



HIGHWAY 17 WILDLIFE and REGIONAL TRAIL CROSSINGS





Agenda and Meeting Format

- ✿ 7:00 - 7:15 Welcome
- ✿ 7:15 - 8:00 Presentation
- ✿ 8:00 - 8:30 Open House
- ✿ 8:30 Recap
- ✿ 9:00 Conclusion





Meeting Goals:

- Introduce the project team
- Project purpose, goals, and need
- Process and timeline
- Review alternatives
- One or two crossings?
- Present trail connection information (separate parallel project)
- Project costs
- Receive public input





Project Team



Consultant Team:

- Landscape Architects and Planners
- Structural Engineers
- Geologists and Geotechnical Engineers
- Environmental Planners
- Biologists



Midpen Internal Team:

- Biologists
- Planners
- Engineering and Construction
- Rangers
- Land and Facilities
- Data Analysts
- Public Affairs



Project Purpose and Goals

🌿 Purpose:

- Improve motorist safety (reduce vehicle collisions)
- Maintain healthy wildlife populations through habitat connectivity

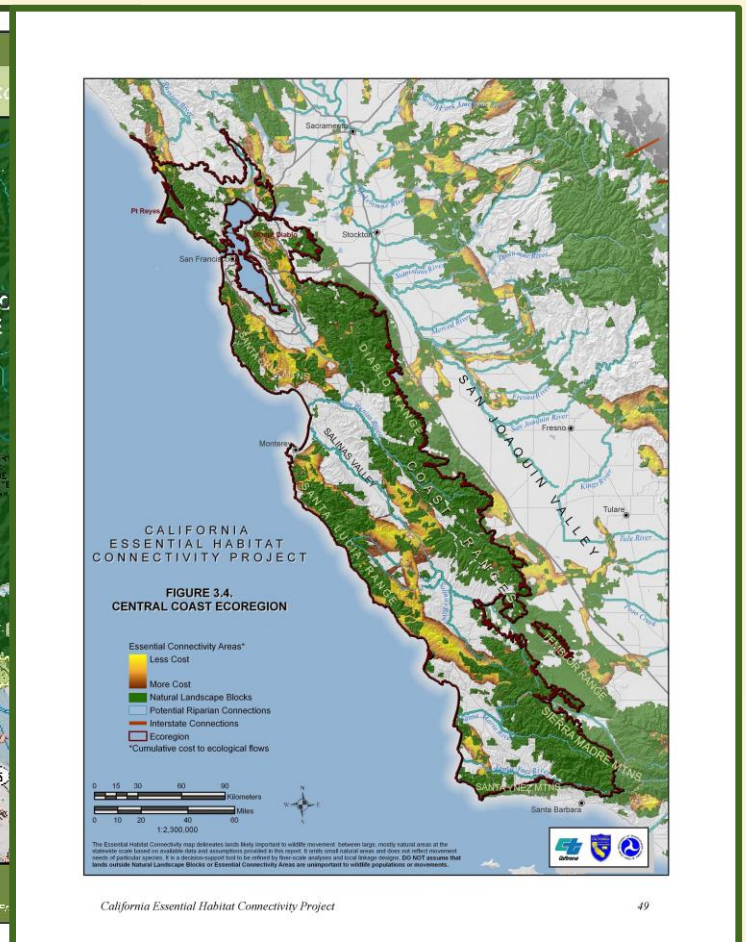
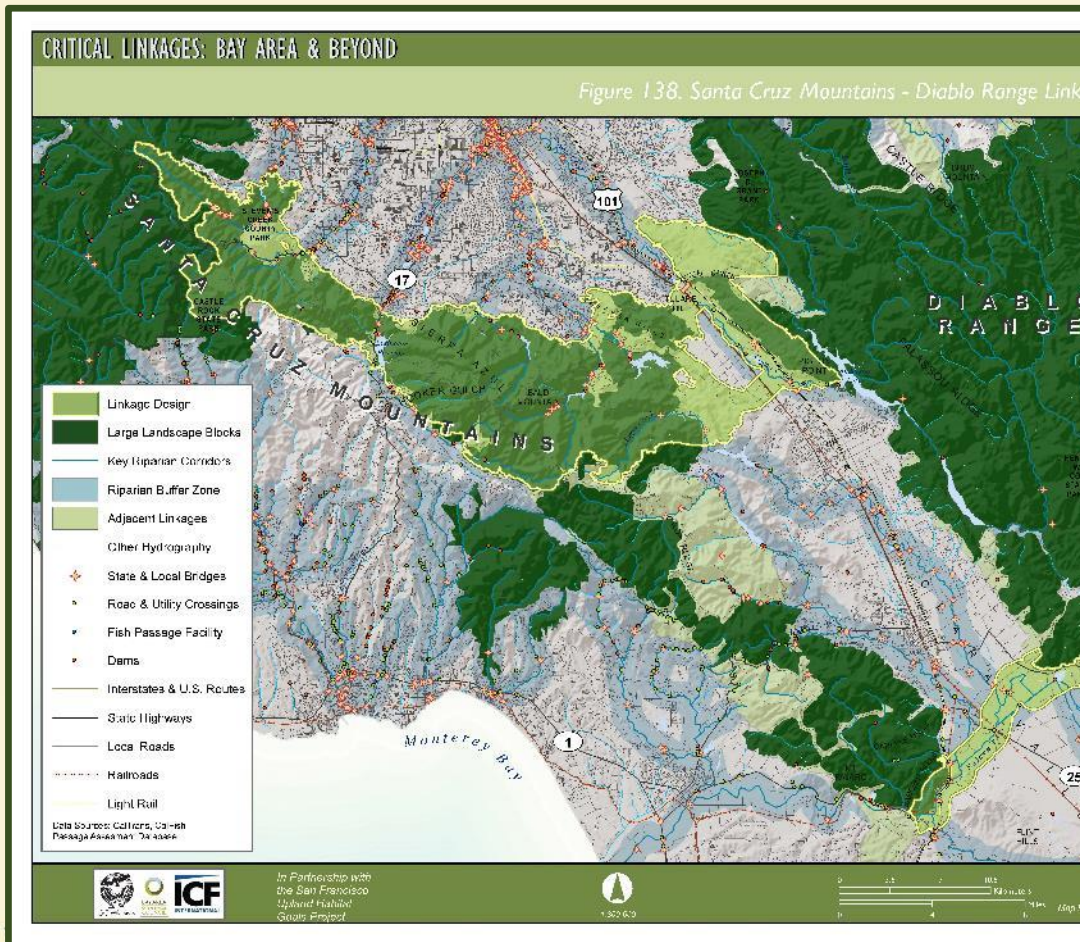
🌿 Goal:

- Provide wildlife passage and regional trail connections across Highway 17



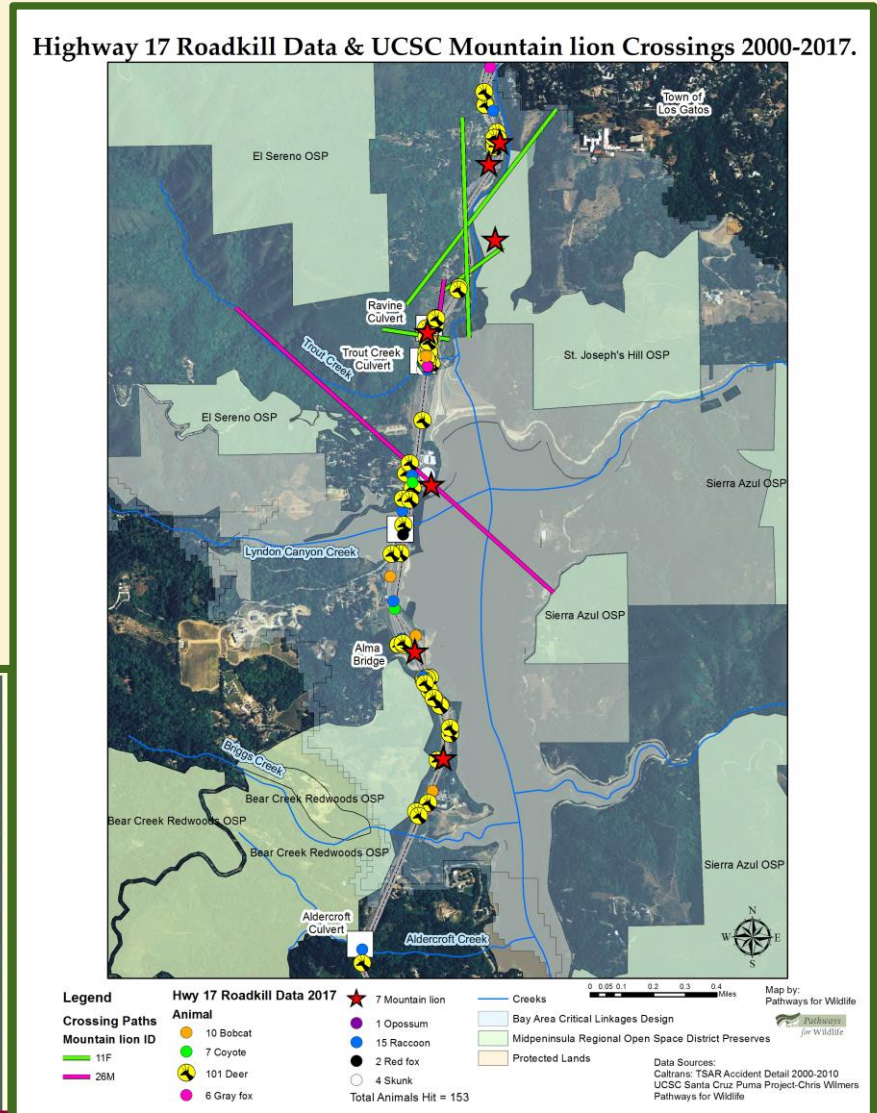
Regional and Statewide Wildlife Importance

The California Essential Habitat Connectivity Project (2010) and Bay Area Critical Linkages project (2013) identified a critical wildlife corridor within the study area



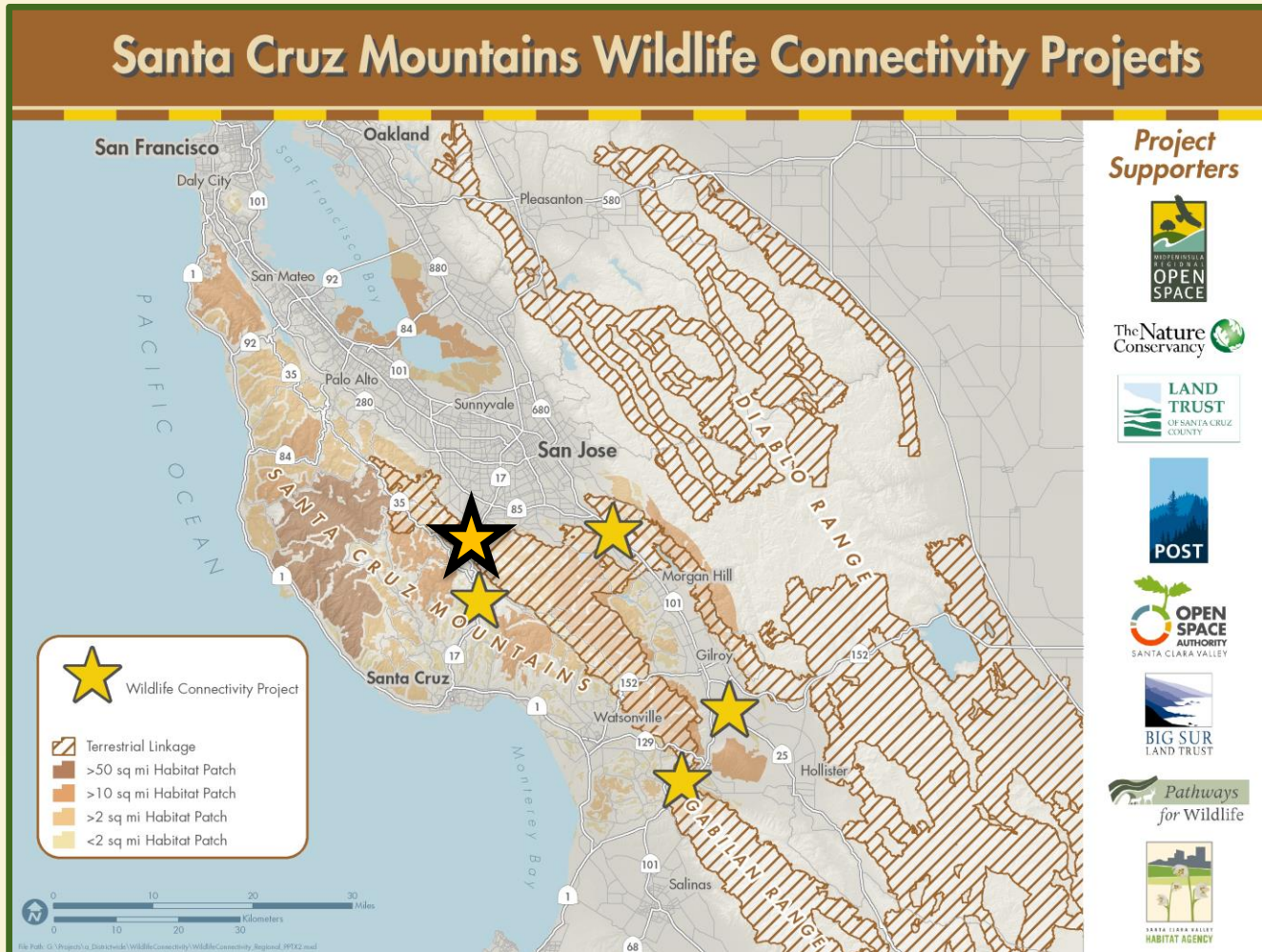
Regional Roadkill “Hot Spot”

- Based on Pathways for Wildlife and UC Santa Cruz research
- Numerous crossing attempts and significant road kill
- This is where animals attempt to cross and will continue to do so in the future



Multiple Agencies and Projects

Infrastructure improvements at multiple locations are being studied to improve wildlife connectivity in the region

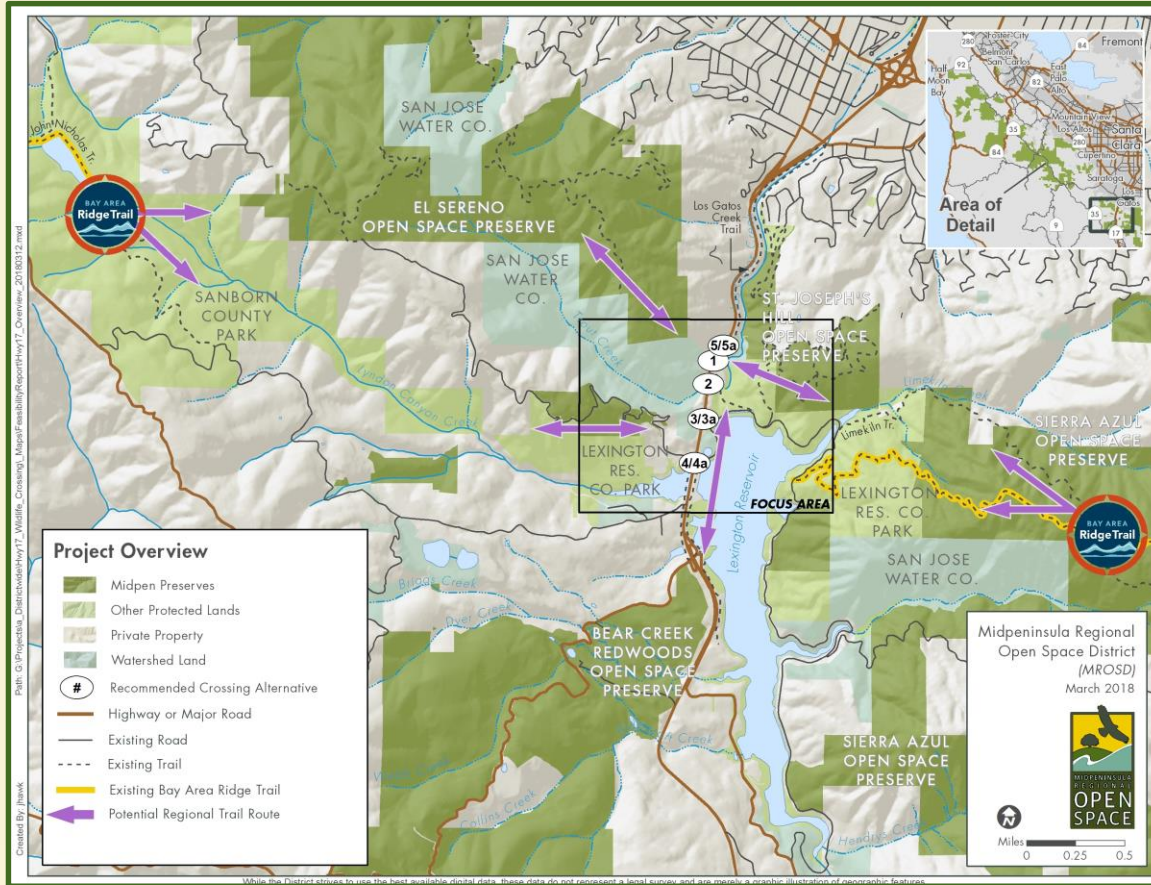


Target Species and Anticipated Recreational Users

- Mountain Lion
- Deer
- Regional Trail Users
 - bicyclists, equestrians, hikers, dog walkers



Regional and National Trail Connections



- Bay Area Ridge Trail
- Juan Bautista de Anza National Historic Trail
- Sierra Azul to El Sereno and Sanborn (East - West)
- Los Gatos Creek Trail to Bear Creek Redwoods (North - South)
- Santa Clara Countywide Trails Master Plan (County General Plan)



Transformative Trails Impact

- ‡ Links 30,600 acres of existing and protected open space
 - El Sereno, Sierra Azul, St. Joseph's Hill and Bear Creek Redwoods Open Space Preserves
 - Lexington, Sanborn and Almaden Quicksilver County Parks
- ‡ Provides a connection for a critical gap in the Bay Area Ridge Trail and Juan Bautista de Anza Historic Trail
 - 25 miles to the next gap to the north (Sanborn to Russian Ridge)
 - 21 miles to the next gap to the south (Sierra Azul to Almaden)
 - A new crossing and full trail build out would connect a total of 46 existing Bay Area Ridge Trail miles on either side of Highway 17



Project History

2014

- Midpen Vision Plan – Top 25 Priority Action Wildlife Passage and Bay Area Ridge Trail Improvements
- Measure AA - \$300 million bond Portfolio #20 - \$14 million

2016

- Feasibility Study
- Public Meeting #1
- Four preliminary alternatives at four locations

2018

- Alternatives revised based on public and stakeholder feedback
- Eight alternatives at five locations
- Midpen Board of Directors recommends all eight alternatives be forwarded to Caltrans for review
- Public Meeting #2

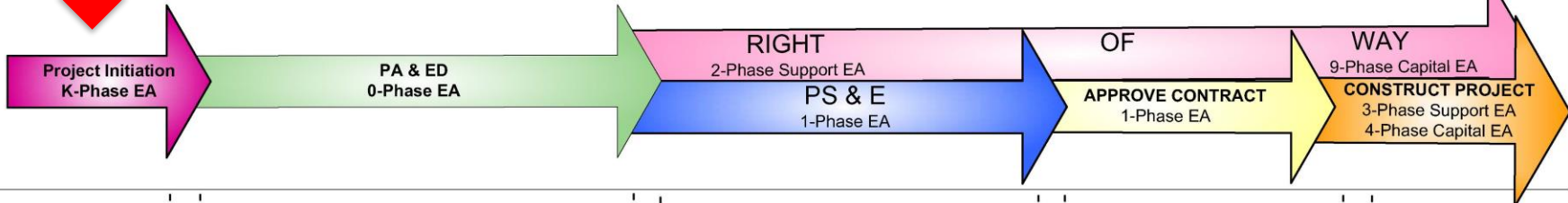


Caltrans Process

PROJECT DEVELOPMENT WORKFLOW TASK MANUAL VERSION 2.0



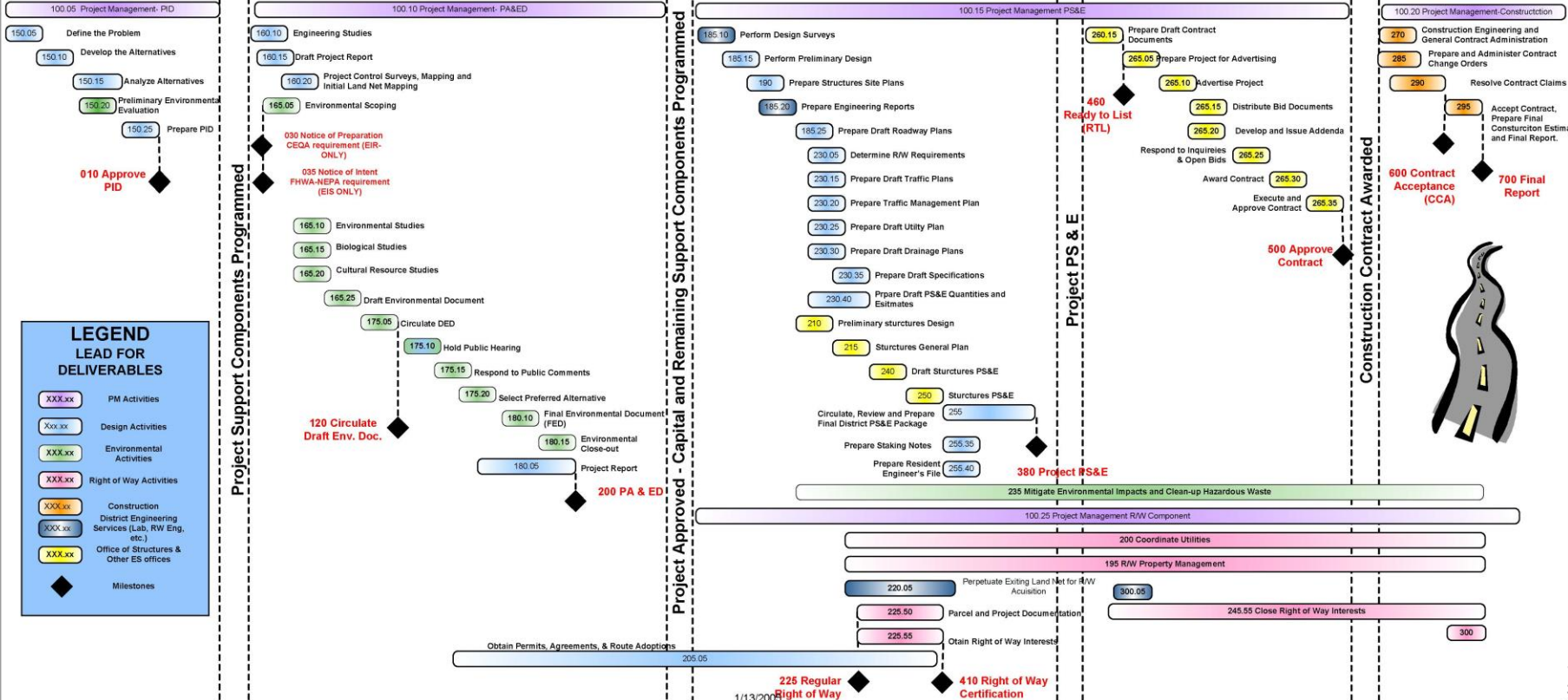
Project Phase



WBS LEVEL 6

LEGEND LEAD FOR DELIVERABLES

- XXX.xx PM Activities
- Xxx.xx Design Activities
- XXX.xxx Environmental Activities
- XXX.xx Right of Way Activities
- XXX.xx Construction District Engineering Services (Lab, RW Eng, etc.)
- XXX.xx Office of Structures & Other ES offices
- ◆ Milestones





Why does it take so long?

- ⌘ Midpen does not own the land, multiple landowners
- ⌘ Multiple stakeholders, partners, and public
- ⌘ Highly developed, lots of infrastructure, busy highway
- ⌘ Each alternative requires many evaluations
- ⌘ Preferences shift as new information is obtained
- ⌘ Lasting legacy projects take patience, persistence, and process
- ⌘ All of these are good things, but they take time!

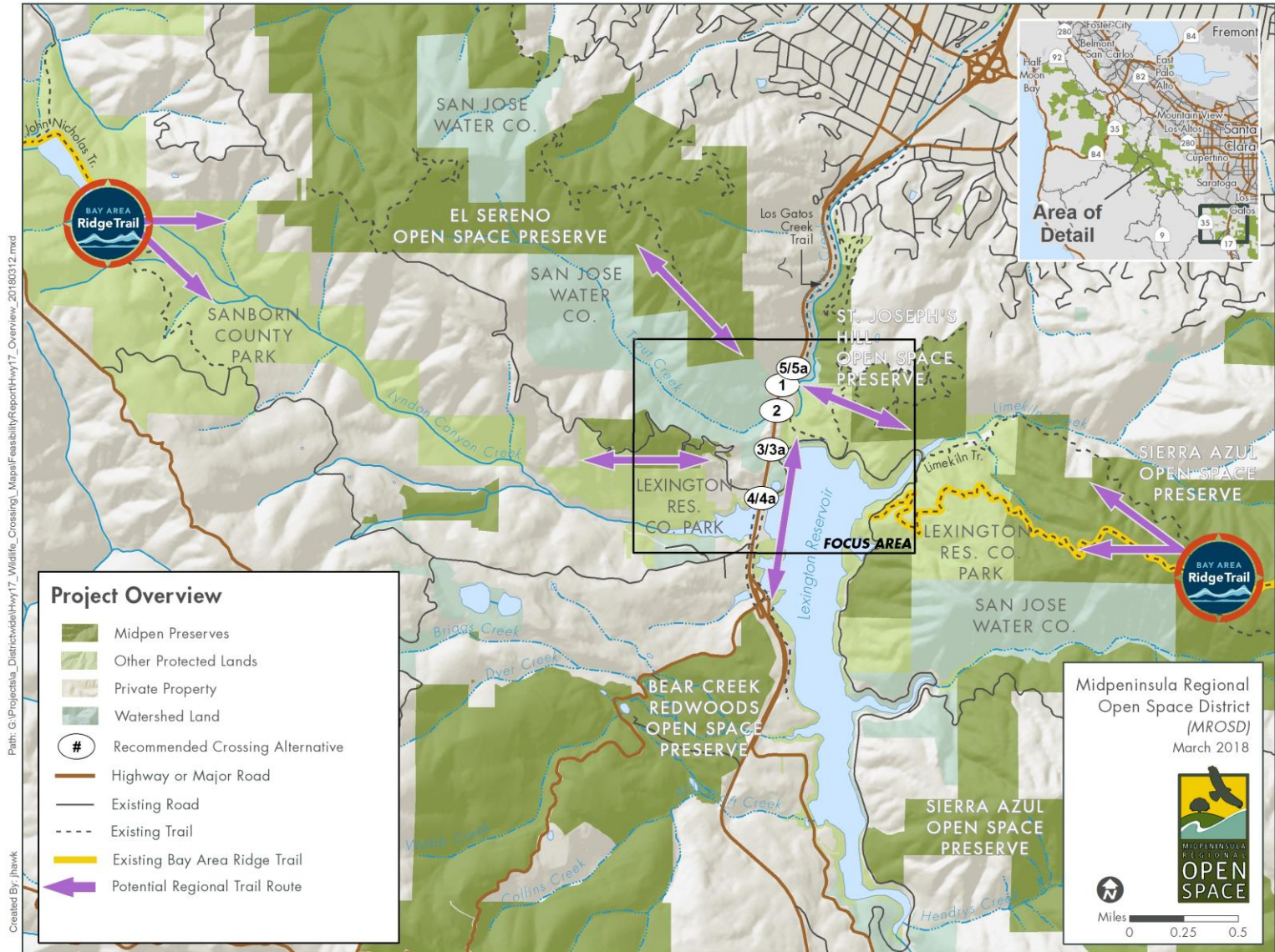




Public Input to Date and Future Opportunities

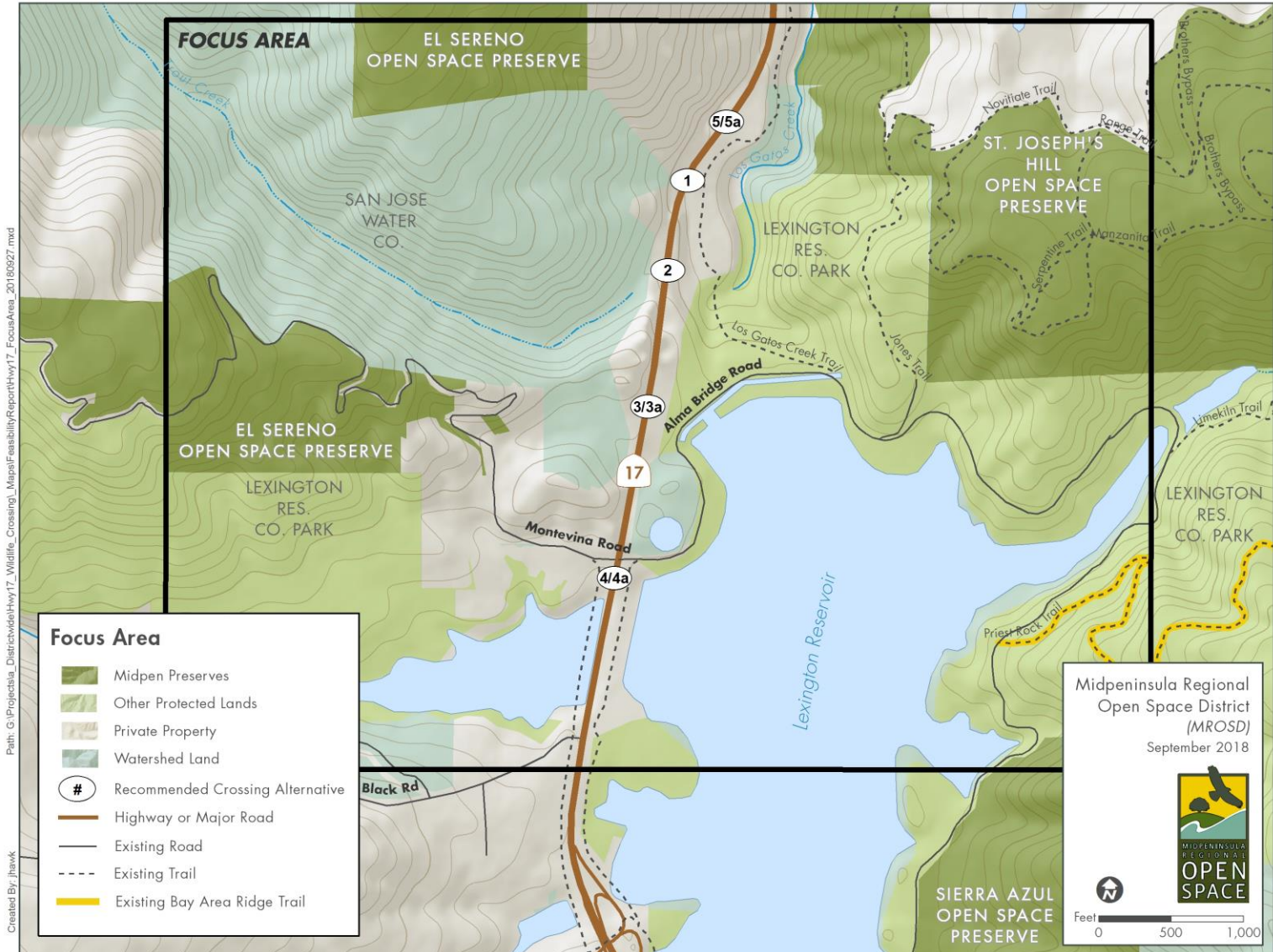
- ‡ 2014 Vision Plan and Measure AA
- ‡ 2016 Public Meeting
 - Public review of first four preliminary alternatives
 - Public and stakeholder review resulted in four new alternatives
- ‡ 2018 Public Meeting
 - Public review of all eight alternatives/design options
- ‡ Future public meetings during environmental review
- ‡ Ongoing Midpen Committee and Board of Directors meetings
- ‡ Project website: www.openspace.org/Hwy17
- ‡ Email: Hwy17@openspace.org
- ‡ Project mailing list

Project Alternatives- Regional Context



While the District strives to use the best available digital data, these data do not represent a legal survey and are merely a graphic illustration of geographic features.

Project Alternatives



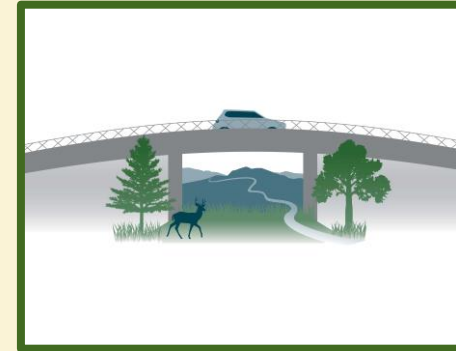
While the District strives to use the best available digital data, these data do not represent a legal survey and are merely a graphic illustration of geographic features.

Crossings- Five Locations, Three Types:

Wildlife Only



- 1) Ravine Creek Under
- 2) Trout Creek Under



Combined (Wildlife and Trails)



- 3) Southern Over



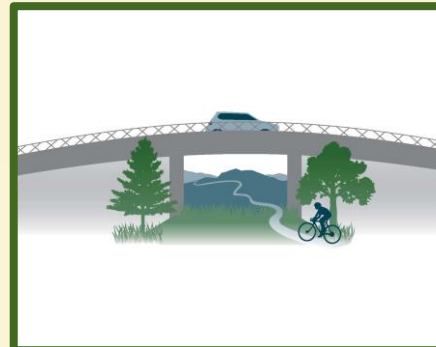
- 4) Montevina Under
- 5) Northern Over



Recreational Trail Only

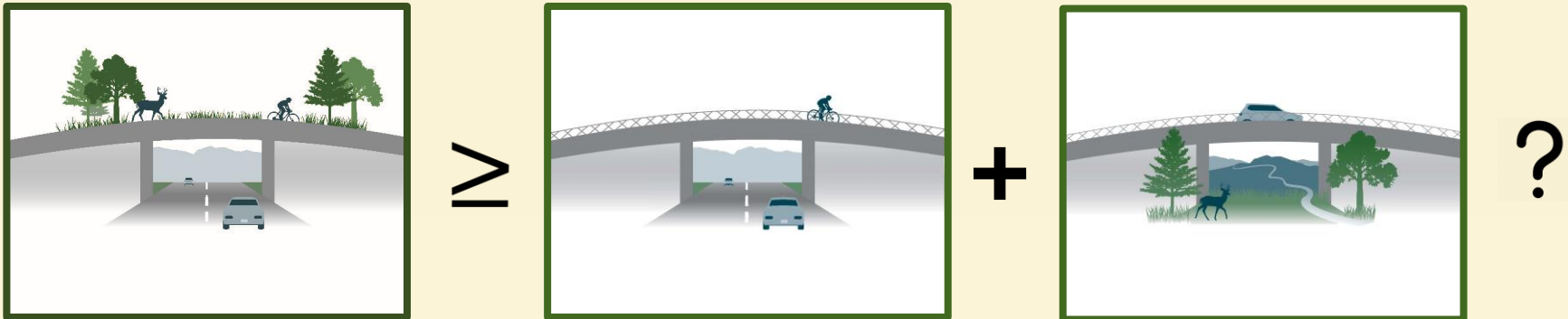


- 3a) Southern Over
- 4a) Montevina Under
- 5a) Northern Over



One Structure vs. Two?

- Two separate structures preferred
 - Provides the best separation of wildlife and trail users
 - May be similar in cost to one single combined crossing
- Feasibility may change during Caltrans review
 - To ensure feasibility, both combined and separate crossings are being studied



Evaluation Criteria

Wildlife

- Close proximity to wildlife corridor
- Appropriate dimensions
- Provides habitat connectivity
- Adequate line of sight
- Accommodates special status species



Trail

- Accommodate full range of users
- Direct connections to regional trails
- Safe and enjoyable
- Feasible trail connections
- Accommodate emergency and maintenance vehicles



I) Ravine Creek Undercrossing (Wildlife Only)



Criteria

- 5 of 6 wildlife
- 0 of 5 trail

Pro

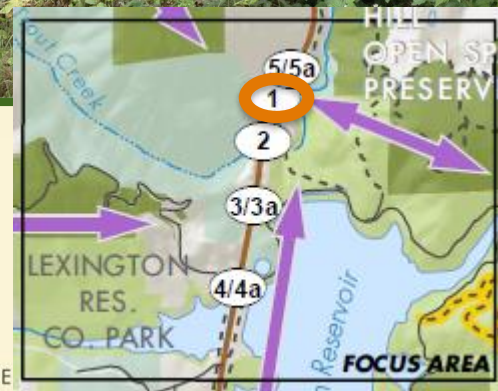
- Wildlife cross near here

Con

- Unstable slopes

Estimated Cost

- \$11.4 million (2024 dollars)



2) Trout Creek Undercrossing (Wildlife Only)



Criteria points

- 5 of 6 wildlife
- 0 of 5 trail

Pro

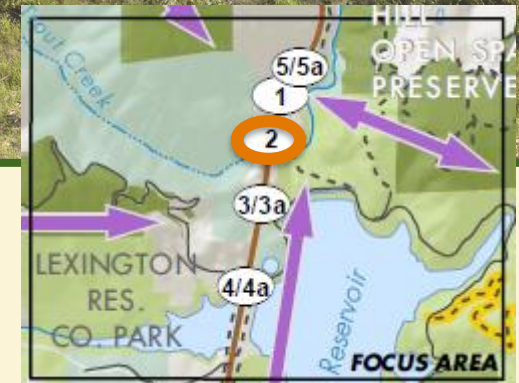
- Topography
- Center of hotspot

Con

- Proximity to utilities

Cost

- \$11.2 million
(2024 dollars)



3) Southern Overcrossing (Combined)



Criteria points

- 1.5 of 6 Wildlife
- 2 of 5 Trail

Pro

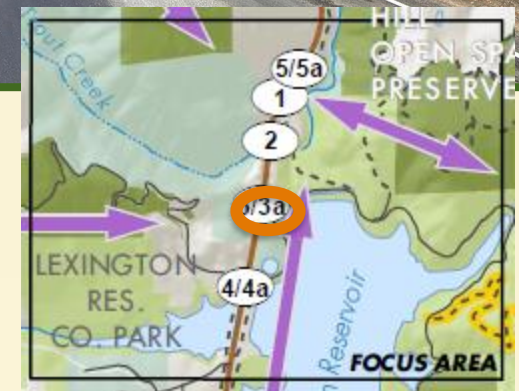
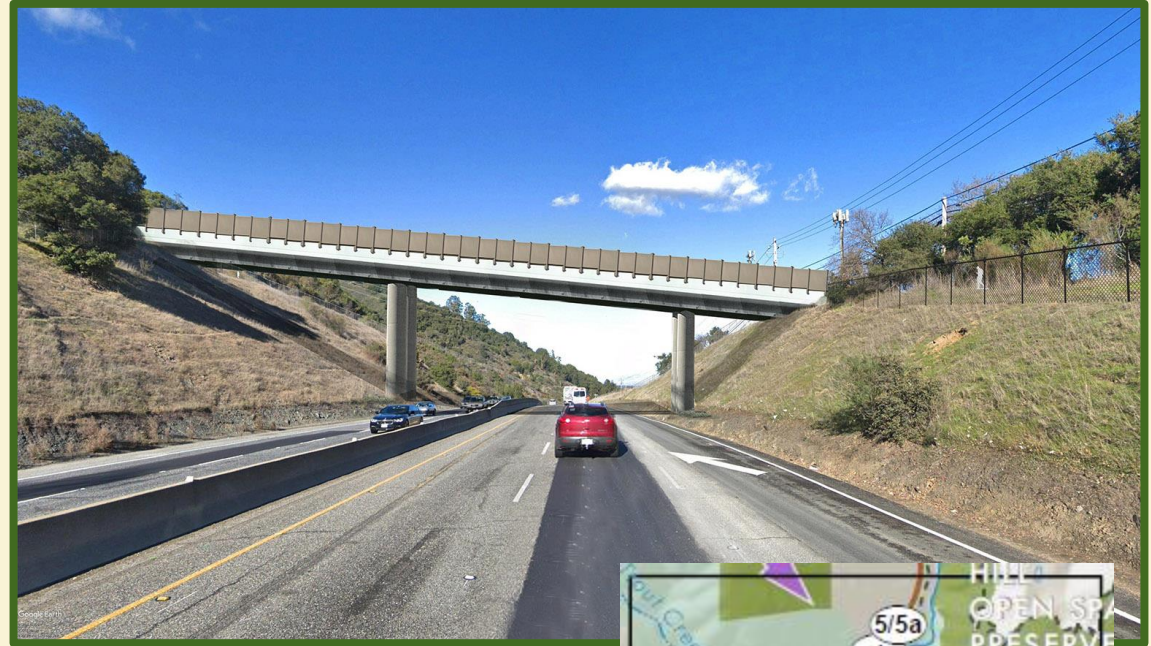
- Deer prefer large open crossings

Con

- Proximity to utilities
- Grade differential

Cost

- \$20.5 million (2024 dollars)



3a) Southern Overcrossing (Trail only)

Criteria points

- 1 of 6 - Wildlife
- 2 of 5 - Trail

Pro

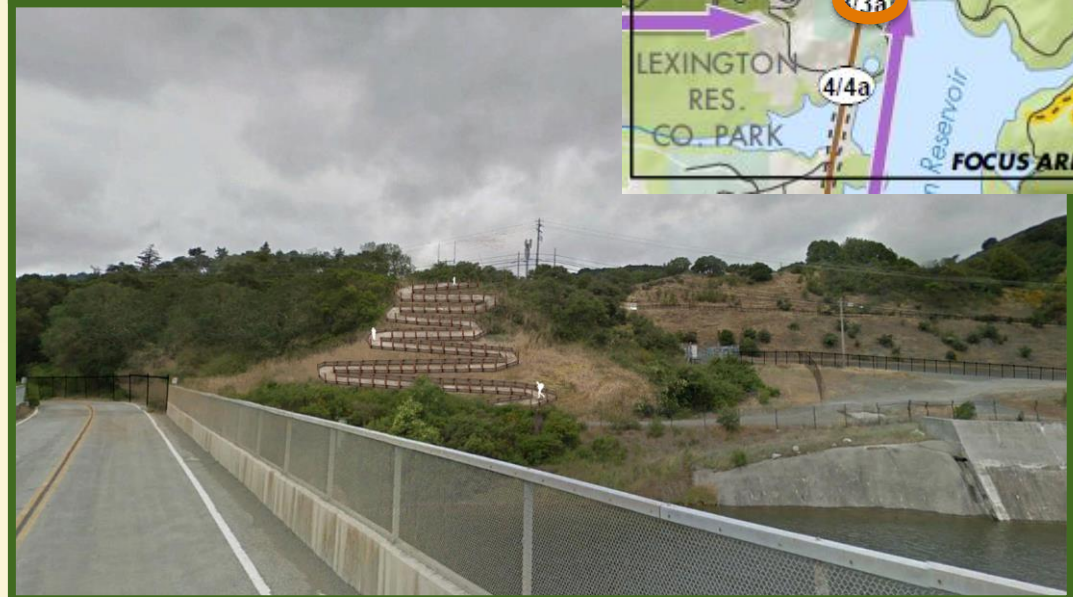
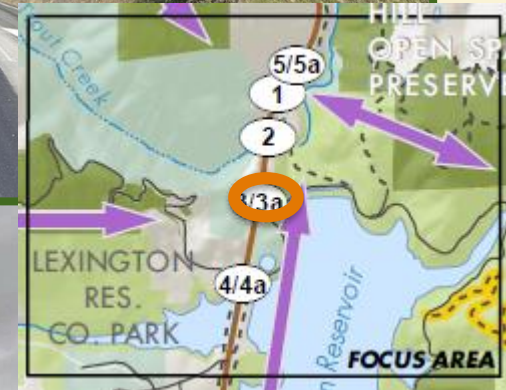
- Less expensive

Con

- Little to no wildlife use
- Proximity to utilities
- Grade differential

Cost

- \$8.9 million
(2024 dollars)



4) Montevina Undercrossing (Combined)



Criteria points

- 2.5 of 6 - Wildlife
- 3 of 5 - Trail

Pro

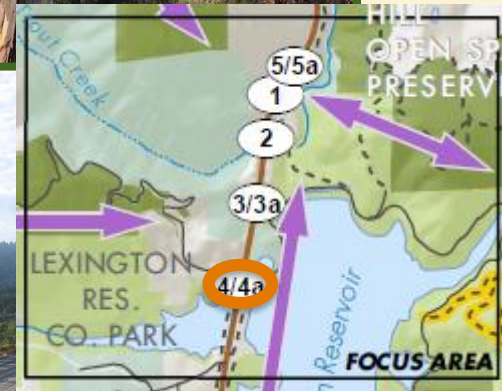
- Close to existing frontage trails

Con

- Directs wildlife to frontage road and trail users to busy Alma Bridge Road

Cost

- \$12.8 million (2024 dollars)



4a) Montevina Undercrossing (Trail Only)



Criteria points

- 2 of 6 wildlife
- 2.5 of 5 trail

Pro

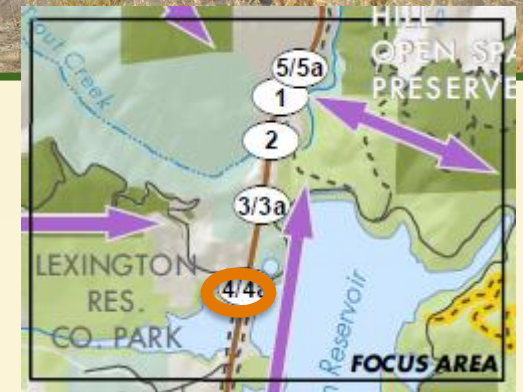
- Close to regional trail connections

Con

- Directs trail users to busy Alma Bridge Road

Cost

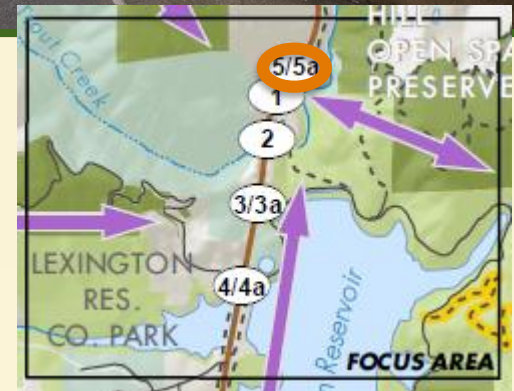
- \$7.2 million
(2024 dollars)



5) Northern Overcrossing (Combined)



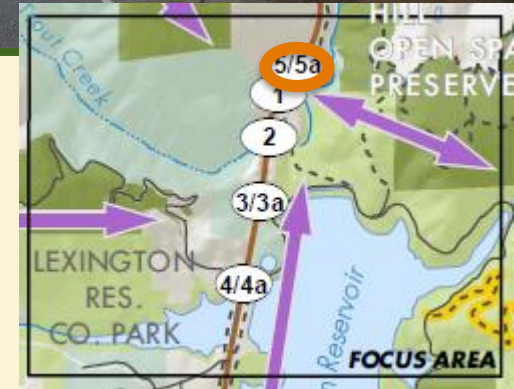
- Criteria points
 - 2 of 6 wildlife
 - 3 of 5 trail
- Pro
 - Close to regional trail connections
- Con
 - Unstable geology
- Cost
 - \$14.9 million (2024 dollars)



5a) Northern Overcrossing (Trail Only)



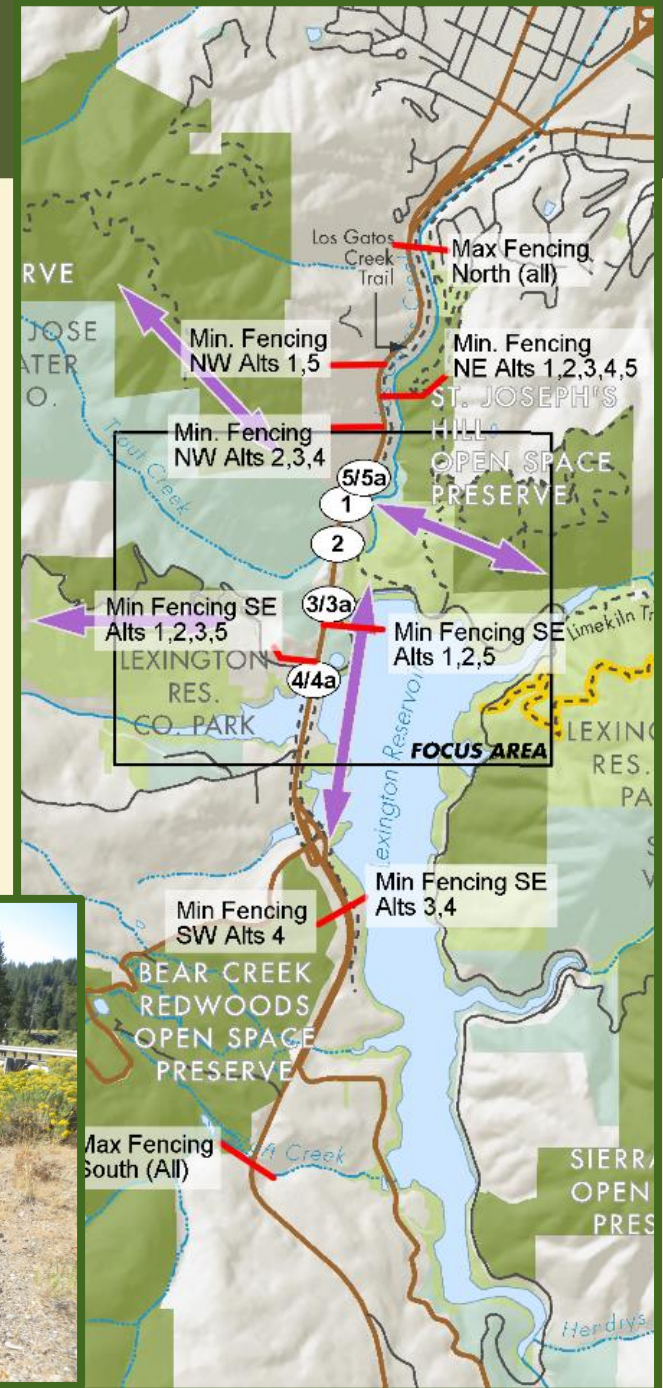
- ⌘ Criteria points
 - 2 of 6 wildlife
 - 3 of 5 trail
- ⌘ Pro
 - Close to regional trail connections
- ⌘ Con
 - Unstable geology
- ⌘ Cost
 - \$9.9 million (2024 dollars)



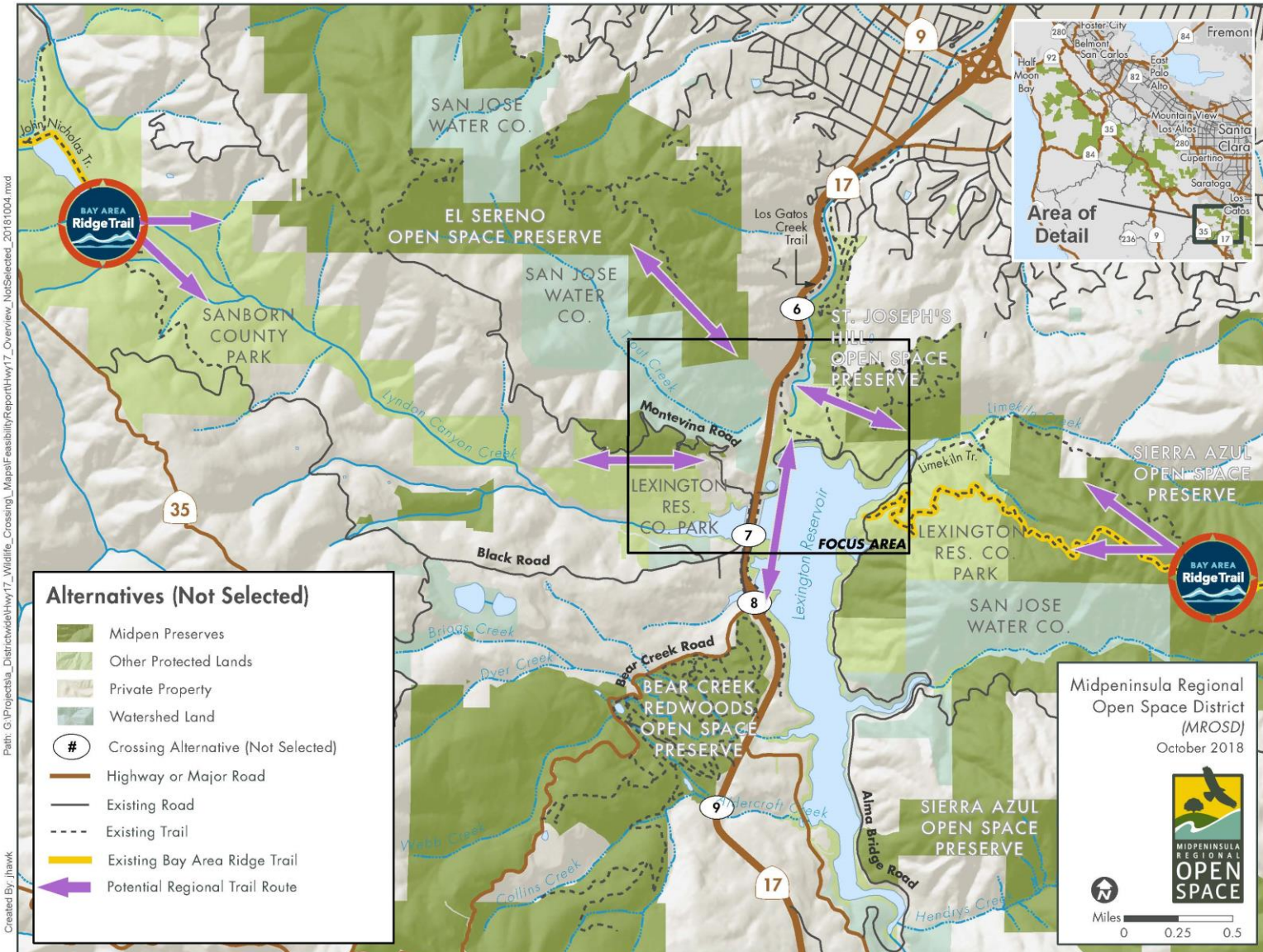


Wildlife Fencing

- Directs wildlife to crossings
- “Jump outs” provide escape from traffic
- Full extent (6 mi) vs. phased (1.4 to 3.2 mi)
- Monitoring and adaptive management
- Success of the structures depend on success of the fencing



Eliminated Alternatives



Path: G:\Projects\sa_Districtwide\Hwy17_Wildlife_Crossing_Map\FeeabilityReport\Hwy17_Overview_NotSelected_20181004.mxd
Created By: jhawk

While the District strives to use the best available digital data, these data do not represent a legal survey and are merely a graphic illustration of geographic features.

Alternative 6 – Sidehill Viaduct (Eliminated)

- ✿ Challenging geology
- ✿ Staging impacts to Los Gatos Creek Trail
- ✿ Lack of through view is unappealing for wildlife
- ✿ Difficult to modify existing viaduct safely with vehicle traffic



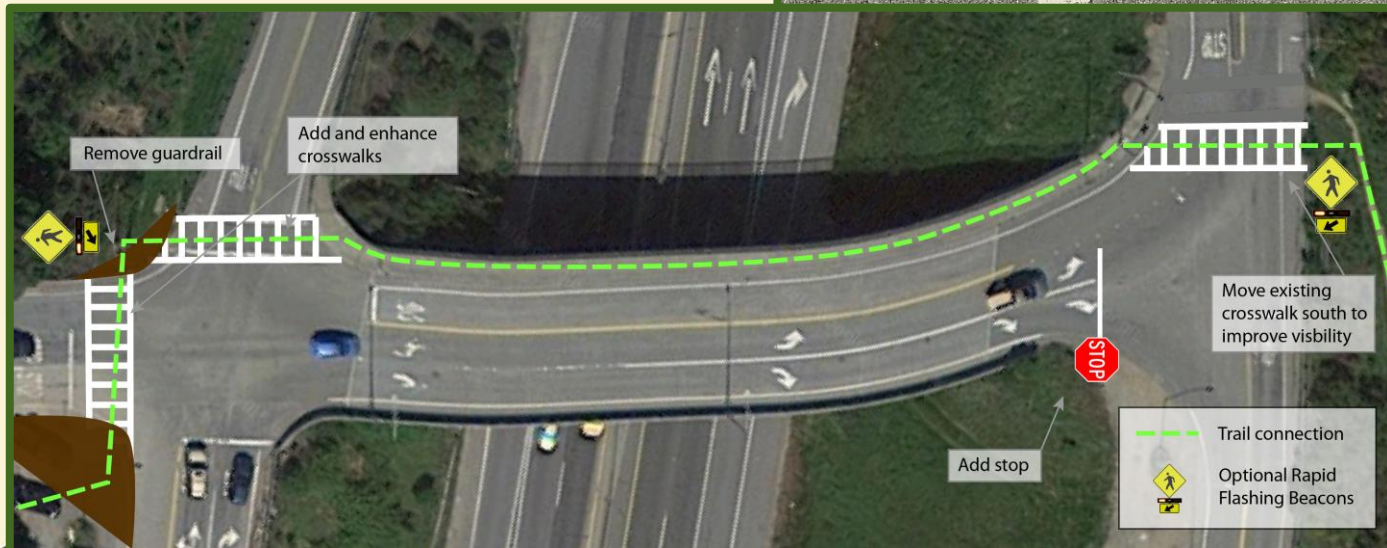
Alternative 7 – Lexington Culvert (Eliminated)

- ✦ Used by small to medium sized wildlife
- ✦ Geometry does not allow for a larger culvert for larger wildlife
- ✦ Primary purpose is flood control for Lexington Reservoir
- ✦ Inaccessible when flooded
- ✦ Due to flooding, not supported as a recreational trail
- ✦ Shelving units could help small to medium wildlife when flooded (stand alone project)



Alternative 8 – Bear Creek Overcrossing (Eliminated)

- ✿ Not functional for wildlife
- ✿ Very heavy vehicle traffic, requires crossing multiple lanes of traffic
- ✿ Not a pleasant visitor experience
- ✿ However, could be improved for recreational use (stand alone project)



Alternative 9 – Aldercroft Culvert (Eliminated)

- ❖ Far from wildlife “hotspot”
- ❖ Ponded water at eastern end deters wildlife use
- ❖ No trail connections
- ❖ Difficult construction access
- ❖ Floods in winter
- ❖ Shelving and improving drainage could improve use by wildlife (stand alone project)





Crossing Cost Estimates

Alternative	2024 Crossing Cost estimates (\$M)
1. Ravine Under (wildlife)	\$11.4
2. Trout Creek Under (wildlife)	\$11.2
3. Southern Over (combined)	\$20.5
3a. Southern Over (trail)	\$8.9
4. Montevina Under (combined)	\$12.8
4a. Montevina Under (trail)	\$7.2
5. Northern Over (combined)	\$14.9
5a. Northern Over (trail)	\$9.9

- ‡ Total cost to implement (wildlife and trails) crossing (s) vary from **\$12.8 million to \$21.3 million** (2024 dollars)
- ‡ Currently \$14 million in Measure AA funds for crossing(s) and right of way/trails access
- ‡ Additional funding may be needed depending on preferred alternative(s) selected



Trail Connection Cost Estimates

Alternatives:	2024 Minimum Trail Connection cost (\$M)	2030 Full Build Trail Connection cost (\$M)
1. Ravine Under (wildlife)	NA (wildlife only)	NA (wildlife only)
2. Trout Creek Under (wildlife)	NA (wildlife only)	NA (wildlife only)
3. Southern Over (combined)	\$4.5	\$23.0-26.5
3a. Southern Over (trail)	\$4.5	\$23.0-26.5
4. Montevina Under (combined)	\$4.2	\$26.5-31.5
4a. Montevina Under (trail)	\$4.2	\$26.5-31.5
5. Northern Over (combined)	\$1.5	\$18.2-21.8
5a. Northern Over (trail)	\$1.5	\$18.2-21.8

- ⌘ Only the minimum is required to connect each alternative to existing trails. This costs varies from: **\$1.5** to **\$4.5** million (2024 dollars)
- ⌘ Estimates do not include planning or design (typically 20-30%) or trail right of way/access costs (TBD)
- ⌘ Additional funding is needed to implement trail connections to each of the crossing alternatives



Crossing(s) and Trail Connections Total Cost Estimates

Alternative	2024 Crossing Cost (\$M)	2024 Minimum Trail Connection Cost (\$M)	2024 Total Cost Estimate (\$M)
1. Ravine Under (wildlife)	\$11.4	NA	\$11.4
2. Trout Creek Under (wildlife)	\$11.2	NA	\$11.2
3. Southern Over (combined)	\$20.5	\$4.5	\$25.0
3a. Southern Over (trail only)	\$8.9	\$4.5	\$13.4
4. Montevina Under (combined)	\$12.8	\$4.2	\$17.0
4a. Montevina Under (trail only)	\$7.2	\$4.2	\$11.4
5a. Northern Over (combined)	\$14.9	\$1.5	\$16.4
5b. Northern Over (trail only)	\$9.9	\$1.5	\$11.7

- ✦ Total cost (wildlife and trails) combined crossing(s) plus minimum trail connections and fencing varies from **\$18.4** to **\$28.0** million (2024 dollars)
- ✦ Total cost for separate wildlife and trail structures falls within this range
- ✦ Includes up to \$2 million for wildlife fencing
- ✦ Currently \$14 million in Measure AA funds for crossing(s) including right of way/trails access
- ✦ Additional funding will be needed to implement crossing(s) and trails



Potential Funding Opportunities



A HEALTHY BREATHING ENVIRONMENT FOR EVERY BAY AREA RESIDENT



Next Steps

- Receive public feedback- tonight's meeting
- Caltrans Project Study Report (currently underway)
- Caltrans agreement for next phase
- Identify preferred alternative(s) and environmental review (CEQA/NEPA- to begin in 2019)
- Project Permitting
- Design and Construction
- Ongoing opportunities for stakeholder and public input, partner development, and funding
- Future: maintenance, patrol, and monitoring agreements



Project Timeline

2016 -2018

- Feasibility Study*
- Identify Alternatives*

2018 -2019

- Caltrans Project Study Report*

2019 -2020

- Environmental Review*
- Preferred Alternative(s) Selected*

2020-2023

- Right of Way Agreements
- Plans and Specifications*
- Design and Permitting*

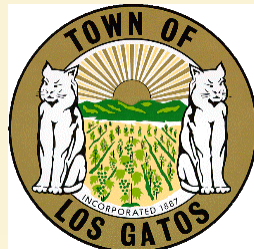
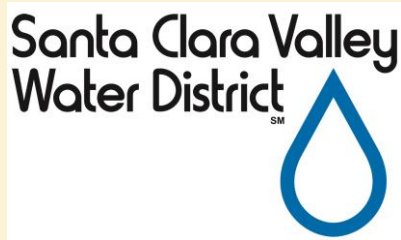
2024
(or later)

- Construction (dependent on funding)

*Opportunities for public involvement



Stakeholders, Partners, and Potential Partners



Thank you!

