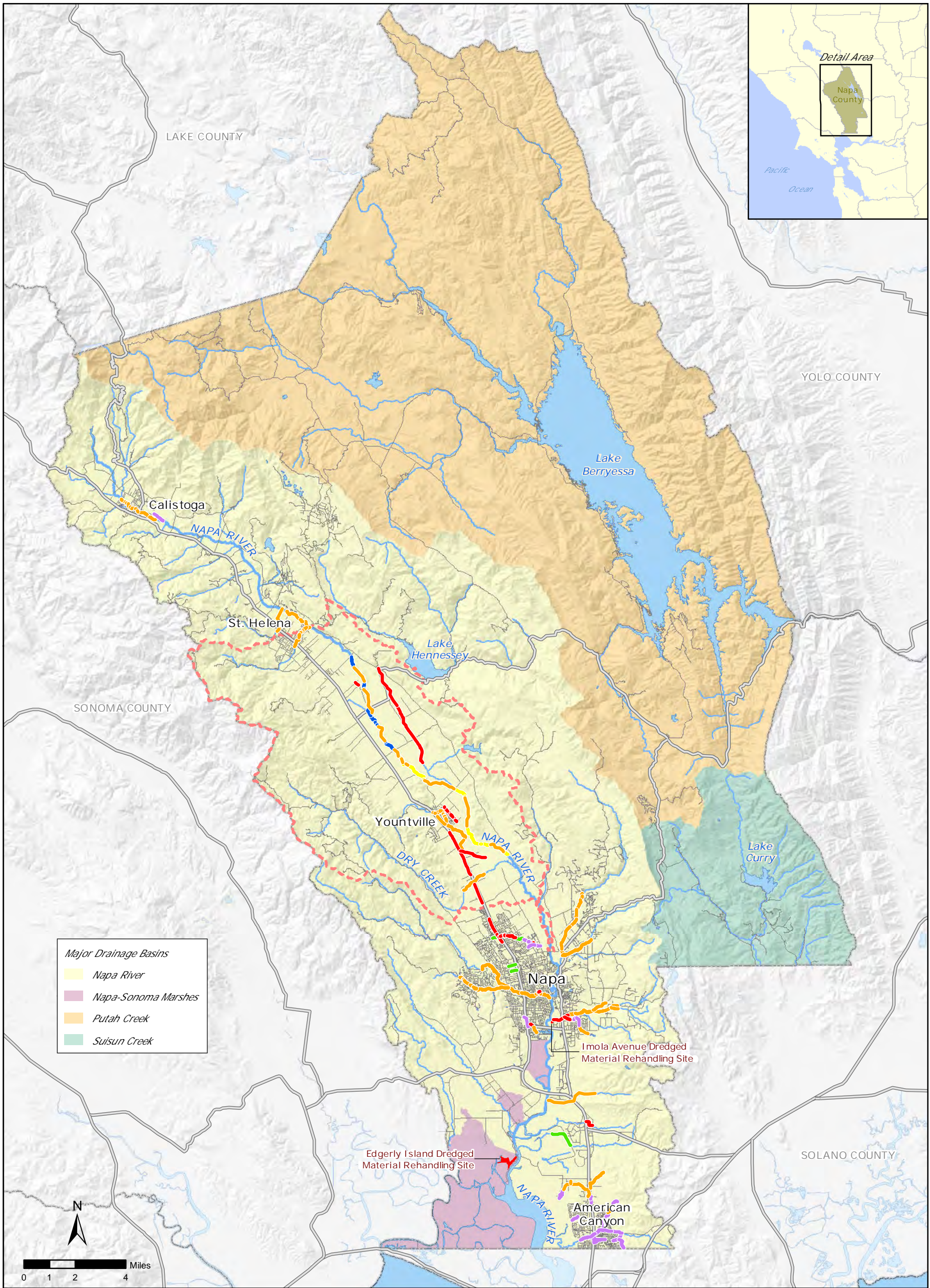


Figure 1-1

- | | |
|---|---|
| — Flood Control District Owned or Easement (surveyed annually and maintained) | — Napa River |
| — County Owned or Easement (surveyed annually and maintained by agreement) | — Streams where maintenance may occur |
| — Other Public Owned Easement (surveyed annually and maintained by agreement) | — Water Body |
| — Private Owned: FCD surveyed annually and maintained as needed | - - - Community Facilities District Boundary |
| — Rutherford Reach Restoration Project | — Highway |
| — Oakville to Oak Knoll Restoration Project | — Roads and Streets |
| | — County Lines |




- | | |
|---|---|
| — Flood Control District Owned or Easement (surveyed annually and maintained) | — Napa River |
| — County Owned or Easement (surveyed annually and maintained by agreement) | — Streams where maintenance may occur |
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| — Rutherford Reach Restoration Project | — Highway |
| — Oakville to Oak Knoll Restoration Project | — Roads and Streets |
| | — County Lines |

Figure 1-1

*Napa County
Stream Maintenance Program Area
and Maintenance Reaches*



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Miles

Flood Control District Owned or Easement
(surveyed annually, maintained)

County Owned or Easement
(surveyed annually, maintained by agreement)

Other Public Owned Easement
(surveyed annually, maintained by agreement)

Private Owned: FCD surveyed annually, maintained as needed

Rutherford Reach Restoration Project

Oakville to Oak Knoll Restoration Project

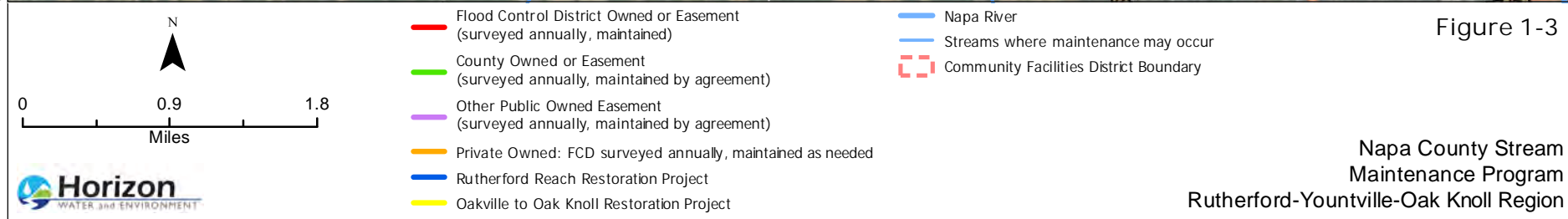
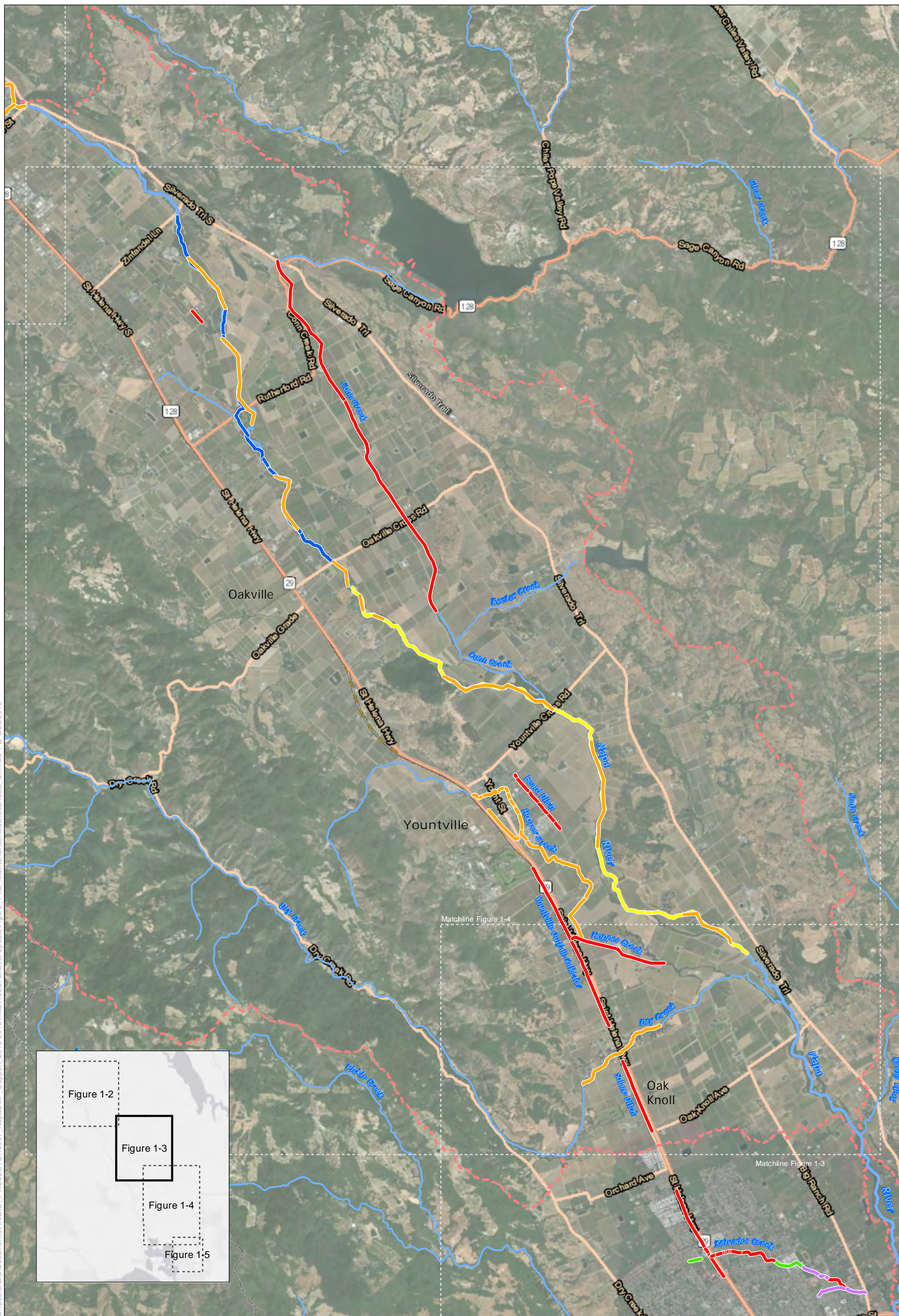
Napa River

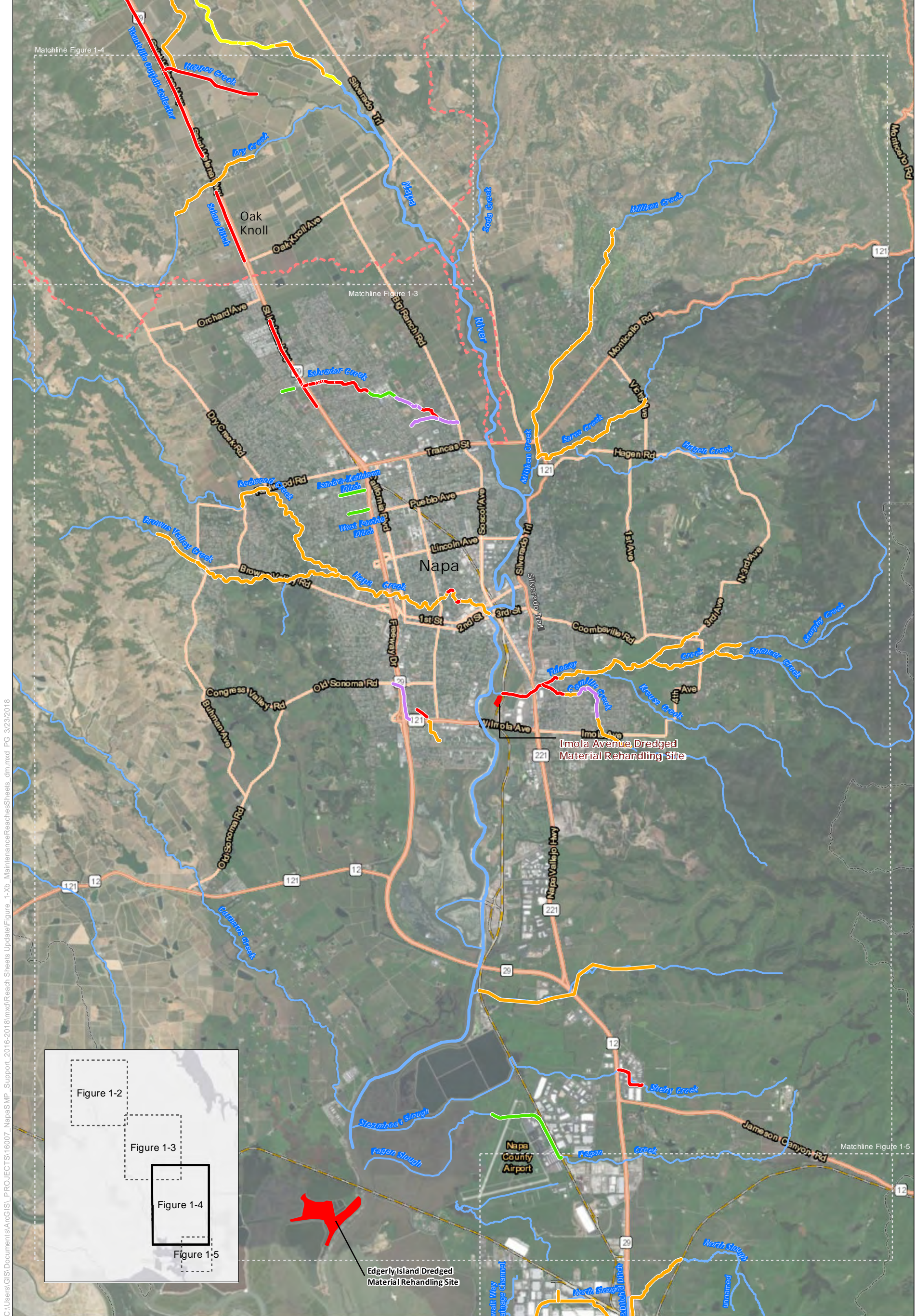
Streams where maintenance may occur

Community Facilities District Boundary

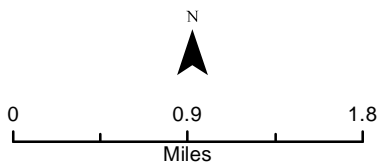
Figure 1-2

Napa County Stream
Maintenance Program
Calistoga-St. Helena Region



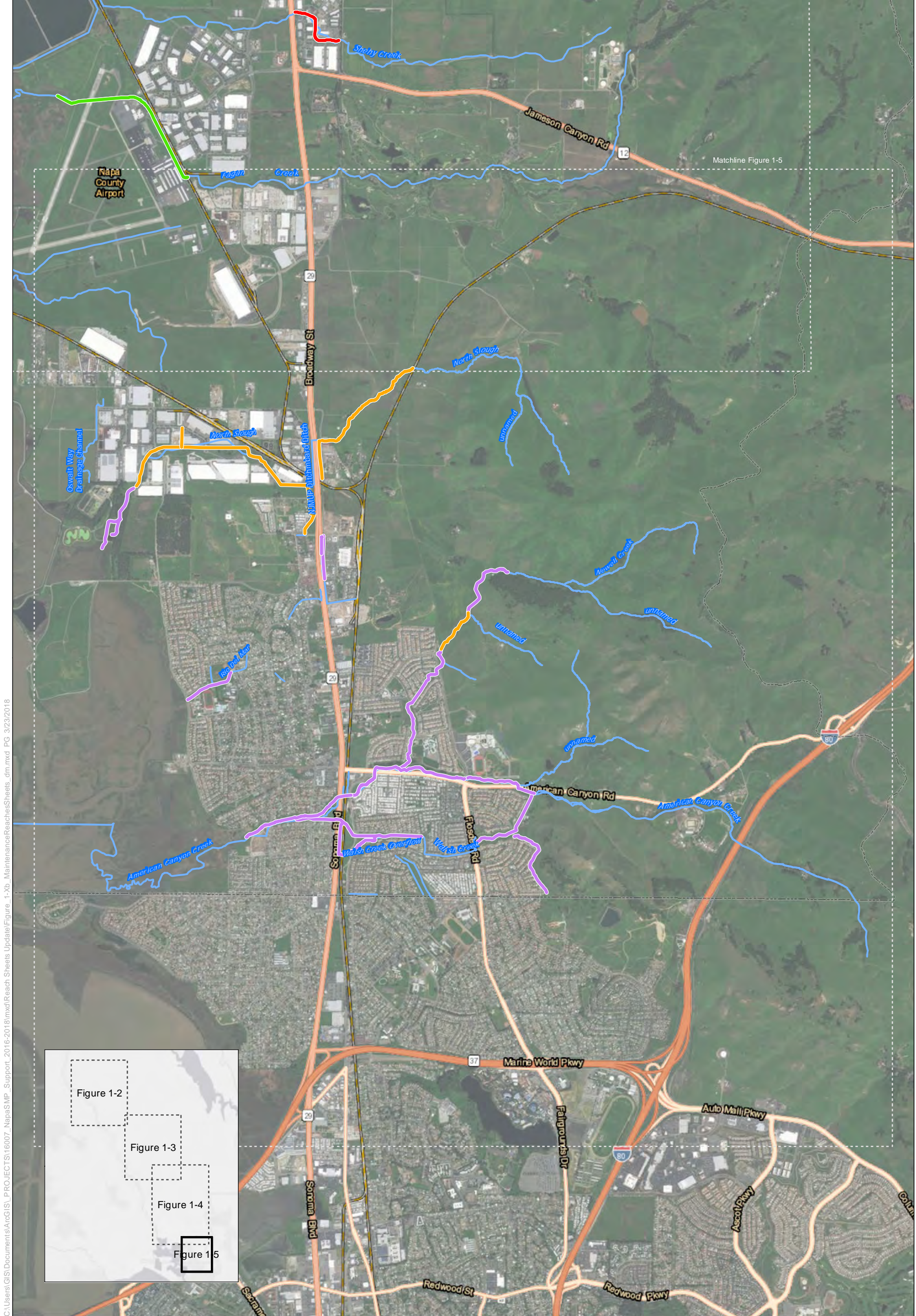


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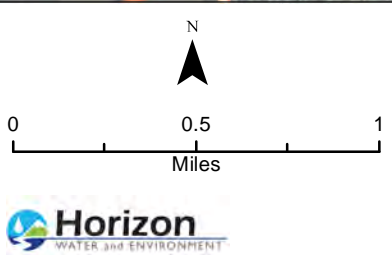


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- Other Public Owned Easement (surveyed annually, maintained by agreement)
- Private Owned: FCD surveyed annually, maintained as needed
- Rutherford Reach Restoration Project
- Oakville to Oak Knoll Restoration Project
- Napa River
- Streams where maintenance may occur
- Community Facilities District Boundary

Figure 1-4
Napa County Stream
Maintenance Program
Napa Region



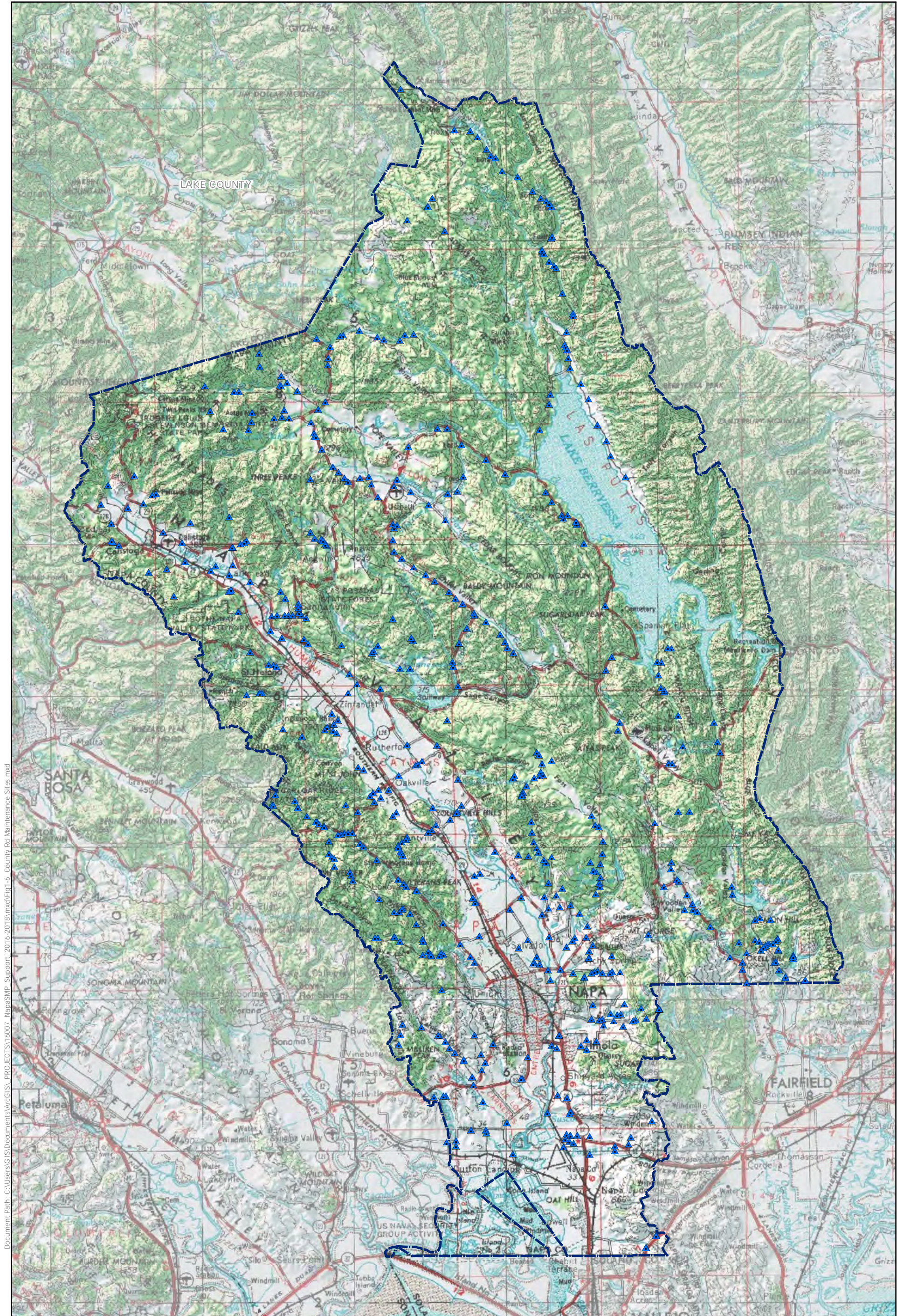
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- Oakville to Oak Knoll Restoration Project
- Napa River
- Streams where maintenance may occur
- Community Facilities District Boundary

Figure 1-5

Napa County Stream Maintenance Program
American Canyon Region



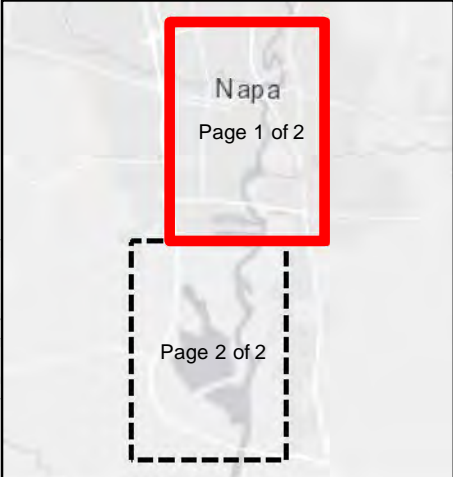
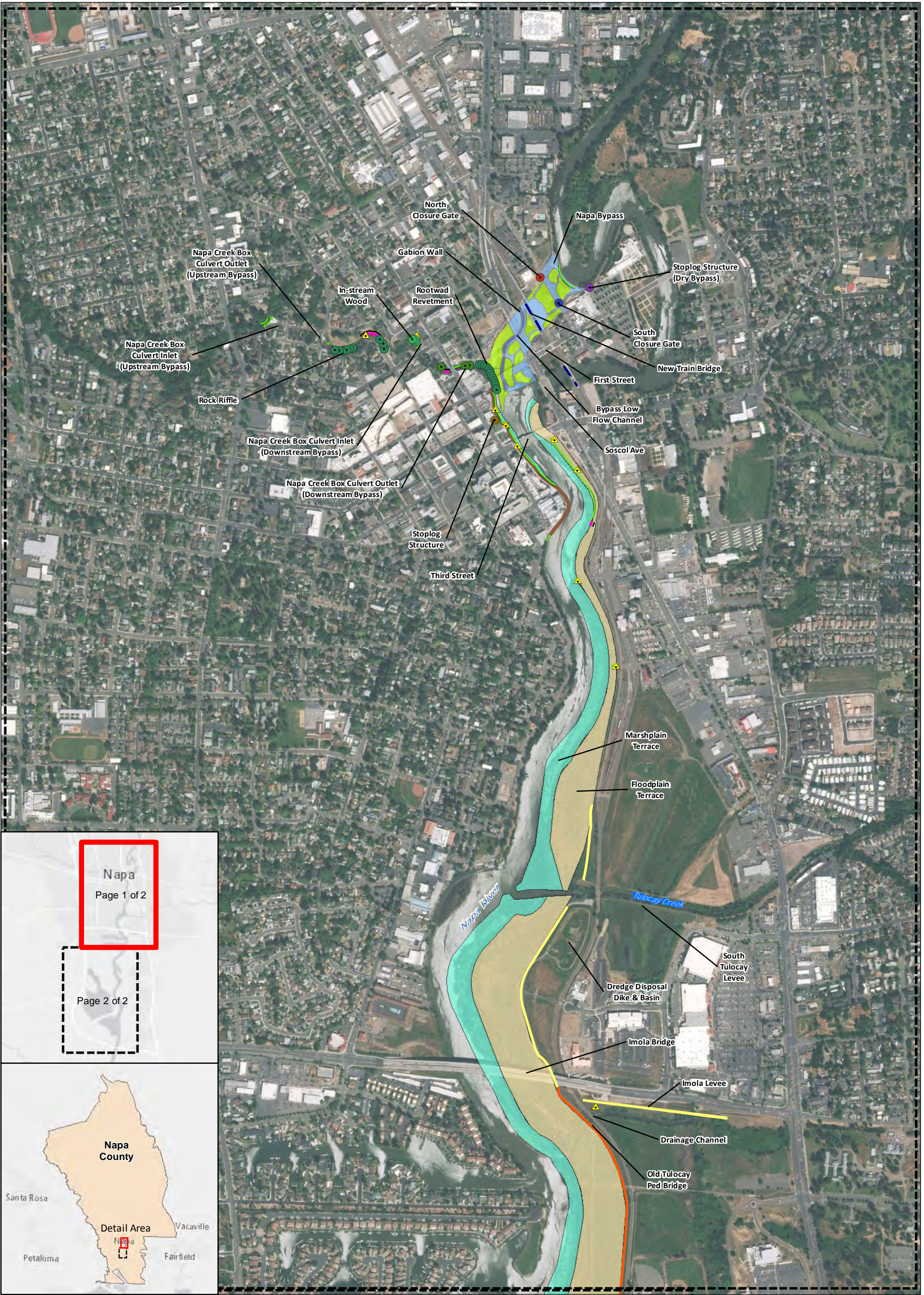
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- ▲ Napa County Road Maintenance Sites
- ▭ Napa County



Figure 1-6
Napa County Road
Department's Maintenance Sites



Flood Protection Features

- Flap Gate
- In-stream woody structures
- North Closure Gate
- Rock Riffle

- Rootwad revetment
- South Closure Gate
- Stoplog Structure
- Stoplog Structure (Dry Bypass)

- Floodwall
- Joint Planted Rock
- Levee
- New Train Bridge
- Non Planted Rock
- Training Dike
- Vegetated Reinforced Soil Slopes

- Bypass
- Bypass low flow channel
- Floodplain Terrace
- Gabion wall
- Vegetation & Reinforced Matting (HPTRM)
- Marshplain Terrace
- Vineyard Dike

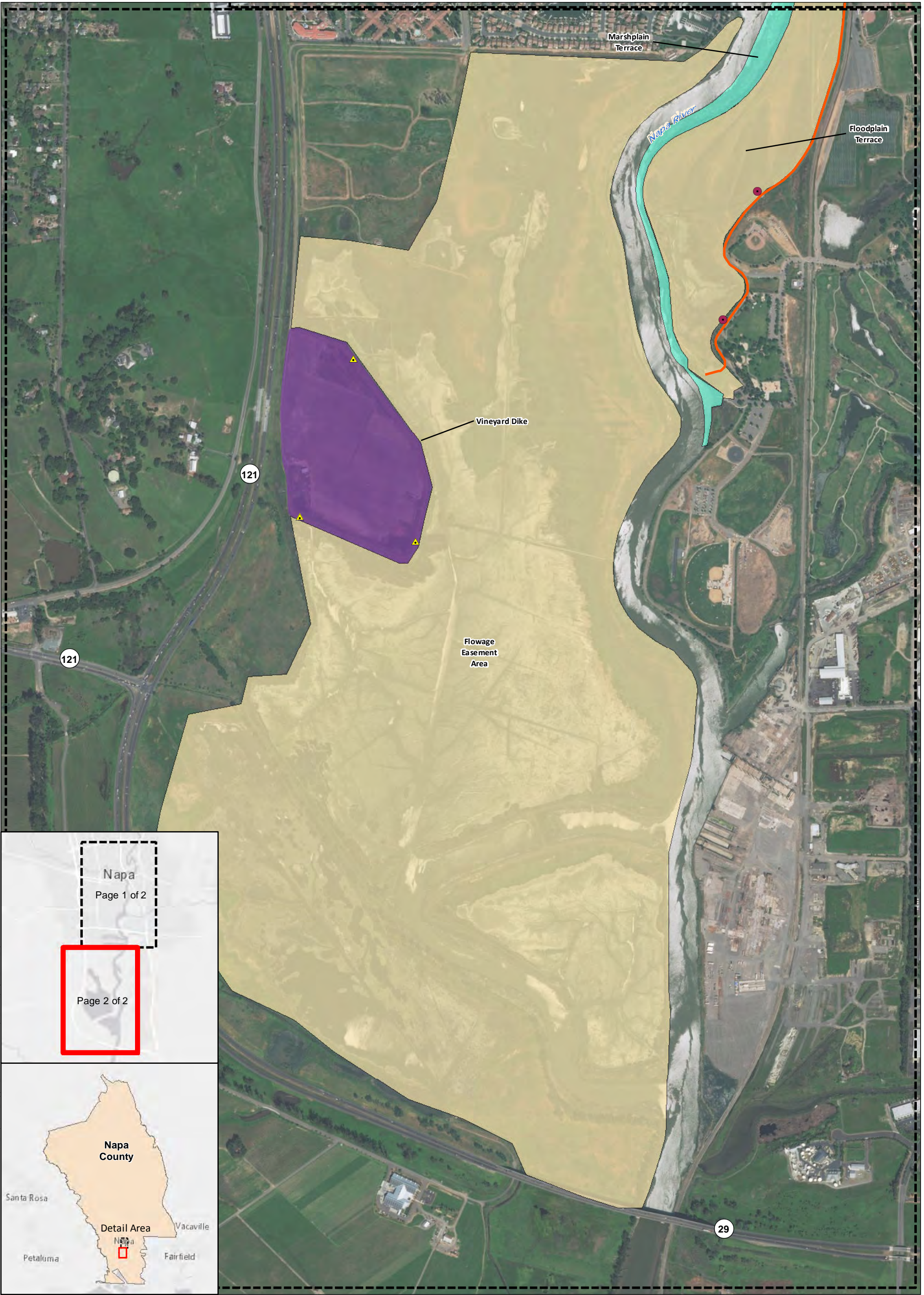
Baseap Sources: Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap

0 1,000 2,000 Feet

North

Figure 1-7
Napa Flood Protection Project Features
Page 1 of 2

Napa Flood Project



Flood Protection Features

▲ Flap Gate



Planting Berm



Floodwall



Joint Planted Rock



Levee



New Train Bridge



Non Planted Rock



Training Dike



Vegetated Reinforced Soil Slopes



Bypass



Bypass low flow channel



Floodplain Terrace



Gabion wall



Vegetation & Reinforced Matting (HPTRM)



Marshplain Terrace



Vineyard Dike

BaseMap Sources: Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap



N

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Feet

Figure 1-7
Napa Flood
Protection
Project Features
Page 2 of 2



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0 0.9 1.8
Miles

Flood Control District Owned or Easement
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Rutherford Reach Restoration Project

Oakville to Oak Knoll Restoration Project

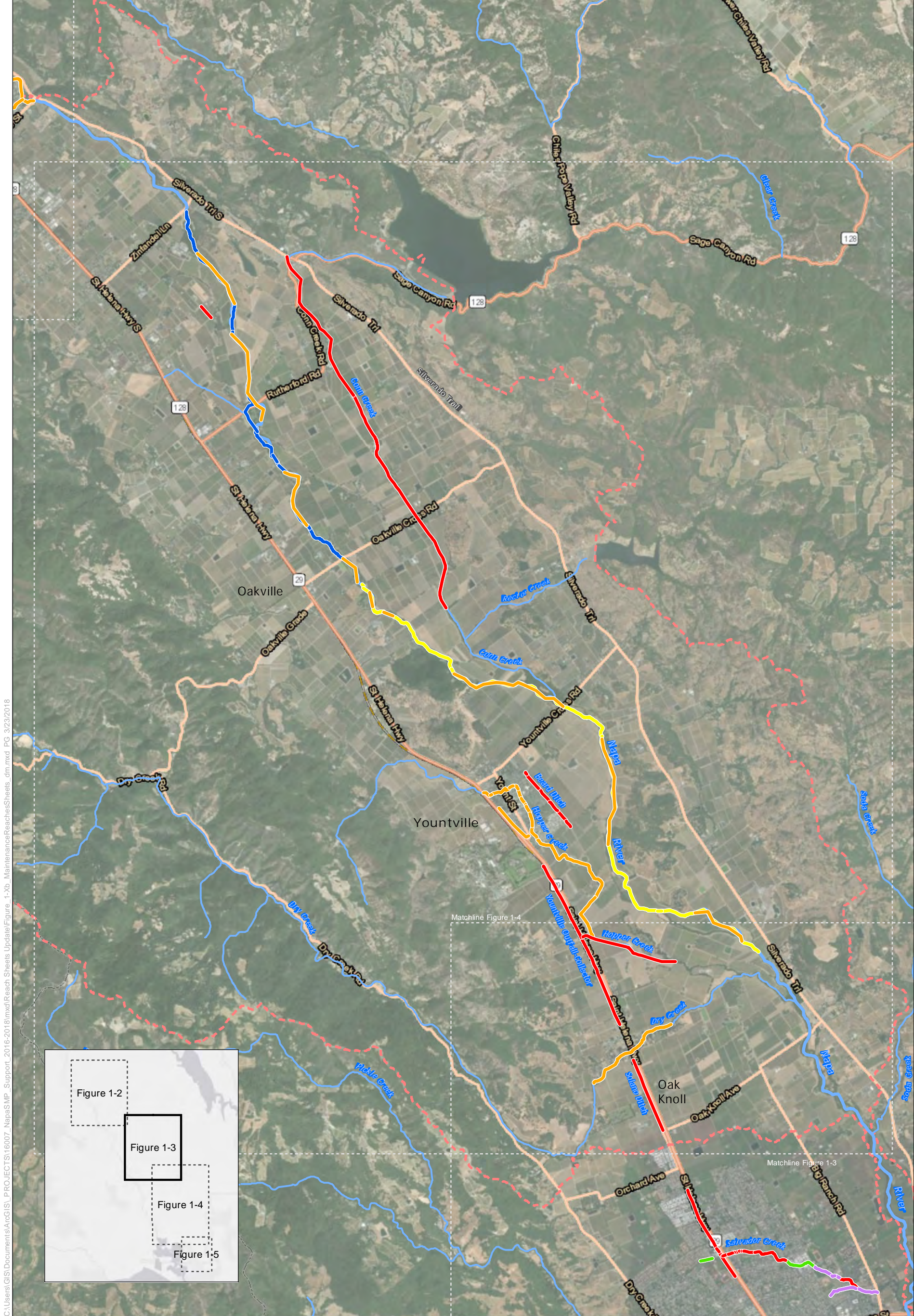
Napa River

Streams where maintenance may occur

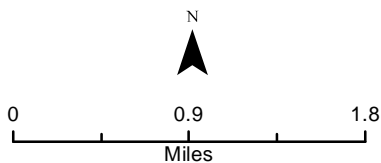
Community Facilities District Boundary

Figure 1-2

Napa County Stream
Maintenance Program
Calistoga-St. Helena Region



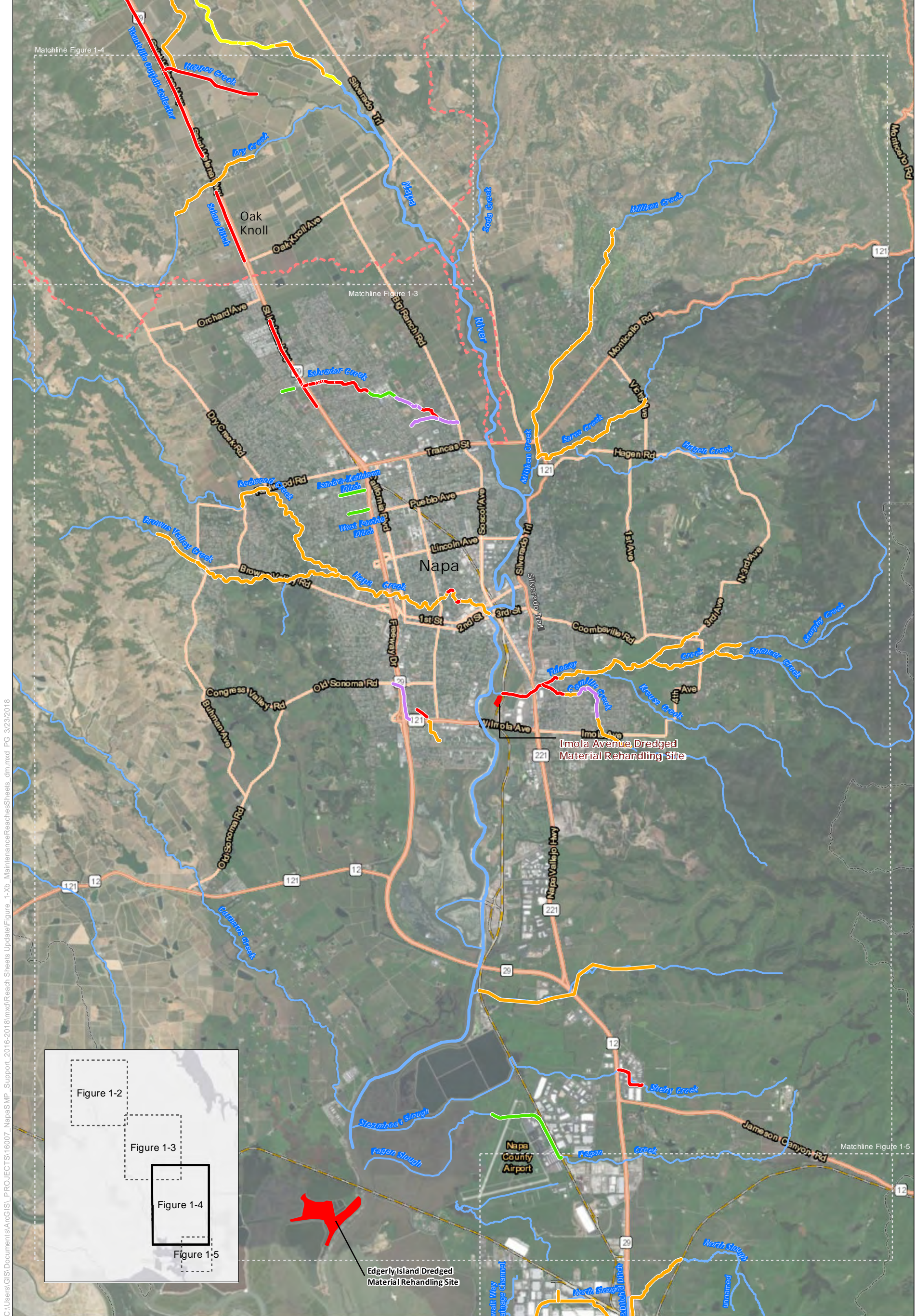
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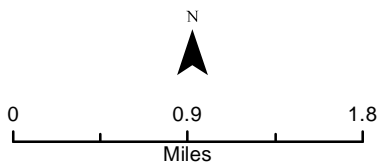
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- Oakville to Oak Knoll Restoration Project
- Napa River
- Streams where maintenance may occur
- Community Facilities District Boundary

Figure 1-3

Napa County Stream
Maintenance Program
Rutherford-Yountville-Oak Knoll Region



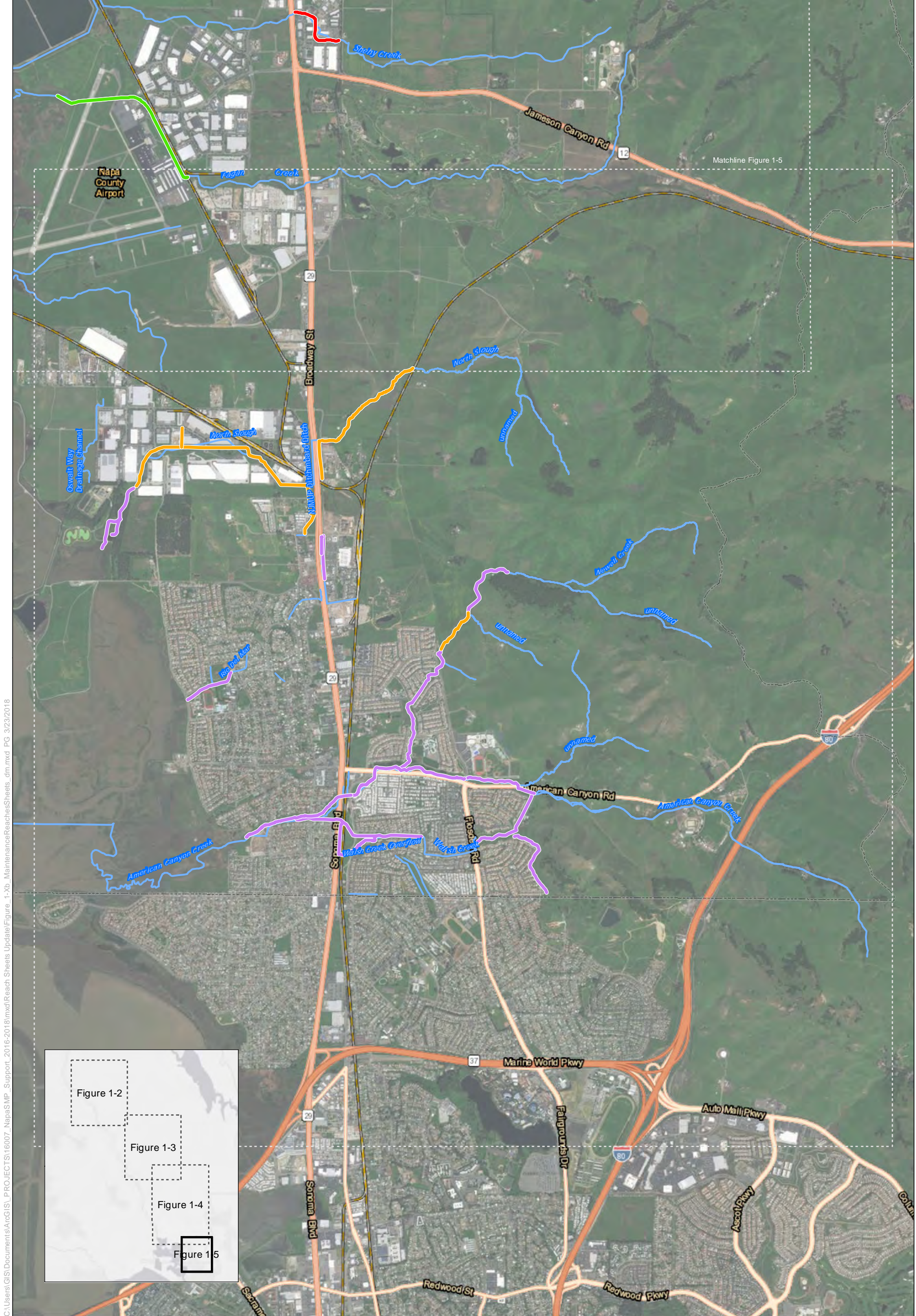
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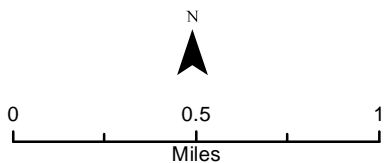
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- Napa River
- Streams where maintenance may occur
- Community Facilities District Boundary

Figure 1-4

Napa County Stream Maintenance Program
Napa Region



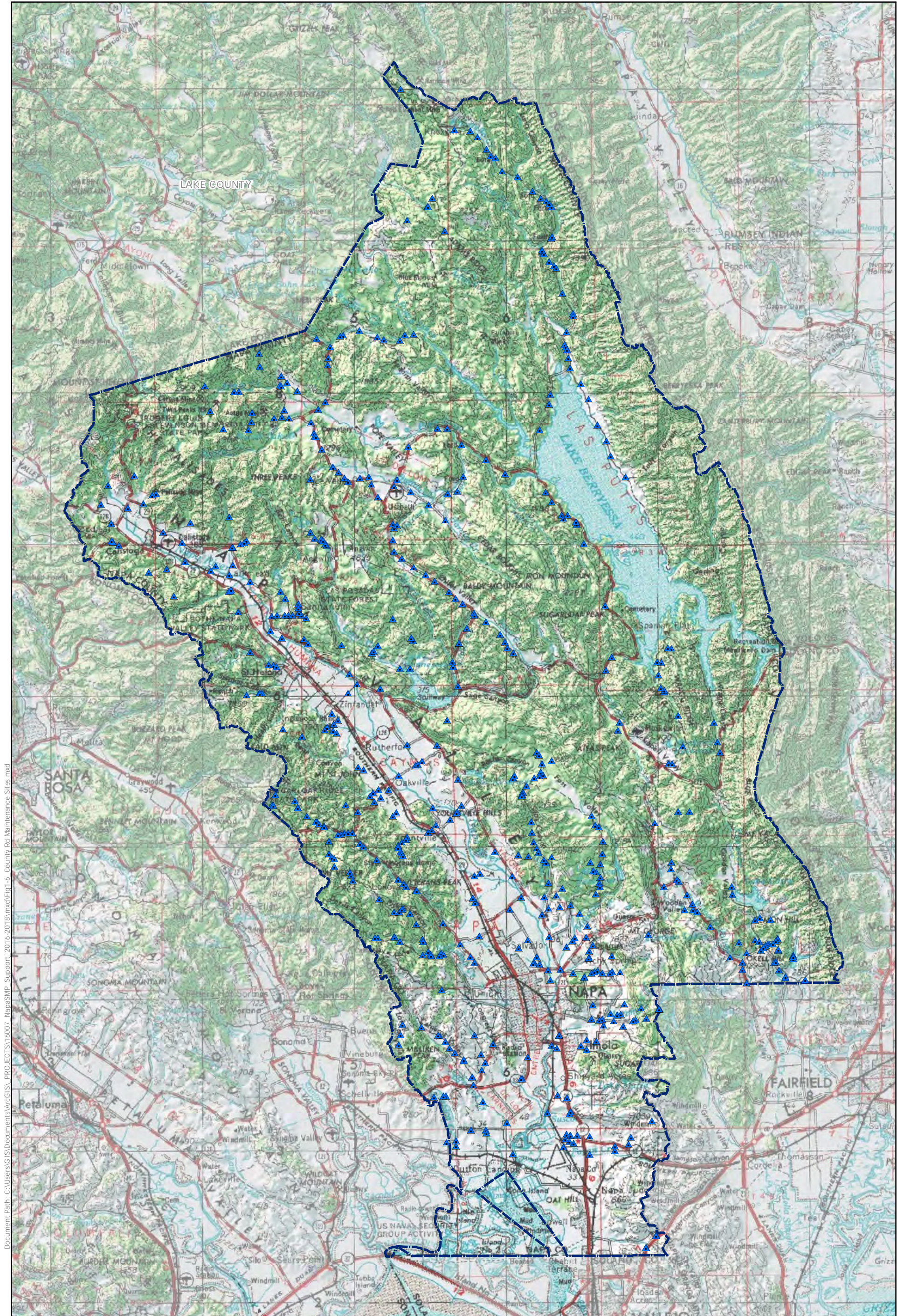
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- Streams where maintenance may occur
- Community Facilities District Boundary

Figure 1-5

Napa County Stream
Maintenance Program
American Canyon Region



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- ▲ Napa County Road Maintenance Sites
- ▭ Napa County



Figure 1-6
Napa County Road
Department's Maintenance Sites

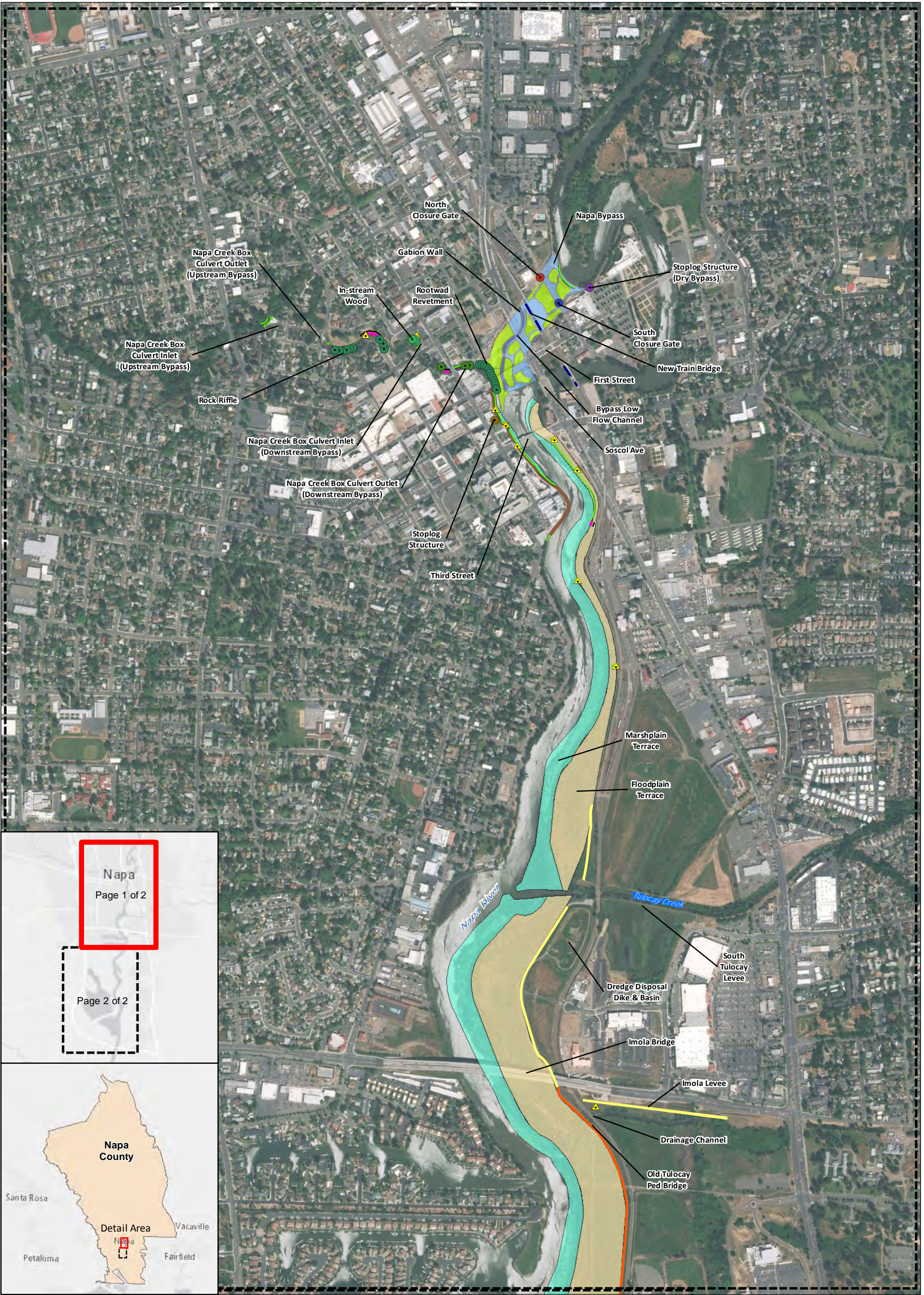
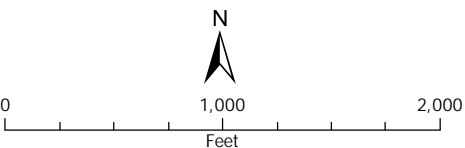
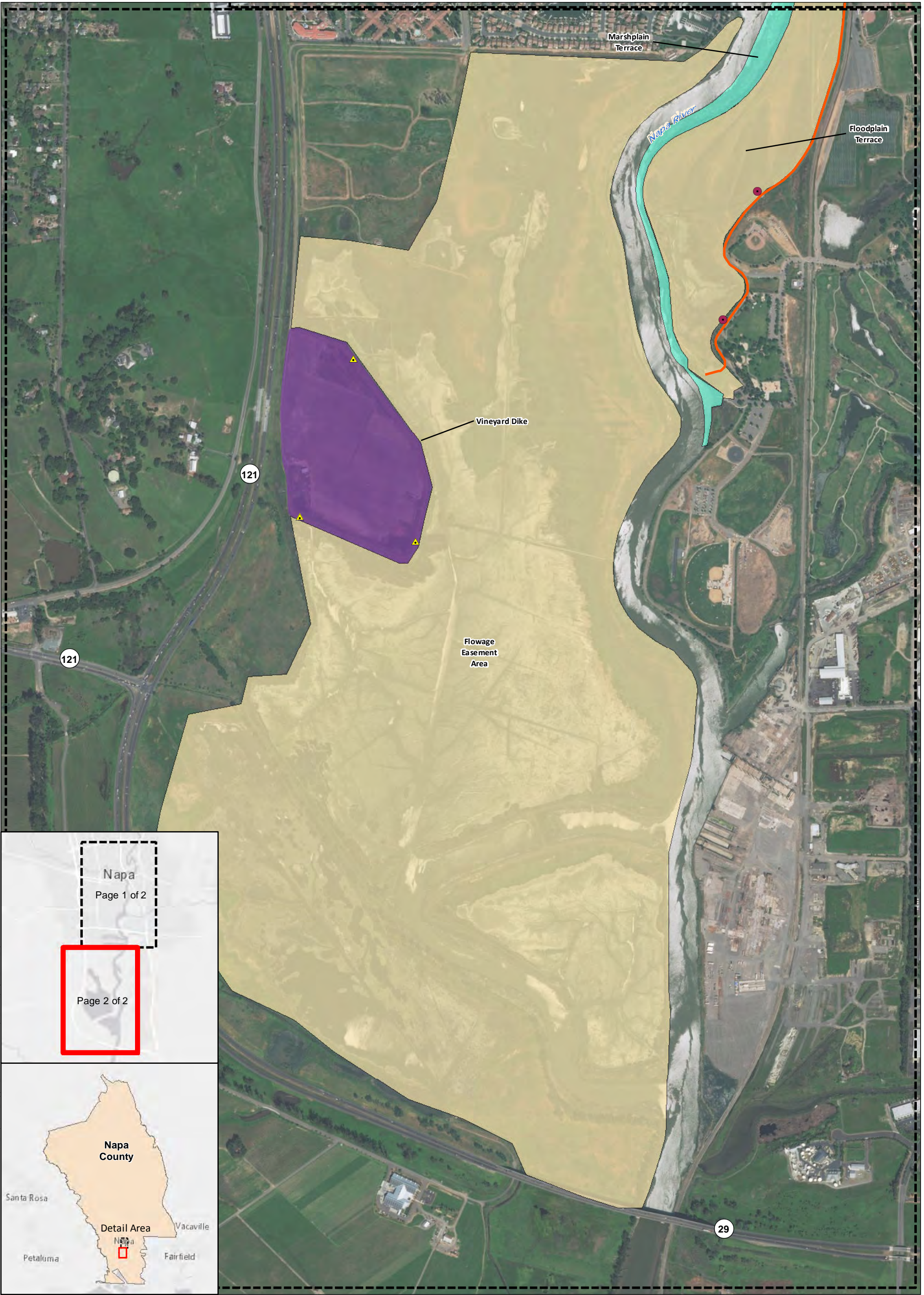


Figure 1-7
Napa Flood
Protection
Project Features
Page 1 of 2

BaseMap Sources: Esri, HERE, DeLorme,
MapmyIndia, © OpenStreetMap





Flood Protection Features

- Flap Gate
- Planting Berm

- Floodwall
- Joint Planted Rock
- Levee
- New Train Bridge
- Non Planted Rock
- Training Dike
- Vegetated Reinforced Soil Slopes

- Bypass
- Bypass low flow channel
- Floodplain Terrace
- Gabion wall
- Vegetation & Reinforced Matting (HPTRM)
- Marshplain Terrace
- Vineyard Dike

BaseMap Sources: Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap



0 1,000 2,000
Feet

Figure 1-7
Napa Flood
Protection
Project Features
Page 2 of 2



Photo 1: Beard Ditch. Looking downstream from mid-point of Beard Ditch (near Oak Circle). Photo depicts typical conditions in the reach (August 4, 2010).



Photo 3: Napa River, Reach 1. Typical conditions of the Napa River riparian corridor near the lower portion of Reach 1 in St. Helena (August 2017).



Photo 2: Yountville Outfall, Reach 1. Looking downstream from upstream end of Yountville Outfall near Highway 29. Note the dense aquatic vegetation present in the channel (August 4, 2010).



Photo 4: Salvador Creek, Reach 2. Beaver dam located approximately 600 ft. downstream of Trower Avenue. Dam pools water upstream as shown in photo (July 8, 2010).

**Figure 1-8. Representative Photos
of the Program Area**



Photo 5: Tulocay, Reach 2. Bulrush along the lower channel banks in the tidal portion of Tulocay Creek, looking upstream from the Union Pacific Railroad Bridge. Cottonwoods have been planted along the upper banks (September 22, 2010).



Photo 6: Sheehy Creek. Looking downstream (west) from the bridge at North Kelly Road. Stagnant water and poor water quality observed at the time the photo was taken (September 2010).



Photo 7: American Canyon Creek. Sediment accumulation and vegetation encroachment observed in American Canyon Creek upstream of the Newell Drive crossing at American Canyon Road (February 2018).



Photo 8: Dense willow growth appears to be providing flow obstruction within the main channel upstream of Silver Oak Trail. The culverts shown in the foreground provide overflow capacity (March 2018).

Figure 1-8. Representative Photos of the Program Area