

Exhibit Y. Applicant Covered Species Impact Estimates Based on Species Habitat Models.

The following figures show the application's species habitat impact analysis based on species models to estimate project impacts to modeled habitats prior to the Designated Biologist conducting habitat evaluations during Project implementation. These figures are described below.

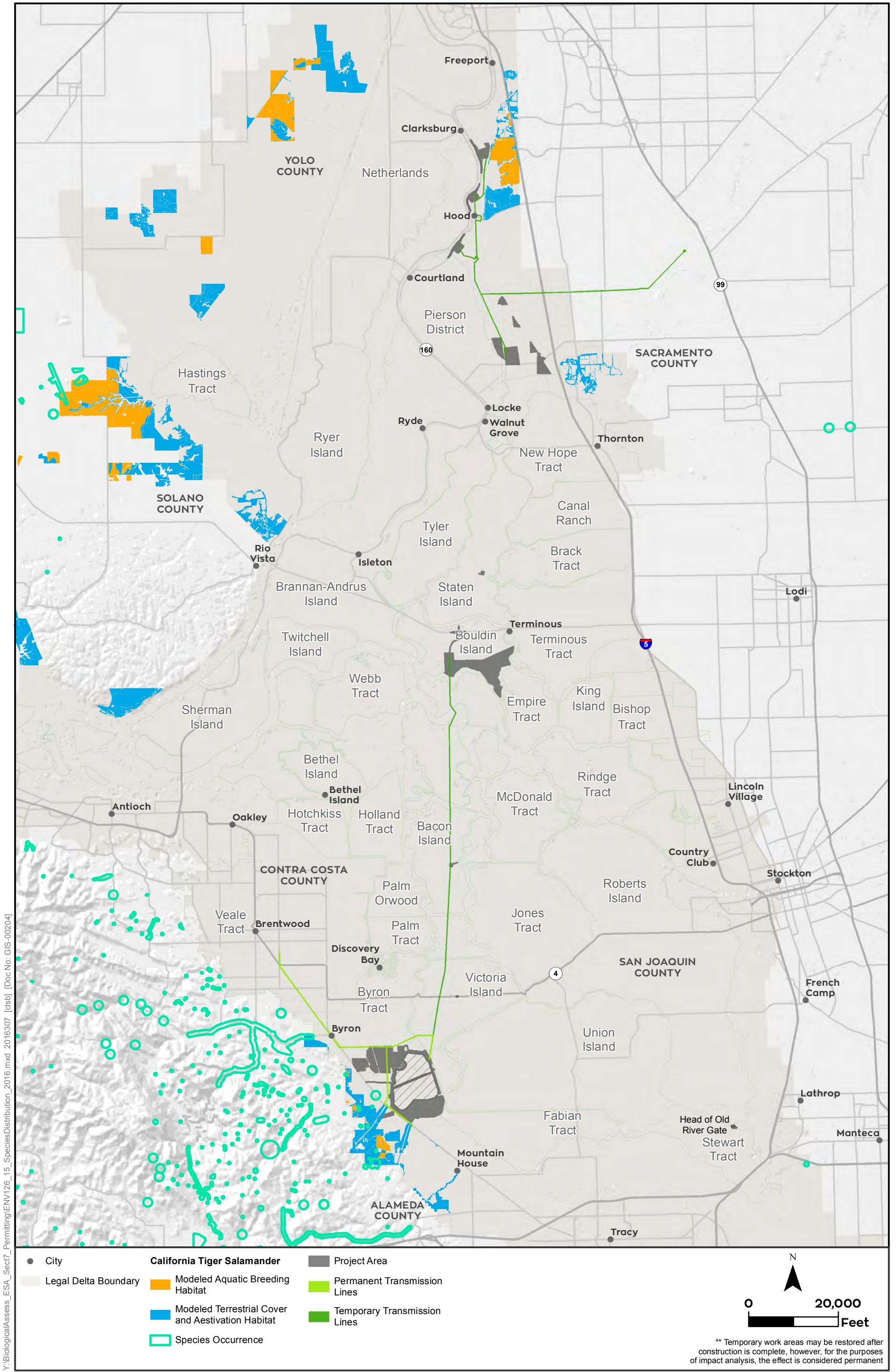
1. Habitat impact analysis on California tiger salamander (CTS). Figure 4.5-1 shows modeled CTS habitat relative to the tunneled conveyance facilities (Exhibit X, Figure 2). Figure 4.5-2 shows estimated impacts (permanent and temporary) to modeled CTS habitat in Group M in Exhibit X, Figure 10 and in the utility line corridor (Exhibit X, Figure 4).
2. Habitat impact analysis on giant garter snake (GGS). Figure 4.6-1 shows modeled GGS habitat relative to the tunneled conveyance facilities (see Figure 2). Figures 4.6-2 – 4.6.36 show estimated impacts (permanent and temporary) to modeled GGS habitat in Groups A – D, F – G, and I - N (exhibit X, Figures 5-10) and in the utility line corridor (Exhibit X, Figure 4).
3. Habitat impact analysis on Swainson's hawk (SWHA). Figure 4.7-1 shows modeled SWHA habitat relative to the tunneled conveyance facilities (see Figure x). Figures 4.7-2 – 4.7.38 show estimated impacts (permanent and temporary) to modeled SWHA habitat in Groups A – D, F – I, and K – N, Figures 5-10; and in the utility line corridor (see Figure 4).
4. Habitat impact analysis on tricolored blackbird (TRBL). Figure 4.8-1 shows modeled TRBL habitat relative to the tunneled conveyance facilities (see Figure 2). Figures 4.8-2 – 4.8.33 show estimated impacts (permanent and temporary) to modeled TRBL habitat in Groups A – D, F – I (access road in Region J not shown) , and K - N in Figures 5 – 10; and in the utility line and geotechnical corridors (see Figure 4).

Additional detail linking the species habitat model impacts and the project construction footprint follow:

Habitat Model Impact Figure	Tunneled Conveyance Facilities Reference Group (Exhibit X, Figure 2)	Utilities and Corridors (Exhibit X, Figure 4)
CTS		
4.5.-2	M – Clifton Court Forebay Modifications	Utility Lines
GGS		
4.6-2	A – North Delta Diversion (NDD) Intake 2	Utility Lines
4.6-3	B – NDD Intake 3 and C – Intake Work Area	Utility Lines
4.6-4	D – NDD Intake 5	
4.6-5 – 4.6-13		Utility Lines
4.6-14	F – Reusable Tunnel Material (RTM) Storage Sites and G – Intermediate Forebay and RTM Sites	Utility Lines
4.6-15	F – Reusable Tunnel Material (RTM) Storage Sites and G – Intermediate Forebay and RTM Sites	
4.6-16	G – Intermediate Forebay and RTM Sites	
4.6-20	I – Bouldin Island Interchange, Launch Shaft, and RTM Site	Utility Lines
4.6-21 – 4.6.22	I – Bouldin Island Interchange, Launch Shaft, and RTM Site	
4.6.- 23	I – Bouldin Island Interchange, Launch Shaft, and RTM Site and J – Mandeville Island Barge Landing and Access Road	Utility Lines
4.6-24	K – Bacon Island Retrieval Shaft and Work Area	Utility Lines
4.6-26	K – Bacon Island Retrieval Shaft and Work Area	Utility Lines
4.6-27	L – Victoria Island Barge Landing and Access Road	Utility Lines
4.6-28	L – Victoria Island Barge Landing and Access Road	Utility Lines
4.6-29,	M – Clifton Court Forebay Modifications	Utility Lines
4.6-30	M – Clifton Court Forebay Modifications	
4.6-31 – 4.6-33	M – Clifton Court Forebay	Utility Lines

Habitat Model Impact Figure	Tunneled Conveyance Facilities Reference Group (Exhibit X, Figure 2)	Utilities and Corridors (Exhibit X, Figure 4)
	Modifications	
4.6-34 – 4.6.-35		Utility Lines
4.6-36	N – Head of Old River Gate/Staging and Spoils Area	
SWHA		
4.7-2	A – North Delta Diversion (NDD) Intake 2	Utility Lines
4.7-3	B – NDD Intake 3 and C – Intake Work Area	Utility Lines
4.7-4	D – NDD Intake 5	Utility Lines
4.7-5		Utility Lines
4.7-6	F – Reusable Tunnel Material (RTM) Storage Sites	Utility Lines
4.7-7 – 4.7.15		Utility Lines
4.7-16	F – Reusable Tunnel Material (RTM) Storage Sites and G – Intermediate Forebay and RTM Sites	Utility Lines
4.7-17	F – Reusable Tunnel Material (RTM) Storage Sites and G – Intermediate Forebay and RTM Sites	
4.7-18	G – Intermediate Forebay and RTM Sites	
4.7-21	H – Staten Island Retrieval Shaft and Work Area	
4.7-22	I – Bouldin Island Interchange, Launch Shaft, and RTM Site	Utility Lines
4.7-23 – 4.7-24	I – Bouldin Island Interchange, Launch Shaft, and RTM Site	
4.7-25	I – Bouldin Island Interchange, Launch Shaft, and RTM Site	Utility Lines
4.7-27 – 4.7.28	K – Bacon Island Retrieval Shaft and Work Area	Utility Lines
4.7-29	L – Victoria Island Barge Landing and Access Road	Utility Lines
4.7-30	L – Victoria Island Barge Landing and Access Road	Utility Lines
4.7-31 – 4.7.35	M – Clifton Court Forebay Modifications	Utility Lines
4.7.36 – 4.7-37		Utility Lines
4.7.38	N – Head of Old River Gate/Staging and Spoils Area	
TRBL		

Habitat Model Impact Figure	Tunneled Conveyance Facilities Reference Group (Exhibit X, Figure 2)	Utilities and Corridors (Exhibit X, Figure 4)
4.8-2	A – North Delta Diversion (NDD) Intake 2	Utility Lines and Geotechnical Corridor
4.8-3	B – NDD Intake 3 and C – Intake Work Area	Utility Lines and Geotechnical Corridor
4.8-4	D – NDD Intake 5	Utility Lines and Geotechnical Corridor
4.8-5		Utility Lines and Geotechnical Corridor
4.8.6 – 4.8.15		Utility Lines
4.8-16	F – Reusable Tunnel Material (RTM) Storage Sites and G – Intermediate Forebay and RTM Sites	Utility Lines and Geotechnical Corridor
4.8-17	F – Reusable Tunnel Material (RTM) Storage Sites and G – Intermediate Forebay and RTM Sites	
4.8-18	G – Intermediate Forebay and RTM Sites	
4.8-19	H – Staten Island Retrieval Shaft and Work Area	Geotechnical Corridor
4.8-20	I – Bouldin Island Interchange, Launch Shaft, and RTM Site	Utility Lines and Geotechnical Corridor
4.8-21 – 4.8-22	I – Bouldin Island Interchange, Launch Shaft, and RTM Site	
4.8-23	I – Bouldin Island Interchange, Launch Shaft, and RTM Site	Utility Lines and Geotechnical Corridor
4.8-24 – 4.8-25	K – Bacon Island Retrieval Shaft and Work Area	Utility Lines and Geotechnical Corridor
4.8-26 – 4.8-27	L – Victoria Island Barge Landing and Access Road	Utility Lines and Geotechnical Corridor
4.8-28 – 4.8-29	M – Clifton Court Forebay Modifications	Utility Lines and Geotechnical Corridor
4.8-30	M – Clifton Court Forebay Modifications	Utility Lines
4.8.31 – 4.8-32		Utility Lines
4.8.33	N – Head of Old River Gate/Staging and Spoils Area	

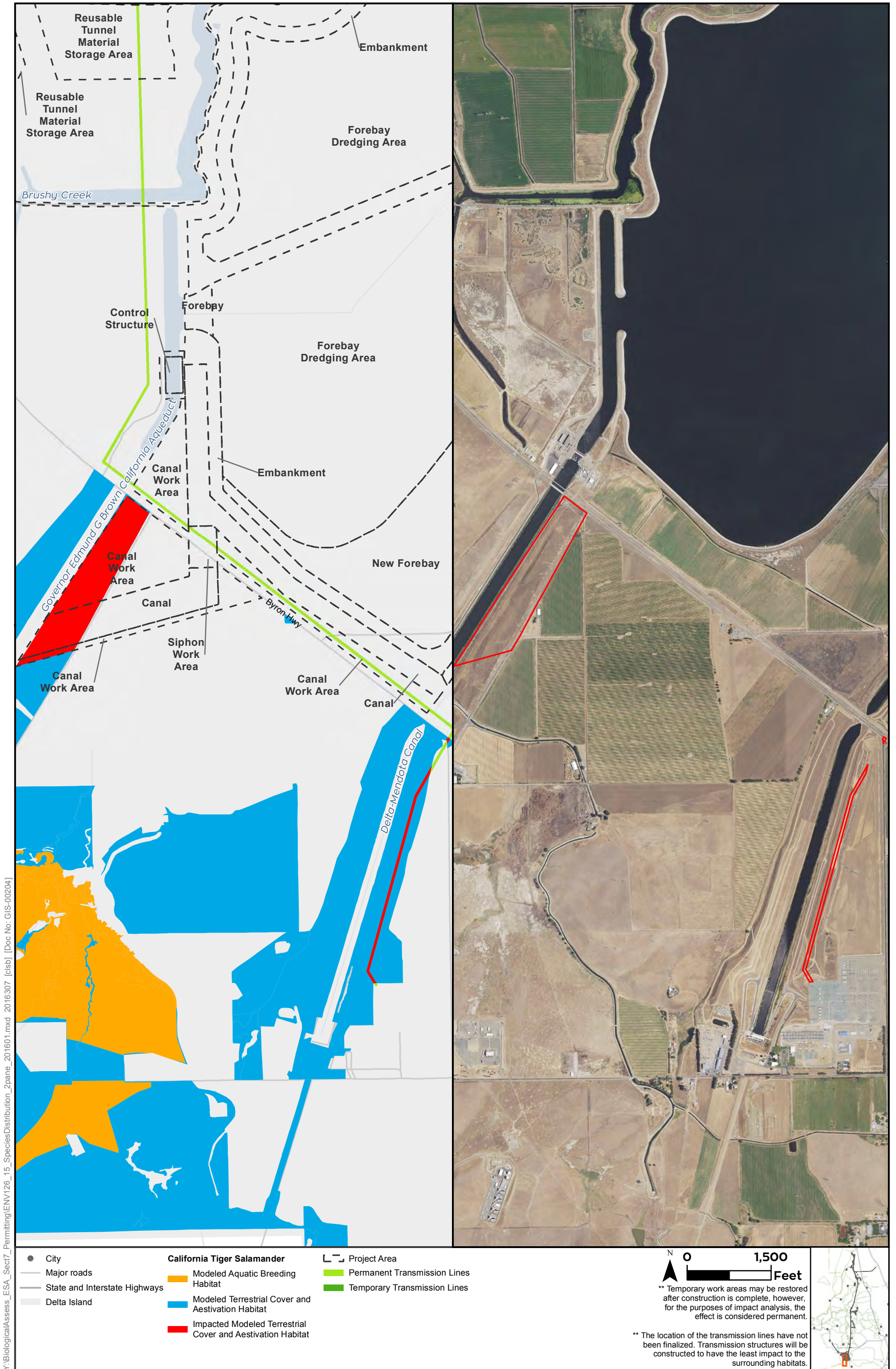


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Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; Critical Habitat, USFWS 2012



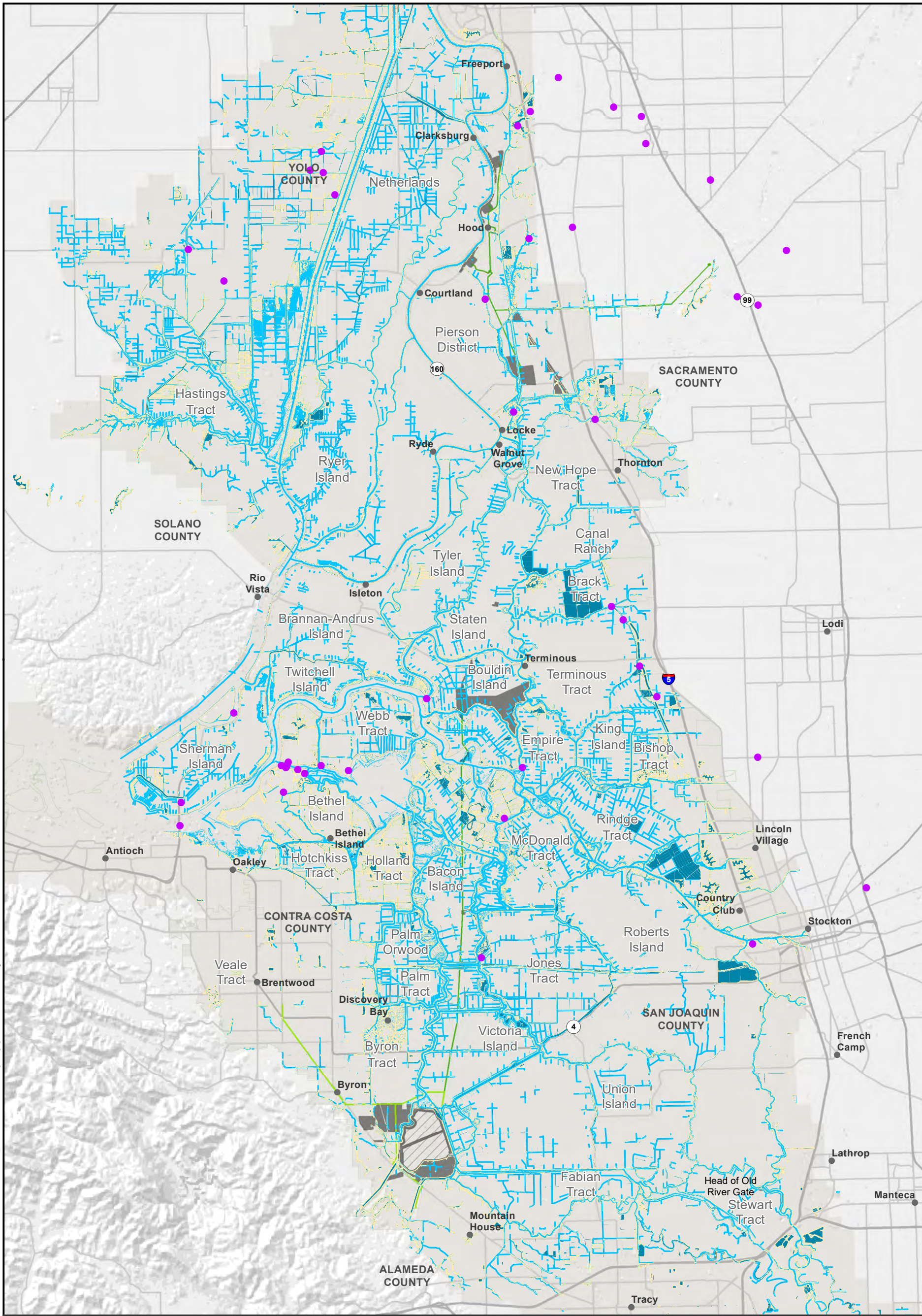
Figure 4.5-1
Impacts to California Tiger Salamander Modeled Habitat from the Proposed Project



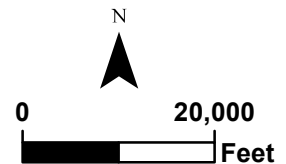
Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

Figure 4.5-2
Impacts to California Tiger Salamander Modeled Habitat from the Proposed Project

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● City	Giant Garter Snake	■ Aquatic-Tidal	■ Project Area
■ Legal Delta Boundary	● Species Occurrence	■ Aquatic-Nontidal	■ Permanent Transmission Lines
Modeled Habitat - Qualitative Range	■ Upland	■ Temporary Transmission Lines	
■ Aquatic-Tidal			



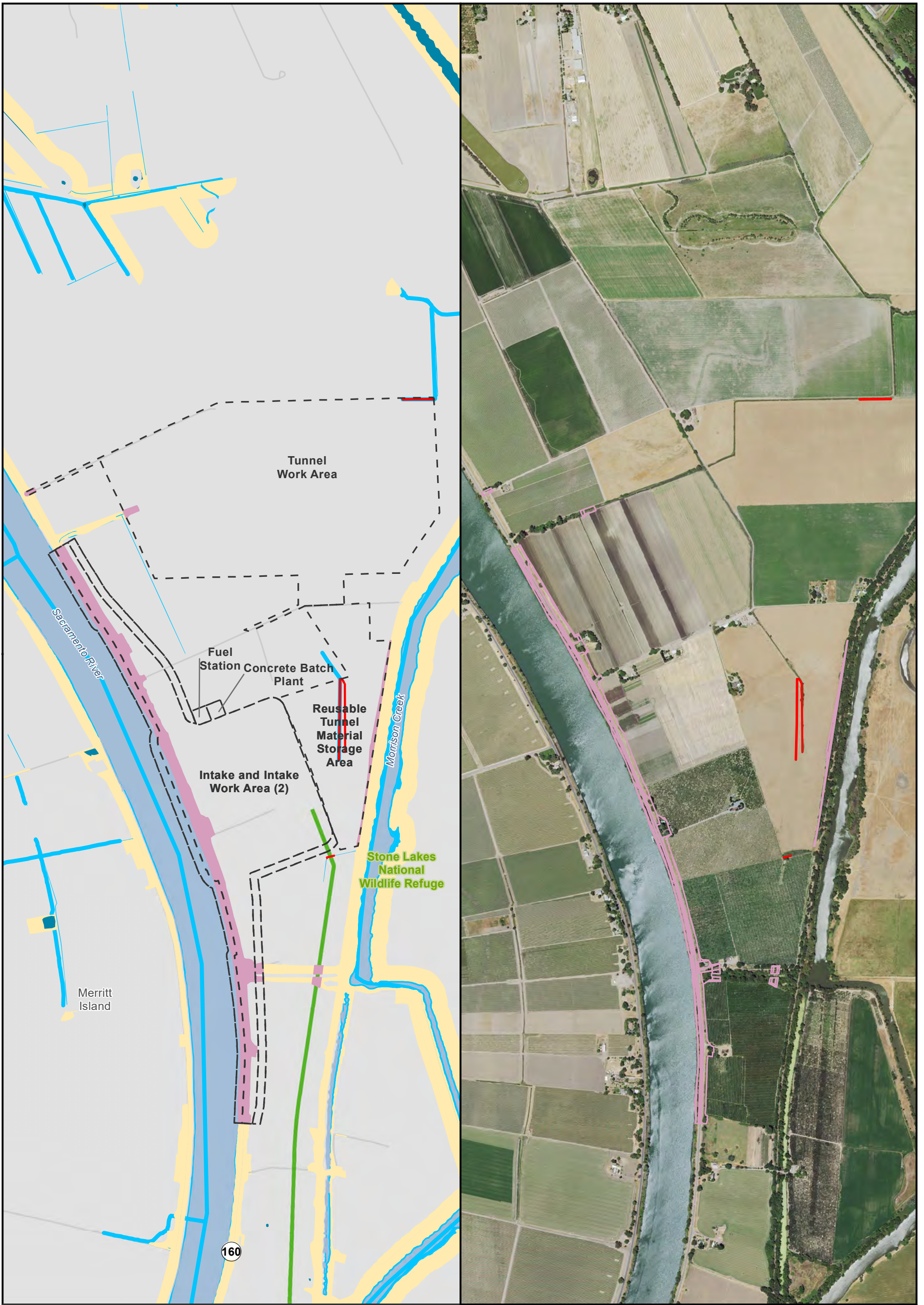
** Temporary work areas may be restored after construction is complete, however, for the purposes of impact analysis, the effect is considered permanent

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; Critical Habitat, USFWS 2012



Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction

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| ● City | Impacted Modeled Habitat - Qualitative Range | Modeled Habitat - Qualitative Range | ▭ Project |
| — Major roads | ■ Aquatic-Tidal | ■ Aquatic-Tidal | ▭ Permanent Transmission |
| — State and Interstate Highways | ■ Aquatic-Nontidal | ■ Aquatic-Nontidal | ▭ Temporary Transmission |
| ■ Delta Island | ■ Upland | ■ Upland | |



** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

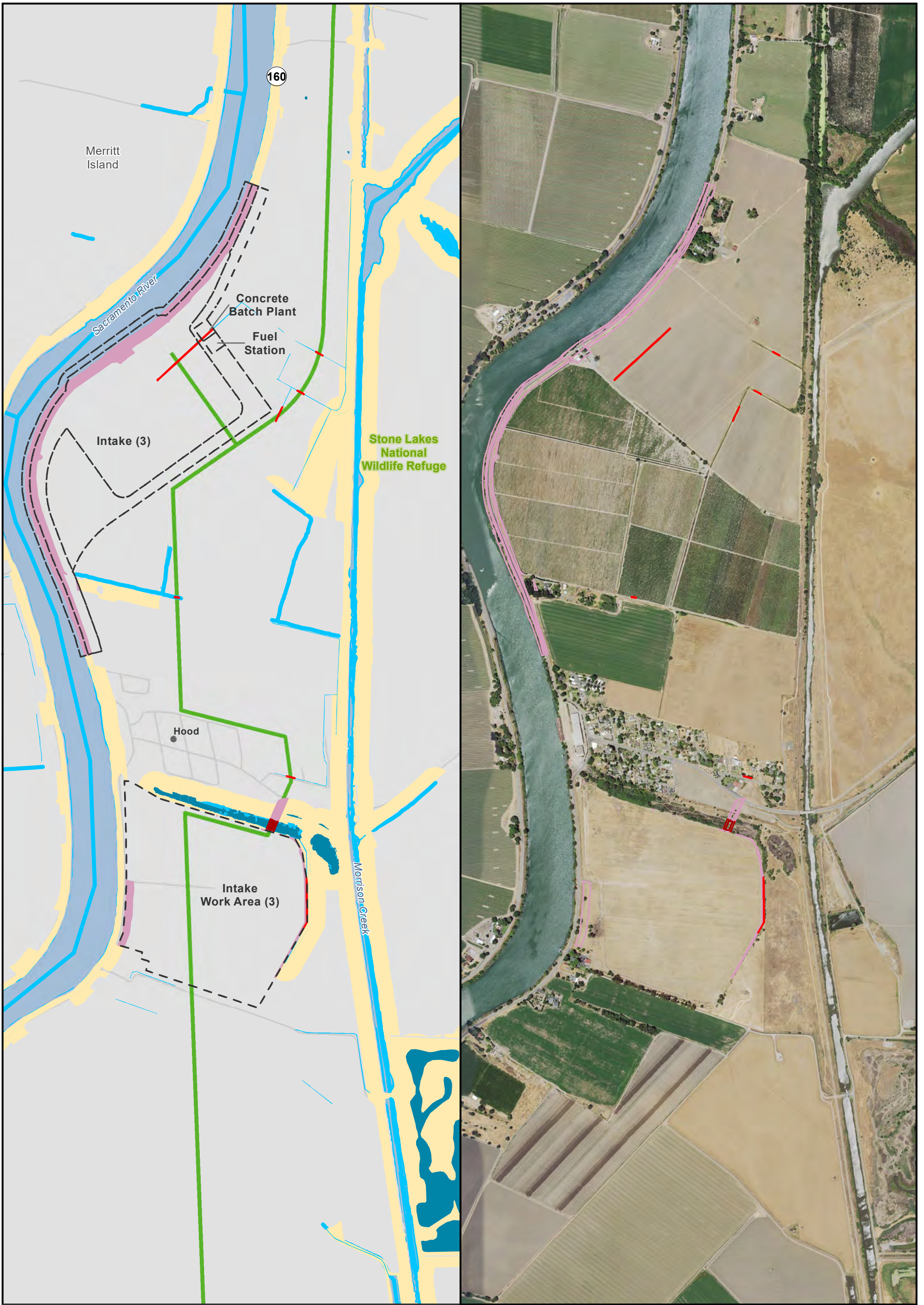


Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction

Intake 2

Figure 4.6-2 of 4.6-36

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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- | | | |
|--|---|--|
| <p>Impacted Modeled Habitat - Qualitative Range</p> <ul style="list-style-type: none"> ■ Aquatic-Tidal ■ Aquatic-Nontidal ■ Upland | <p>Modeled Habitat - Qualitative Range</p> <ul style="list-style-type: none"> ■ Aquatic-Tidal ■ Aquatic-Nontidal ■ Upland | <p>Project</p> <ul style="list-style-type: none"> ■ Permanent Transmission ■ Temporary Transmission |
|--|---|--|



** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction

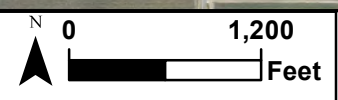
Intake 3

Figure 4.6-3 of 4.6-36

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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- | | | |
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| <p>Impacted Modeled Habitat - Qualitative Range</p> <ul style="list-style-type: none"> ■ Aquatic-Tidal ■ Aquatic-Nontidal ■ Upland | <p>Modeled Habitat - Qualitative Range</p> <ul style="list-style-type: none"> ■ Aquatic-Tidal ■ Aquatic-Nontidal ■ Upland | <p>Project</p> <ul style="list-style-type: none"> ■ Permanent Transmission ■ Temporary Transmission |
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** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

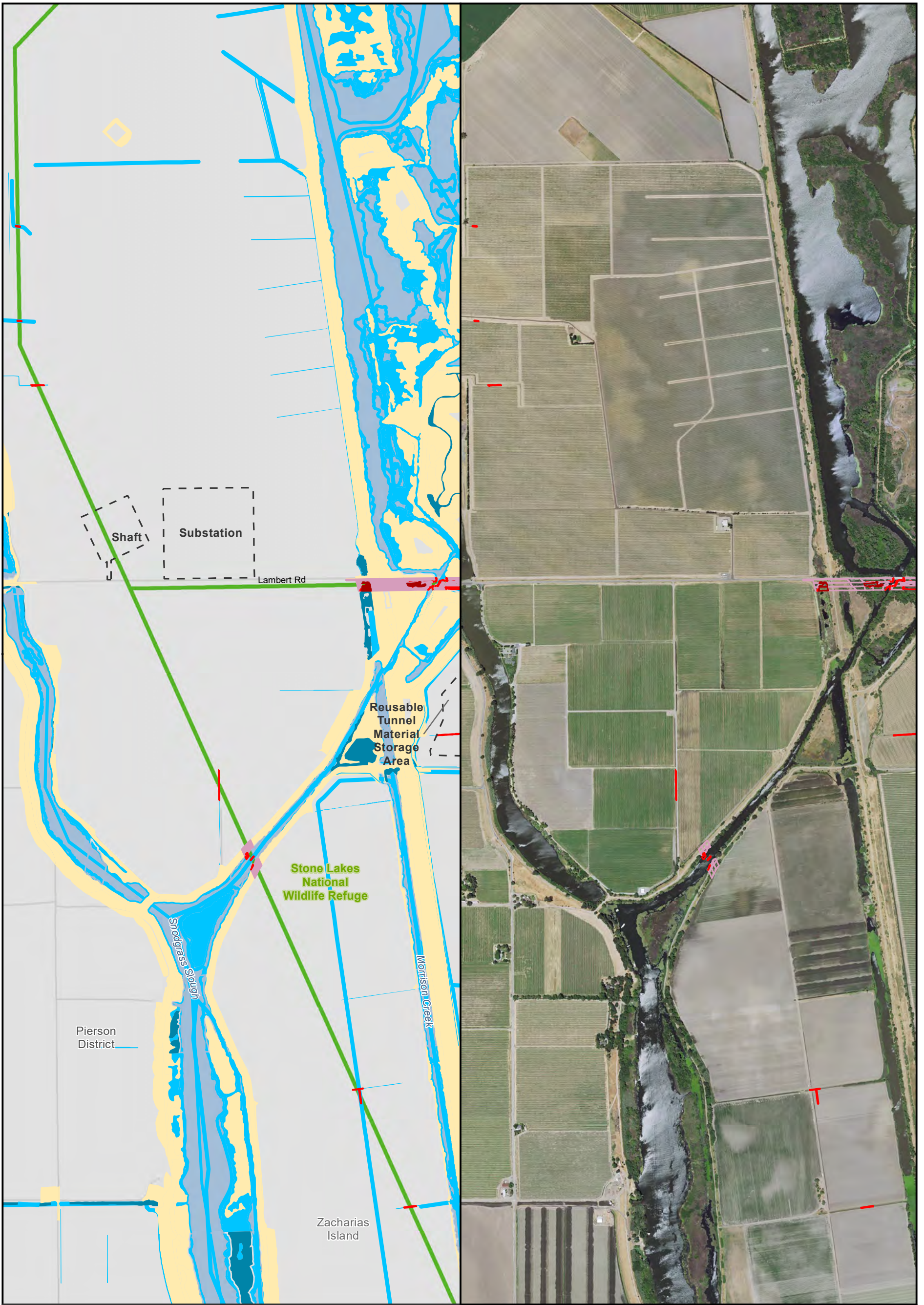
Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction

**Intake 5
Figure 4.6-4 of 4.6-36**

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| ● City | Impacted Modeled Habitat - Qualitative Range | Modeled Habitat - Qualitative Range | ▭ Project |
| — Major roads | ■ Aquatic-Tidal | ■ Aquatic-Tidal | ▬ Permanent Transmission |
| — State and Interstate Highways | ■ Aquatic-Nontidal | ■ Aquatic-Nontidal | ▬ Temporary Transmission |
| ■ Delta Island | ■ Upland | ■ Upland | |



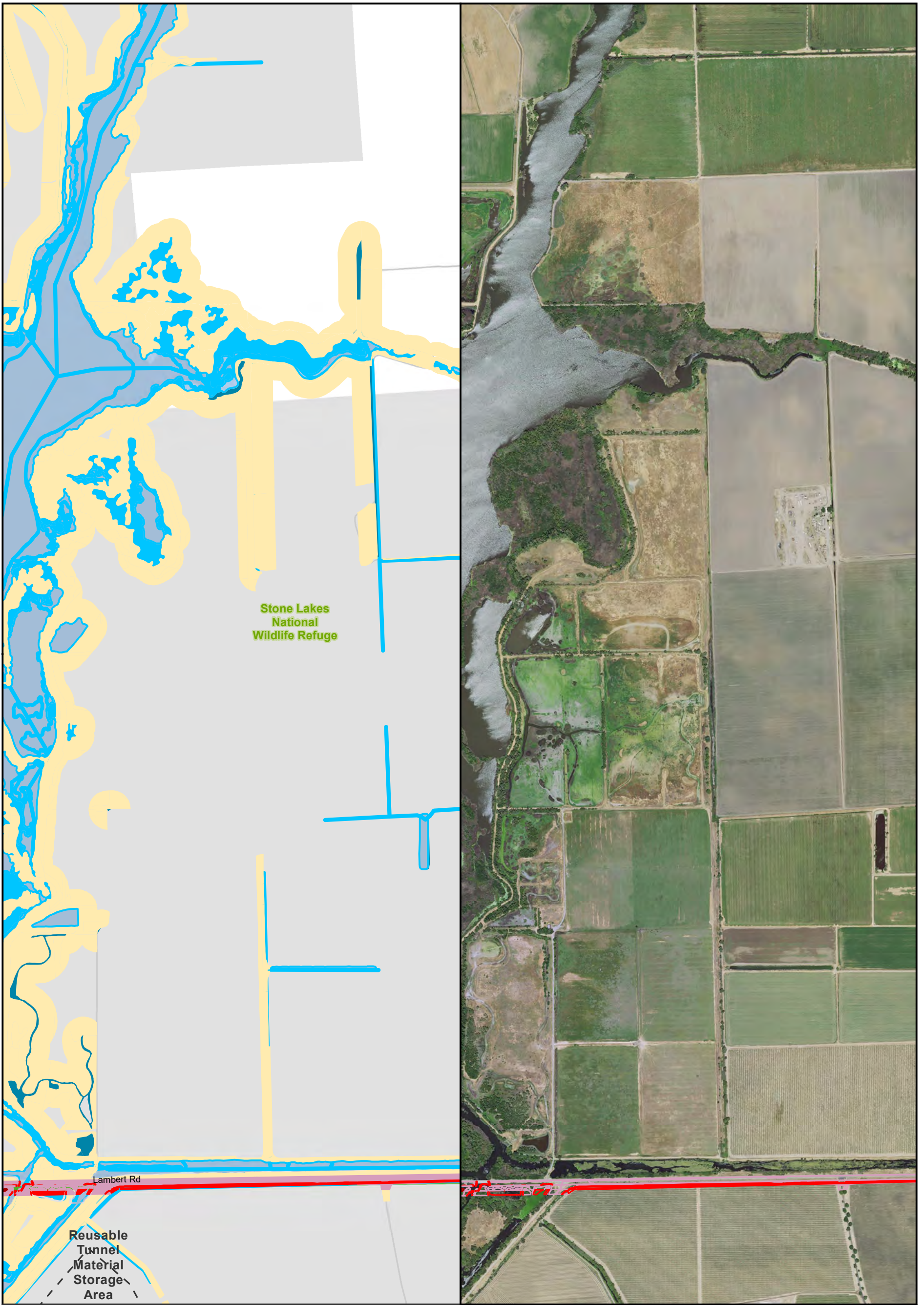
** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



**Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction
Transmission Line - Electrical Substation
Figure 4.6-5 of 4.6-36**

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<ul style="list-style-type: none"> ● City — Major roads — State and Interstate Highways — Delta Island 	<p>Impacted Modeled Habitat - Qualitative Range</p> <ul style="list-style-type: none"> ■ Aquatic-Tidal ■ Aquatic-Nontidal ■ Upland 	<p>Modeled Habitat - Qualitative Range</p> <ul style="list-style-type: none"> ■ Aquatic-Tidal ■ Aquatic-Nontidal ■ Upland 	<p>Project</p> <ul style="list-style-type: none"> ■ Permanent Transmission ■ Temporary Transmission 	<p>0 1,000 Feet</p>	
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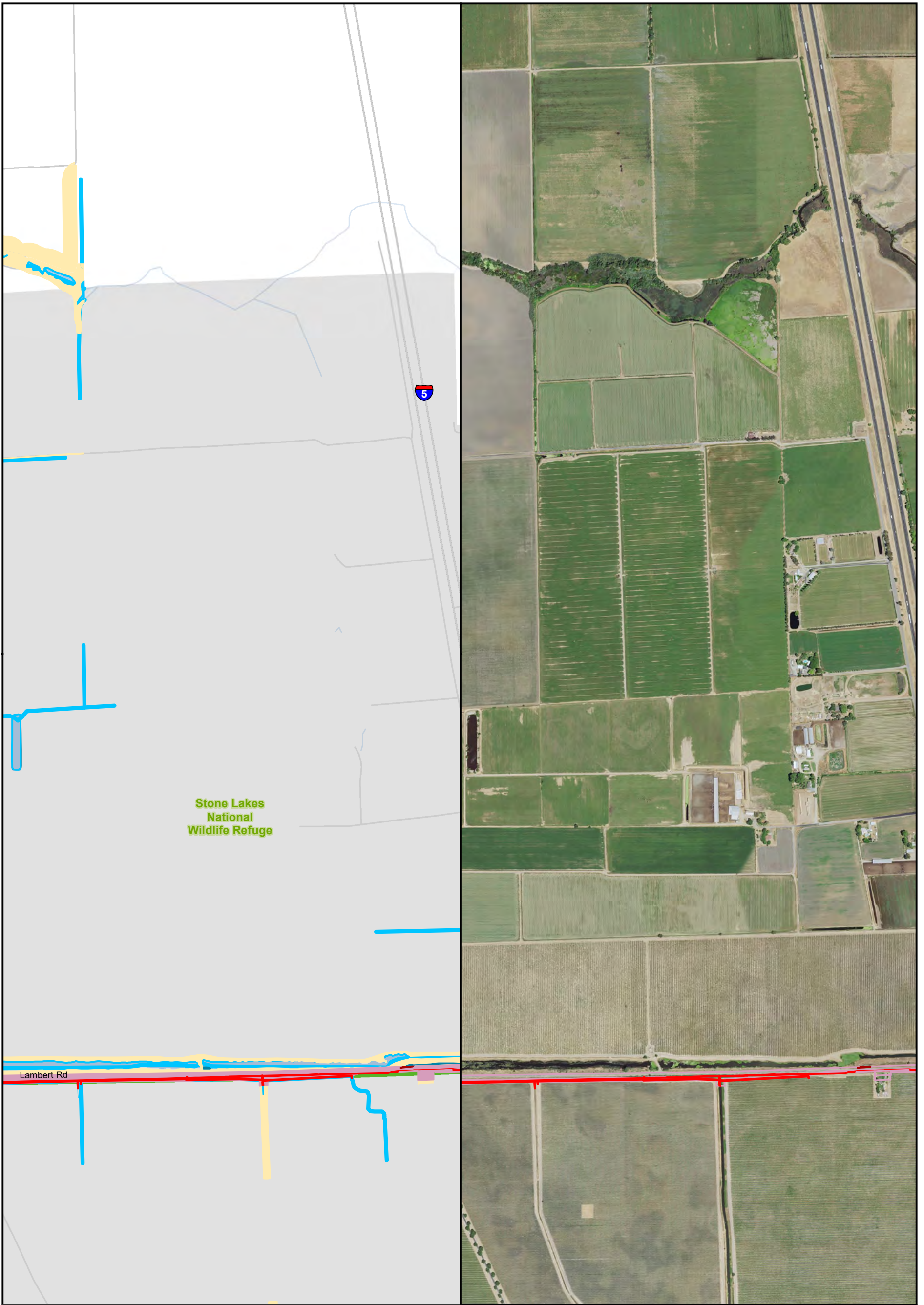
** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



**Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction
Transmission Line - East leg
Figure 4.6-6 of 4.6-36**

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| ● City | Impacted Modeled Habitat - Qualitative Range | Modeled Habitat - Qualitative Range | ┌─┐ Project |
| — Major roads | ■ Aquatic-Tidal | ■ Aquatic-Tidal | ■ Permanent Transmission |
| — State and Interstate Highways | ■ Aquatic-Nontidal | ■ Aquatic-Nontidal | ■ Temporary Transmission |
| ■ Delta Island | ■ Upland | ■ Upland | |



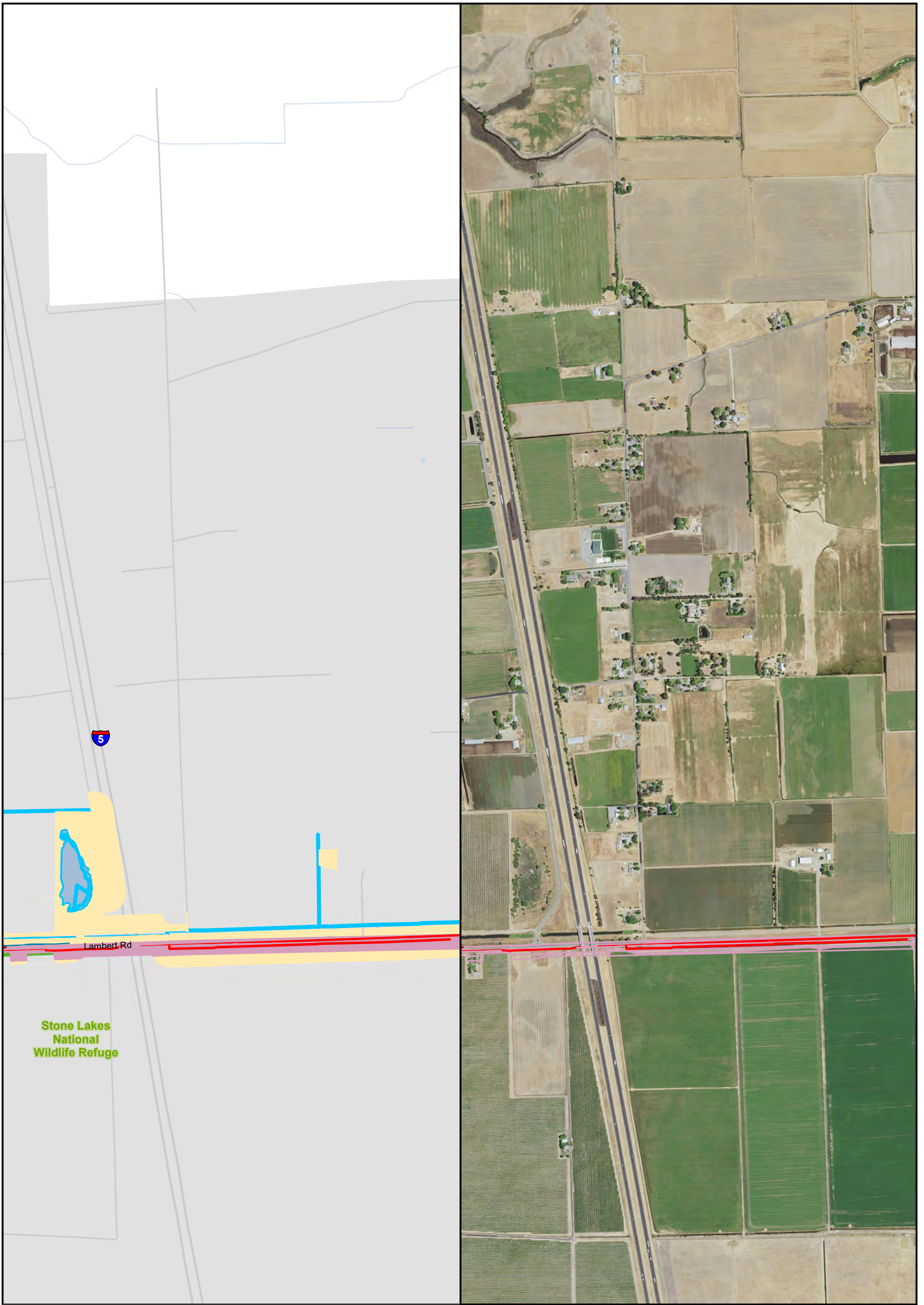
** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

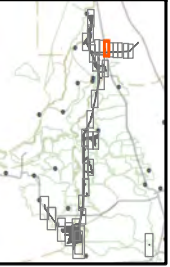


**Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction
Transmission Line - East leg
Figure 4.6-7 of 4.6-36**

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| ● City | Impacted Modeled Habitat - Qualitative Range | Modeled Habitat - Qualitative Range | ▭ Project |
| — Major roads | ■ Aquatic-Tidal | ■ Aquatic-Tidal | ■ Permanent Transmission |
| — State and Interstate Highways | ■ Aquatic-Nontidal | ■ Aquatic-Nontidal | ■ Temporary Transmission |
| ■ Delta Island | ■ Upland | ■ Upland | |



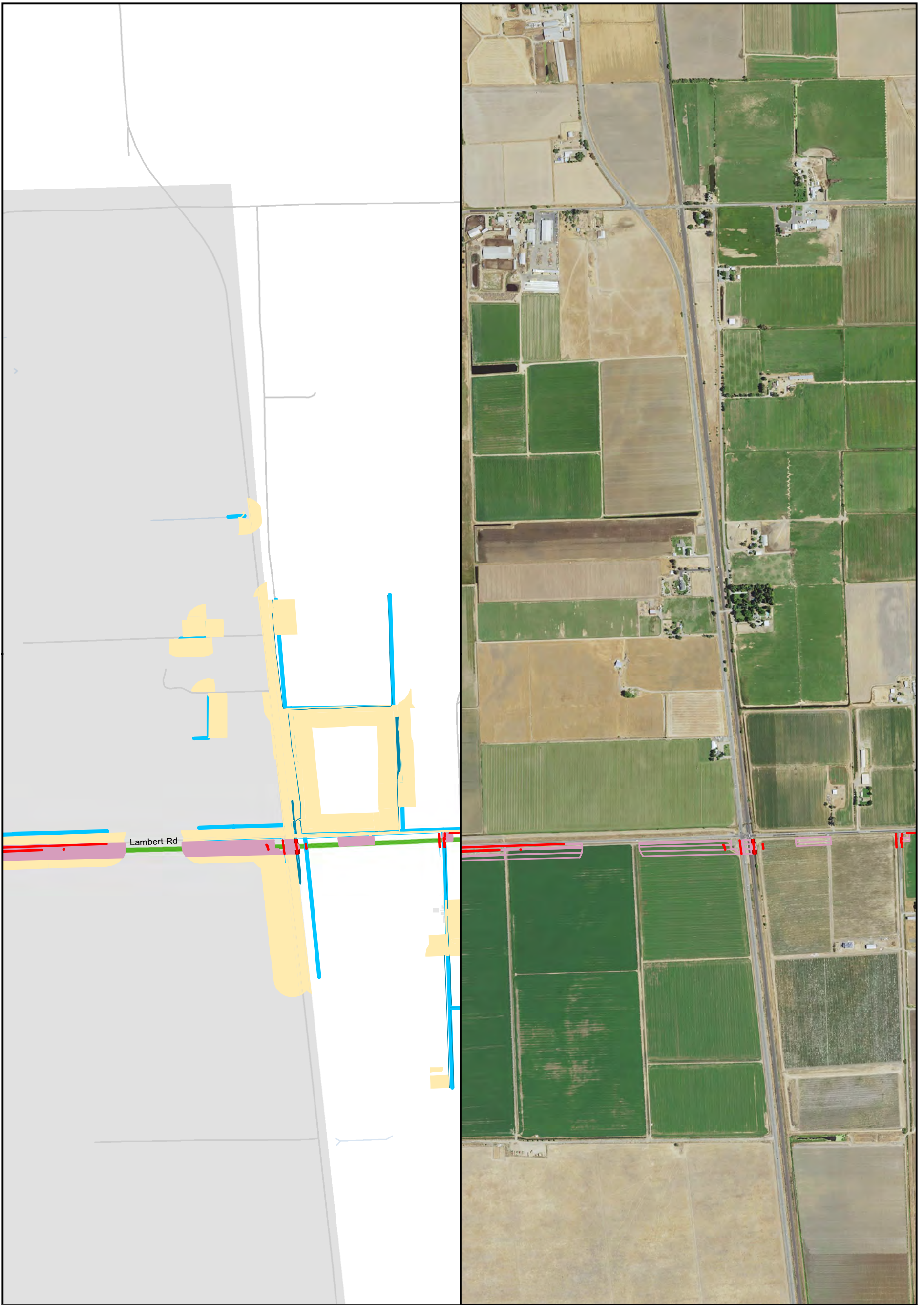
** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



**Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction
Transmission Line - East leg
Figure 4.6-8 of 4.6-36**

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|---------------------------------|---|--|--------------------------|
| ● City | Impacted Modeled Habitat - Qualitative Range | Modeled Habitat - Qualitative Range | ▬ Project |
| — Major roads | ■ Aquatic-Tidal | ■ Aquatic-Tidal | ■ Permanent Transmission |
| — State and Interstate Highways | ■ Aquatic-Nontidal | ■ Aquatic-Nontidal | ■ Temporary Transmission |
| ■ Delta Island | ■ Upland | ■ Upland | |



** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

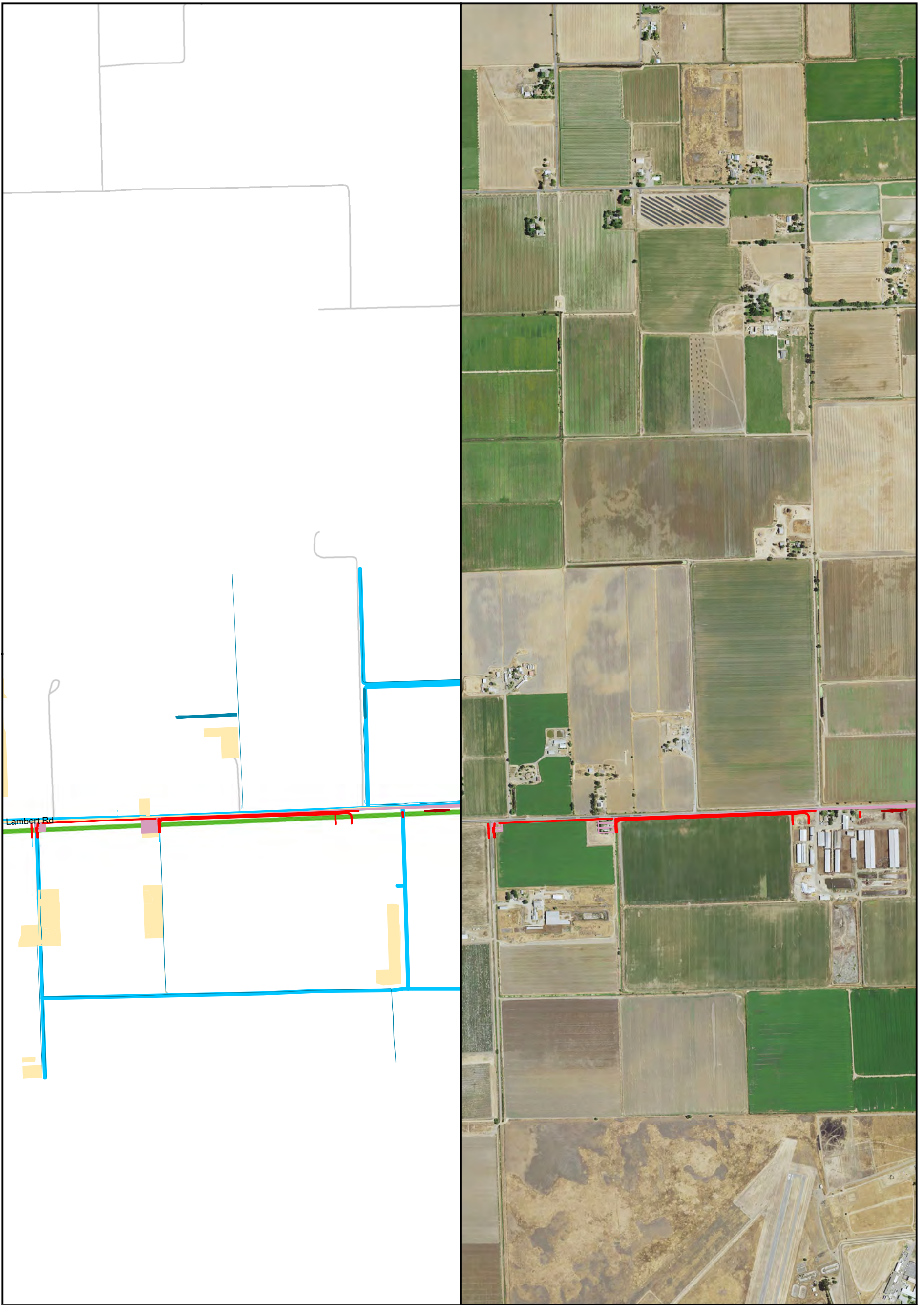
Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



**Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction
Transmission Line - East leg**

Figure 4.6-9 of 4.6-36

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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- | | | |
|--|---|--|
| <p>Impacted Modeled Habitat - Qualitative Range</p> <ul style="list-style-type: none"> █ Aquatic-Tidal █ Aquatic-Nontidal █ Upland | <p>Modeled Habitat - Qualitative Range</p> <ul style="list-style-type: none"> █ Aquatic-Tidal █ Aquatic-Nontidal █ Upland | <p>Project</p> <ul style="list-style-type: none"> █ Permanent Transmission █ Temporary Transmission |
|--|---|--|



** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction Transmission Line - East leg

Figure 4.6-10 of 4.6-36

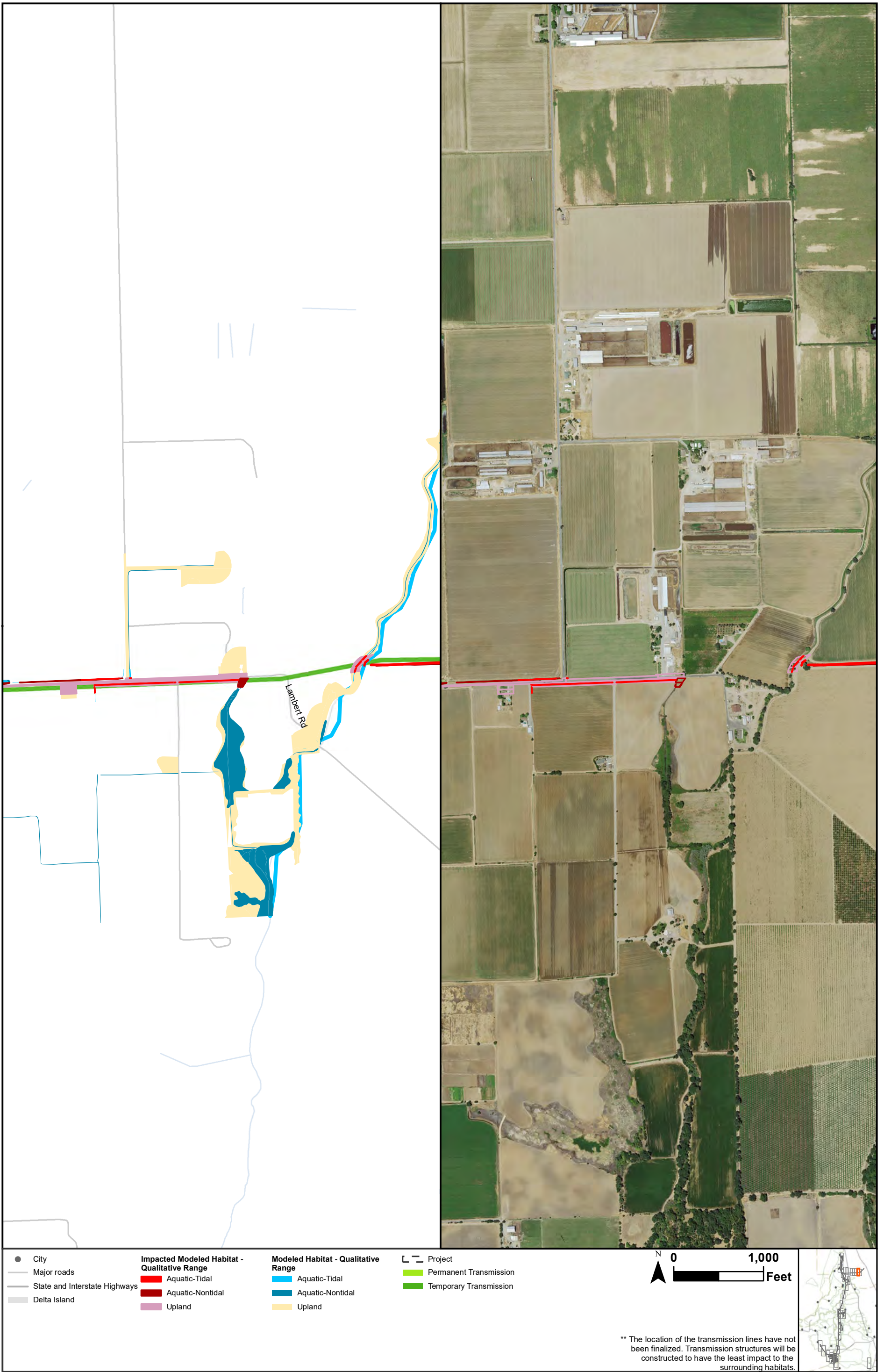


Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



**Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction
Transmission Line - East leg**

Figure 4.6-11 of 4.6-36

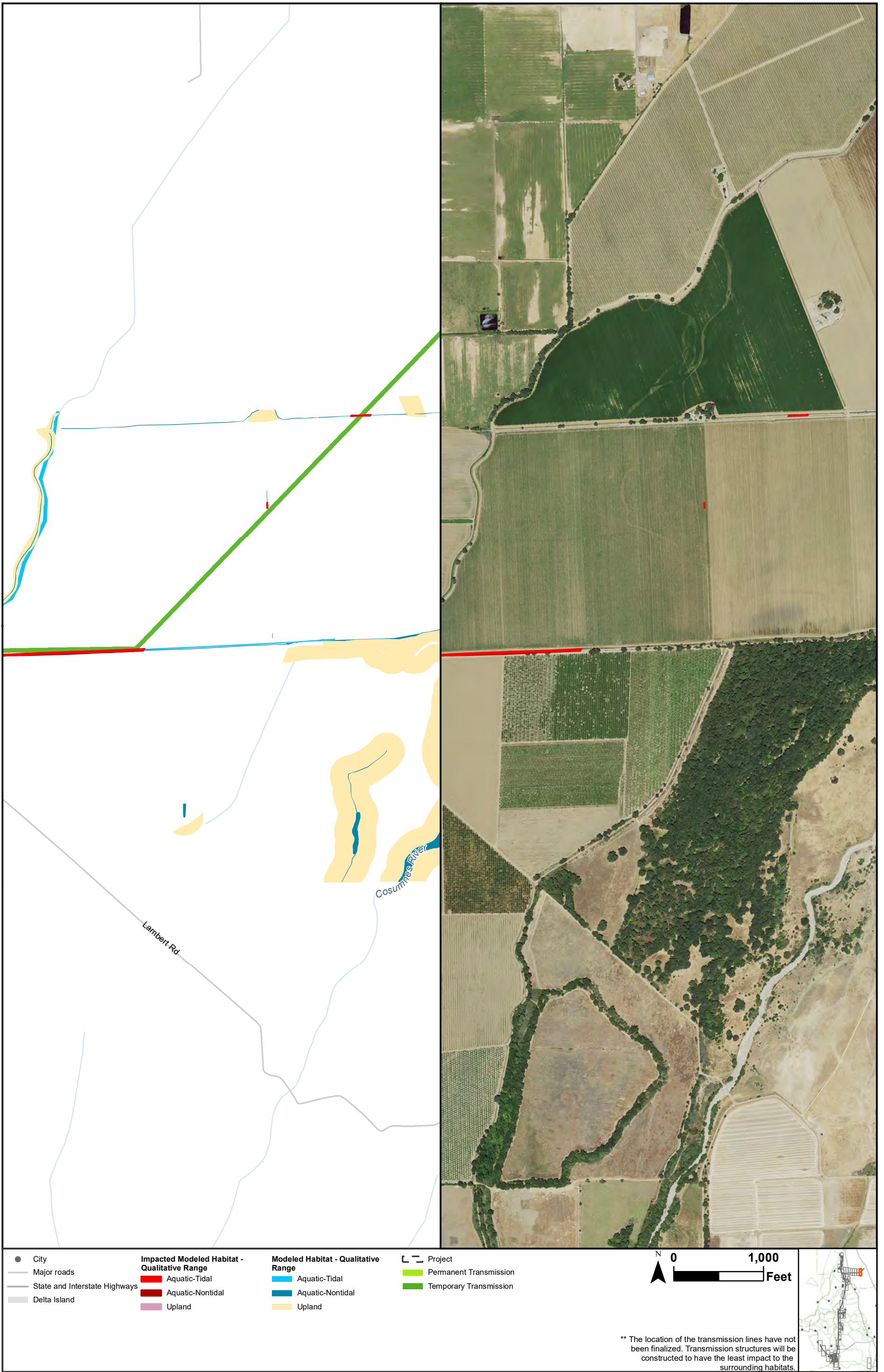


Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction Transmission Line - East leg

Figure 4.6-12 of 4.6-36

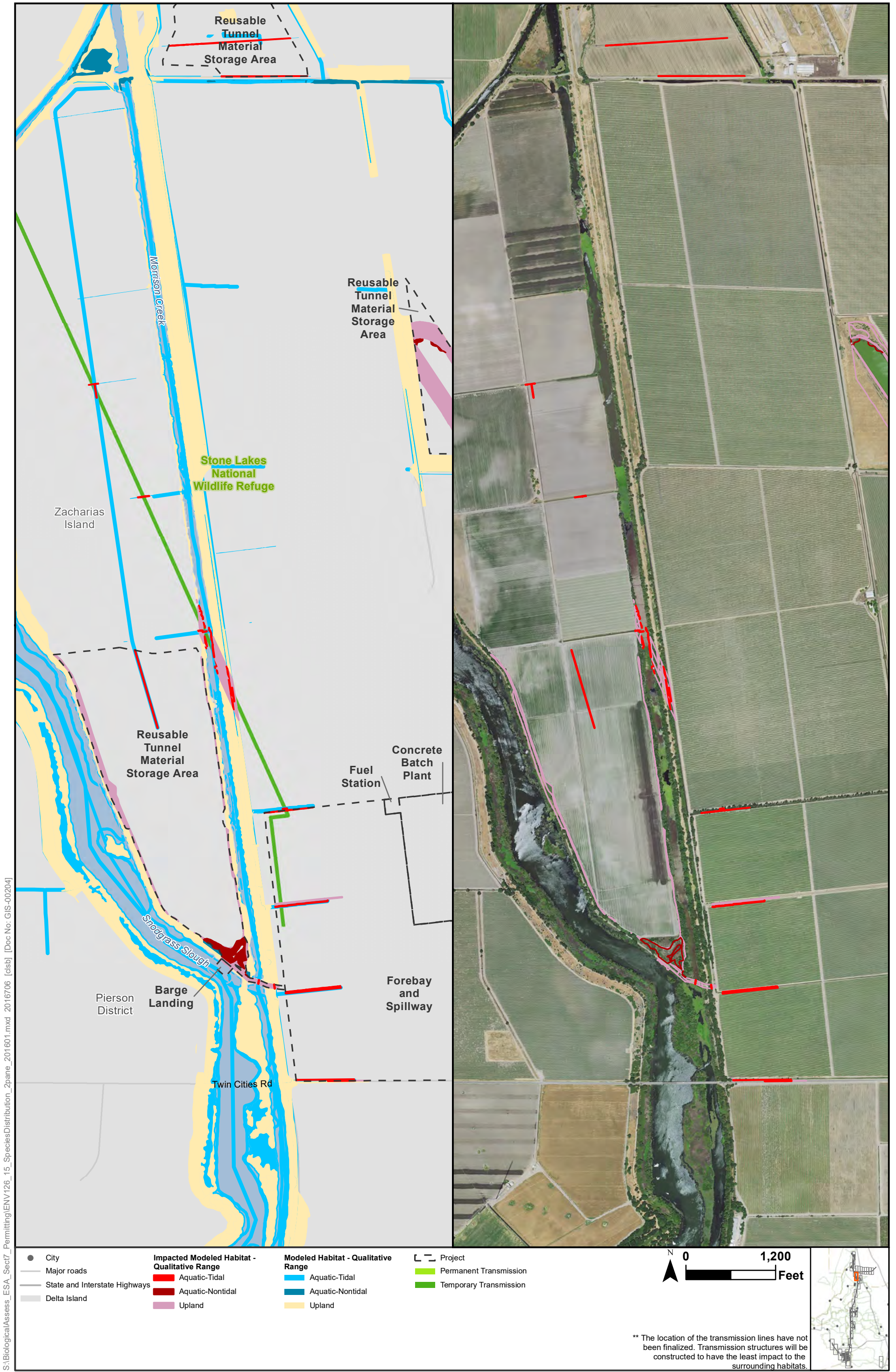


Sources: CCO Conveyance, CA WaterFix 2015; Species Occurences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction Transmission Line - East leg

Figure 4.6-13 of 4.6-36



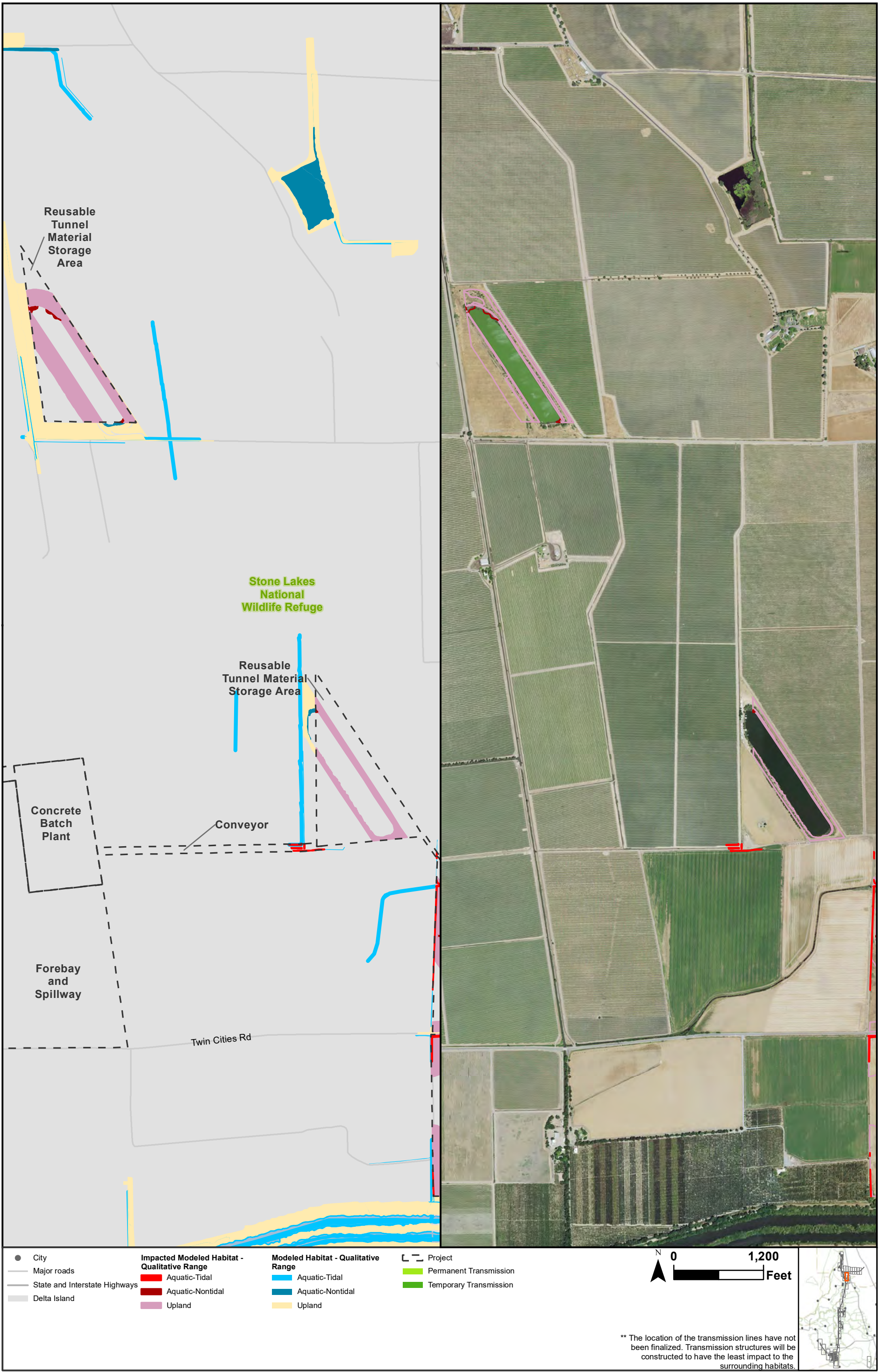
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Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



**Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction
Transmission Line - Intermediate Forebay
Figure 4.6-14 of 4.6-36**

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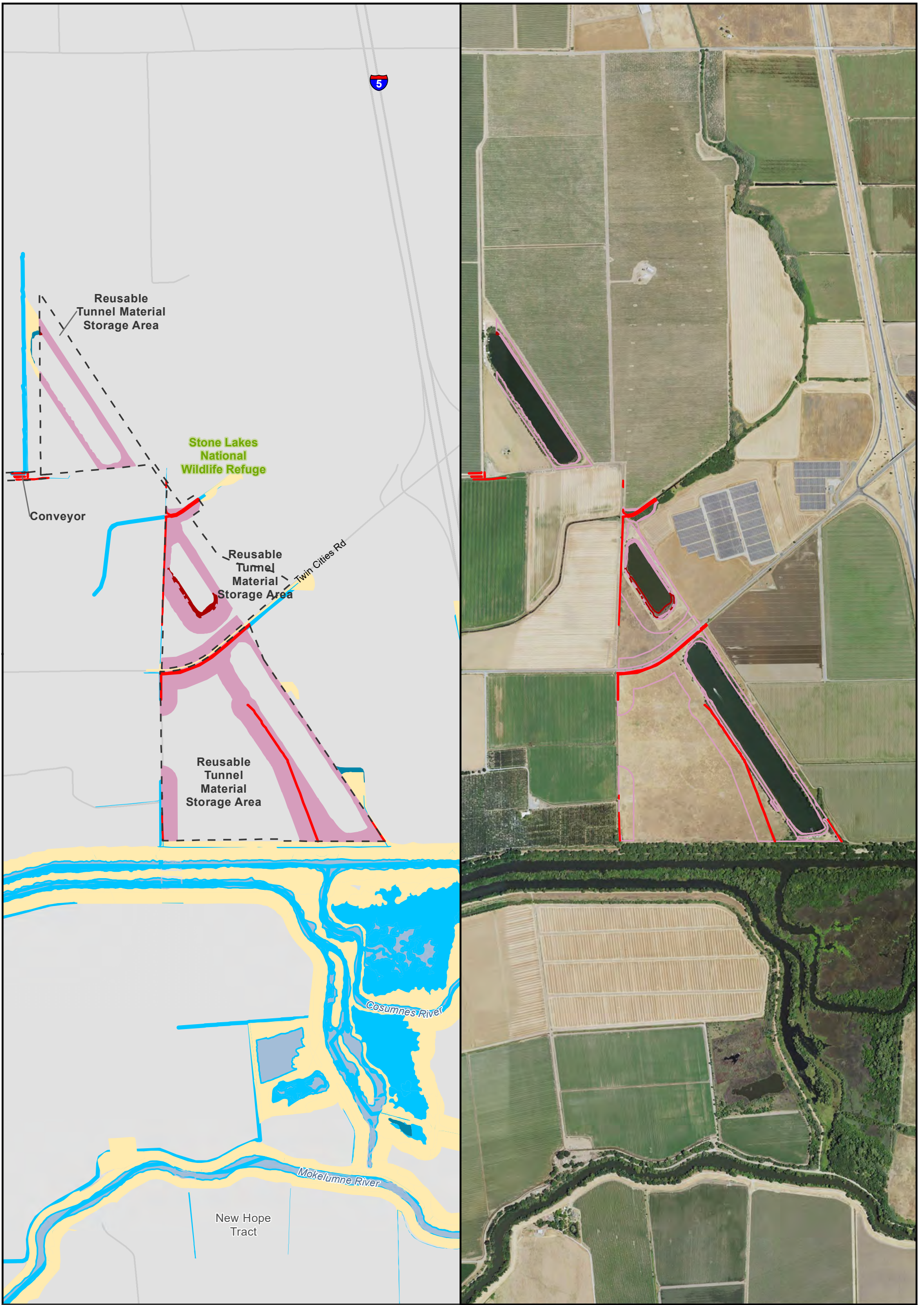


Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction
Reusable Tunnel Material at Intermediate Forebay
Figure 4.6-15 of 4.6-36

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● City	Impacted Modeled Habitat - Qualitative Range	Modeled Habitat - Qualitative Range	▭ Project
— Major roads	■ Aquatic-Tidal	■ Aquatic-Tidal	■ Permanent Transmission
— State and Interstate Highways	■ Aquatic-Nontidal	■ Aquatic-Nontidal	■ Temporary Transmission
■ Delta Island	■ Upland	■ Upland	

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 Feet

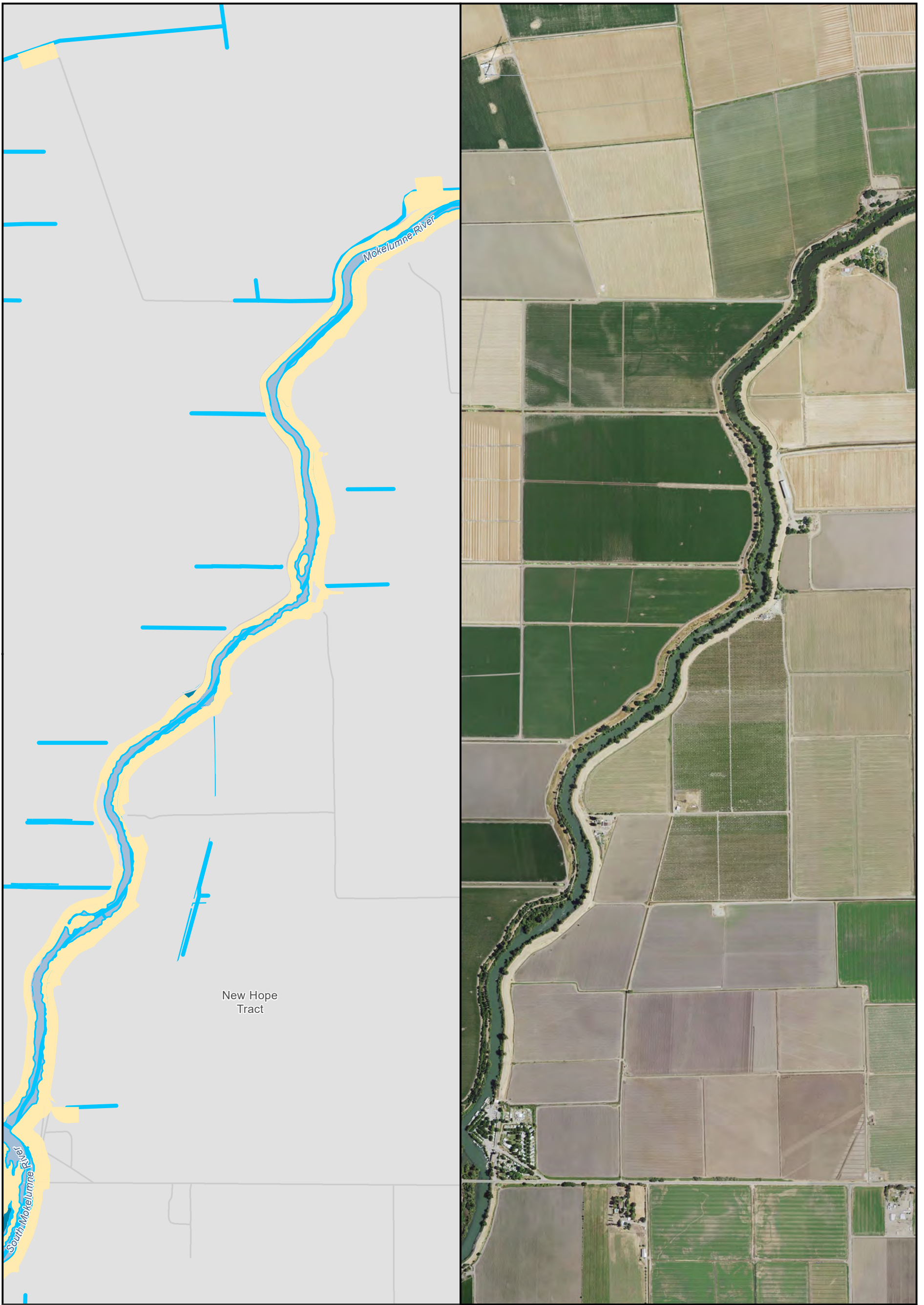
** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



**Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction
Reusable Tunnel Material at Intermediate Forebay
Figure 4.6-16 of 4.6-36**

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New Hope Tract

- City
- Major roads
- State and Interstate Highways
- Delta Island

- Impacted Modeled Habitat - Qualitative Range**
- Aquatic-Tidal
 - Aquatic-Nontidal
 - Upland

- Modeled Habitat - Qualitative Range**
- Aquatic-Tidal
 - Aquatic-Nontidal
 - Upland

- Project**
- Permanent Transmission
 - Temporary Transmission



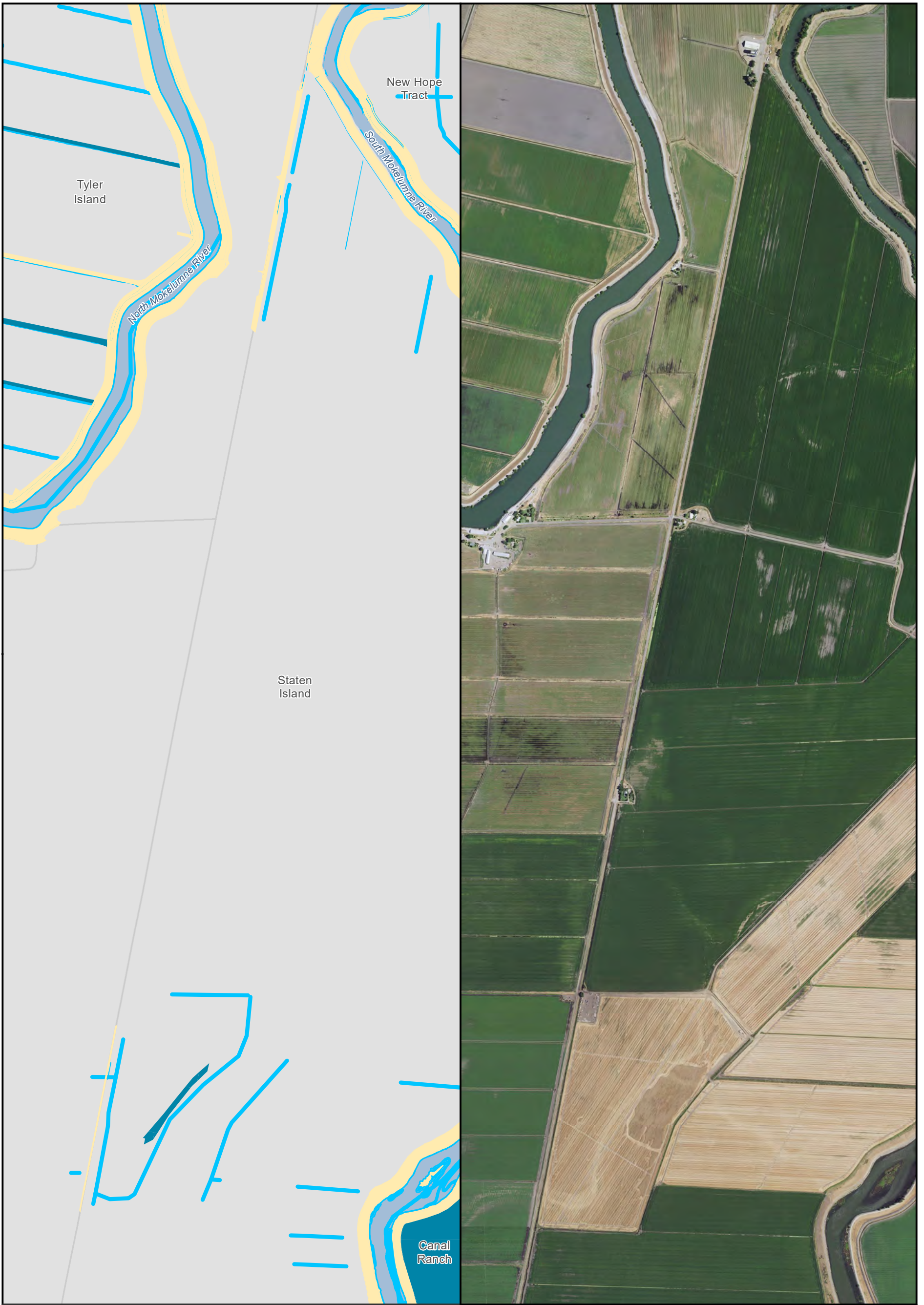
** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction
Figure 4.6-17 of 4.6-36

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- | | | | |
|---------------------------------|---|--|--------------------------|
| ● City | Impacted Modeled Habitat - Qualitative Range | Modeled Habitat - Qualitative Range | ▬ Project |
| — Major roads | ■ Aquatic-Tidal | ■ Aquatic-Tidal | ■ Permanent Transmission |
| — State and Interstate Highways | ■ Aquatic-Nontidal | ■ Aquatic-Nontidal | ■ Temporary Transmission |
| ■ Delta Island | ■ Upland | ■ Upland | |



** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



**Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction
Tunnel Work Area
Figure 4.6-18 of 4.6-36**

S:\Biological\Assess_ESA_Sect7_Permittin\ENV126_15_SpeciesDistribution_2pane_201601.mxd 2016706 [clsb] [Doc No: GIS-00204]

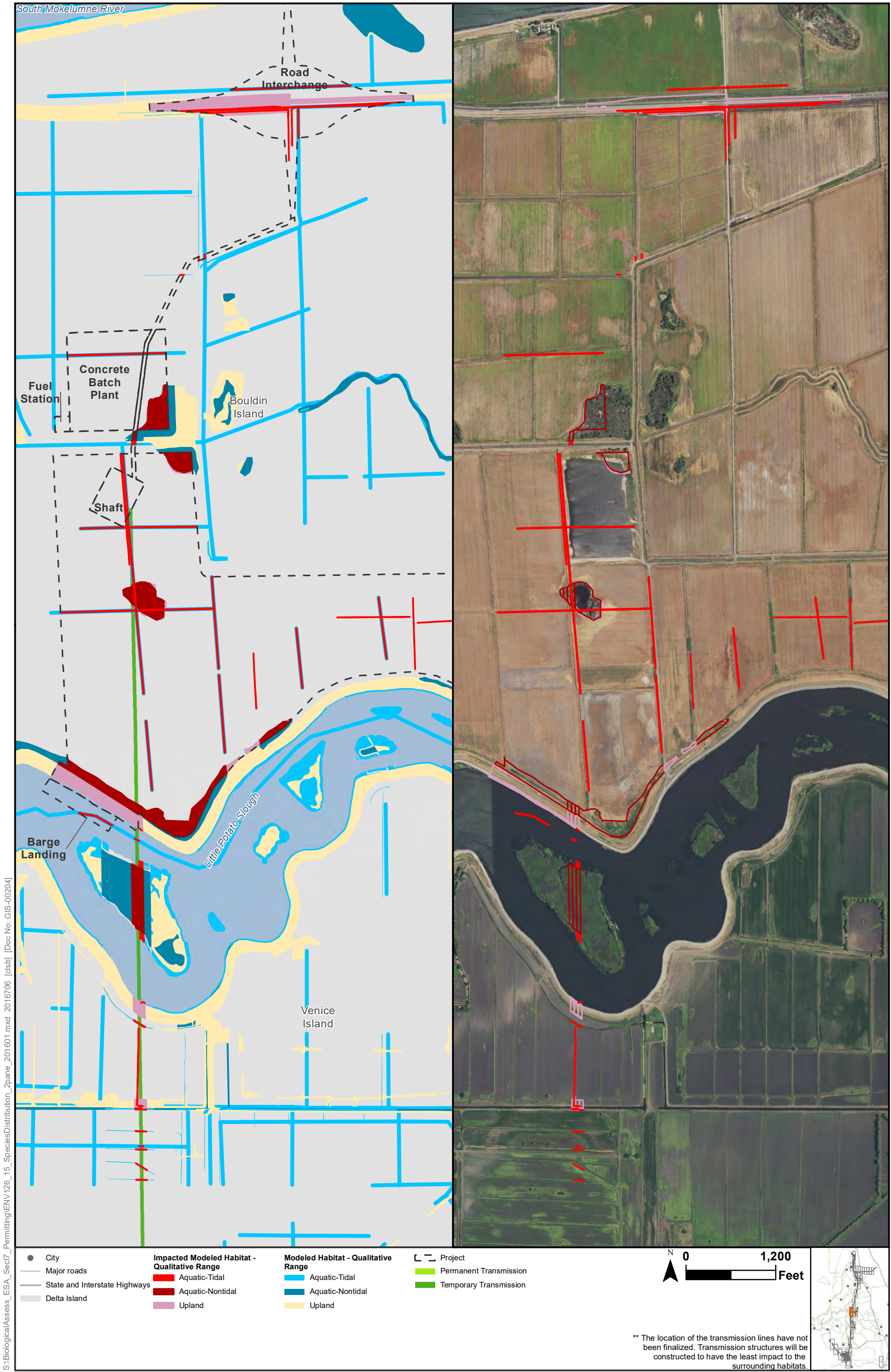


Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction



Shaft Area
Figure 4.6-19 of 4.6-36



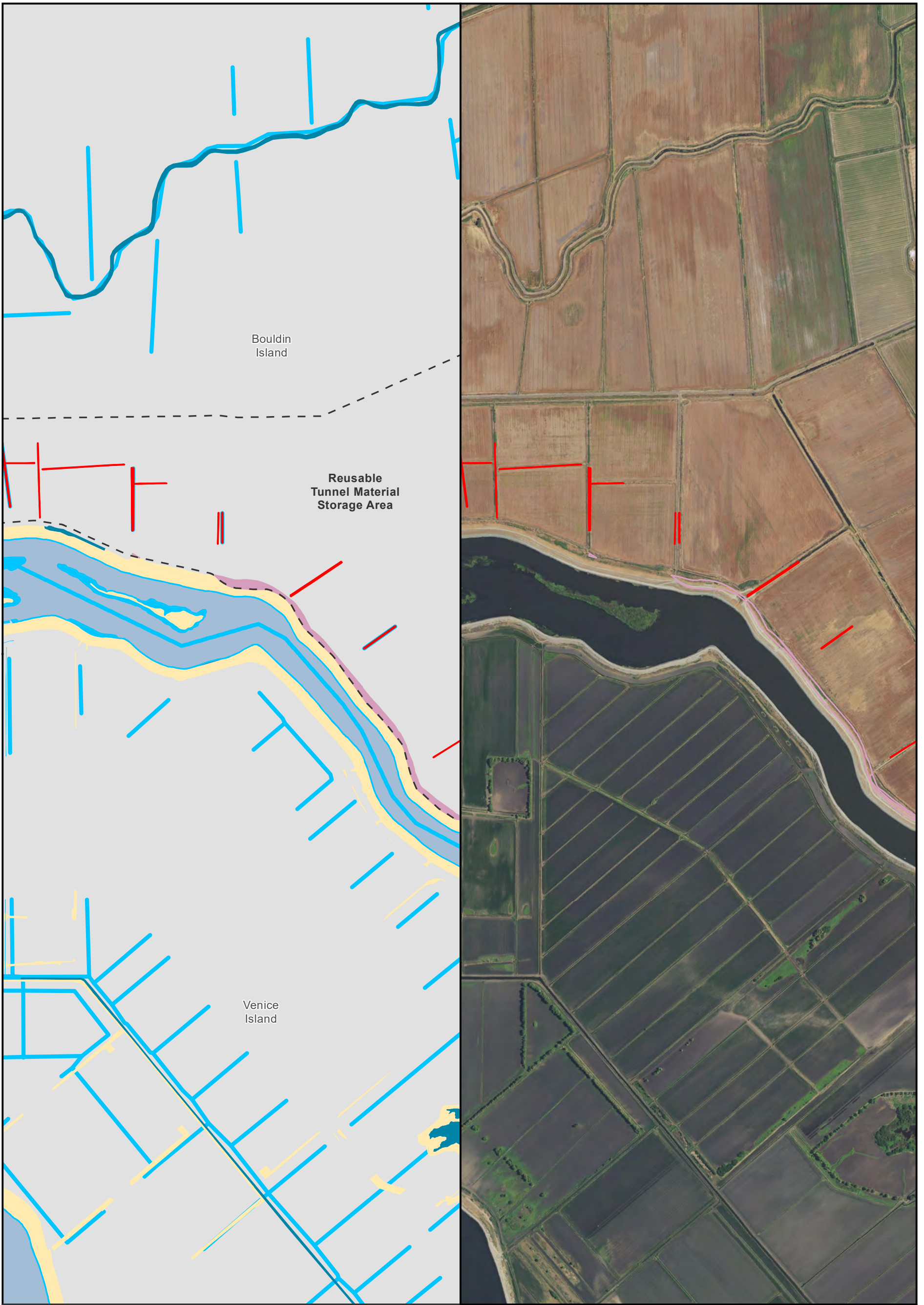
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Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction Shaft & Reusable Tunnel Material
Figure 4.6-20 of 4.6-36

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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- | | | |
|--|---|--|
| <p>Impacted Modeled Habitat - Qualitative Range</p> <ul style="list-style-type: none"> ■ Aquatic-Tidal ■ Aquatic-Nontidal ■ Upland | <p>Modeled Habitat - Qualitative Range</p> <ul style="list-style-type: none"> ■ Aquatic-Tidal ■ Aquatic-Nontidal ■ Upland | <p>Project</p> <ul style="list-style-type: none"> ■ Permanent Transmission ■ Temporary Transmission |
|--|---|--|

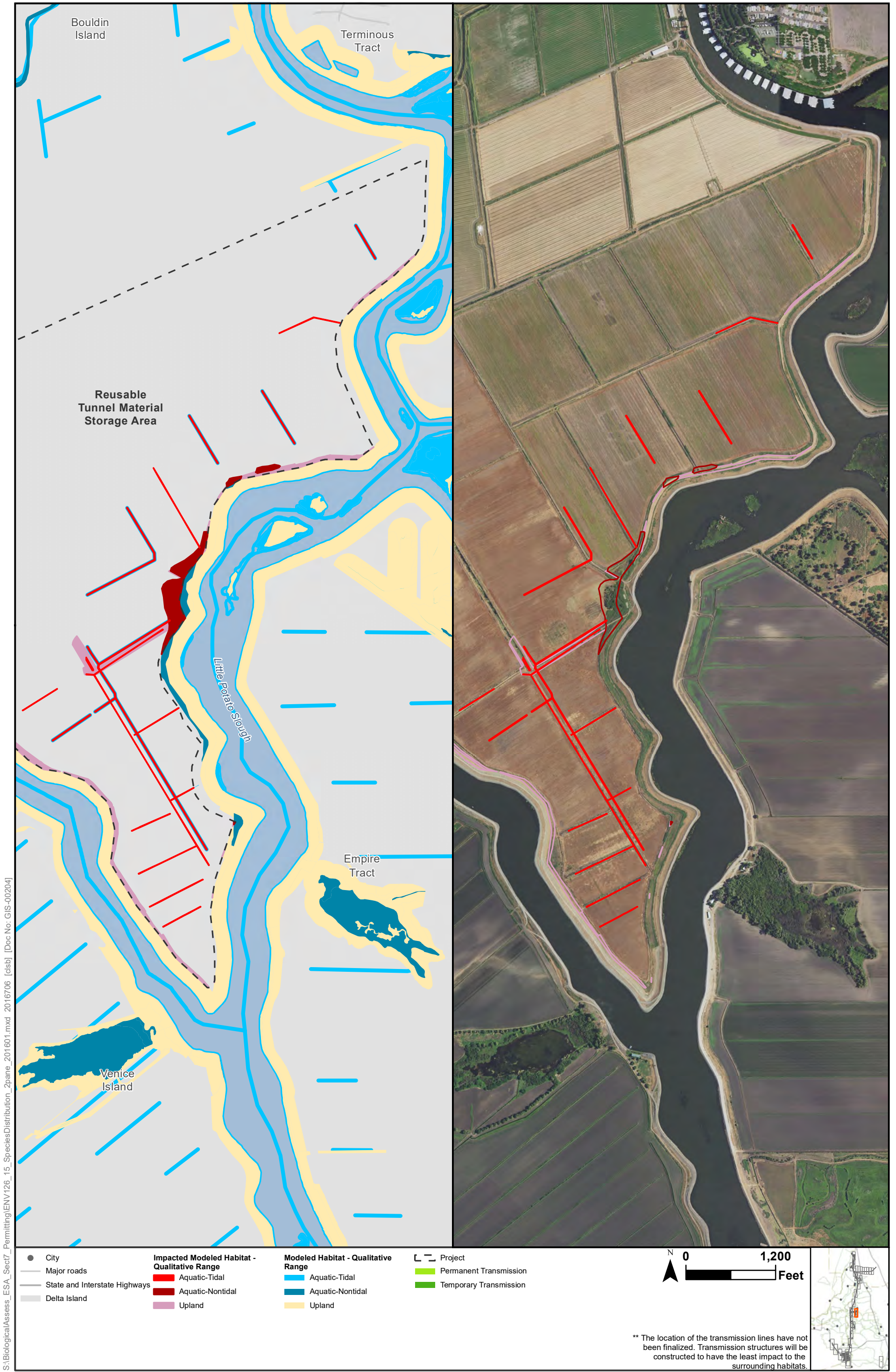


** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction
Reusable Tunnel Material
Figure 4.6-21 of 4.6-36



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- | | | | |
|---------------------------------|---|--|--------------------------|
| ● City | Impacted Modeled Habitat - Qualitative Range | Modeled Habitat - Qualitative Range | ▬ Project |
| — Major roads | ■ Aquatic-Tidal | ■ Aquatic-Tidal | ■ Permanent Transmission |
| — State and Interstate Highways | ■ Aquatic-Nontidal | ■ Aquatic-Nontidal | ■ Temporary Transmission |
| ■ Delta Island | ■ Upland | ■ Upland | |



** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

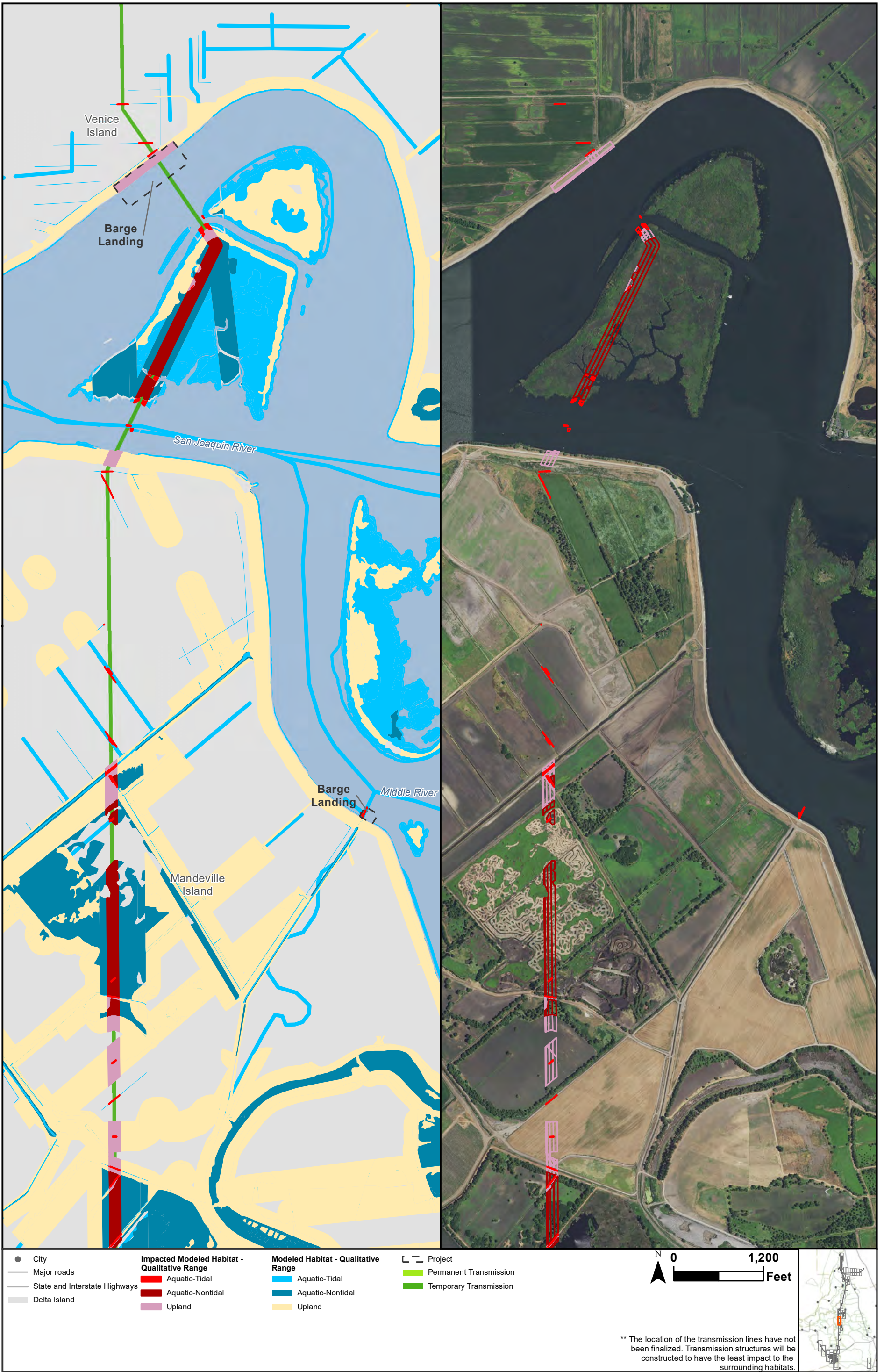


Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction
Reusable Tunnel Material
Figure 4.6-22 of 4.6-36

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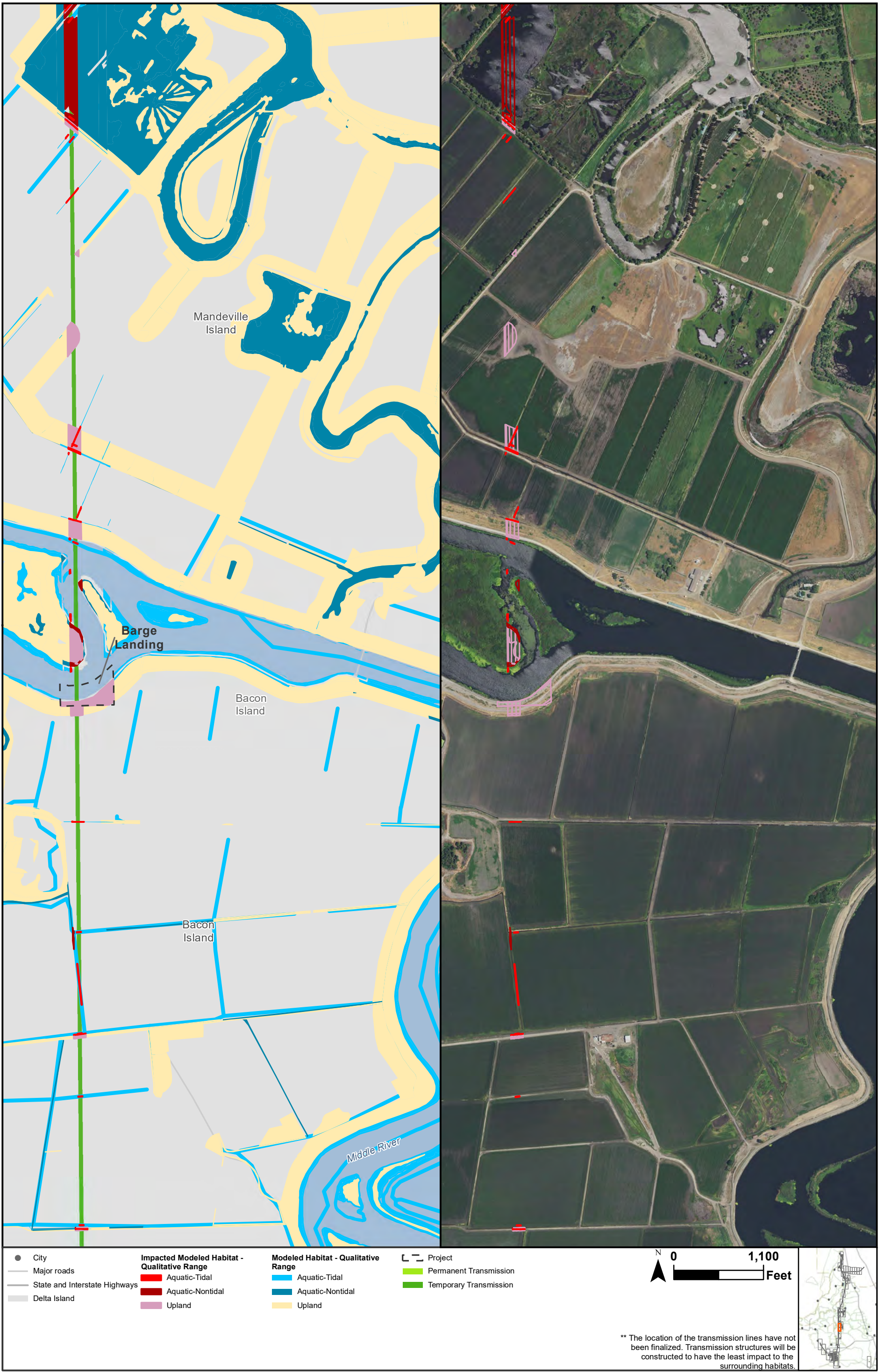


Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction
Barge Landing
Figure 4.6-23 of 4.6-36

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** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction Tunnel Work Area & Transmission Line
Figure 4.6-24 of 4.6-36

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- City
- Major roads
- State and Interstate Highways
- Delta Island

- Impacted Modeled Habitat - Qualitative Range**
- Aquatic-Tidal
 - Aquatic-Nontidal
 - Upland

- Modeled Habitat - Qualitative Range**
- Aquatic-Tidal
 - Aquatic-Nontidal
 - Upland

- Project**
- Permanent Transmission
 - Temporary Transmission



** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

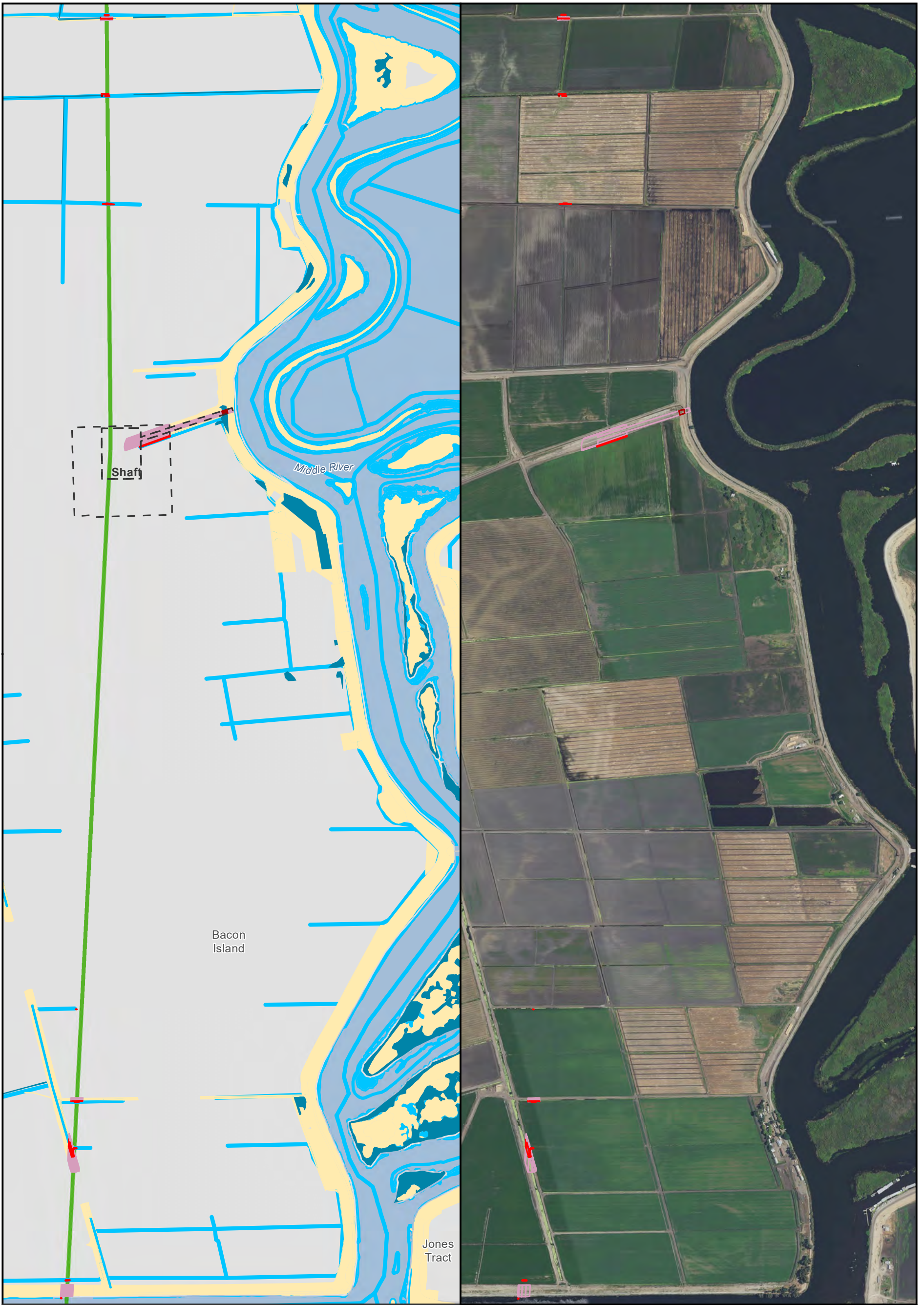
Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction

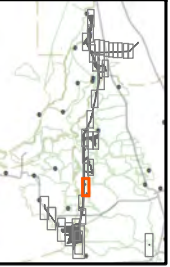


**Tunnel Work Area
Figure 4.6-25 of 4.6-36**

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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- | | | |
|--|---|--|
| <p>Impacted Modeled Habitat - Qualitative Range</p> <ul style="list-style-type: none"> ■ Aquatic-Tidal ■ Aquatic-Nontidal ■ Upland | <p>Modeled Habitat - Qualitative Range</p> <ul style="list-style-type: none"> ■ Aquatic-Tidal ■ Aquatic-Nontidal ■ Upland | <p>Project</p> <ul style="list-style-type: none"> ■ Permanent Transmission ■ Temporary Transmission |
|--|---|--|



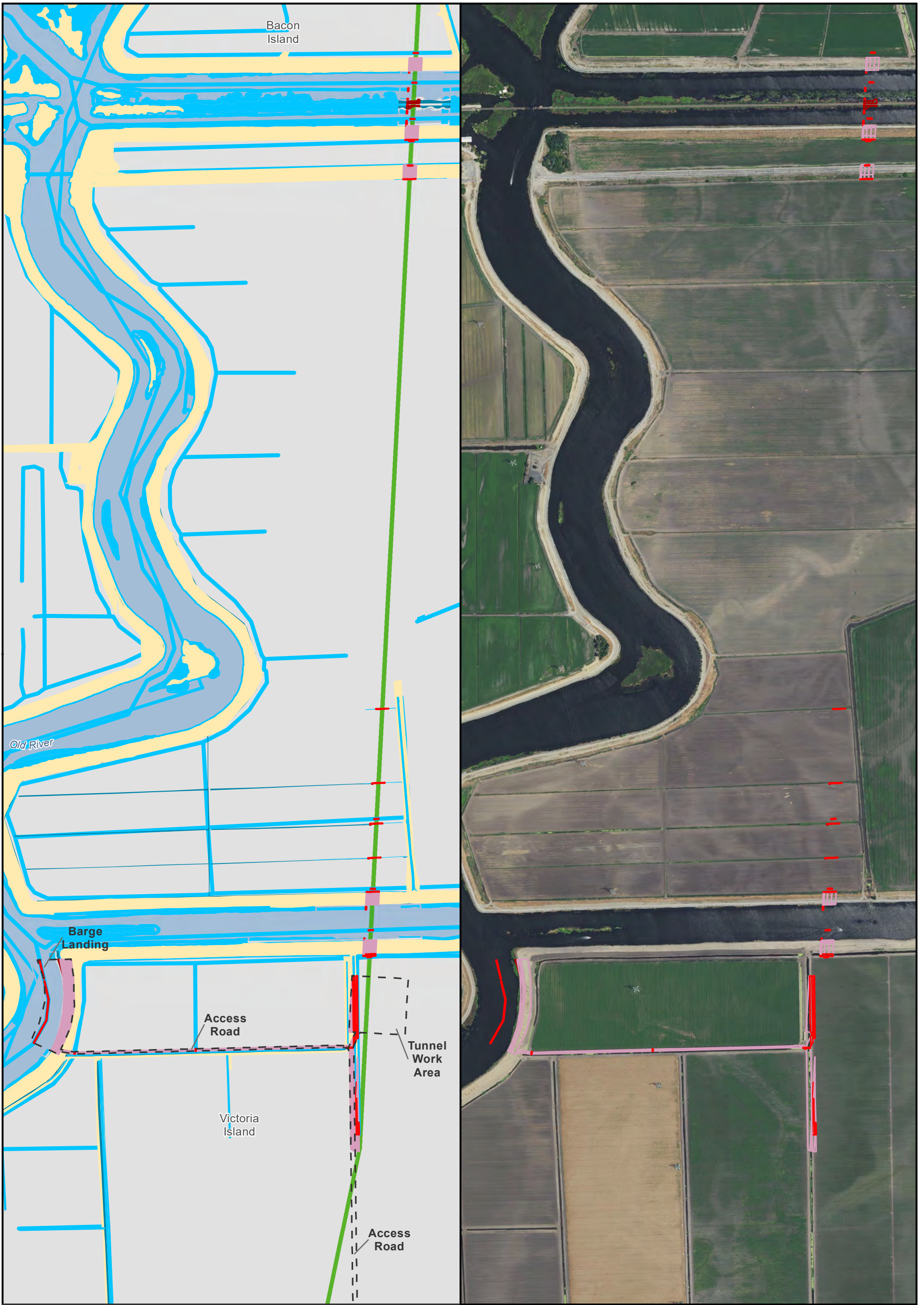
** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

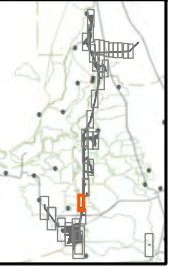
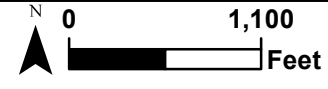


Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction Shaft & Tunnel Work Area
Figure 4.6-26 of 4.6-36

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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- | | | |
|--|---|--|
| <p>Impacted Modeled Habitat - Qualitative Range</p> <ul style="list-style-type: none"> ■ Aquatic-Tidal ■ Aquatic-Nontidal ■ Upland | <p>Modeled Habitat - Qualitative Range</p> <ul style="list-style-type: none"> ■ Aquatic-Tidal ■ Aquatic-Nontidal ■ Upland | <p>Project</p> <ul style="list-style-type: none"> ■ Permanent Transmission ■ Temporary Transmission |
|--|---|--|



** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

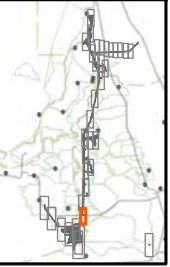


**Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction
Tunnel Work Area & Transmission Line
Figure 4.6-27 of 4.6-36**

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- | | | | |
|---------------------------------|---|--|--------------------------|
| ● City | Impacted Modeled Habitat - Qualitative Range | Modeled Habitat - Qualitative Range | ▬ Project |
| — Major roads | ■ Aquatic-Tidal | ■ Aquatic-Tidal | ▬ Permanent Transmission |
| — State and Interstate Highways | ■ Aquatic-Nontidal | ■ Aquatic-Nontidal | ▬ Temporary Transmission |
| ■ Delta Island | ■ Upland | ■ Upland | |



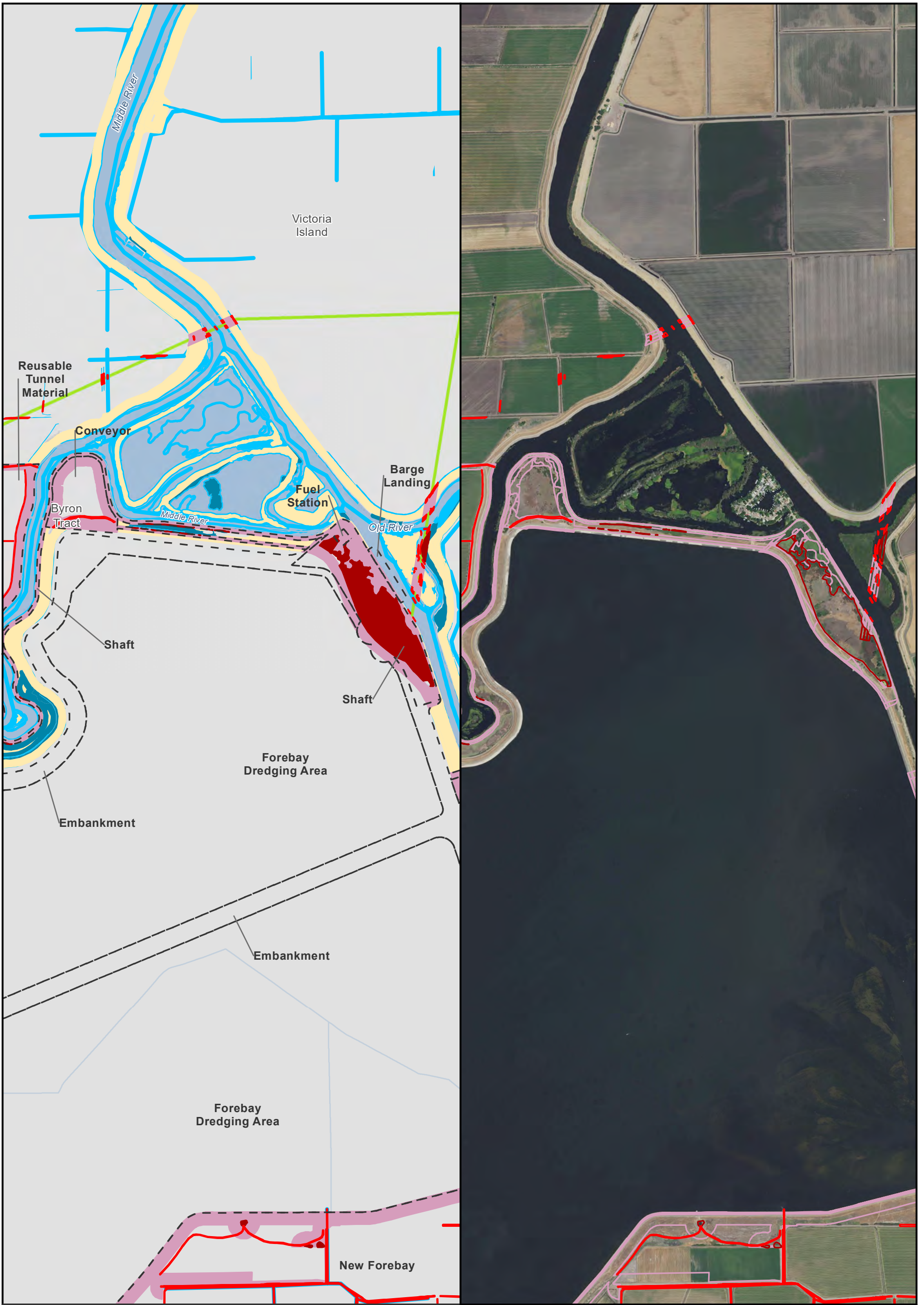
** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction Tunnel Work Area & Transmission Line
Figure 4.6-28 of 4.6-36

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● City	Impacted Modeled Habitat - Qualitative Range	Modeled Habitat - Qualitative Range	▬ Project
— Major roads	■ Aquatic-Tidal	■ Aquatic-Tidal	▬ Permanent Transmission
— State and Interstate Highways	■ Aquatic-Nontidal	■ Aquatic-Nontidal	▬ Temporary Transmission
■ Delta Island	■ Upland	■ Upland	

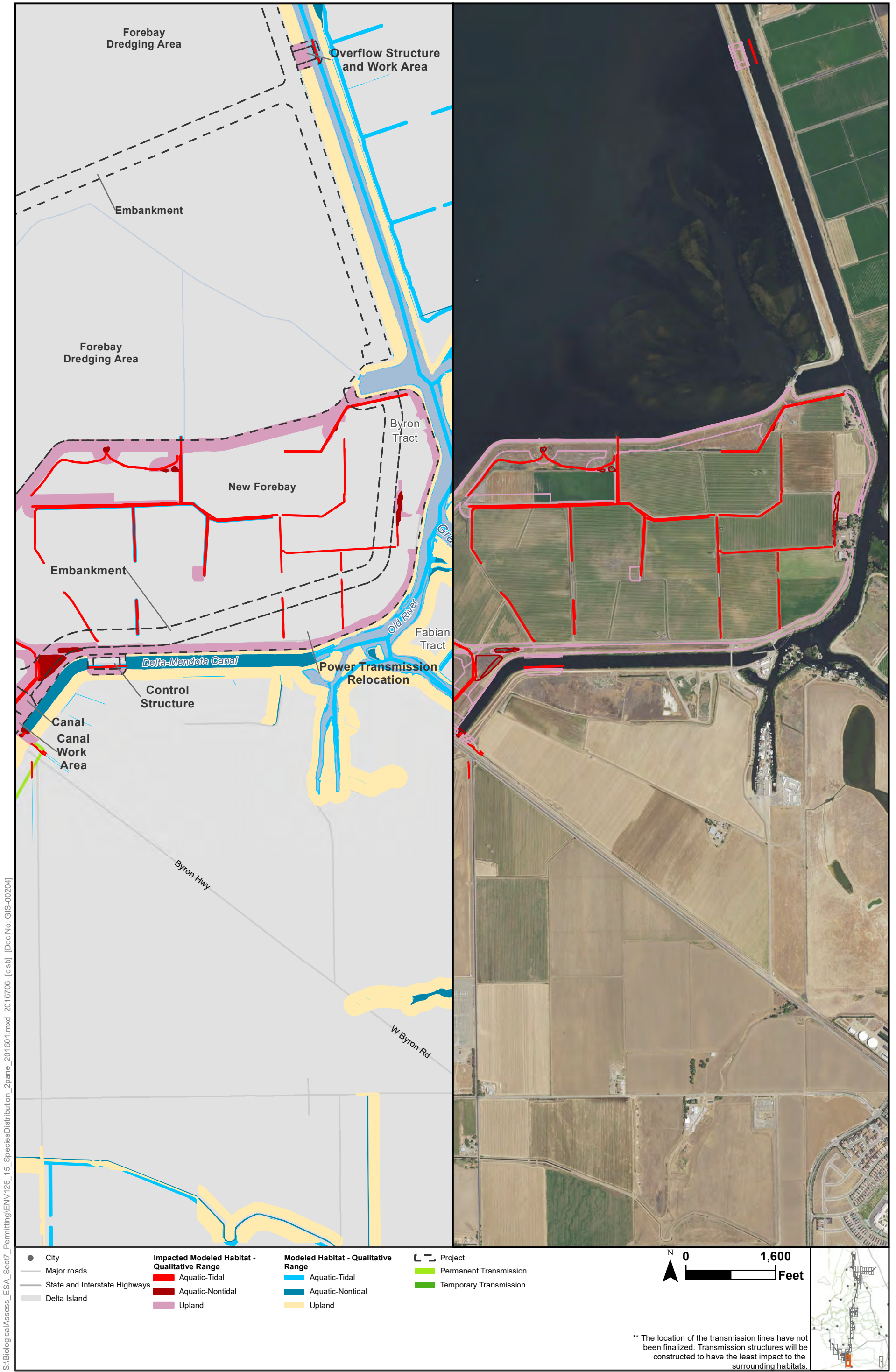
N
 0 1,500
 Feet

** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction





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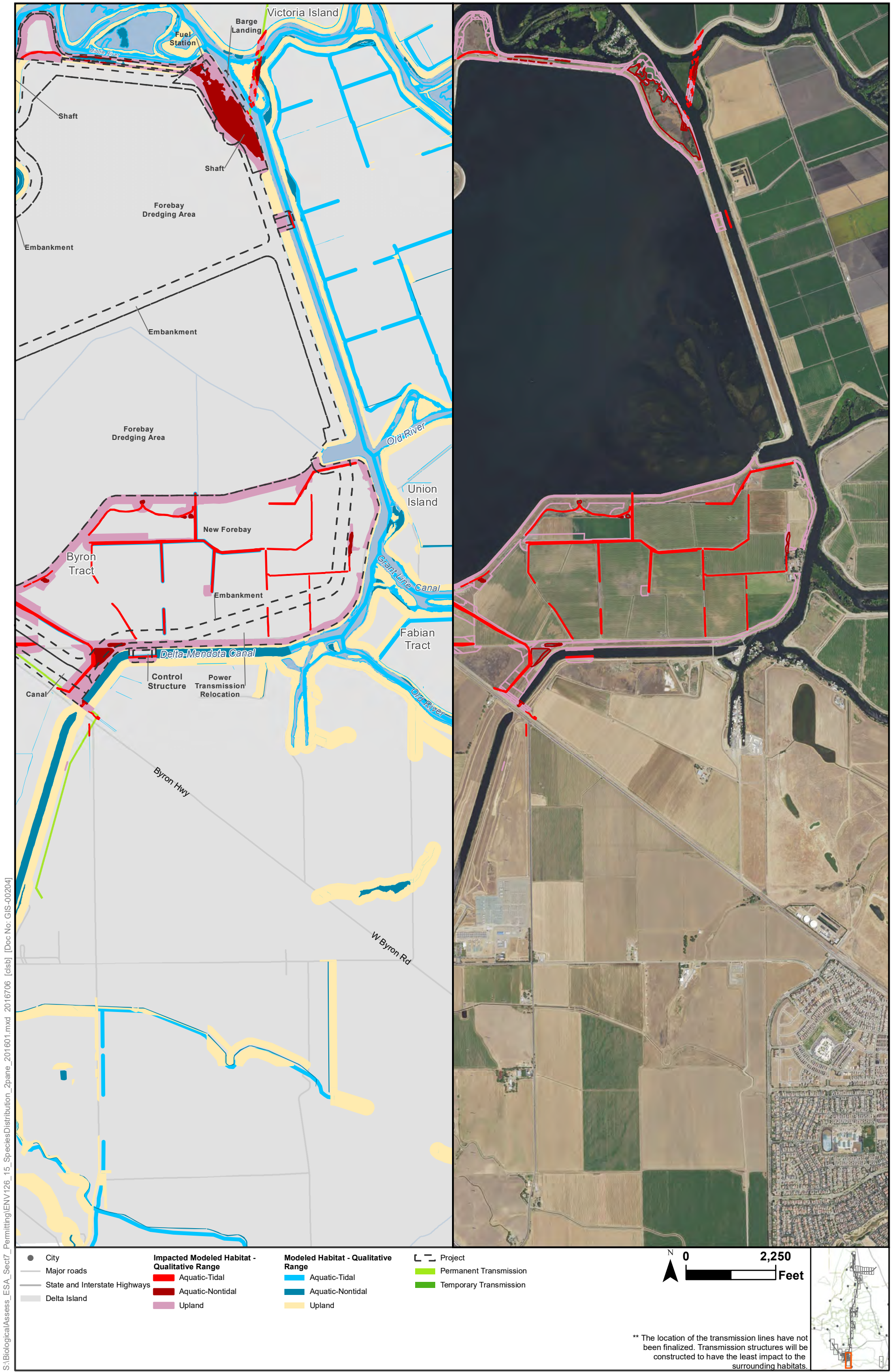
Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction

New Forebay

Figure 4.6-30 of 4.6-36



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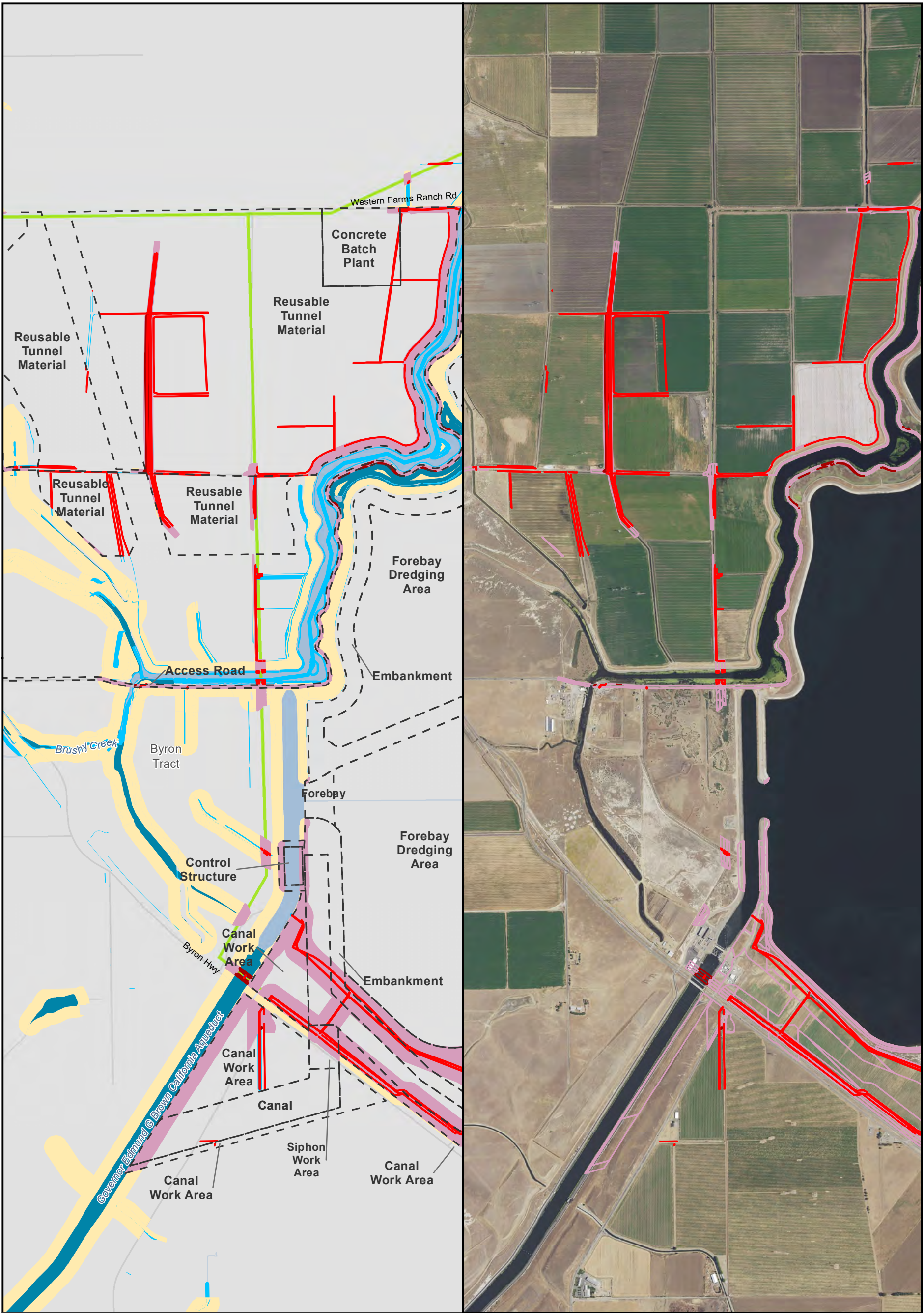
Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction



New Forebay
Figure 4.6-31 of 4.6-36

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● City	Impacted Modeled Habitat - Qualitative Range	Modeled Habitat - Qualitative Range	— Project
— Major roads	■ Aquatic-Tidal	■ Aquatic-Tidal	— Permanent Transmission
— State and Interstate Highways	■ Aquatic-Nontidal	■ Aquatic-Nontidal	— Temporary Transmission
■ Delta Island	■ Upland	■ Upland	

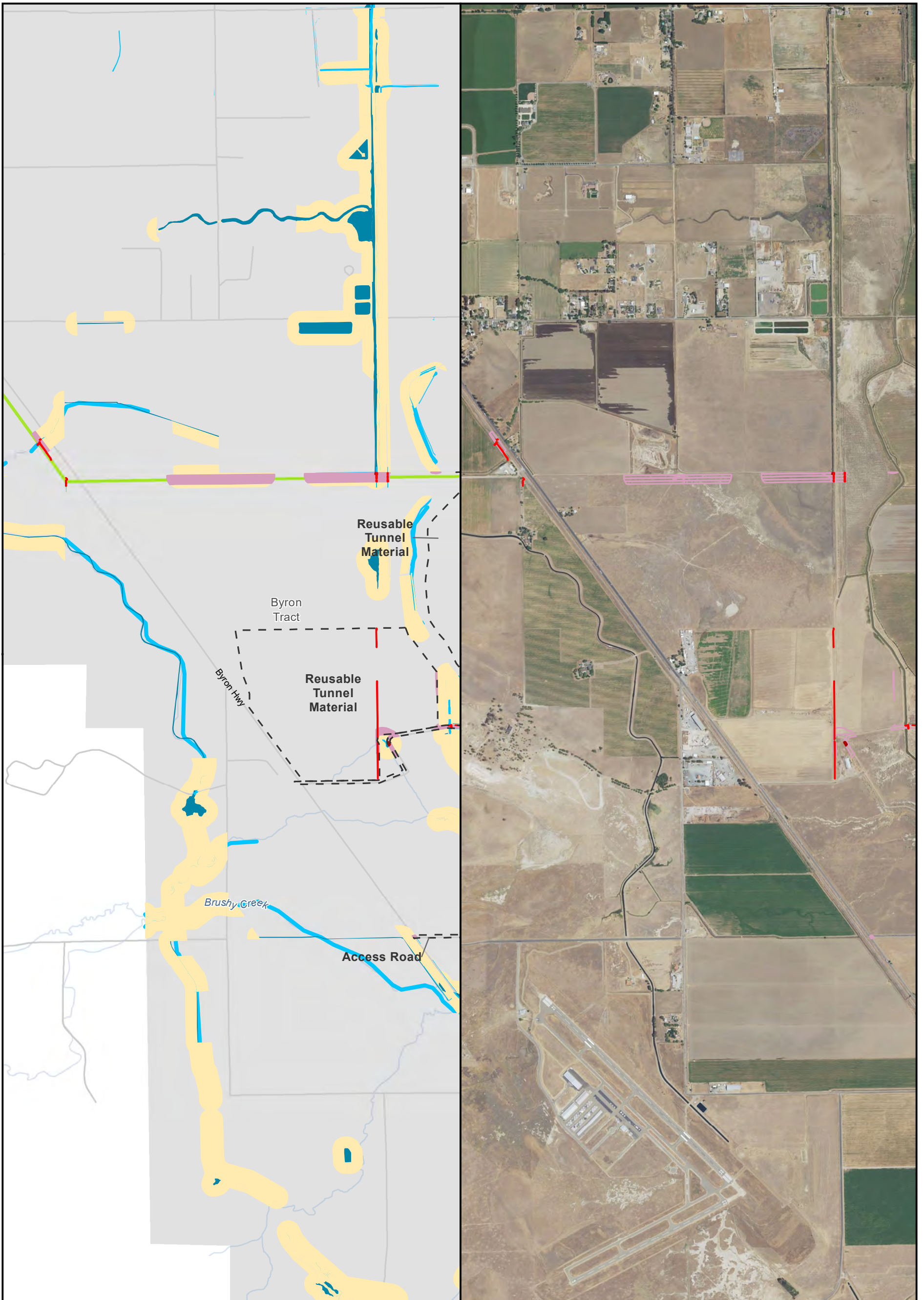
N
 0 1,600 Feet
 ** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction



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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- | | | |
|--|---|--|
| <p>Impacted Modeled Habitat - Qualitative Range</p> <ul style="list-style-type: none"> ■ Aquatic-Tidal ■ Aquatic-Nontidal ■ Upland | <p>Modeled Habitat - Qualitative Range</p> <ul style="list-style-type: none"> ■ Aquatic-Tidal ■ Aquatic-Nontidal ■ Upland | <p>Project</p> <ul style="list-style-type: none"> ■ Permanent Transmission ■ Temporary Transmission |
|--|---|--|



** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

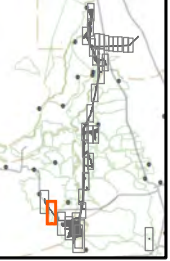


**Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction
Transmission Line & Reusable Tunnel Material
Figure 4.6-33 of 4.6-36**



- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- | | | |
|--|---|--|
| <p>Impacted Modeled Habitat - Qualitative Range</p> <ul style="list-style-type: none"> ■ Aquatic-Tidal ■ Aquatic-Nontidal ■ Upland | <p>Modeled Habitat - Qualitative Range</p> <ul style="list-style-type: none"> ■ Aquatic-Tidal ■ Aquatic-Nontidal ■ Upland | <p>Project</p> <ul style="list-style-type: none"> ■ Permanent Transmission ■ Temporary Transmission |
|--|---|--|

0 1,600 Feet



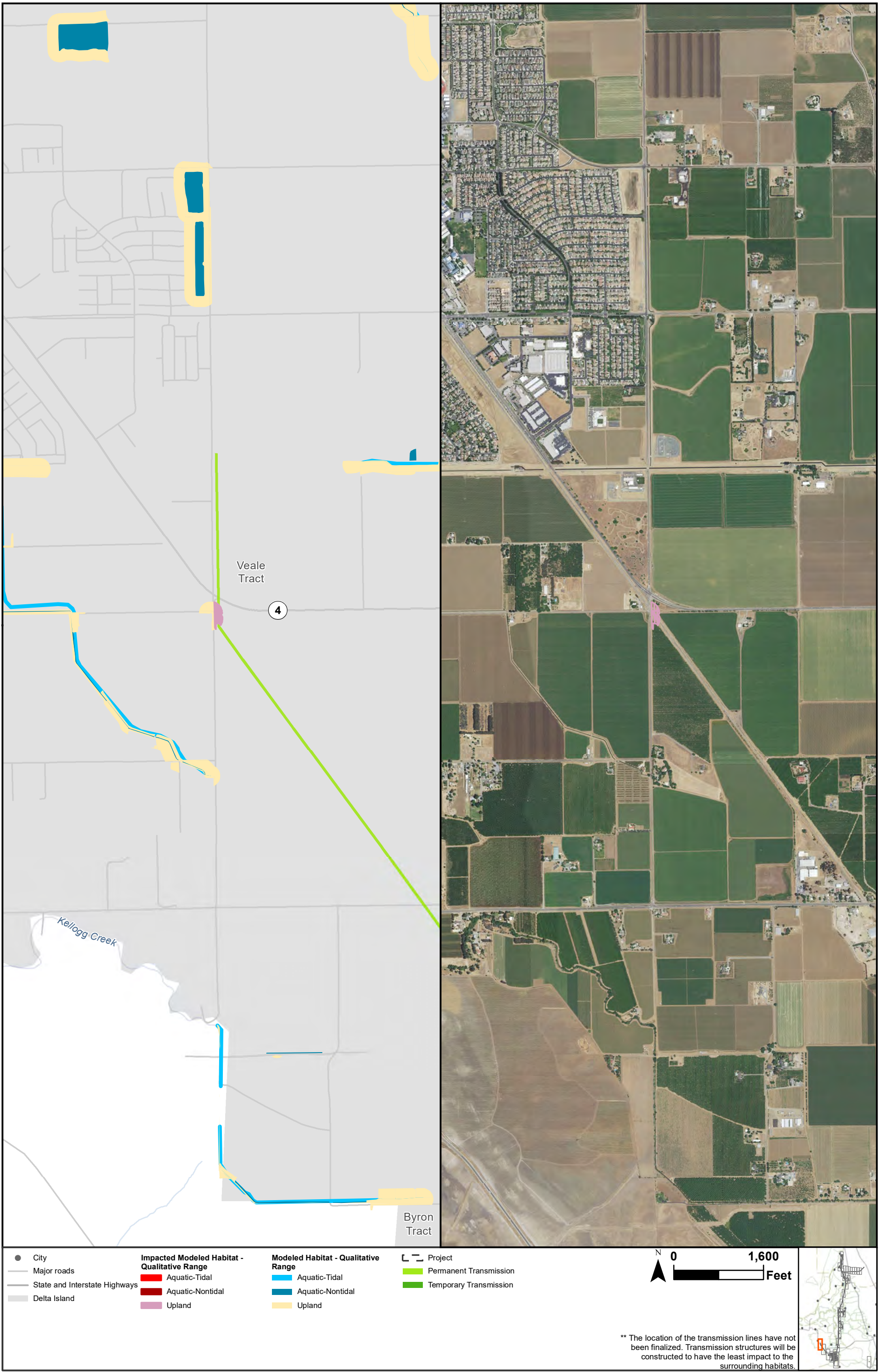
** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction Transmission Line
Figure 4.6-34 of 4.6-36

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Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

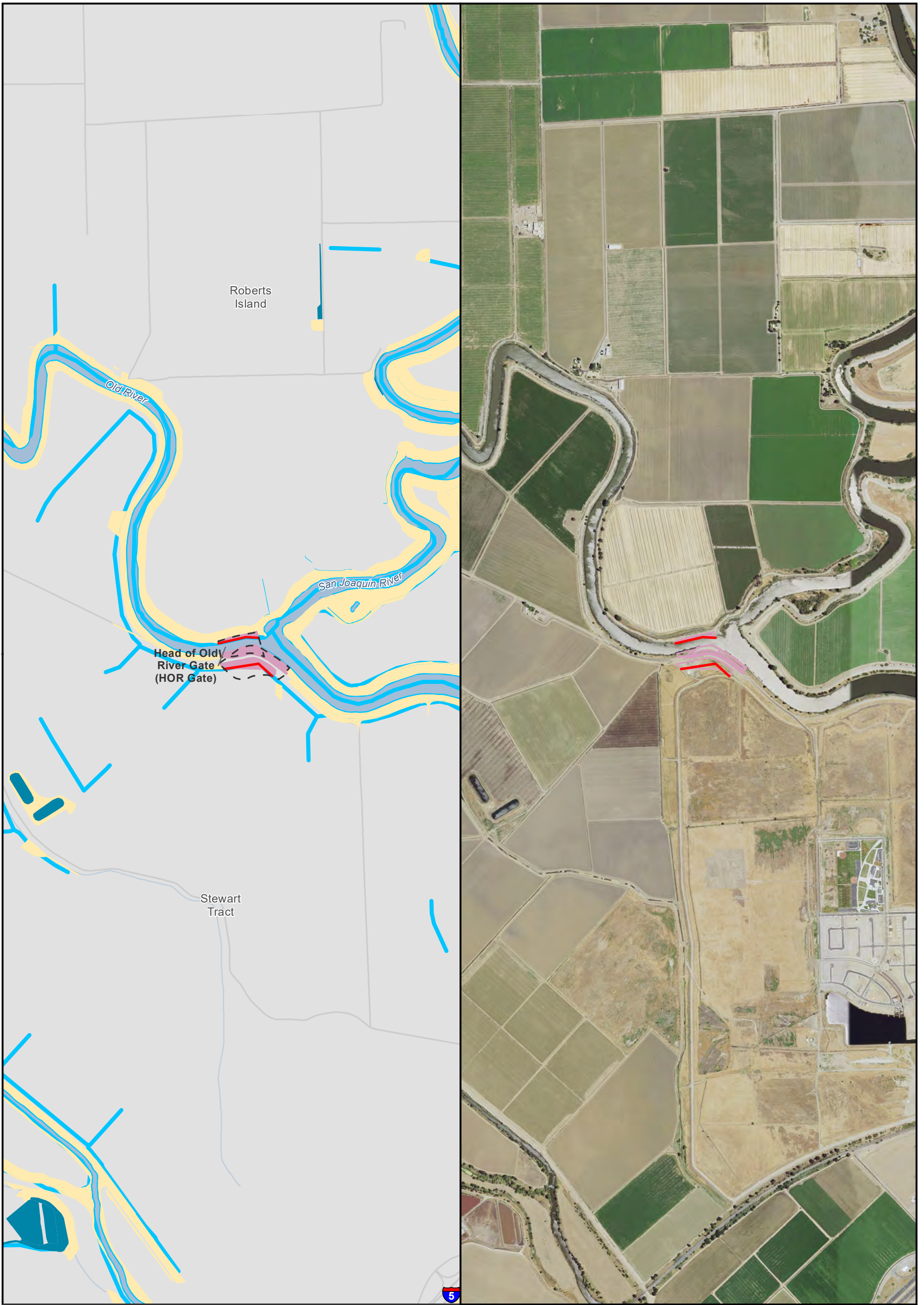
Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction



Transmission Line
Figure 4.6-35 of 4.6-36

** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- | | | |
|--|---|--|
| <p>Impacted Modeled Habitat - Qualitative Range</p> <ul style="list-style-type: none"> ■ Aquatic-Tidal ■ Aquatic-Nontidal ■ Upland | <p>Modeled Habitat - Qualitative Range</p> <ul style="list-style-type: none"> ■ Aquatic-Tidal ■ Aquatic-Nontidal ■ Upland | <p>Project</p> <ul style="list-style-type: none"> ■ Permanent Transmission ■ Temporary Transmission |
|--|---|--|



** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

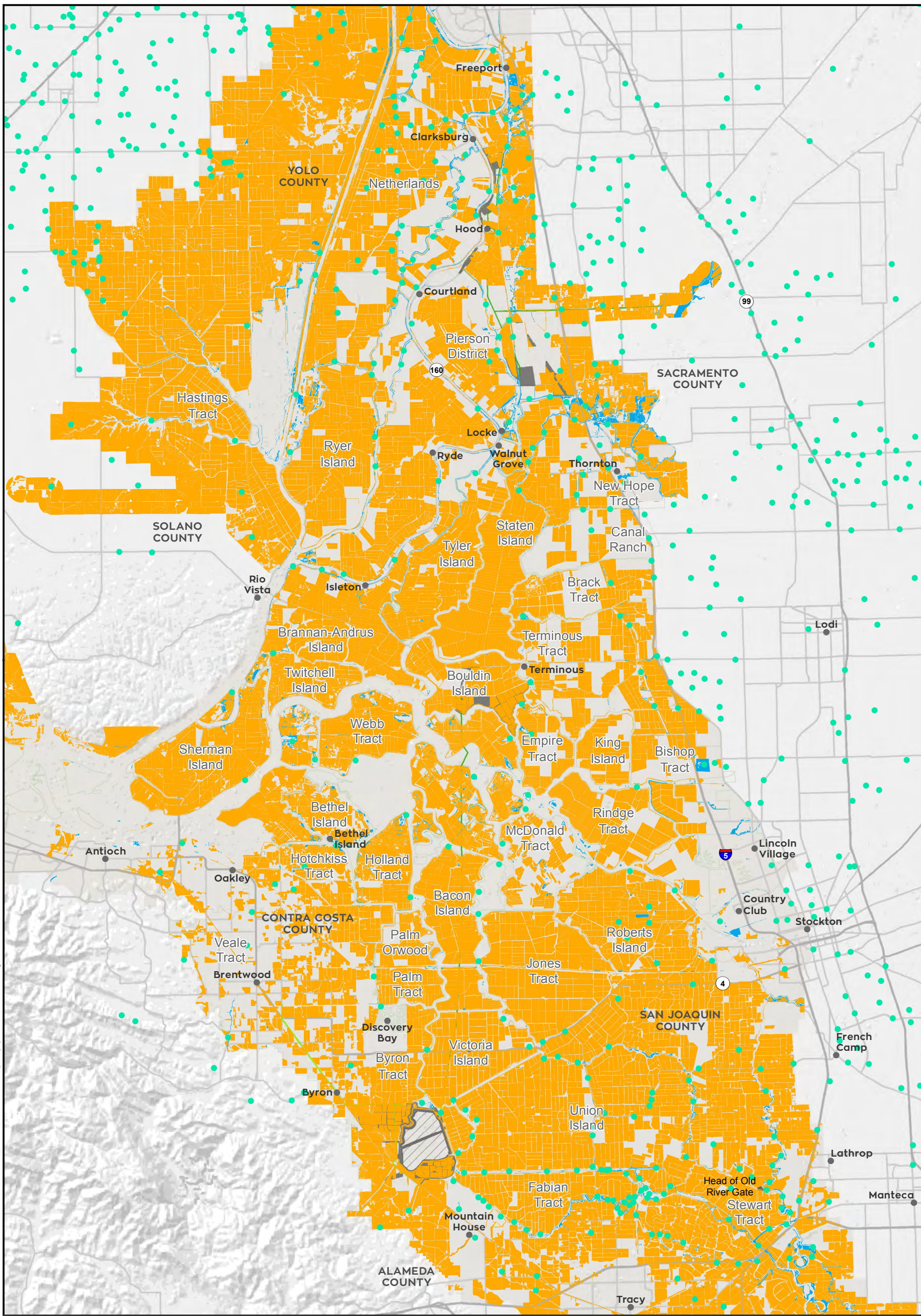


Impacts to Giant Garter Snake Modeled Habitat from Water Conveyance Facility Construction

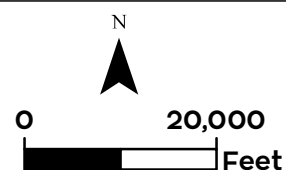
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Figure 4.6-36 of 4.6-36

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- City
- Legal Delta Boundary
- Swainson's Hawk**
- Species Occurrence
- Modeled Foraging Habitat
- Modeled Nesting Habitat
- Project Area
- bdcpl_eireis.SDE.i12_BD...
- Permanent Transmission Lines
- Temporary Transmission Lines



** Temporary work areas may be restored after construction is complete, however, for the purposes of impact analysis, the effect is considered permanent

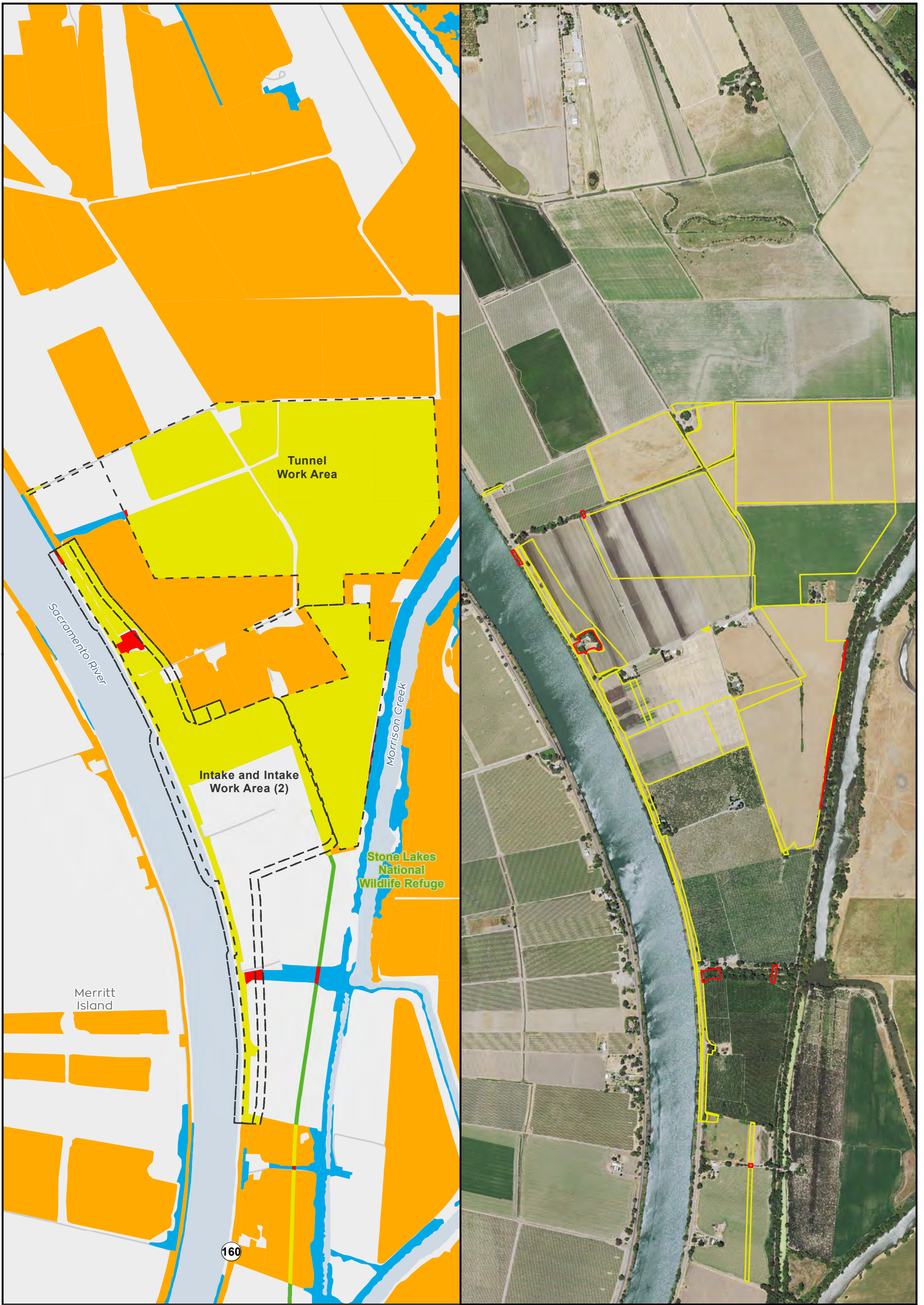
Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; Critical Habitat, USFWS 2012



Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Modified Pipeline Tunnel/Clifton Court Forebay Option Overview

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- City
- Major roads
- State and Interstate Highways
- Delta Island
- Swainson's Hawk**
- Modeled Foraging Habitat
- Impacted Modeled Foraging Habitat
- Modeled Nesting Habitat
- Impacted Modeled Nesting Habitat
- Project
- Permanent Transmission
- Temporary Transmission Lines

N 0 1,200 Feet

** Temporary work areas may be restored after construction is complete, however, for the purposes of impact analysis, the effect is considered permanent.

** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

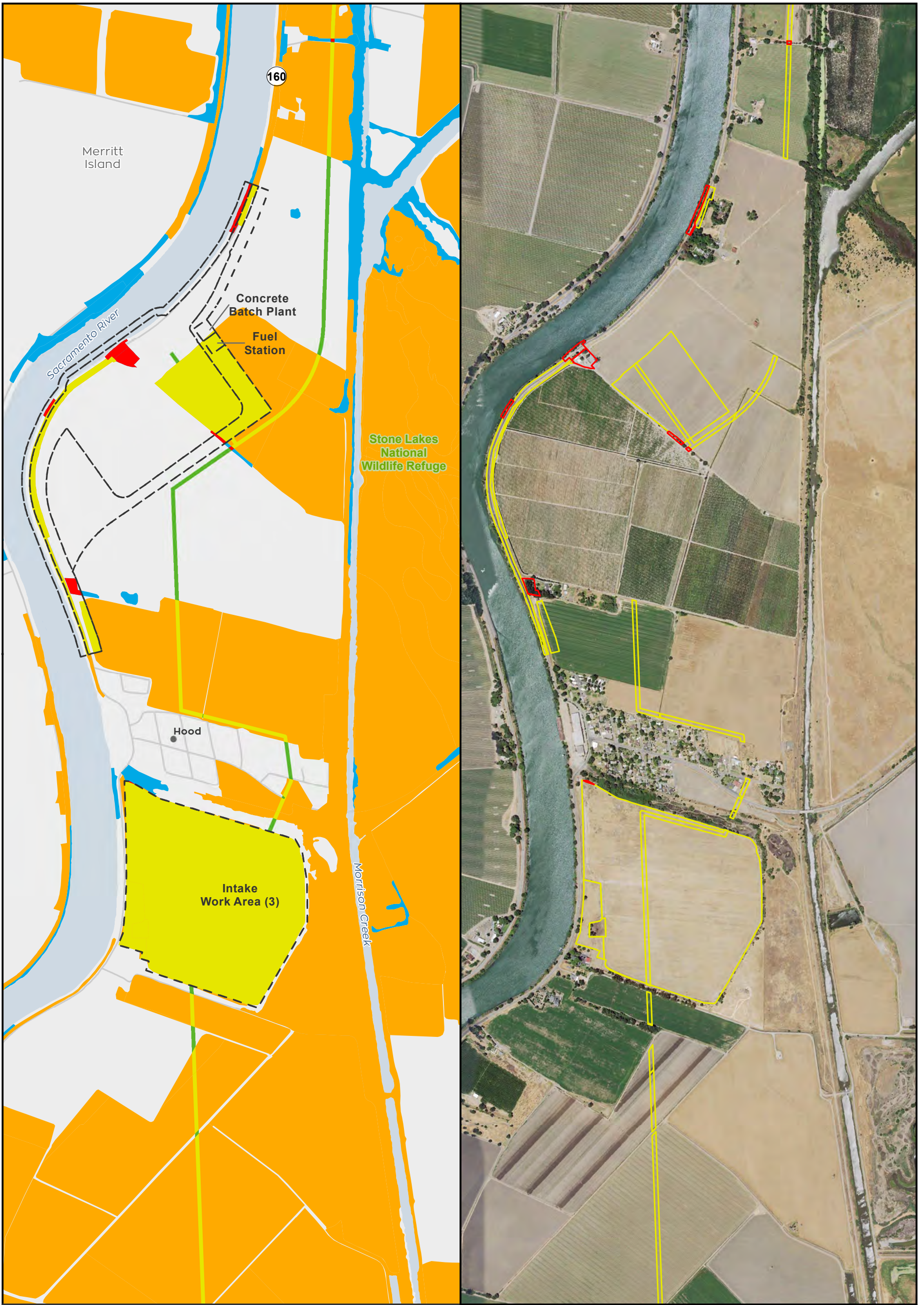
**Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction
Modified Pipeline Tunnel/Clifton Court Forebay Option
Intake 2**

Figure 4.7-2 of 4.7-38



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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- Swainson's Hawk**
- Modeled Foraging Habitat
 - Impacted Modeled Foraging Habitat
 - Modeled Nesting Habitat
 - Impacted Modeled Nesting Habitat
- Project**
- Permanent Transmission
 - Temporary Transmission Lines

0 1,200 Feet

** Temporary work areas may be restored after construction is complete, however, for the purposes of impact analysis, the effect is considered permanent.

** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

**Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction
Modified Pipeline Tunnel/Clifton Court Forebay Option
Intake 3**

Figure 4.7-3 of 4.7-38



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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- Swainson's Hawk**
- Modeled Foraging Habitat
 - Impacted Modeled Foraging Habitat
 - Modeled Nesting Habitat
 - Impacted Modeled Nesting Habitat
- Project**
- Permanent Transmission
 - Temporary Transmission Lines

N 0 1,200 Feet

** Temporary work areas may be restored after construction is complete, however, for the purposes of impact analysis, the effect is considered permanent.

** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

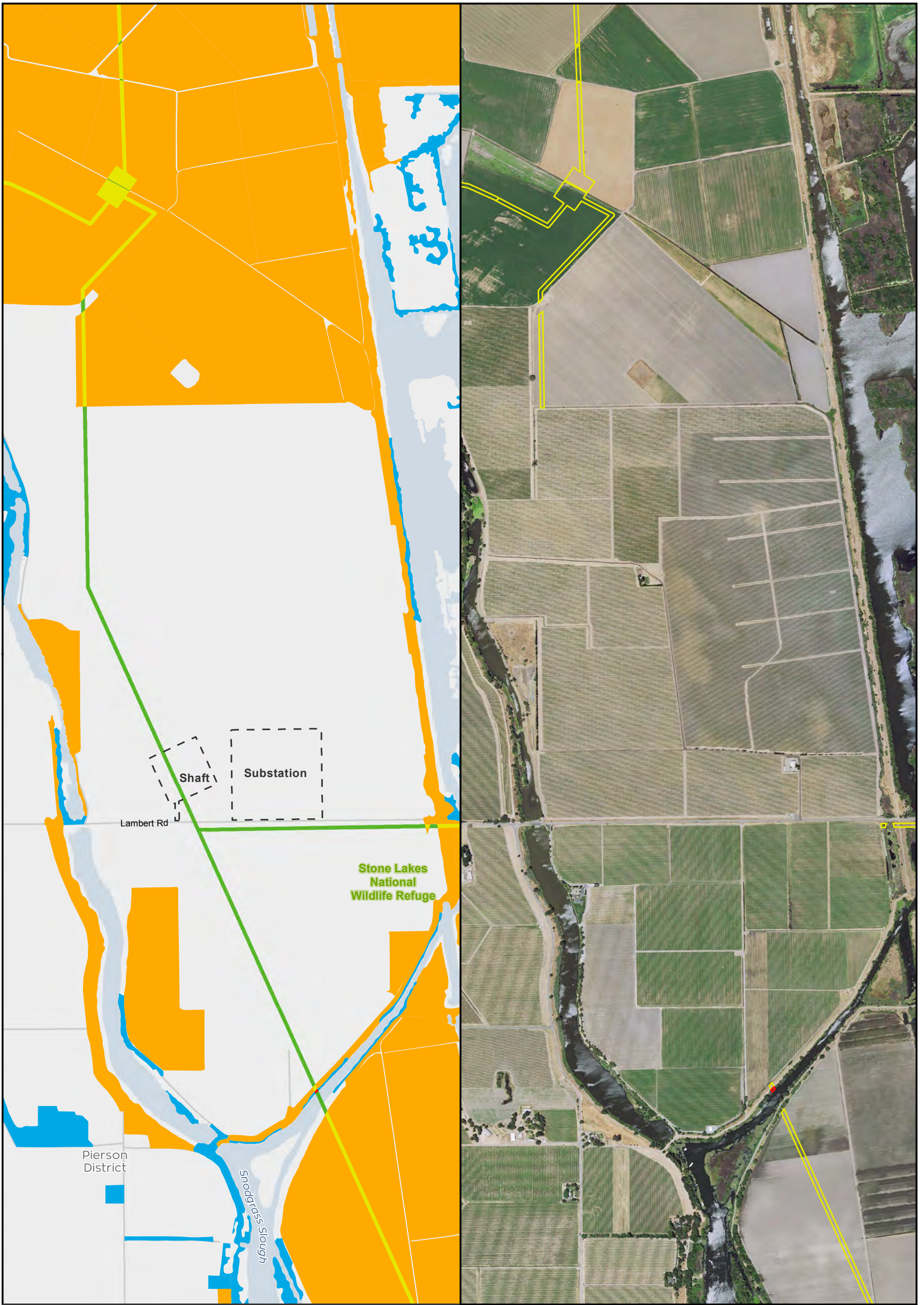


**Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction
Modified Pipeline Tunnel/Clifton Court Forebay Option
Intake 5**

Figure 4.7-4 of 4.7-38

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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- Swainson's Hawk**
- Modeled Foraging Habitat
 - Impacted Modeled Foraging Habitat
 - Modeled Nesting Habitat
 - Impacted Modeled Nesting Habitat
- Project**
- Permanent Transmission
 - Temporary Transmission Lines

N 0 1,200 Feet

** Temporary work areas may be restored after construction is complete, however, for the purposes of impact analysis, the effect is considered permanent.

** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



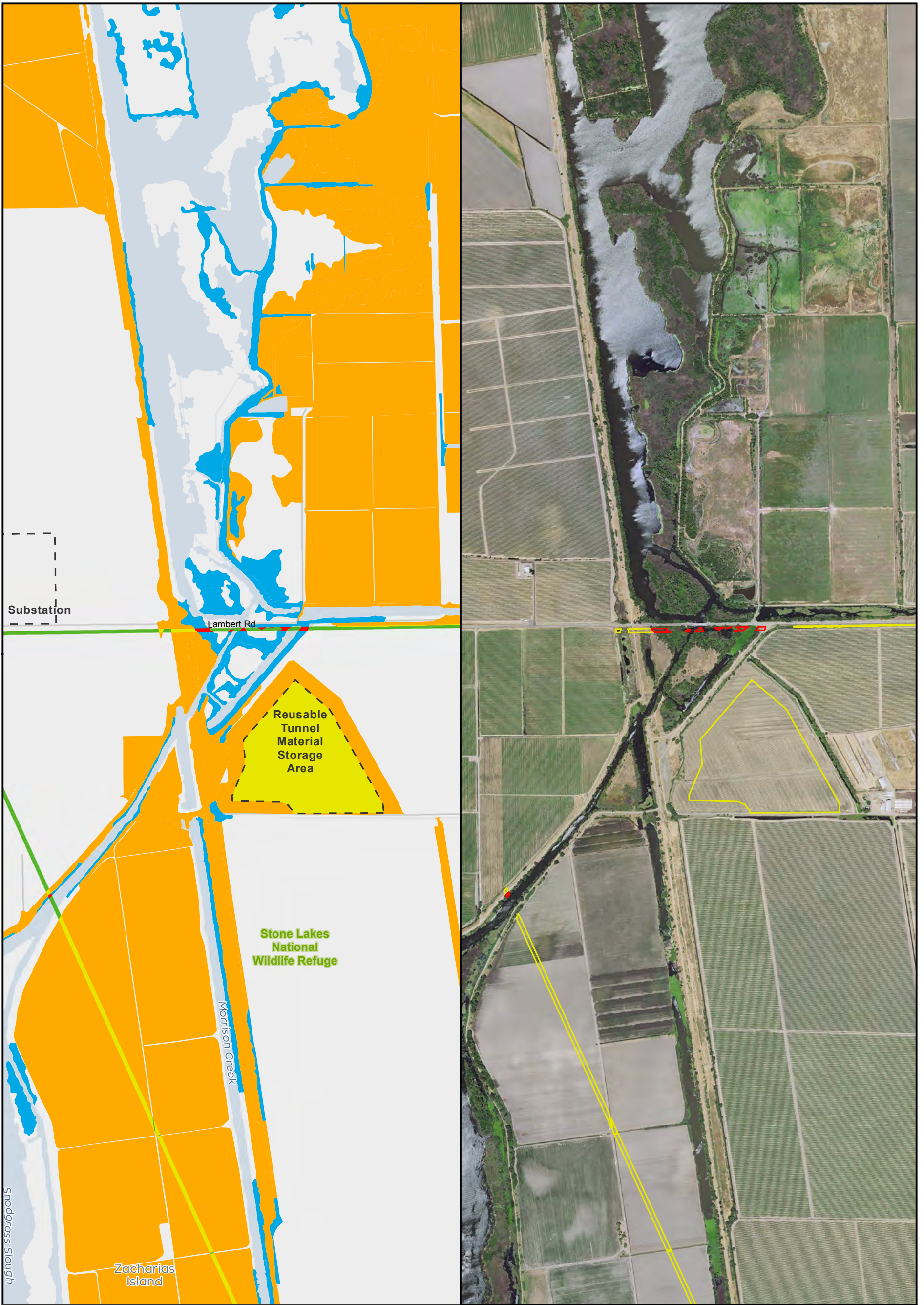
Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction Modified Pipeline Tunnel/Clifton Court Forebay Option Transmission Line - Electrical Substation Figure 4.7-5 of 4.7-38

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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- Swainson's Hawk**
- Modeled Foraging Habitat
 - Impacted Modeled Foraging Habitat
 - Modeled Nesting Habitat
 - Impacted Modeled Nesting Habitat
- Project**
- Permanent Transmission
 - Temporary Transmission Lines

0 1,200 Feet

** Temporary work areas may be restored after construction is complete, however, for the purposes of impact analysis, the effect is considered permanent.

** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



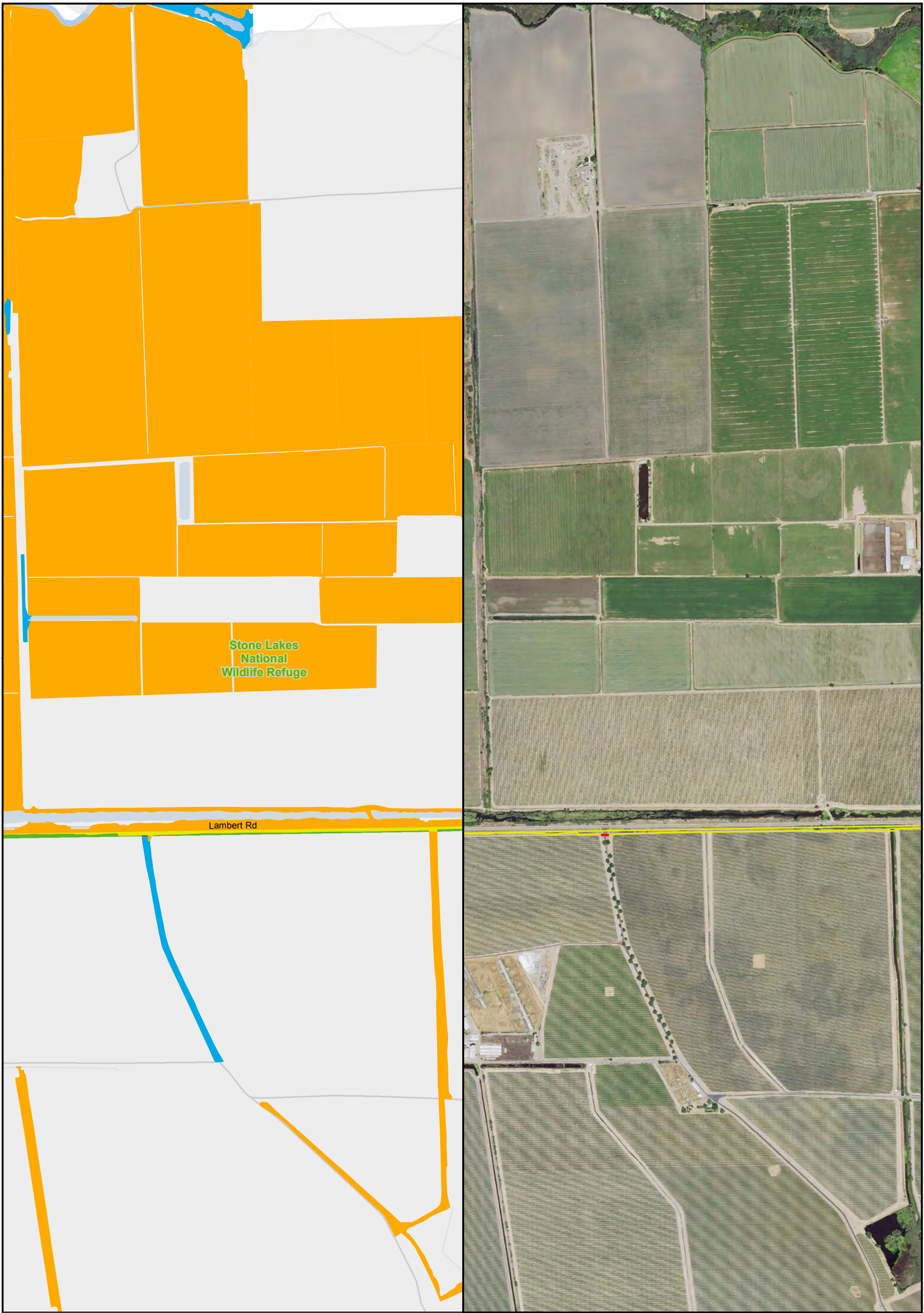
Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction Modified Pipeline Tunnel/Clifton Court Forebay Option Transmission Line - Intermediate Forebay Figure 4.7-6 of 4.7-38



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- | | | |
|---------------------------------|-----------------------------------|------------------------------|
| ● City | Swainson's Hawk | ⎓ Project |
| — Major roads | Modeled Foraging Habitat | Permanent Transmission |
| — State and Interstate Highways | Impacted Modeled Foraging Habitat | Temporary Transmission Lines |
| — Delta Island | Modeled Nesting Habitat | |
| | Impacted Modeled Nesting Habitat | |

0 1,000 Feet

** Temporary work areas may be restored after construction is complete, however, for the purposes of impact analysis, the effect is considered permanent.

** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



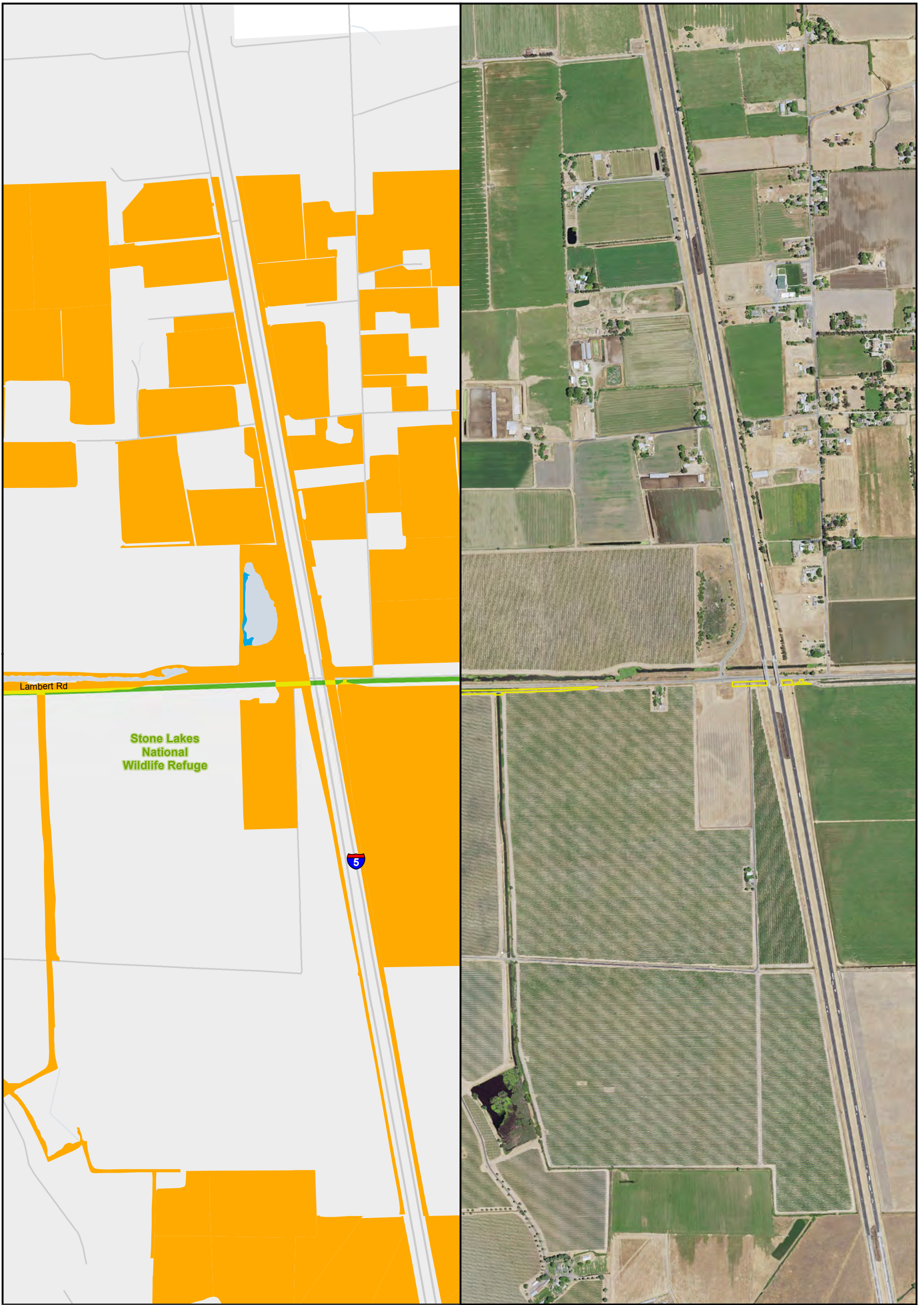
Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction Modified Pipeline Tunnel/Clifton Court Forebay Option Transmission Line - East leg
Figure 4.7-7 of 4.7-38

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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- Swainson's Hawk**
- Modeled Foraging Habitat
 - Impacted Modeled Foraging Habitat
 - Modeled Nesting Habitat
 - Impacted Modeled Nesting Habitat
- Project**
- Permanent Transmission
 - Temporary Transmission Lines

0 1,000 Feet

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** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



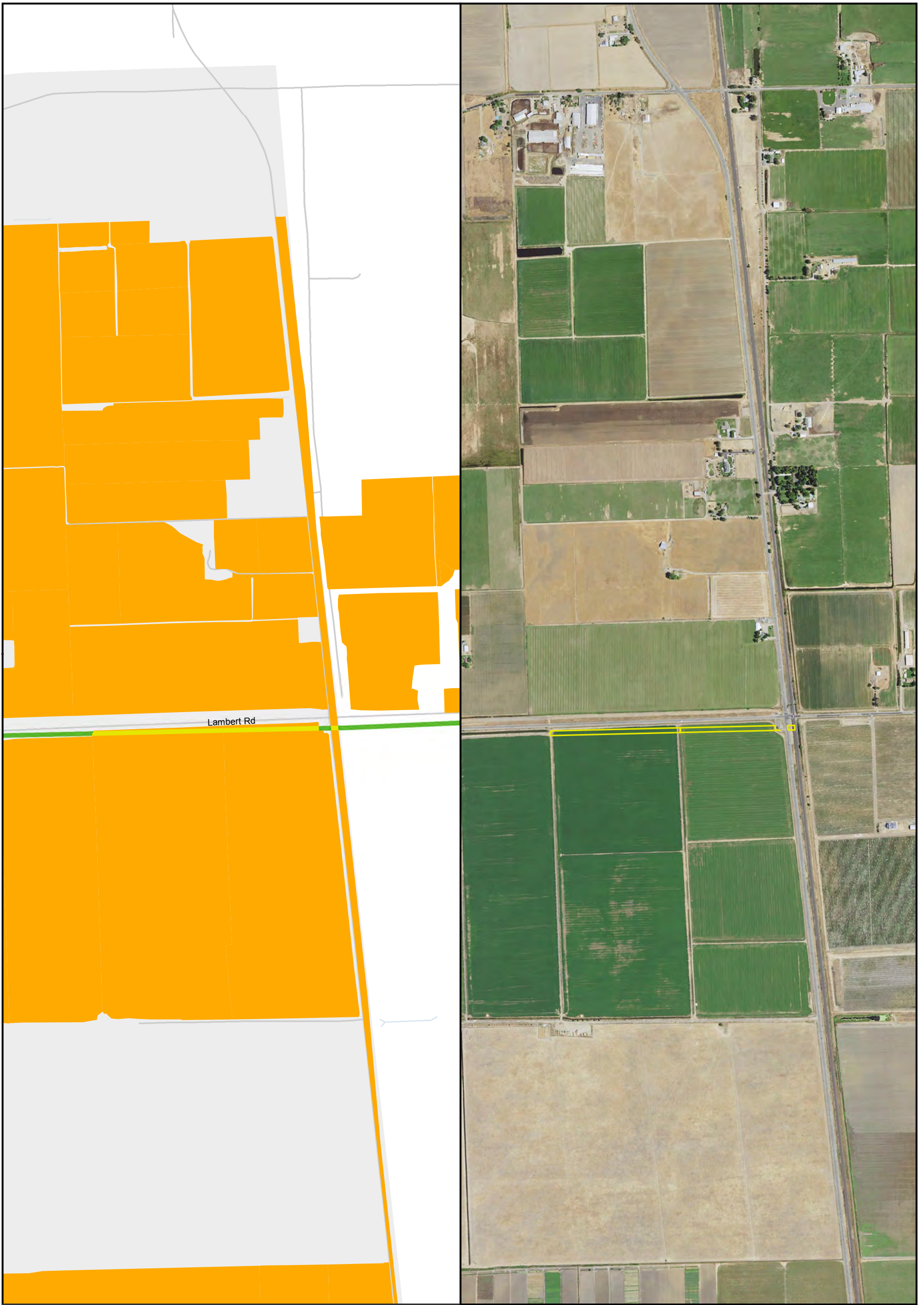
Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction Modified Pipeline Tunnel/Clifton Court Forebay Option Transmission Line - East leg
Figure 4.7-8 of 4.7-38

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- | | | |
|---------------------------------|-------------------------------------|--------------------------------|
| ● City | Swainson's Hawk | ┌─┐ Project |
| — Major roads | ■ Modeled Foraging Habitat | ■ Permanent Transmission |
| — State and Interstate Highways | ■ Impacted Modeled Foraging Habitat | ■ Temporary Transmission Lines |
| ■ Delta Island | ■ Modeled Nesting Habitat | |
| | ■ Impacted Modeled Nesting Habitat | |

N 0 1,000 Feet

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** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



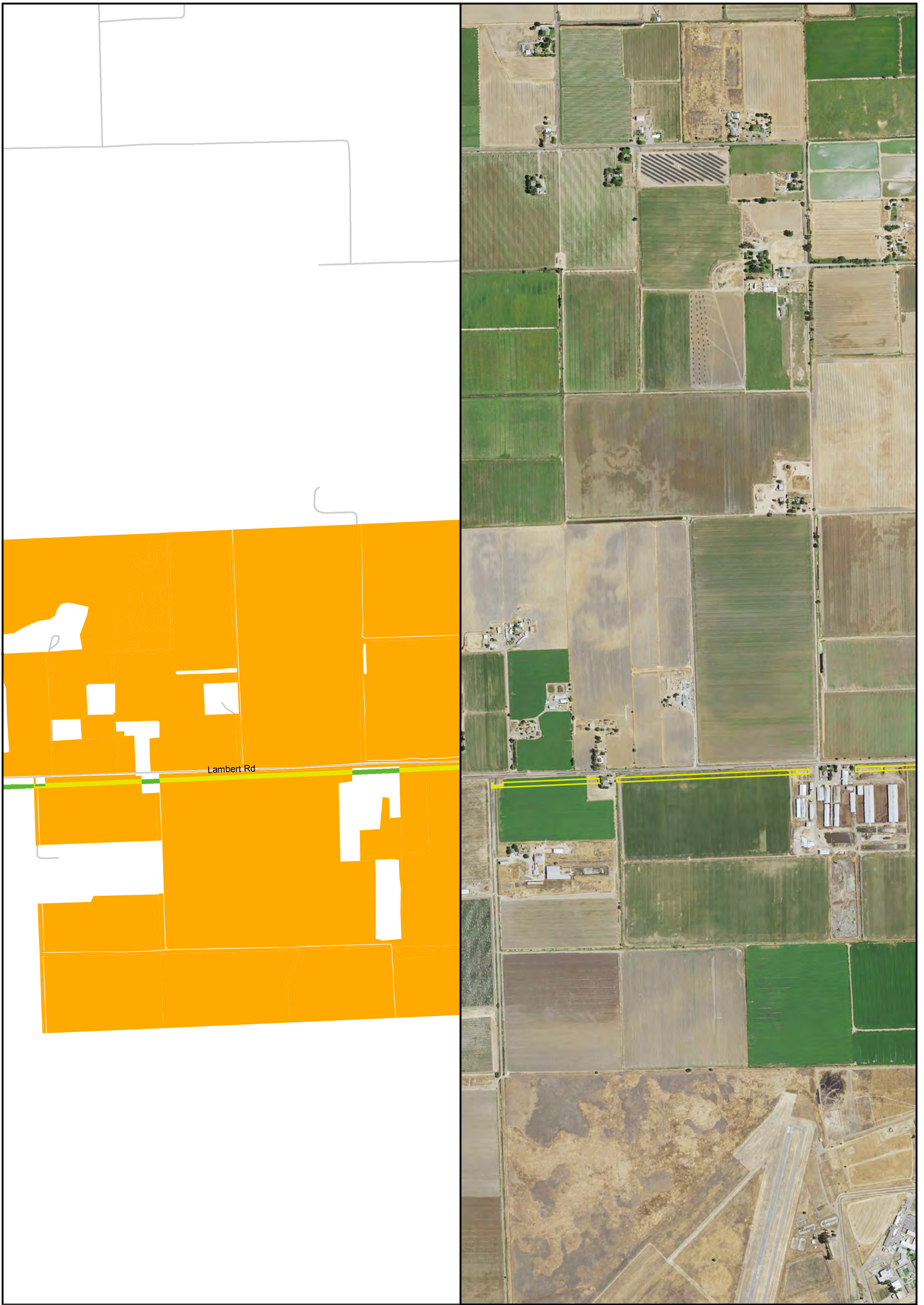
Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



**Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction
Modified Pipeline Tunnel/Clifton Court Forebay Option
Transmission Line - East leg
Figure 4.7-9 of 4.7-38**

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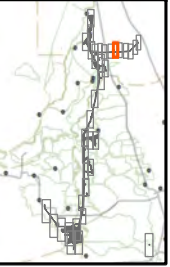


- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- Swainson's Hawk**
- Modeled Foraging Habitat
 - Impacted Modeled Foraging Habitat
 - Modeled Nesting Habitat
 - Impacted Modeled Nesting Habitat
- Project**
- Permanent Transmission
 - Temporary Transmission Lines



** Temporary work areas may be restored after construction is complete, however, for the purposes of impact analysis, the effect is considered permanent.

** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



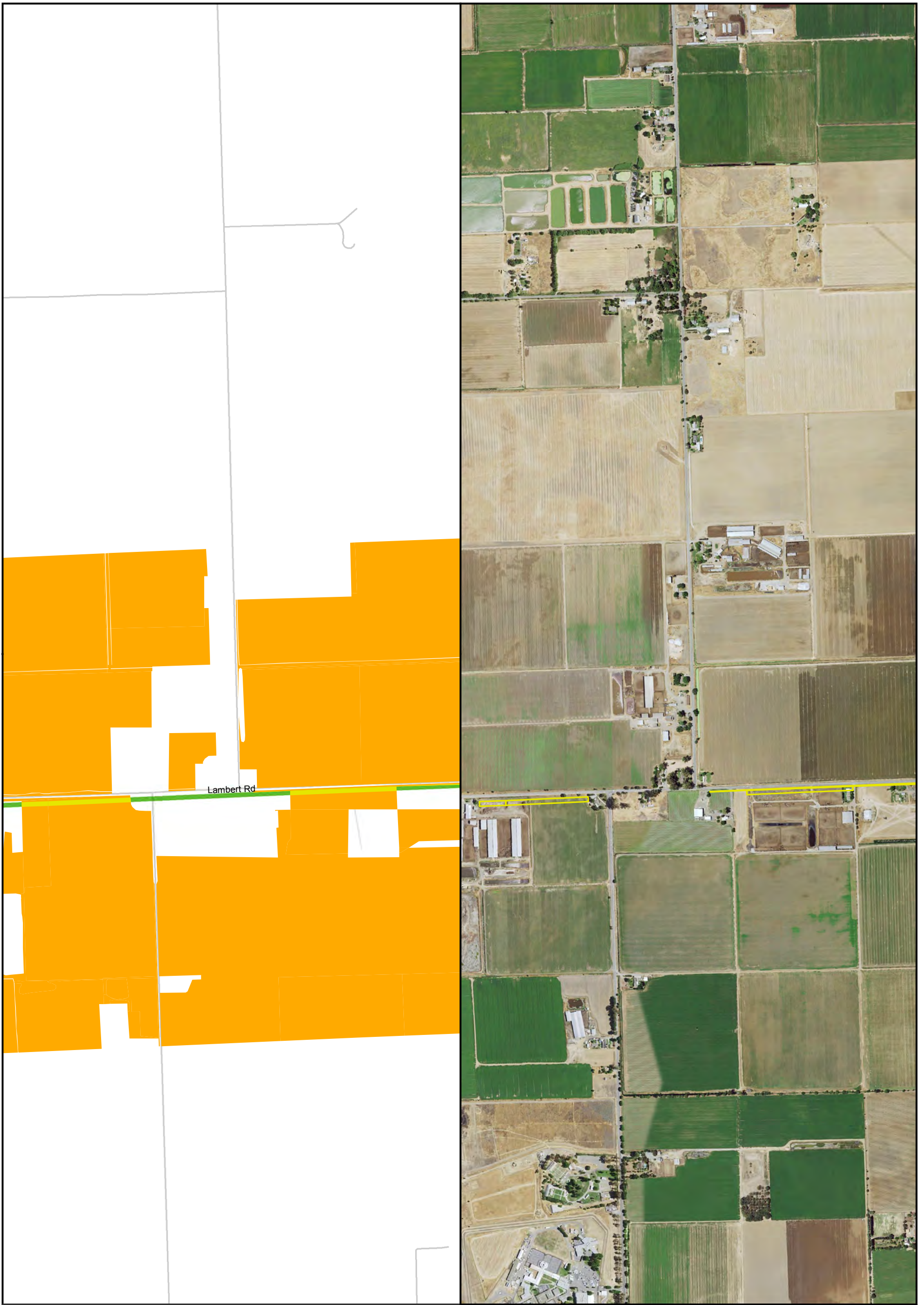
Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



**Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction
Modified Pipeline Tunnel/Clifton Court Forebay Option
Transmission Line - East leg
Figure 4.7-10 of 4.7-38**

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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- Swainson's Hawk**
- Modeled Foraging Habitat
 - Impacted Modeled Foraging Habitat
 - Modeled Nesting Habitat
 - Impacted Modeled Nesting Habitat
- Project**
- Permanent Transmission
 - Temporary Transmission Lines

N 0 1,000 Feet

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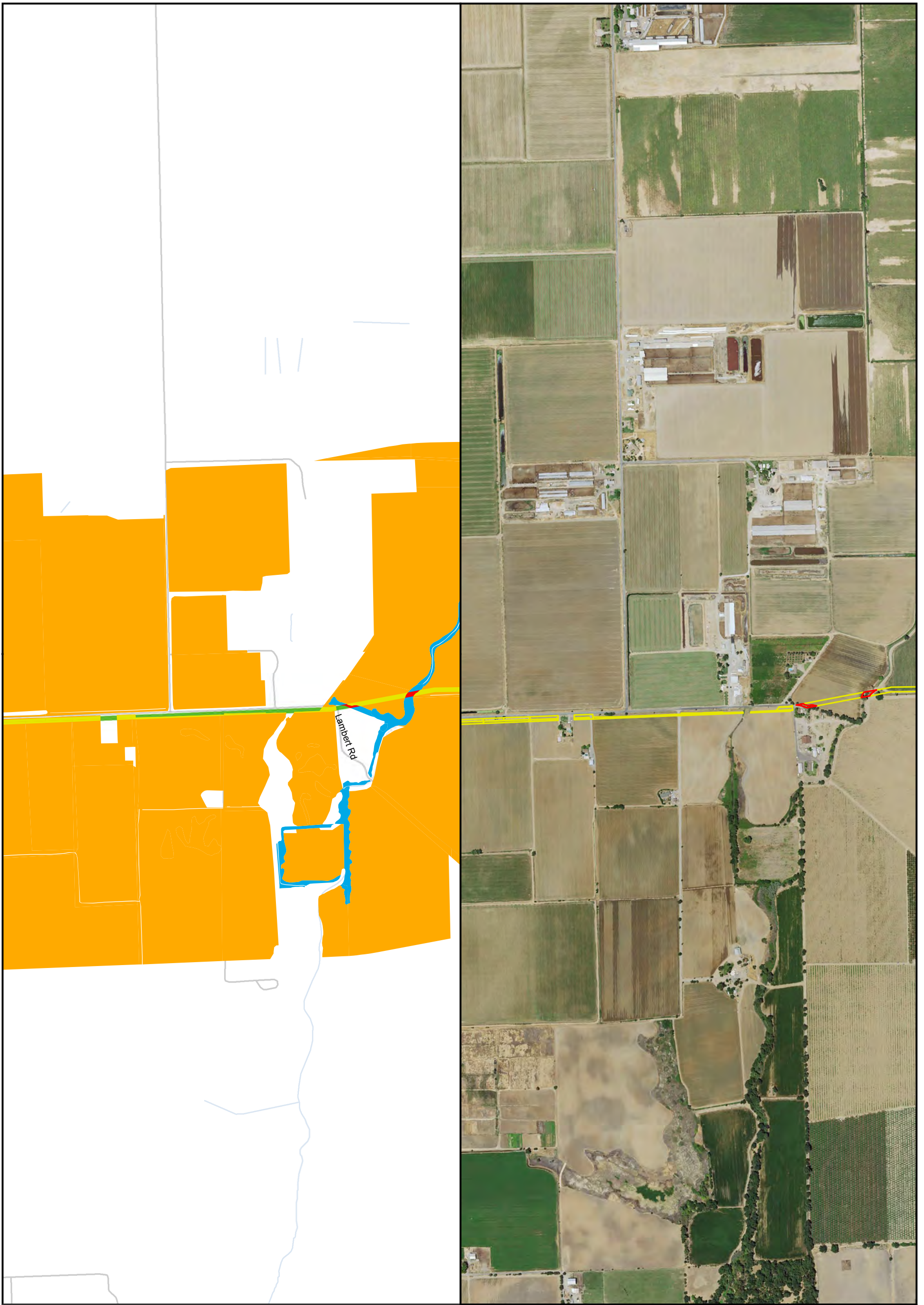
Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



**Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction
Modified Pipeline Tunnel/Clifton Court Forebay Option
Transmission Line - East leg
Figure 4.7-11 of 4.7-38**

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- | | | |
|---------------------------------|-------------------------------------|--------------------------------|
| ● City | Swainson's Hawk | ┌─┐ Project |
| — Major roads | ■ Modeled Foraging Habitat | ■ Permanent Transmission |
| — State and Interstate Highways | ■ Impacted Modeled Foraging Habitat | ■ Temporary Transmission Lines |
| ■ Delta Island | ■ Modeled Nesting Habitat | |
| | ■ Impacted Modeled Nesting Habitat | |

N 0 1,000 Feet

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** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



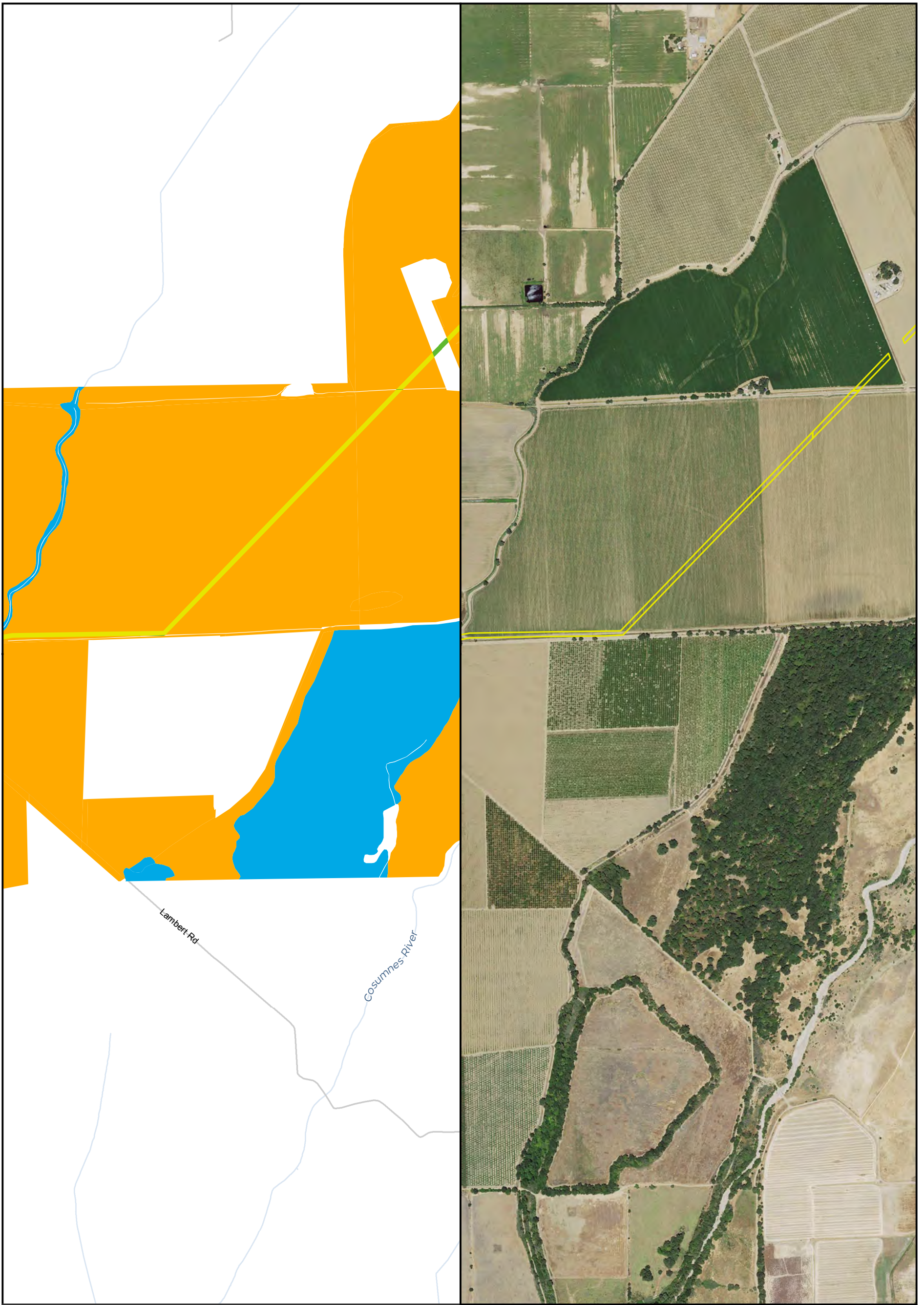
Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction Modified Pipeline Tunnel/Clifton Court Forebay Option Transmission Line - East leg
Figure 4.7-12 of 4.7-38

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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- Swainson's Hawk**
- Modeled Foraging Habitat
 - Impacted Modeled Foraging Habitat
 - Modeled Nesting Habitat
 - Impacted Modeled Nesting Habitat
- Project**
- Permanent Transmission
 - Temporary Transmission Lines

N 0 1,000 Feet

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** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



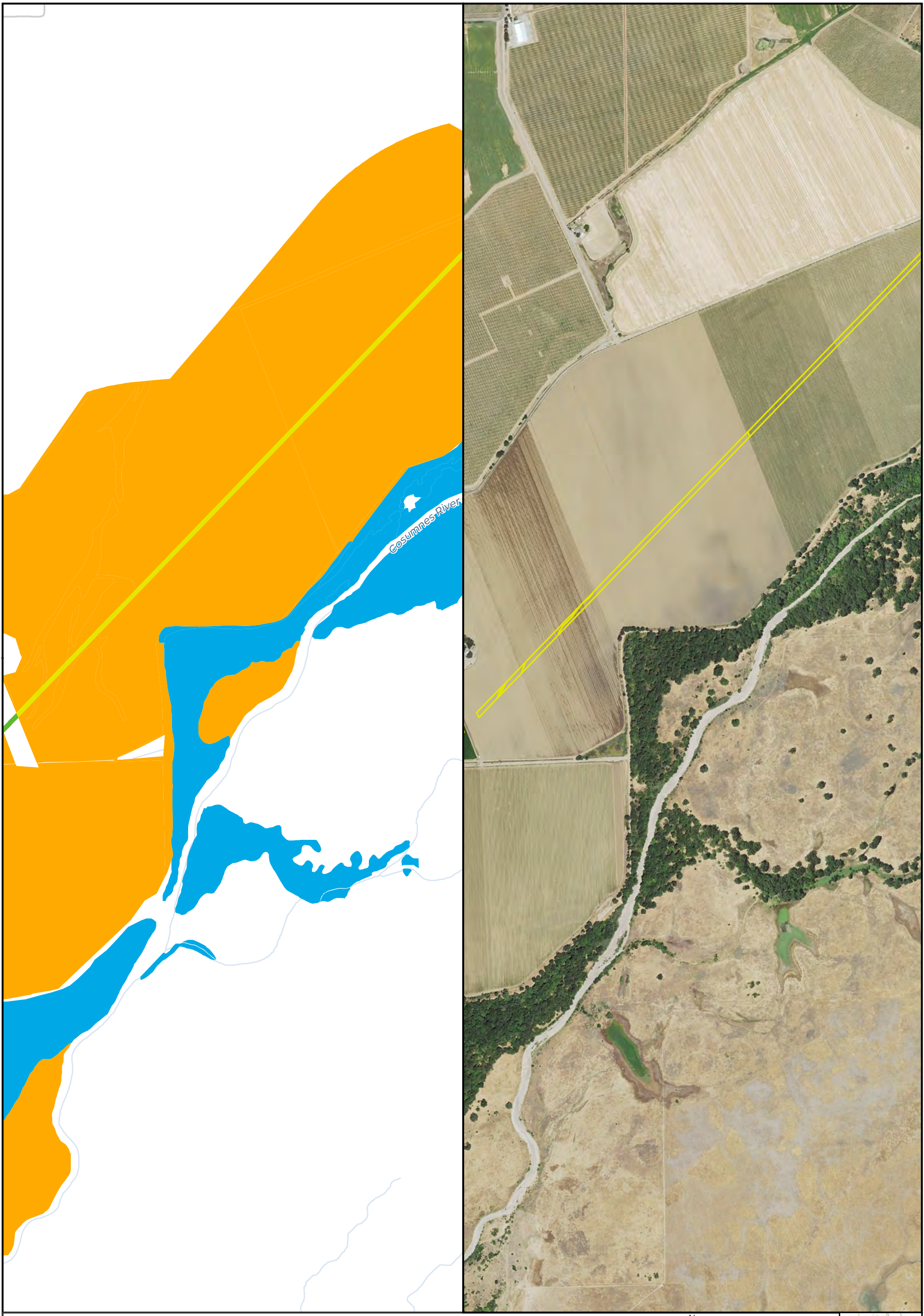
Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



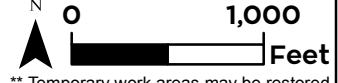
Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction Modified Pipeline Tunnel/Clifton Court Forebay Option Transmission Line - East leg
Figure 4.7-13 of 4.7-38

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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- Swainson's Hawk**
- Modeled Foraging Habitat
 - Impacted Modeled Foraging Habitat
 - Modeled Nesting Habitat
 - Impacted Modeled Nesting Habitat
- Project**
- Permanent Transmission
 - Temporary Transmission Lines



** Temporary work areas may be restored after construction is complete, however, for the purposes of impact analysis, the effect is considered permanent.

** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



**Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction
Modified Pipeline Tunnel/Clifton Court Forebay Option
Transmission Line - East leg
Figure 4.7-14 of 4.7-38**

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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- Swainson's Hawk**
- Modeled Foraging Habitat
 - Impacted Modeled Foraging Habitat
 - Modeled Nesting Habitat
 - Impacted Modeled Nesting Habitat
- Project**
- Permanent Transmission
 - Temporary Transmission Lines

N
0 1,000 Feet

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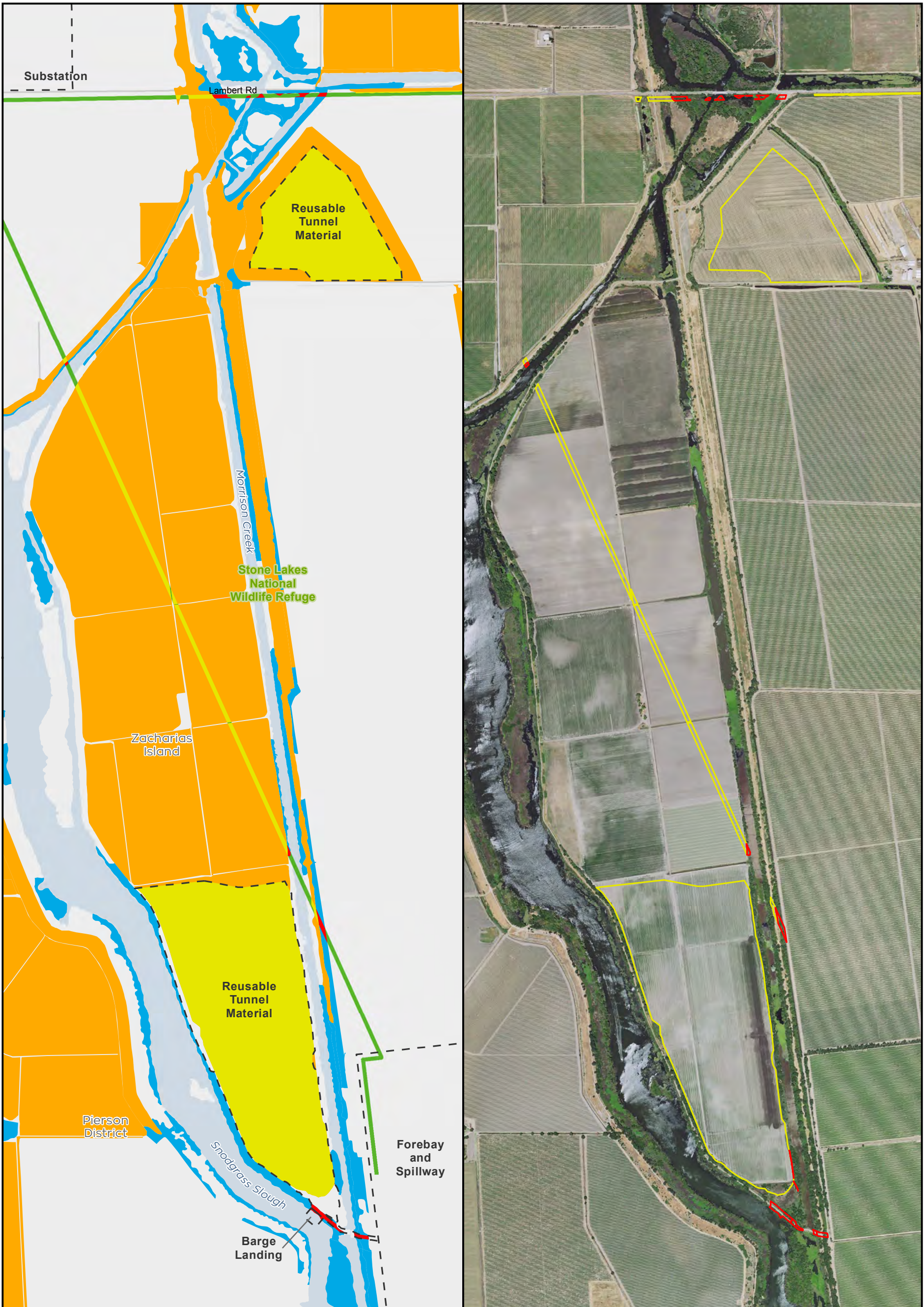


Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



**Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction
Modified Pipeline Tunnel/Clifton Court Forebay Option
Transmission Line - East leg
Figure 4.7-15 of 4.7-38**

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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- Swainson's Hawk**
- Modeled Foraging Habitat
 - Impacted Modeled Foraging Habitat
 - Modeled Nesting Habitat
 - Impacted Modeled Nesting Habitat
- Project**
- Permanent Transmission
 - Temporary Transmission Lines

0 1,200 Feet

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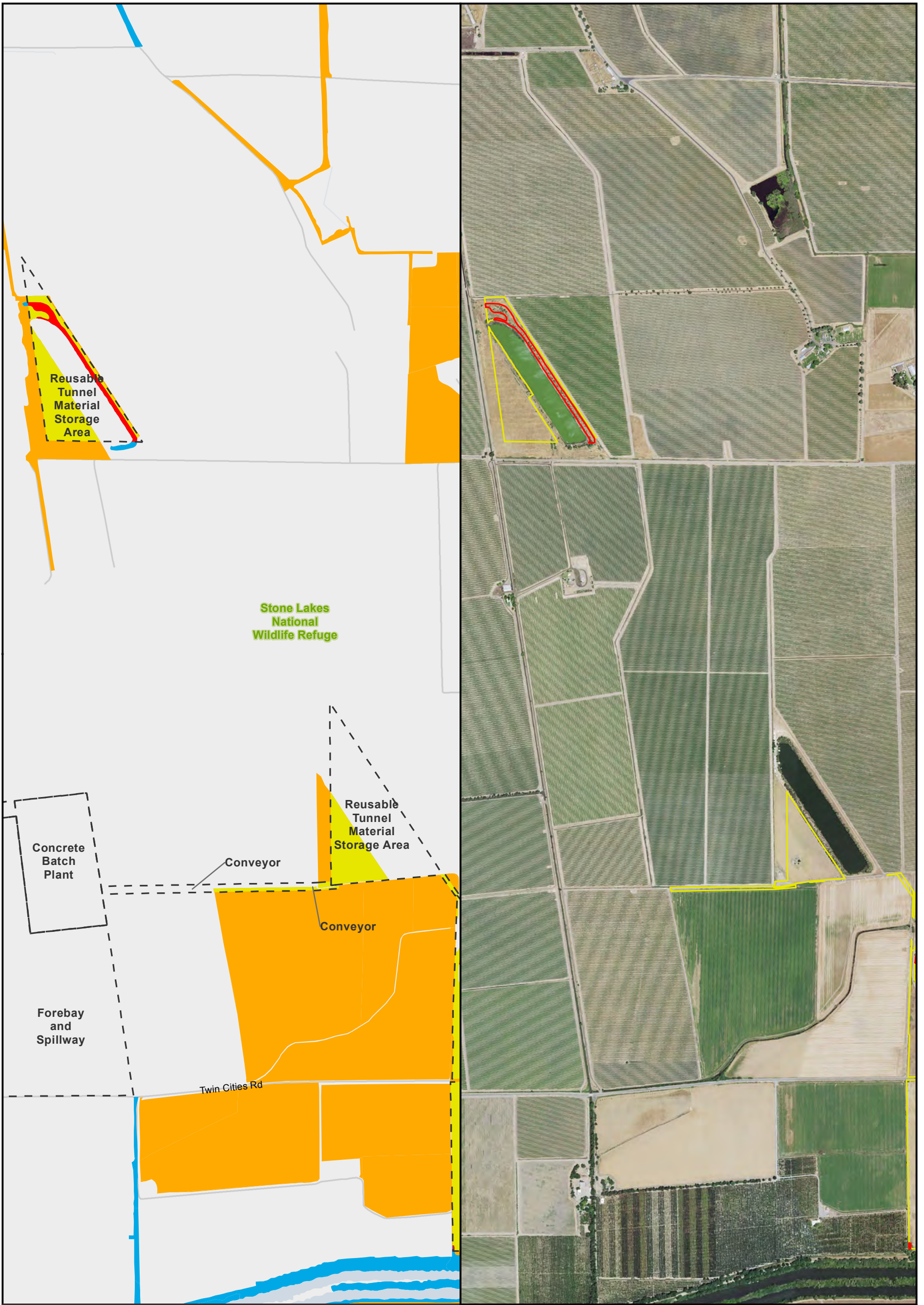
Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



**Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction
Modified Pipeline Tunnel/Clifton Court Forebay Option
Transmission Line - Intermediate Forebay
Figure 4.7-16 of 4.7-38**

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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- Swainson's Hawk**
 - Modeled Foraging Habitat
 - Impacted Modeled Foraging Habitat
 - Modeled Nesting Habitat
 - Impacted Modeled Nesting Habitat
- Project
 - Permanent Transmission
 - Temporary Transmission Lines

0 1,200 Feet

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** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction Modified Pipeline Tunnel/Clifton Court Forebay Option Reusable Tunnel Material at Intermediate Forebay Figure 4.7-17 of 4.7-38

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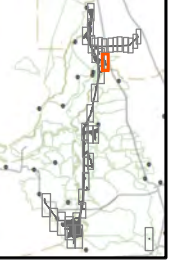


- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- Swainson's Hawk**
- Modeled Foraging Habitat
 - Impacted Modeled Foraging Habitat
 - Modeled Nesting Habitat
 - Impacted Modeled Nesting Habitat
- Project**
- Permanent Transmission
 - Temporary Transmission Lines

0 1,200 Feet

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** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



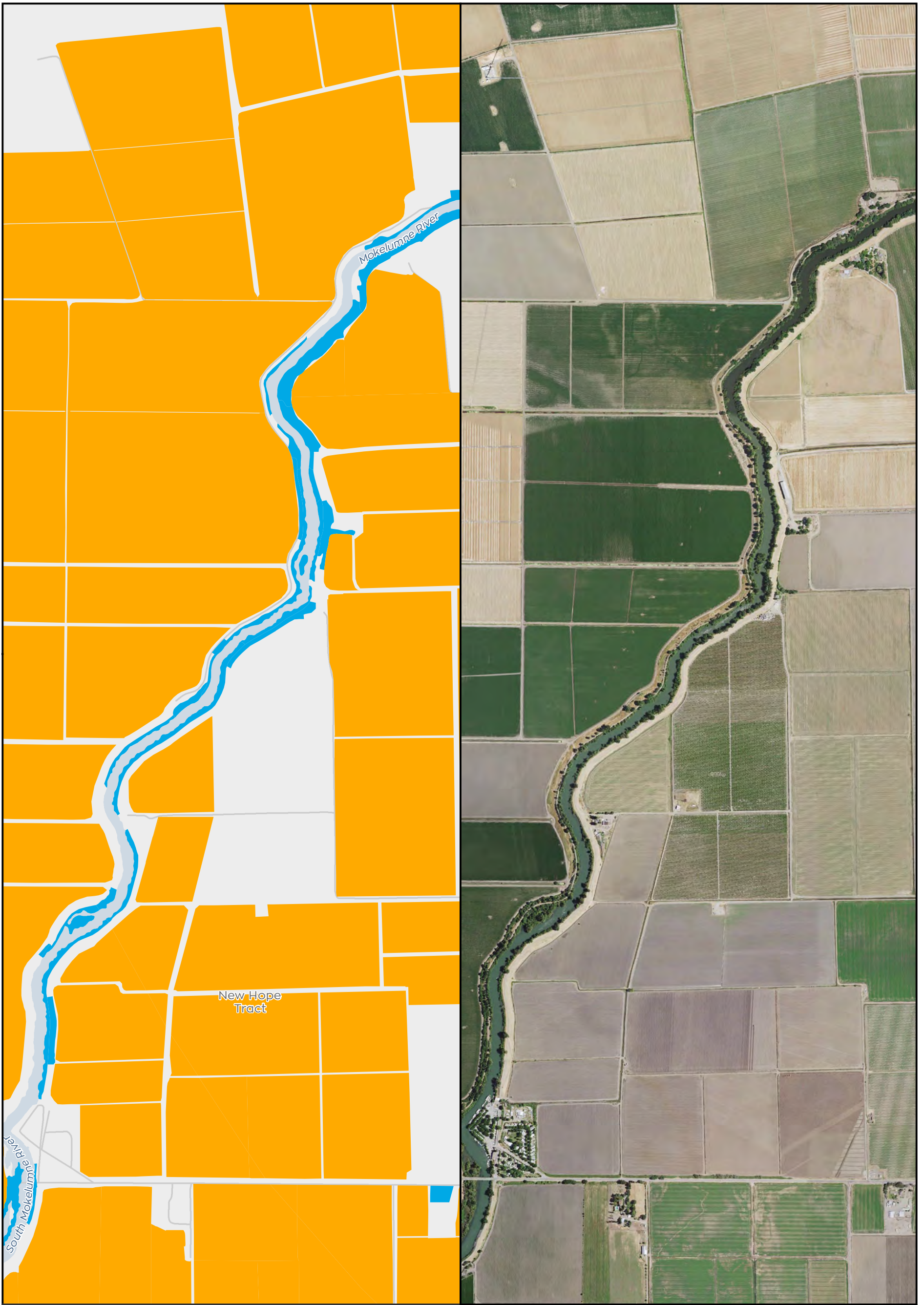
Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



**Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction
Modified Pipeline Tunnel/Clifton Court Forebay Option
Reusable Tunnel Material at Intermediate Forebay
Figure 4.7-18 of 4.7-38**

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<ul style="list-style-type: none"> ● City — Major roads — State and Interstate Highways — Delta Island 	<p>Swainson's Hawk</p> <ul style="list-style-type: none"> Orange: Modeled Foraging Habitat Yellow: Impacted Modeled Foraging Habitat Blue: Modeled Nesting Habitat Red: Impacted Modeled Nesting Habitat 	<p>Project</p> <ul style="list-style-type: none"> Green: Permanent Transmission Dark Green: Temporary Transmission Lines 	<p>0 1,200 Feet</p> <p>North arrow pointing up.</p> <p>** Temporary work areas may be restored after construction is complete, however, for the purposes of impact analysis, the effect is considered permanent.</p> <p>** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.</p>	
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Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

**Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction
Modified Pipeline Tunnel/Clifton Court Forebay Option
Safe Haven Work Area
Figure 4.7-19 of 4.7-38**



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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- Swainson's Hawk**
- Modeled Foraging Habitat
 - Impacted Modeled Foraging Habitat
 - Modeled Nesting Habitat
 - Impacted Modeled Nesting Habitat
- Project**
- Permanent Transmission
 - Temporary Transmission Lines

N 0 1,200 Feet

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** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction Modified Pipeline Tunnel/Clifton Court Forebay Option Tunnel Work Area & Safe Haven Work Area Figure 4.7-20 of 4.7-38



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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- Swainson's Hawk**
- Modeled Foraging Habitat
 - Impacted Modeled Foraging Habitat
 - Modeled Nesting Habitat
 - Impacted Modeled Nesting Habitat
- Project**
- Permanent Transmission
 - Temporary Transmission Lines

N 0 1,200 Feet

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** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

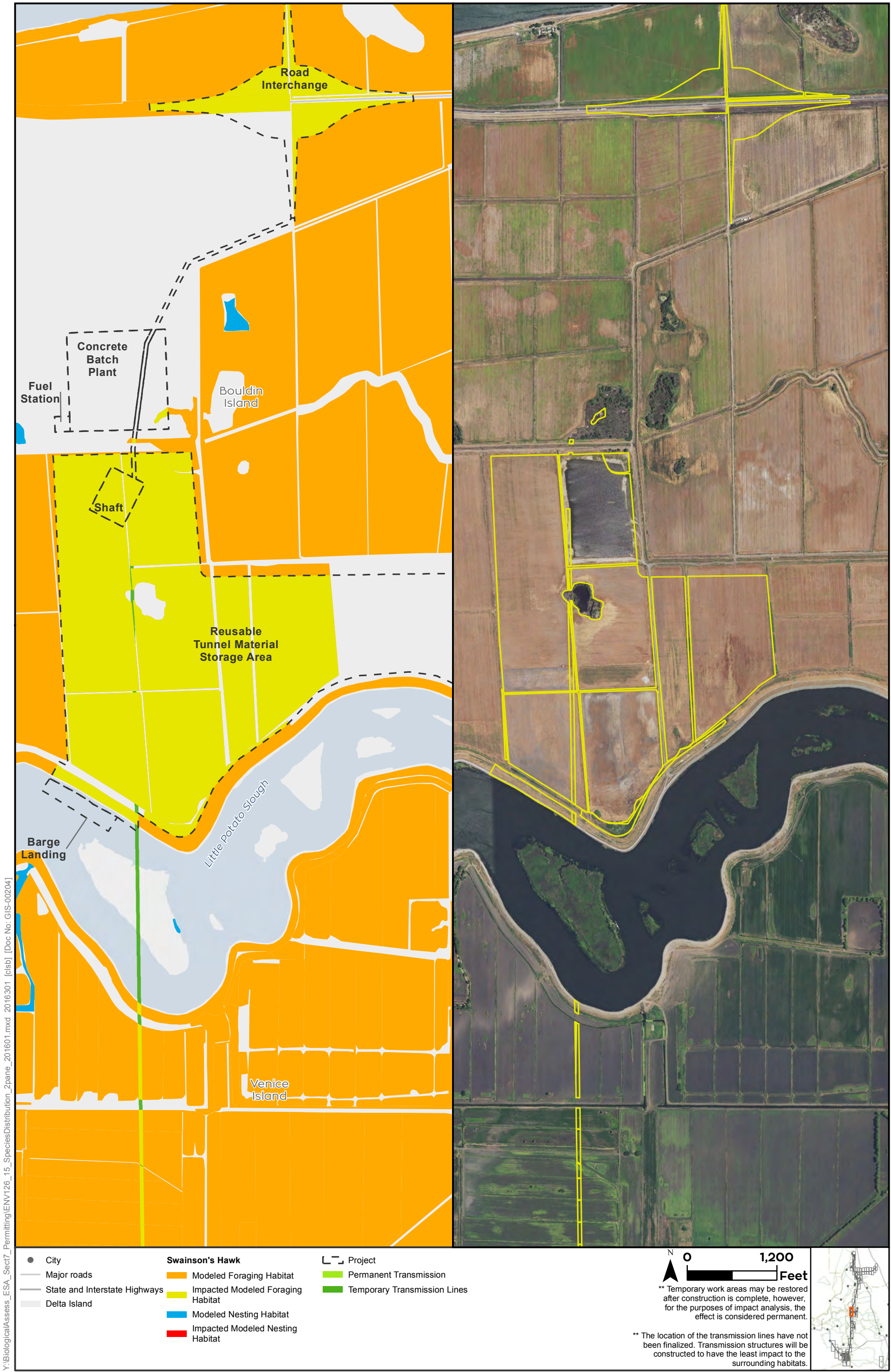


Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



**Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction
Modified Pipeline Tunnel/Clifton Court Forebay Option
Shaft & Safe Haven Work Area
Figure 4.7-21 of 4.7-38**

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Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction
Modified Pipeline Tunnel/Clifton Court Forebay Option
Shaft & Reusable Tunnel Material
Figure 4.7-22 of 4.7-38

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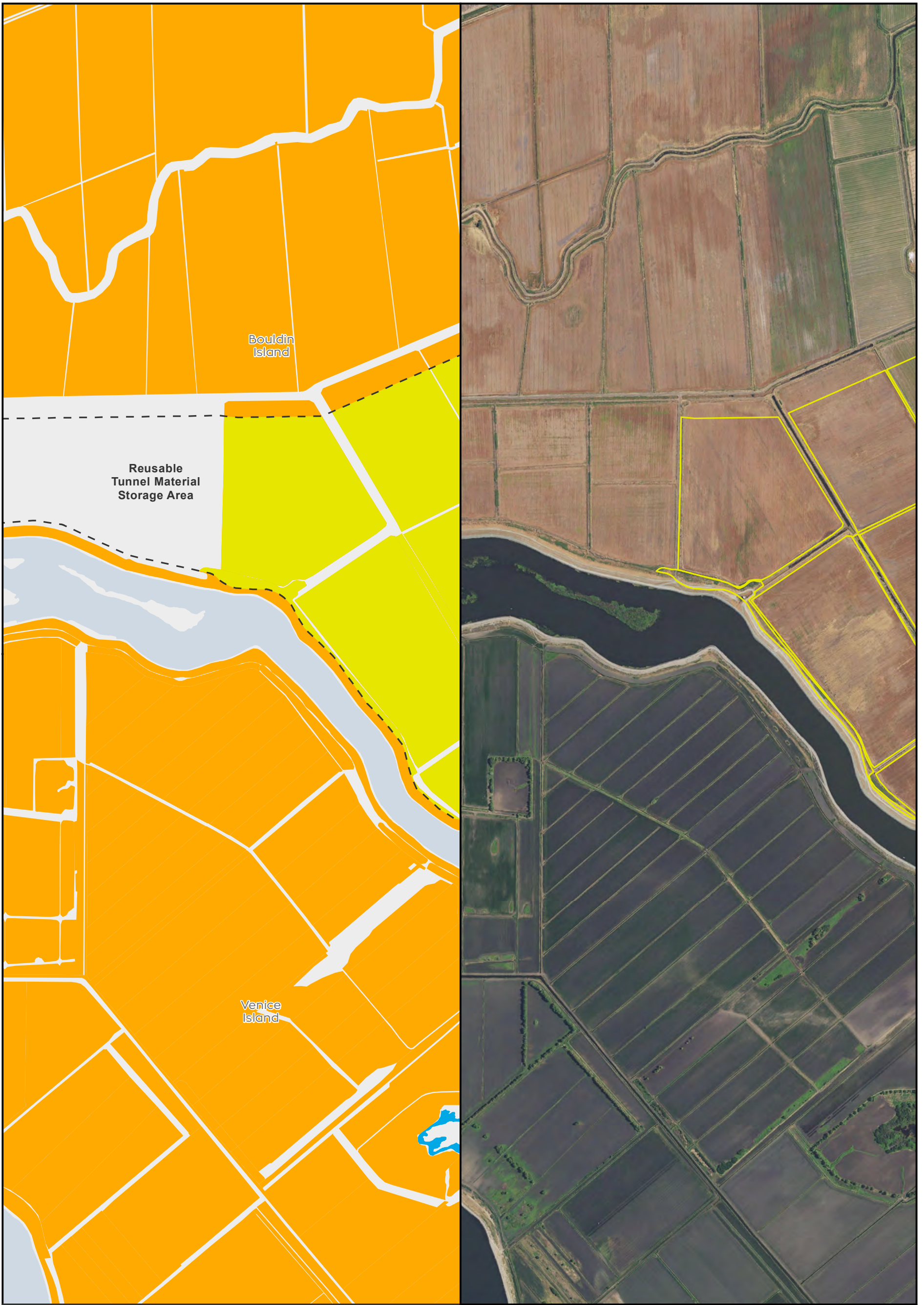
0 1,200 Feet

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- | | | |
|---------------------------------|-------------------------------------|--------------------------------|
| ● City | Swainson's Hawk | ┌─┐ Project |
| — Major roads | ■ Modeled Foraging Habitat | ■ Permanent Transmission |
| — State and Interstate Highways | ■ Impacted Modeled Foraging Habitat | ■ Temporary Transmission Lines |
| ■ Delta Island | ■ Modeled Nesting Habitat | |
| | ■ Impacted Modeled Nesting Habitat | |

N 0 1,200 Feet

** Temporary work areas may be restored after construction is complete, however, for the purposes of impact analysis, the effect is considered permanent.

** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



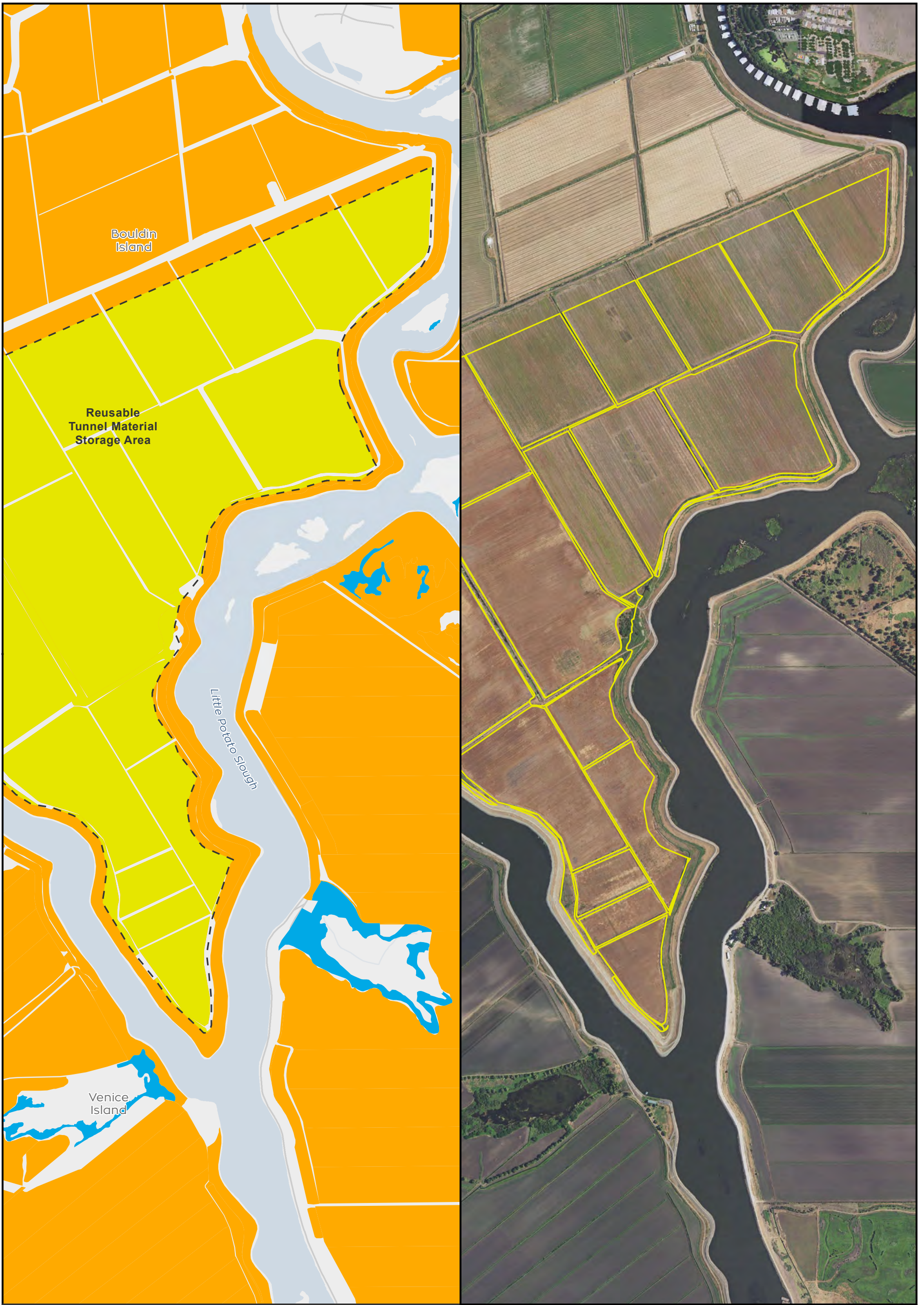
Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



**Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction
Modified Pipeline Tunnel/Clifton Court Forebay Option
Reusable Tunnel Material
Figure 4.7-23 of 4.7-38**

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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- Swainson's Hawk**
- Modeled Foraging Habitat
 - Impacted Modeled Foraging Habitat
 - Modeled Nesting Habitat
 - Impacted Modeled Nesting Habitat
- Project**
- Permanent Transmission
 - Temporary Transmission Lines

N 0 1,200 Feet

** Temporary work areas may be restored after construction is complete, however, for the purposes of impact analysis, the effect is considered permanent.

** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



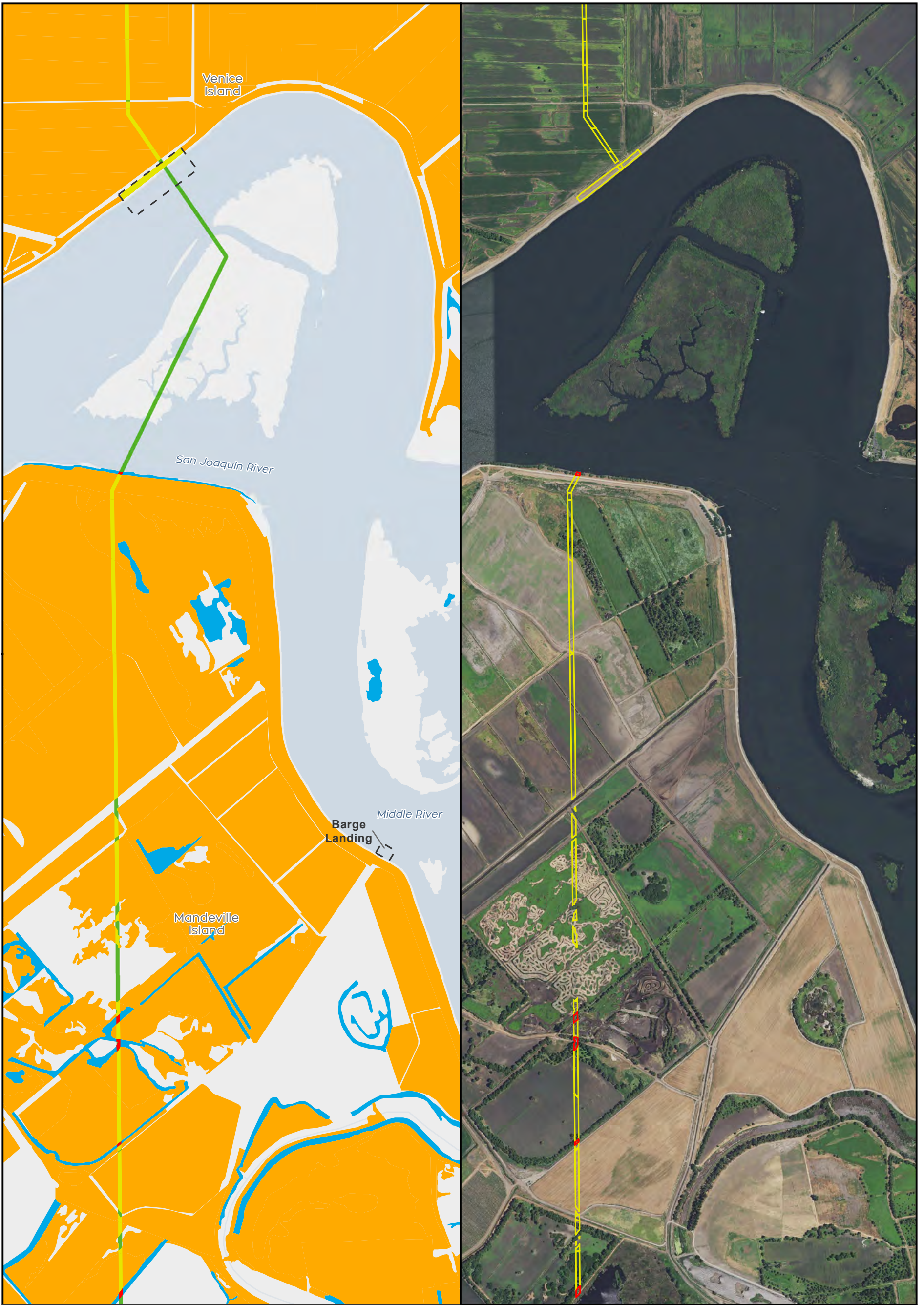
Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

**Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction
Modified Pipeline Tunnel/Clifton Court Forebay Option
Reusable Tunnel Material
Figure 4.7-24 of 4.7-38**



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|---------------------------------|-----------------------------------|------------------------------|
| ● City | Swainson's Hawk | ⌋ Project |
| — Major roads | Modeled Foraging Habitat | Permanent Transmission |
| — State and Interstate Highways | Impacted Modeled Foraging Habitat | Temporary Transmission Lines |
| — Delta Island | Modeled Nesting Habitat | |
| | Impacted Modeled Nesting Habitat | |

N 0 1,200 Feet

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** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction Modified Pipeline Tunnel/Clifton Court Forebay Option Safe Haven Work Area & Barge Unloading Area Figure 4.7-25 of 4.7-38

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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- Swainson's Hawk**
- Modeled Foraging Habitat
 - Impacted Modeled Foraging Habitat
 - Modeled Nesting Habitat
 - Impacted Modeled Nesting Habitat
- Project**
- Permanent Transmission
 - Temporary Transmission Lines



** Temporary work areas may be restored after construction is complete, however, for the purposes of impact analysis, the effect is considered permanent.

** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



**Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction
Modified Pipeline Tunnel/Clifton Court Forebay Option
Tunnel Work Area**

Figure 4.7-26 of 4.7-38

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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- Swainson's Hawk**
- Modeled Foraging Habitat
 - Impacted Modeled Foraging Habitat
 - Modeled Nesting Habitat
 - Impacted Modeled Nesting Habitat
- Project**
- Permanent Transmission
 - Temporary Transmission Lines

N 0 1,100 Feet

** Temporary work areas may be restored after construction is complete, however, for the purposes of impact analysis, the effect is considered permanent.

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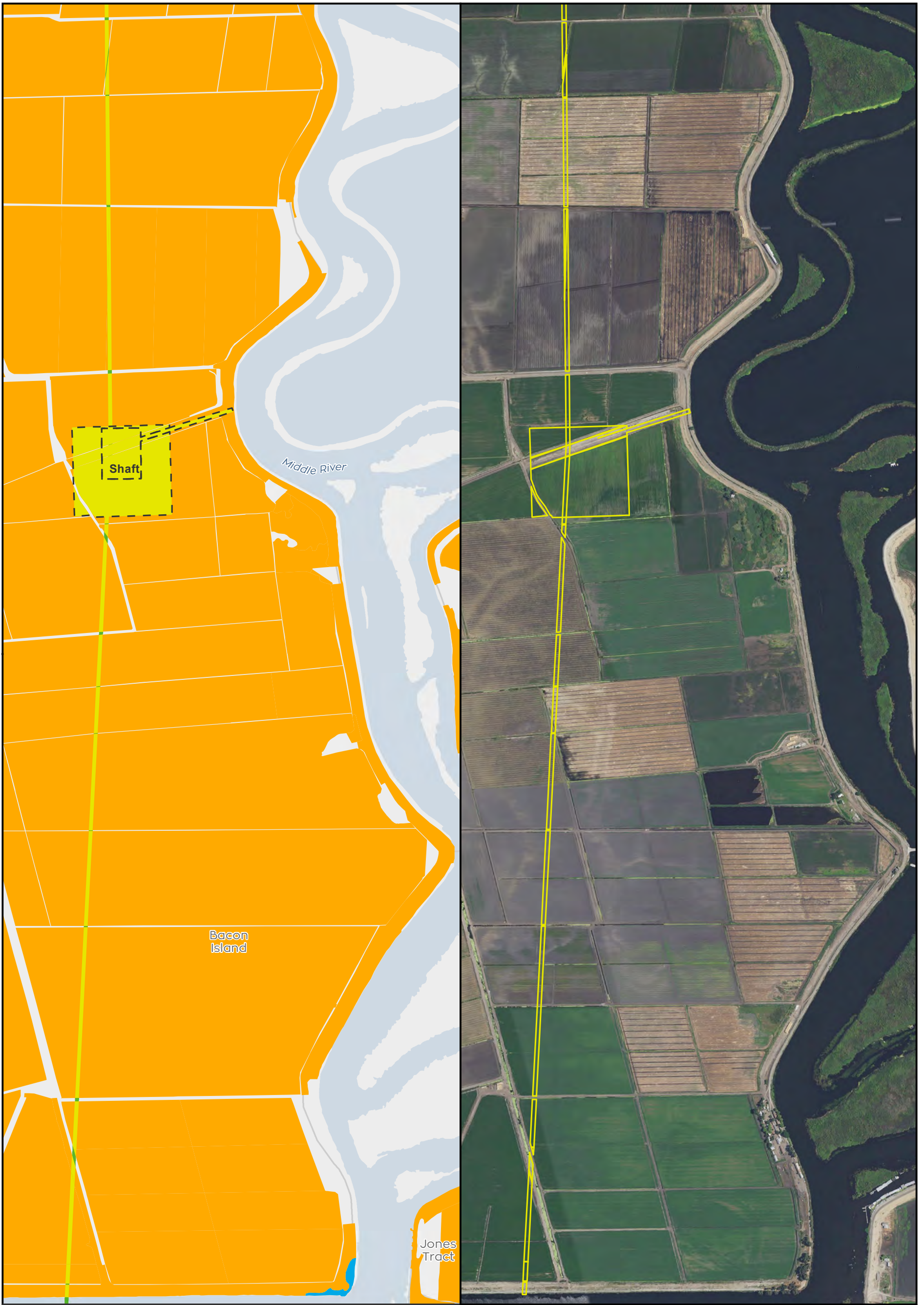
Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction Modified Pipeline Tunnel/Clifton Court Forebay Option Tunnel Work Area & Transmission Line
Figure 4.7-27 of 4.7-38

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- | | | |
|---------------------------------|--|---|
| ● City | Swainson's Hawk | ┌─┐ Project |
| — Major roads | Orange Modeled Foraging Habitat | Green Permanent Transmission |
| — State and Interstate Highways | Yellow Impacted Modeled Foraging Habitat | Dark Green Temporary Transmission Lines |
| — Delta Island | Blue Modeled Nesting Habitat | |
| | Red Impacted Modeled Nesting Habitat | |

N 0 1,200 Feet

** Temporary work areas may be restored after construction is complete, however, for the purposes of impact analysis, the effect is considered permanent.

** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction Modified Pipeline Tunnel/Clifton Court Forebay Option Shaft & Tunnel Work Area Figure 4.7-28 of 4.7-38

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- | | | |
|---------------------------------|-------------------------------------|--------------------------------|
| ● City | Swainson's Hawk | ┌─┐ Project |
| — Major roads | ■ Modeled Foraging Habitat | ■ Permanent Transmission |
| — State and Interstate Highways | ■ Impacted Modeled Foraging Habitat | ■ Temporary Transmission Lines |
| ■ Delta Island | ■ Modeled Nesting Habitat | |
| | ■ Impacted Modeled Nesting Habitat | |

N
0 1,100 Feet

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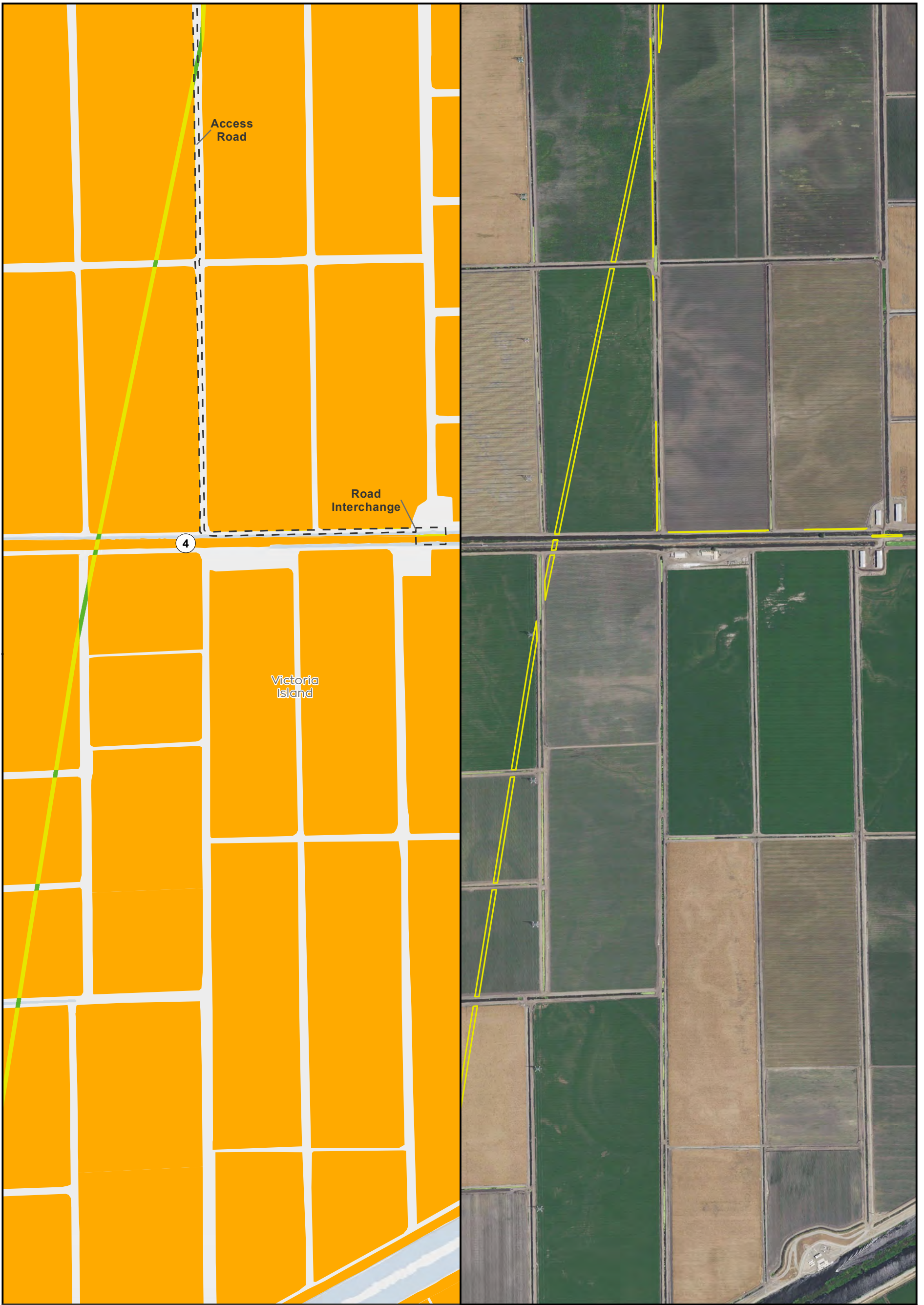
Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction Modified Pipeline Tunnel/Clifton Court Forebay Option Tunnel Work Area & Transmission Line
Figure 4.7-29 of 4.7-38

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- | | | |
|---------------------------------|---|--|
| ● City | Swainson's Hawk | ⌒ Project |
| — Major roads | Orange: Modeled Foraging Habitat | Light Green: Permanent Transmission |
| — State and Interstate Highways | Yellow: Impacted Modeled Foraging Habitat | Dark Green: Temporary Transmission Lines |
| — Delta Island | Blue: Modeled Nesting Habitat | |
| | Red: Impacted Modeled Nesting Habitat | |

N 0 1,100 Feet

** Temporary work areas may be restored after construction is complete, however, for the purposes of impact analysis, the effect is considered permanent.

** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction Modified Pipeline Tunnel/Clifton Court Forebay Option Tunnel Work Area & Transmission Line
Figure 4.7-30 of 4.7-38

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● City	Swainson's Hawk	┌─┐ Project
— Major roads	Orange square: Modeled Foraging Habitat	Green square: Permanent Transmission Lines
— State and Interstate Highways	Yellow square: Impacted Modeled Foraging Habitat	Dark green square: Temporary Transmission Lines
— Delta Island	Blue square: Modeled Nesting Habitat	
	Red square: Impacted Modeled Nesting Habitat	

** Temporary work areas may be restored after construction is complete, however, for the purposes of impact analysis, the effect is considered permanent.
 ** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

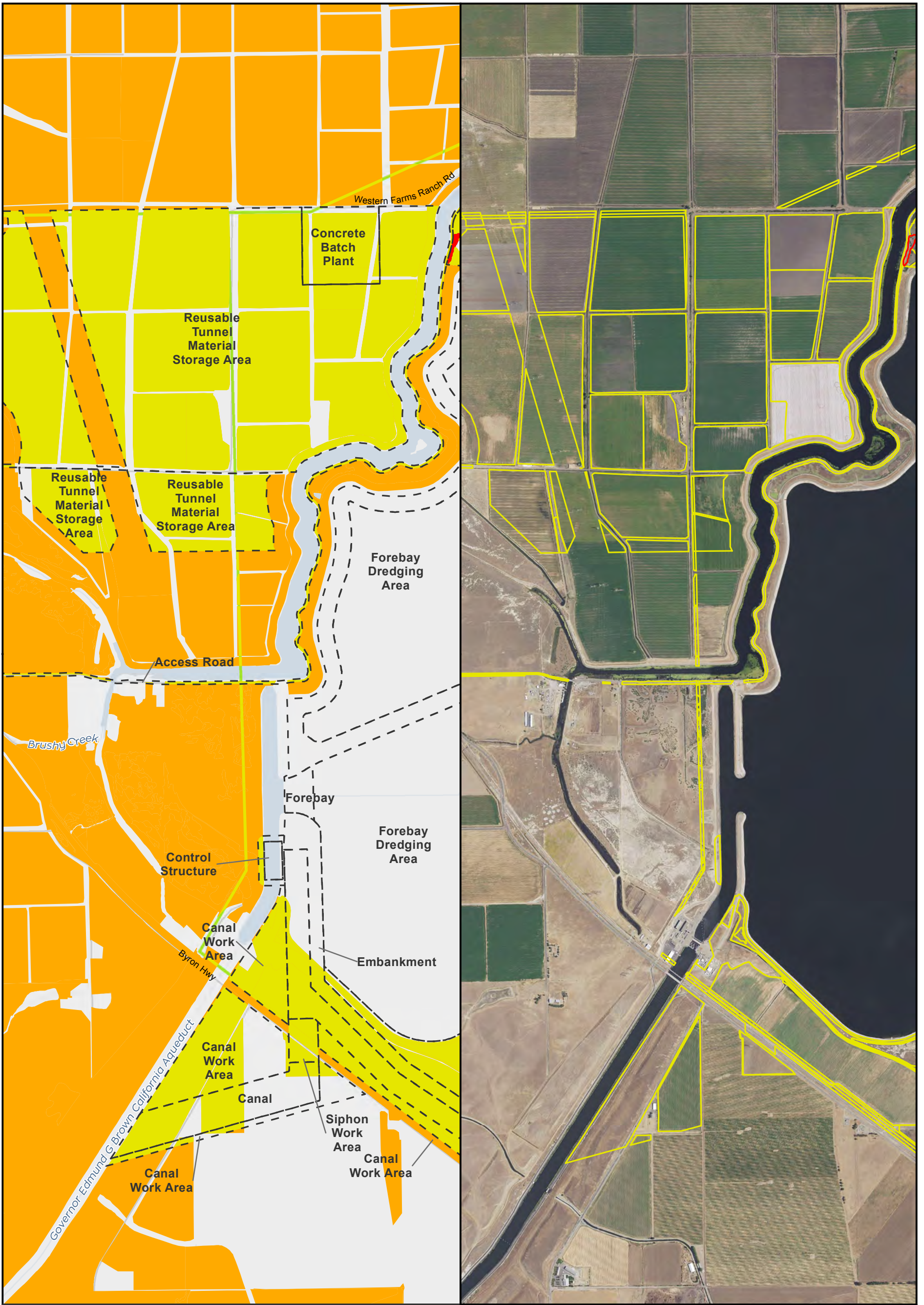
Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction Modified Pipeline Tunnel/Clifton Court Forebay Option Clifton Court Forebay Figure 4.7-31 of 4.7-38

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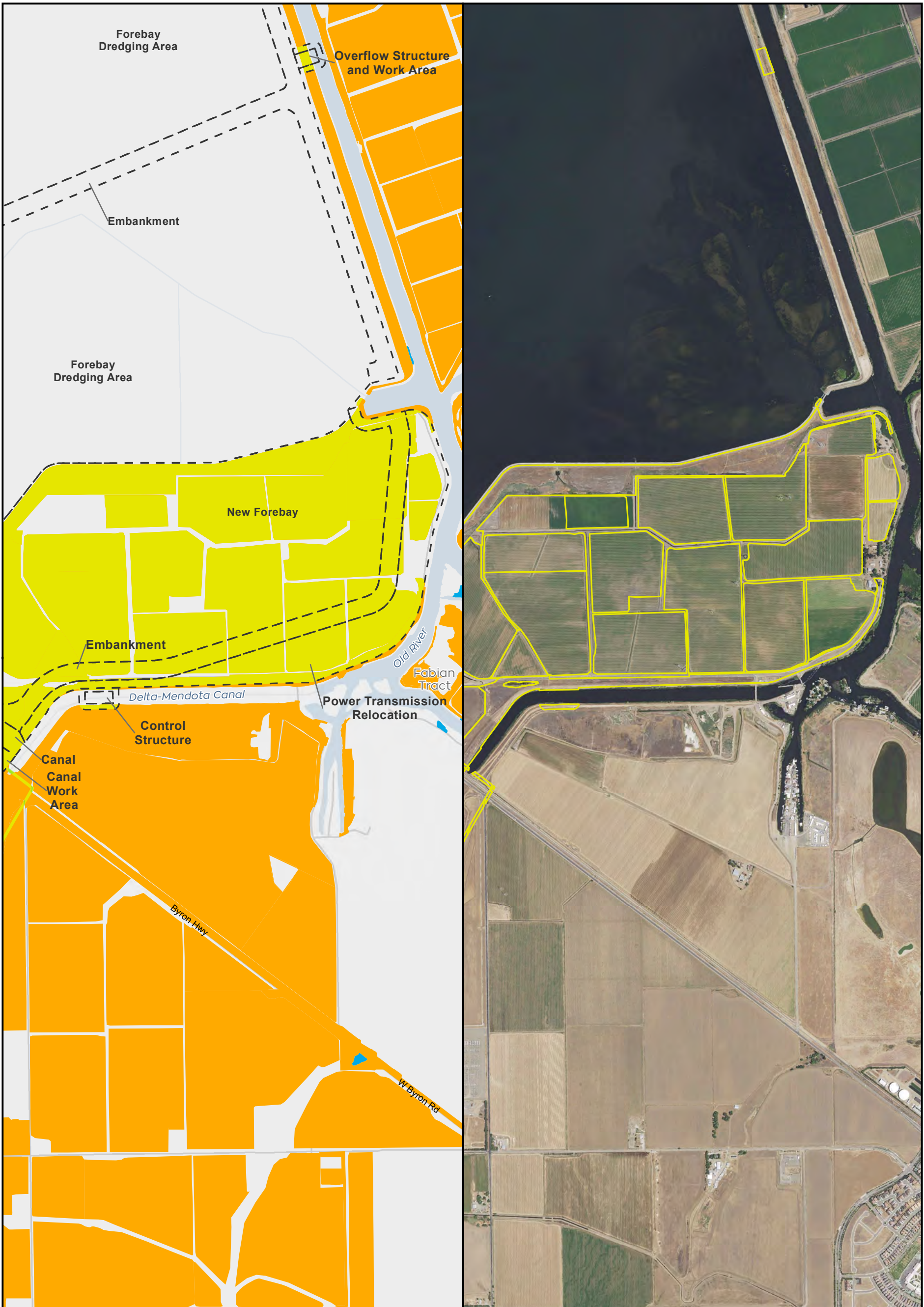
● City	Swainson's Hawk	▭ Project	<p>** Temporary work areas may be restored after construction is complete, however, for the purposes of impact analysis, the effect is considered permanent.</p> <p>** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.</p>
— Major roads	▭ Modeled Foraging Habitat	▭ Permanent Transmission Lines	
— State and Interstate Highways	▭ Impacted Modeled Foraging Habitat	▭ Temporary Transmission Lines	
▭ Delta Island	▭ Modeled Nesting Habitat		
	▭ Impacted Modeled Nesting Habitat		

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



**Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction
Modified Pipeline Tunnel/Clifton Court Forebay Option
Clifton Court Forebay
Figure 4.7-32 of 4.7-38**

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- | | | |
|---------------------------------|-------------------------------------|--------------------------------|
| ● City | Swainson's Hawk | — Project |
| — Major roads | ■ Modeled Foraging Habitat | ■ Permanent Transmission Lines |
| — State and Interstate Highways | ■ Impacted Modeled Foraging Habitat | ■ Temporary Transmission Lines |
| ■ Delta Island | ■ Modeled Nesting Habitat | |
| | ■ Impacted Modeled Nesting Habitat | |

N
0 1,600 Feet
** Temporary work areas may be restored after construction is complete, however, for the purposes of impact analysis, the effect is considered permanent.

** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



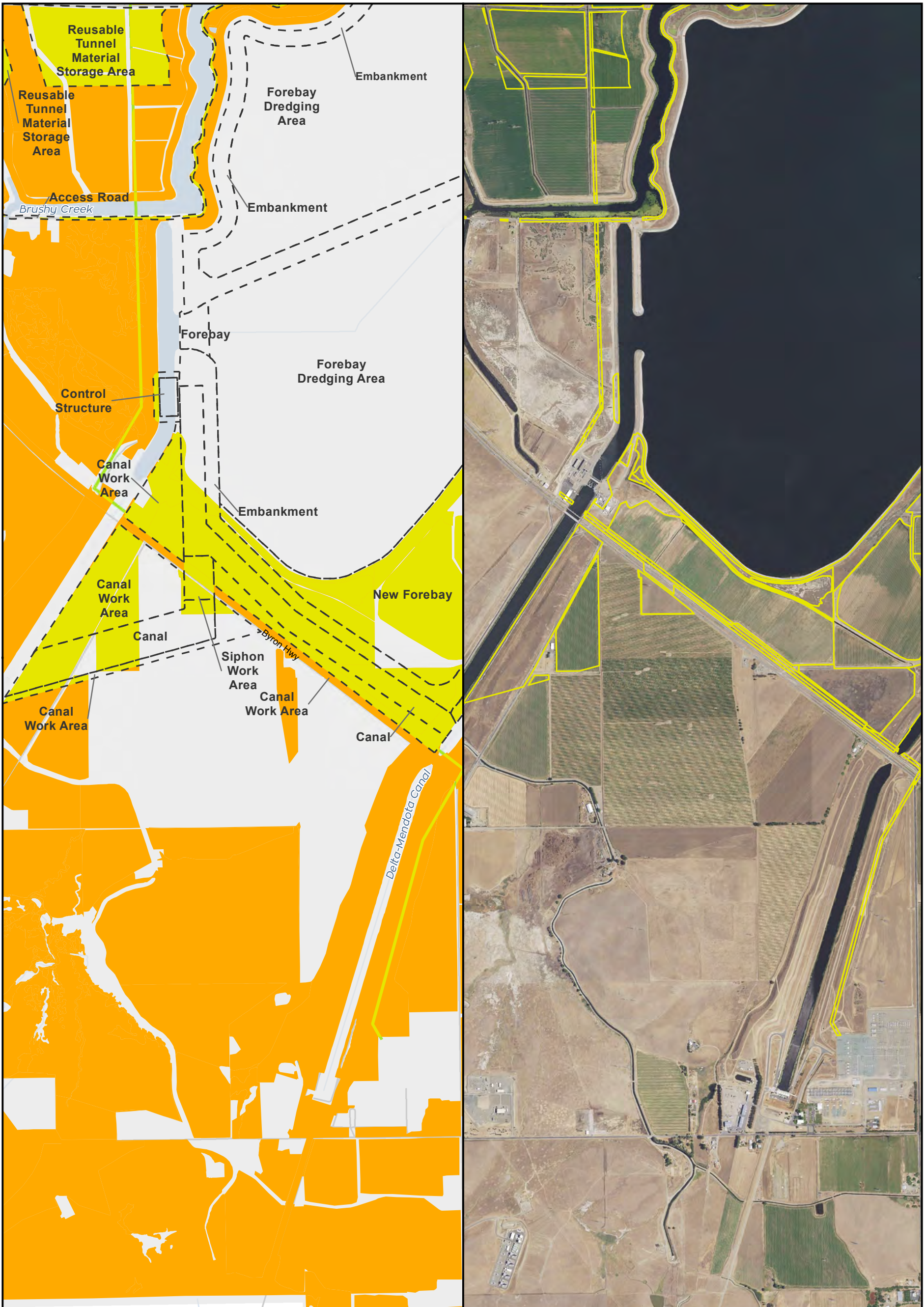
Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



**Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction
Modified Pipeline Tunnel/Clifton Court Forebay Option
New Forebay**

Figure 4.7-33 of 4.7-38

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- | | | |
|---------------------------------|-------------------------------------|--------------------------------|
| ● City | Swainson's Hawk | ▭ Project |
| — Major roads | ■ Modeled Foraging Habitat | ▭ Permanent Transmission Lines |
| — State and Interstate Highways | ■ Impacted Modeled Foraging Habitat | ▭ Temporary Transmission Lines |
| — Delta Island | ■ Modeled Nesting Habitat | |
| | ■ Impacted Modeled Nesting Habitat | |

N 0 1,600 Feet

** Temporary work areas may be restored after construction is complete, however, for the purposes of impact analysis, the effect is considered permanent.

** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

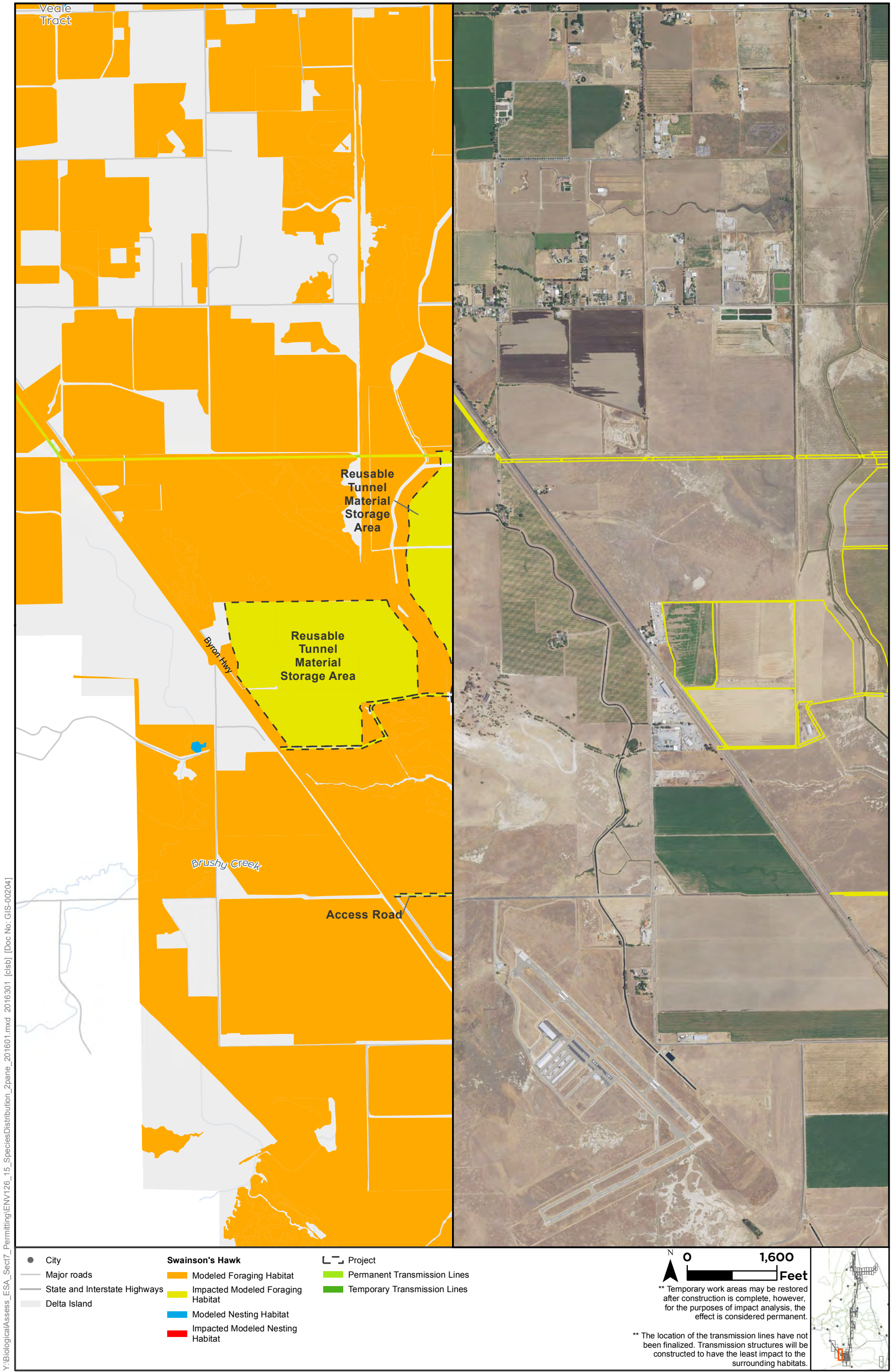


Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

**Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction
Modified Pipeline Tunnel/Clifton Court Forebay Option
Clifton Court Forebay
Figure 4.7-34 of 4.7-38**



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Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

**Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction
Modified Pipeline Tunnel/Clifton Court Forebay Option
Transmission Line & Reusable Tunnel Material
Figure 4.7-35 of 4.7-38**



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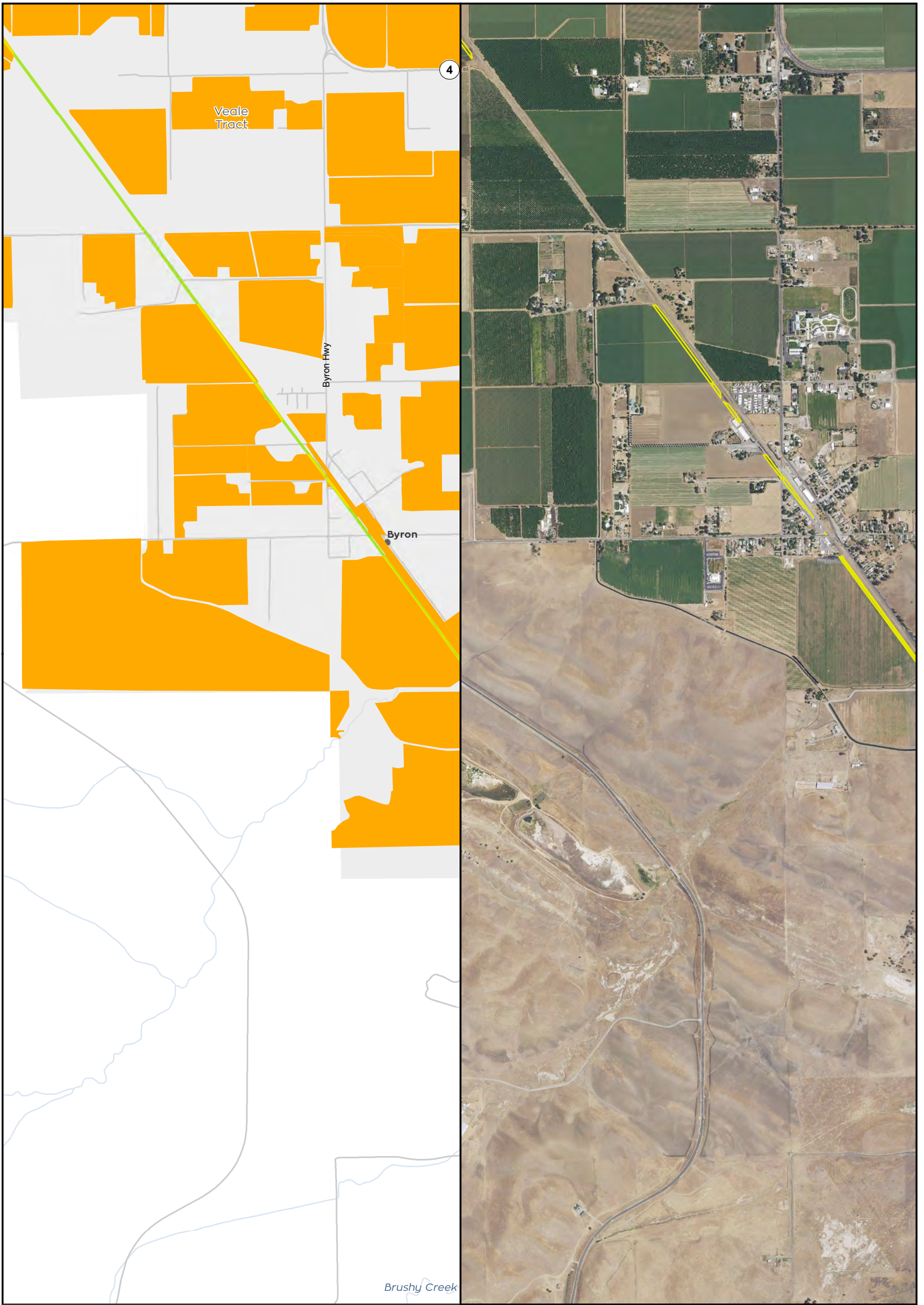
0 1,600 Feet

** Temporary work areas may be restored after construction is complete, however, for the purposes of impact analysis, the effect is considered permanent.

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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- Swainson's Hawk**
- Modeled Foraging Habitat
 - Impacted Modeled Foraging Habitat
 - Modeled Nesting Habitat
 - Impacted Modeled Nesting Habitat
- Project**
- Permanent Transmission Lines
 - Temporary Transmission Lines



** Temporary work areas may be restored after construction is complete, however, for the purposes of impact analysis, the effect is considered permanent.

** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

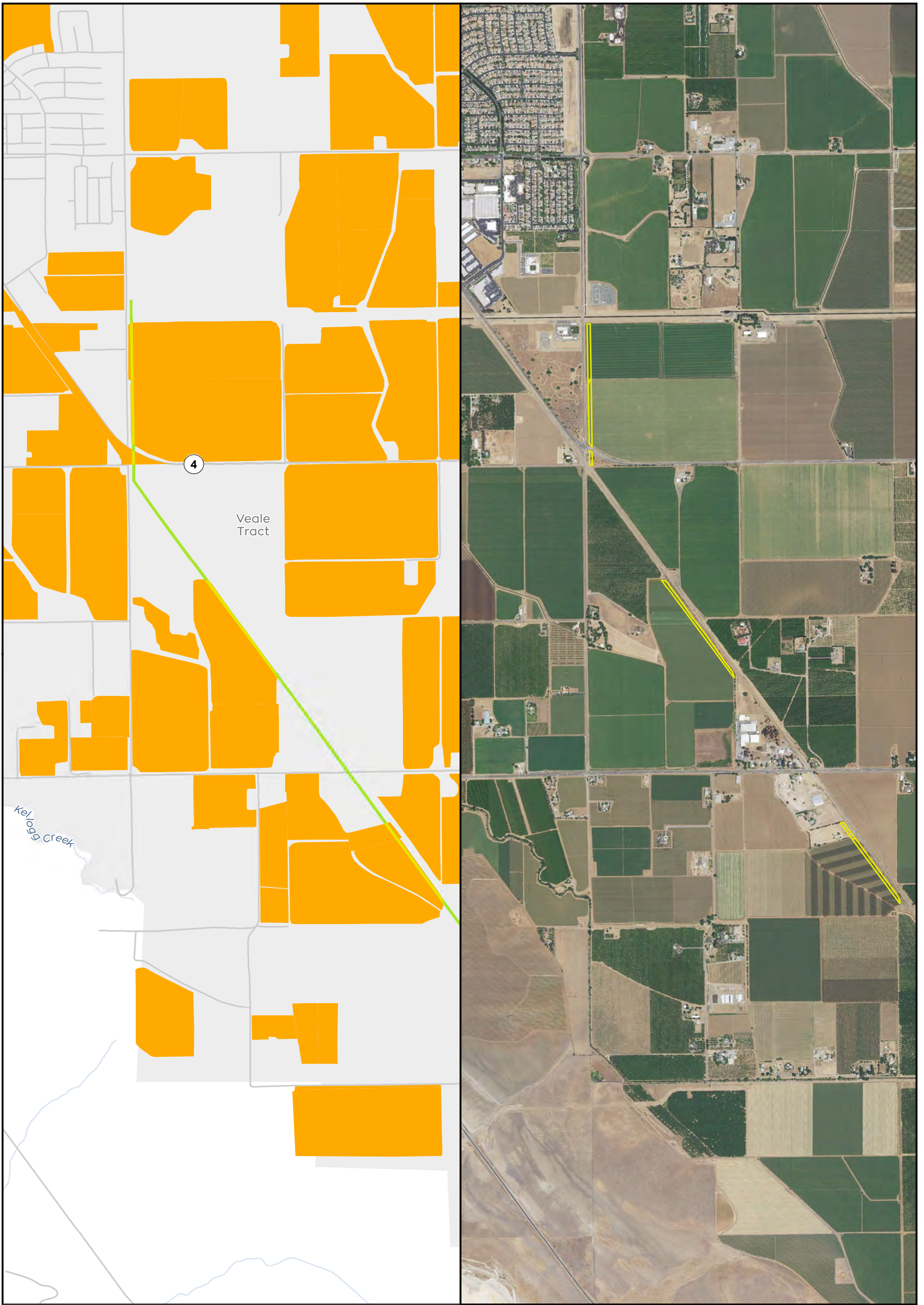


Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



**Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction
Modified Pipeline Tunnel/Clifton Court Forebay Option
Transmission Line
Figure 4.7-36 of 4.7-38**

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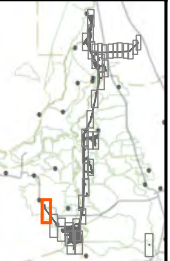


- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- Swainson's Hawk**
- Modeled Foraging Habitat
 - Impacted Modeled Foraging Habitat
 - Modeled Nesting Habitat
 - Impacted Modeled Nesting Habitat
- Project**
- Permanent Transmission Lines
 - Temporary Transmission Lines



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Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

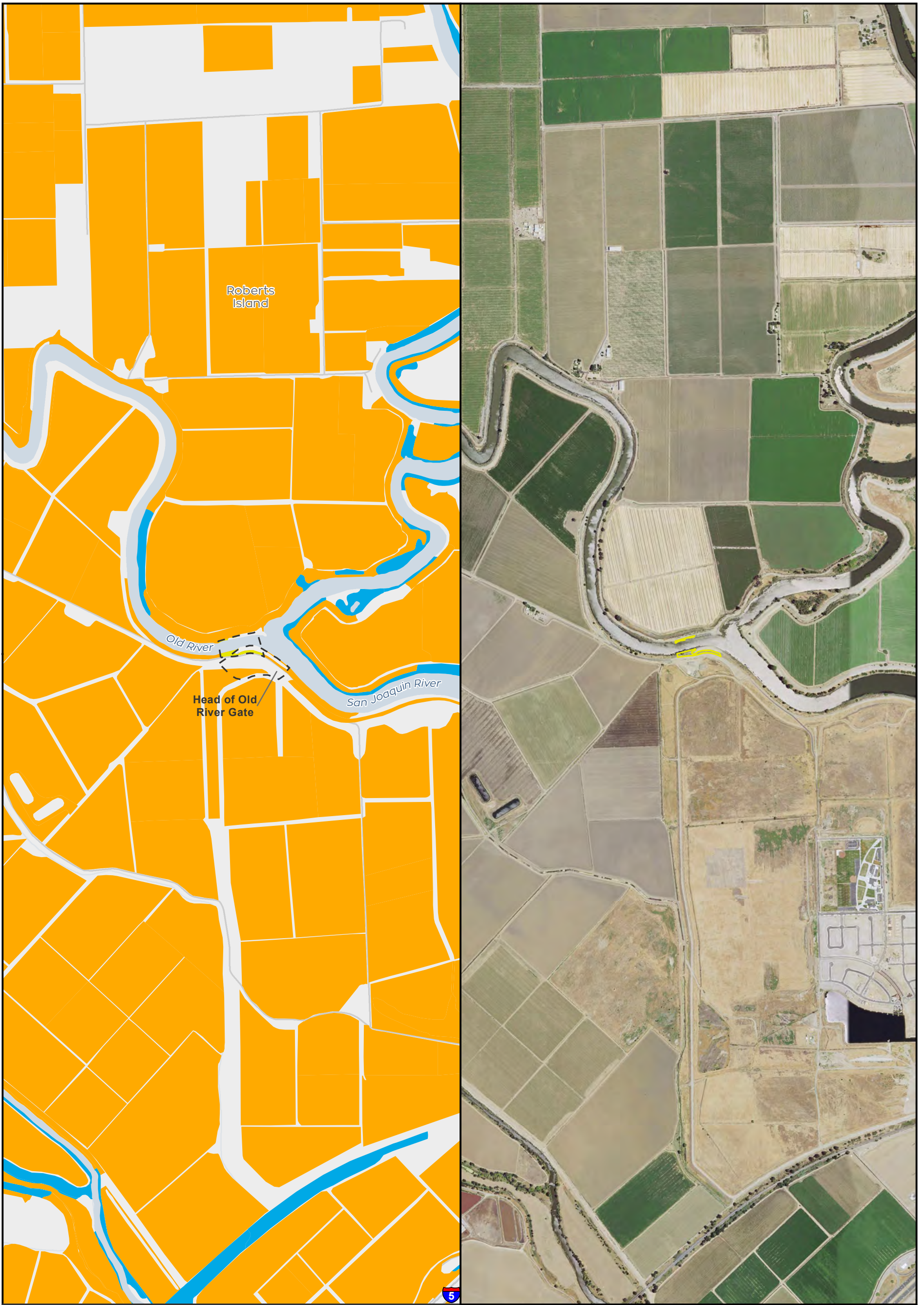


**Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction
Modified Pipeline Tunnel/Clifton Court Forebay Option
Transmission Line**

Figure 4.7-37 of 4.7-38

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- | | | |
|---------------------------------|-----------------------------------|------------------------------|
| ● City | Swainson's Hawk | ⎓ Project |
| — Major roads | Modeled Foraging Habitat | Permanent Transmission Lines |
| — State and Interstate Highways | Impacted Modeled Foraging Habitat | Temporary Transmission Lines |
| — Delta Island | Modeled Nesting Habitat | |
| | Impacted Modeled Nesting Habitat | |



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** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



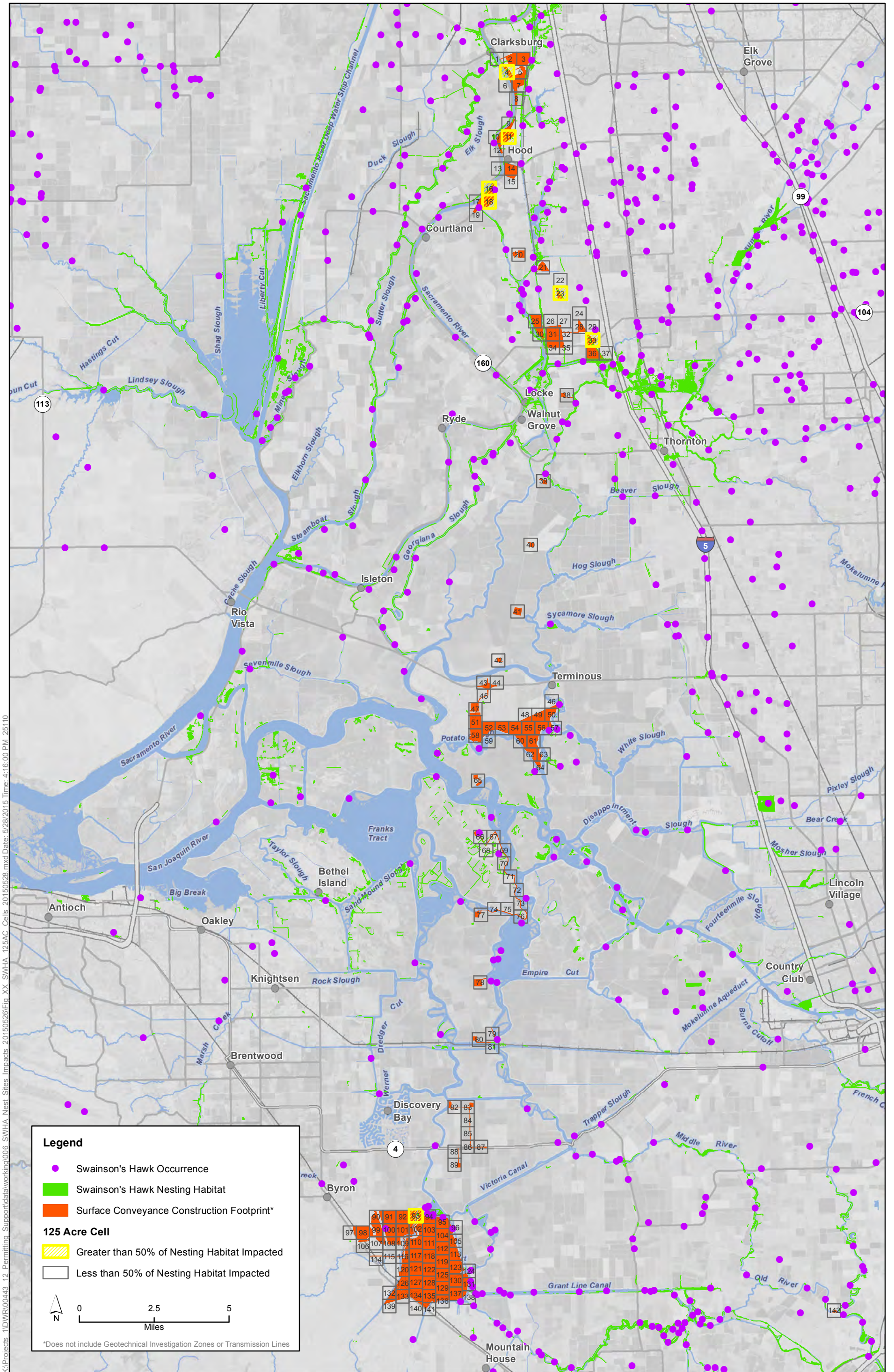
Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



**Impacts to Swainson's Hawk Modeled Habitat from Water Conveyance Facility Construction
Modified Pipeline Tunnel/Clifton Court Forebay Option
Operable Barrier**

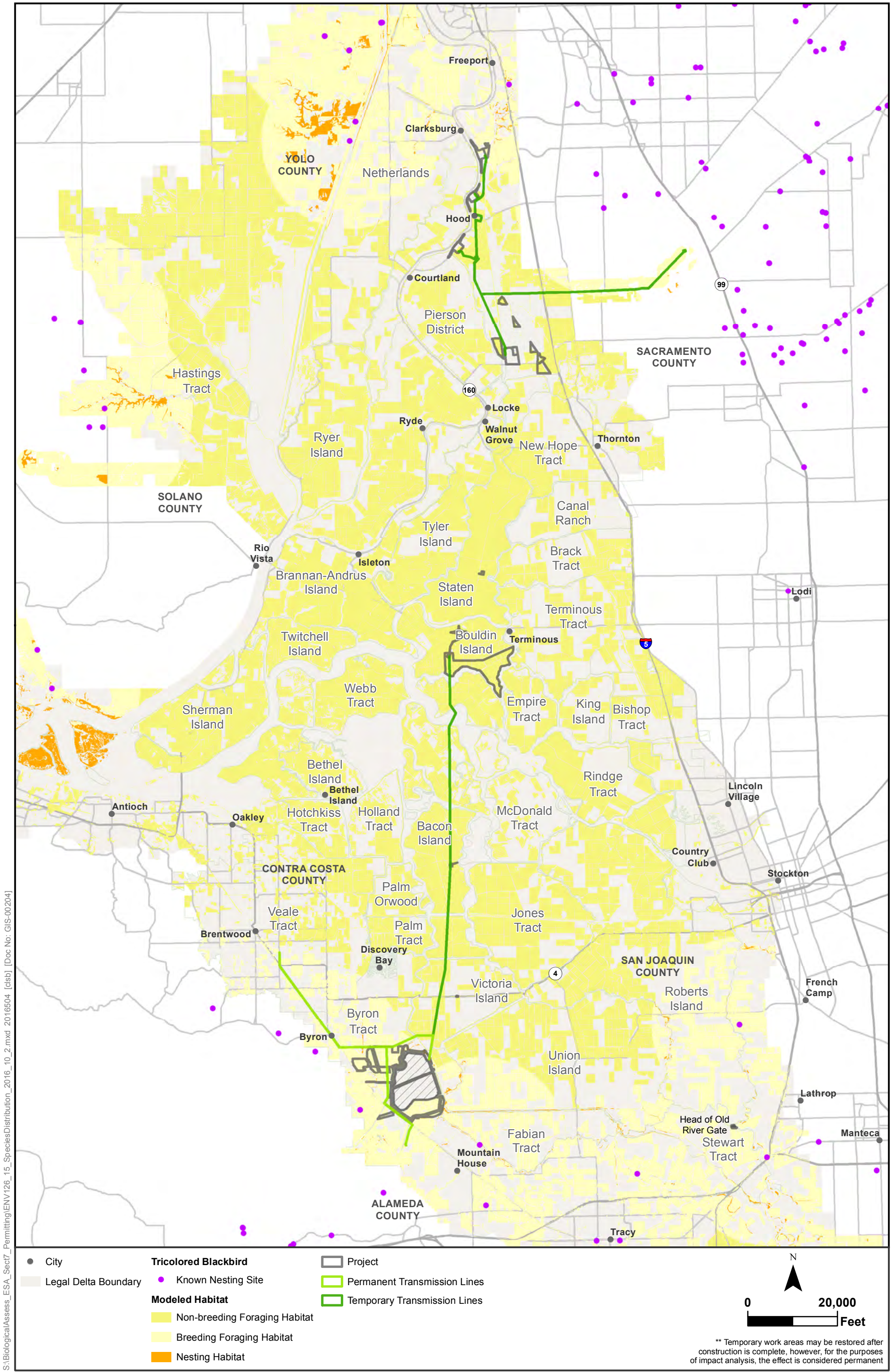
Figure 4.7-38 of 4.7-38

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Figure 4.7-39
Swainson's Hawk 125-acre Nest Survey Cells in Project Area

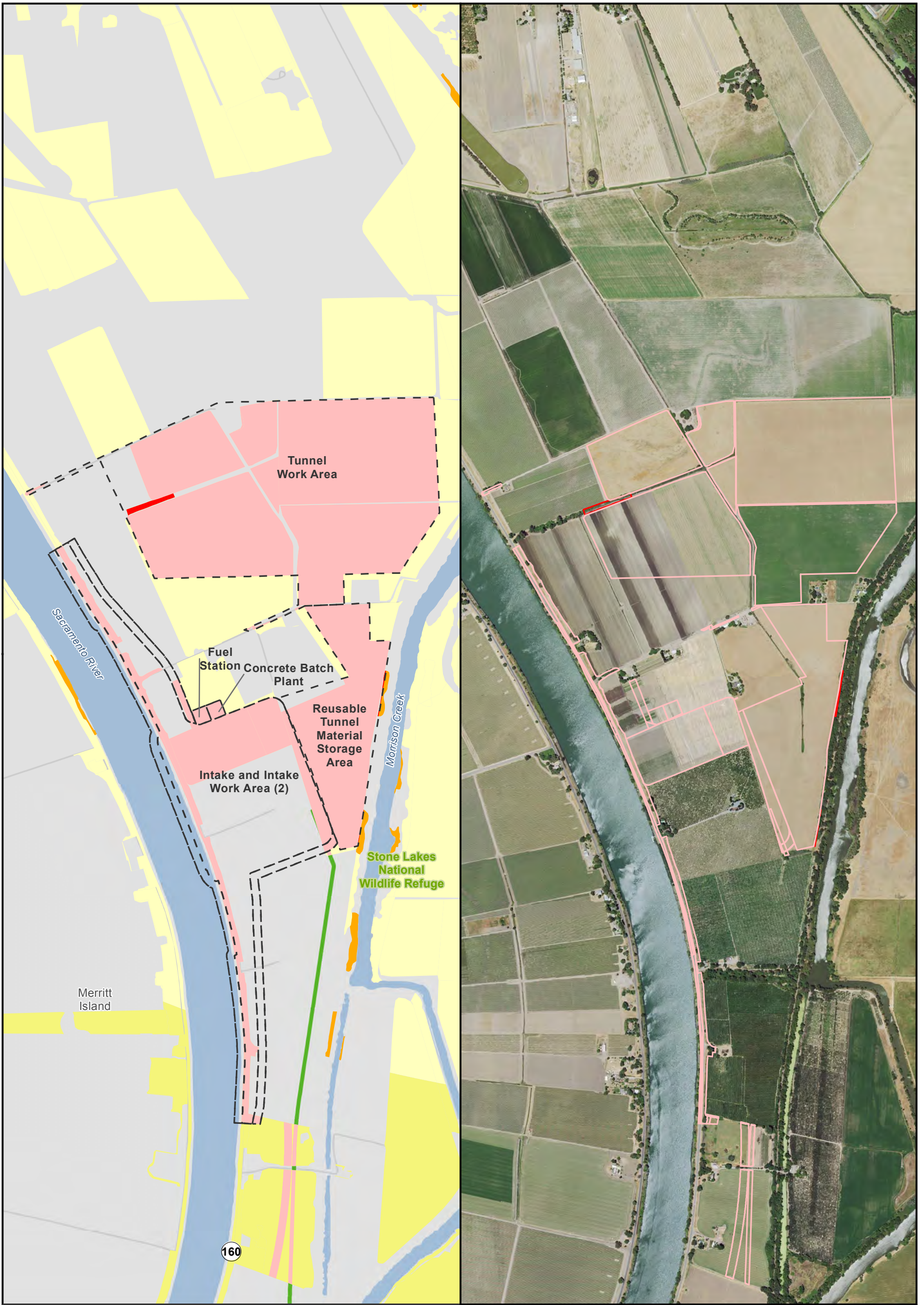


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Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; Critical Habitat, USFWS 2012



Figure 4.8-1
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project



- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- Modeled Habitat**
- Non-breeding Foraging Habitat
 - Breeding Foraging Habitat
 - Impacted Breeding Foraging Habitat
 - Nesting Habitat
 - Impacted Nesting Habitat
 - Impacted Roosting
- Project Area
- Permanent Transmission Lines
 - Temporary Transmission Lines

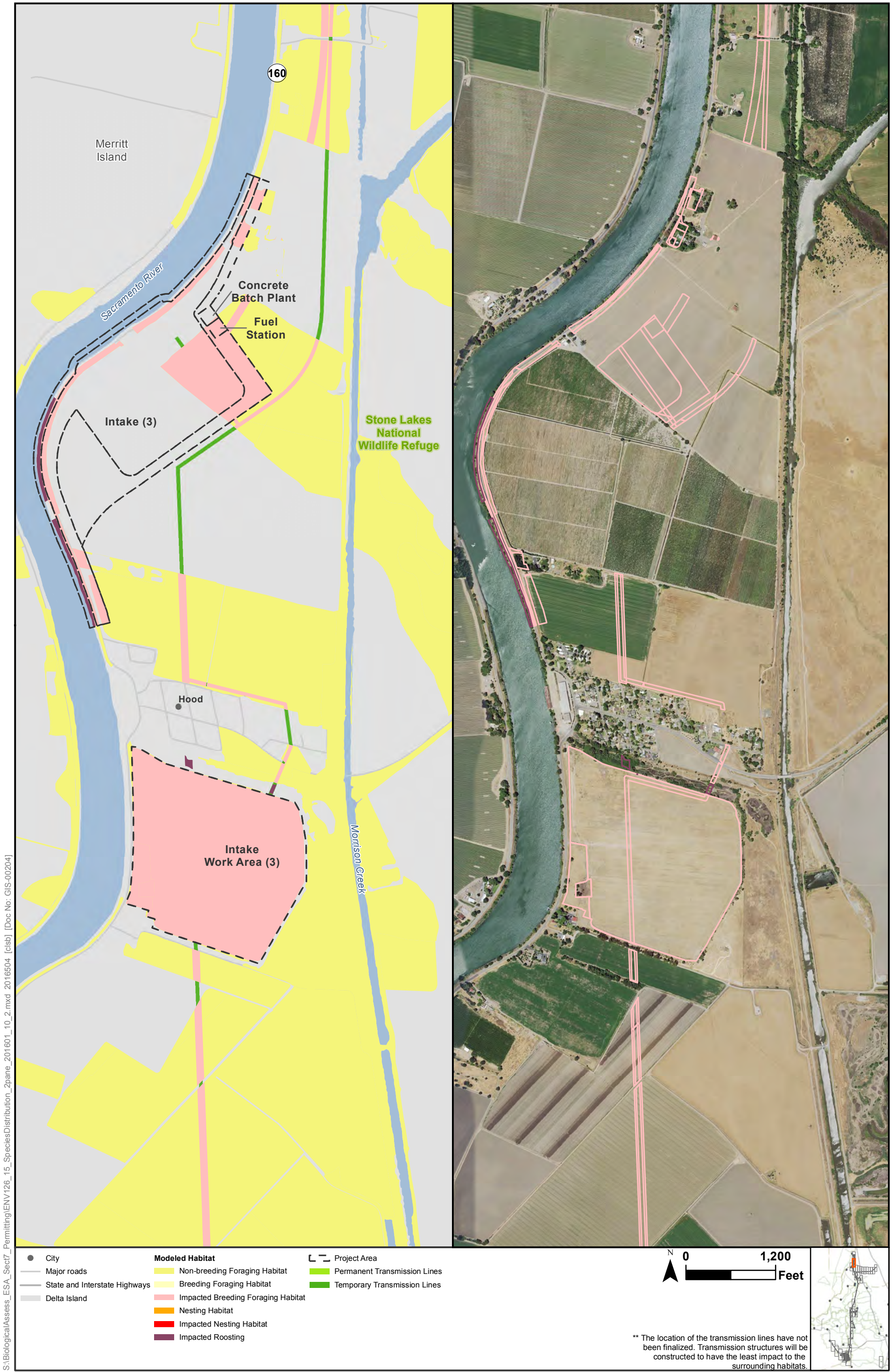


** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

Figure 4.8-2
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project



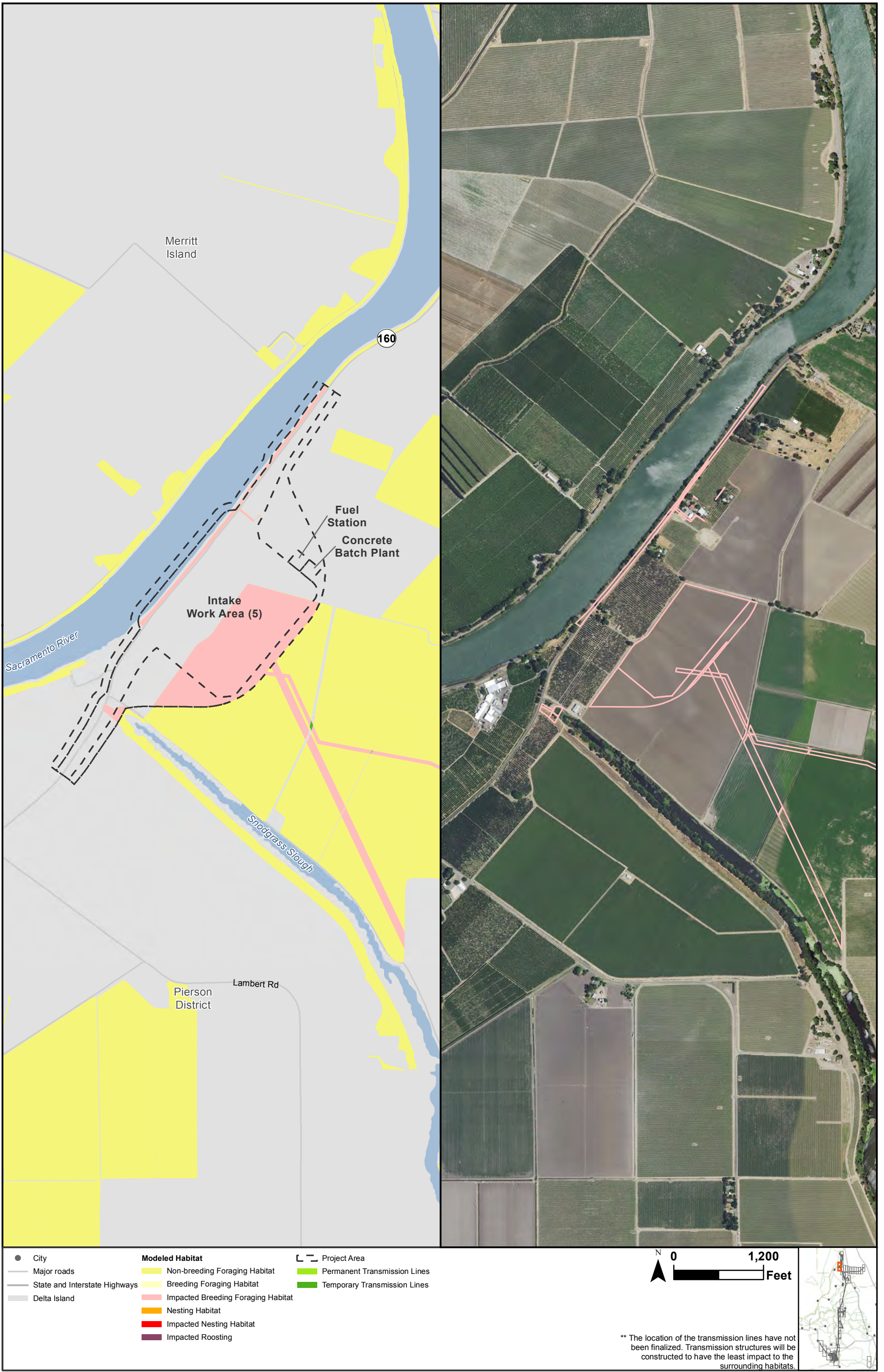
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Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Figure 4.8-3
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project

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Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



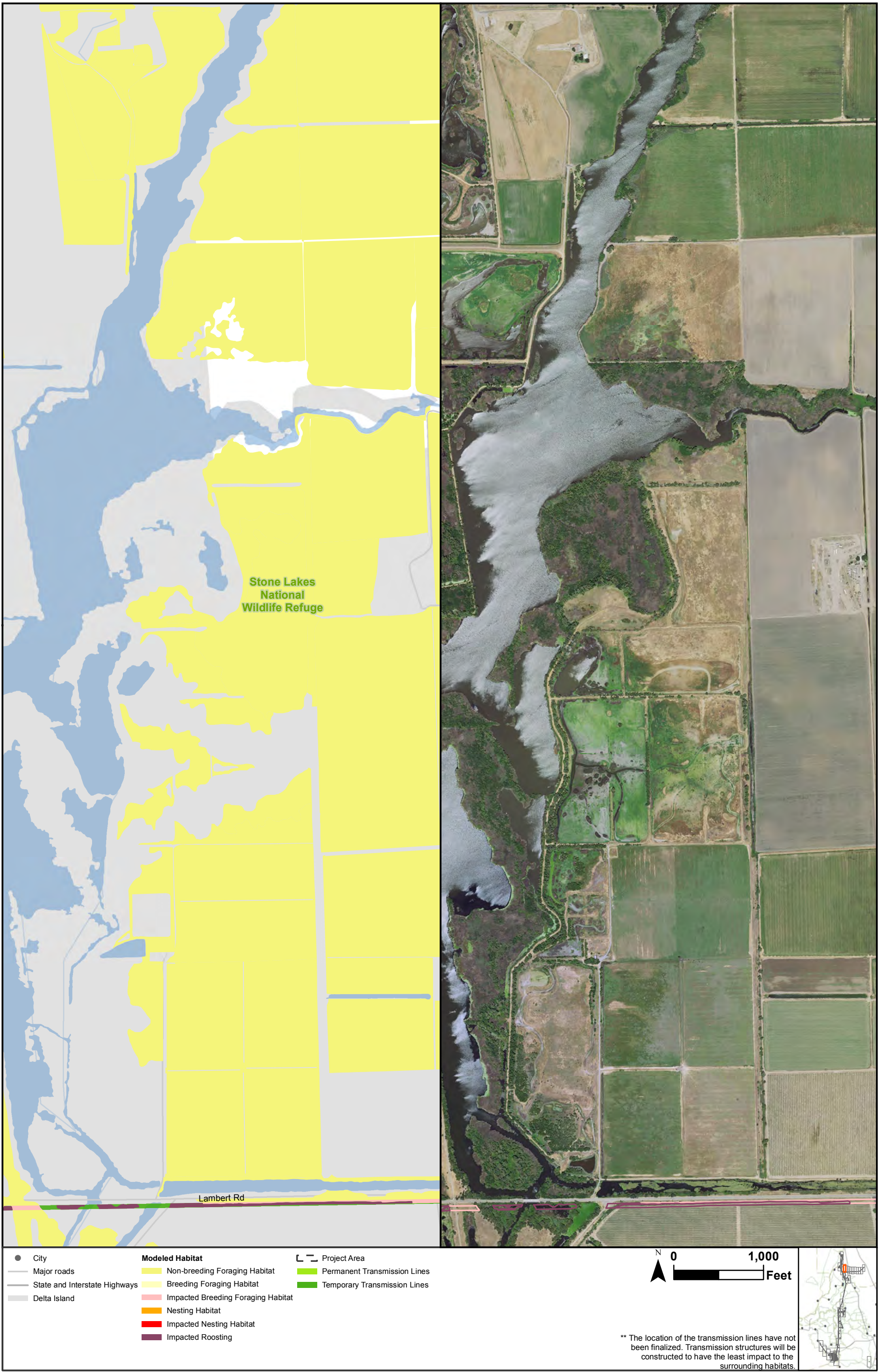
Figure 4.8-4
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project

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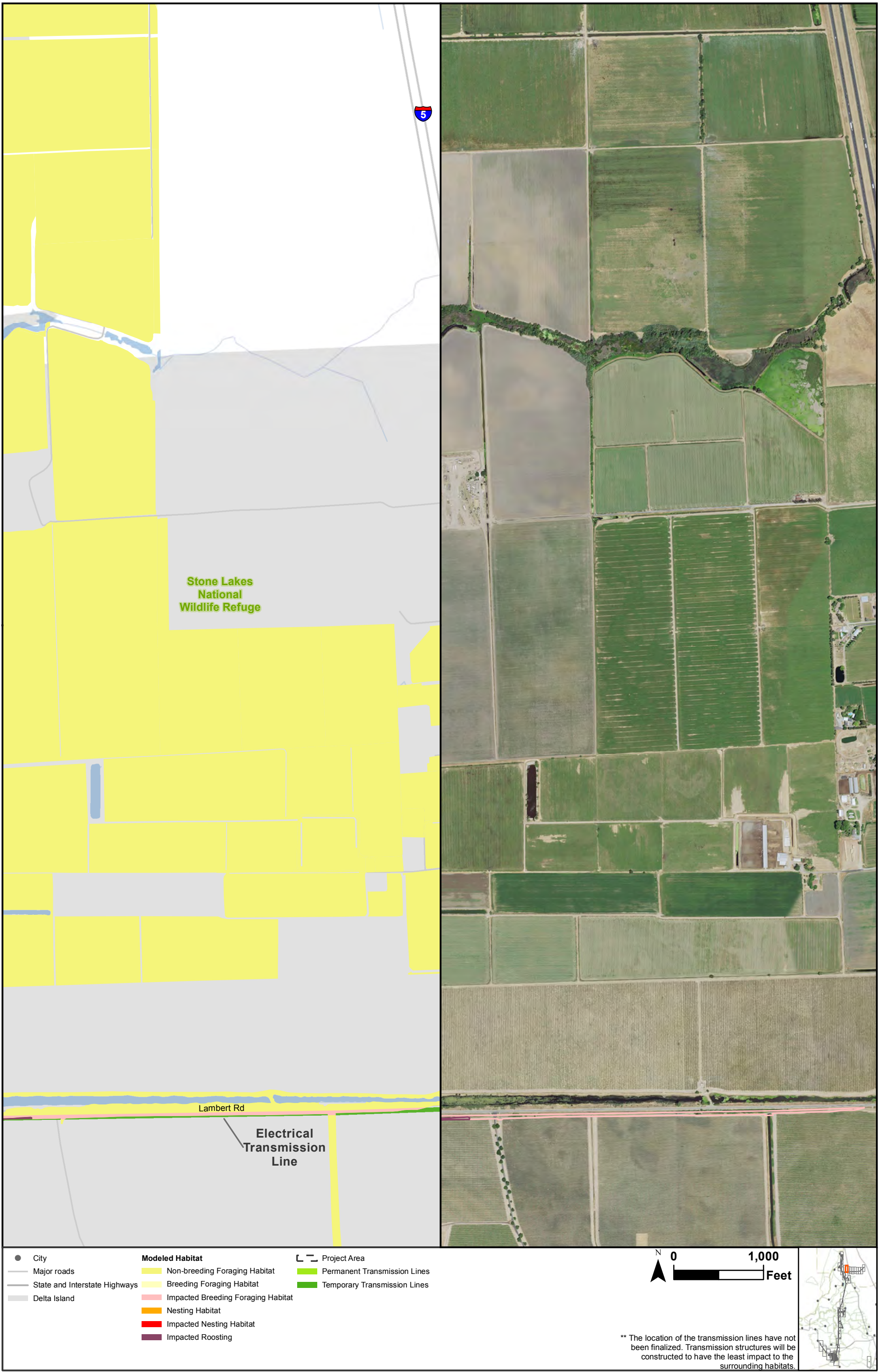
Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

Figure 4.8-5
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project



Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

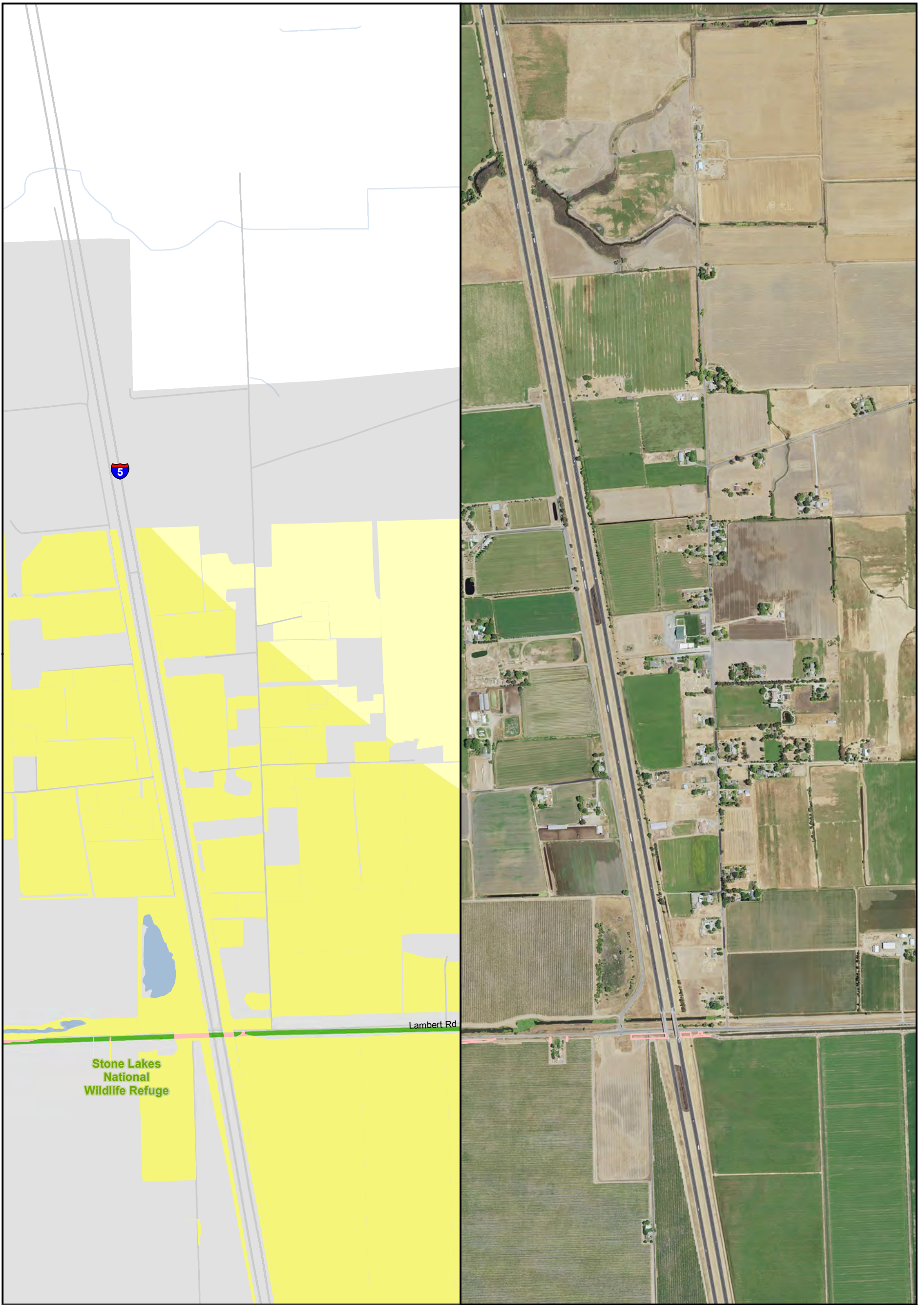
Figure 4.8-6
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project



Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

Figure 4.8-7
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project

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|---------------------------------|--------------------------------------|--------------------------------|
| ● City | Modeled Habitat | ▭ Project Area |
| — Major roads | ■ Non-breeding Foraging Habitat | ▭ Permanent Transmission Lines |
| — State and Interstate Highways | ■ Breeding Foraging Habitat | ▭ Temporary Transmission Lines |
| ■ Delta Island | ■ Impacted Breeding Foraging Habitat | |
| | ■ Nesting Habitat | |
| | ■ Impacted Nesting Habitat | |
| | ■ Impacted Roosting | |



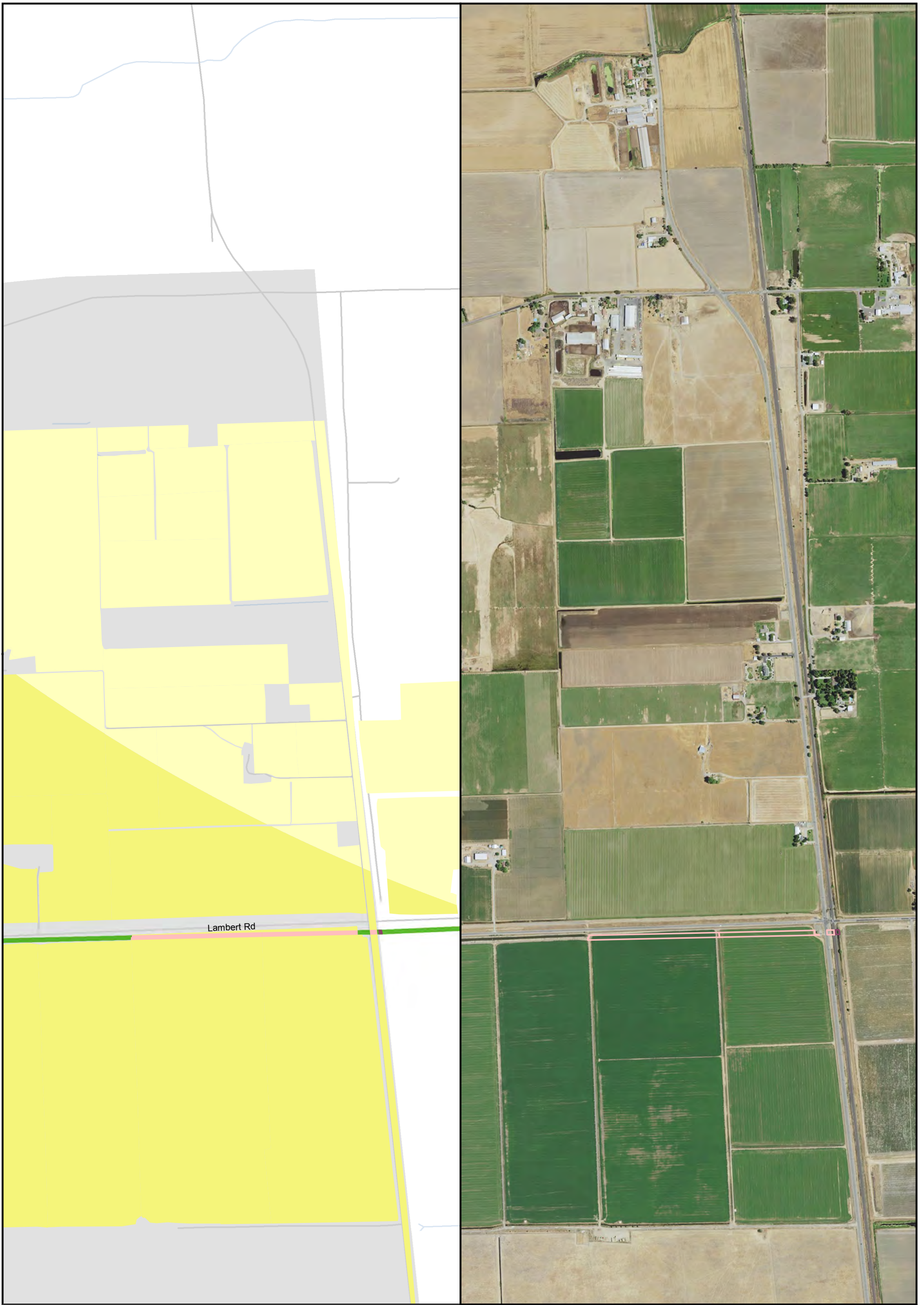
** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Figure 4.8-8
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project

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- | | | |
|---------------------------------|--------------------------------------|--------------------------------|
| ● City | Modeled Habitat | ▭ Project Area |
| — Major roads | ■ Non-breeding Foraging Habitat | ▭ Permanent Transmission Lines |
| — State and Interstate Highways | ■ Breeding Foraging Habitat | ▭ Temporary Transmission Lines |
| ■ Delta Island | ■ Impacted Breeding Foraging Habitat | |
| | ■ Nesting Habitat | |
| | ■ Impacted Nesting Habitat | |
| | ■ Impacted Roosting | |



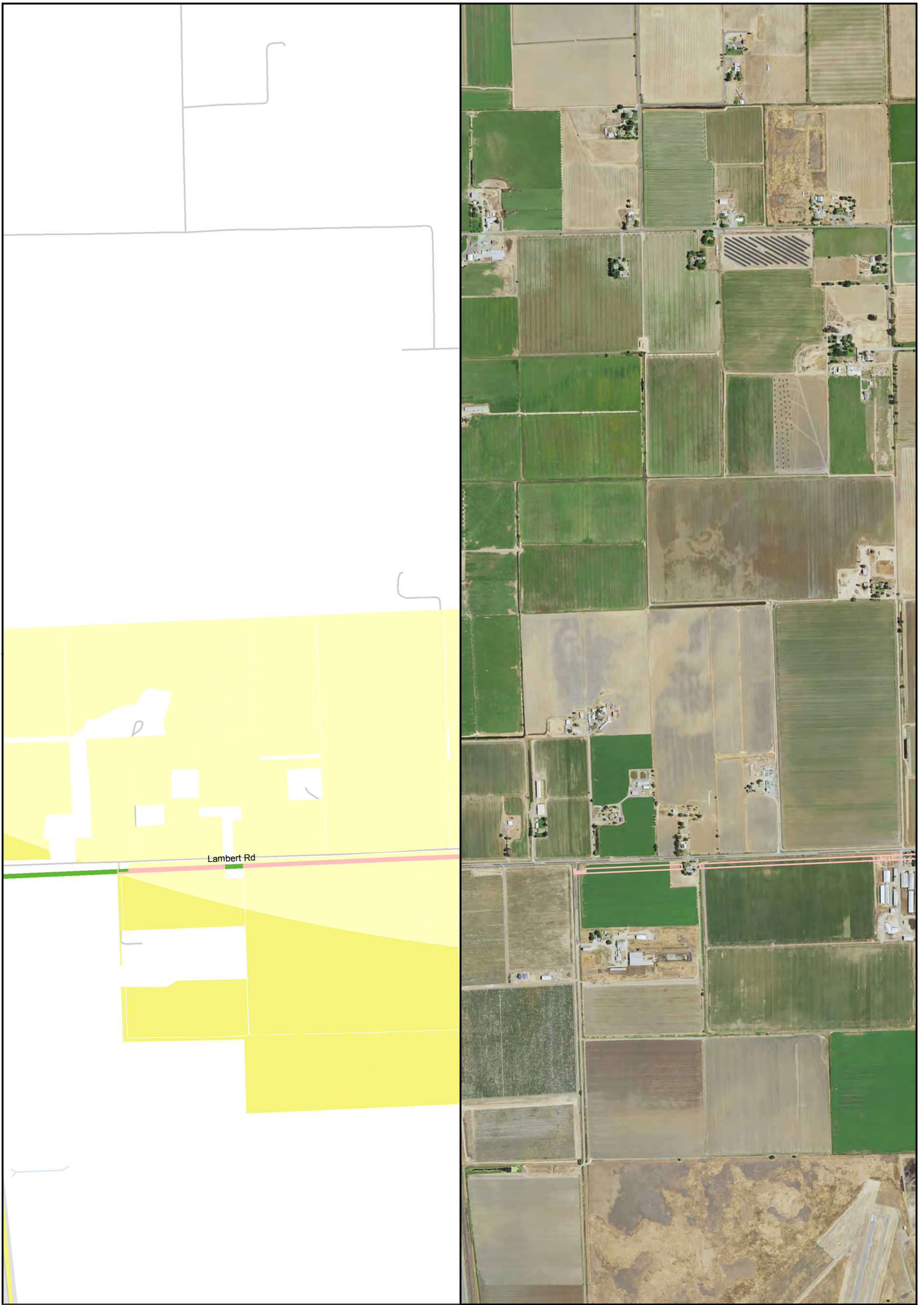
** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Figure 4.8-9
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project

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|---------------------------------|--------------------------------------|--------------------------------|
| ● City | Modeled Habitat | ▭ Project Area |
| — Major roads | ■ Non-breeding Foraging Habitat | ▭ Permanent Transmission Lines |
| — State and Interstate Highways | ■ Breeding Foraging Habitat | ▭ Temporary Transmission Lines |
| ▭ Delta Island | ■ Impacted Breeding Foraging Habitat | |
| | ■ Nesting Habitat | |
| | ■ Impacted Nesting Habitat | |
| | ■ Impacted Roosting | |



** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

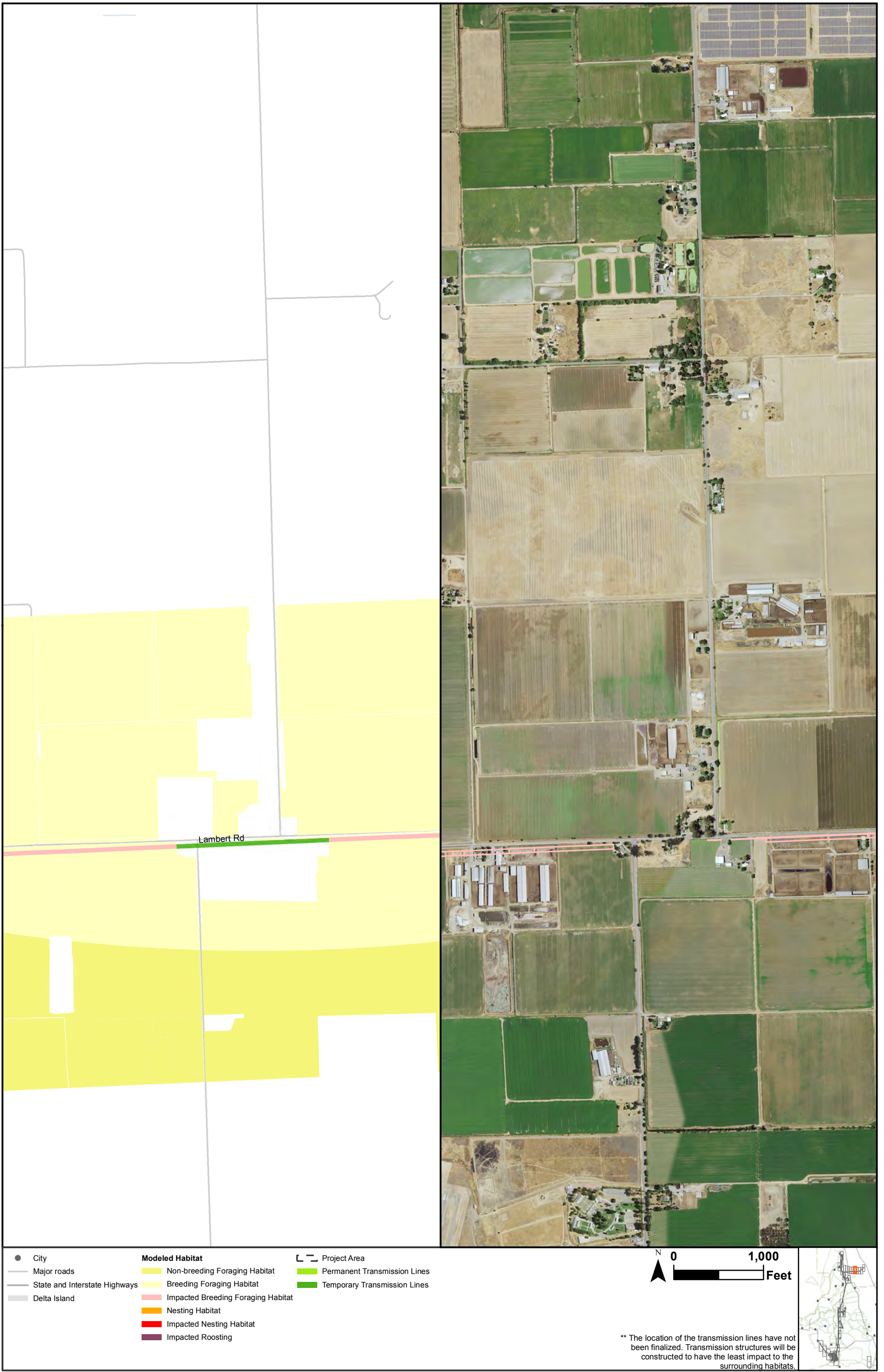


Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Figure 4.8-10
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project

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Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Figure 4.8-11
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project

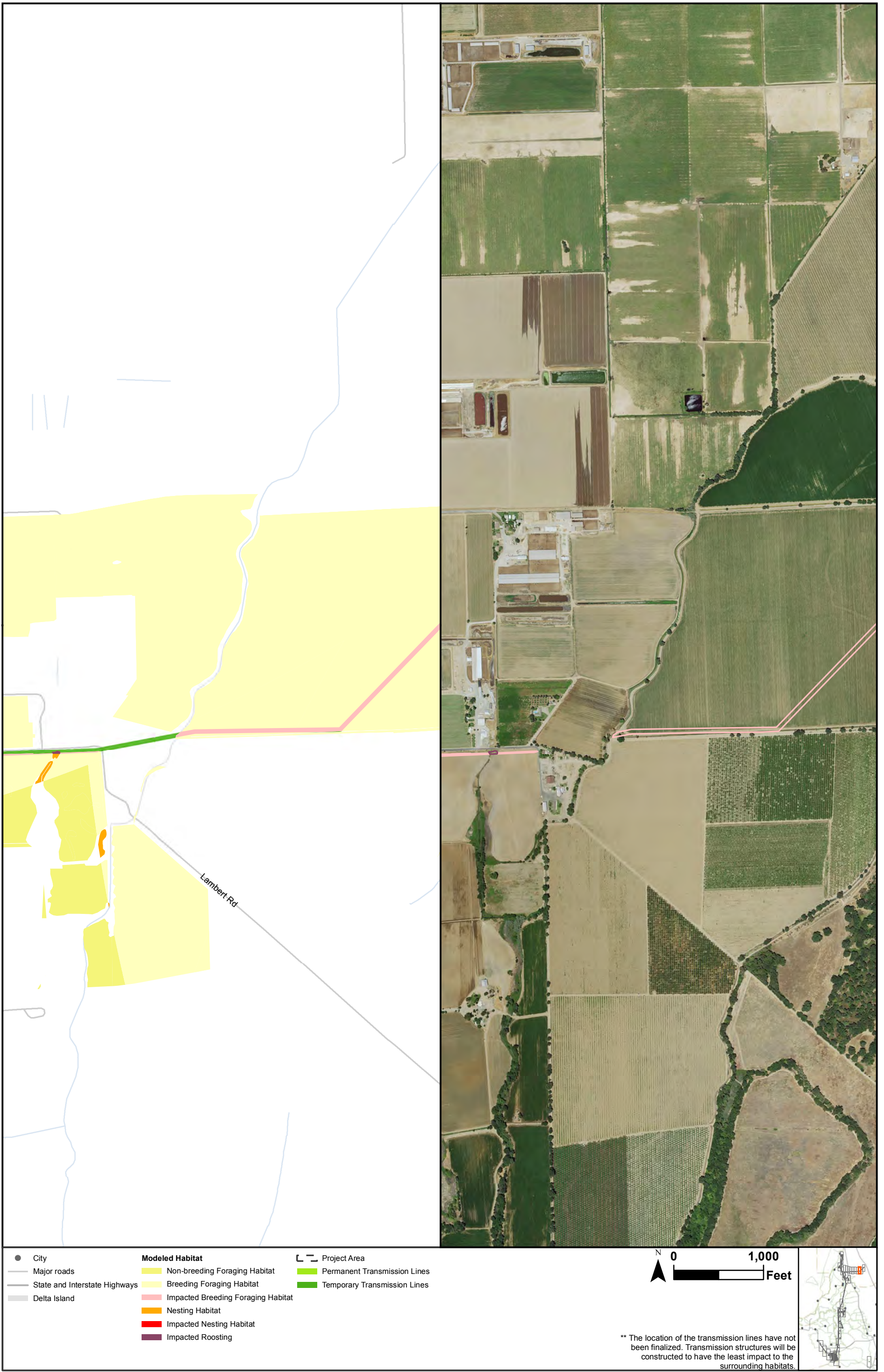
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Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Figure 4.8-12
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project

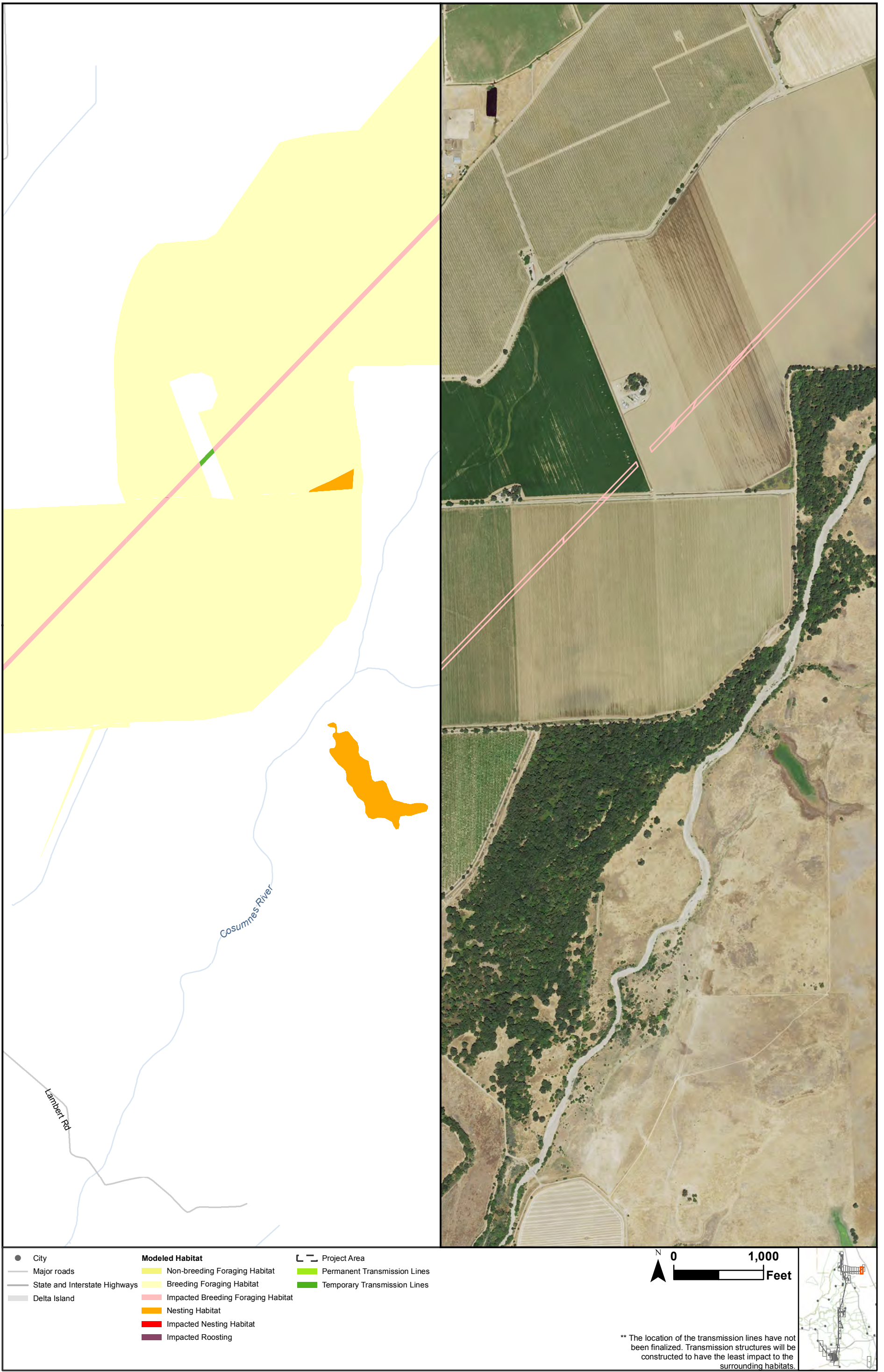


** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

Figure 4.8-13
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project

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** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Figure 4.8-14
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project

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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- Modeled Habitat**
- Non-breeding Foraging Habitat
 - Breeding Foraging Habitat
 - Impacted Breeding Foraging Habitat
 - Nesting Habitat
 - Impacted Nesting Habitat
 - Impacted Roosting
- Project Area**
- Permanent Transmission Lines
 - Temporary Transmission Lines

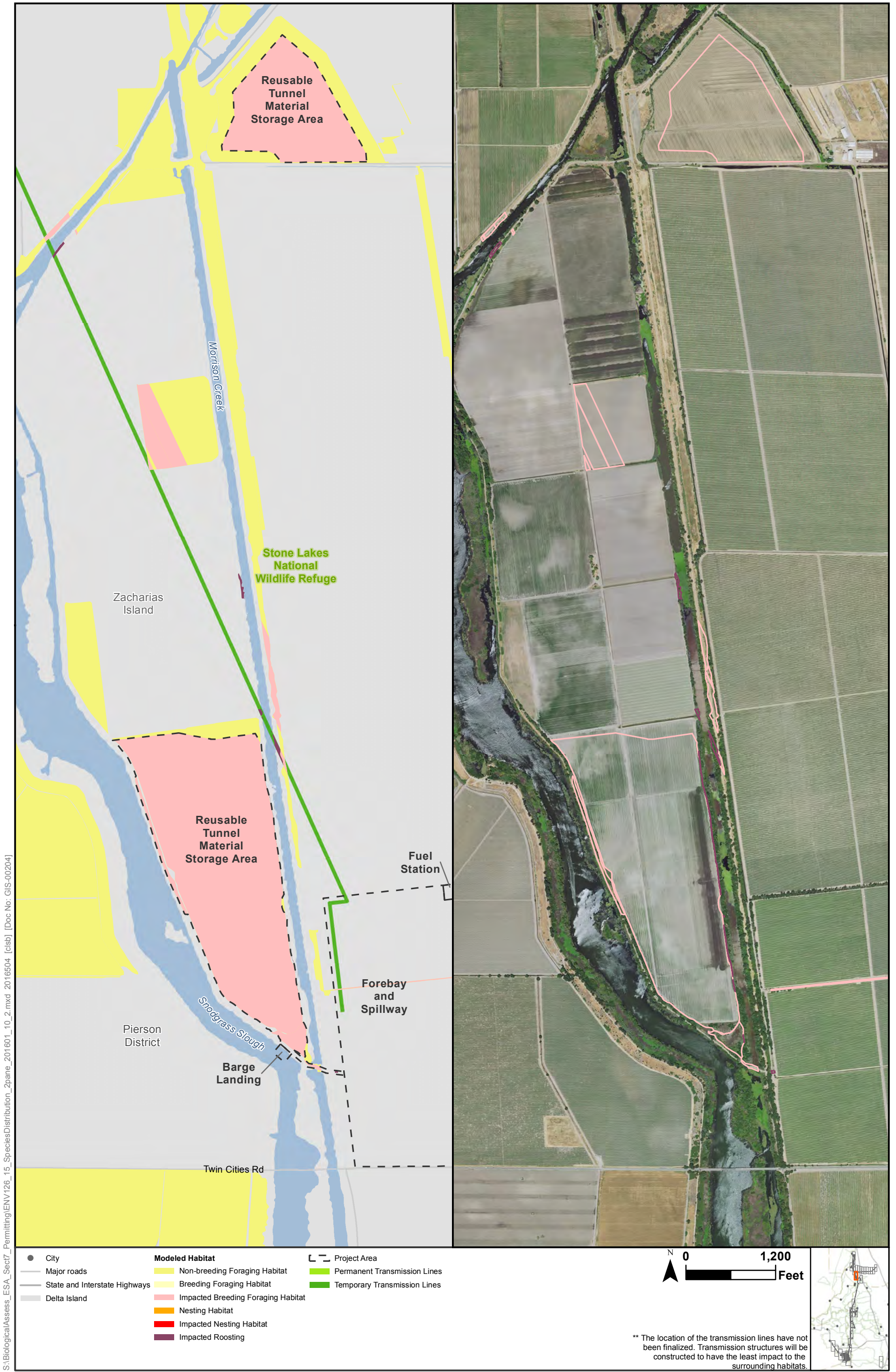


** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

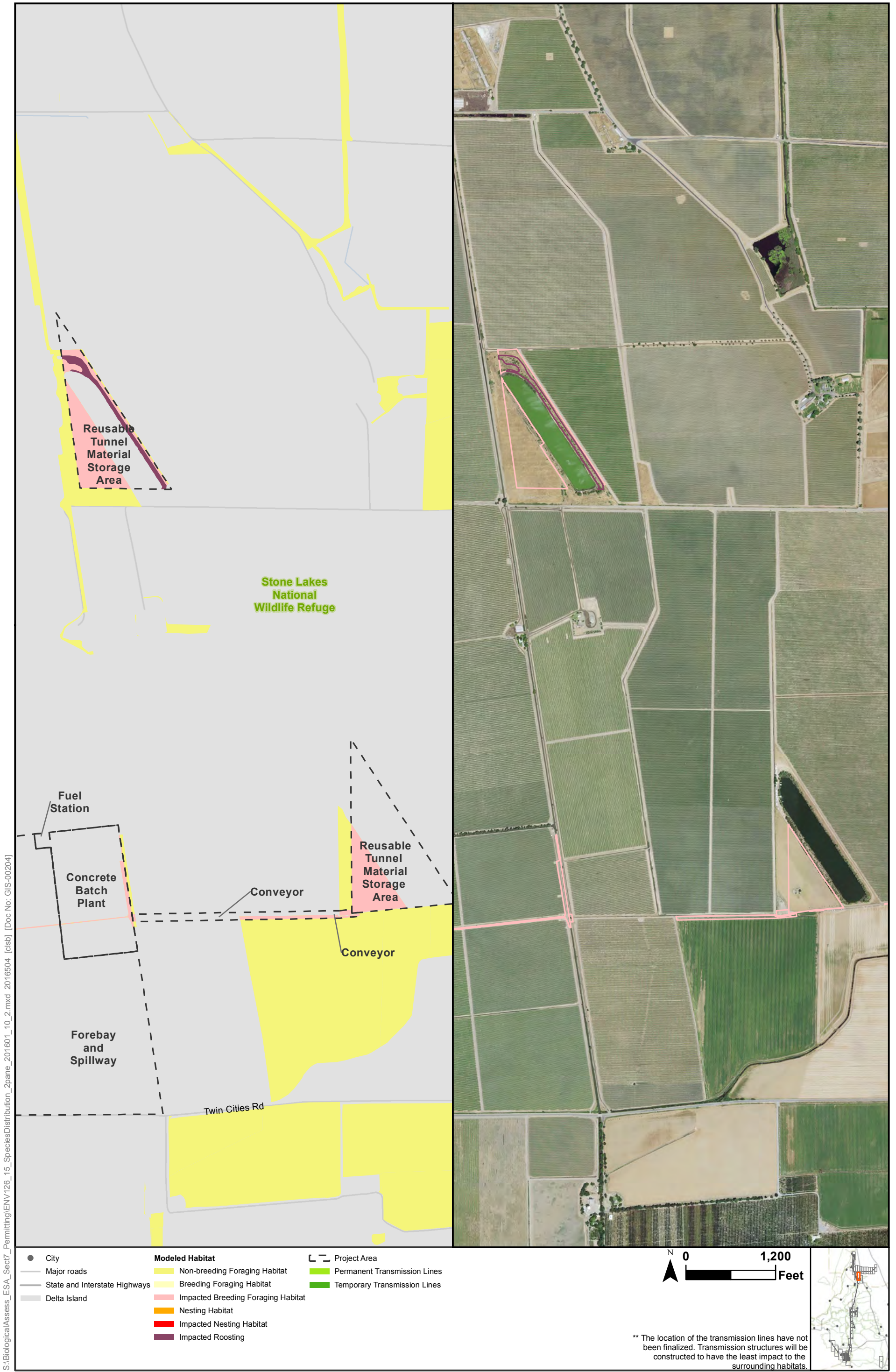


Figure 4.8-15
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project



Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

Figure 4.8-16
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project

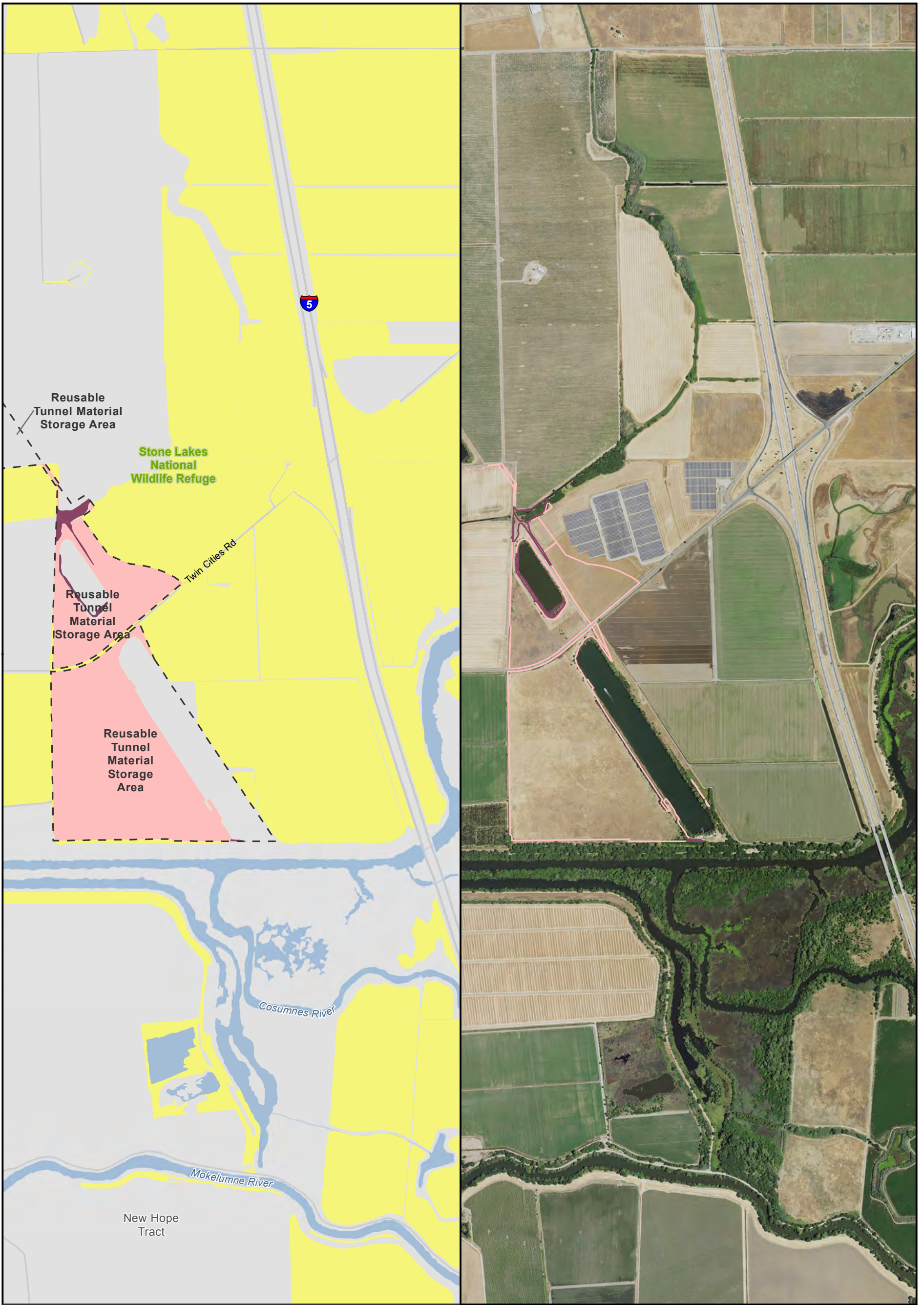


Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Figure 4.8-17
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project

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- | | | |
|---------------------------------|--------------------------------------|--------------------------------|
| ● City | Modeled Habitat | ▭ Project Area |
| — Major roads | ■ Non-breeding Foraging Habitat | ▭ Permanent Transmission Lines |
| — State and Interstate Highways | ■ Breeding Foraging Habitat | ▭ Temporary Transmission Lines |
| ▭ Delta Island | ■ Impacted Breeding Foraging Habitat | |
| | ■ Nesting Habitat | |
| | ■ Impacted Nesting Habitat | |
| | ■ Impacted Roosting | |



** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Figure 4.8-18
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project

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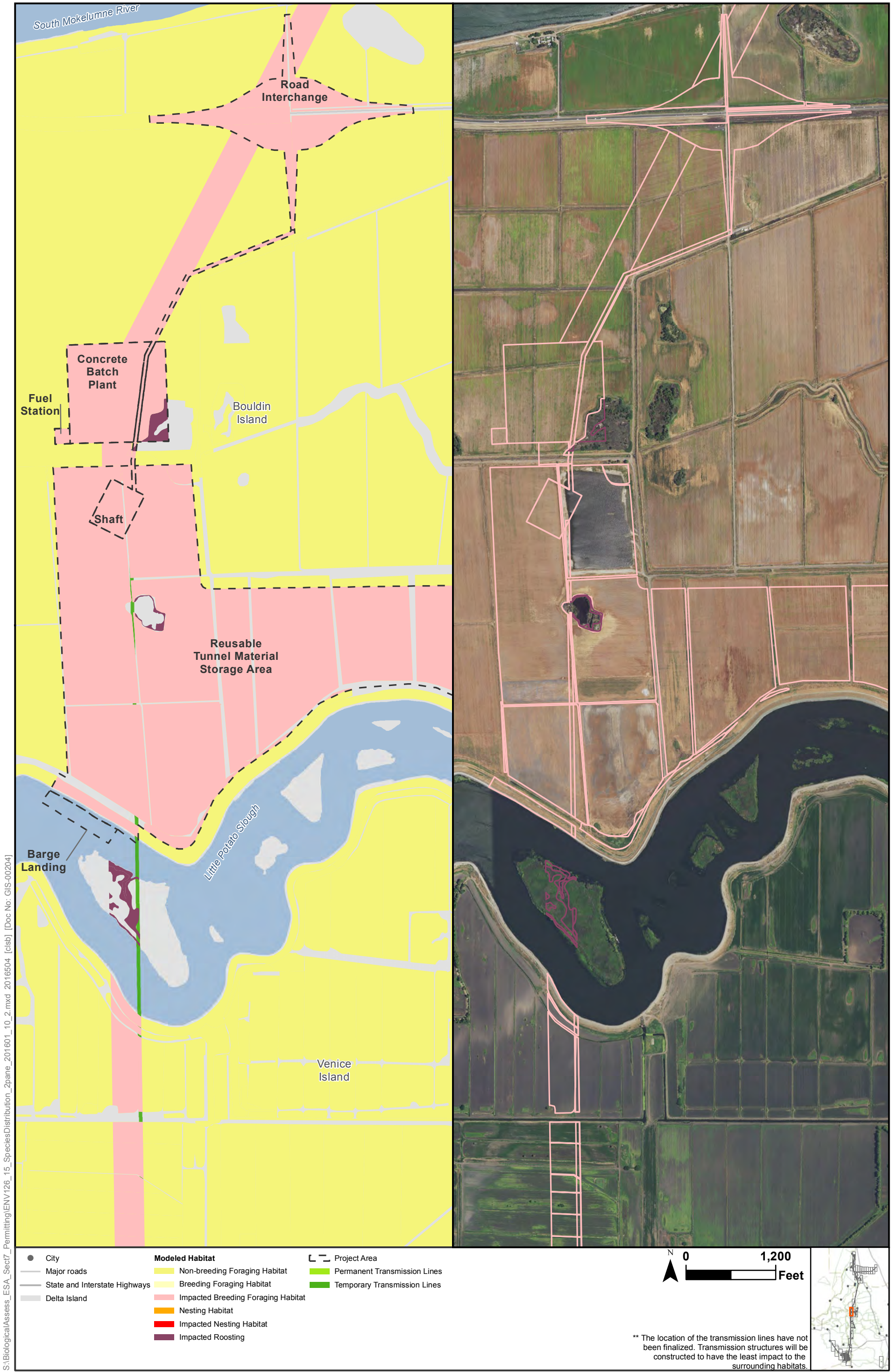


** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Figure 4.8-19
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project



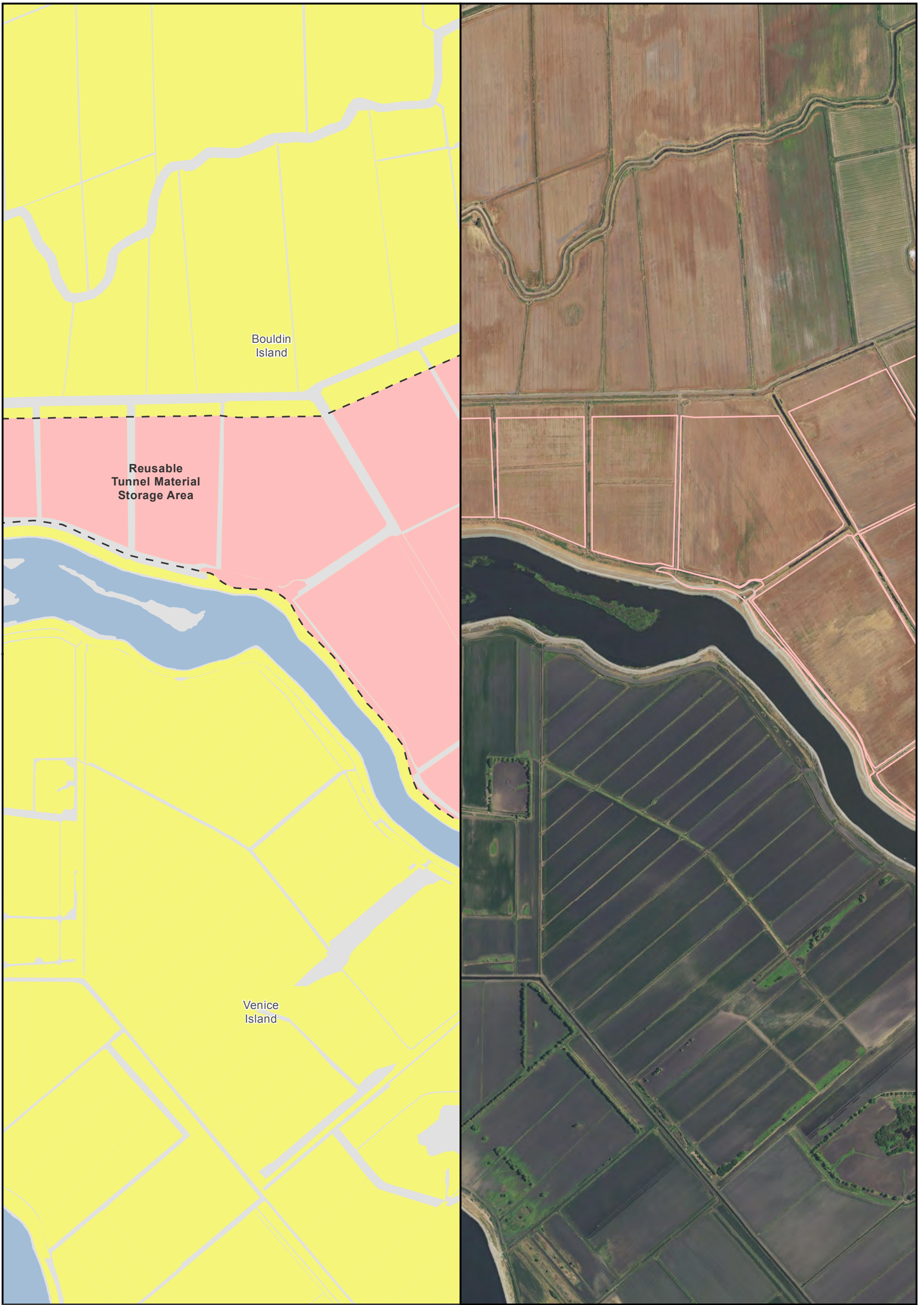
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Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

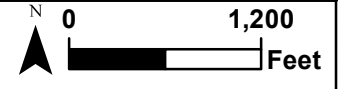


Figure 4.8-20
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project

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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- Modeled Habitat**
- Non-breeding Foraging Habitat
 - Breeding Foraging Habitat
 - Impacted Breeding Foraging Habitat
 - Nesting Habitat
 - Impacted Nesting Habitat
 - Impacted Roosting
- Project Area
- Permanent Transmission Lines
 - Temporary Transmission Lines



** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

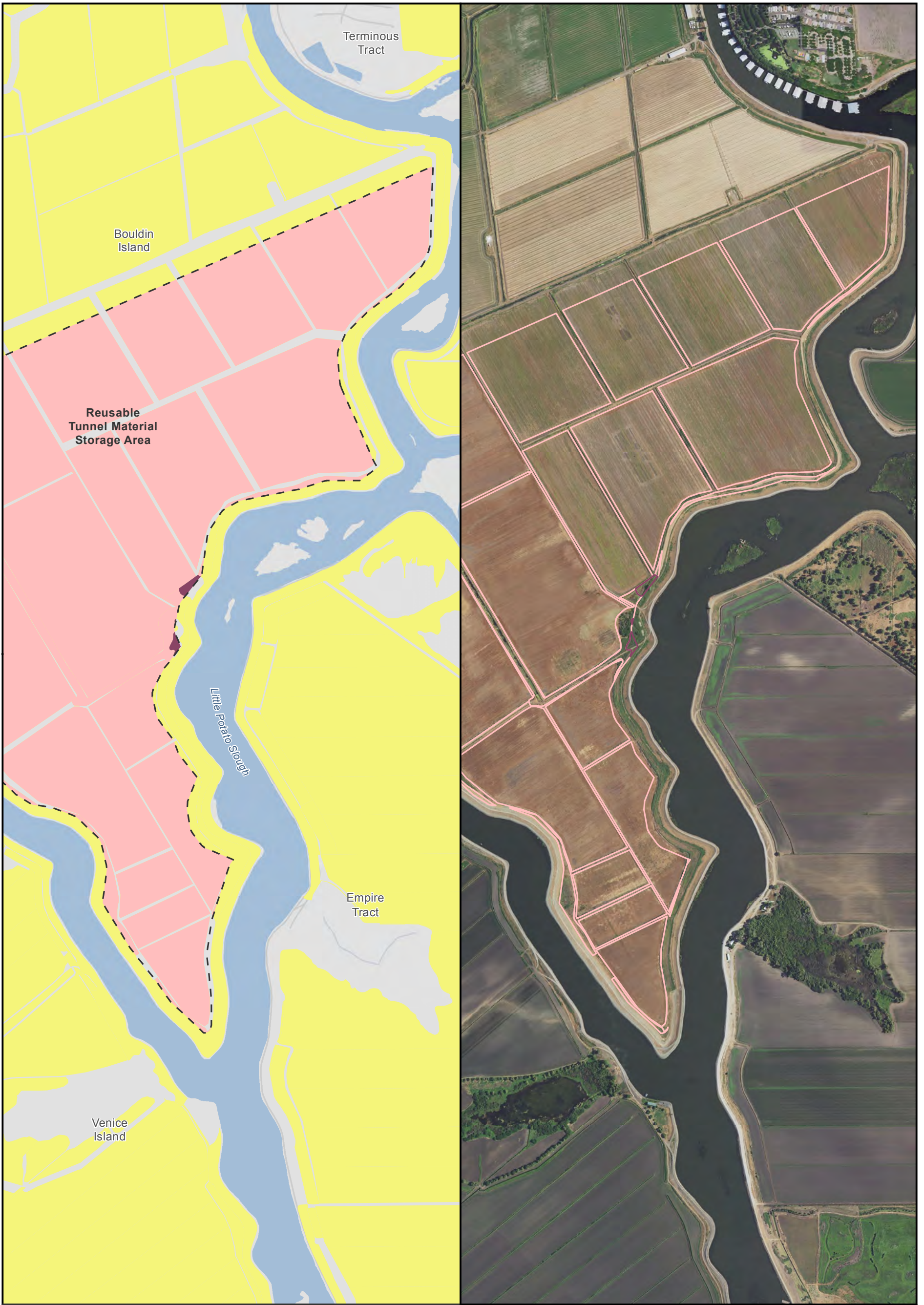


Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Figure 4.8-21
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project

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- City
 - Major roads
 - State and Interstate Highways
 - Delta Island
- | | |
|--|---|
| <p>Modeled Habitat</p> <ul style="list-style-type: none"> ■ Non-breeding Foraging Habitat ■ Breeding Foraging Habitat ■ Impacted Breeding Foraging Habitat ■ Nesting Habitat ■ Impacted Nesting Habitat ■ Impacted Roosting | <p>Project Area</p> <ul style="list-style-type: none"> ■ Permanent Transmission Lines ■ Temporary Transmission Lines |
|--|---|



** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Figure 4.8-22
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project



Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Figure 4.8-23
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project

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Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Figure 4.8-24
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project

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|---------------------------------|--------------------------------------|--------------------------------|
| ● City | Modeled Habitat | ▭ Project Area |
| — Major roads | ■ Non-breeding Foraging Habitat | ▭ Permanent Transmission Lines |
| — State and Interstate Highways | ■ Breeding Foraging Habitat | ▭ Temporary Transmission Lines |
| — Delta Island | ■ Impacted Breeding Foraging Habitat | |
| | ■ Nesting Habitat | |
| | ■ Impacted Nesting Habitat | |
| | ■ Impacted Roosting | |

0 1,200 Feet

** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.



Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Figure 4.8-25
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project

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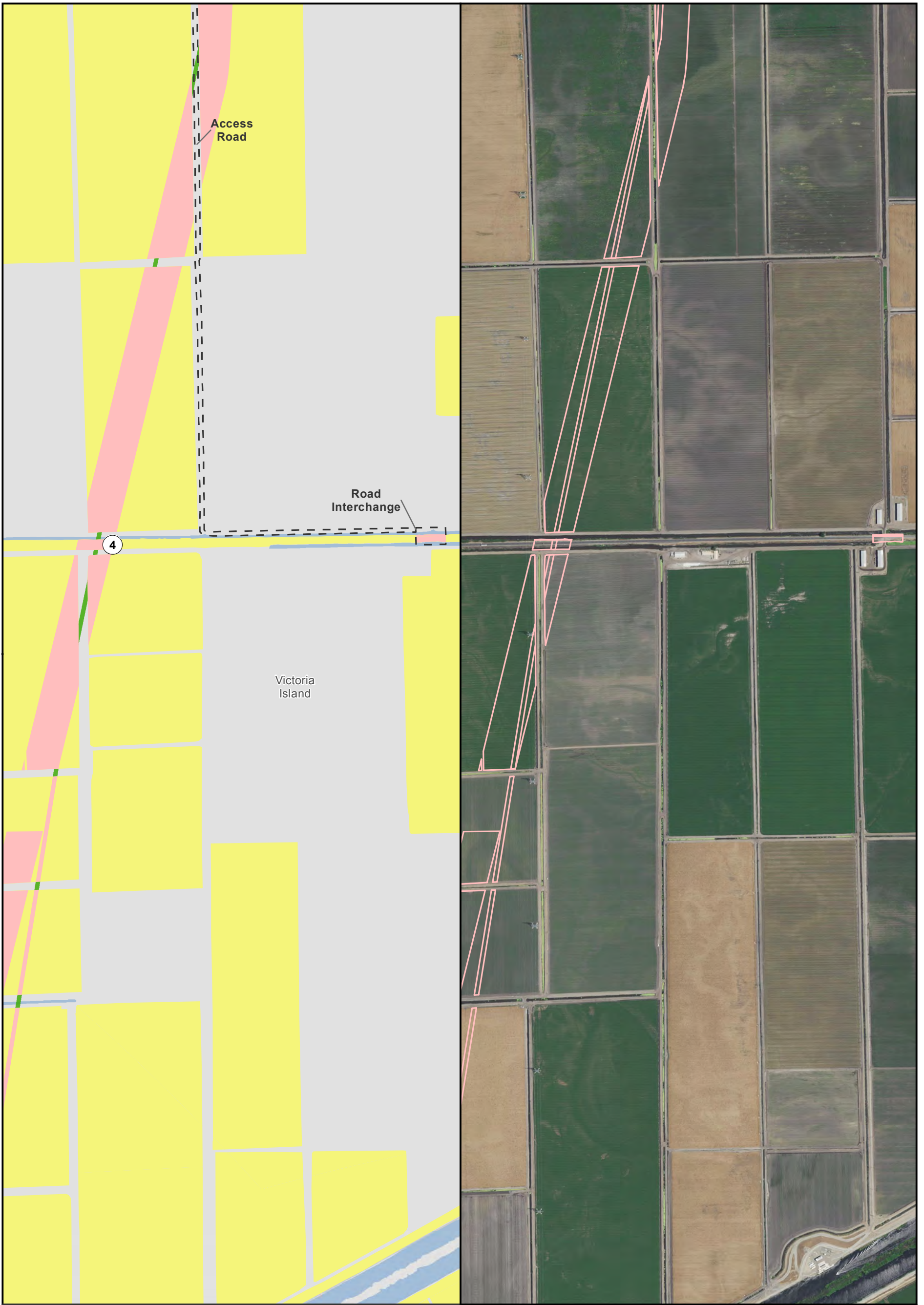


Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Figure 4.8-26
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project

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|---------------------------------|--------------------------------------|--------------------------------|
| ● City | Modeled Habitat | ▭ Project Area |
| — Major roads | ■ Non-breeding Foraging Habitat | ▭ Permanent Transmission Lines |
| — State and Interstate Highways | ■ Breeding Foraging Habitat | ▭ Temporary Transmission Lines |
| — Delta Island | ■ Impacted Breeding Foraging Habitat | |
| | ■ Nesting Habitat | |
| | ■ Impacted Nesting Habitat | |
| | ■ Impacted Roosting | |



** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Figure 4.8-27
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project

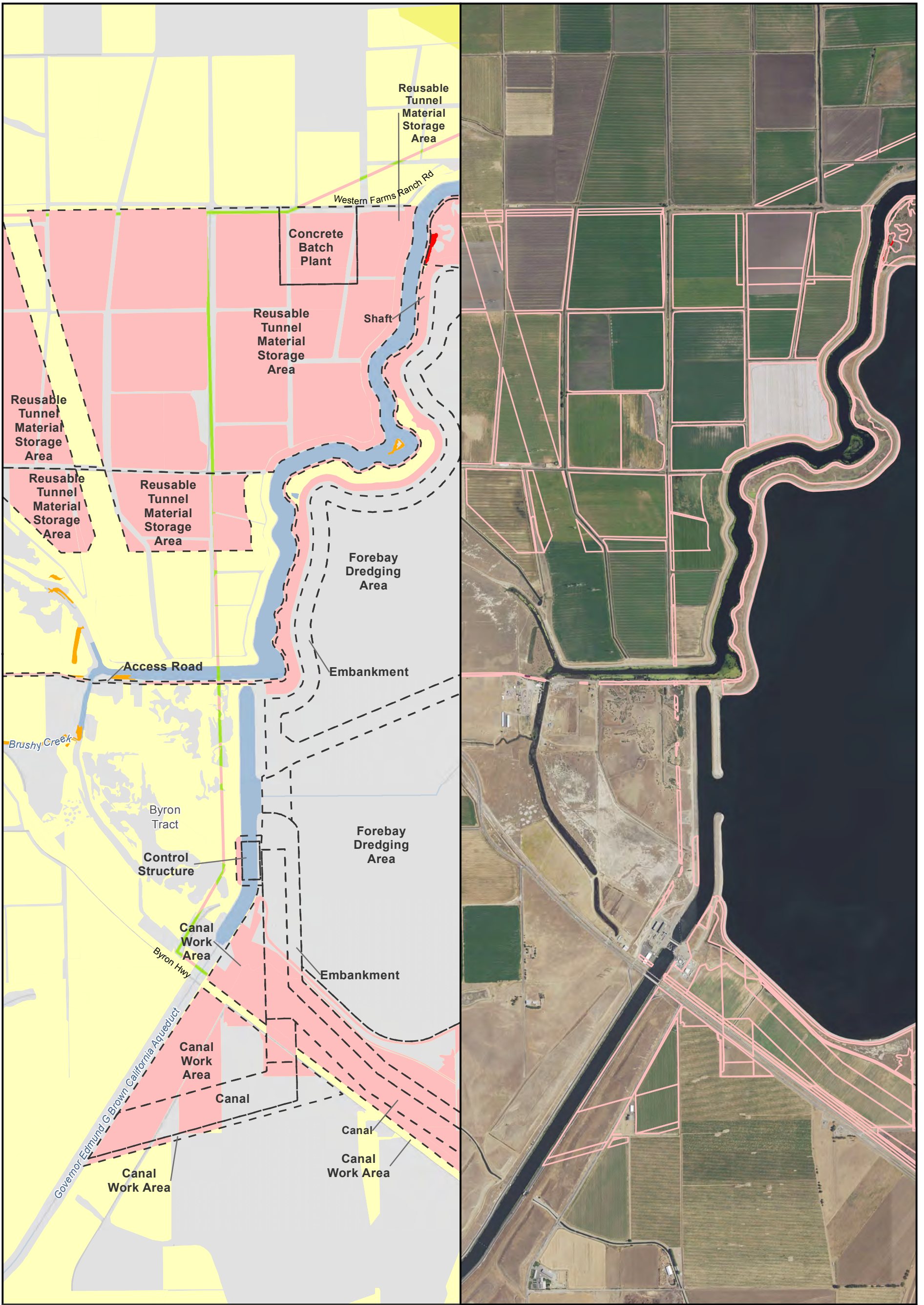


Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Figure 4.8-28
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project

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● City	Modeled Habitat	▭ Project Area
— Major roads	■ Non-breeding Foraging Habitat	▬ Permanent Transmission Lines
— State and Interstate Highways	■ Breeding Foraging Habitat	▬ Temporary Transmission Lines
■ Delta Island	■ Impacted Breeding Foraging Habitat	
	■ Nesting Habitat	
	■ Impacted Nesting Habitat	
	■ Impacted Roosting	

0 1,600 Feet

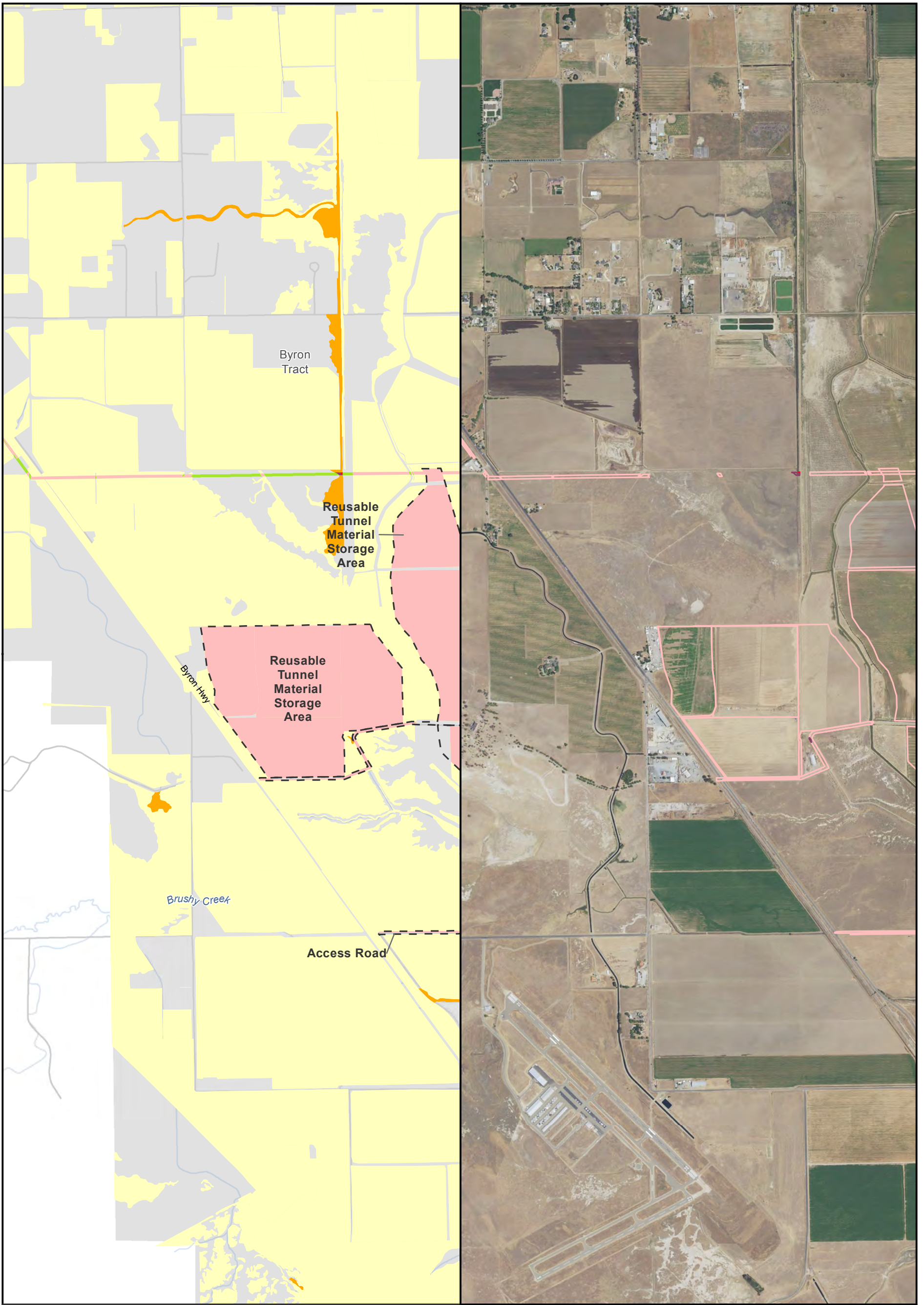
** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Figure 4.8-29
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project

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|---------------------------------|--------------------------------------|--------------------------------|
| ● City | Modeled Habitat | ┌─┐ Project Area |
| — Major roads | ■ Non-breeding Foraging Habitat | ■ Permanent Transmission Lines |
| — State and Interstate Highways | ■ Breeding Foraging Habitat | ■ Temporary Transmission Lines |
| ■ Delta Island | ■ Impacted Breeding Foraging Habitat | |
| | ■ Nesting Habitat | |
| | ■ Impacted Nesting Habitat | |
| | ■ Impacted Roosting | |



** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

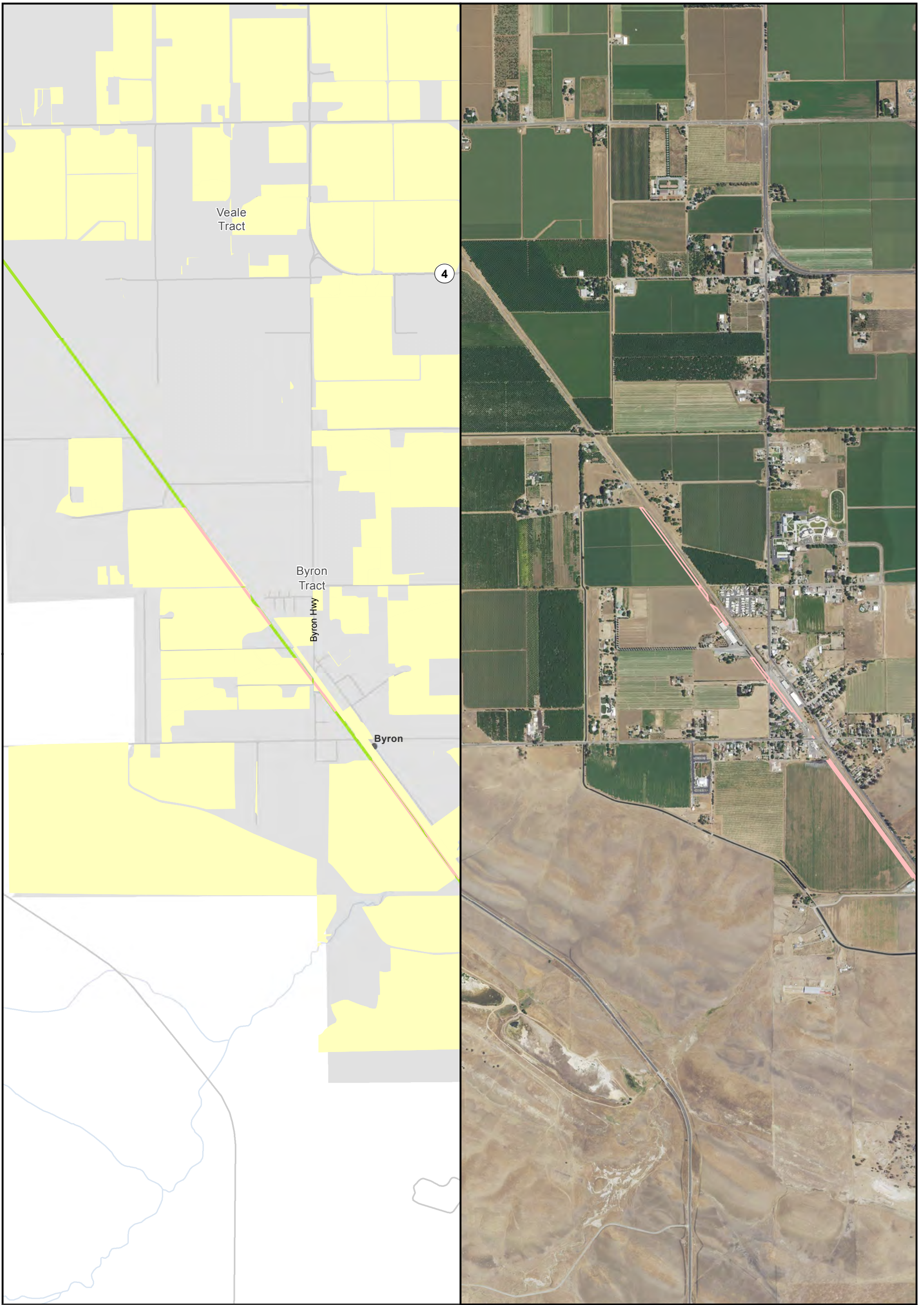


Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Figure 4.8-30
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project

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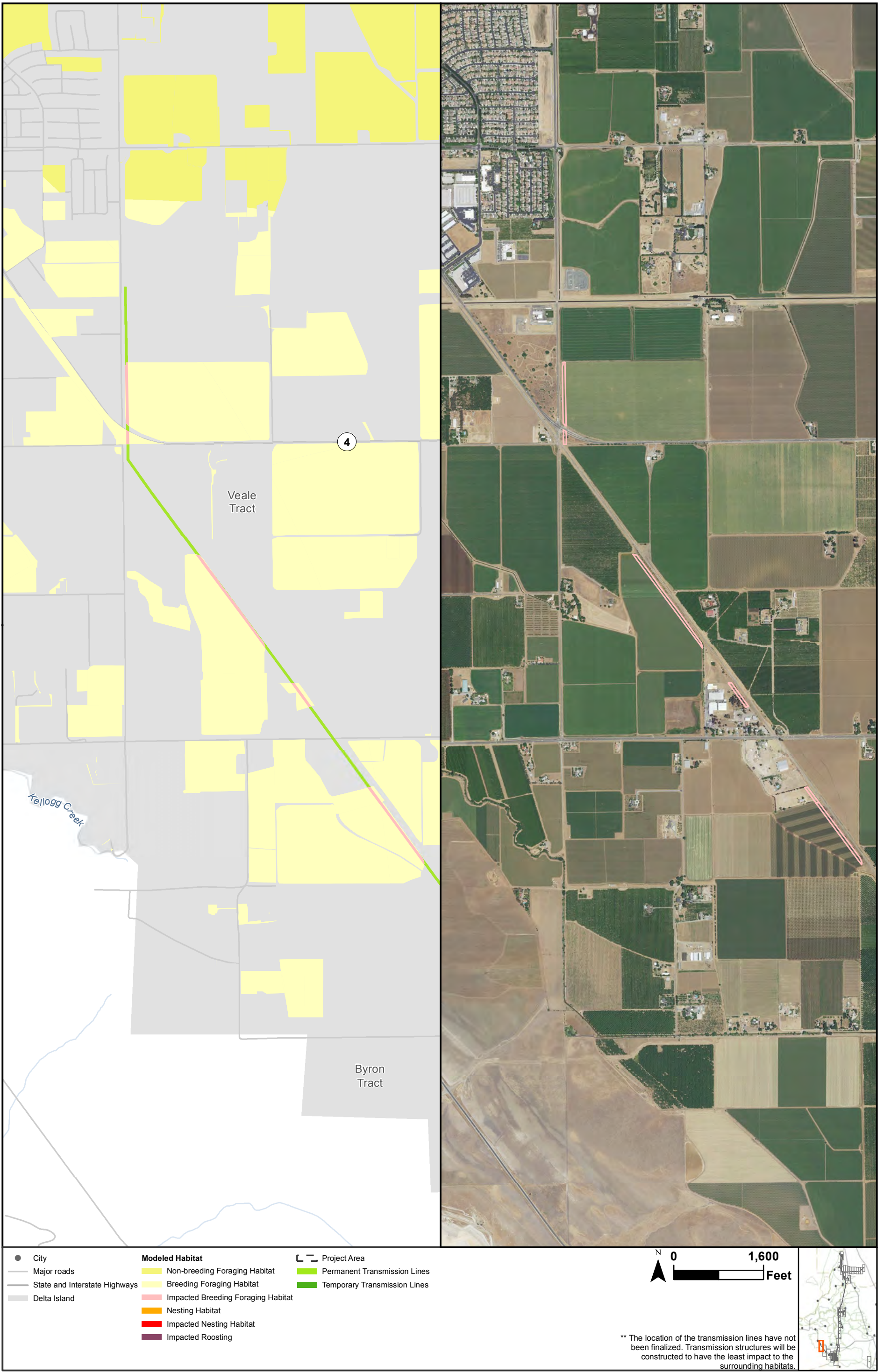
- | | | |
|---------------------------------|--------------------------------------|--------------------------------|
| ● City | Modeled Habitat | ▭ Project Area |
| — Major roads | ■ Non-breeding Foraging Habitat | ▬ Permanent Transmission Lines |
| — State and Interstate Highways | ■ Breeding Foraging Habitat | ▬ Temporary Transmission Lines |
| — Delta Island | ■ Impacted Breeding Foraging Habitat | |
| | ■ Nesting Habitat | |
| | ■ Impacted Nesting Habitat | |
| | ■ Impacted Roosting | |



** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

Figure 4.8-31
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project

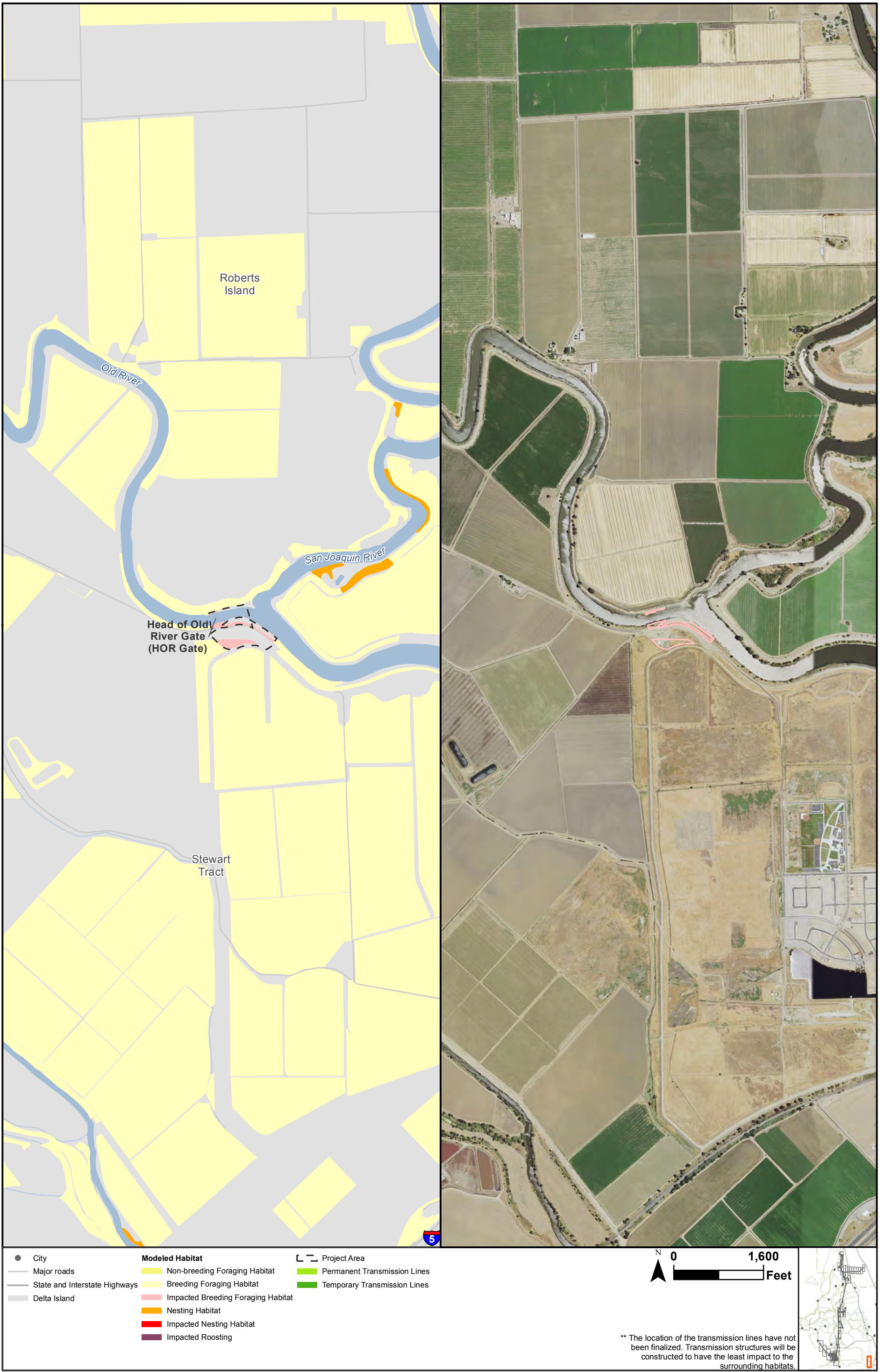


** The location of the transmission lines have not been finalized. Transmission structures will be constructed to have the least impact to the surrounding habitats.

Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014

Figure 4.8-32
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project

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Sources: CCO Conveyance, CA WaterFix 2015; Species Occurrences, ICF 2013; Modeled Habitat, ICF 2013, ICF 2015; NAIP 2014



Figure 4.8-33
Impacts to Tricolored Blackbird Modeled Habitat from the Proposed Project