

Habitat Impact Analysis Tool

presented to:

ESRI San Diego Showcase

presented by:

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GIS/Project Development Support Branch

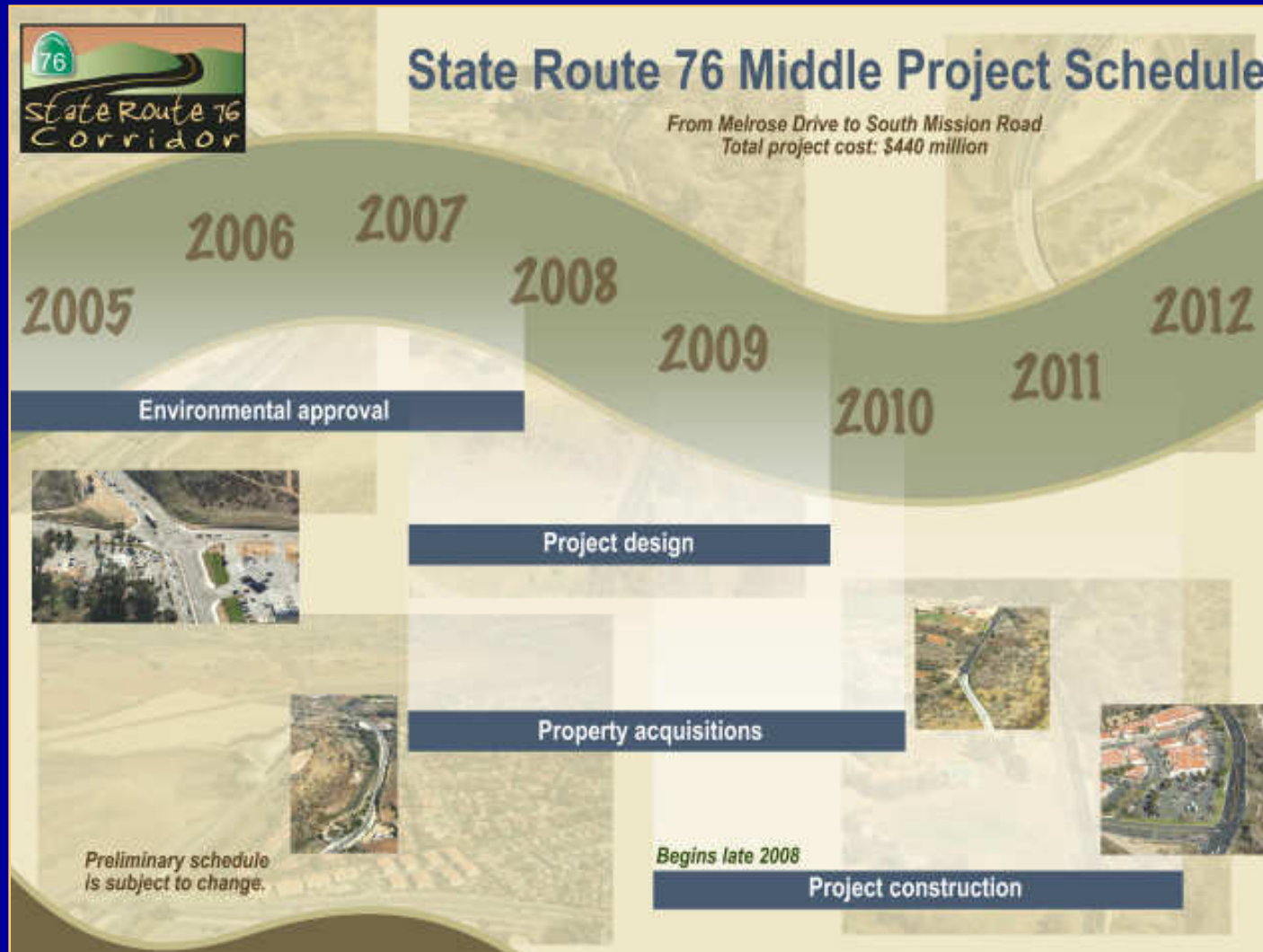


September 25, 2007

Overview

- **SR-76 Middle Project**
- **Environmental Analysis & Map Products**
- **Habitat Analysis Tool Demonstration**

Project Schedule



SR-76 Middle Project

- **Transnet II Early Action Project**
- **Widen and realign 5.5 miles**
 - Existing: 2-lane conventional highway
 - Future: 6-lane facility
- **Environmentally sensitive area**
 - Wetland Habitat
 - Agriculture
 - Residential

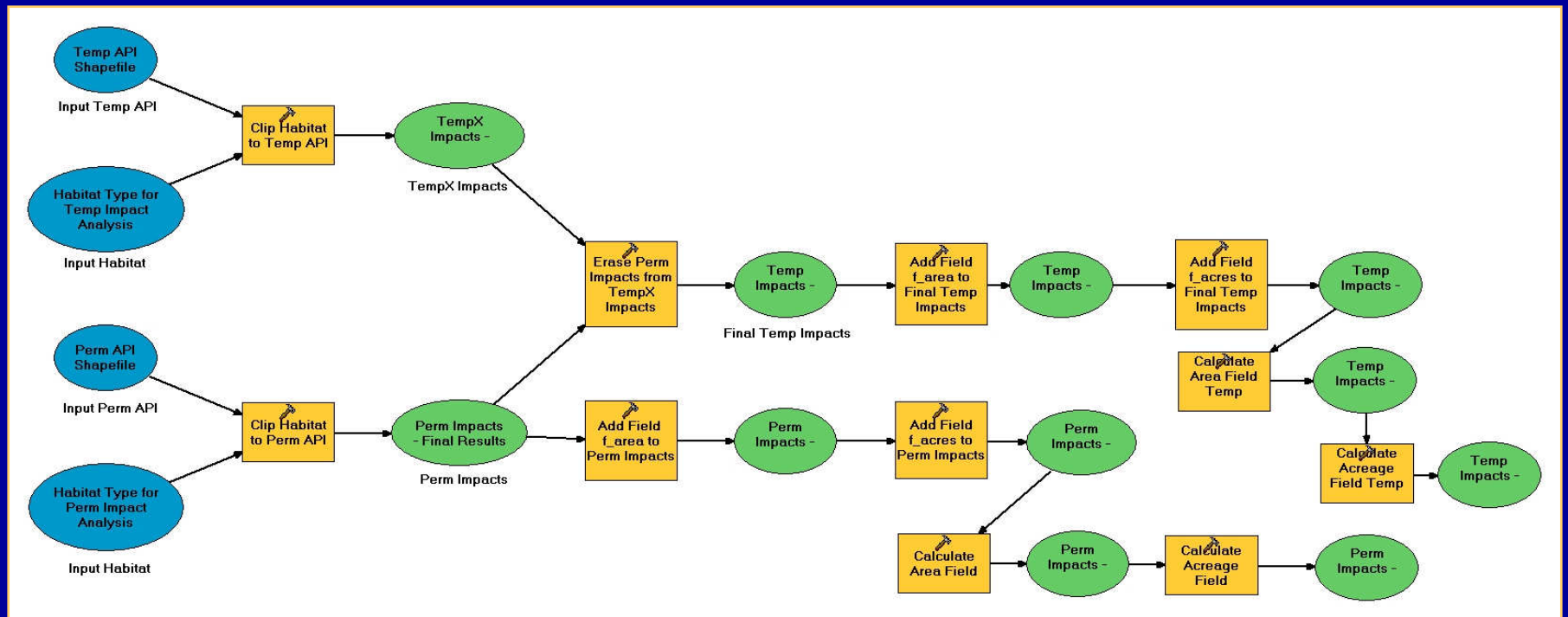
GIS Activities

- **Coordination with consultants responsible for environmental GIS data development**
- **Data integration/conversion (GIS/CADD) for Caltrans Design Division**
- **Habitat analysis & mapping for Caltrans Environmental Division**
- **Conveyance of map products & data to resource agencies**

Habitat Impact Analysis

- **Types of Analysis**
 - Wetlands
 - Vegetation
 - Parks
 - Trails
- **7 Alternatives**
 - Permanent API Footprint
 - Temporary API Footprint

Habitat Impact Analysis Model



Habitat Impact Analysis Tool

Habitat Impact Analysis

Perm API Shapefile
P:_gis\11-08010\impact_analysis\wetlands_20061121\76E12_API\e12_api_perm_ft.shp

Temp API Shapefile
P:_gis\11-08010\impact_analysis\wetlands_20061121\76E12_API\e12_api_temp_ft.shp

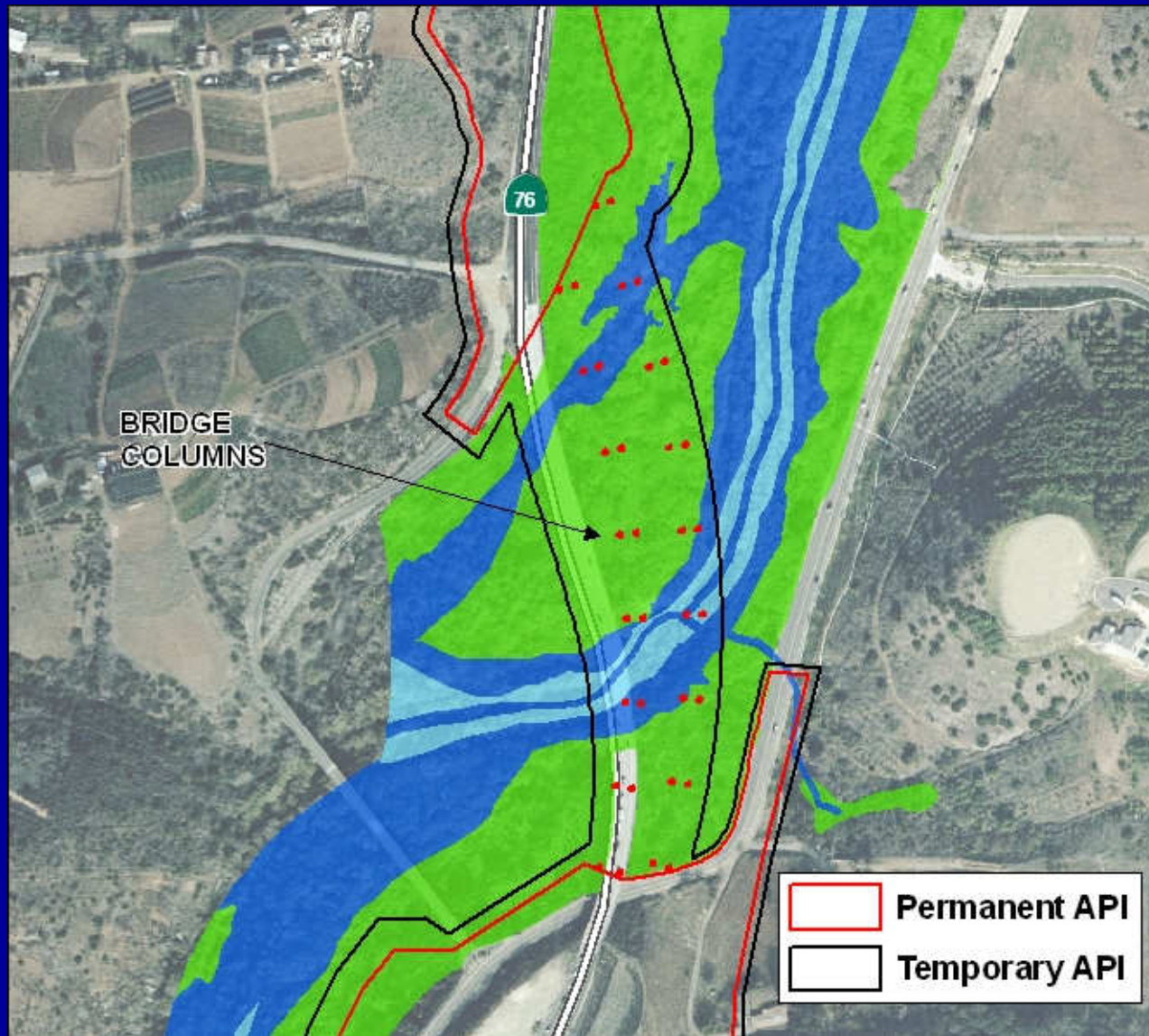
Wetland Habitat Type for Perm Impact Analysis
P:_gis\11-08010\EDAW\11212006_wetlands_submittal\wetlands_EDAW_20061121.shp

Wetland Habitat Type for Temp Impact Analysis
P:_gis\11-08010\EDAW\11212006_wetlands_submittal\wetlands_EDAW_20061121.shp

- Perm Impacts - Final Results
- TempX Impacts - Intermediate Results
- Temp Impacts - Final Results

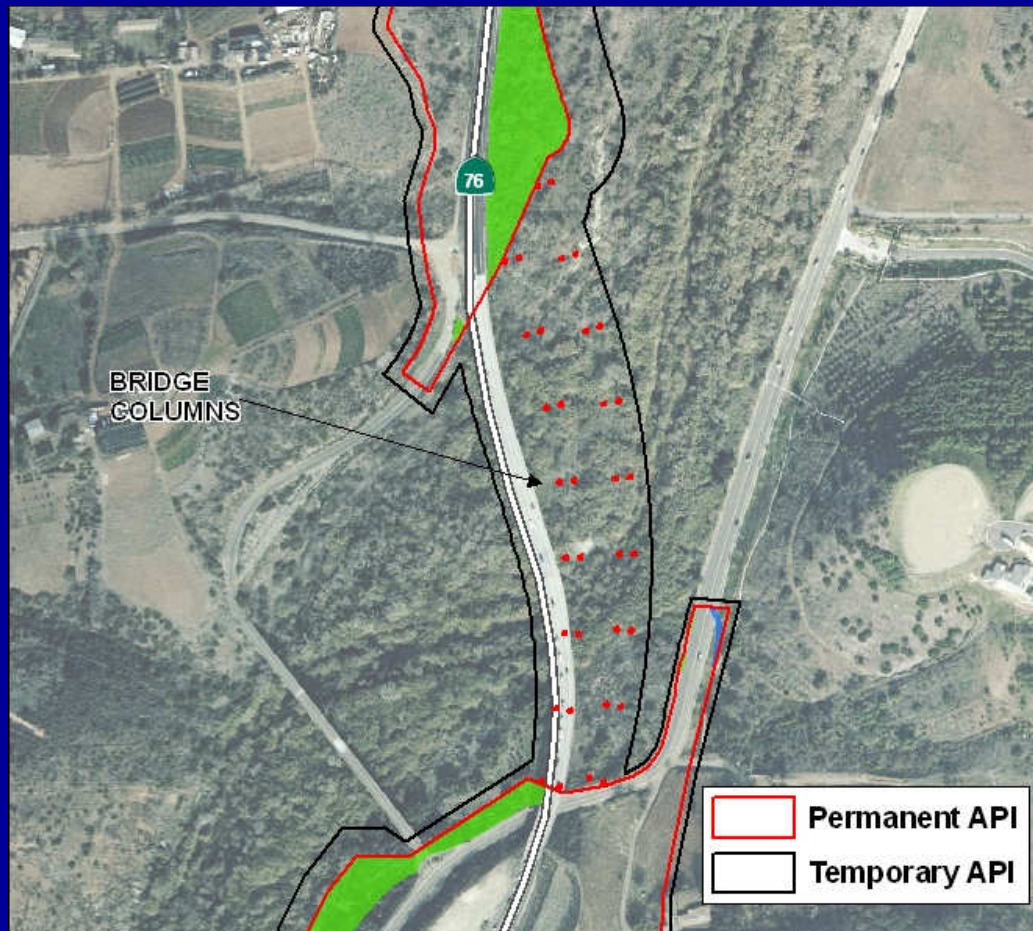
OK Cancel Environments... Show Help >>

Habitat Analysis in ArcMap



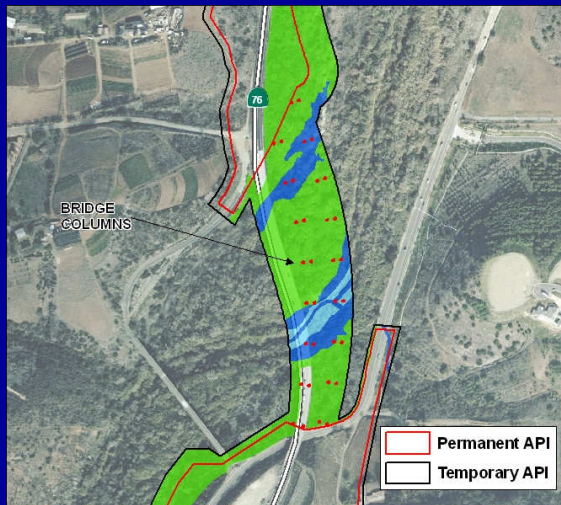
Habitat Analysis in ArcMap

The habitat polygons are clipped to the Permanent API polygon.

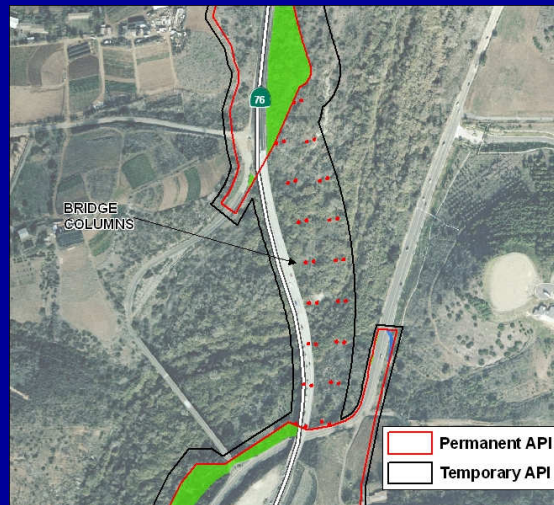


Habitat Analysis in ArcMap

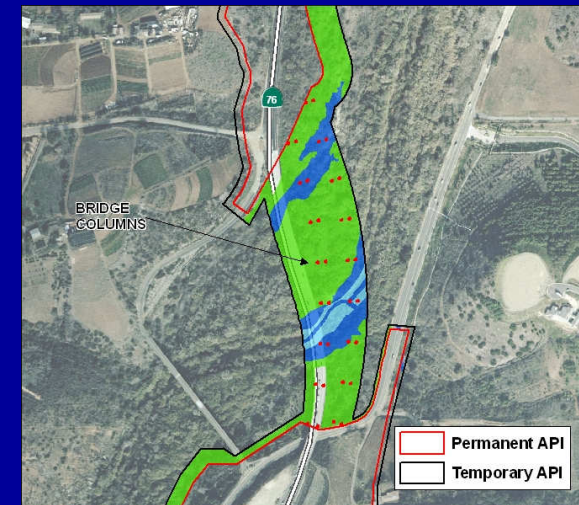
The model clips habitat polygon data to the Temporary API polygon.



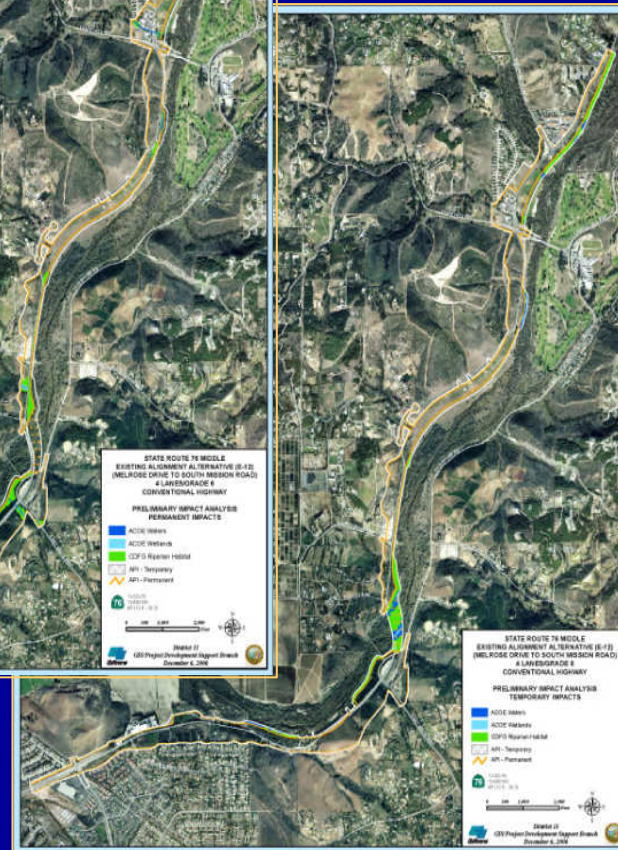
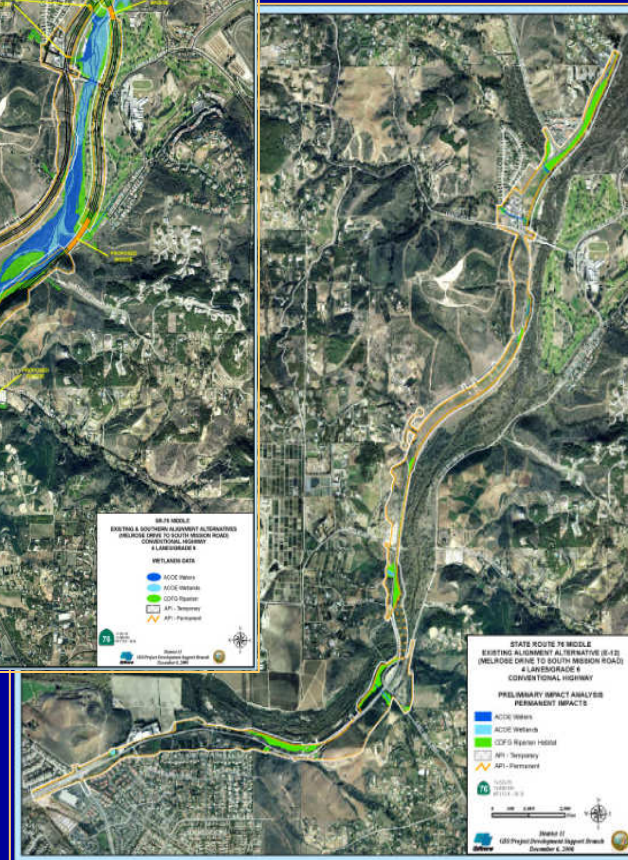
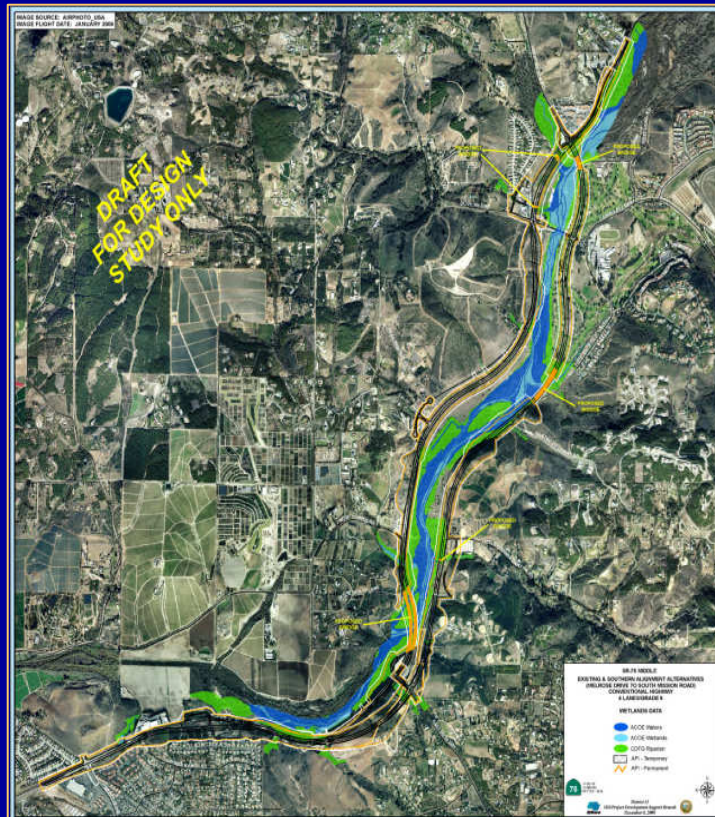
The Permanent API is erased from the Temp Impacts Intermediate Result.



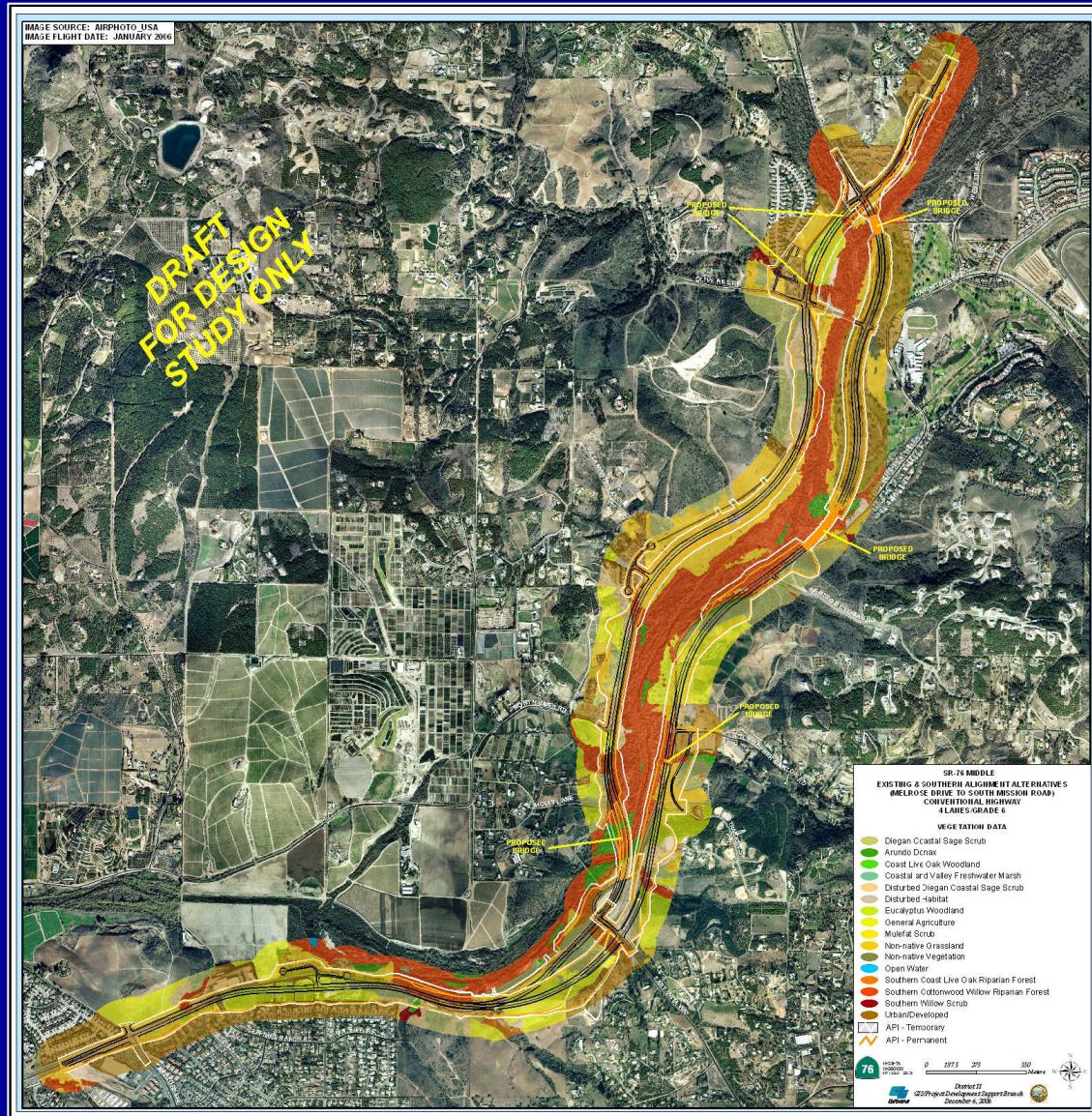
This results in a dataset containing only the habitat area temporarily impacted by construction.



Wetlands Impact Mapping



Vegetation Map



Wetlands Impact Map

