



PUBLIC NOTICE

**U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT**

BUILDING STRONG®

APPLICATION FOR PERMIT Calexico New River Improvement Project

Public Notice/Application No.: SPL-2021-00235-CJA

Project: Calexico New River Improvements Project

Comment Period: October 20, 2021 through November 19, 2021

Project Manager: Antal Szijj; (805) 585-2147; Antal.J.Szijj@usace.army.mil

Co-Applicants

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Location

Within the New River and adjacent wetlands in the city of Calexico, Imperial County, CA (at: 32.667750, -115.506131). See vicinity map, Figure 1.

Activity

To construct the Calexico New River Improvements Project, including a trash rack and diversion structure, a 1.5-mile, 72-inch diversion pipeline and outfall and pump-back discharge line (see attached drawings). For more information see Additional Project Information section below.

Submittal of Public Comments

Interested parties are hereby notified an application has been received for a Department of the Army permit for the activity described herein and shown on the attached drawing(s). We invite you to review today's public notice and provide views on the proposed work. By providing substantive, site-specific comments to the Corps Regulatory Division, you provide information that supports the Corps' decision-making process. All comments received during the comment period become part of the record and will be considered in the decision. This permit will be issued, issued with special conditions, or denied under Section 404 of the Clean Water Act.

During the Coronavirus Health Emergency, Regulatory Program staff are teleworking. Please do not mail hard copy documents, including comments to any Regulatory staff. Instead, your comments should be submitted electronically to: Antal.J.Szijj@usace.army.mil.

Should you have any questions or concerns about the Corps' proposed action or our comment period, you may contact Antal Szijj directly at (805) 585-2147.

The mission of the U.S. Army Corps of Engineers Regulatory Program is to protect the Nation's aquatic resources, while allowing reasonable development through fair, flexible and balanced permit decisions. The Corps evaluates permit applications for essentially all construction activities that occur in the Nation's waters, including wetlands. The Regulatory Program in the Los Angeles District is executed to protect aquatic resources by developing and implementing short- and long-term initiatives to improve regulatory products, processes, program transparency, and customer feedback considering current staffing levels and historical funding trends.

Corps permits are necessary for any work, including construction and dredging, in the Nation's navigable water and their tributary waters. The Corps balances the reasonably foreseeable benefits and detriments of proposed projects, and makes permit decisions that recognize the essential values of the Nation's aquatic ecosystems to the general public, as well as the property rights of private citizens who want to use their land. The Corps strives to make its permit decisions in a timely manner that minimizes impacts to the regulated public.

During the permit process, the Corps considers the views of other Federal, state and local agencies, interest groups, and the general public. The results of this careful public interest review are fair and equitable decisions that allow reasonable use of private property, infrastructure development, and growth of the economy, while offsetting the authorized impacts to the waters of the United States. The permit review process serves to first avoid and then minimize adverse effects of projects on aquatic resources to the maximum practicable extent. Any remaining unavoidable adverse impacts to the aquatic environment are offset by compensatory mitigation requirements, which may include restoration, enhancement, establishment, and/or preservation of aquatic ecosystem system functions and services.

Evaluation Factors

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof. Factors that will be considered include conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people. In addition, if the proposal would discharge dredged or fill material, the evaluation of the activity will include application of the EPA Guidelines (40 CFR Part 230) as required by Section 404 (b)(1) of the Clean Water Act.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact

Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Preliminary Review of Selected Factors

EIS Determination- A preliminary determination has been made an environmental impact statement is not required for the proposed work.

Water Quality- The applicants are required to obtain water quality certification, under Section 401 of the Clean Water Act, from the California Regional Water Quality Control Board. Section 401 requires any applicant for an individual Section 404 permit provide proof of water quality certification to the Corps of Engineers prior to permit issuance.

Coastal Zone Management- This project is located outside the coastal zone and would not affect coastal zone resources.

Essential Fish Habitat- No Essential Fish Habitat (EFH), as defined by the Magnuson-Stevens Fishery Conservation and Management Act, occurs within the project area and no EFH is affected by the proposed project.

Cultural Resources- The latest version of the National Register of Historic Places has been consulted and this site is not listed. A records search of the South Coastal Information Center of the California Historical Resources Information System was conducted on behalf of the permit applicant. The records search did not find any documented cultural resources within the Corps' permit area. The Corps has made a preliminary determination that the proposed action (permit issuance) would have no effect on historic properties eligible for listing on the National Register of Historic Places. The Corps will seek concurrence from the State Historic Preservation Office prior to any permit decision.

Endangered Species- Preliminary determinations indicate the proposed activity would not affect federally listed endangered or threatened species, or their critical habitat. Therefore, formal consultation under Section 7 of the Endangered Species Act does not appear to be required at this time.

Public Hearing- Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearing shall state with particularity the reasons for holding a public hearing.

Proposed Activity for Which a Permit is Required

Basic Project Purpose- The basic project purpose comprises the fundamental, essential, or irreducible purpose of the proposed project, and is used by the Corps to determine whether the applicant's project is water dependent (i.e., requires access or proximity to or siting within the special aquatic site to fulfill its basic purpose). Establishment of the basic project purpose is necessary only when the proposed activity would discharge dredged or fill material into a special aquatic site (e.g., wetlands, pool and riffle complex, mudflats, coral reefs). The basic project purpose for the proposed project is reduce public health and safety risk from exposure to polluted streamflows and is not considered water dependent.

Overall Project Purpose- The overall project purpose serves as the basis for the Corps' 404(b)(1) alternatives analysis and is determined by further defining the basic project purpose in a manner that

more specifically describes the applicant's goals for the project, and which allows a reasonable range of alternatives to be analyzed. The overall project purpose for the proposed project is to remove trash and debris from the New River and reduce the river's existing public health threat to the city of Calexico.

Additional Project Information

Baseline information- The New River is a transboundary river that originates in the Mexicali Valley, Mexico, and travels north to the Salton Sea in the U.S. The New River enters the U.S. immediately adjacent to the U.S. Calexico West Port of Entry, near downtown Calexico, California. The reach of the New River within Calexico is an effluent-dominated stream with a perennial flow regime currently averaging 60-120 cubic feet per second (cfs) during non-flood conditions, though these baseflows are anticipated to continue a downward trend into the 30-60 cfs range based on projected reclamation efforts and recycled water needs within Mexico. The subject reach of the New River also supports riparian fringe wetlands dominated by tamarisk (*Tamarix ramosissima*) and common reed (*Phragmites australis*), both of which are considered non-native, invasive species. Additionally, disturbed wetlands dominated by iodine bush (*Allenrolfea occidentalis*) occur on the adjacent, higher floodplain between the river and the Calexico International Airport and Wastewater Treatment Plant (see attached vegetation communities map).

Water within the New River is severely polluted by treated and untreated discharges of waste from municipal, agricultural, and industrial sources in Mexico. The New River does not meet water quality standards and is on the State of California's Clean Water Act (CWA) Section 303(d) list for 23 separate pollutants, including pathogen-indicator bacteria, low dissolved oxygen, toxicity, trash, selenium, pesticides (e.g., chlordane, dichlorodiphenyltrichloroethane (DDT), dieldrin, toxaphene, etc.), polychlorinated biphenyls (PCBs), hexachlorobenzene (HCB), nutrients, and mercury. These pollutants pose a serious threat to public health and surrounding ecosystems.

Project description- The project is intended to remove trash from the New River and divert polluted, non-flood flows around an approximately 1.5-mile segment of the river adjacent to the urbanized portions of the city of Calexico. The proposed project consists of the following components:

- Installing a Trash Screen and Diversion Structure approximately 900 feet downstream from the International Boundary.
- Installing approximately 8,100 linear feet of 72-inch underground bypass pipeline to convey polluted New River flow from the Diversion Structure, around downtown Calexico, for approximately 1.5 miles, to a point just upstream of where the All-American Canal crosses the New River channel; and
- Building a Pump-back System to partially replace the diverted surface water in the river channel that flows adjacent to city neighborhoods with clean, treated wastewater from the Calexico Wastewater Treatment Plant (WWTP).

Trash Screen and Diversion Structure: A rectangular reinforced concrete Diversion Structure would be constructed spanning the full width of the New River channel and extending approximately 200 linear feet. The Diversion Structure would include a push-up weir to divert flows from New River into the bypass pipeline (discussed below). The Diversion Structure would be approximately 900 feet northwest of the International Boundary. The concrete channel section of the Diversion Structure would also provide structural support for a Trash Screen that will be used to remove up to one ton per day of floating and submerged trash from the New River. The Diversion Structure would include an entry and exit transition section to allow a smooth transition between the geometry of the existing natural trapezoidal channel to that of the rectangular

concrete section. The overall design capacity of the Trash Screen and Diversion Structure would meet Federal Emergency Management Act (FEMA) 100-year flow requirements. Figure 6 shows the Trash Screen and concrete channel and Diversion Structure.

The Diversion Structure would be located within the concrete channel segment and just downstream of the Trash Screen. The Diversion Structure will include an integral slide gate with a seismic actuator to allow automatic isolation of the pipeline in case of earthquake of sufficient magnitude to cause potential damage to the downstream pipeline. Operating personnel would also be able to activate the slide gate if needed to deal with peak flows or other critical conditions. By locating the Diversion Structure adjacent to the Trash Screen, minimal solids are anticipated to enter the Bypass Pipeline that might otherwise clog the downstream security cage or screen. The Diversion Structure is designed to convey up to 160 cfs of River flow. Flows in excess of 160 cfs would not be bypassed but continue through the existing River channel immediately downstream of the Diversion Structure. The New River floodplain would continue to experience flooding at the same frequency as under existing conditions.

Bypass Pipeline: An approximately 1.5-mile-long 72-inch fiberglass-reinforced mortar pipeline would be installed to convey up to 160 cfs of the polluted flows from the New River to avoid the southern portion of the City of Calexico. The Bypass Pipeline starts at the Diversion Structure, approximately 300 feet southeast of the intersection of 2nd Street and the New River. The pipe would then proceed on a northwesterly direction, traversing disturbed and undeveloped land south of New River. The pipeline continues to the north of Animal Shelter Drive and the City WWTP. West of the City WWTP, the alignment follows the southern bank of the New River. The pipeline would be located approximately 3 to 4 feet below the ground surface. In areas where there is insufficient cover above the pipeline elevation with the existing surface grade (less than 1 foot), an embankment would be constructed on top of the pipeline using fill excavated from the trench needed for the pipe. The embankment would be compacted and would extend approximately 3 to 4 feet above the existing ground surface elevation.

The Bypass Pipeline would outfall back into the New River via a proposed Energy Dissipater, at a point approximately 400 feet upstream of where the All-American Canal Syphon goes over the New River. Figures 3-5 depict the Route of the Bypass Pipeline and location of the Outfall and Energy Dissipater. The Energy Dissipater would be cover 350 square feet at the riverbank with additional riprap to control erosion.

WWTP Pump-back System: A Pump-back System would be constructed in upland areas within the exception of the force main discharge outfall (WWTP Outfall 002), which would be located within the New River channel Diversion Structure (refer to Figure 6). The pump-back system would pump approximately up to 4.3 million gallons per day of treated, disinfected wastewater from the city's wastewater treatment plant to the New River channel immediately downstream of the Diversion Structure to maintain a wetted channel.

Project impacts: The proposed project would result in direct permanent impacts to 0.16 acre of waters of the U.S. within the New River for construction of the concrete channel section supporting the Trash Screen and Diversion Structure, plus an additional 0.01 acre for the energy dissipater and erosion protection. A temporary surface water diversion using a cofferdam would also be required to facilitate dewatering of the construction area, resulting in temporary impacts to 0.3 acre of waters of the U.S. in the New River.

The bypass pipeline would be primarily constructed in uplands but a portion would cross through the floodplain wetlands outside the channel, resulting in 1.31 acres of temporary impact to these

wetlands. Figures 3-5 depict the project components in relation to existing wetland and non-wetland waters of the U.S.

Indirect adverse impacts to the riparian wetlands along the New River between the diversion structure and bypass outfall may also result from the reduction in flows caused by the diversion, which would only be partially restored by the proposed return flows from the Pump-back system. The net effect of the flow reduction on this aquatic resource is uncertain and must be considered against the improved water quality that would result from the Pump-back flows as well as the likelihood of future reductions in baseflows originating from Mexico.

Project alternatives- The applicant has provided the following preliminary alternatives for consideration. These are provided for informational purposes and to solicit comments. The Corps has not made a determination of their adequacy.

Alternative 1: Jack and Bore (Trenchless Methods) Under the Wetlands

Alternative 1 considers use of trenchless methods to install the pipeline underneath the wetlands rather than trenching through the wetlands. The use of trenchless installation methods to install the pipeline beneath the wetlands would not meet technology criteria because jack and bore only allows for installation of straight segments of pipeline and the pipeline within the wetland area has gradual bends. In addition, installation with jack and bore methods would not address the need for minimum cover on top of the pipeline as the pipeline needs to maintain a specific elevation to allow for gravity flow from the Diversion Structure to the Outlet. The elevation of the pipeline was designed to allow for gravity flow. Changes in the pipeline elevation along the bypass pipeline would not meet the engineering requirements for gravity flow. The embankment is needed on top of the pipeline to allow for increased cover over the pipeline to meet engineering standards. The same amount of cover would therefore be needed absent change in the pipeline elevation. The use of trenchless installation techniques would therefore not reduce the area of permanent fill in WOUS. The use of trenchless construction techniques would also increase the cost of construction significantly and would not allow for construction within the Project budget, as funded by the State of California.

Alternative 2: Locate Bypass Pipeline in Developed Areas/Roads

During Project planning, the City evaluated developed and disturbed areas for location of the bypass pipeline. Approximately 66 percent of the pipeline is located within disturbed or developed areas. Approximately 3,000 linear feet of the bypass pipeline would be located with existing roads along the City WWTP and west of the WWTP near the proposed outfall location. There is an unpaved DHS road that runs along the New River and is located in between the wetland areas and the New River where the bypass pipeline runs through the wetland areas. The City considered locating the bypass pipeline within the access road, but was not able to use the existing DHS access road for the pipeline because it would increase the length of the pipeline and would result in tight bends in the pipeline, which would result in significant head losses that would hinder gravity flow, which in turn would result in stagnant water and backflow conditions.

Alternative 3: Bury Pipeline Deeper

An option of burying the pipeline 1.5 feet deeper to avoid the need for an embankment to provide sufficient cover over the pipeline was considered. The pipeline was designed to allow for gravity flow from the Diversion Structure to the Outlet. A deeper pipeline within the wetlands would result in a proportionally deeper discharge location to allow for gravity flow along the alignment. The deeper discharge location would not meet design criteria at the Outlet due to the elevation of the New River and shallow groundwater. The deeper pipeline would also result in additional excavation for the deeper pipeline and additional export excess soil material, which would result in

additional cost to construct the pipeline. The cost of pumping the water to adjust for the deeper pipeline at the outlet would exceed funding available.

Alternative 4: Water Quality Treatment Plant

The initial planning for the New River Improvement Project – Calexico Reach included a wastewater disinfection facility to disinfect New River flows and return cleaner water to the New River. Initial estimates for the cost of the disinfection facility exceeded \$180 million. The Project cost is \$28 million and the cost to disinfect New River water substantially exceeds the funding available. Because funding is not available to disinfect the water of the New River, the only option that meets the objectives with the funding available is to bypass the New River flows around the City of Calexico and replace as much as practicable of the New River water with treated wastewater from the City WWTP that meets water quality standards. The alternative of a water quality treatment plant was determined economically infeasible when it was proposed previously.

Alternative 5: Aboveground Bypass Pipe

The City conceptually considered an option of constructing an aboveground bypass pipe within an alignment similar to the proposed alignment. The bypass pipe would be supported on driven pile supports located along the alignment. The bypass pipe could not function at ground surface level as a gravity pipe because the ground surface is higher than the elevation of the diversion structure; therefore, a new pumping plant with capacity to pump 160 cfs would be required near the location where flows are diverted out of New River (near 2nd Street). The cost associated with constructing the pumping plant would be approximately \$30 million. Additional operational costs are estimated to be approximately \$1,500 to \$6,000 per day¹. The City did not advance the aboveground bypass pipe alternative beyond conceptual consideration due to the cost of constructing the pumping plant and ongoing operational costs, which the City determined to be economically infeasible.

Proposed Mitigation– The proposed mitigation may change as a result of comments received in response to this public notice, the applicant's response to those comments, and/or the need for the project to comply with the 404(b)(1) Guidelines. In consideration of the above, the proposed mitigation sequence (avoidance/minimization/compensation), as applied to the proposed project is summarized below:

Avoidance: Complete avoidance of any discharges of fill material into waters of the U.S., particularly with respect to an alternative that effectively removes trash from the system, may not be possible. Other alternatives to prevent public access to the subject reach of the New River may be considered as part of the Corps' alternatives analysis.

Minimization: The applicant has proposed the following minimization measures:

- Locating the Trash Screen and Diversion Structure within an area of the New River that is regularly dredged and maintained for security purposes. The Trash Screen will enable the River to attain the Trash Total Maximum Daily Load the Regional Water Quality Control Board has established for the River at this location.
- Locating the Bypass Pipeline mainly along disturbed and developed areas including existing roads and areas disturbed by the Border Patrol to the maximum extent practicable while still accommodating design requirements for gravity flow (e.g., minimal bends and elevation changes in the alignment).
- Building a Pump-back System that will discharge treated, disinfected wastewater from the City of Calexico WWTP into the River channel just downstream of the Diversion Structure, to maintain flow

in the River channel section between the Diversion Structure and the Outfall of the 72-inch Bypass Pipe. The treated wastewater consistently meets state standards for discharge to surface waters.

- Locating the Pump-back pump station within the existing WWTP.
- Locating the Pump-back force main within Animal Shelter Drive.
- Staging within previously disturbed areas.
- Including a specification in the construction bid specification to avoid impacts on riparian areas during road grading.

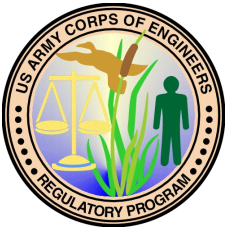
In addition, the applicant would prepare a Habitat Restoration and Enhancement Plan to address restoration of areas of wetlands that would be temporarily impacted during Bypass Pipeline construction and mitigate for permanent impacts to wetlands resulting from construction of the Project.

Compensation: Compensatory mitigation is not proposed at this time. The Corps is considering monitoring requirements to assess the indirect effects of the proposed diversion (if authorized and constructed), which would inform the need for compensatory mitigation after-the-fact.

Proposed Special Conditions

None proposed at this time.

For additional information please call Antal Szijj of my staff at (805) 585-2147 or via e-mail at Antal.J.Szijj@usace.army.mil. This public notice is issued by the Chief, Regulatory Division.



Regulatory Program Goals:

- To provide strong protection of the nation's aquatic environment, including wetlands.
- To ensure the Corps provides the regulated public with fair and reasonable decisions.
- To enhance the efficiency of the Corps' administration of its regulatory program.

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS
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Figure 1 Project Location

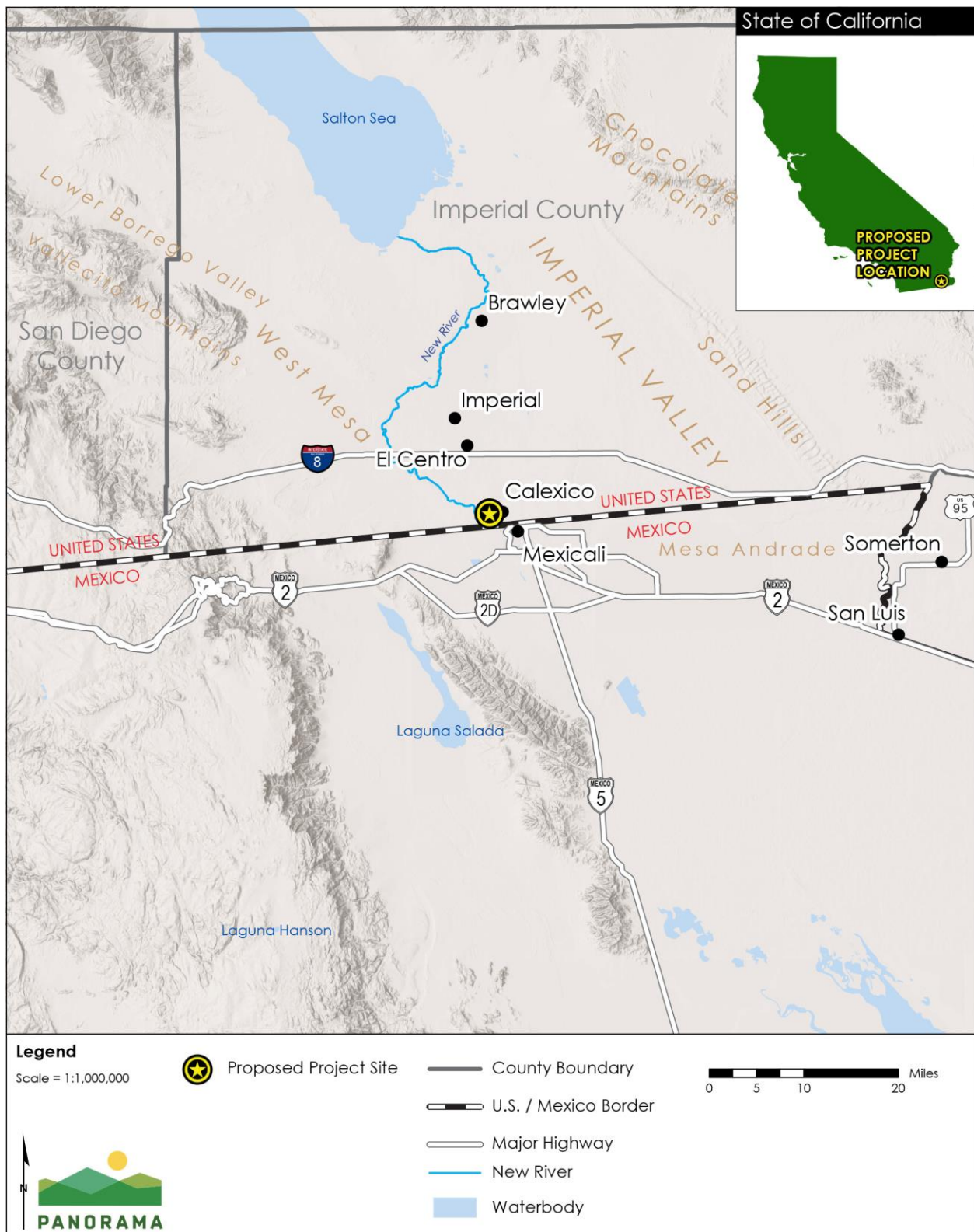


Figure 2 Project Site



Source: (City of Calexico, 2020; Esri, 2020; Tele Atlas North America, Inc., 2018)

New River Improvement Project

Wetlands Mapbook

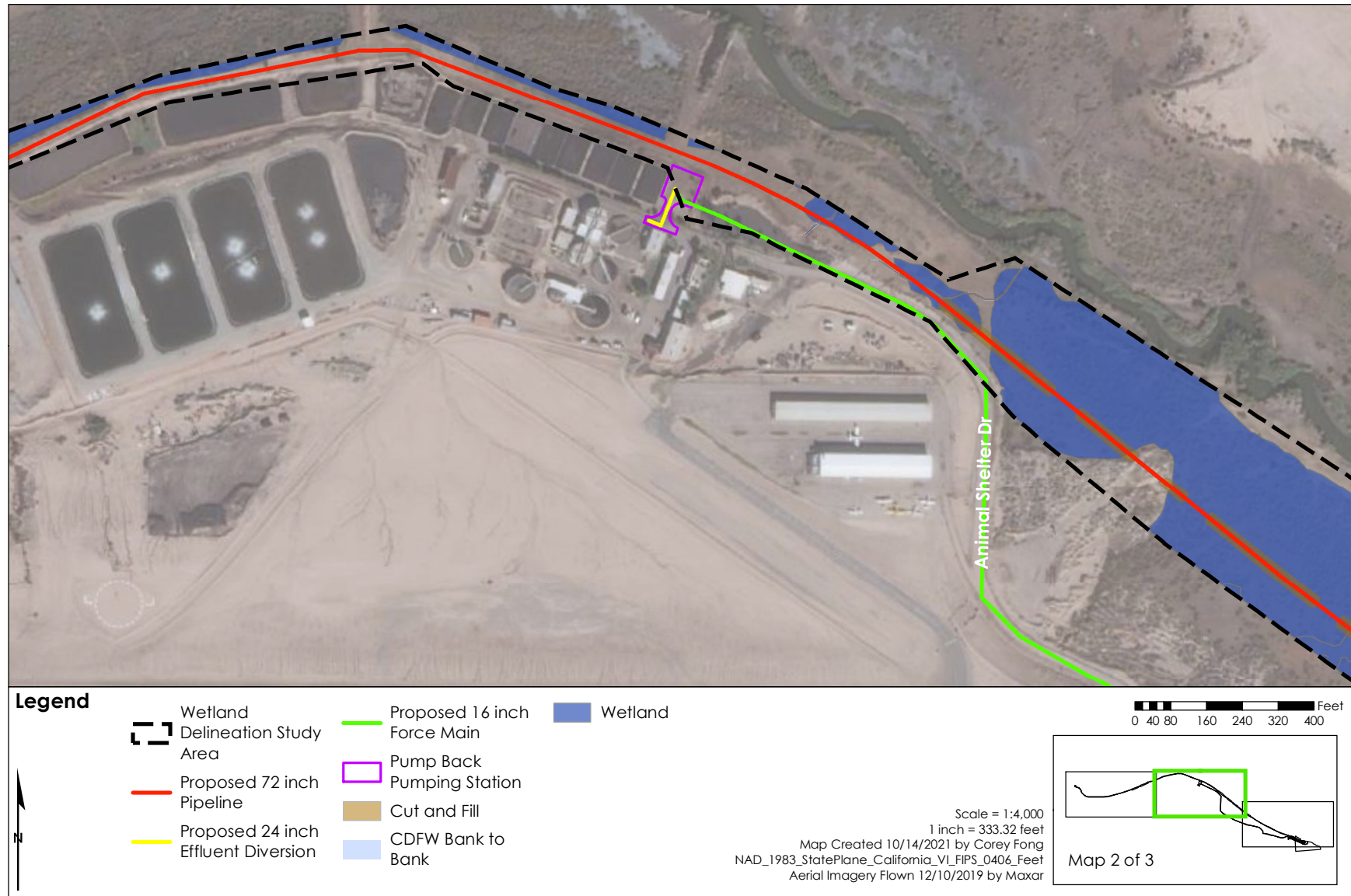
Figure 3



New River Improvement Project

Wetlands Mapbook

Figure 4



New River Improvement Project

Wetlands Mapbook

Figure 5

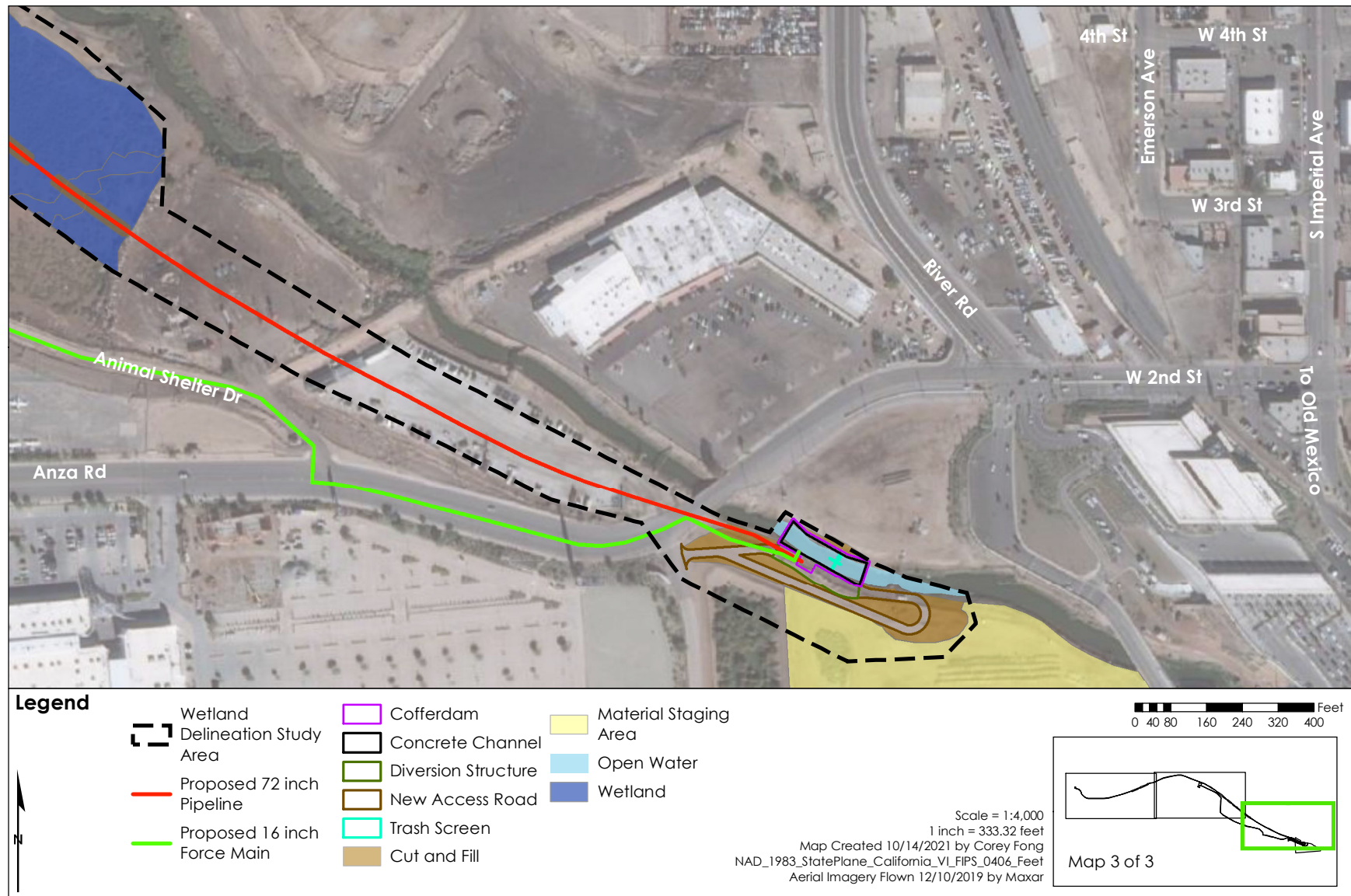
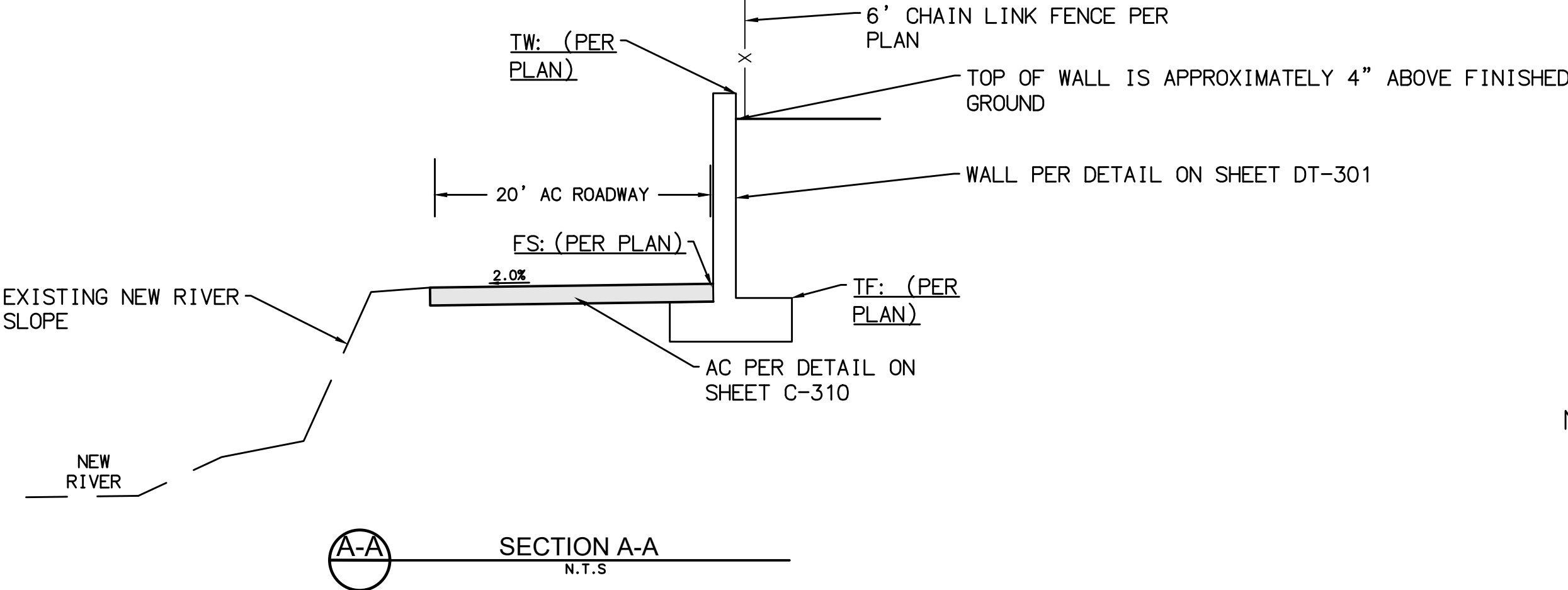
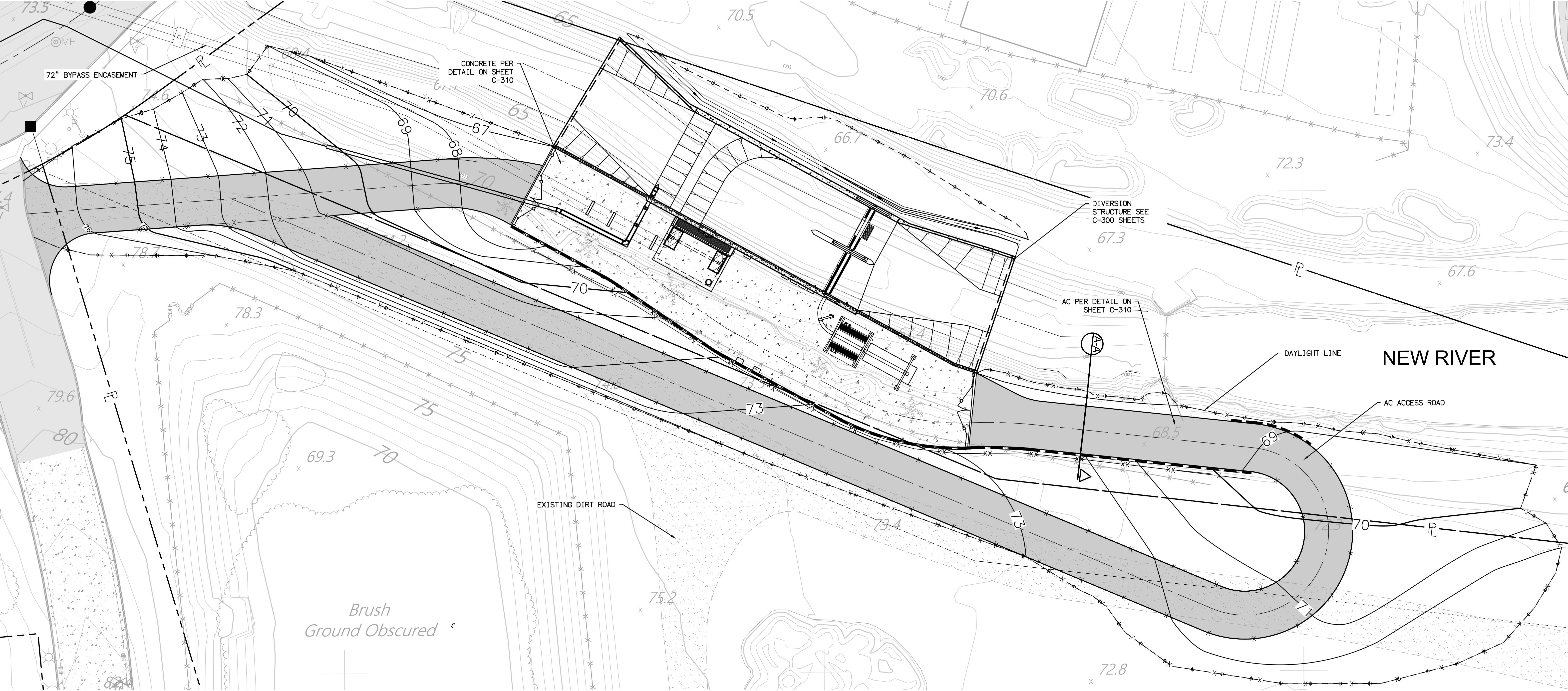
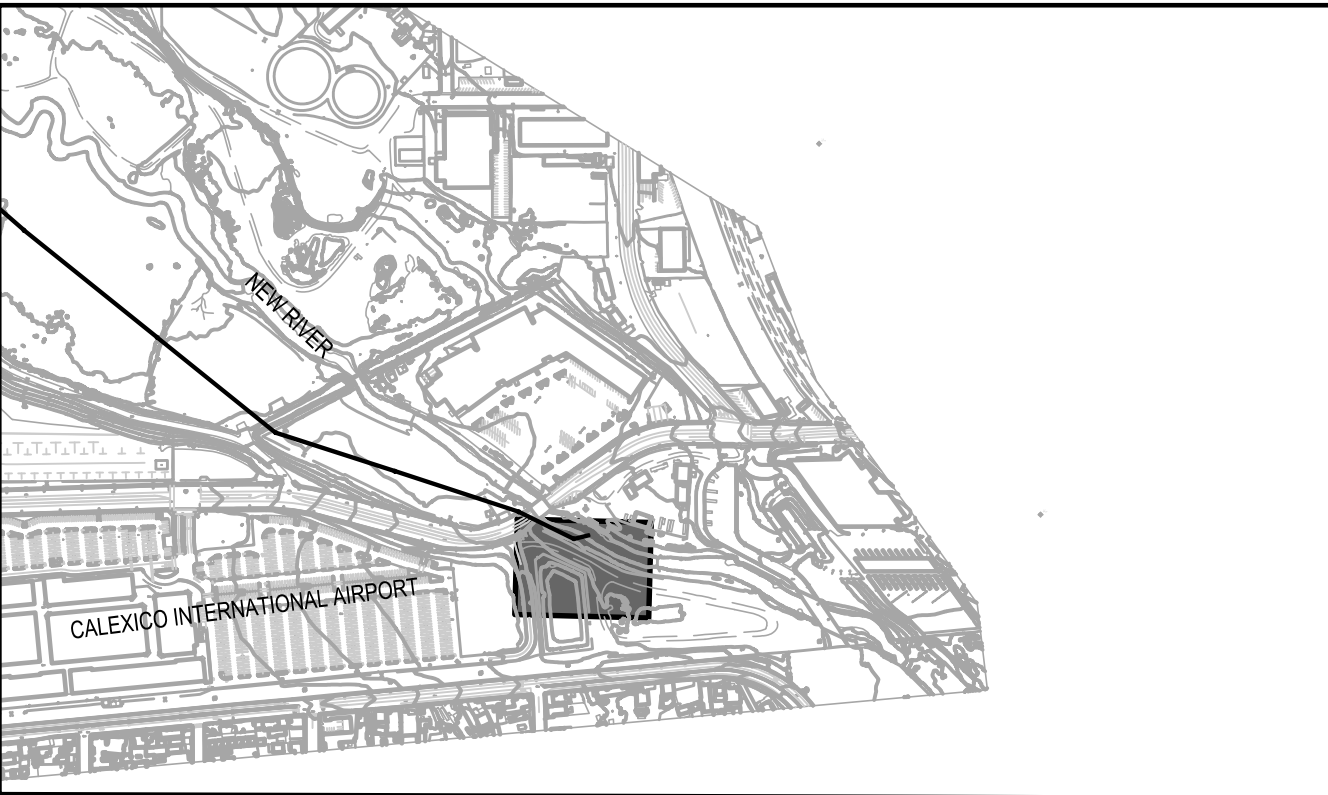


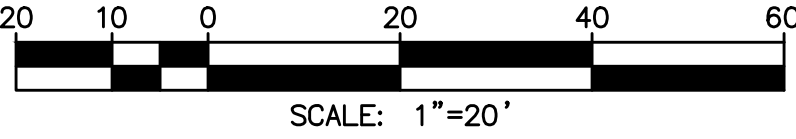
Figure 6



- NOTE:
- 1. PRIOR TO CONSTRUCTION, CONTRACTOR TO CLEAR/ GRUB AND COMPACT PER GEOTECHNICAL REPORT DATED OCTOBER 31, 2018
 - 2. SEE SHEETS C-303 & C-304 FOR GRADING AND IMPROVEMENT ELEVATIONS AND DETAILS.



GRADING PLAN
SCALE 1"=20'



NO.	BY	DATE	REVISIONS:

APPROVED BY:

DAVID DALE, PE, PLS, R.C.E. 63588
CITY MANAGER, CITY OF CALEXICO

DATE

APPROVED BY:

PAULA RASMUSSEN
EXECUTIVE OFFICER
COLORADO RIVER BASIN WATER BOARD

DATE

ENGINEER OF WORK:
MICHAEL BAKER INTERNATIONAL

BRIAN D. STUP, R.C.E. 58259

DATE

DRAWN BY.....

CHECKED BY.....

DATE.....

LAST REVISED

DATE.....

Michael Baker

INTERNATIONAL

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PROJECT DESCRIPTION
TITLE: NEW RIVER IMPROVEMENT
PROJECT- CALEXICO
LOCATION: CALEXICO, CALIFORNIA
CLIENT: STATE WATER RESOURCES
CONTROL BOARD (WATER
BOARDS)

DRAWING DESCRIPTION
GRADING PLAN

SHEET NO.

C-118

23 of 132

C.F. NO.

PROJECT NO.

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