

Moffet Drop Structure/Fish Ladder Improvement Feasibility Report

Carter Hayes, Assistant Engineer II
Watershed Stewardship and Planning Division
Capital Improvement Program Committee Meeting
January 26, 2026

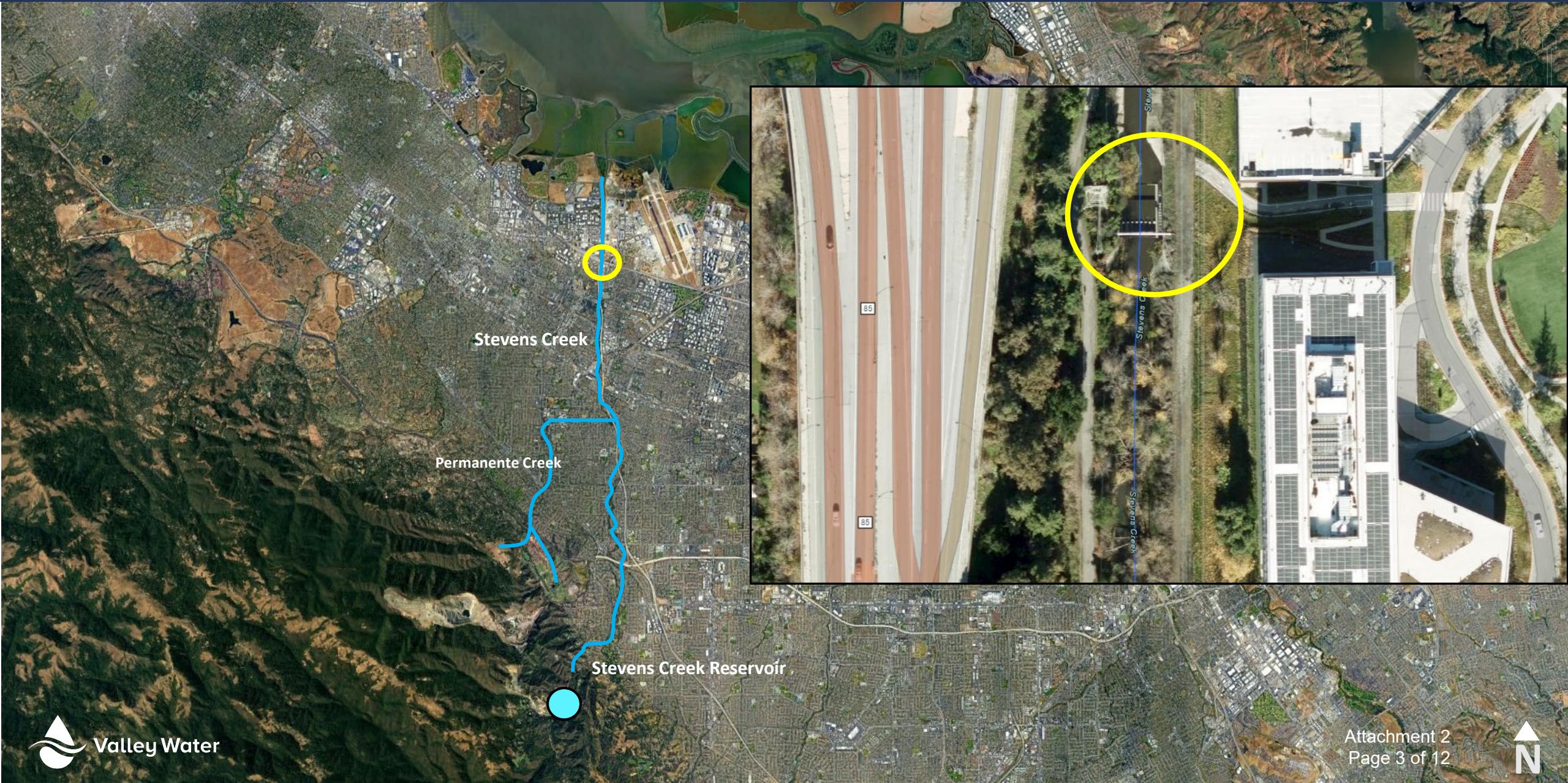


Outline

1. Background
2. Objectives
3. Conceptual Alternatives
4. Feasible Analysis
5. Next Steps



Project Location



Objectives

1. Remediate Moffett Drop Structure for fish passage
2. Construct or improve a fishway with minimal operational and maintenance work requirements
3. Minimize impacts to Stevens Creek Trail users



Conceptual Alternative 1: Increased Maintenance

1. Retain existing Denil Fish Ladder
2. Increase maintenance activities



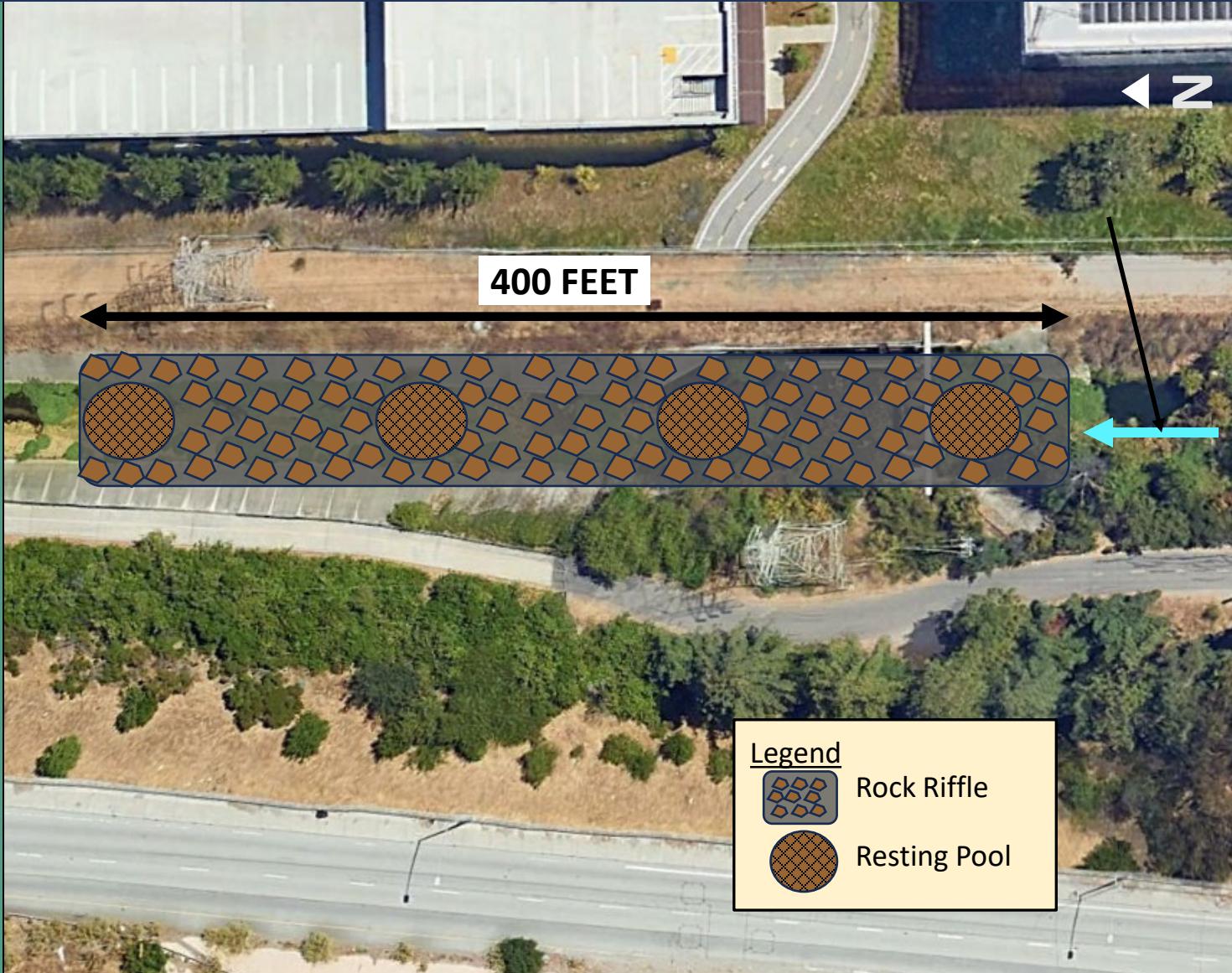
Conceptual Alternative 2: Improve Existing Drop Structure

1. Retain existing Denil Fish Ladder
2. Install trash rack at upstream
3. Install curb at drop structure
4. Increased maintenance



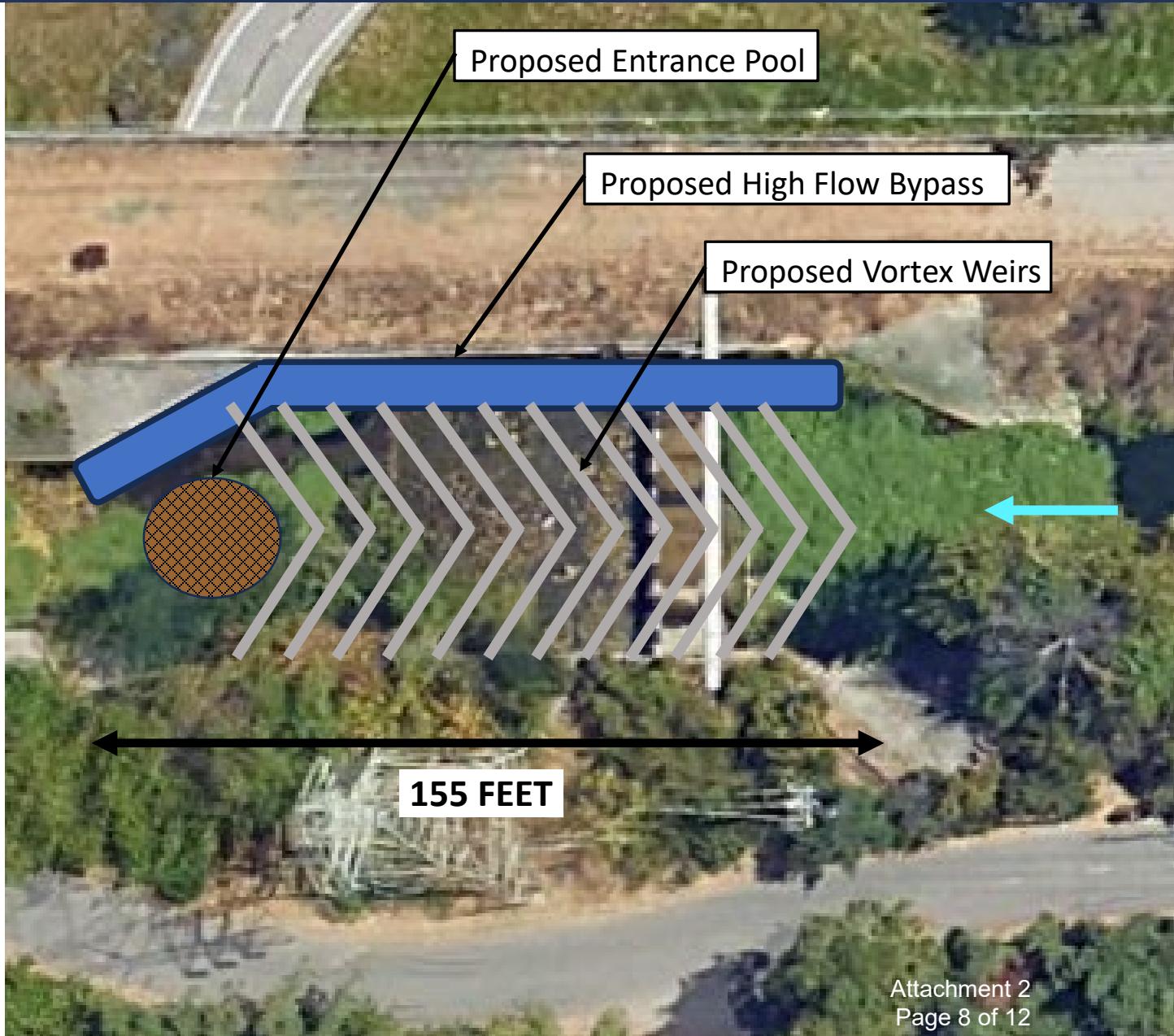
Conceptual Alternative 3 – Roughened Channel

1. Remove existing drop structure
2. Install a roughened channel with pools
3. Maintenance required to replenish large boulders and bed materials



Conceptual Alternative 4 – Vortex Weirs

1. Remove existing drop structure
2. Construct high flow bypass
3. Construct entrance pool
4. Construct vortex weirs
5. Least maintenance required



← 70 FEET →

CA-1: Increase Maintenance
CA-2: Improve Existing Denil Ladder



Pros:

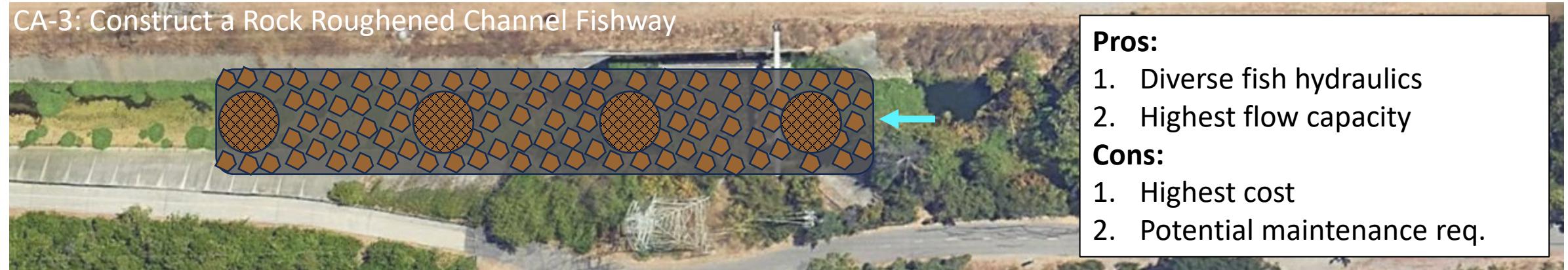
1. Lowest cost
2. Minimal construction impacts

Cons:

1. Poor attraction flows
2. High maintenance

← 400 FEET →

CA-3: Construct a Rock Roughened Channel Fishway



Pros:

1. Diverse fish hydraulics
2. Highest flow capacity

Cons:

1. Highest cost
2. Potential maintenance req.

← 155 FEET →

CA-4: Construct a Concrete Vortex Weir Pool and Chute Fishway



Pros:

1. Proven to function
2. Minimal maintenance

Cons:

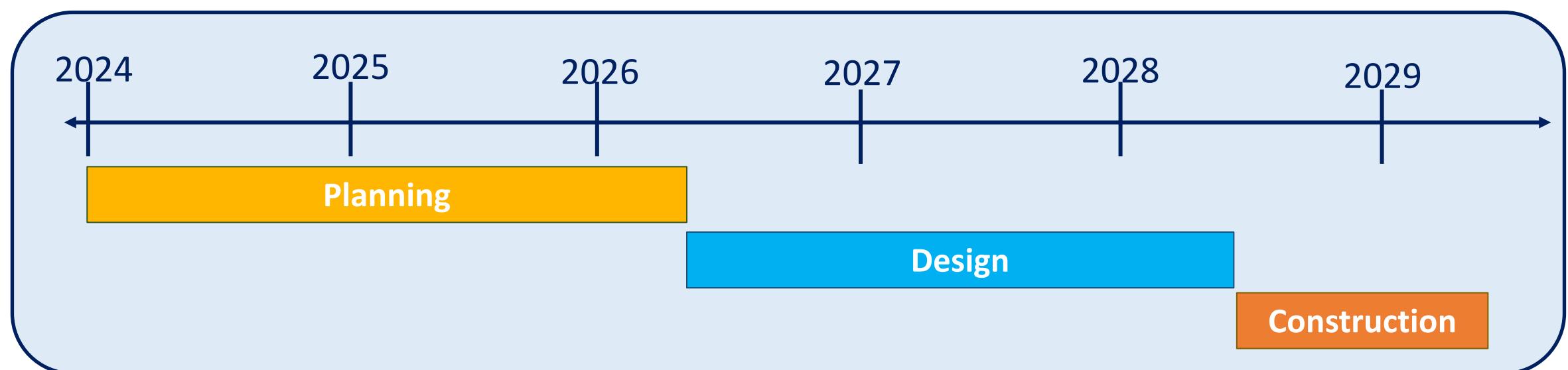
1. Potential for trapping debris

Staff Recommended Alternative

1. CA-4: Vortex Weir Pool and Chute Fishway
 - Reduces maintenance requirements
 - Provides multi-species passage
 - No Impacts to Stevens Creek Trail
2. Next Steps
 - Document Staff Recommended Alternative
 - Complete Planning Study



Project Schedule



Questions

