

Update on USIBWC's Environmental Assessments for the Rio Grande Canalization Project

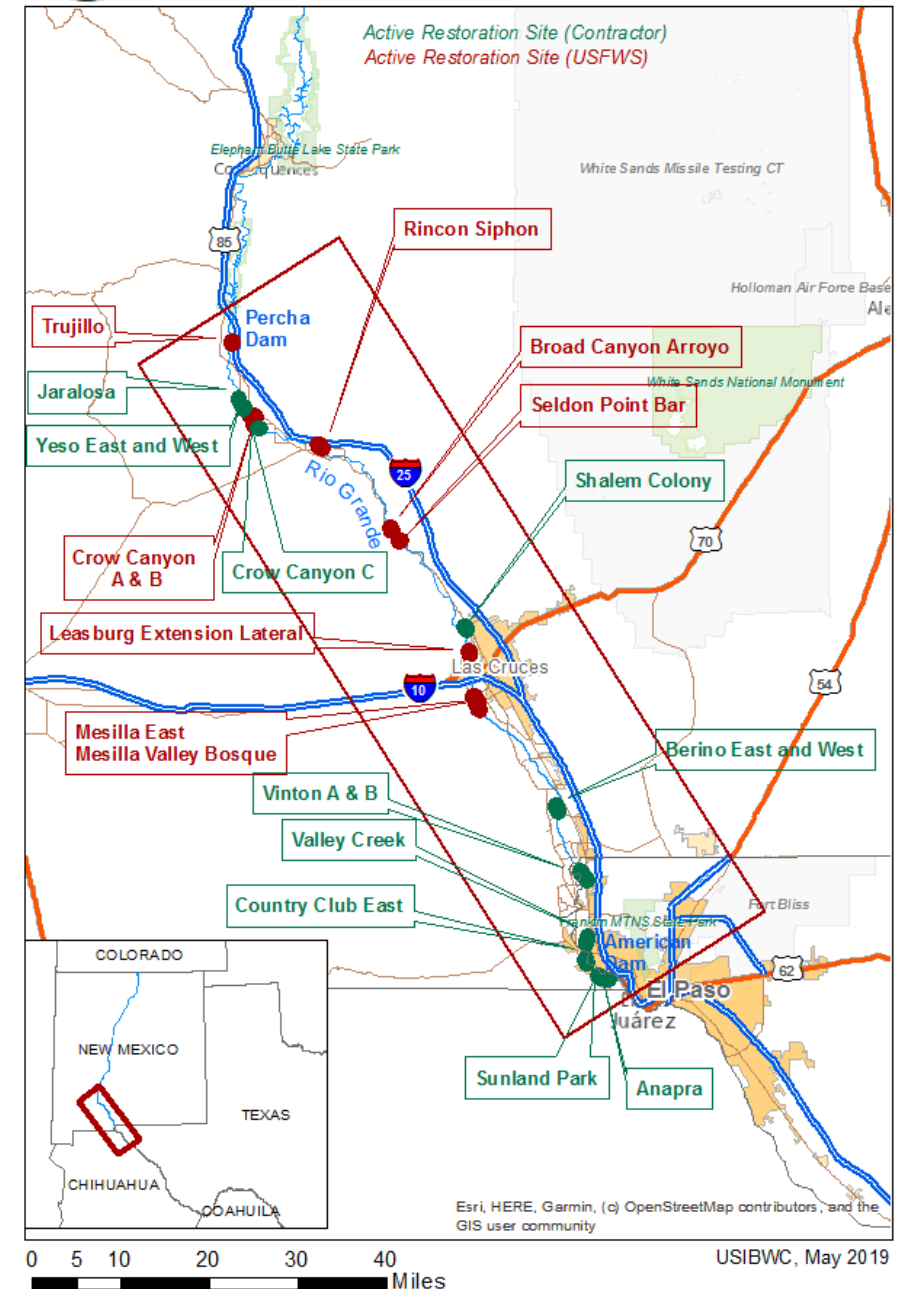
November 1, 2019

Paso del Norte Watershed Council



Background

- USIBWC's 2009 Record of Decision commits USIBWC to managing the Rio Grande Canalization Project in a more sustainable manner, including:
 - implementing up to 30 habitat restoration sites targeting riparian and aquatic habitat
 - Updating the River Management Plan
 - Evaluating channel maintenance and establishing monitoring program
 - Altering areas mowed/not mowed
- USIBWC has been implementing riparian habitat projects since 2009
- USIBWC has worked on several iterations of the River Management Plan
- In furtherance of the ROD/RMP goals, in Sept 2018, USIBWC awarded two contracts for Environmental Assessments in compliance with National Environmental Policy Act



River Management Plan EA

- Record of Decision expired in June 2019
- USIBWC has put all commitments for ROD requirements, habitat restoration, floodplain management, channel maintenance, and endangered species managements into our River Management Plan (RMP) (2016, and draft 2018)
- In Sept 2018 USIBWC began an Environmental Assessment for the Continued Implementation of the RMP
- Scoping November 2018
- Draft EA May 31, 2019
- Public comment period through August 5, 2019
- Final EA anticipated November 2019

RMP EA - Alternatives

- **Alternative A: No Action Alternative – Continued Implementation of the RMP** - continue implementation of the RMP through 2030 and the use of adaptive management to update each section of the RMP according to agency needs and recommendations in the individual plans.

All these alternatives would continue implementation of the RMP through 2030 and the following:

- **Alternative B: Continued Implementation of the RMP and Increased Recreation**
 - provide recreation opportunities on USIBWC property, including aquatic and trail opportunities.
 - Trail opportunities would include the designation of approximately 65 miles through the USIBWC right-of-way (ROW) as part of the “Rio Grande Trail.”
- **Alternative C: Continued Implementation of the RMP and Increased Sediment Removal (MODIFIED VOLUMES FROM DRAFT EA)**
 - increase sediment removal in the channel
 - increase engagement with stakeholders on sediment control initiatives.
- **Alternative D: Continued Implementation of the RMP and Additional Channel Maintenance Alternatives**
 - re-evaluate channel maintenance alternatives (CMAs)
 - redesign them with the most efficient and effective design which could include project construction outside of the USIBWC ROW
 - construct CMAs mostly identified in the 2015 CMA Study, such as sediment control structures, arroyo sediment traps, arroyo re-alignments, and island destabilization.
 - increase efforts to engage stakeholders through the Sediment Control Initiative Federal Workgroup and stakeholder group.
- **Alternative E: Continued Implementation of the RMP and Official Protection for Restoration Sites**
 - work to provide some restoration sites with a more official long-term protection status (example state or federal protection).
- **Alternative F: Continued Implementation of the RMP and Replacement Restoration outside of USIBWC Jurisdiction or Implementation by a Third-Party**
 - implementation of restoration outside of USIBWC jurisdiction and/or restoration sites by a third party, such as a non-governmental organization.
 - over the long term, the USIBWC would eventually move up to 500 acres of either No-Mow Zone managed grasslands or unsuccessful habitat restoration areas, via partnerships.
- **Alternative G: Continued Implementation of the RMP and Partnership Combination is the Preferred Alternative (MODIFIED FROM DRAFT EA)**
 - designate approximately 65 miles through the USIBWC ROW for the New Mexico Rio Grande Trail and Texas trails as discussed under Alternative B;
 - perform additional sediment removal as discussed under Alternative C;
 - implement additional CMAs and increase efforts to engage stakeholders through the Sediment Control Initiative Federal Workgroup and stakeholder group as discussed under Alternative D; and
 - transfer up to 500 acres of restoration outside of the USIBWC jurisdiction of either No-Mow Zone managed grasslands or habitat restoration, via partnerships, as described in Alternative F.

RMP EA - Preferred Alternative

- ***Alternative G: Continued Implementation of the RMP and Partnership Combination is the Preferred Alternative (MODIFIED FROM DRAFT EA)***
 - designate approximately 65 miles through the USIBWC ROW for the New Mexico Rio Grande Trail and Texas trails as discussed under Alternative B;
 - **perform additional sediment removal as discussed under Alternative C;**
 - implement additional CMAs and increase efforts to engage stakeholders through the Sediment Control Initiative Federal Workgroup and stakeholder group as discussed under Alternative D; and
 - transfer up to 500 acres of restoration outside of the USIBWC jurisdiction of either No-Mow Zone managed grasslands or habitat restoration, via partnerships, as described in Alternative F.

Aquatic Habitat EA

- Potential adverse issues to levees with the proposed aquatic conceptual sites in the 2009 Plan led the USIBWC to issue a contract in 2018 to GSRC/SWCA/GSA team to evaluate alternative aquatic habitat sites for up to 47 acres of aquatic habitat and complete an Environmental Assessment
- Contractor was required to look at criteria for logistics, feasibility, O&M, water rights/evapotranspiration, species benefited, cost, etc.
- 2018 fish study by Bixby and Probst funded by the Paso del Norte Watershed Council recommended some options that were considered in the EA

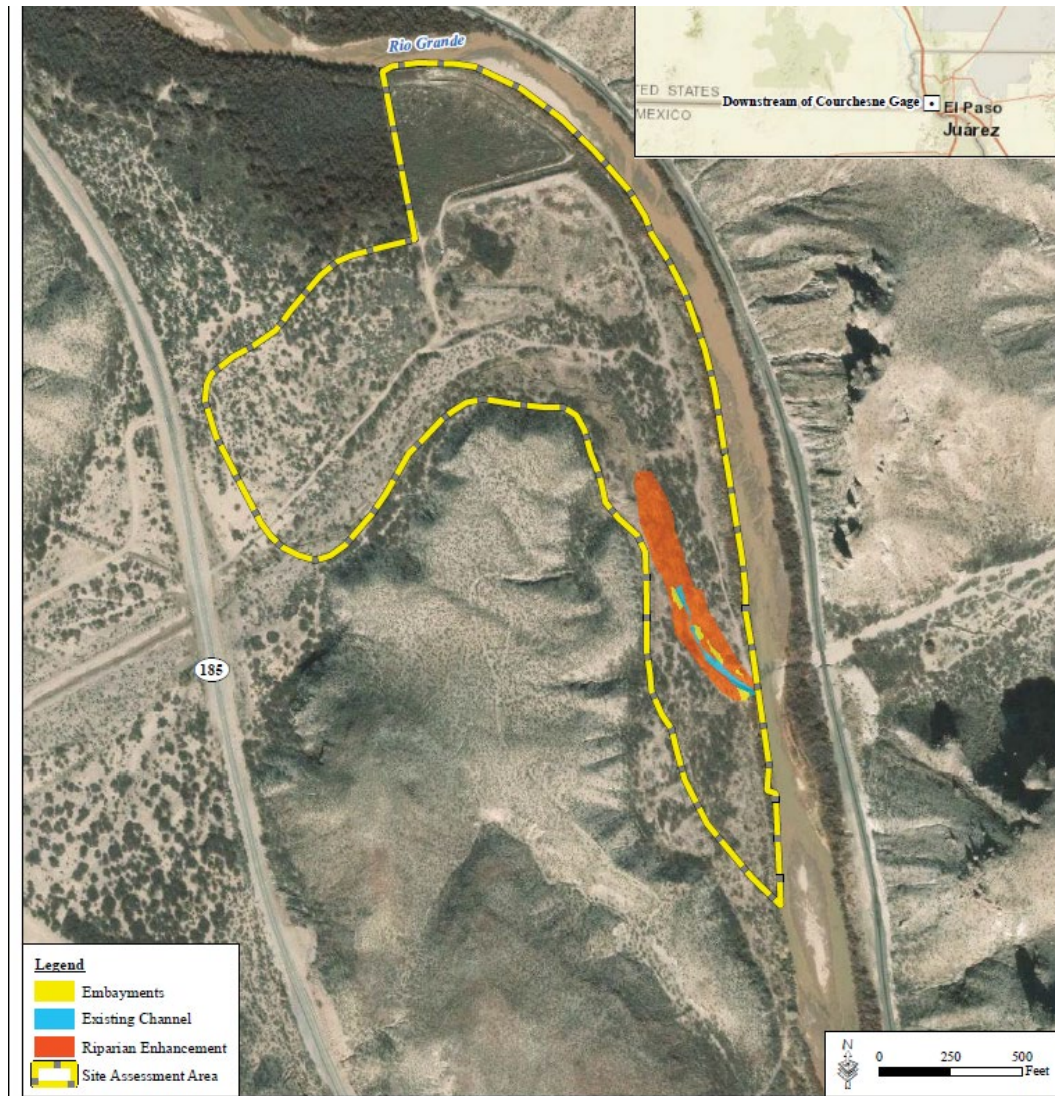
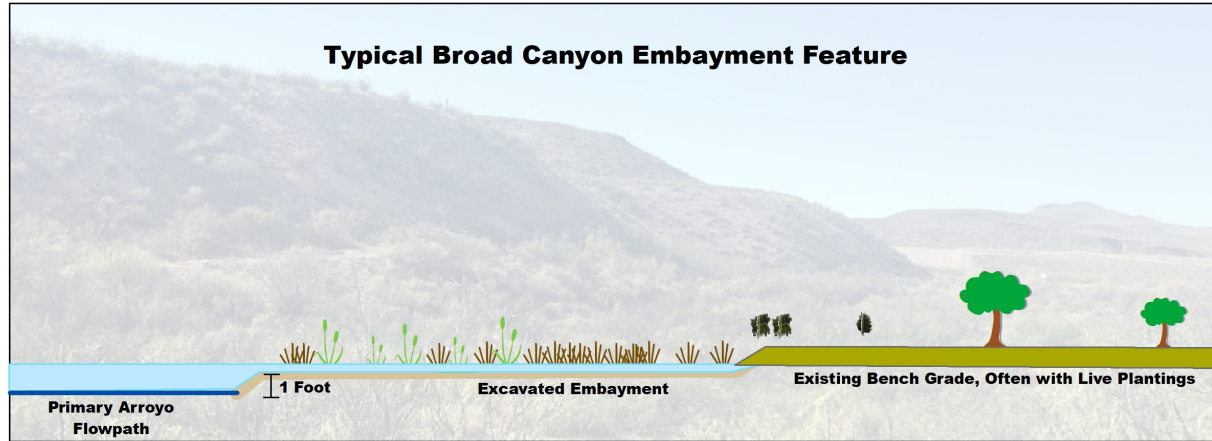
Habitat EA - Alternatives

- **Alternative A – No Action**
- **Alternative B - Yeso Arroyo:** This alternative would construct nested terraces along the bankline opposite the Yeso Arroyo and create 6.9 acres of aquatic restoration features in a 14.3-acre area.
- **Alternative C - Angostura Arroyo:** This alternative would construct nested terraces along the bankline opposite the Angostura Arroyo and create 7.5 acres of aquatic restoration features in a 14.9-acre area.
- **Alternative D - Broad Canyon Arroyo:** This alternative would excavate a series of embayments at the mouth of the Broad Canyon Arroyo and create 0.2 acre of aquatic restoration features in a 2.1-acre area.
- **Alternative E - Selden Point Bar:** This alternative would excavate a high-flow channel and a backwater channel supplemented by revegetation with native riparian and wetland plant species and create 0.8 acre of aquatic restoration features in an 8.8-acre area.
- ★ **Alternative F - Las Cruces Effluent:** This alternative would create a turnout from the straight concrete-lined channel currently used to convey treated wastewater to the Rio Grande to divert flows into meandering channel and create 0.9 acre of aquatic restoration features in a 4.5-acre area. **Could include riparian expansion northward.**
- ★ **Alternative G - Mesilla Valley Bosque State Park:** Under this alternative, USIBWC would work with property owners to create a variety of habitat features such as a **connection between Picacho Drain and the Rio Grande or side channel off of the Picacho Drain**, several shallow depressions (swales), and enhancement of existing wetlands and create 15.8 acres of aquatic restoration features in a 31.3-acre area.
- **Alternative H - Downstream of Courchesne Bridge:** This alternative, located in Texas, would excavate a meandering channel that routes stormwater from below the highway, through the site, and into the Rio Grande and create 1.4 acres of aquatic restoration features.

Aquatic Habitat EA

- Scoping November 2018
 - Contractors did field surveys November to March 2019 and evaluated 10 sites; Technical study in March 2019
 - Technical report includes soil data, hydrology modeling/cross section, vegetation surveys, wetland surveys
 - Draft EA evaluated the 7 most feasible/beneficial sites, including MVB
 - Draft EA May 31, 2019
 - USIBWC did not select the MVB site in the Draft Preferred Alternative in the Draft EA because of the uncertainty of land ownership between NMDGF/State Parks
 - Public comment period through July 22, 2019
 - Stakeholders and the public (during the public hearing in June and during public comment period) requested that USIBWC reconsider the MVB as an aquatic habitat site
 - USIBWC has reconsidered it and will add it to the Preferred Alternative in the EA decision document for the Final EA
 - EA is currently being finalized and water rights issues are under review with the Department of Justice
 - Final EA anticipated December 2019
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- GSRC's subcontractor have begun work on a construction designs for Las Cruces Effluent and MVBSP.

Broad Canyon Arroyo



Las Cruces Effluent



Las Cruces Effluent



Construction Elements

1. Construct meandering clearwater channel
2. Install selective fish passage structure
3. Install flow monitoring stations, pedestrian bridge, and pump
4. Plant cottonwood-willow in surrounding riparian enhancement area
5. Plant wetland plugs in channel

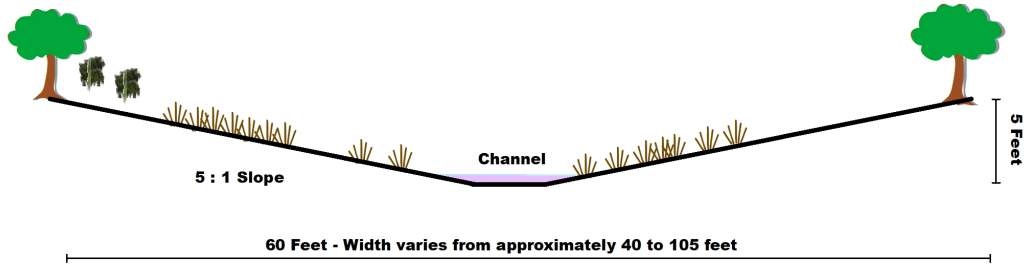
Legend

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|-------------------------|-------------------|--------------------------------|----------------------|
| Check structure | Pedestrian bridge | Proposed Design Feature | Riparian Enhancement |
| Flow Monitoring station | Channel | | |
- 0 50 100 200 Feet
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Mesilla Valley Bosque



Typical Channel Dimensions Mesilla Valley Bosque Restoration Feature



Picacho Drain Modification Schematic

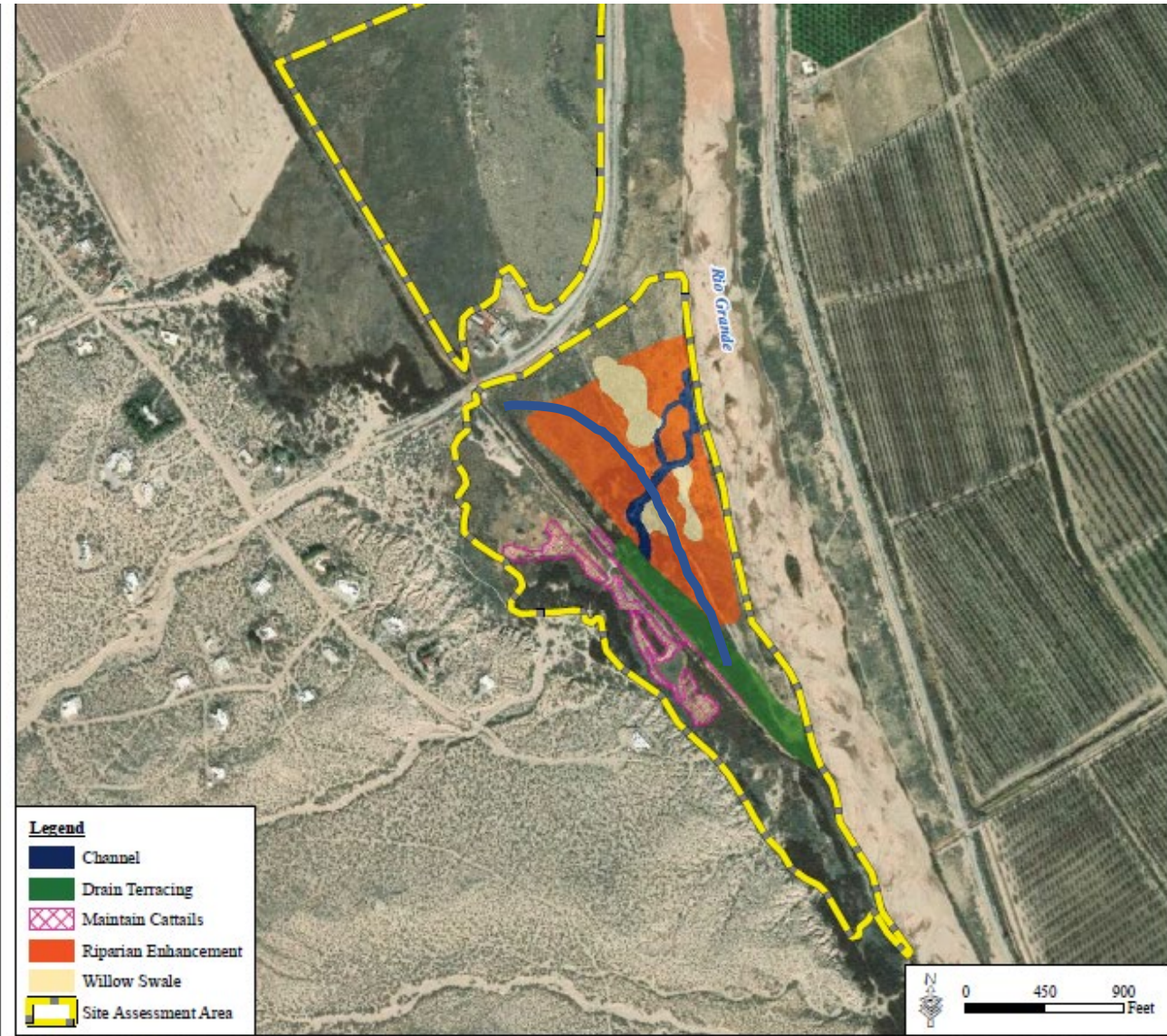
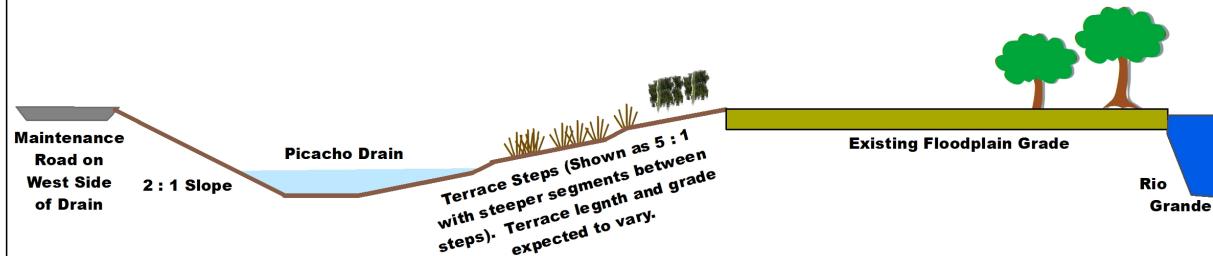


Figure A-14. Mesilla Valley Bosque State Park Alternative Site Conceptual Restoration Design

Below Courchesne Bridge

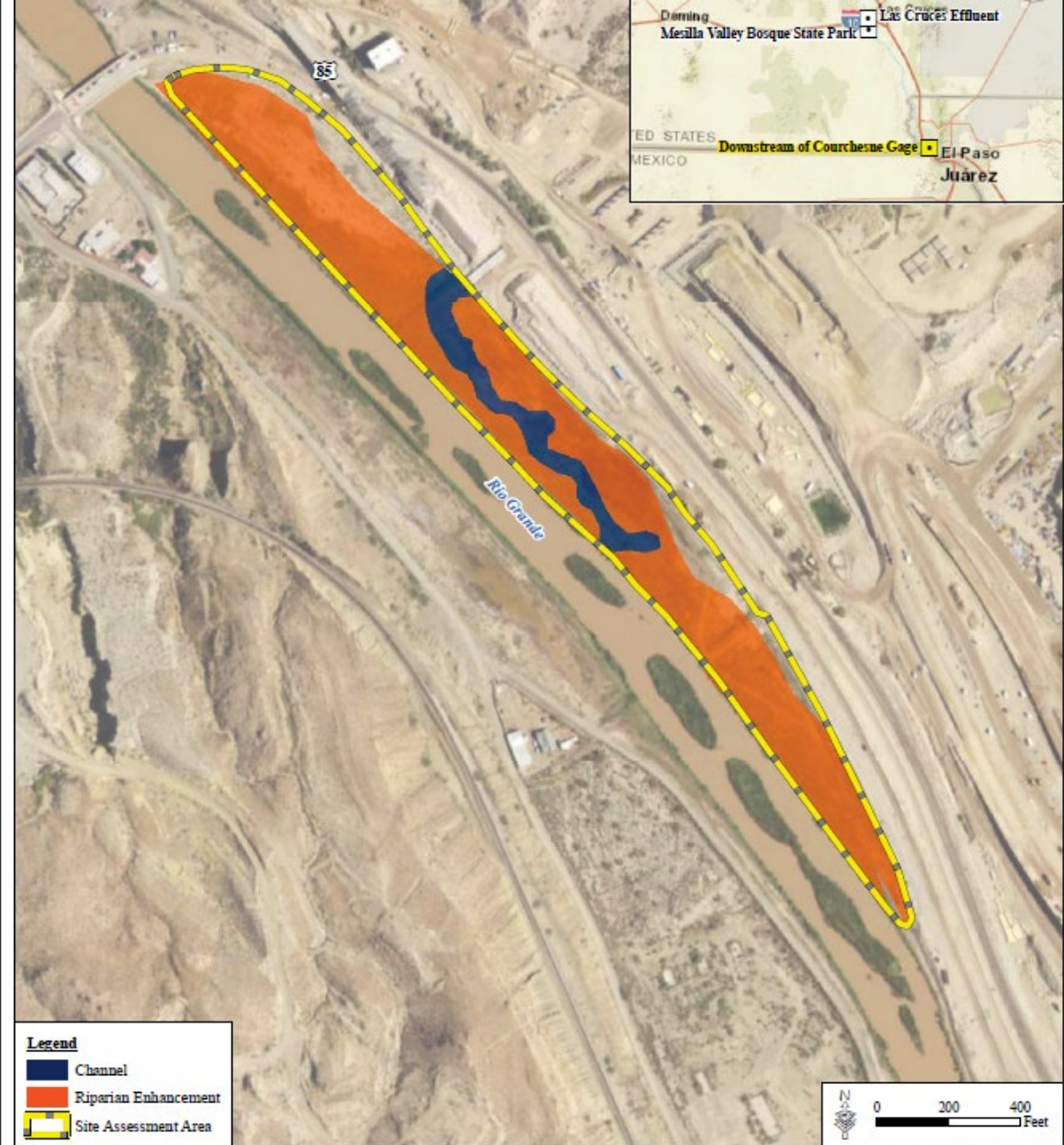


Figure A-16. Downstream of Courchesne Gage Alternative Site Conceptual Restoration Design