Interstate 80/Interstate 680/State Route 12 Interchange Project

Final Environmental Impact Report/Environmental Impact Statement
Volume 2

Noise and Biological Resources Figures

October 2012
Figure 3.2.7-1
Alternative B and Alternative B, Phase 1
Existing Conditions and Measurement Sites
Alternative B and Alternative B, Phase 1
Existing Conditions and Measurement Sites

Figure 3.2.7-2
Alternative B and Alternative B, Phase 1
Existing Conditions and Measurement Sites

- Noise Monitoring Location
- Noise Prediction Location
- Existing Noise Barrier
- Project Area
- Alternative B
- Alternative B, Phase 1 Boundary
- Existing / Approved Facilities / Development

Activity Category B (Recreational)
Activity Category B (Recreational/School)
Activity Category B (Residential)
Activity Category B/C (Recreational Use)
Activity Category B/C (Residential/Commercial)
Commercial (no frequent outdoor use per Protocol definition)

Figure 3.2.7-3

Aerial Photo Source: Aerials Express, 2007; © i-cubed, 2008
Alternative B and Alternative B, Phase 1
Existing Conditions and Measurement Sites

Figure 3.2.7-4

- Noise Monitoring Location
- Noise Prediction Location
- Existing Noise Barrier
- Project Area
- Alternative B
- Alternative B, Phase 1 Boundary
- Existing / Approved Facilities / Development

Aerial Photo Source: Aerials Express, 2007; © i-cubed, 2008

- Activity Category B (Recreational)
- Activity Category B (Recreational/School)
- Activity Category B (Residential)
- Activity Category B/C (Recreational Use)
- Activity Category B/C (Residential/Commercial)
- Commercial (no frequent outdoor use per Protocol definition)
Figure 3.2.7-5
Alternative B and Alternative B, Phase 1
Existing Conditions and Measurement Sites

- Noise Monitoring Location
- Noise Prediction Location
- Existing Noise Barrier
- Project Area
- Alternative B
- Alternative B, Phase 1 Boundary
- Existing / Approved Facilities / Development

Aerial Photo Source: Aerials Express, 2007; © i-cubed, 2008
Alternative B and Alternative B, Phase 1
Existing Conditions and Measurement Sites

Figure 3.2.7-6

Noise Monitoring Location
Noise Prediction Location
Existing Noise Barrier
Activity Category B (Recreational)
Activity Category B (Recreational/School)
Activity Category B (Residential)
Activity Category B/C (Recreational Use)
Activity Category B/C (Residential/Commercial)
Commercial (no frequent outdoor use per Protocol definition)

Aerial Photo Source: Aerial Express, 2007; © i-cubed, 2008
Figure 3.2.7-8
Alternative B and Alternative B, Phase 1
Existing Conditions and Measurement Sites
Figure 3.2.7-9

Alternative C and Alternative C, Phase 1
Existing Conditions and Measurement Sites
Alternative C and Alternative C, Phase 1
Existing Conditions and Measurement Sites

Figure 3.2.7-12

- Noise Monitoring Location
- Noise Prediction Location
- Existing Noise Barrier
- Project Area (old)
- Alternative C
- Existing / Approved Facilities / Development

Activity Category B (Recreational)
Activity Category B (Recreational/School)
Activity Category B (Residential)
Activity Category B/C (Recreational Use)
Activity Category B/C (Residential/Commercial)
Commercial (no frequent outdoor use per Protocol definition)

Aerial Photo Source: Aerials Express, 2007; ©i-cubed, 2008
Figure 3.2.7-17

Locations of Evaluated Noise Barriers

- Noise Monitoring Location
- Noise Prediction Location
- Existing Noise Barrier
- Evaluated Noise Barrier
- Project Area
- Alternative B
- Existing / Approved Facilities / Development

- Activity Category B (Recreational)
- Activity Category B (Recreational/School)
- Activity Category B (Residential)
- Activity Category B/C (Recreational Use)
- Activity Category B/C (Residential/Commercial)
- Commercial (no frequent outdoor use per Protocol definition)

Aerial Photo Source: Aerials Express, 2007; © i-cubed, 2008
Locations of Evaluated Noise Barriers

- Noise Monitoring Location
- Noise Prediction Location
- Existing and Evaluated Noise Barrier
- Existing Noise Barrier
- Project Area

Activity Category B (Residential)
Activity Category B/C (Recreational)
Activity Category B/C (Recreational/Use)
Activity Category B/C (Residential/Commercial)
Activity Category B (Recreational/School)
Commercial (no frequent outdoor use per Protocol definition)

Figure 3.2.7-18

Aerial Photo Source: Aerials Express, 2007; © i-cubed, 2008
Figure 3.2.7-19

Locations of Evaluated Noise Barriers

- **Noise Monitoring Location**
- **Noise Prediction Location**
- **Evaluated Noise Barrier**
- **Project Area**
- **Alternative B**
- **Existing / Approved Facilities / Development**

Legend:
- Activity Category B (Recreational)
- Activity Category B (Recreational/School)
- Activity Category B (Residential)
- Activity Category B/C (Recreational Use)
- Activity Category B/C (Residential/Commercial)
- Commercial (no frequent outdoor use per Protocol definition)

Aerial Photo Source: Aerials Express, 2007; © i-cubed, 2008
Figure 3.2.7-20
Locations of Evaluated Noise Barriers

Legend
- Noise Monitoring Location
- Noise Prediction Location
- Evaluated Noise Barrier
- Project Area
- Alternative B
- Existing / Approved Facilities / Development
- Commercial (no frequent outdoor use per Protocol definition)

Activity Category B (Recreational)
Activity Category B (Recreational/School)
Activity Category B (Residential)
Activity Category B/C (Recreational Use)
Activity Category B/C (Residential/Commercial)

Aerial Photo Source: Aerials Express, 2007; ©i-cubed, 2008
Figure 3.3-1
Natural Communities of Special Concern in the Study Area
FIGURE 3.3-2a

Biological Resources
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

Permanent Impact
Temporary Impact

Permanent Drainage
Perennial Marsh

Pollenating Trees
Riparian Woodland

Silt Fence
Row Crops

Shade Tree
Ruderal

Shrub
Seasonal Drainage

Species
Seasonal Wetland

Special-Status Species Occurrences
Other Map Features

Alkali Milkvetch
Contra Costa Goldfields
Pappose Tarplant
Saline Clover

Contra Costa Goldfields
Critically Imperiled
formal Streamside Daisy
California Red-legged Frog
Elderberry Shrub

CA Tiger Salamander

Note: Culverts are denoted by dashed lines.

Biological Resources
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Aerial Photo Source: NAIP 2010

Sheet 2 of 35

FIGURE 3.3-2a

Biological Resources
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

Permanent Impact
Temporary Impact

Permanent Drainage
Perennial Marsh

Pollenating Trees
Riparian Woodland

Silt Fence
Row Crops

Shade Tree
Ruderal

Shrub
Seasonal Drainage

Species
Seasonal Wetland

Special-Status Species Occurrences
Other Map Features

Alkali Milkvetch
Contra Costa Goldfields
Pappose Tarplant
Saline Clover

Contra Costa Goldfields
Critically Imperiled
formal Streamside Daisy
California Red-legged Frog
Elderberry Shrub

CA Tiger Salamander

Note: Culverts are denoted by dashed lines.

Biological Resources
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Aerial Photo Source: NAIP 2010

Sheet 2 of 35
FIGURE 3.3-2a
Biological Resources
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

Permanent Impact
Temporary Impact
Permanent Drainage
Perennial Drainage
Perennial Marsh
Riparian Woodland
Row Crops
Ruderal
Seasonal Drainage
Seasonal Wetland
Valley Oak Woodland
Native Tree

Special-Status Species Occurrences

Alkali Milkvetch
Contra Costa Goldfields
Pappose Tarplant
Saline Clover
former Streamside Daisy
California Red-legged Frog
Elderberry Shrub

Butterfly Habitat

Callippe Silverspot

Chironomus salinarius

CA Tiger Salamander

Habitat

Alkaline Seasonal Marsh
Blue Oak Woodland
Developed/graded
Eucalyptus
Landscapeed
Live Oak Woodland
Non-native Annual Grassland
Open Water
Orchard/Vineyard
Other Woodland
Other Map Features
Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Aerial Photo Source: NAIP 2010

Sheet 8 of 35
All vegetation east of Ramsey Rd. lies within the Susuin Marsh Secondary Management Area.
FIGURE 3.3-2a
Biological Resources
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

Permanent Impact
Temporary Impact
Alkali Seasonal Marsh
Perennial Drainage
Blue Oak Woodland
Perennial Marsh
Developed/graded
Riparian Woodland
Eucalyptus
Row Crops
Landscapeed
Ruderal
Live Oak Woodland
Seasonal Drainage
Non-native Annual Grassland
Seasonal Wetland
Open Water
Upland Scrub
Orchard/Vineyard
Valley Oak Woodland
Other Woodland

Native Tree
Special-Status Species Occurrences
Alkali Milkvetch
Saline Clover
Contra Costa Goldfields
former Streamside Daisy
Pappose Tarplant
California Red-legged Frog
Elderberry Shrub
Johnny Jump-Ups
Callippe Silverspot
2004 Surveys*
Butterfly Habitat
CA Tiger Salamander
Johnny Jump-Ups
Habitat
2012 Surveys*

Other Map Features
Truck Scales Footprint

Note: Culverts are denoted by dashed lines.
All vegetation east of Ramsey Rd. lies within the Susuin Marsh Secondary Management Area.
All vegetation east of Ramsey Rd. lies within the Susuin Marsh Secondary Management Area.
FIGURE 3.3-2a
Biological Resources
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- Alkali Seasonal Marsh
- Blue Oak Woodland
- Developed/graded
- Eucalyptus
- Landscaped
- Live Oak Woodland
- Non-native Annual Grassland
- Open Water
- Orchard/Vineyard
- Other Woodland
- Native Tree
- Special-Status Species Occurrences
  - Alkali Milkvetch
  - Contra Costa Goldfields
  - Pappose Tarplant
  - California Red-legged Frog
  - Elderberry Shrub
  - Callippe Silverspot Butterly Habitat
- Critical Habitat
  - Saline Clover
  - former Streamsida Daisy
  - California Red-legged Frog
  - Elderberry Shrub
  - Callippe Silverspot Butterfly Habitat
- Critical Habitat
- Truck Scales Footprint

Other Map Features
- Perennial Drainage
- Perennial Marsh
- Riparian Woodland
- Row Crops
- Ruderal
- Seasonal Drainage
- Seasonal Wetland
- Upland Scrub
- Valley Oak Woodland

Note: Culverts are denoted by dashed lines.
Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation Project, which does not appear on the underlying aerial photography.
Resource mapping represents existing conditions after the completion of the Fairfield Corporate Commons Project, which does not appear on the underlying aerial photography.

Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation Project, which does not appear on the underlying aerial photography.

Legend
- Permanent Impact
- Temporary Impact
  - Alkali Seasonal Marsh
  - Perennial Drainage
  - Blue Oak Woodland
  - Perennial Marsh
  - Developed/graded
  - Riparian Woodland
  - Eucalyptus
  - Row Crops
  - Landsplaced
  - Ruderal
  - Live Oak Woodland
  - Seasonal Drainage
  - Non-native Annual Grassland
  - Seasonal Wetland
  - Open Water
  - Upland Scrub
  - Orchard/Vineyard
  - Valley Oak Woodland
  - Other Woodland
  - Native Tree
  - Culvert
  - Special-Status Species Occurrences
    - Alkali Milkvetch
    - Contra Costa Goldfields
    - Salarine Clover
    - former Streamside Daisy
    - California Red-legged Frog
    - Elderberry Shrub
    - Callippe Silverspot
    - Butterfly Habitat
    - CA Tiger Salamander
    - Habitat
    - Contra Costa Goldfields
    - Critical Habitat

Other Map Features
- Truck Scales Footprint
- "2004 Surveys"
- "2012 Surveys"
- Johnny Jump-Ups
- "2004 Surveys"
- Johnny Jump-Ups
- "2012 Surveys"
- Vernal Pool
- Shrimp Habitat

Note: Culverts are denoted by dashed lines.
Resource mapping represents existing conditions after the completion of the Fairfield Corporate Commons Project, which does not appear on the underlying aerial photography.
Resource mapping represents existing conditions after the completion of the Fairfield Corporate Commons Project, which does not appear on the underlying aerial photography.

Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation Project, which does not appear on the underlying aerial photography.

FIGURE 3.3-2a
Biological Resources
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

Permanent Impact
Temporary Impact
Alkali Seasonal Marsh
Perennial Drainage
Blue Oak Woodland
Perennial Marsh
Developed/graded
Pit Marsh
Eucalyptus
Row Crops
Lanscaped
Ruderal
Live Oak Woodland
Seasonal Drainage
Non-native Annual Grassland
Seasonal Wetland
Open Water
Upland Scrub
Orchard/Vineyard
Valley Oak Woodland
Other Woodland

Special-Status Species Occurrences

Alkali Milkvetch
Contra Costa Goldfields
Pappose Tarplant
Saline Clover
former Streamside Daisy
California Red-legged Frog
Elderberry Shrub
Johnny Jump-Ups
Butterfly Habitat
2004 Surveys
CA Tiger Salamander Habitat

Other Map Features

Culvert

Note: Culverts are denoted by dashed lines.
Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation Project, which does not appear on the underlying aerial photography.
Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation Project, which does not appear on the underlying aerial photography.
Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation Project, which does not appear on the underlying aerial photography.
FIGURE 3.3-2a
Biological Resources
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

Permanent Impact
Temporary Impact

Alkali Seasonal Marsh
Blue Oak Woodland
Developed/graded
Eucalyptus
Landscape
Live Oak Woodland
Non-native Annual Grassland
Open Water
Orchard/Vineyard
Other Woodland

Native Tree

Special-Status Species Occurrences

Alkali Milkvetch
Contra Costa Goldfields
Pappose Tarplant
Johnny Jump-Ups 2004 Surveys
Johnny Jump-Ups 2012 Surveys
Vernal Pool Shrimp Habitat

Other Map Features

Truck Scales Footprint

Note: Culverts are denoted by dashed lines.
No project components occur on this page; it is included for consistency with the wetland delineation.

FIGURE 3.3-2a
Biological Resources
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- Perennial Drainage
- Perennial Marsh
- Riparian Marsh
- Row Crops
- Ruderal
- Relative Drainage
- Seasonal Drainage
- Seasonal Wetland
- Upland Scrub
- Valley Oak Woodland
- Culvert

Special-Status Species Occurrences
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- California Red-legged Frog
- Elderberry Shrub
- Callippe Silverspot
- Butterfly Habitat
- CA Tiger Salamander Habitat
- Contra Costa Goldfields Critical Habitat
- Johnny Jump-Ups
- "2004 Surveys"
- Johnny Jump-Ups
- "2012 Surveys"
- Vernal Pool Shrimp Habitat
- Valley Oak Woodland

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.
Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation Project, which does not appear on the underlying aerial photography.

FIGURE 3.3-2a
Biological Resources
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- Perennial Drainage
- Perennial Marsh
- Riparian Woodland
- Row Crops
- Ruderal
- Seasonal Drainage
- Seasonal Wetland

Other Map Features
- Truck Scales Footprint
- Culvert

Note: Culverts are denoted by dashed lines.
FIGURE 3.3-2a
Biological Resources
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- Alkali Seasonal Marsh
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Orchard/Vineyard
- Other Woodland
- Native Tree
- Special-Status Species Occurrences
  - Alkali Milkvetch
  - Contra Costa Goldfields
  - Pappose Tarplant
  - Johnny Jump-Ups
  - Vernal Pool Shrimp Habitat
- Culvert
- Truck Scales Footprint
- Superseded Map Features
  - Johnny Jump-Ups
  - Callippe Silverspot Butterfly Habitat
- Critical Habitat

Note: Culverts are denoted by dashed lines.
FIGURE 3.3-2a
Biological Resources
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

- Permanent Impact
- Temporary Impact
- Alkali Seasonal Marsh
- Blue Oak Woodland
- Developed/graded
- Eucalyptus
- Landscaped
- Live Oak Woodland
- Non-native Annual Grassland
- Open Water
- Orchard/Vineyard
- Other Woodland
- Native Tree
- Special-Status Species Occurrences
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Johnny Jump-Ups "2004 Surveys"
- Johnny Jump-Ups "2012 Surveys"
- Vernal Pool Shrimp Pool Habitat
- Culvert

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.
FIGURE 3.3-2a
Biological Resources
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- Vernal Pool
- Shrimp Habitat
- Special-Status Species Occurrences
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- California Red-legged Frog
- Elderberry Shrub
- Callippe Silverspot
- Butterfly Habitat
- CA Tiger Salamander Habitat
- Contra Costa Goldfields Critical Habitat

Other Map Features
- Truck Scales Footprint
- Culvert

Note: Culverts are denoted by dashed lines.

Aerial Photo Source: NAIP 2010

Some resources have been altered since the mapping was completed.

200 200 200

Sheet 32 of 35
FIGURE 3.3-2a
Biological Resources
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

Permanent Impact

Blue Oak Woodland

Non-native Grassland

Open Water

Non-native Annual Grassland

Other Woodland

Native Tree

Special-Status Species Occurrences

Alkali Milkvetch

Contra Costa Goldfields

Pappose Tarplant

Saline Clover

former Streamside Daisy

California Red-legged Frog

Elderberry Shrub

Callippe Silverspot

Butterfly Habitat

CA Tiger Salamander Habitat

Critical Habitat

Temporary Impact

Perennial Drainage

Perennial Marsh

Pond

Row Crops

Ruderal

Seasonal Drainage

Seasonal Wetland

Upland Scrub

Valley Oak Woodland

Culvert

Note: Culverts are denoted by dashed lines.

Other Map Features

Truck Scales Footprint

Aerial Photo Source: NAIP 2010
FIGURE 3.3-2a
Biological Resources
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- Alkali Seasonal Marsh
- Perennial Drainage
- Blue Oak Woodland
- Perennial Marsh
- Developed/graded
- Riparian Woodland
- Eucalyptus
- Row Crops
- Landscaped
- Ruderal
- Live Oak Woodland
- Seasonal Drainage
- Non-native Annual Grassland
- Seasonal Wetland
- Open Water

Special-Status Species Occurrences
- Alkali Milkvetch
- California Red-legged Frog
- Contra Costa Goldfields
- Elderberry Shrub
- Pappose Tarplant
- Former Streamside Daisy
- Saline Clover
- Summer Swamp
- Former Streamside Daisy
- Callippe Silverspot Butterfly Habitat
- California Red-legged Frog
- Contra Costa Goldfields
- Former Streamside Daisy

Other Map Features
- Culvert
- Truck Scales Footprint
- Contra Costa Goldfields Critical Habitat
- Former Streamside Daisy
- Callippe Silverspot Butterfly Habitat
- California Red-legged Frog
- Contra Costa Goldfields
- Former Streamside Daisy

Note: Culverts are denoted by dashed lines.

Aerial Photo Source: NAIP 2010

Sheet 35 of 35
* Only sheets containing Phase 1 project elements appear in this series. Remaining sheets are available in Figure 3.3-2a. Additionally, the base habitat mapping is displayed for the full build alternative, and is grayed out where it is not affected by Phase 1.
**FIGURE 3.3-2b**

Biological Resources
Alternative B, Phase 1
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

- Permanent Impact
- Temporary Impact
- Perennial Drainage
- Perennial Marsh
- Riparian Woodland
- Row Crops
- Ruderal
- Seasonal Drainage
- Seasonal Wetland
- Upland Scrub
- Valley Oak Woodland

**Native Tree**

Special-Status Species Occurrences

- Alkali Bitterweed
- Contra Costa Goldfields
- Fiddleneck
- Vernal Pools Shrimp Habitat
- California Red-legged Frog
- Elderberry Shrub

**Culvert**

Other Map Features

- Truck Scales Footprint

* Only sheets containing Phase 1 project elements appear in this series. Remaining sheets are available in Figure 3.3-2a. Additionally, the base habitat mapping is displayed for the full build alternative, and it is grayed out where it is not affected by Phase 1.

Note: Culverts are denoted by dashed lines.
Special-Status Species Occurrences

* Only sheets containing Phase 1 project elements appear in this series. Remaining sheets are available in Figure 3.3-2a. Additionally, the base habitat mapping is displayed for the full build alternative, and is grayed out where it is not affected by Phase 1.

Note: Culverts are denoted by dashed lines.
FIGURE 3.3-2b
Biological Resources
Alternative B, Phase 1
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

Permanent Impact
Temporary Impact
Alkali Seasonal Marsh
Percennial Drainage
Blue Oak Woodland
Percennial Marsh
Developed/graded
Riparian Woodland
Eucalyptus
Row Crops
Landscaped
Ruderal
Live Oak Woodland
Live Oak Woodland
Non-native Annual Grassland
Seasonal Drainage
Open Water
Seasonal Wetland
Orchard/Vineyard
Valley Oak Woodland
Other Woodland

Native Tree
Culvert

Special-Status Species Occurrences
Alkali Milkvetch
Salarve Clover
Contra Costa Goldfields
former Streamside Daisy
Pappose Tarplant
California Red-legged Frog
Vernal Pool Shrimp Habitat
Elderberry Shrub

Contra Costa Goldfields
Critical Habitat
CA Tiger Salamander Habitat

Other Map Features
Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

* Only sheets containing Phase 1 project elements appear in this series. Remaining sheets are available in Figure 3.3-2a. Additionally, the base habitat mapping is displayed for the full build alternative, and it is grayed out where it is not affected by Phase 1.
FIGURE 3.3-2b
Biological Resources
Alternative B, Phase 1
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

- Permanent Impact
- Temporary Impact
- Alkali Seasonal Marsh
- Perennial Drainage
- Blue Oak Woodland
- Perennial Marsh
- Developed/graded
- Riparian Woodland
- Eucalyptus
- Row Crops
- Landscaped
- Ruderal
- Live Oak Woodland
- Seasonal Drainage
- Non-native Annual Grassland
- Seasonal Wetland
- Open Water
- Upland Scrub
- Orchard/Vineyard
- Valley Oak Woodland
- Other Woodland
- Native Tree
- Culvert

Special-Status Species Occurrences
- Alkali Milkwetch
- Saline Clover
- Contra Costa Goldfields
- former Streamside Daisy
- Pappose Tarplant
- California Red-legged Frog
- Vernal Pool Shrimp Habitat
- Elderberry Shrub
- Contra Costa Goldfields Critical Habitat
- CA Tiger Salamander Habitat

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

* Only sheets containing Phase 1 project elements appear in this series. Remaining sheets are available in Figure 3.3-2a. Additionally, the base habitat mapping is displayed for the full build alternative, and it is grayed out where it is not affected by Phase 1.
FIGURE 3.3-2b
Biological Resources
Alternative B, Phase 1
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- Perennial Drainage
- Perennial Marsh
- Riparian Woodland
- Row Crops
- Ruderal
- Seasonal Drainage
- Seasonal Wetland
- Upland Scrub
- Valley Oak Woodland
- Alkali Seasonal Marsh
- Blue Oak Woodland
- Developed/graded
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Open Water
- Orchard/Vineyard
- Other Woodland
- Native Tree
- Culvert

Special-Status Species Occurrences
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- California Red-legged Frog
- Elderberry Shrub

Note: Culverts are denoted by dashed lines.

* Only sheets containing Phase 1 project elements appear in this series. Remaining sheets are available in Figure 3.3-2a. Additionally, the base habitat mapping is displayed for the full build alternative, and is grayed out where it is not affected by Phase 1.
FIGURE 3.3-2b
Biological Resources
Alternative B, Phase 1
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

- Permanent Impact
- Temporary Impact
- Alkali Seasonal Marsh
- Perennial Drainage
- Blue Oak Woodland
- Perennial Marsh
- Developed/graded
- Riparian Woodland
- Eucalyptus
- Row Crops
- Landscaped
- Ruderal
- Live Oak Woodland
- Non-native Annual Grassland
- Seasonal Drainage
- Open Water
- Seasonal Wetland
- Orchard/Vineyard
- Upland Scrub
- Other Woodland
- Valley Oak Woodland
- Native Tree

Special-Status Species Occurrences
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- California Red-legged Frog
- Elderberry Shrub

Legend

Vernal Pool Shrimp Habitat

Special-Status Species Occurrences

Note: Culverts are denoted by dashed lines.

* Only sheets containing Phase 1 project elements appear in this series. Remaining sheets are available in Figure 3.3-2a. Additionally, the base habitat mapping is displayed for the full build alternative, and is grayed out where it is not affected by Phase 1.

Aerial Photo Source: NAIP 2010
FIGURE 3.3-2b
Biological Resources
Alternative B, Phase 1
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- Alkali Seasonal Marsh
- Perennial Drainage
- Blue Oak Woodland
- Perennial Marsh
- Developed/graded
- Riparian Woodland
- Eucalyptus
- Row Crops
- Landscaped
- Ruderal
- Live Oak Woodland
- Seasonal Drainage
- Non-native Annual Grassland
- Seasonal Wetland
- Open Water
- Upland Scrub
- Orchard/Vineyard
- Valley Oak Woodland
- Other Woodland

Special-Status Species Occurrences
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- California Red-legged Frog
- Elderberry Shrub
- Vernal Pool Shrimp Habitat

* Only sheets containing Phase 1 project elements appear in this series. Remaining sheets are available in Figure 3.3-2a. Additionally, the base habitat mapping is displayed for the full build alternative, and is grayed out where it is not affected by Phase 1.

Note: Culverts are denoted by dashed lines.

Other Map Features
- Truck Scales Footprint

Source: NAIP 2010

Feet
0 100 200 300 400 500

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K:\Projects_1\I80680\02166_02\mapdoc\EIR_only\20100804\Fig_3_3_2b_altBp1_biology_20100805.mxd (20100805)
FIGURE 3.3-2b

Biological Resources
Alternative B, Phase 1
I-80/ I-680/ SR 12 Interchange Project
Solano County, California

Legend

Permanent Impact
Temporary Impact
Alkali Seasonal Marsh
Perennial Drainage
Blue Oak Woodland
Perennial Marsh
Developed/graded
Riparian Woodland
Eucalyptus
Row Crops
Landscape
Ruderal
Live Oak Woodland
Seasonal Drainage
Non-native Annual Grassland
Seasonal Wetland
Open Water
Upland Scrub
Orchard/Vineyard
Valley Oak Woodland
Other Woodland

Special-Status Species Occurrences

Alkali Milkvetch
Contra Costa Goldfields
Pappose Tarplant
Saline Clover
former Streamside Daisy
California Red-legged Frog
Elderberry Shrub

Vernal Pool Shrimp Habitat
Critical Habitat
CA Tiger Salamander Habitat
Other Map Features

Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

* Only sheets containing Phase 1 project elements appear in this series. Remaining sheets are available in Figure 3.3-2a. Additionally, the base habitat mapping is displayed for the full build alternative, and is grayed out where it is not affected by Phase 1.

Aerial Photo Source: NAIP 2010

Sheet 18 of 35
Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation Project, which does not appear on the underlying aerial photography.

FIGURE 3.3-2b
Biological Resources
Alternative B, Phase 1
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

Permanent Impact
Temporary Impact
Permanent Drainage
Contra Costa Goldfields
Contra Costa Goldfields Critical Habitat
Former Streamside Daisy
Elderberry Shrub
Truck Scales Footprint

Alkali Seasonal Marsh
Blue Oak Woodland
Developed/graded
Live Oak Woodland
Live Oak Woodland
Non-native Annual Grassland
Hybrid Poplar
Valley Oak Woodland

Native Tree

Special-Status Species Occurrences
Alkali Milkvetch
Contra Costa Goldfields
Pappose Tarplant
Vernal Pool Shrimp Habitat
Contra Costa Goldfields Critical Habitat
CA Tiger Salamander Habitat

Other Map Features

Culvert

Note: Culverts are denoted by dashed lines.

* Only sheets containing Phase 1 project elements appear in this series. Remaining sheets are available in Figure 3.3-2a. Additionally, the base habitat mapping is displayed for the full build alternative, and is grayed out where it is not affected by Phase 1.
FIGURE 3.3-2b
Biological Resources
Alternative B, Phase 1
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- Alkali Seasonal Marsh
- Riparian Marsh
- Blue Oak Woodland
- Perennial Drainage
- Developed/graded
- Perennial Wetland
- Eucalyptus
- Row Crops
- Landscaped
- Ruderal
- Live Oak Woodland
- Seasonal Drainage
- Non-native Annual Grassland
- Seasonal Wetland
- Open Water
- Upland Scrub
- Orchard/Winery
- Valley Oak Woodland
- Other Woodland
- Native Tree
- Culvert

Special-Status Species Occurrences
- Alkali Milkvetch
- Saline Clover
- Contra Costa Goldfields
- former Streamside Daisy
- Pappose Tarplant
- California Red-legged Frog
- Vernal Pool Shrimp Habitat
- Elderberry Shrub
- Contra Costa Goldfields Critical Habitat
- CA Tiger Salamander Habitat

Other Map Features
- Truck Scales Footprint
- Culvert

Note: Culverts are denoted by dashed lines.

* Only sheets containing Phase 1 project elements appear in this series. Remaining sheets are available in Figure 3.3-2a. Additionally, the base habitat mapping is displayed for the full build alternative, and is grayed out where it is not affected by Phase 1.

Aerial Photo Source: NAIP 2010

Sheet 20 of 35
Resource mapping represents existing conditions after the completion of the Fairfield Corporate Commons Project, which does not appear on the underlying aerial photography.
FIGURE 3.3-2b
Biological Resources
Alternative B, Phase 1
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legends:
- Permanent Impact
- Temporary Impact
- Alkaline Seasonal Marsh
- Riparian Marsh
- Blue Oak Woodland
- Perennial Drainage
- Developed/graded
- Perennial Wetland
- Eucalyptus
- Row Crops
- Live Oak Woodland
- Ruderal
- Non-native Annual Grassland
- Seasonal Drainage
- Open Water
- Seasonal Wetland
- Orchard/Vineyard
- Upland Scrub
- Other Woodland
- Valley Oak Woodland
- Native Tree
- Culvert

Special-Status Species Occurrences:
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- California Red-legged Frog
- Elderberry Shrub

Note: Culverts are denoted by dashed lines.

* Only sheets containing Phase 1 project elements appear in this series. Remaining sheets are available in Figure 3.3-2a. Additionally, the base habitat mapping is displayed for the full build alternative, and is grayed out where it is not affected by Phase 1.
FIGURE 3.3-2b
Biological Resources
Alternative B, Phase 1
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

- Permanent Impact
- Temporary Impact
- Alkali Seasonal Marsh
- Perennial Drainage
- Blue Oak Woodland
- Perennial Marsh
- Developed/graded
- Riparian Woodland
- Eucalyptus
- Row Crops
- Landscaped
- Ruderal
- Live Oak Woodland
- Seasonal Drainage
- Non-native Annual Grassland
- Seasonal Wetland
- Open Water
- Upland Scrub
- Orchard/Vineyard
- Perennial Wetland
- Other Woodland
- Valley Oak Woodland
- Native Tree
- Special-Status Species Occurrences
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Vernal Pool Shrimp Habitat
- Saline Clover
- former Streamside Daisy
- California Red-legged Frog
- Critical Habitat
- Elderberry Shrub
- Contra Costa Goldfields
- CA Tiger Salamander Habitat
- Truck Scales Footprint
- Note: Culverts are denoted by dashed lines.

* Only sheets containing Phase 1 project elements appear in this series. Remaining sheets are available in Figure 3.3-2a. Additionally, the base habitat mapping is displayed for the full build alternative, and it shaded out where it is not affected by Phase 1.
Special-Status Species Occurrences:
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Vernal Pool Shrimp Habitat
- Contra Costa Goldfields Critical Habitat
- CA Tiger Salamander Habitat

Other Map Features:
- Truck Scales Footprint

Legend:
- Permanent Impact
- Temporary Impact
- Perennial Drainage
- Perennial Marsh
- Riparian Woodland
- Row Crops
- Ruderal
- Seasonal Drainage
- Seasonal Wetland
- Upland Scrub
- Valley Oak Woodland
- Native Tree
- Culvert
- Critical Habitat
- CA Tiger Salamander Habitat

Note: Culverts are denoted by dashed lines.

* Only sheets containing Phase 1 project elements appear in this series. Remaining sheets are available in Figure 3.3-2a. Additionally, the base habitat mapping is displayed for the full build alternative, and it is grayed out where it is not affected by Phase 1.
FIGURE 3.3-2b
Biological Resources
Alternative B, Phase 1
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- Alkali Seasonal Marsh
- Perennial Drainage
- Blue Oak Woodland
- Perennial Marsh
- Developed/graded
- Riparian Woodland
- Eucalyptus
- Row Crops
- Landscaped
- Ruderal
- Live Oak Woodland
- Seasonal Drainage
- Non-native Annual Grassland
- Seasonal Wetland
- Open Water
- Upland Scrub
- Orchard/Vineyard
- Valley Oak Woodland
- Other Woodland
- Native Tree

Special-Status Species Occurrences
- Alkali Milkvetch
- Saline Clover
- Contra Costa Goldfields
- former Streamside Daisy
- Pappose Tarplant
- California Red-legged Frog
- Vernal Pool Shrimp Habitat
- Elderberry Shrub

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

* Only sheets containing Phase 1 project elements appear in this series. Remaining sheets are available in Figure 3.3-2a. Additionally, the base habitat mapping is displayed for the full build alternative, and is grayed out where it is not affected by Phase 1.

State Route 12 East

Some resources have been altered since the mapping was completed.
FIGURE 3.3-2c
Biological Resources
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact

Alkali Seasonal Marsh
Blue Oak Woodland
Developed/graded
Eucalyptus
Landsipped
Live Oak Woodland
Non-native Annual Grassland
Open Water
Orchard/Vineyard
Other Woodland
Native Tree
Special-Status Species Occurrences
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Vernal Pool Shrimp Habitat
- Johnny Jump-Ups "2012 Surveys"
- Johnny Jump-Ups "2004 Surveys"

Other Map Features
- Truck Scales Footprint
- CA Tiger Salamander Habitat
- Callippe Silverspot Butterfly Habitat
- Contra Costa Goldfields Critical Habitat

Note: Culverts are denoted by dashed lines.

Legend:

- Perennial Drainage
- Perennial Marsh
- Riparian Woodland
- Row Crops
- Ruderal
- Seasonal Drainage
- Seasonal Wetland
- Upland Scrub
- Valley Oak Woodland
- Culvert

Aerial Photo Source: NAIP 2010
FIGURE 3.3-2c
Biological Resources
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
Permanent Impact
Temporary Impact
Alkali Seasonal Marsh
Perennial Drainage
Blue Oak Woodland
Perennial Marsh
Developed/graded
Riparian Woodland
Eucalyptus
Row Crops
Landscaped
Ruderal
Live Oak Woodland
Seasonal Drainage
Non-native Annual Grassland
Seasonal Wetland
Open Water
Upland Scrub
Orchard/Vineyard
Valley Oak Woodland
Other Woodland
Legend
Native Tree
Special-Status Species Occurrences
Alkali Milkvetch
Saline Clover
Contra Costa Goldfields
former Streamside Daisy
Pappose Tarplant
California Red-legged Frog
Vernal Pool Shrimp Habitat
Elderberry Shrub
Johnny Jump-Ups
CA Tiger Salamander Habitat
"2012 Surveys"
Johnny Jump-Ups
"2004 Surveys"
Other Map Features
Contra Costa Goldfields
Critical Habitat

Note: Culverts are denoted by dashed lines.

Aerial Photo Source: NAIP 2010

Red Top Road

Sheet 2 of 35
FIGURE 3.3-2c
Biological Resources
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- Alkali Seasonal Marsh
- Blue Oak Woodland
- Developed/graded
- Eucalyptus
- Landscaped
- Live Oak Woodland
- Non-native Annual Grassland
- Open Water
- Orchard/Vineyard
- Other Woodland
- Native Tree
- Special-Status Species Occurrences
  - Alkali Milkvetch
  - Contra Costa Goldfields
  - Pappose Tarplant
  - Vernal Pool Shrimp Habitat
  - Johnny Jump-Ups "2012 Surveys"
  - Johnny Jump-Ups "2004 Surveys"
- Other Map Features
  - Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Aerial Photo Source: NAIP 2010
FIGURE 3.3-2c
Biological Resources
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
Permanent Impact
Temporary Impact
Alkali Seasonal Marsh
Perennial Drainage
Blue Oak Woodland
Perennial Marsh
Developed/graded
Riparian Woodland
Eucalyptus
Row Crops
Lanscaped
Ruderal
Live Oak Woodland
Seasonal Drainage
Non-native Annual Grassland
Seasonal Wetland
Open Water
Upland Scrub
Orchard/Vineyard
Valley Oak Woodland
Other Woodland

Special-Status Species Occurrences
Alkali Milkvetch
Contra Costa Goldfields
Pappose Tarplant
Vernal Pool Shrimp Habitat
Johnny Jump-Ups 2012 Surveys
Johnny Jump-Ups 2004 Surveys

Note: Culverts are denoted by dashed lines.
Some resources may have been altered since the mapping was completed.
FIGURE 3.3-2c

Biological Resources
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

- Permanent Impact
- Temporary Impact

- Alkali Seasonal Marsh
- Blue Oak Woodland
- Developed/graded
- Eucalyptus
- Landscaped
- Live Oak Woodland
- Non-native Annual Grassland
- Open Water
- Orchard/Vineyard
- Other Woodland
- Native Tree
- Special-Status Species Occurrences
  - Alkali Milkvetch
  - Contra Costa Goldfields
  - Pappose Tarplant
  - Vernal Pool Shrimp Habitat
  - Johnny Jump-Ups
  - California Red-legged Frog
  - Elderberry Shrub
  - CA Tiger Salamander Habitat
  - Calippe Silverspot Butterfly Habitat
- Other Map Features
  - Truck Scales Footprint
  - Contra Costa Goldfields Critical Habitat

Legend Key:

- Perennial Drainage
- Perennial Marsh
- Riparian Woodland
- Row Crops
- Ruderal
- Seasonal Drainage
- Seasonal Wetland
- Upland Scrub
- Valley Oak Woodland
- Culvert

Note: Culverts are denoted by dashed lines.

Aerial Photo Source: NAIP 2010

200 Feet
0 100 200

Johnny Jump-Ups
"2004 Surveys"
Johnny Jump-Ups
"2012 Surveys"

Contra Costa Goldfields
Critical Habitat

Special-Status Species Occurrences
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Vernal Pool Shrimp Habitat
- Johnny Jump-Ups
- California Red-legged Frog
- Elderberry Shrub
- CA Tiger Salamander Habitat
- Calippe Silverspot Butterfly Habitat

Other Map Features
- Truck Scales Footprint
- Contra Costa Goldfields Critical Habitat

Note: Culverts are denoted by dashed lines.
FIGURE 3.3-2c
Biological Resources
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

Permanent Impact  Temporary Impact

Alkali Seasonal Marsh  Perennial Drainage
Blue Oak Woodland  Perennial Marsh
Developed/graded  Riparian Woodland
Eucalyptus  Row Crops
Landscape  Ruderal
Live Oak Woodland  Seasonal Drainage
Non-native Annual Grassland  Seasonal Wetland
Open Water  Upland Scrub
Orchard/Vineyard  Valley Oak Woodland
Other Woodland  Culvert

Special-Status Species Occurrences
Alkali Milkvetch  Saline Clover
Contra Costa Goldfields  former Streamside Daisy
Pappose Tarplant  California Red-legged Frog
Vernal Pool Shrimp Habitat  Elderberry Shrub
Johnny Jump-Ups  CA Tiger Salamander Habitat
"2012 Surveys"  Callippe Silverspot Butterfly Habitat
"2004 Surveys"

Other Map Features
Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Aerial Photo Source: NAIP 2010
All vegetation east of Ramsey Rd. lies within the Susun Marsh Secondary Management Area.
All vegetation east of Ramsey Rd. lies within the Susuin Marsh Secondary Management Area.
Some resources may have been altered since the mapping was completed.
FIGURE 3.3-2c

Biological Resources
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

Permanent Impact
Temporary Impact

Alkali Seasonal Marsh
Perennial Drainage
Blue Oak Woodland
Perennial Marsh
Developed/graded
Riparian Woodland
Eucalyptus
Row Crops
Landscaed
Ruderal
Live Oak Woodland
Seasonal Drainage
Non-native Annual Grassland
Seasonal Wetland
Open Water
Orchard/Vineyard
Upland Scrub
Other Woodland
Valky Oak Woodland
Native Tree

Special-Status Species Occurrences

Alkali Milkvetch
Saline Clover
Contra Costa Goldfields
former Streamside Daisy
Pappose Tarplant
California Red-legged Frog
Vernal Pool Shrimp Habitat
Elderberry Shrub
Johnny Jump-Ups
CA Tiger Salamander Habitat
"2012 Surveys"
Callippe Silverspot Butterfly Habitat
"2004 Surveys"
Contra Costa Goldfields
Critical Habitat

Other Map Features

Note: Culverts are denoted by dashed lines.
FIGURE 3.3-2c
Biological Resources
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

Permanent Impact
Temporary Impact
Alkali Seasonal Marsh
Blue Oak Woodland
Developed/graded
Eucalyptus
Landscaped
Live Oak Woodland
Non-native Annual Grassland
Open Water
Orchard/Vineyard
Other Woodland
Native Tree
Special-Status Species Occurrences
Alkali Milkvetch
Contra Costa Goldfields
Pappose Tarplant
Vernal Pool Shrimp Habitat
Johnny Jump-Ups "2012 Surveys"
Johnny Jump-Ups "2004 Surveys"
Other Map Features
Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Aerial Photo Source: NAIP 2010

Sheet 16 of 35
FIGURE 3.3-2c
Biological Resources
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact

Alkali Seasonal Marsh
Blue Oak Woodland
Developed/graded
Eucalyptus
Lanscaped
Live Oak Woodland
Non-native Annual Grassland
Open Water
Orchard/Vineyard
Other Woodland
Native Tree
Special-Status Species Occurrences
Alkali Milkvetch
Contra Costa Goldfields
Pappose Tarplant
Vernal Pool Shrimp Habitat
Johnny Jump-Ups
Other Woodland

Legend Continued
Native Tree
Saline Clover
former Streamside Daisy
California Red-legged Frog
Elderberry Shrub
CA Tiger Salamander Habitat
Callippe Silverspot Butterfly Habitat
Contra Costa Goldfields Butterfly Habitat

Legend Continued
Other Map Features
Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Aerial Photo Source: NAIP 2010

Sheet 17 of 35
FIGURE 3.3-2c
Biological Resources
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

Permanent Impact
Temporary Impact

Alkali Seasonal Marsh
Perennial Drainage
Blue Oak Woodland
Perennial Marsh
Developed/graded
Riparian Woodland
Eucalyptus
Row Crops
Landscaped
Ruderal
Live Oak Woodland
Seasonal Drainage
Open Water
Seasonal Wetland
Non-native Annual Grassland
Upland Scrub
Valley Oak Woodland
Orchard/Vineyard
Native Tree
Other Woodland
Culvert

Special-Status Species Occurrences

Alkali Milkvetch
Saline Clover
Contra Costa Goldfields
former Streamside Daisy
Pappoose Tarplant
California Red-legged Frog
Vernal Pool Shrimp Habitat
Elderberry Shrub
Johnny Jump-Ups
CA Tiger Salamander Habitat
Johnny Jump-Ups
Callippe Silverspot Butterfly Habitat
"2012 Surveys"
Contra Costa Goldfields
"2004 Surveys"
Critical Habitat

Other Map Features

Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Aerial Photo Source: NAIP 2010

Sheet 18 of 35
Resource mapping represents existing conditions after the completion of the Fairfield Corporate Commons Project, which does not appear on the underlying aerial photography.

Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation Project, which does not appear on the underlying aerial photography.
Resource mapping represents existing conditions after the completion of the Fairfield Corporate Commons Project, which does not appear on the underlying aerial photography.

FIGURE 3.3-2c
Biological Resources Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

Permanent Impact
Temporary Impact

Alkali Seasonal Marsh
Blue Oak Woodland
Developed/graded
Eucalyptus
Landsacped
Live Oak Woodland
Non-native Annual Grassland
Open Water
Orchard/Vineyard
Other Woodland
Native Tree
Special-Status Species Occurrences

Alkali Milkvetch
Contra Costa Goldfields
Pappose Tarplant
Vernal Pool Shrimp Habitat
Johnny Jump-Ups
Johnny Jump-Ups
Johnny Jump-Ups
Johnny Jump-Ups

Perennial Drainage
Perennial Marsh
Riparian Woodland
Row Crops
Ruderal
Seasonal Drainage
Seasonal Wetland
Open Water
Upland Scrub
Valley Oak Woodland

Eucalyptus

Contra Costa Goldfields
Critical Habitat

Callippe Silverspot Butterfly Habitat
Contra Costa Goldfields
CA Tiger Salamander Habitat
California Red-legged Frog
former Streamside Daisy
Elderberry Shrub
Salamander Habitat

Johnny Jump-Ups
2012 Surveys
2004 Surveys

Vernal Pool Shrimp Habitat

Callippe Silverspot

Other Map Features
Truck Scales Footprint

Note: Culverts are denoted by dashed lines.
Resource mapping represents existing conditions after the completion of the Fairfield Corporate Commons Project, which does not appear on the underlying aerial photography.

Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation Project, which does not appear on the underlying aerial photography.
Resource mapping represents existing conditions after the completion of the Fairfield Corporate Commons Project, which does not appear on the underlying aerial photography.

Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation Project, which does not appear on the underlying aerial photography.
Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation Project, which does not appear on the underlying aerial photography.
Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation Project, which does not appear on the underlying aerial photography.
Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation Project, which does not appear on the underlying aerial photography.
FIGURE 3.3-2c

Biological Resources
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

Permanent Impact

Temporary Impact

Alkali Seasonal Marsh

Perennial Drainage

Blue Oak Woodland

Perennial Marsh

Developed/graded

Piedmont Woodland

Eucalyptus

Ordinary Wetland

Landscape

Riparian Woodland

Live Oak Woodland

Semi-natural Wetland

Non-native Annual Grassland

Seasonal Drainage

Open Water

Seasonal Wetland

Orchard/Vineyard

Other Woodland

Other Map Features

Legend

Special-Status Species Occurrences

Alkali Milkvetch

Saline Clover

Contra Costa Goldfields

former Streamside Daisy

Pappose Tarplant

California Red-legged Frog

Vernal Pool Shrimp Habitat

Elderberry Shrub

Johnny Jump-Ups

CA Tiger Salamander Habitat

Johnny Jump-Ups

Callippe Silverspot Butterfly Habitat

Other Map Features

Contra Costa Goldfields Critical Habitat

Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Legend:

L Natural Tree

S Native Tree

V Vernal Pool Shrimp Habitat

J Johnny Jump-Ups

C Culvert

Other Map Features

Truck Scales Footprint

Legend:

Permanent Impact

Temporary Impact

Alkali Seasonal Marsh

Perennial Drainage

Blue Oak Woodland

Perennial Marsh

Developed/graded

Piedmont Woodland

Eucalyptus

Ordinary Wetland

Landscape

Riparian Woodland

Live Oak Woodland

Semi-natural Wetland

Non-native Annual Grassland

Seasonal Drainage

Open Water

Seasonal Wetland

Orchard/Vineyard

Other Woodland

Other Map Features

Legend:

Special-Status Species Occurrences

Alkali Milkvetch

Saline Clover

Contra Costa Goldfields

former Streamside Daisy

Pappose Tarplant

California Red-legged Frog

Vernal Pool Shrimp Habitat

Elderberry Shrub

Johnny Jump-Ups

CA Tiger Salamander Habitat

Johnny Jump-Ups

Callippe Silverspot Butterfly Habitat

Other Map Features

Contra Costa Goldfields Critical Habitat

Truck Scales Footprint

Note: Culverts are denoted by dashed lines.
Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation Project, which does not appear on the underlying aerial photography.

**FIGURE 3.3-2c**

Biological Resources

Alternative C

I-80 / I-680 / SR 12 Interchange Project

Solano County, California

**Legend**

- **Permanent Impact**
- **Temporary Impact**

- Alkali Seasonal Marsh
- Blue Oak Woodland
- Developed/graded
- Eucalyptus
- Live Oak Woodland
- Open Water
- Orchard/Vineyard
- Other Woodland
- Native Tree
- Perennial Drainage
- Perennial Marsh
- Riparian Woodland
- Row Crops
- Ruderal
- Seasonal Drainage
- Seasonal Wetland
- Upland Scrub
- Valley Oak Woodland
- Culvert

**Special-Status Species Occurrences**

- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Vernal Pool Shrimp Habitat
- Johnny Jump-Ups
- Johnny Jump-Ups 2004 Surveys

**Other Map Features**

- Truck Scales Footprint
- CA Tiger Salamander Habitat
- Contra Costa Goldfields Butterfly Habitat

**Note:** Culverts are denoted by dashed lines.
FIGURE 3.3-2c
Biological Resources
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

- **Permanent Impact**
- **Temporary Impact**

- Alkali Seasonal Marsh
- Blue Oak Woodland
- Developed/graded
- Eucalyptus
- Landscaped
- Live Oak Woodland
- Non-native Annual Grassland
- Open Water
- Orchard/Vineyard
- Other Woodland
- Perennial Drainage
- Perennial Marsh
- Riparian Woodland
- Row Crops
- Ruderal
- Seasonal Drainage
- Seasonal Wetland
- Upland Scrub
- Valley Oak Woodland
- Culvert

Special-Status Species Occurrences
- Alkali Milkvetch
- Contra Costa Goldfields
- Papoose Tarplant
- Vernal Pool Shrimp Habitat
- Johnny Jump-Ups

Other Map Features
- Truck Scales Footprint
- CA Tiger Salamander Habitat
- Callippe Silverspot Butterfly Habitat
- Contra Costa Goldfields Critical Habitat

Legend Notes:
- Culverts are denoted by dashed lines.

Aerial Photo Source: NAIP 2010

Sheet 29 of 35
FIGURE 3.3-2c
Biological Resources
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
Permanent Impact
Temporary Impact

Alkali Seasonal Marsh
Blue Oak Woodland
Developed/graded
Eucalyptus
Lanscaped
Live Oak Woodland
Non-native Annual Grassland
Open Water
Orchard/Vineyard
Other Woodland

Native Tree
Special-Status Species Occurrences
Alkali Milkvetch
Contra Costa Goldfields
Pappose Tarplant
Vernal Pool Shrimp Habitat
Johnny Jump-Ups "2012 Surveys"
Johnny Jump-Ups "2004 Surveys"

Other Map Features
Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Aerial Photo Source: NAIP 2010

Perennial Drainage
Perennial Marsh
Riparian Woodland
Row Crops
Ruderal
Seasonal Drainage
Seasonal Wetland
Upland Scrub
Valley Oak Woodland
Culvert

Vernal Pool Shrimp Habitat

Contra Costa Goldfields
Critical Habitat

California Red-legged Frog
former Streamside Daisy
Elderberry Shrub
CA Tiger Salamander Habitat
Callippe Silverspot Butterfly Habitat

Johnny Jump-Ups "2004 Surveys"

CA Tiger Salamander Habitat

\*2012 Surveys"
FIGURE 3.3-2c
Biological Resources
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

Permanent Impact
Temporary Impact

Alkali Seasonal Marsh
Blue Oak Woodland
Developed/graded
Eucalyptus
Landscape
Live Oak Woodland
Non-native Annual Grassland
Open Water
Orchard/Vineyard
Other Woodland
Native Tree
Special Status Species Occurrences
Alkali Milkvetch
Contra Costa Goldfields
Pappose Tarplant
Vernal Pool Shrimp Habitat
Johnny Jump-Ups 2012 Surveys
Johnny Jump-Ups 2004 Surveys
Johnny Jump-Ups 2012 Surveys
Native Tree
Perennial Drainage
Perennial Marsh
Riparian Woodland
Row Crops
Ruderal
Seasonal Drainage
Seasonal Wetland
Upland Scrub
Valley Oak Woodland
Culvert
Saline Clover
former Streamside Daisy
California Red-legged Frog
Elderberry Shrub
CA Tiger Salamander Habitat
Callippe Silverspot
Butterfly Habitat
Contra Costa Goldfields
Critical Habitat

Other Map Features
Truck Scales Footprint

Note: Culverts are denoted by dashed lines.
Some resources have been altered since the mapping was completed.

**FIGURE 3.3-2c**

Biological Resources
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

**Legend**
- Permanent Impact
- Temporary Impact

**Biological Resources**
- Alkali Seasonal Marsh
- Blue Oak Woodland
- Developed/graded
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Open Water
- Orchard/Vineyard
- Other Woodland
- Native Tree
- Special Status Species Occurrences
  - Alkali Milkvetch
  - Contra Costa Goldfields
  - Pappose Tarplant
  - Vernal Pool Shrimp Habitat
  - Johnny Jump-Ups
  - Critical Habitat

**Other Map Features**
- Truck Scales Footprint

**Note:** Culverts are denoted by dashed lines.

Aerial Photo Source: NAIP 2010

Sheet 32 of 35
FIGURE 3.3-2c
Biological Resources
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact

- Alkali Seasonal Marsh
- Blue Oak Woodland
- Developed/graded
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Open Water
- Perennial Drainage
- Perennial Marsh
- Riparian Woodland
- Row Crops
- Ruderal
- Seasonal Drainage
- Seasonal Wetland
- Upland Scrub
- Valley Oak Woodland

- Native Tree
- Other Woodland

- Culvert

Special-Status Species Occurrences
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Vernal Pool Shrimp Habitat
- Johnny Jump-Ups 2012 Surveys
- Johnny Jump-Ups 2004 Surveys

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.
Figure 3.3-2d
Biological Resources
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

Legend

- Permanent Impact
- Temporary Impact

- Alkali Seasonal Marsh
- Blue Oak Woodland
- Developed/graded*
- Eucalyptus
- Landscaped
- Live Oak Woodland
- Non-native Annual Grassland
- Open Water
- Orchard/Vineyard
- Other Woodland
- Alkali Seasonal Marsh
- Blue Oak Woodland
- Developed/graded*
- Eucalyptus
- Landscaped
- Live Oak Woodland
- Non-native Annual Grassland
- Open Water
- Orchard/Vineyard
- Other Woodland
- Alkali Seasonal Marsh
- Blue Oak Woodland
- Developed/graded*
- Eucalyptus
- Landscaped
- Live Oak Woodland
- Non-native Annual Grassland
- Open Water
- Orchard/Vineyard
- Other Woodland

Special-Status Species Occurrences

- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- Vernal Pool Shrimp Habitat
- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- Vernal Pool Shrimp Habitat

Note: Culverts are denoted by dashed lines.

*Only sheets containing Phase 1 project elements appear in this series. Remaining sheets are available in Figure 3.3-2c. Additionally, the base habitat mapping is displayed for the full build alternative, and is grayed out where not impacted by Phase 1.
Figure 3.3-2d
Biological Resources
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact

Alkali Seasonal Marsh
Blue Oak Woodland
Developed/graded*
Eucalyptus
Landscaped
Live Oak Woodland
Non-native Annual Grassland
Open Water
Orchard/Vineyard
Other Woodland

Special-Status Species Occurrences
- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- Vernal Pool Shrimp Habitat

Note: Culverts are denoted by dashed lines.

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Figure 3.3-2d
Biological Resources
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

Legend

- Permanent Impact
- Temporary Impact

Special-Status Species Occurrences
- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Vernal Pool Shrimp Habitat

Note: Culverts are denoted by dashed lines.

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Figure 3.3-2d
Biological Resources
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact

Alkali Seasonal Marsh
Blue Oak Woodland
Developed/graded*
Eucalyptus
Landscaped
Live Oak Woodland
Non-native Annual Grassland
Open Water
Orchard/Vineyard
Other Woodland

Legend
- Native Tree
- Culvert

Special-Status Species Occurrences
- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Vernal Pool Shrimp Habitat
- Elderberry Shrub
- Saline Clover
- former Streamside Daisy
- Native Tree
- Culvert

Note: Culverts are denoted by dashed lines.

Only sheets containing Phase 1 project elements appear in this series. Remaining sheets are available in Figure 3.3-2c. Additionally, the base habitat mapping is displayed for the full build alternative, and is grayed out where it is not impacted by Phase 1.
Figure 3.3-2d
Biological Resources
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

Legend

Permanent Impact
Temporary Impact

Alkali Seasonal Marsh
Blue Oak Woodland
Developed/graded*
Eucalyptus
Landscaped
Live Oak Woodland
Non-native Annual Grassland
Open Water
Orchard/Vineyard
Other Woodland

Native Tree
Culvert

Special-Status Species Occurrences
Elderberry Shrub
Alkali Milkvetch
Contra Costa Goldfields
Pappose Tarplant
Vernal Pool Shrimp Habitat

Note: Culverts are denoted by dashed lines.

* Only sheets containing Phase 1 project elements appear in this series. Remaining sheets are available in Figure 3.3-2c. Additionally, the base habitat mapping is displayed for the full build alternative, and is grayed out where it is not impacted by Phase 1.
Figure 3.3-2d
Biological Resources
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact

- Alkali Seasonal Marsh
- Blue Oak Woodland
- Developed/graded*
- Eucalyptus
- Landscaped
- Live Oak Woodland
- Non-native Annual Grassland
- Open Water
- Orchard/Vineyard
- Other Woodland
- Native Tree
- Culvert

Special-Status Species Occurrences
- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Vernal Pool Shrimp Habitat

Note: Culverts are denoted by dashed lines.

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Some resources may have been altered since the mapping was completed.

**Legend**
- Permanent Impact
- Temporary Impact
- Alkali Seasonal Marsh
- Blue Oak Woodland
- Developed/graded*
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Open Water
- Orchard/Vineyard
- Other Woodland
- Native Tree
- Culvert

**Special-Status Species Occurrences**
- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant

**Note:** Culverts are denoted by dashed lines.

Figure 3.3-2d
Biological Resources
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

- Alkali Seasonal Marsh
- Blue Oak Woodland
- Developed/graded*
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Open Water
- Orchard/Vineyard
- Other Woodland
- Native Tree
- Culvert

**Legend**
- Permanent Impact
- Temporary Impact

- Alkali Seasonal Marsh
- Blue Oak Woodland
- Developed/graded*
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Open Water
- Orchard/Vineyard
- Other Woodland
- Native Tree
- Culvert

**Special-Status Species Occurrences**
- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- Vernal Pool Shrimp Habitat

**Note:** Culverts are denoted by dashed lines.

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Legend

- **Permanent Impact**
- **Temporary Impact**

- Alkali Seasonal Marsh
- Blue Oak Woodland
- Developed/graded*
- Eucalyptus
- Landscaped
- Live Oak Woodland
- Non-native Annual Grassland
- Open Water
- Orchard/Vineyard
- Other Woodland

- Native Tree
- Culvert

Special-Status Species Occurrences

- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
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Figure 3.3-2d
Biological Resources
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

Some resources may have been altered since the mapping was completed.

Note: Culverts are denoted by dashed lines.

Special-Status Species Occurrences
- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Vernal Pool Shrimp Habitat

Legend
- Permanent Impact
- Temporary Impact
- Alkali Seasonal Marsh
- Blue Oak Woodland
- Developed/graded*
- Eucalyptus
- Landscaped
- Live Oak Woodland
- Non-native Annual Grassland
- Open Water
- Orchard/Vineyard
- Other Woodland
- Native Tree
- Culvert

Perennial Drainage
Perennial Marsh
Riparian Woodland
Row Crops
Ruderal
Seasonal Drainage
Seasonal Wetland
Upland Scrub
Valley Oak Woodland

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Aerial Photo Source: Aerials Express 2008 (© 2010 i-cubed)

Sheets 9 of 35

* Only sheets containing Phase 1 project elements appear in this series. Remaining sheets are available in Figure 3.3-2c. Additionally, the base habitat mapping is displayed for the full build alternative, and is grayed out wherever it is not impacted by Phase 1.
Figure 3.3-2d
Biological Resources
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact

Alkali Seasonal Marsh
Blue Oak Woodland
Developed/graded*
Eucalyptus
Landscaped
Live Oak Woodland
Non-native Annual Grassland
Open Water
Orchard/Vineyard
Other Woodland

Native Tree
Culvert

Special-Status Species Occurrences
- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- Vernal Pool Shrimp Habitat

Note: Culverts are denoted by dashed lines.

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Some resources may have been altered since the mapping was completed.
Figure 3.3-2d
Biological Resources
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

Legend

-Permanent Impact
/Temporary Impact

Alkali Seasonal Marsh
Blue Oak Woodland
Developed/graded*
Eucalyptus
Landscaped
Live Oak Woodland
Non-native Annual Grassland
Open Water
Orchard/Vineyard
Other Woodland

Native Tree
cCulvert

Special-Status Species Occurrences

Alkali Milkvetch
Contra Costa Goldfields
Pappose Tarplant

nm
Native Tree

/ Culvert

Note: Culverts are denoted by dashed lines.

Special-Status Species Occurrences

- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- Vernal Pool Shrimp Habitat

Permanent Impact
Temporary Impact

Alkali Seasonal Marsh
Blue Oak Woodland
Developed/graded*
Eucalyptus
Landscaped
Live Oak Woodland
Non-native Annual Grassland
Open Water
Orchard/Vineyard
Other Woodland

Native Tree

/ Culvert

Note: Culverts are denoted by dashed lines.

Special-Status Species Occurrences

- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- Vernal Pool Shrimp Habitat

Legend

-Permanent Impact
/Temporary Impact

Alkali Seasonal Marsh
Blue Oak Woodland
Developed/graded*
Eucalyptus
Landscaped
Live Oak Woodland
Non-native Annual Grassland
Open Water
Orchard/Vineyard
Other Woodland

Native Tree
cCulvert

Special-Status Species Occurrences

- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- Vernal Pool Shrimp Habitat

Note: Culverts are denoted by dashed lines.

Special-Status Species Occurrences

- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- Vernal Pool Shrimp Habitat

Legend

-Permanent Impact
/Temporary Impact

Alkali Seasonal Marsh
Blue Oak Woodland
Developed/graded*
Eucalyptus
Landscaped
Live Oak Woodland
Non-native Annual Grassland
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Other Woodland

Native Tree
cCulvert

Special-Status Species Occurrences

- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
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Special-Status Species Occurrences

- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
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- Saline Clover
- former Streamside Daisy
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Legend

-Permanent Impact
/Temporary Impact

Alkali Seasonal Marsh
Blue Oak Woodland
Developed/graded*
Eucalyptus
Landscaped
Live Oak Woodland
Non-native Annual Grassland
Open Water
Orchard/Vineyard
Other Woodland

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Special-Status Species Occurrences

- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- Vernal Pool Shrimp Habitat

Note: Culverts are denoted by dashed lines.

Special-Status Species Occurrences

- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- Vernal Pool Shrimp Habitat

Legend

-Permanent Impact
/Temporary Impact

Alkali Seasonal Marsh
Blue Oak Woodland
Developed/graded*
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Landscaped
Live Oak Woodland
Non-native Annual Grassland
Open Water
Orchard/Vineyard
Other Woodland

Native Tree
cCulvert

Special-Status Species Occurrences

- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- Vernal Pool Shrimp Habitat

Note: Culverts are denoted by dashed lines.

Special-Status Species Occurrences

- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- Vernal Pool Shrimp Habitat

Legend

-Permanent Impact
/Temporary Impact

Alkali Seasonal Marsh
Blue Oak Woodland
Developed/graded*
Eucalyptus
Landscaped
Live Oak Woodland
Non-native Annual Grassland
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cCulvert

Special-Status Species Occurrences

- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- Vernal Pool Shrimp Habitat

Note: Culverts are denoted by dashed lines.

Special-Status Species Occurrences

- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- Vernal Pool Shrimp Habitat

Legend

-Permanent Impact
/Temporary Impact

Alkali Seasonal Marsh
Blue Oak Woodland
Developed/graded*
Eucalyptus
Landscaped
Live Oak Woodland
Non-native Annual Grassland
Open Water
Orchard/Vineyard
Other Woodland

Native Tree
cCulvert

Special-Status Species Occurrences

- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- Vernal Pool Shrimp Habitat

Note: Culverts are denoted by dashed lines.

Special-Status Species Occurrences

- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- Vernal Pool Shrimp Habitat

Legend

-Permanent Impact
/Temporary Impact

Alkali Seasonal Marsh
Blue Oak Woodland
Developed/graded*
Eucalyptus
Landscaped
Live Oak Woodland
Non-native Annual Grassland
Open Water
Orchard/Vineyard
Other Woodland

Native Tree
cCulvert

Special-Status Species Occurrences

- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
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Note: Culverts are denoted by dashed lines.

Special-Status Species Occurrences

- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- Vernal Pool Shrimp Habitat

Legend

-Permanent Impact
/Temporary Impact

Alkali Seasonal Marsh
Blue Oak Woodland
Developed/graded*
Eucalyptus
Landscaped
Live Oak Woodland
Non-native Annual Grassland
Open Water
Orchard/Vineyard
Other Woodland

Native Tree
cCulvert

Special-Status Species Occurrences

- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- Vernal Pool Shrimp Habitat

Note: Culverts are denoted by dashed lines.

Special-Status Species Occurrences

- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- Vernal Pool Shrimp Habitat

Legend

-Permanent Impact
/Temporary Impact

Alkali Seasonal Marsh
Blue Oak Woodland
Developed/graded*
Eucalyptus
Landscaped
Live Oak Woodland
Non-native Annual Grassland
Open Water
Orchard/Vineyard
Other Woodland

Native Tree
cCulvert

Special-Status Species Occurrences

- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- Vernal Pool Shrimp Habitat

Note: Culverts are denoted by dashed lines.

Special-Status Species Occurrences

- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- Vernal Pool Shrimp Habitat

Legend

-Permanent Impact
/Temporary Impact

Alkali Seasonal Marsh
Blue Oak Woodland
Developed/graded*
Eucalyptus
Landscaped
Live Oak Woodland
Non-native Annual Grassland
Open Water
Orchard/Vineyard
Other Woodland

Native Tree
cCulvert

Special-Status Species Occurrences

- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- Vernal Pool Shrimp Habitat

Note: Culverts are denoted by dashed lines.
Figure 3.3-2d
Biological Resources
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

Legend

Permanent Impact
Temporary Impact

Alkali Seasonal Marsh
Blue Oak Woodland
Developed/graded*
Eucalyptus
Landscaped
Live Oak Woodland
Non-native Annual Grassland
Open Water
Orchard/Vineyard
Other Woodland

Alkali Milkvetch
Contra Costa Goldfields
Pappose Tarplant
Saline Clover
former Streamside Daisy
Elderberry Shrub
Vernal Pool Shrimp Habitat

Special-Status Species Occurrences

Note: Culverts are denoted by dashed lines.

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Note: Culverts are denoted by dashed lines.
**Figure 3.3-2d**

Biological Resources
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

**Legend**

- **Permanent Impact**
- **Temporary Impact**

- Alkali Seasonal Marsh
- Blue Oak Woodland
- Developed/graded*
- Eucalyptus
- Landscaped
- Live Oak Woodland
- Non-native Annual Grassland
- Open Water
- Orchard/Vineyard
- Other Woodland

- Native Tree
- Culvert

**Special-Status Species Occurrences**

- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Poppose Tarplant
- Vernal Pool Shrimp Habitat
- Saline Clover
- former Streamside Daisy

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Legend

- **Permanent Impact**
- **Temporary Impact**

<table>
<thead>
<tr>
<th>Resource Type</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkali Seasonal Marsh</td>
<td>Blue</td>
</tr>
<tr>
<td>Blue Oak Woodland</td>
<td>Purple</td>
</tr>
<tr>
<td>Developed/graduated*</td>
<td>Orange</td>
</tr>
<tr>
<td>Eucalyptus</td>
<td>Green</td>
</tr>
<tr>
<td>Landscaped</td>
<td>Yellow</td>
</tr>
<tr>
<td>Live Oak Woodland</td>
<td>Pink</td>
</tr>
<tr>
<td>Non-native Annual Grassland</td>
<td>Gray</td>
</tr>
<tr>
<td>Open Water</td>
<td>Brown</td>
</tr>
<tr>
<td>Orchard/Vineyard</td>
<td>Red</td>
</tr>
<tr>
<td>Other Woodland</td>
<td>Magenta</td>
</tr>
<tr>
<td>Native Tree</td>
<td>Black</td>
</tr>
<tr>
<td>Culvert</td>
<td>White</td>
</tr>
</tbody>
</table>

Special-Status Species Occurrences

- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- Vernal Pool Shrimp Habitat

Note: Culverts are denoted by dashed lines.
Figure 3.3-2d
Biological Resources
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

Legend

<table>
<thead>
<tr>
<th>Permanent Impact</th>
<th>Temporary Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkali Seasonal Marsh</td>
<td>Perennial Drainage</td>
</tr>
<tr>
<td>Blue Oak Woodland</td>
<td>Perennial Marsh</td>
</tr>
<tr>
<td>Developed/graded*</td>
<td>Riparian Woodland</td>
</tr>
<tr>
<td>Eucalyptus</td>
<td>Row Crops</td>
</tr>
<tr>
<td>Landscaped</td>
<td>Ruderal</td>
</tr>
<tr>
<td>Live Oak Woodland</td>
<td>Seasonal Drainage</td>
</tr>
<tr>
<td>Non-native Annual Grassland</td>
<td>Seasonal Wetland</td>
</tr>
<tr>
<td>Open Water</td>
<td>Upland Scrub</td>
</tr>
<tr>
<td>Orchard/Vineyard</td>
<td>Valley Oak Woodland</td>
</tr>
<tr>
<td>Other Woodyland</td>
<td>Native Tree</td>
</tr>
<tr>
<td>Culvert</td>
<td></td>
</tr>
</tbody>
</table>

Special-Status Species Occurrences

- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Saline Clover
- former Streamside Daisy
- Vernal Pool Shrimp Habitat

Note: Culverts are denoted by dashed lines.

* Only sheets containing Phase 1 project elements appear in this series. Remaining sheets are available in Figure 3.3-2c. Additionally, the base habitat mapping is displayed for the full-build alternative, and the grayed-out areas show the project footprint.
Some resources have been altered since the mapping was completed.
Figure 3.3-2d
Biological Resources
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

Legend

Permanent Impact
Temporary Impact

Alkali Seasonal Marsh
Blue Oak Woodland
Developed/graded*
Eucalyptus
Landscaped
Live Oak Woodland
Non-native Annual Grassland
Open Water
Orchard/Vineyard
Other Woodland

Perennial Drainage
Perennial Marsh
Riparian Woodland
Row Crops
Ruderal
Seasonal Drainage
Seasonal Wetland
Upland Scrub
Valley Oak Woodland

Special-Status Species Occurrences

Elderberry Shrub
Alkali Milkvetch
Contra Costa Goldfields
Pappose Tarplant

Note: Culverts are denoted by dashed lines.

*Only sheets containing Phase 1 project elements appear in this series. Remaining sheets are available in Figure 3.3-2c. Additionally, the base habitat mapping is displayed for the full build alternative, and is grayed out where it is not impacted by Phase 1.
Figure 3.3-2d
Biological Resources
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact

Alkali Seasonal Marsh
Blue Oak Woodland
Developed/graded*
Eucalyptus
Landscaped
Live Oak Woodland
Non-native Annual Grassland
Open Water
Orchard/Vineyard
Other Woodland

Legend
- Native Trees
- Culvert

Special-Status Species Occurrences
- Elderberry Shrub
- Alkali Milkvetch
- Contra Costa Goldfields
- Pappose Tarplant
- Vernal Pool Shrimp Habitat

Note: Culverts are denoted by dashed lines.

*Only sheets containing Phase 1 project elements appear in this series. Remaining sheets are available in Figure 3.3-2c. Additionally, the base habitat mapping is displayed for the full-build alternative, and is grayed out where not impacted by Phase 1.
Figure 3.3-3a
Distribution of Federally Listed Plant Species Within The Project Vicinity

Legend
- Project Footprint
- Project Footprint 5-mile Radius
- CNDDB - Federally Listed Species
- Plants

Source: CNDDB Aug 2011, ESRI 2011
Figure 3.3-3b
Distribution of Federally Listed Animal Species Within The Project Vicinity

Legend
- Project Footprint
- Project Footprint 5-mile Radius
- CNDDB - Federally Listed Species
  - Animals
- Solano Multi-Species HCP
  - Callippe Silverspot Butterfly (8 total)

Sources: CNDDB Aug 2011, ESRI 2011

1 = No CNDDB Occurrences

K: \PROJECTS_1\I80680\02166_02\MAPDOC\EIR_ONLY\FIG_3_3_3B_CNDDB_ANIMALS_20110831.MXD
**FIGURE 3.3-4a**

Resources for California Red-legged Frog
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

 permanent impact
 temporary impact
 California Red-legged
 Frog Critical Habitat
 Culvert
 California Red-legged
 Frog Habitat
 California Red-legged
 Frog Occurrence
 (California Natural
 Diversity Database,
 Aug 2012)

Suitable California Red-legged Frog Aquatic Habitat
(open to wetland aquatic habitat)

Open Water
 Seasonal Drainage
 Perennial Drainage
 Seasonal Wetland
 Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
(within 1 mile of suitable aquatic habitat)

Alkali Seasonal Marsh
 Riparian Woodland
 Blue Oak Woodland
 Eucalyptus
 Live Oak Woodland
 Non-native Annual Grassland
 Other Woodland
 Seasonal Drainage
 Seasonal Wetland
 Other Map Features
 Truck Scales Footprint

Note. Culverts are denoted by dashed lines.

Aerial Photo Source: NAIP 2010

1 too shallow and temporary to provide aquatic habitat

Not Suitable California Red-legged Frog Habitat

Orchard
 Developed/graded
 Row Crops
 Landscaped

** Only sheets containing California Red-legged Frog habitat appear in this series.
 For reference, remaining sheets are available in Figure 3.3-2a.
FIGURE 3.3-4a
Resources for California Red-legged Frog
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

- Permanent Impact
- Temporary Impact
- California Red-legged Frog Critical Habitat
- Culvert
- California Red-legged Frog Occurrence
(California Natural Diversity Database, Aug 2012)

Suitable California Red-legged Frog Aquatic Habitat
(within 1 mile of suitable aquatic habitat)

- Open Water
- Perennial Drainage
- Perennial Marsh
- Seasonal Drainage
- Seasonal Wetland
- Suitable California Red-legged Frog Upland Habitat

Not Suitable California Red-legged Frog Habitat

- Orchard
- Developed/graded*
- Row Crops
- Landscaped
- Alkali Seasonal Marsh
- Riparian Woodland
- Blue Oak Woodland
- Ruderal
- Eucalyptus
- Upland Scrub
- Live Oak Woodland
- Valley Oak Woodland
- Non-native Annual Grassland
- Seasonal Drainage
- Other Woodland
- Seasonal Wetland

Note: Culverts are denoted by dashed lines.

Other Map Features

- Truck Scales Footprint
- Aerial Photo Source: NAIP 2010

* Too shallow and temporary to provide aquatic habitat

** Only sheets containing California Red-legged Frog habitat appear in this series.
For reference, remaining sheets are available in Figure 3.3-2a.

Aerial Photo Source: NAIP 2010

Scale: 200 Feet

Sheet 2 of 35 **
FIGURE 3.3-4a
Resources for California Red-legged Frog
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Occurrence (California Natural Diversity Database, Aug 2012)
- California Red-legged Frog Critical Habitat
- Culvert
- Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Seasonal Drainage
- Perennial Drainage
- Perennial Marsh
- Not Suitable California Red-legged Frog Habitat
- Orchard
- Developed/graded*
- Row Crops
- Landscaped
- Other Map Features
- Truck Scales Footprint

Notes: Culverts are denoted by dashed lines.

Aerial Photo Source: NAIP 2010

* Only sheets containing California Red-legged Frog habitat appear in this series.
For reference, remaining sheets are available in Figure 3.3-2a.
Resources for California Red-legged Frog
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

Permanent Impact
Temporary Impact

California Red-legged Frog Critical Habitat
Culvert

Suitable California Red-legged Frog Aquatic Habitat

Open Water
Perennial Drainage
Perennial Marsh

Suitable California Red-legged Frog Upland Habitat

Alkali Seasonal Marsh
Blue Oak Woodland
Eucalyptus
Live Oak Woodland
Non-native Annual Grassland
Other Woodland
Riparian Woodland
Ruderal
Upland Scrub
Valley Oak Woodland
Seasonal Drainage
Seasonal Wetland

Not Suitable California Red-legged Frog Habitat

Orchard
Developed/graded*
Row Crops
Upland Scrub
Valley Oak Woodland
Non-native
Annual Grassland
Seasonal Drainage
Seasonal Wetland

Other Map Features

Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Resources for California Red-legged Frog
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

Permanent Impact
Temporary Impact

California Red-legged Frog Critical Habitat
Culvert

Suitable California Red-legged Frog Aquatic Habitat

Open Water
Perennial Drainage
Perennial Marsh

Suitable California Red-legged Frog Upland Habitat

Alkali Seasonal Marsh
Blue Oak Woodland
Eucalyptus
Live Oak Woodland
Non-native Annual Grassland
Other Woodland
Riparian Woodland
Ruderal
Upland Scrub
Valley Oak Woodland
Seasonal Drainage
Seasonal Wetland

Not Suitable California Red-legged Frog Habitat

Orchard
Developed/graded*
Row Crops
Upland Scrub
Valley Oak Woodland
Non-native
Annual Grassland
Seasonal Drainage
Seasonal Wetland

Other Map Features

Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Aerial Photo Source: NAIP 2010

* Only sheets containing California Red-legged Frog habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-2a.
State Route 12 West (Jameson Canyon Road)

FIGURE 3.3-4a
Resources for California Red-legged Frog Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
Permanent Impact
Temporary Impact
California Red-legged Frog Critical Habitat
California Red-legged Frog Upland Habitat
Culvert
California Red-legged Frog Occurrence (California Natural Diversity Database, Aug 2012)

Suitable California Red-legged Frog Aquatic Habitat
Open Water
Seasonal Drainage
Perennial Drainage
Seasonal Wetland
Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
Alkali Seasonal Marsh
Riparian Woodland
Blue Oak Woodland
Ruderal
Eucalyptus
Upland Scrub
Live Oak Woodland
Seasonal Drainage
Non-native Annual Grassland
Seasonal Wetland
Other Woodland

Not Suitable California Red-legged Frog Habitat
Orchard
Developed/graded
Row Crops

Other Map Features
Truck Scales Footprint
Other Map Elements

Note: Culverts are denoted by dashed lines.

Aerial Photo Source: NAIP 2010

** Only sheets containing California Red-legged Frog habitat appear in this series.
For reference, remaining sheets are available in Figure 3.3-2a.
FIGURE 3.3-4a

Resources for California Red-legged Frog
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Sheet 6 of 35

Legend

**Permanent Impact**

Temporary Impact:

California Red-legged Frog Critical Habitat

Culvert

California Red-legged Frog Upland Habitat

California Red-legged Frog Occurrence

(California Natural Diversity Database, Aug 2012)

Suitable California Red-legged Frog Aquatic Habitat

(Within 1 mile of suitable aquatic habitat)

Open Water

Seasonal Drainage

Perennial Drainage

Seasonal Wetland

Perennial Marsh

Suitable California Red-legged Frog Upland Habitat

Alkali Seasonal Marsh

Riparian Woodland

Blue Oak Woodland

Ruderal

Eucalyptus

Upland Scrub

Live Oak Woodland

Valley Oak Woodland

Non-native Annual Grassland

Seasonal Drainage

Other Woodland

Seasonal Wetland

Other Map Features

Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Aerial Photo Source: NAIP 2010

** Only sheets containing California Red-legged Frog habitat appear in this series.

For reference, remaining sheets are available in Figure 3.3-2a.

** Too shallow and temporary to provide aquatic habitat.

** Only sheets containing California Red-legged Frog habitat appear in this series.

For reference, remaining sheets are available in Figure 3.3-2a.
FIGURE 3.3-4a
Resources for California Red-legged Frog
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Critical Habitat
- Culvert
- California Red-legged Frog Occurrence
- California Red-legged Frog Habitat
- California Red-legged Frog Upland Habitat

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Seasonal Drainage
- Perennial Drainage
- Seasonal Wetland
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkali Seasonal Marsh
- Riparian Woodland
- Blue Oak Woodland
- Ruderal
- Eucalyptus
- Upland Scrub
- Live Oak Woodland
- Valley Oak Woodland
- Non-native Annual Grassland
- Seasonal Drainage
- Other Woodland
- Seasonal Wetland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Developed/graded
- Row Crops
- Landscaped

Other Map Features
- Truck Scales Footprint
Note: Culverts are denoted by dashed lines.

Aerial Photo Source: NAIP 2010

\*\* Only sheets containing California Red-legged Frog habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-2a.
FIGURE 3.3-4a
Resources for California Red-legged Frog
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

- Permanent Impact
- Temporary Impact
- California Red-legged Frog Critical Habitat
- Culvert
- California Red-legged Frog Occurrence (California Natural Diversity Database, Aug 2012)

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Seasonal Drainage
- Perennial Drainage
- Seasonal Wetland
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkali Seasonal Marsh
- Riparian Woodland
- Blue Oak Woodland
- Ruderal
- Eucalyptus
- Upland Scrub
- Live Oak Woodland
- Valley Oak Woodland
- Seasonal Drainage
- Non-native Annual Grassland
- Seasonal Wetland
- Other Woodland
- Seasonal Wetland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Developed/graded
- Row Crops
- Other Map Features
  - Truck Scales Footprint
  - Note: Culverts are denoted by dashed lines.

Aerial Photo Source: NAIP 2010

Note: Only sheets containing California Red-legged Frog habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-2a.
FIGURE 3.3-4a
Resources for California Red-legged Frog
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact

California Red-legged Frog Critical Habitat
- Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkali Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Developed/graded*
- Row Crops

Other Map Features
- Truck Scales Footprint
- Culvert

Note: Culverts are denoted by dashed lines.

Aerial Photo Source: NAIP 2010

** Only sheets containing California Red-legged Frog habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-2a.

** Only sheets containing California Red-legged Frog habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-2a.
Resource mapping represents existing conditions after the completion of the Fairfield Corporate Commons Project, which does not appear on the underlying areal photography.

FIGURE 3.3-4a
Resources for California Red-legged Frog
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Critical Habitat
- Culvert
- California Red-legged Frog Upland Habitat
- California Red-legged Frog Occurrence (California Natural Diversity Database, Aug 2012)

Suitable California Red-legged Frog Aquatic Habitat
(within 1 mile of suitable aquatic habitat)
- Open Water
- Perennial Drainage
- Perennial Marsh
- Seasonal Drainage
- Seasonal Wetland

Suitable California Red-legged Frog Upland Habitat
- Alkali Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland
- Riparian Woodland
- Ruderal
- Upland Scrub
- Valley Oak Woodland
- Seasonal Drainage
- Seasonal Wetland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Developed/graded
- Row Crops
- Landscaped

Other Map Features
- Truck Scales Footprint
- Culvert

Note: Culverts are denoted by dashed lines.

Aerial Photo Source: NAIP 2010

° Only sheets containing California Red-legged Frog habitat appear in this series.
For reference, remaining sheets are available in Figure 3.3-2a.

Sheet 20 of 35
Resource mapping represents existing conditions after the completion of the Fairfield Corporate Commons Project, which does not appear on the underlying areal photography.
Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation Project, which does not appear on the underlying aerial photography.

Legend
- Permanent Impact
- Temporary Impact:
  - California Red-legged Frog Critical Habitat
  - Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkali Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Developed/graded
- Landscaped

Other Map Features
- Truck Scales Footprint
- Culvert

Aerial Photo Source: NAIP 2010

** Only sheets containing California Red-legged Frog habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-2a.
FIGURE 3.3-4a
Resources for California Red-legged Frog Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

** Only sheets containing California Red-legged Frog habitat appear in this series.
For reference, remaining sheets are available in Figure 3.3-2a.
FIGURE 3.3-4a

Resources for California Red-legged Frog
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

Permanent Impact
Temporary Impact

California Red-legged Frog Critical Habitat

Culvert

California Red-legged Frog Upland Habitat

California Red-legged Frog Occurrence
(California Natural Diversity Database, Aug 2012)

Suitable California Red-legged Frog Aquatic Habitat
(whithin 1 mile of suitable aquatic habitat)

Open Water
Seasonal Drainage
Seasonal Wetland
Perennial Drainage
Perennial Marsh

Suitable California Red-legged Frog Upland Habitat

Alkali Seasonal Marsh
Riparian Woodland
Blue Oak Woodland
Ruderal
Eucalyptus
Upland Scrub
Live Oak Woodland
Valley Oak Woodland
Non-native Annual Grassland
Seasonal Drainage
Other Woodland
Seasonal Wetland

Not Suitable California Red-legged Frog Habitat

Orchard
Developed/graded
Row Crops

Other Map Features

Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Aerial Photo Source: NAIP 2010

Sheet 31 of 35

** Only sheets containing California Red-legged Frog habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-2a.
FIGURE 3.3-4a
Resources for California Red-legged Frog
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Critical Habitat
- Culvert
- California Red-legged Frog Upland Habitat
- California Red-legged Frog Occurrence (California Natural Diversity Database, Aug 2012)

Suitable California Red-legged Frog Aquatic Habitat
(within 1 mile of suitable aquatic habitat)
- Perennial Marsh
- Open Water
- Seasonal Wetland
- Seasonal Drainage

Suitable California Red-legged Frog Upland Habitat
- Perennial Drainage
- Not Suitable California Red-legged Frog Habitat
- Alkali Seasonal Marsh
- Riparian Woodland
- Blue Oak Woodland
- Ruderal
- Eucalyptus
- Upland Scrub
- Live Oak Woodland
- Valley Oak Woodland
- Non-native Annual Grassland
- Seasonal Drainage
- Other Woodland
- Seasonal Wetland\(^1\)

Not Suitable California Red-legged Frog Habitat
- Orchard
- Developed/graded\(^1\)
- Row Crops
- Landscaped

Other Map Features
- Truck Scales Footprint
  Note: Culverts are denoted by dashed lines.

Aerial Photo Source: NAIP 2010

\(^1\) too shallow and temporary to provide aquatic habitat
\(^2\) Only sheets containing California Red-legged Frog habitat appear in this series.
For reference, remaining sheets are available in Figure 3.3-2a
FIGURE 3.3-4a
Resources for California Red-legged Frog
Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Critical Habitat
- California Red-legged Frog Upland Habitat
- California Red-legged Frog Occurrence (California Natural Diversity Database, Aug 2012)

Suitable California Red-legged Frog Aquatic Habitat
(within 1 mile of suitable aquatic habitat)
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkali Seasonal Marsh
- Riparian Woodland
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland
- Seasonal Drainage
- Seasonal Wetland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Developed/graded*
- Row Crops
- Landscaped

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

* Too shallow and temporary to provide aquatic habitat

Aerial Photo Source: NAIP 2010

** Only sheets containing California Red-legged Frog habitat appear in this series.
For reference, remaining sheets are available in Figure 3.3-2a.
FIGURE 3.3-4a
Resources for California Red-legged Frog Alternative B
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

California Red-legged Frog Critical Habitat

Perennial Impact
Temporary Impact

California Red-legged Frog Upland Habitat
California Red-legged Frog Occurrence (California Natural Diversity Database, Aug 2012)

Legend

Permanent Impact
Temporary Impact

California Red-legged Frog Critical Habitat

Suitable California Red-legged Frog Aquatic Habitat

Open Water
Seasonal Drainage
Perennial Drainage
Seasonal Wetland
Perennial Marsh

Not Suitable California Red-legged Frog Habitat

Alkali Seasonal Marsh
Riparian Woodland
Blue Oak Woodland
Upland Scrub
Eucalyptus
Valley Oak Woodland
Live Oak Woodland
Seasonal Drainage
Non-native Annual Grassland
Seasonal Wetland
Other Woodland

Other Map Features

Truck Scales Footprint
Note: Culverts are denoted by dashed lines.
FIGURE 3.3-4b
Resources for California Red-legged Frog
Alternative B, Phase 1
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Upland Habitat
- California Red-legged Frog Critical Habitat (Proposed 2008)
- Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Seasonal Drainage
- Seasonal Wetland
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkali Seasonal Marsh
- Riparian Woodland
- Blue Oak Woodland
- Ruderal
- Eucalyptus
- Upland Scrub
- Live Oak Woodland
- Valley Oak Woodland
- Non-native Annual Grassland
- Seasonal Drainage
- Other Woodland
- Seasonal Wetland

Note: Culverts are denoted by dashed lines.

Other Map Features
- Truck Scales Footprint
- Permanent Impact
- Temporary Impact
- Wolves

Suitable California Red-legged Frog Aquatic Habitat
- Seasonal Drainage
- Seasonal Wetland

Note: All sheets containing California Red-legged Frog habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-2b.

Resources for California Red-legged Frog
Alternative B, Phase 1
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Upland Habitat
- California Red-legged Frog Critical Habitat (Proposed 2008)
- Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Seasonal Drainage
- Seasonal Wetland
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkali Seasonal Marsh
- Riparian Woodland
- Blue Oak Woodland
- Ruderal
- Eucalyptus
- Upland Scrub
- Live Oak Woodland
- Valley Oak Woodland
- Non-native Annual Grassland
- Seasonal Drainage
- Other Woodland
- Seasonal Wetland

Note: Culverts are denoted by dashed lines.

Other Map Features
- Truck Scales Footprint
- Permanent Impact
- Temporary Impact
- Wolves

Suitable California Red-legged Frog Aquatic Habitat
- Seasonal Drainage
- Seasonal Wetland

Note: All sheets containing California Red-legged Frog habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-2b.

Resources for California Red-legged Frog
Alternative B, Phase 1
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Upland Habitat
- California Red-legged Frog Critical Habitat (Proposed 2008)
- Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Seasonal Drainage
- Seasonal Wetland
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkali Seasonal Marsh
- Riparian Woodland
- Blue Oak Woodland
- Ruderal
- Eucalyptus
- Upland Scrub
- Live Oak Woodland
- Valley Oak Woodland
- Non-native Annual Grassland
- Seasonal Drainage
- Other Woodland
- Seasonal Wetland

Note: Culverts are denoted by dashed lines.

Other Map Features
- Truck Scales Footprint
- Permanent Impact
- Temporary Impact
- Wolves

Suitable California Red-legged Frog Aquatic Habitat
- Seasonal Drainage
- Seasonal Wetland

Note: All sheets containing California Red-legged Frog habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-2b.

Resources for California Red-legged Frog
Alternative B, Phase 1
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Upland Habitat
- California Red-legged Frog Critical Habitat (Proposed 2008)
- Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Seasonal Drainage
- Seasonal Wetland
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkali Seasonal Marsh
- Riparian Woodland
- Blue Oak Woodland
- Ruderal
- Eucalyptus
- Upland Scrub
- Live Oak Woodland
- Valley Oak Woodland
- Non-native Annual Grassland
- Seasonal Drainage
- Other Woodland
- Seasonal Wetland

Note: Culverts are denoted by dashed lines.

Other Map Features
- Truck Scales Footprint
- Permanent Impact
- Temporary Impact
- Wolves

Suitable California Red-legged Frog Aquatic Habitat
- Seasonal Drainage
- Seasonal Wetland

Note: All sheets containing California Red-legged Frog habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-2b.
FIGURE 3.3-4b
Resources for California Red-legged Frog
Alternative B, Phase 1
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Habitat
- California Red-legged Frog Occurrence
  (California Natural Diversity Database, Feb 2012)
- Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkalai Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Row Crops
- Developed/graded
- Landscaped

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Permanent Impact Temporary Impact

Legend
- California Red-legged Frog Upland Habitat
- California Red-legged Frog Critical Habitat
  (Proposed 2008)

Suitable California Red-legged Frog Aquatic Habitat
- Seasonal Drainage
- Seasonal Wetland

Suitable California Red-legged Frog Upland Habitat
- Riparian Woodland
- Ruderal
- Upland Scrub
- Valley Oak Woodland
- Seasonal Drainage

Permanently Shallow and Temporary to Provide Aquatic Habitat

Maps are based on California Natural Diversity Database (CNDDB), 2012

Perennial Marsh
Seasonal Wetland

Perennial Drainage
Seasonal Drainage

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkalai Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Row Crops
- Developed/graded
- Landscaped

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Legend
- California Red-legged Frog Aquatic Habitat
- California Red-legged Frog Upland Habitat
- California Red-legged Frog Critical Habitat
  (Proposed 2008)

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkalai Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Row Crops
- Developed/graded
- Landscaped

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Habitat
- California Red-legged Frog Occurrence
  (California Natural Diversity Database, Feb 2012)
- Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkalai Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Row Crops
- Developed/graded
- Landscaped

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Legend
- California Red-legged Frog Aquatic Habitat
- California Red-legged Frog Upland Habitat
- California Red-legged Frog Critical Habitat
  (Proposed 2008)

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkalai Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Row Crops
- Developed/graded
- Landscaped

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Habitat
- California Red-legged Frog Occurrence
  (California Natural Diversity Database, Feb 2012)
- Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkalai Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Row Crops
- Developed/graded
- Landscaped

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Habitat
- California Red-legged Frog Occurrence
  (California Natural Diversity Database, Feb 2012)
- Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkalai Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Row Crops
- Developed/graded
- Landscaped

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Habitat
- California Red-legged Frog Occurrence
  (California Natural Diversity Database, Feb 2012)
- Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkalai Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Row Crops
- Developed/graded
- Landscaped

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Habitat
- California Red-legged Frog Occurrence
  (California Natural Diversity Database, Feb 2012)
- Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkalai Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Row Crops
- Developed/graded
- Landscaped

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Habitat
- California Red-legged Frog Occurrence
  (California Natural Diversity Database, Feb 2012)
- Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkalai Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Row Crops
- Developed/graded
- Landscaped

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Habitat
- California Red-legged Frog Occurrence
  (California Natural Diversity Database, Feb 2012)
- Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkalai Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Row Crops
- Developed/graded
- Landscaped

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Habitat
- California Red-legged Frog Occurrence
  (California Natural Diversity Database, Feb 2012)
- Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkalai Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Row Crops
- Developed/graded
- Landscaped

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Habitat
- California Red-legged Frog Occurrence
  (California Natural Diversity Database, Feb 2012)
- Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkalai Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Row Crops
- Developed/graded
- Landscaped

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Habitat
- California Red-legged Frog Occurrence
  (California Natural Diversity Database, Feb 2012)
- Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkalai Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Row Crops
- Developed/graded
- Landscaped

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Habitat
- California Red-legged Frog Occurrence
  (California Natural Diversity Database, Feb 2012)
- Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkalai Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Row Crops
- Developed/graded
- Landscaped

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Habitat
- California Red-legged Frog Occurrence
  (California Natural Diversity Database, Feb 2012)
- Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkalai Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Row Crops
- Developed/graded
- Landscaped

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.
Resources for California Red-legged Frog
Alternative B, Phase 1
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

FIGURE 3.3-4b

Legend

- Permanent Impact
- Temporary Impact

California Red-legged Frog Upland Habitat
California Red-legged Frog Occurrence (California Natural Diversity Database, Feb 2012)

California Red-legged Frog Critical Habitat (Proposed 2008)

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkali Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Developed/graded
- Row Crops

Other Map Features
- Truck Scales Footprint
  Note: Culverts are denoted by dashed lines.

Aerial Photo Source: NAIP 2010

Note: Culverts are denoted by dashed lines.

* Only sheets containing California Red-legged Frog habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-2b.
Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation Project, which does not appear on the underlying aerial photography.
Figure 3.3-4b
Resources for California Red-legged Frog
Alternative B, Phase 1
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact

California Red-legged Frog Upland Habitat
California Red-legged Frog Occurrence
(California Natural Diversity Database, Feb 2012)

California Red-legged Frog Critical Habitat
(Proposed 2008)

Culvert

Note: Culverts are denoted by dashed lines.

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Seasonal Drainage
- Seasonal Wetland

Suitable California Red-legged Frog Upland Habitat
- Perennial Marsh
- Perennial Drainage
- Perennial Wetland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Developed/graded

Other Map Features
- Truck Scales Footprint
- Landscaped

Aerial Photo Source: NAIP 2010

Legend Notes:
- Shallow and temporary to provide aquatic habitat
- Not suitable within 1 mile of suitable aquatic habitat

For reference, remaining sheets are available in Figure 3.3-2b.
FIGURE 3.3-4b
Resources for California Red-legged Frog
Alternative B, Phase 1
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Upland Habitat
- California Red-legged Frog Occurrence (California Natural Diversity Database, Feb 2012)
- California Red-legged Frog Critical Habitat (Proposed 2008)
- Culvert
- Truck Scales Footprint
- Permanent Impact
- Temporary Impact
- Seasonal Drainage
- Seasonal Wetland
- Perennial Drainage
- Perennial Marsh
- Riparian Woodland
- Ruderal
- Upland Scrub
- Valley Oak Woodland
- Seasonal Drainage
- Seasonal Wetland
- Seasonal Marsh
- Alkali Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland
- Perennial Marsh
- Perennial Drainage
- Open Water
- Suitable California Red-legged Frog Upland Habitat (within 1 mile of suitable aquatic habitat)
- Not Suitable California Red-legged Frog Habitat
- Orchard
- Row Crops
- Developed/graded
- Landscaped
- Truck Scales Footprint
- Note: Culverts are depicted by dashed lines.

Note: Culverts are denoted by dashed lines.

** Only sheets containing California Red-legged Frog habitat appear in this series.
For reference, remaining sheets are available in Figure 3.3-2b.
FIGURE 3.3-4c
Resources for California Red-legged Frog
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Occurrence
- California Red-legged Frog Critical Habitat
- Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Seasonal Drainage
- Seasonal Wetland
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Aikali Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Row Crops
- Developed/graded
- Landscaped

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Aerial Photo Source: Aerials Express 2008 (© 2010 i-cubed)

** Only sheets containing California Red-legged Frog habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-2c.
FIGURE 3.3-4c
Resources for California Red-legged Frog
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

- Permanent Impact
- Temporary Impact
- California Red-legged Frog Occurrence (California Natural Diversity Database, 2012)
- Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Seasonal Drainage
- Seasonal Wetland
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkaline Seasonal Marsh
- Riparian Woodland
- Blue Oak Woodland
- Ruderal
- Eucalyptus
- Upland Scrub
- Blue Oak Woodland
- Valley Oak Woodland
- Non-native Annual Grassland
- Seasonal Drainage
- Other Woodland
- Seasonal Wetland

Non-Suitable California Red-legged Frog Habitat
- Orchard
- Developed/graded
- Row Crops
- Landscaped

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Legend

- Open Water
- Perennial Drainage
- Seasonal Drainage
- Seasonal Wetland
- Perennial Marsh

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Legend

- Open Water
- Perennial Drainage
- Seasonal Drainage
- Seasonal Wetland
- Perennial Marsh

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Legend

- Open Water
- Perennial Drainage
- Seasonal Drainage
- Seasonal Wetland
- Perennial Marsh

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.
FIGURE 3.3-4c
Resources for California Red-legged Frog
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Occurrence (California Natural Diversity Database, 2012)
- Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Seasonal Drainage
- Seasonal Wetland
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
(Extent of suitable aquatic habitat)
- Alkali Seasonal Marsh
- Riparian Woodland
- Blue Oak Woodland
- Ruderal
- Eucalyptus
- Upland Scrub
- Live Oak Woodland
- Valley Oak Woodland
- Non-native
- Annual Grassland
- Seasonal Drainage
- Other Woodland
- Seasonal Wetland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Developed/graded
- Row Crops
- Landscaped

Other Map Features
- Truck Scales Footprint
- Culverts are denoted by dashed lines.

Note: Culverts are denoted by dashed lines.

Aerial Photo Source: Aerials Express 2008 (© 2010 i-cubed)

** Only sheets containing California Red-legged Frog habitat appear in this series.
For reference, remaining sheets are available in Figure 3.3-2c.

Sheet 3 of 35 **
FIGURE 3.3-4c
Resources for California Red-legged Frog
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Occurrence
  (California Natural Diversity Database, 2012)
- Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Seasonal Drainage
- Seasonal Wetland
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkaline Seasonal Marsh
- Riparian Woodland
- Blue Oak Woodland
- Ruderal
- Eucalyptus
- Upland Scrub
- Live Oak Woodland
- Valley Oak Woodland
- Non-native Annual Grassland
- Seasonal Drainage
- Other Woodland
- Seasonal Wetland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Developed/graded
- Row Crops
- Landscaped

Other Map Features
- Truck Scales Footprint
  Note: Culverts are denoted by dashed lines.

Legend
- Suitable California Red-legged Frog Aquatic Habitat
- Suitable California Red-legged Frog Upland Habitat
- Not Suitable California Red-legged Frog Habitat

* New sheets containing California Red-legged Frog habitat appear in this series.
For reference, remaining sheets are available in Figure 3.3-2c.

Note: Culverts are denoted by dashed lines.

Aerial Photo Source: Aerials Express 2008 (© 2010 i-cubed)

200 0 200 100
Feet

West

California Red-legged Frog Aquatic Habitats
Jameson Canyon Creek
OW-8
**FIGURE 3.3-4c**

Resources for California Red-legged Frog

Alternative C

I-80 / I-680 / SR 12 Interchange Project

Solano County, California

Legend

- **Permanent Impact**
- **Temporary Impact**
- **California Red-legged Frog Occurrence** (California Natural Diversity Database, 2012)
- **Culvert**

**Suitable California Red-legged Frog Aquatic Habitat**

- Open Water
- Seasonal Drainage
- Perennial Drainage
- Perennial Marsh

**Suitable California Red-legged Frog Upland Habitat**

- Alkali Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland
- Riparian Woodland
- Ruderal
- Upland Scrub
- Valley Oak Woodland
- Seasonal Drainage
- Seasonal Wetland

**Not Suitable California Red-legged Frog Habitat**

- Orchard
- Developed/graded
- Row Crops
- Landscaped

Other Map Features

- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

**Legend**


**Suitable California Red-legged Frog Aquatic Habitat**

- Open Water
- Seasonal Drainage
- Perennial Drainage
- Perennial Marsh

**Suitable California Red-legged Frog Upland Habitat**

- Alkali Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland
- Riparian Woodland
- Ruderal
- Upland Scrub
- Valley Oak Woodland
- Seasonal Drainage
- Seasonal Wetland

**Not Suitable California Red-legged Frog Habitat**

- Orchard
- Developed/graded
- Row Crops
- Landscaped

Other Map Features

- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

**Legend**

- Permanent Impact
- Temporary Impact
- California Red-legged Frog Occurrence (California Natural Diversity Database, 2012)
- Culvert

**Suitable California Red-legged Frog Aquatic Habitat**

- Open Water
- Seasonal Drainage
- Perennial Drainage
- Perennial Marsh

**Suitable California Red-legged Frog Upland Habitat**

- Alkali Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland
- Riparian Woodland
- Ruderal
- Upland Scrub
- Valley Oak Woodland
- Seasonal Drainage
- Seasonal Wetland

**Not Suitable California Red-legged Frog Habitat**

- Orchard
- Developed/graded
- Row Crops
- Landscaped

Other Map Features

- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

**Legend**

- Permanent Impact
- Temporary Impact
- California Red-legged Frog Occurrence (California Natural Diversity Database, 2012)
- Culvert

**Suitable California Red-legged Frog Aquatic Habitat**

- Open Water
- Seasonal Drainage
- Perennial Drainage
- Perennial Marsh

**Suitable California Red-legged Frog Upland Habitat**

- Alkali Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland
- Riparian Woodland
- Ruderal
- Upland Scrub
- Valley Oak Woodland
- Seasonal Drainage
- Seasonal Wetland

**Not Suitable California Red-legged Frog Habitat**

- Orchard
- Developed/graded
- Row Crops
- Landscaped

Other Map Features

- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.
FIGURE 3.3-4c
Resources for California Red-legged Frog
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
Permanently Impacted	Temporary Impacted
California Red-legged Frog Upland Habitat
California Red-legged Frog Occurrence
(California Natural Diversity Database, 2012)
California Red-legged Frog Critical Habitat
Culvert

Suitable California Red-legged Frog Aquatic Habitat
Open Water	Seasonal Drainage
Perennial Drainage	Seasonal Wetland
Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
(within 1 mile of suitable aquatic habitat)
Alkali Seasonal Marsh	Riparian Woodland
Blue Oak Woodland	Ruderal
Eucalyptus	Upland Scrub
Live Oak Woodland	Valley Oak Woodland
Non-native Annual Grassland	Seasonal Drainage
Other Woodland	Seasonal Wetland

Not Suitable California Red-legged Frog Habitat
Orchard	Developed/graded
Row Crops	Landscaped

Other Map Features
Truck Scales Footprint
Note: Culverts are demoted by dashed lines.

Resources for California Red-legged Frog
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

FIGURE 3.3-4c
Resources for California Red-legged Frog
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
Permanently Impacted	Temporary Impacted
California Red-legged Frog Upland Habitat
California Red-legged Frog Occurrence
(California Natural Diversity Database, 2012)
California Red-legged Frog Critical Habitat
Culvert

Suitable California Red-legged Frog Aquatic Habitat
Open Water	Seasonal Drainage
Perennial Drainage	Seasonal Wetland
Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
(within 1 mile of suitable aquatic habitat)
Alkali Seasonal Marsh	Riparian Woodland
Blue Oak Woodland	Ruderal
Eucalyptus	Upland Scrub
Live Oak Woodland	Valley Oak Woodland
Non-native Annual Grassland	Seasonal Drainage
Other Woodland	Seasonal Wetland

Not Suitable California Red-legged Frog Habitat
Orchard	Developed/graded
Row Crops	Landscaped

Other Map Features
Truck Scales Footprint
Note: Culverts are demoted by dashed lines.

Resources for California Red-legged Frog
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
Permanently Impacted	Temporary Impacted
California Red-legged Frog Upland Habitat
California Red-legged Frog Occurrence
(California Natural Diversity Database, 2012)
California Red-legged Frog Critical Habitat
Culvert

Suitable California Red-legged Frog Aquatic Habitat
Open Water	Seasonal Drainage
Perennial Drainage	Seasonal Wetland
Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
(within 1 mile of suitable aquatic habitat)
Alkali Seasonal Marsh	Riparian Woodland
Blue Oak Woodland	Ruderal
Eucalyptus	Upland Scrub
Live Oak Woodland	Valley Oak Woodland
Non-native Annual Grassland	Seasonal Drainage
Other Woodland	Seasonal Wetland

Not Suitable California Red-legged Frog Habitat
Orchard	Developed/graded
Row Crops	Landscaped

Other Map Features
Truck Scales Footprint
Note: Culverts are demoted by dashed lines.

Resources for California Red-legged Frog
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
Permanently Impacted	Temporary Impacted
California Red-legged Frog Upland Habitat
California Red-legged Frog Occurrence
(California Natural Diversity Database, 2012)
California Red-legged Frog Critical Habitat
Culvert

Suitable California Red-legged Frog Aquatic Habitat
Open Water	Seasonal Drainage
Perennial Drainage	Seasonal Wetland
Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
(within 1 mile of suitable aquatic habitat)
Alkali Seasonal Marsh	Riparian Woodland
Blue Oak Woodland	Ruderal
Eucalyptus	Upland Scrub
Live Oak Woodland	Valley Oak Woodland
Non-native Annual Grassland	Seasonal Drainage
Other Woodland	Seasonal Wetland

Not Suitable California Red-legged Frog Habitat
Orchard	Developed/graded
Row Crops	Landscaped

Other Map Features
Truck Scales Footprint
Note: Culverts are demoted by dashed lines.

Resources for California Red-legged Frog
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
Permanently Impacted	Temporary Impacted
California Red-legged Frog Upland Habitat
California Red-legged Frog Occurrence
(California Natural Diversity Database, 2012)
California Red-legged Frog Critical Habitat
Culvert

Suitable California Red-legged Frog Aquatic Habitat
Open Water	Seasonal Drainage
Perennial Drainage	Seasonal Wetland
Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
(within 1 mile of suitable aquatic habitat)
Alkali Seasonal Marsh	Riparian Woodland
Blue Oak Woodland	Ruderal
Eucalyptus	Upland Scrub
Live Oak Woodland	Valley Oak Woodland
Non-native Annual Grassland	Seasonal Drainage
Other Woodland	Seasonal Wetland

Not Suitable California Red-legged Frog Habitat
Orchard	Developed/graded
Row Crops	Landscaped

Other Map Features
Truck Scales Footprint
Note: Culverts are demoted by dashed lines.

Resources for California Red-legged Frog
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
Permanently Impacted	Temporary Impacted
California Red-legged Frog Upland Habitat
California Red-legged Frog Occurrence
(California Natural Diversity Database, 2012)
California Red-legged Frog Critical Habitat
Culvert

Suitable California Red-legged Frog Aquatic Habitat
Open Water	Seasonal Drainage
Perennial Drainage	Seasonal Wetland
Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
(within 1 mile of suitable aquatic habitat)
Alkali Seasonal Marsh	Riparian Woodland
Blue Oak Woodland	Ruderal
Eucalyptus	Upland Scrub
Live Oak Woodland	Valley Oak Woodland
Non-native Annual Grassland	Seasonal Drainage
Other Woodland	Seasonal Wetland

Not Suitable California Red-legged Frog Habitat
Orchard	Developed/graded
Row Crops	Landscaped

Other Map Features
Truck Scales Footprint
Note: Culverts are demoted by dashed lines.

FIGURE 3.3-4c
Resources for California Red-legged Frog
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
Permanently Impacted	Temporary Impacted
California Red-legged Frog Upland Habitat
California Red-legged Frog Occurrence
(California Natural Diversity Database, 2012)
California Red-legged Frog Critical Habitat
Culvert

Suitable California Red-legged Frog Aquatic Habitat
Open Water	Seasonal Drainage
Perennial Drainage	Seasonal Wetland
Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
(within 1 mile of suitable aquatic habitat)
Alkali Seasonal Marsh	Riparian Woodland
Blue Oak Woodland	Ruderal
Eucalyptus	Upland Scrub
Live Oak Woodland	Valley Oak Woodland
Non-native Annual Grassland	Seasonal Drainage
Other Woodland	Seasonal Wetland

Not Suitable California Red-legged Frog Habitat
Orchard	Developed/graded
Row Crops	Landscaped

Other Map Features
Truck Scales Footprint
Note: Culverts are demoted by dashed lines.

Resources for California Red-legged Frog
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
Permanently Impacted	Temporary Impacted
California Red-legged Frog Upland Habitat
California Red-legged Frog Occurrence
(California Natural Diversity Database, 2012)
California Red-legged Frog Critical Habitat
Culvert

Suitable California Red-legged Frog Aquatic Habitat
Open Water	Seasonal Drainage
Perennial Drainage	Seasonal Wetland
Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
(within 1 mile of suitable aquatic habitat)
Alkali Seasonal Marsh	Riparian Woodland
Blue Oak Woodland	Ruderal
Eucalyptus	Upland Scrub
Live Oak Woodland	Valley Oak Woodland
Non-native Annual Grassland	Seasonal Drainage
Other Woodland	Seasonal Wetland

Not Suitable California Red-legged Frog Habitat
Orchard	Developed/graded
Row Crops	Landscaped

Other Map Features
Truck Scales Footprint
Note: Culverts are demoted by dashed lines.

Resources for California Red-legged Frog
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
Permanently Impacted	Temporary Impacted
California Red-legged Frog Upland Habitat
California Red-legged Frog Occurrence
(California Natural Diversity Database, 2012)
California Red-legged Frog Critical Habitat
Culvert

Suitable California Red-legged Frog Aquatic Habitat
Open Water	Seasonal Drainage
Perennial Drainage	Seasonal Wetland
Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
(within 1 mile of suitable aquatic habitat)
Alkali Seasonal Marsh	Riparian Woodland
Blue Oak Woodland	Ruderal
Eucalyptus	Upland Scrub
Live Oak Woodland	Valley Oak Woodland
Non-native Annual Grassland	Seasonal Drainage
Other Woodland	Seasonal Wetland

Not Suitable California Red-legged Frog Habitat
Orchard	Developed/graded
Row Crops	Landscaped

Other Map Features
Truck Scales Footprint
Note: Culverts are demoted by dashed lines.
Resource mapping represents existing conditions after the completion of the Fairfield Corporate Commons Project, which does not appear on the underlying aerial photography.

Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation Project, which does not appear on the underlying aerial photography.

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Occurrence (California Natural Diversity Database, 2012)
- Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Suitable California Red-legged Frog Upland Habitat

Not Suitable California Red-legged Frog Habitat
- Orchard
- Developed/graded
- Landscaped

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Aerial Photo Source: Aerials Express 2008 (© 2010 i-cubed)

** Only sheets containing California Red-legged Frog habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-2c.
Resource mapping represents existing conditions after the completion of the Fairfield Corporate Commons Project, which does not appear on the underlying aerial photography.

Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation Project, which does not appear on the underlying aerial photography.

**FIGURE 3.3-4c**
Resources for California Red-legged Frog
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend

- Permanent Impact
- Temporary Impact
- California Red-legged Frog Occurrence (California Natural Diversity Database, 2012)
- Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Seasonal Drainage
- Perennial Drainage
- Seasonal Wetland
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkali Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland
- Seasonal Drainage
- Seasonal Wetland

Note: Culverts are denoted by dashed lines.

**Note:** Only sheets containing California Red-legged Frog habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-2c.

Sheet 22 of 35
FIGURE 3.3-4c
Resources for California Red-legged Frog
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Occurrence
  (California Natural Diversity Database, 2012)
- Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Seasonal Drainage
- Seasonal Wetland
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkalai Seasonal Marsh
- Riparian Woodland
- Blue Oak Woodland
- Ruderal
- Eucalyptus
- Upland Scrub
- Live Oak Woodland
- Valley Oak Woodland
- Non-native Annual Grassland
- Seasonal Drainage1
- Other Woodland
- Seasonal Wetland2
  1I is shallow and temporary to provide aquatic habitat

Not Suitable California Red-legged Frog Habitat
- Orchard
- Developed/graded
- Row Crops
- Landscape

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Aerial Photo Source: Aerial Express 2008 (© 2010 i-cubed)

** Only sheets containing California Red-legged Frog habitat appear in this series.
For reference, remaining sheets are available in Figure 3.3-2c.

Sheet 31 of 35
FIGURE 3.3-4c
Resources for California Red-legged Frog Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Occurrence (California Natural Diversity Database, 2012)
- Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkali Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Developed/graded
- Row Crops

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Aerial Photo Source: Aerials Express 2008 (© 2010 i-cubed)

** Only sheets containing California Red-legged Frog habitat appear in this series.
For reference, remaining sheets are available in Figure 3.3-2c.
Resources for California Red-legged Frog
Alternative C
I-80 / I-680 / SR 12 Interchange Project
Solano County, California

FIGURE 3.3-4c
Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Occurrence (California Natural Diversity Database, 2012)
- Culvert

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Seasonal Drainage
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkali Seasonal Marsh
- Riparian Woodland
- Blue Oak Woodland
- Ruderal
- Eucalyptus
- Upland Scrub
- Live Oak Woodland
- Valley Oak Woodland
- Non-native Annual Grassland
- Seasonal Drainage
- Other Woodland
- Seasonal Wetland

Not Suitable California Red-legged Frog Habitat
- Orchard
- Developed/graded
- Row Crops
- Landscaped

Other Map Features
- Truck Scales Footprint

Note: Culverts are denoted by dashed lines.

Perianal Marsh
Seasonal Wetland
Suitable California Red-legged Frog Aquatic Habitat
Open Water
Seasonal Drainage
Perennial Drainage
Perennial Marsh
Suitable California Red-legged Frog Upland Habitat
Alkali Seasonal Marsh
Riparian Woodland
Blue Oak Woodland
Ruderal
Eucalyptus
Upland Scrub
Live Oak Woodland
Valley Oak Woodland
Non-native Annual Grassland
Seasonal Drainage
Other Woodland
Seasonal Wetland
Not Suitable California Red-legged Frog Habitat
Orchard
Developed/graded
Row Crops
Landscaped
Other Map Features
Truck Scales Footprint
Note: Culverts are denoted by dashed lines.

Aerial Photo Source: Aerials Express 2008 (© 2010 i-cubed)

* Only sheets containing California Red-legged Frog habitat appear in this series.
For reference, remaining sheets are available in Figure 3.3-2c.

Sheet 34 of 35
FIGURE 3.3-4d
Resources for California Red-legged Frog
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact

- California Red-legged Frog Upland Habitat
- California Red-legged Frog Critical Habitat
- California Red-legged Frog Occurrence (California Natural Diversity Database, July 2010)

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat (within 1 mile of suitable aquatic habitat)
- Abati Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native
- Annual Grassland
- Other Woodland
- Riparian Woodland
- Upland Scrub
- Valley Oak Woodland
- Seasonal Drainage
- Seasonal Wetland

- too shallow and temporary to provide aquatic habitat

* Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation, Fairfield Corporate Commons, and recent development projects, which do not appear on the underlying aerial photography.

** Only sheets containing Phase 1 elements and California Red-legged Frog habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-4c.
FIGURE 3.3-4d
Resources for California Red-legged Frog
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

Legend

Permanent Impact
Temporary Impact

California Red-legged Frog Upland Habitat
California Red-legged Frog Occurrence
(California Natural Diversity Database, July 2010)

Suitable California Red-legged Frog Aquatic Habitat

Open Water
Perennial Drainage
Seasonal Drainage
Perennial Marsh
Seasonal Wetland

Suitable California Red-legged Frog Upland Habitat

Abiata Seasonal Marsh
Blue Oak woodland
Riparian Woodland
Eucalyptus
Ruderal
Live Oak woodland
Upland Scrub
Valley Oak woodland
Non-native
Annual Grassland
Seasonal Drainage¹
Other Woodland
Seasonal Wetland¹

Aerial Photo Source: NAIP 2010

¹ too shallow and temporary to provide aquatic habitat

* Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation, Fairfield Corporate Center, and recent development projects, which do not appear on the underlying aerial photography.
** Only sheets containing Phase 1 elements and California Red-legged Frog habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-4c.
FIGURE 3.3-4d
Resources for California Red-legged Frog
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Upland Habitat
- California Red-legged Frog Occurrence (California Natural Diversity Database, July 2010)

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Abandoned Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Other Woodland
- Riparian Woodland
- Ruderal
- Upland Scrub
- Valley Oak Woodland
- Annual Grassland
- Seasonal Drainage
- Seasonal Wetland

Legend
- California Red-legged Frog Aquatic Habitat
- California Red-legged Frog Upland Habitat
- California Red-legged Frog Occurrence (California Natural Diversity Database, July 2010)

Notes:
- * Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation, Fairfield Corporate Commons, and recent development projects, which do not appear on the underlying aerial photography.
- ** Only sheets containing Phase 1 elements and California Red-legged Frog habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-4c.
FIGURE 3.3-4d
Resources for California Red-legged Frog
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Abal State Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native
- Other Woodland
- Riparian Woodland
- Ruderal
- Upland Scrub
- Valley Oak Woodland
- Annual Grassland
- Seasonal Drainage
- Seasonal Wetland

* Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation, Fairfield Corporate Center, and recent development projects, which do not appear on the underlying aerial photography.
** Only sheets containing Phase 1 elements and California Red-legged Frog habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-4c.
FIGURE 3.3-4d
Resources for California Red-legged Frog
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact

California Red-legged Frog Upland Habitat
California Red-legged Frog Aquatic Habitat
California Red-legged Frog Critical Habitat

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkali Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland

*Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation, Fairfield Corporate Commons, and recent development projects, which do not appear on the underlying aerial photography.

** Only sheets containing Phase 1 elements and California Red-legged Frog habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-4c.

** California Red-legged Frog Occurrence (California Natural Diversity Database, July 2010)

Mangel's Pond, OW-161, W-150, W-177, and W-178

Suitable California Red-legged Frog Aquatic Habitat

1 too shallow and temporary to provide aquatic habitat

Aerial Photo Source: NAIP 2010

200 400 200 400

Feet

Map prepared by: FILECORP2 / CORPGIS / PROJECTS / I80680 / 02166_02 / MAPDOC / EIR_ONLY / FIG_3_3-4D_ALTCP1_CRLF_20100721.MXD

State Route 12 West (Jameson Canyon Road)
* Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation, Fairfield Corporate Commons, and recent development projects, which do not appear on the underlying aerial photography.

** Only sheets containing Phase 1 elements and California Red-legged Frog habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-4c.
**FIGURE 3.3-4d**

Resources for California Red-legged Frog
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

Legend

- Permanent Impact
- Temporary Impact
- California Red-legged Frog Occurrence (California Natural Diversity Database, July 2010)

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Seasonal Drainage
- Seasonal Wetland
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkali Seasonal Marsh
- Riparian Woodland
- Blue Oak Woodland
- Ruderal
- Eucalyptus
- Upland Scrub
- Live Oak Woodland
- Valley Oak Woodland
- Non-native
- Annual Grassland
- Seasonal Drainage
- Seasonal Wetland
- Other Woodland

California Red-legged Frog Aquatic Habitats
- Jameson Canyon Creek

* Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation, Fairfield Corporate Commons, and recent development projects, which do not appear on the underlying aerial photography.

** Only sheets containing Phase 1 elements and California Red-legged Frog habitat appear in the series. For reference, remaining sheets are available in Figure 3.3-4c.
FIGURE 3.3-4d
Resources for California Red-legged Frog
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog Occurrence (California Natural Diversity Database, July 2010)
- California Red-legged Frog Upland Habitat
- California Red-legged Frog Critical Habitat

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Abiata Seasonal Marsh
- Eucalyptus
- Blue Oak Woodland
- Upland Scrub
- Live Oak Woodland
- Other Woodland
- Riparian Woodland
- Upland Woodland
- Valley Oak Woodland
- Non-native Annual Grassland
- Seasonal Drainage
- Seasonal Wetland
- Ruderal
- Too shallow and temporary to provide aquatic habitat

*Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation, Fairfield Corporate Commons, and recent development projects, which do not appear on the underlying aerial photography.
** Only sheets containing Phase 1 elements and California Red-legged Frog habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-4c.

Aerial Photo Source: NAIP 2010

200 400 600 800 1000 Feet

Sheet 8 of 35**
FIGURE 3.3-4d
Resources for California Red-legged Frog
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

Legend
Permanent Impact
Temporary Impact
California Red-legged Frog Upland Habitat
California Red-legged Frog Occurrence (California Natural Diversity Database, July 2010)

Suitable California Red-legged Frog Aquatic Habitat
(within 1 mile of suitable aquatic habitat)
Open Water
Perennial Drainage
Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
Alkali Seasonal Marsh
Blue Oak Woodland
Eucalyptus
Live Oak Woodland
Non-native Annual Grassland
Other Woodland
Riparian Woodland
Upland Scrub
Valley Oak Woodland
Seasonal Drainage
Seasonal Wetland

* Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation, Fairfield Corporate Commons, and recent development projects, which do not appear on the underlying aerial photography.
** Only sheets containing Phase 1 elements and California Red-legged Frog habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-4c.
*** Too shallow and temporary to provide aquatic habitat.
FIGURE 3.3-4d
Resources for California Red-legged Frog
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

Legend

- Permanent Impact
- Temporary Impact

- California Red-legged Frog Upland Habitat
- California Red-legged Frog Occurrence (California Natural Diversity Database, July 2010)
- California Red-legged Frog Critical Habitat

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Abalti Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland

Legend:
- California Red-legged Frog Upland Habitat
- California Red-legged Frog Occurrence (California Natural Diversity Database, July 2010)
- California Red-legged Frog Critical Habitat

* Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation, Fairfield Corporate Commons and recent development projects, which do not appear on the underlying aerial photography.

** Only sheets containing Phase 1 elements and California Red-legged Frog habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-4c.
FIGURE 3.3-4d
Resources for California Red-legged Frog
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- California Red-legged Frog Upland Habitat
- California Red-legged Frog Critical Habitat
- Temporary Impact

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Seasonal Drainage
- Perennial Drainage
- Perennial Marsh
- Seasonal Wetland

Suitable California Red-legged Frog Upland Habitat
- Alkali Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland
- Riparian Woodland
- Ruderal
- Upland Scrub
- Valley Oak Woodland

Legend
California Red-legged Frog Occurrence (California Natural Diversity Database, July 2010)
California Red-legged Frog Critical Habitat

* Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation, Fairfield Corporate Commons, and recent development projects, which do not appear on the underlying aerial photography.

** Only sheets containing Phase 1 elements and California Red-legged Frog habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-4c.
FIGURE 3.3-4d
Resources for California Red-legged Frog
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact

California Red-legged Frog Upland Habitat
California Red-legged Frog Occurrence
(California Natural Diversity Database, July 2010)

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkali Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Non-native Annual Grassland
- Other Woodland

Legend
California Red-legged Frog Upland Habitat
California Red-legged Frog Occurrence
(California Natural Diversity Database, July 2010)

** Only sheets containing Phase 1 elements and California Red-legged Frog critical habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-4c.

* Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation, Fairfield Corporate Commons, and recent development projects, which do not appear on the underlying aerial photography.

** too shallow and temporary to provide aquatic habitat

Aerial Photo Source: NAIP 2010

Legend
- California Red-legged Frog Aquatic Habitat
- California Red-legged Frog Critical Habitat
- California Red-legged Frog Occurrence
(California Natural Diversity Database, July 2010)

* Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation, Fairfield Corporate Commons, and recent development projects, which do not appear on the underlying aerial photography.

** Only sheets containing Phase 1 elements and California Red-legged Frog critical habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-4c.
FIGURE 3.3-4d
Resources for California Red-legged Frog
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

Legend
- Permanent Impact
- Temporary Impact
- California Red-legged Frog
- California Red-legged Frog Occurrence
- California Red-legged Frog Critical Habitat

Suitable California Red-legged Frog Aquatic Habitat
- Open Water
- Perennial Drainage
- Perennial Marsh

Suitable California Red-legged Frog Upland Habitat
- Alkali Seasonal Marsh
- Blue Oak Woodland
- Eucalyptus
- Live Oak Woodland
- Other Woodland
- Riparian Woodland
- Ruderal
- Upland Scrub
- Valley Oak Woodland
- Annual Grassland
- Seasonal Drainage
- Seasonal Wetland

Legend
- California Red-legged Frog Aquatic Habitat
- California Red-legged Frog Upland Habitat
- California Red-legged Frog Occurrence
- California Red-legged Frog Critical Habitat

- Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation, Fairfield Corporate Commons, and recent development projects, which do not appear on the underlying aerial photography.
- Suitable habitats of the California Red-legged Frog within 1 mile of suitable aquatic habitat are marked.
- Temporary impact areas include those that are too shallow and temporary to provide aquatic habitat.
- Only sheets containing Phase 1 elements and California Red-legged Frog habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-4c.
FIGURE 3.3-4d
Resources for California Red-legged Frog
Alternative C, Phase 1
I-80 / I-680 / SR-12 Interchange Project
Solano County, California

Legend

Permanent Impact
Temporary Impact

California Red-legged Frog Upland Habitat
California Red-legged Frog Critical Habitat

Suitable California Red-legged Frog Aquatic Habitat

Open Water
Perennial Drainage
Perennial Marsh

Suitable California Red-legged Frog Upland Habitat

Alkali Seasonal Marsh
Blue Oak Woodland
Eucalyptus
Live Oak Woodland
Other Woodland

Legend

California Red-legged Frog Occurrence (California Natural Diversity Database, July 2010)
California Red-legged Frog Critical Habitat

* Resource mapping represents existing conditions after the completion of the I-80 Eastbound Cordelia Truck Scales Relocation, Fairfield Corporate Commons, and recent development projects, which do not appear on the underlying aerial photography.

** Only sheets containing Phase 1 elements and California Red-legged Frog habitat appear in this series. For reference, remaining sheets are available in Figure 3.3-4c.
Figure 3.3-6
Contra Costa Goldfields
Critical Habitat

Legend
- Project Footprint
- Contra Costa Goldfields Critical Habitat

Source: USFWS 2011, ESR 2011
Figure 3.3-7
Known Locations and Approximate Range of Callippe Silverspot Butterfly

Legend
- Project Footprint
- Approximate Range for Callippe Silverspot Butterfly
- Solano Multi-Species HCP
  - Callippe Silverspot Butterfly (8 total)

Note: The approximate range is based on historical records and personal observations from Richard Arnold, PhD. It should be noted that the absence of records within or closer to the project site does not necessarily mean that the silverspot is absent there; rather that because of private property and access, entomologists have not been able to survey.

Sources: Solano Multispecies Habitat Conservation Plan 2009, ESRI 2011
Proposed Locations for California Red-Legged Frog
Permanent Exclusion Fence and Undercrossings

LEGEND
- Permanent Impact Area
- Temporary Impact Area
- Exclusion Fence
- California Red-Legged Frog Occurrences

Cattle Undercrossing (15 ft. wide x 14 ft. tall)

60 inch-diameter culvert

Figure 3.3-8
Proposed Locations for California Red-Legged Frog
Permanent Exclusion Fence and Undercrossings
Figure 3.3-9
Surveyed Areas and Documented Occurrences of California Tiger Salamander

DATA SOURCE: Figure modified from Vollmar Consulting, 2010.
Figure 3.3-10
Potential California Tiger Salamander Breeding and Upland Habitat