implementation of the project would not occur.~~

Page 4-10.

Subsection entitled Relationship of the Alternative to the Project Objectives. Delete the next to last sentence of the paragraph as follows:

> ~~Additionally, The No Project Alternative would not meet the recreational goals of thethe Lower Owens River Draft Recreational Use Plan~~

Chapter 5, Other CEQA Considerations

Section 5.1, Environmental Effects Found Not to Be Significant

Page 5-13, Subsection 5.1.12, Transportation.

Under the question: "Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?" Revise the first sentence as follows:

> T~~he project would not alter existing roadways in the surrounding vicinity, and t~~ There are no existing hazardous design features such as sharp curves or dangerous intersections on-site or within the project vicinity.

Appendix G – Biological Resources Technical Report

In response to comments received, the County is including the Biological Resources Technical Report as Appendix G of the Final EIR. The information contained in this Final EIR supersedes the Biological Resources Technical Report.

Figure 2-5 Revised. Conceptual Boat Take-Out Facility

CHAPTER 4
Mitigation Monitoring and Reporting Program

This Mitigation Monitoring and Reporting Program (MMRP) has been prepared pursuant to Public Resources Code Section 21081.6, which requires a Lead Agency to adopt a "reporting or monitoring program for changes to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment." In addition, Section 15097(a) of the State California Environmental Quality Act (CEQA) Guidelines requires that a public agency adopt a program for monitoring or reporting mitigation measures and project revisions, which it has required to mitigate or avoid significant environmental effects. This MMRP has been prepared in compliance with the requirements of CEQA, Public Resources Code Section 21081.6 and Section 15097 of the CEQA Guidelines.

The County of Inyo (IC) acting through the Inyo County Water Department (the County or ICWD) is the Lead Agency for the project and therefore, is responsible for administering and implementing the MMRP. A public agency may delegate reporting or monitoring responsibilities to another public agency or to a private entity that accepts the delegation; however, until mitigation measures have been completed, the lead agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program. This MMRP is designed to monitor implementation of the mitigation measures identified for the Owens River Water Trail Project (ORWT or project).

As shown in Table 4-1, Mitigation Monitoring and Reporting Program, each required mitigation measure for the project is listed and categorized by impact area, with an accompanying identification of the following:

- Monitoring Phase/Timing: The phase of the project during which the mitigation measure shall be monitored and the frequency at which the mitigation measure shall be monitored;
- Monitoring Procedure: The action of which the Enforcement or Monitoring Agency indicates that compliance with the required mitigation measure has been implemented; and
- Implementing Party/Agency: The agency with the power to enforce the mitigation measure.

TABLE 4-1
MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Monitoring Phase/ Timing	Monitoring Procedure	Implementing Party/ Agency	Verification of Compliance		
				Initials	Date	Remarks
Biological Resources						
Mitigation Measure BIO-1: The following mitigation shall be implemented for avoidance and minimization of impacts to special-status plant species within the project site: a. Prior to construction activities, a focused rare plant survey shall be conducted by a qualified biologist/botanist to confirm presence/absence of special-status plant species within the project site (i.e., within the project footprint where direct permanent or temporary impacts due to ground disturbance may occur, and within 100 feet of where occlusion removals will occur) within the appropriate blooming periods of each species (unless a qualified biologist confirms that special-status plant species can be definitively identified outside of the blooming period). b. If any special-status plant species are found, these species or population shall be flagged (or otherwise delineated) by a biologist and shall be avoided to the greatest extent feasible (i.e., no work will occur within a 50-foot buffer of special-status plants). If work occurs within a 50-foot buffer of a special-status plant species individual and/or population, a qualified biologist shall be on-site during any ground disturbing activities. c. To minimize indirect impacts to special-status plant species within the project site, prior to construction activities, all heavy equipment proposed for use on-site shall be cleaned (including wheels, tracks, undercarriages, and bumpers, as applicable) before delivery to the project site to reduce the potential for the spread of weed seeds during the project. In addition, to discourage non-native or invasive weed species from establishing on the piles within the spoils areas, any muds shall be covered with cut native vegetation to act as a protective mulch as the materials decompose. d. If avoidance of a special-status plant species is not feasible (i.e., no work will occur within a 50-foot buffer	Rare plan survey prior to construction. If necessary, remaining measures prior to, during, and after construction	Site surveys and site inspections prior to, during, and after construction by a qualified biologist	Inyo County Water Department (ICWD) Qualified Biologist			

Mitigation Measure	Monitoring Phase/ Timing	Monitoring Procedure	Implementing Party/ Agency	Verification of Compliance		
				Initials	Date	Remarks
of special-status plants), and potential impacts to special status plant species is considered significant (i.e., impacts would threaten regional populations of these species), coordination with Inyo County staff biologist(s) would be required to confirm suitable mitigation prior to ground-disturbing activities. The mitigation strategy may include avoidance, on-site or off-site translocation, seed collection, and/or restoration, and shall be outlined in a mitigation plan to be approved by Inyo County in coordination with LADWP. At a minimum, the plan shall include a description of the existing conditions, methodology, site preparation and planting methods, and maintenance and monitoring schedule. e. Owens Valley checkerbloom is State Endangered. If this species is found within the project site and avoidance is not feasible (i.e., no work will occur within a 50-foot buffer of special-status plants), the County shall obtain a 2081 Incidental Take permit under CESA from the CDFW. The following would be incorporated, as a minimum, into the permitting, subject to approval by CDFW. 1. A mitigation and monitoring plan shall be prepared. The plan shall focus on the preservation and/or replacement of the resource (e.g., transplantation, seeding, planting; salvage/dispersal of duff and seed bank; removal of large stands of invasive species); and maintenance and future monitoring. The plan will also include performance standards to document the success of the mitigation efforts. If necessary, the plan shall be implemented within 18 months of the occurrence of the project impacts. f. Additionally, in accordance with the Native Plant Protection Act (FGC, Division 2, Chapter 10, Section 1913), the Project Proponent (i.e., Inyo County)[1] shall notify the CDFW at least 10 days in advance of project impacts to special-status plants to allow for salvage of such plant(s). In the event that CDFW does not salvage special-status plants within 10 days of notification work will be allowed to proceed.						

[1] LADWP would designate authority to the County for such notification.

Mitigation Measure	Monitoring Phase/ Timing	Monitoring Procedure	Implementing Party/ Agency	Verification of Compliance		
				Initials	Date	Remarks
g. Even if avoided, for any special-status plant species found within 100 feet of occlusion removals, water surface elevation shall be monitored for changes. If any changes in water surface elevation are detected due to implementation of the project, then special-status plant species shall be monitored for three years after occlusion removal to document any changes in special-status plant species abundance or populations. However, due to the variability of climate, precipitation, and site-specific conditions that may influence plant species, and because special-status plants are not guaranteed to come up every year, monitoring will also focus on noting changes in vegetation cover immediately surrounding a special-status plant species/population, as well as changes to water surface elevation in the adjacent river channel. Should monitoring indicate that indirect impacts are occurring to special-status plant species due to the project, impacts would be considered permanent, and a mitigation and monitoring plan shall be prepared as outlined above under item (e)(1).						
Mitigation Measure BIO-2: Impacts to nesting birds would be avoided by conducting all construction and maintenance activities outside of the bird nesting season (i.e., work shall occur October 1 to January 31). If bird nesting season cannot be avoided, the following measures would be followed: a. During the bird nesting season (February 1 to September 30), a qualified biologist shall conduct a pre-construction survey of all suitable habitat for the presence of nesting birds no more than 5 days prior to construction and/or maintenance activities. The results of the pre-construction survey would be valid for 5 days; if vegetation removal activities do not commence within 5 days following the survey, a new pre-construction nesting bird survey shall be conducted before these activities begin again.[2] b. If any active nests are found during a pre-construction nesting bird survey, a buffer of 300 feet	If necessary, prior to and during construction	Site surveys and site inspections prior to and during construction by a qualified biologist, if necessary	ICWD Qualified Biologist			

[2] Given the linear nature of the project area, a phased approach to pre-construction nesting bird surveys is recommended, and should be based on the project's construction or maintenance schedule for work areas anticipated to be completed within 5 days of each area survey.

Mitigation Measure	Monitoring Phase/ Timing	Monitoring Procedure	Implementing Party/ Agency	Verification of Compliance		
				Initials	Date	Remarks
(500 feet for raptors), or as determined appropriate by the qualified biologist (based on species-specific tolerances and site-specific conditions), would be delineated, flagged, and avoided until the nesting cycle is complete (i.e., the qualified biologist determines that the young have fledged or the nest has failed).						
Mitigation Measure BIO-3: The County shall implement an Environmental Awareness Program intended to educate the public of the biological resources and special-status species associated with the Owens River. The intention of the program shall be to encourage active conservation efforts among the public to help conserve the natural resources of the area. At a minimum, the Environmental Awareness Program shall include the following components: a. An informational kiosk shall be installed at the entrance point to the water trail that informs the public about the natural resources of the area. The intent of the kiosk is to bring awareness to the biological resources associated with the Owen River, and inform recreationalists to stay on the water trail, that dogs shall be kept on-leash, and that trash shall be properly disposed of in trash receptacles. In addition, prior to construction, the County shall develop a Worker Environmental Awareness Program (WEAP) intended to educate construction staff of the sensitive biological resources and special-status species associated with the Owen River, and that shall be presented to the construction staff immediately prior to the start of project work.	Prior to, during, and after construction	WEAP Program for construction personnel; installation of an informational kiosk and signage	Inyo County (IC)			

Mitigation Measure	Monitoring Phase/ Timing	Monitoring Procedure	Implementing Party/ Agency	Verification of Compliance		
				Initials	Date	Remarks
Mitigation Measure BIO-4: The County shall implement the following measure to ensure temporary and permanent impacts to sensitive natural communities are less than significant: a. Prior to construction, a qualified biologist would flag any sensitive natural communities (i.e., black willow woodland) in the field, which will be avoided to the maximum extent practicable. It should be noted that no willow trees are anticipated to be removed by the project. The following measures, prescribed below, would only apply to those areas actually impacted (e.g., in case areas impacted are less than those impact acreages calculated and analyzed in this report), which would be documented by a qualified biologist. b. To discourage non-native or invasive weed species from establishing on the piles within the spoils areas, any muds deposited shall be covered with cut native vegetation to act as a protective mulch as the materials decompose. c. Although no willow trees are anticipated to be removed by the project, temporary impacts to sensitive natural communities (i.e., black willow woodland and its associated understory) are expected to passively recover and reestablish naturally to pre-project conditions based on project design and construction methodologies. The County shall retain a qualified biologist to monitor temporary impact areas for two years, or until the project site returns to pre-project conditions (i.e., native pre-existing vegetation communities). If determined necessary by the qualified biologist, if plants are not reestablished via natural recruitment, a revegetation plan would be prepared that would include performance standards, success criteria, maintenance, and provisions for remedial measures, and subsequently be monitored by a qualified biologist for an additional three years, or until the project site has returned to pre-project conditions based on the performance standards identified above. 1. If remedial measures such as spreading out spoils and/or removal of spoils off-site is not feasible, and successful revegetation to pre-	Prior to, during, and after construction	Site surveys and site inspections prior to, during, and after construction by a qualified biologist; If needed, documentation of mitigation for permanent impacts and mitigation monitoring and reporting plan.	ICWD Qualified Biologist			

Mitigation Measure	Monitoring Phase/ Timing	Monitoring Procedure	Implementing Party/ Agency	Verification of Compliance		
				Initials	Date	Remarks
project conditions is not achieved, then impacts would be reclassified from temporary to permanent, and the mitigation outlined for permanent impacts would apply. d. For permanent impacts to sensitive natural communities, the County shall adopt one of the following mitigation options, or a combination thereof: 1. On- and/or off-site preservation of identified sensitive natural communities at a ratio no less than 1:1 for permanent impacts. 2. On- and/or off-site creation, restoration, and/or enhancement of identified sensitive natural communities at a ratio no less than 2:1 for permanent impacts. A mitigation and monitoring plan shall be prepared. The plan shall focus on the creation, restoration, and/or enhancement of equivalent habitats within disturbed habitat areas of the project site and/or off-site.						
Mitigation Measure BIO-5: The County shall obtain a Streambed Alteration Agreement permit under Section 1602 of the California Fish and Wildlife Code from the CDFW. Additionally, the following mitigation would be required for impacts to jurisdictional riparian habitat: a. The following measures, prescribed below, would only apply to those areas of jurisdictional riparian habitat actually impacted (e.g., in case areas impacted are less than those impact acreages calculated and analyzed in this report), which would be documented by a qualified biologist experienced in jurisdictional delineations. b. Temporary impacts to jurisdictional riparian habitat would be returned to pre-project conditions (i.e., native pre-existing vegetation communities), and will be monitored for two years, or until a qualified biologist determines that the project site has returned to pre-project conditions. If determined by the qualified biologist that plants have not reestablished via natural recruitment, a revegetation plan would be prepared that would include performance standards, success criteria, maintenance, and provisions for remedial measures, and subsequently be monitored by a	Prior to, during and after construction	Issuance of a Streambed Alteration Agreement permit and implementation of associated permit conditions; site inspections during and after construction by a qualified biologist	ICWD Qualified Biologist			

Mitigation Measure	Monitoring Phase/ Timing	Monitoring Procedure	Implementing Party/ Agency	Verification of Compliance		
				Initials	Date	Remarks
qualified biologist for an additional three years, or until the project site has returned to pre-project conditions based on the performance standards identified above. 1. If remedial measures such as spreading out spoils and/or removal of spoils off-site is not feasible, and successful revegetation to pre-project conditions is not achieved, then impacts would be reclassified from temporary to permanent, and the mitigation outlined for permanent impacts would apply. As a part of the monitoring effort, water surface elevation shall be monitored for changes. If any changes in water surface elevation are detected due to implementation of the project, then any jurisdictional riparian habitat found within 100 feet of occlusion removals shall be monitored for three years. In addition to detecting any changes to these jurisdictional riparian habitats persisting, monitoring will also focus on noting changes in vegetation cover immediately surrounding these communities as well as changes to water surface elevation in the adjacent river channel. Should monitoring indicate that indirect impacts are occurring to these jurisdictional riparian habitats due to the project, impacts would be considered permanent, and a mitigation plan shall be prepared as outlined below. c. For permanent impacts to jurisdictional riparian habitat, the County shall provide one of the following options, or a combination thereof: 1. On- and/or off-site preservation of CDFW jurisdictional riparian habitat at a ratio no less than 1:1 for permanent impacts, or a reduced ratio if mutually-agreed upon with CDFW. 2. On- and/or off-site creation, restoration, and/or enhancement of CDFW jurisdictional riparian habitat at a ratio no less than 2:1 for permanent impacts, or a reduced ratio if mutually-agreed upon with CDFW. A mitigation and monitoring plan shall be prepared. The plan shall focus on the creation, restoration, and/or enhancement of equivalent habitats within disturbed habitat areas of the project site and/or off-site.						

Mitigation Measure	Monitoring Phase/ Timing	Monitoring Procedure	Implementing Party/ Agency	Verification of Compliance		
				Initials	Date	Remarks
Mitigation Measure BIO-6: The County shall obtain a CWA Section 404 permit from the USACE and a CWA Section 401 permit from the RWQCB. Additionally, the following mitigation would be required for impacts to wetlands: a. The following measures, prescribed below, would only apply to those wetland areas actually impacted (e.g., in case areas impacted are less than those impact acreages calculated and analyzed in this report), which would be documented by a qualified biologist. b. For temporarily impacted areas, rubber tracked or low ground pressure or aquatic equipment will be used for construction and maintenance to avoid and minimize potential disturbance to jurisdictional wetland areas due to rutting and compaction by equipment. Areas of jurisdictional wetlands temporarily impacted by the project shall be monitored for two years, or until a qualified biologist determines that the project site has returned to pre-project conditions. If determined necessary by the qualified biologist, if plants are not reestablished via natural recruitment, a revegetation plan would be prepared that would include performance standards, success criteria, maintenance, and provisions for remedial measures, and subsequently be monitored by a qualified biologist for an additional three years, or until the project site has returned to pre-project conditions based on the performance standards identified above. 1. If remedial measures such as spreading out spoils and/or removal of spoils off-site is not feasible, and successful revegetation to pre-project conditions is not achieved, then impacts would be reclassified from temporary to permanent, and the mitigation outlined for permanent impacts would apply. As a part of the monitoring effort, water surface elevation shall be monitored for changes. If any changes in water surface elevation are detected due to the implementation of the project, then any jurisdictional wetlands found within 100 feet of occlusion removals shall be monitored for three years. In addition to detecting any changes to these jurisdictional wetlands persisting, monitoring will also focus on noting changes	During and after construction	Issuance of a CWA Section 404 permit and a CWA Section 401 permit and implementation of associated permit conditions; site inspections during and after construction by a qualified biologist	ICWD Qualified Biologist			

Mitigation Measure	Monitoring Phase/ Timing	Monitoring Procedure	Implementing Party/ Agency	Verification of Compliance		
				Initials	Date	Remarks
in vegetation cover immediately surrounding these communities as well as changes to water surface elevation in the adjacent river channel. Should monitoring indicate that indirect impacts are occurring to these jurisdictional wetlands due to the project, impacts would be considered permanent, and a mitigation plan shall be prepared as outlined below. c. For permanent impacts to jurisdictional wetlands, the County shall provide one of the following options of a combination thereof: 1. On- and/or off-site preservation of USACE/RWQCB jurisdictional "waters of the U.S." at a ratio no less than 1:1 for permanent impacts, or reduced ratio if mutually-agreed upon with regulatory agencies. 2. On- and/or off-site creation, restoration, and/or enhancement of USACE/RWQCB jurisdictional "waters of the U.S." at a ratio no less than 2:1 for permanent impacts, or reduced ratio if mutually-agreed upon with regulatory agencies. A mitigation and monitoring plan shall be prepared. The plan shall focus on the creation, restoration, and/or enhancement of equivalent features within disturbed areas of the project site and/or off-site. In addition, the plan shall provide details as to the implementation, performance standards, success criteria, maintenance, and future monitoring.						
Mitigation Measure BIO-7: Prior to the start of in-water work, a pre-construction survey (e.g., via electroshocking) will be conducted to determine if special-status fish species are present in the project area (e.g., Owens sucker, Owens pupfish, Owens speckled dace, and Owens tui chub). If the federally and state endangered Owens pupfish and/or the federally and state endangered Owens tui chub are found within the study area, prior to project construction, the County shall obtain a FESA Section 7 Biological Opinion from the USFWS, and compliance with CESA Section 2080.1 precludes the need for a separate Incidental Take Permit from the CDFW. If any special-status fish species are found within the study area, they will be captured and relocated to similar aquatic habitat within the Lower Owens River that is outside of the work area by a qualified fisheries	Prior to in-water work and during construction	Site inspections prior to and during construction by a qualified biologist	ICWD Qualified Biologist			

Mitigation Measure	Monitoring Phase/ Timing	Monitoring Procedure	Implementing Party/ Agency	Verification of Compliance		
				Initials	Date	Remarks
biologist. The relocation area will be pre-determined by CDFW and all individuals relocated will be monitored for stress and abnormalities. Prior to in-water work, the following five water quality parameters shall be measured to establish baseline water quality conditions: temperature, dissolved oxygen (DO), pH, conductivity, and turbidity. During all phases of in-water work, the five water quality parameters will be measured and documented hourly for increased/decreased levels relative to baseline conditions. If observed that water quality parameters remain at baseline levels and/or in compliance with Basin Plan water quality objectives, sampling intervals will be reassessed depending on the phase of project and project activities. In addition, aquatic species stress will be monitored as indicated by surface mouthing, schooling and leaving an area, or observation of invertebrates crawling out of the water to get air. If determined necessary, a sediment curtain or other measures will be installed within the area of disturbance to minimize/limit changes in DO, pH, turbidity, and other constituent parameters such that signs of aquatic species stress are eliminated.						
Mitigation Measure BIO-8: The Environmental Awareness Program shall include information about the wildlife corridor associated with the Owens River. Signage shall inform recreationalists about the wildlife corridor and the importance of staying on the water trail or boat launch and take-out facilities only, respecting wildlife and stay a safe distance away, and not feeding wildlife.	During and after construction	Installation of an informational kiosk and signage	IC			
Mitigation Measure BIO-9: Impacts to elk nursery sites would be avoided by conducting all construction and maintenance activities outside of the elk calving season (i.e., work shall occur July 1 to March 31). During construction, the placement of large woody debris shall be strategically placed along the banks to discourage recreationalists from disembarking along the river, where possible. In addition, cattle exclusion fencing may be installed along the boat launch and take-out facilities to confine recreationalists to the developed areas and to separate visitor from cattle.	During construction	Site inspections during construction by a qualified biologist; installation of fencing along the boat launch and take-out facilities	ICWD Qualified Biologist			

Mitigation Measure	Monitoring Phase/ Timing	Monitoring Procedure	Implementing Party/ Agency	Verification of Compliance		
				Initials	Date	Remarks
Mitigation Measure BIO-10: Clean, Drain, Dry requirement signage shall be prominently displayed to inform recreationalists about the threat of Quagga mussels and instruct on how to sanitize their gear and equipment before entering and after exiting the water trail. Signage shall be placed at boat launch and take-out locations. The County has already preliminarily coordinated with the CDFW regional aquatic invasive species lead biologist and will develop a Dreissenid Mussel Prevention Program in accordance with CDFW and LADWP guidance documents. Prevention measures shall also apply to all aquatic construction equipment.	During and after construction	Installation of signage	ICWD			
Cultural Resources						
Mitigation Measure CUL-1: Prior to the start of any ground disturbing activity associated with the proposed project, a Qualified Archaeologist, defined as an archaeologist meeting the Secretary of the Interior's Standards for professional archaeology (U.S. Department of the Interior, 2008) shall be retained by the County to carry out all mitigation measures related to archaeological resources.	Prior to the start of ground disturbing activity	Retention of a Qualified Archaeologist	IC			
Mitigation Measure CUL-2: Prior to any ground disturbing activities associated with the proposed project, the Qualified Archaeologist shall conduct cultural resources sensitivity training for all construction personnel. Construction personnel shall be informed of the types of archaeological resources that may be encountered, and of the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources or human remains. The County shall ensure that construction personnel are made available for and attend the training and retain documentation demonstrating attendance.	Prior to the start of ground disturbing activity	Cultural resources sensitivity training	IC			
Mitigation Measure CUL-3: To ensure the 33 archaeological sites within or immediately adjacent to (within 150 feet of) the proposed project access roads are not inadvertently impacted during project implementation, the County shall include the following conditions in its agreement with its construction contractor:	Prior to the start of ground disturbing activity	Include conditions in construction contracts; site inspections during construction	IC			

Mitigation Measure	Monitoring Phase/ Timing	Monitoring Procedure	Implementing Party/ Agency	Verification of Compliance		
				Initials	Date	Remarks
1. The contractor shall convey to all construction personnel during daily tailboard meetings that all equipment and vehicles must stay on existing access roads and within bounds of staked floodplain routes and that no off-road travel is permitted. 2. The contractor shall place temporary signage at regular intervals along all access roads indicating that all equipment and vehicles are not to leave the designated access roads under any conditions. 3. Should County staff, construction contractor staff, and/or cultural resource monitors observe non-compliance or evidence of non-compliance with this requirement, the contractor shall be required to establish additional protective measures, such as temporary fencing, along the access roads to prevent potential impacts to archaeological resources.						
Mitigation Measure CUL-4: Prior to the start of ground disturbing activities associated with the proposed project, an archaeological monitor, working under the supervision of the Qualified Archaeologist and a Native American monitor associated with a locally affiliated tribe, shall be retained to conduct monitoring of project-related ground-disturbing activities occurring within 50 feet of the 33 known archaeological resources, as well as the construction of all facilities associated with the boat launch and take-out. Based on observations of subsurface soil stratigraphy or other factors during initial ground disturbing activities, and in consultation with the County and Native American monitor, the Qualified Archaeologist may modify monitoring as warranted if the Qualified Archaeologist determines that the sensitivity is contrary to what was predicted. Archaeological monitors shall maintain daily logs documenting their observations. Monitoring activities shall be documented in a Monitoring Report to be prepared by the Qualified Archaeologist at the completion of construction and shall be provided to the County and filed with the Eastern Information Center within six (6) months of project completion.	Prior to the start of ground disturbing activity	Request made to locally affiliated tribe regarding a Native American monitor; site inspections during construction by a qualified archaeologist; Monitoring Report;	IC			

Mitigation Measure	Monitoring Phase/ Timing	Monitoring Procedure	Implementing Party/ Agency	Verification of Compliance		
				Initials	Date	Remarks
Mitigation Measure CUL-5: In the event of the unanticipated discovery of archaeological materials during project implementation, all work shall immediately cease in the area (within approximately 100 feet) of the discovery until it can be evaluated by the Qualified Archaeologist. Construction shall not resume until the Qualified Archaeologist has conferred with the County and the Native American monitor on the significance of the resource. The Army Corps of Engineers shall also be notified and afforded the opportunity to determine whether the discovery requires addressing under Section 106 Post-Review Discoveries provisions provided in 36 CFR 800.13. If it is determined that the discovered archaeological resource constitutes a significant resource, avoidance and preservation in place is the preferred manner of mitigation. Preservation in place may be accomplished by, but is not limited to, avoidance, incorporating the resource into open space, or capping. In the event that preservation in place is demonstrated to be infeasible and data recovery through excavation is the only feasible mitigation available, a Cultural Resources Treatment Plan shall be prepared and implemented by the Qualified Archaeologist in consultation with the County and Native American monitor that provides for the adequate recovery of the scientifically consequential information contained in the archaeological resource. All prehistoric and protohistoric archaeological resources collected during project construction shall be offered/donated to locally affiliated tribes with appropriate facilities for the curation of archaeological collections. Similarly, all historic-period archaeological resources collected during project construction shall be offered/donated to local museums including but not limited to Eastern California Museum, the Laws Museum, the Museum of Western Film, the Maturango Museum, and the Southern Inyo Museum in Lone Pine. Should the tribal groups and/or museums decline the artifact collections, they shall be curated at an acceptable curation facility outside the project vicinity such as University of California, Riverside.	During construction	Include conditions in construction contracts; Halt work; redirect; development of a formal Cultural Resources Treatment Plan, if needed.	IC			

Mitigation Measure	Monitoring Phase/ Timing	Monitoring Procedure	Implementing Party/ Agency	Verification of Compliance		
				Initials	Date	Remarks
Mitigation Measure CUL-6: The proposed signage to be installed at the boat launch and take out kiosks shall include language stating that all water trail users are to stay within the designated recreational areas of the water trail. The language shall also include interpretative information regarding the prehistory of the area, as well as definitions of site looting, vandalism, and pertinent public resources codes for the conviction of vandalism to archaeological resources including but not limited to PRC Sections 5097.993 and 5097.994 (Native American Historic Resource Protection Act), which establishes as a misdemeanor the removal or destruction of Native American archeological or historic sites on public or on private lands, punishable by a fine of up to $10,000 and/or imprisonment. Locally affiliated tribes shall be consulted regarding the content and design of the interpretive signage presented at the kiosks.	During and after construction	Installation of signage	IC			
Mitigation Measure CUL-7: Provided this measure does not present a safety risk by limiting ingress and egress from the channel, woody debris removed from the Owens River channel during construction shall be placed at points where existing ranch and access roads bound the channel to discourage the ability of recreational users leaving the water trail and using the roads to access archaeological sites located on the margins of the Owens River floodplain and the adjacent terraces.	During construction	Site inspections during construction	IC			
Mitigation Measure CUL-8: An annual site condition verification program shall be undertaken to document the condition of the three archaeological sites bisected by or located immediately adjacent to the existing dirt road that would be used to access the boat take out (P-14-000035, -000068, and -000081) as well as the five sites located on the margins of the Owens River floodplain (ESA-ORWT-Site-011P, -012P, -023P, -026P, and -027P). The site verification program shall be implemented by a qualified archaeologist on an annual basis for the first three years of the project's use as a recreational water trail. The site verification shall be conducted by the qualified archaeologist or an archaeologist working under the supervision of the qualified archaeologist; a Native American monitor from a locally affiliated tribe also will be requested to be present during site verification.	After construction	Site verification program	IC			

Mitigation Measure	Monitoring Phase/ Timing	Monitoring Procedure	Implementing Party/ Agency	Verification of Compliance		
				Initials	Date	Remarks
The goal of the annual site condition verification program is to monitor on an annual basis whether recreational use of the project area is indirectly impacting the eight archaeological sites identified above as a result of an increase in vehicle and foot traffic, inadvertent wandering into archaeological sites, purposeful looting and/or vandalism, and other disturbances that could be an inadvertent result of project operation. The results of the annual site condition verification shall be documented in a brief memorandum and shall include: confirmation of resource boundaries with GPS; relocation of previously identified diagnostic artifacts and features; confirmation of locations, quantities, and types of artifacts present; general condition and disturbances observed; and photography to document whether any change in resource condition has occurred. California Department of Parks and Recreations (DPR) 523 form updates, following California Office of Historic Preservation's (OHP) *Instructions for Recording Historical Resources,* shall be prepared and filed with the Eastern Information Center for all resources where changes in setting or condition are observed. If no impacts to archaeological sites are observed following the first three years, the annual site condition verification program may be discontinued. If the annual site condition verification program identifies impacts to archaeological sites resulting from project operations, or if, at any time, the County becomes aware of such impacts, additional protective measures shall be implemented immediately as recommended by the qualified archaeologist and in coordination with local Native American Tribes. If protective measures are implemented, annual verification of the measures' success shall be conducted for a period of three years.						
Mitigation Measure CUL-9: If human skeletal remains are uncovered during Project construction, all work within 100 feet of the find will be immediately halted, and the Inyo County coroner will be contacted to evaluate the remains, and follow the procedures and protocols set forth in Section 15064.5 (e)(1) of the CEQA Guidelines. If the County Coroner determines that the remains are Native American, the County shall contact the California Native American Heritage Commission (NAHC), in accordance with Health and	During construction if human skeletal remains are found	Halt work; contact County Coroner and NAHC, if needed	IC			

Mitigation Measure	Monitoring Phase/ Timing	Monitoring Procedure	Implementing Party/ Agency	Verification of Compliance		
				Initials	Date	Remarks
Safety Code Section 7050.5, subdivision (c), and PRC 5097.98 (as amended by AB 2641). The NAHC would then identify a Most Likely Descendant (MLD) of the deceased Native American, who would then help determine what course of action should be taken in the disposition of the remains. Per PRC 5097.98, the landowner should ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section (PRC 5097.98), with the MLD regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.						
Geology and Soils						
Mitigation Measure GEO-1: Prior to the start of construction activities, the County shall retain a Qualified Paleontologist that meets the standards of the Society of Vertebrate Paleontology (2010) to carry out all mitigation measures related to paleontological resources.	Prior to the start of construction	Retention of a Qualified Paleontologist	IC			
Mitigation Measure GEO-2: Prior to start of any ground disturbing activities, the Qualified Paleontologist shall contribute to any construction worker cultural resources sensitivity training, outlined in Mitigation Measure CUL-2, either in person or via a training module provided to the Qualified Archaeologist. This training shall include information on what types of paleontological resources could be encountered during excavations, what to do in case an unanticipated discovery is made by a worker, and laws protecting paleontological resources. All construction personnel shall be informed of the possibility of encountering fossils and instructed to immediately inform the construction foreman or supervisor if any fossils are unexpectedly unearthed in an area where a paleontological monitor is not present. The County shall ensure that construction personnel are made available for and attend the training and retain documentation demonstrating attendance.	Prior to the start of any ground disturbing activities	Brief report prepared by Qualified Paleontologist; documentation demonstrating attendance at resource sensitivity training	IC			

Mitigation Measure	Monitoring Phase/ Timing	Monitoring Procedure	Implementing Party/ Agency	Verification of Compliance		
				Initials	Date	Remarks
Mitigation Measure GEO-3: The Qualified Paleontologist shall supervise a paleontological monitor meeting the Society for Vertebrate Paleontology standards (2010) who shall be present during all ground excavations occurring within areas mapped as older lake deposits (Qlo) including the boat launch and take-out facilities, as well as all ground excavation activities exceeding 5 feet in depth for all project components in areas mapped as active alluvium (Qa) and Aeolian sands (Qs), which have the potential to extend into older lake deposits (Qlo) at depth (see Figure 3.5-2). Monitoring shall consist of visually inspecting fresh exposures of rock for larger fossil remains and, where appropriate, collecting wet or dry screened sediment samples of promising horizons for smaller fossil remains. Monitoring can be reduced to part-time inspections or ceased entirely if determined adequate by the Qualified Paleontologist in consultation with the County. Monitoring activities shall be documented in a Paleontological Resources Monitoring Report to be prepared by the Qualified Paleontologist at the completion of construction and shall be provided to the County and filed with the Natural History Museum of Los Angeles County within six (6) months of project completion. Paleontological resources collected during project construction shall be offered/donated to local museums with facilities that meet the Society for Vertebrate Paleontology (2010) curation guidelines. Should the local museums not have appropriate curation facilities or otherwise decline the paleontological specimens, they shall be curated at an acceptable curation facility outside the project vicinity such as the Los Angeles County Natural History Museum.	During excavation of areas mapped as older lake deposits and excavation exceeding 5 feet in depth for areas mapped as active alluvium and eolian san.	Site inspections during construction by a Qualified Paleontologist	IC			
Mitigation Measure GEO-4: If a unique geologic feature or paleontological resource is discovered during construction, the paleontological monitor shall be empowered to temporarily divert or redirect grading and excavation activities in the area of the exposed fossil to facilitate evaluation of the discovery. An appropriate buffer area shall be established by the Qualified Paleontologist around the find where construction activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area. At the Qualified Paleontologist's discretion and to reduce any	During construction if a unique geologic feature or paleontological resource is discovered	Site inspections during construction by a Qualified Paleontologist	IC			

Mitigation Measure	Monitoring Phase/ Timing	Monitoring Procedure	Implementing Party/ Agency	Verification of Compliance		
				Initials	Date	Remarks
construction delay, the grading and excavation contractor shall assist in removing rock samples for initial processing and evaluation of the find. All significant fossils shall be collected by the paleontological monitor and/or the Qualified Paleontologist. Collected fossils shall be prepared to the point of identification and catalogued before they are submitted to their final repository. Any fossils collected shall be curated at a public, non-profit institution with a research interest in the materials, such as the Los Angeles County Natural History Museum, if such an institution agrees to accept the fossils. If no institution accepts the fossil collection, they shall be donated to a local school in the area for educational purposes. Accompanying notes, maps, and photographs shall also be filed at the repository and/or school.						
Hydrology and Water Quality						
Mitigation Measure HYD-1a: ***In-Stream Measures to Minimize Pollution, Sediment Loading, and Dissolved Oxygen Impacts.*** In order to minimize turbidity and sediment loading during project construction and maintenance, the County shall ensure that all in-channel work includes deployment of measures to avoid and/or minimize release of pollutants, sediment, and turbidity into the waterway. Typical measures to be deployed may include the following measures, or measures that are functionally equivalent to the following: • In-channel construction and vegetation removal shall occur during October through May, or otherwise during months when average water temperatures are not elevated, to ensure project activities do not result in dissolved oxygen levels that violate Basin Plan objectives. • All equipment used in-channel and adjacent to the waterway shall be adequately maintained to avoid leaks and cleaned offsite prior to use in the project area, to avoid release of equipment-related pollutants; • Equipment used within standing or flowing water shall have biodegradable hydraulic fluids and lubricants;	During in-channel construction	Site inspection; deployment of measures by the construction contractor to avoid and/or minimize release of pollutants, sediment, and turbidity into the waterway	IC			

Mitigation Measure	Monitoring Phase/ Timing	Monitoring Procedure	Implementing Party/ Agency	Verification of Compliance		
				Initials	Date	Remarks
• Complete all in-channel construction and maintenance activities during low-flow periods (i.e., avoid work during storm flow or periods when in-channel flows exceed 70 cfs); • Remove the occlusion at River Mile 45.1 to 45.3 incrementally to allow the ponded water to drain slowly. In conjunction with Mitigation Measure BIO-7, monitoring shall be conducted downstream during removal to assess the effects on water quality; and • Use hand-removal methods to remove emergent vegetation from the channel whenever practicable to minimize sediment release and suspension.						
Mitigation Measure HYD-1b: *Trash Receptacles.* The County shall ensure that adequate trash receptacles are installed at the boat launch and take-out areas, and that these receptacles are maintained (including trash removal) on an ongoing basis.	During and after construction	Site inspection to confirm Installation; ongoing maintenance	IC			
Mitigation Measure HYD-2: *Floodplain Erosion Management.* In order to stabilize spoils placed in stockpile areas, the County shall require the contractor to implement best management practices that minimize erosion of spoils, including but not limited to the following: • Place and lightly compact spoils in such a manner as to reduce erosion, • Revegetate by broadcast seeding with native vegetation including, but not limited to, salt grass or native bunch grasses • Encircle spoils placement areas with 100% biodegradable straw wattles. Stake spoils placement areas using 100% biodegradable wooden stakes.	During construction	Implementation of BMPs that minimize erosion of spoils by the construction contractor	IC			

Appendix G

Owens River Water Trail Biological Resources Technical Report

ESA

Final

OWENS RIVER WATER TRAIL

Biological Resources Technical Report

Prepared for
Inyo County Water Department

May 2019

ESA

Final

OWENS RIVER WATER TRAIL

Biological Resources Technical Report

Prepared for
Inyo County Water Department

May 2019

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Owens River Water Trail

Biological Resources Technical Report

1 Introduction

This report presents the findings of a biological resources assessment conducted by Environmental Science Associates (ESA) for the 6.3-mile Owens River Water Trail (ORWT, or "project site") encompassing approximately 39.1 acres within an approximately 685-acre study area (study area) located just east of Lone Pine in Inyo County, California.

The Water Department of Inyo County (County) is proposing to construct the ORWT to allow recreational access for non-motorized watercrafts to an approximately 6.3-mile segment of the newly rewatered 62-mile-long Lower Owens River. The aim of the proposed project is to develop facilities for recreational users to enter and exit the river safely in two designated locations and to allow unimpeded navigation for non-motorized watercraft, such as kayaks, standup paddle boards, and canoes. In addition to providing recreational access, the proposed project is expected to provide instream and riparian habitat benefits, and improve water quality. Specifically, the project's objectives are to provide all-abilities access to the ORWT; provide recreational and educational opportunities; and remain consistent with the habitat, environmental, and recreational goals of the Lower Owens River Project (LORP), a large-scale habitat restoration project, of which the Lower Owens River is the central component. The Lower Owens River is a highly-controlled, gentle stretch of river and thus is ideal for safe paddling. The proposed project would be a first-of-its-kind designated water trail in the western United States and would expand recreational opportunities in the Eastern Sierra, and specifically the Owens Valley.

This report documents the results of a literature review, biological surveys, and describes the environmental setting of the study area, including plant communities, habitats, and special-status biological resources that have been documented on-site or have the potential to occur on-site. In addition, the report includes an analysis of potential direct or indirect project-related construction and operational impacts to special-status biological resources within the context of applicable environmental regulations, and provides recommendations to mitigate these effects. The purpose of this study is to satisfy the requirements of the California Environmental Quality Act (CEQA), and to inform regulatory agency review of project jurisdictional resources pursuant to Sections 404 and 401 of the Clean Water Act (CWA) and Section 1602 of the California Fish and Game Code (FGC).

1.1 Project Location

The study area is located within Inyo County along the Lower Owens River, just east of the Town of Lone Pine (**Figure 1**). The study area contains an undeveloped 6.3-mile reach of the Owens River and associated floodplain immediately south of Lone Pine Narrow Gauge Road and immediately north of State Route 136 (**Figure 2**). The study area is owned by the City of Los Angeles Department of Water and Power (LADWP) and is largely a natural setting that supports some cattle grazing. Land uses in the project vicinity include undeveloped natural areas, cattle grazing, electric transmission utility corridor, a wastewater treatment facility, and a County waste disposal facility, with residential and commercial development approximately 1 mile to the west within the Town of Lone Pine.

1.2 Project Description

Project Background

Since 1913, approximately 56 miles of the Owens River have been a mostly dry water course due to diversion of the lower section of the Owens River by the City of Los Angeles into the Los Angeles Aqueduct. Prior to diversion, the City of Los Angeles' Hydrographers recorded flow in the river of 425 cubic feet per second (cfs) on average, with peak flows at well over 3,000 cfs. In December 2006, the City of Los Angeles and Inyo County jointly initiated the LORP, which reestablished a perpetual regulated flow down the dry channel. The LORP guarantees a minimum flow of 40 cfs with additional springtime water releases indexed to forecasted snowmelt runoff. In years when runoff from snow melt is predicted to be normal or higher, a 200 cfs flushing flow is sent down the river in early to late spring.

The County of Inyo, in coordination with the LADWP, prepared the Draft Recreation Use Plan for the Lower Owens River (January 2013). While the County has not formally adopted this plan, it serves as an advisory document for recreational activities along this segment of the Owens River. Based on community input, the Draft Recreation Use Plan identified boating as the number one recreational activity that residents would like to participate in along the Lower Owens River. The ORWT would create new recreational opportunities for local residents and visitors, consistent with the Draft Recreational Use Plan.

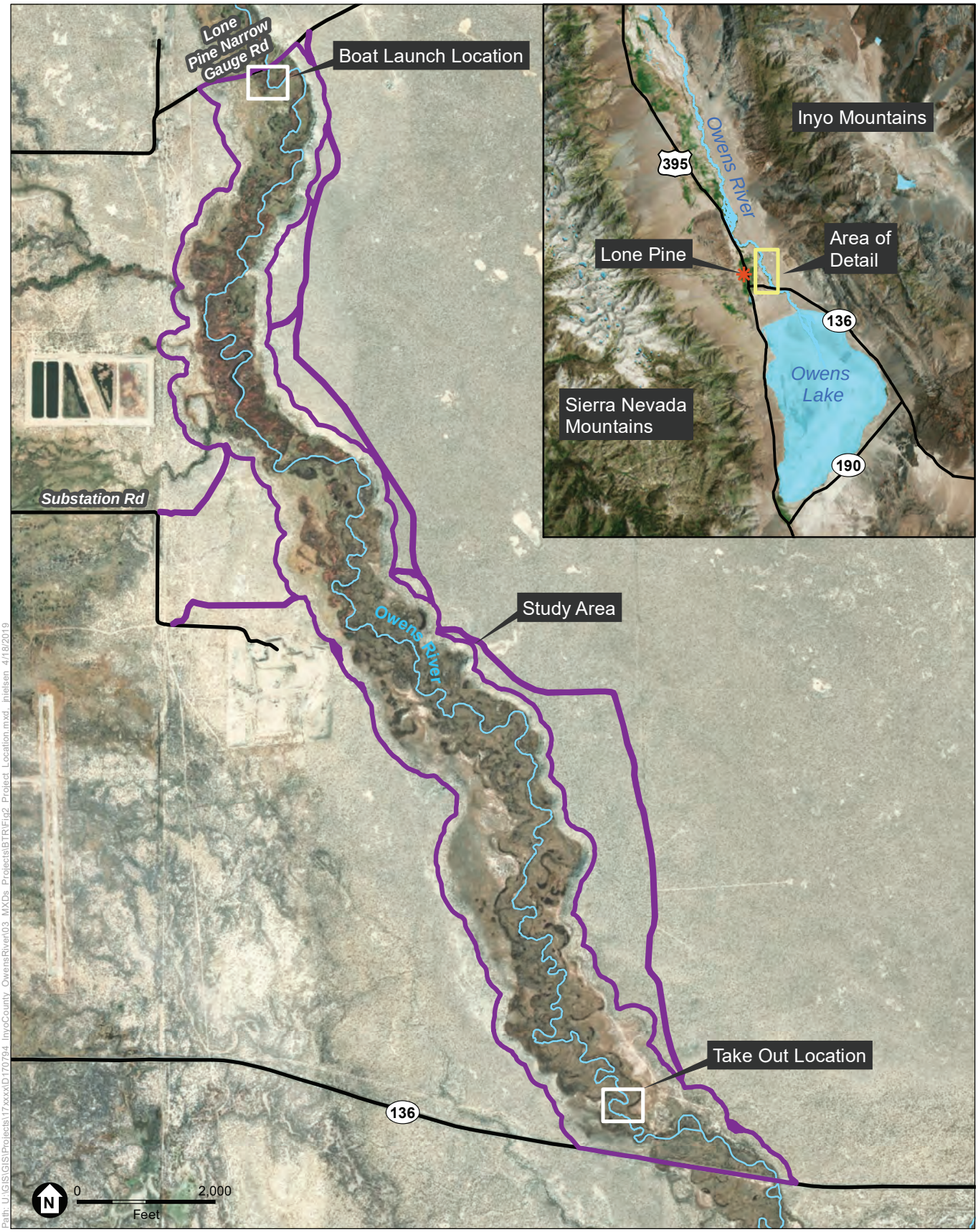
The LORP involves four primary restoration efforts: (1) releasing water to the Lower Owens River to enhance native and game fisheries and riparian habitats along 62 miles of the river; (2) providing water to the Owens River Delta to maintain and enhance various wetland and aquatic habitats; (3) enhancing a 1,500-acre off-river area with seasonal flooding and land management to benefit wetlands and waterfowl; and (4) maintaining several off-river lakes and ponds.

SOURCE: ESRI

Owens River Water Trail

Figure 1
Regional Location

ESA



Owens River Water Trail

SOURCE: DigitalGlobe 11/3/2017; ESA, 2019.

Figure 2
Project Location

ESA

Project Description

The ORWT would provide public recreational access to an approximately 6.3-mile section of the newly rewatered, 62-mile-long Lower Owens River (refer to **Figure 3** for project overview and **Figures 3A-3H** for close up view). The proposed project would result in the development of facilities for recreational users to enter and exit the river and would allow unimpeded navigation for non-motorized watercraft, such as kayaks, standup paddle boards, and canoes. Specifically, the proposed project would include construction and maintenance of the water trail and boat launch and take-out facilities, which would provide limited amenities in addition to access to the river. In discussing the individual project components, the terms "water trail" and "boat launch and take-out facilities" will be used, and while referring to the whole project the term ORWT or project will be used.

The water trail would be utilized by local residents and visitors to the region and would allow for users to paddle their non-motorized watercraft downstream. Due to the Owens River's controlled and relatively low flow (i.e., 40 to 50 cfs), in-channel velocities are estimated to be around 0.5-0.6 mph. At this relatively slow pace, the water trail would provide a safe and accessible recreational resource. Inyo County estimates that over time annual use could reach approximately 4,400 launches per year. The estimate takes into account the fact that the ORWT would be available year-round since the river flows at a predictable minimum 40 cfs year-round even in the middle of a drought; seasonal habitat flows released from the River Intake, 43.65 miles upstream are typically 110 cfs and as currently managed have not exceeded 325 cfs. Seasonal habitat flows volumes are attenuated by evapotranspiration (ET), and a 325 cfs flow released from the Intake, resulted in 190 cfs flows in the study area. In addition, the river is currently open to fishing and boating year-round.

Water Trail

Currently, sections of the ORWT river route are non-navigable due to the channel being partially or fully obstructed by emergent aquatic vegetation and associated sediment accumulation as well as by large and small woody debris. The proposed project would construct and maintain a navigable water trail, a minimum of 15 feet wide in maintained areas, along the approximately 6.3-mile stretch of the Lower Owens River to provide a recreational facility in the region. In order to establish the ORWT for non-motorized watercraft, the proposed project would remove existing river occlusions by manual and mechanical methods. While the proposed project would require clearing activities, the project would keep the river channel in its natural form as much as possible and would only remove the minimum amount of vegetation required to allow for the passage of non-motorized watercrafts and small maintenance crafts.

Boat Launch Facility

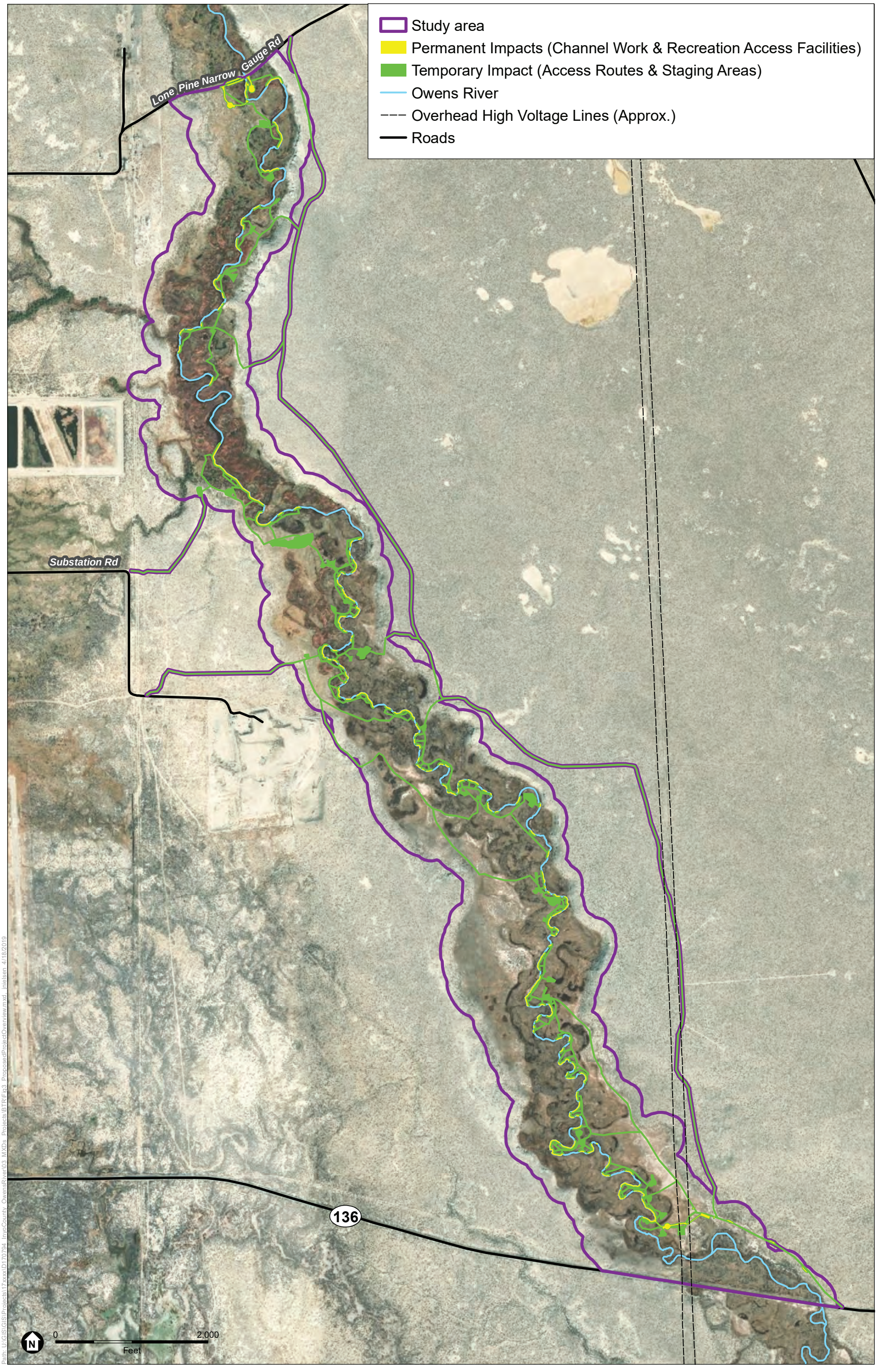
In addition to establishing the water trail within the existing river channel, the proposed project will include the construction of a boat launch facility along the eastern river bank adjacent to Lone Pine Narrow Gauge Road (Option 1) (**Figure 4a**). An alternative boat launch facility along the western river bank is also being considered (Option 2). Access to the boat launch facility from Highway 395 would be provided off of Lone Pine Narrow Gauge Road, which would connect to a short two-lane driveway apron that transitions to a single-lane, all-weather surface drive and

turnaround as shown in Figure 4a. The drive would be approximately 12 feet wide by 120 feet long, and the turnaround would provide a 38-foot exterior radius, which would accommodate an 8-passenger van towing an 8 kayak/canoe trailer. A gravel, or other all-weather surfaced staging area would be located on the northwestern portion of the turnaround that would connect to the boat launch by a pedestrian path, where users of the water trail could unload their watercrafts and/or wait for their turn to access the boat launch. The path leading down to the boat launch would be approximately five feet wide and 20 feet long and would also be accessible for wheelchairs, with a maximum longitudinal slope of five percent and a maximum cross slope of two percent. The boat launch, which would be adjacent to the river, would consist of a ramp or dock or similar appurtenance to allow all-abilities loading and unloading of watercraft. An inlet would be designed to provide a still-water boat launch access point. A gently sloping hardened ramp (e.g., pre-cast concrete, vinyl, or gravel/geotextile) would allow all-abilities entry at water surface elevations corresponding to flows from 40 cfs to 110 cfs. The boat launch would be a maximum of 500 square feet. Assorted boulders strategically placed would provide bank stabilization. Native vegetation would be used for biotechnical bank stabilization in addition to boulder placement. The boat launch facility would allow easy and safe access to the water trail for people of all abilities, including the disabled through the provision of transfer step, transfer board, grab bars and/or surface textures.

Parallel parking would be provided along the Lone Pine Narrow Gauge Road shoulder at the top of the ORWT. The road shoulder would be graded and resurfaced with an all-weather surface to create approximately 1,090 feet of parallel parking space. To support the boat launch facility, a prefabricated, contained vault restroom would be installed on the northeastern portion of the turnaround as well as wildlife-resistant trash receptacles, and weather-resistant interpretative and safety sign kiosk. Cattle fencing would be installed around the eastern perimeter of the amenities to separate the boat launch facility from the existing, surrounding grazing activities.

Boat Take-Out Facility

Approximately 6.3 river miles downstream of the boat launch facility, the boat take-out facility would be constructed in a partially disturbed area northwest of the Owens River Bridge abutment (**Figure 4b**). The boat take-out facility would allow vehicle access for recreational users to retrieve boats and equipment at the end of the water trail. Access to the boat take-out facility would be provided off of State Route 136, which would connect to a two-lane driveway apron and cattle guard that transitions to a single-lane access road as shown in Figure 4b. The road would be approximately 15 feet wide and about 2,500 feet long, with a few spaced out passing shoulders and three cattle guards. Once closer to the river, the road would transition into a 200-foot long drive and turnaround, which would be similar in design to the boat launch facility. An all-weather surfaced staging area along with a prefabricated vault restroom, wildlife resistant trash receptacles, a tube-type fee station, and weather resistant signage would be installed on the western portion of the turnaround. An all-weather surfaced path and bridge, which would be wheelchair accessible, would lead from the staging area to the boat take-out. A bay inlet would be constructed to allow a still-water river exit. A ramp similar to the boat launch would be constructed to allow an all-abilities boat take-out facility at flows ranging from 20 cfs to 110 cfs. The boat take-out would be a maximum of 500 square feet with assorted boulders to provide bank stabilization.



SOURCE: DigitalGlobe 11/3/2017; ESA, 2019.

Owens River Water Trail

Figure 3
Proposed Project Overview

ESA

Study area
River Miles
Overhead High Voltage Lines (Approx.)
Occlusions
Narrow Channel (<15' Width)
Proposed Access
Permanent Impacts (Channel, Recreation Access Facilities, & Spoils Areas)
Temporary Impact (Access Routes & Staging Areas)

Lone Pine Narrow Gauge Road
Area of Detail
136
43.6
Lone Pine Narrow Gauge Rd
Proposed Parking
43.8
Proposed Boat Launch Facilities Option 1 "Project"
43.7
Proposed Boat Launch Facilities Option 2 "Alternative"
43.9
LPNG Access 1-2-1989
Occlusion 1
East Road
44.0
Occlusion 2
44.1
Occlusion 3 No occlusion
44.2
Occlusion 2a
East Road Access-3-735
East Road Access-4-5-6-1121
44.3
Occlusion 4
N
0
200
Feet

Path: U:\GIS\GIS\Projects\17xxxx\D170794 InyoCounty OwensRiver\03 MXDs Projects\BTR\Fig3A-H ProposedProject JLN.mxd jnielsen 4/19/2019

SOURCE: (Exterior Aerial) DigitialGlobe, 11/3/2017, (Interior Aerial) Inyo County, May 2018.; ESA, 2019.

Owens River Water Trail

Figure 3A
Proposed Project

ESA

Study area
River Miles
Overhead High Voltage Lines (Approx.)
Occlusions
Narrow Channel (<15' Width)
Proposed Access
Permanent Impacts (Channel, Recreation Access Facilities, & Spoils Areas)
Temporary Impact (Access Routes & Staging Areas)

Occlusion 3
No occlusion
44.2
Occlusion 2a
East Road Access-3-735
44.3
Occlusion 4
East Road Access-4-5-6-1121
44.4
Occlusion 5
No Occlusion
Occlusion 6
44.5
Occlusion 7
44.6
East Road Access-7-1712
East Road
44.7
44.8
44.9
45.0
Lone Pine Narrow Gauge Road
Area of Detail
136
N
0
200
Feet

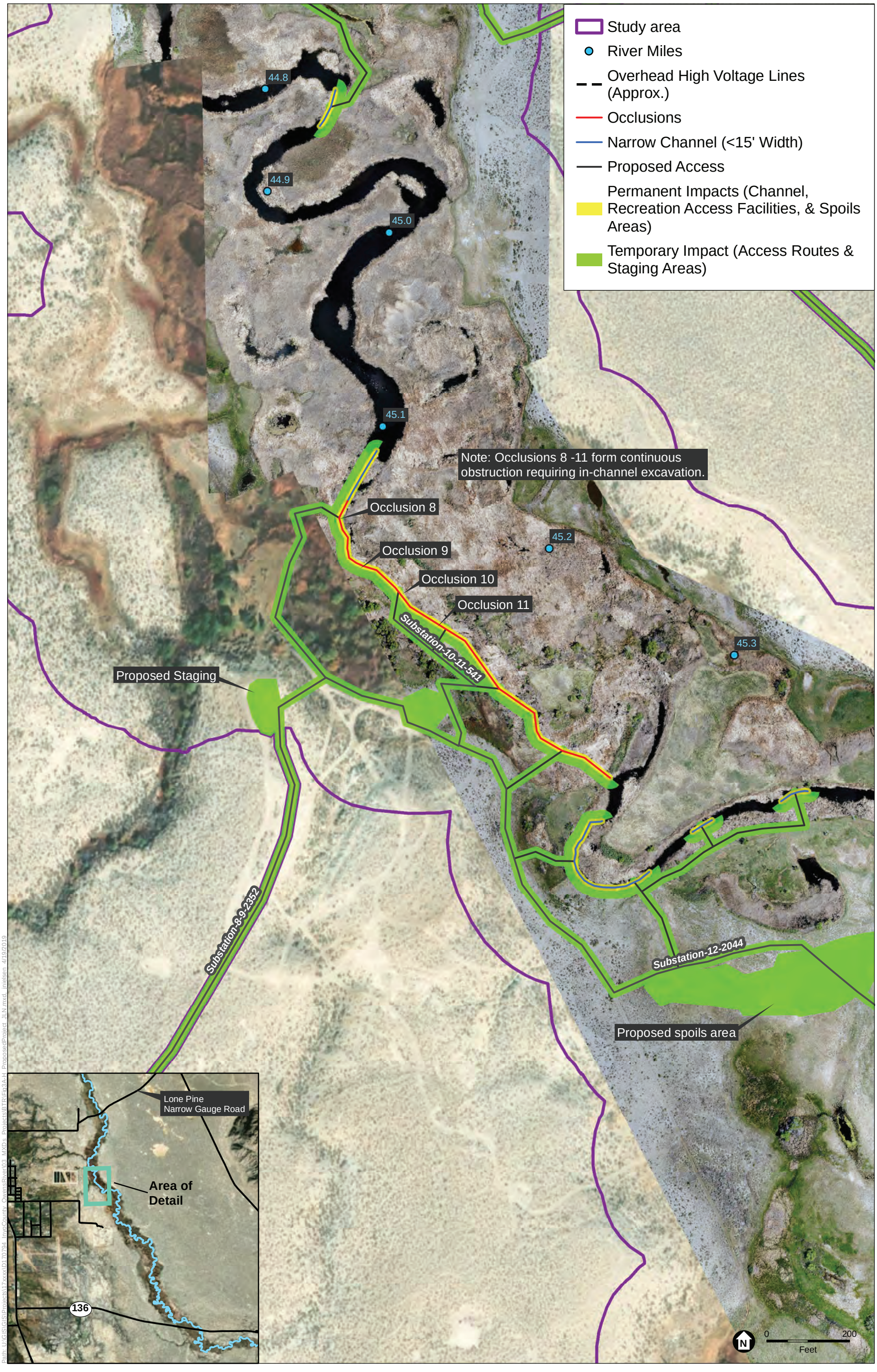
Path: U:\GIS\GIS\Projects\117xxxx\D170794_InyoCounty_OwensRiver\03_MXDs_Projects\BTR\Fig3A-H_ProposedProject_JLN.mxd_jnielsen 4/19/2019

SOURCE: (Exterior Aerial) DigitialGlobe, 11/3/2017, (Interior Aerial) Inyo County, May 2018.; ESA, 2019.

Owens River Water Trail

Figure 3B
Proposed Project

ESA

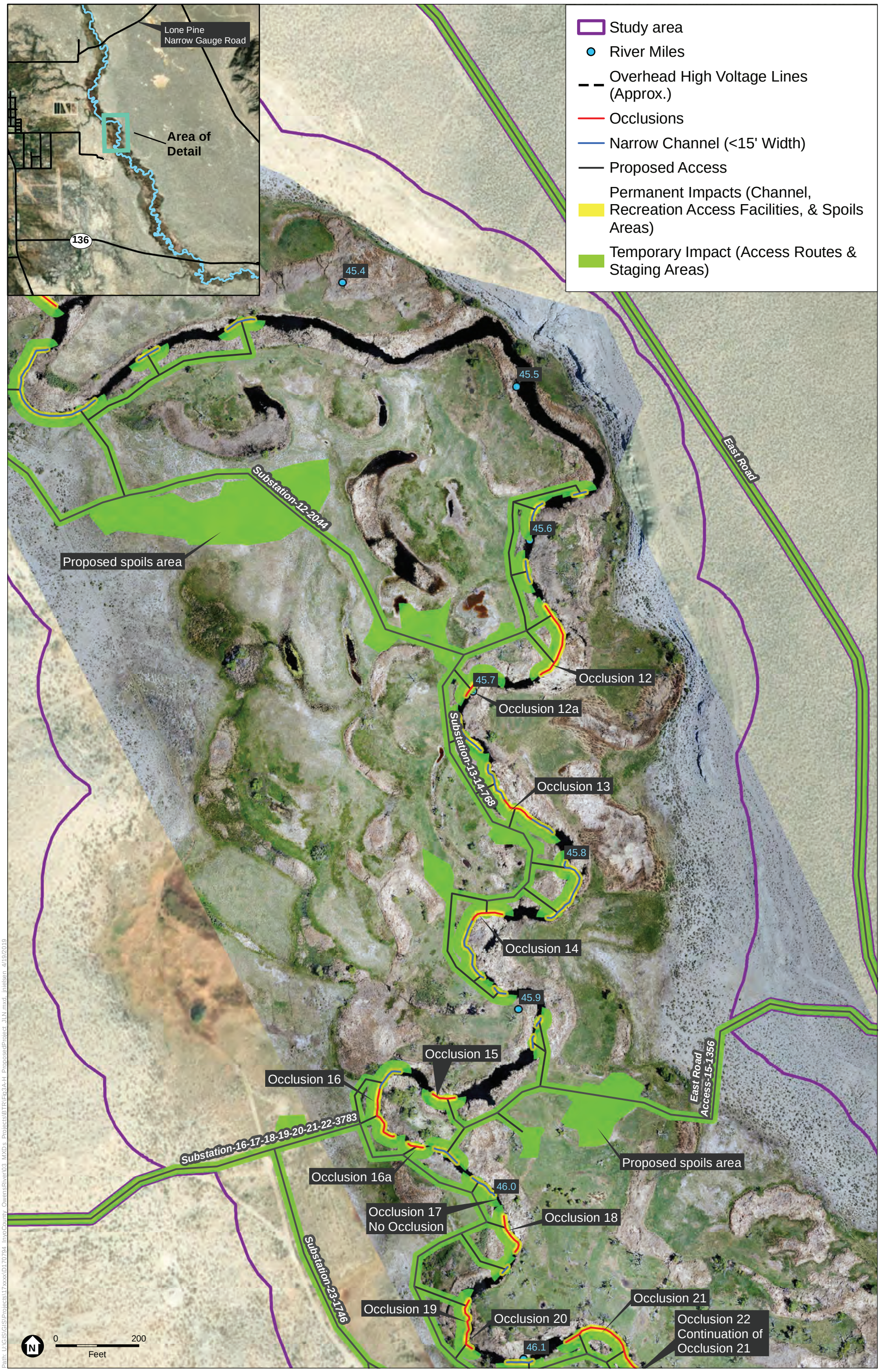


SOURCE: (Exterior Aerial) DigitialGlobe, 11/3/2017, (Interior Aerial) Inyo County, May 2018.; ESA, 2019.

Owens River Water Trail

Figure 3C
Proposed Project

ESA



SOURCE: (Exterior Aerial) DigitialGlobe, 11/3/2017, (Interior Aerial) Inyo County, May 2018.; ESA, 2019.

Owens River Water Trail

Figure 3D
Proposed Project

ESA

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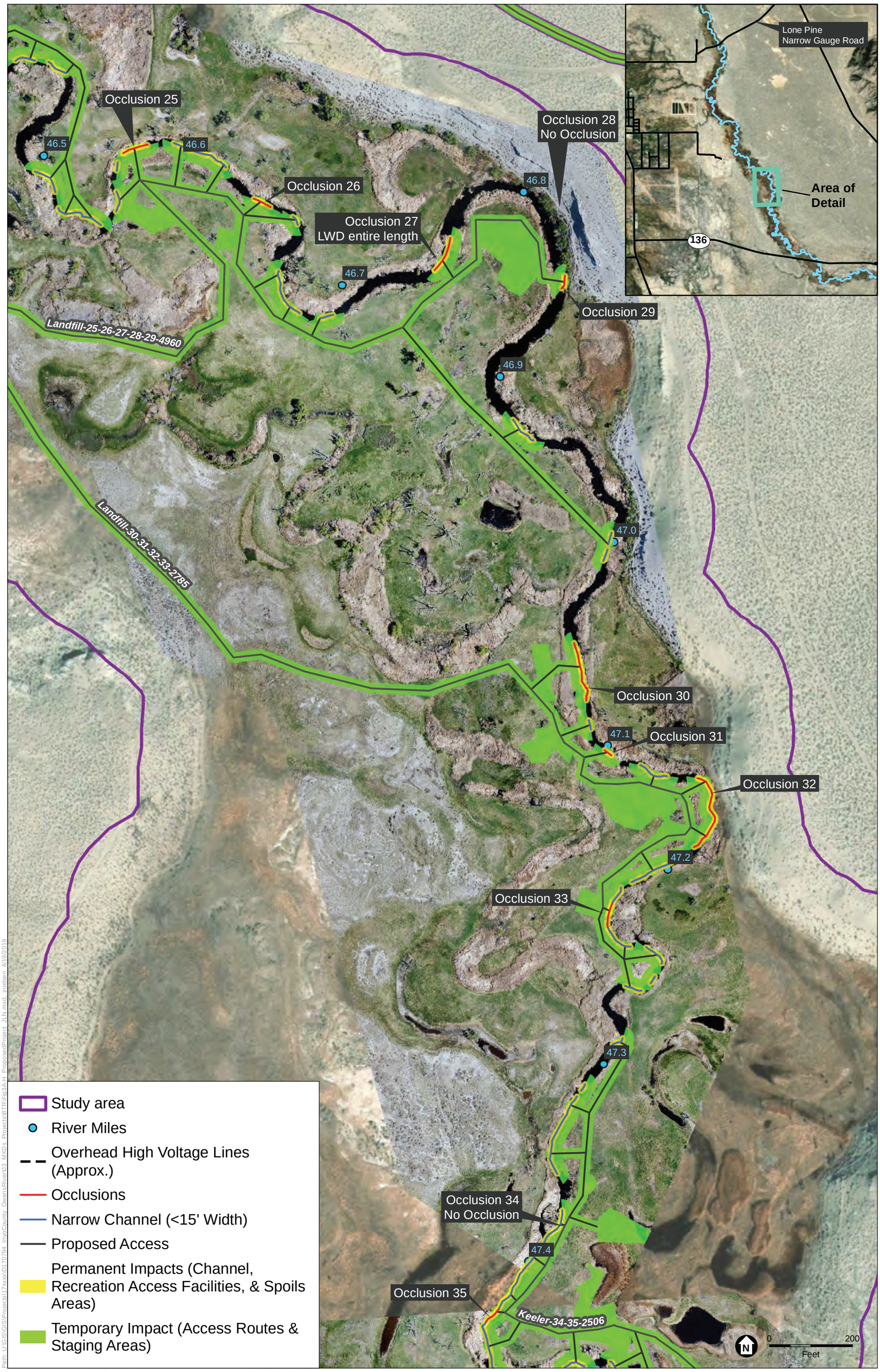
SOURCE: (Exterior Aerial) DigitialGlobe, 11/3/2017, (Interior Aerial) Inyo County, May 2018.; ESA, 2019.

Owens River Water Trail

Figure 3E
Proposed Project

ESA



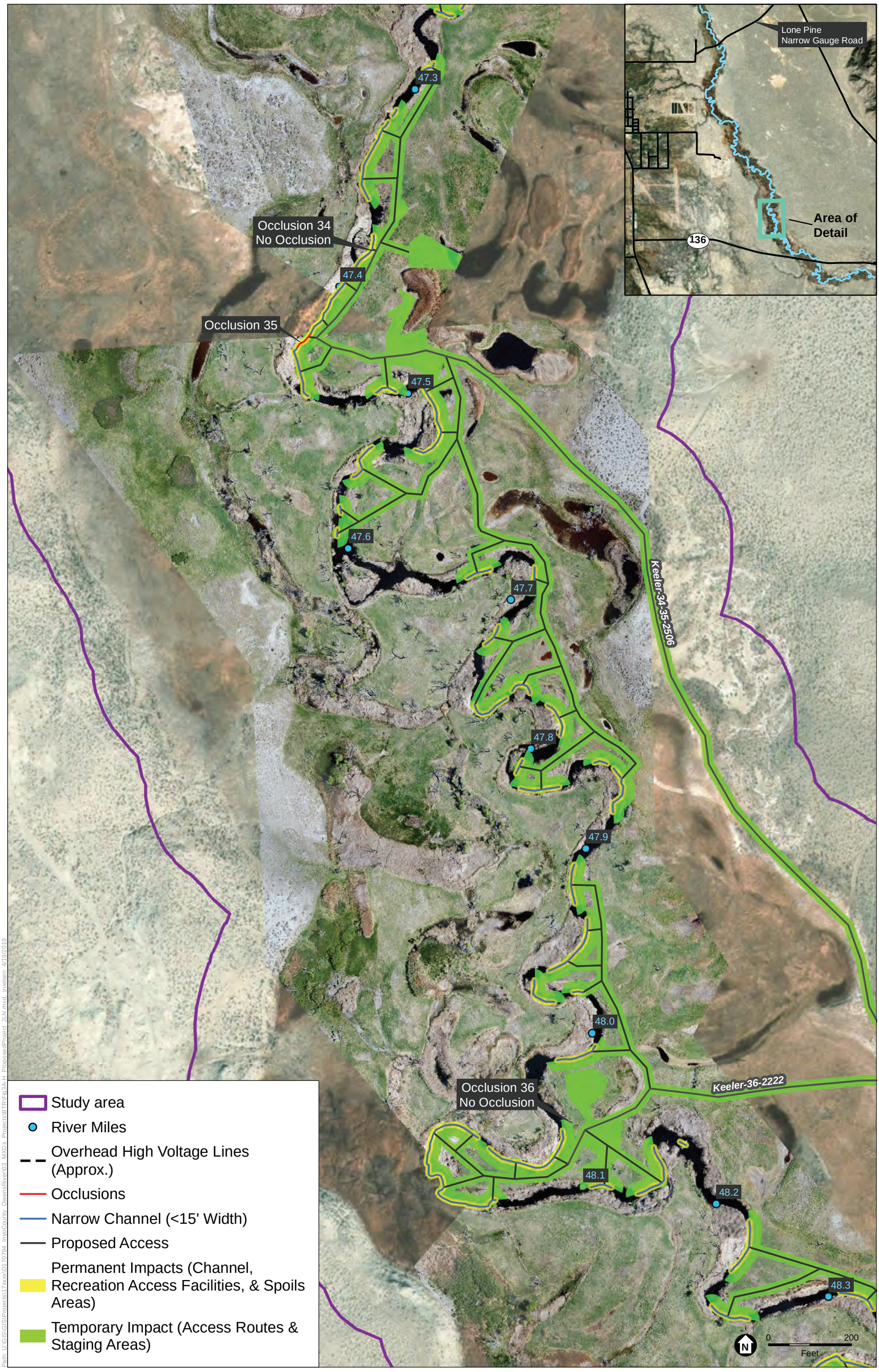
Path: U:\GIS\GIS\Projects\17xxxx\D170794 InyoCounty OwensRiver\03 MXDs Projects\BTR\Fig3A-H ProposedProject JLN.mxd, jnielsen 4/19/2019

SOURCE: (Exterior Aerial) DigitialGlobe, 11/3/2017, (Interior Aerial) Inyo County, May 2018.; ESA, 2019.

Owens River Water Trail

Figure 3F
Proposed Project

ESA

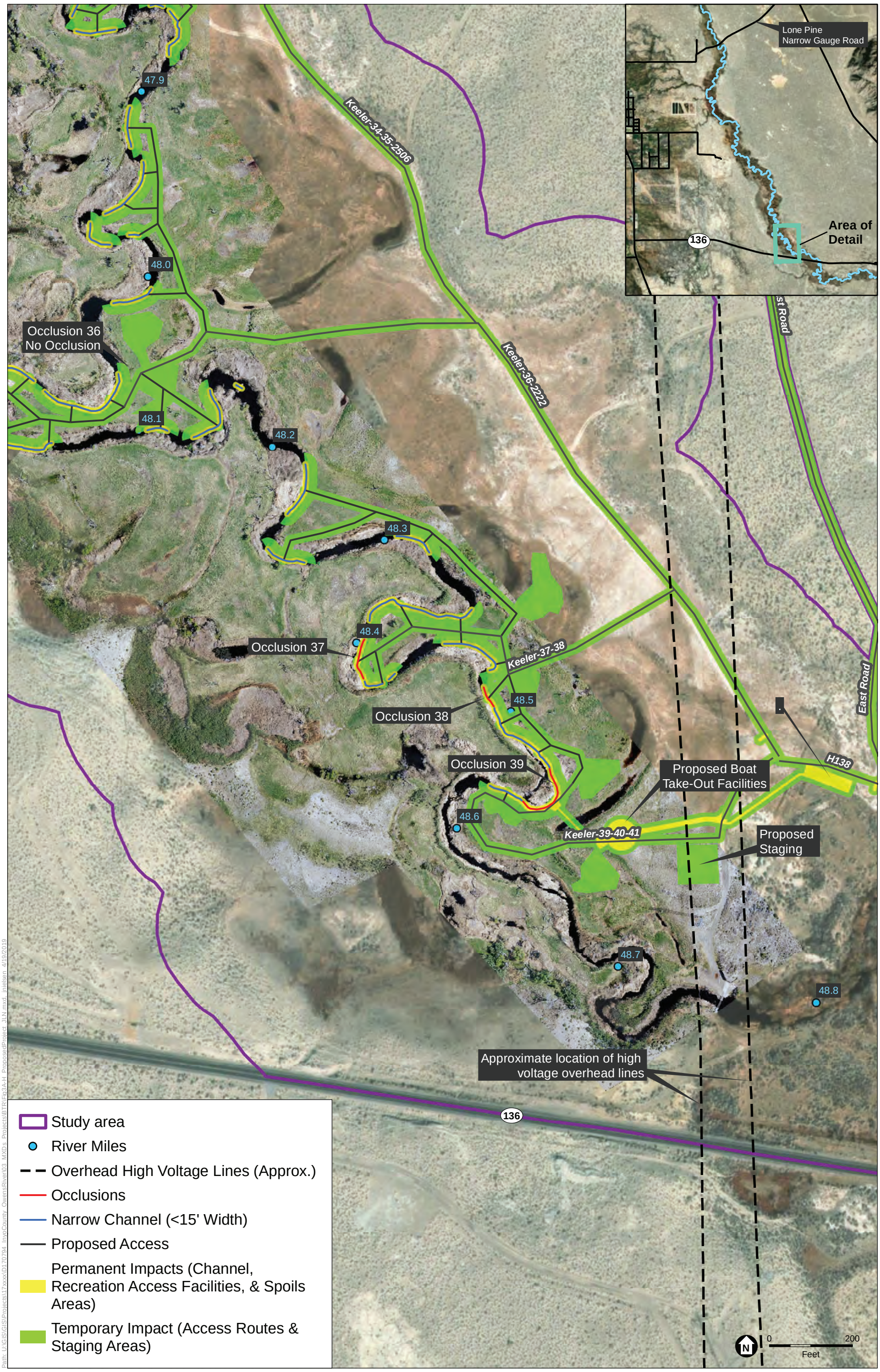


SOURCE: (Exterior Aerial) DigitialGlobe, 11/3/2017, (Interior Aerial) Inyo County, May 2018.; ESA, 2019.

Owens River Water Trail

Figure 3G
Proposed Project

ESA



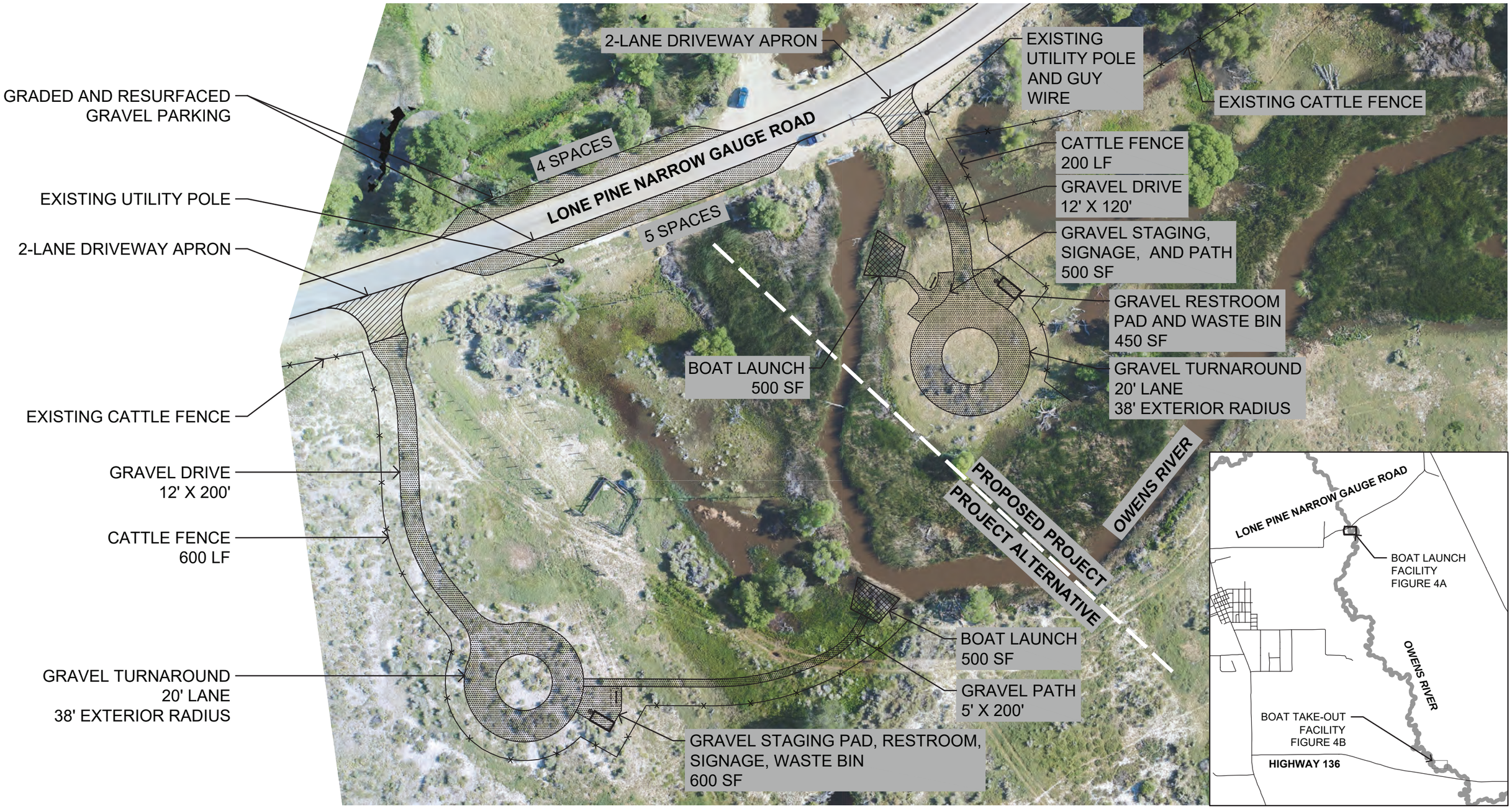
Path: U:\GIS\GIS\Projects\17xxxx\D170794_InyoCounty_OwensRiver\03_MXDs_Projects\BTR\Fig3A-H_ProposedProject_JLN.mxd, jnielsen, 4/19/2019

SOURCE: (Exterior Aerial) DigitialGlobe, 11/3/2017, (Interior Aerial) Inyo County, May 2018.; ESA, 2019.

Owens River Water Trail

Figure 3H
Proposed Project

ESA

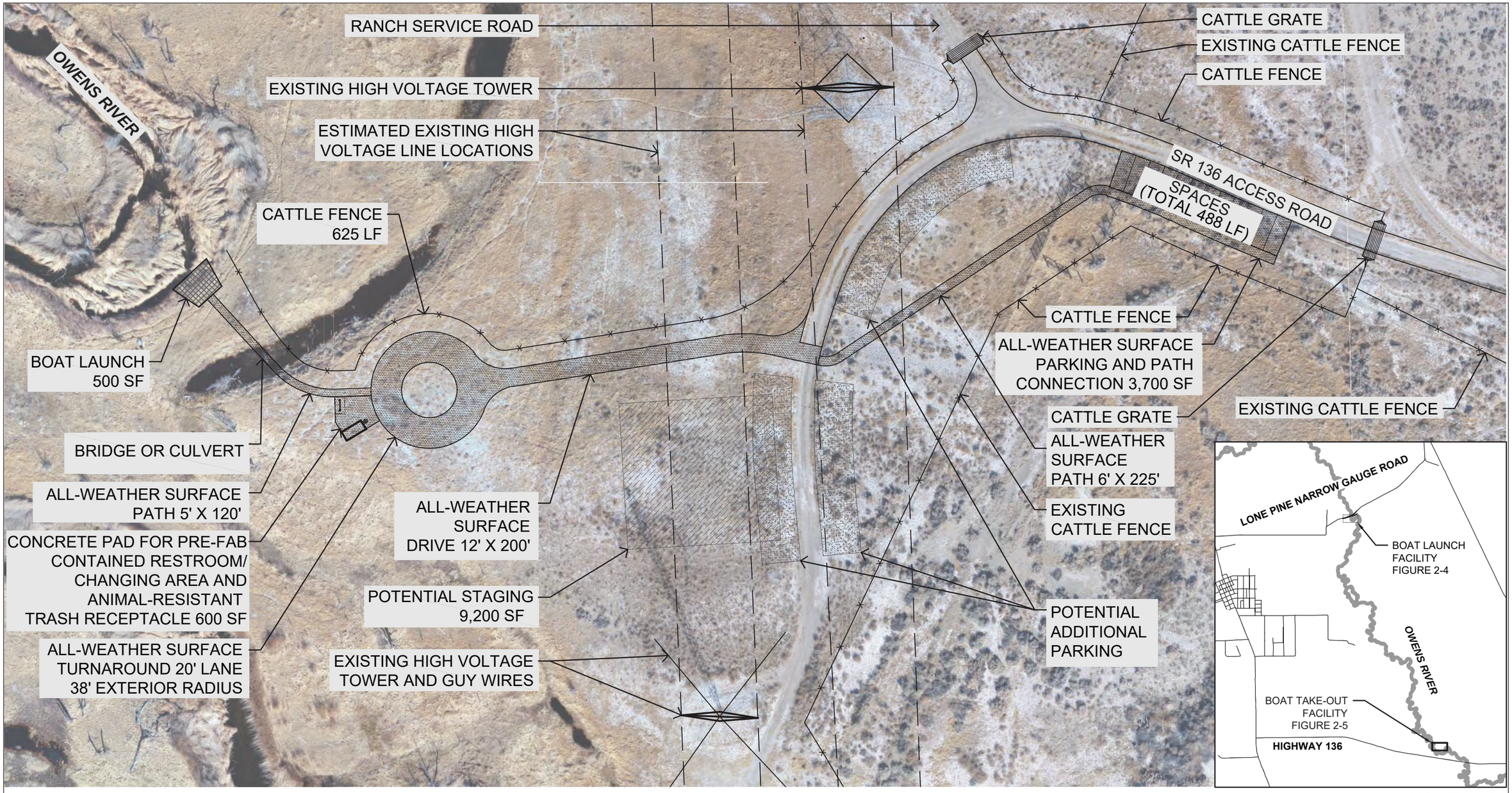


BACKGROUND AERIAL SOURCE: INYO COUNTY
INUNDATION: 190 CFS ON JULY 7, 2017

ESA

Owens River Water Trail

Figure 4A
Proposed Boat Launch Facility



SOURCE: ESA, 2019

Owens River Water Trail

Figure 4B
Conceptual Boat Take-Out Facility

ESA

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Parking would be provided in a parking area consisting of 13 parking spaces along the gravel road. Pedestrian paths between the parking area and the staging would also be constructed. As with the boat launch facility, cattle exclusion fencing would be installed along the northern boundary of the facility. All improvements associated with the boat take-out facility would be constructed outside the right-of-way of State Route 136.

Signage

As indicated above, weather resistant signage protected by a kiosk would be included at the boat launch and take-out facilities, which would convey water and wildfire safety information, rules, emergency contacts and interpretative information. The County would coordinate with Tribes, LADWP, law enforcement, and local ranchers regarding the information to be included on the signs. Additional signage could be provided along the water trail itself, which could include, but not be limited to, topics such as the region's ranching history, history and information on the local Native American tribes, and surrounding scenic views. While the inclusion and location of signs along the water trail is undecided at this time, in order to analyze maximum potential impacts, it is assumed that signposts would be installed every half mile of water trail. Reflective mileage signposts would be installed every half mile as a safety precaution, allowing a known location if rescue were to be required. A prominent sign would be hung above the river just before the take-out to alert paddlers of the location of the take-out (i.e., which side of the river and the number of feet remaining).

Construction

Project construction is anticipated to begin in 2019 and could occur over an approximately seven-month period, any time between the months of September and March (considered a work season). Construction activities would generally avoid the spring and summer months to avoid bird nesting season. If construction were to occur during the nesting season, a qualified biologist would be on site to conduct a pre-construction survey and monitor.

Construction of the ORWT would consist of two phases: 1) in-channel work for the water trail, and 2) construction of the boat launch and take-out facilities. Construction for the water trail and boat launch and take-out facilities features may occur in separate years with the in-channel work commencing before construction of the boat launch and take-out facilities. Construction of the water trail is anticipated to require the use of a combination of in-channel and land-based equipment while construction of boat launch and take-out facilities features is anticipated be constructed solely with land-based equipment.

Water Trail Construction

Construction associated with the water trail would involve the following activities to remove occlusions and establish a single continuous navigable waterway in the dominant channel: 1) clearing of emergent vegetation to a width of approximately 15 feet; 2) relocation of large woody debris (LWD); and 3) removal of hardstem bulrush (*Schoenoplectus acutus*) and broadleaf cattail (*Typha latifolia*) root masses and sediments and excavation of a short channel segment. Clearing of emergent vegetation would occur by one or a combination of hand labor and equipment. Hand labor by volunteer groups coordinating with Inyo County, LADWP, and appropriate permitting agencies would use hand tools consisting of saws, sickles, rakes, and winches for removal of tules

(hardstem bulrush). Paddle boats and low ground pressure all terrain utility vehicles would support hand clearing efforts. Boat-based or amphibious equipment would be utilized as practicable to clear vegetation. This equipment generally mows or masticates emergent vegetation. It is estimated that between 6,462 cubic yards (cy) and 8,530 cy of emergent vegetation (from above the water surface elevation) would be cleared from the river channel. At occlusions where emergent vegetation is growing across the channel, light excavation to a width of 15 feet and a depth of 1 foot would occur to remove root masses. In total, excavated materials from removal of the occlusions and channel excavation are anticipated to result in up to approximately 5,200 cy of spoils material, which would most likely consist of a mixture of organic debris (e.g., tubers, roots, and shoots of tules), muck, and mineral soil. Combining the material from the in-channel excavation with the vegetation removal, the project would result in approximately 11,662 to 13,730 cy of wet material.[1] It is important to note that the stated volumes and depths of spoils are "wet" measures and do not separately consider mineral soil from muck and vegetation. In practice, spoils piles would "deflate" as water drains from the soil, muck, and vegetation, and spoils would subsequently dry out and decompose. The County estimates initial deflation to be 40 to 60 percent, such that dry spoils volume would be 40 to 60 percent less than initial wet volume. In addition, the project area is used for grazing, and cattle graze on the spoils piles when wet and fragment the dry material through trampling and bedding in the litter.

Spoils generated from the vegetation removal and excavation at the occlusions would be transported to the spoils placement area accessed using existing informal dirt ranch roads along the river. Spoils placement areas would vary in geographic location as well as size, ranging from approximately 2,650 to 67,000 square feet in size covering a total of approximately 6.6 acres. The majority of the 27 spoils areas would be located within proximity to the river segments from which occlusions would be removed. Spoils areas were identified based on certain criteria, including locations above the 200-cfs inundation zone to ensure that spoils would not wash back into the river channel. In addition, the spoils areas excluded sensitive habitats and wetland areas. The areas were based on vegetation and floodplain mapping; actual boundaries may vary slightly during project implementation based on field conditions. Assuming use of all of the spoils areas and placement of material at the closest spoils areas, the depth (i.e., thickness) of emergent vegetation could range from 0.1 to 3.2 feet in depth, with an average depth of approximately 0.9 to 1.2 feet, depending on the estimated density of tules. With regard to the material from the in-channel excavation, spreading the approximately 5,200 cy of material across the spoils areas could result in a depth ranging from 0.04 to 1.1 feet, with an average depth of approximately 0.4 feet. In combination, the vegetation and material from channel excavation spread on the spoils areas could result in piles ranging from 0.6 to 3.65 feet high, with an average depth of approximately 1.6 feet. The actual depth of piles may vary slightly in the field; methods for distributing spoils would be based on actual materials excavated and the objective to spread materials as thinly as possible to encourage deflation and the recolonization of spoils areas by adjacent native vegetation. Considering just in-channel excavation, approximately 98 percent of

[1] Approximately 2,380 linear feet of occlusions and approximately 1,890 square feet of narrow channel would be removed from the area of relic beaver dams. The combined volume of emergent vegetation and material from channel excavation would be approximately 5,000 cy of material or approximately 27% of the total materials to be generated by the project.

spoils areas would have piles less than 12 inches. Considering the emergent vegetation component, approximately 87 to 95 percent of spoils areas would have piles less than 18 inches. To the extent practicable, the emergent vegetation would be placed on top of the muck and mineral soils to minimize the potential establishment of weedy species. As such, when considering emergent vegetation piled on top of excavated spoils, approximately 76 percent of spoils areas would have piles less than 18 inches. Where spoil depths would exceed 12 inches, material would be wind-rowed (i.e., placed as low berms) to leave uncovered areas of saltgrass (*Distichilis spicata* or similar) or native bunchgrasses to ensure that a stock reserve of adjacent native vegetation would remain intact to colonize the deeper piles. Spoil layers less than 12 inches, where saltgrass is expected to penetrate the layer and begin recolonization in a growing season, would be "contoured" (i.e., placed and smoothed in such a manner as to blend in with adjacent terrain), while not blocking local flow paths.

LWD blocking the navigable channel would be relocated to nearby banks or inlet embayments. Small LWD pieces would be moved manually by hand or with winches. Larger LWD pieces would be relocated by shore-based equipment and lodged in emergent vegetation out of the main channel. Due to relatively small fluctuations of water surface elevation and small variation in channel velocities, LWD is not currently envisioned as requiring anchors or ballast.

Construction equipment required for the in-channel work associated with the water trail would consist of or be similar to, but not be limited to, standard excavator with low ground pressure appurtenances (e.g., timber crane mats, marsh mats, etc.), amphibious excavator, wheeled or rubber tracked dump trucks (e.g., "Marookas"), tracked or wheeled skid steer loaders, and all-terrain vehicles.

No road improvements are anticipated to be required for the mobilization of proposed equipment. The construction contractor would be required to utilize industry best management practices to minimize sediment movement (e.g., stabilized construction entrance). The staging area would be approximately 9,000 square feet and would be located on an existing dirt road segment.

Alternative Water Trail Construction Approach

If an amphibious excavator is used for occlusion removals as an alternative construction approach, construction would proceed from the upstream project limit to the downstream limit in a single step process. An amphibious excavator would proceed along the river bank and would remove occlusions and emergent vegetation in a combined manner. The amphibious excavator would proceed along the river until the end of the work day. The amphibious excavator has a lower ground pressure than standard heavy equipment, and since it would proceed along the river until the end of the work day, it would not need to traverse other areas of the study area, except to refuel and stage. At the completion of a work day the operator would drive the excavator along designated access routes to a location a minimum of 150 feet from the edge of water. The access routes under this alternative would be the same as those identified for the project. All refueling and maintenance would occur a minimum of 150 feet from the edge of water. Spoils would be placed adjacent to the river rather than being transported to the stockpile locations identified for the project. Spoils would be placed a minimum of 15 feet from the edge of water in order to utilize existing vegetation as filter strips to minimize the potential movement of sediments. Placed

spoils would be contoured to smoothly conform to adjacent existing grade and to minimize the disturbance of existing flow paths.

Boat Launch and Take-Out Facilities Construction

The boat launch and take-out facilities would require limited grading, construction of roads/parking, placement of concrete pads (2), and construction of wheelchair accessible launch facilities. Grading plans for the boat launch and take-out facilities would be designed to minimize excavation quantities as a means to reduce construction haul trips. Excavated materials would be balanced on-site by placement in select locations. Suitable excavated material may be utilized as road base (i.e., fill); non-suitable material would be hauled to the spoils placement area.

Construction equipment required for the boat launch and take-out facilities would consist of, but not be limited to, a bulldozer, skip loader, tracked or wheeled skid steer loader, excavator, and roller compacter.

Construction access for the boat launch facility would be located off of Lone Pine Narrow Gauge Road. The construction access route would follow the alignment of the gravel access road to be developed for the boat launch facility. New access would be developed along approximately 200 feet, which would consist of limited clearing of vegetation and minimal placement of gravel as needed to allow access for construction equipment. The staging area would be located at the terminus of one branch of the access route. The staging area would be up to 3,500 square feet. Construction access for the boat take-out facility would be located off of Highway 136. The construction access route would follow an existing gravel/dirt road and would be approximately 0.5-miles long. The staging area would be situated in an area that is highly disturbed and is located adjacent to an existing gravel/dirt road. The staging area would be approximately 9,200 square feet. For both facilities, the construction contractor would endeavor to minimize area disturbed for access and staging. Post construction, the staging areas would be restored to its existing condition and seeded with upland species native to the area, similar to the boat launch facility. In addition, the contractor would rip, disk, or grade other areas of ground disturbance. Temporary floodplain access roads would be treated in a manner that stabilizes, restores, and camouflages the route to prevent future use.

Alternative Boat Launch Facility Location

As previously mentioned, an alternative boat launch facility along the western river bank is being considered (Option 2). This alternative would consist of the same design components and construction, operation, and maintenance activities as the proposed project, with the exception that the boat put-in facility would be located on the western river bank adjacent to Lone Pine Gauge Road, further away from the river channel. Only one boat launch facility would be constructed.

Operation and Maintenance

It is anticipated that the water trail could be ready for use as early as 2021. Once built, operation or use of the water trail and associated facilities is anticipated to occur over the next 20 years**.** Adhering to LADWP's policy, use of the ORWT would occur during daylight hours. While the facilities would not be locked at night, signage would be installed stating that use of the ORWT

during nighttime hours would be prohibited. Furthermore, improvements would be minimal, and operation of the ORWT as a recreational facility would not authorize other recreational uses, such as camping or fires, along the river channel. A list and description of the surrounding area's campgrounds, including directions, would be provided as a Quick Response (QR) code on interpretive signage installed with the boat launch and take-out facilities.

Ongoing maintenance activities are anticipated to maintain the integrity of the water trail as well as the boat launch and exit facilities. Manual work and/or mechanical clearing activities using watercraft, such as a Truxor 5000, would be implemented on an as-needed basis to remove emergent vegetation from the channel in order to maintain an open, navigable water trail. Maintenance activities would remove vegetation up to 3 feet below the water surface elevation to maintain the integrity of the water trail at 15 feet wide. Maintenance would consist of vegetation management only, and would be limited to the harvest of shoots, stalk, and leaves and would not include any excavation of the channel bed. The maintenance process would include the following steps:

- Emergent vegetation is removed by hand or mechanically with a Truxor 5000.
- Cut vegetation floats downstream and collects at a designated location blocked by a floating boom.
- Vegetation is removed from the channel either by hand or mechanically with a compact tracked loader/excavation and/or all-terrain utility vehicle.
- Vegetation is spread in areas that meet criteria described below.

Maintenance is planned to occur during late fall and early winter fall to coincide with dormancy, at which time shoots do not resprout when cut. Cutting of shoots at this time drowns the rhizomes, diminishing plant vigor and inhibiting future regrowth. As such, the amount of emergent vegetation needing to be cleared in the first year would be approximately 10 percent of the volume of emergent vegetation initially cleared during project construction (approximately 600 to 800 cy) and would lessen with each successive year as the amount and density of regrowth decreases over time.

The emergent vegetation removed during annual maintenance would be spread thinly to a depth no greater than 6 inches in areas at least 15 feet from the water edge and above the 200-cfs inundation zone, which are characterized by salt grass and without mesic vegetation. During maintenance activities, the emergent vegetation removed from the channel would not be placed on top of spoils associated with initial project construction or subsequent maintenance to avoid interference with the integration and recolonization of native species in previously placed spoils.

Table 1, below, shows anticipated maintenance schedule. Level of effort associated with maintenance would be reviewed and revised based on efficacy in controlling emergent vegetation growth and available budget.

TABLE 1
ANTICIPATED MAINTENANCE

Year	Duration and frequency	Total days of effort
1 (post-construction)	10 days per event, 1 event per year	10
2 to 4 (maintenance)	10 days per event, 2 events per year	20
5+ (maintenance)	1 week one time per year	5

2 Methodology

2.1 Literature Review

Relevant literature resources were reviewed prior to conducting field surveys to determine if special-status biological resources occur within the study area or the surrounding vicinity.

The California Natural Diversity Database (CNDDB), a California Department of Fish and Wildlife (CDFW) species account database, was queried for information regarding known observations of special-status species and habitats within the study area and vicinity, which included the following USGS topographic quadrangles: Lone Pine, Manzanar, Union Wash, New York Butte, Mount Langley, Dolomite, Cirque Peak, Bartlett, and Owens Lake (CDFW 2018a). Species data provided by the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants were also reviewed (USFWS 2018a, CNPS 2018). Other data sources reviewed included USFWS critical habitat maps (USFWS 2018b), National Wetland Inventory maps (USFWS 2018c), the United States Department of Agriculture Natural Resources Conservation Service (NRCS) soils mapping (2018), eBird (2012), current and historical aerial photographs (Google Earth 2018), and regional flora and fauna field guides to assist in the identification of species and suitable habitats.

Additional literature sources included the following references from the LORP, which encompasses a much larger 62-mile-long area of the Lower Owens River that includes the study area:

- *Final Environmental Impact Report & Environmental Impact Statement. Lower Owens River Project* (LADWP and EPA 2004)
- *Lower Owens River Project Annual Report 2015* (LADWP and Inyo County 2016)
- *Lower Owens River Project Annual Report 2016* (LADWP and Inyo County 2017)
- *Lower Owens River Project Annual Report 2017* (LADWP and Inyo County 2018c)
- *Draft Lower Owens River Project 2018 Annual Report* (LADWP and Inyo County 2018a)

A list of all relevant references reviewed is included in Section 7.0.

2.2 General Biological Surveys

An initial site visit and agency meeting to introduce the project was held on March 23, 2018, and attended by ESA biologists Steve Nelson, Maile Tanaka, and Travis Marella. Subsequently, a general biological survey, habitat assessment, and vegetation mapping to document natural communities and existing conditions on the study area was conducted by ESA biologists Maile Tanaka and Julie Stout on June 13, 14, and 15, 2018.

Prior to the field visit, Inyo County Water Department provided ESA with digital files for the available LORP vegetation maps previously prepared for the 2015 and 2016 LORP Annual Reports (LADWP and Inyo County 2016 and 2017a). This information was reviewed in conjunction with recent aerials available on Google Earth. Natural communities were then verified directly in the field, and from vantage points using binoculars for areas with limited accessibility, based on the presence of dominant plant species observed on-site following CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018b) and previous vegetation mapping conducted for the LORP. Natural community classifications and descriptions follow *A Manual of California Vegetation, Second Edition* (Sawyer et al. 2009), but vegetation classifications identified in the LORP map are also referenced. After completing the fieldwork, the natural community polygons were digitized using Geographic Information System (GIS) technology to calculate acreages. The vegetation maps were further refined in the office using additional resources that became available after the field visit, including drone aerial imagery flown in May 2018, as well as the 2017 LORP vegetation maps[2] provided by Inyo County that were based on aerial imagery collected on July 28-29 and August 1-2, 2017 near peak runoff, which was the second highest year on record[3] (LADWP and Inyo County 2018a and 2018b).

An inventory of all plant and wildlife species observed was compiled during the field surveys. Plant species observed during surveys were either identified in the field or collected and later identified using taxonomic keys. Plant taxonomy followed Baldwin et al. (2012). Common plant names, when not available from Baldwin, were taken from Calflora (2018). Wildlife species were identified during the field reconnaissance by sight and call or other evidence of presence, such as tracks, nests, scat, and remains, and with use of binoculars and taxonomic keys where

[2] The 2017 LORP vegetation mapping is based on a 4 band, high-resolution image captured from aircraft July 27-28 and August 1-2, 2017. First, an unsupervised spectral classification with 20 classes was applied. The 20 classes were then grouped into six classes each consisting of a relatively narrow range of vegetation types. Each of the six edited classes was then extracted and subjected to another unsupervised spectral classification with 20 classes that were again combined to identify more discrete vegetation types. Successive spectral classification was effective for identifying some, but not all vegetation types. Light detection and ranging (LiDAR) was acquired in October 2017 for the LORP. The technology entails laser measures of elevation including vegetation canopy and the ground at very high (0.2 meter) resolution. A Digital Surface Model (DSM) depicting the vegetation canopy and a Digital Terrain Model (DTM) of the ground surface were subtracted, yielding raster measures of vegetation height (feet). Trees were identified as vegetation height at least 10 feet with a 2-meter buffer. Scrub/meadow was distinguished from meadow using a maximum vegetation height at least 2 feet over a 5 square meter area. LiDAR was useful for distinguishing vegetation types based on structure and for refining some spectral classes. Some vegetation types (e.g. riparian shrub, reed) were difficult to distinguish spectrally or from vegetation height.

[3] The runoff from the Eastern Sierra for 2017 was the second highest year on record. A 274 cfs flushing flow was also released in April 2017, and in June 2017, inflow to the LORP exceeded 240 cfs and peaked at 325 cfs. The extremely wet conditions in 2017 likely biased the LORP mapping towards more hydric vegetation (e.g. meadow appeared as wet meadow, wet meadow as marsh) (LADWP and Inyo County 2018a), but the vegetation maps were updated to reflect current conditions based on field observation from the 2018 survey conducted by ESA.

appropriate. Vertebrate taxonomy followed Crother (2018), CalHerps (2018), and Stebbins (2003) for amphibians and reptiles, the American Ornithologists' Union for birds (AOU 2018), and Kaufman et al. (2004) for mammals. Because common names vary significantly between references, scientific names are included upon initial mention of each species; common names consistent throughout the report are employed thereafter.

During the surveys, a habitat evaluation was also conducted to determine the potential for each habitat area to support native species. Special attention was paid to habitats having the potential to support special-status biological resources (e.g., special-status plant and wildlife species and sensitive natural communities). Aerial photography and global positioning system (GPS) technology was used to accurately locate and map any sensitive biological resources encountered. However, no focused protocol surveys were conducted. This analysis relies to a substantial extent on biological resources data collected from recent and extensive surveys conducted by LADWP and Inyo County in 2015, 2016, and 2017 within the larger LORP survey area (i.e., 62-mile area of the Lower Owens River) that encompasses the study area.

In addition, the evaluation of potential wildlife habitat linkages (i.e., wildlife movement corridors) through or across the study area and immediate vicinity was based on the conditions documented during the field surveys, as well as information compiled from literature and analysis of physical barriers observed on aerial photographs. This information was used to identify whether the study area and immediate vicinity could function as an important wildlife movement corridor connecting large open space areas located upstream and downstream from the study area.

Finally, a preliminary jurisdictional assessment was prepared subsequent to the field survey and was based on review of aerial photographs (Google Earth 2018, LADWP and Inyo County 2018b), the field-based vegetation map, and supplemented by information collected in the field and literature references to identify features within the study area that are potentially subject to U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW jurisdiction and regulatory authority. A formal jurisdictional delineation was not conducted. Literature references included the following:

- *The National Wetland Plant List: 2016 Wetland Ratings* (Lichvar et al. 2016)
- *NRCS Web Soil Survey* (NRCS 2018)
- *Hydric Soils List of California*, 2016 (NRCS 2016)
- *National Wetlands Inventory* (USFWS 2018c)

It is assumed that USACE-jurisdictional areas are also under the jurisdiction of the RWQCB, and potentially jurisdictional areas were identified based on the "ordinary high-water mark" (OHWM) as defined in the *U.S. Army Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987), *Clean Water Rule: Definition of ''Waters of the United States''; Final Rule* (USACE 2015), and the *Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Arid West Region* (Version 2.0) (USACE 2008a) for waters of the United States. CDFW-jurisdictional waters included riparian habitats associated with watercourses up to the outer extent of the dripline of riparian vegetation.

3 Environmental Setting

3.1 Regional Setting

The study area is located within the southern end of the Owens Valley just east of Lone Pine along approximately 6.3 river-miles of the Lower Owens River, which connects to the Owens Lake. Significant regional geographic features around the area include the rest of the Owens Valley to the north, Inyo Mountains to the east, Owens Lake to the south, and Sierra Nevada range to the west. Most of the Owens Valley has high desert climate characterized by hot summers and cold winters; however, the region has experienced severe drought conditions in recent years. The Sierra Nevada greatly influences the climate of the Owens Valley, which is characterized by abundant sunshine, low precipitation, moderate to low humidity, frequent winds, and high potential evapotranspiration. Vegetation is largely influenced by the arid and semiarid conditions of the region, salinity of soil in many locations, and the presence of a shallow water table (LADWP and Ecosystem Sciences 2010).

The study area is within the Owens Lake watershed and is located near the lowest point of the Owens Valley near the dry lake. The Owens River was historically a large, flowing river with peak flows at well over 3,000 cfs, but since 1913, approximately 62 miles of the Owens River and Owens River Delta had been a mostly dry water course due to diversion of river flow by the City of Los Angeles into the Los Angeles Aqueduct. However, since the implementation of the LORP in 2006, which was a joint effort by LADWP and Inyo County to return water to the Lower Owens River and restore riverine-riparian habitat on a regional ecosystem scale, a perpetual regulated minimum flow of 40 cfs is guaranteed, with additional springtime water releases of up to 200 cfs based on the runoff forecast (e.g., additional seasonal habitat flows do not occur in drought years). Currently, flow within the study area averages 50 cfs, and the river is highly controlled with unvarying flows creating a canal-like environment, so the current system lacks the natural disturbance regime and fluvial processes historically provided by the river. Approximately 6-9 cfs are currently provided to the Delta Habitat Area (DHA), along with seasonal habitat flows into the DHA when available.

The topography, soils, and vegetation are indicative of these historical changes and fluctuations in the current hydrology of the area. As a result, much of the study area is comprised of a mosaic of different types of riverine-riparian habitats. In addition, the study area has also been largely altered by cattle grazing from managed ranching, which has occurred since the late 19th century.

3.2 Topography

The study area is characterized topographically by a narrow river channel within a wide, relatively flat floodplain with a very gradual slope gradient from north to south. The floodplain is bordered to the east and west by steep slopes, on top of which are wide, flat expanses of upland desert scrub. Within the study area, elevations range from 3,598 to 3,678 feet (1,096 to 1,121 meters) above mean sea level.

3.3 Soils

The U.S Department of Agriculture NRCS maps the majority of the study area as Torrifluvents-Fluvaquentic Endoaquolls complex. According to the NRCS (2018), there are four soils classes within the study area, each of which is described below and shown in **Figure 5**.

3.3.1 Torrifluvents-Fluvaquentic Endoaquolls

Torrifluvents-Fluvaquentic Endoaquolls complex 0 to 2 percent slopes soils are located throughout the majority of the study area. This soil consists of volcanic ash and/or alluvium derived from mixed sources, and is found in association with stream terraces and depressions. Runoff is low, and the soil ranges from slightly to strongly saline, and somewhat poorly drained to poorly drained. Torrifluvents soils are not considered hydric, but Fluvaquentic Endoaquolls soils are considered hydric by the NRCS.

3.3.2 Cajon-Mazourka-Eclipse

Cajon-Mazourka-Eclipse complex 0 to 2 percent slopes soils are located along the northwestern and eastern boundaries of the study area. This soil consists of alluvium derived from mixed sources, and is found in association with stream and lake terraces. Runoff ranges from negligible to high, and the soil ranges from nonsaline to moderately saline, and well drained to somewhat excessively drained. Cajon, Mazourka, and Eclipse soils are not considered hydric by the NRCS.

3.3.3 Mazourka-Eclipse

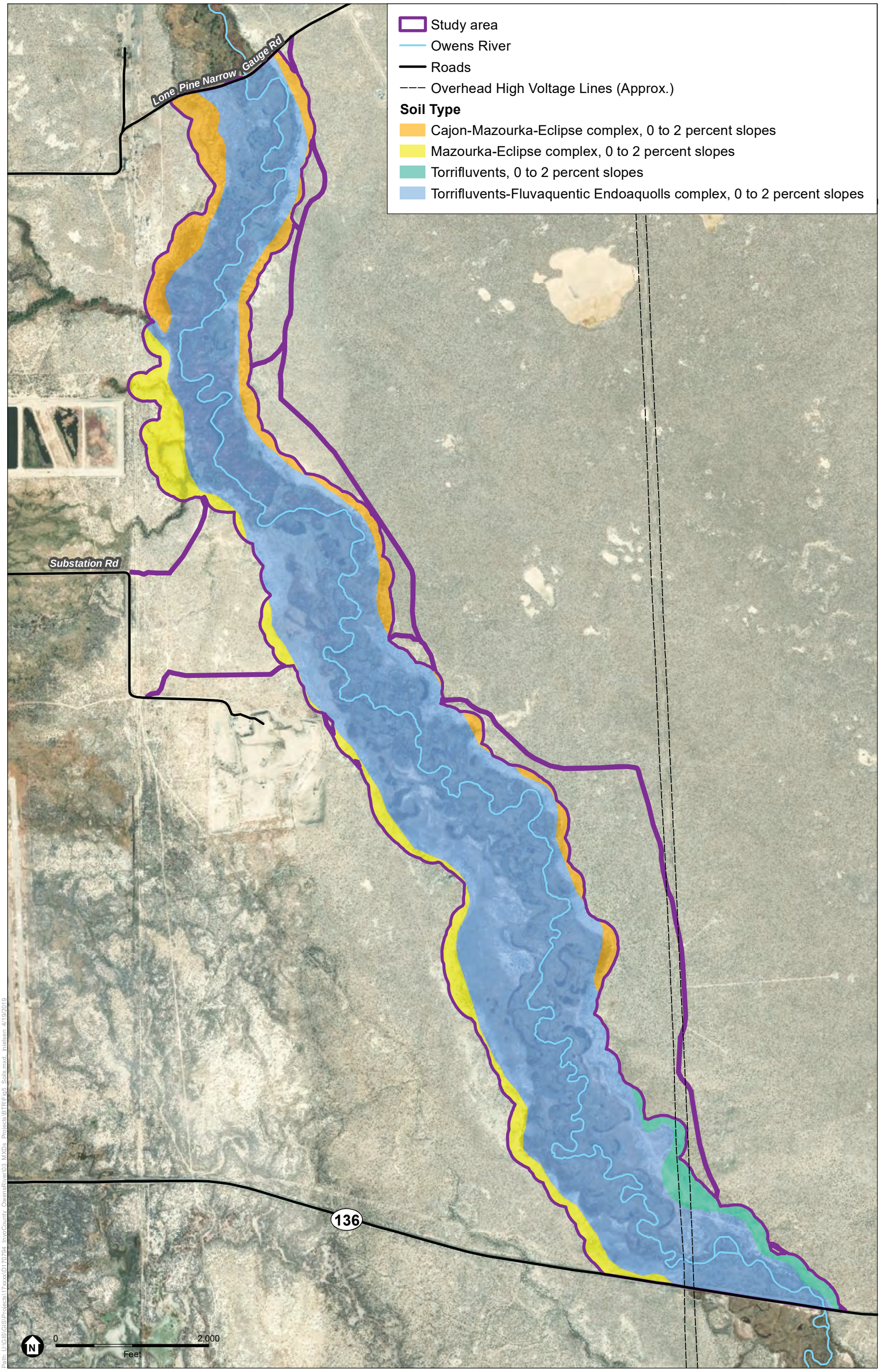
Mazourka-Eclipse complex 0 to 2 percent slopes soils are located along the western boundary of the study area. This soil consists of alluvium derived from mixed sources, and is found in association with stream and lake terraces. Runoff ranges from very low to high, and the soil ranges from nonsaline to moderately saline, and well drained to somewhat excessively drained. Mazourka and Eclipse soils are not considered hydric by the NRCS.

3.3.4 Torrifluvents

Torrifluvents 0 to 2 percent slopes soils are located along the southeastern boundary of the study area. This soil consists of alluvium derived from mixed sources, and is found in association with stream terraces. Runoff is low, and the soil is strongly saline and somewhat poorly drained. Torrifluvents soils are not considered hydric by the NRCS.

3.4 Natural Communities

Natural communities are mapped in **Figure 6**. The natural communities within the study area are described below according to *A Manual of California Vegetation, Second Edition* (Sawyer et al. 2009). Acreages of each natural community in the study area are summarized in **Table 2**. Alternate names for communities taken from the *Draft Lower Owens River Project 2018 Annual Report* are indicated in parentheses in the descriptions (LADWP and Inyo County 2018a). Natural communities that are considered a sensitive natural community by CDFW as listed in the California Natural Community List (CDFW 2018c) are also identified.

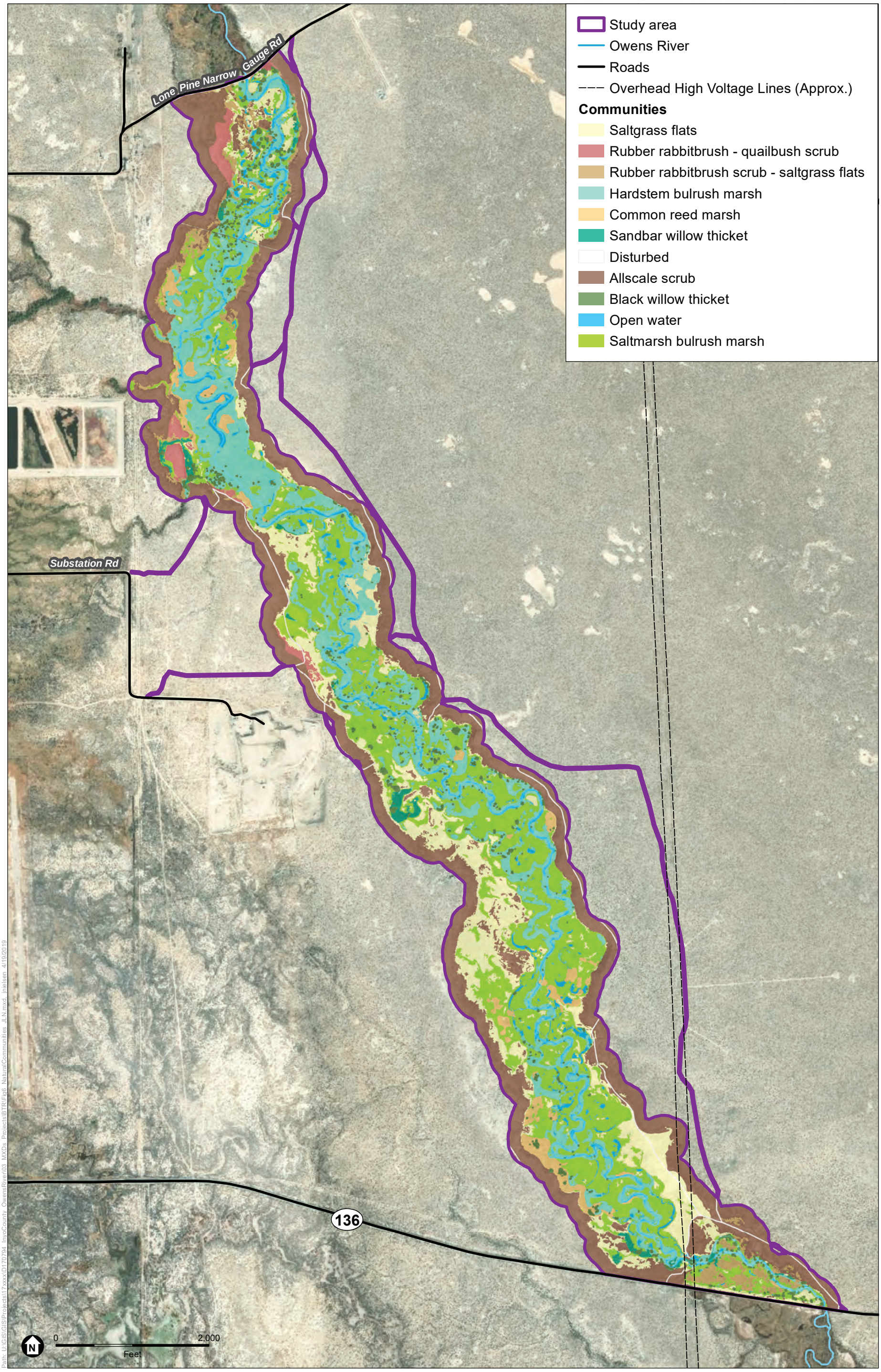


SOURCE: DigitalGlobe 11/3/2017; Web Soil Survey, 2018; ESA, 2019.

Owens River Water Trail

Figure 5
Soils

ESA

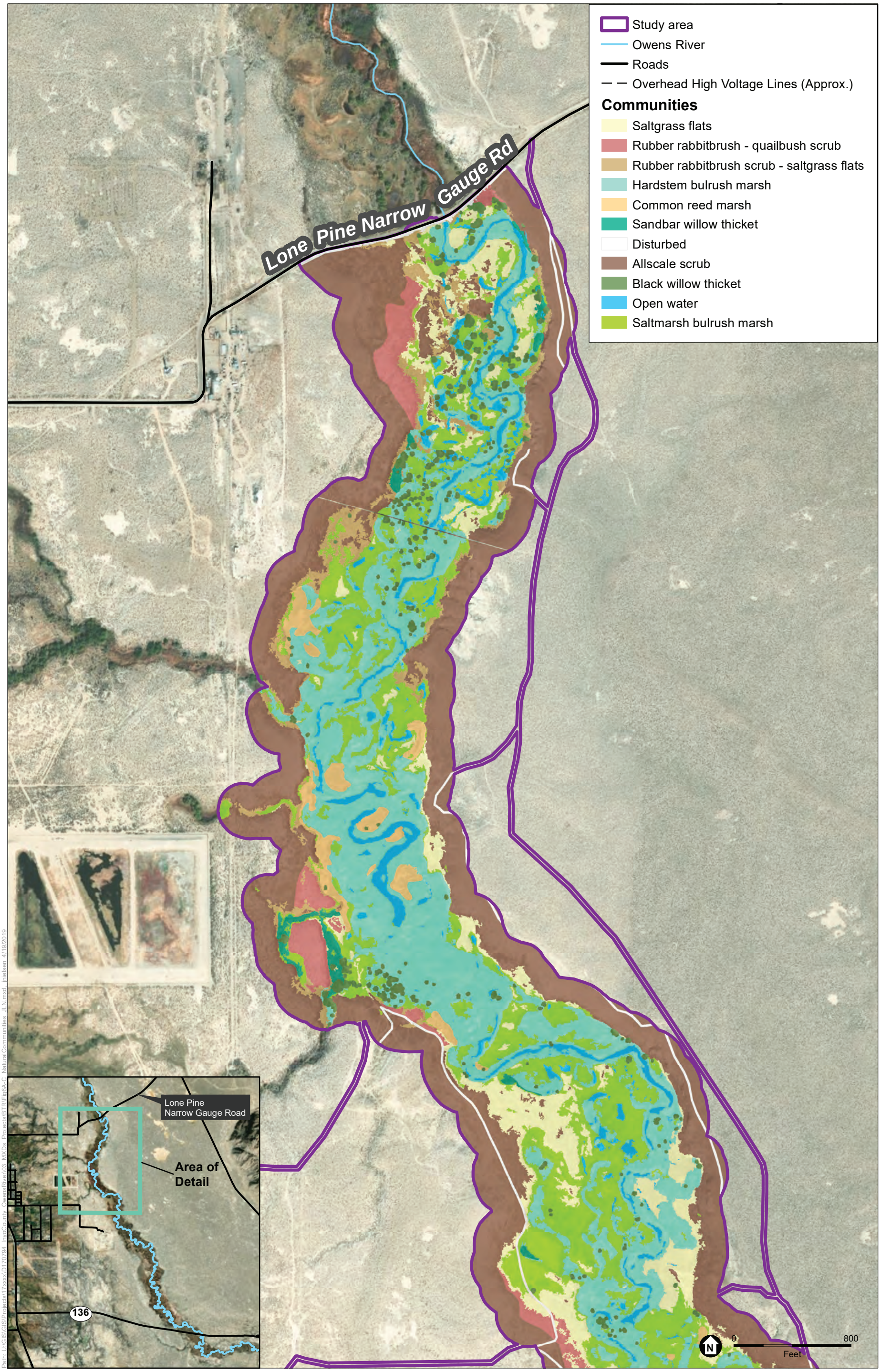


SOURCE: DigitalGlobe 11/3/2017; ESA, 2019.

Owens River Water Trail

Figure 6
Natural Communities

ESA

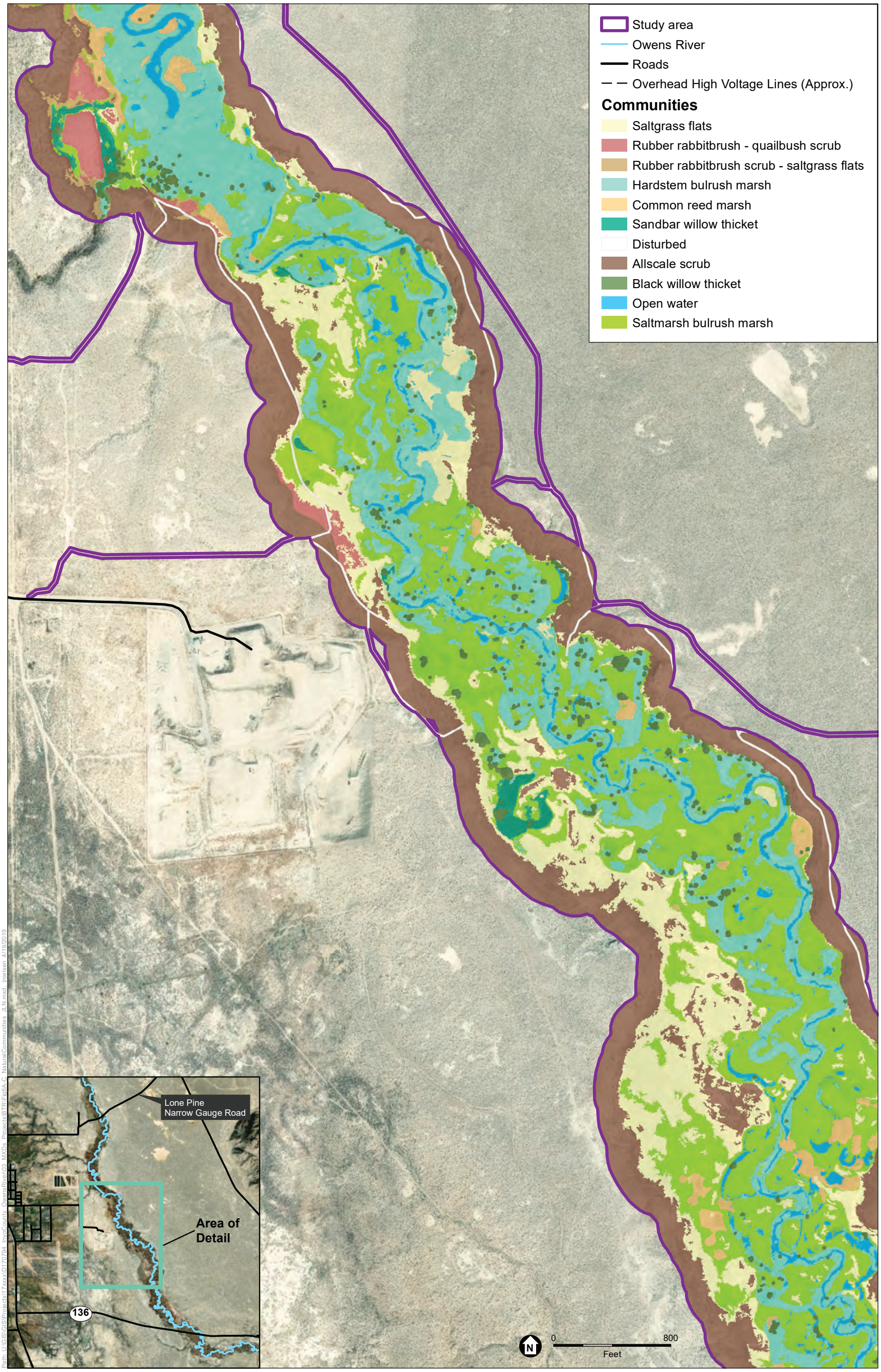


SOURCE: DigitalGlobe 11/3/2017; ESA, 2019.

Owens River Water Trail

Figure 6A
Natural Communities

ESA



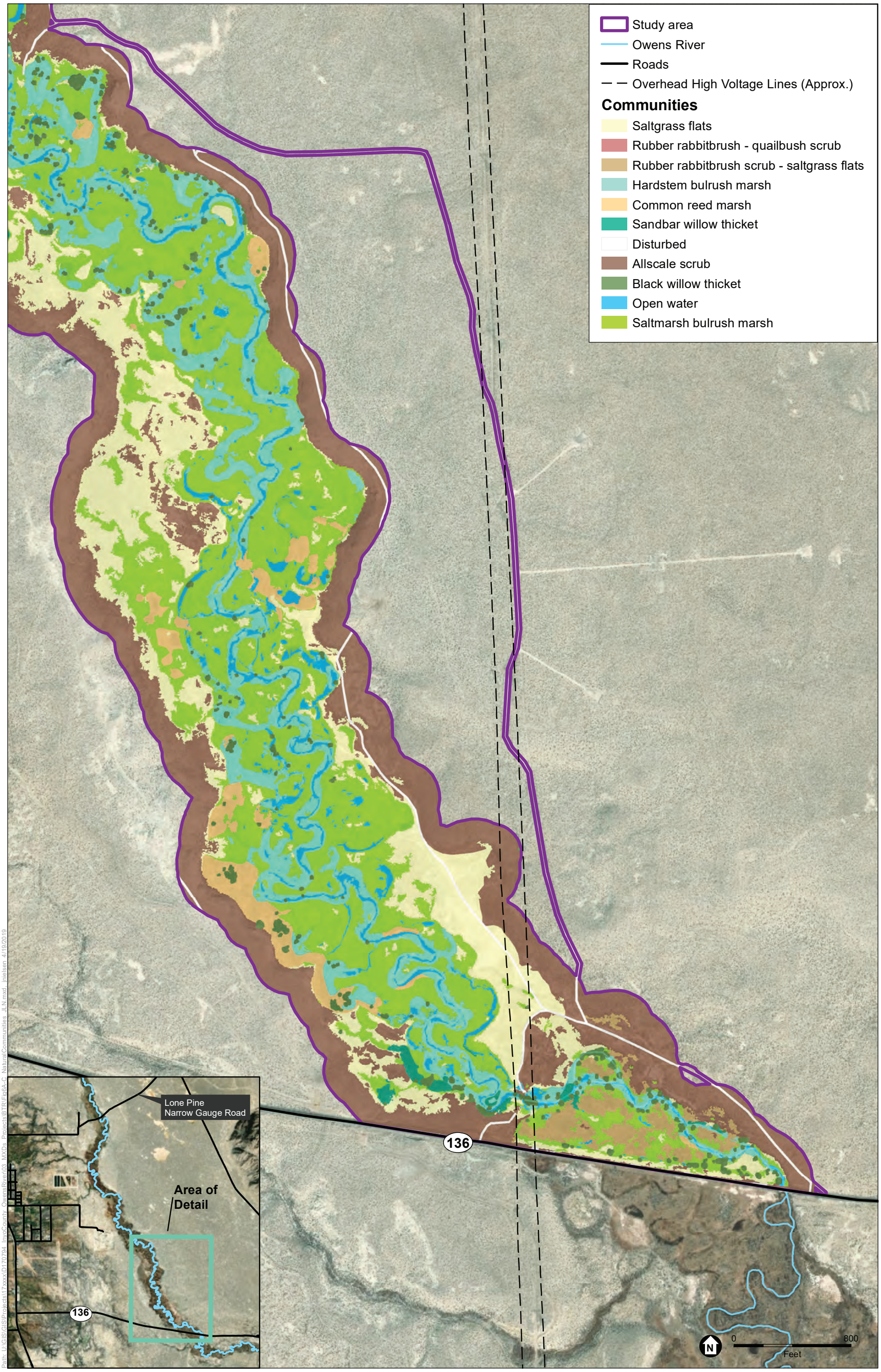
SOURCE: DigitalGlobe 11/3/2017; ESA, 2019.

Owens River Water Trail

Figure 6B
Natural Communities

ESA

Path: U:\GIS\GIS\Projects\17xxxx\ID170794_InyoCounty_OwensRiver\03_MXDs_Projects\BTR\Fig6A-C_NaturalCommunities_JLN.mxd jnielsen 4/19/2019



SOURCE: DigitalGlobe 11/3/2017; ESA, 2019.

Owens River Water Trail

Figure 6C
Natural Communities

ESA

Path: U:\GIS\GIS\Projects\17xxxx\D170794_InyoCounty_OwensRiver\03_MXDs_Projects\BTR\Fig6A-C_NaturalCommunities_JLN.mxd_jnielsen 4/19/2019

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TABLE 2
NATURAL COMMUNITIES

Natural Community**	Acres	State Rank[1]
Black Willow Woodland* (Riparian Forest)	17.0	S3
Sandbar Willow Woodland (Riparian Shrub)	6.1	S4
Hardstem Bulrush Marsh* (Marsh)	117.6	S3S4
Common Reed Marsh (Reedgrass or Reed)	17.3	S4
Saltmarsh Bulrush Marsh* (Wet Meadow)	175.3	S3
Saltgrass Flats (Alkali Meadow)	86.4	S4
Rubber Rabbitbrush – Nevada Saltbush Scrub* (Alkali Scrub)	8.9	S5-S4-S3
Rubber Rabbitbrush Scrub – Saltgrass Flats (Alkali Scrub/Meadow)	16.1	S5-S4
Allscale Scrub (Upland Scrub)	191.7	S4
Open Water (Water)	26.2	N/A
Disturbed (Road)	22.6	N/A
Total	**685.2**	

* Asterisk indicates that an alliance/association is considered sensitive by CDFW.

** Parentheses indicates vegetation classification in the LORP vegetation map.

1 CDFW state conservation rank denotes the rarity of a vegetation type within the state as follows:
S1 = Critically Imperiled – Critically imperiled in the state because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the state.
S2 = Imperiled – Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state.
S3 = Vulnerable – Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state.
S4 = Apparently Secure – Uncommon but not rare in the state; some cause for long-term concern due to declines or other factors.
S5 = Secure – Common, widespread, and abundant in the state.

3.4.1 Black Willow Woodland

Black willow woodland (i.e., *Salix gooddingii* Woodland Alliance, or Riparian Forest or Tree in the LORP map) is characterized by a canopy cover dominated by mature black willow (*Salix gooddingii*). Canopy and shrub layer can range from open to continuous, with a variable herbaceous layer. This alliance is found on terraces along large rivers (Sawyer et al. 2009). Species associated with this alliance include native Fremont cottonwood (*Populus fremontii*), red willow (*Salix laevigata*), and arroyo willow (*Salix lasiolepis*). It should be noted that in February 2013, the entire southern half of the study area was burned by wildfire (i.e., the Lone Pine Fire) and most of the mature willow canopy was lost; many trees were later observed crown sprouting (i.e., re-growing from the root crown) after the fire. Over the past decade annual surveys have documented little to no naturally occurring woody recruitment in the study area (County of Inyo Water Department 2019). Lack of recruitment has been attributed to a well-established, competitive, grassy herbaceous layer extending into emergent vegetation, as well as a lack of floodplain disturbances (e.g., due to natural scouring) (County of Inyo Water Department 2019). A total of 17.0 acres of black willow woodland were mapped in patches throughout the study area.

Black willow woodland is considered a sensitive natural community by CDFW (61.211.01 – *Salix gooddingii*) (CDFW 2018c).

3.4.2 Sandbar Willow Woodland

Sandbar willow woodland (i.e., *Salix exigua* Shrubland Alliance, or Riparian Shrub in the LORP map) is characterized by a dominance or co-dominance of sandbar willow (*Salix exigua*) in the shrub layer. Within this alliance, emergent trees of many different species may be present at low cover, and shrub layer can range from open to continuous, with a variable herbaceous layer. This alliance is found in temporarily flooded floodplains, depositions along rivers and streams, and at springs (Sawyer et al. 2009). Non-native tamarisk (*Tamarix ramosissima*) was a species found in association with this alliance. A total of 6.1 acres of sandbar willow woodland were mapped primarily along the edges of riparian habitat throughout the study area.

Sandbar willow woodland are not considered a sensitive natural community by CDFW (61.209.01 – *Salix exigua*) (CDFW 2018c).

3.4.3 Hardstem Bulrush Marsh

Hardstem bulrush marsh (i.e., *Schoenoplectus acutus-Typha latifolia* Herbaceous Association, or Marsh in the LORP map) is characterized by a dominance or co-dominance of hardstem bulrush in the herbaceous layer with broadleaf cattail. Within this association, emergent Fremont cottonwood and black willow trees, and arroyo willow and sandbar willow shrubs, may be present at low cover, with an intermittent to continuous herbaceous layer. This association is found along streams, around ponds and lakes, and in freshwater and brackish marshes (Sawyer et al. 2009). Other species found within this association include native common reed (*Phragmites australis*), cocklebur (*Xanthium strumarium*), three-square bulrush (*Schoenoplectus americanus*), and southern cattail (*Typha domingensis*) has also been documented within the study area. A total of 117.6 acres of hardstem bulrush marshes were mapped primarily within the central portion of the study area along the main channel.

Hardstem bulrush marsh is considered a sensitive natural community by CDFW (52.122.04 – *Schoenoplectus acutus-Typha latifolia*) (CDFW 2018c).

3.4.4 Common Reed Marsh

Common reed marsh (i.e., *Phragmites australis* Herbaceous Alliance and Semi-Natural Stands,[4] or Reedgrass or Reed in the LORP map) is characterized by a dominance or co-dominance of native common reed in the herbaceous layer. Within this alliance, emergent Fremont cottonwood and willow trees may be present at low cover, with a continuous herbaceous layer. This alliance is found in semi-permanently flooded and slightly brackish marshes (Sawyer et al. 2009). This alliance was generally comprised of monotypic stands of only common reed. A total of 17.3 acres of common reed marshes were mapped throughout the study area.

Common reed marsh is not considered a sensitive natural community by CDFW (41.061.01 – *Phragmites australis*) (CDFW 2018c).

[4] Semi-Natural indicates that although common reed is native to California, it is invasive in some portions of the state such as the Great Valley and North Coast.

3.4.5 Saltmarsh Bulrush Marsh

Saltmarsh bulrush marsh (i.e., *Bolboschoenus maritimus* Herbaceous Alliance, or Wet Meadow in the LORP map) is characterized by a dominance or co-dominance of saltmarsh bulrush (*Bolboschoenus maritimus* ssp. *paludosus*) in the herbaceous layer. This alliance had a co-dominance of Baltic rush (*Juncus balticus*), and a subdominance of yerba mansa (*Anemopsis californica*), saltgrass, and beardless wild rye (*Elymus triticoides*). Within this alliance, the herbaceous layer is intermittent to continuous. This alliance is found in seasonally flooded mudflats and tidal brackish marshes (Sawyer et al. 2009). Species associated with this alliance include native showy milkweed (*Asclepias speciosa*), narrow-leaf milkweed (*Asclepias fascicularis*), sedge (*Carex* sp.), wild licorice (*Glycyrrhiza lepidota*), Woods' rose (*Rosa woodsii*), sandbar willow, and non-native rabbitsfoot grass (*Polypogon monspeliensis*) and tamarisk. A total of 175.3 acres of saltmarsh bulrush marshes were mapped throughout the study area.

Saltmarsh bulrush marsh is considered a sensitive natural community by CDFW (52.112.03 – *Bolboschoenus maritimus*) (CDFW 2018c).

3.4.6 Saltgrass Flats

Saltgrass flats (i.e., *Distichlis spicata* Herbaceous Alliance, or Alkali Meadow or Meadow in the LORP map) is characterized by a dominance or co-dominance of saltgrass in the herbaceous layer. This alliance had a subdominance of yerba mansa, beardless wild rye, and alkali sacaton (*Sporobolus airoides*). Within this alliance, emergent shrubs may be present at low cover, and the herbaceous layer is open to continuous. This alliance is found in coastal salt marshes and inland habitats including plays, swales, and terraces along washes that are typically intermittently flooded (Sawyer et al. 2009). Species associated with this alliance include native saltmarsh bulrush, rubber rabbitbrush (*Ericameria nauseosus* var. *oreophila*), alkali heath (*Frankenia salina*), salt heliotrope (*Heliotropium curassavicum*), Baltic rush, western nitrophila (*Nitrophila occidentalis*), and non-native rabbitsfoot grass. A total of 86.4 acres of saltgrass flats were mapped primarily along the edges of riparian habitat within the study area.

Saltgrass flats are not considered a sensitive natural community by CDFW (41.200.09 – *Distichlis spicata*) (CDFW 2018c).

3.4.7 Rubber Rabbitbrush – Nevada Saltbush Scrub

Rubber rabbitbrush – Nevada saltbush scrub (i.e., *Ericameria nauseosa* Shrubland Alliance, *Atriplex torreyi* Shrubland Alliance*, Sarcobatus vermiculatus* Shrubland Alliance or greasewood scrub, *Suaeda nigra* Shrubland Alliance or bush seepweed scrub, or Alkali Scrub in the LORP map) is characterized by a co-dominance of rubber rabbitbrush and Nevada saltbush (*Atriplex torreyi*), with black greasewood (*Sarcobatus vermiculatus*) and bush seepweed (*Suaeda nigra*) also prevalent as co-dominants in some patches within the shrub layer. This community has a subdominance of native Parry's saltbush (*Atriplex parryi*), saltgrass, and alkali sacaton. Within this alliance, the shrub layer is open to continuous, with an herbaceous layer that is variable and may be grassy. Rubber rabbitbrush scrub is typically an upland natural community found in all topographic settings (especially in disturbed settings), though the variety *Ericameria nauseosus*

var. *oreophila* is not found in arid uplands but is groundwater dependent and very common in the LORP floodplain (County of Inyo Water Department 2019); Nevada saltbush scrub is typically found in alkali sinks, flats, washes, and wetlands in gentle to steep slopes, and is common in the LORP floodplain; greasewood scrub is typically found in dry lake beds, lagoon bars, old lake beds perched above current drainages, more commonly above and outside the floodplain; and bush seepweed scrub is typically found in flat to gently sloping valley bottoms, playas, toe slopes adjacent to alluvial fans, and bajadas (Sawyer et al. 2009). Other species found within this association include native shadscale (*Atriplex confertifolia*), western nitrophila, dotted dalea (*Psorothamnus polydenius*), narrow-leaved wire-lettuce (*Stephanomeria tenuifolia*), and Coville's orach (*Stutzia covillei*). A total of 8.9 acres of rubber rabbitbrush – Nevada saltbush scrub were mapped along the edges of the riparian habitat within the study area.

Although components of this community are not considered sensitive (i.e., rubber rabbitbrush scrub [35.310.03 *Ericameria nauseosa var. oreophila*] and greasewood scrub [36.400.01 *Sarcobatus vermiculatus*]), rubber rabbitbrush – Nevada saltbush scrub is considered a sensitive natural community, since Nevada saltbush scrub (36.370.04 – *Atriplex torreyi*) and bush seepweed scrub (36.200.01 – *Suaeda moquinii*) are considered sensitive by CDFW and are co-dominant components within this community (CDFW 2018c).

3.4.8 Rubber Rabbitbrush Scrub – Saltgrass Flats

Rubber rabbitbrush scrub – saltgrass flats (i.e., *Ericameria nauseosa* Shrubland – *Distichlis spicata* Herbaceous Alliance, or Alkali Scrub/Meadow in the LORP map) is characterized by a co-dominance of rubber rabbitbrush in the shrub layer and saltgrass in the herbaceous layer, with a subdominance of native black greasewood and bush seepweed. Within this alliance, the shrub layer is open to continuous, with a grassy herbaceous layer. While rubber rabbitbrush scrub is typically an upland natural community found in all topographic settings (especially in disturbed settings), saltgrass flats are typically found in coastal salt marshes and inland habitats including plays, swales, and terraces along washes that are typically intermittently flooded (Sawyer et al. 2009). Native Nevada saltbushwas a species found in association with this alliance. A total of 16.1 acres of rubber rabbitbrush scrub – saltgrass flats were mapped primarily along the edges of the riparian habitat within the study area.

Rubber rabbitbrush scrub – saltgrass flats are not considered a sensitive natural community by CDFW (35.310.03 – *Ericameria nauseosa*, 41.200.09 – *Distichlis spicata*) (CDFW 2018c).

3.4.9 Allscale Scrub

Allscale scrub (i.e., *Atriplex polycarpa – Atriplex confertifolia* Shrubland Association, or Upland Scrub in the LORP map) is characterized by a co-dominance of allscale (*Atriplex polycarpa*), and shadscale in the shrub layer, and subdominance of native white bursage (*Ambrosia dumosa*), dotted dalea, and catclaw horsebrush (*Tetradymia axillaris* var. *longispina*). Within this association, the shrub layer is open to continuous, with a variable herbaceous layer. This association is found in washes, playa lake beds and shores, dissected alluvial fans, rolling hills, terraces, and the edges of large, low gradient washes (Sawyer et al. 2009). Other species found within this association include native ephedra (*Ephedra nevadensis*), white-leaf rabbitbrush

(*Ericameria nauseosa* var. *hololeuca*), budsage (*Artemisia spinescens*), prince's plume (*Stanleya pinnata*), Northern Mojave indigo bush (*Psorothamnus arborescens* var. *minutifolius*), and non-native Russian thistle (*Salsola tragus*). A total of 191.7 acres of allscale scrub were mapped along the edges of the study area.

Allscale scrub is not considered a sensitive natural community by CDFW (36.340.01 – *Atriplex polycarpa – Atriplex confertifolia*) (CDFW 2018c).

3.4.10 Open Water

Open water (i.e., Water in the LORP map) is characterized by portions of the meandering Owens River channel that contains water with sparse or no vegetation. Tules, such as hardstem bulrush and broadleaf cattail, from adjacent marsh communities are found along the fringes of this community. A total of 26.2 acres of open water were mapped primarily within the central portions of the study area.

Open water is not considered a sensitive natural community by CDFW (CDFW 2018c).

3.4.11 Disturbed

Disturbed (i.e., Road in the LORP map) is characterized by dirt roads that lack vegetation. A total of 22.6 acres of disturbed areas were mapped primarily along the eastern and western edges of the study area.

Disturbed is not considered a sensitive natural community by CDFW (CDFW 2018c).

3.5 Jurisdictional Resources

A preliminary jurisdictional assessment was prepared subsequent to the field survey and was based on review of aerial photographs (Google Earth 2018, LADWP and Inyo County 2018), the field-based vegetation map, and supplemented by information collected in the field and literature references to identify features within the study area that are potentially subject to USACE, RWQCB, and CDFW jurisdiction and regulatory authority. A formal jurisdictional delineation was not conducted.

Table 3 and **Figure 7** identify and quantify the areas regulated by the USACE, RWQCB, and CDFW within the study area.

TABLE 3
POTENTIALLY JURISDICTIONAL AREAS

Jurisdiction Types	Acres
USACE/RWQCB Wetlands	419.6
USACE/RWQCB Non-Wetlands	26.2
CDFW Riparian	470.1

SOURCE: ESA, 2018

3.5.1 U.S. Army Corps of Engineers/Regional Water Quality Control Board Jurisdiction

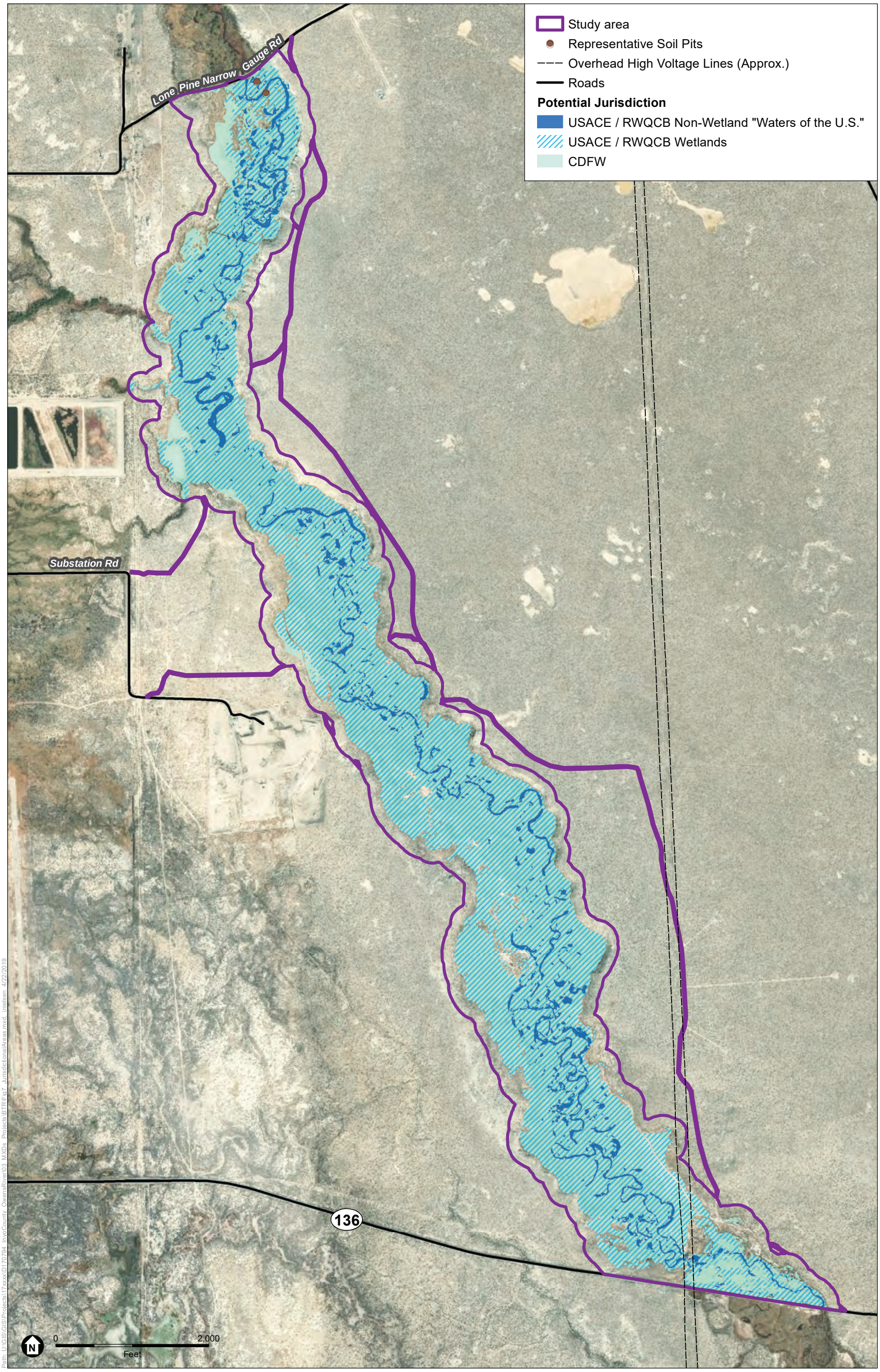
Jurisdictional wetland and non-wetland "waters of the U.S." regulated by the USACE and RWQCB are found within the study area. Since a formal jurisdictional delineation of the study area was not conducted, potential USACE/RWQCB jurisdiction is presumed for non-wetland "waters of the U.S." based on OHWM (i.e., based on aerial photographs and vegetation mapping of open water, and review of the National Wetlands Inventory's Wetlands Mapper [USFWS 2018c]).

Wetland "waters of the U.S." under USACE/RWQCB jurisdiction were evaluated based on aerial photographs, vegetation mapping of communities dominated by wetland indicator species per the USACE's National Wetland Plant List (Lichvar et al. 2016), and review of the National Wetlands Inventory's Wetlands Mapper (USFWS 2018c). Although a formal jurisdictional delineation was not conducted to determine exact locations throughout the study area that meet all three wetland parameters for hydrophytic vegetation, hydric soils, and wetland hydrology, the presence of wetlands is presumed based on vegetation communities dominated by wetland indicator species, topography and site conditions observed during the general biological survey, as well as review of topographic maps and 2017 aerial photographs taken after high flow releases. Vegetation communities dominated by wetland indicator species include species that are Obligate (OBL),[5] Facultative Wetland (FACW),[6] or Facultative (FAC).[7] These include black willow woodland (FACW), sandbar willow woodland (FACW), hardstem bulrush marsh (OBL), common reed marsh (FACW), saltmarsh bulrush marsh (OBL), saltgrass flats (FAC). In addition, three representative soil pits were collected within saltgrass flat communities on-site in the northernmost portion of the study area just south of Lone Pine Narrow Gauge Road; however, due to problematic soils, it was not conclusive whether or not all areas of saltgrass were wetland (refer to wetland data forms in **Appendix A**). Thus, it should be noted that all communities mapped as saltgrass flats are conservatively included as potential USACE/RWQCB jurisdictional wetlands; however, based on site conditions and micro-topography observed during the general biological survey, it is likely that portions of this community are slightly higher in elevation and could be excluded as wetlands with further detailed analysis and/or a jurisdictional delineation.

5 Obligate – Indicates species that almost always occur in wetlands.

6 Facultative Wetland – Indicates species that usually occur in wetlands, but may occur in non-wetlands.

7 Facultative– Indicates species that occur in wetlands and non-wetlands.

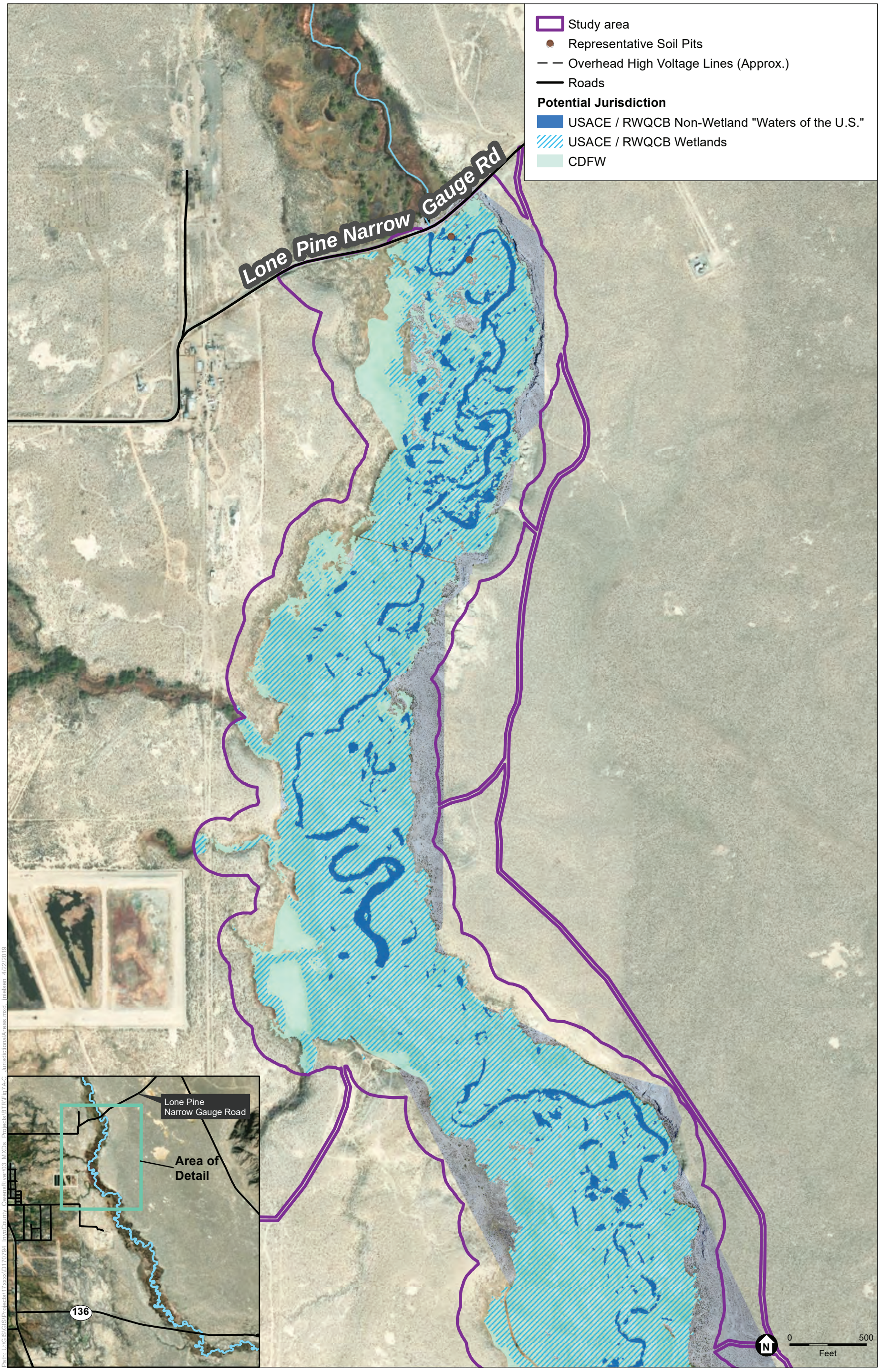


SOURCE: DigitalGlobe 11/3/2017; ESA, 2019.

Owens River Water Trail

Figure 7
Potential Jurisdictional Areas

ESA



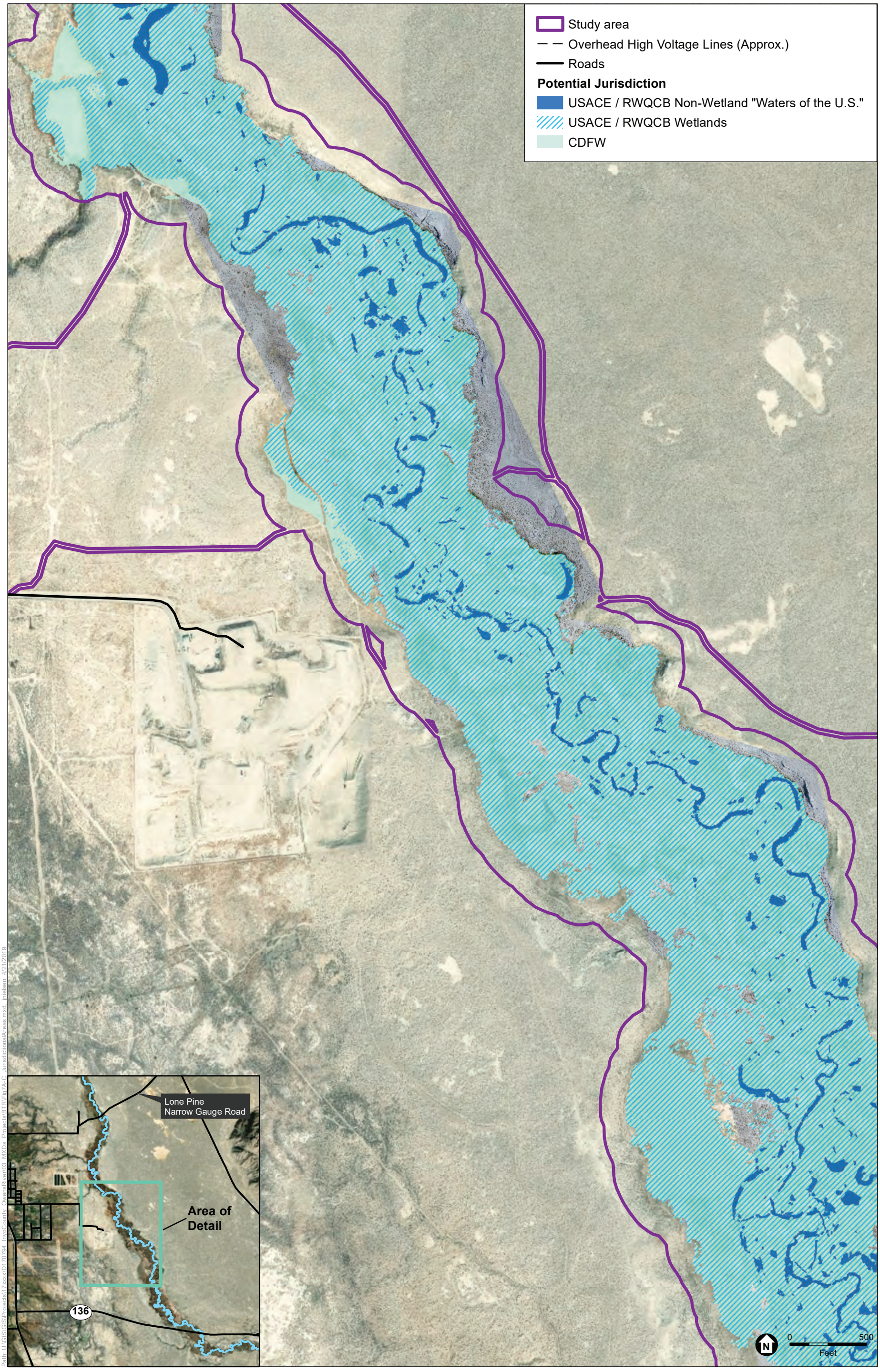
SOURCE: (Exterior Aerial) DigitialGlobe, 11/3/2017, (Interior Aerial) Inyo County, May 2018.; ESA, 2019.

Owens River Water Trail

Figure 7A
Potential Jurisdictional Areas

ESA

Path: U:\GIS\GIS\Projects\17xxxx\D170794_InyoCounty_OwensRiver\03_MXDs_Projects\BTR\Fig7A-C_JurisdictionalAreas.mxd, jnielsen 4/22/2019



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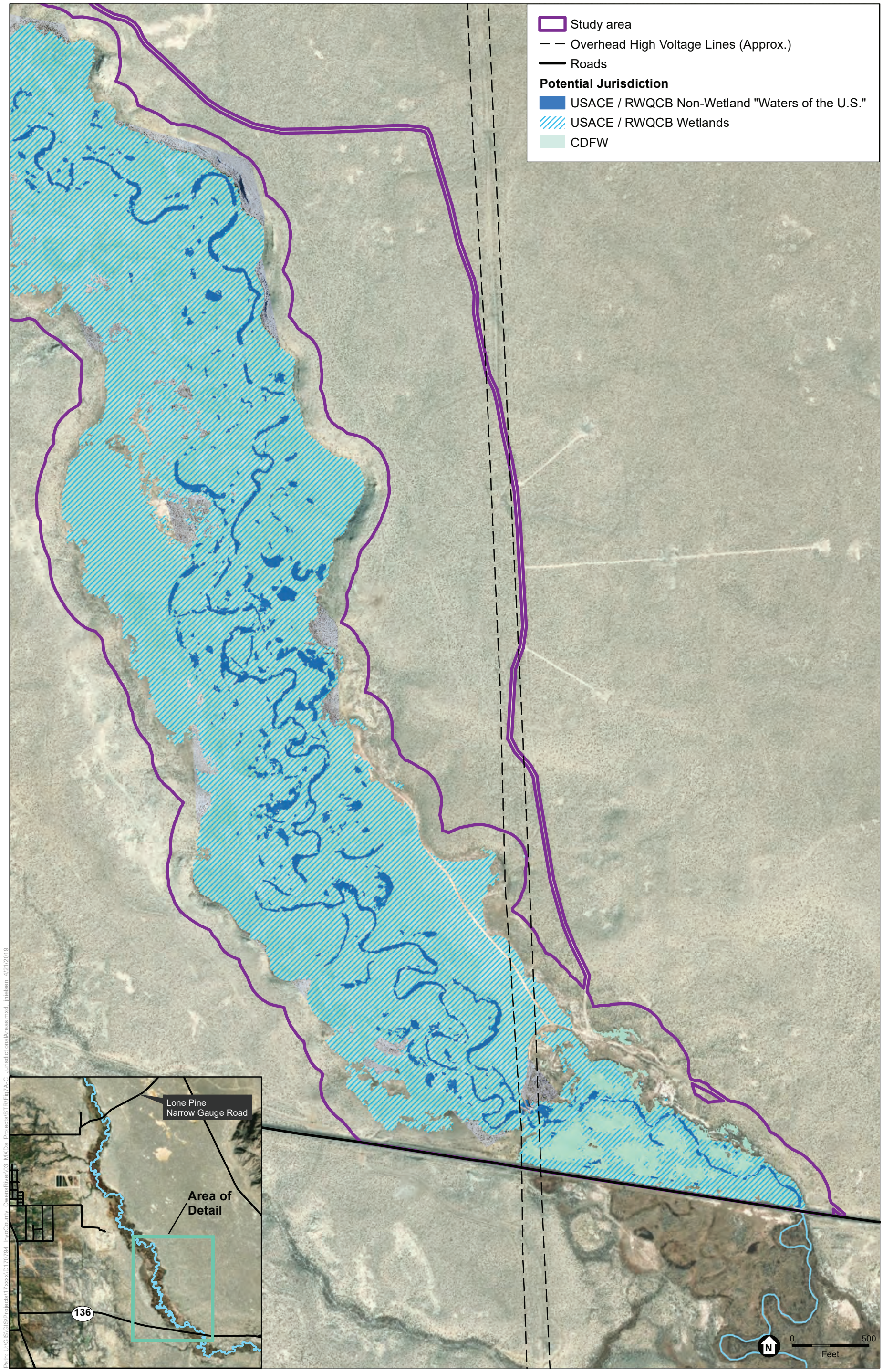
SOURCE: (Exterior Aerial) DigitialGlobe, 11/3/2017, (Interior Aerial) Inyo County, May 2018.; ESA, 2019.

Owens River Water Trail

Figure 7B
Potential Jurisdictional Areas

ESA



SOURCE: (Exterior Aerial) DigitialGlobe, 11/3/2017, (Interior Aerial) Inyo County, May 2018.; ESA, 2019.

Owens River Water Trail

Figure 7C
Potential Jurisdictional Areas

ESA

3.5.2 California Department of Fish and Wildlife Jurisdiction

Areas within CDFW jurisdiction refer to streambeds and associated riparian vegetation and wetlands. Areas identified as potential CDFW jurisdiction are comprised of USACE and RWQCB jurisdiction, which include vegetation communities dominated by wetland indicator species (as detailed above), as well as rubber rabbitbrush – Nevada saltbush scrub (Upland [UPL][8]/Facultative Upland [FACU][9]) and rubber rabbitbrush scrub-saltgrass flats (FACU/FAC) vegetation communities within the floodplain. Upland species almost never occur in wetlands, and FACU species usually occur in non-wetlands but may occur in wetlands. Although rubber rabbitbrush – Nevada saltbush scrub is UPL/FACU, greasewood scrub (FACU) and bush seepweed scrub (OBL) are prevalent as co-dominants in some patches within the shrub layer of this community; therefore, for purposes of this analysis, this community is being considered as riparian habitat under CDFW jurisdiction. Additionally, since rubber rabbitbrush-saltgrass flats is considered FACU/FAC, and because saltgrass flats are a co-dominant component of this community and are considered FAC, for purposes of this analysis, this community is also being considered as riparian habitat under CDFW jurisdiction.

Conversely, allscale scrub (FACU) is not being considered as riparian habitat under CDFW jurisdiction based on the location of this community being primarily outside of the floodplain, as well as the presence of upland desert species (e.g., shadscale, white bursage) found in association with this community.

3.6 Plant Species

The study area has been substantially altered from its historic natural state with the diversion of river flow by the City of Los Angeles into the Los Angeles Aqueduct since 1913. Although the LORP was implemented in 2006, which restored riverine and riparian habitat to the Lower Owens River, the current vegetation is indicative of these historical changes and fluctuations in the current hydrology, as well as the soils and hot desert climate of the area. The study area is also actively grazed by cattle. Regardless, the study area is comprised primarily of native species, with only a limited number of non-native species observed during field surveys. A compendium of the plant species observed within the study area is included in **Appendix B**. Special-status plant species are discussed in Section 3.8.2.

3.7 Wildlife Species

The upland and riparian communities within the study area provides suitable habitat for a variety of wildlife species. A variety of wildlife species were observed within the study area, including zebra-tailed lizard (*Callisaurus draconoides*), red-winged blackbird (*Agelaius phoeniceus*), common raven (*Corvus corax*), common yellowthroat (*Geothlypis trichas*), northern mockingbird (*Mimus polyglottos*), black phoebe (*Sayornis nigricans*), western kingbird (*Tyrannus verticalis*), and black-tailed jackrabbit (*Lepus californicus*). In addition, tule elk (*Cervus canadensis nannodes*) are known to occur within the study area (Morrison, per. comm. 2018). A

[8] Upland – Indicates species that almost never occur in wetlands.

[9] Facultative Upland – Indicates species that usually occur in non-wetlands, but may occur in wetlands.

compendium of the wildlife species observed within the study area is included in **Appendix B**. Special-status wildlife species are discussed in Section 3.8.2.

3.8 Special-Status Biological Resources

3.8.1 Sensitive Natural Communities

Sensitive natural communities are designated as such by various resource agencies, such as the CDFW, or in local policies and regulations. These communities are generally considered to have important functions or values for wildlife and/or are recognized as declining in extent or distribution, and may be considered threatened enough to warrant some level of protection. Sensitive natural communities include those that are identified in the CDFW *List of California Natural Communities* (CDFW 2018c). The CDFW state rank denotes the rarity and endangerment of a vegetation type within the state as described below, with S1 through S3 considered to be a sensitive natural community by CDFW.

State Conservation Rank

S1 = Critically Imperiled – At very high risk of extirpation due to very restricted range, very few populations or occurrences, very steep declines, severe threats, or other factors.

S2 = Imperiled – At high risk of extirpation due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.

S3 = Vulnerable – At moderate risk of extirpation due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.

S4 = Apparently Secure – At a fairly low risk of extirpation due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.

S5 = Secure - At very low or no risk of extirpation due to a very extensive range, abundant populations or occurrences, with little to no concern from declines or threats.

Based on the state ranks and the CDFW *List of California Natural Communities*, four sensitive natural communities occur within the study area: black willow woodland, hardstem bulrush marsh, saltmarsh bulrush marsh, and rubber rabbitbrush – Nevada saltbush scrub.

3.8.2 Special-Status Species

"Special-status" species are plants and animals that are listed under the California Endangered Species Act (CESA) or Federal Endangered Species Act (FESA), as well as species protected under other regulations and species that are considered sufficiently rare or sensitive by the scientific community to be considered rare. Special-status species are categorized as follows:

- Species listed or proposed for listing as threatened or endangered, or are candidates for possible future listing as threatened or endangered, under CESA or FESA.
- Species protected under the federal Bald and Golden Eagle Protection Act.
- Species that meet the definitions of rare or endangered under CEQA (State CEQA Guidelines § 15380).

- Plants listed as rare under the California Native Plant Protection Act (NPPA; Fish and Game Code § 1900 et seq.).
- Plants considered by the CNPS to be rare (California Rare Plant Ranks [CRPR] 1A, 1B, 2A, and 2B) in California.
- Species covered under an adopted Natural Community Conservation Plan (NCCP)/Habitat Conservation Plan (HCP).
- CDFW Special Animals wildlife species of special concern.
- Wildlife fully protected in California (Fish and Game Code § 3511, 4700, and 5050).

Based on the literature review and field reconnaissance, special-status species were evaluated for their potential to occur within the study area or immediate vicinity, using the following definitions:

Unlikely: The study area or immediate vicinity do not support suitable habitat for a particular species, and therefore the species is unlikely to occur within the study area.

Low Potential: The study area or immediate vicinity only provide low-quality or very limited habitat for a particular species. In addition, the study area may lie outside the known geographic or elevational range for a particular species.

Moderate Potential: The study area or immediate vicinity provide suitable habitat for a particular species. However, the habitat or substrate may be limited or the desired vegetation assemblage or density is less than ideal.

High Potential: The study area or immediate vicinity provides high-quality suitable habitat conditions for a particular species. Additionally, known populations of the species may occur in the study area or immediate vicinity.

Present: The species was observed within the study area during relevant biological surveys or other project visits.

Based on the database search results, a list of potentially occurring special-status species was developed and evaluated for the study area. Special-status species with potential to occur were defined as having a geographic range and habitat requirement similar to those found within the study area or immediate vicinity.

3.8.2.1 Special-Status Plant Species

Of the 33 special-status plant species considered for their potential to occur within the study area, 26 species were assessed as having low potential to occur because the study area is outside of the known elevation range for these species and/or lacks suitable habitat to support these species. These species include Horn's milk-vetch (*Astragalus hornii* var. *hornii*), Shockley's milk-vetch (*Astragalus serenoi* var. *shockleyi*), pinyon rockcress (*Boechera dispar*), Tulare rockcress (*Boechera tularensis*), scalloped moonwort (*Botrychium crenulatum*), pygmy pussypaws (*Calyptridium pygmaeum*), Kern Plateau bird's-beak (*Cordylanthus eremicus* ssp. *kernensis*), July gold (*Dedeckera eurekensis*), Mt. Whitney draba (*Draba sharsmithii*), Booth's evening-primrose (*Eremothera boothii* ssp. *boothii*), bald daisy (*Erigeron calvus*), Wildrose Canyon buckwheat (*Eriogonum eremicola*), Panamint Mountains buckwheat (*Eriogonum microthecum* var.

panamintense), rosette cushion cryptantha (*Greeneocharis circumscissa* var. *rosulata*), Sharsmith's stickseed (*Hackelia sharsmithii*), Jaeger's hesperidanthus (*Hesperidanthus jaegeri*), yellow ivesia (*Ivesia arizonica* var. *arizonica*), field ivesia (*Ivesia campestris*), Father Crowley's lupine (*Lupinus padre-crowleyi*), sweet-smelling monardella (*Monardella beneolens*), Inyo rock daisy (*Perityle inyoensis*), Barneby's phacelia (*Phacelia barnebyana*), Letterman's blue grass (*Poa lettermanii*), bog sandwort (*Sabulina stricta*), Dedecker's clover (*Trifolium dedeckerae*), and marsh arrow-grass (*Triglochin palustris*). These species are not discussed further in this analysis.

Nine species have a high, moderate, or moderate/low potential to occur, including Geyer's milk-vetch (*Astragalus geyeri* var. *geyeri*), King's eyelash grass (*Blepharidachne kingii*), Inyo County star-tulip (*Calochortus excavatus*), California satintail (*Imperata brevifolia*), Torrey's blazing star (*Mentzelia torreyi*), Nevada oryctes (*Oryctes nevadensis*), Inyo phacelia (*Phacelia inyoensis*), Parish's popcornflower (*Plagiobothrys parishii*), and Owens Valley checkerbloom (*Sidalcea covillei*). **Table 4** provides details of each of these species, their habitat, and their potential to occur within the study area. Special-status species occurrences from the USFWS and CNDDB occurrences databases within the vicinity of the study area are shown in **Figure 8**.

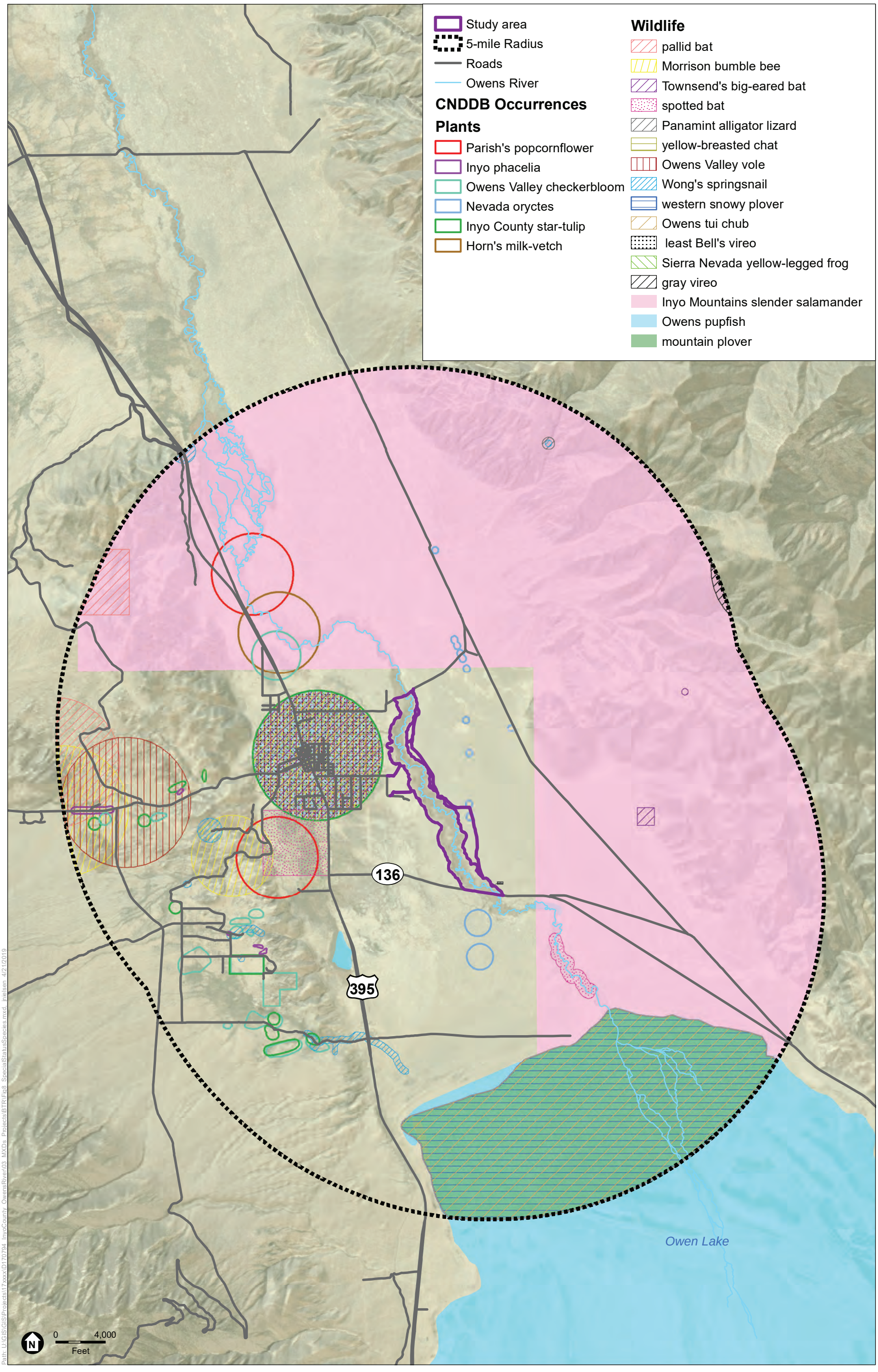
TABLE 4
SPECIAL-STATUS PLANT SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE STUDY AREA

Species	Status[1] Federal/State, CRPR/County	Habitat Requirements	Potential to Occur
Geyer's milk-vetch (*Astragalus geyeri* var. *geyeri*)	--/2B.2	Annual herb found in chenopod scrub and Great Basin scrub; sandy. Blooming period is May – August. This species occurs at elevations from 1,160 – 1,980 m.	**Moderate.** Suitable habitat is present on-site. An occurrence was found in 1993 in the Blackrock area, west of Owens River, south of Los Angeles Aqueduct intake near Powerline Road (County of Inyo Water Department 2019).
King's eyelash grass (*Blepharidachne kingii*)	--/2B.3	Perennial herb found in Great Basin scrub (usually carbonate); rocky benches and alluvial fans, usually on limestone. Blooming period is May. This species occurs at elevations from 485 – 2,135 m.	**Moderate/Low.** Marginally suitable habitat is present on-site, but soils not present. Nearest occurrence is from 1939 in the Inyo Mountains more than 8 miles to the northeast.
Inyo County star-tulip (*Calochortus excavatus*)	--/1B.1	Perennial bulbiferous herb found in chenopod scrub, meadow and seep, and wetland; alkaline, mesic, mostly on fine, sandy loam soils with alkaline salts, grassy meadows in shadscale scrub. Blooming period is April – July. This species occurs at elevations from 120 – 2,195 m.	**Moderate.** Suitable habitat is present on-site. This species has been found within the vicinity with the closest occurrence observed in 1897 with the approximate location identified near Lone Pine (exact location unknown). Additional occurrences are documented in the Alabama Hills approximately 3 miles to the west and southwest as recently as 2011. More than 12 documented sites from Blackrock and Union Wash quadrangles, all east of Los Angeles Aqueduct; many have been documented from 1993 through 2018 (County of Inyo Water Department 2019).

Species	Status[1] Federal/State, CRPR/County	Habitat Requirements	Potential to Occur
California satintail (*Imperata brevifolia*)	--/2B.1	Perennial rhizomatous herb found within coastal scrub, chaparral, riparian scrub, Mojavean desert scrub, meadows and seeps (alkali), riparian scrub; mesic sites, alkali seeps, riparian areas. Blooming period is September – May. This species occurs at elevations from 3 – 1,495 m.	**Low.** Suitable habitat is present on-site. Nearest occurrence is from 1966 in the Inyo Mountains more than 9 miles to the northeast. There are no records from Owens Valley.
Torrey's blazing star (*Mentzelia torreyi*)	--/2B.2	Perennial herb found in Great Basin scrub, Mojavean desert scrub, pinyon and juniper woodland; sandy or rocky, alkaline, usually volcanic. Blooming period is June – August. This species occurs at elevations from 1,170 – 2,835 m.	**Moderate.** Suitable habitat is present on-site. First found in 1994 and documented since in Blackrock area around the Blackrock Waterfowl Management Area (BWMA) (County of Inyo Water Department 2019).
Nevada oryctes (*Oryctes nevadensis*)	--/2B.1	Annual herb found in chenopod scrub, desert wash, Mojavean desert scrub; dry sites in loose sandy soil in washes and desert foothills in the Owens Valley. Blooming period is April – June. This species occurs at elevations from 975 – 2,535 m.	**High.** Suitable habitat is present on-site and within the immediate vicinity. This species has been found within the vicinity with the closest occurrence observed in 1986 approximately 0.1 mile to the east. Other locations have been documented in Blackrock, Bee Springs, Union Wash and Lone Pine quadrangles from 1995 through 2017 (County of Inyo Water Department 2019).
Inyo phacelia (*Phacelia inyoensis*)	--/1B.2	Annual herb found in meadows and seeps; alkaline meadows. Blooming period is from April – August. This species occurs at elevations from 915 – 3,200 m.	**Moderate.** Suitable habitat is present on-site. This species has been found within the vicinity with documented occurrences in the Alabama Hills approximately 3 miles to the west and southwest as recently as 1998. Also found in Blackrock area around Twin Lakes (County of Inyo Water Department 2019).
Parish's popcornflower (*Plagiobothrys parishii*)	--/1B.1	Annual herb found in Great Basin scrub, Joshua tree woodland; alkaline soils, mesic sites. Blooming period is March – June (November). This species occurs at elevations from 750 – 1,400 m.	**Moderate.** Suitable habitat is present on-site. Nearest occurrences are from 1941 and 1942 approximately 2 miles to the northwest and west. Also found west of river and east of Los Angeles Aqueduct south of Mazourka Canyon Rd (County of Inyo Water Department 2019).
Owens Valley checkerbloom (*Sidalcea covillei*)	SE/1B.1	Perennial herb found in chenopod scrub, meadows and seeps, wetland; alkaline, mesic, moist alkaline meadows and freshwater seeps, fine sandy loam soil (one occurrence in stony calcareous soil). Blooming period is April – June. This species occurs at elevations from 1,090 – 1,420 m.	**Moderate.** Suitable habitat is present on-site. This species has been found within the vicinity with the closest occurrence observed in 1952 approximately 1.5 miles to the west. Additional occurrences are documented in the Alabama Hills approximately 3 miles to the west and southwest as recently as 2012. At least 6 occurrences documented from Independence and Union Wash quadrangles, all east of Los Angeles Aqueduct; many have been documented from 1993 to 2018 (County of Inyo Water Department 2019).

Species	Status[1] Federal/State, CRPR/County	Habitat Requirements	Potential to Occur

[1] Description of status codes:
FE = Listed as endangered under the FESA
FT = Listed as threatened under the FESA
SE = Listed as endangered under the CESA
ST= Listed as threatened under the CESA
CRPR = California Rare Plant Rank (CNPS 2018)
CRPR 1B.1 = Seriously threatened in California and elsewhere
CRPR 1B.2 = Fairly threatened in California and elsewhere
CRPR 1B.3 = Not very threatened in California but may be threatened elsewhere
CRPR 2B.2 = Fairly threatened in California, but more common elsewhere
CRPR 4.2 = Fairly threatened in California, placed on a watch-list due to limited distribution throughout its range
CRPR 4.3 = Plant of limited distribution, not very threatened in California



SOURCE: DigitalGlobe 11/3/2017; CNDDB, 2019; ESA, 2019.

Owens River Water Trail

Figure 8
Special-Status Species Occurrences (CNDDB)

ESA

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3.8.2.2 Special-Status Wildlife Species

Of the 33 special-status wildlife species considered for their potential to occur in the study area, 11 wildlife species were determined to have a low potential to occur because the study area is outside of the known elevation range for these species and/or lacks suitable habitat to support these species, or these species are not known to occur within the study area based on information provided from CDFW (Buckmaster 2019a). These species include Yosemite toad (*Anaxyrus canorus*), monarch (*Danaus plexippus* pop. 1) (California overwintering population), California wolverine (*Gulo gulo*), Sierra Nevada bighorn sheep (*Ovis canadensis sierrae*), fisher (*Pekania pennanti*) (West Coast Distinct Population Segment [DPS]), southern mountain yellow-legged frog (*Rana muscosa*), Sierra Nevada yellow-legged frog (*Rana sierrae*), gray vireo (*Vireo vicinior*), pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), and spotted bat (*Euderma maculatum*). These species are not discussed further in this analysis.

A total of 22 species have a high, moderate, or low potential to occur or were observed on-site, including Inyo Mountains slender salamander (*Batrachoseps campi*), Swainson's hawk (*Buteo swainsoni*), Owens sucker (*Catostomus fumeiventris*), western snowy plover (*Charadrius alexandrinus nivosus*), mountain plover (*Charadrius montanus*), northern harrier (*Circus cyaneus*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), Owens pupfish (*Cyprinodon radiosus*), Panamint alligator lizard (*Elgaria panamintina*), southwestern willow flycatcher (*Empidonax traillii extimus*), yellow-breasted chat (*Icteria virens*), least bittern (*Ixobrychus exilis*), loggerhead shrike (*Lanius ludovicianus*), Owens Valley vole (*Microtus californicus vallicola*), California golden trout (*Oncorhynchus mykiss aguabonita*), Owens speckled dace (*Rhinichthys osculus* ssp. 2), yellow warbler (*Setophaga petechia*), Owens tui chub (*Siphateles bicolor snyderi*), American badger (*Taxidea taxus*), Le Conte's thrasher (*Toxostoma lecontei*), least Bell's vireo (*Vireo bellii pusillus*), and Sierra Nevada red fox (*Vulpes vulpes necator*). **Table 5** provides details of each of these species, their habitat, and their potential to occur within the study area. Special-status species occurrences from the USFWS and CNDDB occurrences databases within the vicinity of the study area are shown in Figure 8.

TABLE 5
SPECIAL-STATUS WILDLIFE SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE STUDY AREA

Species	Status[1] Federal/State/County	Habitat Requirements	Potential to Occur
Fishes			
Owens sucker (*Catostomus fumeiventris*)	--/SC	Found primarily in rivers with long runs and few riffles; lakes and reservoirs at all depths.	**Low**. Owens suckers are present at the Hot Creek Hatchery Springs, the upper Owens Gorge, the Lower Owens Gorge above Control Gorge Power Plant, and Rock Creek, all outside of the study area (Ecosystem Sciences 2008). Suitable habitat is present within study area; however, species is currently only in a few locations and well outside of the study area.

Species	Status[1] Federal/State/County	Habitat Requirements	Potential to Occur
Owens pupfish (*Cyprinodon radiosus*)	FE/SE, FP	Species found in aquatic, artificial flowing or standing waters, Great Basin flowing or standing waters; shallow water habitats in the Owens Valley. Prefers warm, clear, shallow water free of exotic fishes. Needs areas of firm substrate for spawning. Species once occupied spring pools, sloughs, irrigation ditches, swamps, and flooded pastures along the Owens River. Now, they are confined to sanctuaries, with large, clear pools.	**Low**. Populations of Owens pupfish currently exist in refuges at BLM Spring, Warm Springs, Mule springs, and Well 368 (within the LORP), all outside of the study area. No pupfish were observed in Fish Slough during visual surveys by the CDFG in 1997 (Ecosystem Sciences 2008). Suitable habitat is present within study area; however, species are located within established sanctuaries, north of the study area.
California golden trout (*Oncorhynchus mykiss aguabonita*)	--/SC	Species found in aquatic, Sacramento/San Joaquin flowing waters. Native to Kern Plateau in wide, shallow and exposed streams with little riparian vegetation. Transplanted within and outside of California beyond native range. Stream bottoms of sand, gravel and some cobble. Water is clear and usually cold, but summer temperatures can vary from 3 to 22 C.	**Low.** The study area supports low quality habitat for this species, and known occurrences are located in the Upper South Fork Kern River and Golden Trout Creek Drainage in Tulare County more than 13 miles to the southwest, well outside of the study area. Trout cannot survive the high-temperature, and water with low dissolved oxygen found in the study area (County of Inyo Water Department 2019).
Owens speckled dace (*Rhinichthys osculus* ssp. 2)	--/SC	Species occupies small springs, brooks, pools, large rivers, and deep lakes. Clear oxygenated water, deep cover (rocks, submerged plants), woody debris, and moving water.	**Low**. Distributional studies conducted in the 1980s found that Owens speckled dace no longer occupy habitats in the Owens River, valley floor springs, or the historic habitat at Fish Slough. It is currently found in only a few localities, including some irrigation ditches (Sada 1989). Suitable habitat is present within study area; however, species is currently only in a few locations and well outside of the study area.
Owens tui chub (*Siphateles bicolor snyderi*)	FE/SE	Species found in aquatic, Great Basin flowing or standing waters; endemic to the Owens River basin in a variety of habitats. Needs clear, clean water, adequate cover, and aquatic vegetation.	**Low**. USFWS has designated critical habitat for tui chub in two locations: an eight (8) mile stretch of the Owens River from Long Valley Dam south; and two springs at the Hot Creek Hatchery, all outside of the study area. Suitable habitat is present within study area; however, species is currently only in a few locations and well outside of the study area.

Species	Status[1] Federal/State/County	Habitat Requirements	Potential to Occur
Amphibians			
Inyo Mountains slender salamander (*Batrachoseps campi*)	--/SC	Species found in riparian scrub, riparian woodland, talus slope, wetland. Moist canyons on the west and east slopes of the Inyo Mountains, where surface water is present. Takes cover under rocks on moist sandy loam in steep-walled canyons with permanent springs. Also in underground crevices. Elevation range extends from 550 - 2620 m.	**Low.** Lack of suitable habitat on-site and the study area is outside of the Inyo Mountains range of this species.
Reptiles			
Panamint alligator lizard (*Elgaria panamintina*)	--/SC	Species is found in riparian scrub in the White and Inyo mountains to the north and west, and the Panamint Mountains to the south and east. Elevation ranges from 850 – 2,750 m. Inhabits areas near permanent water, in canyons, damp gullies, and rocky areas near dense vegetation.	**Low.** Lack of suitable habitat on-site and the study area is outside of the White and Inyo Mountains range of this species.
Birds			
Swainson's hawk (*Buteo swainsoni*)	BCC/ST	Species is found in Great Basin grassland, riparian forest, riparian woodland, valley and foothill grassland. Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	**Moderate.** Suitable habitat is present on-site. Nearest occurrence is from 2002 approximately 7.5 miles to the northwest. This species is a regular, but very limited breeder in the Owens Valley (Ecosystem Sciences and Ecosystems West Consulting Group 1999).
western snowy plover (*Charadrius alexandrinus nivosus*)	FT, BCC/SC	Species found in Great Basin standing waters, sand shore, wetland. Sandy beaches, salt pond levees & shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	**Low.** Lack of suitable habitat on-site. Nearest occurrence is from 2004 in Owens Lake Bed approximately 2.5 miles to the south-southeast.
mountain plover (*Charadrius montanus*)	BCC/SC	Species found in chenopod scrub, valley and foothill grassland. Short grasslands, freshly plowed fields, newly sprouting grain fields, & sometimes sod farms. Short vegetation, bare ground, and flat topography. Prefers grazed areas and areas with burrowing rodents.	**Low.** Lack of suitable habitat on-site. Nearest occurrence is from 2007 in Owens Lake Bed approximately 2.5 miles to the south-southeast.

Species	Status[1] Federal/State/County	Habitat Requirements	Potential to Occur
northern harrier (*Circus cyaneus*)	--/SC	Species found in coastal scrub, Great Basin grassland, marsh and swamp, riparian scrub, valley and foothill grassland, wetland. Coastal salt and freshwater marsh. Nest and forage in grasslands, from saltgrass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	**High.** Suitable habitat is present on-site. This species was observed in the greater LORP area in 2015 (LADWP 2016), and observed approximately 3 miles south of the study area during point-counts for the LORP Delta Habitat Area (LADWP 2018a). This species is a fairly common breeder and year-long resident in the Owens Valley (Ecosystem Sciences and Ecosystems West Consulting Group 1999).
western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)	FT, BCC/SE	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	**Low.** Sparse, marginally suitable open riparian habitat present on-site does not support dense riparian habitat or understory to support this species. Nearest occurrence is from 2012 approximately 6 miles to the northwest.
southwestern willow flycatcher (*Empidonax traillii extimus*)	FE/SE	Breeds in dense willow-dominated riparian habitat near open water.	**Low.** Marginally suitable habitat is present on-site, and no southwestern willow flycatcher were observed within the vicinity since a 1917 occurrence near Independence, more than 16 miles north of the study area. A willow flycatcher (*Empidonax traillii*) was observed in 2015 in LORP Reach 5 (upstream of the study area), but it was not observed in a subsequent visit suggesting this individual was a migrant.
yellow-breasted chat (*Icteria virens*)	--/SC	Known to occur within riparian forest, scrub, and woodland habitats. Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft of ground.	**Observed.** This species was observed on-site as documented in a 2013 eBird occurrence at the northern extent of the study area (at Lone Pine Narrow Gauge Road and Owens River).
least bittern (*Ixobrychus exilis*)	BCC/SC	Found in marsh and swamps, wetland. Colonial nester in marshlands and borders of ponds and reservoirs which provide ample cover. Nests usually placed low in tules over water.	**Moderate.** Suitable habitat is present on-site.

Species	Status[1] Federal/State/County	Habitat Requirements	Potential to Occur
loggerhead shrike (*Lanius ludovicianus*)	BCC/SC	Species found in broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub & washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	**Observed.** This species was observed on-site as documented in multiple eBird occurrences (2016-2018). This species was also observed and confirmed breeding in the greater LORP area in 2015 (LADWP 2016).
yellow warbler (*Setophaga petechia*)	BCC/SC	Found in riparian forest, scrub, and woodland. Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	**Observed.** This species was observed on-site as documented in 2013 and 2017 eBird occurrences at the northern extent of the study area (at Lone Pine Narrow Gauge Road and Owens River).
Le Conte's thrasher (*Toxostoma lecontei*)	BCC/SC	Species found in desert wash, Mojavean desert scrub, Sonoran desert scrub. Desert resident; primarily of open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats. Commonly nests in a dense, spiny shrub or densely branched cactus in desert wash habitat, usually 2-8 feet above ground.	**Observed.** This species was observed on-site as documented in multiple eBird occurrences (1993, 2000, 2002). This species was also observed and confirmed breeding in the greater LORP area in 2015 (LADWP 2016).
least Bell's vireo (*Vireo bellii pusillus*)	FE/SE	Known to occur in riparian forest, scrub, and woodland habitats. Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests primarily in willow, mule fat, or mesquite habitats.	**Low.** Marginally suitable habitat is present on-site, and no least Bell's vireo were observed within the vicinity since a 1891 occurrence near Lone Pine.
Mammals			
pallid bat (*Antrozous pallidus*)	--/SC	Known to occur in a wide variety of habitats including chaparral, coastal scrub, desert wash, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, riparian woodland, Sonoran desert scrub, upper montane coniferous forest, valley and foothill grasslands. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**Low.** Suitable habitat is present on-site. This species has been found within the vicinity with the closest occurrence observed in 1903 with the approximate location identified near Lone Pine (exact location unknown). Another occurrence within the vicinity is documented approximately 4.2 miles to the northwest in 2004. However, this species is not known to occur within the study area based on information provided from CDFW (Buckmaster 2019a).

Species	Status[1] Federal/State/County	Habitat Requirements	Potential to Occur
Townsend's big-eared bat (*Corynorhinus townsendii*)	--/SC	Throughout California in a wide variety of habitats, including broadleaved upland forest, chaparral, chenopod scrub, Great Basin grassland, Great Basin scrub, Joshua tree woodland, lower montane coniferous forest, meadow and seep, Mojavean desert scrub, riparian forest, riparian woodland, Sonoran desert scrub, Sonoran thorn woodland, upper montane coniferous forest, valley and foothill grassland. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings; tree cavities, mines and caves. Roosting sites limiting. Extremely sensitive to human disturbance.	**Low.** Suitable habitat is present on-site. This species has been found within the vicinity with the closest occurrence observed in 1931 with the approximate location identified near Lone Pine (exact location unknown). Another occurrence within the vicinity includes a roost observed in Dolomite Mine in 1996 approximately 2.5 miles to the east. However, this species is not known to occur within the study area based on information provided from CDFW (Buckmaster 2019a).
spotted bat (*Euderma maculatum*)	--/SC	Occupies a wide variety of habitats from arid deserts and grasslands through mixed conifer forests. Feeds over water and along washes. Feeds almost entirely on moths. Needs rock crevices in cliffs or caves for roosting.	**Low.** Suitable habitat is present on-site for foraging; however, no roosting habitat occurs on-site or within the immediate vicinity. This species has been found within the vicinity with the closest occurrence observed in 1985 with the approximate location identified near Lone Pine (exact location unknown). Another occurrence within the vicinity includes a 1996 observation of foraging bats approximately 1 mile to the south. However, this species is not known to occur within the study area based on information provided from CDFW (Buckmaster 2019a).

Species	Status[1] Federal/State/County	Habitat Requirements	Potential to Occur
Owens Valley vole (*Microtus californicus vallicola*)	--/SC	Found in meadows and seeps, and wetlands and lush grassy ground in the Owens Valley. Needs friable soil for burrowing. Eats grasses, sedges and herbs. Clips grass to make runways leading from burrows.	**Moderate.** Suitable habitat is present on-site. This species has been found within the vicinity with the closest occurrence observed in 1921 with the approximate location identified near Lone Pine (exact location unknown). Another occurrence within the vicinity was documented from a 1917 observation approximately 3 miles to the west. This species was also found from trapping on Owens Lake Playa in 1996 (Ecosystem Sciences and Ecosystems West Consulting Group 1999). It should be noted that this species has commonly been found via indirect (trails, seed caches and droppings) and direct observations within the LORP during annual rapid assessment surveys conducted by Inyo County and LADWP, and was determined that they were plentiful in the river floodplain (County of Inyo Water Department 2019).
American badger (*Taxidea taxus*)	--/SC	Found in a variety of habitats, including alkali marsh, desert wash, Great Basin scrub, marsh and swamp, meadow and seep, Mojavean desert scrub, riparian scrub, riparian woodland, valley and foothill grassland. Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	**Moderate.** Suitable habitat is present on-site. Nearest occurrence is from 1911 in the Sierra Nevada, more than 15 miles to the southwest.

Species	Status[1] Federal/State/County	Habitat Requirements	Potential to Occur
Sierra Nevada red fox (*Vulpes vulpes necator*)	--/ST	Found in alpine, alpine dwarf scrub, broadleaved upland forest, meadow and seep, riparian scrub, subalpine coniferous forest, upper montane coniferous forest, wetland. Historically found from the Cascades down to the Sierra Nevada. Found in a variety of habitats from wet meadows to forested areas. Use dense vegetation and rocky areas for cover and den sites. Prefer forests interspersed with meadows or alpine fell-fields.	**Low.** Historically, Sierra Nevada red fox occupied high-elevation areas of the Sierra Nevada and Cascade mountain ranges in California (Department of the Interior [DOI] 2016). Nearest occurrence is from 1911 more than 13 miles to the southwest in the Sierra Nevada. The subspecies consists of two distinct population segments (DPSs), one in the Sierra Nevada Mountains and the other in the Cascades. The only known remnant of the Sierra Nevada DPS is a population in the Sonora Pass area, and to the northern portion of Yosemite National Park (DOI 2016).

[1] Description of status codes:
FE = Listed as endangered under the FESA
FT = Listed as threatened under the FESA
DE = Delisted under the FESA
SE = Listed as endangered under the CESA
ST = Listed as threatened under the CESA
FP = Listed as fully protected under CDFW code
SC = Species of Special Concern
BCC = Bird of Conservation Concern
WL = Watch listed

3.9 Critical Habitat

Under the FESA, to the extent feasible, the USFWS is required to designate critical habitat for endangered and threatened species. Critical habitat is defined as areas of land, water, and air space containing the physical and biological features essential for the survival and recovery of endangered and threatened species. This federally designated habitat includes sites for breeding and rearing, movement or migration, feeding, roosting, cover, and shelter. These habitat areas require special management and protection of existing resources, including water quality and quantity, host animals and plants, food availability, pollinators, sunlight, and specific soil types. Critical habitat designation includes all suitable habitat, occupied or not, essential to the survival and recovery of the species.

The study area does not occur within any USFWS-designated critical habitat areas (USFWS 2018b). The nearest critical habitat is for Sierra Nevada bighorn sheep approximately 7.25 miles to the southwest in the Sierra Nevada range.

3.10 Wildlife Movement

Wildlife movement corridors or habitat linkages are linear habitat features that connect two large blocks of habitat that might otherwise be disconnected from one another. Effective wildlife movement is essential for dispersal, genetic exchange, migration, foraging, and breeding. Functional wildlife movement corridors are especially important in highly fragmented habitat, such as developed or agricultural areas. Wildlife movement corridors are generally used by terrestrial animals, although they may also be important for aquatic species, avian dispersal, and an avenue for genetic exchange in plants. On a regional scale, movement corridors can include bird flyways, such as wetland areas that provide essential habitat to be used as a stopover for several days during migration.

The study area lies within the Owens Valley between the Sierra Nevada range and Inyo Mountains. The study area and surrounding vicinity are within a Natural Landscape Block identified in the California Essential Habitat Connectivity Project (CEHC). CEHC is a CDFW and California Department of Transportation (CalTrans) project that ran a statewide assessment of essential habitat connectivity using spatial analyses and modeling techniques to identify large remaining blocks of intact habitat or natural landscape and model linkages between them that need to be maintained, particularly as corridors for wildlife. The entire Owens River is also mapped as a Potential Riparian Connection in the CEHC.

Additionally, Owens Valley is identified as a Missing Link and Connectivity Choke-Point in the Sierra Nevada Ecoregion in the *Missing Linkages* report (Penrod et al. 2001). Specifically, Map ID# 21 identifies Owens Valley as a link from the Sierra Nevada to the Inyo Mountains as a migration route for wildlife (i.e., east-west link) (as shown on **Figure 9**). However, Highway 395 is a barrier to regional movement across the valley. The report also identifies river and stream systems lined with cottonwoods and willows within the Sierra Nevada Ecoregion as important habitat for neotropical migratory birds.

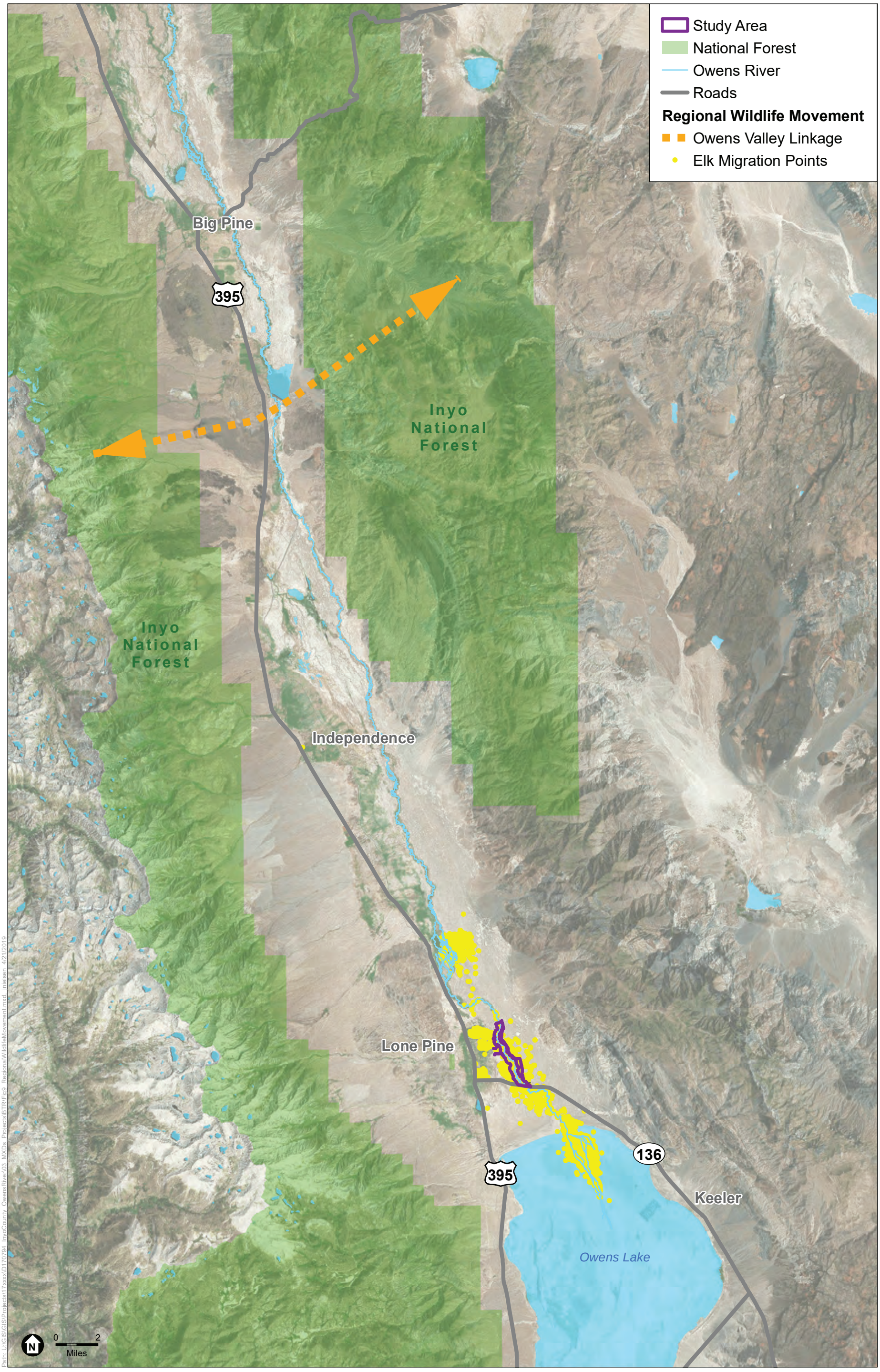
In addition, based on tracking data collected by CDFW, tule elk are known to occur within the study area, and this portion of the Owens Valley is important for tule elk calving and migration (Morrison, per. comm. 2018). Although there seems to be patchy and somewhat sparse riparian woodland (i.e., willows) along the river, groups of tule elk have been observed using willow patches for cover (Morrison, per. comm. 2018). Tule elk within the study area are part of the Lone Pine herd that occurs within the Owens Valley. The elk forage on forbs and grasses, and in drier years, rely on browse species (e.g., shadscale, allscale) or spend more time around riparian areas and alfalfa fields where succulent vegetation (e.g., willow) is available in the spring and summer (BLM et al. 1986). Tule elk use various portions of their range in response to seasonal variations in food availability, and shift in response to local conditions influenced by quality of forage, land use by domestic livestock, and human disturbance (CDFW 2018d). Elk are highly social animals, with the herd being the focal point of their existence (CDFW 2018d). The Owens Valley Tule Elk Habitat Management Plan identifies four critical areas that are essential for elk to carry out their normal life processes: rutting areas or summer range, winter range, calving areas, and migration routes. For rutting areas, the herds generally congregate for the rut during August and September each year, where the dominant bulls select a group of cows and defend them from

other bulls. The breeding of the cows takes place during this time, and congregated elk require an ample food supply and to be free from disturbances (e.g., from off-road vehicles). For their winter range, elk tend to congregate and feed in areas where browse plants are plentiful as most of the succulent green vegetation is diminished. For calving areas, the winter herd units break up and disperse into smaller groups towards isolated canyon and ravines where they will give bird to their calves. The elk generally use the same area each year. Calving areas are particularly sensitive to certain form of human disturbance (e.g., off-road vehicles). Migration routes are essential for elk to move from one seasonal area to another. A few herds regularly use the same path each year (BLM et al. 1986). Based on tracking data provided by CDFW for three elk individuals during 2015 through 2017, these tule elk have typically utilized the study area for spring and summer (i.e., from late March/mid-April and ranging through anywhere from early July, late August/early September, or late October/November) before moving to wintering areas farther to the north. There is occurrence data from within the study area as early as March 22 to as late as November 30 (CDFW 2018e).

The Owens River also provides a perennial water source within the arid Owens Valley region that connects montane streams and reservoirs in the north to Owens Lake in the south. The river includes upland and riparian habitat that provides important resources for wildlife, such as foraging habitat, nesting and den sites, and cover, and provides live-in and movement habitat for a variety of invertebrate, fish, herptile, bird, and mammal species. Thus, from a regional perspective, the study area functions as an important wildlife movement corridor.

On a local scale, the study area supports live-in and movement habitat for a number of species (e.g., invertebrate, fish, herptile, bird, and mammal species). Immediately surrounding the study area, the town of Lone Pine is located to the west, and human activity and development within Lone Pine may deter the movement of larger mammals that require larger home range areas and dispersal distances or dense vegetative cover. In addition, Highway 395 and State Route 136 are hazards to wildlife. However, species that are less restricted in movement pathway requirements or are adapted to more developed areas (e.g., raccoon, skunk, coyote, birds) likely move through these areas. Furthermore, surrounding lands throughout and around the study area are undeveloped, contain natural habitats, and are unrestricted for movement. Thus, although some wildlife movement may be deterred by the human activity and development associated with Lone Pine and traffic along the major highways, these barriers to movement would not preclude wildlife from moving through the study area or the surrounding region.

In summary, the study area supports live-in and movement habitat for species on a local scale, and likely functions to facilitate wildlife movement for a number of species on a regional scale.



SOURCE: DigitalGlobe 11/3/2017; ESA, 2019.

Owens River Water Trail

Figure 9
Regional Wildlife Movement

ESA

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4 Regulatory Framework

The following provides a general description of the applicable regulatory requirements for the project, including federal, state, and local policies and guidelines.

4.1 Federal

4.1.1 Endangered Species Act (USC, Title 16, § 1531 through 1543)

The FESA and subsequent amendments provide guidance for the conservation of endangered and threatened species and the ecosystems upon which they depend. In addition, the FESA defines species as threatened or endangered and provides regulatory protection for listed species. The FESA also provides a program for the conservation and recovery of threatened and endangered species as well as the conservation of designated critical habitat that USFWS determines is required for the survival and recovery of these listed species.

Section 7 of the FESA requires federal agencies, in consultation with and assistance from the Secretary of the Interior or the Secretary of Commerce, as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species. The USFWS and National Marine Fisheries Service (NMFS) share responsibilities for administering the FESA. Regulations governing interagency cooperation under Section 7 are found in CCR Title 50, Part 402. The opinion issued at the conclusion of consultation will include a statement authorizing "take" (to harass, harm, pursue, hunt, wound, kill, etc.) that may occur incidental to an otherwise legal activity.

Section 9 lists those actions that are prohibited under the FESA. Although take of a listed species is prohibited, it is allowed when it is incidental to an otherwise legal activity. Section 9 prohibits take of listed species of fish, wildlife, and plants without special exemption. The definition of "harm" includes significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns related to breeding, feeding, or shelter. "Harass" is defined as actions that create the likelihood of injury to listed species by disrupting normal behavioral patterns related to breeding, feeding, and shelter significantly.

Section 10 provides a means whereby a nonfederal action with the potential to result in take of a listed species can be allowed under an incidental take permit. Application procedures are found at 50 CFR 13 and 17 for species under the jurisdiction of USFWS and 50 CFR 217, 220, and 222 for species under the jurisdiction of NMFS.

4.1.2 Migratory Bird Treaty Act (16 USC 703 through 711)

The Migratory Bird Treaty Act (MBTA) is the domestic law that affirms, or implements, a commitment by the U.S. to four international conventions (with Canada, Mexico, Japan, and Russia) for the protection of a shared migratory bird resource. The MBTA makes it unlawful at any time, by any means, or in any manner to pursue, hunt, take, capture, or kill migratory birds. The law also applies to the removal of nests occupied by migratory birds during the breeding

season. The MBTA makes it unlawful to take, pursue, molest, or disturb these species, their nests, or their eggs anywhere in the United States.

4.1.3 Federal Clean Water Act (33 USC 1251 through 1376)

The USACE regulates "discharge of dredged or fill material" into "waters" of the United States, which includes rivers, streams, ditches, wetlands, ponds, lakes, oxbows, and other types of natural or man-made aquatic systems, identifiable by the water contained in these aquatic systems or by their chemical, physical, and biological indicators, the pollution, degradation, or destruction of which could affect interstate or foreign commerce or which are tributaries to waters subject to the ebb and flow of the tide (33 CFR Part 328), pursuant to provisions of Section 404 of the CWA.

The USACE takes jurisdiction within rivers and streams to the OHWM, determined by erosion, the deposition of vegetation or debris, and changes in vegetation or soil characteristics. However, if there is no federal nexus to navigable waters, these waters are considered "isolated" and thus not subject to their jurisdiction.

The USACE and the Environmental Protection Agency (EPA) have issued a set of guidance documents detailing the process for determining CWA jurisdiction over waters of the United States following the Rapanos decision. The EPA and USACE issued a summary memorandum of the guidance for implementing the Supreme Court's decision in Rapanos that addresses the jurisdiction over waters of the United States under the CWA. The "significant nexus test" includes consideration of hydrologic and ecologic factors. The significant nexus test would take into account physical indicators of flow (evidence of an OHWM), if a hydrologic connection to a "traditional navigable water" (TNW) exists, and if the aquatic functions of the water body have a significant effect (more than speculative or insubstantial) on the chemical, physical, and biological integrity of a TNW. The USACE and EPA will apply the significant nexus standard to assess the flow characteristics and functions of the tributary drainage to determine if it significantly affects the chemical, physical and biological integrity of the downstream TNW.

4.2 State

4.2.1 California Endangered Species Act (California Fish and Game Code § 2050 et seq.)

The CESA establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. The CESA mandates that state agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. There are no state agency consultation procedures under the CESA. For projects that would affect a listed species under both the CESA and the FESA, compliance with the FESA would satisfy the CESA if CDFW determines that the federal incidental take authorization is "consistent" with the CESA under California Fish and Game Code Section 2080.1. For projects that would result in take of a species listed under the CESA only, the project operator would have to apply for a take permit under Section 2081(b).

4.2.2 California State Fish and Game Code § 1600 et seq.

Under these sections of the California Fish and Game Code, the project operator is required to notify CDFW prior to any project that would divert, obstruct, or change the natural flow, bed, channel, or bank of any river, stream, or lake. Pursuant to the code, a "stream" is defined as a body of water that flows at least periodically, or intermittently, through a bed or channel having banks and supporting fish or other aquatic life. Based on this definition, a watercourse with surface or subsurface flows that supports or has supported riparian vegetation is a stream and is subject to CDFW jurisdiction. Altered or artificial watercourses valuable to fish and wildlife are subject to CDFW jurisdiction. CDFW also has jurisdiction over dry washes that carry water during storm events.

Preliminary notification and project review generally occur during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, CDFW is required to propose reasonable project changes to protect the resource. These modifications are formalized in a Streambed Alteration Agreement, which becomes part of the plans, specifications, and bid documents for the project.

4.2.3 California State Fish and Game Code §§ 2080 and 2081

Section 2080 of the California Fish and Game Code states that "No person shall import into this state [California], export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the Commission [State Fish and Game Commission] determines to be an endangered species or threatened species, or attempt any of those acts, except as otherwise provided in this chapter, or the Native Plant Protection Act, or the California Desert Native Plants Act." Pursuant to Section 2081 of the code, CDFW may authorize individuals or public agencies to import, export, take, or possess state-listed endangered, threatened, or candidate species. These otherwise prohibited acts may be authorized through permits or Memoranda of Understanding if the take is incidental to an otherwise lawful activity, impacts of the authorized take are minimized and fully mitigated, the permit is consistent with any regulations adopted pursuant to any recovery plan for the species, and the project operator ensures adequate funding to implement the measures required by CDFW, which makes this determination based on available scientific information and considers the ability of the species to survive and reproduce.

4.2.4 California State Fish and Game Code §§ 3503 and 3503.5

Under these sections of the California Fish and Game Code, the project operator is not allowed to conduct activities that would result in the taking, possessing, or destroying of any birds of prey; the taking or possessing of any migratory nongame bird as designated in the MBTA; the taking, possessing, or needlessly destroying of the nest or eggs of any raptors or nongame birds protected by the MBTA; or the taking of any nongame bird pursuant to California Fish and Game Code Section 3800.

4.2.5 California Environmental Quality Act Guidelines, § 15380

Although threatened and endangered species are protected by specific federal and state statutes, State CEQA Guidelines § 15380(b) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definition in FESA and the section of the California Fish and Game Code dealing with rare or endangered plants or animals. This section was included in CEQA primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on, for example, a candidate species that has not been listed by either USFWS or CDFW. Thus, CEQA provides an agency with the ability to protect a species from the potential impacts of a project until the respective government agencies have an opportunity to designate the species as protected, if warranted. CEQA also calls for the protection of other locally or regionally significant resources, including natural communities. Although natural communities do not at present have legal protection of any kind, CEQA calls for an assessment of whether any such resources would be affected and requires findings of significance if there would be substantial losses. Natural communities listed by CNDDB as sensitive are considered by CDFW to be significant resources and fall under the State CEQA Guidelines for addressing impacts. Local planning documents such as General Plans often identify these resources as well.

4.2.6 Native Plant Protection Act (California Fish and Game Code §§ 1900 through 1913)

California's NPPA requires all state agencies to use their authority to carry out programs to conserve endangered and rare native plants. Provisions of the NPPA prohibit the taking of listed plants from the wild and require notification of CDFW at least 10 days in advance of any change in land use. This allows CDFW to salvage listed plant species that would otherwise be destroyed. The project operator is required to conduct botanical inventories and consult with CDFW during project planning to comply with the provisions of this act and sections of CEQA that apply to rare or endangered plants.

4.2.7 California Water Quality Control Act (Porter-Cologne California Water Code Section 13260)

The State Water Resources Control Board (SWRCB) and the RWQCB (together "Boards") are the principal State agencies with primary responsibility for the coordination and control of water quality. The Boards regulate activities pursuant to Section 401(a)(1) of the federal CWA as well as the Porter Cologne Water Quality Control Act (Porter-Cologne) (Water Code Section 13260). Section 401 of the CWA specifies that certification from the State is required for any applicant requesting a federal license or permit to conduct any activity including but not limited to the construction or operation of facilities that may result in any discharge into navigable waters. The certification shall originate from the State in which the discharge originates or will originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable water at the point where the discharge originates or will originate. Any such discharge will comply with the applicable provisions of Sections 301, 302, 303, 306, and 307 of the CWA.

In the Porter-Cologne, the Legislature declared that the "State must be prepared to exercise its full power and jurisdiction to protect the quality of the waters in the State from degradation..." (California Water Code Section 13000). Porter-Cologne grants the Boards the authority to implement and enforce the water quality laws, regulations, policies and plans to protect the groundwater and surface waters of the State. It is important to note that enforcement of the State's water quality requirements is not solely the purview of the Boards and their staff. Other agencies (e.g., CDFW) have the ability to enforce certain water quality provisions in state law.

4.3 Local

4.3.1 Inyo County General Plan

Inyo County's General Plan includes a Conservation Element, which addresses the conservation, development, and use of natural resources including water, forests, soils, rivers, and mineral deposits, and an Open Space Element, which details plans and measures for preserving open space for natural resources, the managed production of resources, outdoor recreation, public health and safety, and the identification of intensive agriculture and irrigated pasturelands. Specific goals within the Conservation and Open Space Elements include the following:

Biological Resources

Goal BIO-1 – Maintain and enhance biological diversity and healthy ecosystems throughout the County.

Policy BIO-1.1 Regulatory Compliance - The County shall review development proposals to determine impacts to sensitive natural communities, of both local and regional concern, and special-status species. Appropriate mitigation measures will be incorporated into each project, as necessary.

Policy BIO-1.2 Preservation of Riparian Habitat and Wetlands - Important riparian areas and wetlands, as identified by the County, shall be preserved and protected for biological resource value.

Policy BIO-1.3 Restoration of Biodiversity - Encourage the restoration of degraded biological communities.

Policy BIO-1.4 Develop Outside of Habitat Areas - Work with regulatory agencies and private developers to direct development into less significant habitat areas. Discourage urban development in areas containing sensitive natural communities or known to contain special-status species.

Policy BIO-1.5 Wildlife Corridors - The County shall work to preserve and protect existing wildlife corridors where appropriate.

Policy BIO-1.6 Invasive Weed Species - Avoid activities that will promote the spread of invasive weeds in the County.

Policy BIO-1.7 Owens River Restoration - The County will work with the LADWP and regulatory agencies to complete the restoration of habitat values along the historic Owens River channel as mitigation for degradation done with water export activities. This policy shall apply to the portion of the Owens River identified as the Lower Owens River Project.

Goal BIO-2 – Provide a balanced approach to resource protection and recreational use of the natural environment.

Policy BIO-2.2 Appropriate Access for Recreation - Encourage appropriate access to resource-managed lands.

Policy BIO-2.4 Nature as Education - Provide and support passive recreational opportunities and interpretive education in the natural environment.

4.3.2 County of Inyo/City of Los Angeles Department of Water and Power Long Term Water Agreement – Lower Owens River Project

Under the Inyo/Los Angeles Long Term Water Agreement, the County and LADWP committed to rewater the full 62-mile-long reach of the Owens River as part of the LORP. The LORP was identified in a 1991 EIR as mitigation for impacts related to groundwater pumping by LADWP from 1970 to 1990. The LORP is implemented through a joint effort by LADWP and the County. The goal of the LORP is the establishment of a healthy, functioning Lower Owens River riverine-riparian ecosystem, and the establishment of healthy, functioning ecosystems in the other physical features of the LORP, for the benefit of biodiversity and Threatened and Endangered Species, while providing for the continuation of sustainable uses including recreation, livestock grazing, agriculture and other activities. The LORP is guided by five objectives, which include:

1. Establishment and maintenance of diverse riverine, riparian, and wetland habitats in a healthy ecological condition;
2. Compliance with state and federal laws (including regulations adopted pursuant to such laws) that protect Threatened and Endangered Species;
3. Management consistent with applicable water quality laws, standards, and objectives;
4. Control of deleterious species whose presence within the LORP area interferes with the achievement of the goals of the LORP; and
5. Management of livestock.

In order to achieve the first objective, the LORP includes four primary restoration efforts: (1) releasing water to the Lower Owens River to enhance native and game fisheries and riparian habitats along 62 miles of the river; (2) providing water to the Owens River Delta to maintain and enhance various wetland and aquatic habitats; (3) enhancing a 1,500-acre off-river area with seasonal flooding and land management to benefit wetlands and waterfowl; and (4) maintaining several off-river lakes and ponds.

5 Potential Effects

This section describes the potential effects of the proposed project (**Figure 3**) on biological resources that may occur as a result of project implementation, including net ecological benefits. Temporary, permanent, direct, and/or indirect effects to biological resources may occur as a result of project implementation, as defined below:

- **Direct Effects:** Any alteration, disturbance, or destruction of biological resources that would result from project-related activities is considered a direct effect. Examples include loss of individual species and/or their associated plant communities, diversion of surface water flows, and encroachment into wetlands. Under the FESA, direct effects are defined as the immediate effects of a project on a species or its habitat, including construction noise disturbance, sedimentation, or habitat loss.
- **Indirect Effects:** Biological resources may also be affected in an indirect manner as a result of project-related activities. Under the FESA, indirect effects are defined as those effects that are caused by, or would result from, a proposed project but occur later in time and are reasonably certain to occur [50 C.F.R. §402-02]. An example of indirect effects may include irrigation runoff from a developed area into surrounding natural vegetation. Indirect effects could also include increased wildfire frequency as a result of power line failures.
- **Temporary Effects:** Any effects to biological resources that are considered reversible can be viewed as temporary. Examples include the generation of fugitive dust during construction activities.
- **Permanent Effects:** All effects that result in the irreversible removal of biological resources are considered permanent. Examples include constructing a building or permanent road on an area with native vegetation, such that the native vegetation is permanently removed and replaced with a developed structure.

A project is generally considered to have a significant effect if it proposes or results in any of the conditions described in the significance thresholds discussed below (in italics), absent specific evidence to the contrary. Conversely, if a project does not propose or result in any of the following conditions, it would generally not be considered to have a significant effect on biological resources, absent specific evidence of such an effect. These significance thresholds are taken from Appendix G of the State CEQA Guidelines.

5.1 Special-Status Species

5.1.1 Significance Threshold

The project would have an adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

5.1.2 Analysis of Project Effects

Proposed Project

The study area is not within any USFWS-designated Critical Habitat for any special-status plant or wildlife species.

Nine special-status plant species have a high, moderate, or moderate/low potential to occur, including Geyer's milk-vetch, King's eyelash grass, Inyo County star-tulip, California satintail, Torrey’s blazing star, Nevada oryctes, Inyo phacelia, Parish's popcornflower, and Owens Valley checkerbloom. These species were not observed on-site during the general biological survey

conducted by ESA in June 2018; however, the general biological survey did not thoroughly cover all of the potentially suitable habitats for these species. Thus, focused surveys during the appropriate blooming period for these species should be conducted within the project site prior to project implementation.

ESA ran hydraulic simulations based on the "Lower Owens River Project Hydraulic Model" produced for LADWP on May 4, 2012 to model and compare baseline water surface elevations (WSE) of the currently existing conditions within the study area with the projected WSEs after implementation of the proposed project (ESA 2019). Model results show a decrease in average WSE relative to the existing conditions with the removal of vegetation and channel depth modifications. The simulations used two representative[10] plots: the Plot 4 model covered approximately 2.2 miles of river (extending from 0.2 miles downstream of the Lone Pine Narrow Gauge Road Bridge at River Mile [RM] 43.85 to RM 45.8), and the Plot 5 model covered approximately 2.5 miles of river (extending from RM 46.6 to 0.1 miles upstream of the Keeler Railroad Bridge located at RM 48.7). Throughout the study area, the channel is characterized by areas of open water bordered by tules separated by short sections of channel that are either bridged or entirely occluded by tules, with large wood debris in some places. It was noted that Plot 4 contained a "marsh region" where there was not an obvious main channel, and the single channel split into multiple flow paths with indistinct and discontinuous channels, acting as a large marsh extending across most of the floodplain. Additionally, debris jams or beaver dams were observed in the open water areas within the marsh, further contributing to shallow inundation over the floodplain. At the downstream end of this area, a large drop in the WSE was observed where the shallow floodplain flows rejoin the channel.

Based on the hydraulic simulations, with the implementation of the proposed project, the decrease in WSE would be more pronounced in Plot 4 than Plot 5 due to the backwater associated with the marsh region in Plot 4. The simulations predicted an average change of -3.1 feet and maximum change of -5.2 feet in WSE in Plot 4, and an average change of -1.2 feet and maximum change of -2.5 feet in WSE in Plot 5. In addition, the simulations predicted a minimum wetted width of 15.4 feet (as compared to 48.0 feet in the baseline condition) and an average wetted width of 55.6 feet (as compared to 182.9 feet in the baseline condition) in WSE in Plot 4, and a minimum wetted width of 21.4 feet (as compared to 34.5 feet in the baseline condition) and an average wetted width of 47.0 feet (as compared to 59.2 feet in the baseline condition) in WSE in Plot 5. The decrease in wetted width for design scenarios was more pronounced in Plot 4, since removing occlusions or excavating a uniform channel through the marsh region results in a significant reduction in wetted width. The hydraulic simulations suggest that channel clearing, widening, or excavation will increase conveyance and decrease the water depth over the project area.

However, the stretch of the Owens River from south of the Big Pine area all the way to Owens Lake is a gaining stream year-round. This means that groundwater discharged into the river is supporting its flow for the entire length down to Owens Lake. This gaining stream condition includes the proposed project area, which has never been observed to go dry. The project area is located towards the lower elevation southernmost portion of Owens Valley. Consequently, the

[10] Plot 4 and Plot 5 are non-contiguous and do not cover the entire project area.

floodplain in the project area is less sensitive to river water surface elevation because groundwater levels, and the floodplain vegetation it supports, are not entirely dependent on the river's surface water flow within the project area.

Although the removal of occlusions may result in a drop in surface water elevation, it is likely to have a limited effect on the surrounding vegetation since the proposed project area is within a reach of the Owens River that is supported by a gaining stream fed by groundwater. Thus, if any special-status plant species occur on-site, impacts would be less than significant, and no mitigation would be required.

If special-status plant species are present within the project site, permanent impacts from installation of the boat launch and take-out facilities, and/or temporary impacts from trampling associated with access routes, staging areas, and/or spoils locations, could be significant if these impacts threaten regional populations of these species. In addition, the study area is relatively free of invasive, non-native weeds; however, there were a few observations of trace amounts of tamarisk within the study area. Perennial pepperweed (*Lepidium latifolium*) has not been found in the study area, but it does occur farther upstream of the study area within the LORP. Both perennial pepperweed and tamarisk are non-native species that are a concern within the LORP region, and are actively being treated/removed by LADWP and the County (County of Inyo Water Department 2019). Although floodplain disturbance has the potential to encourage weeds, disturbances will primarily be from vegetation removal within the channel or temporarily crushing vegetation for access and/or stockpiling spoils, rather than creating open areas of disturbed soil where vegetation does not exist and new weedy species have an opportunity to establish. In addition, for the spoils piles, the emergent vegetation would be placed on top of the muck and mineral soils to deter the establishment of weedy species to the extent practicable. Furthermore, the study area has few invasive, non-native weeds present that could have the potential to spread. However, the introduction of noxious weeds from outside sources (e.g., construction equipment coming from other areas) could be significant if special-status plant species are present and impacts from competition with noxious weeds threaten regional populations of these species. Implementation of mitigation measure MM BIO-1, prescribed in Section 6.0 below, would reduce impacts to a less than significant level.

A total of 25 special-status wildlife species were analyzed for their potential to occur within the study area.

Five special-status fish species (Owens sucker, Owens pupfish, California golden trout, Owens speckled dace, and Owens tui chub) were determined to have a low potential to occur. While the study area supports suitable or marginally suitable habitat, the study area is outside of the known distribution for these species. For the federal and state endangered species, Owens pupfish and Owens tui chub, sanctuaries and refuge sites have been created in order to improve and reestablish their populations. The sanctuaries and refuge sites connected to the Owens River are all located at least 45 miles north from the study area. One refuge is located 11.5 miles away, but lacks a surface water connection with the Owens River. While it is entirely possible for one of the fish species to swim downstream into the study area, it is not expected. Based on a personal conversation with Nick Buckmaster (Environmental Scientist with CDFW's Bishop Field Office)

during a project site visit in March 2018, the potential for Owens sucker, Owens pupfish, Owens speckled dace, and Owens tui chub is low within the study area (Buckmaster, pers. comm. 2018a). These species are not discussed further in this analysis.

One special-status amphibian species (Inyo Mountains slender salamander) and one special-status reptile species (Panamint alligator lizard) were also determined to have a low potential to occur due to lack of suitable habitat on-site and because the study area was outside of the known distribution for these species. These species are not discussed further in this analysis.

Five special-status avian species (western snowy plover, mountain plover, western yellow-billed cuckoo, southwestern willow flycatcher, least Bell's vireo) were determined to have a low potential to occur due to marginally suitable habitat or the lack of suitable habitat on-site and/or because the study area was outside of the known distribution for these species. These species are not discussed further in this analysis. In addition, four special-status avian species (yellow-breasted chat [SC[11]], loggerhead shrike [BCC[12]/SC], yellow warbler [BCC/SC], and Le Conte's thrasher [BCC/SC]) were documented as observed on-site; one special-status avian species (northern harrier [SC]) has a high potential to occur; and two special-status avian species (Swainson's hawk [BCC/ST[13]] and least bittern [BCC/SC]) have a moderate potential to occur within the study area. The proposed project would permanently impact 3.8 acres of natural communities (including 0.1 acre of black willow woodland, 3.1 acres of hardstem bulrush marsh, 0.1 acre of saltmarsh bulrush marsh, 0.4 acre of saltgrass flats, and 0.1 acre of allscale scrub) due to the boat launch and take-out facilities as well as the removal of occlusions to create and maintain the water trail, and temporarily impact 37.0 acres of natural communities (including 0.6 acre of black willow woodland, 0.1 acre of sandbar willow woodland, 10.1 acres of hardstem bulrush marsh, 0.2 acre of common reed marsh, 14.7 acres of saltmarsh bulrush marsh, 6.6 acres of saltgrass flats, 0.5 acre of rubber rabbitbrush scrub – Nevada saltbush scrub, 0.3 acre of rubber rabbitbrush scrub – saltgrass flats, and 3.9 acres of allscale scrub) due to access routes and staging areas for construction, and spoils generated from the removed occlusions. These natural communities provide habitat for the above-mentioned special-status avian species. With the available 621.8 acres of natural areas (i.e., 641.4 acres of avoided areas, minus 19.6 acres of disturbed) within the 685.2-acre study area that will be avoided by the proposed project, as well as natural areas within the surrounding vicinity, potential impacts to foraging and/or nesting habitat for these species are not expected to threaten regional populations. Direct impacts would also be avoided as these species are mobile and would be expected to fly away from the construction area, if present. Furthermore, project construction will occur outside of nesting season (as referenced in project description), and compliance with the MBTA and FGC during project construction and throughout 20 years of maintenance (discussed in Section 5.4 below) will also ensure no impacts to nests will occur. Thus, any potential direct impacts to these species are considered less than significant. However, if construction and maintenance work cannot be scheduled outside of nesting season, impacts to nesting special-status bird species, would be

11 CDFW Species of Special Concern
12 USFWS Bird of Conservation Concern
13 State Threatened

potentially significant. Implementation of mitigation measure MM BIO-2, prescribed in Section 6.0 below, would reduce impacts to a less than significant level.

One special-status mammal species (Sierra Nevada red fox) was determined to have a low potential to occur due to the study area being outside of the known distribution for this species; this species is not discussed further in this analysis. In addition, three special-status mammal species (Owens Valley vole and American badger [all are SC]) have a moderate potential to occur within the study area. As mentioned above, the proposed project would permanently impact 3.8 acres of natural communities and temporarily impact 37.0 acres of natural communities, which provide habitat for these special-status mammal species. With the available 621.8 acres of natural areas within the study area that will be avoided by the proposed project, as well as natural areas within the surrounding vicinity, potential impacts are not expected to threaten regional populations of these species. Direct impacts would also be avoided as these species are mobile and would be expected to move away from the construction area, if present. Thus, any potential direct impacts to these species are considered less than significant.

In addition, public use of the ORWT and the resulting increased human activity within the area could potentially disturb special-status plant and wildlife species, if present. Increased public use could indirectly impact special-status species by trampling plants (e.g., from off-trail hiking), or deterring wildlife from using an area (e.g., due to increased noise and human presence, off-leash dogs could predate on wildlife, increased trash could attract nuisance wildlife predators/competitors to the area). Thus, potential indirect impacts to special-status species would be potentially significant. Implementation of mitigation measure MM BIO-3, prescribed in Section 6.0 below, would reduce impacts to a less than significant level.

Alternative 1 (Boat Launch Option 2)

This alternative would be similar to the proposed project but with the boat launch at a slightly different location to the west. If the Option 2 boat launch is installed, instead of the impact acreages detailed above for the proposed project, Alternative 1 would permanently impact 3.8 acres of natural communities (including 0.1 acre of black willow woodland, 3.1 acres of hardstem bulrush marsh, 0.1 acre of saltmarsh bulrush marsh, 0.3 acre of saltgrass flats, 0.1 acre of rubber rabbitbrush scrub – saltgrass flats, and 0.1 acre of allscale scrub) and temporarily impact 37.0 acres of natural communities (including 0.6 acre of black willow woodland, 0.1 acre of sandbar willow woodland, 10.1 acres of hardstem bulrush marsh, 0.2 acre of common reed marsh, 14.7 acres of saltmarsh bulrush marsh, 6.6 acre of saltgrass flats, 0.5 acre of rubber rabbitbrush scrub – Nevada saltbush scrub, 0.3 acre of rubber rabbitbrush scrub – saltgrass flats, and 3.9 acres of allscale scrub).

If special-status plant species are present within the project site, temporary impacts from trampling could be significant if these impacts threaten regional populations of these species. Implementation of mitigation measure MM BIO-1 would reduce impacts to a less than significant level.

For special-status wildlife species, with the available 621.8 acres of natural areas (i.e., 641.4 acres of avoided areas, minus 19.6 acres of disturbed) within the 685.2-acre study area that will be avoided by the proposed project, as well as natural areas within the surrounding vicinity, potential impacts to habitat for these species are not expected to threaten regional populations. Thus, any potential direct impacts to special-status species are considered less than significant. However, if construction and maintenance work cannot be scheduled outside of nesting season, impacts to nesting special-status bird species, would be potentially significant. Implementation of mitigation measure MM BIO-2 would reduce impacts to a less than significant level. Potential indirect impacts to special-status species as a result of increased human activity would be potentially significant. Implementation of mitigation measure MM BIO-3 would reduce impacts to a less than significant level.

Alternative 2 (Construction with Amphibious Excavator)

This alternative would be similar to the proposed project but would use an amphibious excavator for removal of the in-channel occlusions. If an amphibious excavator is used for construction and assuming a 40-foot wide work area,[14] Alternative 2 would permanently impact 3.8 acres of natural communities (including 0.1 acre of black willow woodland, 3.1 acres of hardstem bulrush marsh, 0.1 acre of saltmarsh bulrush marsh, 0.4 acre of saltgrass flats, and 0.1 acre of allscale scrub) and temporarily impact 37.0 acres of natural communities (including 1.0 acre of black willow woodland, 0.2 acre of sandbar willow woodland, 19.4 acres of hardstem bulrush marsh, 0.3 acre of common reed marsh, 12.1 acres of saltmarsh bulrush marsh, 4.9 acres of saltgrass flats, 0.5 acre of rubber rabbitbrush scrub – Nevada saltbush scrub, 0.3 acre of rubber rabbitbrush scrub – saltgrass flats, and 3.6 acres of allscale scrub).

If special-status plant species are present within the project site, temporary impacts from trampling could be significant if these impacts threaten regional populations of these species. Implementation of mitigation measure MM BIO-1 would reduce impacts to a less than significant level.

For special-status wildlife species, with the available 616.5 acres of natural areas (i.e., 636.1 acres of avoided areas, minus 19.6 acres of disturbed) within the 685.2-acre study area that will be avoided by the proposed project, as well as natural areas within the surrounding vicinity, potential impacts to habitat for these species are not expected to threaten regional populations. Thus, any potential direct impacts to special-status species are considered less than significant. However, if construction and maintenance work cannot be scheduled outside of nesting season, impacts to nesting special-status bird species, would be potentially significant. Implementation of mitigation measure MM BIO-2 would reduce impacts to a less than significant level. Potential indirect impacts to special-status species as a result of increased human activity would be potentially significant. Implementation of mitigation measure MM BIO-3 would reduce impacts to a less than significant level.

[14] Temporary impacts associated with amphibious excavator were calculated assuming that the equipment would traverse Owens River along the length of the project at a 40-foot width; calculations represent an average of such a path on either side of the channel with inside of each path 20-feet from river's centerline. It is assumed for purposes of this analysis that spoils would be placed within the 40-foot wide work area, instead of the separate spoils locations identified for the proposed project.

With implementation of Mitigation Measures MM BIO-1, MM BIO-2, and MM BIO-3, impacts to special-status species would be less than significant.

5.2 Riparian Habitat or Sensitive Natural Communities

5.2.1 Significance Threshold

The project would not have a substantial adverse effect on riparian habitat or other sensitive natural communities identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

5.2.2 Analysis of Project Effects

Proposed Project

Four sensitive natural communities occur within the study area: black willow woodland, hardstem bulrush marsh, saltmarsh bulrush marsh, and rubber rabbitbrush – Nevada saltbush scrub. However, because hardstem bulrush marsh, saltmarsh bulrush marsh, and rubber rabbitbrush – Nevada saltbush scrub are regionally common and widely distributed, they are not considered a vulnerable community in the region, which was confirmed by CDFW (Buckmaster 2019b, Banks and Moyer 2019); therefore, impacts are not considered significant. However, any impacts to black willow woodland would be significant, since this community is in decline locally and considered a vulnerable community.

The proposed project would permanently impact 0.1 acre and temporarily impact 0.6 acre of black willow woodland. **Table 6** summarizes the permanent and temporary impacts on sensitive natural communities from the proposed project (shown in **Figure 10**). The project would avoid 16.3 acres of black willow woodland within the study area. Temporary impacts would consist of access routes and staging areas for construction, and spoils generated from the removed occlusions. It is anticipated access routes would mostly follow already existing dirt roads, or will temporarily crush vegetation for a short duration where dirt roads do not exist for equipment to access areas where excavation must occur. Thus, it is expected that any crushed vegetation would reestablish and regrow naturally. It is also anticipated that spoils will breakdown (e.g., through natural decomposition; trampling, bedding, and grazing by cattle; natural recruitment of saltgrass and other plants on top of and through the spoils). Therefore, temporary impacts from the access routes, staging areas, and spoils are expected to passively recover and reestablish naturally to pre-project conditions. Permanent impacts to sensitive natural communities would result from installation of the boat launch and take-out facilities, and the removal of occlusions to create and maintain the water trail. Implementation of mitigation measure MM BIO-4, prescribed in Section 6.0 below, would reduce impacts to sensitive natural communities (e.g., black willow woodland) to a less than significant level.

TABLE 6
IMPACTS TO NATURAL COMMUNITIES

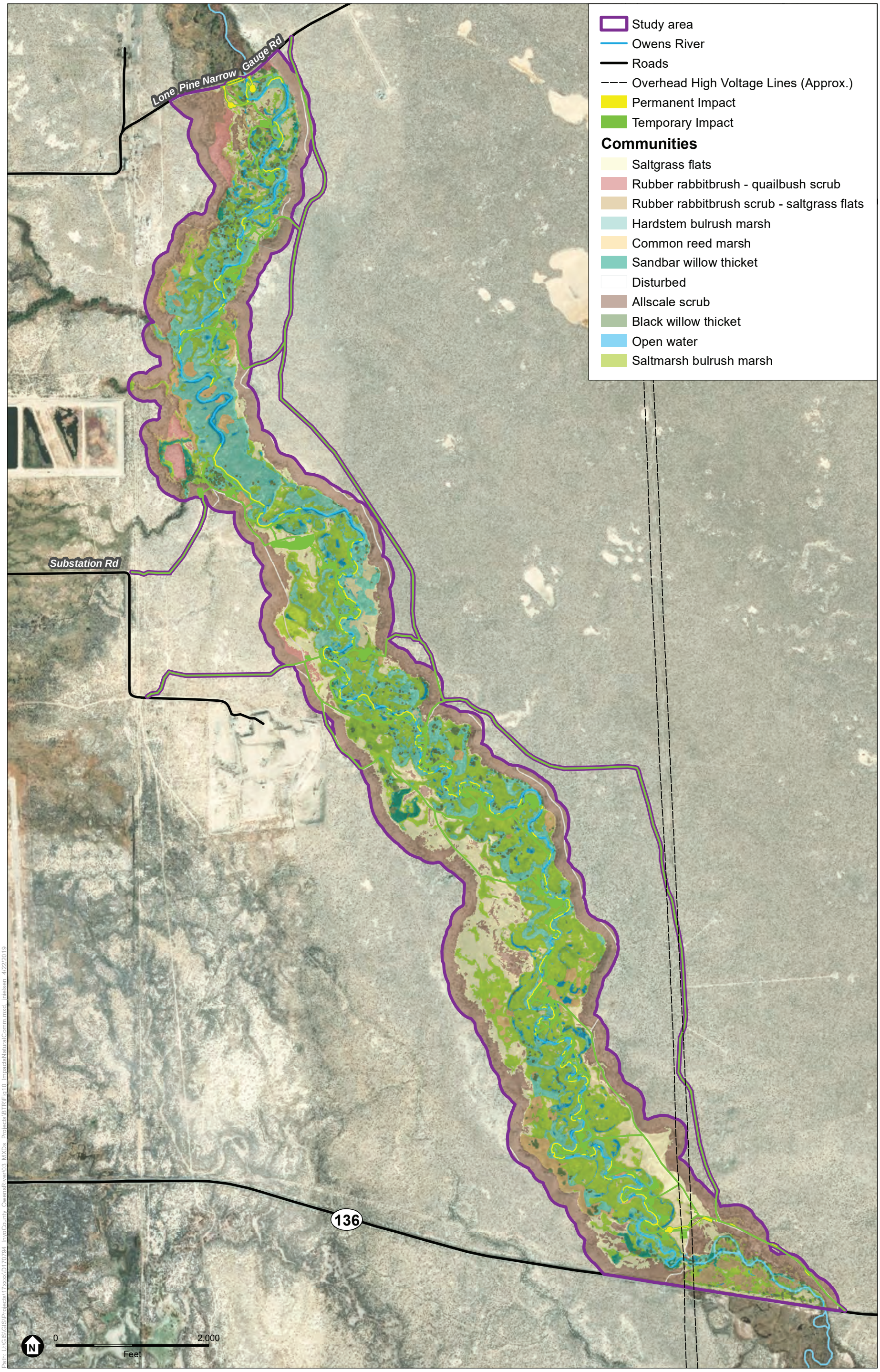
Natural Community	Existing (Acres)	Permanent Impacts (Acres)	Temporary Impacts (Acres)	Total Impacts (Acres)	Avoided (Acres)
Black Willow Woodland* (Riparian Forest)	17.0	0.1 (0.1)***	0.6	0.7	16.3
Sandbar Willow Woodland (Riparian Shrub)	6.1	-	0.1	0.1	6.0
Hardstem Bulrush Marsh* (Marsh)	117.6	3.1 (3.0)***	10.1	13.2	104.4
Common Reed Marsh (Reedgrass or Reed)	17.3	-	0.2	0.2	17.1
Saltmarsh Bulrush Marsh* (Wet Meadow)	175.3	0.1	14.7	14.8	160.5
Saltgrass Flats (Alkali Meadow)	86.4	0.4	6.6	7.0	79.4
Rubber Rabbitbrush – Nevada Saltbush Scrub* (Alkali Scrub)	8.9	-	0.5	0.5	8.4
Rubber Rabbitbrush Scrub – Saltgrass Flats (Alkali Scrub/Meadow)	16.1	-	0.3	0.3	15.8
Allscale Scrub (Upland Scrub)	191.7	0.1	3.9	4.0	187.7
Open Water (Water)	26.2	2.4**(2.0)***	2.4**	4.8**	26.2**
Disturbed (Road)	22.6	0.1	2.9	3.0	19.6
Total	**685.2**	**3.9****	**39.9****	**43.8****	**641.4****

* Asterisk indicates that an alliance/association is considered sensitive by CDFW.
** Although there will be "permanent" and "temporary" impacts to Open Water to remove occlusions, this community would not be altered and would remain as an Open Water channel, and are therefore not included in impact totals.
*** Acreage in parentheses indicate in-channel occlusion removal areas that would be turned into open water.

TABLE 6A
IMPACTS TO NATURAL COMMUNITIES – ALTERNATIVE 1 (BOAT LAUNCH OPTION 2)

Natural Community	Existing (Acres)	Permanent Impacts (Acres)	Temporary Impacts (Acres)	Total Impacts (Acres)	Avoided (Acres)
Black Willow Woodland* (Riparian Forest)	17.0	0.1 (0.1)***	0.6	0.7	16.3
Sandbar Willow Woodland (Riparian Shrub)	6.1	-	0.1	0.1	6.0
Hardstem Bulrush Marsh* (Marsh)	117.6	3.1 (3.0)***	10.1	13.2	104.4
Common Reed Marsh (Reedgrass or Reed)	17.3	-	0.2	0.2	17.1
Saltmarsh Bulrush Marsh* (Wet Meadow)	175.3	0.1	14.7	14.8	160.5
Saltgrass Flats (Alkali Meadow)	86.4	0.3	6.6	6.9	79.5
Rubber Rabbitbrush – Nevada Saltbush Scrub* (Alkali Scrub)	8.9	-	0.5	0.5	8.4
Rubber Rabbitbrush Scrub – Saltgrass Flats (Alkali Scrub/Meadow)	16.1	0.1	0.3	0.4	15.7
Allscale Scrub (Upland Scrub)	191.7	0.1	3.9	4.0	187.7
Open Water (Water)	26.2	2.0**(2.0)***	2.5**	4.5**	26.2**
Disturbed (Road)	22.6	0.1	2.9	3.0	19.6
Total	**685.2**	**3.9****	**39.9****	**43.8****	**641.4****

* Asterisk indicates that an alliance/association is considered sensitive by CDFW.
** Although there will be "permanent" and "temporary" impacts to Open Water to remove occlusions, this community would not be altered and would remain as an Open Water channel, and are therefore not included in impact totals.
*** Acreage in parentheses indicate in-channel occlusion removal areas that would be turned into open water.

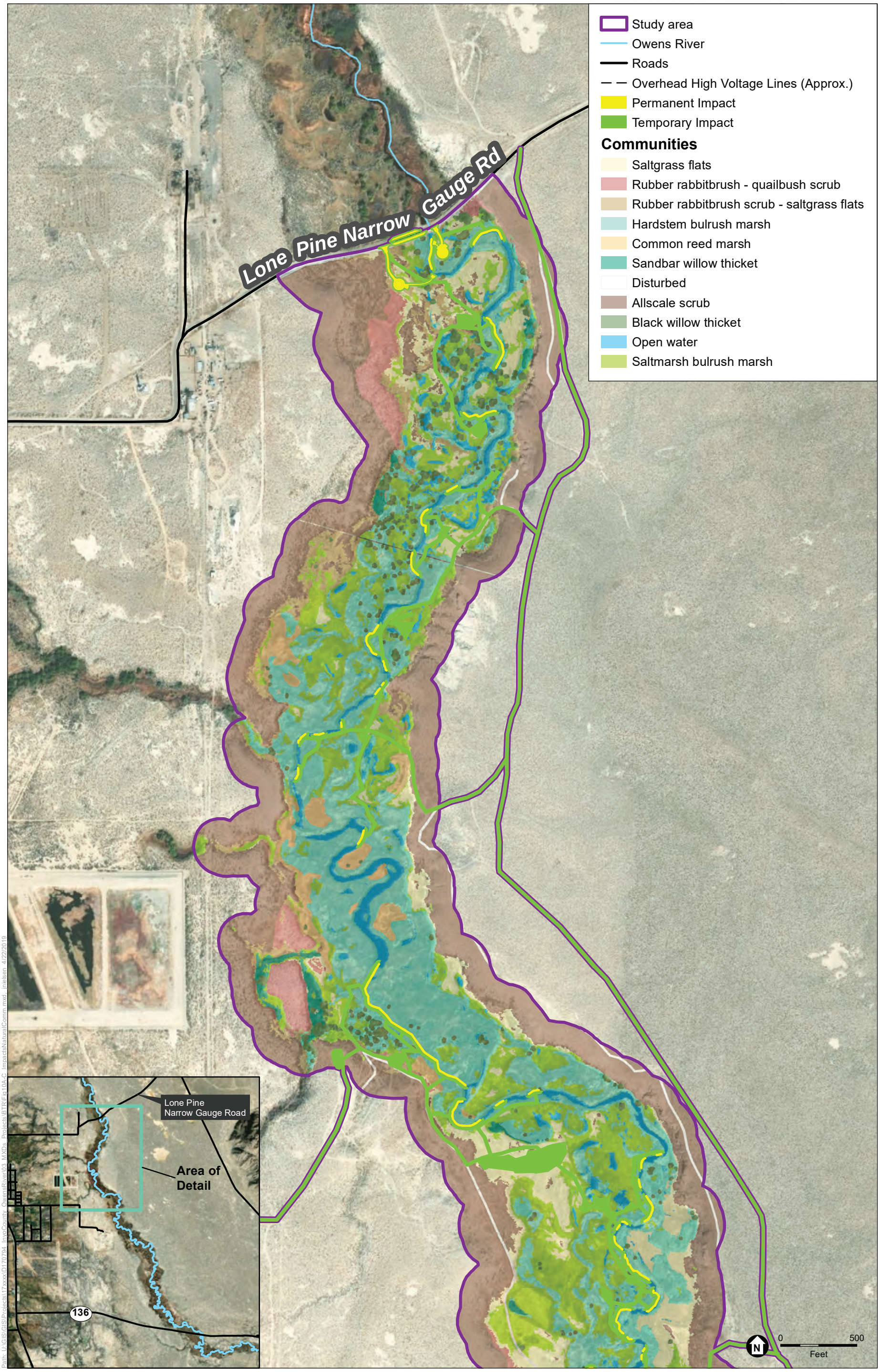


SOURCE: DigitalGlobe 11/3/2017; ESA, 2019.

Owens River Water Trail

Figure 10
Impacts to Natural Communities

ESA

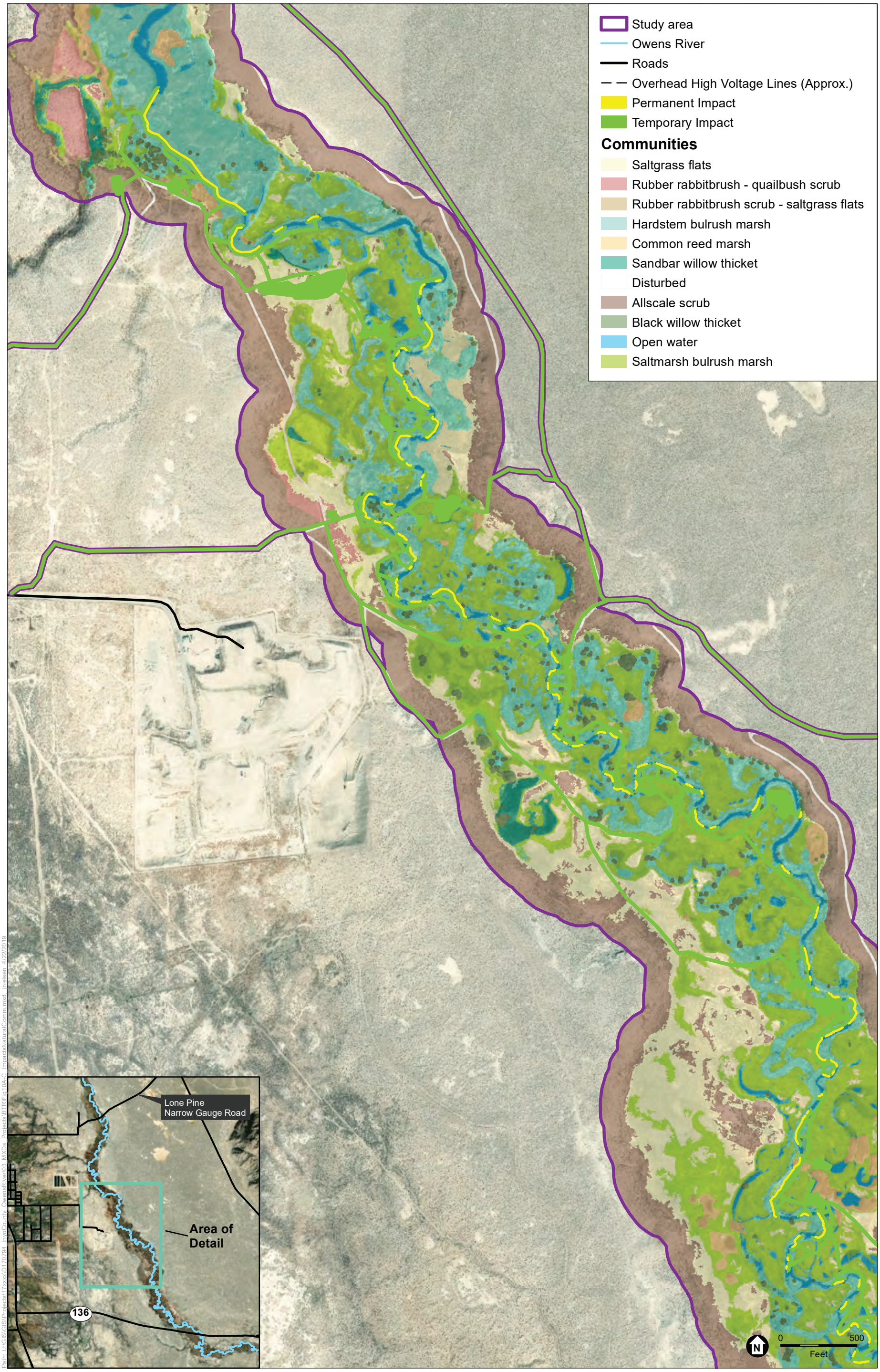


SOURCE: DigitalGlobe 11/3/2017; ESA, 2019.

Owens River Water Trail

Figure 10A
Impacts to Natural Communities

ESA



SOURCE: DigitalGlobe 11/3/2017; ESA, 2019.

Owens River Water Trail

Figure 10B
Impacts to Natural Communities

ESA

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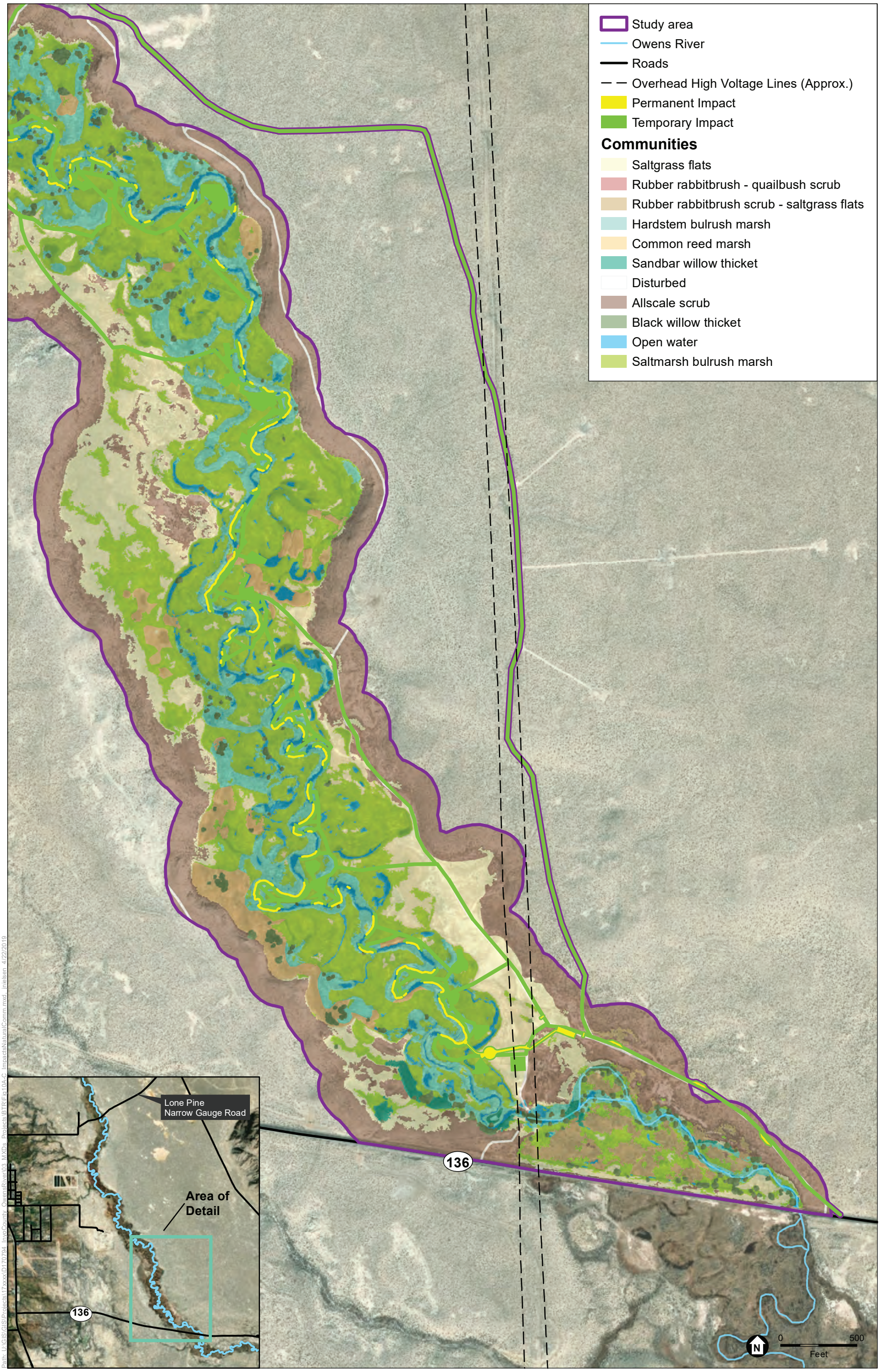


SOURCE: DigitalGlobe 11/3/2017; ESA, 2019.

Owens River Water Trail

Figure 10C
Impacts to Natural Communities

ESA

TABLE 6B
IMPACTS TO NATURAL COMMUNITIES – ALTERNATIVE 2 (CONSTRUCTION WITH AMPHIBIOUS EXCAVATOR)

Natural Community	Existing (Acres)	Permanent Impacts (Acres)	Temporary Impacts (Acres)	Total Impacts (Acres)	Avoided (Acres)
Black Willow Woodland* (Riparian Forest)	17.0	0.1 (0.1)***	1.0	1.1	15.9
Sandbar Willow Woodland (Riparian Shrub)	6.1	-	0.2	0.2	5.9
Hardstem Bulrush Marsh* (Marsh)	117.6	3.1 (3.0)***	19.4	22.5	95.1
Common Reed Marsh (Reedgrass or Reed)	17.3	-	0.3	0.3	17.0
Saltmarsh Bulrush Marsh* (Wet Meadow)	175.3	0.1	12.1	12.2	163.1
Saltgrass Flats (Alkali Meadow)	86.4	0.4	4.9	5.3	81.1
Rubber Rabbitbrush – Nevada Saltbush Scrub* (Alkali Scrub)	8.9	-	0.5	0.5	8.4
Rubber Rabbitbrush Scrub – Saltgrass Flats (Alkali Scrub/Meadow)	16.1	-	0.3	0.3	15.8
Allscale Scrub (Upland Scrub)	191.7	0.1	3.6	3.7	188.0
Open Water (Water)	26.2	2.0**(2.0)***	10.4**	12.4**	26.2**
Disturbed (Road)	22.6	0.1	2.9	3.0	19.6
Total	**685.2**	**3.9****	**45.2****	**49.1****	**636.1****

* Asterisk indicates that an alliance/association is considered sensitive by CDFW.
** Although there will be "permanent" and "temporary" impacts to Open Water to remove occlusions, this community would not be altered and would remain as an Open Water channel, and are therefore not included in impact totals.
*** Acreage in parentheses indicate in-channel occlusion removal areas that would be turned into open water.

In addition, the majority of the study area supports riparian habitat, which is considered potential CDFW jurisdictional streambed and associated riparian habitat. The proposed project would permanently impact 5.7 acres of potential CDFW jurisdictional streambed and associated riparian habitat, of which 5.2 acres would be turned into open water from in-channel occlusion removal and would therefore still be CDFW jurisdictional streambed, and temporarily impact 35.5 acres of CDFW jurisdictional streambed and associated riparian habitat. **Table 7** summarizes the permanent and temporary impacts on potential CDFW jurisdictional riparian habitat from the proposed project (shown in **Figure 11**). The proposed project would also provide some benefits. As reported in the Draft LORP 2018 Annual Report, the LORP is aggrading (i.e., increasing in land elevation due to deposition of sediment) and "the river channel is expected to become more occluded and the extent of marsh will increase at the expense of open water. As the LORP continues to aggrade, its functional character becomes more like an elongated marsh and less like a riverine system" (LADWP and Inyo County 2018a). Thus, creation of the water trail will help to maintain the open water within the river channel. The project would avoid 428.9 acres of CDFW jurisdictional streambed and associated riparian habitat within the study area. As mentioned above, temporary impacts would consist of access routes and staging areas for construction, and spoils generated from the removed occlusions, and access routes are anticipated to mostly follow already existing dirt roads, or would temporarily crush vegetation for a short duration where dirt roads do not exist. Thus, it is expected that any crushed vegetation would reestablish and regrow naturally. A large portion of the temporary impacts will be to saltgrass flats, which is very durable and expected to reestablish easily (County of Inyo Water Department

2019).[15] It is also anticipated that spoils will breakdown (e.g., through natural decomposition; trampling, bedding, and grazing by cattle; natural recruitment of saltgrass and other plants on top of and through the spoils). Therefore, temporary impacts from the access routes, staging areas, and spoils are expected to passively recover and reestablish naturally to pre-project conditions. Permanent impacts to potentially jurisdictional riparian habitat would consist of the boat launch and take-out facilities, and the removal of occlusions to create and maintain the water trail. Due to the management benefits of removing common and widely distributed tules within the LORP area, CDFW does not consider removal of occlusions as significant, and no mitigation is warranted (Banks and Moyer 2019). However, any potential permanent impacts to CDFW jurisdictional riparian habitat from the boat launch and take-out facilities would be significant. Implementation of mitigation measure MM BIO-5, prescribed in Section 6.0 below, would reduce impacts to a less than significant level.

TABLE 7
IMPACTS TO CDFW POTENTIALLY JURISDICTIONAL AREAS

Jurisdiction Types	Existing (Acres)	Permanent Impacts (Acres)	Temporary Impacts (Acres)	Total Impacts (Acres)	Avoided (Acres)
CDFW Riparian	470.1	5.7 (5.2)*	35.5	41.2 (5.2)*	428.9
Total	**470.1**	**5.7 (5.2)***	**35.5**	**41.2 (5.2)***	**428.9**

* Acreage in parentheses indicate in-channel occlusion removal areas that would be turned into open water, and would still be CDFW jurisdictional streambed.

TABLE 7A
IMPACTS TO CDFW POTENTIALLY JURISDICTIONAL AREAS – ALTERNATIVE 1 (BOAT LAUNCH OPTION 2)

Jurisdiction Types	Existing (Acres)	Permanent Impacts (Acres)	Temporary Impacts (Acres)	Total Impacts (Acres)	Avoided (Acres)
CDFW Riparian	470.1	5.7 (5.2)*	35.7	41.4 (5.2)*	428.7
Total	**470.1**	**5.7 (5.2)***	**35.7**	**41.4 (5.2)***	**428.7**

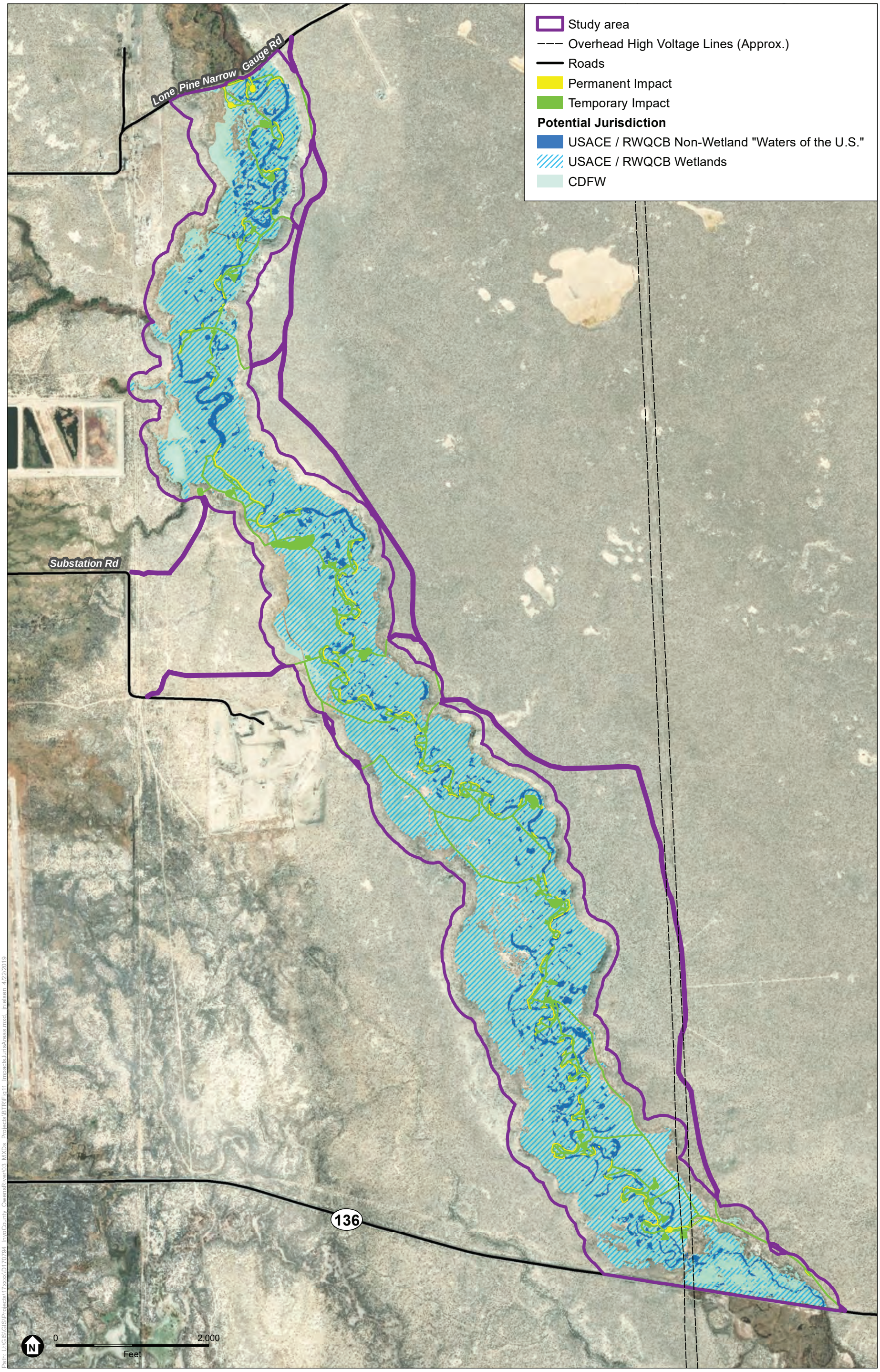
* Acreage in parentheses indicate in-channel occlusion removal areas that would be turned into open water, and would still be CDFW jurisdictional streambed.

TABLE 7B
IMPACTS TO CDFW POTENTIALLY JURISDICTIONAL AREAS – ALTERNATIVE 2 (CONSTRUCTION WITH AMPHIBIOUS EXCAVATOR)

Jurisdiction Types	Existing (Acres)	Permanent Impacts (Acres)	Temporary Impacts (Acres)	Total Impacts (Acres)	Avoided (Acres)
CDFW Riparian	470.1	5.7 (5.2)*	49.1	54.8 (5.2)*	415.3
Total	**470.1**	**5.7 (5.2)***	**49.1**	**54.8 (5.2)***	**415.3**

* Acreage in parentheses indicate in-channel occlusion removal areas that would be turned into open water, and would still be CDFW jurisdictional streambed.

[15] Based on previous observation by County of Inyo Water Department, removed tules piled along the river banks are typically eaten by cattle or trampled, and tend to dry up and breakdown quickly. Additionally, saltgrass was observed to quickly recolonize areas where tules were piled up to 8 feet high, and saltgrass completely grew over those areas within two years.

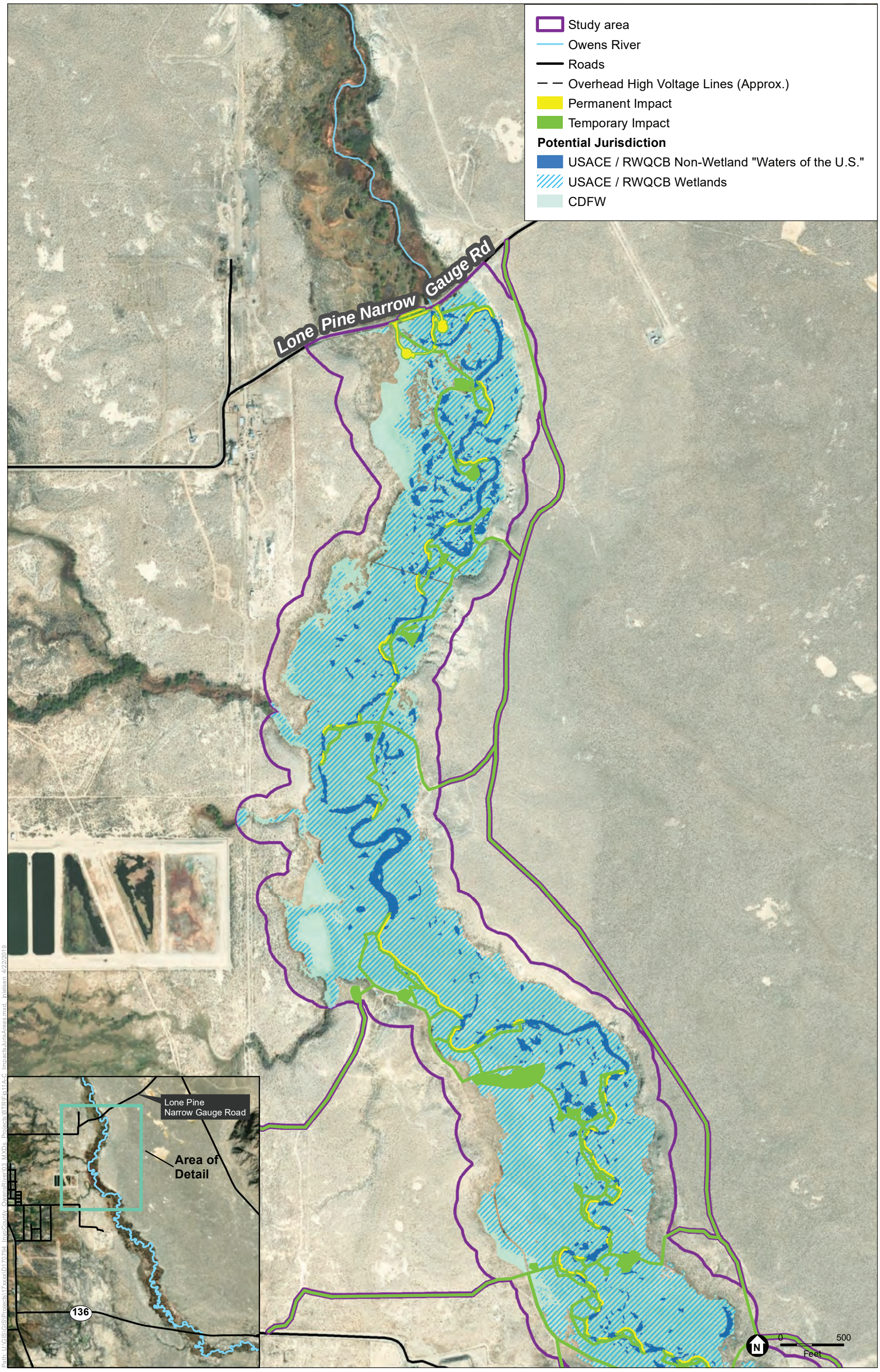


SOURCE: DigitalGlobe 11/3/2017; ESA, 2019.

Owens River Water Trail

Figure 11
Impacts to Potential Jurisdictional Areas

ESA



SOURCE: DigitalGlobe 11/3/2017; ESA, 2019.

Owens River Water Trail

Figure 11A
Impacts to Natural Communities

ESA

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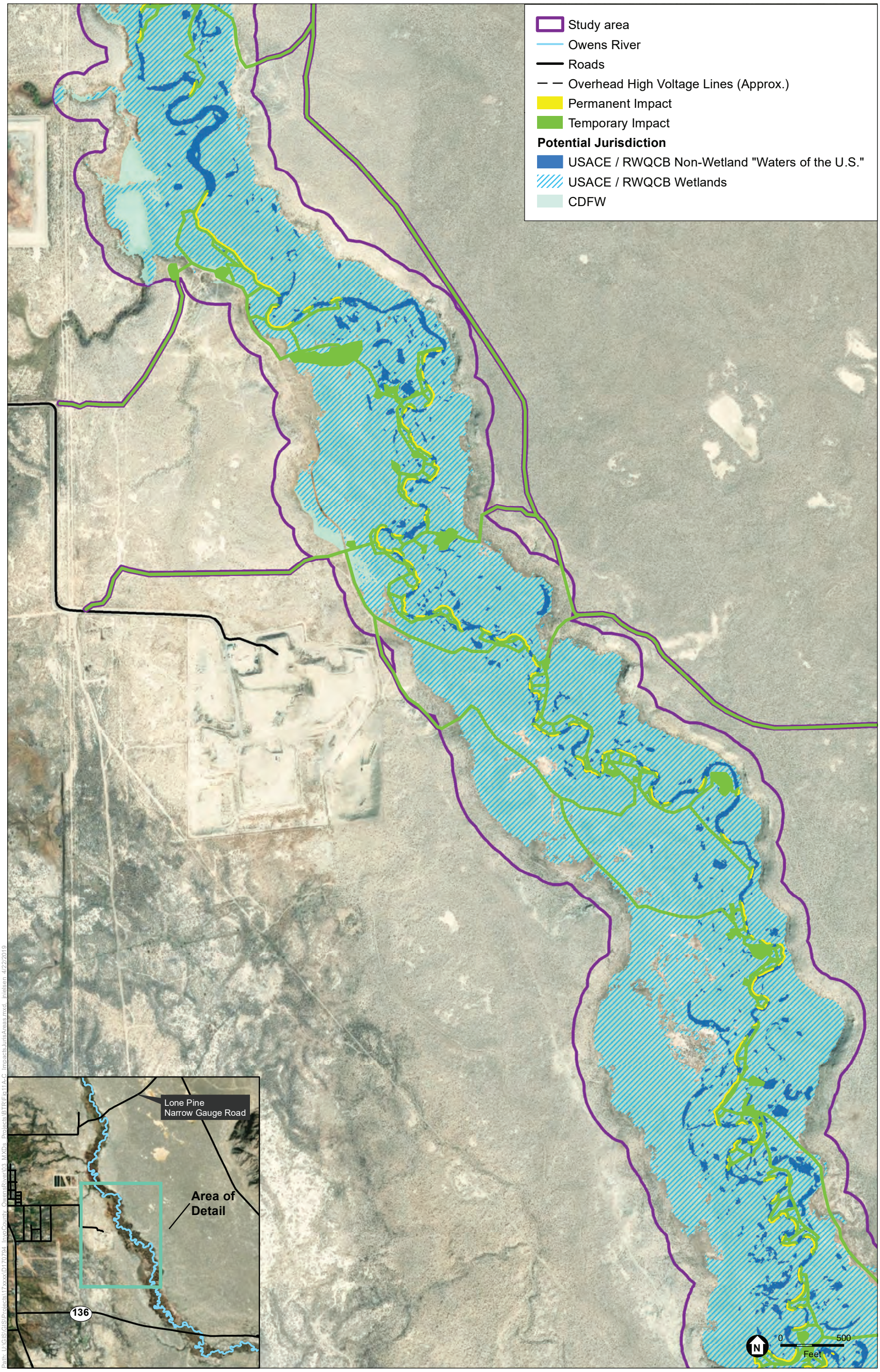

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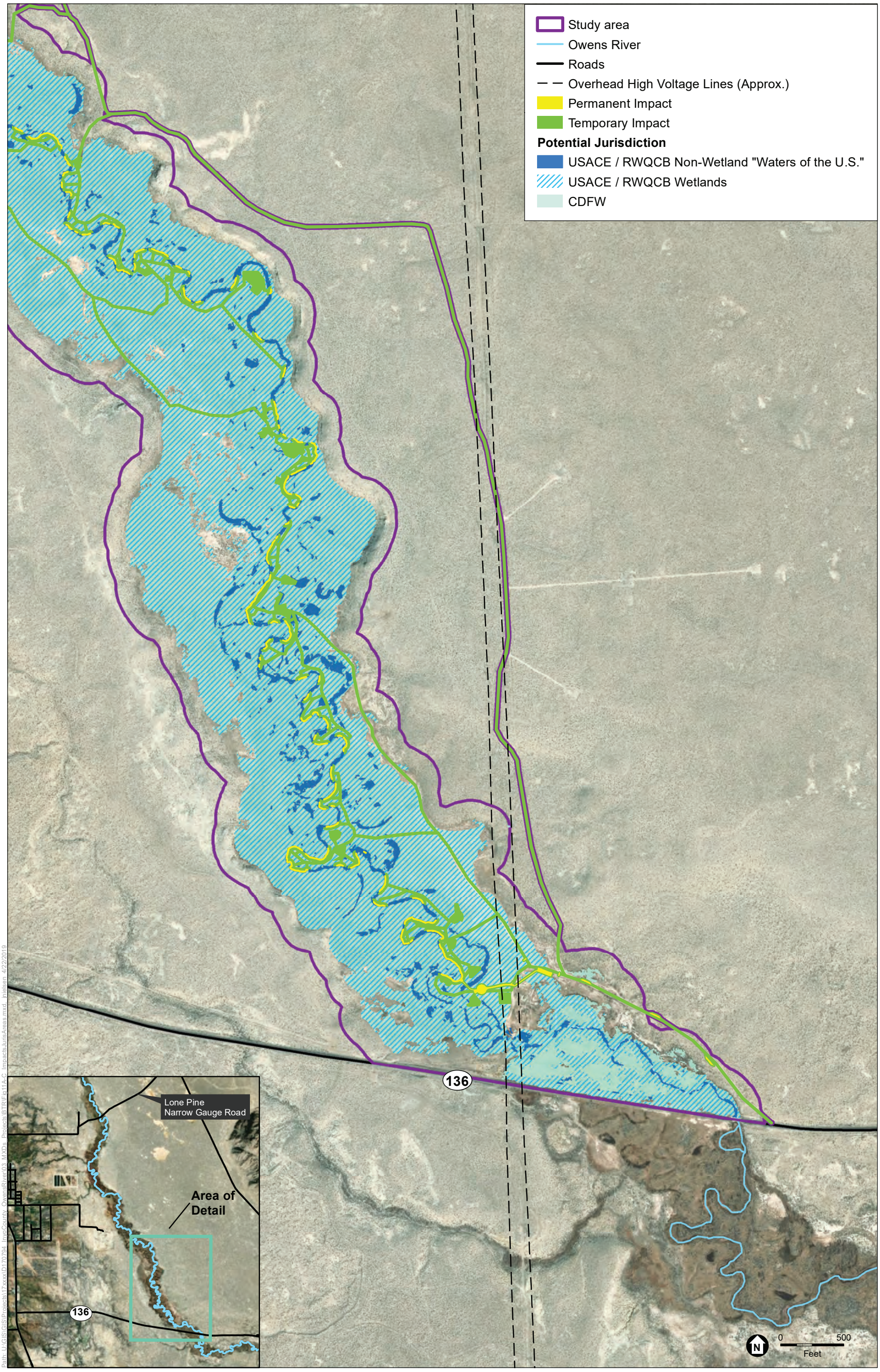
SOURCE: DigitalGlobe 11/3/2017; ESA, 2019.

Owens River Water Trail

Figure 11B
Impacts to Natural Communities

ESA



SOURCE: DigitalGlobe 11/3/2017; ESA, 2019.

Owens River Water Trail

Figure 11C
Impacts to Natural Communities

ESA

Alternative 1 (Boat Launch Option 2)

This alternative would be similar to the proposed project but with the boat launch at a slightly different location to the west. If the Option 2 boat launch is installed, instead of the impact acreages detailed above for the proposed project, Alternative 1 would permanently impact 0.1 acre and temporarily impact 0.6 acre of black willow woodland. Impacts to sensitive natural communities would be significant. Implementation of mitigation measure MM BIO-4 would reduce impacts to sensitive natural communities (e.g., black willow woodland) to a less than significant level.

Alternative 1 would permanently impact 5.7 acres of potential CDFW jurisdictional streambed and associated riparian habitat, of which 5.2 acres would be turned into open water from in-channel occlusion removal, the same as for the proposed project, and would therefore still be CDFW jurisdictional streambed, and temporarily impact 35.7 acres of potential CDFW jurisdictional streambed and associated riparian habitat. Due to the management benefits of removing common and widely distributed tules within the LORP area, CDFW does not consider removal of occlusions as significant, and no mitigation is warranted (Banks and Moyer 2019). However, any potential impacts to CDFW jurisdictional streambed and associated riparian habitat from the boat launch and take-out facilities would be significant. Implementation of mitigation measure MM BIO-5 would reduce impacts to a less than significant level.

Alternative 2 (Construction with Amphibious Excavator)

This alternative would be similar to the proposed project but would use an amphibious excavator for removal of the in-channel occlusions. If an amphibious excavator is used for construction and assuming a 40-foot wide work area, permanent impacts would occur to the same 0.1 acre of black willow woodland as the proposed project as well as temporary impacts to 1.0 acre of black willow woodland. Impacts to sensitive natural communities would be potentially significant. Implementation of mitigation measure MM BIO-4 would reduce impacts to sensitive natural communities (e.g., black willow woodland) to a less than significant level.

Alternative 2 would permanently impact 5.7 acres of potential CDFW jurisdictional streambed and associated riparian habitat, of which 5.2 acres would be turned into open water from in-channel occlusion removal, the same as for the proposed project, and would therefore still be CDFW jurisdictional streambed, and temporarily impact 49.1 acres of potential CDFW jurisdictional streambed and associated riparian habitat. Due to the management benefits of removing common and widely distributed tules within the LORP area, CDFW does not consider removal of occlusions as significant, and no mitigation is warranted (Banks and Moyer 2019). However, any potential impacts to CDFW jurisdictional streambed and associated riparian habitat from the boat launch and take-out facilities would be significant. Implementation of mitigation measure MM BIO-5 would reduce impacts to a less than significant level.

With implementation of Mitigation Measures MM BIO-4 and MM BIO-5, impacts to sensitive natural communities and riparian habitat would be less than significant.

5.3 Jurisdictional Wetlands

5.3.1 Significance Threshold

The project would not have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

5.3.2 Analysis of Project Effects

Proposed Project

The study area supports waters and wetlands that are potentially under the jurisdiction of the USACE and RWQCB. The proposed project would permanently impact 3.7 acres of potential USACE/RWQCB wetlands and 2.0 acres of USACE/RWQCB "waters of the U.S.", of which 3.2 acres of USACE/RWQCB wetlands and 2.0 acres of USACE/RWQCB "waters of the U.S." would be turned into open water from in-channel occlusion removal and would therefore still be under USACE/RWQCB jurisdiction (i.e., changed from jurisdictional wetland to jurisdictional "waters of the U.S."). As reported in the Draft LORP 2018 Annual Report, the LORP is aggrading (i.e., increasing in land elevation due to deposition of sediment) and "the river channel is expected to become more occluded and the extent of marsh will increase at the expense of open water. As the LORP continues to aggrade, its functional character becomes more like an elongated marsh and less like a riverine system" (LADWP and Inyo County 2018a). Thus, creation of the water trail would have the benefit of helping to maintain the open water within the river channel (i.e., by removal of occlusions via mechanical equipment). The proposed project would also temporarily impact 32.3 acres of potential USACE/RWQCB wetlands and 2.4 acres of USACE/RWQCB "waters of the U.S." **Table 8** summarizes the permanent and temporary impacts on potential USACE/RWQCB jurisdictional "waters of the U.S." from the proposed project (shown in Figure 11). The project would avoid 383.6 acres of USACE/RWQCB wetlands and 21.8 acres of USACE/RWQCB "waters of the U.S." within the study area. Temporary impacts would occur to "waters of the U.S." and wetlands as a result of access routes and staging areas for construction, and spoils generated from the removed occlusions. It is anticipated that access routes would mostly follow already existing dirt roads, or would temporarily crush vegetation for a short duration where dirt roads do not exist for equipment to access areas where excavation must occur. Thus, it is expected that any crushed vegetation would reestablish and regrow naturally. It is also anticipated that spoils will breakdown (e.g., through natural decomposition; trampling, bedding, and grazing by cattle; natural recruitment of saltgrass and other plants on top of and through the spoils). Therefore, temporary impacts from the access routes, staging areas, and spoils are expected to passively recover and reestablish naturally to pre-project conditions.

TABLE 8
IMPACTS TO USACE/RWQCB POTENTIALLY JURISDICTIONAL AREAS

Jurisdiction Types	Existing (Acres)	Permanent Impacts (Acres)	Temporary Impacts (Acres)	Total Impacts (Acres)	Avoided (Acres)
USACE/RWQCB Wetlands	419.6	3.7 (3.2)*	32.3	36.0 (3.2)*	383.6
USACE/RWQCB Non-Wetlands	26.2	2.0 (2.0)*	2.4	4.4 (2.0)*	21.8
Total	**445.8**	**5.7 (5.2)***	**34.7**	**40.4 (5.2)***	**405.4**

* Acreage in parentheses indicate in-channel occlusion removal areas that would be turned into open water, and would be changed from USACE/RWQCB jurisdictional wetland to non-wetland "waters of the U.S.".

TABLE 8A
IMPACTS TO USACE/RWQCB POTENTIALLY JURISDICTIONAL AREAS – ALTERNATIVE 1 (BOAT LAUNCH OPTION 2)

Jurisdiction Types	Existing (Acres)	Permanent Impacts (Acres)	Temporary Impacts (Acres)	Total Impacts (Acres)	Avoided (Acres)
USACE/RWQCB Wetlands	419.6	3.5 (3.2)*	32.4	35.9 (3.2)*	383.7
USACE/RWQCB Non-Wetlands	26.2	2.0 (2.0)*	2.5	4.5 (2.0)*	21.7
Total	**445.8**	**5.5 (5.2)***	**34.9**	**40.4 (5.2)***	**405.4**

* Acreage in parentheses indicate in-channel occlusion removal areas that would be turned into open water, and would be changed from USACE/RWQCB jurisdictional wetland to non-wetland "waters of the U.S.".

TABLE 8B
IMPACTS TO USACE/RWQCB POTENTIALLY JURISDICTIONAL AREAS – ALTERNATIVE 2 (CONSTRUCTION WITH AMPHIBIOUS EXCAVATOR)

Jurisdiction Types	Existing (Acres)	Permanent Impacts (Acres)	Temporary Impacts (Acres)	Total Impacts (Acres)	Avoided (Acres)
USACE/RWQCB Wetlands	419.6	3.7 (3.2)*	37.9	41.6 (3.2)*	378.0
USACE/RWQCB Non-Wetlands	26.2	2.0 (2.0)*	10.4	12.4 (2.0)*	13.8
Total	**445.8**	**5.7 (5.2)***	**48.3**	**54.0 (5.2)***	**391.8xzs**

* Acreage in parentheses indicate in-channel occlusion removal areas that would be turned into open water, and would be changed from USACE/RWQCB jurisdictional wetland to non-wetland "waters of the U.S.".

Permanent impacts would occur to wetlands with installation of the boat launch and take-out facilities, and the removal of tules (i.e., occlusions) to create and maintain the water trail. However, the removal of occlusions would also create an open channel that would re-establish and maintain "waters of the U.S." as well as improve water flows. Tules can have both positive and negative effects on water quality. Positive effects include trapping sediments, nutrient uptake, and filtering pollutants (Ecosystem Sciences 2012). Negative effects include degrading water quality by adding large amounts of organic material that may later be mobilized into the river system, and prolific tule growth and subsequent die-off of the excessive biomass could impede

river flow and have a deleterious effect on dissolved oxygen, as well as sediment transport and deposition within a river system (Ecosystem Sciences 2012). Tules are the dominant and densest vegetation and, along with leaf litter, is the greatest carbon source to the LORP. Dissolved organic carbon and particulate organic carbon combined with sediments are deposited on the river bottom as silt, muck, and flocculants (Ecosystem Sciences and LORP MOU Consultants 2014). Since the Owens River is controlled at a regulated flow (typically 40 cfs), the annual seasonal habitat flows are intended to "create a natural disturbance to establish and maintain native riparian vegetation and channel morphology" with "habitat flows of sufficient frequency, duration and amount that would (1) minimize the amount of muck and other river bottom material that is transported out of the riverine-riparian system, but would cause this material to be redistributed on banks, floodplain and terraces within the riverine-riparian system and the Owens River delta for the benefit of the vegetation; (2) fulfill the wetting, seeding, and germination needs of riparian vegetation, particularly willow and cottonwood; (3) recharge the groundwater in the streambanks and the floodplain for the benefit of wetlands and the biotic community; (4) control tules and cattails to the extent possible; (5) enhance the fishery; (6) maintain water quality standards and objectives; and (7) enhance the river channel" (LADWP and EPA 2004). However, contrary to predictions, not all of these objectives have been realized, and the current flow management seems to have promoted the expansion of tules and cattails instead (Ecosystem Sciences and LORP MOU Consultants 2014). As such, the removal of occlusions would help to achieve some of the goals outlined in the LORP Memorandum of Understanding (MOU),[16] especially by controlling tules and cattails, redistributing muck and other river bottom material onto banks and floodplain terraces, and enhancing the river channel. Regardless, potential permanent impacts to USACE/RWQCB jurisdictional wetlands and "waters of the U.S." would be significant. Implementation of mitigation measure MM BIO-6, prescribed in Section 6.0 below, would reduce impacts to a less than significant level.

Alternative 1 (Boat Launch Option 2)

This alternative would be similar to the proposed project but with the boat launch at a slightly different location to the west. If the Option 2 boat launch is installed, instead of the impact acreages detailed above for the proposed project, Alternative 1 would permanently impact 3.5 acres of potential USACE/RWQCB wetlands and 2.0 acres of USACE/RWQCB "waters of the U.S.", of which 3.2 acres of USACE/RWQCB wetlands and 2.0 acres of USACE/RWQCB "waters of the U.S." would be turned into open water from in-channel occlusion removal and would therefore still be under USACE/RWQCB jurisdiction (i.e., changed from jurisdictional wetland to jurisdictional "waters of the U.S."). Alternative 1 would also temporarily impact 32.4 acres of potential USACE/RWQCB wetlands and 2.5 acres of USACE/RWQCB "waters of the U.S.". Potential impacts to USACE/RWQCB jurisdictional wetlands and "waters of the U.S." would be significant. Implementation of mitigation measure MM BIO-6 would reduce impacts to a less than significant level.

[16] In 1997, LADWP and Inyo County entered into a settlement agreement (Memorandum of Understanding [MOU]) with the CDFW, California State Lands Commission, Sierra Club, and Owens Valley Committee. The MOU specifies the amount of baseflow to be maintained in the river, and the release of higher season habitat flows (LADWP and Inyo County 2010).

Alternative 2 (Construction with Amphibious Excavator)

This alternative would be similar to the proposed project but would use an amphibious excavator for removal of the in-channel occlusions. If an amphibious excavator is used for construction and assuming a 40-foot wide work area, Alternative 2 would permanently impact 3.7 acres of potential USACE/RWQCB wetlands and 2.0 acres of USACE/RWQCB "waters of the U.S.", of which 3.2 acres of USACE/RWQCB wetlands and 2.0 acres of USACE/RWQCB "waters of the U.S." would be turned into open water from in-channel occlusion removal and would therefore still be under USACE/RWQCB jurisdiction (i.e., changed from jurisdictional wetland to jurisdictional "waters of the U.S."). Alternative 2 would also temporarily impact 37.9 acres of potential USACE/RWQCB wetlands and 10.4 acres of USACE/RWQCB "waters of the U.S.". Potential impacts to USACE/RWQCB jurisdictional wetlands and "waters of the U.S." would be significant. Implementation of mitigation measure MM BIO-6 would reduce impacts to a less than significant level.

With implementation of Mitigation Measure MM BIO-6, impacts to wetlands and waters would be less than significant.

5.4 Wildlife Movement and Nursery Sites

5.4.1 Significance Threshold

The project could interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.

5.4.2 Analysis of Project Effects

Proposed Project

The study area is a regional wildlife movement corridor. Although permanent impacts will occur to 3.8 acres of natural communities for construction of the boat launch and take-out facilities and the water trail, the boat launch and take-out facilities and water trail would not inhibit wildlife movement via the Owens River or through the study area. The limited footprint of the boat launch and take-out facilities would be traversable by wildlife, and the habitat adjacent to the 15-foot-wide water trail would continue to provide resources for foraging and cover to wildlife. Temporary impacts would consist of access routes and staging areas for construction, and spoils generated from the removed occlusions. It is anticipated access routes would mostly follow already existing dirt roads, or will temporarily crush vegetation for a short duration where dirt roads do not exist for equipment to access areas where excavation must occur. Thus, it is expected that any crushed vegetation would reestablish and regrow naturally. It is also anticipated that spoils will breakdown (e.g., through natural decomposition; trampling, bedding, and grazing by cattle; natural recruitment of saltgrass and other plants on top of and through the spoils). Therefore, temporary impacts from the access routes, staging areas, and spoils are expected to passively recover and reestablish naturally to pre-project conditions. Thus, direct impacts to regional wildlife movement are less than significant. Furthermore, potential impacts to CDFW jurisdictional riparian habitat require implementation of mitigation measure MM BIO-5.

In addition, the project may benefit common fish species by removing occlusions, which will improve water flow and possibly improve water quality for the warm-water fishery, since excessive tule biomass can have a deleterious effect on dissolved oxygen, and a negative effect on water quality (e.g., caused by tule abundance and decomposition), and their aggressive expansion into many aquatic systems has decreased plant diversity and habitat diversity for many wildlife species (Ecosystem Sciences 2008 and 2012). Dissolved oxygen is necessary to maintain aerobic conditions in surface water and is a primary indicator of the suitability of surface water to support aquatic life (County of Inyo Water Department 2014). Fish kills occur when dissolved oxygen drops below the lethal threshold of 1.0 milligrams/liter (mg/l), which has occurred at various times within the LORP. CDFW attributed a previous substantial fish kill in 1989 to dissolved oxygen levels as low as 0.2 mg/l caused by disturbance of accumulated organic material and the lack of flushing flows (Ecosystem Sciences and LORP MOU Consultants 2014). As reported in the Draft LORP 2018 Annual Report, the LORP is aggrading (i.e., increasing in land elevation due to deposition of sediment) and "the river channel is expected to become more occluded and the extent of marsh will increase at the expense of open water. As the LORP continues to aggrade, its functional character becomes more like an elongated marsh and less like a riverine system" (LADWP and Inyo County 2018a). Thus, creation of the water trail will help to maintain the open water within the river channel.

Warm-water fish species, including, but not limited to, largemouth bass (*Micropterus salmoides*), smallmouth bass (*Micropterus dolomieu*), and bluegill (*Lepomis macrochirus*), are well established within the Lower Owens River and are sought after species by fisherman. Though these species' habitat requirements vary slightly, they occupy extremely similar habitats and conditions. These species prefer warm, shallow waters of moderate clarity with bedded and rooted aquatic plants and vegetation (Moyle 2002). During periods of high flow, largemouth bass (and other warm water species) may be flushed out of streams and rivers, although they do have an astonishing capacity to persist on their own, by finding shelter in deep and/or flooded areas (Moyle 2002). They quickly recolonize such streams and build up populations during periods of lower flow. They also have the ability to withstand adverse water quality conditions (Coutant 1975). Largemouth and smallmouth bass are solitary hunters and an individual may either remain in a relatively restricted area centered around a submerged rock or branch or wander widely (Lewis and Flickinger 1967), both of which are readily available within the project area and Lower Owens River. Bluegill spend most of their lives in a rather restricted area, giving the species familiarity with an area within which it needs to find food and avoid predators, such as largemouth bass.

During occlusion removal within the project area, bass and other warm-water species may temporarily travel upstream, downstream, or other locations of refuge due to in-water construction noise and activity, turbidity increase, and fluctuating water levels. The fishes however, will be able to recolonize this area after construction ends or slows down. Although fish use aquatic vegetation (e.g., tules) for food and providing refuge, there will still be an abundance of vegetation along the river banks, cut banks, and side channels to provide these resources. Additionally, aquatic vegetation may also eventually reestablish within the project area, creating more refuge opportunities for fish. However, turbidity associated with project construction and maintenance could have a potentially significant impact on movement of common fish species

and their spawning sites. In 2001, beaver dams were removed via helicopter and a pilot operated "grabber jaw" attached to a cable (LADWP 2002). Water quality (dissolved oxygen, turbidity, and electrical conductivity) was measured before, during, and after dam removal. During most dam removals, a decrease in dissolved oxygen was not observed and turbidity only slightly increased due to plumes stirred up during dam removal. Electrical conductivity also did not have a significant change. During beaver dam removal, no aquatic species were observed as injured or dead. Similar results may be expected during implementation of the proposed project. Nonetheless, implementation of mitigation measure MM BIO-7, prescribed in Section 6.0 below, would reduce impacts to a less than significant level.

Although the proposed project would not physically impede movement through the study area, increased human activity and recreation along the Owens River may deter wildlife species that are more sensitive to human disturbances, such as tule elk that frequent the area, and could be an indirect effect of the proposed project. There have been anecdotal accounts of mountain lion passing through the area (LADWP 2019). The amount of people that would use the water trail is unknown, but since the water trail will be open to recreationalists year-round, it is possible that there could be regular, frequent use of the ORWT. More secretive wildlife, such as mountain lion, may be deterred from areas with high human activity and avoid these areas during times of high human use (e.g., daytime, summertime), and opt to move through the area when people are not present (e.g., nighttime). It is anticipated that recreationalists would be limited to the boat launch and take-out facilities and water trail itself, and wildlife would be able to move through other habitat around the study area for cover. However, there is potential for paddlers to get out along the side of the water trail and explore, which may disrupt wildlife moving through the area (Morrison, pers. comm. 2018). Other indirect impacts include off-leash dogs that could be a threat to local wildlife, and increased trash that may attract nuisance wildlife (e.g., crows, ravens, coyotes) to the area. Thus, the increased human activity could have a potentially significant indirect impact on use of the wildlife corridor. Implementation of mitigation measure MM BIO-8, prescribed in Section 6.0 below, would reduce impacts to a less than significant level.

In addition, the study area supports habitat for migrating birds. The proposed project would avoid over 640 acre of habitat, including 104 acres of hardstem bulrush marsh; thus, even with removal of occlusions, there will be ample habitat available for nesting birds immediately surrounding the water trail, as well as within adjacent areas upstream and downstream. Nesting activity typically occurs from February 1 to September 30[17]. Disturbing or destroying active nests is a violation of the Migratory Bird Treaty Act (16 U.S.C. 703 et seq.). In addition, nests and eggs are protected under Fish and Wildlife Code Section 3503. As detailed in the Project Description, project construction would avoid the spring and summer months to avoid bird nesting season. However, if bird nesting season cannot be avoided and vegetation is removed during the nesting season for the construction of the proposed project or on-going annual maintenance, any potential impacts to songbird and/or raptor nests would be considered potentially significant. Implementation of

[17] Nesting season is defined based on *Final Environmental Impact Report & Environmental Impact Statement for the Lower Owens River Project, Inyo County, California* (LADWP and U.S. Environmental Protection Agency 2004), as well as input from LADWP.

mitigation measure MM BIO-2, prescribed in Section 6.0 below, would reduce impacts to a less than significant level.

The study area is also an important nursery area for elk calving. Based on personal communication with Mike Morrison of CDFW, Mr. Morrison expressed concerns that with project construction, disruption of elk during calving season (which is primarily from mid-April through early June) could spook the elk and result in injury or abandonment of the young (Morrison, per. comm. 2018). Thus, impacts to elk nursery sites would be considered potentially significant. Implementation of mitigation measure MM BIO-9, prescribed in Section 6.0 below, would reduce impacts to a less than significant level.

Quagga mussels (*Dreissena rostriformis bugensis*) are an invasive aquatic species from eastern Europe, which were likely introduced by ballast water discharge from transoceanic ships. These prolific breeders can attach to hard and soft surfaces in fresh waterways, and have been transported via recreational boats. If boats are not cleaned and dried adequately, contaminated watercraft moved from an infested waterway to a pristine water body can introduce mussels into an area. Quagga mussels can survive for 3 to 5 days out of water without suffering lethal desiccation (University of California, Riverside 2019). With recreational use of the water trail, Quagga mussels have potential to be introduced to the study area. These species can encrust river bottoms and compete with and displace native species (e.g., aquatic arthropods), which can in turn affect other species within that ecosystem, such as the fish that feed on those native species. High mussel populations can also increase water acidity and decrease concentrations of dissolved oxygen (University of California, Riverside 2019). According to the USGS map of Nonindigenous Aquatic Species Database, there are no known local occurrence of Quagga mussels within the vicinity of the study area; the nearest occurrence of Quagga mussels is approximately 140 miles away in Pyramid Lake in Southern California. Additionally, since recreation would be limited to non-motorized watercraft, such as kayaks, stand-up paddle boards, and canoes, these would be small watercraft that are relatively easy to clean and inspect for Quagga mussels, and the study area's high temperatures and low humidity would also likely contribute to desiccation of any potential Quagga mussels that could be introduced. Regardless, the introduction of Quagga mussels into the study area would be considered potentially significant. Implementation of mitigation measure BIO-10 would reduce impacts to a less than significant level.

Alternative 1 (Boat Launch Option 2)

This alternative would be similar to the proposed project but with the boat launch at a slightly different location to the west. If the Option 2 boat launch is installed, instead of the impact acreages detailed above for the proposed project, permanent impacts would occur to approximately 3.8 acres of natural communities. The limited footprint of the boat launch and take-out facilities would be traversable by wildlife, and the habitat adjacent to the 15-foot-wide water trail would continue to provide resources for foraging and cover to wildlife. As with the proposed project, turbidity associated with project construction and maintenance could have a potentially significant impact on movement of common fish species and their spawning sites. Implementation of mitigation measure MM BIO-7 would reduce impacts to a less than significant level. In addition, increased human activity could have a potentially significant indirect impact on

use of the wildlife corridor. Implementation of mitigation measure MM BIO-8 would reduce impacts to a less than significant level. If bird nesting season cannot be avoided and vegetation is removed during the nesting season for the construction of the proposed project or on-going annual maintenance (for 20 years), any potential impacts to songbird and/or raptor nests would be considered potentially significant. Implementation of mitigation measure MM BIO-2 would reduce impacts to a less than significant level. Impacts to elk nursery sites would be considered potentially significant. Implementation of mitigation measure MM BIO-9 would reduce impacts to a less than significant level. Finally, the potential introduction of Quagga mussels into the study area would be considered potentially significant. Implementation of mitigation measure BIO-10 would reduce impacts to a less than significant level.

Alternative 2 (Construction with Amphibious Excavator)

This alternative would be similar to the proposed project but would use an amphibious excavator for removal of the in-channel occlusions. If an amphibious excavator is used for construction and assuming a 40-foot wide work area, permanent impacts would occur to approximately 3.8 acres and temporary impacts would occur to approximately 37.0 acres of natural communities. The limited footprint of the boat launch and take-out facilities would be traversable by wildlife, and the habitat adjacent to the 15-foot-wide water trail would continue to provide resources for foraging and cover to wildlife. Temporary impacts would temporarily crush vegetation for a short duration where excavation must occur. Thus, it is expected that any crushed vegetation would reestablish and regrow naturally. Therefore, temporary impacts are expected to passively recover and reestablish naturally to pre-project conditions, and direct impacts to regional wildlife movement are less than significant. Furthermore, potential impacts to CDFW jurisdictional riparian habitat require implementation of mitigation measure MM BIO-5. As with the proposed project, turbidity associated with project construction and maintenance could have a potentially significant impact on movement of common fish species and their spawning sites. Implementation of mitigation measure MM BIO-7 would reduce impacts to a less than significant level. In addition, increased human activity could have a potentially significant indirect impact on use of the wildlife corridor. Implementation of mitigation measure MM BIO-8 would reduce impacts to a less than significant level. If bird nesting season cannot be avoided and vegetation is removed during the nesting season for the construction of the proposed project or on-going annual maintenance (for 20 years), any potential impacts to songbird and/or raptor nests would be considered significant. Implementation of mitigation measure MM BIO-2 would reduce impacts to a less than significant level. Impacts to elk nursery sites would be considered potentially significant. Implementation of mitigation measure MM BIO-9 would reduce impacts to a less than significant level. Finally, the introduction of Quagga mussels into the study area would be considered potentially significant. Implementation of mitigation measure BIO-10 would reduce impacts to a less than significant level.

With implementation of Mitigation Measures MM BIO-7, MM BIO-2, MM BIO-8, MM BIO-9, and BIO-10, impacts to wildlife movement and nursery sites would be less than significant.

5.5 Local Policies, Ordinances, and Adopted Plans

5.5.1 Significance Threshold

The project would not conflict with one or more local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and/or would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

5.5.2 Analysis of Project Effects

Proposed Project

The proposed project would not conflict with the goals of the Inyo County General Plan Conservation and Open Space Elements. Specifically, the project would be consistent with Goal BIO-1 to "maintain and enhance biological diversity and healthy ecosystems throughout the County" through the incorporation of appropriate mitigation measures for impacts to sensitive natural communities and special-status species per Policy BIO-1.1 (Regulatory Compliance); encouraging the restoration of degraded biological communities by removing occlusions and improving flows and water quality per Policy BIO-1.3 (Restoration of Biodiversity); and preserving and protecting existing wildlife corridors where appropriate per Policy BIO-1.5 (Wildlife Corridors). The project would also achieve Goal BIO-2 to "provide a balanced approach to resource protection and recreational use of the natural environment" by encouraging appropriate access to resource-managed lands per Policy BIO-2.2 (Appropriate Access for Recreation) and providing and supporting passive recreational opportunities and interpretive education in the natural environment per Policy BIO-2.4 (Nature as Education). Thus, the proposed project would be consistent with the goals of the General Plan Conservation and Open Space Elements and would not conflict with this plan.

The project would be consistent with the goals of the LORP by removing occlusions, which will improve water flow, increase dissolved oxygen, and possibly improve water quality, which would benefit the warm-water fishery, since excessive tule biomass can have a deleterious effect on dissolved oxygen, and a negative effect on water quality (e.g., caused by tule abundance and decomposition) (Ecosystem Sciences 2008 and 2012). Additionally, with implementation of mitigation measures, the project would comply with all federal and state laws to protect special-status species while providing for recreation. Therefore, the project would be consistent with the Long Term Agreement and the goals of the LORP and would not conflict with this plan.

Additionally, the Owens Valley Land Management Plan (OVLMP) was finalized by LADWP in April 2010 and provides management direction for resources on all lands owned by LADWP in Inyo County, excluding the LORP area. The OVLMP is an overarching resource management plan that complements the LORP for monitoring and managing resources from Pleasant Valley Reservoir to Owens Lake. Since the OVLMP doesn't include the LORP area (which includes the study area), this plan is not applicable to the project. For this reason, the proposed project is not subject to the provisions of the OVLMP and therefore would not conflict with this plan.

In addition, a *Habitat Conservation Plan for LADWP's Operations, Maintenance, and Management Activities on Its Land in Mono and Inyo Counties* (LADWP 2015) was drafted in 2015. While the Draft HCP includes the study area, this plan is not applicable to the project since the proposed project is not a part of LADWP's Operations, Maintenance, and Management Activities, nor is it a covered activity of that HCP. Thus, the proposed project is not subject to the provisions of the HCP and therefore would not conflict with this plan.

Alternative 1 (Boat Launch Option 2)

This alternative would be similar to the proposed project but with the boat launch at a slightly different location to the west, and would not conflict with the General Plan Conservation and Open Space Elements, LORP, OVLMP, or Draft HCP, as summarized above.

Alternative 2 (Construction with Amphibious Excavator)

This alternative would be similar to the proposed project but would use an amphibious excavator for removal of the in-channel occlusions, and would not conflict with the General Plan Conservation and Open Space Elements, LORP, OVLMP, or Draft HCP, as summarized above.

The project would not conflict with the provisions of any local policies or ordinances protecting biological resources or any adopted NCCP/HCPs.

5.6 Cumulative Impacts

The geographic context for the analysis of cumulative impacts to biological resources is the lower Owens River watershed. Approximately 11 related projects are proposed for development or implementation in the area. The related projects in the vicinity include expansion of an existing quarry, remediation of a disposal site, roadway and runway expansion and repairs, new utility transmission lines, modifying the Owens Lake dust control program, and water-based projects that may include the construction of a new dam. Similar to the proposed project, many of these projects have the potential to impact biological resources, and it is expected that these projects would be or have been subject to analysis and review under CEQA and/or requirements of regulatory agencies (e.g., USACE, USFWS, CDFW, RWQCB), and that any significant impacts to biological resources would be mitigated.

Project-related impacts to biological resources would be minimized and mitigated through implementation of Mitigation Measures BIO-1 through 10. Permanent impacts to sensitive biological resources (e.g., habitat) will be mitigated and/or replaced at an equal or greater quantity. Thus, the project would not contribute to cumulatively considerable impacts on biological resources associated with the proposed construction or maintenance activities. Cumulative impacts related to biological resources would be less than significant.

6 Mitigation Measures

To minimize and avoid significant impacts to sensitive biological resources as a result of project implementation, the following mitigation measures are recommended.

6.1 Measures to Mitigate Potentially Significant Impacts to Special-Status Species

MM BIO-1: The following mitigation should be implemented for avoidance and minimization of impacts to special-status plant species within the project site:

a. Prior to construction activities, a focused rare plant survey should be conducted by a qualified biologist to confirm presence/absence of special-status plant species within the project site (i.e., within the project footprint where direct permanent or temporary impacts due to ground disturbance may occur) within the appropriate blooming periods of each species (unless a qualified biologist confirms that special-status plant species can be definitively identified outside of the blooming period).

b. If any special-status plant species are found, these species or population should be flagged (or otherwise delineated) by a biologist and should be avoided to the greatest extent feasible (i.e., no work will occur within a 50-foot buffer of special-status plants). If work occurs within a 50-foot buffer of a special-status plant species individual and/or population, a qualified biologist should be on-site during any ground disturbing activities.

c. To minimize indirect impacts to special-status plant species within the project site, prior to construction activities, all heavy equipment proposed for use on-site shall be cleaned (including wheels, tracks, undercarriages, and bumpers, as applicable) before delivery to the project site to reduce the potential for the spread of weed seeds during the project. In addition, to discourage non-native or invasive weed species from establishing on the piles within the spoils areas, any muds should be covered with cut native vegetation to act as a protective mulch as the materials decompose.

d. If avoidance of a special-status plant species is not feasible (i.e., no work will occur within a 50-foot buffer of special-status plants), and potential impacts to special-status plant species is considered significant (i.e., impacts would threaten regional populations of these species), coordination with Inyo County staff biologist(s) would be required to confirm suitable mitigation prior to ground-disturbing activities. The mitigation strategy may include avoidance, on-site or off-site translocation, seed collection, and/or restoration, and should be outlined in a mitigation plan to be approved by Inyo County. At a minimum, the plan should include a description of the existing conditions, methodology, site preparation and planting methods, and maintenance and monitoring schedule.

e. Owens Valley checkerbloom is State Endangered. If this species is found within the project site and avoidance is not feasible (i.e., no work will occur within a 50-foot buffer of special-status plants), the County should obtain a 2081 Incidental Take permit under CESA from the CDFW. The following would be incorporated, as a minimum, into the permitting, subject to approval by CDFW.

    1. A mitigation and monitoring plan should be prepared. The plan should focus on the preservation and/or replacement of the resource (e.g., transplantation, seeding, planting; salvage/dispersal of duff and seed bank; removal of large stands of invasive species); and maintenance and future monitoring.

f. Additionally, in accordance with the Native Plant Protection Act (FGC, Division 2, Chapter 10, Section 1913), the Project Proponent[18] should notify the CDFW "at least 10 days in advance of changing the land use to allow for salvage of such plant. The failure by the department to salvage such plant within 10 days of notification shall entitle the owner of the land to proceed without regard to this chapter."

MM BIO-2: Impacts to nesting birds would be avoided by conducting all construction and maintenance activities outside of the bird nesting season (i.e., work should occur October 1 to January 31). If bird nesting season cannot be avoided, the following measures would be followed:

a. During the bird nesting season (February 1 to September 30), a qualified biologist should conduct a pre-construction survey of all suitable habitat for the presence of nesting birds no more than 5 days prior to construction and/or maintenance activities. The results of the pre-construction survey would be valid for 5 days; if vegetation removal activities do not commence within 5 days following the survey, a new pre-construction nesting bird survey should be conducted before these activities begin again.[19]

b. If any active nests are found during a pre-construction nesting bird survey, a buffer of 300 feet (500 feet for raptors), or as determined appropriate by the qualified biologist (based on species-specific tolerances and site-specific conditions), would be delineated, flagged, and avoided until the nesting cycle is complete (i.e., the qualified biologist determines that the young have fledged or the nest has failed).

MM BIO-3: The County should implement an Environmental Awareness Program intended to educate the public of the biological resources and special-status species associated with the Owen River. The intention of the program should be to encourage active conservation efforts among the public to help conserve the natural resources of the area. At a minimum, the Environmental Awareness Program should include the following components:

a. An informational kiosk should be installed at the entrance point to the water trail that informs the public about the natural resources of the area. The intent of the kiosk is to bring awareness to the biological resources associated with the Owen River, and inform recreationalists to stay on the water trail, that dogs should be kept on-leash, and that trash should be properly disposed of in trash receptacles.

b. Signage would be incorporated to deter unauthorized public access off of the Owens River Water Trail. Public access should be limited to the boat launch and take-out facilities and water trail only.

6.2 Measures to Mitigate Potentially Significant Impacts to Riparian Habitat and Sensitive Natural Communities

MM BIO-4: The County shall implement the following measure to ensure temporary and permanent impacts to sensitive natural communities are less than significant:

[18] LADWP would designate authority to the County for such notification.

[19] Given the linear nature of the project area, a phased approach to pre-construction nesting bird surveys is recommended, and should be based on the project's construction or maintenance schedule for work areas anticipated to be completed within 5 days of each area survey.

a. Prior to construction, a qualified biologist would flag any sensitive natural communities in the field, which will be avoided to the maximum extent practicable. The following measures, prescribed below, would only apply to those areas actually impacted (e.g., in case it is less than those maximum impact acreages calculated and analyzed in this report), which would be documented by a qualified biologist.

b. To discourage non-native or invasive weed species from establishing on the piles within the spoils areas, any muds should be covered with cut native vegetation to act as a protective mulch as the materials decompose.

c. Temporary impacts to sensitive natural communities are expected to passively recover and reestablish naturally to pre-project conditions based on project design and construction methodologies. The County shall retain a qualified biologist to monitor temporary impact areas for two years to ensure the project site returns to pre-project conditions (i.e., pre-project elevation contours and revegetated). If determined necessary by the qualified biologist, if plants are not reestablished via natural recruitment, a revegetation plan would be prepared, and subsequently monitored annually by a qualified biologist until the project site has returned to pre-project conditions.

d. For permanent impacts to sensitive natural communities, the County shall provide one of the following options, or a combination thereof:

    i. On- and/or off-site preservation of sensitive natural communities at a ratio no less than 1:1 for permanent impacts.

    ii. On- and/or off-site creation, restoration, and/or enhancement of sensitive natural communities at a ratio no less than 2:1 for permanent impacts. A mitigation and monitoring plan should be prepared. The plan should focus on the creation, restoration, and/or enhancement of equivalent habitats within disturbed habitat areas of the project site and/or off-site.

MM BIO-5: The County should obtain a Streambed Alteration Agreement permit under Section 1602 of the California Fish and Wildlife Code from the CDFW. The following would be incorporated, as a minimum, into the permitting, subject to approval by CDFW:

a. The following measures, prescribed below, would only apply to those areas actually impacted (e.g., in case it is less than those maximum impact acreages calculated and analyzed in this report), which would be documented by a qualified biologist experienced in jurisdictional delineations.

b. Temporary impacts to jurisdictional riparian habitat would be returned to pre-project conditions (i.e., pre-project elevation contours and revegetated), and will be monitored for two years, or until a qualified biologist determines that the project site has returned to pre-project conditions. If determined necessary by the qualified biologist, if plants are not reestablished via natural recruitment, a revegetation plan would be prepared, and subsequently monitored by a qualified biologist until the project site has returned to pre-project conditions.

c. For permanent impacts to jurisdictional riparian habitat, the County shall provide one of the following options, or a combination thereof:

    i. On- and/or off-site preservation of CDFW jurisdictional riparian habitat at a ratio no less than 1:1 for permanent impacts, or a reduced ratio if mutually-agreed upon with CDFW.

ii. On- and/or off-site creation, restoration, and/or enhancement of CDFW jurisdictional riparian habitat at a ratio no less than 2:1 for permanent impacts, or a reduced ratio if mutually-agreed upon with CDFW. A mitigation and monitoring plan should be prepared. The plan should focus on the creation, restoration, and/or enhancement of equivalent habitats within disturbed habitat areas of the project site and/or off-site.

6.3 Measures to Mitigate Potentially Significant Impacts to Jurisdictional Wetlands

MM BIO-6: The County should obtain a CWA Section 404 permit from the USACE and a CWA Section 401 permit from the RWQCB. The following would be incorporated, as a minimum, into the permitting, subject to approval by the USACE and RWQCB:

a. The following measures, prescribed below, would only apply to those areas actually impacted (e.g., in case it is less than those maximum impact acreages calculated and analyzed in this report), which would be documented by a qualified biologist.

b. Areas of jurisdictional wetlands temporarily impacted by the project shall be monitored for two years, or until a qualified biologist determines that the project site has returned to pre-project conditions. If determined necessary by the qualified biologist, if plants are not reestablished via natural recruitment, a revegetation plan would be prepared, and subsequently monitored annually by a qualified biologist until the project site has returned to pre-project conditions.

c. For permanent impacts to jurisdictional wetlands, the County shall provide one of the following options, or a combination thereof:

   i. On- and/or off-site preservation of USACE/RWQCB jurisdictional "waters of the U.S." at a ratio no less than 1:1 for permanent impacts, or reduced ratio if mutually-agreed upon with regulatory agencies.

   ii. On- and/or off-site creation, restoration, and/or enhancement of USACE/RWQCB jurisdictional "waters of the U.S." at a ratio no less than 2:1 for permanent impacts, or reduced ratio if mutually-agreed upon with regulatory agencies. A mitigation and monitoring plan should be prepared. The plan should focus on the creation, restoration, and/or enhancement of equivalent features within disturbed areas of the project site and/or off-site. In addition, the plan should provide details as to the implementation, performance standards, success criteria, maintenance, and future monitoring.

6.4 Measures to Mitigate Potentially Significant Impacts to Wildlife Movement and Nursery Sites

MM BIO-7: At the start of in-water work, a hydrologist/biologist shall monitor water quality (e.g., based on thresholds determined appropriate by the County hydrologist) and fish stress (e.g., indicated by surface mouthing, schooling and leaving an area, or observation of invertebrates crawling out of the water to get air) during the initial construction. If determined necessary by the monitoring hydrologist/biologist, a sediment curtain or other measures to minimize/limit turbidity would be installed within the project area.

MM BIO-8: The Environmental Awareness Program should include information about the wildlife corridor associated with the Owens River. Signage should inform recreationalists about the wildlife corridor and the importance of staying on the water trail or boat launch and take-out facilities only, respecting wildlife and stay a safe distance away, and not feeding wildlife.

MM BIO-9: Impacts to elk nursery sites would be avoided by conducting all construction and maintenance activities outside of the elk calving season (i.e., work should occur July 1 to March 31). During construction, the placement of large woody debris shall be strategically placed along the banks to discourage recreationalists from disembarking along the river, where possible. In addition, cattle exclusion fencing may be installed along the boat launch and take-out facilities to confine recreationalists to the developed areas and to separate visitor from cattle.

MM BIO-10: Signage shall be installed to inform recreationalists about Quagga mussels and how to sanitize their gear and equipment before entering and after exiting the water trail to prevent the spread of this invasive species. This signage can be combined with other educational and informational signage for the project.

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APPENDIX A

Wetland Determination Data Form

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Owens River Water Trail | City/County: Lone Pine/Inyo | Sampling Date: 6/15/2018

Applicant/Owner: | State: CA | Sampling Point: 1

Investigator(s): Julie Stout, Maile Tanaka | Section, Township, Range:

Landform (hillslope, terrace, etc.): flood terrace | Local relief (concave, convex, none): convex | Slope (%): 1

Subregion (LRR): C | Lat: 36.1864731 | Long: -118.03575159 | Datum: NAD 83

Soil Map Unit Name: Torrifluvents-Fluvaquentic Endoaquolls complex, 0 to 2 percent slopes | NWI classification: PEM1C

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation ____ Soil ____ or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ No x

Are Vegetation ____ Soil x or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x No		
Hydric Soil Present?	Yes ____ No x	**Is the Sampled Area**	
Wetland Hydrology Present?	Yes ____ No x	**within a Wetland?**	**Yes** ____ **No** x

Remarks: Put-in location. Point is on Owen's River floodplain. River is subject to controlled releases; therefore, current hydrology may differ from historic conditions. Soil is expected to be problematic because Owen's River is known to have a high pH and halophytic vegetation dominates along the floodplain. Point is considered marginally non-wetland, and due to a high level of topographic variation surrounding the point, the determination that this specific point may be non-wetland does not reflect the wetland status of nearby and adjecent areas. To determine the overall wetland status of the area, grid sampling should be used.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30' R)			
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 30' R)			
1. Atriplex lentiformes	3		
2.			
3.			
4.			
5.			
	<5 = Total Cover		
Herb Stratum (Plot size: 5' R)			
1. Distichlis spicata	90	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10			
11			
	90 = Total Cover		
Woody Vine Stratum (Plot size: 30' R)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC 100 (C)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1=	
FACW species	x 2=	
FAC species 90	x 3=	270
FACU species	x 4=	
UPL species 3	x 5=	15
Column Totals: 93 (A)		285 (B)

Prevalence Index = B/A = 3.064516129

Hydrophytic Vegetation Indicators:

- ____ 1- Rapid Test For Hydrophytic Vegetation
- x 2- Dominance Test is >50%
- ____ 3- Prevalence Index is ≤3.0[1]
- ____ 4- Morphological Adaptations [1] (Provide supporting data in Remarks or on a separate sheet)
- ____ 5- Wetland Non-Vascular Plants[1]
- ____ 6- Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic Vegetation Present? **Yes** x **No** ____

Remarks:

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	2.5Y4/2	99	10YR5/6	1	CS	PL	Loamy sand	
7-18	2.5Y3/1.5	97	10YR5/6	3	CS	M	clay loam	
18-24	2.5Y4/1	100					Loamy sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- x Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if present):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** ___ **No** x

Remarks:

Due to presence of salt tolerant hydrophytic vegetation, soils are expected to be alkaline and problematic. Because elevational evidence suggests this point may be marginally lacking hydrology and the dominant species is FAC, soils are presumed non-hydric.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- x Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No x	Depth (Inches):	NA	
Water Table Present?	Yes ___	No x	Depth (Inches):	NA	
Saturation Present? (includes capillary fringe)	Yes ___	No x	Depth (Inches):	NA	**Wetland Hydrology Present?** **Yes** ___ **No** x

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Estimated water level of river is ~2.5' below. Flood plain dried pond water level estimated at 1.5 - 2'.

Because the site visit was conducted around the beginning of the dry season and water tables are reduced, as evidenced by presence of dried ponds on the floodplain, the presence or lack of wetland hydrology could not be determined. Based on the estimated elevational difference between the point and watermarks within an adjacent dried pond area, this point may be marginally non-wetland.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Owens River Water Trail | City/County: Lone Pine/Inyo | Sampling Date: 6/15/2018
Applicant/Owner: | State: CA | Sampling Point: 2
Investigator(s): Julie Stout, Maile Tanaka | Section, Township, Range:
Landform (hillslope, terrace, etc.): near floodplain depression | Local relief (concave, convex, none): concave | Slope (%): 1
Subregion (LRR): C | Lat: 36.61874282 | Long: -118.03544934 | Datum: NAD 83
Soil Map Unit Name: Torrifluvents-Fluvaquentic Endoaquolls complex, 0 to 2 percent slopes | NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation ___ Soil ___ or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ___
Are Vegetation ___ Soil x or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes x No
Hydric Soil Present? Yes x No **Is the Sampled Area**
Wetland Hydrology Present? Yes x No **within a Wetland? Yes x No**

Remarks: Put-in 1 location near depression with indicators of ponding (soil cracks, salt crust, and dried muddy cattle tracks).
Soil is expected to be problematic because Owen's River is known to have a high pH of near 8 and halophytic vegetation dominates along the floodplain.
Point is on Owen's River floodplain. River is subject to controlled releases; therefore, current hydrology may differ from historic conditions

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30' R)			
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 30' R)			
1.	3		
2.			
3.			
4.			
5.			
	<5 = Total Cover		
Herb Stratum (Plot size: 5' R)			
1. Distichlis spicata	90	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: 30' R)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum ___ % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC 100 (C)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1=	
FACW species		x 2=	
FAC species	90	x 3=	270
FACU species		x 4=	
UPL species		x 5=	
Column Totals:	90 (A)		270 (B)

Prevalence Index = B/A = 3

Hydrophytic Vegetation Indicators:
- ___ 1- Rapid Test For Hydrophytic Vegetation
- x 2- Dominance Test is >50%
- x 3- Prevalence Index is ≤3.0[1]
- ___ 4- Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5- Wetland Non-Vascular Plants[1]
- ___ 6- Problematic Hydrophytic Vegetation[1](Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic Vegetation Present? **Yes** x **No** ___

Remarks:
Elevation is below nearby anemopsis patch.

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	2.5Y4/2	99			CS	PL	Loamy sand	
7-18	2.5Y4/1	97			CS	M	sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- x Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if present):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** x **No** ___

Remarks:

Area is expected to have problematic alkaline soils. Due to presence of hydrophytic vegetationa and wetland hydrology, hydric soils are presumed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- x Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No x	Depth (Inches):	NA	
Water Table Present?	Yes ___	No x	Depth (Inches):	NA	
Saturation Present? (includes capillary fringe)	Yes ___	No x	Depth (Inches):	NA	**Wetland Hydrology Present?** **Yes** x **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: ~10 feet horizontal and ~6" vertical distance from apparent water line of dried ponded area.

Because the site visit was conducted around the beginning of the dry season and water tables are reduced, as evidenced by presence of dried ponds on the floodplain, a high water table is presumed present due to the landscape position (floodplain) and elevation relative to surface hydrology indicators (water marks and salt crust) in an adjacent depression.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Owens River Water Trail | City/County: Lone Pine/Inyo | Sampling Date: 6/15/2018
Applicant/Owner: | State: CA | Sampling Point: 3
Investigator(s): Julie Stout, Maile Tanaka | Section, Township, Range:
Landform (hillslope, terrace, etc.): Flood terrace near depression | Local relief (concave, convex, none): concave | Slope (%):
Subregion (LRR): C | Lat: 36.61832074 | Long: -118.03505534 | Datum: NAD 83
Soil Map Unit Name: Torrifluvents-Fluvaquentic Endoaquolls complex, 0 to 2 percent slopes | NWI classification: PEM1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation ___ Soil ___ or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ___ No x
Are Vegetation ___ Soil x or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x No		
Hydric Soil Present?	Yes x No	**Is the Sampled Area**	
Wetland Hydrology Present?	Yes x No	**within a Wetland?**	**Yes x No**

Remarks: Alternate Put-in
Soil is expected to be problematic because Owen's River is known to have a high pH of near 8 and halophytic vegetation dominates along the floodplain.
Point is on Owen's River floodplain. River is subject to controlled releases; therefore, current hydrology may differ from historic conditions.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30' R)			
1.			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 30' R)			
1.	3		
2.			
3.			
4.			
5.			
	<5 = Total Cover		
Herb Stratum (Plot size: 5' R)			
1. Distichlis spicata	90	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: 30' R)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum ___ % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC 100 (C)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1=	
FACW species		x 2=	
FAC species	90	x 3=	270
FACU species		x 4=	
UPL species		x 5=	
Column Totals:	90 (A)		270 (B)

Prevalence Index = B/A = 3

Hydrophytic Vegetation Indicators:
___ 1- Rapid Test For Hydrophytic Vegetation
x 2- Dominance Test is >50%
x 3- Prevalence Index is ≤3.0[1]
___ 4- Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ 5- Wetland Non-Vascular Plants[1]
___ 6- Problematic Hydrophytic Vegetation[1](Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic Vegetation Present? **Yes x No**

Remarks:

SOIL

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	2.5Y3/2						Sandy clay lo	
8-12	2.5Y3/2						loamy sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- x Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if present):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** x **No** ___

Remarks:

Area is expected to have problematic alkaline soils. Due to presence of hydrophytic vegetationa and wetland hydrology, hydric soils are presumed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
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- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- x Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No x	Depth (Inches):	NA	
Water Table Present?	Yes ___	No x	Depth (Inches):	NA	
Saturation Present? (includes capillary fringe)	Yes ___	No x	Depth (Inches):	NA	**Wetland Hydrology Present?** **Yes** x **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: ~10 feet horizontal and ~6" vertical distance from apparent water line of dried ponded area.

Because the site visit was conducted around the beginning of the dry season and water tables are reduced, as evidenced by presence of dried ponds on the floodplain, a high water table is presumed present due to the landscape position (floodplain) and elevation relative to surface hydrology indicators (water marks and salt crust) in an adjacent depression.

APPENDIX B

Plant and Wildlife Species Compendia

PLANT AND WILDLIFE SPECIES COMPENDIUM

Plant Species Observed Within Study Area

Family	Scientific Name	Common Name
GYMNOSPERMS		
Ephedraceae – Mormon-Tea Family	*Ephedra nevadensis*	ephedra
ANGIOSPERMS - MAGNOLIIDS		
Sauruaceae - Lizard's-Tail Family	*Anemopsis californica*	yerba mansa
ANGIOSPERMS - MONOCOTS		
Cyperaceae – Sedge Family	*Bolboschoenus maritimus* ssp. *paludosus*	saltmarsh bulrush
	Carex sp.	sedge
	Schoenoplectus acutus	hardstem bulrush
	Schoenoplectus americanus	three-square bulrush
Juncaceae - Rush Family	*Juncus balticus*	Baltic rush
Poaceae - Grass Family	*Distichlis spicata*	saltgrass
	Elymus triticoides	beardless wild rye
	Phragmites australis	common reed
	*Polypogon monspeliensis**	rabbitsfoot grass
	Sporobolus airoides	alkali sacaton
Typhaceae - Cattail Family	*Typha domingensis*	southern cattail
	Typha latifolia	broadleaf cattail
ANGIOSPERMS - EUDICOTS		
Asclepiadaceae - Milkweed Family	*Asclepias fascicularis*	narrow-leaf milkweed
	Asclepias speciosa	showy milkweed
Asteraceae - Sunflower Family	*Ambrosia dumosa*	white bursage
	Artemisia spinescens	budsage
	Ericameria nauseosus var. *hololeuca*	white-leaf rabbitbrush
	Ericameria nauseosus var. *oreophila*	rubber rabbitbrush
	Stephanomeria tenuifolia	narrow-leaved wire-lettuce
	Tetradymia axillaris var. *longispina*	catclaw horsebrush
	Xanthium strumarium	cocklebur
Boraginaceae - Borage Family	*Heliotropium curassavicum*	salt heliotrope

Family	Scientific Name	Common Name
Brassicaceae - Mustard Family	*Stanleya pinnata*	prince's plume
Chenopodiaceae - Goosefoot Family	*Atriplex confertifolia*	shadscale
	Atriplex torreyi	Nevada saltbush
	Atriplex parryi	Parry's saltbush
	Atriplex polycarpa	allscale
	Nitrophila occidentalis	western nitrophila
	Sarcobatus vermiculatus	black greasewood
	*Salsola tragus**	Russian thistle
	Stutzia covillei	Coville's orach
	Suaeda nigra	bush seepweed
Fabaceae - Legume Family	*Glycyrrhiza lepidota*	wild licorice
	Psorothamnus arborescens var. *minutifolius*	Northern Mojave indigo bush
	Psorothamnus polydenius	dotted dalea
Frankeniaceae - Alkali Heath Family	*Frankenia salina*	alkali heath
Rosaceae - Rose Family	*Rosa woodsii*	Woods' rose
Salicaceae - Willow Family	*Populus fremontii*	Fremont cottonwood
	Salix exigua	sandbar willow
	Salix gooddingii	black willow
	Salix laevigata	red willow
	Salix lasiolepis	arroyo willow
Tamaricaceae -Tamarix Family	*Tamarix ramosissima**	tamarisk

*Non-native species

Wildlife Species Observed Within Study Area

Family	Scientific Name	Common Name
REPTILES		
Phrynosomatidae - Zebratail, Earless, Horned, Spiny, Fringe-Toed Lizards	*Callisaurus draconoides*	zebratail lizard
BIRDS		
Icteridae - Blackbirds	*Agelaius phoeniceus*	red-winged blackbird
Corvidae - Jays and Crows	*Corvus corax*	common raven
Parulidae -New World Warblers	*Geothlypis trichas*	common yellowthroat
Mimidae - Thrashers	*Mimus polyglottos*	northern mockingbird
Tyrannidae - Tyrant Flycatchers	*Sayornis nigricans*	black phoebe
	Tyrannus verticalis	western kingbird
MAMMALS		
Leporidae - Hares and Rabbits	*Lepus californicus*	black-tailed jackrabbit
Cervidae - Deer	*Cervus canadensis nannodes*	tule elk