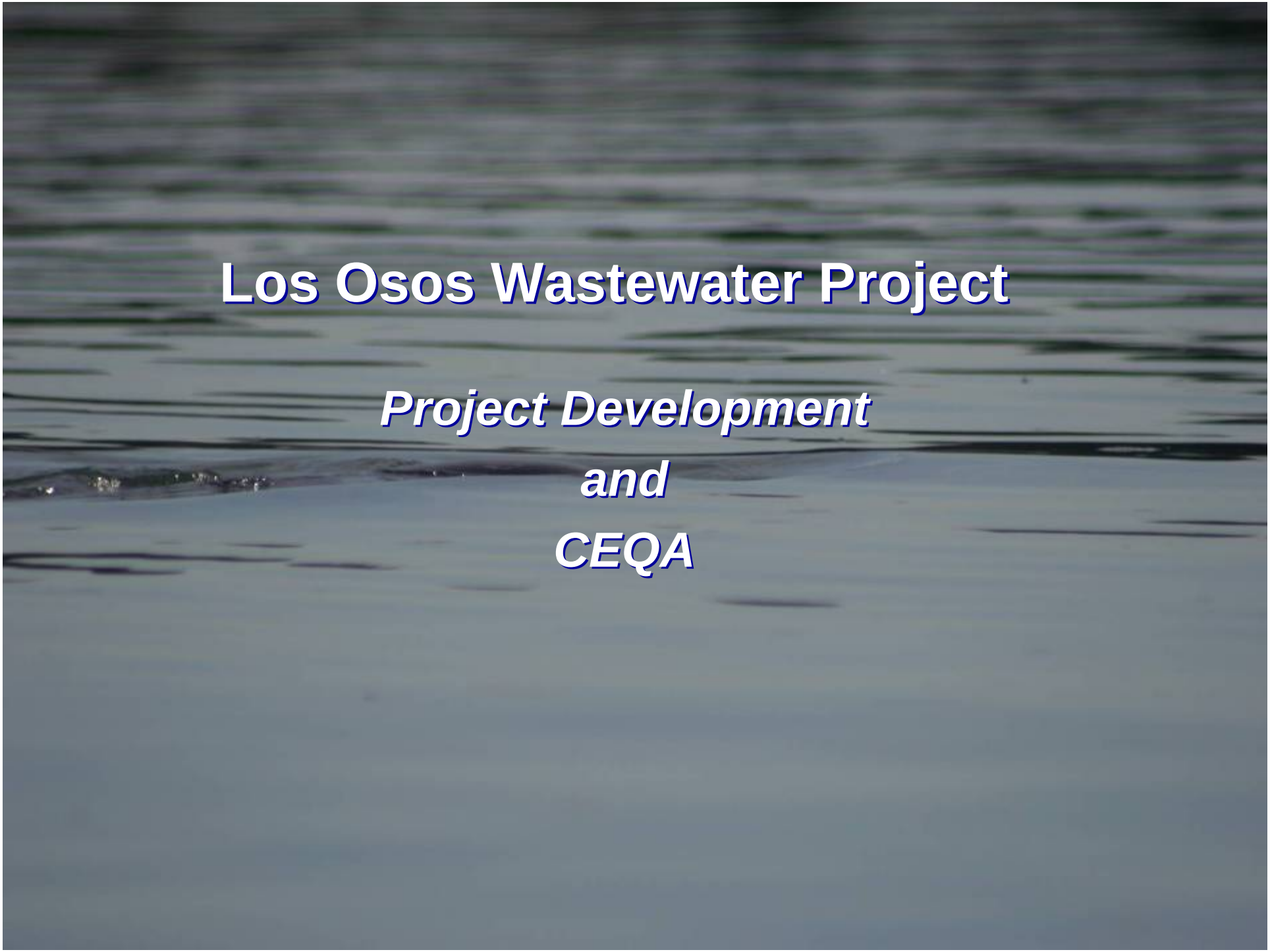


Los Osos Wastewater Project

Project Development

and

CEQA

Project Development Process

Project Objectives

- Alleviate groundwater contamination from septic systems
- Address RWQCB Waste Discharge Requirements
- Mitigate the Project's impacts on water supply and saltwater intrusion and maintain the widest possible options for beneficial reuse of treated effluent
- Minimize potential environmental impacts
- Minimize life-cycle cost
- Comply with applicable local, state, and federal permits, land uses, and other requirements

Project Development Process
Background Reports

- Rough Screening Report (March 2007)
  - Begin developing the project plan by screening system components
- Fine Screening Report (August 2007)
  - Further screen components & assemble them in complete project alternatives.

Project Development Process
Public Involvement

- Technical Advisory Committee
  - 14 Members
  - Pro/Con Analysis of Viable Project Alternatives (Fine Screening Report)
  - Public Meetings on Technical Memorandums

Project Development Process
Technical Memorandums

- Onsite Treatment
- Greenhouse Gas Emissions Inventory
- Imported Water
- Effluent Reuse & Disposal
- Partially Mixed Facultative Pond Options
- Flows and Loads
- Solids Handling Options
- Septage Receiving Station Option
- Regional Treatment
- Out of Town Conveyance
- Low Pressure Collection Systems
- Decentralized Treatment

Project Development Process
NWRI Peer Review (October 2008)

1. Review the assumptions, criteria, and alternatives for the Los Osos Wastewater Project.

2. Review various technical, scientific, and public health aspects of the Los Osos Wastewater Project, including specifically addressing:

   - Overall assessment of project.
   - Project selection strategies.
   - Future needs and long-term challenges.

3. Develop Panel findings and recommendations.

Project Development Process
Community Outreach

- Town-Hall Meetings
- Direct Mail Brochures
- Project Website and Email Address
- Community Groups and Forums
- Board Updates
- Supervisor's Office Hours
- Technical Advisory Committee
- Community Survey

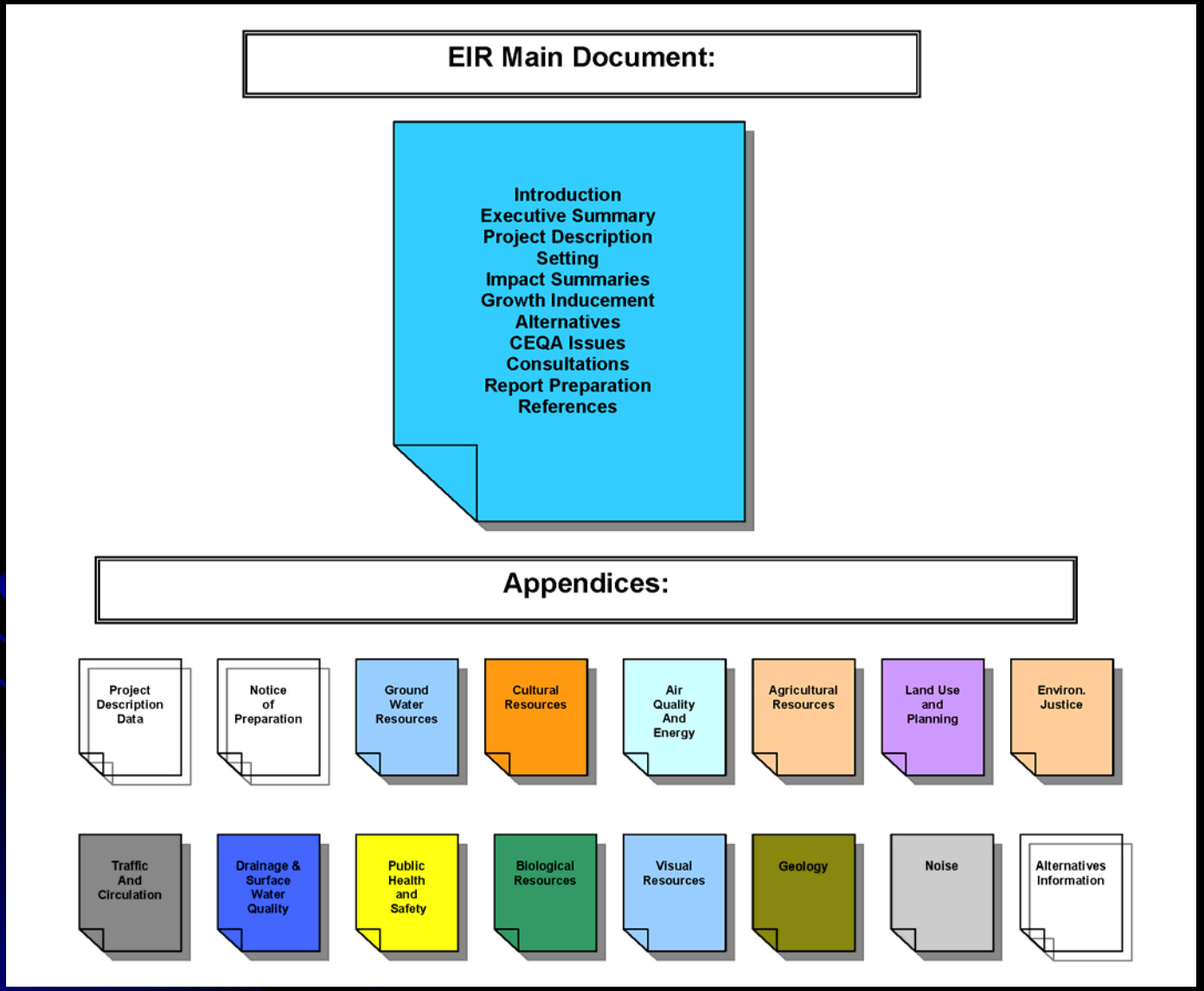
Project Development Process
California Environmental Quality Act

- CEQA EIR Scoping Process
  - Notice of Preparation
  - Public Scoping Meetings (2)
  - Supplemental Notice of Preparation
  - TAC & Technical Memorandums

Project Development Process
California Environmental Quality Act

- Co-equal analysis of alternatives
  - Documented process of short-listing alternative sites
  - Documented process of short-listing alternative approaches
- Gravity/Hybrid and STEP/STEG collection systems

Project Development Process
EIR Architecture



Project Development Process
Impact Analysis Areas

- Land Use & Planning
- Groundwater Resources
- Drainage & Surface Water Quality
- Geology
- Biological Resources
- Cultural Resources
- Environmental Justice
- Public Health & Safety
- Traffic & Circulation
- Air Quality
- Greenhouse Gas
- Noise
- Agricultural Resources
- Visual Resources

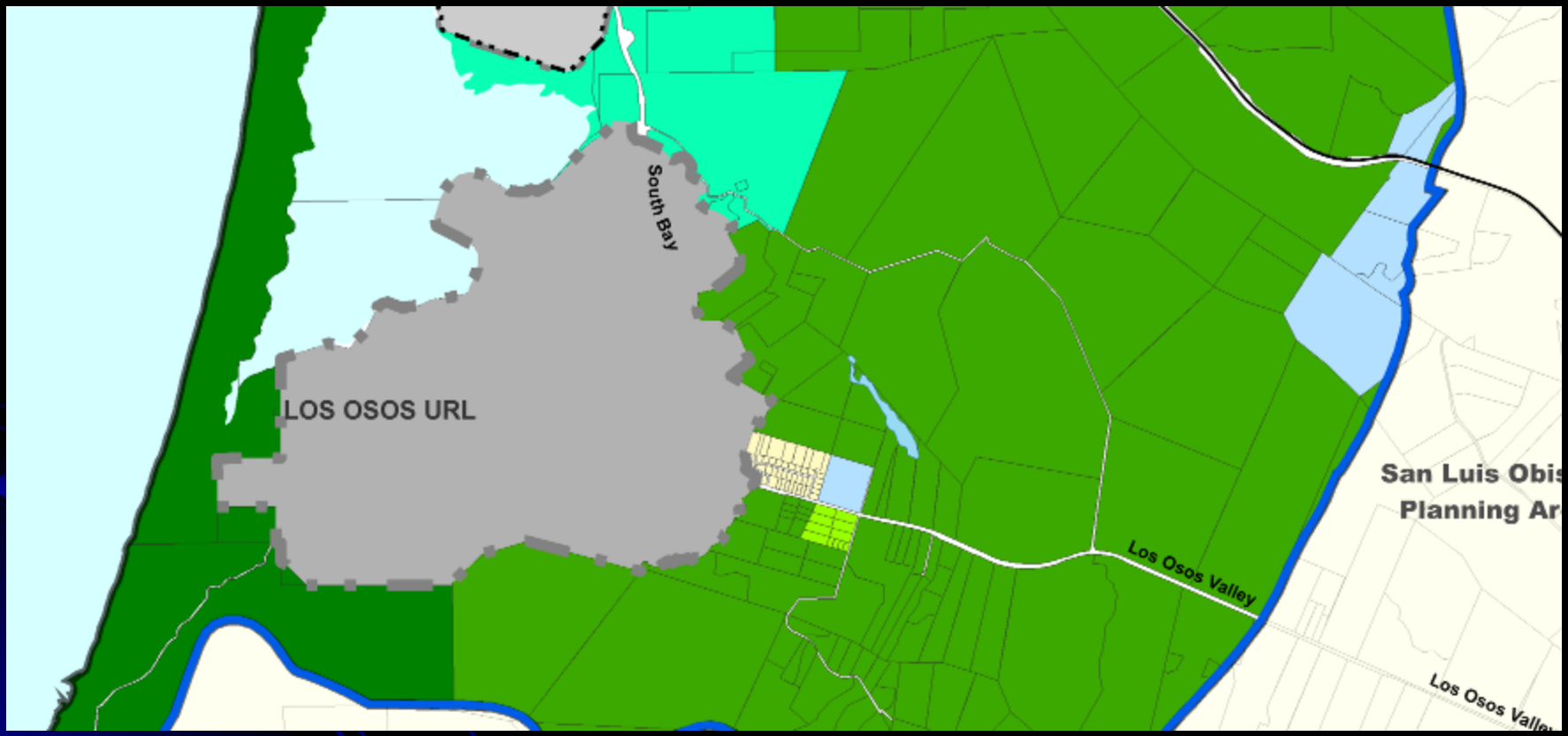
Los Osos Wastewater Project
LCP/CEQA Alternatives Analysis

- Public Utility Facilities Key Standard:
  - Not allowed in sensitive areas (SRA, ESHA, Prime Agriculture etc.) unless there is no other feasible location. Applications must analyze alternative locations.

Los Osos Wastewater Project
LCP/CEQA Alternatives Analysis

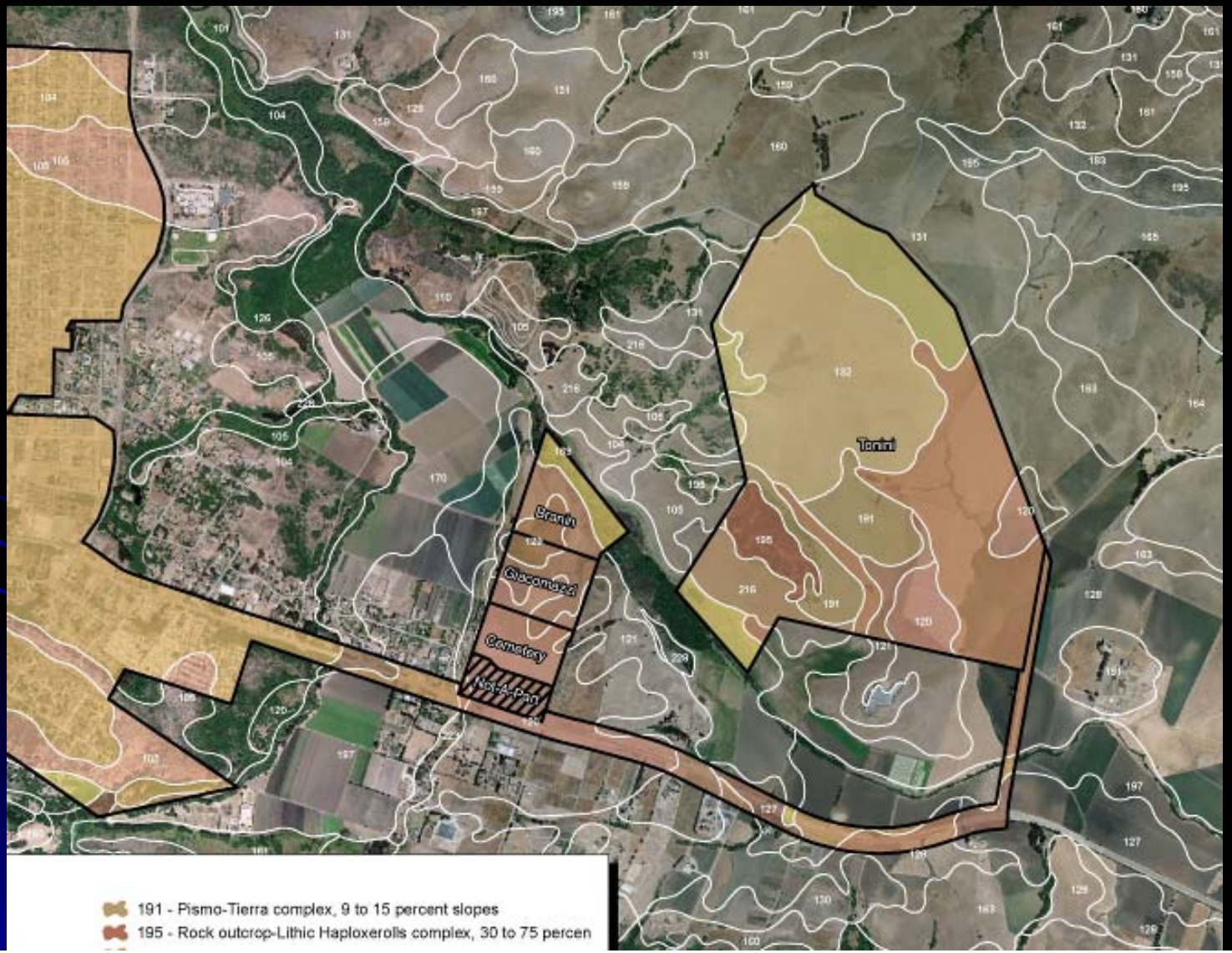
- Feasible:
  - Capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors.

Los Osos Wastewater Project
LCP/CEQA Alternatives Analysis



Los Osos Wastewater Project

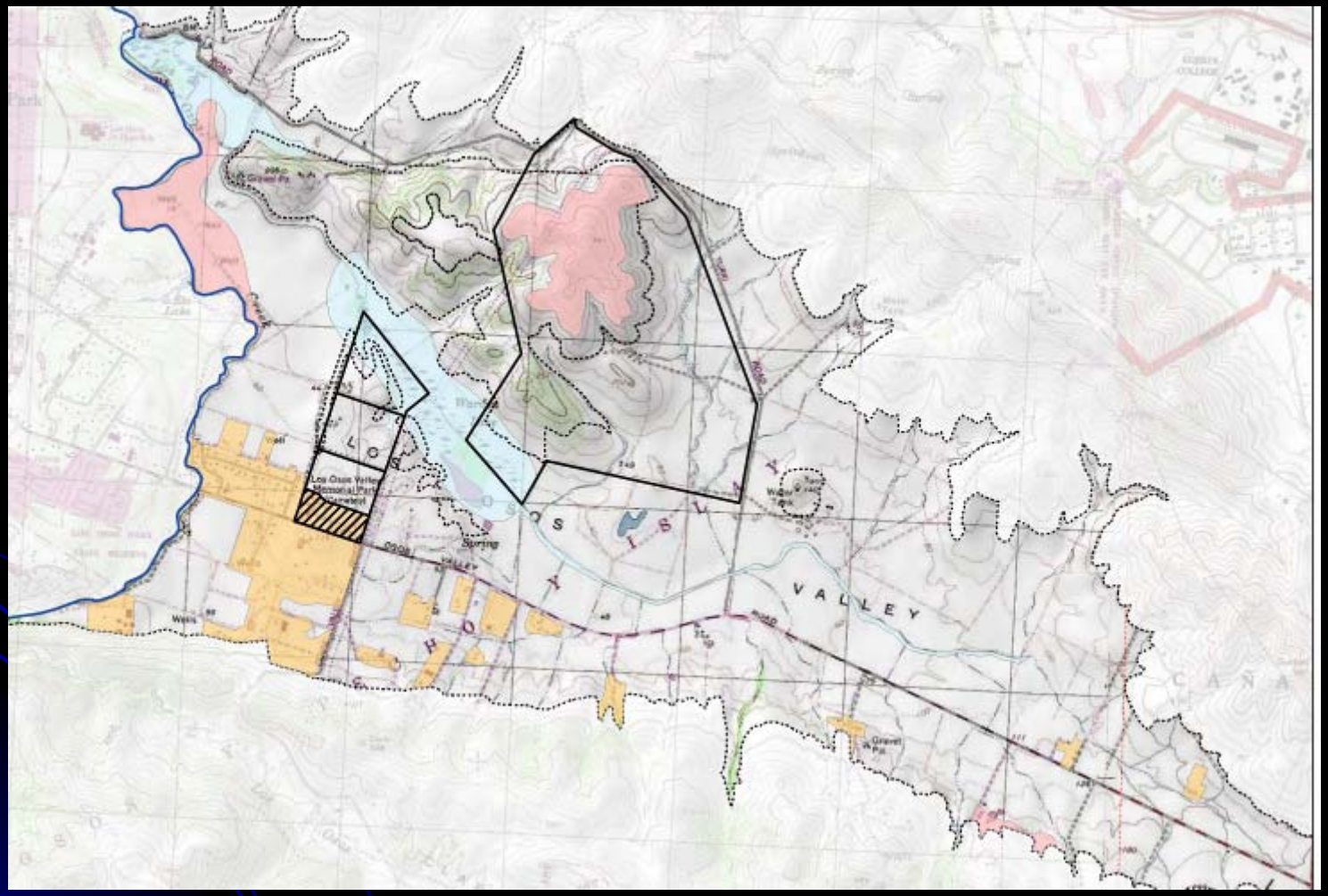
LCP/CEQA Alternatives Analysis



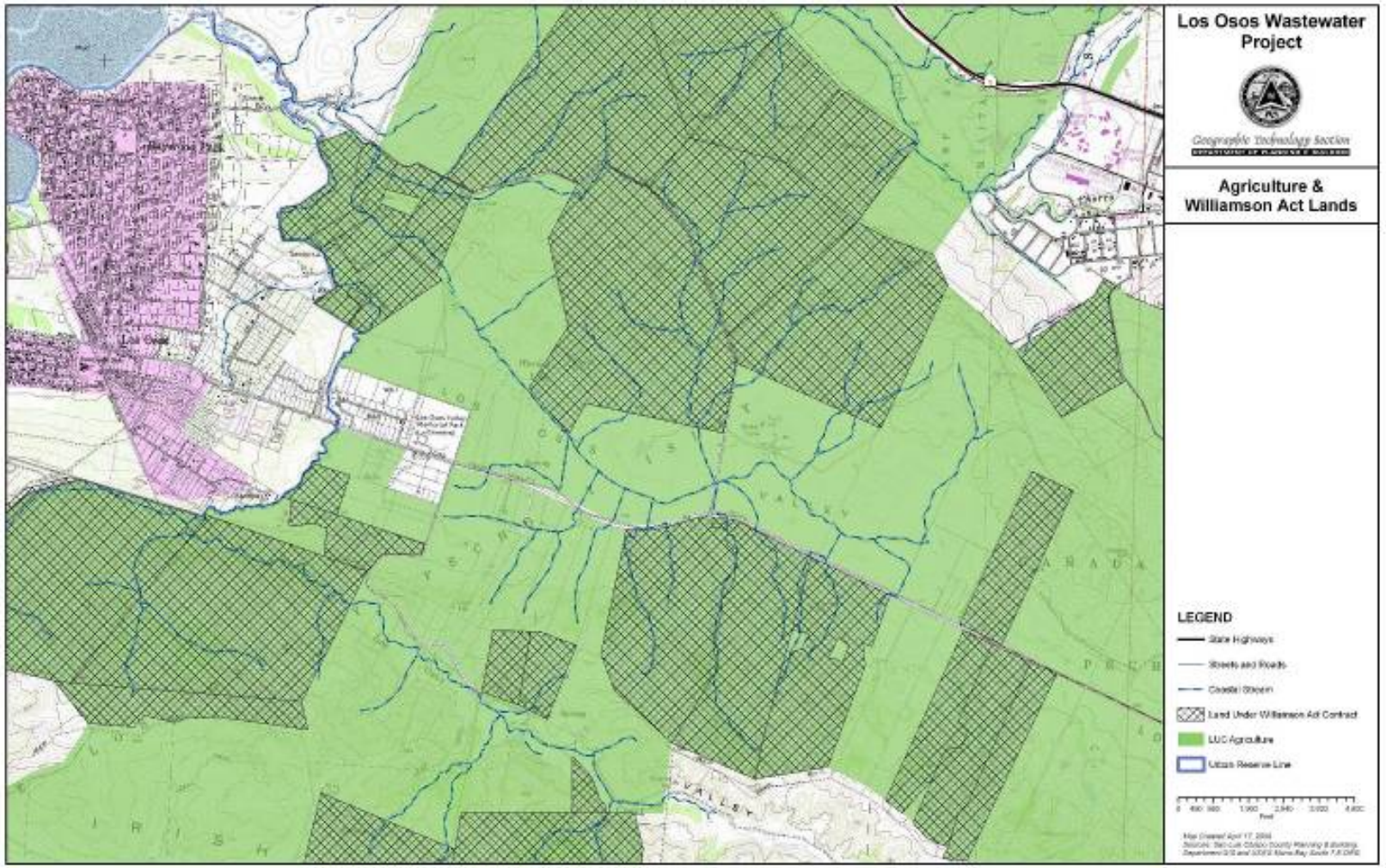
Los Osos Wastewater Project

LCP/CEQA Alternatives Analysis

Los Osos Wastewater Project
LCP/CEQA Alternatives Analysis

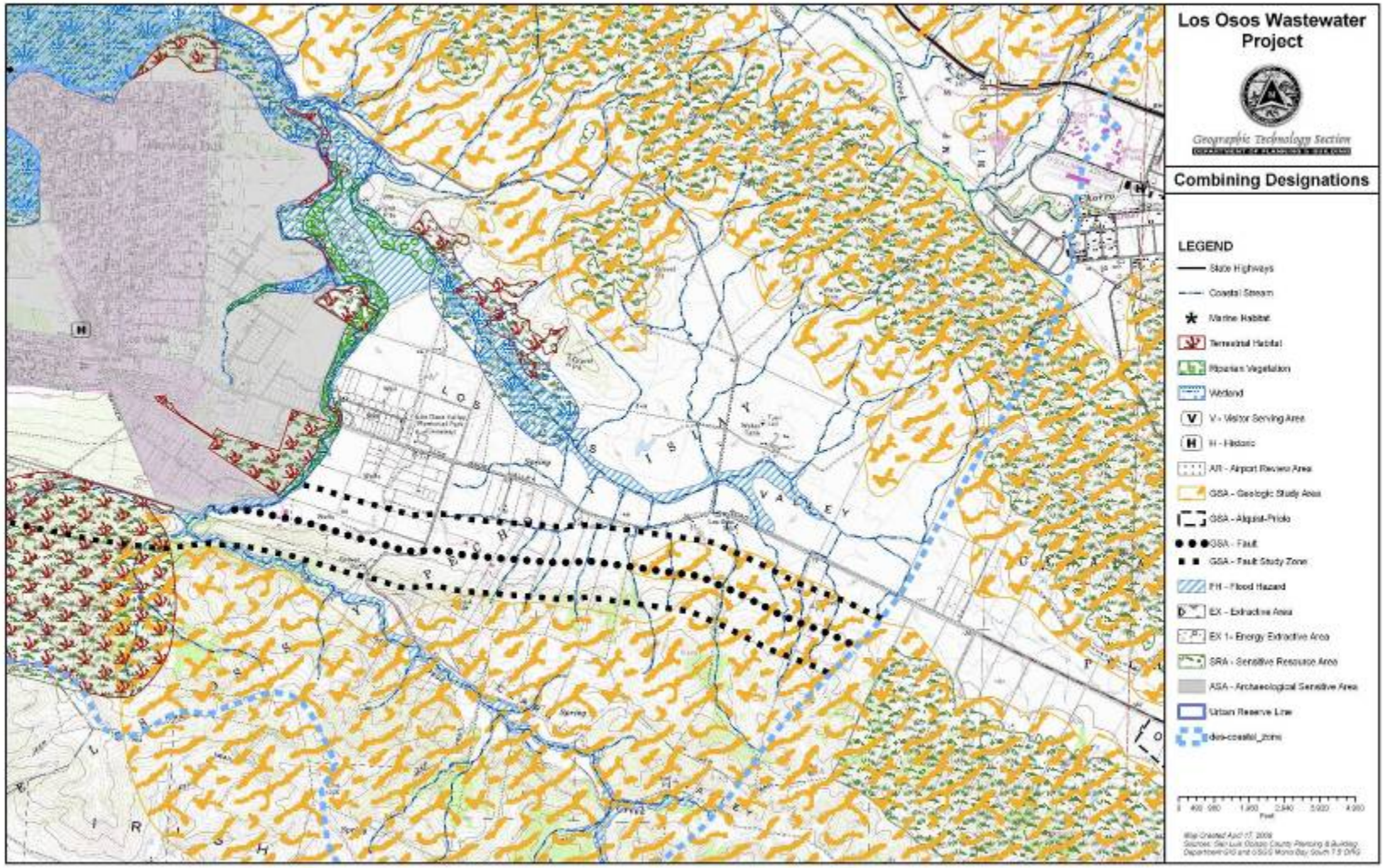


Los Osos Wastewater Project
LCP/CEQA Alternatives Analysis

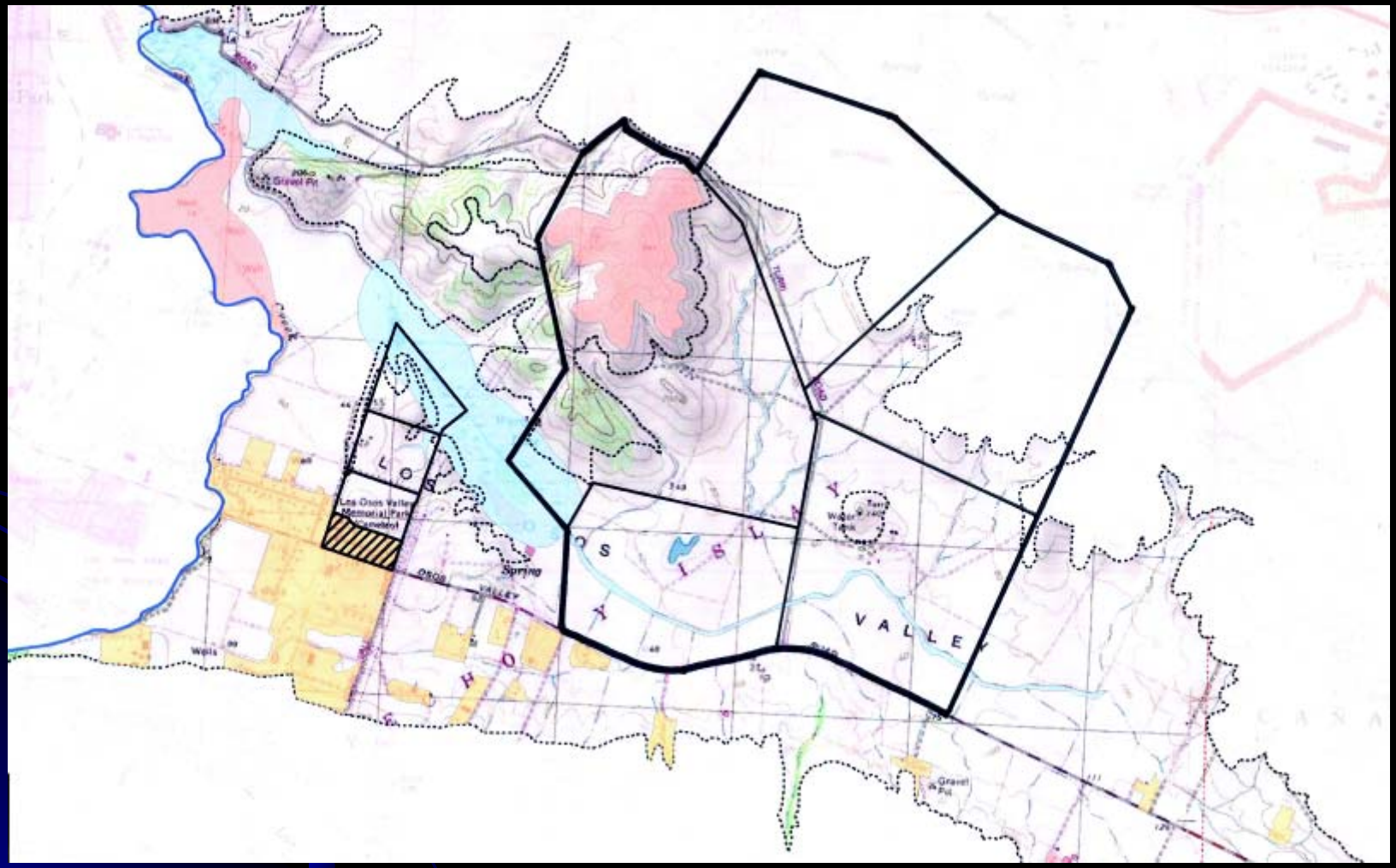


Los Osos Wastewater Project

LCP/CEQA Alternatives Analysis



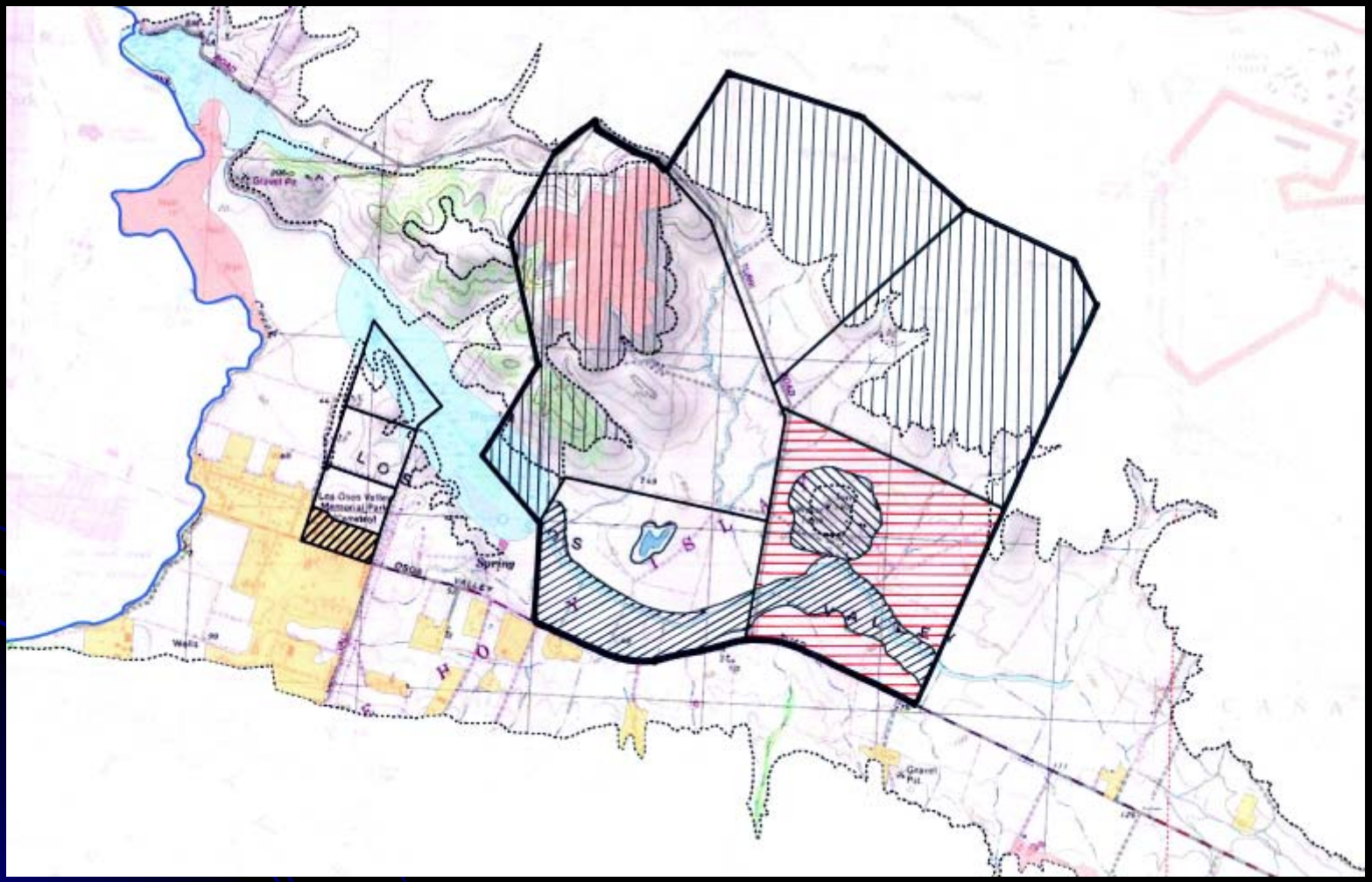
Los Osos Wastewater Project
LCP/CEQA Alternatives Analysis



Los Osos Wastewater Project
LCP/CEQA Alternatives Analysis

Los Osos Wastewater Project

LCP/CEQA Alternatives Analysis



Project Development Process
Key EIR Findings

- No long-term significant impacts:
  - Noise
  - Biological & Cultural Resources
  - Traffic & Circulation
  - Public Health & Safety
  - Visual Resources
  - Geology
  - Drainage & Surface Water Quality
  - Land Use & Planning
  - Groundwater Resources
  - Air Quality/GHG

Project Development Process

Key EIR Findings

- Summary of Impact:
  - Loss of agricultural lands
- Mitigation:
  - Agricultural Easements
  - Agricultural Water Dedication
- Result:
  - Significant & Unavoidable

California Environmental Quality Act
Findings

- Three possible findings:
  1. Not Significant
  2. Significant but mitigable
  3. Significant and Unavoidable
- Statement of Overriding Considerations

Los Osos Wastewater Project
Coastal Development Permit

Recommendations and Conditions of Approval

Los Osos Wastewater Project

Areas of Focus

Los Osos Wastewater Project
Areas of Focus

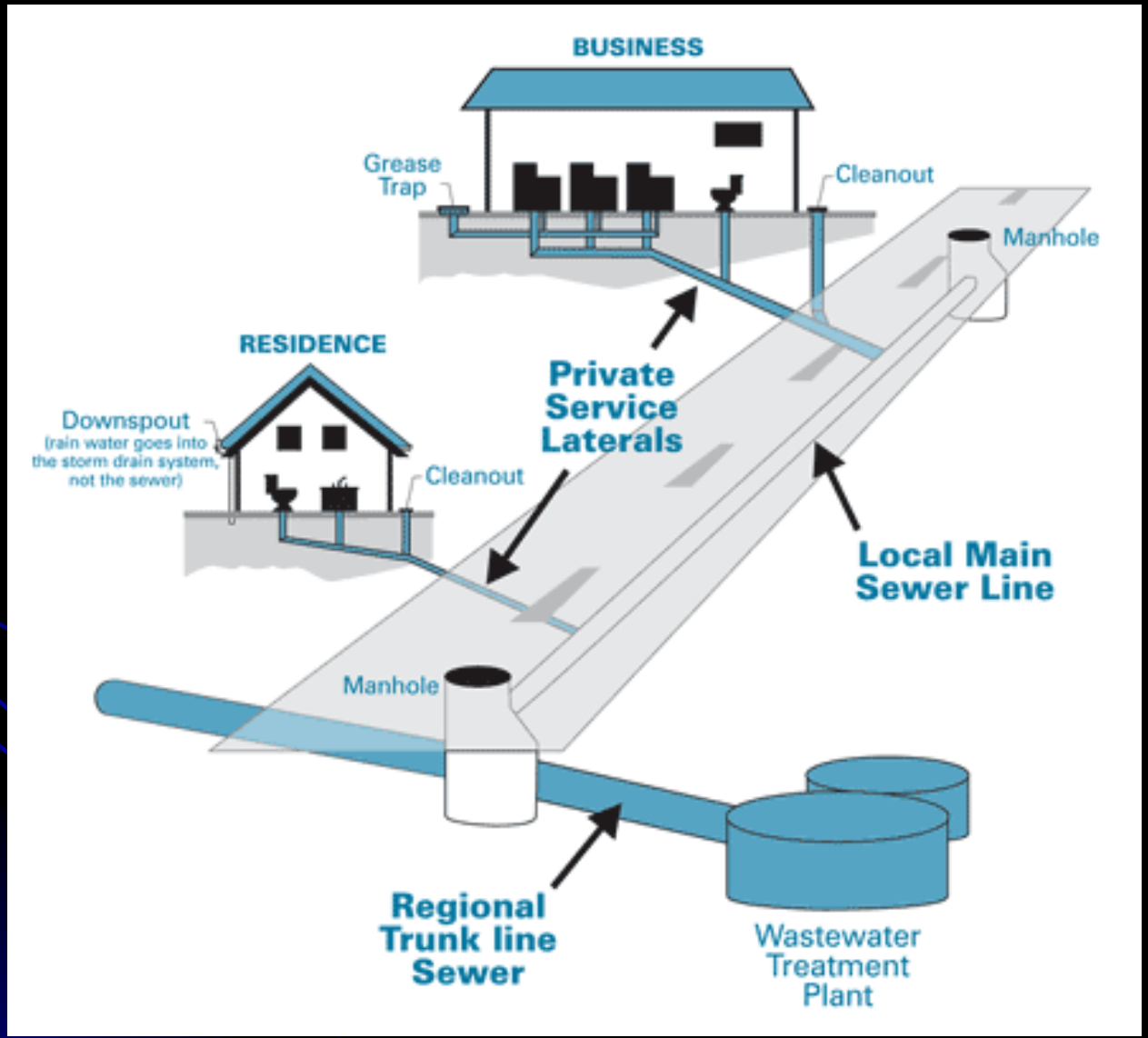
- Collection System Alternatives
- Flows, Loads and Population
- Water Conservation
- Treatment Plant Alternatives
- Disposal and Reuse Scenarios
- Summary

Areas of Focus
Wastewater Collection Systems

- Gravity
- Gravity - Hybrids
  - Low Pressure
  - Vacuum
- STEP/STEG

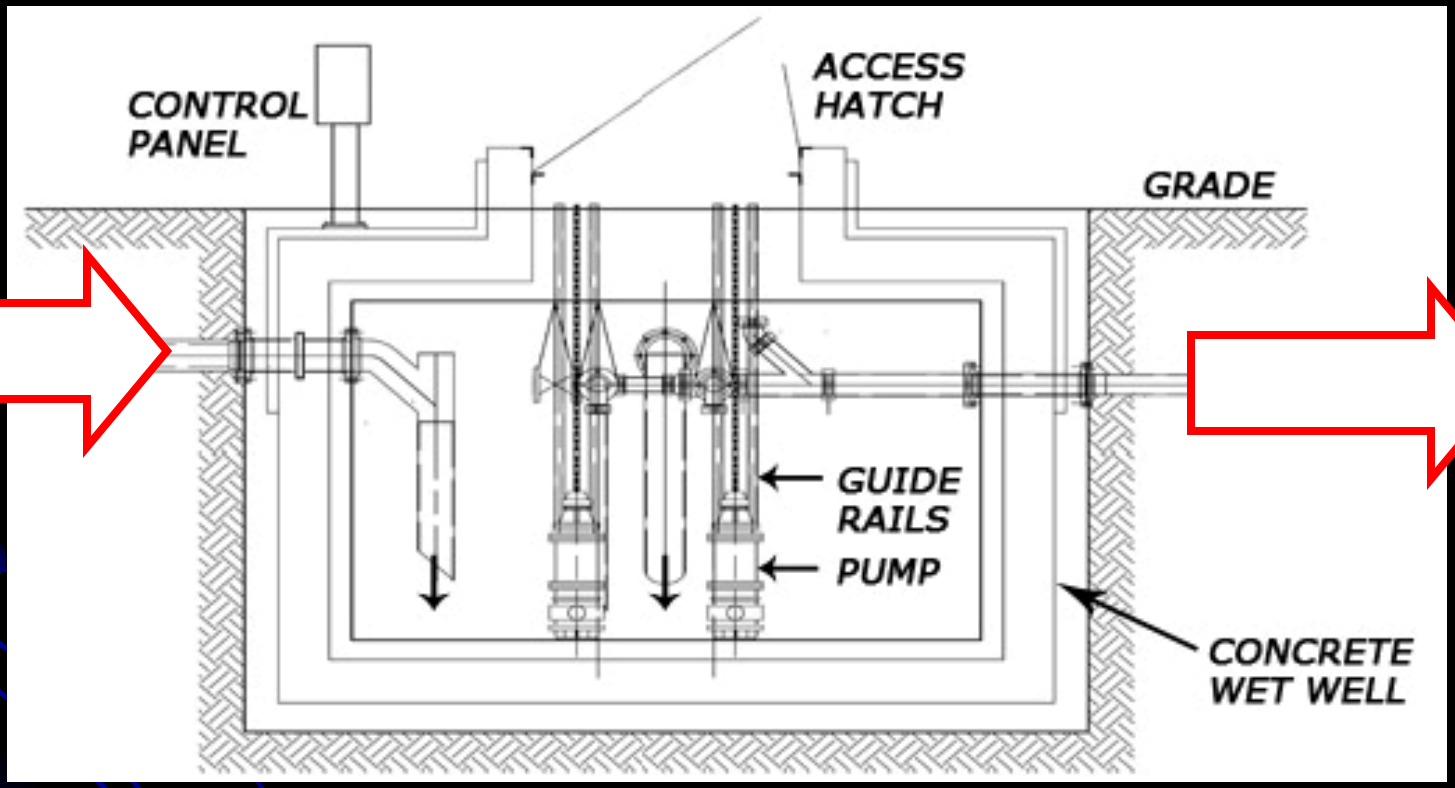
Areas of Focus

Wastewater Collection Systems

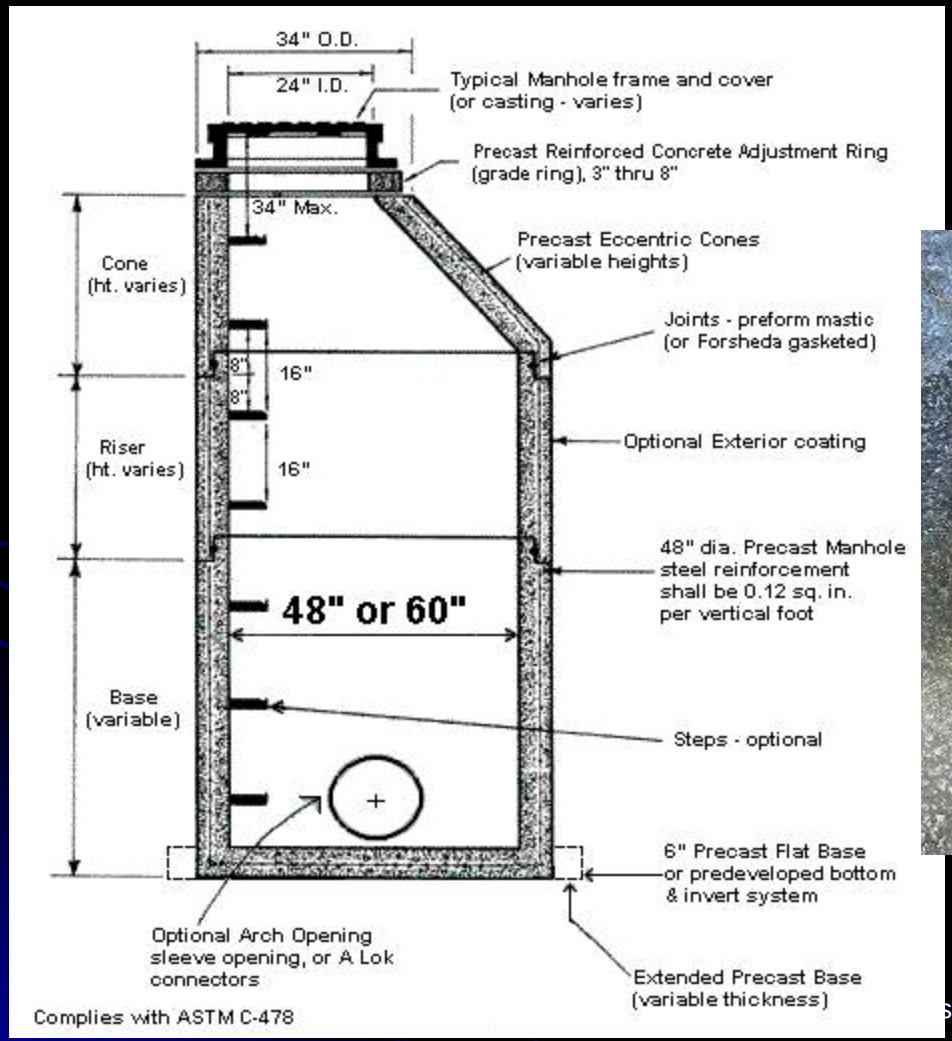


Areas of Focus

Wastewater Collection Systems



Areas of Focus
Wastewater Collection Systems



Areas of Focus

Wastewater Collection Systems

Source: E-One

Areas of Focus

Wastewater Collection Systems

Source: Air Vac

Areas of Focus

Wastewater Collection Systems

Source: Orenco Systems

Areas of Focus
Wastewater Collection Systems

Virginia Tech / Virginia Cooperative Extension

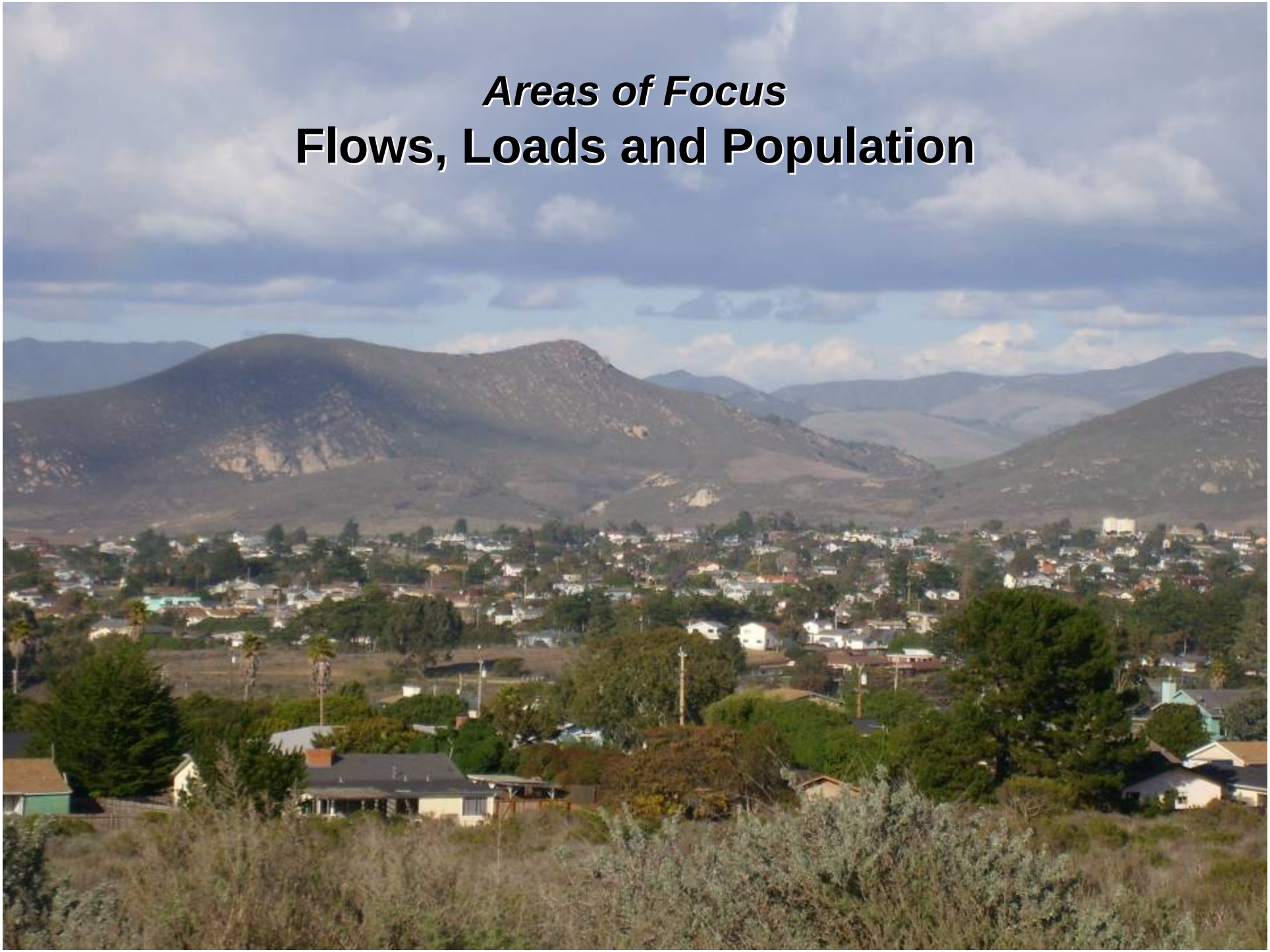
The consideration of alternative collection systems is appropriate when:	Steven's County PUD Dist. (WA)	Southwest Barry Co. Sewer Authority (MI)	Douglas County Natural Resource at Glide (OR)	South Alabama Utilities (AL)	City of Olympia Public Works Dept. (WA)	Carpinteria Sanitary District Rincon Point (CA)	Charlotte County Utility Authority (FL)	Los Osos (CA)
The average lot size per property is more than one-half acre	N (for the most part)	N	N (for the most part)	N	N	N	N	N
The system will serve a community on a "*very* hilly" terrain	Y	Y	N	N	N	N	N	N
There will be fewer than 100 homes per mile of sewer pipe	Y	N	Y	Y	Y	N	N	N
The wastewater treatment system will only be serving a community of 10,000 people or less	Y	Y	Y	Y	Y	Y	N	N
There are subsurface obstacles, such as bedrock or groundwater, close to the ground's surface	Y	Y	Y	Y	Y	Y	Y	Y
Many of the properties currently have on-site systems such as septic tanks	Y	Y	Y	Y	Y (for the most part)	Y	Y	Y

Areas of Focus
Wastewater Collection Systems

- NWRI
  - STEP and Gravity are functionally equivalent
- EIR
  - No significant impacts to water quality
  - Gravity is environmentally superior due to lesser cultural and greenhouse gas Impacts
- Community Survey
  - Gravity system widely preferred

Areas of Focus
Wastewater Collection Systems

- Design-Build Contracting Process
  - Short-list most qualified teams in Phase I
  - Design-build submittals did not indicate sufficient cost savings with STEP to continue consideration



Areas of Focus

Flows, Loads and Population

Areas of Focus
Flows, Loads and Population

- Build-out population estimated at 18,428, based on LOCSD 2005 project
- Average daily dry weather flow estimated at 1.1 million gallons per day

Areas of Focus
Flows, Loads and Population

- Flows & Loads Technical Memorandum Cost Sensitivity Analysis:
  - Changes in flows by up to 400,000 gpd result in less than 1% change in total project costs

Areas of Focus
Flows, Loads and Population

- Growth inducing impacts should be controlled by clearly defining the Service Area & controlling the use of treated effluent
- The capacity of the treatment plant should include a reserve in order to address unanticipated circumstances in order to protect the community and the environment

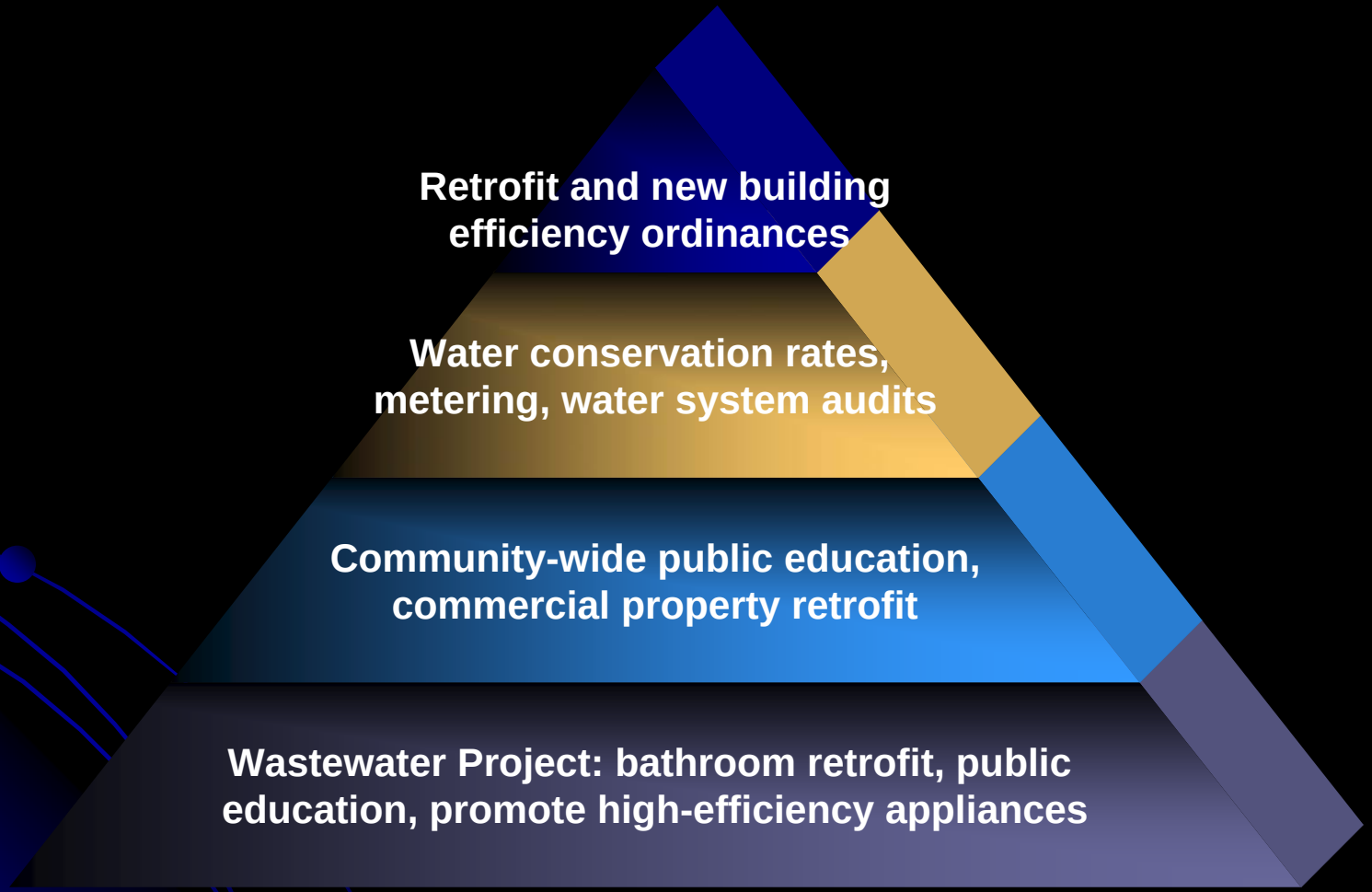
Areas of Focus

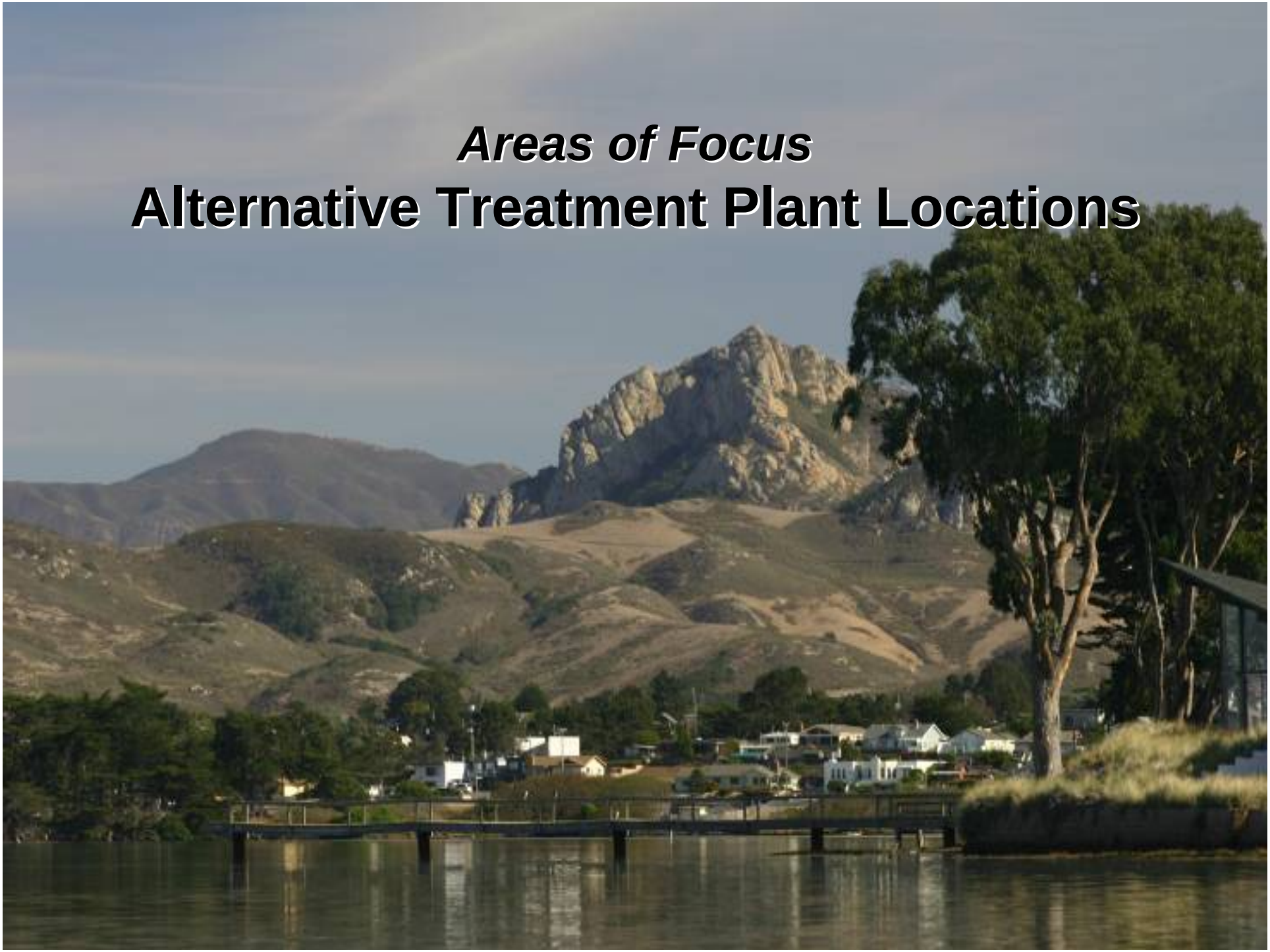
Water Conservation Components

Areas of Focus
Water Conservation Components

- Included in Project:
  1. Bathroom Retrofits
  2. Public Education Campaign
  3. Promote High-Efficiency appliance programs
- Estimated water savings = at least 160 acre feet per year

Areas of Focus
Water Conservation Components





Areas of Focus

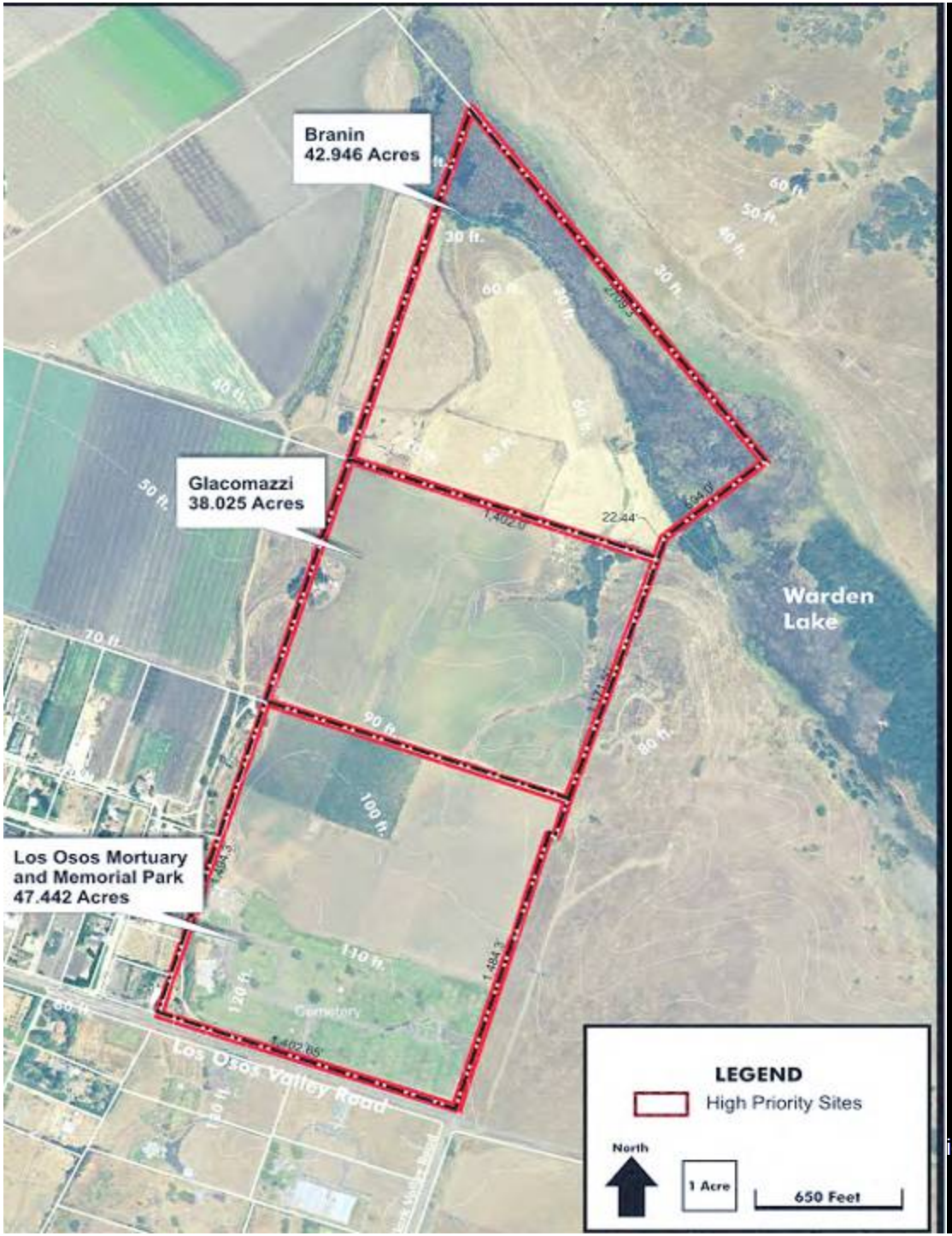
Alternative Treatment Plant Locations

Areas of Focus
Alternative Treatment Plant Locations

- Major Treatment Location Concepts
  - Centralized
  - De-centralized
  - Regional
  - On-Site

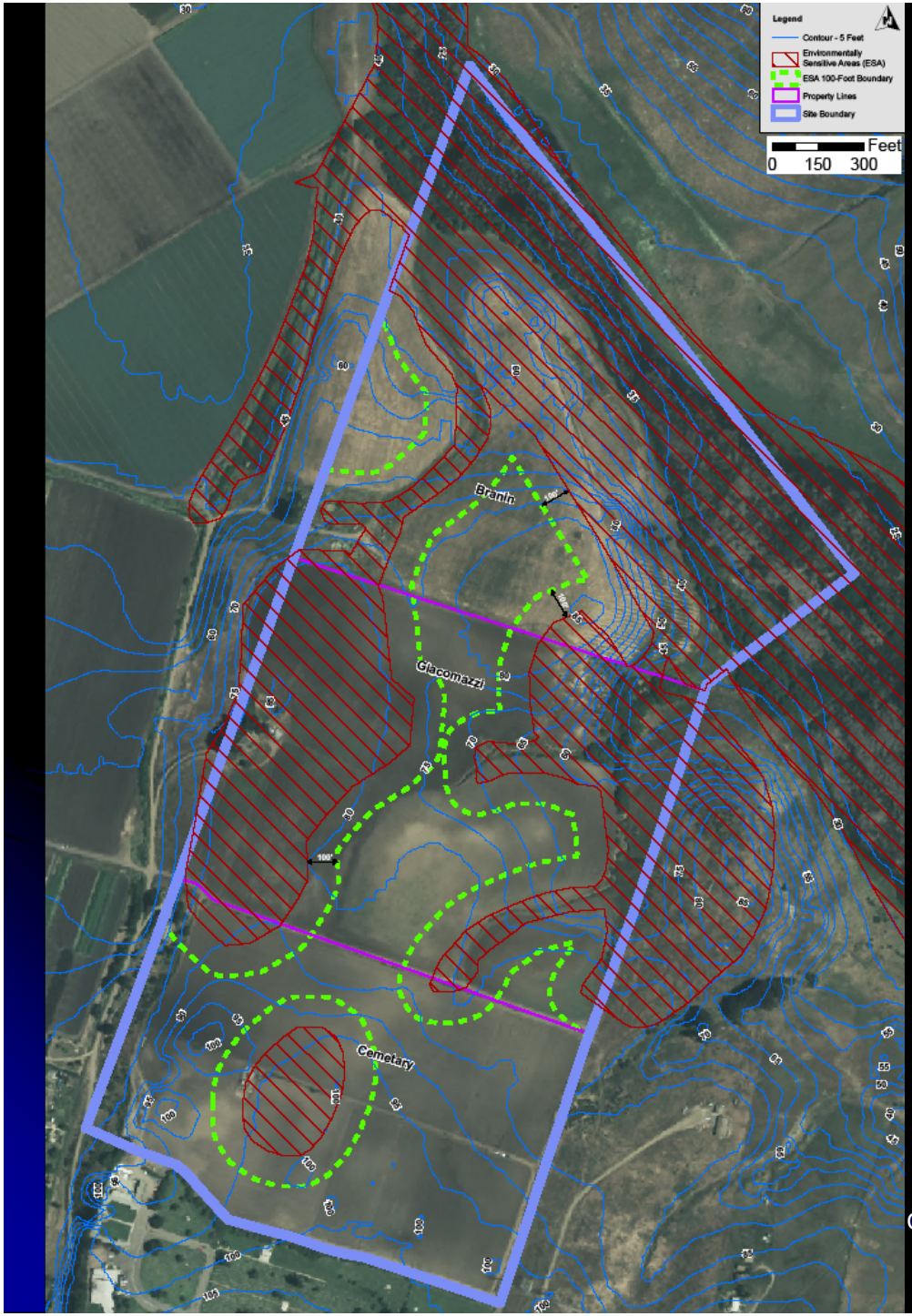
Areas of Focus

Alternative Treatment Plant Locations



Areas of Focus

Alternative Treatment Plant Locations



Areas of Focus
Alternative Treatment Plant Locations

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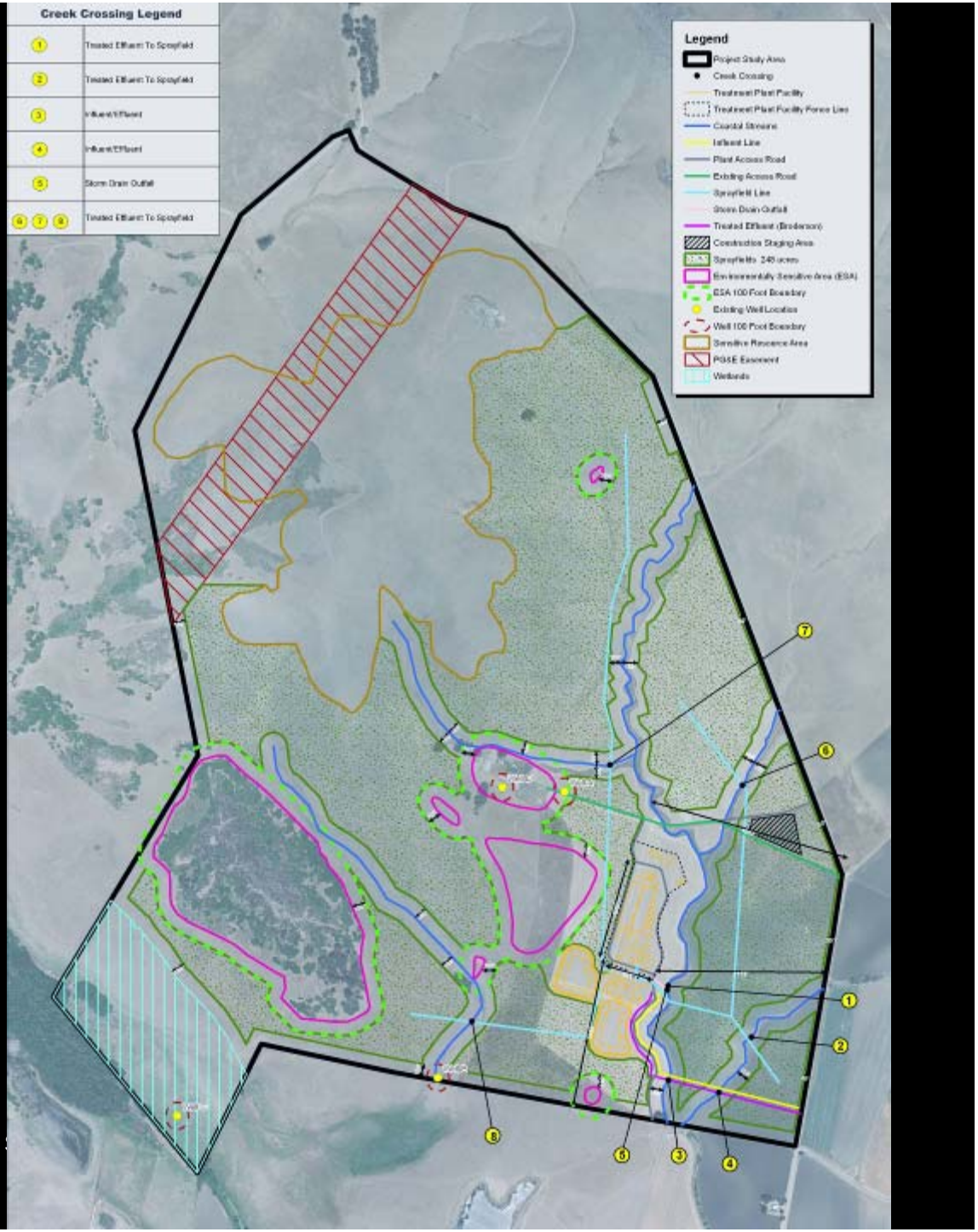
Alternative Treatment Plant Locations

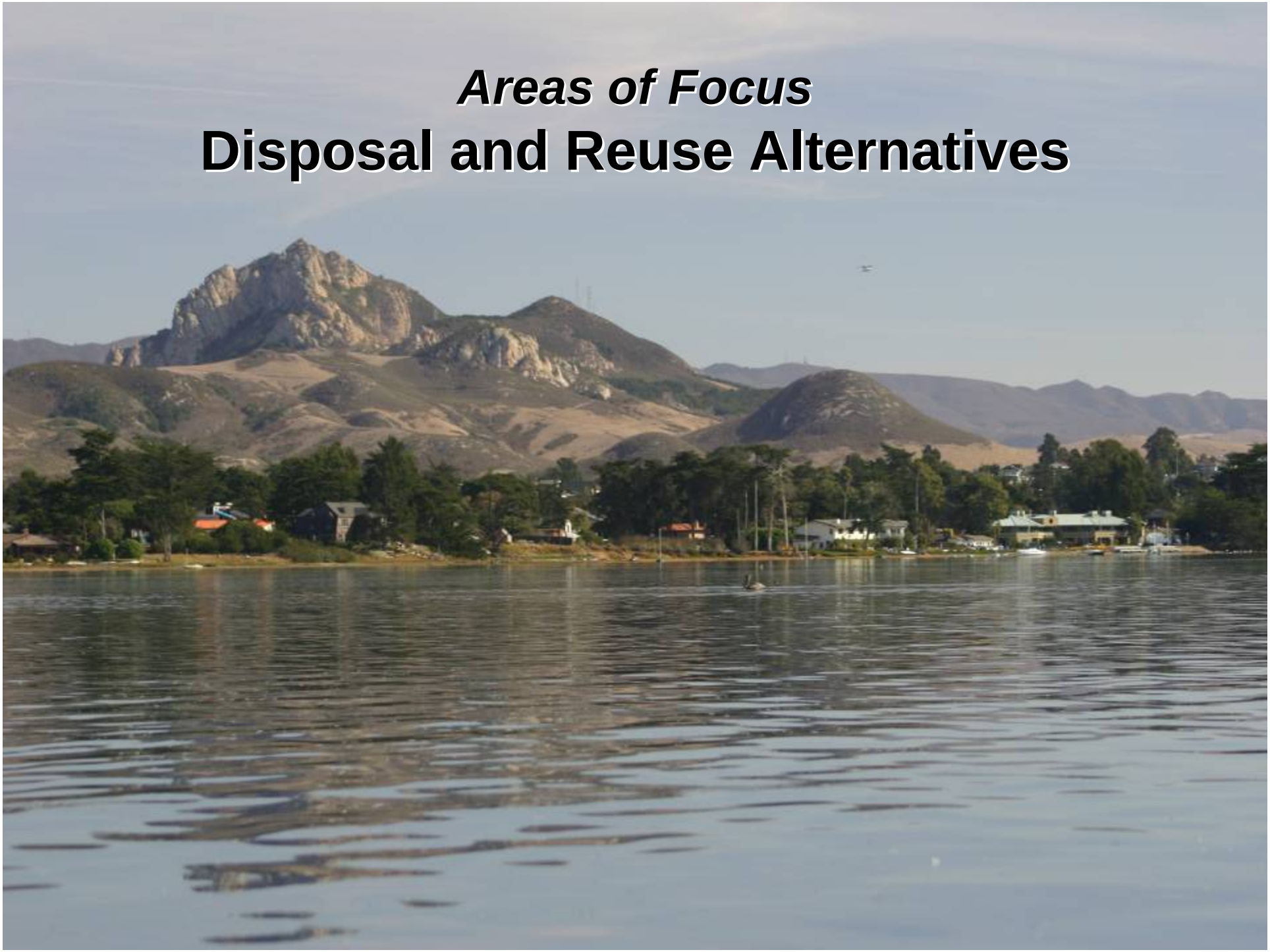


Areas of Focus
Alternative Treatment Plant Locations

Agricultural Land Impact Comparison				
Treatment Plant Location	Land Purchased	Land Used	Prime Land	Cost Differential
Tonini	650	426	179	--------
Giacomazzi	688	444	186	$1,500,000+

Areas of Focus
Alternative Treatment Plant Locations

- Tonini Treatment Site Advantages
  - Greater setback from SRA
  - Greater setback from property lines
  - Greater setback from residences
  - Provides co-location with sprayfield
  - Avoids conflicts with cemetery



Areas of Focus

Disposal and Reuse Alternatives

Areas of Focus
Disposal & Reuse Options

- Ocean Outfall
- Surface Water Discharge
- Spray Fields
- Percolation
- Reclamation
- Ag In Lieu
- Ag Exchange
- Urban Reuse
- Injection Wells

Areas of Focus

Disposal & Reuse Options

Option	Status	AF/yr
Ocean Outfall	Not Permittable	0
Surface Water Discharge	Not Permittable	0
Spray Fields	Proposed	842
Percolation	Proposed	448
Reclamation	Not Feasible/Technological	0
Agriculture	Future Option Requires Partners	460
Urban Reuse	Future Option Requires Partners	133
Injection Wells	Not Feasible/Technological	0

Areas of Focus
Disposal & Reuse Options

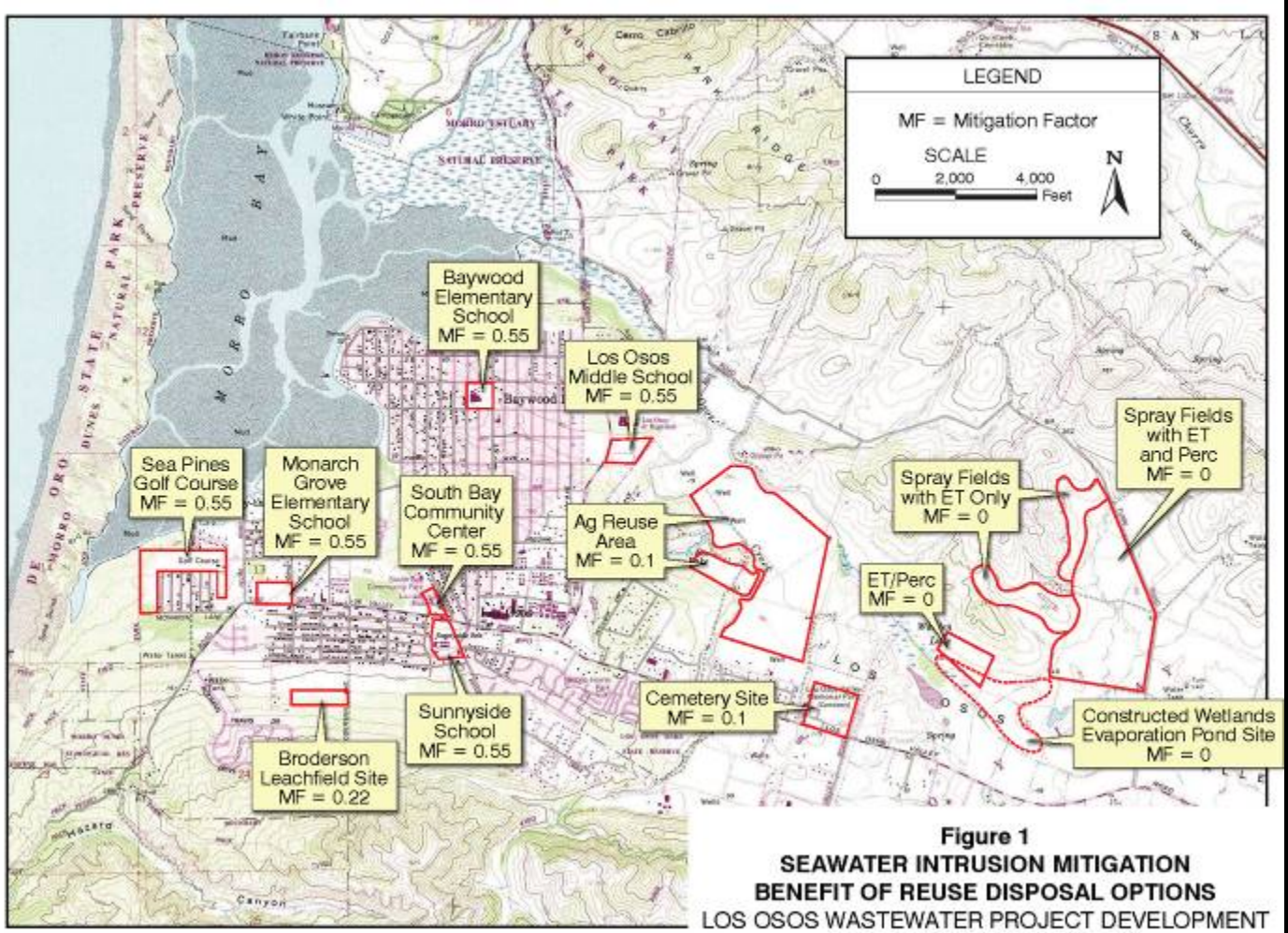


Figure 1
SEAWATER INTRUSION MITIGATION
BENEFIT OF REUSE DISPOSAL OPTIONS
LOS OSOS WASTEWATER PROJECT DEVELOPMENT
SAN LUIS OBISPO COUNTY

Areas of Focus
Disposal & Reuse Options

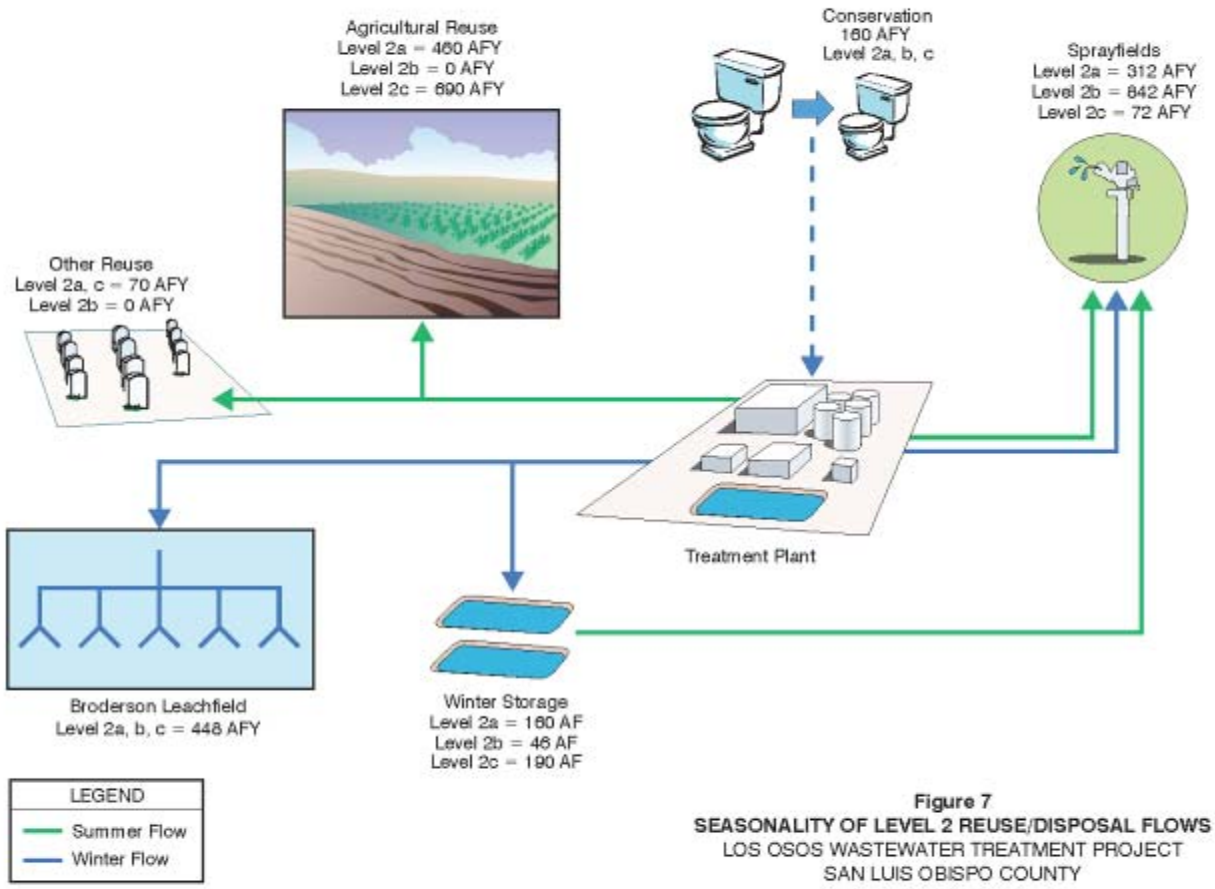


Figure 7
SEASONALITY OF LEVEL 2 REUSE/DISPOSAL FLOWS
LOS OSOS WASTEWATER TREATMENT PROJECT
SAN LUIS OBISPO COUNTY

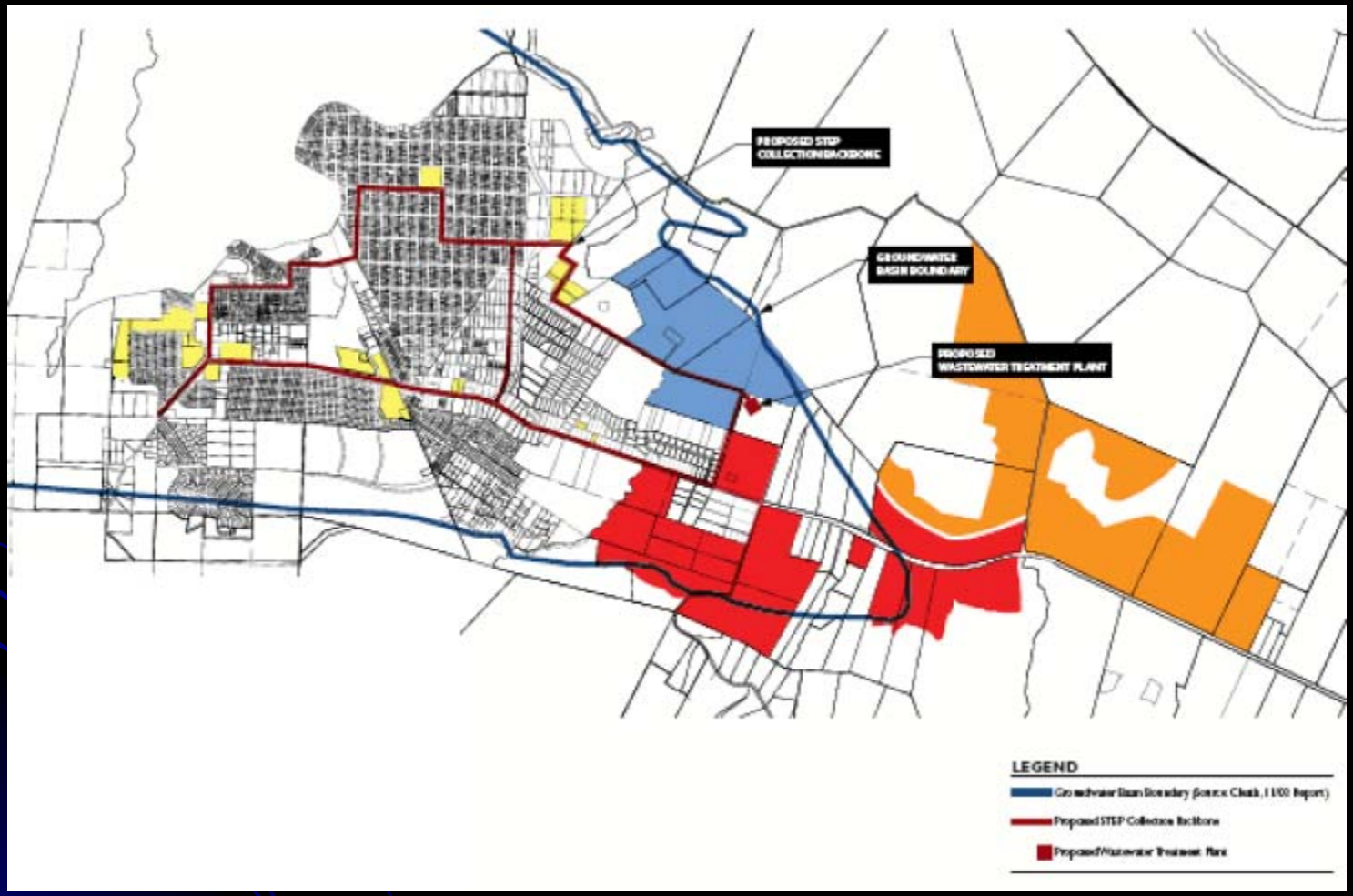
Areas of Focus
Disposal & Reuse Options

- Why sprayfields
  - No outfalls allowed
  - No percolation outside of urban area
- Sprayfield location established
  - Provides guaranteed disposal (common sense and regulation)
- Operations Wet/Dry
- Provides options for the future

Areas of Focus
Disposal & Reuse Options

- Need for Adequate Disposal
  - Comparison to LOCSD plans
  - Alternative sites for disposal
  - Broderson leachfields
  - Additional alternatives with tertiary treatment
  - Dedications under public trust theories for environment and agricultural beneficial use
  - Relationship to groundwater litigation and seawater intrusion

Areas of Focus
Disposal & Reuse Options



Areas of Focus
Disposal & Reuse Options

- Build a project that solves the water pollution problem and functions as a beneficial resource for agriculture and the environment.

Summary

Summary

- Acknowledgements
- A Proposal
- New Evidence
- Opportunities
- Decision Making
- A Complex Problem

A Proposal

- Social Feasibility
- Economic Feasibility
- Expanded Analysis
- Co-Equal CEQA
- Recognize the Impacts

New Evidence

- **AB 2701** (Blakeslee)
- **March 2001** - LOCSD Certified EIR
- **February 2003 -** RWQCB WDR Approved
- **July 2003** – GSW litigates RWQCB
- **February 2004** – LOCSD Files Groundwater Litigation

New Evidence

- **April 2004** – Coastal Commission Hearing
- **May 2004** – GSW v. RWQCB Decision
- **June 2004** – MWH Memo in Response to Coastal Commission Comments (Disposal Options)
- **August 2004** – Coastal Approval
- **January 2005** – CDP Issued

New Evidence

- **July 2005** - LOCSD Approves Contracts
- **September 2005** - LOCSD Recall Approved
- **October 2005** - LOCSD Suspends Construction
- **Fall 2005** – Blakeslee Facilitates Discussions between LOCSD and SWB
- **January 2006** - Petition for Dissolution of LOCSD filed with LAFCO

New Evidence

- **June 2006** – Initial Policy Direction Approved by Board of Supervisors
- **August 2006** - LOCSD Files Bankruptcy
- **September 2006** – AB 2701 Approved
- **January 2007** – Effective Date of AB 2701
- **December 2007** – Prop 218 Results

Opportunities

- Integrated Resource Management in the 21st Century
- Dedication of Treated Effluent

Decision Making

- As Good As Possible
- As Responsible As Possible
- As Cost Effective As Possible
- As Responsive As Possible

A Complex Problem

- No Easy Solutions
- Impacts Exist with all Alternatives
- Water Resources
- Litigation
- Collaboration
- Multiple Valid Perspectives

Los Osos Wastewater Project

San Luis Obispo County Planning Commission

April 23, 2009