Watsonville Slough System Managed Aquifer Recharge and Recovery Projects

Draft Environmental Impact Report

Public Information Meeting

September 23, 2020

Pajaro Valley Water Management Agency

ESA 50 YEARS 1969-2019

carollo Engineers...Working Wonders With Water™

Project Team Introductions

- Brian Lockwood, PV Water General Manager
- Marcus Mendiola, PV Water Conservation and Outreach Specialist
- ESA, Environmental Review
  - Jill Hamilton, Project Manager
  - Alena Maudru, Deputy Project Manager
  - Rachel Brownsey, Biologist
  - Andy Collison, Hydrologic and Hydraulic Modeling
- Gary Kittleson, Wildlife Biologist
- Paul Friedlander, Carollo Engineers
- Directors

Watsonville Slough System Managed Aquifer Recharge and Recovery (WSS-MARR) Projects Draft Environmental Impact Report

- Meeting Purpose
- Agenda
  - Description of the WSS-MARR Projects
  - Overview of CEQA Process
  - Draft EIR Overview
  - How to Comment
  - Informal Questions, Comments

Key Details

- Draft EIR available for review at:
  - https://www.pvwater.org/wss-marr
  - PV Water (36 Brennan Street)
- Written Comments due by 5:00 p.m. October 19th
  - Via Mail

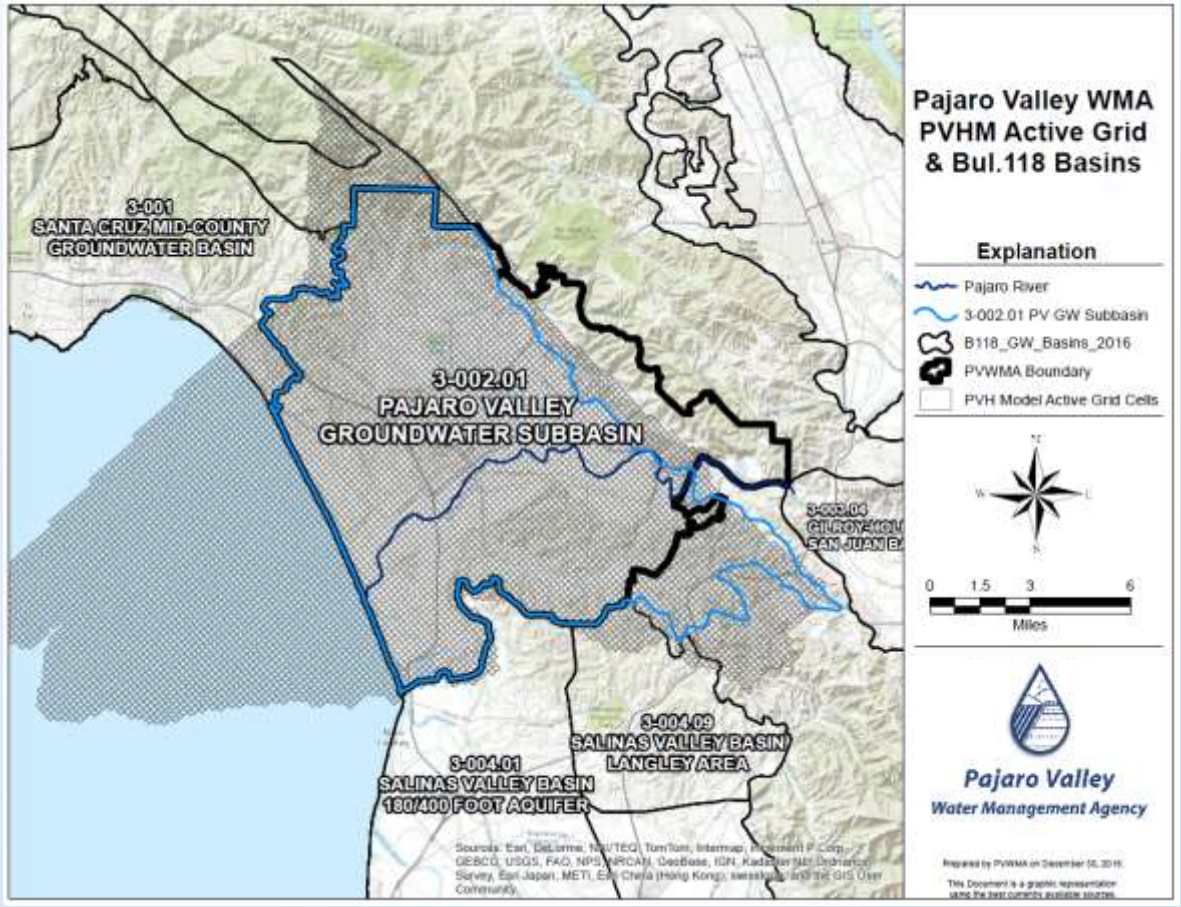
    Pajaro Valley Water Management Agency
    ATTN: Brian Lockwood
    36 Brennan Street
    Watsonville, California 95076

  - Via e-mail

    eir@pvwater.org

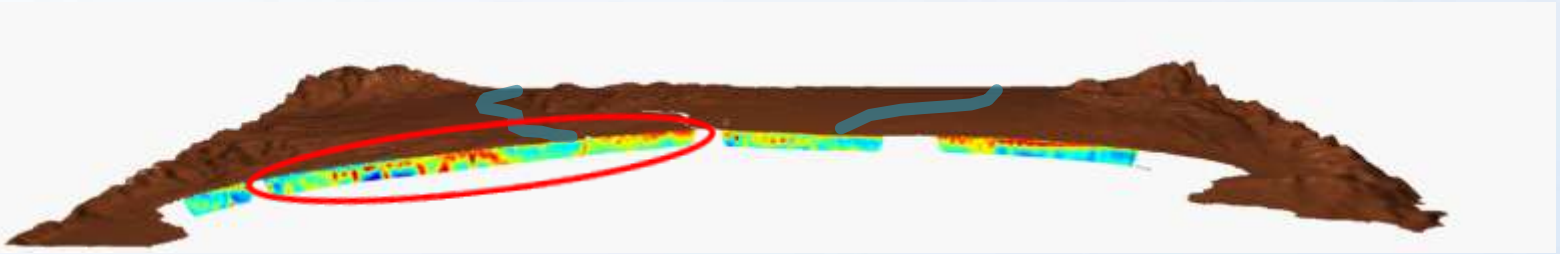
Pajaro Valley Water & SGMA

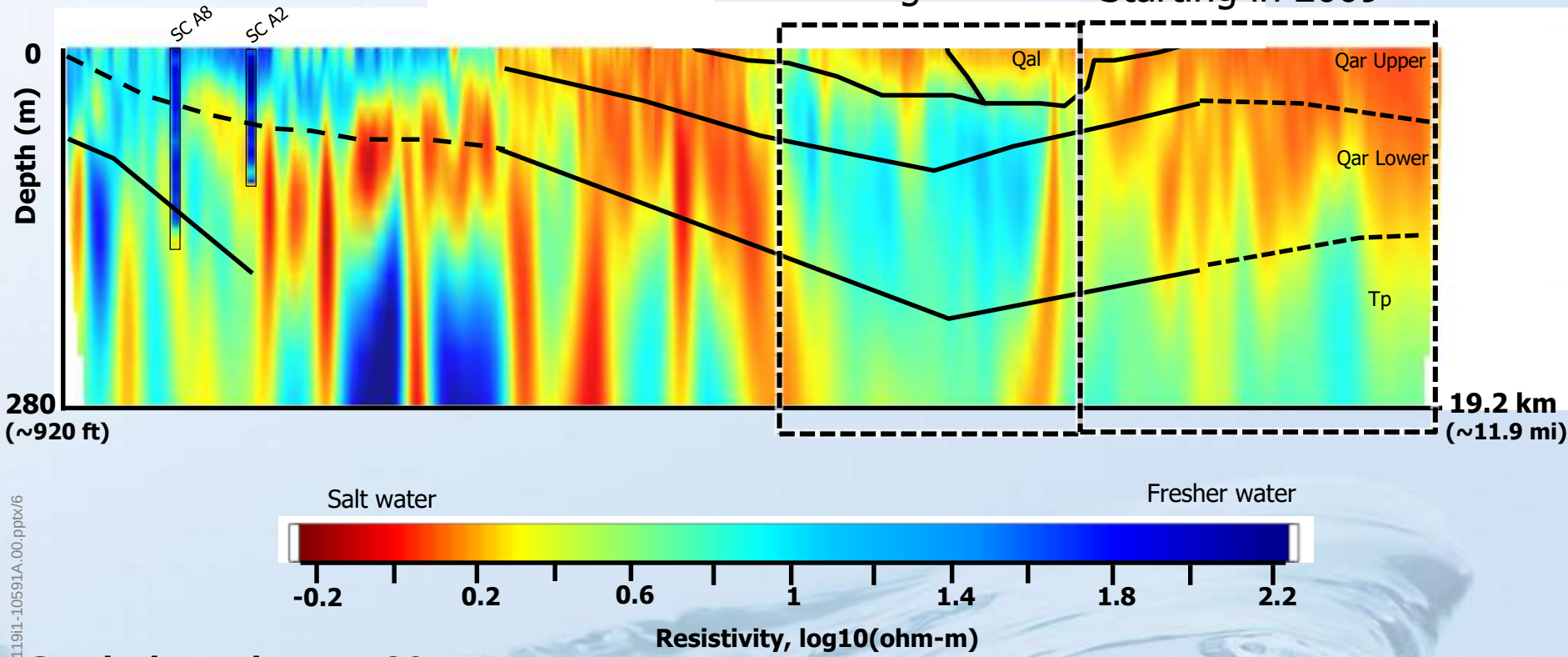
- PV Water Est. 1984
- Basin Management Plans (aka Groundwater Sustainability Plan) in 1999, 2002, 2014
- SGMA Adopted, Fall 2014
- Groundwater Sustainability Agency, Fall 2015
- Basin Boundary Modification, Spring 2016



- Groundwater Sustainability Plan - Alternative Approval, July 2019
- Prop. 68 Grant - $0.5 million, awarded Fall 2019, to update Alternative

Geophysics Illustrates Progress

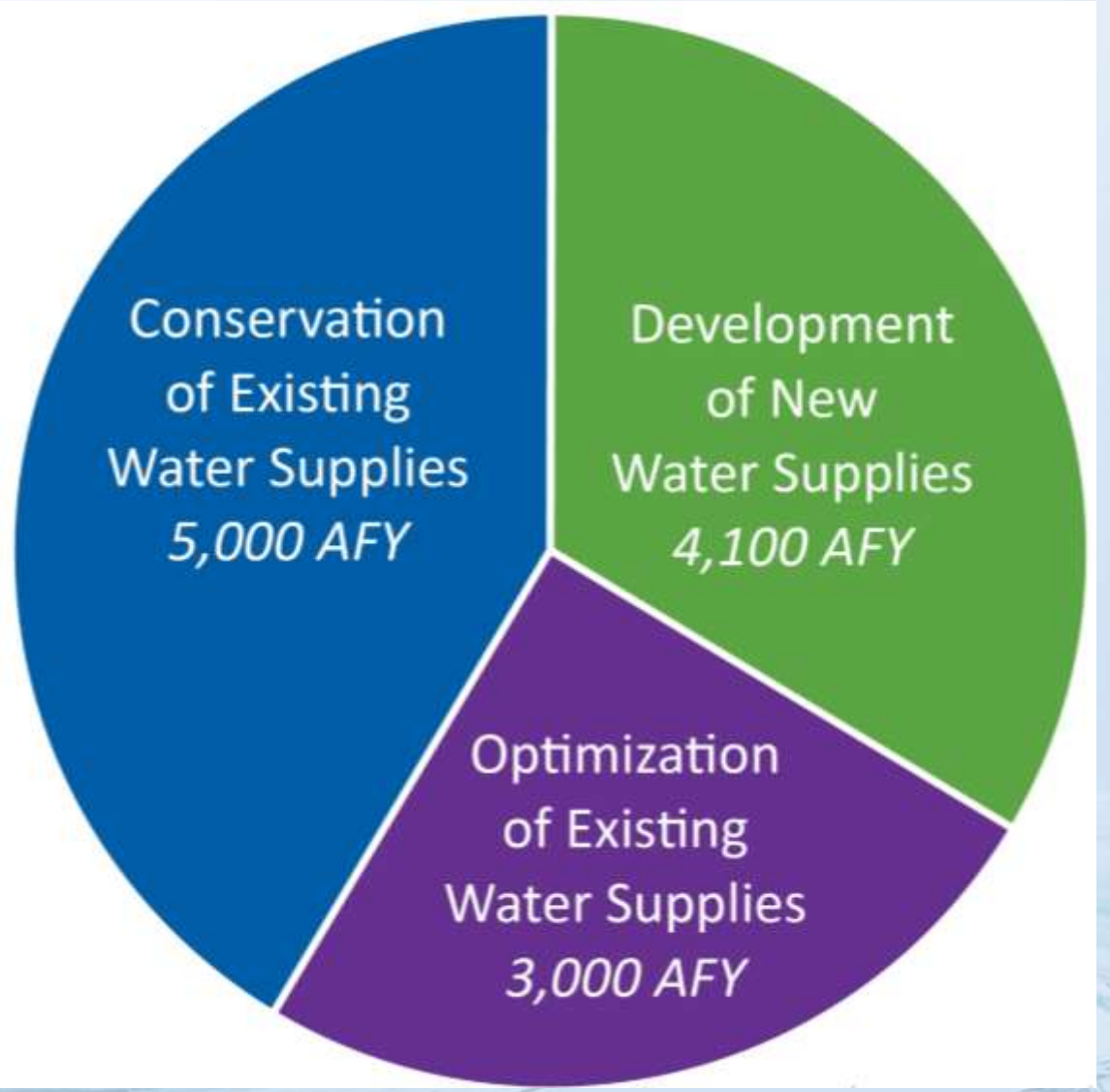




Goebel, et al, JoH, 2017

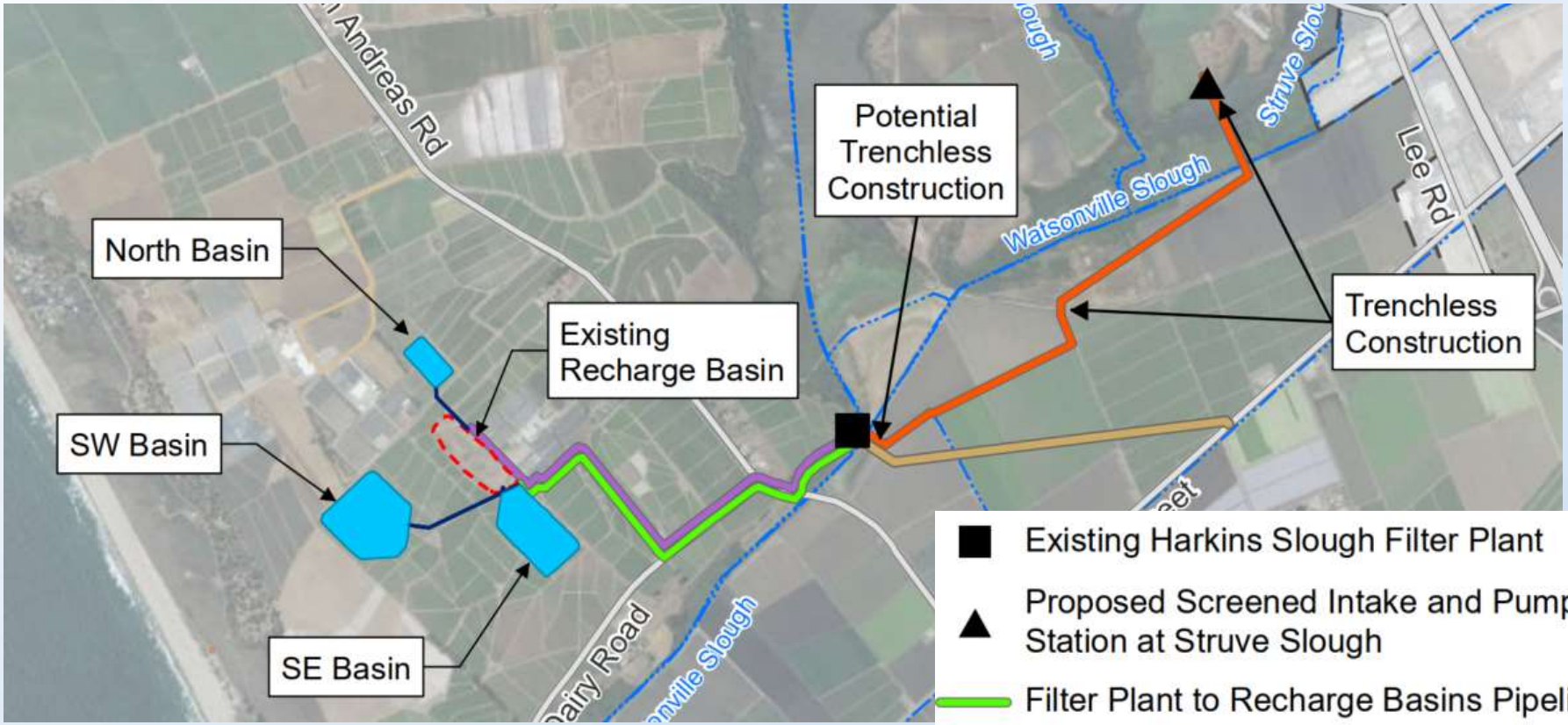
Geologic Cross Section: Hanson et al., 2002; Brabb et al., 1997

Basin Management Plan Update contains three primary components to achieve 12,100 AFY



Draft EIR Section 2.3

WSS-MARR Project Components



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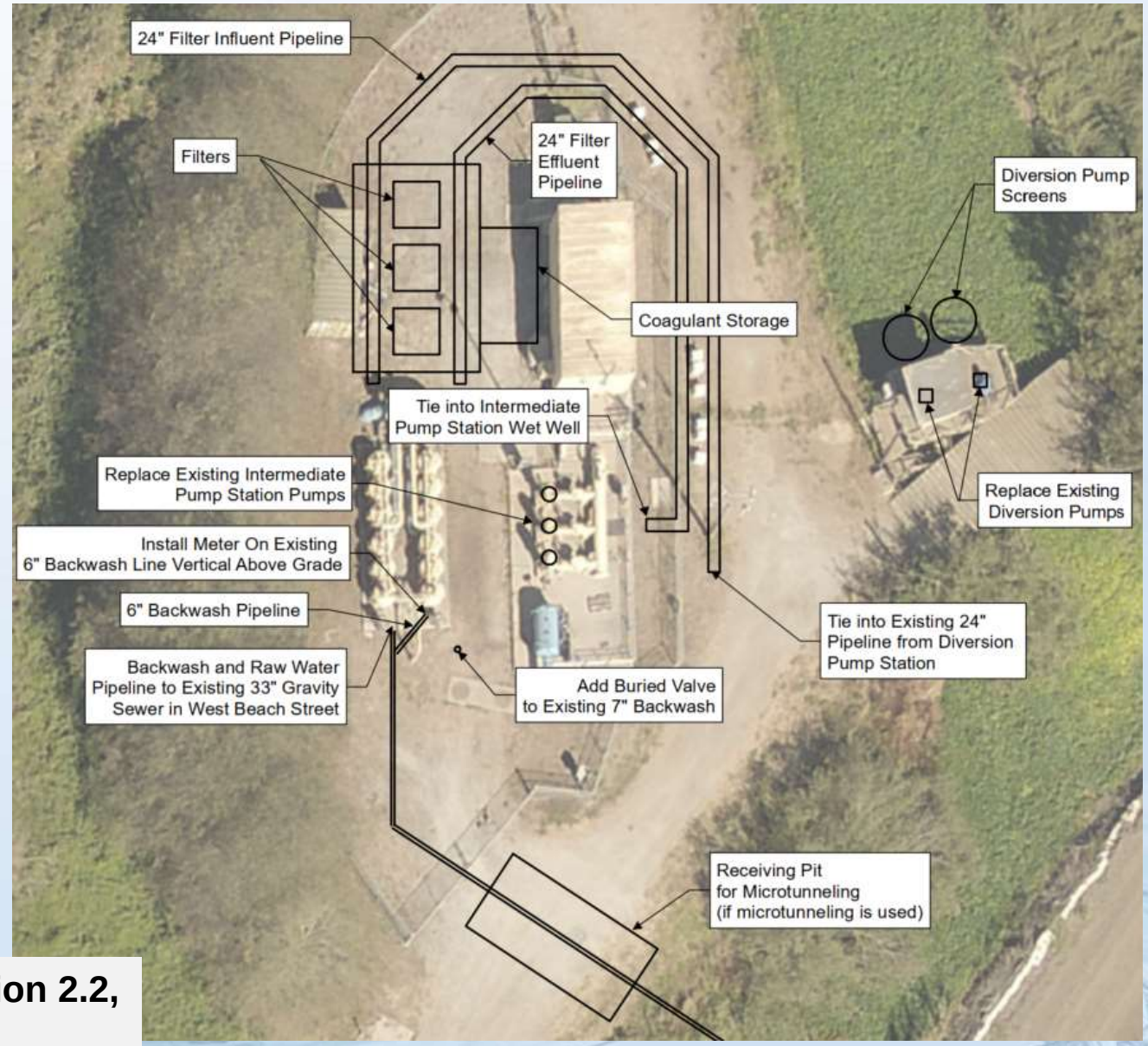
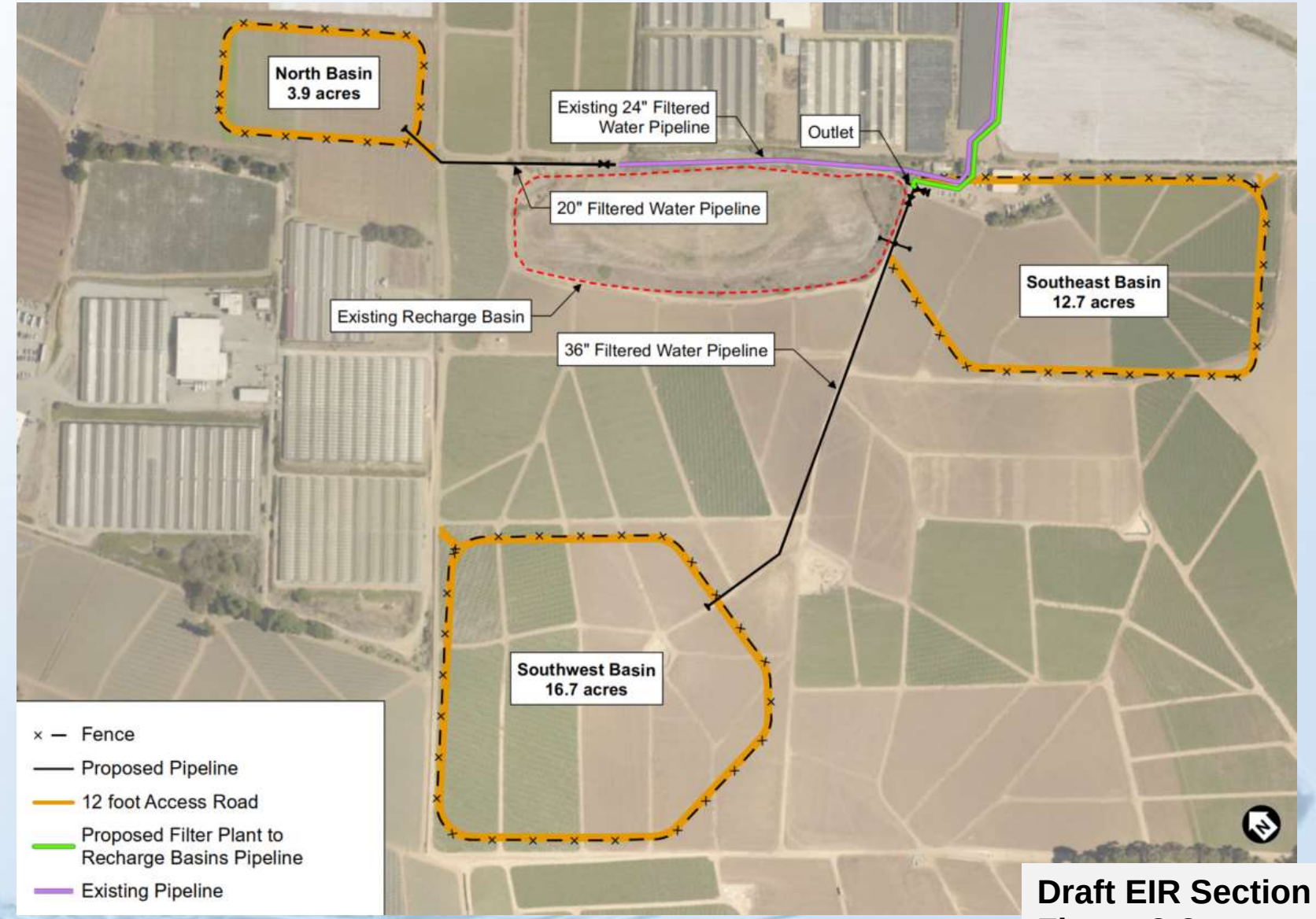
Draft EIR Section 2.2, Figure 2-1

Harkins Slough Filter Plant and Pump Stations



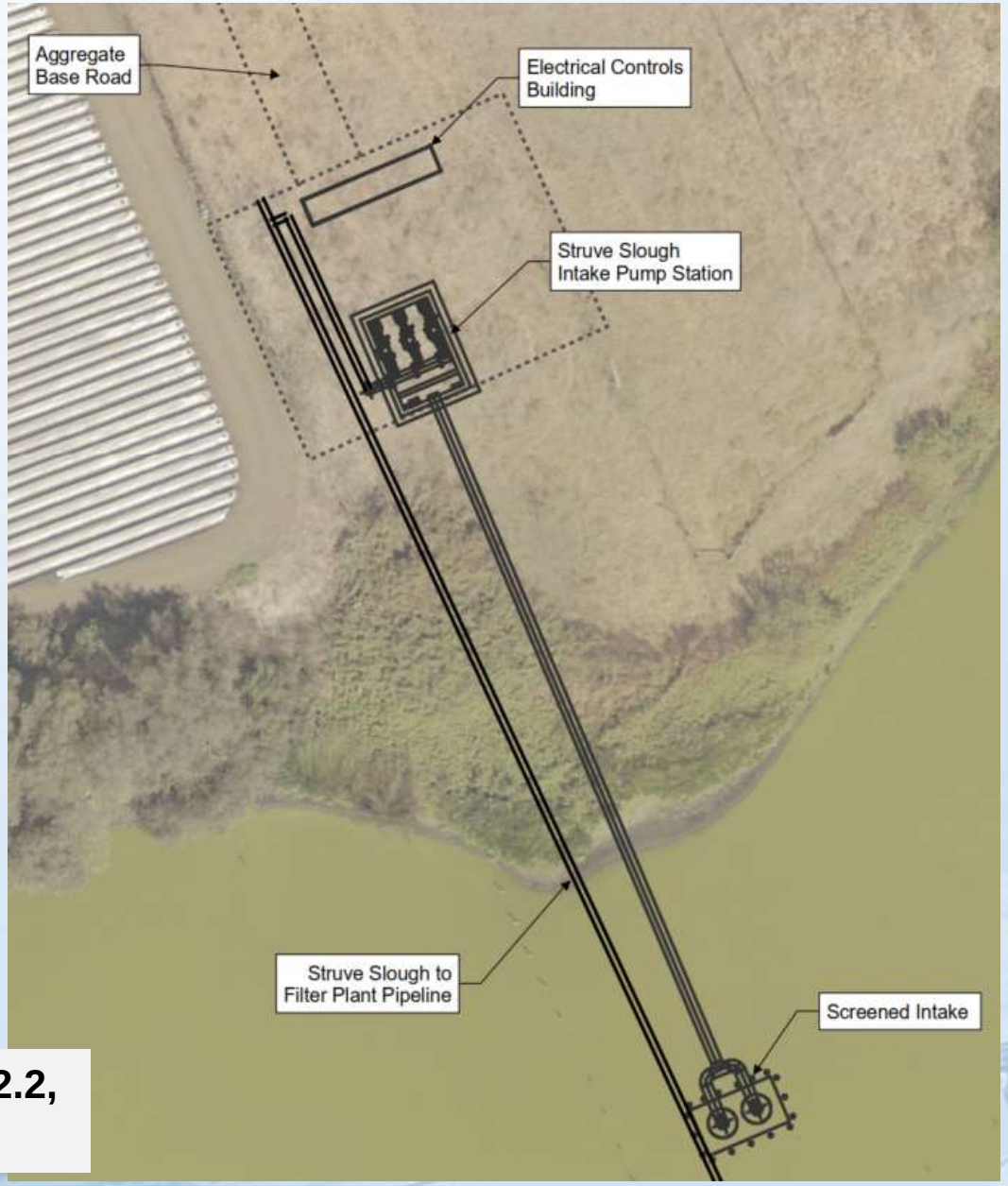
Draft EIR Section 2.2, Figure 2-2

Recharge Basins



Draft EIR Section 2.2, Figure 2-3

Struve Slough Pump Station



Draft EIR Section 2.2, Figure 2-4

Operations

Key Feature		Harkins Slough Project	Struve Slough Project
Annual Diversion	Average	~ 740 AFY	~ 1,320 AFY
	Maximum	2,000 AFY	4,000 AFY
Water Supply Diversion		• November 1 – May 31 • Up to 30 cfs *Consistent with existing terms of Water Right Permit.*	• Year round • November – March 31 up to 30 cfs • April 1 – October 31 up to 3 cfs

AFY = acre-feet per year
cfs = cubic feet per second

Draft EIR Sections 2.5, Table 2-1

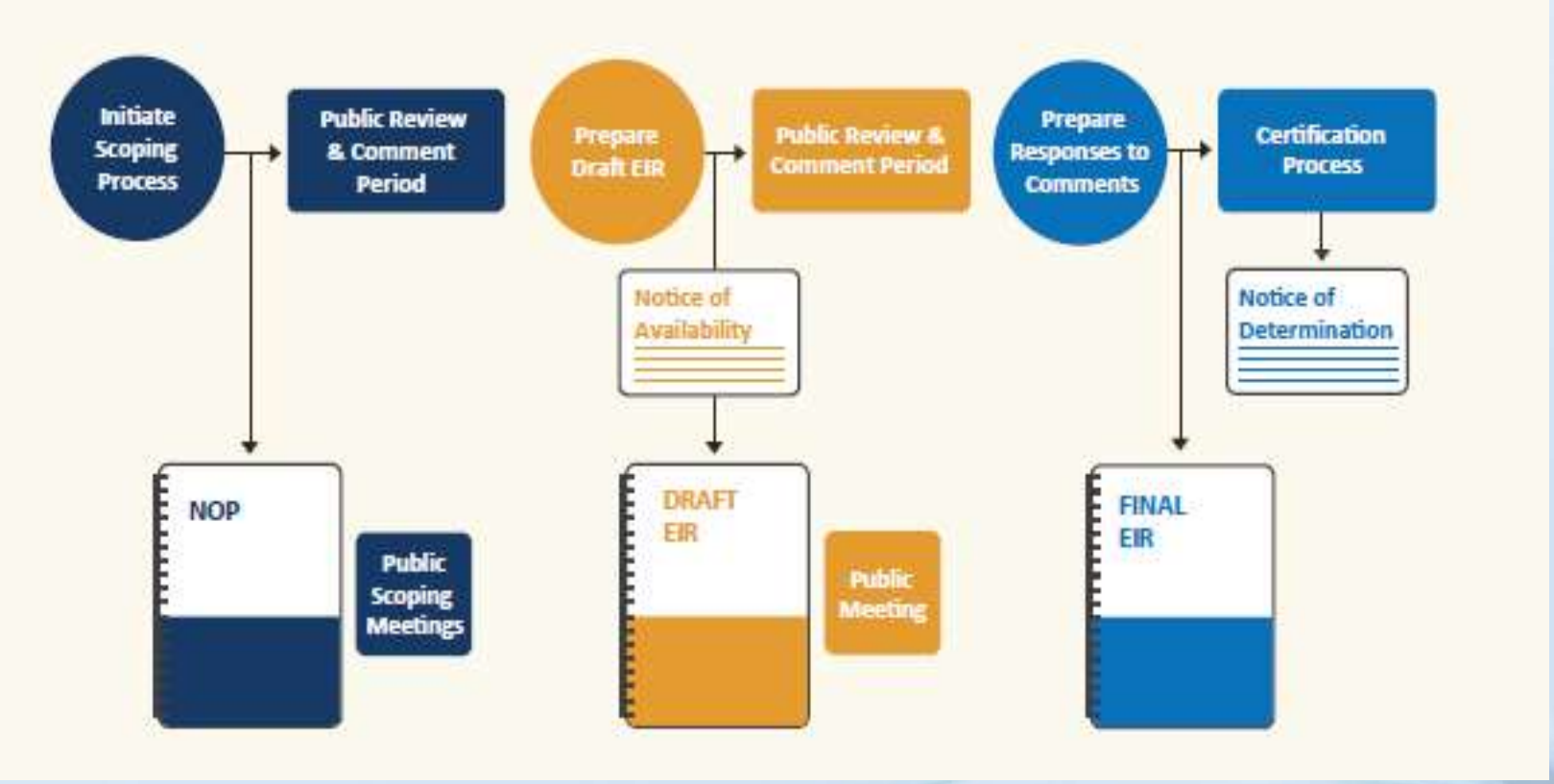
WSS-MARR Design and Construction Schedule

Component	2020	2021	2022	2023	2024	2025	2026	2027	2028
Harkins Slough Facilities Upgrades Project									
Southeast Recharge Basin, Recovery and Monitoring Wells, and Pipelines									
Filter Plant Upgrades									
Southwest Recharge Basin, Recovery and Monitoring Wells, and Pipelines									
Struve Slough Project									
Screened Intake and Pump Station									
Struve Slough to Filter Plant Pipeline									
Filter Plant to Recharge Basins Pipeline									
North Recharge Basin, Recovery and Monitoring Wells, and Pipelines									

NOTE:

[a] Blue represents the design and bid period, while black represents the construction period.

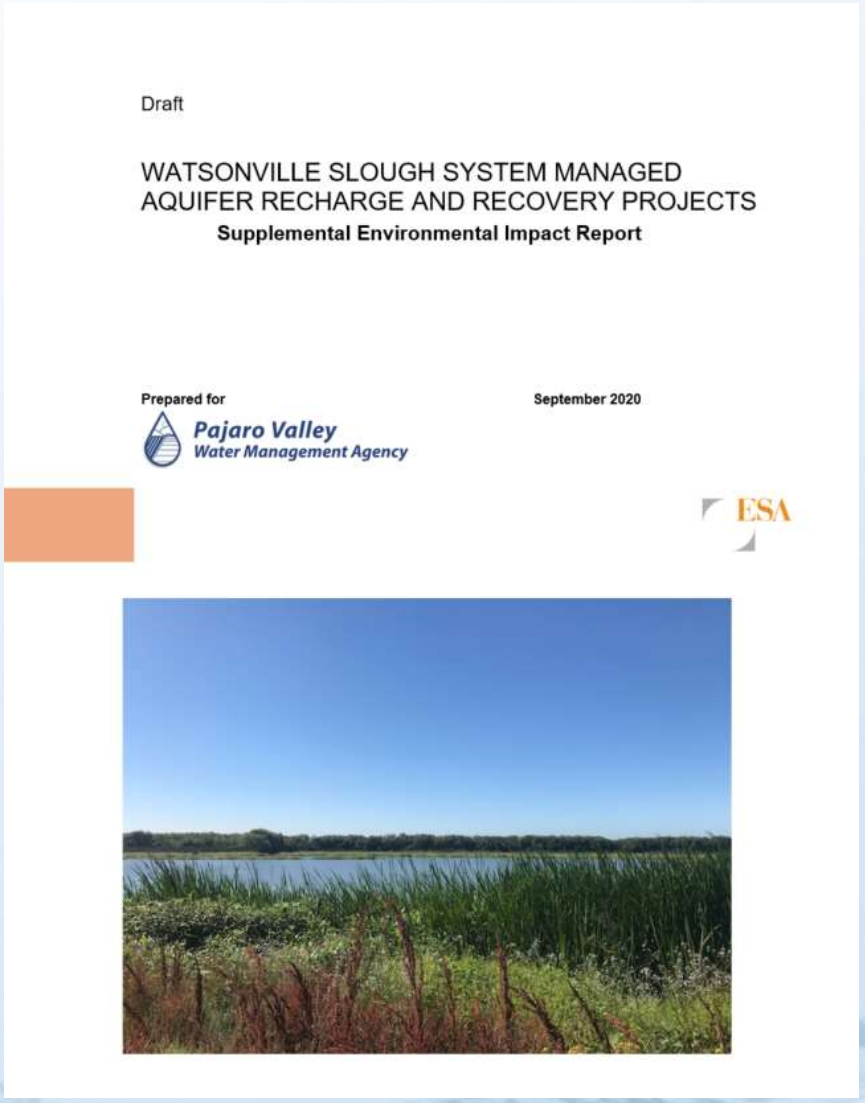
CEQA Process for the WSS-MARR Projects



June 2019 September 2020 December 2020

Draft EIR Published 9/1

Overview of Draft EIR



746 pages, 59 Tables, 40 Figures

Contents

S. Summary
1. Introduction
2. Project Description
3. Environmental Setting, Impacts, and Mitigation Measures
4. Other CEQA
5. Alternatives
6. Report Preparers

Appendices

Analysis of Environmental Impacts

Less than Significant	Less than Significant with Mitigation	Significant and Unavoidable
• Air Quality and Greenhouse Gas Emissions • Energy, Utilities, Public Services, and Recreation	• Surface Water, Groundwater, and Water Quality • Biological Resources • Geology and Soils • Hazards and Hazardous Materials • Noise and Vibration • Transportation and Traffic • Cultural Resources • Tribal Cultural Resources • Aesthetic Resources	• Land Use and Agricultural Resources (Conversion of Important Farmland)

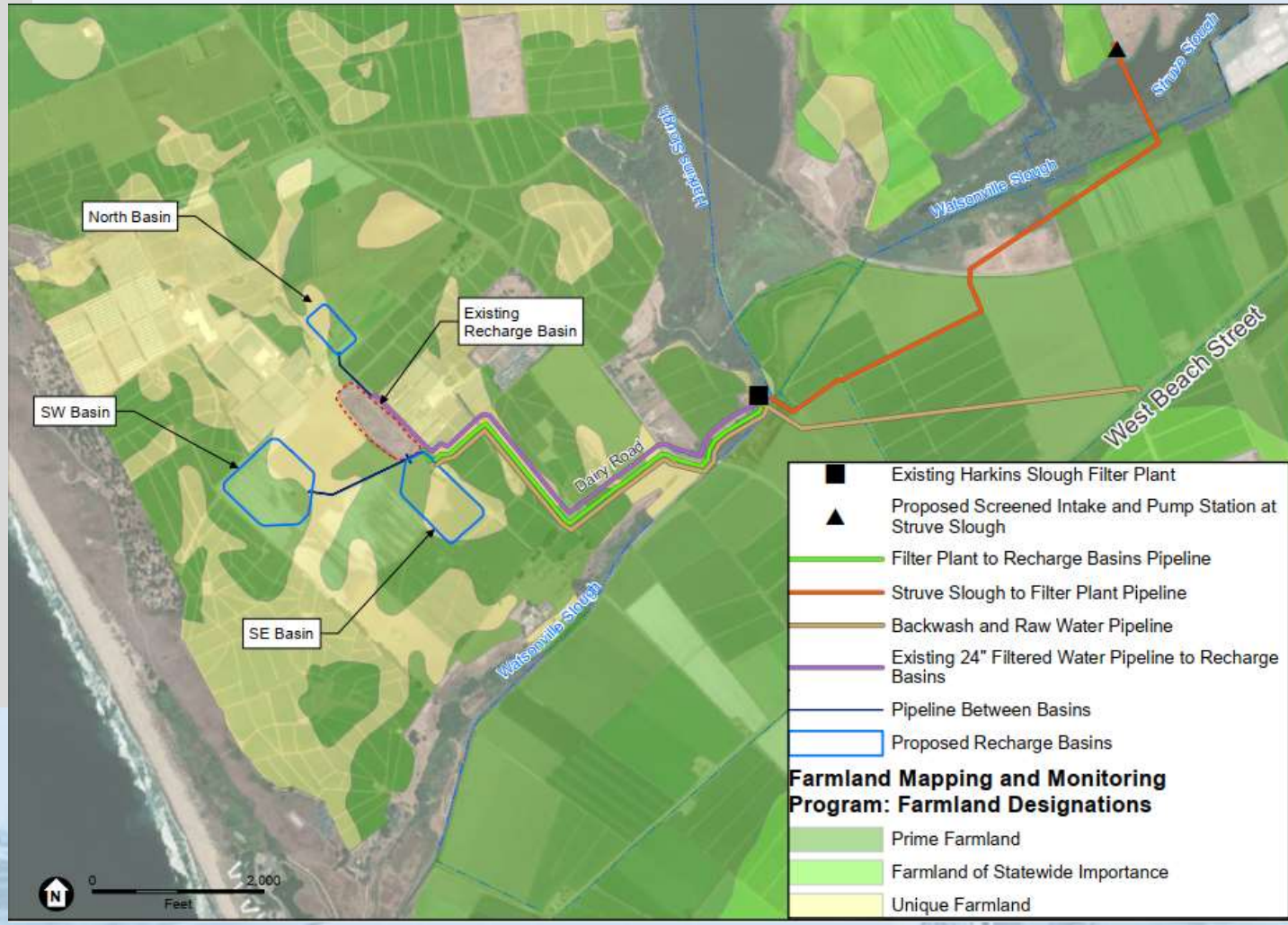
WSS-MARR previously evaluated in 2014 Basin Management Plan Update Program EIR

Important Farmland

Prime Farmland

Farmland of Statewide Importance

Unique Farmland



Draft EIR Section 3.2, Figure 3.2-2

Conversion of Important Farmland

- Permanent conversion: up to 34.2 acres
  - Recharge basins, recovery/monitoring wells
- Mitigation Measures
  - Agricultural Easements
  - Replacement of Topsoil
- Why Significant and Unavoidable?
  - Agricultural easements may not be feasible

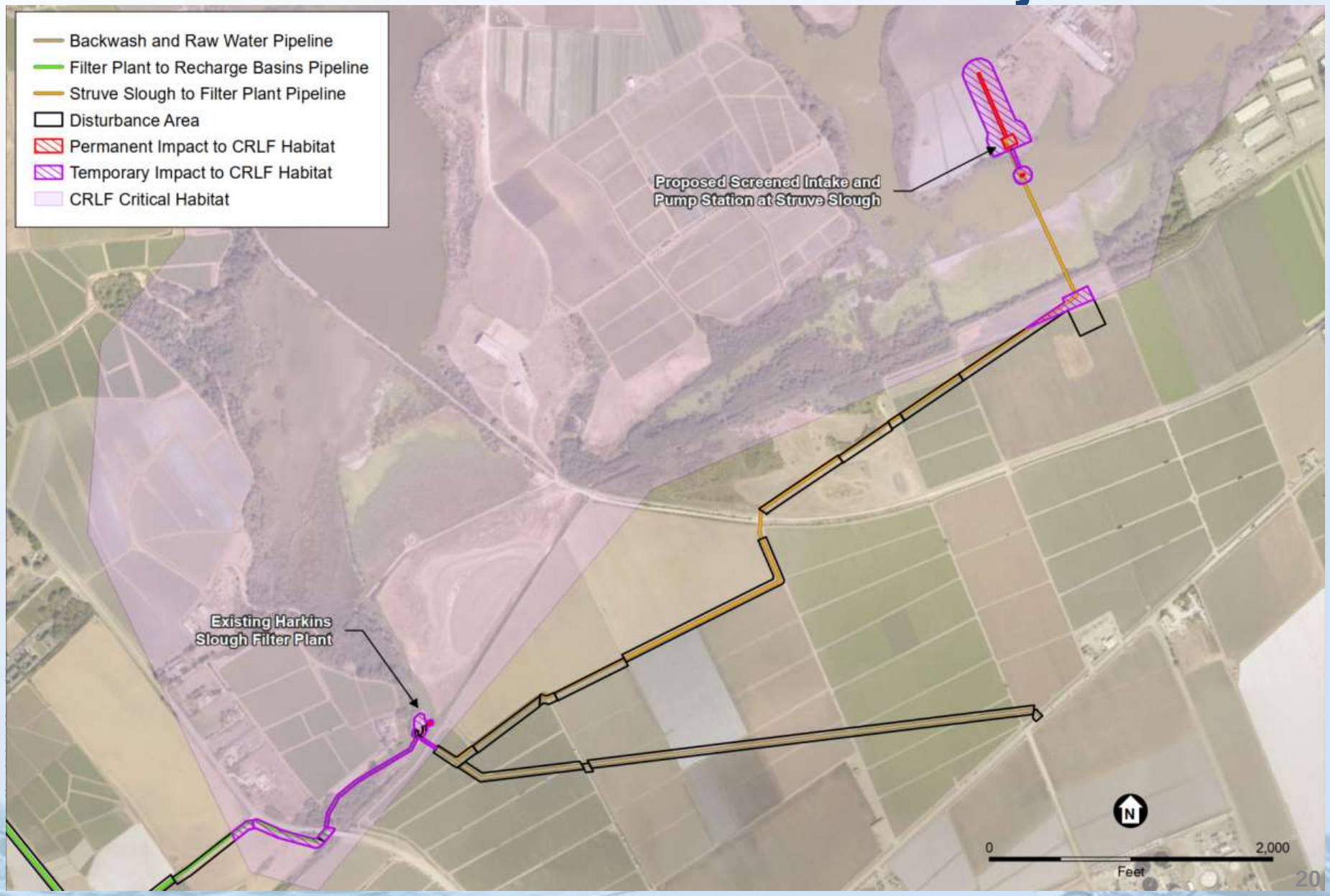
Draft EIR Section 3.2, Figure 3.2-2

Impacts to Biological Resources

- Construction and operational impacts to wetlands and riparian habitat
- Effects on waterfowl and other wildlife
- 21 mitigation measures (e.g., avoidance, habitat restoration)
- Project area includes critical habitat for California red legged frog (CRF)
- Modeling: limit effects on CRF through varied pumping rates, periods of diversion to avoid rapid drawdown during critical periods

Draft EIR Section 3.4

CRF Critical Habitat within the Project Area



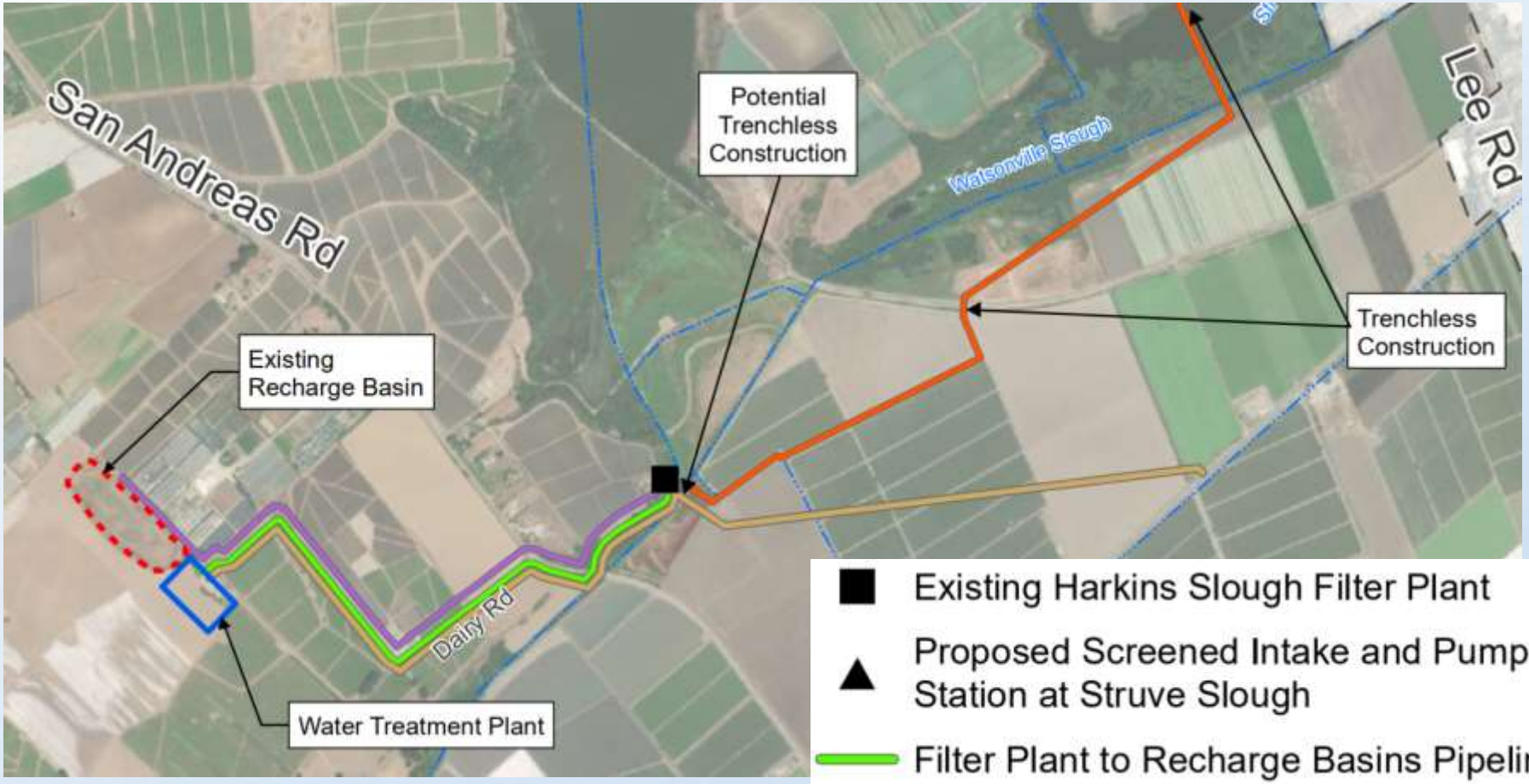
Impacts to CA Red Legged Frog

- Operations would affect aquatic habitats for CRF by:
  - Altering the seasonal extent of flooded emergent marsh habitat;
  - Affecting WSE in breeding areas during breeding season, potentially leading to desiccation of egg masses, stranding of larvae;
  - Concentrating predatory fish, birds by lowering WSE in areas that support CRF; and
  - Reducing spring, summer rearing habitat through water withdrawals.
- Mitigation Measure BR-1b: requires restoration, enhancement or creation of CRF breeding habitat.

Alternatives

- Screening
  - Focus: Feasible alternatives that meet Project objectives, reduce significant impacts
  - Many alternatives considered previously
  - Alternatives Evaluated
    - No Project Alternative
    - Aquifer Storage and Recovery
    - Reduced Impacts to Cultural and Biological Resources
    - Struve Slough Pump Station on Land Trust Property

Aquifer Storage and Recovery Alternative



Not shown: 20 ASR wells, detention basins, associated pipelines

Draft EIR Chapter 5, Figure 5-1

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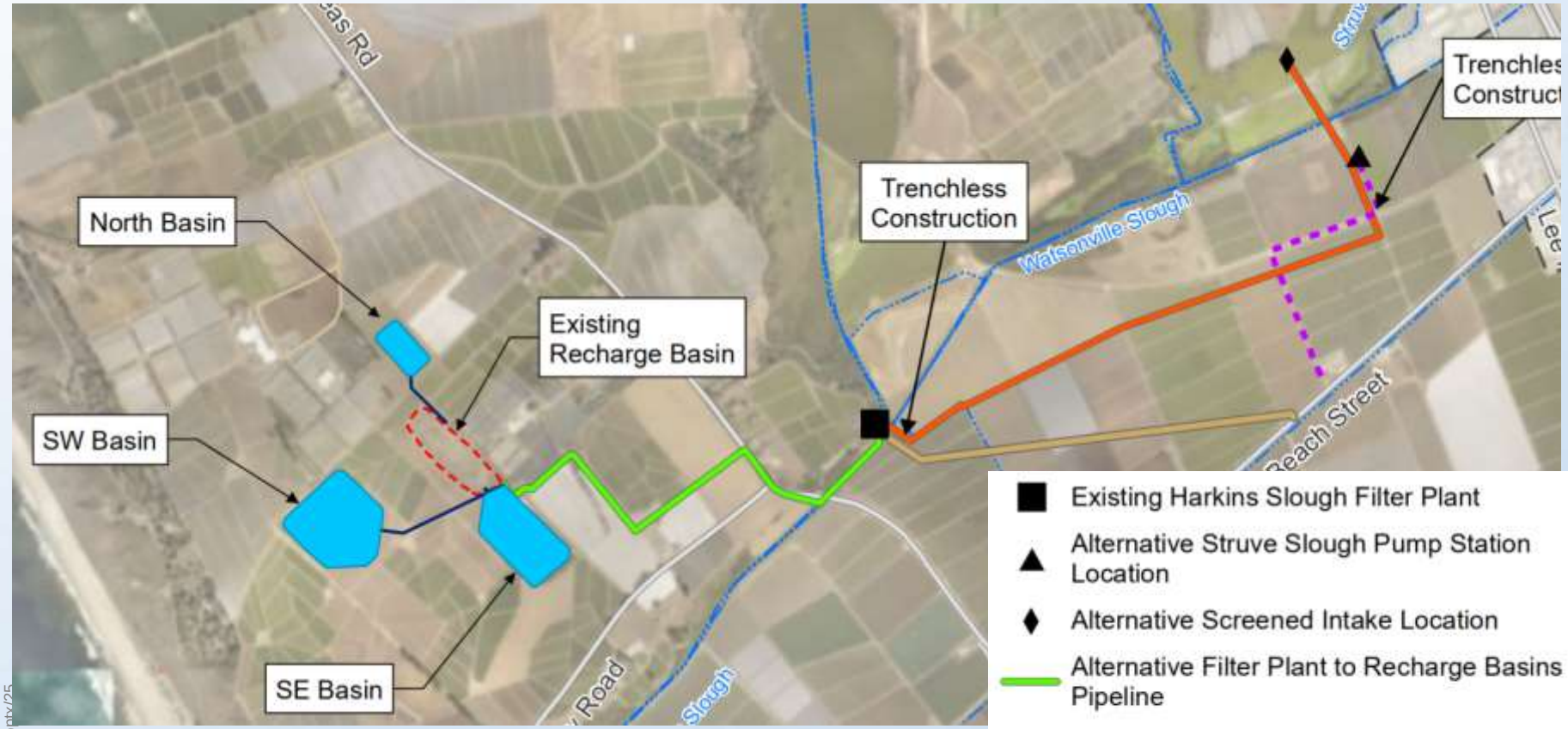
Comparison: Projects vs. Aquifer Storage and Recovery Alternative

- Reduces Impacts:
  - Conversion of Important Farmland by ~78%
- Worsens Impacts:
  - Biological Resources (wetlands, California red legged frog habitat)
  - Noise and Vibration (well construction)
  - Cultural/Tribal Cultural Resources (excavation for pipeline)
  - Aesthetics (water treatment plant, ASR wells)

Draft EIR Section 5.3

Reduced Impacts to Cultural and Biological Resources Alternative

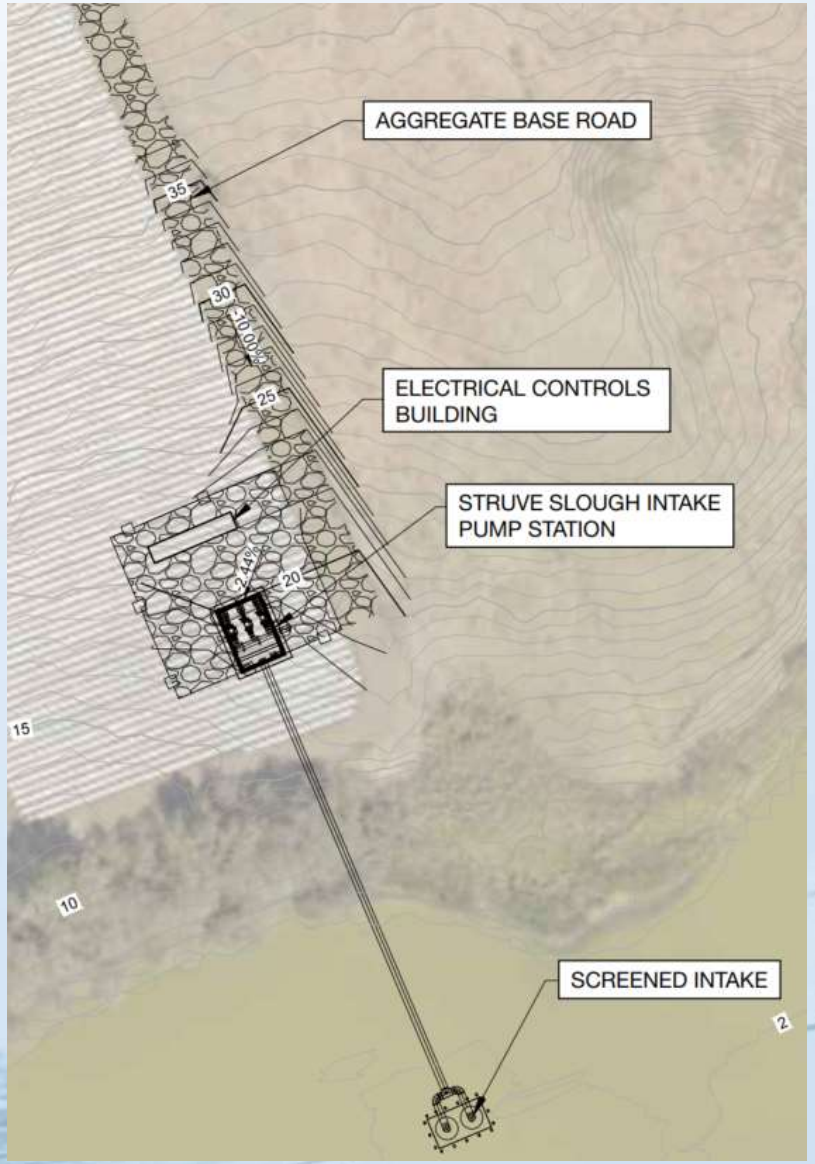


Draft EIR Chapter 5, Figure 5-2

Comparison: Projects vs. Reduced Impacts to Cultural and Biological Resources Alternative

- Reduces Impacts:
  - Biological Resources (wetlands, CRF habitat)
  - Cultural Resources (avoid known archaeological sites)
- Worsens Impacts:
  - Increases conversion of Important Farmland by 4%
  - Geology and Soils (liquefaction-induced settlement)
  - Transportation and Traffic (lane closure)

Struve Slough Pump Station on Land Trust Property Alternative

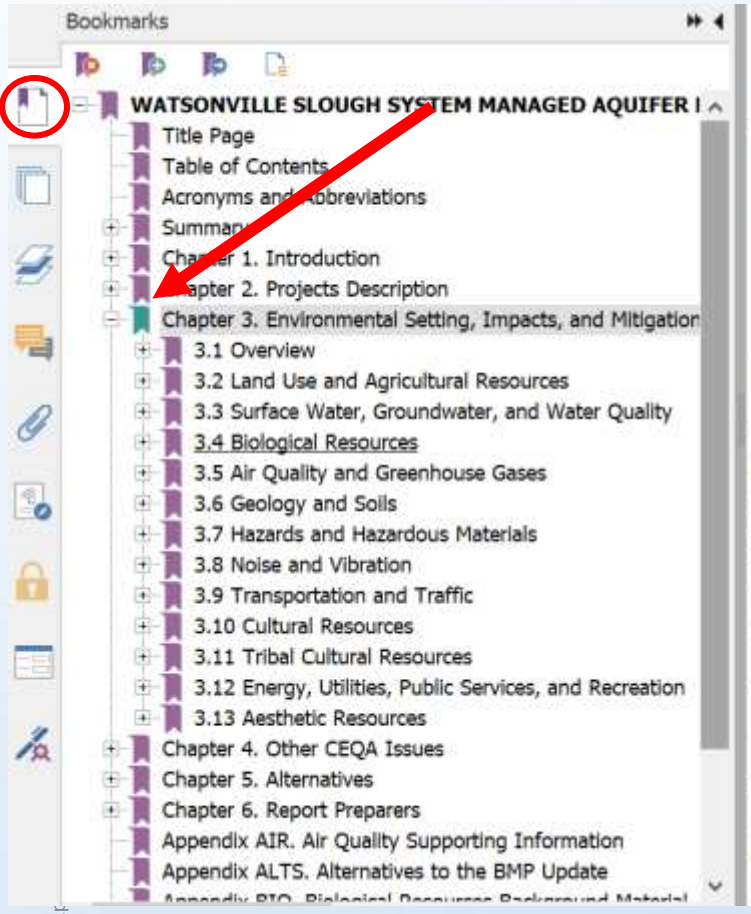


Draft EIR Chapter 5, Figure 5-3

Comparison: Projects vs. Struve Slough Pump Station on Land Trust Property Alternative

- Reduces Impacts:
  - Biological Resources (wetlands, CRF habitat)
  - Noise (distance from sensitive receptors)
- Worsens Impacts:
  - Conversion of Important Farmland by <1%

Navigating the EIR



CHAPTER 3

Environmental Setting, Impacts, and Mitigation Measures

3.1 Overview

This chapter provides an analysis of the physical environmental effects of implementing the proposed Harkins Slough Facilities Upgrades Project (Harkins Slough Project) and the proposed Struve Slough Project (collectively called the Watsonville Slough System Managed Aquifer Recharge and Recovery Projects, or Projects) as described in Chapter 2, *Project Description*. This chapter describes the environmental setting, assesses impacts, and identifies mitigation measures for significant impacts.

The Projects were analyzed under their former names—the Harkins Slough Recharge Facilities Upgrades and Watsonville Slough

Basin Management Plan Update

PEIR) as two of seven componen

provides detailed, project-level a

information developed subsequen

Draft EIR available for review at:

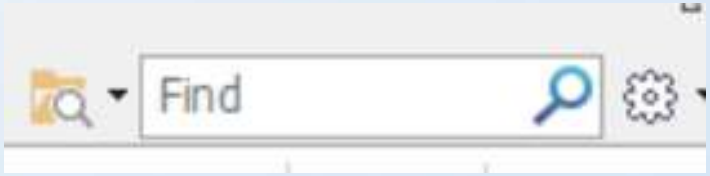
https://www.pvwater.org/wss-marr

Searching the Document

- Look for the magnifying glass and the word “Find”

OR

- Press “Ctrl+F”



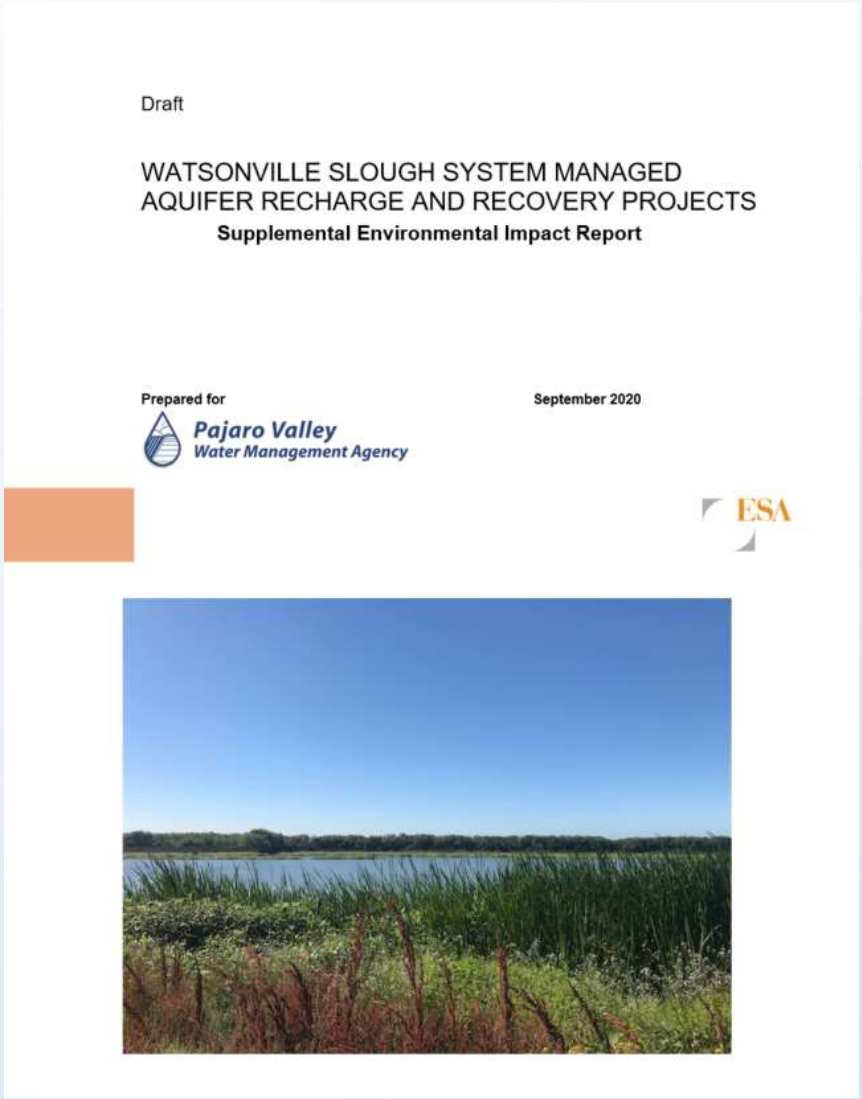
Draft EIR Public Review

- Draft EIR available for review at:
  - https://www.pvwater.org/wss-marr
  - PV Water (36 Brennan Street)
- Submit written comments by 5:00 pm Monday, October 19:
  - Via Mail

    Pajaro Valley Water Management Agency
    ATTN: Brian Lockwood
    36 Brennan Street
    Watsonville, California 95076

  - Via e-mail

    eir@pvwater.org



Questions?

Thank You