



Midpeninsula Regional
Open Space District

R-21-157
Meeting 21-32
December 1, 2021

AGENDA ITEM 1

AGENDA ITEM

Purisima-to-the-Sea Regional Trail and Parking Area Feasibility Study – Opportunities and Constraints Analysis and Project Vision and Goals

GENERAL MANAGER'S RECOMMENDATIONS *dew*

1. Receive a presentation on the Purisima-to-the-Sea Regional Trail and Parking Area Feasibility Study's Opportunities and Constraints Analysis.
2. Review and confirm the proposed Project vision and goals, with any modifications as directed by the Board of Directors, to guide the future selection of a preferred regional trail alignment and development of conceptual parking area design alternatives.

SUMMARY

The Purisima-to-the-Sea Regional Trail and Parking Area (Project) Feasibility Study analyzes several key elements, including new regional trail alignment options, a new trailhead location and parking area off Verde Road or Highway 1, and trail crossings at Verde Road and Highway 1 to ultimately facilitate a link between Purisima Creek Redwoods Open Space Preserve (Preserve) and the existing Cowell-Purisima Coastal Trail. This connection will be an approximately 15-mile regional trail connecting the Preserve to the San Mateo County coastline. This alignment will create a critical east-west link in the regional trail network between the Bay Area Ridge Trail to the California Coastal Trail and is intended to be a contributing alignment of the more extensive Bay to Sea Trail.

Staff will present the initial findings of the feasibility study, the opportunities and constraints analysis, and the proposed vision and goals for the project. This information, along with Board of Directors (Board) feedback, will be used to prepare a preferred trail alignment and conceptual design options for the trailhead, parking area, and roadway crossings. Completion of the trail is a priority project for the Midpeninsula Regional Open Space District (District) as identified in the public-supported and Board-approved 2014 Vision Plan, with significant funding approved by the voters as part of Measure AA Portfolio 03: *Purisima Creek Redwoods, Purisima-to-the-Sea Trail, Watershed Protection and Conservation Grazing*.

DISCUSSION

Property Description

Since 2006, the District has worked to connect public lands extending from the Bay Area Ridge Trail within the Preserve near Skyline Boulevard to the San Mateo County coastline, to complete the Purisima-to-the-Sea Regional Trail project. The District purchased five properties totaling

roughly 1,400 acres from Peninsula Open Space Trust (POST) and one property from the University of California to achieve this connection as an addition to the now 5,412-acre Preserve.

The Project area (Attachment 1: Regional Map) is located roughly three miles south of the City of Half Moon Bay in unincorporated San Mateo County. Extending from Highway 1 eastward and ultimately abutting the Preserve, the site includes sloping fields, rolling hills and grasslands, Redwood and Douglas fir forest, alder-shaded riparian habitat, the headwaters of Lobitos Creek, and the upper end of Irish Ridge. The site provides unparalleled views of the Tunitas and Lobitos Creek watersheds, Purisima Canyon, and the ocean.

Project Overview and Planning Process

The Purisima-to-the-Sea Regional Trail and Parking Area Feasibility Study (Attachment 2: Purisima-to-the-Sea Feasibility Study Area) analyzes several elements, including new trail alignment options, a new trailhead location and parking area off Verde Road or Highway 1, and connector trails and roadway crossings at Verde Road and Highway 1 to ultimately facilitate a link between the Preserve and the existing Cowell-Purisima Coastal Trail. Work includes planning and technical studies, field investigations, and design services to analyze opportunities for a multi-use trail alignment, connector trails, parking area, trailhead, and pedestrian roadway crossings. This effort also includes significant stakeholder engagement and public outreach throughout the planning process, as well as consultation with appropriate agencies, organizations, and neighbors.

This Project is occurring in parallel to and in close coordination with other project teams working within the Preserve, as discussed below:

Two other Planning teams are leading the following projects:

- Purisima Multiuse Trail Crossing and Parking Area Feasibility Study (located along Skyline Boulevard)
- Purisima Multimodal Access Study (Preserve-wide study)

Natural Resources and Land and Facilities staff are leading the following projects focused on resource enhancement and land management:

- Irish Ridge Restoration
- Lobitos Creek Restoration and Cattle Fencing
- Blue Brush Cattle Fencing
- Purisima Uplands Site Cleanup and Soil Remediation
- Purisima-to-the-Sea Habitat Enhancement and Water Supply Improvement Plan
- Marbled Murrelet Recovery Planning
- Badger/Burrowing Owl Habitat Assessment
- Districtwide Wildlife Camera Program

The Planning department is leading the Purisima-to-the-Sea Trail and Parking Area public access project, which is the subject of this Agenda Item, with an internal project coordination team consisting of staff from the Natural Resources, Visitor Services, Land and Facilities and Engineering and Construction departments. This cross-department team was formed to ensure coordination among the suite of other ongoing projects within the Preserve listed above and that District-wide resource and land management goals are met as part of this public access project. The resulting recommendations that are developed from each Preserve project and planning

effort, as well as other activities that address habitat enhancements, conservation grazing, and routine maintenance and operations, will be assembled into a proposed Comprehensive Use and Management Plan Amendment for Board consideration in the future.

PURISIMA-TO-THE-SEA TRAIL AND PARKING AREA FEASIBILITY STUDY

The District is conducting a planning feasibility study to identify a final trail alignment of the Purisima-to-the-Sea Trail, a parking area and trailhead, connector trails and pedestrian crossings at Highway 1 and San Mateo County Roads. The Board awarded a contract to SWCA Environmental Consultants on November 16, 2020 to support this work. The team has conducted various field investigations, literature reviews, record searches, and traffic and parking counts. Technical studies, including a Biological Resources Assessment, Cultural Resources Survey, Culvert Drainage Study and Traffic Study are now complete. These reports document existing conditions, including biological and cultural resources, identify areas that will require further investigation, and provide findings to develop a comprehensive analysis of the Project's opportunities and constraints.

Trail Planning

District staff conducted field scouting efforts during the past year to identify potential trail alignment options for connecting the existing Irish Ridge Trail to the proposed parking area. Alignments were initially developed using LiDAR, contour data, and satellite imagery maps, and then ground-truthed in the field. The following considerations were integrated into the trail scouting process:

- Constructability and the influence slope and stability have on long-term sustainability and maintenance requirements;
- Regulatory requirements for riparian areas, critical salmonid habitat, and the presence of special status species and/or sensitive natural communities;
- San Mateo County Coastal Development Permitting and compliance with the Coastal Service Plan guidelines;
- Trail construction costs, including the costs for bridges and retaining walls;
- Existing and proposed grazing infrastructure and the viability of the grazing operation;
- Aesthetics and quality of the visitor experience; and
- Patrol, fire, and other emergency access.

Staff has developed alignment options to connect the future envisioned parking area at Verde Road to the existing trail system within the Preserve, along with potential trail connectors from the future parking area to the POST trail easement. Currently, the trail alignment alternatives occur in the western portion of the project area and converge on the proposed trail alignment that runs along Lobitos Creek to connect to Irish Ridge (Attachment 3: Conceptual Trail Alignment Alternatives).

Concurrently, staff has initiated feasibility planning for connector trails to the Cowell-Purisima parking area. Considerations for this initial planning include minimizing potential social trail creation, efficient routing of trail users to discourage pedestrian use within the right-of-way of Verde Road, compliance with Coastal Service Plan guidelines, and providing a positive visitor experience. At this time, two alignments have been identified. Each alignment travels north from the potential Verde Road parking area: one route climbs upslope in an eastward direction, providing vistas of the coast, before returning downslope to the connect with the POST

easement; the second route provides a direct and shorter route paralleling Verde Road to connect with the POST easement.

Staff will continue to conduct the trail scouting effort through the end of the calendar year. Upcoming technical studies, including geological investigations, further evaluation of biological resources, and assessment of existing infrastructure, will inform the trail design and layout. The preferred trail and connector alignments will then be presented to the Board for review and approval at a subsequent meeting in the Spring.

Opportunities and Constraints Analysis

The successful development of the Purisima-to-the-Sea Regional Trail and Parking Area requires careful attention to the existing conditions and inherent opportunities and constraints of the site. The following section highlights key considerations from the Opportunities and Constraints Analysis (Attachment 4: Opportunities and Constraints Analysis Memorandum), grouped into Physical, Cultural, Biological, and Safety Attributes.

Physical Attributes

- Land Ownership: Contiguous District properties allow for completion of a regional trail through the Preserve and a new parking area at Verde Road. Project planning will need to carefully consider potential impacts (traffic, use conflicts, and trespass) to adjacent private lands. Confirm whether additional land rights may be needed to complete connector trails.
- Site Access: Low vehicular speeds along Verde Road can facilitate a safe approach to a new Preserve driveway entrance for a parking area. Existing left hand turn lanes from Highway 1 facilitate safe vehicle movement to access Verde Road from Highway 1.
- Views: Site offers opportunities to highlight expansive views from a new regional trail alignment. At the same time, the trail alignment will need to carefully consider slope and contours to protect views to the property as seen from the Highway 1 Scenic Corridor and surrounding lands.
- Site Topography and Screen: Site terrain and existing drainage represent natural boundaries that will influence the parking capacity of each potential parking area site. Natural landforms, differences in elevation, and vegetation offer screening for a new parking area.

Cultural

- Grazing Operation and Farmland: Special considerations are necessary to balance existing agricultural uses with future recreation to minimize potential conflicts, such as setbacks between trails and a new parking from existing grazing infrastructure and adjacent farmlands.
- Interpretation and Education: Opportunities exist to interpret the ecological and cultural heritage of the property and educate the public about their role in preserving the lands (e.g., agricultural production, natural habitats, trail etiquette within agricultural lands, and community science opportunities).
- Regional Connections: Opportunity to promote regional scale, low-intensity, ecologically sensitive recreation and develop a new regional trail on the Peninsula.

Biological

- Natural Systems, Protected Waters, Sensitive Habitats: Elements will need to be designed in a site-sensitive manner that avoids or minimizes impacts to the natural systems and habitats. Potential jurisdictional wetlands and waters were identified within the project area and will require a require formal wetland delineation. The project area is adjacent to and intersects with federally designated critical habitat for California red legged frog and steelhead, requiring special protections measures to properly site and design a new parking area.
- Special Status Plants and Animals: Potential habitat for several special status species has been identified. Plant surveys will follow to identify what avoidance and minimization measures will be required.
- Wildlife Corridors: The project area is part of a larger wildlife corridor that contributes to movement and migration of a diverse range of species; careful attention will be given to protecting wildlife movement through project design.

Safety Attributes

- Trail and Roadway Safety: The rugged terrain and the planned long-distance, regional trail may warrant recreational rest stop facilities midway along the trail route and/or a shuttle service along Purisima Creek Road for one-way hikers during peak visitation. The regional trail is proposed to be designed to a multi-use trail standard given the multi-use connections at both ends. Balancing vehicular and pedestrian safety within and adjacent to the proposed parking area, connector trails, and roadway crossings will be a key consideration in the planning and design of the project. In addition, line-of-sight distance limitations and the need for parking restrictions / signage along Highway 1 and Verde Road must be factored into the proposed design to ensure safe vehicular ingress and egress to the site.
- Emergency Access: To further promote trail safety, adequate emergency access should be considered and incorporated into the project design. Including adequate trail width for fire-fighting access (where feasible). Staff will evaluate any additional access needs of ranger and maintenance staff and work with emergency services agencies to identify a potential new emergency landing zone location that can service the lower reaches of the property (and surrounding areas).
- Invasive Species: Natural resource management actions would include the elimination or control of non-native/invasive species to limit spread and protect native habitats.

PUBLIC / STAKEHOLDER ENGAGEMENT AND COMMENTS

District staff held focused stakeholder meetings with preserve neighbors, coastside community residents, trail users, and local agricultural community members between July to September 2021 to receive early input on the Purisima-to-the-Sea Regional Trail and Parking Area Project. The Purisima to the Sea and Purisima Multimodal project teams have also attended and provided project information at the Sustainable Pescadero and Pescadero Municipal Advisory Committee meetings and have tabled at both Half Moon Bay's *Make It Main Street* event and the November 20th Farmers' Market. Public feedback received to date was incorporated into the Opportunities and Constraints Analysis. The following table summarizes the key themes, arranged in a manner that corresponds with the factors considered in the opportunities and constraints analysis.

Physical

Land ownership	<ul style="list-style-type: none"> Concern about a long-distance trail and for potential trespassing onto adjacent private property to find short-cuts
Future trail	<ul style="list-style-type: none"> Interest in a multi-use trail (equestrian, e-bike, mountain bike, and dog on leash) Importance of trail design to provide enjoyable multi-use trail experience Concern about keeping visitors from using roadways to access connector trails/Coastal Trail
Future parking area	<ul style="list-style-type: none"> Concerns about adequate parking capacity and preventing overflow on adjacent roadways Interest in equestrian parking to support trail use Interest in other elements (restroom, signages, vehicle gates, shuttle)

Cultural

Grazing operations	<ul style="list-style-type: none"> Concerns about interactions between public access and grazing Support for planning grazing infrastructure prior to trails Request to consider restricting off-trail use
Interpretation & education	<ul style="list-style-type: none"> Support expressed for interpretation of local landmarks/ historic elements and natural habitats Need for signage describing trail etiquette within grazing lands

Biological

Sensitive habitats	<ul style="list-style-type: none"> Interest in access to the variety of habitats the trail will traverse Desire for limited (hiking only) riparian access for wildlife viewing
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Safety

Fire Safety	<ul style="list-style-type: none"> Concerns about fire potential and need to provide fire fighting access and water sources Need to post non-smoking/fire safety signage Need for increased roadside brush maintenance
Trail and roadway safety	<ul style="list-style-type: none"> Concerns about safety of at-grade road crossings Need to provide adequate emergency access
Ranger patrol	<ul style="list-style-type: none"> Need for additional ranger presence

At the December 1, 2021 public meeting, the public will have an opportunity to participate in workshop style breakout sessions following the staff presentation. A summary of the feedback received during this portion of the meeting will be presented to the Board to inform subsequent Board discussion and direction.

Public and stakeholder engagement, through future public meetings, pop-up events, and online surveys will occur throughout the feasibility study and future phases to gather feedback for Board consideration and incorporation into the planning process. In addition, the Purisima Multimodal and Purisima-to-the-Sea project teams will continue to coordinate on joint engagement activities such as future farmer's markets, neighborhood and/or community meetings.

PROPOSED VISION AND GOALS

The proposed vision and goals will guide the development and selection of elements that will be incorporated into a conceptual comprehensive use and management plan, including potential parking area designs and trail alignments, as well as other use and management considerations for the Purisima-to-the-Sea Trail and Parking Area Project. This proposed vision and goals have been informed by the findings of the Opportunities and Constraints Analysis and by Public Comment received to date, and are consistent with the 2014 Board-approved Vision Plan and 2014 voter-approved Measure AA expenditure plan.

Purisima-to-the-Sea Trail and Parking Area Project Vision

Realize the decades-long vision to connect the Santa Cruz Mountains to the Pacific Ocean in support of open space, agriculture, wildlife and people. Complete the multi-use Purisima-to-the-Sea trail connection and parking area using ecologically sensitive design and management.

Goal 1: Physical Attributes

Develop the regional Purisima-to-the-Sea Regional Trail to accommodate low-intensity recreation by multiple user groups, provide access to scenic viewpoints, and provide improved Preserve access with an appropriately sized and programmed parking area.

Strategies:

- Design a multi-use trail to accommodate low intensity recreation.
- Evaluate a wide range of parking capacities and program elements to provide staging for allowed trail uses and incorporate green infrastructure and multimodal access options.
- Link the California Coastal Trail to the Bay Area Ridge Trail.
- Highlight scenic viewpoints and protect the scenic corridor.
- Incorporate management actions, best practices, and education to prevent the introduction of new pest species to District preserves, especially new invasive plants in natural areas, rangelands, and agricultural properties.

Goal 2: Cultural Attributes

Protect and interpret the agricultural and coastal community culture and history.

Strategies:

- Consider compatible onsite and adjacent uses and minimize conflicts through consultation, design and management.
- Develop meaningful interpretive elements (i.e. signage, etc.).
- Acknowledge the diverse communities along the coast and provide bilingual materials to promote community access and engagement.
- Conduct public engagement with the agricultural, coastal, and native indigenous communities during design.

Goal 3: Biological Attributes

Manage and interpret natural resources, habitats, sensitive species, and connectivity, and provide public access in an ecologically sensitive manner.

Strategies:

- Identify potential trail alignments and parking areas that avoid or minimize impacts.
- Apply ecologically sensitive and sustainable design principles and measures.
- Evaluate a hiking-only trail spur to provide access to and viewing opportunities of riparian habitat areas.
- Avoid, minimize, and/or mitigate for impacts to sensitive species and habitats.
- Conduct invasive species removal.
- Restore heavily degraded areas.

Goal 4: Safety

Manage the newly open area of the Preserve, trails and parking area to provide a safe visitor and neighbor experience.

Strategies:

- Consider safety and neighbor impacts when evaluating trail alignments, roadway crossing and parking locations, and vehicle circulation (Coastal Service Plan guidelines, Good Neighbor policy).
- Install vehicle gates, boundary fencing and regulatory signage as needed.
- Establish and maintain a District presence at the Preserve through patrol and ongoing staff and volunteer site activities.
- Conduct routine maintenance and wildland fire management.

Goal 5: Implementation

Continue to foster and develop partnerships to support project approvals and implementation.

Strategies:

- Identify and engage project partners.
- Facilitate coordination with Caltrans, County of San Mateo and other stakeholders on pedestrian crossings of Highway 1 and Verde Road and on multi-modal strategies that support recreational access on the coast.
- Complete project through phased implementation as Project component leads are identified and resources become available.
- Pursue external partner and grant funding opportunities to leverage available funding.

In addition to confirming the project's proposed vision and goals listed above, staff also seek Board guidance on the following programmatic project element:

Project scale / parking lot capacity:

Multiple parking area concept designs will be developed for Committee and Board consideration. To provide guidance during this process, staff are seeking Board concurrence on designing for a larger parking area than is typical that can accommodate recommendations from the Purisima Multimodal Access Study (e.g. additional parking to potentially service a shuttle stop during peak visitation times that drops off/picks up at the popular Purisima Road [redwood forest] trailhead location).

PURISIMA MULTIMODAL ACCESS STUDY PROJECT UPDATE

The Purisima Multimodal Access Study project is a separate and related project, which purpose is to:

- Evaluate existing parking resources and visitor access at the Preserve;
- Clarify the parking and access challenges that exist;
- Understand visitor behavior and visitation patterns;
- Identify strategies that will address parking demand and traffic issues;
- Explore greener modes of transit and new strategies to better manage visitation; and
- Develop an implementation plan for a variety of transportation demand management strategies appropriate to Purisima Creek Redwoods at a preserve-wide level.

The Board awarded a contract to Parisi Transportation Consulting/Mead & Hunt on June 23, 2021 (R-21-86) to support this work. In August, the project team initiated a robust data collection process. An online survey was issued and will run through mid-January 2022 to gather public input. A full day of in-person surveys was conducted on a weekday and one weekend. Additional data being collected include traffic/visitor counts; parking lot utilization; average daily traffic counts; visitor origins; historical parking; and walking/biking routes. Additional in-person surveys will be conducted in late spring 2022.

In October, the project team finalized their targeted community outreach plan consisting of stakeholder engagement, one-on-one meetings, and pop-up events in the community. The feedback from these groups coupled with the data collection and survey responses will inform the transportation demand management strategies later on in the project.

FISCAL IMPACT

Further planning efforts and related costs this fiscal year for the Purisima-to-the-Sea Regional Trail and Parking Area Feasibility Study (MAA03-005) are expected to remain within the amended Fiscal Year 2021-22 (FY22) budget of \$358,777.

The District has been awarded a grant of \$301,000 from the State Coastal Conservancy for this Project. The grant supports the development of a preferred regional trail alignment, preparing conceptual designs plans for a new Verde Road/Highway 1 parking area, and evaluating options for pedestrian roadway crossings and connections to the Cowell-Purisima Coastal Trail. To meet the term of the grant agreement, the District must expend approximately \$253,000 of the \$301,000 grant award by April 15th, 2022. Use of the remaining \$47,000 in grant funds can be extended to a later deadline given their funding source.

Purisima-to-the-Sea Trail and Parking Area - Feasibility Study MAA03-005	Prior Year Actuals	FY22 Amended	FY23 Projected	FY24 Projected	Estimated Future Years	TOTAL
District Funded (Fund 30):	\$185,188	\$133,014	\$259,646	\$0	\$0	\$577,848
Grant Amount:	\$75,237	\$225,763	\$0	\$0	\$0	\$301,000
Fund 40:	\$0	\$0	\$0	\$340,000	\$0	\$340,000
Total Budget:	\$260,425	\$358,777	\$259,646	\$340,000	\$0	\$1,218,848
Spent-to-Date (as of 11/02/2021):	(\$260,425)	(\$56,304)	\$0	\$0	\$0	(\$316,729)
Encumbrances:	\$0	(\$120,597)	\$0	\$0	\$0	(\$120,597)
Budget Remaining (Proposed):	\$0	\$181,876	\$259,646	\$340,000	\$0	\$781,522

The following table outlines the Measure AA Portfolio 03 Purisima Creek Redwoods: Purisima to the Sea Trail, Watershed Protection and Conservation Grazing allocation, costs-to-date, projected future project expenditures and projected portfolio balance remaining.

MAA03 Purisima Creek Redwoods: Purisima to the Sea Trail, Watershed Protection and Conservation Grazing Portfolio Allocation:	\$7,608,000
Grant Income (through FY25):	\$378,480
Fund 40:	\$1,041,000
Total Portfolio Allocation:	\$9,027,480
Life-to-Date Spent (as of 11/02/2021):	(\$6,550,921)
Encumbrances:	(\$211,030)
Remaining FY22 Project Budgets:	(\$362,671)
Future MAA03 project costs (projected through FY25):	(\$1,823,610)
Total Portfolio Expenditures:	(\$8,948,232)
Portfolio Balance Remaining (Proposed):	\$79,248

The following table outlines the Measure AA Portfolio 03 allocation, projected life of project expenditures and projected portfolio balance remaining.

MAA03 Purisima Creek Redwoods: Purisima to the Sea Trail, Watershed Protection and Conservation Grazing Portfolio Allocation:	\$7,608,000
Grant Income (through FY25):	\$378,480
Fund 40:	\$1,041,000
Total Portfolio Allocation:	\$9,027,480
Projected Project Expenditures (life of project):	
03-001 Purisima Uplands Lot Line Adjustment and Property Transfer	(\$425,113)
03-002 Purisima Upland Site Clean up and Soil Remediation	(\$1,033,433)
03-003 Purisima Creek Fence Construction	(\$169,190)
03-004 Harkins Bridge Replacement	(\$516,916)
03-005 Purisima-to-the-Sea Regional Trail and Parking Area - Feasibility Study	(\$1,218,848)
03-006 South Cowell Upland Land Conservation	(\$4,857,967)
03-007 Purisima-to-the-Sea Habitat Enhancement and Water Supply Improvement Plan	(\$710,050)
03-008 Rieser-Nelson Land Purchase	(\$16,715)
Total Portfolio Expenditures:	(\$8,948,232)
Portfolio Balance Remaining (Proposed):	\$79,248

BOARD AND COMMITTEE REVIEW

This Project previously came before the Board of Directors at the following public meetings:

January 22, 2020: Resolution to Accept Grant Funding from the State Coastal Conservancy for the Purisima-to-the-Sea Trail and Parking Area Feasibility and Planning Project [R-20-12](#)

October 28, 2020: Purchase of interest in the Peninsula Open Space Trust (POST) South Cowell Property [R-20-122](#)

November 18, 2020: Award of Contract with SWCA Environmental Consultants to provide Environmental Planning, Design, and Technical Analysis for the Feasibility Studies and Conceptual Designs of the Purisima-to-the-Sea Trail and Parking Area Project [R-20-138](#)

PUBLIC NOTICE

Public notice was provided as required by the Brown Act. In addition, public notices were sent to neighbors and interested parties of the Preserve and hiking, biking, equestrian, accessibility, Regional Trails, Coastal, Measure AA, and Conservation grazing interested parties.

CEQA COMPLIANCE

The Purisima-to-the-Sea Trail and Parking Area Feasibility Study is not a project subject to the California Environmental Quality Act (CEQA). Environmental review is anticipated to occur in a future fiscal year, pending the Board's selection of an alternative as the CEQA project description.

NEXT STEPS

With the Board confirmation of the Project's vision and goals, staff will proceed with the Project according to the following tasks and schedule:

TASK	SCHEDULE
Complete technical assessment of trail alignment alternative	Fall 2021 – Winter 2022
Develop draft conceptual parking design alternatives	Fall 2021 – Spring 2022
Conduct additional public and stakeholder outreach	Fall 2021 – Spring 2022
Present preferred trail alignment and draft conceptual parking area alternatives to Planning and Natural Resources Committee	Spring 2021
Present preferred trail alignment and revised conceptual parking area alternative to Board of Directors	Winter 2021/22
Initiate environmental review of approved Project description	Spring 2022

Attachments

1. Regional Project Map
2. Feasibility Study Project Area Map
3. Conceptual Trail Alignment Alternatives Map
4. Opportunities and Constraints Analysis Memorandum

Responsible Department Head:
Jane Mark, Planning Department

Prepared by:
Gretchen Laustsen, Senior Planner, Planning Department

Bryan Apple, Capital Projects Field Manager

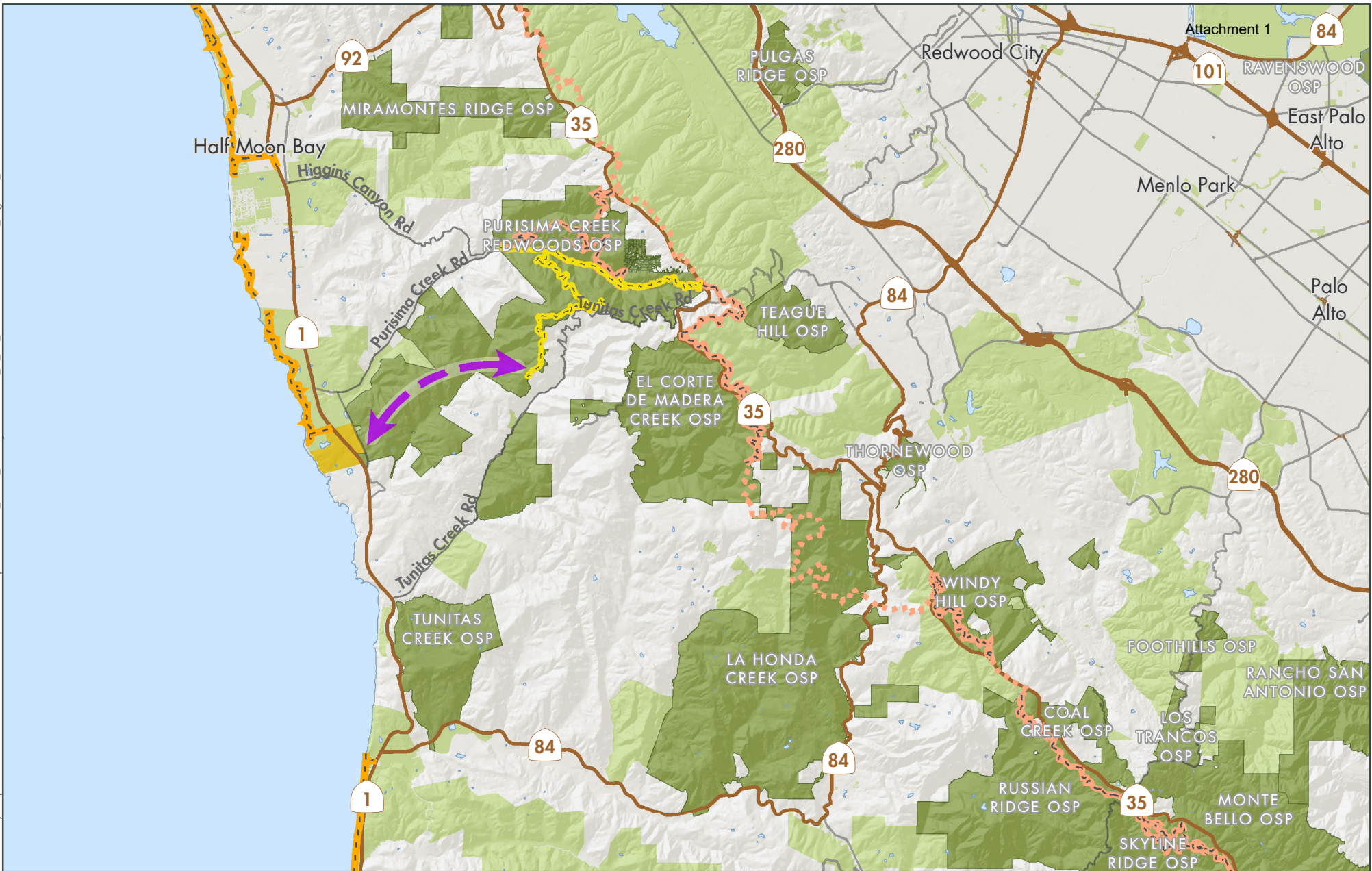
Contact person:

Gretchen Laustsen, Senior Planner, Planning Department

Graphics prepared by:

Nathan Greig, Data Analyst II

Bryan Apple, Capital Projects Field Manager



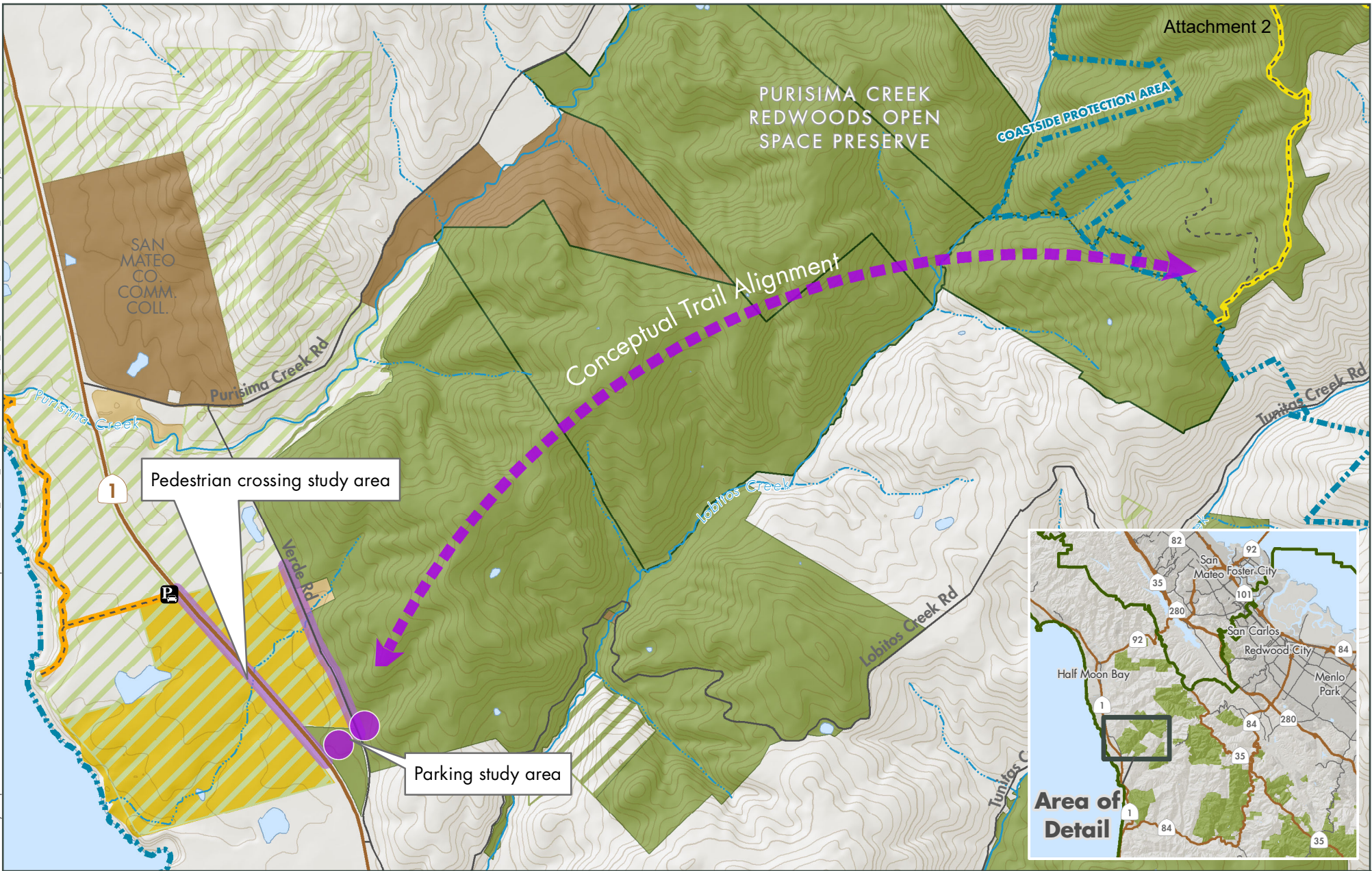
Purisima-to-the-Sea Regional Map

- Midpen preserves
- Other protected lands
- Private property
- Purisima-to-the-Sea Conceptual Trail
- Existing Purisima-to-Sea Trail
- Cowell-Purisima Trail & Coastal Trail
- Existing Bay Area Ridge Trail
- Proposed Bay Area Ridge Trail

Midpeninsula Regional
 Open Space District
 (Midpen)
 11/22/2021



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.



Attachment 2

PURISIMA CREEK
REDWOODS OPEN
SPACE PRESERVE

COASTSIDE PROTECTION AREA

Conceptual Trail Alignment

Pedestrian crossing study area

Parking study area

Area of
Detail

Purisima-to-the-Sea Trail and Parking Area Feasibility Study Area

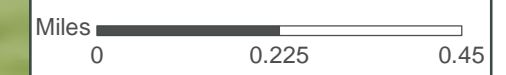
- Midpen preserves
- South Cowell property
- POST easement
- Midpen easement
- Existing public trail
- Existing Purisima-to-the-Sea Trail
- Cowell-Purisima Trail & Coastal Trail

Midpeninsula Regional
Open Space District
(Midpen)
11/22/2021










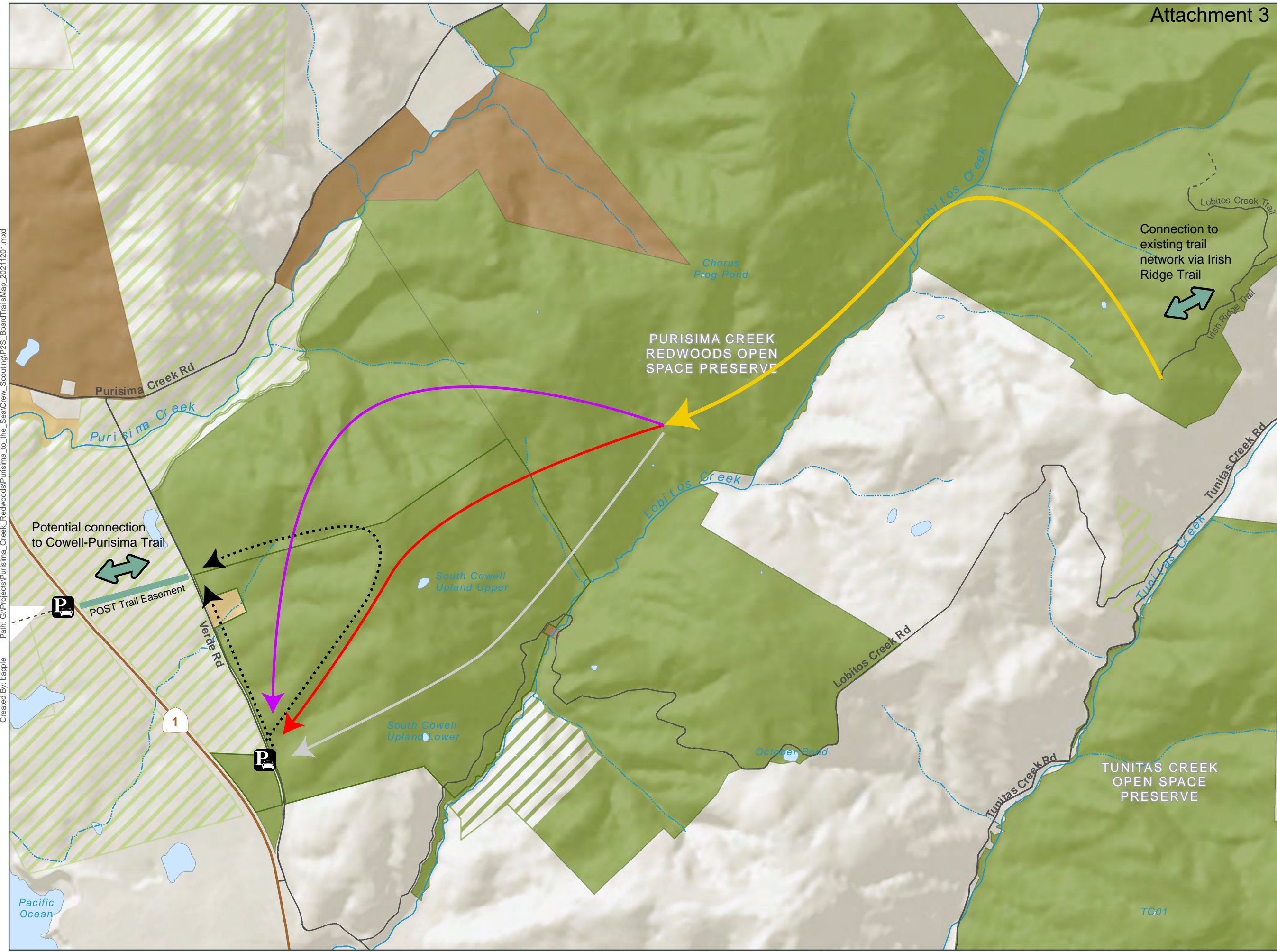
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Purisima-to-the-Sea Trail Conceptual Alignments

-  Proposed Purisima-to-the-Sea Alignment (Connects to Alternatives 1-3)
-  Alignment Alternative 1
-  Alignment Alternative 2
-  Alignment Alternative 3
-  POST Trail Easement
-  POST Trail Easement Connector Trail Option
-  South Cowell Property Boundary



Path: G:\Projects\Purisima_Creek_Redwoods\Purisima_to_the_Sea\Crew_Scouting\P2S_BoardTrailsMap_20211201.mxd
Created By: bapple

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.



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Half Moon Bay, California 94019
Tel: 650.440.4160 Fax: 650.440.4165

MEMORANDUM

To: Gretchen Laustsen, Midpeninsula Regional Open Space District

From: Laura Moran & Mark Brandi, SWCA

Date: November 11, 2021

Re: Purisima-to-the-Sea Opportunities & Constraints Analysis

Dear Ms. Laustsen,

The following memorandum summarizes opportunities and constraints associated with development of the Purisima-to-the-Sea Trail and Parking Area within the Purisima Creek Redwoods Open Space Preserve. These opportunities and constraints have been identified through a comprehensive analysis of the existing site conditions conducted by the SWCA consultant team.

EXECUTIVE SUMMARY

The successful development of the Purisima-to-the-Sea Trail and Parking Area will require careful attention to the existing conditions and the inherent opportunities and constraints of the site. This memorandum summarizes the site analysis that has been conducted by the SWCA consultant team to-date by summarizing key issues from the technical reports generated for the project, site observations, and initial feedback from the local community. Resulting opportunities and constraints are grouped into Physical, Cultural, Biological, and Hazard / Safety Attributes, which are graphically represented on the attached diagrams for each of these categories.

SITE ANALYSIS

Existing site conditions within the Purisima-to-the-Sea feasibility study area have been documented and analyzed in the following technical reports for the project:

- *Biological Resources Assessment for the Purisima-to-the-Sea Parking Area and Trail Feasibility Study*, SWCA, October 2021
- *Cultural Resources Survey for the Purisima-to-the-Sea Parking Area and Trail Feasibility Study*, SWCA, October 2021
- *Purisima-to-the-Sea Culvert Drainage Study*, SWCA, October 4, 2021
- *Topographic Survey of Purisima-to-the-Sea*, BKF, October 1, 2021
- *Purisima-to-the-Sea Parking Area and Trails Project – Draft Traffic Study*, BKF, October 11, 2021

In addition, a Geotechnical Engineer Assessment for the site will be developed during the preliminary design process after soil sampling occurs in the areas where facilities may be constructed.

OPPORTUNITIES & CONSTRAINTS

The following preliminary opportunities and constraints for the site have been extracted from the above referenced technical reports and site observations by the SWCA consultant team. In addition, feedback received from the public during the initial community outreach meetings for the project has been incorporated into this analysis to ensure that the project will address key issues identified by neighbors and trail users. These opportunities and constraints include issues related to Physical, Cultural, Biological, and Hazard & Safety Attributes, which will merit further consideration during the design of the public access improvements for the project.

Each attribute also includes references to applicable policies from guiding planning documents, including the San Mateo County Local Coastal Program, the District's Coastal Service Plan and Environmental Impact Report (EIR), and the District-Wide Resource Management Plan, as well as key issue areas under the California Environmental Quality Act (CEQA), such as viewsheds, traffic, and natural resources. Additional applicable policies have also been provided by the District from the following planning documents:

- *County of San Mateo General Plan*
- *San Mateo County Trails Plan*
- *San Mateo County Noise Ordinance*
- *Unincorporated San Mateo County Active Transportation Plan*
- *Midpeninsula Regional Open Space District Integrated Pest Management Program Guidance Manual, EIR and Addendum*
- *Midpeninsula Regional Open Space District Wildland Fire Resiliency Program & EIR*
- *Midpeninsula Regional Open Space District Climate Action Plan*
- *Midpeninsula Regional Open Space District Docent and Volunteer Program Study*

PHYSICAL ATTRIBUTES

The following physical attributes may represent Opportunities (O) or Constraints (C) to the development of the Purisima-to-the-Sea Trail and associated parking and trailhead facilities. Please see *Figure 1: Physical Opportunities and Constraints* for the general locations of these attributes and considerations at the site.

No.	O/C	Attribute	Discussion
1	C	Land Ownership	While the majority of the project area is located on the South Cowell Ranch property that was recently acquired by the District, adjacent privately owned parcels with existing residential and agricultural uses will be considered during the trail and parking area planning process. Potential indirect impacts to these properties that are of concern to the local community include increased noise and reduced privacy, as well as potential intentional and unintentional trespassing off of adjacent trail alignments. In addition, trail easements may need to be acquired and/or utilized to complete the 'connector trails' along adjacent roadways or through privately owned parcels that will link the project to the existing Cowell-Purisima Trailhead on the west side of Highway 1.
		<i>Policies</i>	<i>Coastal Service Plan Guideline G.6.4 and San Mateo Coastal Annexation EIR Mitigation LU-1b (prevent impacts to neighboring private property)</i>
2	O	Site Access	Existing access to the potential parking areas is located off Verde Road, where lower vehicular speeds and use may enhance safe access to the site. In addition, Verde Road can be accessed via existing turn lanes off Highway 1 at Purisima Creek Road and Verde Road, and Verde Road has been identified as a future bicycle route by the County. Existing grazing access roads on the South Cowell Ranch property may also be repurposed to facilitate public access while minimizing the need for grading of new trail and road alignments. However, if utilized these facilities may need to be modified or improved to allow emergency access for medical emergencies, law enforcement, and wildfire suppression.
		<i>Policies</i>	<p><i>Coastal Service Plan, Guideline G.6.5/ San Mateo Coastal Annexation EIR Mitigation PSI-1a (access not permitting in area where a hazard, such as a sharp curve, exists)</i></p> <p><i>Coastal Service Plan, Guideline G.7 (obtain permits for access)</i></p> <p><i>Coastal Service Plan, Guideline G.6.7/San Mateo Coastal Area Annexation EIR Mitigation HAZ-2b (locate trail alignments and access points to allow trails to serve as emergency access routes)</i></p> <p><i>Unincorporated San Mateo County Active Transportation Plan</i></p> <p><i>Additional traffic studies will likely be required during the CEQA process for the project</i></p>

3	C	Site Topography	The existing topography and adjacent sloping terrain around the potential parking areas on either side of Verde Road, along with the existing drainage that bisects these areas, represent natural boundaries to the readily usable area of the site. Proposed improvements beyond these natural limits would likely require significant grading, permitting, and mitigation to implement. These natural limitations will influence the parking capacity of the site for day-use and equestrian trail users, although there may be an opportunity to develop parking in larger, relatively flat areas of the site with access from Verde Road.
		<i>Policies</i>	<p><i>District-Wide Resource Management Plan, Policy SA-1 (Minimize evidence of human impacts within preserves),</i></p> <p><i>District-Wide Resource Management Plan, Policy FM-3 (Ensure that forest management activities are compatible with riparian ecosystem and water resources protection and policies. Protect riparian ecosystems and habitat to maintain natural hydrologic process, water quality, and wildlife benefits. Maintain essential riparian functions, and if necessary enhance and restore riparian habitats)</i></p>
4	O/C	Viewsheds	The potential parking areas associated with the project are located within the Highway 1 Scenic Corridor, and the project will be required to protect the visual quality this scenic corridor. In addition, portions of the site and potential trail alignments offer dramatic and expansive views of the surrounding natural landscape and the San Mateo coastline. These viewsheds may be highlighted or enhanced by the project, including opportunities for interpretive engagement elements and informal rest areas along the trail.
		<i>Policies</i>	<p><i>Caltrans Scenic Corridor Protection Program</i></p> <p><i>San Mateo County General Plan, Visual Quality Policies</i></p> <p><i>District-Wide Resource Management Plan, Scenic and Aesthetic Resources Policies</i></p> <p><i>Coastal Service Plan Guideline G.6.10 and G.6.11 and San Mateo Coastal Annexation EIR Mitigation AES-1a (prevent impacts to viewsheds)</i></p> <p><i>Visual simulations will likely be required during the CEQA process for the project</i></p>
5	O	Site Screening	The natural landforms and differences in elevation between Highway 1 and the potential parking areas will help to screen the proposed improvements and minimize potential visual impacts on the natural and agricultural character of the area. Existing mature vegetation on the site, including the windrow of mature trees to the north of the potential parking area between the highway and Verde Road, would also potentially allow for screening of the proposed improvements with a greater visual impact on the agricultural and rural character of the area and the visual character of the Highway 1 Scenic Corridor. Many of these existing trees are aging and should be evaluated in future phases of the project to determine if removal, maintenance, or replacement is warranted.

		<i>Policies</i>	<p><i>Coastal Service Plan, Guideline G.6.10/ San Mateo Coastal Annexation EIR Mitigation AES-1a (retain natural and cultural settings),</i></p> <p><i>Coastal Service Plan, Guideline G.6.12-6.14/San Mateo Coastal Annexation EIR Mitigation AES-1c-e (screen staging areas, structures, and utilities)</i></p> <p><i>District-Wide Resource Management Policies Policy SA-1 (Minimize evidence of human impacts within preserves)</i></p>
6	O/C	Site Drainage	Existing culverts beneath Highway 1 and Verde Road were determined to be intact and of sufficient size to handle potential increases to runoff associated with the project. A third culvert below the existing corral staging area to the east of Verde Road was determined to be in a state of disrepair and should be replaced if public parking or access is located that area of the site.
		<i>Policies</i>	<p><i>Coastal Service Plan, Guideline G.6.19/San Mateo Coastal Annexation EIR Mitigation HYD-2 (design culverts to allow debris to pass)</i></p> <p><i>San Mateo Coastal Annexation EIR Mitigation HYD-1c (trail design should minimize runoff and erosion) and HYD-1d (no large-scale grading)</i></p>
7	O	Exposure & Shading	The potential parking areas have ample solar exposure given that they are located on a southwest-facing slope and that shading from existing vegetation is limited to the perimeters of the site. However, this solar exposure is typically limited in the morning and increases during the day, as coastal fog retreats over the Pacific Ocean and the sun rises over the Santa Cruz Mountains to the east. Therefore, the need to provide additional shade for the proposed day-use facilities, such as new vegetation or shade structures, is anticipated to be limited. Solar-powered gates and other elements may also be considered for the project.
		<i>Policies</i>	<i>None</i>

CULTURAL ATTRIBUTES

The following cultural attributes may represent Opportunities (O) or Constraints (C) to the development of the Purisima-to-the-Sea Trail and associated parking and trailhead facilities. Please see *Figure 2: Cultural Opportunities and Constraints* for the general locations of these attributes and considerations at the site.

No.	O/C	Attribute	Discussion
8	O	Historic Resources	No previously recorded or newly identified cultural resources have been identified as being present within the project area.
		<i>Policies</i>	<i>District-Wide Resource Management Policies, Policy CR-3 (protect cultural resources from disturbance)</i>
9	C	Farmland	While the project area does not contain Prime Farmland as defined by the California Department of Conservation, potential trail alignments may be located adjacent or across lands designated as Unique Farmland, Farmland of Local Importance, and Grazing Land. In addition, multiple parcels that are subject to the Williamson Act are located within the project area, predominantly on the eastern end of the proposed trail alignment. Potential limitations associated with public access on these lands will be confirmed during the planning process, and the need for setbacks or separation between the proposed trail and adjacent agricultural land uses should be evaluated during the design of the project.
		<i>Policies</i>	<p><i>SMC Trails Plan (2011): Policy 6.12.2 (Proposed trails shall either be located to avoid prime lands designated as suitable for agriculture (pasture lands or lands otherwise designated as agriculturally utilized) or traverse such lands in a manner that does not result in interference with agricultural activities or substantially reduce the agricultural potential of those lands. Operators of active agricultural activities shall be consulted to identify appropriate routes on lands they cultivate. The agricultural activities and the agricultural potential of traversed lands shall be protected and buffered from trail user impacts by means of distance, physical barriers (i.e. sturdy fences), or other non-disruptive methods.)</i></p> <p><i>Coastal Service Plan, Guideline G.3.7 and G.3.9/San Mateo Coastal Area Annexation Mitigation AGR-3a-3d (provide private property signs and buffers adjacent to active agriculture)</i></p> <p><i>San Mateo County Midcoast Local Coastal Program (LCP) Policy 11.19 (separate visitor serving recreation facilities from agricultural lands)</i></p>
10	C	Scenic Corridor	The proposed site design must adhere to all applicable standards for development along the Highway 1 Scenic Corridor to minimize impacts to the visual character of the corridor.

		<i>Policies</i>	<p><i>Caltrans Scenic Corridor Protection Program</i></p> <p><i>San Mateo County General Plan, Visual Quality Policies</i></p> <p><i>District-Wide Resource Management Plan, Scenic and Aesthetic Resources Policies</i></p> <p><i>San Mateo MidCoast LCP Policy 8.31 (regulation of scenic corridors in rural areas)</i></p> <p><i>Visual simulations will likely be required during the CEQA process for the project</i></p>
11	O	Multi-Modal Access	The design of the project should be integrated with the ongoing multi-modal access study for the Preserve and should seek to provide EV chargers and bike racks at the site where feasible.
		<i>Policies</i>	<p><i>Climate Action Plan, Visitor Transportation Goal (Reduce visitor transportation emissions)</i></p> <p><i>Climate Action Plan, Strategies & Actions, Increase Visitor Use of Electric Vehicles, Bikes, and Public Transit: T3 (Install electric vehicle chargers at preserve parking lots),</i></p> <p><i>Climate Action Plan, Strategies & Actions, Increase Visitor Use of Electric Vehicles, Bikes, and Public Transit: L&F T4 (Install bike racks at preserves without racks where bikes are allowed)</i></p>
12	C	Existing Structures	The proximity of existing residential and agricultural structures adjacent to the project area should also be considered during the design of the public access improvements to minimize disturbance to the tenants to the greatest extent feasible.
		<i>Policies</i>	<i>Coastal Service Plan, Guideline G.6.4 (trail proximity to occupied dwelling)</i>
13	C	Grazing Operations	Ongoing grazing operations must be balanced with proposed recreational uses so that the proposed public access improvements do not conflict with the grazing infrastructure requirements and use patterns of the site. This may be accomplished by locating new facilities and trails away from existing grazing infrastructure, or by relocating some elements of the existing grazing operation on the site.
		<i>Policies</i>	<p><i>Coastal Service Plan, Guideline G.6.4.1 (install fencing to prevent off trail use on to adjacent properties)</i></p> <p><i>District-Wide Resource Management Policies, Policy GM-7 (public access that minimizes impacts on grazing operations)</i></p>

14	O	Regional Connections	The proposed trail represents an inherent opportunity to promote regional scale passive recreation by connecting open space preserves that are accessed via Skyline Boulevard to the San Mateo Coast. Public access improvements at the site are also intended to be integrated with other trail planning efforts in the region, including the California Coastal Trail, Bay Area Ridge Trail, San Francisco Bay Trail, the Ohlone-Portola Heritage Trail, Bay to Sea Trail and the Unincorporated San Mateo County Active Transportation Plan. In so doing, the site has the potential to become a regional destination for hikers, bicyclists and equestrian trail users.
		<i>Policies</i>	<i>San Mateo County Trails Plan policies</i>
15	O	Interpretation & Education	The ecological and cultural heritage of the site will provide a unique opportunity to incorporate interpretive and educational elements in the project design, including the history of agricultural production and oil drilling in the area as well as local landmarks and the wide variety of natural habitats that are present on the site. In addition, the local community has asked that proper trail etiquette be conveyed to the public, and that community science opportunities be considered to promote appreciation and stewardship of the landscape.
		<i>Policies</i>	<i>District-Wide Resource Management Policies, Policy GM-6 (rural agricultural heritage), PI-1 (provide interpretive programming, facilities, and materials), PI- 3 (provide public outreach to encourage public knowledge and appreciation of resources)</i> <i>Docent and Volunteer Program Study</i>

BIOLOGICAL ATTRIBUTES

The following biological attributes may also represent Opportunities (O) or Constraints (C) to the development of the Purisima-to-the-Sea Trail and associated parking and trailhead facilities. Please see *Figure 3: Biological Opportunities and Constraints* for the general locations of these attributes and considerations at the site.

No.	O/C	Attribute	Discussion
16	O	Natural Systems	The proposed trail and facilities must be designed in a site-sensitive manner that avoids, protects, and minimizes permanent and temporary impacts to the natural systems and habitats of the landscape to preserve the inherent balance of the local ecosystem.
		<i>Policies</i>	<p><i>San Mateo Midcoast LCP Policies, Section 7 (prohibit significant adverse impacts on sensitive habitat)</i></p> <p><i>Coastal Service Plan, Guideline G.4.3 (limited tree removal) and G.6.3 (develop Use & Management Plan to avoid impacts to significant resources/systems); Guideline G.6.20/San Mateo Coastal Annexation EIR Mitigation BIO-1a (conduct biological resource assessments); Guideline G.6.21 and G.6.28/San Mateo Coastal Annexation EIR Mitigation BIO-1b (protect sensitive habitat and limit removal of native vegetation); Guideline G.6.24 San Mateo Coastal Annexation EIR Mitigation BIO-1c (control trail use and prevent environmental damage)</i></p> <p><i>San Mateo Coastal Annexation EIR Mitigation BIO-1e (use existing routes where feasible); BIO-1k (periodic monitoring of adjacent sensitive habitats)</i></p> <p><i>District-Wide Resource Management Plan, Policy WM-2 (protect, maintain, and enhance habitat features); HC-2 (Identify and protect existing habitat networks to prevent further compromise to ecosystem integrity)</i></p>
17	C	Wetlands & Waters	While a formal delineation of the site has not yet been conducted, potentially jurisdictional wetlands and waters were identified within the project area, including Lobitos Creek, ephemeral drainages, stock ponds, seeps, freshwater ponds, and emergent wetlands. If trail construction impacts any of these existing features, then mitigation and permits from resource agencies with jurisdiction over impacted features would be required.

		<i>Policies</i>	<p><i>San Mateo Midcoast LCP Policies 7.18 (establish buffer zones) and 8.6 (stream and wetland setbacks)</i></p> <p><i>District-Wide Resource Management Plan, Policy WR-1, Measure 1 (inventory features that can affect water resources), WR-7 (preserve wetland and ponds)</i></p> <p><i>Coastal Service Plan, Guideline G.6.16/ San Mateo Coastal Annexation EIR Mitigation HYD-1a (minimize impacts to water quality and bank erosion from trails and equestrian trails)</i></p> <p><i>Coastal Service Plan, Guideline G.6.25/ San Mateo Coastal Annexation EIR Mitigation BIO-1g (setback trail from top of bank or riparian habitat)</i></p> <p><i>Coastal Service Plan, Guideline G.6.26/ San Mateo Coastal Annexation EIR Mitigation BIO-1h (minimize disturbance of waters at trail crossings)</i></p> <p><i>Coastal Service Plan, Guideline G.6.27/ San Mateo Coastal Annexation EIR Mitigation BIO-1i (wetland avoidance),</i></p> <p><i>San Mateo Coastal Annexation EIR Mitigation HYD-1b (implement Best Management Practices)</i></p> <p><i>A formal wetland delineation may be required during the CEQA process for the project</i></p>
18	C	Riparian Setbacks	<p>While the proposed trail would qualify as a permitted use within riparian corridors under the Local Coastal Program (LCP) and not require an exclusion buffer area, the project should attempt to avoid or minimize impacts to areas with riparian vegetation, including the Lobitos Creek corridor. These riparian areas also represent unique wildlife viewing opportunities that could be enhanced by low-impact spur trails and viewpoints with docent-led access.</p> <p>The potential parking areas may be subject to site buffers under the Coastal Service Plan, which includes a setback requirement of 100 feet for staging areas and other improvements that are adjacent to jurisdictional features.</p>
		<i>Policies</i>	<p><i>San Mateo Midcoast LCP Policies, Policy 7.11 (establish buffer zone)</i></p> <p><i>Coastal Service Plan, Guideline G.6.16/ San Mateo Coastal Annexation EIR Mitigation HYD-1a (minimize impacts to water quality and bank erosion from trails and equestrian trails)</i></p> <p><i>Coastal Service Plan, Guideline G.6.25/ San Mateo Coastal Annexation EIR Mitigation BIO-1g (setback trail from top of bank or riparian habitat)</i></p> <p><i>Integrated Pest Management Guidance Manual policies (retaining dead trees / snags, and size restrictions / evaluations to avoid the removal of large trees)</i></p>

19	C	Special Status Plants	Three special status plant species were determined to be present or have potential to occur within the project area, including Choris' popcorn-flower (<i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i>), San Mateo tree lupine (<i>Lupinus arboreus</i> var. <i>eximius</i>), and King's mountain manzanita (<i>Arctostaphylos regismontana</i>). Potential habitat for these species has been identified and should be avoided or mitigated during the project design process. Other special status plant species with the potential to occur include <i>Plagiobothrys chorisianus</i> var. <i>hickmanii</i> and <i>Iris longepetala</i> .
		<i>Policies</i>	<p><i>District-Wide Resource Management Plan, Policy FM-2 (conduct surveys for special status species); Policy VM-3 (identify location and condition of special status plants and their habitats)</i></p> <p><i>Coastal Service Plan, Guideline G.6.20/San Mateo Coastal Annexation EIR Mitigation BIO-1a (conduct biological resource assessments)</i></p> <p><i>Coastal Service Plan, Guideline G.6.21 and G.6.28/San Mateo Coastal Annexation EIR Mitigation BIO-1b (protect sensitive habitat and limit removal of native vegetation)</i></p> <p><i>San Mateo Midcoast LCP Policy 7.42 (setback from rare plants)</i></p>
20	C	Special Status Animals	Of the special-status animal species that were evaluated for potential occurrence, fifteen special status wildlife species were determined to be present or have potential to occur within the project area, including American badger (<i>Taxidea taxus</i>), American peregrine falcon (<i>Falco peregrinus</i>), Bryant's savannah sparrow (<i>Passerculus sandwichensis alaudinus</i>), Burrowing owl (<i>Athene cunicularia</i>), California red-legged frog (CRLF, <i>Rana draytonii</i>), California giant salamander (<i>Dicamptodon ensatus</i>), Golden eagle (<i>Aquila chrysaetos</i>), Grasshopper sparrow (<i>Ammodramus savannarum</i>), marbled murrelet (<i>Brachyramphus marmoratus</i>), Monarch butterfly (<i>Danaus plexippus</i> pop. 1), mountain lion (<i>Puma concolor</i>), Salt marsh common yellow throat (<i>Geothlypis trichas sinuosa</i>), San Francisco dusky footed woodrat (<i>Neotoma fuscipes annectens</i>), Central California Coast steelhead (<i>Oncorhynchus mykiss irideus</i>), and white-tailed kite (<i>Elanus leucurus</i>). Potential habitat for these species has been identified and should be avoided or mitigated during the project design process.
		<i>Policies</i>	<p><i>District-Wide Resource Management Plan, Policy FM-2 (conduct surveys for special-status species)</i></p> <p><i>Coastal Service Plan, Guideline G.6.20/San Mateo Coastal Annexation EIR Mitigation BIO-1a (conduct biological resource assessments)</i></p> <p><i>Coastal Service Plan, Guideline G.6.21/San Mateo Coastal Annexation EIR Mitigation BIO-1b (protection of special-status species habitat)</i></p>
21	C	Sensitive Habitat	In addition to sensitive natural vegetation communities, wetlands, waters, and riparian areas, the project area is located adjacent to and intersects with federally designated critical habitat for California red-legged frog and steelhead.

		<i>Policies</i>	<p><i>Coastal Service Plan, Guideline G.6.21/San Mateo Coastal Annexation EIR Mitigation BIO-1b (protection of special-status species habitat)</i></p> <p><i>Coastal Service Plan, Guideline G.6.22/San Mateo Coastal Annexation EIR Mitigation BIO-1c (limit trail use in special-status species habitat),</i></p> <p><i>Coastal Service Plan, Guideline G.6.23/San Mateo Coastal Annexation EIR Mitigation BIO-1d (use existing access routes in sensitive habitats)</i></p> <p><i>San Mateo Midcoast LCP Policies, Policy 7.3 (protect sensitive habitats) and 7.35 (preserve critical habitat)</i></p> <p><i>District-Wide Resource Management Policies, Policy VM-1 (maintain the diversity of native plant communities)</i></p> <p><i>Additional surveys for sensitive natural communities and a formal wetland delineation may be required during the CEQA process for the project</i></p>
22	O/C	Wildlife Corridors	<p>The project area is a part of a larger wildlife corridor that contributes to the movement and migration of a diverse range of species in the area, such as mountain lions, American badgers, California red-legged frogs, and newts. While most of the South Cowell Ranch property is unimpeded open space, Highway 1 and Verde Road may represent barriers to wildlife movement that could be mitigated by the project design (via fencing, underpasses, or other measures).</p>
		<i>Policies</i>	<p><i>Coastal Service Plan, Guideline G.6.29/San Mateo Coastal Annexation EIR Mitigation BIO-2 (minimize habitat fragmentation)</i></p> <p><i>District-Wide Resource Management Policies, Policy HC-2 (protect existing habitat networks), WM-1 (maintain the diversity of native wildlife)</i></p>
23	C	Invasive Species	<p>Existing populations of non-native and invasive species have been identified within the natural habitats on the site. The Early Detection Rapid Response (EDRR) prescribed in the District's invasive plant management strategies to address nuisance species that should either be eradicated or controlled to limit their spread and potential adverse impacts on native species and user experience along the trail.</p>
		<i>Policies</i>	<p><i>Coastal Service Plan, Guideline G.3.9c (create buffers to limit spread of invasive species)</i></p> <p><i>District-Wide Resource Management Policies, IPM-2 (prevent introduction of new pest species)</i></p> <p><i>Midpeninsula Open Space District Integrated Pest Management Program</i></p>
24	C	Nesting Birds	<p>Seasonal tree removal restrictions must be considered to minimize potential impacts to nesting birds. The presence or absence of nesting birds would be confirmed during pre-construction surveys for the project, unless tree removals or pruning are scheduled to avoid nesting bird season.</p>

		<i>Policies</i>	<p><i>District-Wide Resource Management Plan, Policy FM-2 (conduct surveys for special status species)</i></p> <p><i>District-Wide Resource Management Plan, Policy WM-2 (Leave brush piles, snags, and fallen trees in areas where they do not pose a fire hazard or visual blight, to provide cover and nesting sites for animals, and nursery conditions for forest seedlings)</i></p>
25	C	Roosting Bats	<p>There are no recorded occurrences of special-status bat species in the vicinity of the project area, and none were observed during the field surveys. Bat surveys would be conducted before the start of construction and during, as existing trees may still provide roosting bat habitat on site. If so, buffers around the proposed site improvements may be warranted to limit physical or noise-related impacts to bat habitat on the site.</p>
		<i>Policies</i>	<i>District-Wide Resource Management Plan, Policy FM-2 (conduct surveys for special-status species)</i>

SAFETY ATTRIBUTES

The following hazard and safety attributes may also represent Opportunities (O) or Constraints (C) to the development of the Purisima-to-the-Sea Trail and associated parking and trailhead facilities. Please see *Figure 4: Safety Opportunities and Constraints* for the general locations of these attributes and considerations at the site.

No.	O/C	Attribute	Discussion
26	C	Trail Safety	The local community has expressed that trail safety will be a key concern associated with the project due to the remote and rugged terrain and the long distances to be covered by the trail alignment. Potential opportunities to address this concern include incorporation of managed trailhead and mid-trail facilities, and consideration of a shuttle system for one-way trail users between Skyline Boulevard and Highway 1. In addition, shared use of the trail by hikers, equestrians, and mountain bikers (if allowed) will need to be addressed and conform to the District's current trail standards for shared use, including providing adequate trail widths to accommodate all user groups. Maintaining existing ranch roads, including the main east-west ranch road, and the proximity of the site to the Coastside fire station located at Hwy 1 and Higgins/Main will help to provide emergency access to the staging area and trails.
		<i>Policies</i>	<p><i>Coastal Service Plan, Guideline G.6.7/San Mateo Coastal Annexation EIR Mitigation HAZ-2b (allow trails to also serve as emergency access routes)</i></p> <p><i>Coastal Service Plan, Guideline G.6.8/San Mateo Coastal Annexation EIR Mitigation HAZ-2e (limit trail use to low-intensity activities)</i></p> <p><i>Coastal Service Plan, Guideline G.6.9/San Mateo Coastal Annexation EIR Mitigation HAZ-2f (guidelines for developing and maintaining staging area and trail heads)</i></p> <p><i>San Mateo Coastal Annexation EIR Mitigation HAZ-3a and GEO-1b (routinely monitor trails and provide regular maintenance)</i></p>
27	C	Roadway Safety	Balancing vehicular and pedestrian safety within and adjacent to the proposed parking areas, connector trails, and roadway crossings will be a key consideration in the planning and design of the project. This aspect of the design will be constrained with the limited width of the existing right-of-way along Verde Road, where the County has proposed a bicycle route that may help facilitate the construction of a connector trail along the roadway. In addition, line-of-sight distance limitations and the need for parking restrictions / signage along Highway 1 and Verde Road must be factored into the proposed design to ensure safe vehicular ingress and egress to the site. Accessible parking, walkways, and trails should also be incorporated wherever feasible in order to provide safe access for trail users of all abilities.
		<i>Policies</i>	<p><i>Caltrans Highway Design Manual, Chapter 4, Policy 405.1 (sight distance)</i></p> <p><i>Coastal Service Plan, Guideline G.6.5/San Mateo Coastal Annexation EIR Mitigation PSI-1a (restrict access at dangerous intersections or sharp curves)</i></p>

28	O	Emergency Access	To further promote trail safety, adequate emergency access should be considered and incorporated into the project design. These considerations may include adequate trail width for fire-fighting access (where feasible), increased ranger, and maintenance staff (anticipated over the next two years to increase patrol coverage and respond to emergencies) and designated landing areas for air support and evacuations. Coastside Fire should also be consulted on access needs and designating landing zones for emergency.
		<i>Policies</i>	<i>Coastal Service Plan, Guideline G.6.7/San Mateo Coastal Annexation EIR Mitigation HAZ-2b (allow trails to also serve as emergency access routes)</i> <i>District-Wide Resource Management Policies, WF-1 (fire and fuel management to protect public)</i>
29	C	Potential Contaminants	A Phase 1 Environmental Site Investigation has been completed for the South Cowell Ranch portion of the project area, site and may be required for the remainder of the site in subsequent phases of the project. Potential sources of contamination include oil storage areas, lead-based paint, asbestos / serpentine rock, and agricultural pesticides.
		<i>Policies</i>	<i>A complete Phase I Environmental Site Investigation will likely be required for CEQA</i>
30	C	Site Stability	Potential geologic constraints (such as documented landslides. Load bearing limitations, and areas that may be prone to erosion) will be identified in the geotechnical report for the site.
		<i>Policies</i>	<i>San Mateo Coastal Annexation EIR Mitigation GEO-1a (conduct surveys for geologic hazards)</i> <i>District-Wide Resource Management Policies, Policy GS-2 (minimize soil erosion and sedimentation)</i> <i>San Mateo Midcoast LCP Policies 9.10 (geotechnical investigations) and 9.18 (development on 30% or steeper slope)</i>
31	C	Roadway Noise	If the proposed parking area is located to the west of Verde Road, then opportunities to mitigate vehicular traffic noise along Highway 1 (such as additional topographic screening) may be considered to enhance user experience at the site.
		<i>Policies</i>	<i>District-Wide Resource Management Policies, Policy SA-3 (minimize unnatural noise)</i> <i>San Mateo County Noise Ordinance</i>

CONCLUSION

The opportunities and constraints identified in this memorandum will be incorporated into the conceptual design process for the Purisima-to-the-Sea Trail and parking areas. Taken together, the extent of these opportunities and constraints highlight the complexity of developing a successful regional trail project on the site. However, the opportunities that have been identified can be utilized to enhance user experience and safety, and the constraints can be avoided or addressed to minimize impacts to the landscape. In doing so, the Purisima-to-the-Sea Trail has the potential to become a regional destination for passive recreation and enjoyment of the San Mateo Coast and the Purisima Creek Redwoods Open Space Preserve.

PURISIMA-TO-THE-SEA TRAIL | OPPORTUNITIES & CONSTRAINTS ANALYSIS



Legend
Opportunity
Constraint
Opportunity / Constraint

FIGURE 1 | PHYSICAL ATTRIBUTES

PURISIMA-TO-THE-SEA TRAIL | OPPORTUNITIES & CONSTRAINTS ANALYSIS



FIGURE 2 | CULTURAL ATTRIBUTES

PURISIMA-TO-THE-SEA TRAIL | OPPORTUNITIES & CONSTRAINTS ANALYSIS

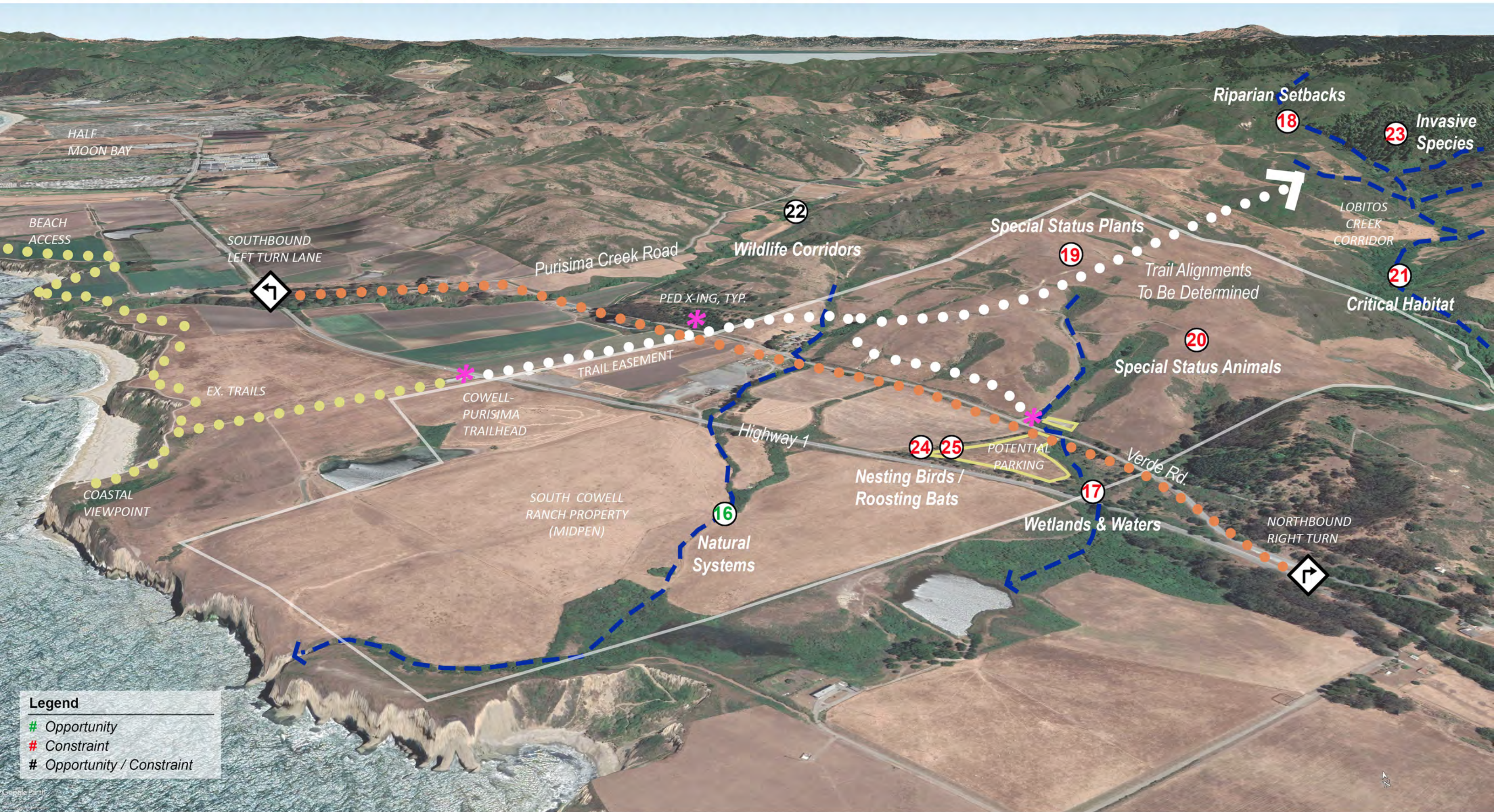


FIGURE 3 | BIOLOGICAL ATTRIBUTES

PURISIMA-TO-THE-SEA TRAIL | OPPORTUNITIES & CONSTRAINTS ANALYSIS



FIGURE 4 | SAFETY ATTRIBUTES