

Addendum to Natural Environment Study Broadway Bridge Project Federal Project No.: TGR2DGL 5447(043)

December 22, 2020

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Purpose of Addendum

This addendum to the February 2020 Natural Environment Study (NES) prepared for the Broadway Bridge Project updates some details of the impacts of each build alternative that were refined since preparation of the original study.

Document Changes

Figures

Updated Figure 6 and Updated Figure 7, attached to this addendum, reflect the changes in impact areas of each build alternative from revised rock slope protection areas provided by the project engineering team and from a more accurate representation of the impact area for the installation of the proposed underground fiber optic communications line. These figures supersede Figures 6 and 7 in Appendix A of the February 2020 NES and match those included in the December 2020 Biological Assessment prepared for the initiation of consultation under Section 7 of the Endangered Species Act.

Impacts on Land Cover Type

The quantification of impacts on land cover types included in the February 2020 NES is updated by this addendum. Updated Table 4-1, below, reflects the updated permanent and temporary impacts, in acres, on land cover types in the biological study area.

Updated Table 4-1. Permanent and Temporary Impacts on Land Cover Types in the Biological Study Area

Impacts by Alternative	Land Cover Type				
	Cottonwood Riparian Forest ^a	Perennial Stream ^a	Ruderal	Landscaped	Total
Alternative B, Interim Year					
Permanent impact (acres)	1.112	0.432	2.655	1.704	5.903
Temporary impact (acres)	0.786	4.729	1.035	1.284	7.834
Alternative B, Design Year					
Permanent impact (acres)	1.112	0.432	2.661	1.801	6.006
Temporary impact (acres)	0.786	4.729	1.030	1.279	7.824
Alternative C, Interim Year					
Permanent impact (acres)	1.176	0.482	1.838	2.160	5.656
Temporary impact (acres)	1.149	4.969	0.822	1.289	8.229
Alternative C, Design Year					
Permanent impact (acres)	1.176	0.482	1.843	2.136	5.637
Temporary impact (acres)	1.149	4.969	0.871	1.318	8.307

^a These are sensitive natural communities. If the project is constructed in two phases, impacts on sensitive natural communities would occur in the first phase of construction; no additional impact would occur for construction of the second phase.

Impacts on Special-Status Wildlife Species

The type and intensity of impacts described in the February 2020 NES, the avoidance and minimization efforts, and the compensatory mitigation measures are not changed by the updated permanent and temporary impacts on land cover type.

Only the quantification of the area of land cover type that provides suitable habitat for the special-status species described in the February 2020 NES is replaced by the data provided in Updated Table 4-1 in this addendum.

Species Lists

Species lists from the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) were obtained in September and October 2020 for the Biological Assessment (December 2020). The lists do not include any species not already addressed in the February 2020 NES and there is no change to the protected status of species. Updated species lists will be obtained and included in the environmental impact report/environmental assessment prepared for the project.

Addendum Attachments:

Updated Figure 6

Updated Figure 7



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Updated Figure 6
Alternative B Land Cover and Project Impacts

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Biological Study Area
 Biological Study Area

Fiber Optic Line
 Fiber Optic Line

Project Footprint

- Permanent Impacts
- Temporary Impacts

Land Cover

- Developed
- Landscaped
- Perennial Stream
- Riparian
- Riparian (Below OHWM)
- Ruderal
- Elderberry Shrub Location

Tree Locations*

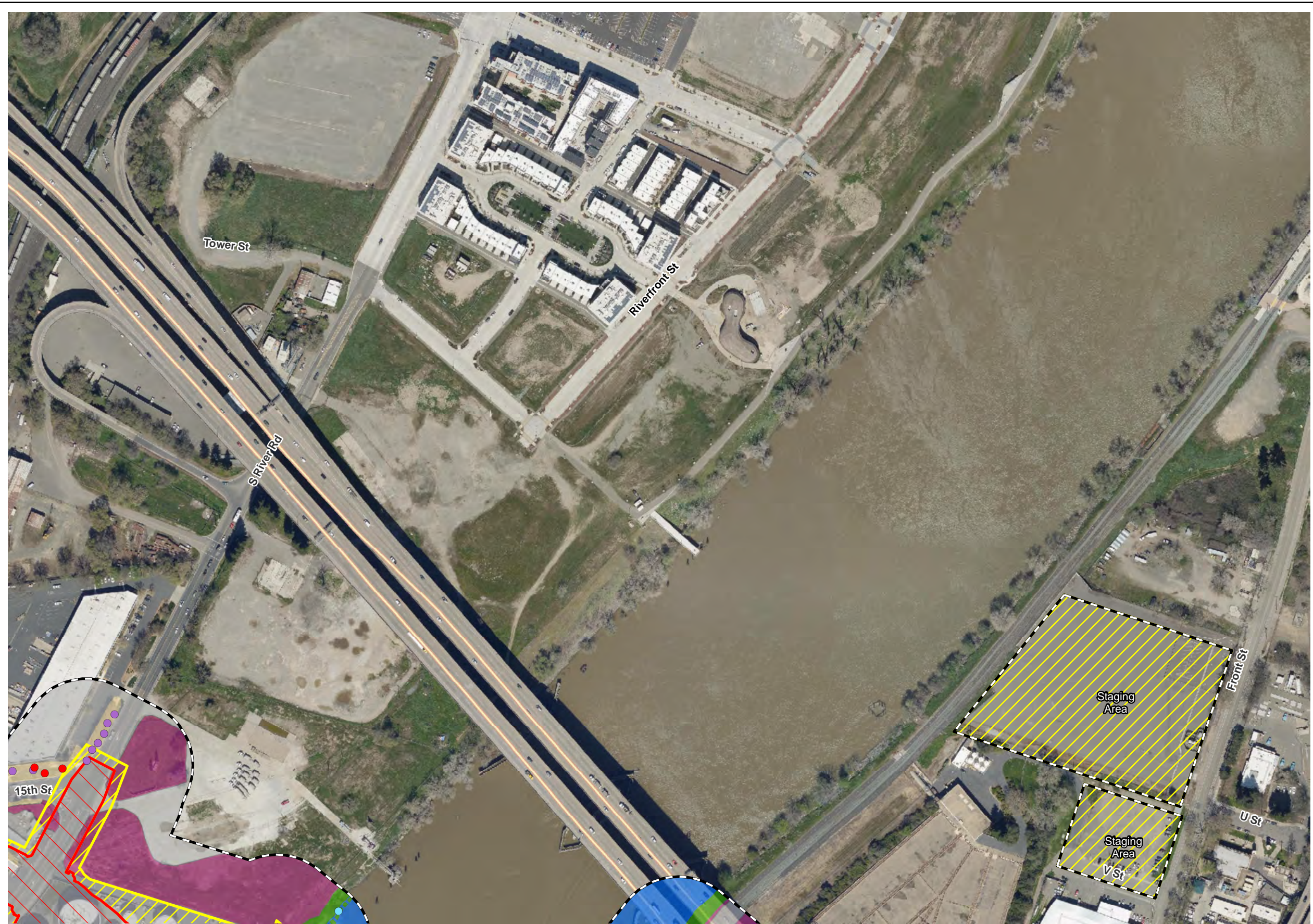
- Black Locust
- Black Walnut
- Box Elder
- Fremont's Cottonwood
- Goodding's Black Willow
- Oregon Ash
- Sycamore
- Valley Oak
- White Alder
- Other

Scale:
 0 125 250 Feet
 1:3,000

*Tree locations are approximate

Updated Figure 6
Alternative B Land Cover and Project Impacts

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Biological Study Area
 [Dashed White Line]

Fiber Optic Line
 [Pink Line]

Project Footprint
 [Red Hatched Box] Permanent Impacts
 [Yellow Hatched Box] Temporary Impacts

Land Cover
 [Grey Box] Developed
 [Yellow Box] Landscaped
 [Blue Box] Perennial Stream
 [Green Box] Riparian
 [Blue-Green Box] Riparian (Below OHWM)
 [Purple Box] Ruderal
 [Green Asterisk] Elderberry Shrub Location

Tree Locations*
 [Black Dot] Black Locust
 [Brown Dot] Black Walnut
 [Yellow Dot] Box Elder
 [Light Blue Dot] Fremont's Cottonwood
 [Orange Dot] Goodding's Black Willow
 [Grey Dot] Oregon Ash
 [Green Dot] Sycamore
 [Red Dot] Valley Oak
 [White Dot] White Alder
 [Purple Dot] Other

Scale:
 0 125 250 Feet
 1:3,000

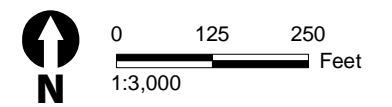
*Tree locations are approximate

Updated Figure 6
Alternative B Land Cover and Project Impacts

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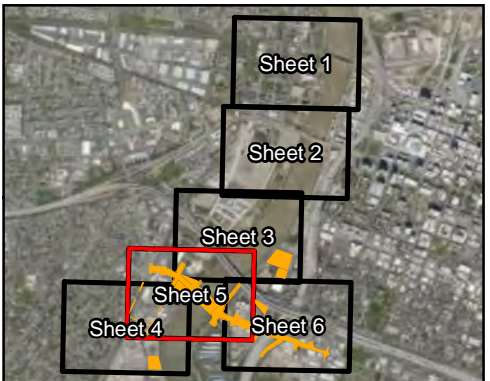
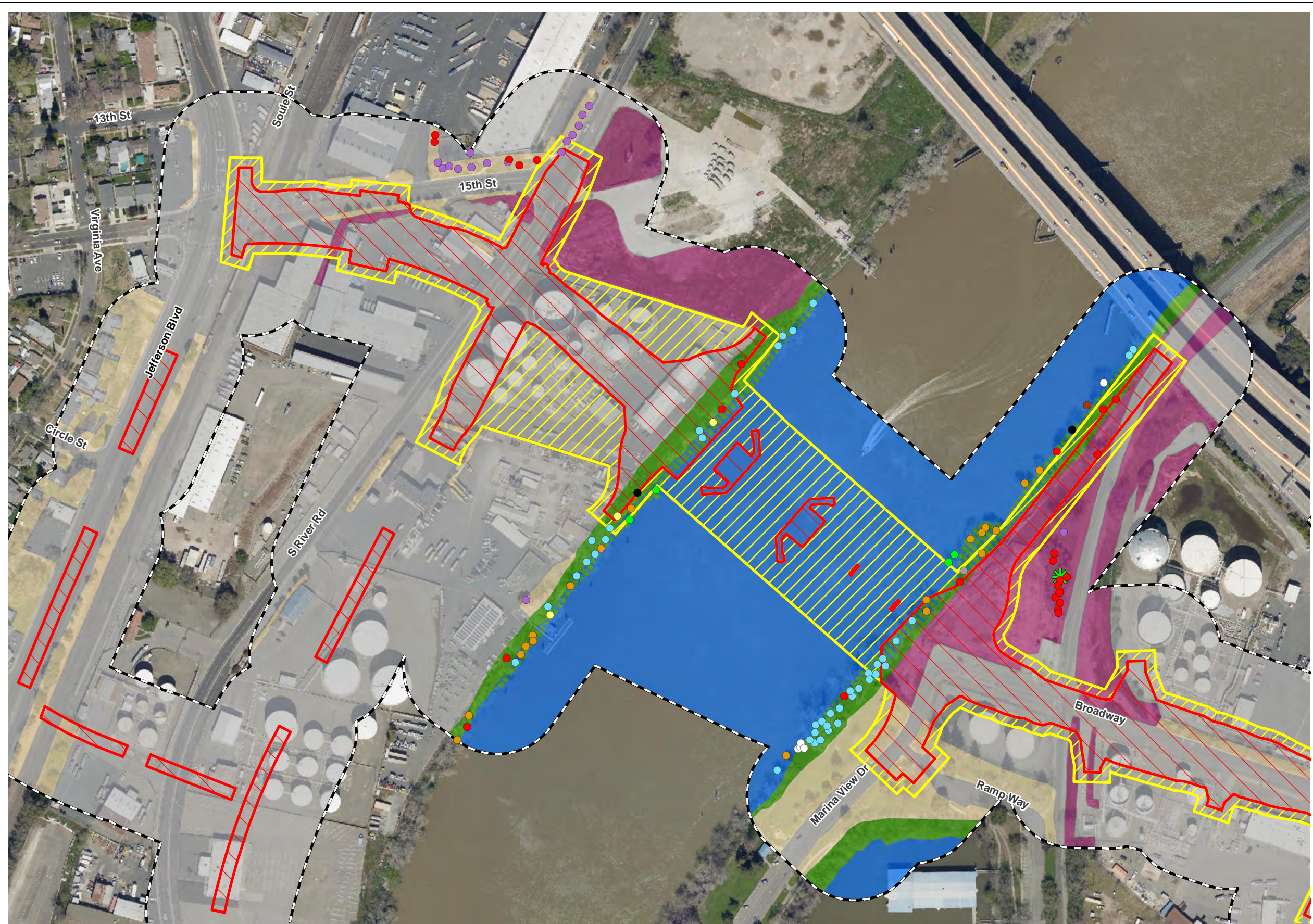
- Biological Study Area
- Fiber Optic Line
- Project Footprint**
- Permanent Impacts
- Temporary Impacts
- Land Cover**
- Developed
- Landscaped
- Perennial Stream
- Riparian
- Riparian (Below OHWM)
- Ruderal
- Elderberry Shrub Location
- Tree Locations***
- Black Locust
- Black Walnut
- Box Elder
- Fremont's Cottonwood
- Goodding's Black Willow
- Oregon Ash
- Sycamore
- Valley Oak
- White Alder
- Other



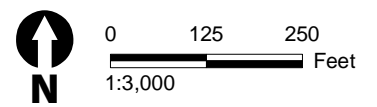
*Tree locations are approximate

Updated Figure 6
Alternative B Land Cover and Project Impacts

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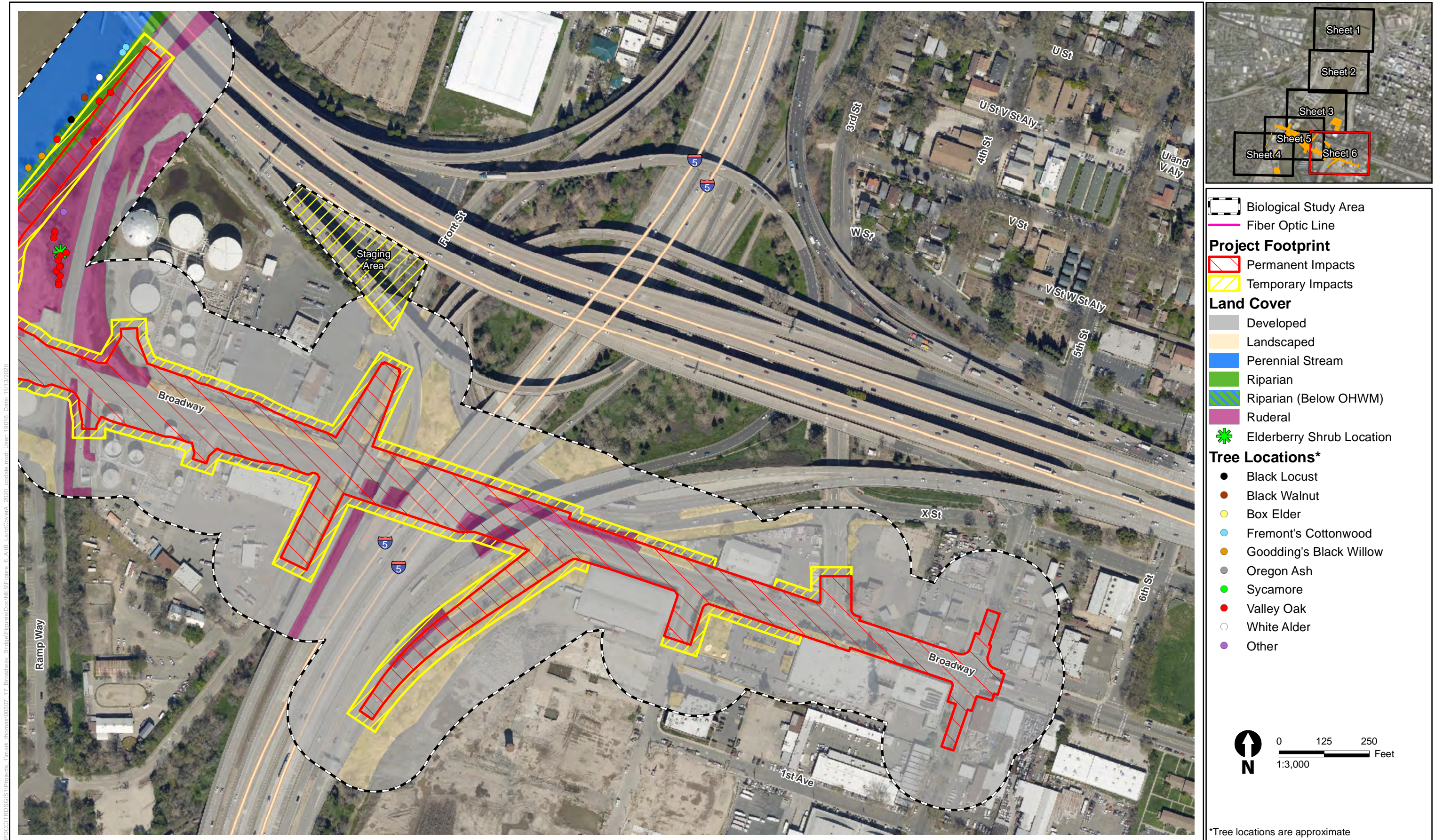


- Biological Study Area
- Fiber Optic Line
- Project Footprint**
- Permanent Impacts
- Temporary Impacts
- Land Cover**
- Developed
- Landscaped
- Perennial Stream
- Riparian
- Riparian (Below OHWM)
- Ruderal
- Elderberry Shrub Location
- Tree Locations***
- Black Locust
- Black Walnut
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- Fremont's Cottonwood
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- Oregon Ash
- Sycamore
- Valley Oak
- White Alder
- Other



*Tree locations are approximate

Updated Figure 6
Alternative B Land Cover and Project Impacts
























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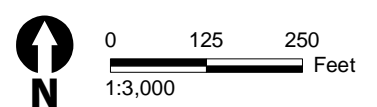
Updated Figure 6
Alternative B Land Cover and Project Impacts

*Tree locations are approximate

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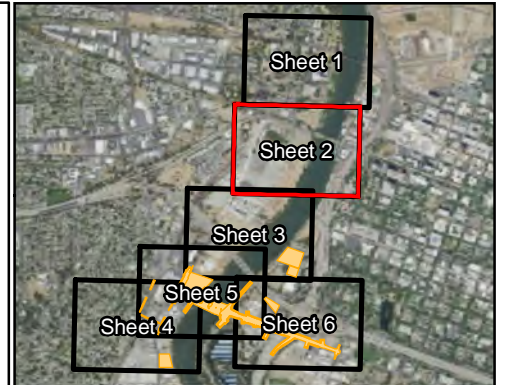
-  Biological Study Area
-  Fiber Optic Line
- Project Footprint**
-  Permanent Impacts
-  Temporary Impacts
- Land Cover**
-  Developed
-  Landscaped
-  Perennial Stream
-  Riparian
-  Riparian (Below OHWM)
-  Ruderal
-  Elderberry Shrub Location
- Tree Locations***
-  Black Locust
-  Black Walnut
-  Box Elder
-  Fremont's Cottonwood
-  Goodding's Black Willow
-  Oregon Ash
-  Sycamore
-  Valley Oak
-  White Alder
-  Other



*Tree locations are approximate

Updated Figure 7
Alternative C Land Cover and Project Impacts

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Biological Study Area
 Fiber Optic Line
Project Footprint
 Permanent Impacts
 Temporary Impacts
Land Cover
 Developed
 Landscaped
 Perennial Stream
 Riparian
 Riparian (Below OHWM)
 Ruderal
 Elderberry Shrub Location
Tree Locations*

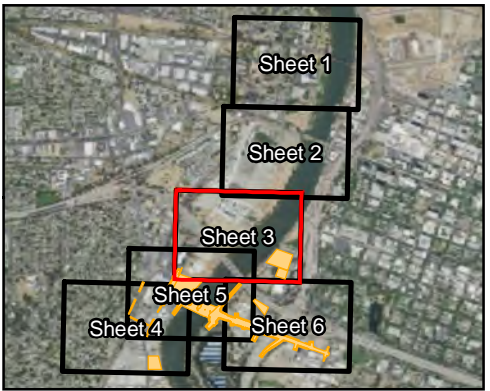
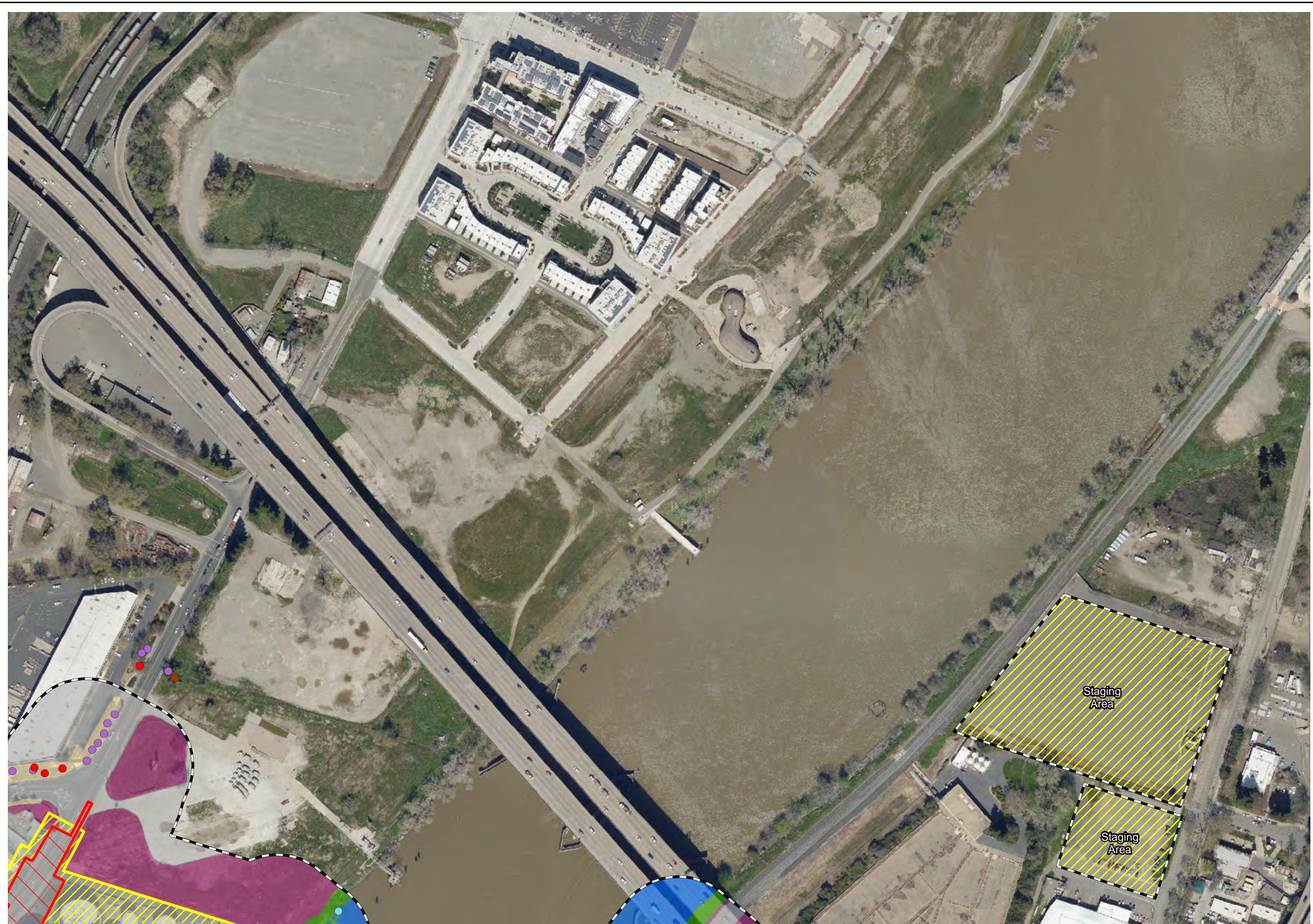
- Black Locust
- Black Walnut
- Box Elder
- Fremont's Cottonwood
- Goodding's Black Willow
- Oregon Ash
- Sycamore
- Valley Oak
- White Alder
- Other

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 0 125 250 Feet
 1:3,000

*Tree locations are approximate

Updated Figure 7
Alternative C Land Cover and Project Impacts

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Biological Study Area

Fiber Optic Line

Project Footprint

Permanent Impacts

Temporary Impacts

Land Cover

Developed

Landscaped

Perennial Stream

Riparian

Riparian (Below OHWM)

Ruderal

Elderberry Shrub Location

Tree Locations*

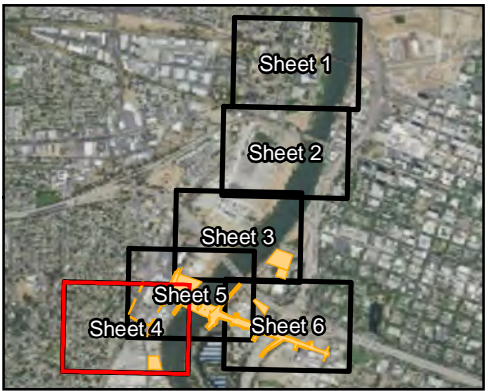
- Black Locust
- Black Walnut
- Box Elder
- Fremont's Cottonwood
- Goodding's Black Willow
- Oregon Ash
- Sycamore
- Valley Oak
- White Alder
- Other

0 125 250 Feet
1:3,000

*Tree locations are approximate

Updated Figure 7
Alternative C Land Cover and Project Impacts

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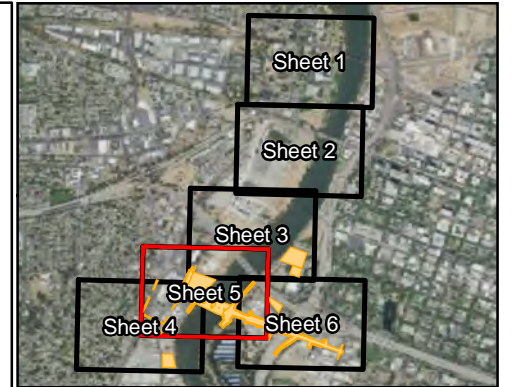
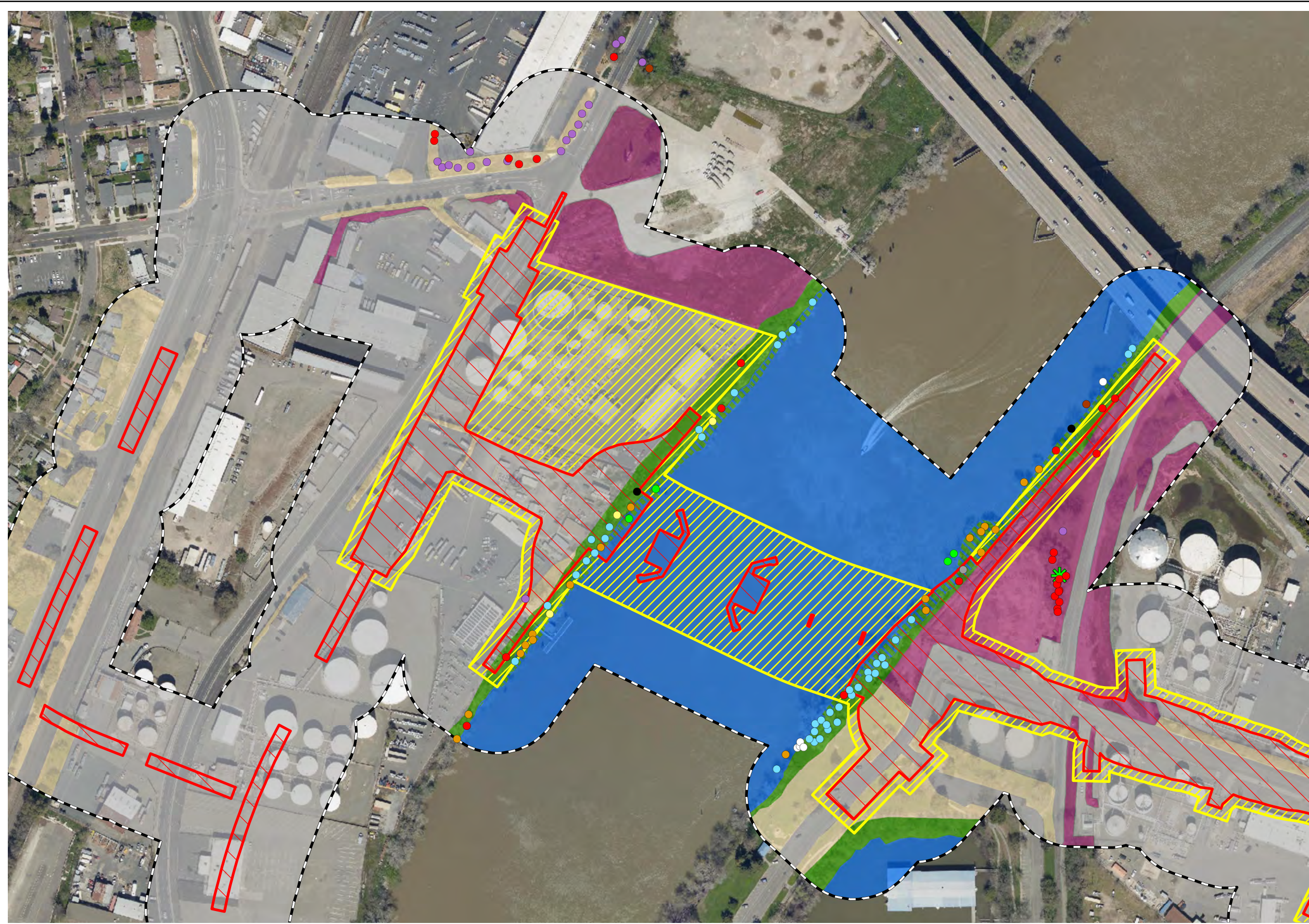
Biological Study Area
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Project Footprint
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Alternative C Land Cover and Project Impacts

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Biological Study Area
 - Dashed black line

Fiber Optic Line
 - Pink line

Project Footprint
 - Red hatched: Permanent Impacts
 - Yellow hatched: Temporary Impacts

Land Cover
 - Grey: Developed
 - Yellow: Landscaped
 - Blue: Perennial Stream
 - Green: Riparian
 - Purple: Riparian (Below OHWM)
 - Pink: Ruderal

Elderberry Shrub Location
 - Green star symbol

Tree Locations*

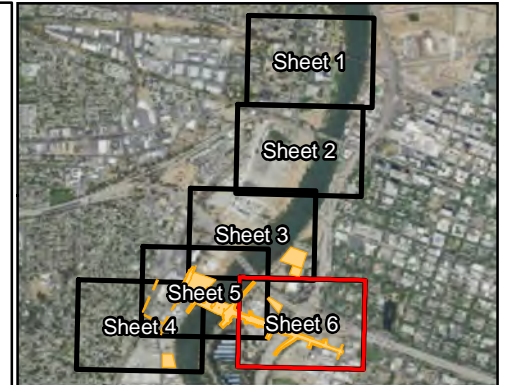
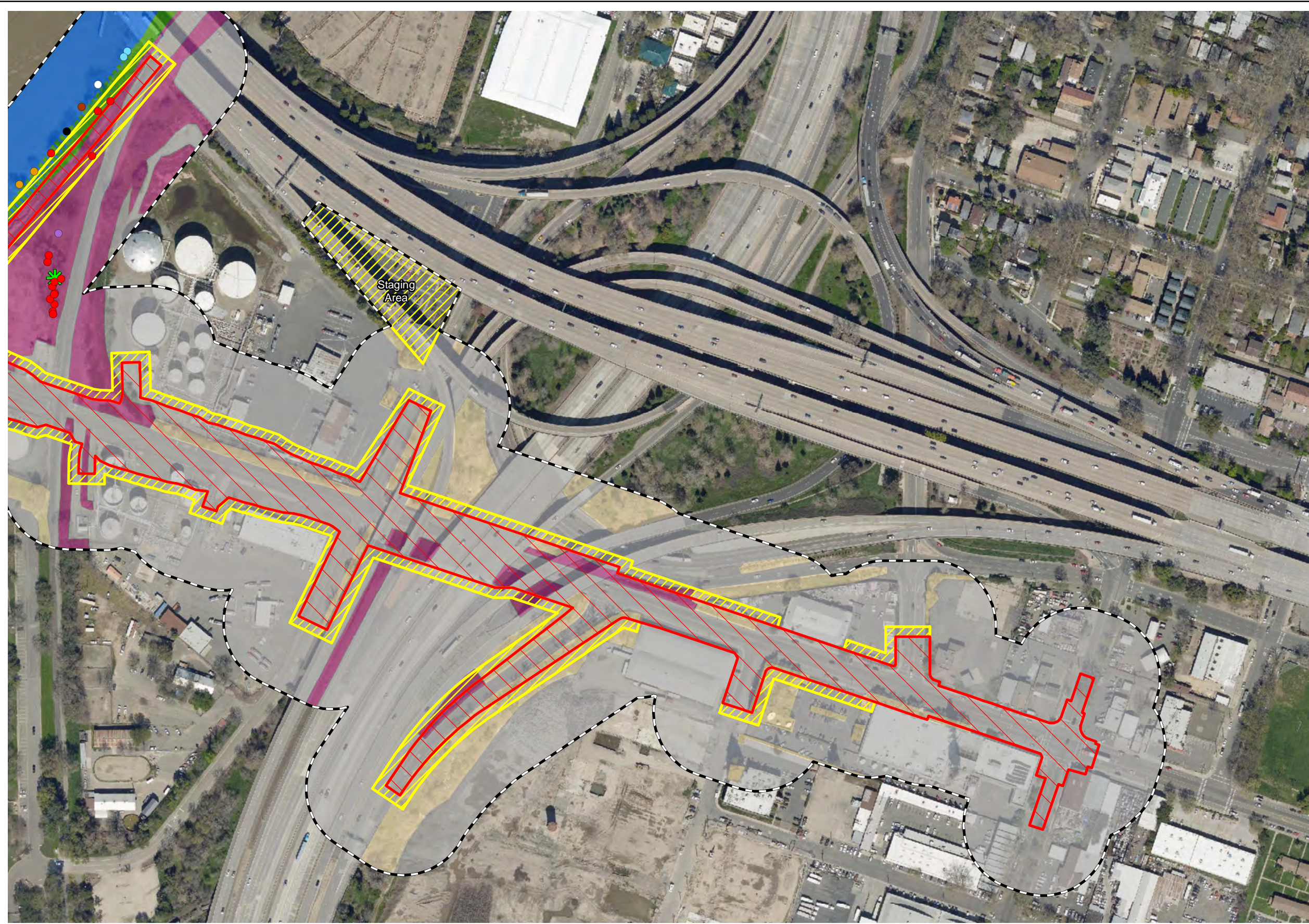
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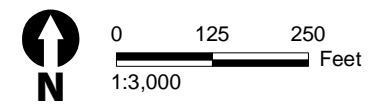
*Tree locations are approximate

Updated Figure 7
Alternative C Land Cover and Project Impacts

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- Biological Study Area
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- Project Footprint**
- Permanent Impacts
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