



**RIVER DISTRICT MASTER PLAN  
CITIZENS ADVISORY COMMITTEE MEETING AGENDA  
December 13, 2023, 6:00 PM  
Folsom Community Center, RG Smith Meeting Room  
52 Stafford Street, Folsom, CA**

**COMMITTEE MEMBERS:**

Lynne Bailey	Rita Mukerjee Hoffstadt	Krystal Moreno
Jennifer Cabrera	Karen Holmes	Scott Muldavin
Bruce Cline	Lisa Horton	Brian Murch
Claudia Cummings	Will Kempton	Mike Reynolds
Brian Dugar	Jennifer Lane	Edward Roza
Pat Flynn	John Lane	Devin Swartwood
Joe Gagliardi	Barbara Leary	Crystal Tobias
Deborah Grassl	Jim Lofgren	Srinivas Yanaparti

**CALL TO ORDER**

**ROLL CALL**

**BUSINESS FROM THE FLOOR**

Members of the public are entitled to address the Committee concerning any item within the Committee's subject matter jurisdiction. Public comments are limited to no more than three minutes. Except for certain specific exceptions, the Committee is prohibited from discussing or taking action on any item not appearing on the posted agenda.

**ACTION ITEM**

1. Folsom Blvd Overcrossing, Preferred Alternatives Review and Recommendation to City Council – 30 min  
Presentation from Parks and Recreation Department - Brett Bollinger, Sr. Trails Planner (included with agenda)

**INFORMATION ITEMS** – 15 min

1. Environmental Constraints Technical Memorandum (included with agenda)
2. Orangevale Notification (discussion only)
3. Social Pinpoint Interactive Mapping Tool (discussion only)
4. CAC Meeting Notes from October 25, 2023 meeting (included with agenda)

**CAC WORK GROUP ACTIVITY/DISCUSSION**

1. Opportunity and Constraints – Interactive discussion and identification of potential district assets, areas of unique opportunities to meet the intent of the General Plan, as well as district elements such as hazards, cultural and environmental resources that represent project constraints or opportunities for protection and enhancement.
  - a. River District Central Subarea Group Discussion – 75 min
    - i. Group report back on priority Opportunities and key Constraints – 25 min

## **NEXT MEETING DATE**

Wednesday, January 10, 2024 – 6:00 pm; Folsom Community Center, RG Smith Room

## **ADJOURNMENT**

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*In compliance with the Americans with Disabilities Act, if you are a person with a disability and you need a disability-related modification or accommodation to participate in this meeting, please contact the City Manager’s Office at (916) 461-6010, or [mkasama@folsom.ca.us](mailto:mkasama@folsom.ca.us). Requests must be made as early as possible and at least two full business days before the start of the meeting.*

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**RIVER DISTRICT MASTER PLAN  
CITIZENS ADVISORY COMMITTEE MEETING NOTES  
October 25, 2023  
6:00 PM  
RG Smith Room, Folsom Community Center  
52 Natoma Street, Folsom, CA**

**COMMITTEE MEMBERS:**

Lynne Bailey	Rita Mukerjee Hoffstadt	Krystal Moreno
Jennifer Cabrera	Karen Holmes	Scott Muldavin
Bruce Cline	Lisa Horton	Brian Murch
Claudia Cummings	Will Kempton	Mike Reynolds
Brian Dugar	Jennifer Lane	Edward Roza
Pat Flynn	John Lane	Devin Swartwood
Joe Gagliardi	Barbara Leary	Crystal Tobias
Deborah Grassl	Jim Lofgren	Srinivas Yanaparti

**CALL TO ORDER** – 6:00 p.m.

**ROLL CALL**

**Present:** Lynne Bailey, Jennifer Cabrera, Bruce Cline, Pat Flynn, Joe Gagliardi, Deborah Grassl, Rita Mukerjee Hoffstadt, Karen Holmes, Lisa Horton, Will Kempton, Jennifer Lane, John Lane, Barbara Leary, Jim Lofgren, Scott Muldavin, Brian Murch, Devin Swartwood, Crystal Tobias,

**Absent:** Claudia Cummings, Brian Dugar, Krystal Moreno, Mike Reynolds, Edward Roza, Srinivas Yanaparti

**BUSINESS FROM THE FLOOR**

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1. Loretta Hettinger asked whether the River District Organizing Committee report was going to be discussed or presented. She also requested a correction on the cultural resources document, noting that the Chung Wa Cemetery is listed on the National Historic Register.

**DISCUSSION ITEMS**

1. **CAC Process and Ground Rules presented by Chair John Lane**
  - a. Use of color blocks to reflect individual and group direction on items: Green = general consensus, ready to move on. Yellow = no clear consensus, move on for now, return to topic later. Red = limited or no support for issue, set aside, return to discussion of other issues.
  - b. Master Plan purpose/goal: to create a recommendation, put together ideas, and to invest time in the process in order to create a useful plan.
2. **CAC Tentative Advanced Schedule and Agenda Topics presented by project manager Robert Goss**
  - a. Outline attached to agenda packet.
  - b. Key notes: Social Pinpoint tool will go live in December; Community Open House results will be reviewed in January meeting; current projection of meetings will run through June/July 2024.

## **CAC WORK GROUP ACTIVITY/DISCUSSION**

1. **Opportunity and Constraints** – Interactive discussion and identification of potential district assets, areas of unique opportunities to meet the intent of the General Plan, as well as district elements such as hazards, cultural and environmental resources that represent project constraints or opportunities for protection and enhancement.
  - a. **Continue with River District North Area Group Discussion** – 30 min
    - i. Group report back on priority Opportunities and key Constraints – 10 min
      1. Group 1
        - add observational outlooks
        - trail extensions/upgrades on both sides of the river
        - better interpretive signage and wayfinding
        - more picnic tables and benches
        - install historical markers.
      2. Group 2
        - kayak/canoe landing area upriver
        - parking lot access
        - expand trail/river access
        - better wayfinding signage to include businesses/Historic District
        - more interpretive signage including the olive grove and stone building.
      3. Group 3
        - Native American interpretive signage
        - foot bridge over the river at the canal/old dam location to create a trail loop
        - revitalize rodeo amphitheater for wider range of events
        - better connection between trails/amenities
        - development opportunity south of Inwood Dr.
      4. Group 4
        - nature walk/tour of Folsom history/culture i.e., original dam, grist mill, flume, sawmill, log pond
        - connect the Jedediah Memorial Trail at the truss bridge
        - connect grinding rocks below the Powerhouse with the Johnny Cash Trail
    - b. **River District South Area Group Discussion** – 50 min
      - i. Group report back on priority Opportunities and key Constraints – 10 min
        1. Group 4
          - enhance nature for visitors/hikers and scenic views
          - trail enhancement (bathrooms, benches, interpretive signage at Willow Creek, eucalyptus grove, olive grove, citrus orchard)
          - contemplative nature viewing
          - explore connection of pump station to Natoma Ground Sluice Diggings
          - create nature overpass/elevated walkway/canopy walk out of the way of cyclists (engage nature without trampling)
        2. Group 3
          - improve directional signage (outlets, restaurants)
          - visitor center at Museum Flat
          - pedestrian trail under Hwy 50 to connect to Aerojet/Easton/Glenborough
          - improved access at Willow Creek/Folsom Blvd (to signalized intersection?)
          - hotel/conference center (Parkshore/Blue Ravine business area)
        3. Group 2
          - utilize Eucalyptus and olive groves/interpretive purpose
          - Willow Creek paddling concession and food truck location
          - signage to Dos Coyotes/Out of Bounds and other commercial areas
          - Museum Flat connection to Natoma Ground Sluice Diggings
          - Alder Creek pond area cleanup – can water access be developed?
          - improve access/identification for dead-end at Folsom Blvd (pedestrian access bridge)
          - improve access for children/elderly, accommodate e-vehicles



4. Group 1

- Improve trails/shoulders for safety
- additional picnic tables
- improve parking availability
- improve wayfinding, interpretive and directional signage or kiosks
- enhance Folsom Blvd gateway (more inviting- trees, cleanup Alder Creek)
- enhance overlook at China Wall for rowing viewing site + general views upstream and downstream
- Is FLSRA parking at the light rail station possible? (add wayfinding there)

**INFORMATIONAL ITEMS**

1. CAC Meeting Notes – September 27, 2023, included in agenda packet.
2. Cultural Resource Constraints Memo from Ascent Environmental, included in agenda packet.
3. Summary of State Parks Stakeholder Meeting, included in agenda packet.
4. Online Community Survey – Folsom Blvd Overcrossing, online comment period closes 10/31.

**NEXT MEETING DATE** – December 13, 2023

**ADJOURNMENT** – 8:00 p.m.

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**AGENDA ITEM NO. 1**  
**Type: Public Meeting**  
**Date: December 13, 2023**

## **River District Citizens Advisory Committee Staff Report**

52 Natoma Street, Folsom Community Center  
Folsom, CA 95630

**Project:** Folsom Blvd Bicycle & Pedestrian Overcrossing Feasibility Study  
**Request:** Recommendation: Preferred Overcrossing Alternative Alignment  
**Location:** Folsom Blvd: Between Blue Ravine Road and Glenn Drive  
**Staff Contact:** Brett Bollinger, Senior Trails Planner, 916-461-6632  
bbollinger@folsom.ca.us

### **Property Owner**

Name: City of Folsom  
Address: 50 Natoma Street,  
Folsom CA, 95630

### **Applicant**

City of Folsom  
50 Natoma Street,  
Folsom CA, 95630

**Recommendation:** Recommend to City Council approval of the North Alternative Alignment as the preferred alignment for the Folsom Boulevard Overcrossing Project.

**Project Summary:** The City of Folsom was awarded an American Rescue Plan Act (ARPA) grant to fund the Folsom Boulevard Bicycle and Pedestrian Overcrossing Feasibility Study. The purpose of the study is to identify the preferred alternative alignment location and potential conceptual architectural bridge design concepts. The goal of the feasibility study is to identify a safe, convenient, and cost-effective active transportation connection across Folsom Boulevard, linking transit, neighborhoods, businesses, and recreational attractions such as the Folsom Lake State Recreation Area. The project was identified as a “high priority” project in the City’s Active Transportation Plan, adopted in June 2022.

### **Table of Contents:**

Attachment 1 - Description/Analysis  
Attachment 2 - Background  
Attachment 3 - North Alternative Alignment  
Attachment 4 - South Alternative Alignment

River District Citizens Advisory Committee  
Folsom Blvd Bicycle & Pedestrian Overcrossing Feasibility Study  
December 13, 2023

Submitted,

A handwritten signature in blue ink, appearing to read "Robert Goss", with a long horizontal flourish extending to the right.

ROBERT GOSS  
Special Project Manager

## **ATTACHMENT 1 DESCRIPTION/ANALYSIS**

In June 2022, the City Council adopted the Active Transportation Plan (ATP). The Active Transportation Plan is the guiding document that will provide the planning, development and maintenance of existing and future bicycle and pedestrian facilities within the city. The ATP identified Folsom Boulevard Overcrossing as a “high priority” project.

An overcrossing would provide a safe, direct access for residents and businesses east of Folsom Boulevard to the American River Parkway Trail (ARPT), including the communities and neighborhoods that border the ARPT. The overcrossing will be a gateway to connect residents and visitors to a larger network of trails in the region. The overcrossing provides a connection between the regional, 15-mile Humbug Willow Creek (HBWC) Trail east of Folsom Boulevard and the 32-mile American River Parkway Trail (ARPT), providing users access to over 80 miles of trails in the region and connecting users to downtown Sacramento.

Between March and October 2023, the Parks and Recreation Department along with its consultant team conducted extensive outreach on a range of possible overcrossing routes and designs across Folsom Boulevard between the Glenn Station area Parkshore Drive. Based on public input, the range of routes and designs was narrowed down from four alternatives to two. One alternative is north of the Glenn light rail station and the second is south of the station area as shown in Attachments 3 and 4. Based on community input and project team expertise, staff believe the North Alternative Alignment provides the most benefits to pedestrians and bicyclists (refer to Attachment 3). In addition, the arch design for the proposed overcrossing was favored by the public over the tower theme (refer to the discussion in Attachment 2 – Background).

The North Alternative Alignment would directly connect to the SacRT Glenn Light Rail Station, State Parks Folsom Lake State Recreation Area, and future affordable housing (SacRT Park & Ride lot) linking transit, neighborhoods, businesses, and recreational attractions to Folsom’s trail system. Also, partnering with State Parks and the SacRT on an overcrossing that provides a safe, convenient bridge over Folsom Blvd. showcases a project that will be desirable and competitive when applying for a grant to the Caltrans Cycle 7 Active Transportation Program (ATP) for design/engineering and construction funding in June 2024.

Since this is not only a major trail connection, but also a major City development project that helps to implement the City’s Active Transportation Plan and 2035 General Plan, staff is seeking not only the Parks & Recreation Commission support for this preferred alternative, but also support from the Planning Commission.

## **POLICY CONSIDERATIONS**

The Folsom Boulevard Overcrossing Feasibility Study is consistent with and helps to implement several of the 2035 General Plan goals and policies as set forth below.

### **GOAL LU 1.1**

Retain and enhance Folsom's quality of life, unique identity, and sense of community while continuing to grow and change.

#### **POLICY LU 1.1.10 Network of Open Space**

Ensure designated open space is connected whenever feasible with the larger community and regional network of natural systems, recreational assets, and viewsheds.

#### **POLICY LU 1.1.16 Community Engagement in the Planning Process**

Engage the community in the planning process. Ensure the public has access to accurate and timely information and has convenient and meaningful ways to contribute ideas.

#### **POLICY LU 4.1.5 Connections Between Modes**

Encourage transit transfer points to be located at rapid transit stops to facilitate connections between transit modes. In addition, the City should require stations to be pedestrian and bicycle-friendly.

#### **POLICY PR 1.1.14 Parkways**

Encourage the development of parkways and greenbelts to connect the citywide parks system.

#### **POLICY PR 4.1.4 Connections**

Coordinate with Sacramento Regional Transit and the State Department of Parks and Recreation on establishing trail linkages from light rail stations in Folsom to Lake Natoma, Folsom Lake, and the American River Parkway.

In addition, as noted in this report, the feasibility study for the Folsom Boulevard Overcrossing helps implement the City's Active Transportation Plan, which was adopted in 2022.

## **ENVIRONMENTAL REVIEW**

The feasibility study for overcrossing routes is not a project under the California Environmental Quality Act (CEQA) Guidelines Section 15262 (Feasibility and Planning Studies). If construction of the Folsom Boulevard Overcrossing Project is approved and funded, environmental analysis in compliance with CEQA will be completed as part of that process.

## **FINANCIAL IMPACT**

The cost for the Folsom Boulevard Class I Overcrossing Feasibility Study is included in the Fiscal Year 2022-23 Capital Improvement Plan in the amount of \$200,000 in American Rescue Plan Act (ARPA) funds. The remaining \$17,657 would come out of the Transportation Development Act Fund (Fund 248). There is no fiscal action associated with the preferred alternative alignment recommendation.

## **NEXT STEPS**

November 15, 2023: Planning Commission Meeting  
December 5, 2023: Parks and Recreation Commission Meeting  
December 13, 2023: River District Master Plan Citizen Advisory Committee  
January 9, 2024: City Council Approval of Preferred Alternative Alignment  
January – June 2024: Prepare & Submit ATP Cycle 7 Grant Application

## **RECOMMENDATION/PLANNING COMMISSION ACTION**

Recommend to City Council approval of the North Alternative Alignment as the preferred alignment for the Folsom Boulevard Overcrossing Project.

## **ATTACHMENT 2**

### **BACKGROUND**

On August 26, 2022, the Parks and Recreation Department issued a Request for Proposal (RFP) for professional design services for the Folsom Boulevard Class I Overcrossing Feasibility Study. The RFP was distributed to qualified design consultants and advertised on CIPlist.com. The due date for the proposals was September 30, 2022, and three proposals were received. A full review of these proposals was performed by city staff from both the Public Works and Parks and Recreation departments. Dokken Engineering's proposal demonstrated the expertise, capacity, and ability to complete the scope of services which entails project management, public workshop facilitation, bridge design, and cost estimation.

On March 14, 2023, staff held an informational presentation at City Council to provide an overview and public outreach schedule for the Folsom Boulevard Pedestrian & Bicycle Overcrossing Feasibility Study.

On June 6, 2023, staff presented a project update to the Parks and Recreation Commission discussing the project study update and community feedback received regarding the overcrossing alternative alignments.

### **OUTREACH**

In December 2022 City Staff and the Dokken Engineering consultant team held a project kick-off meeting. In January 2023 staff and the consultant team held a meeting to walk the project site boundaries with staff from State Parks and Sacramento Regional Transit (SacRT) to receive initial feedback on potential alignment issues.

### **Stakeholder Focus Group Meeting #1**

On Tuesday, March 21, 2023, the City of Folsom held its first Stakeholder Focus Group Meeting to introduce four preliminary design alternatives for a bicycle and pedestrian overcrossing at Folsom Boulevard between Glenn Drive and Blue Ravine Road. This meeting was the initial stakeholder focus group meeting as part of the community outreach process for the Folsom Boulevard Bicycle and Pedestrian Overcrossing Feasibility Study.

Sixteen stakeholder representatives from the following organizations and agencies attended the meeting and shared their input:

<b>Stakeholder Groups</b>
50 Corridor Transportation Management Association (TMA)
Choose Folsom (Folsom Chamber of Commerce)
Friends of Folsom Parkways

Local Folsom Residents
Sacramento Regional Transit (SacRT)
CA State Parks
Twin Lakes Food Bank

The stakeholder focus group meeting objectives included:

- Engage key stakeholders who represent walking, biking, economic development, recreation, and underrepresented communities in the Folsom area.
- Introduce and discuss the overall study and design alternatives.
- Obtain input on preferred overcrossing alternatives and other key components of the study.

**Alternative 1** was the most preferred option among the attendees, noted as the top choice for nine stakeholder representatives. Participants liked the connectivity to existing transit and the State Park trails in the area. State Parks representatives who attended the meeting also discussed the possibility of collaborating with the City on a project along the **Alternative 1** alignment that cuts through the eucalyptus grove, which many other stakeholders expressed their support for. Participants also liked the proximity to Historic Folsom, the direct connection to the Parkshore Drive/Folsom Boulevard intersection, connection to the Park & Ride on the corner of Glenn Drive and Folsom Boulevard, and the minimal impacts to the surrounding areas. While most participants were supportive of **Alternative 1**, there were two who liked it the least for its lack of connection to the Humbug- Willow Creek Trail.





Participants liked **Alternative 2**, with three participants specifically listing it as their first or second choice. Those who expressed their favor towards this alternative liked the connections to existing trails and the light rail station, and also liked that there might be less conflict with SacRT access to Glenn Station, since the beginning of the overcrossing would be further down Folsom Boulevard than Alternative 1. Attendees had some concerns with **Alternative 2**, specifically citing the lack of pedestrian and bicycle access to the Parkshore Drive intersection, which Alternative 1 has a clear connection to. Other issues with **Alternative 2** include the aesthetics and cost issue of having a longer overcrossing structure that may block the eucalyptus grove.

Only two participants listed **Alternative 3** as their first choice, with the reasoning being that it connects to the Humbug-Willow Creek Trail and the business park. While **Alternative 3** does provide an indirect connection to the light rail station, many participants wrote that the overcrossing is too far from it and listed it as their least favored alternative. Other issues with **Alternative 3** include a lack of a direct connection to the American River, the diagonal alignment of the crossing over Folsom Boulevard, and that the circular structure near Willow Creek seems “forced”.

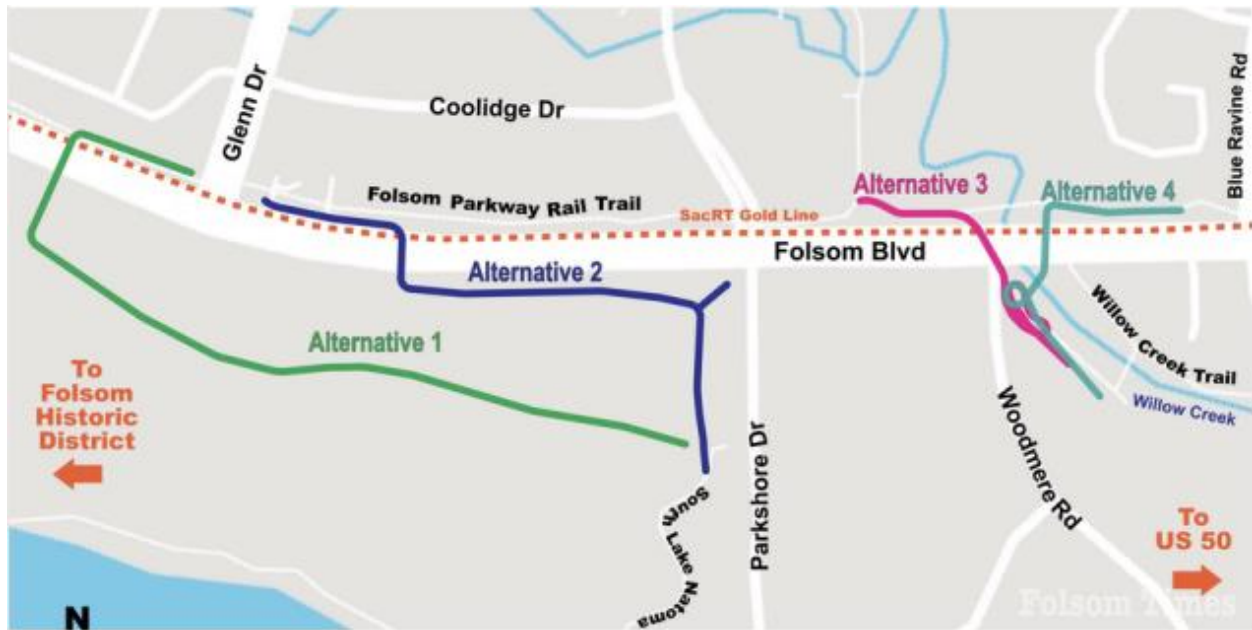
Participants seemed to like **Alternative 4** the least, mostly because of its lack of clear connection to existing trails and to the Glenn Drive light rail station, and the anticipated high cost. One attendee listed **Alternative 4** as their second choice due to the indirect connection to the Humbug-Willow Creek Trail.

### **Online Community Questionnaire #1**

In April and May 2023, the City of Folsom implemented a three-week long Online Community Questionnaire. Community members were encouraged to visit the project webpage on the City’s website, learn more about the four proposed alternatives for the overcrossing, and share their feedback and thoughts on those alternatives. As a result, the project team garnered 260 responses from the public.

When participants visited the project webpage, they were able to learn more about the study and about the four proposed overcrossing alternatives. Full-size aerial-view map exhibits demonstrating the layout of the alternative were presented for each option, as well as a short 1-2 sentence description of the alternative. Participants rated each alternative out of five stars in four categories:

- Traveling experience for pedestrians and cyclists
- Accessing local destinations (businesses, restaurants, shopping, transit stops etc.)
- Connections to existing trails and recreation opportunities
- Pedestrian and bicyclist safety



Participants also had the option to submit open-ended comments about their reasoning for rating certain alternatives. The questionnaire was available online from Monday, April 24 – Monday, May 14.

**Alternative 1:** The route for Alternative 1 was revised based on feedback received in March. In this version the route goes from Glenn Station across Folsom Blvd. through the center of the eucalyptus grove connecting to the South Lake Natoma Trail and ultimately the American River Parkway Trail. Respondents largely commented that they feel a crossing at this location is unnecessary (**19% of comments**), stating that bicyclists and pedestrians would likely choose to cross Folsom Boulevard at a signalized intersection like Parkshore Drive or Blue Ravine Road. Additionally, comments also showed concern for the potential impacts to the surrounding environment (**18% of comments**), specifically the mature trees, power lines, or the historic olive grove located near alternative 1. Another point of concern is the perceived lack of connections to existing trails (**15% of comments**). Though it does directly connect to Parkshore Spur Trail, respondents felt that the lack of direct connection to the Humbug Willow Creek Trail does not make alternative 1 an ideal option.

Other areas of concerns include the need to cross Glenn Drive to reach the bridge structure (**13% of comments**), perceived lack of safety due to the crossing at Glenn Drive or due to the overcrossing going through a more isolated area (9% of comments), or the perceived high cost of the project (**6% of comments**). Those that did like alternative 1, liked that the alignment would provide access to a more wooded area that could provide a pleasant traveler experience for those using the overcrossing (**6% of comments**).

**Alternative 2:** In general, respondents had a similar, if not slightly more positive perspective on alternative 2 than alternative 1 (**7% of comments**). Many comments wrote

that a new overcrossing is not necessary, speculating that pedestrians and bicyclists would prefer to cross Folsom Boulevard at either the Parkshore Drive or the Blue Ravine Road intersections (**15% of comments**). The same concerns from alternative 1 apply to alternative 2, including potential environmental impacts to the trees and power lines (**12% of comments**), a lack of connections to more significant recreation opportunities like the Humbug Willow Creek Trail and Lake Natoma (**8% of comments**), and poor connections to local businesses and restaurants (**7% of comments**).

Those that showed a preference for alternative 2 over alternative 1 liked the connection to the SacRT Light Rail station at Glenn Drive (**5% of comments**), the connections to the Parkshore Spur trails and other recreational destinations in the area (**8% of comments**), and the overall traveler experience (**9% of comments**).

**Alternative 3:** Respondents generally responded more positively to alternative 3 than alternatives 1 and 2, with around **11% of comments** listing it as their first or second favorite option. Many commenters cited the connection to the Humbug Willow Creek Trail (**25% of comments**) and other recreational opportunities and the connections to local businesses and restaurants (**9% of comments**) as the reason they prefer this option. Additionally, there was a perceived lower impact to the surrounding areas, including trees, power lines, and the nearby Willow Creek (9% of comments), although some people did show some concern for any impact to the environment at all (**7% of comments**).

Even the commenters who showed a preference for alternative 3 recognized that the loop in the ramp was an area for concern, as this could lower sight distance for overcrossing users, potentially leading to conflicts between pedestrians and cyclists (**17% of comments**). Those that pointed out this potential issue were adamant that alternative 3 is still one of their preferred choices and want to see if the loop in the ramp could be straightened out more.

**Alternative 4:** Respondents liked alternative 4, with around **14% of comments** listing it as their favorite option, and around 6% of comments saying they have similar feelings towards alternative 4, as they do to alternative 3. As with the previous alternatives, one of the main concerns people discussed in their comments is the potential impact of the overcrossing structure to the surrounding environment, especially to the Willow Creek and mature trees in the area (**11% of comments**). Many respondents liked alternative 4 because it provides good connections, both to the Humbug Willow Creek Trail and other recreational attractions (**9% of comments**), and to local destinations like the nearby businesses park and restaurants (**6% of comments**).

Although, some commenters preferred alternative 3, specifically because they felt it connects better to the Humbug Willow Creek Trail and Rail Trail (**7% of comments**). Additionally, commenters seemed to prefer the configuration for the looped overcrossing structure in alternative 4 compared to the larger loop in alternative 3 (**6% of comments**).

## **Stakeholder Focus Group Meeting #2**

On Tuesday, July 18, 2023, the City of Folsom held the final Stakeholder Focus Group Meeting to provide an update on the planning process for the overcrossing. This meeting is the second stakeholder focus group meeting as part of the community outreach process for the Folsom Boulevard Bicycle and Pedestrian Overcrossing Feasibility Study.

During the meeting, the study team shared a project and community outreach update, the refined design alternatives for the proposed overcrossing, and some preliminary architectural design concepts for the bridge structure. Attendees were asked to share their thoughts on the refined alternatives and also on the design concepts. Members from the study team were available to discuss the project and answer questions.

Fifteen stakeholder representatives from the following organizations and agencies attended the meeting and shared their input:

<b>Stakeholder Groups</b>
City of Folsom Planning Department
Folsom History
Friends of Folsom Parkways
Local Folsom Residents
Sacramento Regional Transit (SacRT)
CA State Parks
Twin Lakes Food Bank
Friends of Lakes Folsom & Natomas (FOLFAN)

The stakeholder focus group meeting objectives included:

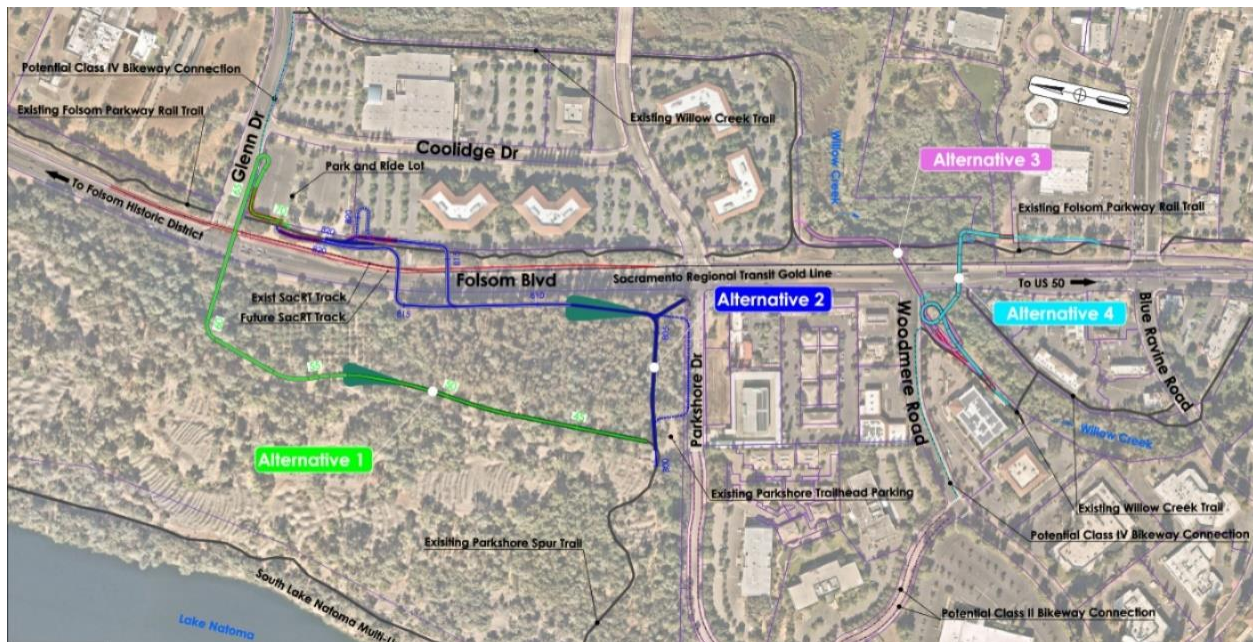
- Engage key stakeholders who represent walking, biking, economic development, recreation, and underrepresented communities in the Folsom area.
- Present refined design alternatives for the overcrossing alignment.
- Obtain input on architectural design concepts for the proposed bridge.

## **Alternatives**

A map showing an overview of all the alternatives relative to one another was shared with the attendees. The focus group meeting then transitioned into an open group discussion session around the alternatives. Below is a summary of the questions and comments submitted to the study team around the four alternatives.

Alternatives Discussion:

- Have you rated any of the alternatives based on criteria yet? How do the alternatives affect the train tracks?
  - We have developed criteria, and so far, none of them conflict with the railroad tracks.
- Since you are connecting a trail together from Folsom Lake to Humbug-Willow Creek Trail, and lots of clubs use Folsom Boulevard to make trail connections, have you contacted current users of the trail?
  - Yes, when conducting the online questionnaire, we posted signage near trail entrances. The City also passed out information about the questionnaire at the City Farmer's Market booth, and we notified various recreation and trail organizations and groups about the questionnaire, including Friends of Folsom Lake, FOLFAN, and biking groups.
- One of the alternatives showed a potential crossing on the north side of Glenn, is this still being considered?
  - No, we have eliminated that alternative. We have considered some variations but there would be too many potential conflicts with pedestrians crossing the road.
- Have you looked at any other alternatives further to the east?
  - Beyond alternative four, not really – due to the intensity of the development on the west side it is difficult to make a trail connection from there.
- Alternative 2 provides the best connection to the existing trail network. I would suggest these modifications:
  - Place the alignment for the approach along the existing trail, move the existing trail to the south, and traversing through the oaks in order to reduce oak removal.
  - Beware of placing the path under eucalyptus trees as they shed debris, lots of it. Maintenance will be an issue. For this reason, Alt 1 is not preferable.
  - Keep the Class IV connection along Glenn. The intersection of Glenn and Coolidge will need modifications in order to lower stress level, especially left turners on Glenn.
  - Bicycle and pedestrian travel is very sensitive to out of direction travel. Alt 1, and especially Alt 3 and 4 are not preferable for this reason.



## Aesthetics

Eric Birkhauser, Architectural Design lead with Perkins Eastman, presented some aesthetic concepts for the proposed bridge. Eric began by providing an overview of some of the precedent design elements considered that are reminiscent of Folsom's history: Regional species like trout, otters, and bald eagle; California Live Oaks; Folsom Dam; First Nation Kish Structures; Regional Railroad History; Barge Mining Structures

Eric also shared some other bridges that he drew inspiration from when developing the concepts: Folsom Rainbow Bridge; Folsom Historic Truss bridge; Orangevale Bridge; Lake Natoma Crossing; Johnny Cash Pedestrian Bridge; and the Robber's Ravine Bridge.

Finally, Eric presented the two bridge concepts that were developed for the Folsom Boulevard overcrossing, a Paired Tower bridge, and a Gateway Arch bridge.

## Aesthetics Discussion

- Is a 100-foot cable on the bridge necessary from a structural standpoint?
  - If the overall height is not aesthetically pleasing here, there are strategies we can use to help lower the cable height. We were trying to do a semi-circle shaped arc to give the bridge a visible profile from far away. We can look at a single tower or multiple towers on either end.
- The paired tower concept looks more human-scale, and the gateway arch concept looks more for cars.
- The gateway arch seems more appropriate to be going over a waterway where the paired tower feels more fun to travel down.
- I like the concepts but don't know how appropriate the design is for Folsom, it feels like a Bay area structure. Is there any way this can be scaled down more?

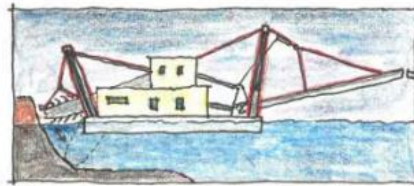


- Thanks for the feedback, the lower deck option is difficult for maintaining RT operations, which is why the bigger arch deck was presented.
- What design will provide the best experience and the best option for bicyclists and pedestrians vs. cars?
- It would be nice to have some structures that are not quite as large in scale. The paired tower option could work if there were more interpretive stations along the bridge that may help people to make the aesthetic connection of the towers to the barge mining structures.
- We can explore lower options if these are too tall or overpowering.
- I appreciate the comments about the heights of the structures. I also noticed the height of the arch in concept 2 and it reminds me of a Ferris wheel. The arches on bridges in Folsom are much flatter in structure.
- The arch structure is too high with no relationship to the gateway. How does the arch tie into it? Look at some of the other overcrossing like in Walnut Creek and they are much lower and more pedestrian in scale. If it's a gateway feature, we need to understand why it's there.
- I do like the uniqueness of the arch concept and if there is a way to tie it in closer to the nearby lakes and rivers and the history of Folsom. I asked about the 100-foot height because it sounds intimidating, but I think we should play with the height and include more interpretive signage.

### **Towers Concept**



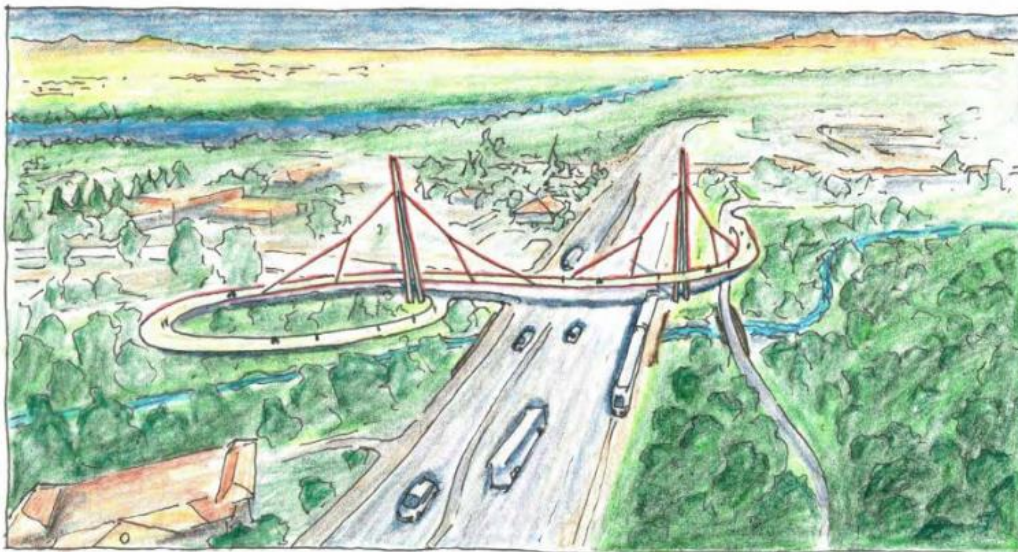
FOLSOM TURNTABLE  
WITH A-FRAME TOWERS



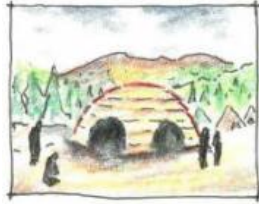
GOLD MINING BARGE, NOTE ANGLED  
TOWERS AND FORKED CABLE SUPPORTS



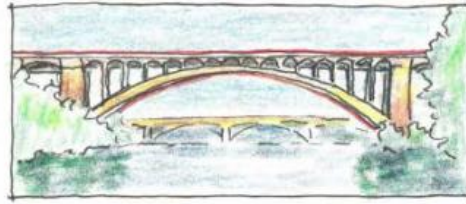
LIVE OAK, NOTE BRANCHING  
PATTERN



## **Arch Concept**



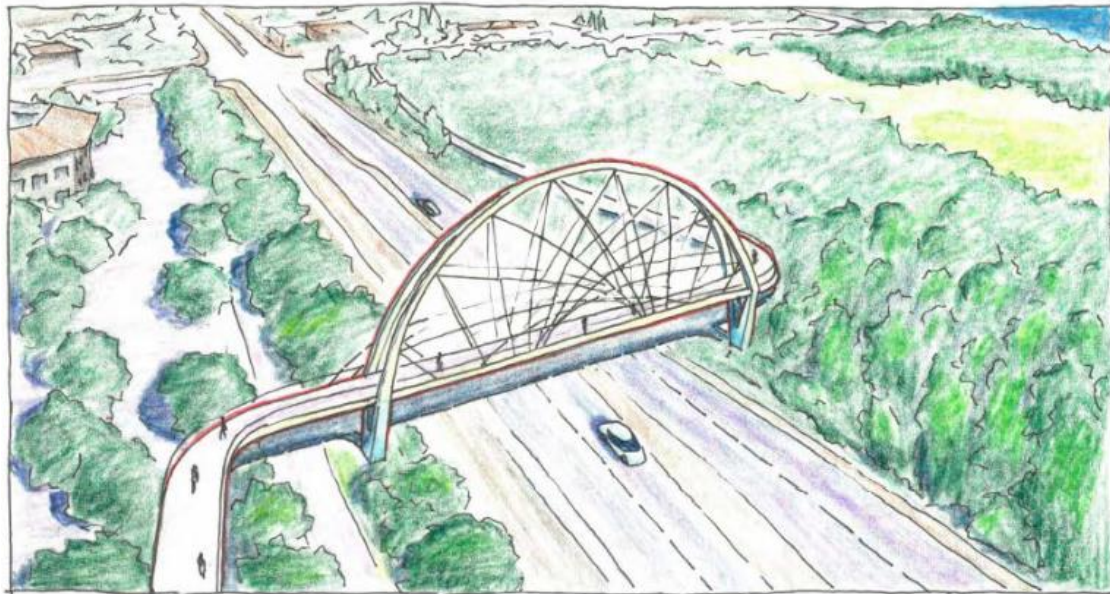
FIRST NATION DWELLING



RAINBOW BRIDGE, NOTE SEMICIRCULAR ARCH



LIVE OAK, NOTE SEMICIRCULAR CANOPY



## **Public Outreach and Online Community Questionnaire #2**

October 16 – 30 2023, the City of Folsom, as part of the Folsom Boulevard Bicycle and Pedestrian Overcrossing Feasibility Study, implemented a two-week long Online Community Questionnaire. Community members were encouraged to visit the project webpage on the City's website, learn more about the final two proposed alternative alignments (North Alternative and South Alternative) for the overcrossing and share their feedback and thoughts on their preferred alternative.

On Tuesday, October 19, 2023, the City of Folsom held an in-person Public Outreach Meeting, in addition to the Community Questionnaire, to get input on the preferred alternative alignment. During the meeting, the study team shared a project and community outreach update, the refined final two alternative alignments, and further developed architectural design concepts (Towers Concept & Arch Concept) for the bridge structure. Attendees were asked to share their thoughts on the refined alternatives and design concepts. Members from the study team were available to discuss the project and answer questions.

As a result of the public outreach meeting and questionnaire, the project team garnered over 240 responses from the public.

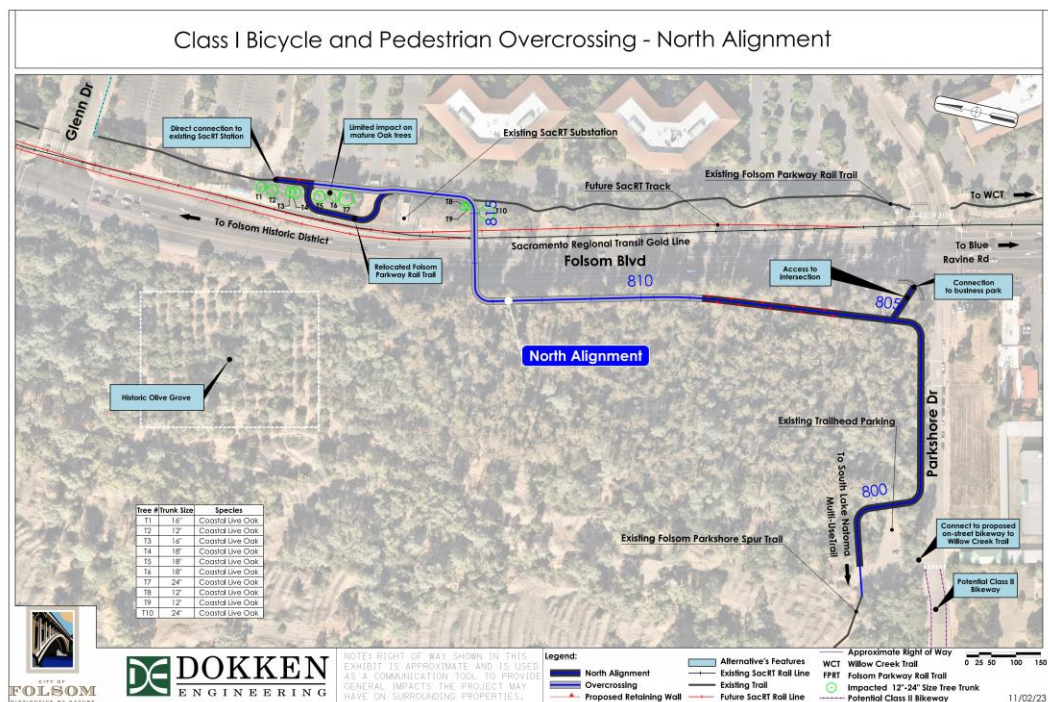


**North Alternative Alignment:** Overall, participants had a positive reaction to reviewing the northern alternative (**60% of comments**) with only **24% of comments** expressing serious concern or dislike. The remaining **16% of commenters** either felt neutral towards this alternative or had mixed feelings about this alternative.

The top priorities for people commenting on this alternative included access to other trails or recreational opportunities (**44% of comments**), the direct connection to the Sacramento Regional Transit (SacRT) Glenn Station (**31% of comments**), and the overall user experience and ease of access to the bridge (**24% of comments**). Most participants who mentioned access to other trails liked that the northern alternative will provide a strong connection to Lake Natoma, the American River Bikeway, and the Spur Trail (**31% of comments**), while around **8% disliked** that this alternative does not provide a strong connection to the Humbug-Willow Creek Trail.

While the majority of participants see the connection to the SacRT Light Rail at Glenn Station as a positive, around **5% of commenters** expressed that the connection to the station would not be beneficial or necessary. Overall, **19% of commenters** felt that this alternative is more direct, accessible for users, and would provide a nicer, more scenic route through State Parks land.

Participants also expressed that this alternative seemed to have a lower impact to the surrounding environment, both physically and visually, as the structure might blend better into the surrounding natural landscape. Some commenters expressed that if this alternative is selected, then additional bicycle/pedestrian improvements or infrastructure would be needed to help connect users to nearby destinations, like Class IV bicycle facilities, improved crosswalks, or directional signage.

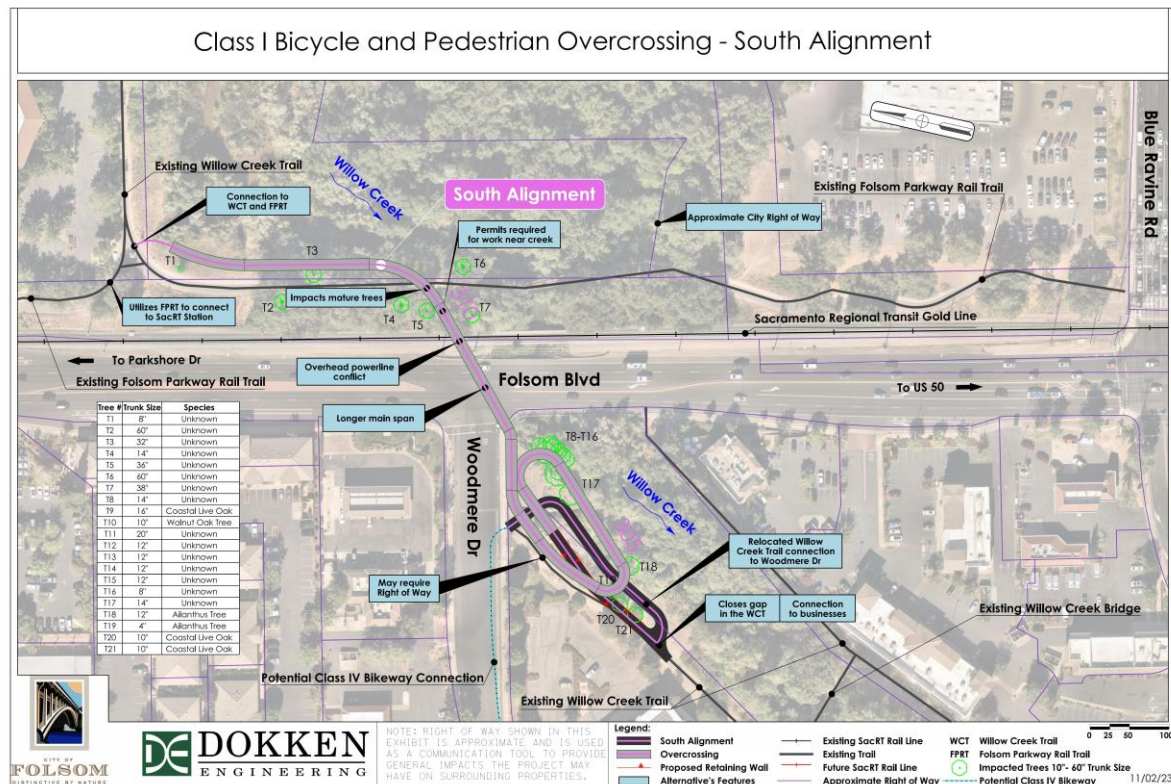


**South Alternative Alignment:** Participants generally had more negative responses to the southern alternative (**56% of comments**) with **34% of comments** saying they like or prefer this alternative, and **10% of comments** showing neutrality or mixed reactions.

Similarly, the top priorities for people commenting on this alternative included access to trails or other recreational opportunities (**34% of comments**), user experience and ease of accessing the structure (**28% of comments**), and access to nearby businesses and commercial areas (**24% of comments**). Around 13% of commenters who mentioned access to other trails expressed disappointment that this alternative did not provide a strong connection to Lake Natoma and the Spur Trail, though many (**21% of comments**) liked that this alternative closes the gap in the Humbug-Willow Creek Trail system.

Additionally, **18% of commenters** felt that this alternative would provide a stronger connection to the businesses and commercial areas that exist further south along Folsom Boulevard. Many participants (**22% of comments**) had a strong dislike of the looped ramp on the west side of Folsom Boulevard, and expressed concern that the tight turns would lead to conflicts between pedestrians and cyclists.

Another primary concern (**12% of comments**) was the perceived higher cost of the southern alternative and the larger looped structure. Though many commenters thought that the looped ramp would look visually busy or cluttered, many participants liked that this alternative would impact less trees.





## **Towers Concept**

Overall, respondents were split over their feelings towards the Paired Towers concept, with **48% of commenters** reacting positively, **36% having a negative reaction** to it, and around **16% either with no opinion or mixed feelings**.

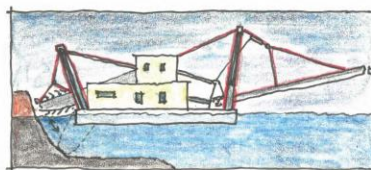
Community members that like the Paired Towers concept felt that it was a more modern and unique design that would stand out among the other arch-like bridges in Folsom. Commenters also liked the more open and airy feeling of this concept and felt that the s-curve design would complement Folsom's natural geography. Respondents also appreciated that the forms of this bridge reference the lesser-known aspect of Folsom's mining history in a creative way.

Those that did not like the Paired Tower concept felt that this bridge does not fit in with the look and feel of other architecture and design in Folsom. Some also felt that the towers were overly "dramatic" and might stand out too much among Folsom's natural skyline.

## **Towers Concept**



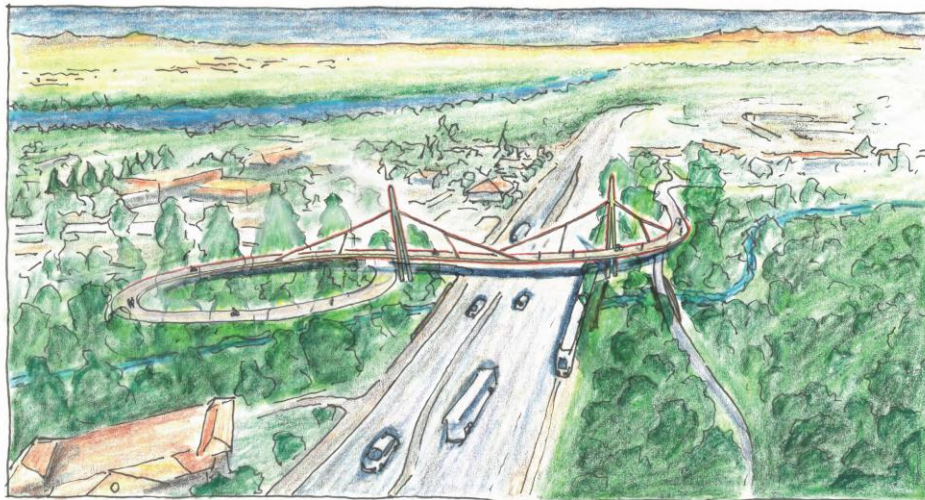
FOLSOM TURNTABLE  
WITH A-FRAME TOWERS



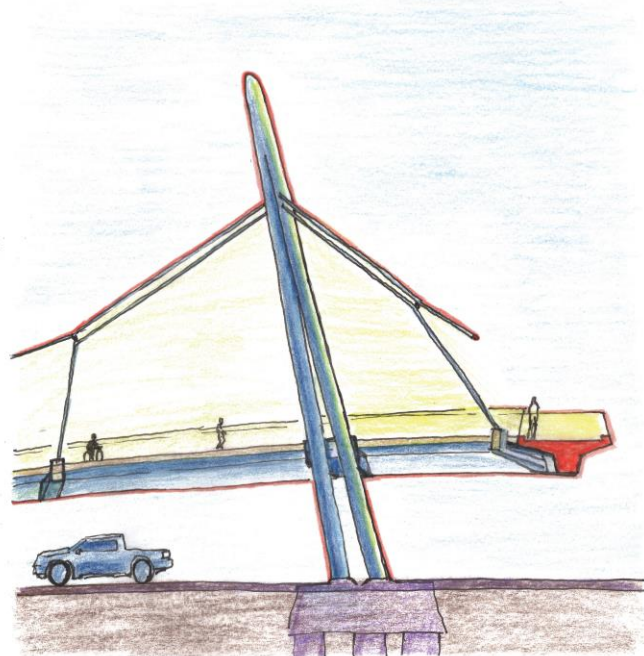
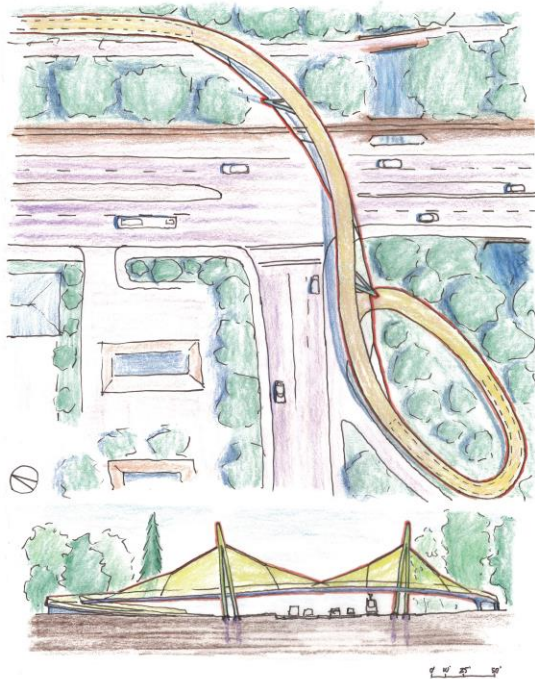
GOLD MINING BARGE, NOTE ANGLED  
TOWERS AND FORKED CABLE SUPPORTS



LIVE OAK, NOTE BRANCHING  
PATTERN



## Towers Concept



Folsom Boulevard Bicycle and Pedestrian Overcrossing Feasibility Study

DONALD MACDONALD  
BRIDGE ARCHITECTS LLP

DE DOKKEN  
ENGINEERING



## Arch Concept

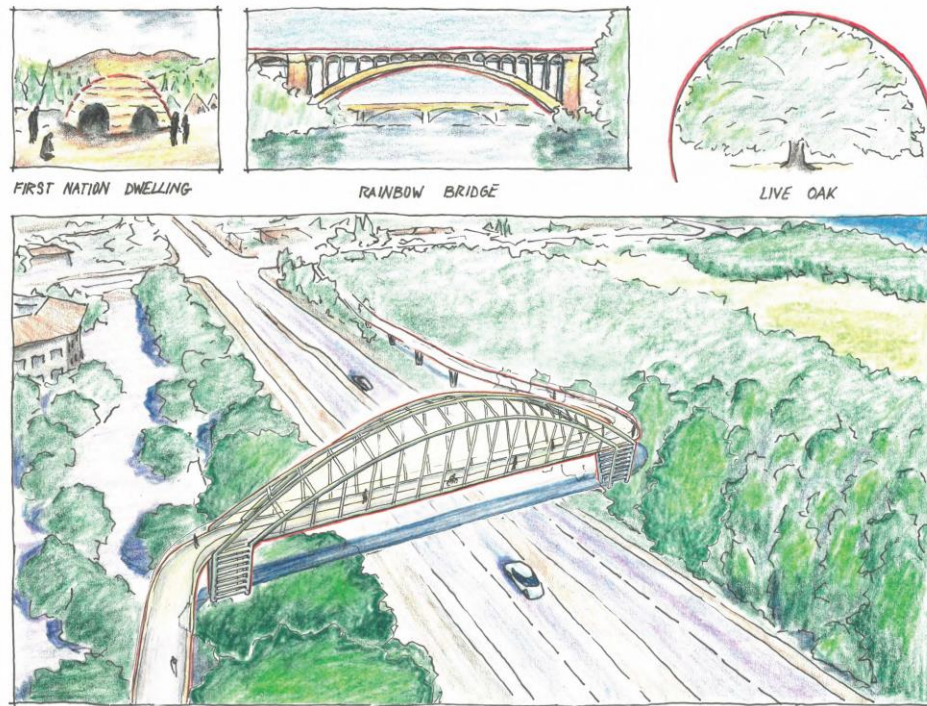
People generally reacted more positively to the Gateway Arch concept (**56% of comments**), with **31% of comments** expressing negative feelings, and **13% of comments** showing neutral or mixed feelings about it.

Those that liked the Gateway Arch felt that this concept would fit in well among Folsom's "family of arches" and is a safer, more crowd-pleasing design. Respondents also liked how the curved shape of the bridge references multiple aspects of Folsom's history like the First Nation dwellings, the Oak tree canopy, and the Rainbow bridge. People also felt that the gentle slope of the arch shape might blend in better with the surrounding natural landscape and State Parks' land.

Respondents who disliked or felt apathetic about this concept wrote that this felt too safe of a design option, and that this bridge would not stand out among the other arch bridges in Folsom. Some commenters also expressed that while the intricate design of the arch is aesthetically pleasing, they want to see a bolder, more unique design choice that will stand out more.



## Arch Concept



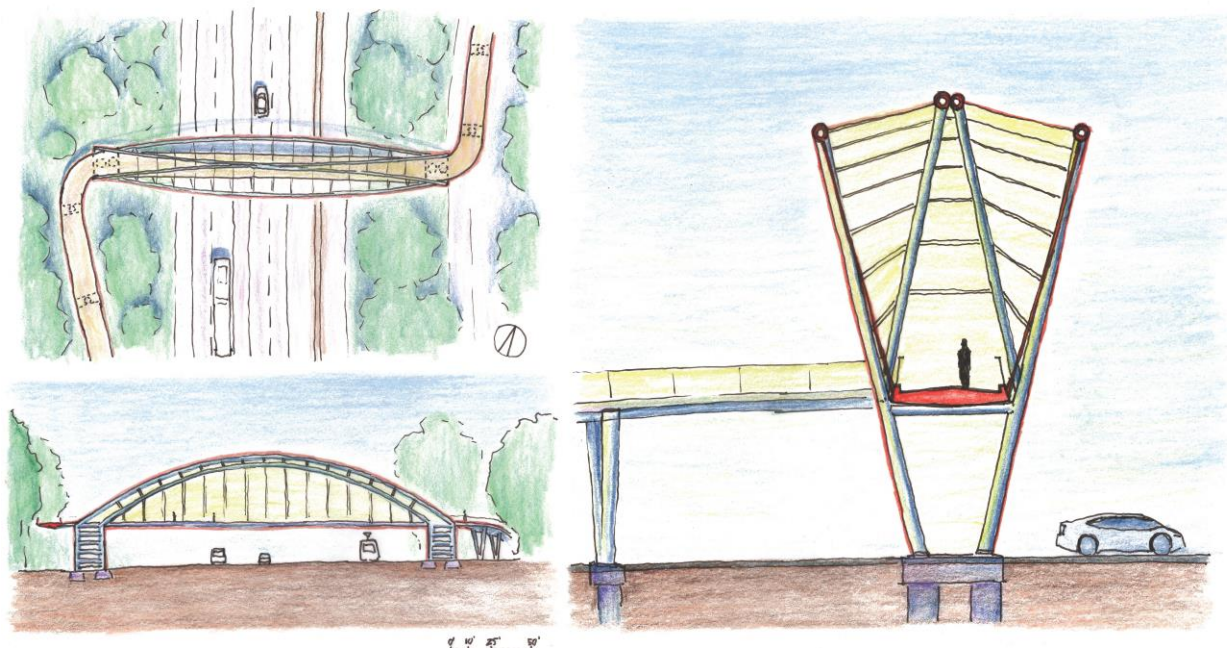
Folsom Boulevard Bicycle and Pedestrian Overcrossing Feasibility Study

DONALD MACDONALD  
BRIDGE ARCHITECTS LLP

DE DOKKEN  
ENGINEERING



## Arch Concept



Folsom Boulevard Bicycle and Pedestrian Overcrossing Feasibility Study

DONALD MACDONALD  
BRIDGE ARCHITECTS LLP

DE DOKKEN  
ENGINEERING



River District Citizens Advisory Committee  
Folsom Blvd Bicycle & Pedestrian Overcrossing Feasibility Study  
December 13, 2023

**ATTACHMENT 3**  
**NORTH ALTERNATIVE ALIGNMENT**

River District Citizens Advisory Committee  
Folsom Blvd Bicycle & Pedestrian Overcrossing Feasibility Study  
December 13, 2023

**ATTACHMENT 4**  
**SOUTH ALTERNATIVE ALIGNMENT**

# Memo



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**Date:** December 6, 2023  
**To:** Lief McKay and Debbie Jewell, RRM Design Group  
**From:** Lily Bostrom and Adam Lewandowski, Ascent Environmental  
**Subject:** Folsom City River District Opportunity and Constraints

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## 1.1 PURPOSE OF THIS MEMO

This memorandum describes the potential environmental opportunities and constraints related to development and redevelopment of public lands in the Folsom City River District. Identified environmental opportunities and constraints in the River District are mapped and summarized below. For mapping purposes, the River District was divided into three segments, the Northern Reach, the Central Reach, and the Southern Reach.

## 1.2 ENVIRONMENTAL OPPORTUNITIES AND CONSTRAINTS

A summary of the level of environmental constraints for public parcels in the Folsom City River District and are shown on Exhibits 1a through 1c below. Environmental considerations that were used to develop the constraints ratings include 100-year flood zones, 500-year flood zones (including the 200-year flood zone), areas with very high landslide susceptibility, areas with high soil shrink-swell potential, and sensitive habitats (i.e., wetlands, protected wildlife habitat and plants/vegetation). The relative level of constraints are organized into four categories: redevelopment unlikely, least constrained, moderately constrained, and highly constrained. Each of these are described in more detail in Table 1. Constraint categories were applied to City-owned property and state/federal-owned properties within the River District, as shown on Exhibits 1a through 1c. City-owned property could be developed with new buildings and structures, while development on state or federal land would more likely be limited to trails, parks, and open space. Therefore, the constraints ratings are slightly more conservative on City-owned land than on state/federal land.

As shown on Exhibits 1a through 1c, the least constrained areas include the area west side of Lake Natoma north of the Rainbow Bridge, parcels in the Historic District and near/within the City's corporation yard, the area between Glenn Light Rail Station and Lake Natoma, and the area immediately west of Iron Point Light Rail Station. The most highly constrained portions of the River District generally include the areas immediately adjacent to Lake Natoma (due primarily to high landslide susceptibility), and other areas with high landslide susceptibility (e.g., the northwest portion of Black Miners Bar) and/or areas with wetlands and other waters present (e.g., the wetland near Willow Creek in the Southern Reach). Refer to Table 1 below for a summary of each of the environmental constraints ratings and associated appropriate development and uses for each.



**Table 1 Environmental Opportunities and Constraints Ratings**

Environmental Constraints Rating	Summary of Rating	Appropriate Uses / Development
Redevelopment Unlikely (white)	These areas are already developed with established land uses that are unlikely to change (e.g., Folsom City Zoo, cemetery, developed areas of Black Miners Bar)	N/A (continuation of current uses)
Least Constrained (green)	No environmental constraints identified on city-owned property Zero to one minor constraint identified on state/federal property	Structures/buildings, trails, recreational amenities
Moderately Constrained (yellow)	One or two minor constraints identified on city-owned property Two minor constraints identified on state/federal property (no wetlands or high landslide susceptibility areas present)	Trails, recreational amenities; structures/buildings possible but may require specialized design or mitigation
Highly Constrained (orange)	These areas have wetlands present, high landslide susceptibility, or three or more overlapping environmental constraints	Trails, recreational amenities; structures/buildings would only be possible with specialized design and/or mitigation

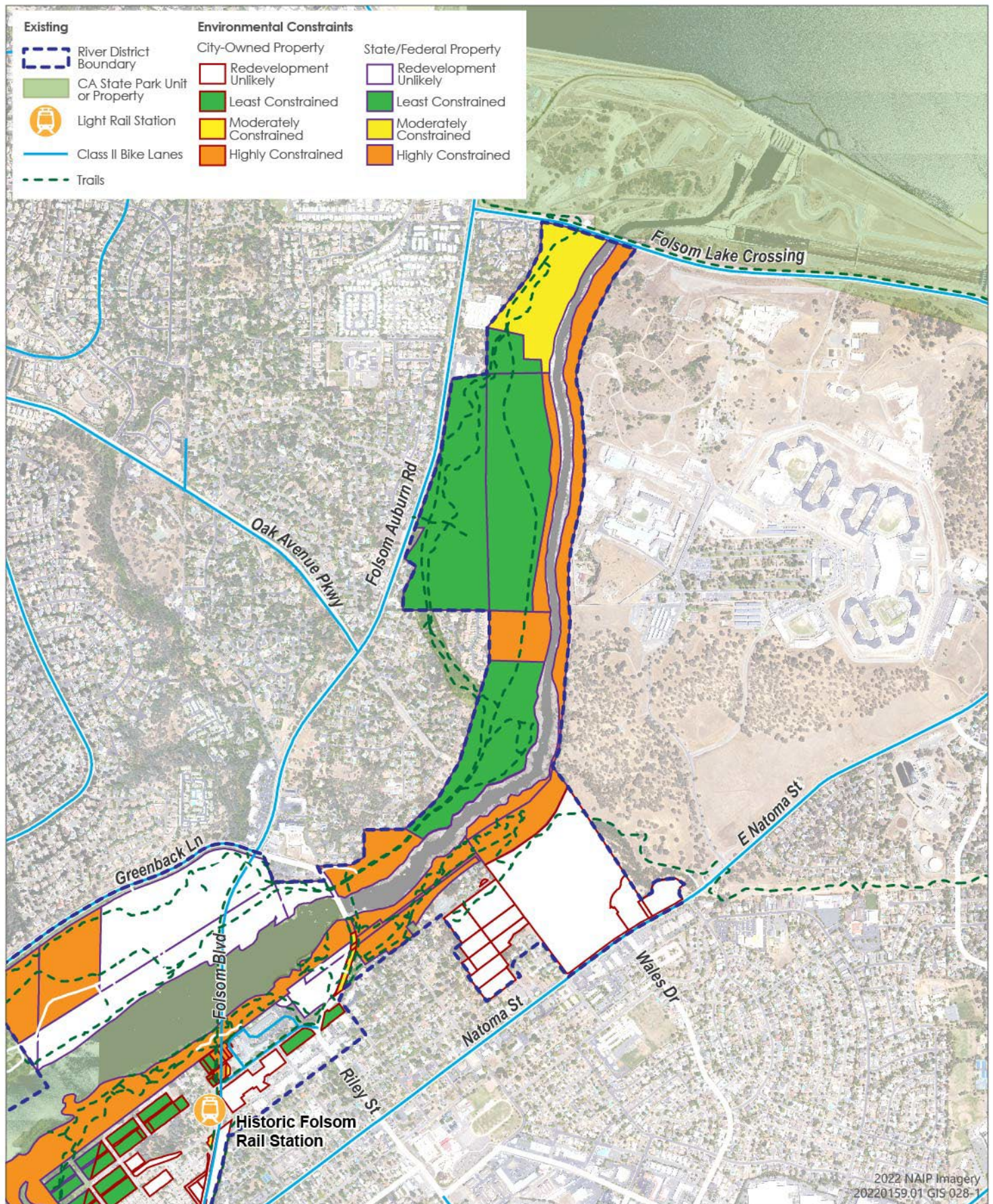
Note: a stricter system for rating city-owned land was used because it is assumed that proposed development could involve new structures; environmental constraints affect the ability to build new structures more than they do for new and/or improved recreational amenities such as trails or benches.

As shown in Table 1, the most flexibility with regard to redevelopment in the River District occurs in the areas that are least constrained, shown in green in Exhibits 1a through 1c. From an environmental perspective, any type of development (e.g., trails, buildings) could be appropriate in these areas. As constraints increase, the ability to develop new buildings and structures decreases. The ‘Highly Constrained’ areas shown in orange contain wetlands, high landslide susceptibility, or three or more other overlapping environmental constraints. While developing a building or structure may be possible in these areas, it would be more difficult due to the need to mitigate for the presence of several environmental resources and/or hazards.

As a part of the opportunities and constraints analysis, Ascent reviewed a variety of environmental constraint types, including potential hazards (geologic, flooding, and hazardous materials), natural and biological resources, sensitive receptors, scenic resources and scenic views, cultural resources, as well as opportunities for enhanced recreation. Ascent created maps depicting each of these opportunities and constraints (see Appendix A). Each category of opportunities or constraints are discussed in detail below. Cultural resource investigations determined that the entire River District has the potential to contain significant cultural resources. All development would require site-specific cultural investigations prior to construction. Due to the need for site-specific cultural investigations and the confidentiality of site-specific cultural resource information, information on known resources is not included in this memo.



# Exhibit 1a | Environmental Opportunities and Constraints Map: Northern Reach



CITY OF FOLSOM

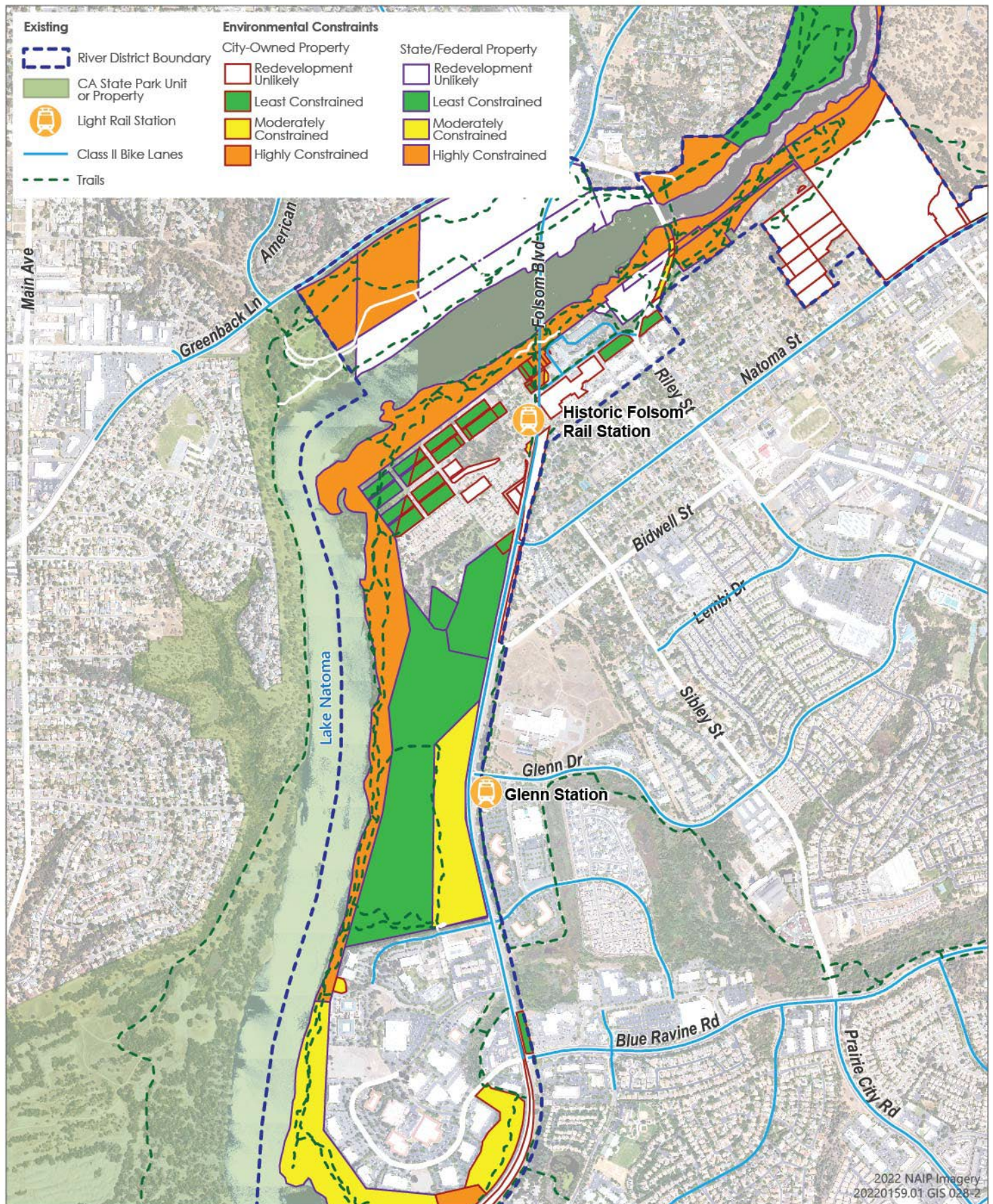
RIVER DISTRICT MASTER PLAN

0 0.125 0.25 Miles





## Exhibit 1b | Environmental Opportunities and Constraints Map: Central Reach



CITY OF FOLSOM

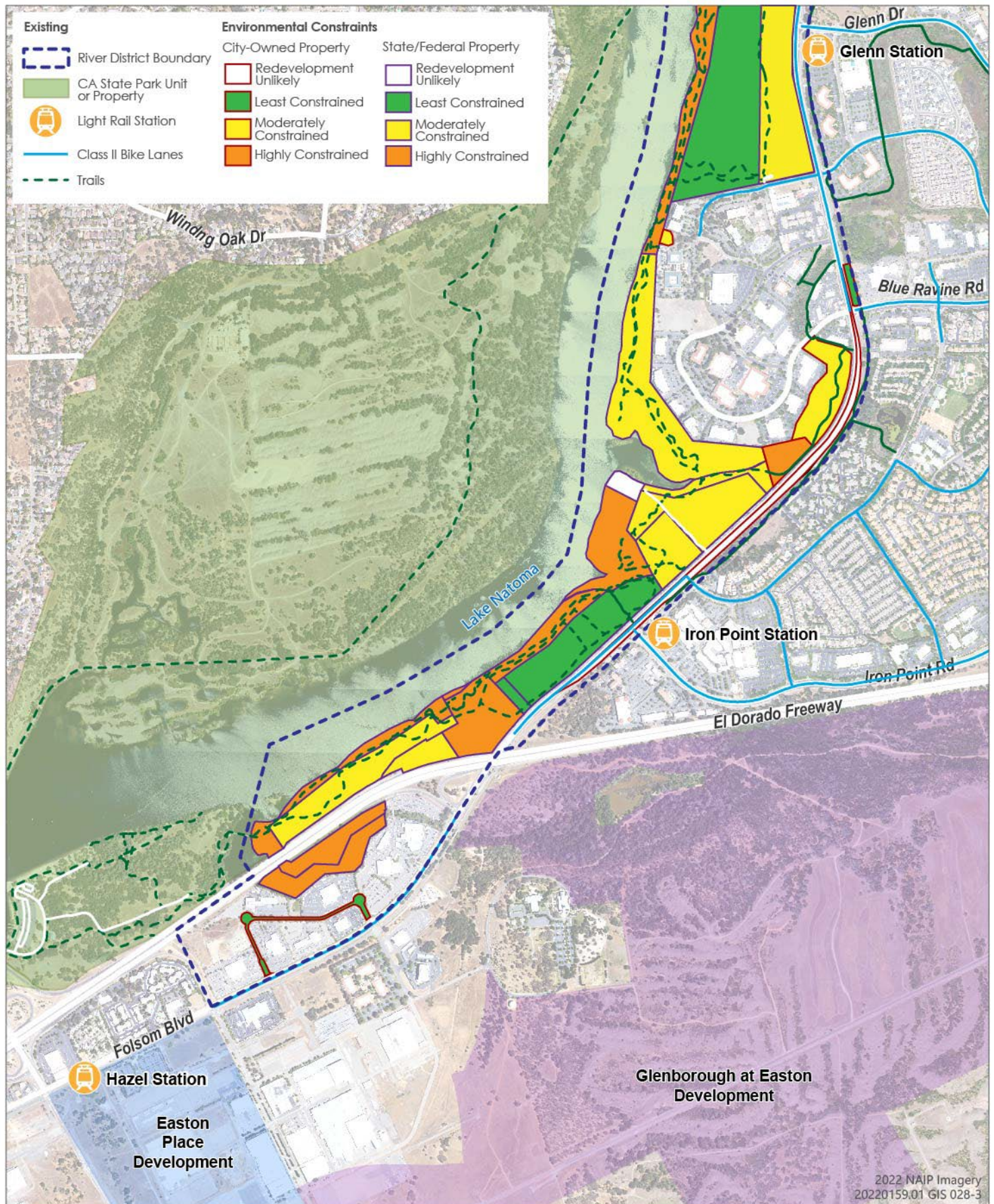
RIVER DISTRICT MASTER PLAN

0 0.125 0.25 Miles





# Exhibit 1c | Environmental Opportunities and Constraints Map: Southern Reach





## Potential Hazards

Potential hazards to development in the River District include geologic hazards, flood hazards, and known hazardous materials sites. Ascent identified areas with very high soil shrink-swell potential (i.e., unstable soils), high landslide susceptibility, 100-year flood zones, 500-year flood zones (including the 200-year flood zone), and known hazardous materials sites from the State Water Resources Control Board's GeoTracker and the Department of Toxic Substances Control's EnviroStor websites. While 10 known hazardous materials sites were identified within or immediately adjacent to the River District, none of the sites were active or had any current land use or development restrictions; therefore, they are not shown on the map or discussed further.

As shown on the hazards maps in Appendix A, there are areas with very high shrink-swell potential, high landslide susceptibility, 100-year flood zones, and 500-year flood zones (including the 200-year flood zone) throughout the River District. Areas with very high shrink-swell potential and/or high landslide susceptibility would be more difficult to develop due to the need to incorporate building design standards that consider these potential soil hazards. Specifically, development would need to adhere to the California Building Standards Code (CBSC, California Code of Regulations [CCR] Title 24). The CBSC includes regulations for seismic safety, excavation of foundations and retaining walls, and grading activities. Particularly in high landslide areas, certain types of development are not appropriate, such as new residences, schools, or other areas where people may congregate. Development in floodplains is possible and would need to meet the requirements of the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program (NFIP), the flood provisions in the CBSC, and local floodplain management regulations.

## Sensitive Receptors, Scenic Resources, and Natural Resources

Ascent reviewed and mapped sensitive receptors to air quality emissions and noise within 0.25-mile of the River District, and city-designated scenic resources and scenic views, sensitive natural communities and habitats including wetlands, and documented special-status wildlife occurrences within the River District (and immediately adjacent in the case of the known wildlife occurrences). Given the complexity of regulations around natural and biological resources, a separate Biological Resources Constraints Memo has been prepared and is attached as Appendix B. Detailed descriptions of the sensitive natural communities and habitats including wetlands, and documented special-status wildlife occurrences are included in Appendix B, along with detailed mapping and a discussion of development constraints and regulatory requirements. Therefore, detailed discussion of natural and biological resources is not included in this memo.

As shown on the maps in Appendix A, there are several sensitive receptors (e.g., residences, schools) located immediately adjacent to the River District in the Northern Reach and Central Reach. While the presence of sensitive receptors would not prohibit development, potential impacts to sensitive receptors from air quality and noise associated with development would need to be considered during review under the California Environmental Quality Act (CEQA). In cases where noise and air quality emissions thresholds would be exceeded, mitigation measures to reduce impacts would need to be implemented.

Scenic resources and scenic views are present throughout the Folsom River District. Scenic views are areas that have been identified in adopted plans and from which a scenic vista is available, such as from Greenback Lane above Black Miners Bar. These include views from city-designated scenic corridors. Scenic resources are both landscape and built features of interest, some of which provide panoramic views. Examples of scenic resources in the River District include the Truss Bridge and the Rainbow Bridge. Although the presence of scenic resources, corridors, and views likely would not preclude development, development that is visible from designated scenic views and corridors would need to consider to what degree it may alter the existing scenic view and avoid substantially degrading the view. In addition, development in and around scenic resources would need to avoid damaging the scenic resources and qualities that qualify them as scenic. These aspects of development would need to be considered during CEQA review.

## Recreational Opportunities

There are multiple existing trails and recreation areas within and surrounding the Folsom River District, which are shown on the Opportunities Map in Appendix A. Given this, there are several opportunities in the River District to improve trail connections, enhance existing trails, and make other improvements to existing recreational areas. Recreational opportunities on City-owned lands include creating a continuous trail connection between Powerhouse State Historic Park and the existing trails to the east and west, improving connections from existing light rail stations to the River District and existing trails, and providing additional trail connections into open space areas surrounding existing development. Textboxes with identifying City recreational opportunities and California State Parks recreation improvement proposals are included on the Recreational Opportunities maps in Appendix A. There are also opportunities for restoration within the River District, which is described in detail the Biological Resources Constraints Memo in Appendix B.

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DTSC. See California Department of Toxic Substances Control.

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## Sensitive Receptors

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## Graphic/GIS Sources

- Shrink-swell potential: Data downloaded from NRCS in 2022.
- Landslide susceptibility: Data downloaded from the Department of Conservation and the California Geological Survey in 2020. Data is based on Wills C.J., Perez, F., Gutierrez, C., 2011, Susceptibility to deep-seated landslides in California: California Geological Survey, Map Sheet 58.
- 100-year and 500-year floodplains: Data downloaded from Federal Emergency Management Agency in 2023.
- Opportunities (e.g., parks, trails, bike lanes):
  - Data received from CA State Parks in 2023
  - Data received from the City of Folsom in 2023

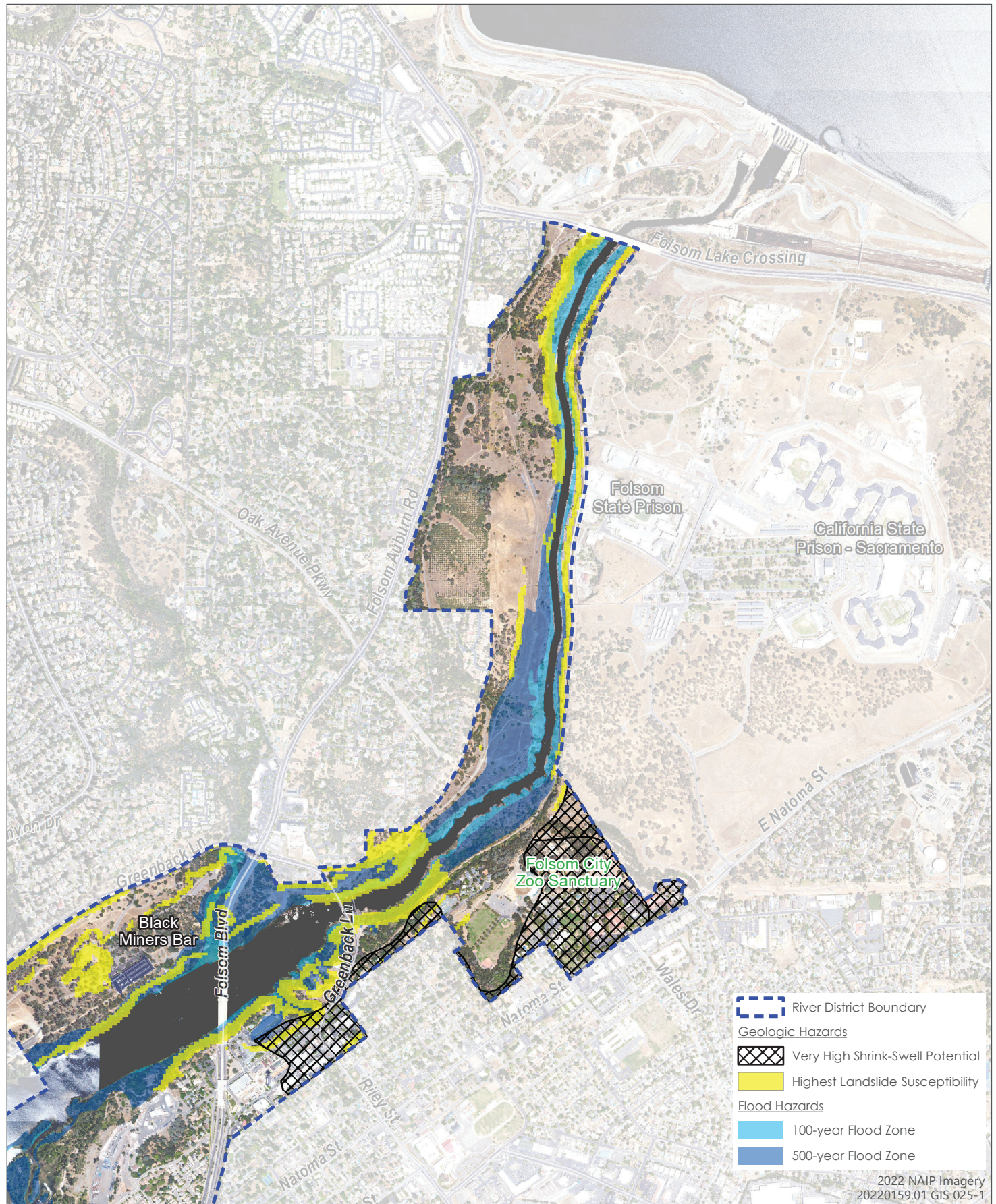
# **Appendix A**

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Environmental Opportunities and  
Constraints Backup Maps

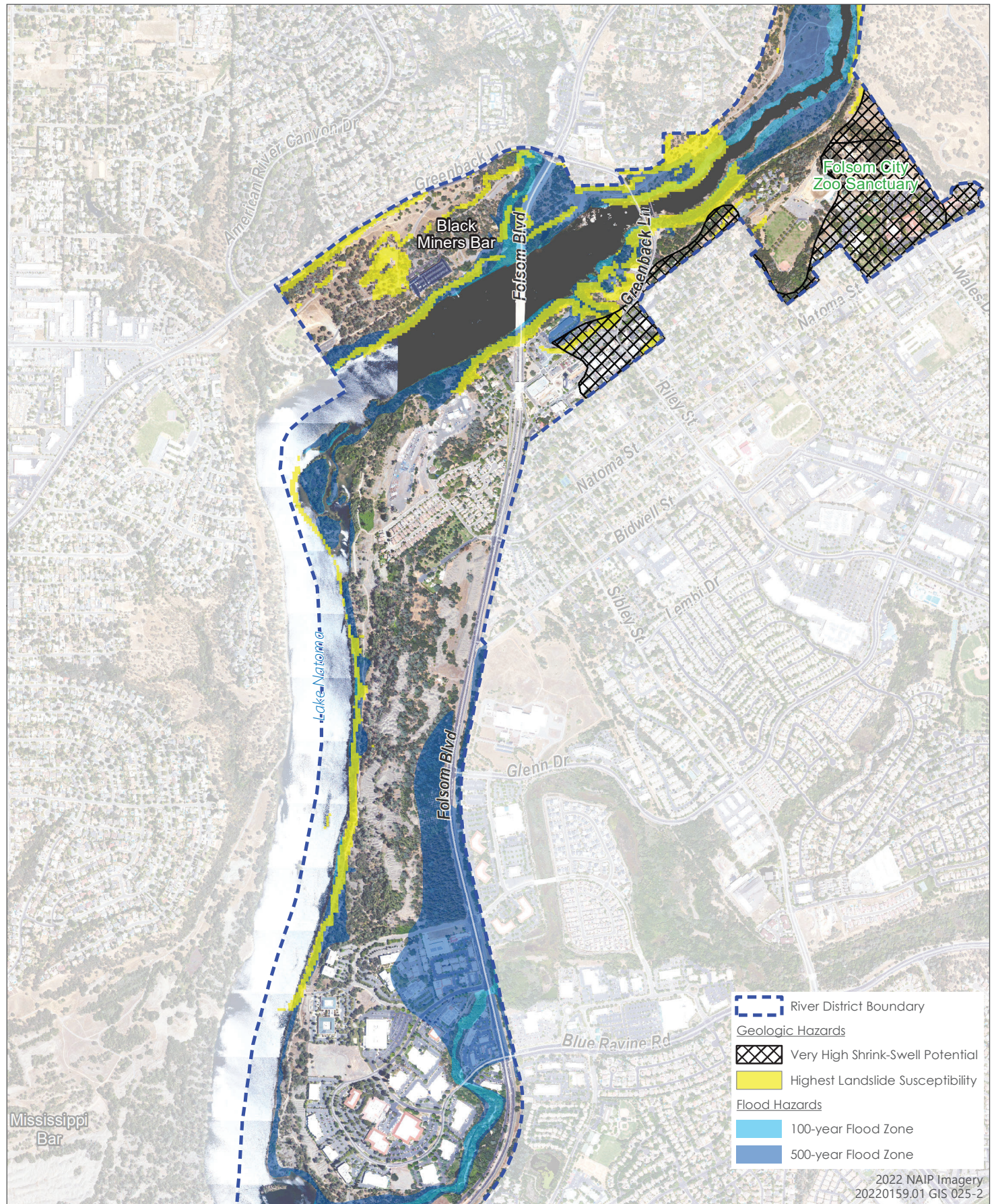


# Hazards Map: Northern Reach



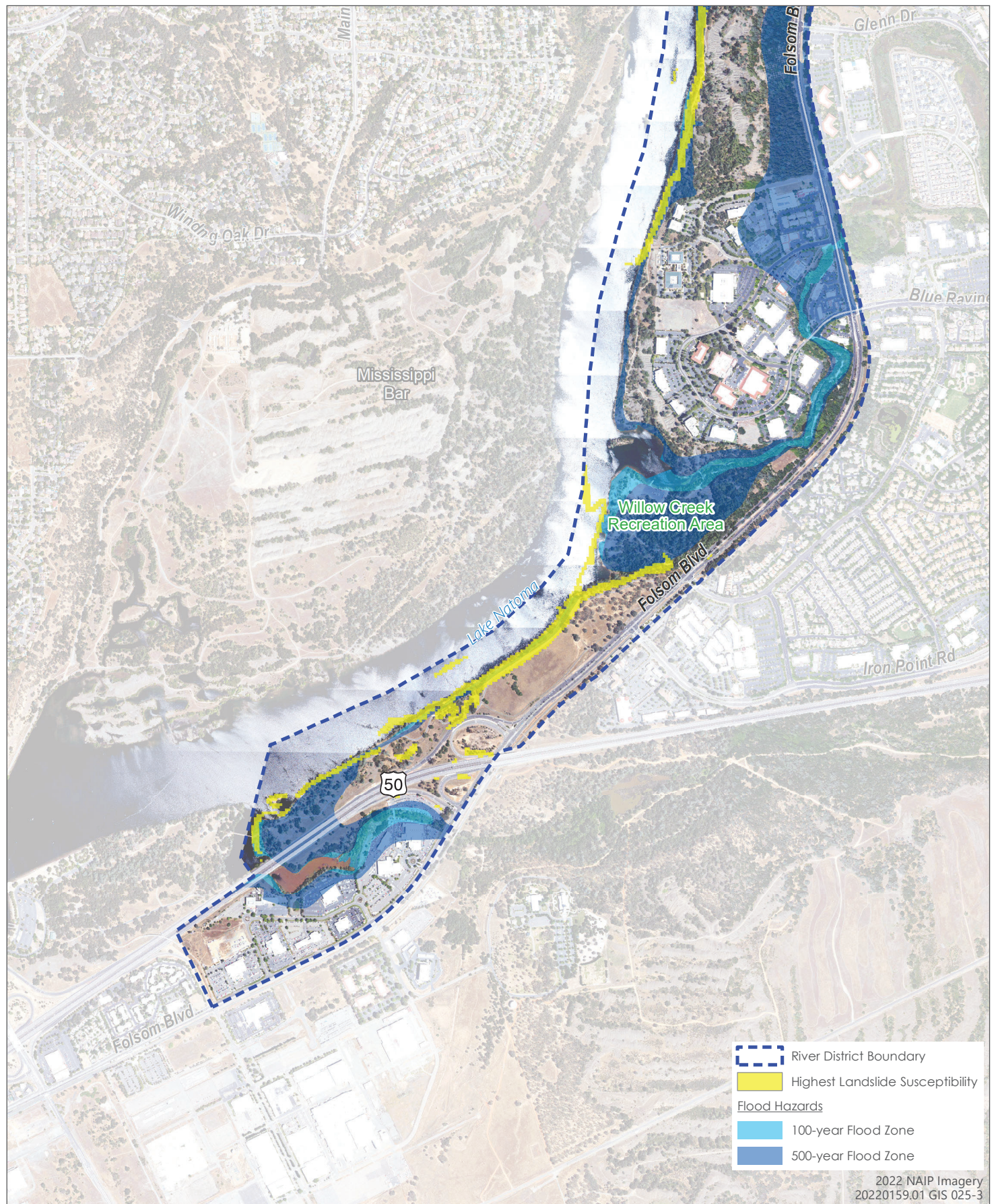


# Hazards Map: Central Reach





# Hazards Map: Southern Reach





**Legend:**

- River District Boundary:** Dashed blue line
- 0.25-mile Buffer:** Solid black line
- City Designated Scenic Resources and Views:**
  - Scenic View: Black icon with radiating lines
  - Scenic Resource: Yellow star icon
  - Scenic Corridor: Red line
- Noise and Air Quality Sensitive Land Uses:**
  - School: Black icon of a schoolhouse
  - Hospital: Blue icon of an 'H'
  - Prison: Red star icon
  - Residences: Tan color swatch
- Sensitive Natural Communities and Habitats:**
  - Arroyo Willow Alliance: Brown color swatch
  - Blue Oak Alliance: Orange color swatch
  - California Annual and Perennial Grassland Macrogroup: Green color swatch
  - Fremont Cottonwood Alliance: Red color swatch
  - Freshwater Forested/Shrub Wetland: Yellow-green color swatch
  - Himalayan Blackberry - Rattlebox - Edible Fig Riparian Scrub Semi-Natural Alliance: Purple color swatch
  - Interior Live Oak Alliance: Light green color swatch
  - Lake Natoma: Blue color swatch
  - Mediterranean California Naturalized Annual and Perennial Grassland Group: Dark purple color swatch
  - Riverine: Dark blue color swatch
  - Valley Oak Alliance: Green color swatch
  - White Alder Alliance: Pink color swatch
- Other Habitats for Special-Status Species:**
  - Agriculture: Yellow color swatch

**Map Labels:**

- Carl Sundahl Elementary School
- Folsom State Prison
- California State Prison - Sacramento
- Folsom City Zoo Sanctuary
- Action Day Learning Center
- Folsom Care Center
- Wild Roots Learning Center
- Theodore Judah Elementary School
- Sutter Middle School
- Folsom Montessori School
- Folsom Powerhouse State Historic Park
- Rainbow Bridge
- Truss Bridge
- Lake Natoma Crossing
- Black Miners Bar
- Vibra Hospital of Sacramento
- Folsom Auburn Rd
- Greenback Ln
- Folsom Blvd
- E. Natoma St

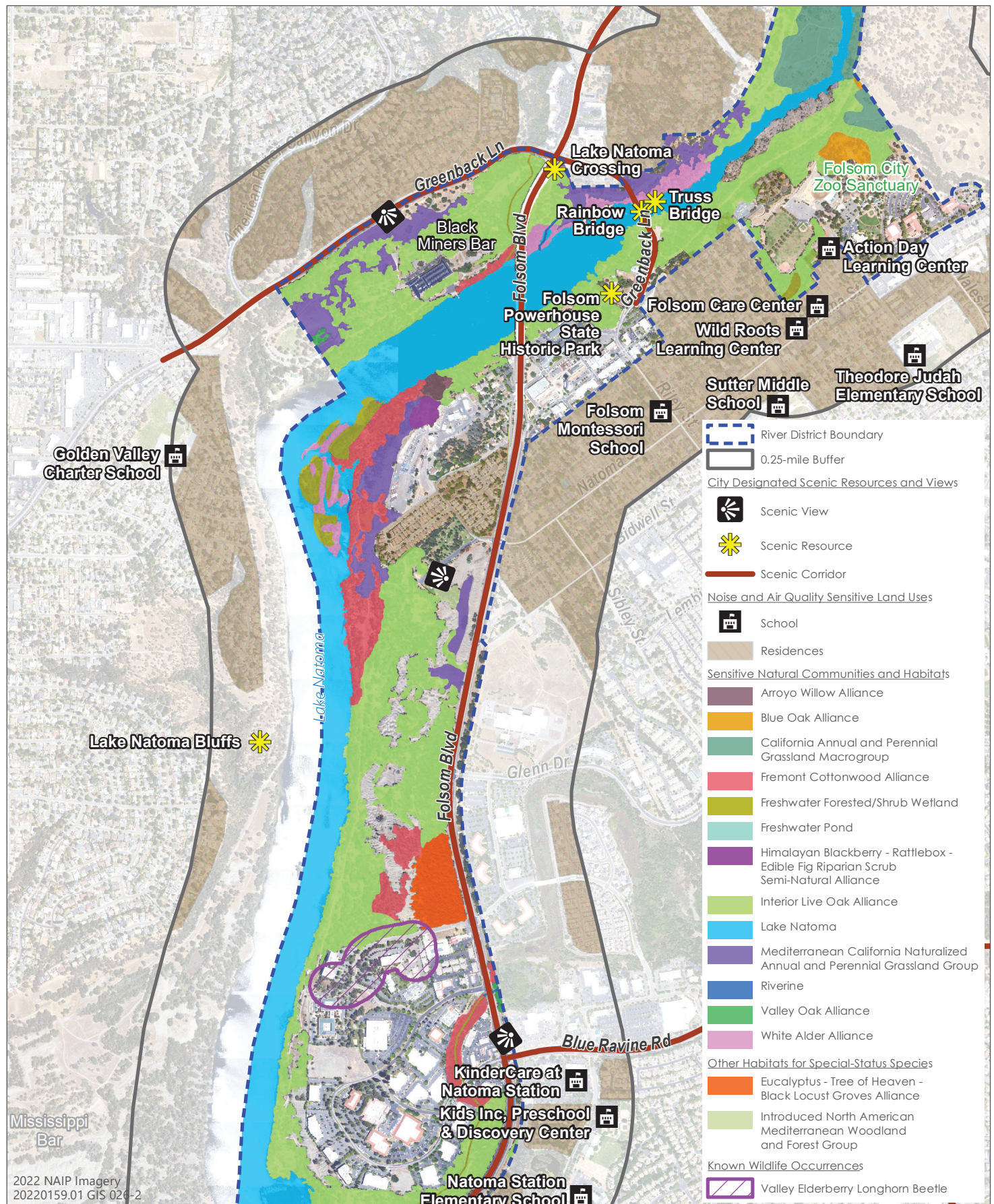
**Metadata:**

2022 NAIP Imagery  
20220159.01 GIS 026-1





# Natural Resources, Sensitive Receptors, and Scenic Resources Map: Central Reach

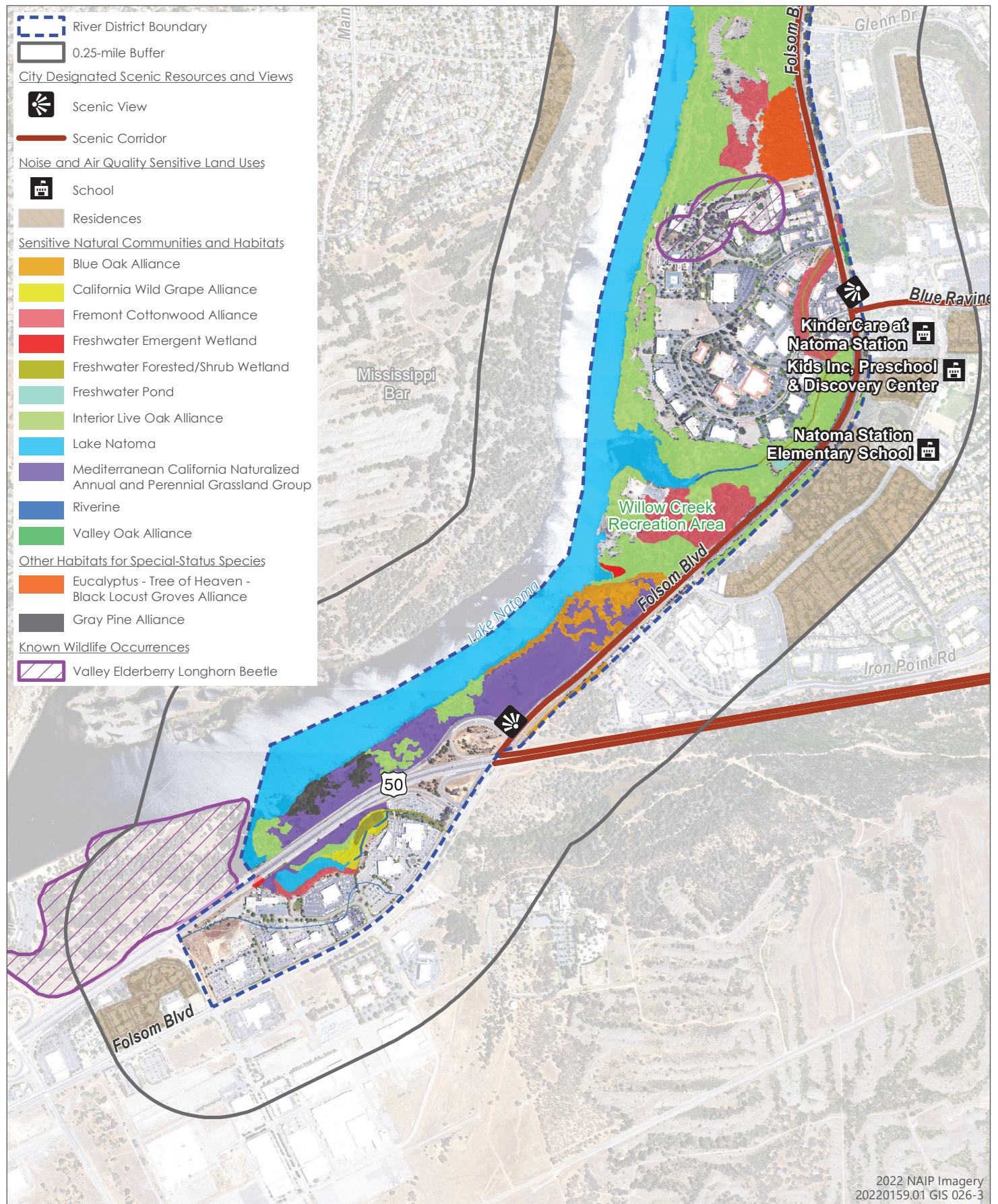


2022 NAIP Imagery  
20220159.01 GIS 024-2



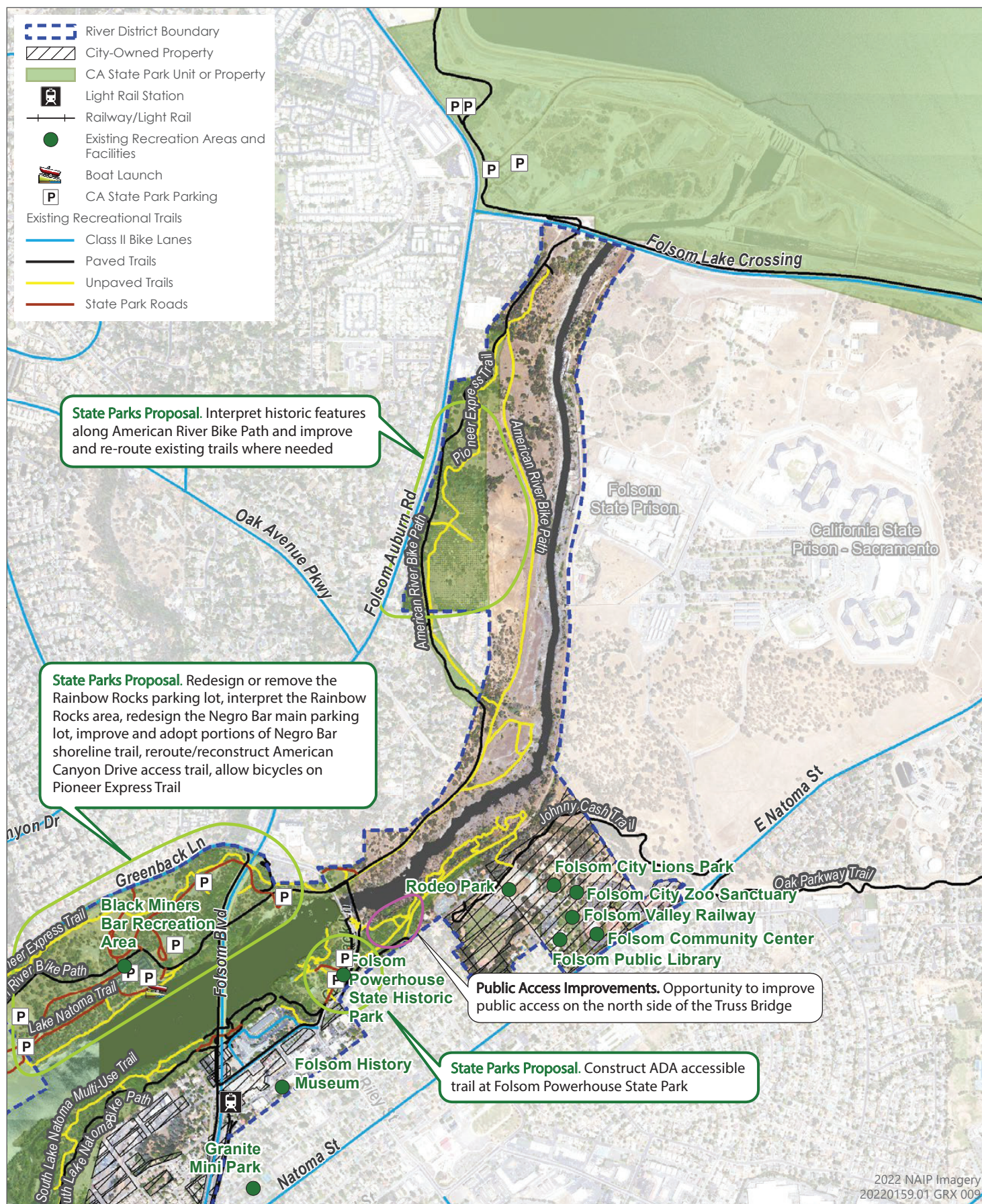


# Natural Resources, Sensitive Receptors, and Scenic Resources Map: Southern Reach



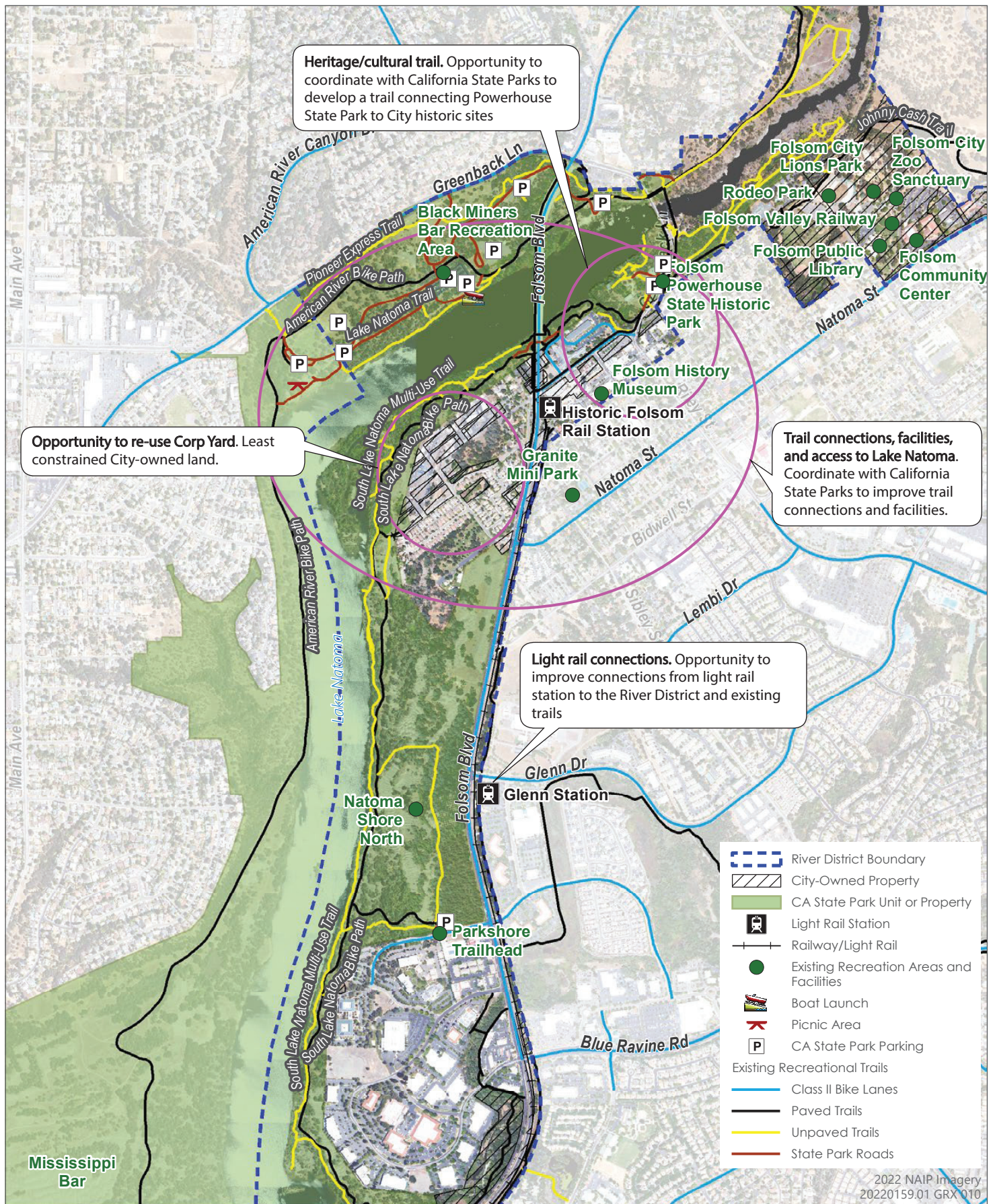


# Recreational Opportunities: Northern Reach



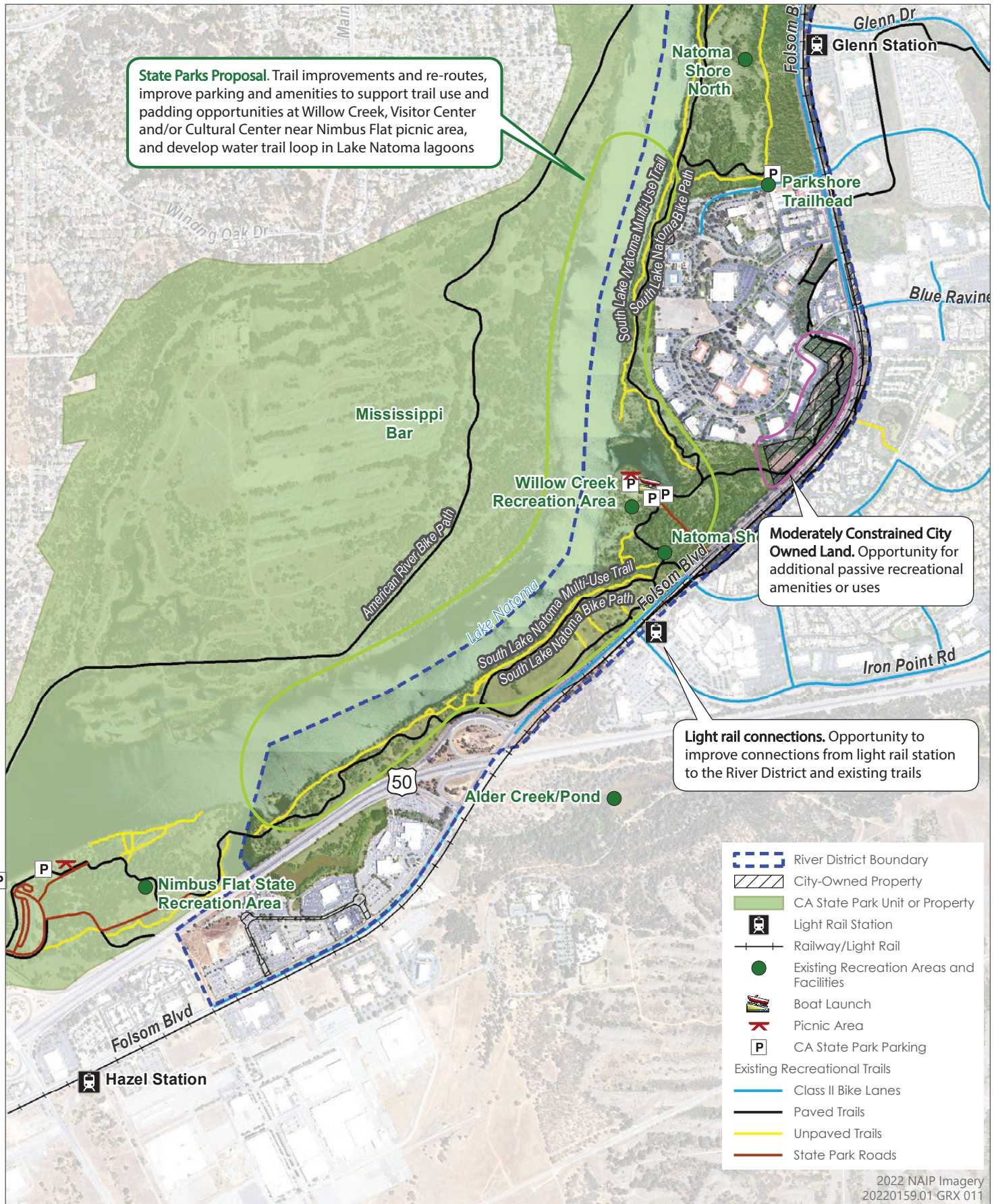


## Recreational Opportunities: Central Reach





## Recreational Opportunities: Southern Reach



# **Appendix B**

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## **Biological Resources Constraints Memo**



# Memo



455 Capitol Mall, Suite 300  
Sacramento, CA 95814  
916.444.7301

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**Date:** December 6, 2022  
**To:** Lief McKay and Debbie Jewell, RRM Design Group  
**From:** Hannah Weinberger (Biologist), Amy Nelson (Biologist), Tammie Beyerl (Senior Biologist); Ascent  
**Subject:** Biological Constraints for the Folsom River District Master Plan

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## Purpose of this Memo

This memorandum describes potential biological constraints identified through desktop review of sensitive biological resources potentially occurring within the Folsom River District Plan Area, based on existing documents and databases. Figures which provide a visual depiction of the identified constraints are also provided.

## Methods

An Ascent biologist conducted queries of relevant natural resources databases, including the National Wetlands Inventory (USFWS 2023), California Natural Diversity Database (CNDDDB 2023), and the California Native Plant Society Rare Plant Inventory of Rare and Endangered Plants (CNPS 2023) within the Forbestown, Clipper Mills, Strawberry Valley, Rackerby, Challenge, Camptonville, Oregon House, French Corral, and Nevada City US Geological Survey (USGS) 7.5-minute quadrangles. Lists of special-status plant and wildlife species as well as sensitive natural communities that are known or have potential to occur within the Folsom River District Plan Area (plan area) were generated from these queries (Attachment A). Potential to occur was based on consideration of available habitat types, validity of recorded occurrences, and existing land uses and disturbances in the plan area.

## Existing Conditions

### NORTHERN REACH OF RIVER DISTRICT

The land cover in the northern reach of the plan area is listed in descending order by acreage in Table 1a.

Wetland habitat in the northern reach, as mapped in the National Wetland Inventory (USFWS 2023), encompasses approximately 28 acres of the plan area (Figure 1a; Table 1a). The main feature is Lake Natoma, which encompasses 27 acres of the northern reach. Towards the bottom of the northern reach there is less than 1 acre of freshwater forested/shrub wetland in the northern reach located southwest of the Folsom City Zoo Sanctuary along the southeastern border of the plan area in the historic district. Furthermore, there is potential for vernal pools to be present within the grassland and oak woodland communities.



**Table 1a Northern Reach Habitat and Land Cover**

Habitat and Land Cover Types	Acres
Interior Live Oak Alliance	99
California Annual and Perennial Grassland Macrogroup	96
Lake Natoma	27
Agriculture	26
Mediterranean California Naturalized Annual and Perennial Grassland Group	10
White Alder Alliance (riparian)	5
Blue Oak Alliance	4
Himalayan Blackberry Semi-Natural Stands (riparian scrub)	2
Freshwater Forested/Shrub Wetland	<1

Source: Menke et al. 2011, Buck-Diaz et al. 2012, USFWS 2023, Compiled by Ascent Environmental in 2023.

Special-status plant species that have potential to occur in the northern reach of the River District comprise all plants listed in Table 2 of Attachment A. Big-scale balsamroot (*Balsamorhiza macrolepis*) has potential to occur in the woodland and grassland habitats in the northern reach. This habitat includes interior live oak (approximately 90 acres) located throughout the northern reach and blue oak (approximately 4 acres) located toward the bottom of the northern reach in and around Folsom City Zoo Sanctuary (Figure 1a; Table 1a). California annual and perennial grassland macrogroup (approximately 96 acres) occurs on either side of Lake Natoma throughout the northern reach of the plan area (Menke et al. 2011). Mediterranean California naturalized annual and perennial grassland group is also potential habitat for big-scale balsamroot and comprises approximately 10 acres in the northern reach of the plan area. This habitat is located toward the bottom of the northern reach on the west side of Lake Natoma (Buck-Diaz et al. 2012; Figure 1a; Table 1a). The rest of the special-status plant species (Attachment A; Table 2), other than big-scale balsamroot, have potential to occur in wetland habitats, including vernal pools, that may be present within areas mapped as grasslands or oak woodlands. Some of these special-status plant species, such as Sanford's arrowhead (*Sagittaria sanfordii*), may occur in the freshwater forested/shrub wetlands mapped at the southern end of the northern reach described in this section above (Figure 1a; USFWS 2023). Special-status plant species with potential to occur in grasslands or oak woodlands, if vernal pools are present, or within wetlands in the plan area include three plant species listed as endangered under California Endangered Species Act (CESA), Boggs Lake hedge-hyssop (*Gratiola heterosepala*), slender Orcutt grass (*Orcuttia tenuis*), and Sacramento Orcutt grass (*Orcuttia viscida*); slender Orcutt grass and Sacramento Orcutt grass are both federally listed under the federal Endangered Species Act (ESA).

Special-status wildlife species that have potential to occur in the northern reach of the River District are listed in Table 3 of Attachment A. Swainson's hawk (*Buteo swainsoni*) and foraging tricolored blackbird (*Agelaius tricolor*) have potential to occur in the agricultural areas, which are located in the middle of the northern reach on the west side of Lake Natoma (Figure 1a; Table 1a). In the grassland communities throughout the northern reach (Figure 1a; Table 1a), burrowing owl (*Athene cunicularia*), grasshopper sparrow (*Ammodramus savannarum*), Swainson's hawk, foraging tricolored blackbird all have potential to occur. If vernal pools are present, vernal pool fairy shrimp (*Branchinecta lynchi*) and vernal pool tadpole shrimp (*Lepidurus packardii*) also have potential to occur. Swainson's hawk has potential to nest in trees near grasslands or agricultural lands, which occur in much of the northern reach of the plan area. In riparian areas, Swainson's hawk, nesting tricolored blackbird, and valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) have potential to occur. Riparian areas in the northern reach of the plan area consist of Himalayan blackberry semi-natural stands (riparian scrub), located on the eastern side of Lake Natoma in near the top of the northern section, and white alder alliance habitat, located on the northwestern side of Lake Natoma right above Folsom Boulevard towards the bottom of the northern reach (Figure 1a; Table 1a). Additionally, there could potentially be other riparian community types along Lake Natoma. Steelhead (*Oncorhynchus mykiss*

*irideus*; Central Valley DPS – pop. 11) is known to occur downstream of the plan area within the American River (Attachment A; Table 3). There is also habitat suitable for steelhead upstream of the plan area, but Nimbus and Folsom Dams are barriers to fish passage. Although there is low potential, steelhead could occur in Lake Natoma, which runs throughout the middle of the northern reach of the River District. Western pond turtle (*Emys marmorata*) has potential to occur along Lake Natoma and its tributaries. The remaining special-status wildlife species (Attachment A; Table 3,) western spadefoot (*Spea hammondi*), bald eagle (*Haliaeetus leucocephalus*), white-tailed kite (*Elanus leucurus*), crotch bumble bee (*Bombus crotchii*), American badger (*Taxidea taxus*), and pallid bat (*Antrozous pallidus*) all have potential to occur throughout the natural areas (i.e., not urban) of the northern reach.

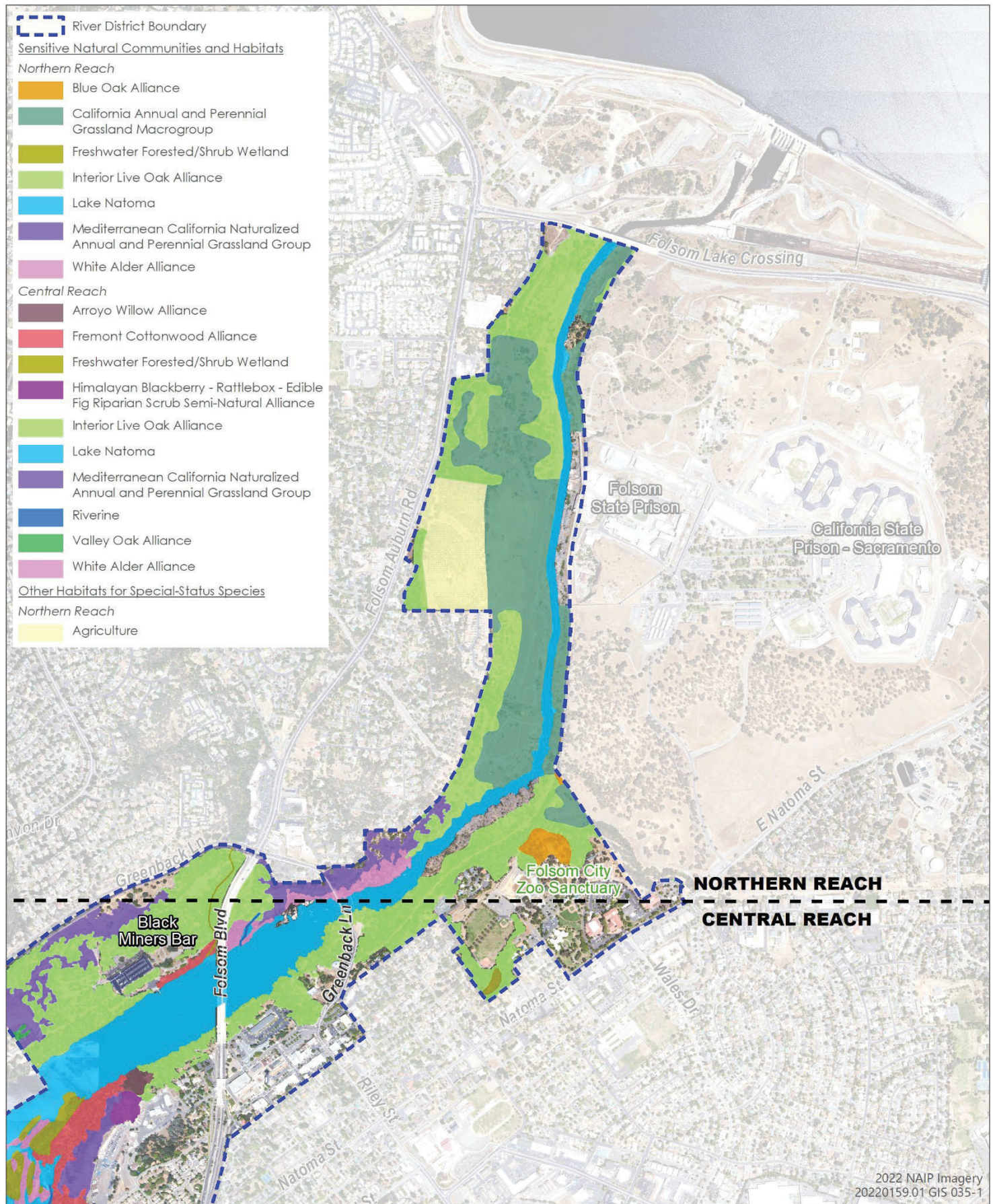
Sensitive natural communities could potentially occur throughout the northern reach of the plan area (Figure 1a). Within the grasslands of the northern reach, California annual and perennial grassland and Mediterranean California naturalized annual and perennial grassland group, locations described above, there is potential for 13 sensitive natural communities to occur, which vary in sensitivity from S3 (vulnerable) to S2 (imperiled) (Attachment A; Table 1). This includes Fremont's goldfields – Downingia vernal pools (S2), Fremont's tidy-tips – blow wives vernal pools (S3), and white-tip clover swales (S3) (Attachment A; Table 1). The Mediterranean California naturalized annual and perennial grassland group is more likely dominated by nonnative species than the California annual and perennial grassland macrogroup and therefore is less likely to contain sensitive natural grassland communities, such as monolopia – leafy-stemmed tickseed fields (S3) and California brome – blue wildrye prairie (S3) (Attachment A; Table 1) although, vernal pool and other wetland communities could occur throughout both grassland community types.

Oak woodlands encompass approximately 167 acres of land throughout the northern reach, mainly on the western side of Lake Natoma, except for the southeastern section of the northern reach (Figure 1a; Table 1a). Interior live oak woodland comprises 99 acres throughout the northern reach on both sides of the of Lake Natoma and blue oak woodland comprises approximately 5 acres in the bottom of the northern reach near the Folsom City Zoo Sanctuary (Menke et al. 2011; Buck-Diaz et al. 2012; Figure 1a; Table 1a).

In the northern section of the plan area, the City of Folsom owns land that overlaps with blue oak woodland (approximately 4 acres) interior live oak woodland (approximately 6 acres), and California annual and perennial grassland (approximately 3 acres), in the southeastern section of the northern reach (Figure 1a). City of Folsom ownership in the northern reach includes the Folsom City Zoo Sanctuary.



**Figure 1a | Sensitive Natural Resources Map: Northern Reach**





## CENTRAL REACH OF THE RIVER DISTRICT

The land cover in the central reach of the plan area, in descending order by acreage, is presented in Table 1b.

**Table 1b Central Reach Land Cover**

Habitat and Land Cover Types	Acres
Interior Live Oak Alliance	165
Lake Natoma	118
Fremont Cottonwood Alliance	33
Mediterranean California Naturalized Annual and Perennial Grassland Group	32
Eucalyptus - Tree of Heaven - Black Locust Groves Alliance	12
White Alder Alliance	11
Freshwater Forested/Shrub Wetland	10
Himalayan Blackberry - Rattlebox - Edible Fig Riparian Scrub Semi-Natural Alliance	2
Arroyo Willow Alliance	2
Introduced North American Mediterranean Woodland and Forest Group	1
Valley Oak Alliance	1
Riverine	<1
Blue Oak Alliance	<0.01

Source: Buck-Diaz et al. 2012, USFWS 2023, Compiled by Ascent Environmental in 2023.

Wetland habitat in the central reach, as mapped in the National Wetland Inventory (USFWS 2023), encompasses approximately 129 acres of the plan area. The main aquatic feature is Lake Natoma, which encompasses 118 acres of the central reach (Figure 1b; Table 1b). Towards the top of the central reach there is approximately 10 acres of freshwater forested/shrub wetland in the central reach of the plan area located west of Folsom Boulevard and along Lake Natoma in the middle of the central reach. Additionally, less than 1 acre of riverine habitat is located east of Folsom Boulevard at the top of the central reach and towards the bottom of the reach as well. Furthermore, there is potential for vernal pools to be present within the grassland communities, which occur throughout the top and middle of the central reach.

Special-status plant species that have potential to occur in the central reach of the River District comprise all plants listed in Table 2 of Attachment A. Big-scale balsamroot has potential to occur in the woodland and grassland habitats in the central reach (Figure 1b; Table 1b). This habitat includes interior live oak (approximately 165 acres) located throughout the central reach and valley oak (approximately 1 acre) located at the top of the central reach and along the train tracks at the bottom of the central reach (Figure 1b). Mediterranean California naturalized annual and perennial grassland group comprises approximately 32 acres in the central reach of the plan area (Table 1b). This habitat is located at the top and middle of the central reach on either side of Lake Natoma (Buck-Diaz et al. 2012; Figure 1b). The rest of the special-status plant species (Attachment A; Table 2), other than big-scale balsamroot, have potential to occur in wetland habitats, including vernal pools, that may be present within areas mapped as grasslands or oak woodlands. Some of these special-status plant species, such as Sanford's arrowhead, may occur in freshwater forested/shrub wetlands which are mapped at the central and middle parts of the central reach (USFWS 2023; Figure 1b; Table 1b). Special-status plant species with potential to occur in grasslands or oak woodlands, if vernal pools are present, or within wetlands in the plan area include three plant species listed as endangered under CESA, Boggs Lake hedge-hyssop, slender Orcutt grass, and Sacramento Orcutt grass and slender Orcutt grass and Sacramento Orcutt grass are both federally listed.

Special-status wildlife species that have potential to occur in the central reach of the River District comprise all wildlife listed in Table 3 of Attachment A. Swainson's hawk has potential to nest in areas with trees near grasslands, which occurs in much of the central reach of the plan area. In the grassland communities throughout the central reach (Figure 1b; Table 1b), burrowing owl, grasshopper sparrow, Swainson's hawk, foraging tricolored blackbird, vernal pool fairy shrimp, and vernal pool tadpole shrimp all have potential to occur. In the riparian areas, Swainson's hawk, and nesting tricolored blackbird have potential to occur. Valley elderberry longhorn beetle has been documented in the southern end of the central reach (CNDDDB 2023; Figure 1b). Though, due to development, valley elderberry longhorn beetle is presumed extirpated from this location (CNDDDB 2023). Valley elderberry longhorn beetle still has potential to occur and surveys would be required (see "Implications of Development" section below for more information; USFWS 2017). Riparian areas in the central reach of the plan area comprise arroyo willow alliance and Himalayan blackberry semi-natural stands (riparian scrub), located on the eastern side of Lake Natoma in the top of the central reach, as well as Fremont cottonwood (riparian) and white alder alliance (riparian), located along the northern and eastern shores of the top and middle of the central reach (Figure 1b). Additionally, there could potentially be other riparian communities along Lake Natoma. Steelhead is known to occur downstream of the plan area within the American River (Attachment A; Table 2). There is also habitat suitable for steelhead upstream of the plan area, but Nimbus and Folsom Dams are barriers to fish passage. Although there is low potential, steelhead could occur in Lake Natoma, which runs throughout the middle of the central reach of the River District. Western pond turtle has potential to occur along Lake Natoma and its tributaries. The remaining special-status wildlife species (Table 3, Attachment A), western spadefoot, bald eagle, white-tailed kite, crotch bumble bee, American badger, and pallid bat all have potential to occur throughout the natural areas (i.e., not urban) of the central reach, besides Lake Natoma.

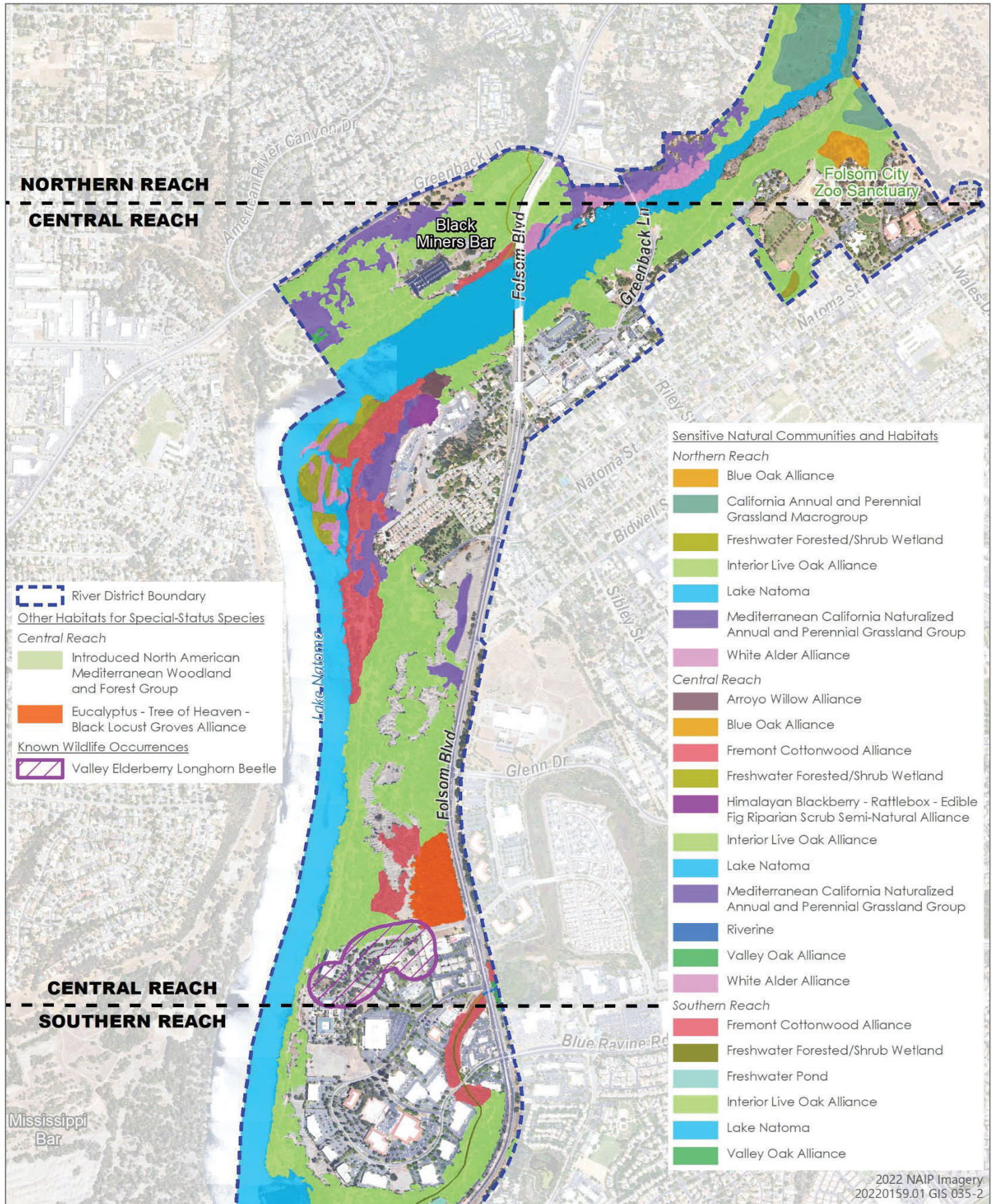
Sensitive natural communities are known to or could potentially occur throughout the central reach of the plan area (Figure 1b). Fremont cottonwood (S3) and valley oak woodland (S3), locations described above (Figure 1b), are both sensitive natural communities known to occur in the central reach (Attachment A; Table 1). Within the grassland habitats of the central reach, of which locations are described above, areas mapped as Mediterranean California naturalized annual and perennial grassland group have potential to support 13 sensitive natural communities, which vary in sensitivity from S3 (vulnerable) to S2 (imperiled) (Attachment A; Table 1). This includes Fremont's goldfields – Downingia vernal pools (S2), Fremont's tidy-tips – blow wives vernal pools (S3), and white-tip clover swales (S3) (Attachment A; Table 1.); however, vernal pool and other wetland communities could occur throughout both grassland community types.

Oak woodlands encompass approximately 104 acres of land throughout the central reach (Buck-Diaz et al. 2012; Figure 1b; Table 1b). Oak woodland is present in the northwestern section of the central reach as well as throughout the eastern portion (Figure 1b). Interior live oak woodland comprises approximately 166 acres throughout the central reach on both sides of the of Lake Natoma, valley oak is present in the top western portion of the central reach, and blue oak woodland comprises less than 0.01-acre located southwest of Black Miners Bar along the River District boundary in the northwestern corner of the central reach (Buck-Diaz et al. 2012; Figure 1b; Table 1b). The patch of blue oak woodland is small enough that it is not shown on the map due to being directly under the mapped River District boundary (Figure 1b).

In the central reach of the plan area, the City of Folsom owns land that overlaps with interior live oak woodland (approximately 5 acres) and less than one acre each of freshwater forested/shrub wetland in the northeastern corner of the central reach (Figure 1b). There is also overlap with less than one acre of Mediterranean California naturalized annual and perennial grassland group, Fremont cottonwood alliance (S3; riparian), and Himalayan blackberry – rattlebox – edible fig riparian scrub in the middle of the central reach (Figure 1b). City land also overlaps a portion of the documented valley elderberry longhorn beetle occurrence in the plan area that is possibly extirpated (CNDDDB 2023; Figure 1b).



**Figure 1b | Sensitive Natural Resources Map: Central Reach**





## SOUTHERN REACH OF THE RIVER DISTRICT

The land cover in the southern reach of the plan area in descending order by acreage, is presented in Table 1c.

**Table 1c Southern Reach Land Cover**

Habitat and Land Cover Types	Acres
Lake Natoma	94
Interior Live Oak Alliance	75
Mediterranean California Naturalized Annual and Perennial Grassland Group	44
Fremont Cottonwood Alliance	23
Blue Oak Alliance	13
Gray Pine Alliance	5
California Wild Grape Alliance	3
Freshwater Forested/Shrub Wetland	3
Riverine	2
Freshwater Emergent Wetland	<1
Freshwater Pond	<1
Valley Oak Alliance	<0.1

Source: Buck-Diaz et al. 2012, USFWS 2023, Compiled by Ascent Environmental in 2023.

Wetland habitat in the central reach, as mapped in the National Wetland Inventory (USFWS 2023), encompasses approximately 98 acres of the plan area (Figure 1c; Table 1c). The main wetland habitat feature is Lake Natoma, which encompasses approximately 94 acres of the southern reach. In the southern reach there is approximately 3 acres of freshwater forested/shrub wetland located at the top of the section along Willow Creek as well as in the bottom of the southern reach. There is less than 1 acre of freshwater emergent wetland mapped in the middle of the southern reach towards the bottom of the Willow Creek Recreation Area, and at the bottom of the southern reach. Freshwater pond habitat also makes up less than 1 acre of the southern reach plan area and is located just south of Willow Creek in the middle of the southern reach. Additionally, approximately 2 acres of riverine habitat is located at Willow Creek and in the bottom portion of the southern reach. Furthermore, there is potential for vernal pools to be present within all grassland and oak woodland communities, locations described above.

Special-status plant species that have potential to occur in the southern reach of the River District comprise all plants listed in Table 2 of Attachment A. Big-scale balsamroot has potential to occur in the woodland and grassland habitats in the southern section. This habitat includes interior live oak (approximately 75 acres) located throughout the southern section but mainly in the top of the southern reach of the plan area (Figure 1c; Table 1c). Additionally, this includes valley oak woodland alliance (less than 0.1 acre) located at the top of the southern reach along the train tracks (Figure 1c). Mediterranean California naturalized annual and perennial grassland group is also potential habitat for big-scale balsamroot and comprises approximately 44 acres of the plan area (Table 1c). This habitat is mainly in the middle and bottom portions of the southern reach of the plan area on the eastern side of Lake Natoma (Buck-Diaz et al. 2012; Figure 1c). The rest of the special-status plant species (Attachment A; Table 2), other than big-scale balsamroot, have potential to occur in wetland habitats, including vernal pools, that may be present within areas mapped as grasslands or oak woodlands. Some of these special-status plant species, such as Sanford's arrowhead, may occur in wetland habitat which is mapped throughout the top and middle of the southern reach as well as one location at the bottom of the plan area (USFWS 2023; Figure 1c). Special-status plant species with potential to occur in grasslands or oak woodlands, if vernal pools are present, or mapped wetlands in the plan area include three plant

species listed as endangered under CESA, Boggs Lake hedge-hyssop, slender Orcutt grass, and Sacramento Orcutt grass and slender Orcutt grass and Sacramento Orcutt grass are both federally listed.

Special-status wildlife species that have potential to occur in the southern reach of the River District comprise all wildlife listed in Table 3 of Attachment A. Swainson's hawk has potential to nest in areas with trees near grasslands, which occurs in much of the southern reach of the plan area. In the grassland communities, the locations of which are described in the previous paragraph, burrowing owl, grasshopper sparrow, Swainson's hawk, foraging tricolored blackbird, vernal pool fairy shrimp, and vernal pool tadpole shrimp all have potential to occur. In the riparian areas, Swainson's hawk, and nesting tricolored blackbird have potential to occur. Valley elderberry longhorn beetle has been documented just outside of the plan area, along the southern border of the southern reach (CNDDDB 2023; Figure 1c). Riparian habitats in the southern reach of the plan area comprise Fremont cottonwood alliance (riparian) located in patches throughout the southern reach, and California wild grape (riparian scrub) located at the bottom of the southern reach (Figure 1c; Table 1c). Steelhead is known to occur downstream of the plan area within the American River (Table 2, Attachment A). There is also habitat suitable for steelhead upstream of the plan area, but Nimbus and Folsom Dams are barriers to fish passage. Additionally, there could potentially be other riparian community types along Lake Natoma. Although there is low potential, steelhead could occur in Lake Natoma, which runs throughout the middle of the southern reach of the River District. Western pond turtle has potential to occur along Lake Natoma and its tributaries. The remaining special-status wildlife species (Attachment A; Table 3), western spadefoot, bald eagle, white-tailed kite, crotch bumble bee, American badger, and pallid bat all have potential to occur throughout the natural areas (i.e., not urban) of the southern reach, besides Lake Natoma.

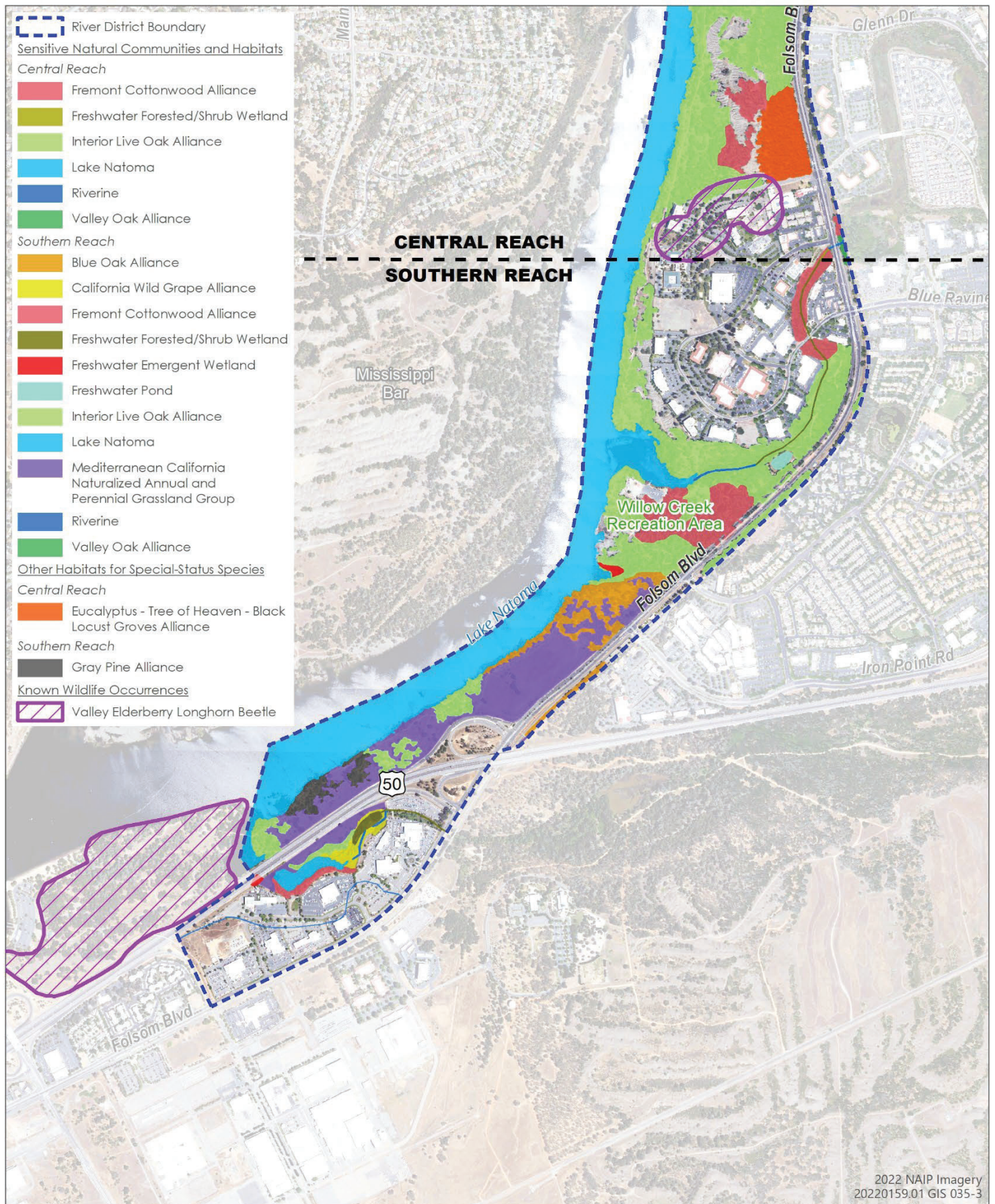
Sensitive natural communities are known to or could potentially occur throughout the southern reach of the plan area (Figure 1c). Fremont cottonwood (S3), wild grape shrubland (S3; mapped as California wild grape), and valley oak woodland (S3), locations described above (Figure 1c), are all sensitive natural communities known to occur in the southern reach (Attachment A; Table 1). Within the grasslands of the southern reach, of which locations are described above, Mediterranean California naturalized annual and perennial grassland group has potential for 13 sensitive natural communities to occur, which vary in sensitivity from S3 (vulnerable) to S2 (imperiled) (Attachment A; Table 1). This includes Fremont's goldfields – Downingia vernal pools (S2), Fremont's tidy-tips – blow wives vernal pools (S3), and white-tip clover swales (S3) (Attachment A; Table 1); however, vernal pool and other wetland communities could occur throughout both grassland community types.

Oak woodlands encompass approximately 88 acres of land in the southern reach (Buck-Diaz et al. 2012) and are present throughout (Figure 1c; Table 1c). Interior live oak woodland comprises approximately 75 acres and is located throughout the southern reach on the eastern side of the of Lake Natoma, blue oak comprises approximately 13 acres of the southern reach and is located in the middle of the southern reach, and valley oak comprises less than 0.1 acre of the southern reach and is located along the train tracks in the top of the reach (Buck-Diaz et al. 2012; Figure 1c; Table 1c).

In the southern reach of the plan area, the City of Folsom owns land that overlaps with interior live oak woodland (approximately 11 acres) in the northeastern portion of the southern reach, over one acre of Fremont cottonwood (S3; riparian) bordering the interior live oak woodland, less than one acre of freshwater forested/shrub wetland habitat located within the interior live oak woodland and Fremont cottonwood habitat, and freshwater pond habitat within the interior live oak woodland (Figure 1c). Additionally, city land overlaps with less than one acre of riverine habitat in the southern end of the reach and less than one acre of valley oak in the northeastern corner of the southern reach along the train tracks (Figure 1c).



**Figure 1c | Sensitive Natural Resources Map: Southern Reach**





## Implications for Development

### SENSITIVE HABITATS

Ascent evaluated the potential for sensitive habitats to occur in the plan area using California Department of Fish and Wildlife (CDFW) vegetation community data, *Manual of California Vegetation*, and other available habitat data and found that multiple sensitive habitat types are known or have potential to occur throughout the plan area. This includes a total of three oak woodland communities known to occur in the plan area (Menke et al. 2011; Buck-Diaz et al. 2012; Figure 1a-c). Although not officially recognized as sensitive natural communities by CDFW, the oak woodland communities within the plan area are designated under the Oak Woodlands Conservation Act, California Public Resources Code 21083.4. Oak woodlands provide important habitat to numerous common and special-status wildlife species. As such, oak woodland communities are considered sensitive habitats by wildlife resource agencies, including US Fish and Wildlife Service (USFWS) and CDFW. Due to the vulnerability of oak woodlands in California, analysis under the California Environmental Quality Act (CEQA) must consider potential significant effects to this resource. As such, a scientific review would be required to determine if there are any potential significant effects from proposed development. Any potential significant effects to the resource must be mitigated. Mitigation could include planting oak trees, or other restoration activities that would benefit the oak woodland community to be potentially impacted. Additionally, CDFW would look at effects to oak woodlands in the plan area as a part of any action subject to review and permitting pursuant to Section 1600 et seq. of the California Fish and Game Code because the plan area is located on the American River Floodplain. If a Lake and Streambed Alteration Agreement is required, pursuant to Section 1602, this process could take up to three months once a complete notification of lake and streambed alteration is submitted to CDFW. Mitigation measures and best management practices for the project would need to be provided to and approved by CDFW. Furthermore, Chapter 12.16 ("Tree Preservation"), Section 12.16.050 of the City of Folsom's Municipal Code requires tree removal permits for removal of native oak trees, which applies to the approximately 93 acres of oak woodland mapped in the plan area as well as any individual oak trees that are outside of mapped oak woodlands.

In addition, approximately 257 acres of lake habitat, 14 acres of freshwater forested/shrub wetland, 2 acres of riverine wetlands, 1 acre of freshwater pond, and 1 acre of freshwater emergent wetland are mapped in the plan area (USFWS 2023). There is also potential for vernal pools to be present in the grasslands and oak woodlands mapped throughout the plan area (Menke et al. 2011). These are all potential waters of the United States and waters of the state. For development to occur, an aquatic resources delineation would need to be conducted and submitted to the US Army Corps of Engineers (USACE) to determine the jurisdictional extent of wetlands and other waters in the affected area (i.e., areas proposed for development). If aquatic resources are delineated and determined to be waters of the United States, federal permitting would be required pursuant to the Clean Water Act (CWA). Activities that may result in discharge of dredge or fill material into waters of the United States, including wetlands, require a CWA Section 404 permit and CWA Section 401 water quality certification. Dredged material is material that is excavated or dredged from waters of the United States. Fill material is material placed in waters of the United States where the material has the effect of replacing any portion of a water of the United States with dry land or changing the bottom elevation of any portion of a water of the United States. The time needed to obtain a CWA Section 404 permit varies greatly depending on the complexity of the project and magnitude of impacts, but generally takes at least six months for projects with no ESA or National Historic Preservation Act (NHPA) issues. More complex projects (e.g., those requiring ESA or NHPA consultations or an individual permitting process) typically take 1 year, or longer, depending upon the circumstances. CWA Section 401 water quality certification typically takes at least 90 days for projects that are straightforward and are not delayed due to changes in project design. If waters of the United States would be filled in the plan area, depending on the quality of the resource, mitigation replacement of the aquatic habitat lost or permanently degraded anywhere from a 1:1 to 4:1 ratio could be required. Other forms of mitigation could be

mitigation banking or conservation easements depending on the availability of these resources and quality of aquatic habitat on the mitigation lands.

If aquatic resources are present that are determined to be waters of the state, *Procedures for Discharges of Dredged or Fill Material to Waters of the State* would apply. All waters of the United States are also waters of the state, however, waters disclaimed by United States may still be regulated as waters of the state, which are defined under the Porter-Cologne Water Quality Control Act as “any surface water or groundwater, including saline waters, within the boundaries of the state.” The state has one month to determine if an application for waste discharge to waters of the state is complete. Once an application is determined to be complete the Central Valley Regional Water Quality Control Board (RWQCB) has 60 days to process the permit; however, the state may request additional information multiple times before determining an application is complete and beginning the 60-day clock. Acquiring water quality certification or a waste discharge permit from RWQCB requires payment of fees. There is a flat application fee, an additional project fee calculated using impact area (both temporary and permanent impacts) for fill and excavation discharges, and a flat annual fee, using the current fiscal year fee schedule. In addition, proof of CEQA compliance is required for Central Valley RWQCB to issue the water quality certification/waste discharge permit.

When project activities have potential to affect the bed, bank, or channel of any river, stream, or lake which supports fish or wildlife, a notification of lake or streambed alteration shall be submitted to CDFW, pursuant to Section 1600 et seq. of the California Fish and Game Code. In addition, CDFW has authority under Section 1602 over wetland and riparian habitats associated with lakes and streams. The plan area contains 83 acres of riparian habitat within the plan area (see Figure 1a-c below). If proposed activities may substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river lake or stream, CDFW will submit a proposal to the applicant that includes measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and the project proponent is called a Lake and Streambed Alteration Agreement. Such an agreement is not a permit, but rather a mutual accord between CDFW and the project proponent. Because CDFW regulates activities that may substantially affect rivers, streams, and lakes, their regulatory authority is not restricted to geographically defined boundaries and often extends to streamside habitats that do not qualify as wetlands under the CWA or Porter-Cologne Water Quality Control Act definitions. Therefore, CDFW regulatory authority may be broader than USACE or RWQCB jurisdiction. If a Lake and Streambed Alteration Agreement is required, pursuant to Section 1602, this process takes 60 days once a complete notification of lake and streambed alteration is submitted to CDFW. A notification fee is required and is based on the overall project costs, type of agreement and duration (five years or less versus longer than 5 years), and the fee schedule for the current fiscal year. In addition, CDFW imposes a filing fee and requires proof of CEQA compliance.

In addition, there are 14 sensitive natural communities that are known or have potential to occur in the plan area (Table 1, Attachment A; Figure 1a-c) (Menke et al. 2011; Buck-Diaz et al. 2012). Sensitive natural communities are classified with state rarity ranks of either S1 (critically imperiled), S2 (imperiled), or S3 (vulnerable) to represent the status of that particular community in California. CDFW maintains a list of plant communities that are native to California. Within that list, CDFW identifies sensitive natural communities, which it defines as communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects. These communities may or may not contain special-status species or their habitat. These communities are of special concern to CDFW and are afforded specific consideration through CEQA. Where sensitive natural communities are identified in the plan area, the lead agency would need to determine what level of removal would be significant under CEQA. As described above, a scientific review would be required to determine if there are any potential significant effects from proposed development on any of the sensitive natural communities. Any potential significant effects to the resource must be mitigated. Depending on the quality of the resource, mitigation may include restoring degraded sensitive natural communities already present in the plan area or preserving offsite sensitive natural communities of similar type and quality as those affected by the proposed development. For development to occur, a protocol-level survey of the plan area would need to occur in areas that have not been

mapped in Menke et al. (2011) or Buck-Diaz et al. (2012) to the alliance level to assist in the analysis of potential significant effects and possible mitigation to these vegetation communities.

## SPECIAL-STATUS SPECIES

Ascent evaluated 21 special-status plant species and 23 special-status wildlife species known to occur in the region for their potential to occur in the plan area. Based on consideration of available habitat types, validity of recorded occurrences, and existing land uses and disturbance in the plan area, 10 special-status plant species have potential to occur and 12 special-status wildlife species are known to or are likely to occur in the plan area (Table 2-3, Attachment A).

Of the 10 special-status plant species that have potential to occur in the plan area, there are three species that are listed as state endangered and therefore legally protected under the CESA. Plant species listed under CESA are protected from incidental take without a permit. If an incidental take permit is applied for, conditions would include that the take is minimized and fully mitigated, adequate funding is set aside for this mitigation, and the activity will not jeopardize the continued existence of the species. This applies to all CESA-listed species in the plan area. If a project were to impact a CESA-listed plant species, an incidental take permit would need to be acquired. CDFW has approximately four months to conduct their review of an incidental take permit application. Two of the three CESA-listed plant species are also legally protected under the ESA, one being listed as federally threatened and the other federally endangered. If either of these species are present in the plan area and there is a federal action as part of the project, Section 7 of the ESA could be utilized which would take a minimum of 6 months, but often takes a year or more to be completed. If either of these species are present in the plan area and there is no federal action involved, Section 10 of ESA would need to be conducted. Section 10 requires development of a habitat conservation plan for the project, which could potentially take years to complete. The other seven special-status plant species are not listed under CESA or ESA, but have been designated as rare plants by CDFW and assigned a California Rare Plant Rank (CRPR). These species have regulatory protection under CEQA. As described above, potential significant effects would need to be analyzed and mitigated.

Of the 12 special-status wildlife species that are known to or have potential to occur in the plan area, four are listed or candidate species under CESA. Crotch bumble bee is a candidate species, bald eagle is listed as endangered and fully protected, and tricolored blackbird and Swainson's hawk are listed as threatened. Swainson's hawk has a documented occurrence directly adjacent to the plan area (CNDDDB 2023). Incidental take permits would need to be applied for through CDFW for the CESA-listed species and would require actions including funding mitigation. As described above, this process typically takes approximately four months. Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code provide legal protection for fully protected species in California, which includes bald eagle. White-tailed kite is another fully protected species that has potential to occur in the plan area. White-tailed kite has a documented occurrence directly adjacent to the plan area (CNDDDB 2023). Fully protected species would need to be completely avoided, as take is prohibited and no incidental take permit is available for these species. Wildlife species listed as species of special concern must be considered under CEQA. As described above, potential significant effects would need to be analyzed and mitigated for. There are four ESA-listed or candidate wildlife species with potential to occur in the plan area. Western pond turtle is a federal candidate species, steelhead, and vernal pool fairy shrimp are listed as threatened, and vernal pool tadpole shrimp is listed as endangered. Federally listed species are protected from take, as such, for take to occur, formal consultation with the USFWS and/or the National Marine Fisheries Service (NMFS) would be required. If steelhead were identified in the plan area, since Lake Natoma is a water of the United States and therefore regulated by USACE, Section 7 of the ESA could be utilized for interagency consultation between USACE and NMFS. Although, if any of the other federally listed species were to be identified in the plan area, or if USACE did not agree to consult, Section 10 of the ESA would need to be utilized, which, as mentioned above, could potentially take years to develop a habitat conservation plan. This process also applies to valley elderberry longhorn beetle, which is the one ESA-listed species known to occur within the plan area (Figure 1b) and directly adjacent to the plan area (Figure 1c). For valley elderberry longhorn beetle, surveys must be conducted



by a US Fish and Wildlife Service-approved biologist, and in any survey year, a minimum of two site visits between February 14 and June 30 of each year must be visited (USFWS 2017). Additional required survey protocols are reviewed in *Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle (Desmocerus californicus dimorphus)* (USFWS 2017).

## Opportunities for Restoration or Habitat Enhancement

In order of priority, the following are opportunities in the planning area for restoration or habitat enhancement:

1. Restoring wetlands and streams, including associated riparian habitat.
2. Identifying, preserving, and/or restoring native grasslands and vernal pools if present.
3. Restoring riparian and fish habitat in Lake Natoma/American River.

These opportunities were determined by the rarity and sensitivity of the resource, as well as the feasibility of restoration. Restoration would be a great opportunity for collaboration with federal and state agencies, but because the plan area is mostly owned by federal and state agencies, this also creates barriers to conducting restoration. Fish habitat in Lake Natoma is the most degraded resource identified in the plan area. The *Fisheries and In-Stream Habitat Management and Restoration Plan for the Lower American River* update in 2019 determined that there is no spawning habitat that exists in Lake Natoma north up to the Folsom Dam and there is low potential to create any new habitat partially due to the water temperature of Lake Natoma (Water Forum 2019). Due to the low potential of success, restoration of riparian habitat in Lake Natoma would not be the recommended focus of restoration. Creating a fish ladder enabling fish to pass the Nimbus and Folsom Dams would be beneficial for steelhead, but this effort would need to be conducted in collaboration with federal and state agencies and would need sufficient funding, which would be a challenge. In the overall context of California, vernal pools have also experienced high levels of degradation. California grasslands, the habitat where vernal pools could potentially be present in the plan area, have been degraded through widespread conversion to development and agriculture (Cameron et al. 2014) and are one of the most endangered ecosystems on the planet (Sampson and Knopf 1994; Noss and Peters 1995). Potential sensitive natural communities that could occur in these grassland habitats include S2 (imperiled) and S3 (vulnerable) communities (Attachment A; Table 1). Vernal pools have experienced disproportionately high loss compared to other wetland types in California, with only 13 percent remaining today (CWQMC 2016). A wetland delineation needs to be conducted in the plan area to see if vernal pools are present. Additionally, most of the habitat in the plan area that could contain vernal pools is on state or federally owned land. As such, any restoration efforts would need to be conducted jointly with the state or federal government. The least degraded resource listed in the restoration opportunities are the wetlands and tributary streams to Lake Natoma/American River, which have been degraded by impacts including channelization, diversion, urbanization, fill, construction of roads and rails, and invasive species spread from proximity to urban centers. Although it is the least degraded of the restoration opportunities, it is also the most feasible to be conducted solely by the City of Folsom, at least in the parts of the plan area where the City of Folsom owns the land. City owned lands that include this restoration opportunity consist of a freshwater forested/shrub wetland near Folsom City Zoo Sanctuary in the top of the central reach and the Willow Creek riparian area contains freshwater forested/shrub wetland as well, located at the top portion of the southern reach.

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# Attachment A

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## Special-Status Species Tables



**Table 1 Sensitive Natural Communities Documented or with Potential to Occur in the Plan Area**

Sensitive Natural Community <sup>1</sup>	Rarity Rank <sup>2</sup>	Habitat Type
<b>Fremont cottonwood forest and woodland</b>	S3	Valley Foothill Riparian
<b>Valley oak woodland and forest</b>	S3	Valley Oak Woodland
<b>Wild grape shrubland</b>	S3	Valley Foothill Riparian
Fremont's goldfields - Downingia vernal pools	S2	Annual Grassland
Fremont's tidy-tips - blow wives vernal pools	S3	Annual Grassland
Goldenaster patches	S3	Annual Grassland
Monolopia - leafy-stemmed tickseed fields	S3	Annual Grassland
Smooth goldfields - pale spike rush vernal pool bottoms	S2	Annual Grassland
Tar plant fields	S2	Annual Grassland
Water blinks - annual checkerbloom vernal pools	S2	Annual Grassland
White-tip clover swales	S3?	Annual Grassland
Ashy ryegrass - Creeping wildrye turfs	S3	Perennial Grassland
California brome - blue wildrye prairie	S3	Perennial Grassland
Deer grass bed	S2	Perennial Grassland

<sup>1</sup> Sensitive natural communities that are **bolded** are mapped in the plan area to the alliance level (Menke et al. 2011; Buck-Diaz 2012).

<sup>2</sup> These are designated sensitive natural communities with a state rarity rank of S1 (critically imperiled), S2 (imperiled), or S3 (vulnerable)

Sources: CDFW 2023; CNPS 2023; Menke et al. 2011; Buck-Diaz et al. 2012; USFS EVEG vegetation data, compiled by Ascent in 2023.

**Table 2 Special-Status Plant Species with Potential to Occur in the Plan Area**

Species	Listing Status <sup>1</sup> Federal	Listing Status <sup>1</sup> State	CRPR	Habitat	Potential for Occurrence <sup>2</sup>
Big-scale balsamroot <i>Balsamorhiza macrolepis</i>	–	–	1B.2	Chaparral, valley and foothill grassland, cismontane woodland. Sometimes on serpentine. Ultramafic affinity = 2.5 (strong indicator). 110–4,810 feet in elevation. Blooms March–June. Perennial.	<i>May occur.</i> Grassland and oak woodland habitat potentially suitable for this species is present in the project area. However, the probability of occurrence is low because, although not restricted to serpentinite soils, this species is usually (65 to 74% of the time) found on serpentinite soils, which are not present in the project area.
Dwarf downingia <i>Downingia pusilla</i>	–	–	2B.2	Wetland. Valley and foothill grassland (mesic sites), vernal pools. Vernal lake and pool margins with a variety of associates. In several types of vernal pools. 5–1,610 feet in elevation. Blooms March–May. Annual.	<i>May occur.</i> Wetland habitat potentially suitable for this species is present in the project area. <i>Downingia pusilla</i> has a documented occurrence northwest of the project area across Lake Natomas (CNDDDB 2023).
Tuolumne button-celery <i>Eryngium pinnatisectum</i>	–	–	1B.2	Wetland. Vernal pools, cismontane woodland, lower montane coniferous forest. Volcanic soils; vernal pools and mesic sites within other natural communities. 230–3,000 feet in elevation. Blooms May–August. Annual/Perennial.	<i>May occur.</i> Wetland habitat potentially suitable for this species is present in the project area.
Boggs Lake hedge-hyssop <i>Gratiola heterosepala</i>	–	SE	1B.2	Wetland. Marshes and swamps (freshwater), vernal pools. Clay soils; usually in vernal pools, sometimes on lake margins. 30–7,790 feet in elevation. Blooms April–August. Annual.	<i>May occur.</i> Wetland habitat potentially suitable for this species is present in the project area. <i>Gratiola heterosepala</i> has multiple documented occurrences to the southeast of the project area (Calflora 2023).
Ahart's dwarf rush <i>Juncus leiospermus</i> var. <i>ahartii</i>	–	–	1B.2	Valley and foothill grassland. Restricted to the edges of vernal pools in grassland. 100–330 feet in elevation. Blooms March–May. Annual.	<i>May occur.</i> Wetland habitat potentially suitable for this species is present in the project area.
Legenere <i>Legenere limosa</i>	–	–	1B.1	Vernal pools, wetland. In beds of vernal pools. 5–2,890 feet in elevation. Blooms April–June. Annual.	<i>May occur.</i> Wetland habitat potentially suitable for this species is present in the project area. <i>Legenere limosa</i> has multiple documented occurrences to the southeast of the project area (Calflora 2023).
Pincushion navarretia <i>Navarretia myersii</i> ssp. <i>myersii</i>	–	–	1B.1	Vernal pools, wetland. Clay soils within non-native grassland. 150–330 feet in elevation. Blooms April–May. Annual.	<i>May occur.</i> Wetland habitat potentially suitable for this species is present in the project area. <i>Navarretia myersii</i> ssp. <i>myersii</i> has multiple documented occurrences northwest of the project area across Lake Natomas (CNDDDB 2023).



Species	Listing Status <sup>1</sup> Federal	Listing Status <sup>1</sup> State	CRPR	Habitat	Potential for Occurrence <sup>2</sup>
Slender Orcutt grass <i>Orcuttia tenuis</i>	FT	SE	1B.1	Vernal pools, wetland. Often in gravelly substrate. 80–5,760 feet in elevation. Blooms May–September. Annual.	<i>May occur.</i> Wetland habitat potentially suitable for this species is present in the project area.
Sacramento Orcutt grass <i>Orcuttia viscida</i>	FE	SE	1B.1	Vernal pools, wetland. 50–280 feet in elevation. Blooms April–July. Annual.	<i>May occur.</i> Wetland habitat potentially suitable for this species is present in the project area. <i>Orcuttia viscida</i> has multiple documented occurrences adjacent to the project area across Lake Natomas (CNDDDB 2023).
Sanford's arrowhead <i>Sagittaria sanfordii</i>	–	–	1B.2	Wetland. Marshes and swamps. In standing or slow-moving freshwater ponds, marshes, and ditches. 0–2,140 feet in elevation. Blooms May–October. Geophyte.	<i>May occur.</i> Wetland habitat potentially suitable for this species is present in the project area. <i>Sagittaria sanfordii</i> has multiple documented occurrences within 1 mile and 5 miles of the project area (CNDDDB 2023).

Notes: CRPR = California Rare Plant Rank

1 Legal Status Definitions

**Federal:**

FE Federally Listed as Endangered (legally protected by ESA)

FT Federally Listed as Threatened (legally protected by ESA)

**State:**

SE State Listed as Endangered (legally protected by CESA)

SR State Listed as Rare (legally protected by NPPA)

**California Rare Plant Ranks (CRPR):**

1B Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under ESA or CESA).

2B Plant species considered rare or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under ESA or CESA).

**CRPR Threat Ranks:**

0.1 Seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat)

0.2 Moderately threatened in California (20–80% occurrences threatened; moderate degree and immediacy of threat).

Sources: Calflora 2023; CNDDDB 2023.

**Table 3 Special-Status Wildlife Species with Potential to Occur in the Plan Area**

Species	Listing Status <sup>1</sup> Federal	Listing Status <sup>1</sup> State	Habitat	Potential for Occurrence <sup>2</sup>
<b>Amphibians and Reptiles</b>				
Western pond turtle <i>Emys marmorata</i>	FP	SSC	Ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	<i>May occur.</i> Habitat suitable for this species is found within the American River and its tributaries as well as in pond habitat.
Western spadefoot <i>Spea hammondi</i>	–	SSC	Cismontane woodland, coastal scrub, valley and foothill grassland, vernal pool, and wetlands. Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	<i>May occur.</i> Wetland habitat suitable for this species may be present in the project area.
<b>Birds</b>				
Bald eagle <i>Haliaeetus leucocephalus</i>	FD	SE; FP	Lower montane coniferous forest, old growth. Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	<i>May occur in winter;</i> however, this species does not normally nest on the Central Valley floor.
Burrowing owl <i>Athene cunicularia</i>	–	SSC	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	<i>May occur.</i> Vacant lots with sparse, low-growing vegetation within the project area provide habitat suitable for this species.
Grasshopper sparrow <i>Ammodramus savannarum</i>	–	SSC	Valley and foothill grassland. Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs, and scattered shrubs. Loosely colonial when nesting.	<i>May occur.</i> Grasslands in the project area provide habitat suitable for this species.
Swainson's hawk <i>Buteo swainsoni</i>	–	ST	Great Basin grassland, riparian forest, riparian woodland, valley and foothill grassland. Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	<i>May occur.</i> Trees throughout the American River corridor provide suitable nest sites for this species and grasslands in and near the project area provide foraging habitat. There are documented occurrences of this species directly adjacent to the plan area.
Tricolored blackbird <i>Agelaius tricolor</i>	–	ST; SSC	Forages in agricultural lands and grasslands; nests in marshes, riparian scrub, and other areas that support cattails or dense thickets of shrubs or herbs. Requires open water, protected nesting substrate, such as flooded, spiny, or thorny vegetation, and foraging area with insect prey within a few kilometers of the colony.	<i>May occur.</i> Riparian forest and scrub in the project area provides nesting habitat suitable for this species.



Species	Listing Status <sup>1</sup> Federal	Listing Status <sup>1</sup> State	Habitat	Potential for Occurrence <sup>2</sup>
White-tailed kite <i>Elanus leucurus</i>	–	FP	Cismontane woodland, marsh and swamp, riparian woodland, valley and foothill grassland, and wetlands. Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	<i>May occur.</i> Habitat suitable for this species is found within the riparian and grassland areas in the American river corridor.
<b>Fish</b>				
Steelhead (Central Valley DPS – pop. 11) <i>Oncorhynchus mykiss irideus</i>	FT	–	Sacramento/San Joaquin flowing waters. Populations in the Sacramento and San Joaquin rivers and their tributaries.	<i>May occur.</i> The American river is a tributary of the Sacramento river and provides habit suitable for this species.
<b>Invertebrates</b>				
Crotch bumble bee <i>Bombus crotchii</i>	–	SC	Found primarily in California: Mediterranean, Pacific coast, western desert, Great Valley, and adjacent foothills through most of southwestern California. Habitat includes open grassland and scrub. Nests underground.	<i>May occur.</i> Open grassland patches within the project area provide habitat suitable for this species .
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	FT	–	Riparian scrub. Occurs only in the Central Valley of California, in association with blue elderberry ( <i>Sambucus nigra</i> ssp. <i>caerulea</i> ). Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for "stressed" elderberries.	<i>Known to occur.</i> Riparian habitat throughout the project area may support blue elderberry, which is the host plant for this species. Valley elderberry longhorn beetle has a documented occurrence towards the southern end of the central reach of the plan area, as well as along the southern reach just outside the plan area (CNDDDB 2023).
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT	–	Valley and foothill grassland, vernal pool, wetland. Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	<i>May occur.</i> Vernal pool habitat suitable for this species may be present in the project area.
Vernal pool tadpole shrimp <i>Lepidurus packardii</i>	FE	–	Valley and foothill grassland, vernal pool, wetland. Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	<i>May occur.</i> Vernal pool habitat suitable for this species may be present in the project area.
<b>Mammals</b>				
American badger <i>Taxidea taxus</i>	–	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	<i>May occur.</i> Habitat suitable present but foraging habitat is minimal and located near a large city.

Species	Listing Status <sup>1</sup> Federal	Listing Status <sup>1</sup> State	Habitat	Potential for Occurrence <sup>2</sup>
Pallid bat <i>Antrozous pallidus</i>	–	SSC	Most common in open, dry habitats with rocky areas for roosting. Tree roosting has also been documented in large conifer snags, inside basal hollows of redwoods and giant sequoias, and bole cavities in oaks. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	<i>May occur.</i> Oak trees and rocky outcrops provide potential roost sites for this species.

Notes: CNDDB = California Natural Diversity Database; CEQA = California Environmental Quality Act

1 Legal Status Definitions

**Federal:**

- FE Federally Listed as Endangered (legally protected)
- FT Federally Listed as Threatened (legally protected)
- FD Federally Delisted

**State:**

- FP Fully Protected (legally protected)
- SSC Species of Special Concern (no formal protection other than CEQA consideration)
- SE State Listed as Endangered (legally protected)
- ST State Listed as Threatened (legally protected)
- SC State Candidate for listing (legally protected)

Sources: CNDDB 2023.