CORDOVA CREEK STREAM NATURALIZATION PROJECT

LOGOS

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Project Vision

Restore Cordova Creek (aka Clifton's Drain) to

- Create a functioning, living stream
- Improve the environment;
- Create a place for people to gather, learn, and enjoy

Access, Involvement, Education

- Provide environmental justice benefits with equal Parkway access
- Enhance environmental education and volunteer stewardship with habitat restoration and organic farming at American River Ranch and CNPS Elderberry Farms
- Provide improved passive nature study areas
- Incorporate a pedestrian recreational trail with interpretive signs
- Create interpretive displays with the theme of "the rebirth of Cordova Creek: from concrete channel to naturalized creek"
- Develop knowledge of healthy food habits, habitat restoration, the water cycle, and riparian ecology
- Describe stream function in a natural environment in the context of stream restoration
- Present a microcosm of California's historic Central Valley, once filled with small family farms along natural streams, supporting native wildlife and beneficial insects
- Provide partnerships between Sacramento County Regional Parks, City of Rancho Cordova, Water Forum, CNPS, American River Ranch, and SAFCA

Channel Design, Flood Control, and Water Quality

- Allow natural geomorphic and floodplain processes without causing uncontrolled erosion or sedimentation while maximizing stream stability
- Provide a geomorphically appropriate channel to convey 2-year flows while allowing higher flows to dissipate on the floodplain
- Provide a riparian zone to filter urban runoff pollutants
- Discourage the formation of stagnant pools that provide mosquito habitat

Habitat

- Restore riparian habitats with native wetland and riparian vegetation to increase wildlife use of adjoining uplands and fields
- Provide movement corridors and refugia when high river flows inundate low elevation floodplain habitats

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Planning and Design Constraints

Budget

Stay within Prop. 84 grant award of $1.7 million

Flood Protection

Maintain existing levels of flood protection

Minimize grading in floodway (see map)

American River Parkway Plan

Maintain consistency with ARPP land use goals and policies

Bicycle Trail and Bridge

Maintain existing bike bridge and minimize construction disturbances to trail

Physical and Land Use Setting

Stay within project planning boundary (see map)

Balanced grading plan – no import or export of soil or fill material

Preserve good quality agricultural soils

Minimize encroachments onto existing American River Ranch field crops and orchards

Incorporate farmable units for field and crop rotation planning

Project Design Components

Remove/bury existing concrete bed and banks and farm bridge

Preserve western deer fence for American River Ranch

Develop pedestrian-friendly, deer-proof gate for trail access

Provide low-water crossing for American River Ranch access across naturalized channel

Build ADA-compliant trail for most of main trail length

Provide pedestrian trail connection from Dedo Way to Bike Trail

Preserve existing native trees and shrubs to the extent feasible


American River
Outfall
Bike Trail
Bike Bridge
Existing Channel
Inflow
Chase Dr
Rhoda Way
Maxine Way
Octavia Way
Rhoda Way
Agnes Circle
Rinda Dr
Rinda Dr
Moraine Circle
Thores St
Dawes St
Los Palos
La Loma Dr
Cordova Creek
Project Boundary
Orchard
DWR Floodway

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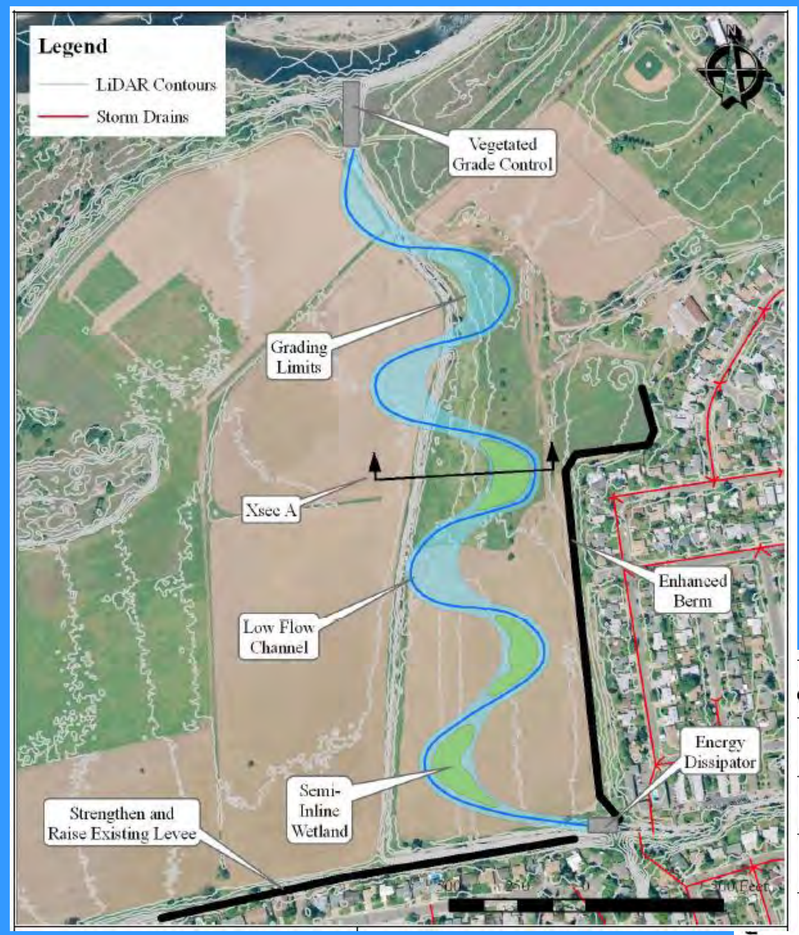
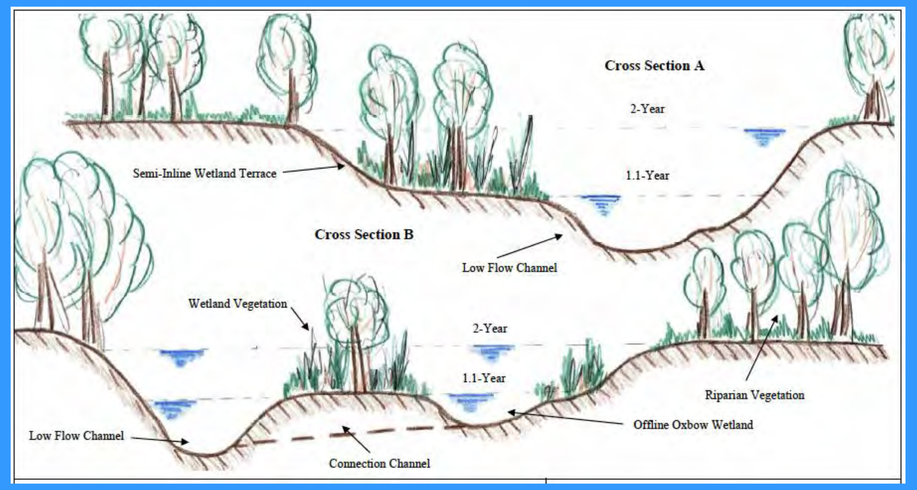
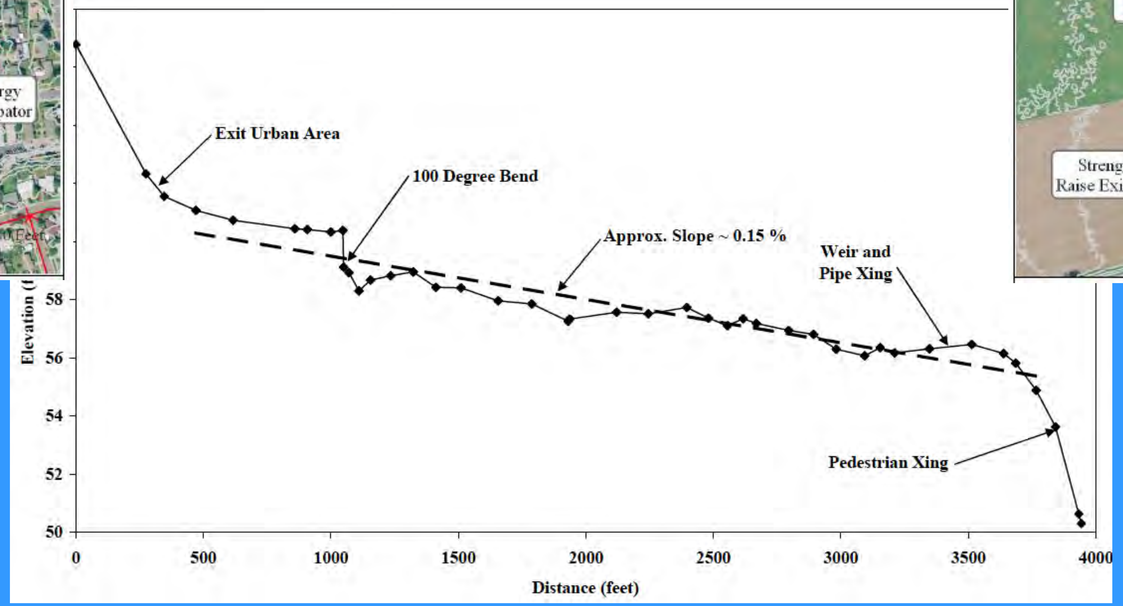
ORIGINAL GRANT CONCEPT SKETCHES (FOR ILLUSTRATIVE PURPOSES ONLY)



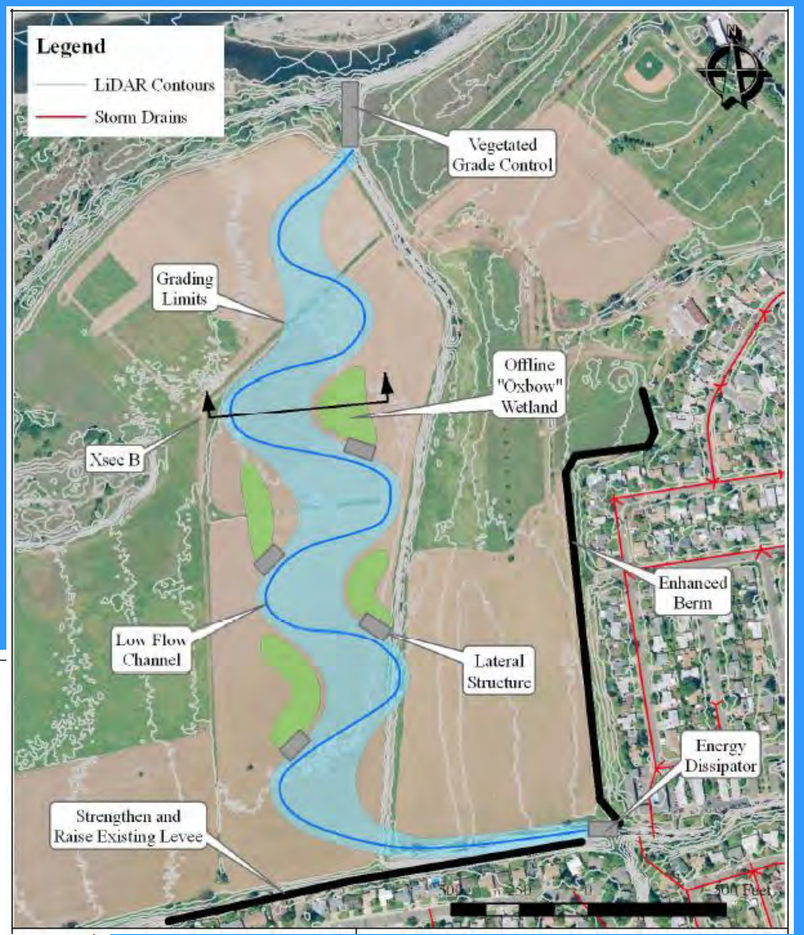
Original concept predominantly aligned on east of site



Conceptual cross section sketch



Longitudinal profile through site



Original concept predominantly aligned on west of site

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American River Parkway Plan Consistency

River Bend Park Area Plan

- Provide buffer between Protected Area and Limited/Developed Recreation land uses
- Restore Cordova Creek to a natural riparian corridor with pedestrian trails to improve habitat quality, water quality, aesthetics, recreational opportunities, and public access from adjacent neighborhoods
- Policy 10.32: Provide up to 7 acres within 10 acres of Developed Recreation land use to support the future interpretive/educational center
- Policies 10.34/10.35 - Encourage "agricultural activities that promote land stewardship, provide educational/ interpretive services to Parkway users" with
- Organic farming, native plant nursery, outdoor environmental education, and volunteer opportunities

Parkway-Wide Policies

4.9: Maintain or improve flood protection

3.1: Minimize impact on native vegetation

3.2: Enhance native floodplain riparian forests, woodlands, and grasslands

3.2.1: Restore habitats with Parkway native species

3.3: Improve wildlife habitat connectivity while maintaining flood protection

3.6: Achieve a balanced grading plan for habitat restoration projects

3.11: Enhance shaded riverine aquatic habitat

3.13.1: Interpretive signs aesthetically compatible with the natural environment

3.16: Restore sites damaged by historic uses to recreational uses and naturalistic conditions

4.6: Improve water quality of urban runoff

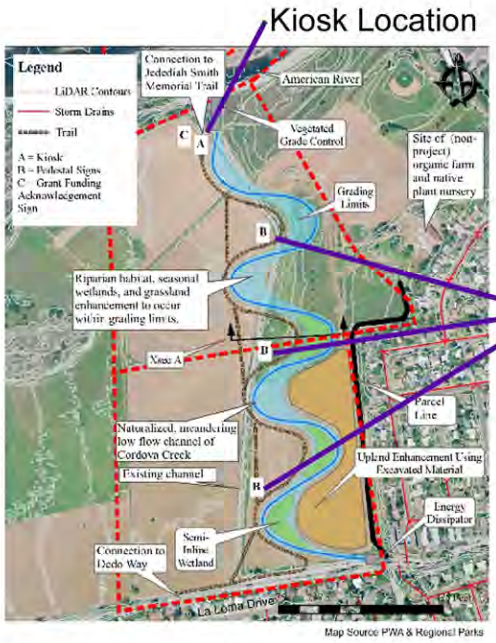
4.17: Utilize natural bank stabilization techniques if needed

6.4: Agricultural activities should promote land stewardship, provide education/interpretation, or help to transition land to a restored state

6.4.3: Convert former agricultural lease areas to improve wildlife habitat

DRAFT

Cordova Creek Naturalization Project
Interpretive Signs



A. Kiosk Design

Three Pedestal Signs Location

B. Pedestal Sign Design

A. Kiosk Signs

Naturalization of Cordova Creek - Sign explains how the naturalization of the creek contributes to the health of the American River ecosystem and will add hours of recreational opportunities for the community as well as provide new natural habitat for beneficial insects that will assist the nearby organic farm with pest control.

How You Can Help - This Sign tells how each member of the community can participate in keeping the creek healthy. Information will be included to convey to residents how the choices they make will affect the health of this creek and the American River, such as what chemicals they use outdoors on their lawns, or having a vehicle that drips fluids on the street.

B. Pedestal Signs

History of the Creek - this sign shows the creek in a 1902 topographical map as a tributary of the American River and how it was later confined in a concrete channel. It will tell how the land that was formerly shaped and replenished by the creek was changed when the creek was contained.

Value of Restoring the Creek to the Community - this sign explains the value to the community in restoring this creek to its natural meandering course. The current channel is sterile and does not support abundant life. Restoring the creek and adding vegetation will bring more aquatic organisms and wildlife. The natural creek bottom allows water to filter through the soil so that water quality is improved and important groundwater is recharged.

Speeding Up Geologic Time with Human Intervention - this sign explains how human intervention will create a way to short-cut geologic time by re-creating the natural form this tributary once had. The steps of restoration will be described and visitors will be encouraged to come back often to observe the ongoing transformation after the heavy machinery is long gone.

All signs will have graphics, maps, and photographs and be accompanied by lively text. They will be resistant to vandalism and weather or flood damage and will be consistent in design with other American River Parkway signage.

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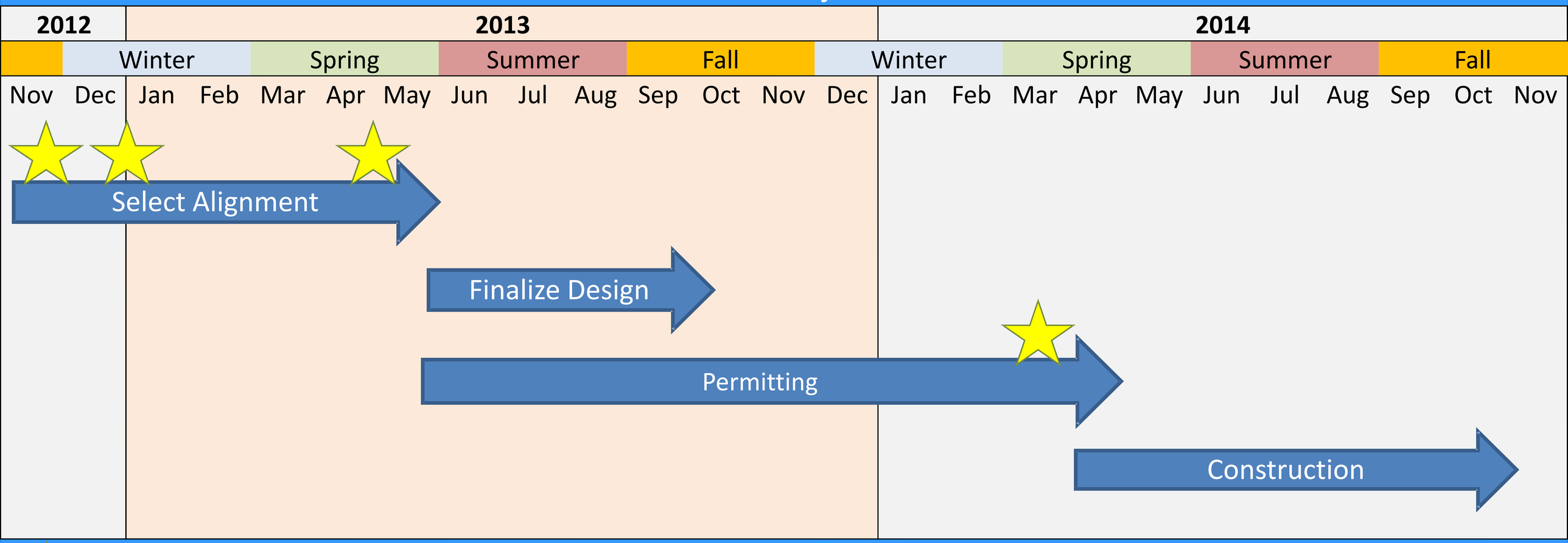
Cordova Creek - Project Timeline



Public workshop

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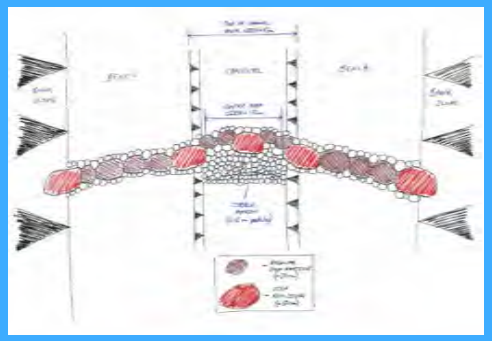
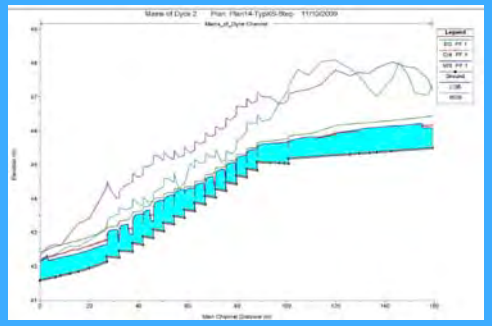
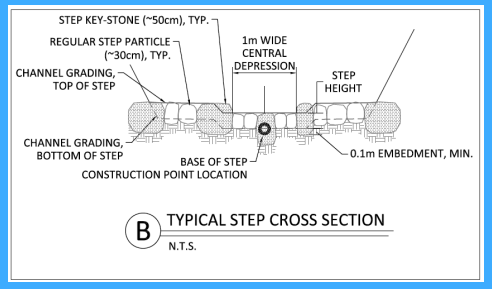
EXAMPLES OF BOULDER CASCADE / GRADE CONTROL / STEP POOLS / ENERGY DISSIPATORS



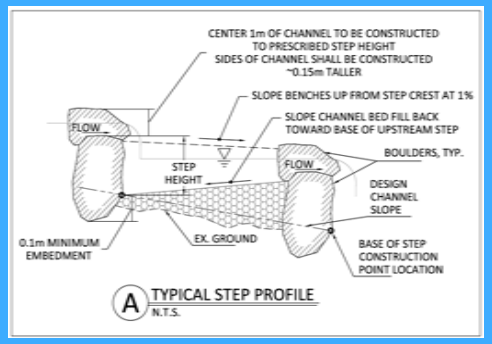
Initially sketch out the concept

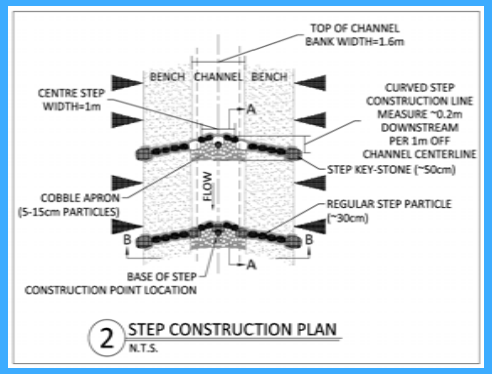


Then do the analysis and modeling



Then comes design drawings – typical cross section through step

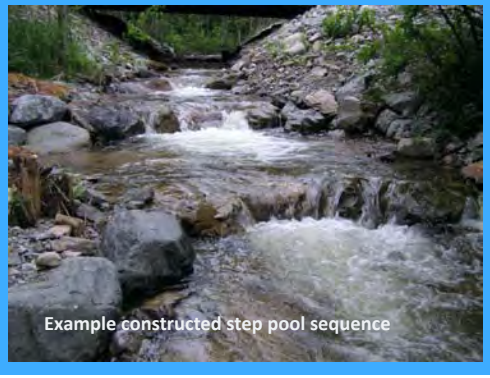




Artistic rendering of step pool

Artistic rendering of step pools

Example constructed step pool sequence



Example constructed step pool sequence

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EXISTING CONDITIONS PHOTOGRAPHS

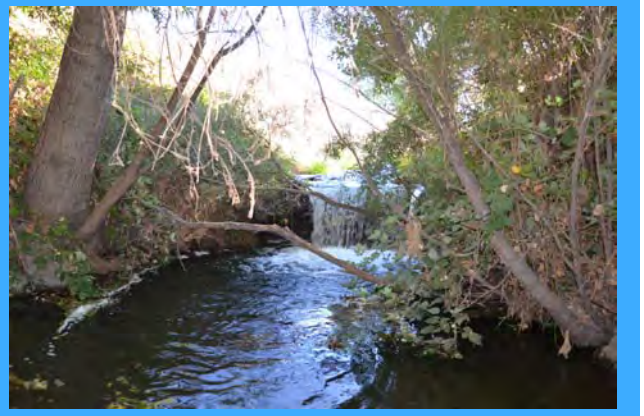
Entry into site from Rancho Cordova

View over site from south looking north

Existing concrete lined trapezoidal channel

Existing bridge to be removed

Parkway bridge to remain



Failing concrete channel at outfall (or “headcut”)

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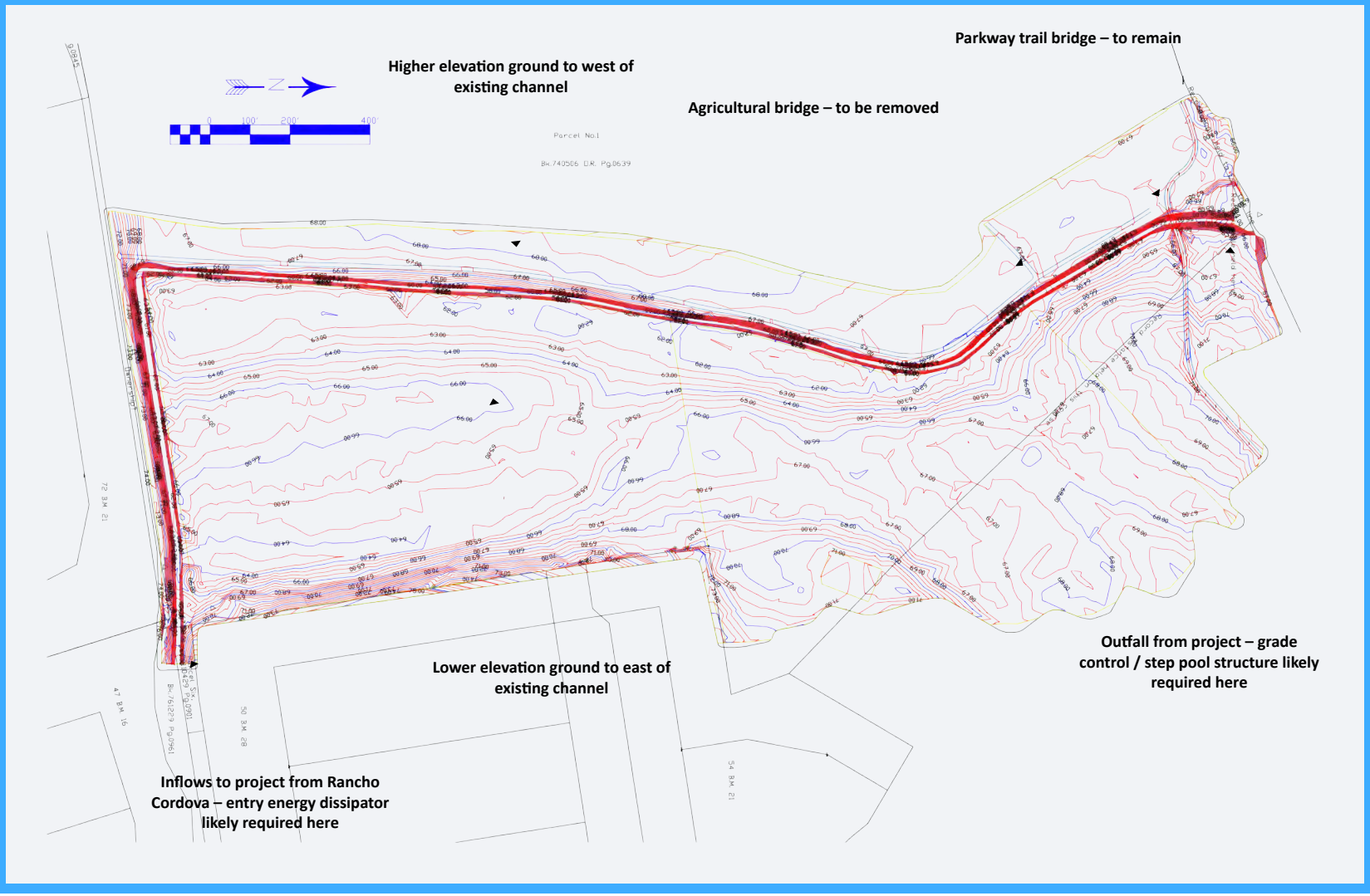
EXISTING TOPOGRAPHIC MAPPING



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EXISTING AERIAL IMAGE