

Appendix B

Habitat/Land Cover Maps

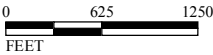
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Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the

L S A



Map Index



SOURCE: Aerial Imagery from ESRI World Imagery Service.

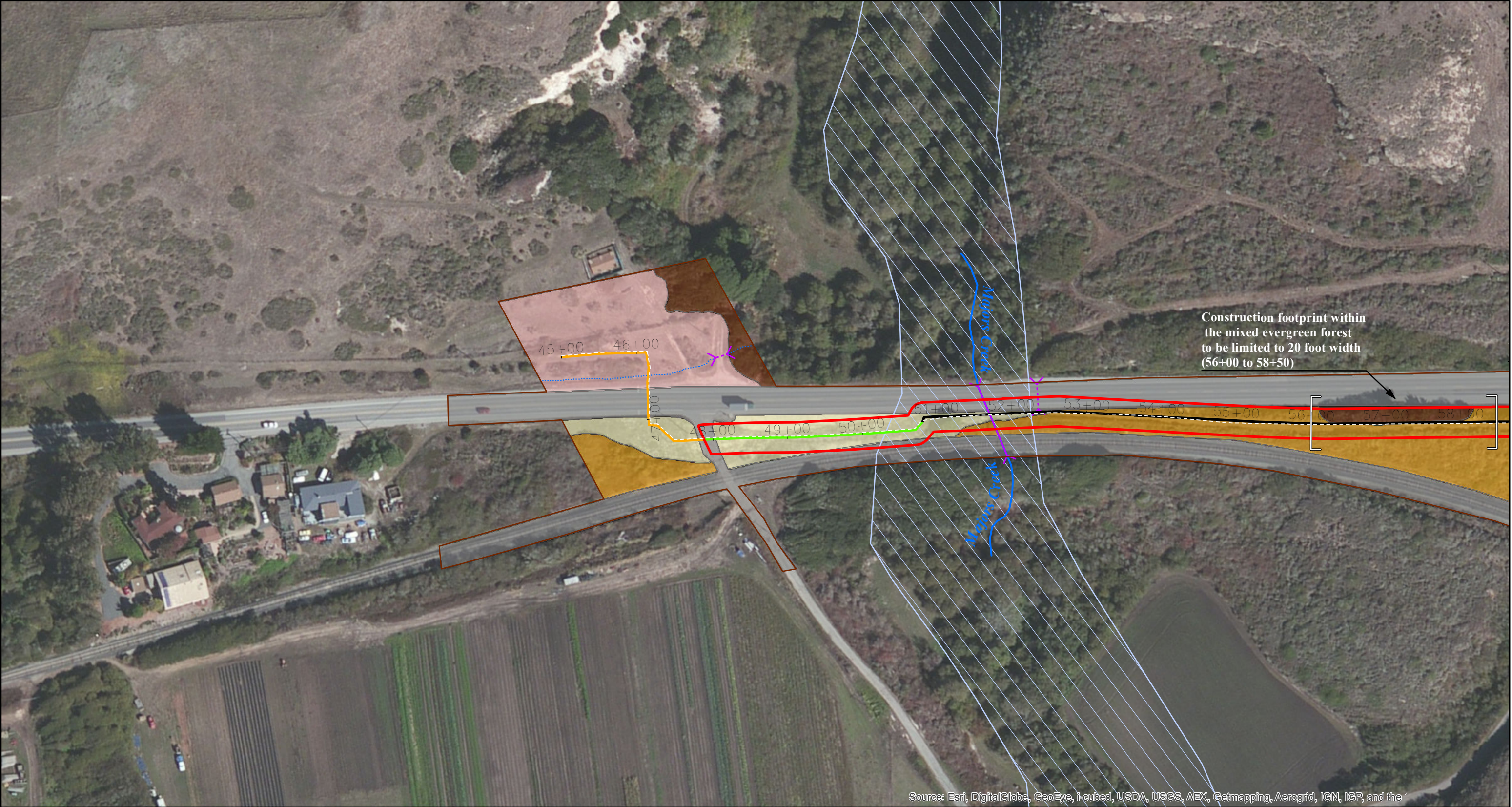
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LEGEND

-  Area of Potential Impact
-  Map Sheet

City of Santa Cruz Water Department
North Coast System Rehabilitation Project -
Coast Segment

Area of Potential Impact
and Map Index



LSA

SOURCE: ESRI World Imagery Service (10/26/2010).
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LEGEND

Area of Potential Impact

Study Corridor

Existing Raw Water Main

100-Year Flood Zone

Activity

abandon and remove above ground pipeline or meter

install new pipeline (trenchless)

install new pipeline (open trenching)

remove existing pipeline and install new pipeline (within casing underneath highway crossing tunnel)

install new pipeline (open trenching - new lateral)

remove above ground pipeline and install new pipeline (open trenching)

use existing pipeline

use existing pipeline (staging and stockpiling along highway shoulder)

Habitats*

Agriculture

Coastal Scrub

Developed

Mixed Evergreen Forest

Non-Native Grassland

Non-Native Grassland/Coastal Terrace Prairie

Riparian Forest and Scrub

Ruderal/ Landscaped/ Ornamental

* Habitats adapted by LSA from City of Santa Cruz Habitat Conservation Plan (HCP)

Potential Jurisdictional Features

Freshwater Pond

Seasonal or Seep Wetland

Stream/Drainage

Ditch

Culvert

Other Features (Non-jurisdictional)

Seasonal Wetland

Irrigation Pond

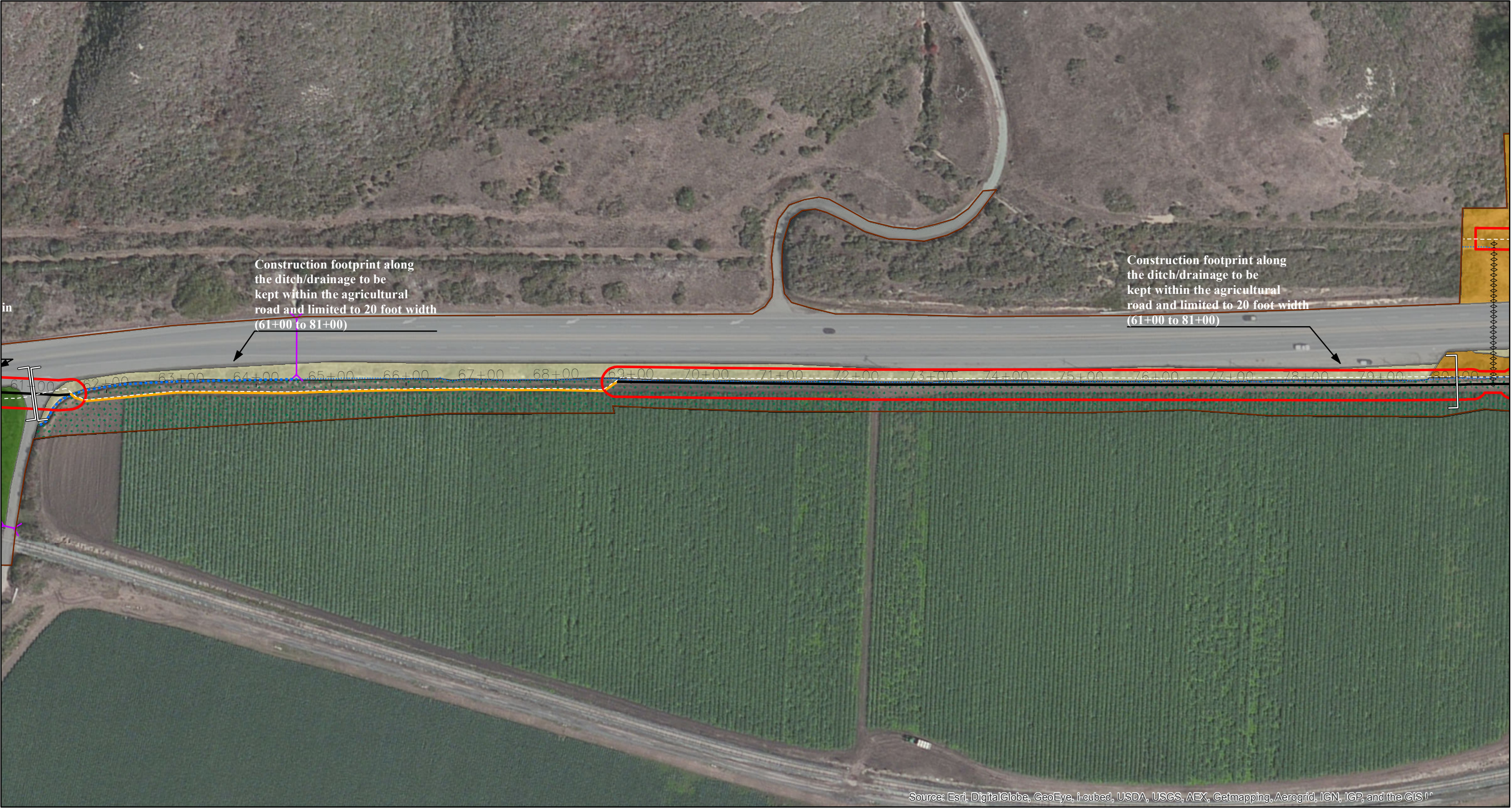
Ditch

Culvert

FIGURE 1 of 15

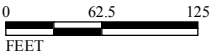
*City of Santa Cruz Water Department
North Coast System Rehabilitation Project -
Coast Segment*

Habitats in Area of Potential Impact



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the GIS I*

LSA



SOURCE: ESRI World Imagery Service (10/26/2010).

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LEGEND

- Area of Potential Impact
- Study Corridor
- Existing Raw Water Main
- 100-Year Flood Zone

Activity

- abandon and remove above ground pipeline or meter
- install new pipeline (trenchless)
- install new pipeline (open trenching)
- remove existing pipeline and install new pipeline (within casing underneath highway crossing tunnel)

*

- install new pipeline (open trenching - new lateral)
- remove above ground pipeline and install new pipeline (open trenching)
- use existing pipeline
- use existing pipeline (staging and stockpiling along highway shoulder)

Habitats*

- Agriculture
- Coastal Scrub
- Developed
- Mixed Evergreen Forest

* Habitats adapted by LSA from City of Santa Cruz Habitat Conservation Plan (HCP)

- Non-Native Grassland
- Non-Native Grassland/ Coastal Terrace Prairie
- Riparian Forest and Scrub
- Ruderal/ Landscaped/ Ornamental

Potential Jurisdictional Features

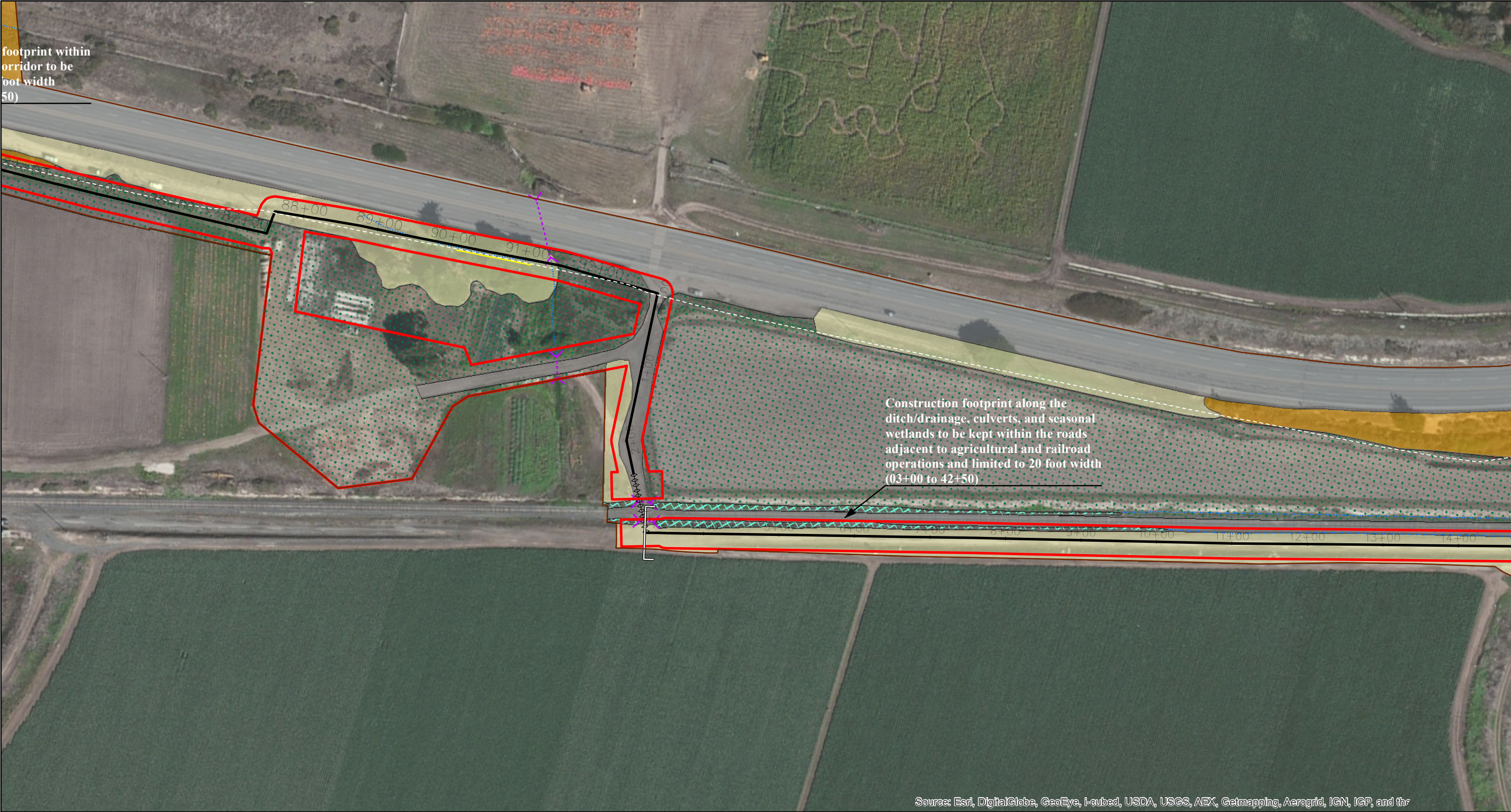
- Freshwater Pond
- Seasonal or Seep Wetland
- Stream/Drainage
- Ditch
- Culvert

Other Features (Non-jurisdictional)

- Seasonal Wetland
- Irrigation Pond
- Ditch
- Culvert

FIGURE 3 of 15

City of Santa Cruz Water Department
North Coast System Rehabilitation Project -
Coast Segment
Habitats in Area of Potential Impact



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Area of Potential Impact

Study Corridor

Existing Raw Water Main

100-Year Flood Zone

Activity

abandon and remove above ground pipeline or meter

◆◆◆◆

install new pipeline (trenchless)

—

install new pipeline (open trenching)

—

remove existing pipeline and install new pipeline (within casing underneath highway crossing tunnel)

install new pipeline (open trenching - new lateral)

●—●

remove above ground pipeline and install new pipeline (open trenching)

—

use existing pipeline

—

use existing pipeline (staging and stockpiling along highway shoulder)

Habitats*

Agriculture

Coastal Scrub

Developed

Mixed Evergreen Forest

Non-Native Grassland

Non-Native Grassland/Coastal Terrace Prairie

Riparian Forest and Scrub

Ruderal/ Landscaped/ Ornamental

Potential Jurisdictional Features

Freshwater Pond

Seasonal or Seep Wetland

Stream/Drainage

Ditch

Culvert

Other Features (Non-jurisdictional)

Seasonal Wetland

Irrigation Pond

Ditch

Culvert

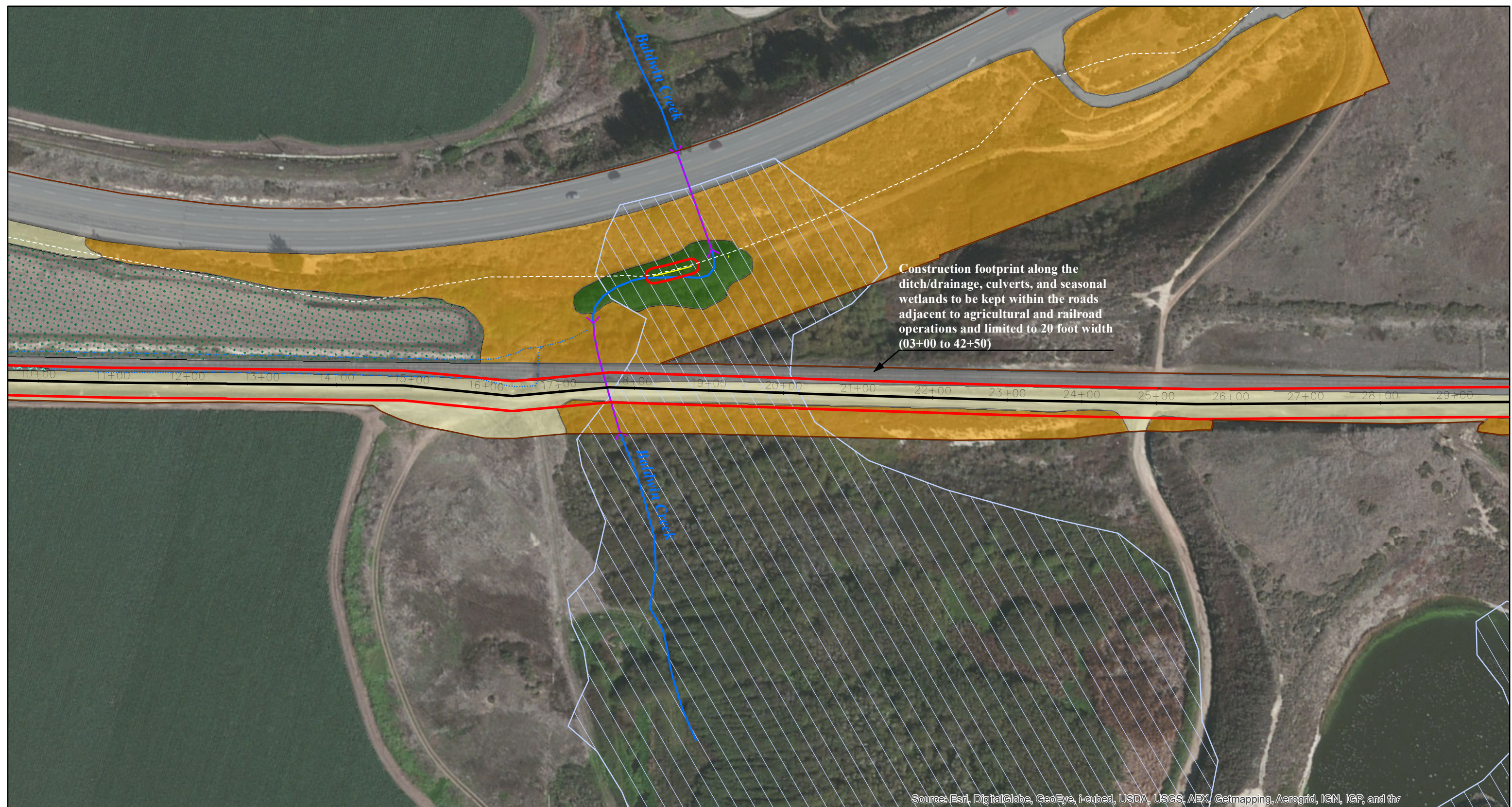
* Habitats adapted by LSA from City of Santa Cruz Habitat Conservation Plan (HCP)

City of Santa Cruz Water Department

North Coast System Rehabilitation Project - Coast Segment

Habitats in Area of Potential Impact

FIGURE 5 of 15







LSA







SOURCE: ESRI World Imagery Service (10/26/2010).





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LEGEND





-  Area of Potential Impact
 Study Corridor
 Existing Raw Water Main
 100-Year Flood Zone

Activity





-  abandon and remove above ground pipeline or meter
-  install new pipeline (trenchless)
-  install new pipeline (open trenching)
-  remove existing pipeline and install new pipeline (within casing underneath highway crossing tunnel)

-  install new pipeline
(open trenching - new lateral)
-  remove above ground pipeline and
install new pipeline (open trenching)
-  use existing pipeline
-  use existing pipeline (staging and
stockpiling along highway shoulder)





Habitats*

-  Agriculture
 Coastal Scrub
 Developed
 Mixed Evergreen Forest





* Habitats adapted by LSA from City of Santa Cruz Habitat Conservation Plan (HCP)

-  Non-Native Grassland
 Non-Native Grassland/
Coastal Terrace Prairie
 Riparian Forest and Scrub
 Ruderal/ Landscaped/
Ornamental

Potential Jurisdictional Features

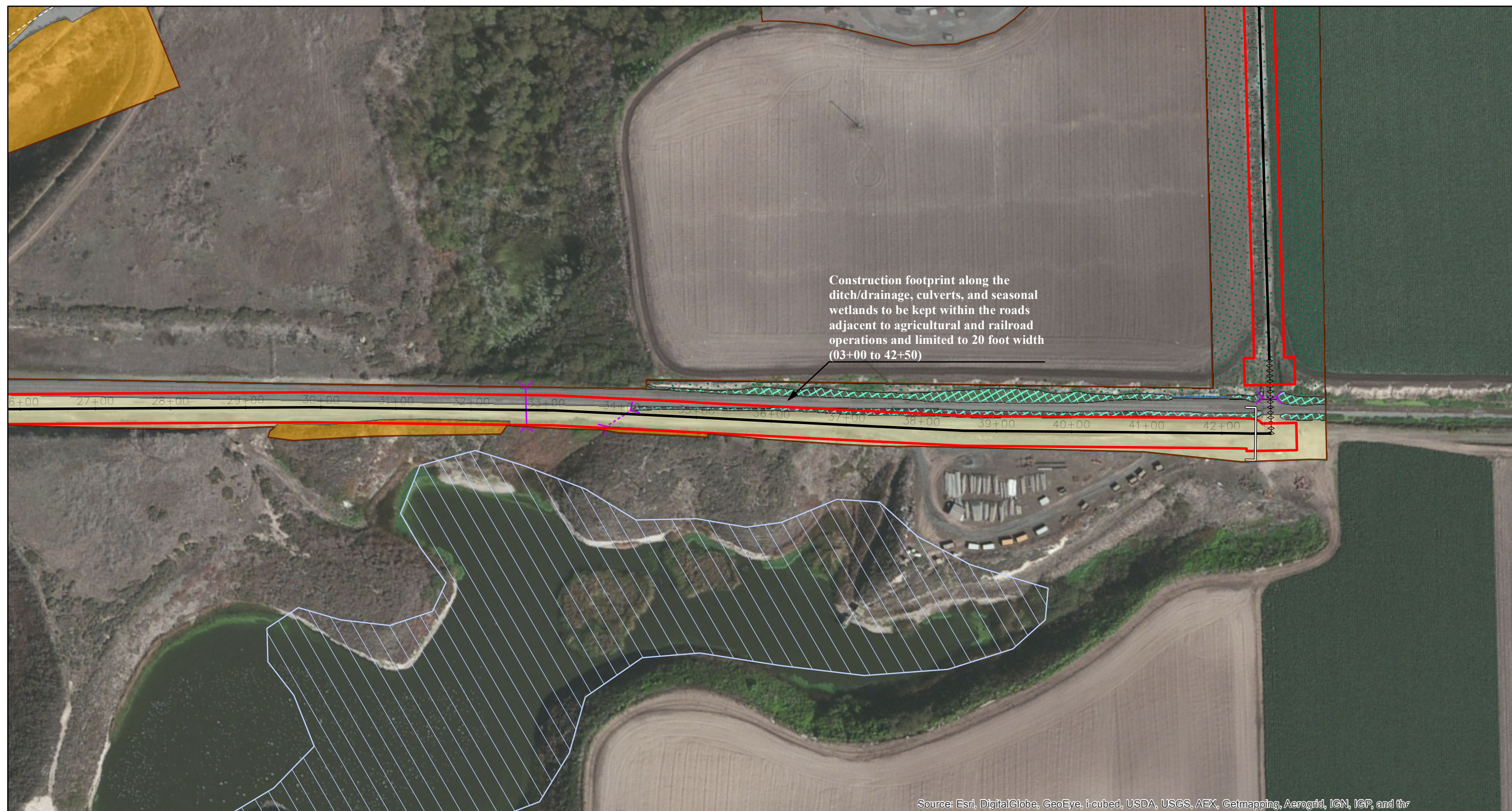
-  Freshwater Pond
 Seasonal or Seep Wetland
 Stream/Drainage
 Ditch
 Culvert

Other Features (Non-jurisdictional)

-  Seasonal Wetland
 Irrigation Pond
 Ditch
 Culvert

*City of Santa Cruz Water Department
North Coast System Rehabilitation Project -
Coast Segment*

Habitats in Area of Potential Impact



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the

LSA







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


SOURCE: ESRI World Imagery Service (10/26/2010).





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LEGEND





-  Area of Potential Impact
 Study Corridor
 Existing Raw Water Main
 100-Year Flood Zone

Activity





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-  use existing pipeline (staging and
stockpiling along highway shoulder)






Habitats*

-  Agriculture
 Coastal Scrub
 Developed
 Mixed Evergreen Forest





* Habitats adapted by LSA from City of Santa Cruz Habitat Conservation Plan (HCP)

-  Non-Native Grassland
 Non-Native Grassland/
Coastal Terrace Prairie
 Riparian Forest and Scrub
 Ruderal/ Landscaped/
Ornamental

Potential Jurisdictional Features

-  Freshwater Pond
 Seasonal or Seep Wetland
 Stream/Drainage
 Ditch
 Culvert

Other Features (Non-jurisdictional)

-  Seasonal Wetland
 Irrigation Pond
 Ditch
 Culvert

City of Santa Cruz Water Department
North Coast System Rehabilitation Project -
Coast Segment





Habitats in Area of Potential Impact







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LEGEND





-  Area of Potential Impact
 Study Corridor
 Existing Raw Water Main
 100-Year Flood Zone

Activity





-  abandon and remove above ground pipeline or meter
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-  install new pipeline (open trenching)
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stockpiling along highway shoulder)






Habitats*

-  Agriculture
 Coastal Scrub
 Developed
 Mixed Evergreen Forest

* Habitats adapted by LSA from City of Santa Cruz Habitat Conservation Plan (HCP)

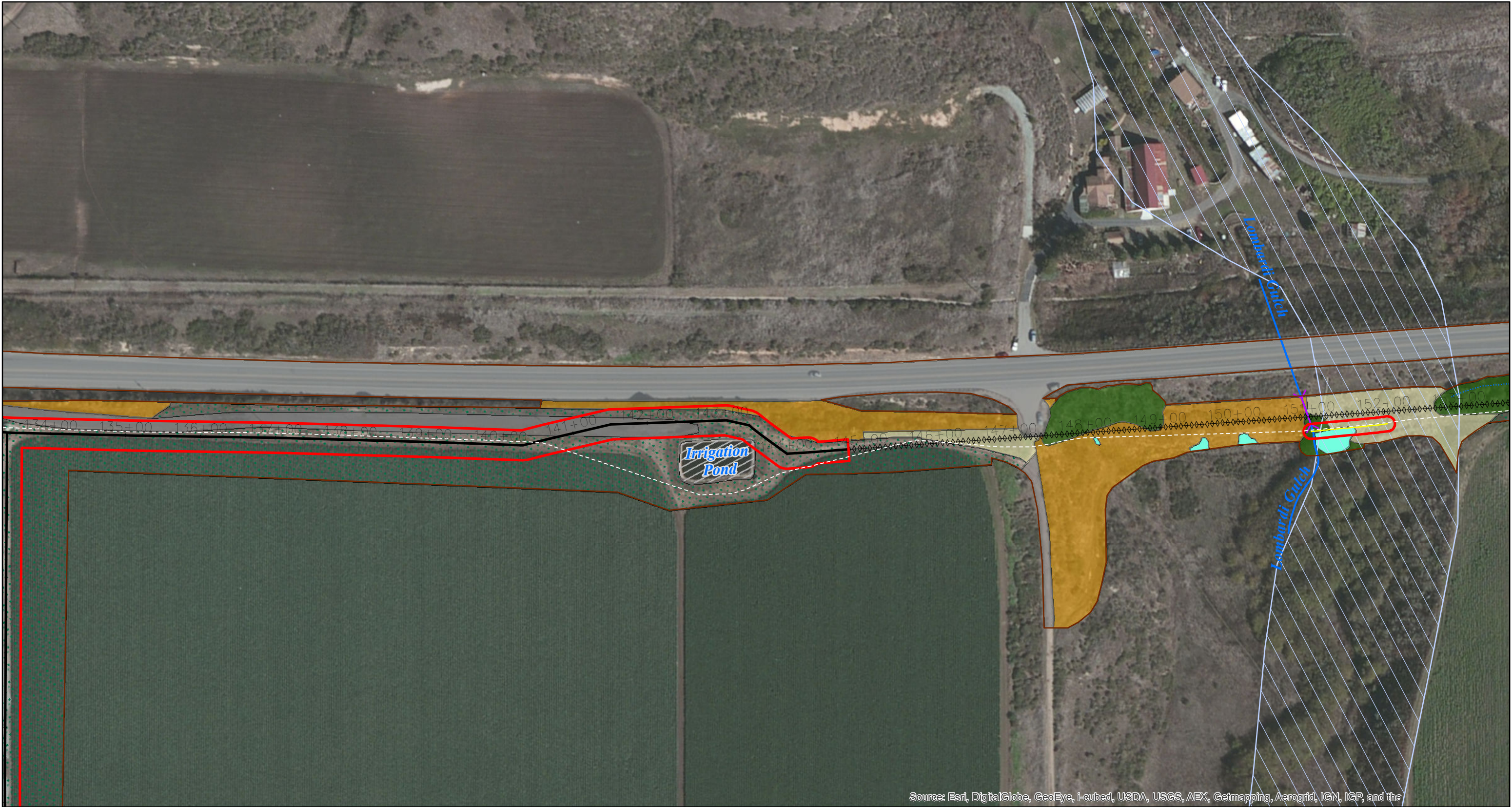
-  Non-Native Grassland
 Non-Native Grassland/
Coastal Terrace Prairie
 Riparian Forest and Scrub
 Ruderal/ Landscaped/
Ornamental

Potential Jurisdictional Features

-  Freshwater Pond
 Seasonal or Seep Wetland
 Stream/Drainage
 Ditch
 Culvert

Other Features (Non-jurisdictional)

-  Seasonal Wetland
 Irrigation Pond
 Ditch
 Culvert



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the

LSA

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FEET

SOURCE: ESRI World Imagery Service (10/26/2010).
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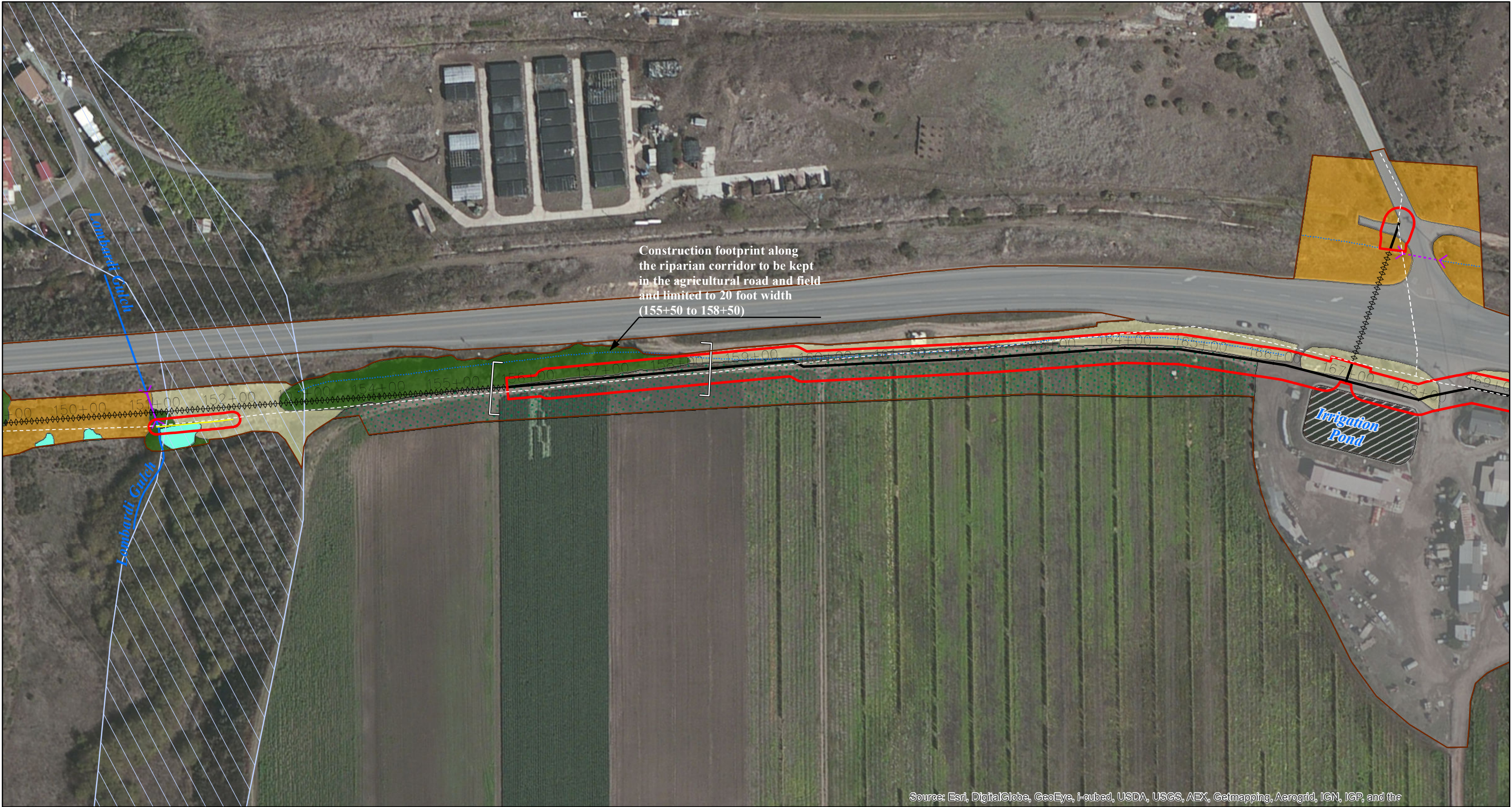
LEGEND

<p> Area of Potential Impact</p> <p> Study Corridor</p> <p> Existing Raw Water Main</p> <p> 100-Year Flood Zone</p>	<p>Activity</p> <p> abandon and remove above ground pipeline or meter</p> <p> install new pipeline (trenchless)</p> <p> install new pipeline (open trenching)</p> <p> remove existing pipeline and install new pipeline (within casing underneath highway crossing tunnel)</p>	<p>*** install new pipeline (open trenching - new lateral)</p> <p>●—● remove above ground pipeline and install new pipeline (open trenching)</p> <p>— use existing pipeline</p> <p>— use existing pipeline (staging and stockpiling along highway shoulder)</p>	<p>Habitats*</p> <p> Agriculture</p> <p> Coastal Scrub</p> <p> Developed</p> <p> Mixed Evergreen Forest</p>	<p> Non-Native Grassland</p> <p> Non-Native Grassland/Coastal Terrace Prairie</p> <p> Riparian Forest and Scrub</p> <p> Ruderal/ Landscaped/ Ornamental</p>	<p>Potential Jurisdictional Features</p> <p> Freshwater Pond</p> <p> Seasonal or Seep Wetland</p> <p>— Stream/Drainage</p> <p>⋯ Ditch</p> <p>⌵ Culvert</p>	<p>Other Features (Non-jurisdictional)</p> <p> Seasonal Wetland</p> <p> Irrigation Pond</p> <p>⋯ Ditch</p> <p>⌵ Culvert</p>
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* Habitats adapted by LSA from City of Santa Cruz Habitat Conservation Plan (HCP)

City of Santa Cruz Water Department
North Coast System Rehabilitation Project -
Coast Segment
Habitats in Area of Potential Impact

FIGURE 10 of 15



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the

LSA

SOURCE: ESRI World Imagery Service (10/26/2010).
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LEGEND

Area of Potential Impact

Study Corridor

Existing Raw Water Main

100-Year Flood Zone

Activity

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Habitats*

Agriculture

Coastal Scrub

Developed

Mixed Evergreen Forest

Non-Native Grassland

Non-Native Grassland/Coastal Terrace Prairie

Riparian Forest and Scrub

Ruderal/ Landscaped/ Ornamental

* Habitats adapted by LSA from City of Santa Cruz Habitat Conservation Plan (HCP)

Potential Jurisdictional Features

Freshwater Pond

Seasonal or Seep Wetland

Stream/Drainage

Ditch

Culvert

Non-Native Grassland

Non-Native Grassland/Coastal Terrace Prairie

Riparian Forest and Scrub

Ruderal/ Landscaped/ Ornamental

Other Features (Non-jurisdictional)

Seasonal Wetland

Irrigation Pond

Ditch

Culvert

Non-Native Grassland

Non-Native Grassland/Coastal Terrace Prairie

Riparian Forest and Scrub

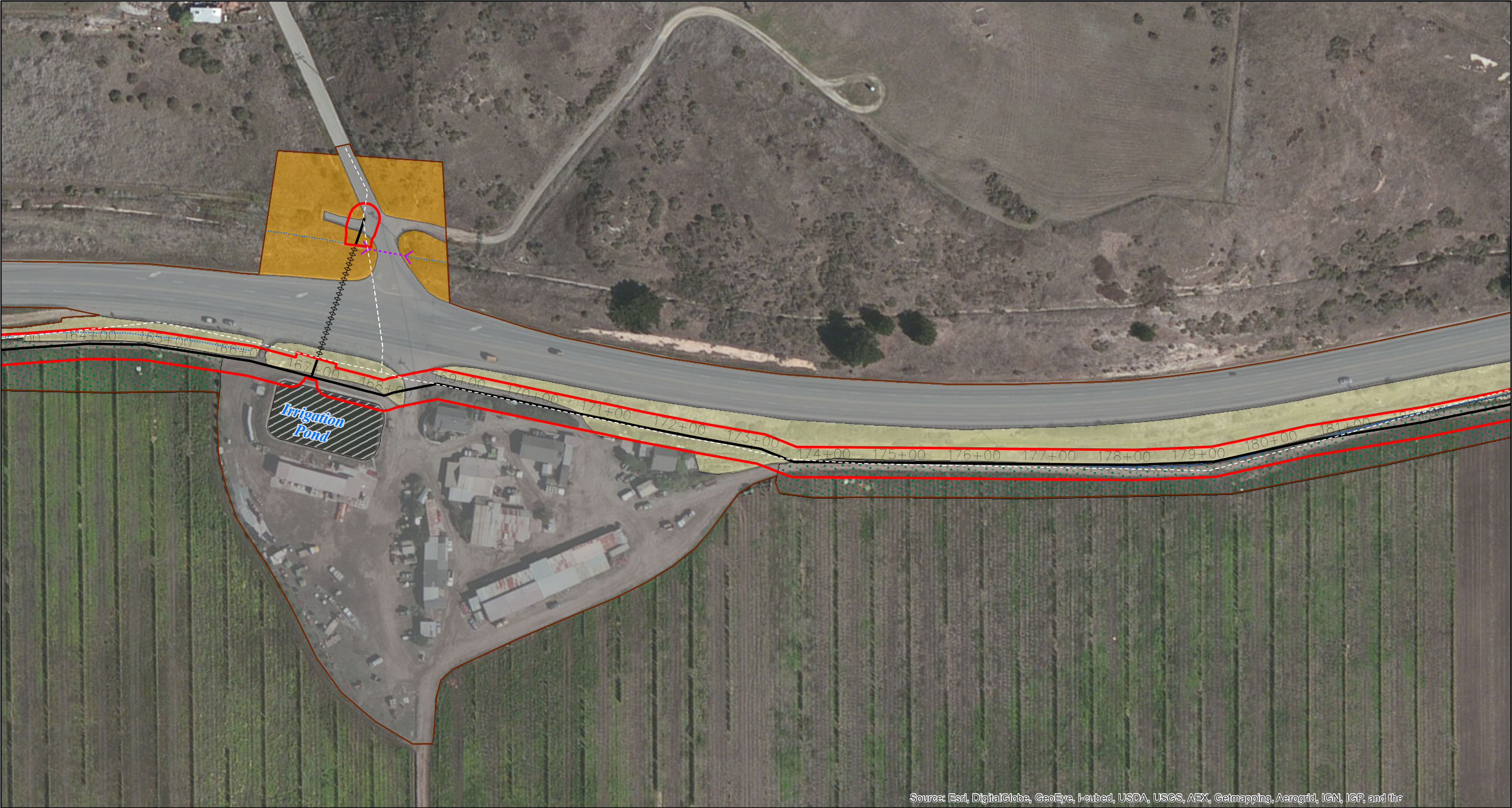
Ruderal/ Landscaped/ Ornamental

FIGURE 11 of 15

City of Santa Cruz Water Department
North Coast System Rehabilitation Project -
Coast Segment

Habitats in Area of Potential Impact

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SOURCE: ESRI World Imagery Service (10/26/2010).
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LEGEND

Area of Potential Impact

Study Corridor

Existing Raw Water Main

100-Year Flood Zone

Activity

abandon and remove above ground pipeline or meter

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install new pipeline (open trenching - new lateral)

remove above ground pipeline and install new pipeline (open trenching)

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use existing pipeline (staging and stockpiling along highway shoulder)

Habitats*

Agriculture

Coastal Scrub

Developed

Mixed Evergreen Forest

Non-Native Grassland

Non-Native Grassland/ Coastal Terrace Prairie

Riparian Forest and Scrub

Ruderal/ Landscaped/ Ornamental

* Habitats adapted by LSA from City of Santa Cruz Habitat Conservation Plan (HCP)

Potential Jurisdictional Features

Freshwater Pond

Seasonal or Seep Wetland

Stream/Drainage

Ditch

Culvert

Other Features (Non-jurisdictional)

Seasonal Wetland

Irrigation Pond

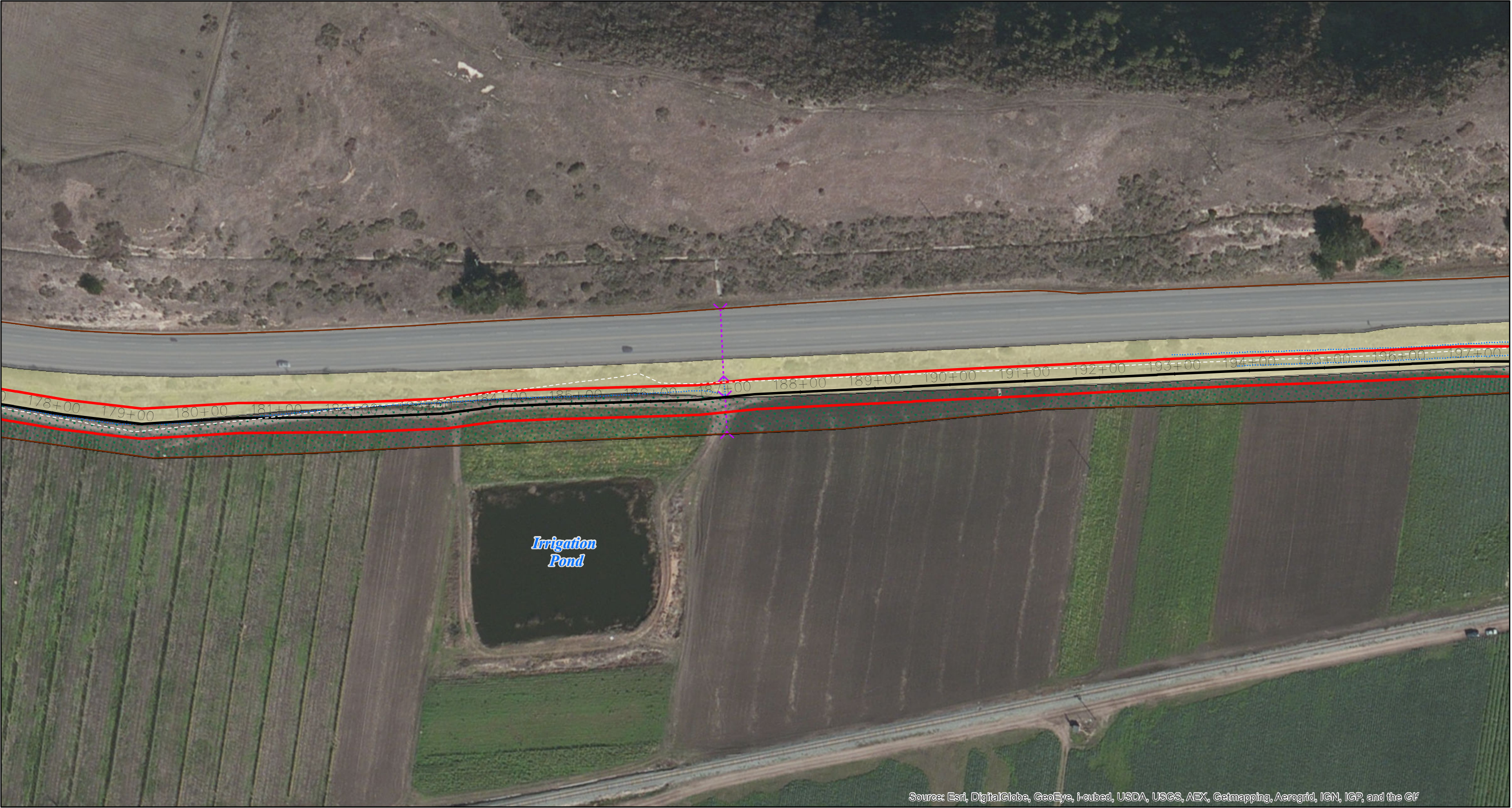
Ditch

Culvert

City of Santa Cruz Water Department
North Coast System Rehabilitation Project - Coast Segment

Habitats in Area of Potential Impact

FIGURE 12 of 15



Source: Esri, DigitalGlobe, GeoEye, i-ubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the Gf

LSA



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FEET

SOURCE: ESRI World Imagery Service (10/26/2010).

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LEGEND

- Area of Potential Impact
- Study Corridor
- Existing Raw Water Main
- 100-Year Flood Zone

Activity

- abandon and remove above ground pipeline or meter
- install new pipeline (trenchless)
- install new pipeline (open trenching)
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*

- install new pipeline (open trenching - new lateral)
- remove above ground pipeline and install new pipeline (open trenching)
- use existing pipeline
- use existing pipeline (staging and stockpiling along highway shoulder)

Habitats*

- Agriculture
- Coastal Scrub
- Developed
- Mixed Evergreen Forest

* Habitats adapted by LSA from City of Santa Cruz Habitat Conservation Plan (HCP)

- Non-Native Grassland
- Non-Native Grassland/ Coastal Terrace Prairie
- Riparian Forest and Scrub
- Ruderal/ Landscaped/ Ornamental

Potential Jurisdictional Features

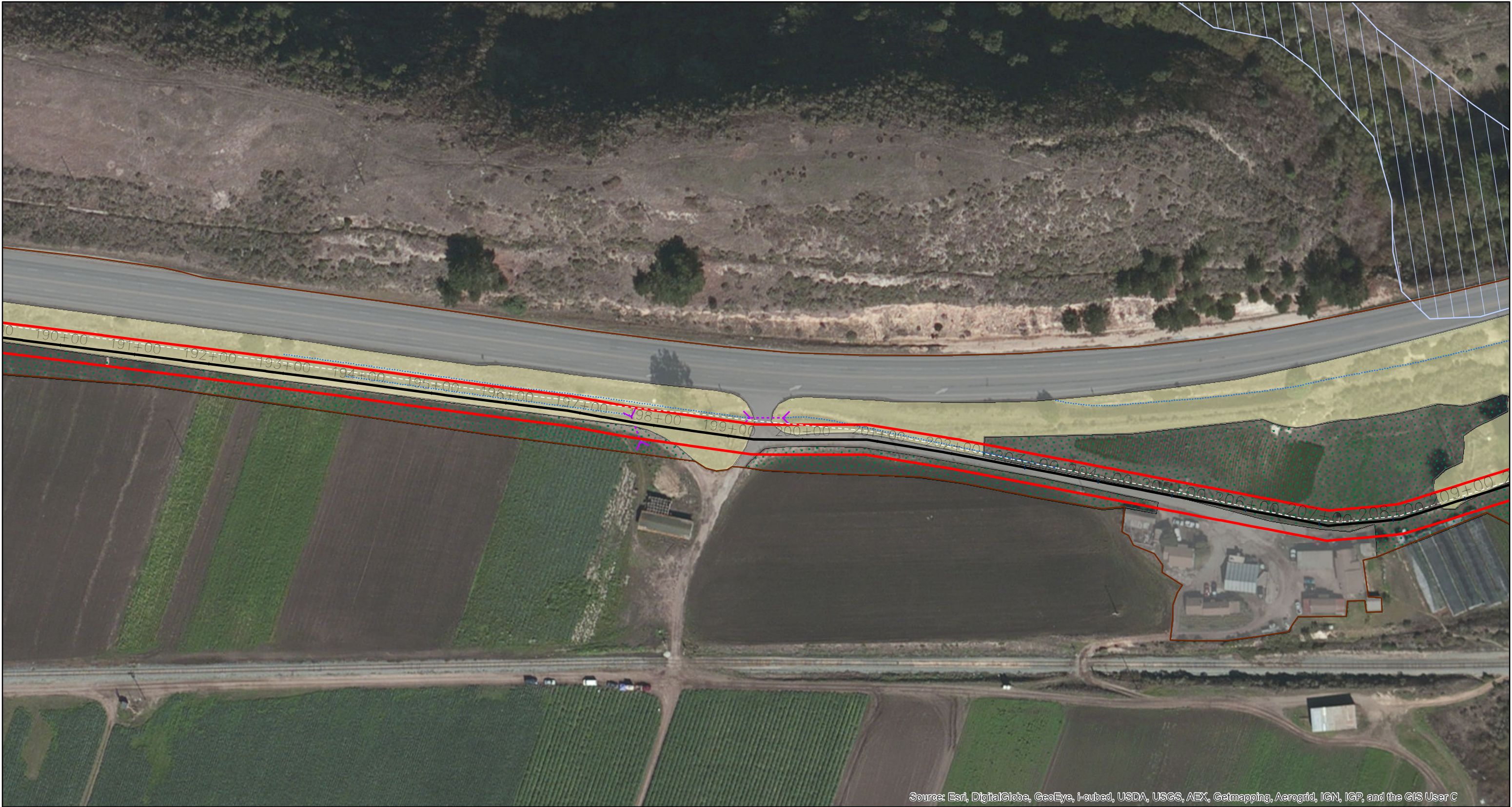
- Freshwater Pond
- Seasonal or Seep Wetland
- Stream/Drainage
- Ditch
- Culvert

Other Features (Non-jurisdictional)

- Seasonal Wetland
- Irrigation Pond
- Ditch
- Culvert

FIGURE 13 of 15

City of Santa Cruz Water Department
North Coast System Rehabilitation Project -
Coast Segment
Habitats in Area of Potential Impact



LSA

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FEET

Area of Potential Impact

Study Corridor

Existing Raw Water Main

100-Year Flood Zone

Activity

abandon and remove above ground pipeline or meter

◆◆◆◆

install new pipeline (trenchless)

install new pipeline (open trenching)

remove existing pipeline and install new pipeline (within casing underneath highway crossing tunnel)

install new pipeline (open trenching - new lateral)

●●

remove above ground pipeline and install new pipeline (open trenching)

use existing pipeline

use existing pipeline (staging and stockpiling along highway shoulder)

Habitats*

Agriculture

Coastal Scrub

Developed

Mixed Evergreen Forest

Non-Native Grassland

Non-Native Grassland/ Coastal Terrace Prairie

Riparian Forest and Scrub

Ruderal/ Landscaped/ Ornamental

Potential Jurisdictional Features

Freshwater Pond

Seasonal or Seep Wetland

Stream/Drainage

Ditch

Culvert

Other Features (Non-jurisdictional)

Seasonal Wetland

Irrigation Pond

Ditch

Culvert

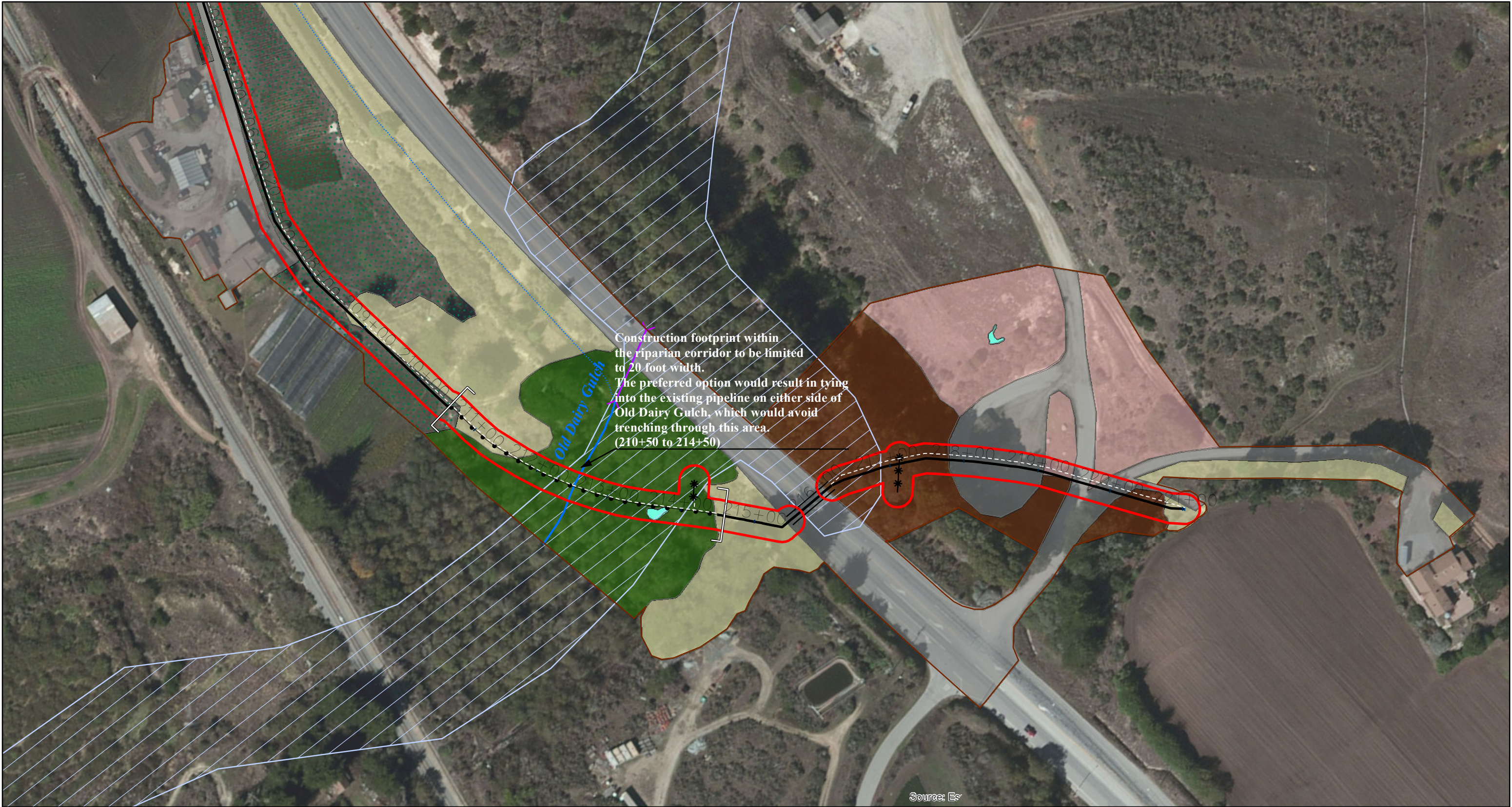
* Habitats adapted by LSA from City of Santa Cruz Habitat Conservation Plan (HCP)

City of Santa Cruz Water Department

North Coast System Rehabilitation Project - Coast Segment

Habitats in Area of Potential Impact

FIGURE 14 of 15



LSA

SOURCE: ESRI World Imagery Service (10/26/2010).
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<p>LEGEND</p> <ul style="list-style-type: none"> Area of Potential Impact Study Corridor Existing Raw Water Main 100-Year Flood Zone 	<p>Activity</p> <ul style="list-style-type: none"> abandon and remove above ground pipeline or meter install new pipeline (trenchless) install new pipeline (open trenching) remove existing pipeline and install new pipeline (within casing underneath highway crossing tunnel) 	<ul style="list-style-type: none"> ** install new pipeline (open trenching - new lateral) ●—● remove above ground pipeline and install new pipeline (open trenching) — use existing pipeline — use existing pipeline (staging and stockpiling along highway shoulder) 	<p>Habitats*</p> <ul style="list-style-type: none"> Agriculture Coastal Scrub Developed Mixed Evergreen Forest <p><small>* Habitats adapted by LSA from City of Santa Cruz Habitat Conservation Plan (HCP)</small></p>	<ul style="list-style-type: none"> Non-Native Grassland Non-Native Grassland/Coastal Terrace Prairie Riparian Forest and Scrub Ruderal/ Landscaped/ Ornamental 	<p>Potential Jurisdictional Features</p> <ul style="list-style-type: none"> Freshwater Pond Seasonal or Seep Wetland — Stream/Drainage --- Ditch X Culvert 	<p>Other Features (Non-jurisdictional)</p> <ul style="list-style-type: none"> Seasonal Wetland Irrigation Pond --- Ditch X Culvert
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FIGURE 15 of 15

City of Santa Cruz Water Department
North Coast System Rehabilitation Project - Coast Segment

Habitats in Area of Potential Impact