



PV Water College Lake Pipeline Route Study Analysis

PV Water Board of Directors Meeting, December 16, 2020

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Background and Objectives

- Background

- The primary purpose of the proposed project is to convey treated water from the proposed water treatment plant at College Lake to the existing Coastal Distribution System.
- There are two pipeline route alternatives.

- Objective

- Provide a pipeline route that has the least impacts on stakeholders

Pipeline Alternatives



Each alternative is segmented into smaller sections to compare criteria

Figure 3. Alternative Routes
Pipeline Route Evaluation and Recommendation
College Lake Pipeline Project
Watsonville, California



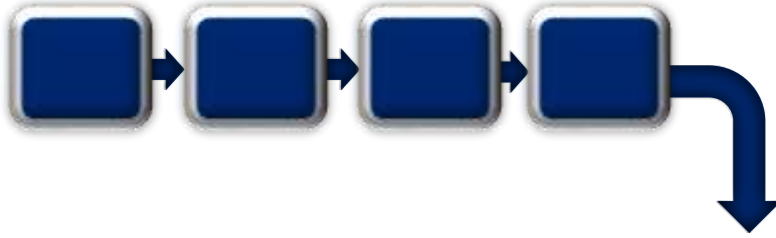
Information Collection

- Parcel
- Encroachments/ROW
- City/County Boundaries
- Caltrans Traffic Counts
- Meetings with City of Watsonville and Caltrans



- Utilities
 - City of Watsonville
 - Water
 - Sewer
 - Storm Drain
 - PG&E
 - Electric
 - Gas
 - Santa Cruz County
 - Storm Drain
 - Water

Formal Alternatives Evaluation and Route Selection



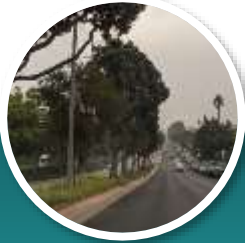
Formal Alternatives Evaluation and Route Selection



Develop Criteria



Constructability



Operations
and
Maintenance



Property and
Right of Way



Utility
Conflicts



Permits



Community
Impacts

- Noise
- Traffic
- Access /
Use
Disruption



Cost

Non-Cost Evaluation

Two-part evaluation:
Scoring and Weighting

Scoring

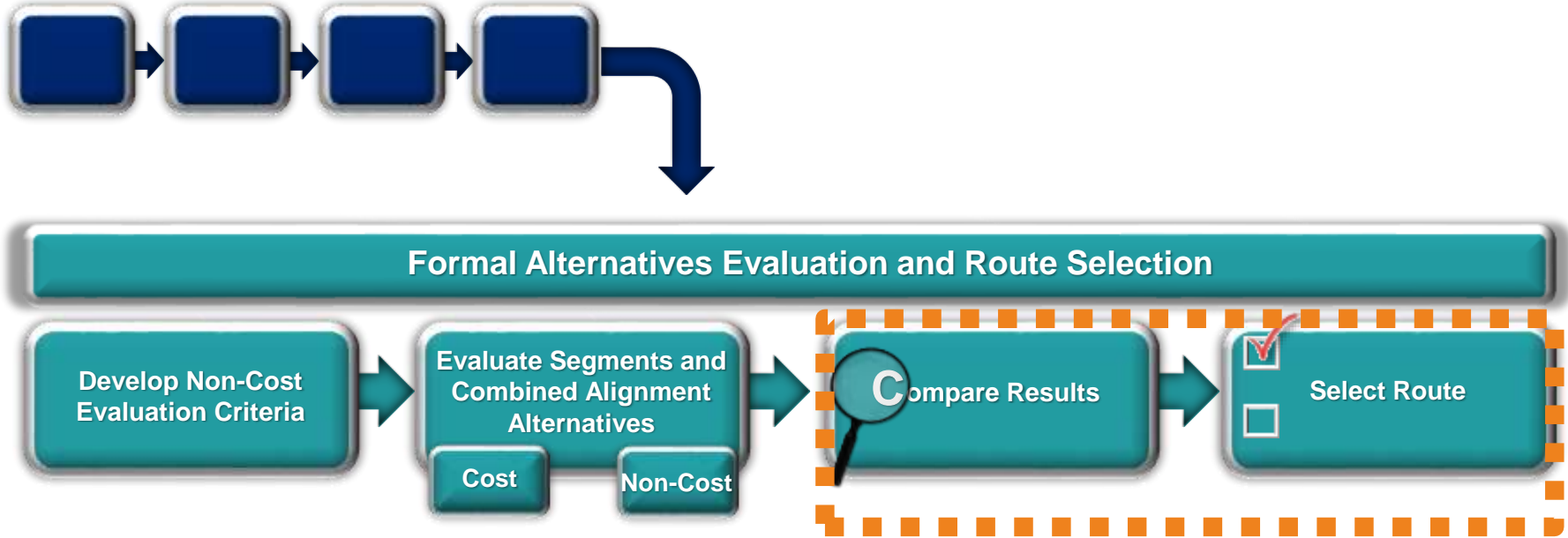
- Scoring qualitative (1-5)
- Detailed evaluations conducted on each segment for each non-cost criterion



Non-Cost Criteria	Weighting
Community Impacts	27%
Property and ROW	22%
Utility Conflicts	13%
Constructability	19%
Operation and Maintenance	8%
Permits	11%
Total	100%

Documented and
Defensible

Formal Alternatives Evaluation and Route Selection



Comparisons

Table 7. Estimated Lengths Per Area Type

Description	Alternative 1: EIR Approx. Length (Feet)	Alternative 2: Rural Approx. Length (Feet)	Notes
Agricultural Areas	3,800	18,000	Fastest construction rate, less impacts to community
Residential Areas	7,300	3,700	Slowest construction rate, impacts to residences
Urban Areas	16,100	9,500	Moderate construction rate, impacts to community
Tunnel	600	1,000	Tunnel construction will be similar for both alternatives
Total	27,800	32,200	-

Note: Alternative 2 has a longer overall length than Alternative 1, but the costs are less and has fewer community impacts.

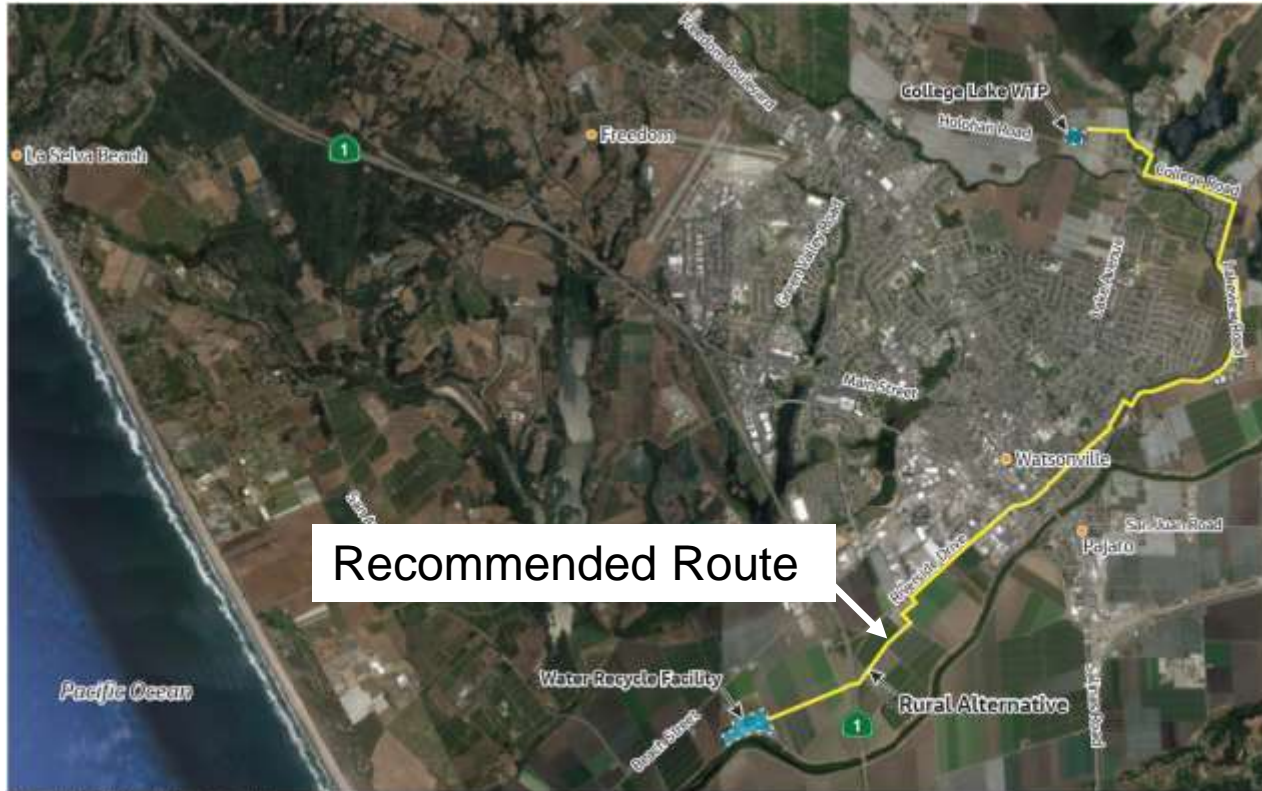
Comparisons

Table 8. Summary of Non-cost Scores and Ranking for Alternative Pipeline Routes

Alternative Pipeline Route	Non-cost Scores (Weighted)						Total Scores (Weighted)	
	Community Impacts	Property /ROW	Utility Conflicts	Construct - ability	O&M	Permits	Overall Weighted Score	Non-cost Rank
Alternative 1: EIR Alternative	14.6	14.3	5.4	9.7	5.2	5.7	54.9	2
Alternative 2: Rural Alternative	21.4	17.6	9.9	15.2	6.4	9.0	79.6	1
Total Weight	27.0	22.0	13.0	19.0	8.0	11.0	100.0	-

Note: Alternative 2 ranks higher than Alternative 1 and therefore has less impacts to the stakeholders

Jacobs Recommended Route: Alternative 2 Rural



- Less impacts to Community
- Faster construction rate and less cost in Agricultural areas
- Less utility conflicts



Figure 10. Preferred Alternative Route
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College Lake Pipeline Project
Watsonville, California