Thursday, October 8, 2020

California Fish Passage Forum

Project Name	Hosie Low Water Crossing
Contact Name	Darrel Evensen
Lead Organization	Stockton East Water District
Contact Email	devensen@sewd.net
Phone Number	(209) 948-0537
Date	Thursday, October 8, 2020

PROJECT INFORMATION

1. Location of Project 38 00 22.14 N 121 04 14.56 W

2. Attach a map of your project

pdf Location Map Hosie Crossing.pdf

3. Description of project, including, deliverables and outcomes you seek to achieve. Please clearly describe which portion of the project Forum funding would be applied to, and the specific deliverables and outcomes expected to result from this funding.

Description

To improve the habitat, natural production, and viability of native fish populations in the lower San Joaquin River watershed on the Mormon Slough, the Hosie Low Water Crossing will be replaced from a road to box culverts and a road crossing to allow passage of water under the crossing with lower velocities.

Forum funding would apply to the construction portion of the project.

Deliverables

Semi-annual progress reports
Geotechnical report
Design review
Permitting and environmental documentation (CEQA)
Construction and construction management
Redlines for as-built plans

Outcome

Replacement crossing with box culverts will allow for passage of water under the crossing with lower velocities thereby lessening the barrier for the fish population at high and low flows.

4. Select all components that apply to your project.

- Development of engineering design plans
- Barrier removal or remediation
- Habitat restoration

If you answered "yes" to question 6, please provide the PAD ID number(s).

735119

18. Attach a copy of your monitoring plan, (if available) and indicate the person and/or organization that will be responsible for implementing.**

If you would like to also upload a document to help illustrate the project's timeline (as described above) please do so here.

pdf Hosie Low Water Crossing DWR Presentatio...

5. List all partner organizations.

NMFS, CDFW, USFWS, USACE and DWR

6. Does the barrier(s) being addressed through this project have a Passage Assessment Database (PAD) identification number(s)?

YES

7. Describe the barrier(s) under "average" conditions, if it is a complete, temporal, or partial barrier, how often passage is provided for both adult and juvenile anadromous fish, and if the information is available (e.g., meets fish passage criteria for adults 45% of the time and 0% of the time for juveniles). Please specify which species you are referring to when describing barrier status.

The barrier is a partial barrier. Juveniles have unimpaired passage past the structure about 30% of the time during migration period. Depth criterion for unimpaired adult fish passage at Hosie Crossing is met when flow is 460 CFS or greater. Adult O. mykiss have unimpaired passage about 16% of the time during their migration period, and Chinook about 5% of the time.

8. Indicate how you determined that this barrier is a high priority project and/or addresses a high priority barrier. (Please check all that apply.)

- Barrier is listed in a key restoration plan for the region (see question 9 below)
- Endorsed by an agency

9. List the name(s) of the recovery plans and the specific task that name this barrier/project as a high priority, the agency that endorsed this project, or the local representative that names this project as a priority.

Final Environmental Assessment/Initial Study: Authorization of Incidental Take and Implementation of the Calaveras River Habitat Conservation Plan

Endorsed by Stockton East Water District and NOAA National Marine Fisheries Service

10. The California Fish Passage Forum (Forum) has seven (7) overall objectives. Please check each objective your project will help to address. (check all that apply)

1. Remediate barriers to effective fish migration.

5. Facilitate plans to monitor and evaluate fish passage restoration effectiveness to ensure accountability.

7. Implement education and outreach activities, targeting both the general public and fish passage practitioners.

11. Provide a brief explanation of how your project addresses all of the checked boxes in question 10.

Project replaces existing barrier with box culverts. Working with DWR on the planning, design, construction and education

12. Select each anadromous fish species that will benefit from your project (select multiple if applicable).

Chinook salmon

Steelhead/rainbow trout

13. Provide all relevant data on anticipated outcomes of implementing this project. *

- Stream miles restored or enhanced
- Acres of habitat restored
- 1 Number of barriers removed/remediated
- Outreach accomplishments (number of presentations given, materials produced, individuals reached etc.)

14. Provide the location and distance in stream miles to downstream river structures, and whether each structure represents an insignificant, partial, or total barrier to fish passage.

River Mile 13.2 on the Calaveras. Structure represents partial barrier to fish passage

15. Provide the location and distance in stream miles to upstream river structures, and whether each structure represents an insignificant, partial, or total barrier to fish passage.

River Mile 13.2 on the Calaveras. Structure represents partial barrier to fish passage

16. Indicate which of the Forum's priority habitats that will be enhanced or restored as a result of this project (choose all that apply).

Spawning habitat

Rearing habitat

17. Has the owner and/or responsible organization/agency of the barrier(s) proposed for removal and/or remediation been identified, notified, and given permission for this project to proceed as proposed?

YES

If YES, please provide the name of the entity that owns/is responsible, and describe how consent to proceed was obtained/documented, and their role (if any) in any monitoring.

Stockton East Water District. Consent to proceed was through the Stockton East Water District Board Meeting action and permitting through DWR, BOR and State Water Quality Control Board. Monitoring is detailed in the Final Environmental Assessment/Initial Study. The District will be monitoring the construction of the project.

***The Forum recommends, as a bare minimum, applicants use the California Fish Passage Forum's Fish Passage Barrier Removal Performance Measures and Monitoring Worksheet, and one year minimum pre- and post-project monitoring.*

19. Will your project be implemented within 12-18 months?

YES

20. Describe below the project's timeline (including permits), as well as implementation and monitoring dates. Please describe any issues that exist, if any, that could delay project implementation.

Concrete box culverts will be delivered this month and staged on-site. Stockton East Water District construction staff will begin construction and the project will finish up in 2021.

21. Attach any designs of your project as well as any photos.

pdf Hosie Crossing Preliminary Plans.pdf

PROJECT COSTS & BUDGET

22. Total Project Cost. 715300

23. Total funding amount being requested from the Forum. 50000

24. Total matching contributions (cash and in-kind) that will be included in your project. Include all matching contributions that have been secured and that are anticipated/requested. 274000

25. Total matching funds or in-kind support secured at time of application. 224000

26. List all partner contributions (cash and/or in-kind) using the table below:

	Match Source	Cash Contribution	In-Kind Contribution	Total Contribution
Partner 1	224000	224000		224000
Partner 2				
Partner 3				
Partner 4				
Partner 5				
Partner 6				
Partner 7				

27. Will the project be fully funded if funding being requested from the Forum is awarded?

YES

28. Attach a project budget sheet below that describes the overal project budget. Budgets MUST include:

- Total cost of project
- Total funding request from the Forum clearly indicating how/on what those funds will be spent.
- Monitoring costs
- Accompanying narrative explaining budget categories, amounts listed, what will be accomplished, and what deliverables are expected, etc. as needed.

If you do not have a detailed budget for your project, you can find a template and other resources on the Funding page of the Forum's website.

Attach a project budget, including a narrative that describes the overall project budget and a detailed budget breakdown. (Word, .pdf, or .xls)

xlsx Hosie Crossing Opinion of Probable Cost.xlsx

PROJECT TEAM CAPABILITIES

29. Describe the experience and capabilities of up to three of the project leaders relative to their ability to implement this project. Please also describe any other Forum-supported projects project leaders have been involved with.

Monica Gutierrez, NMFS, involved in project coordination and management.

Randy Beckwidth, DWR, involved in planning, design, construction and monitoring of the project.

FISHBIO, assessing project environmental compliance, specifically with the fish

Aaron Riojas, SEWD, District construction manager, involved in many of the District construction projects and runs a capable construction crew

Darrel Evensen, SEWD, District Engineer, involved in many complex construction management projects,

both with the District and throughout the Western United States

Manual Verduzco, SEWD, Inspection Engineer, involved in many District construction projects

OUTREACH

30. Does your project have a public and/or community outreach component? If so, please describe (e.g., public workshops, tours, signs, scientific journal articles, scientific conference presentations, educational forums, professional photo/video development, website, press release, newsletter, social media outreach, volunteers, schools, etc.)

Yes, DWR has prepared presentations and workshops. There have been press releases and scientific journal articles on the San Joaquin River system and the Calaveras River system.

ALIGNMENT WITH NATIONAL PRIORITIES

31. Which National Fish Habitat Partnership (NFHP) National Conservation Strategies will be addressed by your project? (select all that apply)

1. Protect intact and healthy waters.

2. Restore hydrologic conditions for fish.

Review the *NFHP National Conservation Strategies*.

32. What U.S. Fish & Wildlife Service (USFWS) Climate Change Strategies will be addressed by your project? (select all that apply)

3.2 Promote habitat connectivity and integrity.

3.3 Reduce non-climate change ecosystem stressors.

3.4 Identify and fill priority freshwater needs.

Review the *USFWS: Rising to the Urgent Challenge – Strategic Plan for Responding to Accelerating Climate Change*.

33. Provide specific information about how your project addresses the climate change strategy you checked in question 32.

With climate change, runoff will be less made up of snow melt and more of rain runoff, causing a decrease in total water runoff and limited runoff periods. By eliminating this fish barrier by this project, this project will greatly improve fish passage and their environment even with climate change impacts.

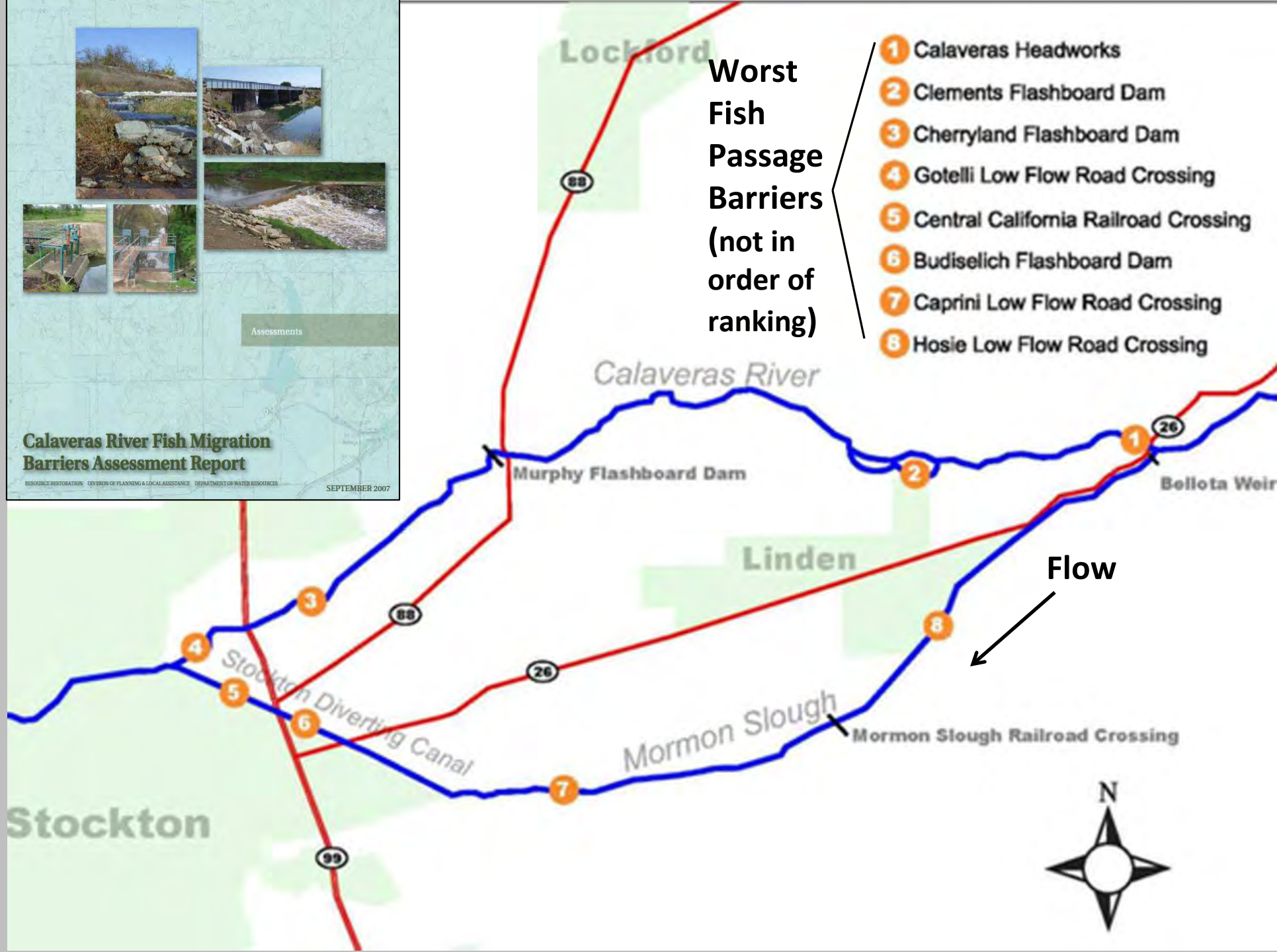
34. Would an existing tribal, commercial, recreational, or subsistence fishery be enhanced as a result of the project? If yes, please describe. If not, is there a future fishery that would potentially be restored through increased habitat as a result of this project? If so, describe.

Yes, recreational fishing would be enhanced as a result of the project. By increasing the passage of adult and juvenile fish in greater numbers equates to more recreational fishing. Also, tribal and subsistence fishing would see that same increase.

Thank you for your interest in the Forum, and for taking the time to submit this proposal. You will be contacted by the Forum to discuss the outcome of this funding process.

Location Map – Hosie Dam Fish Passage Improvement Project

Hosie Low-water Crossing



CALIFORNIA DEPARTMENT OF
WATER RESOURCES

Hosie Low-water Crossing

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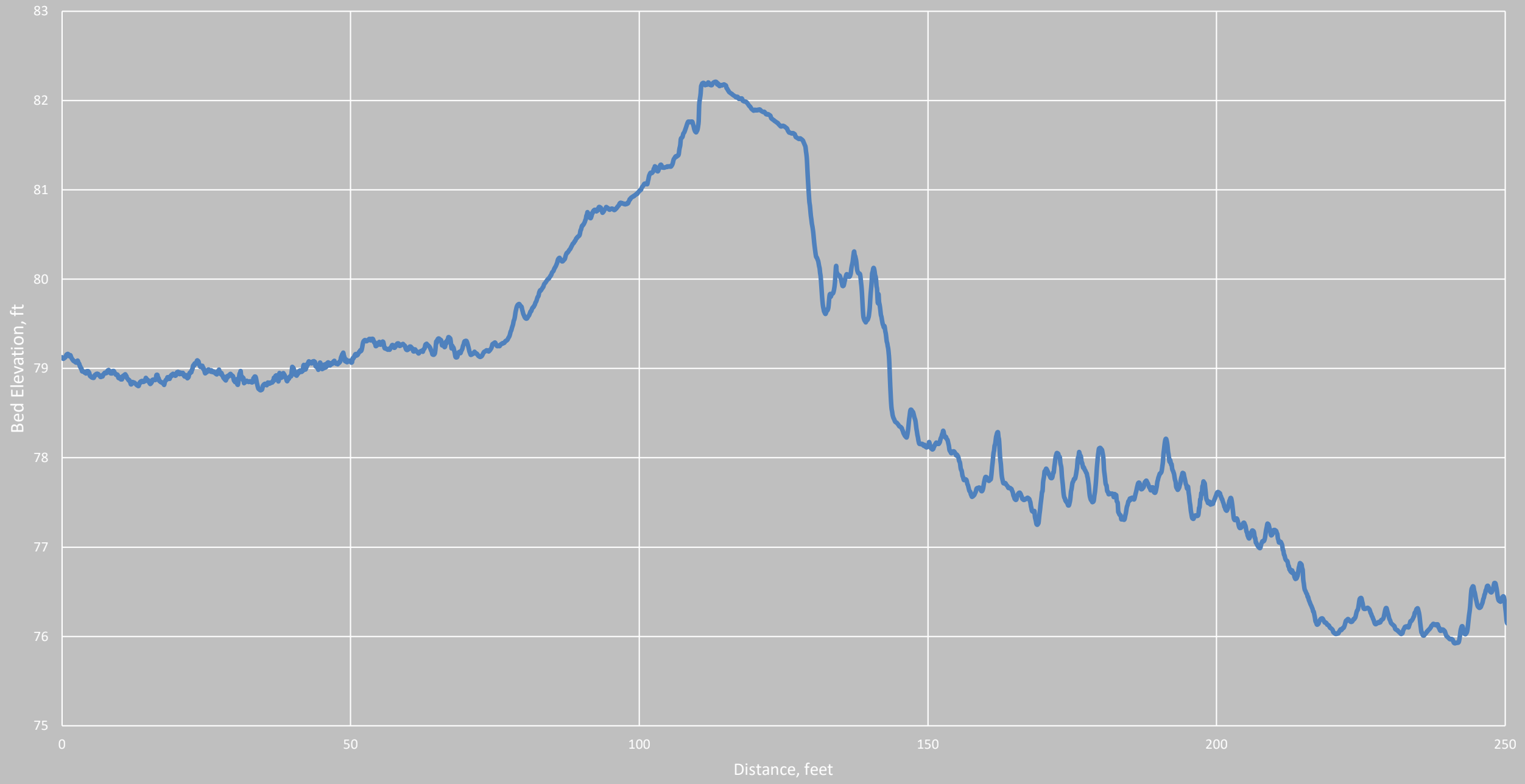
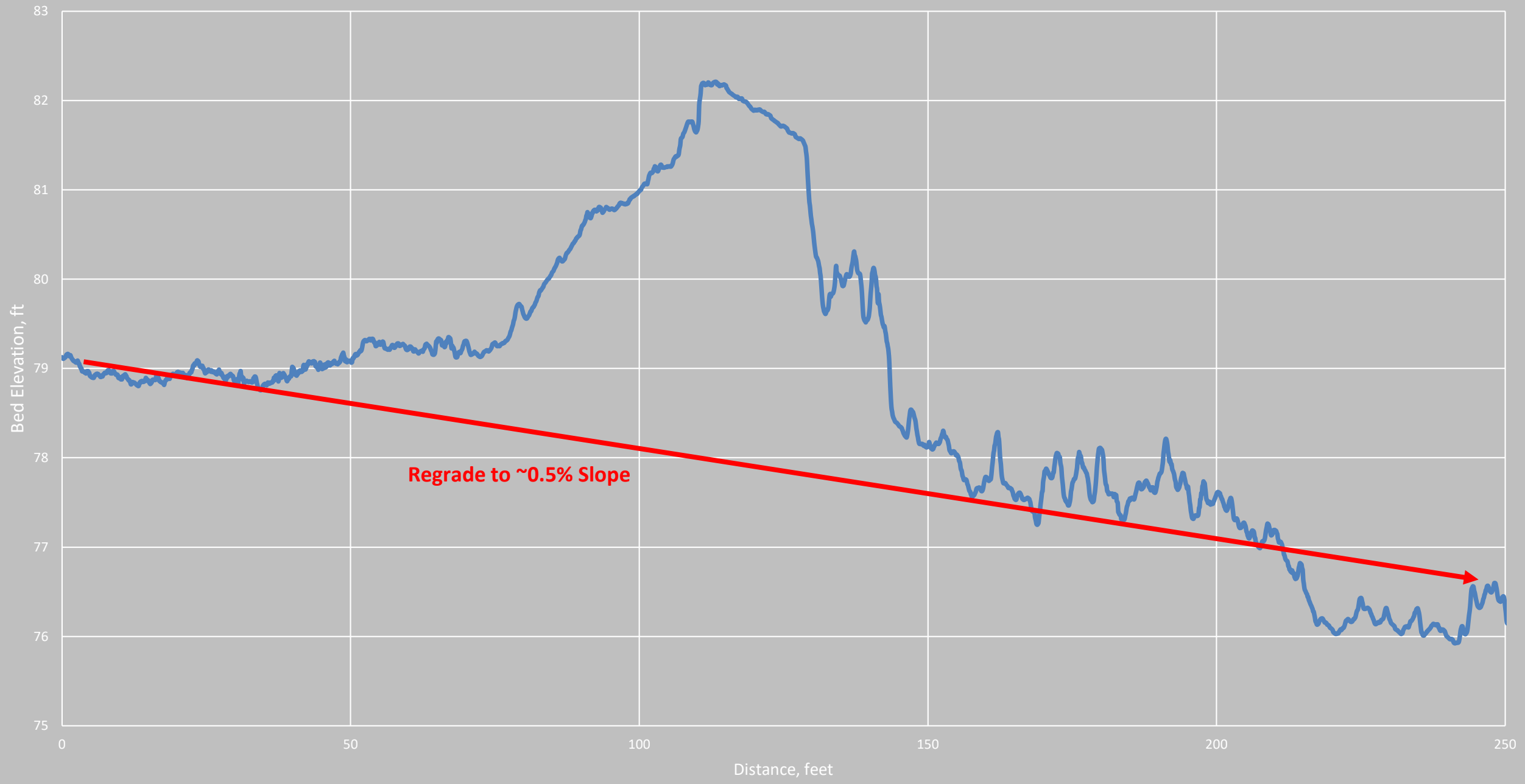
Existing Profile at Hosie Crossing

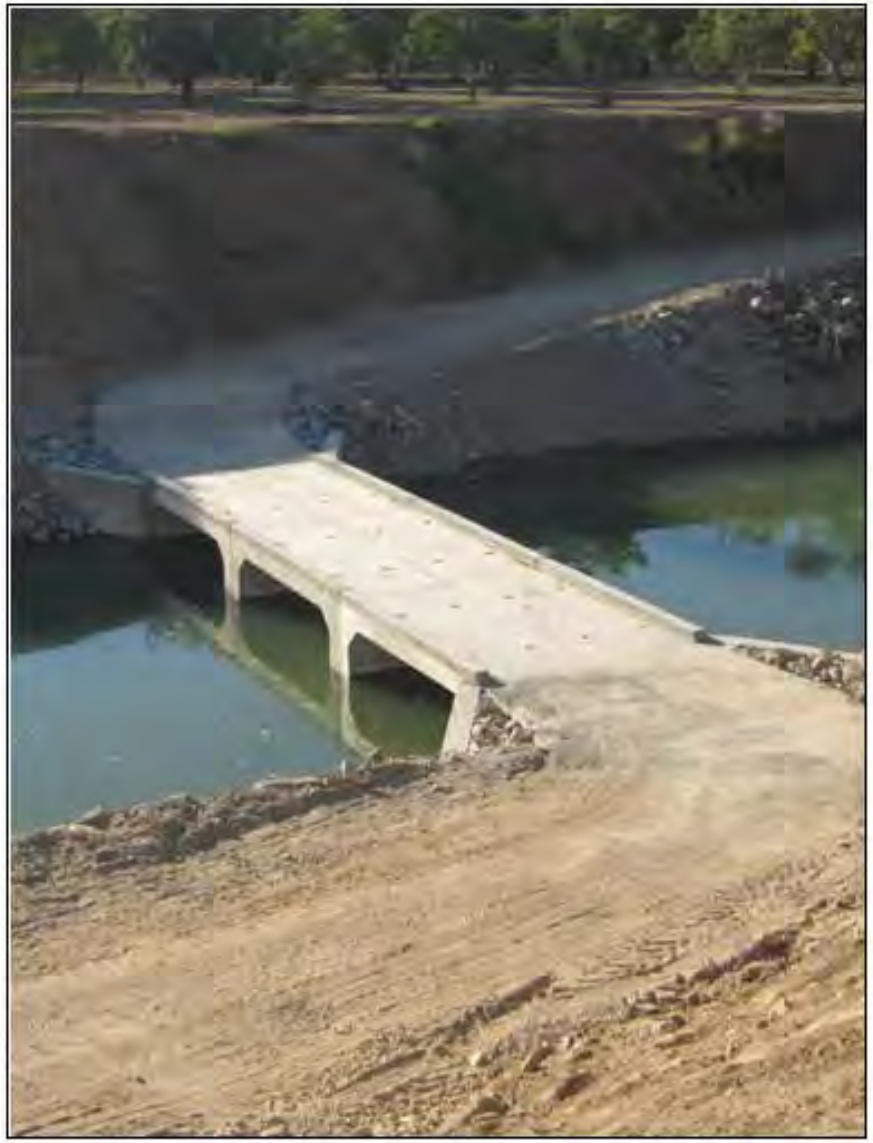


Existing Profile at Hosie Crossing



Caprini Low-water Crossing

Caprini Low-water Crossing before ..... and after Construction



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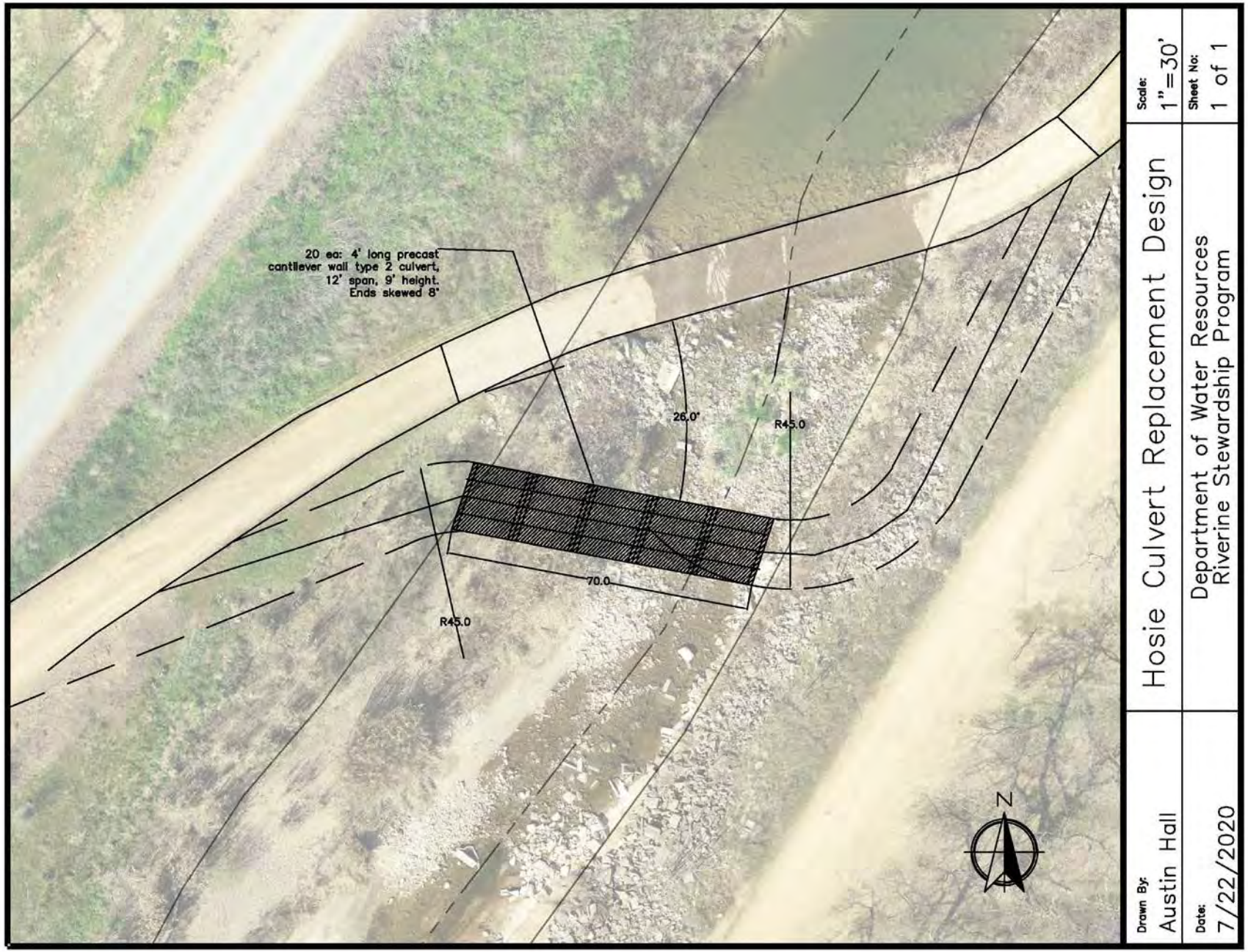
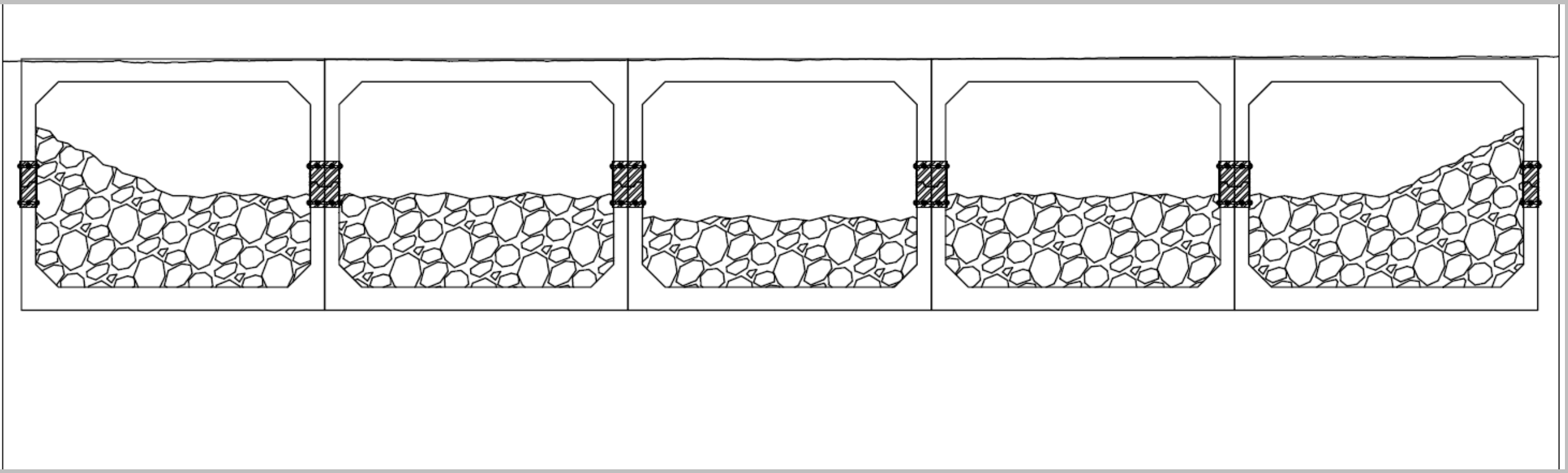
WATER RESOURCES

Hosie Low-water Crossing Conceptual Design

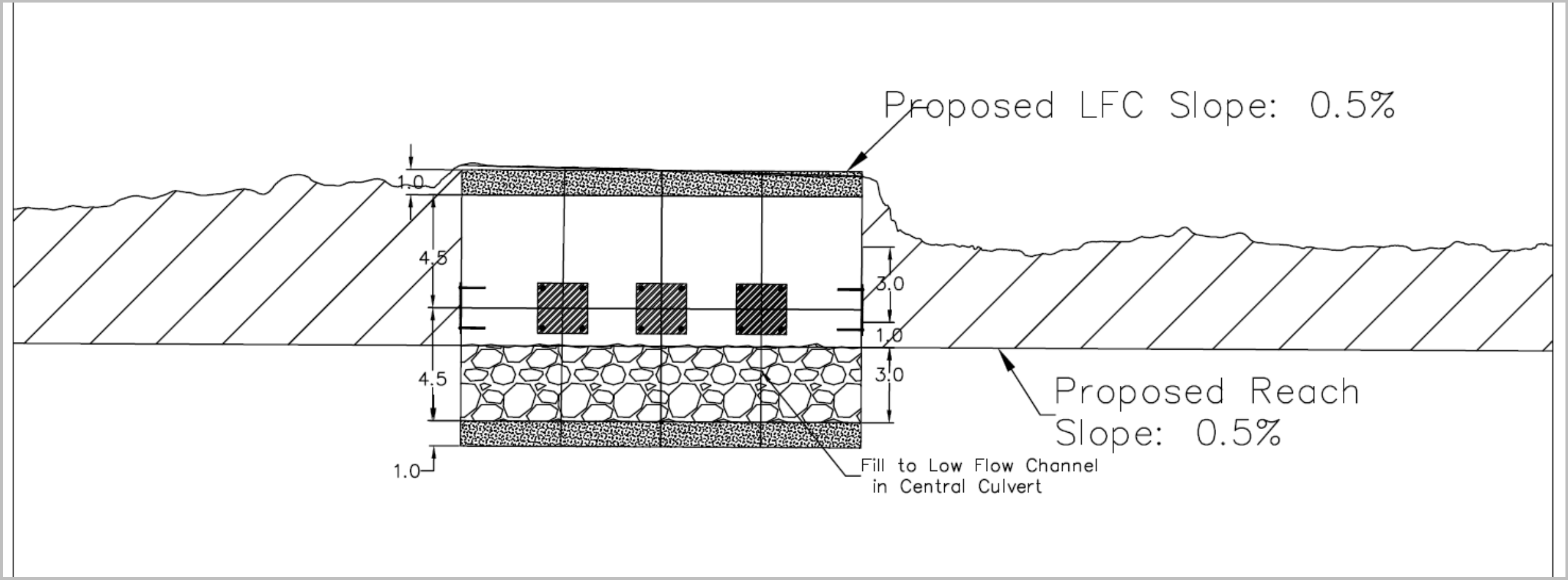


Hosie Low-water Crossing
Conceptual Design



Culvert Cross Section

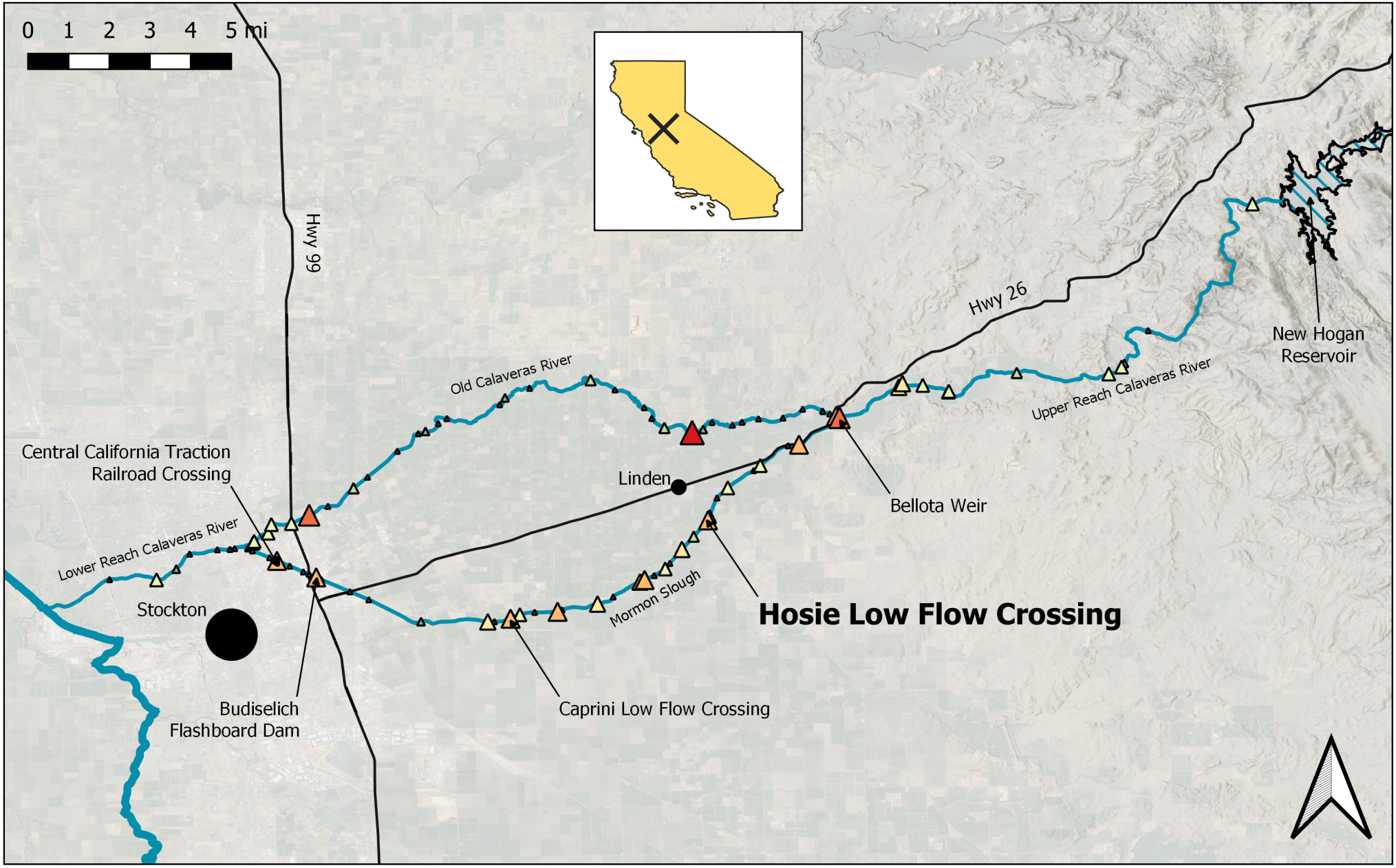
Hosie Low-water Crossing
Conceptual Design



Profile

Draft Timeline

- Box culverts have been ordered
- Site surveys – currently occurring
- 65% Design and Modeling – October 31, 2020
- 90% Design – January 31, 2021
- 100% Design – March 31, 2021
- Permits in hand – June 30, 2021
- Construction – August/September 2021



2007 Barrier Assessment Rating

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7

Highway

Calaveras River

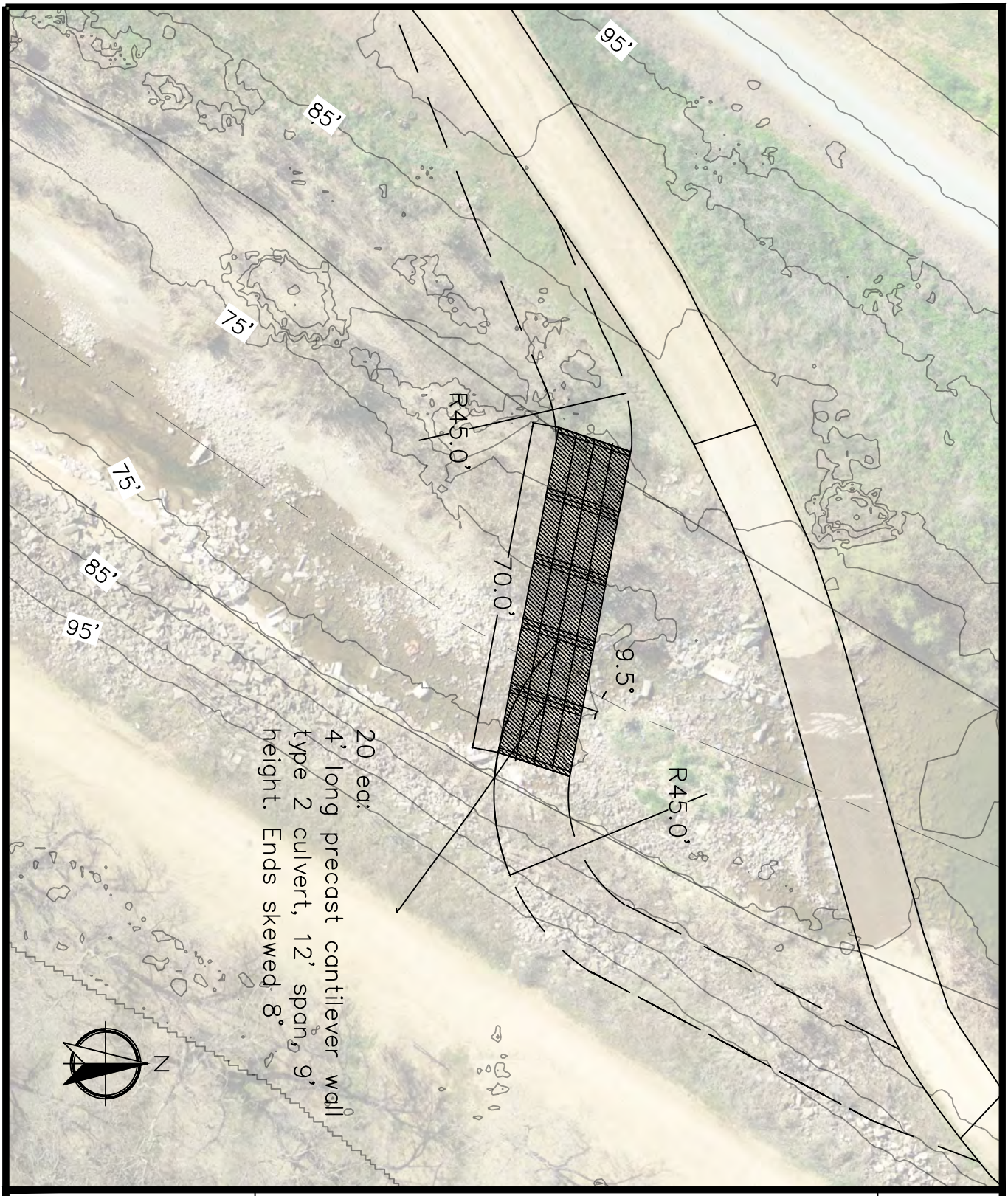
San Joaquin River

New Hogan Reservoir

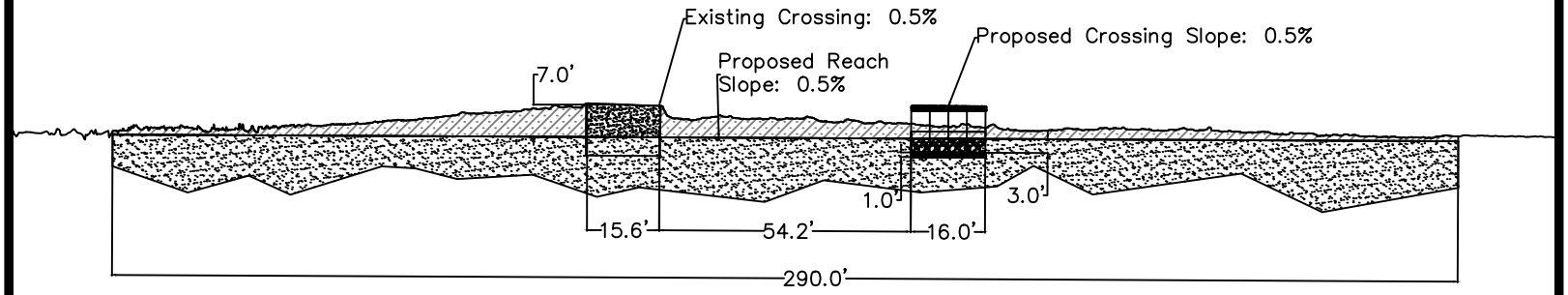
Population Center

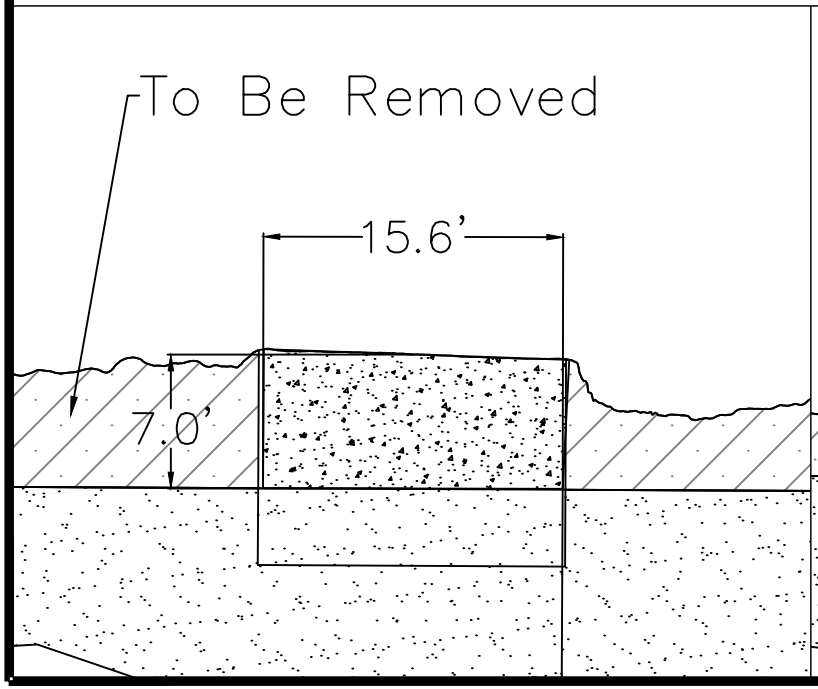
- Linden
- Stockton

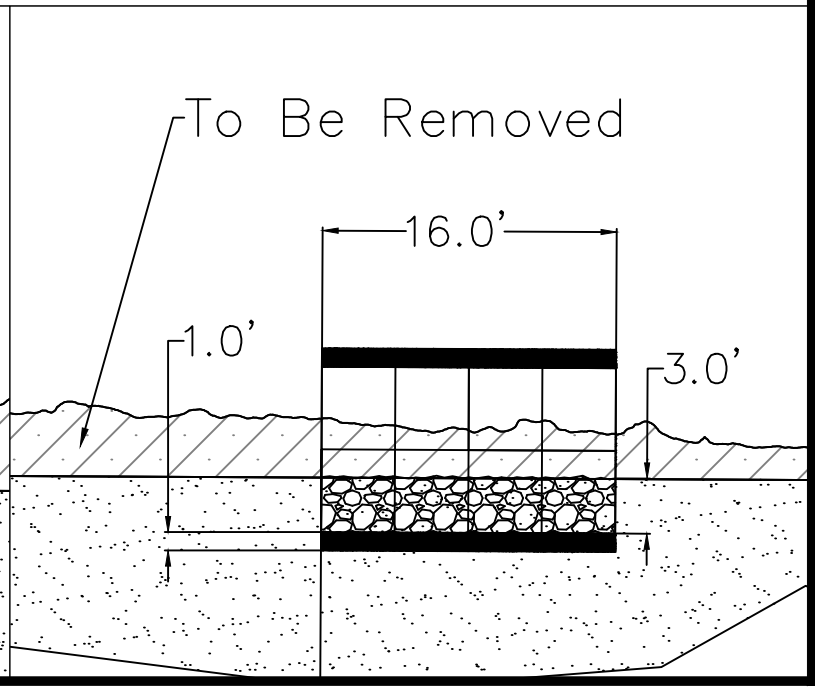
Lower Calaveras River
Overview
Hosie Project Location



Drawn By: Austin Hall	Hosie Crossing Replacement Design	Scale: 1"=30'
Date: /2020	Department of Water Resources Riverine Stewardship Program	Sheet No: 1 of 4







Scale: Varied

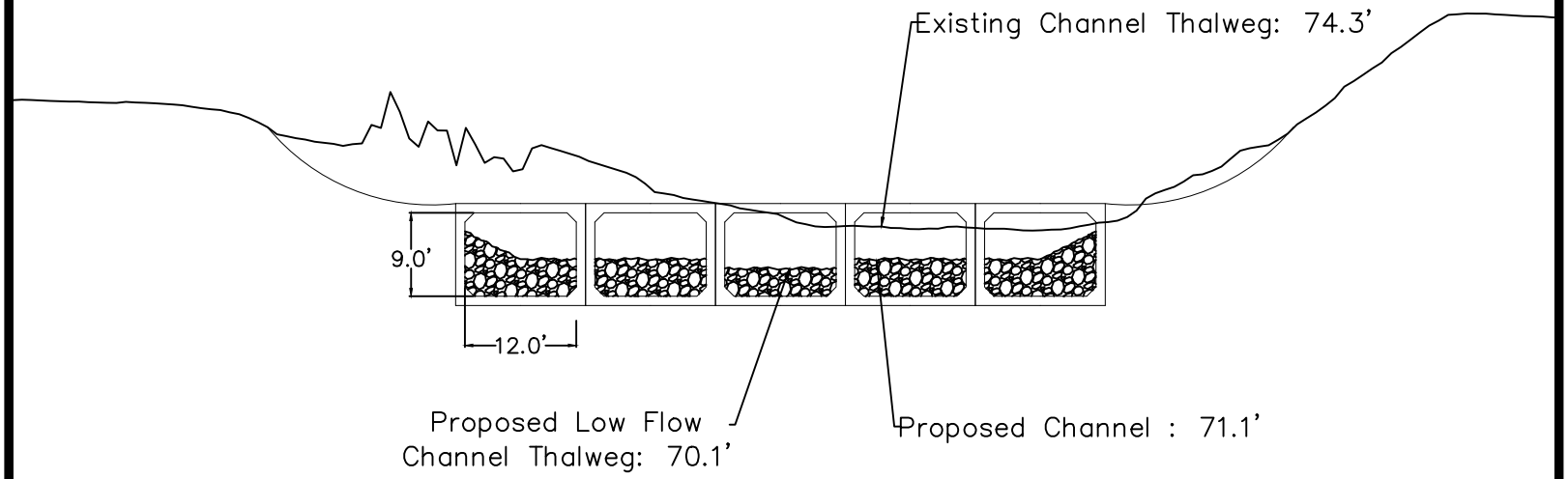
Sheet No: 2 of 4

Hosie Design Profile

Department of Water Resources

Drawn By: Austin Hall

Date: /2020



Drawn By: Austin Hall

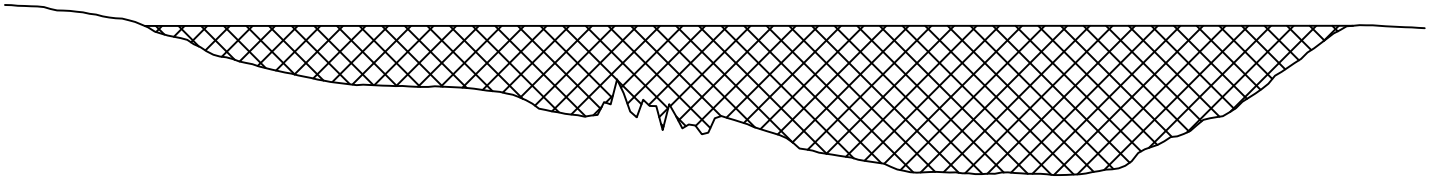
Date: /2020

Hosie New Crossing Cross Section

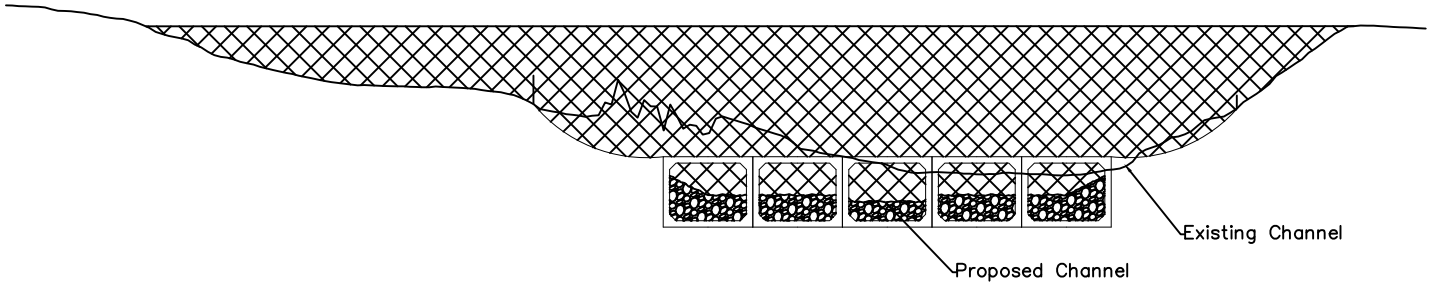
Department of Water Resources
Riverine Stewardship Program

Scale: 1"=20'

Sheet No: 3 of 4



Existing Channel Area: 2582 sq ft



Proposed Channel Area: 3011 sq ft (−16.7% Blockage)

Hosie Blockage Calculation

Department of Water Resources
Riverine Stewardship Program

Drawn By: Austin Hall

Date: /2020

Scale: 1"=40'

Sheet No: 4 of 4