



Legend

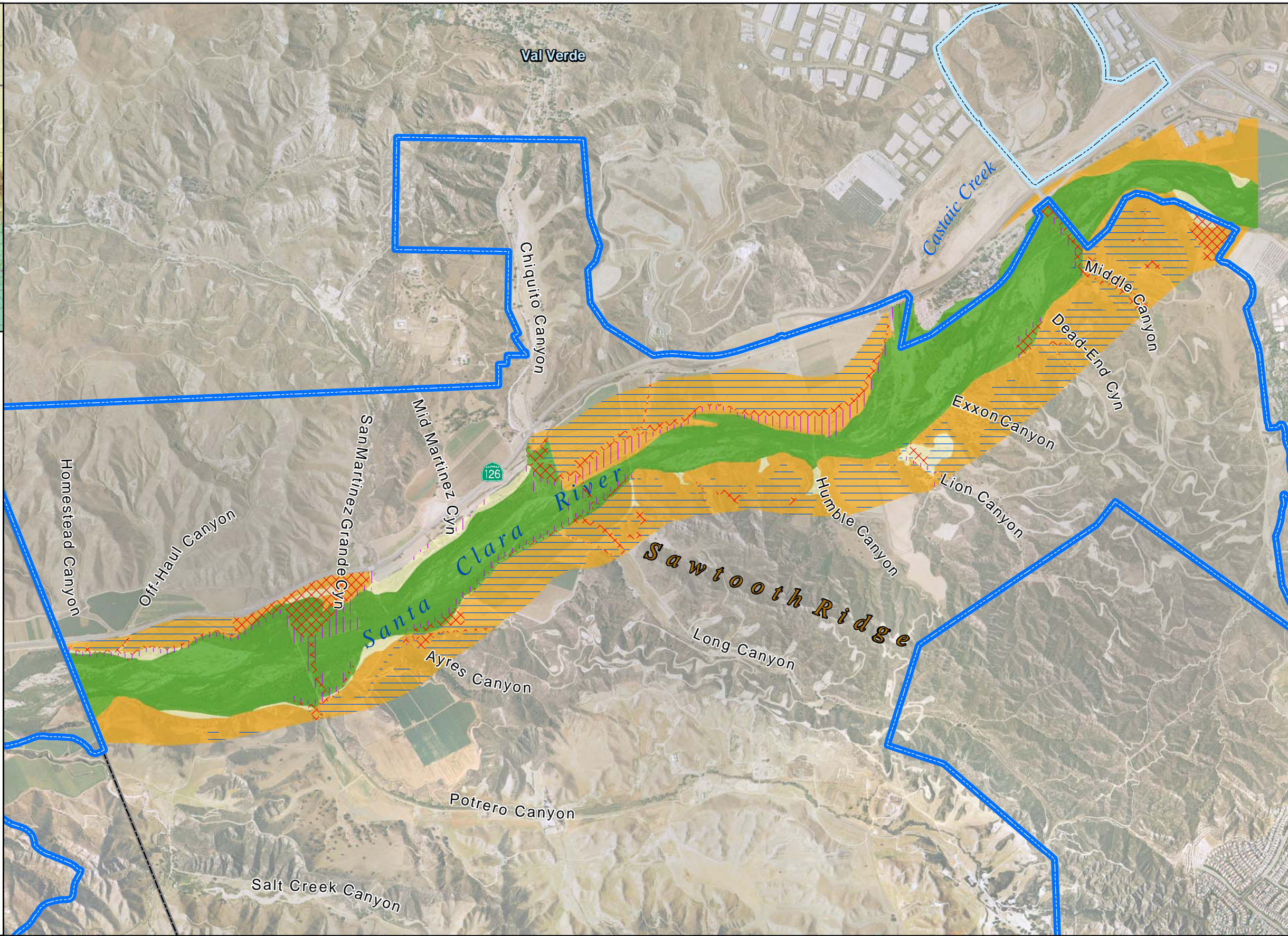
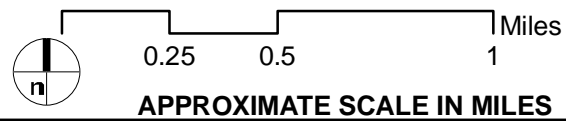
- RMDP Boundary
- SCP Boundary
- County Boundary

Impacts

- Direct Permanent
- Direct Temporary
- Indirect Permanent

Habitat

- High
- Moderate
- Low



AERIAL SOURCE: DigitalGlobe, 2007

FIGURE 4.5-48

Newhall Ranch - RMDP/SCP EIS/EIR

Alternative 2 Impacts to Arroyo Toad



Legend

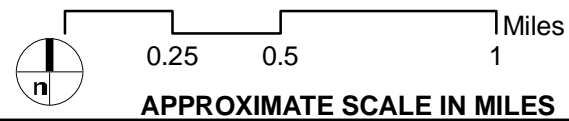
- RMDP Boundary
- SCP Boundary
- County Boundary

Impacts

- Direct Permanent
- Direct Temporary
- Indirect Permanent

Habitat

- High
- Moderate
- Low



AERIAL SOURCE: DigitalGlobe, 2007

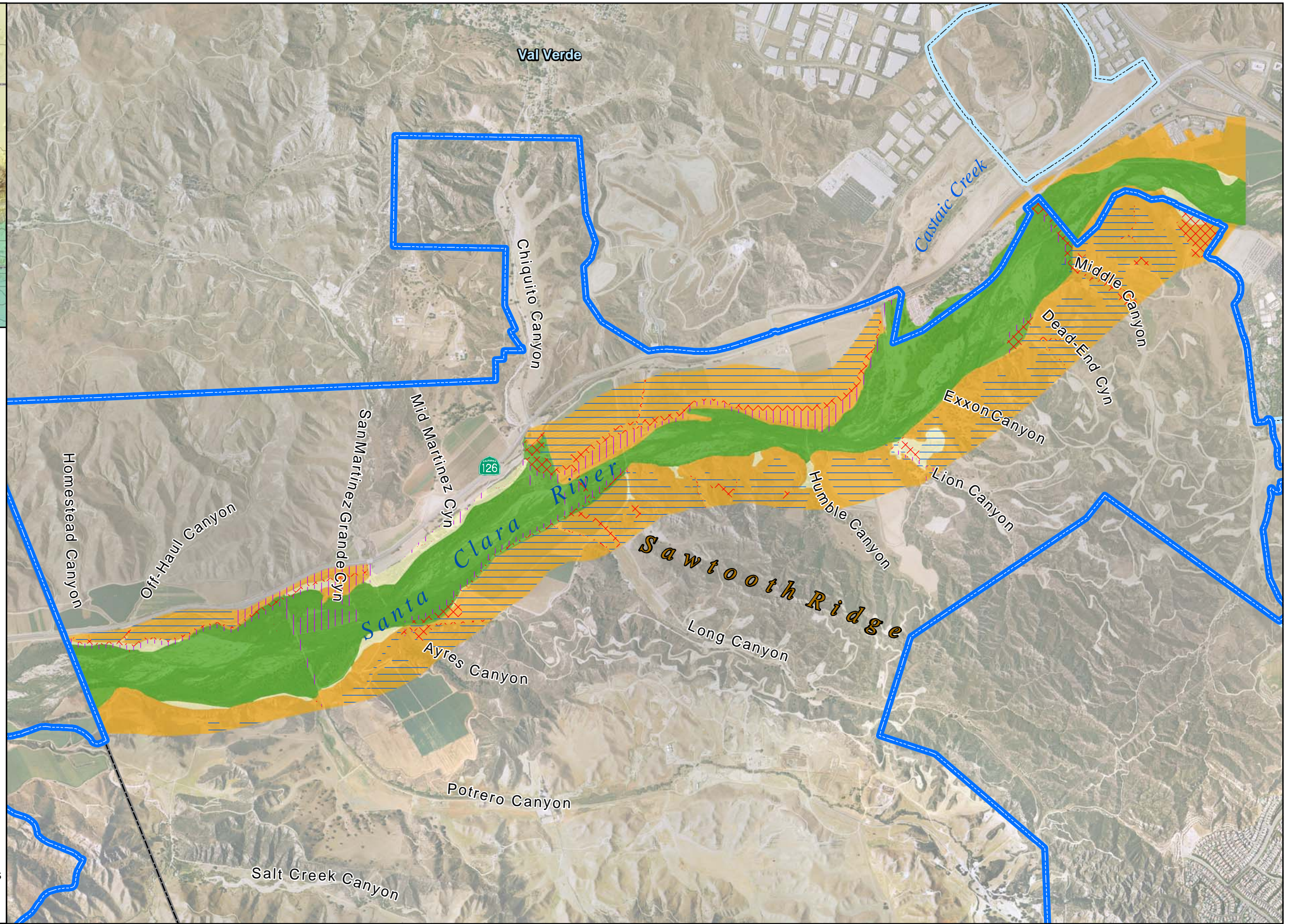


FIGURE 4.5-49

Newhall Ranch - RMDP/SCP EIS/EIR

Alternative 3 Impacts to Arroyo Toad



Legend

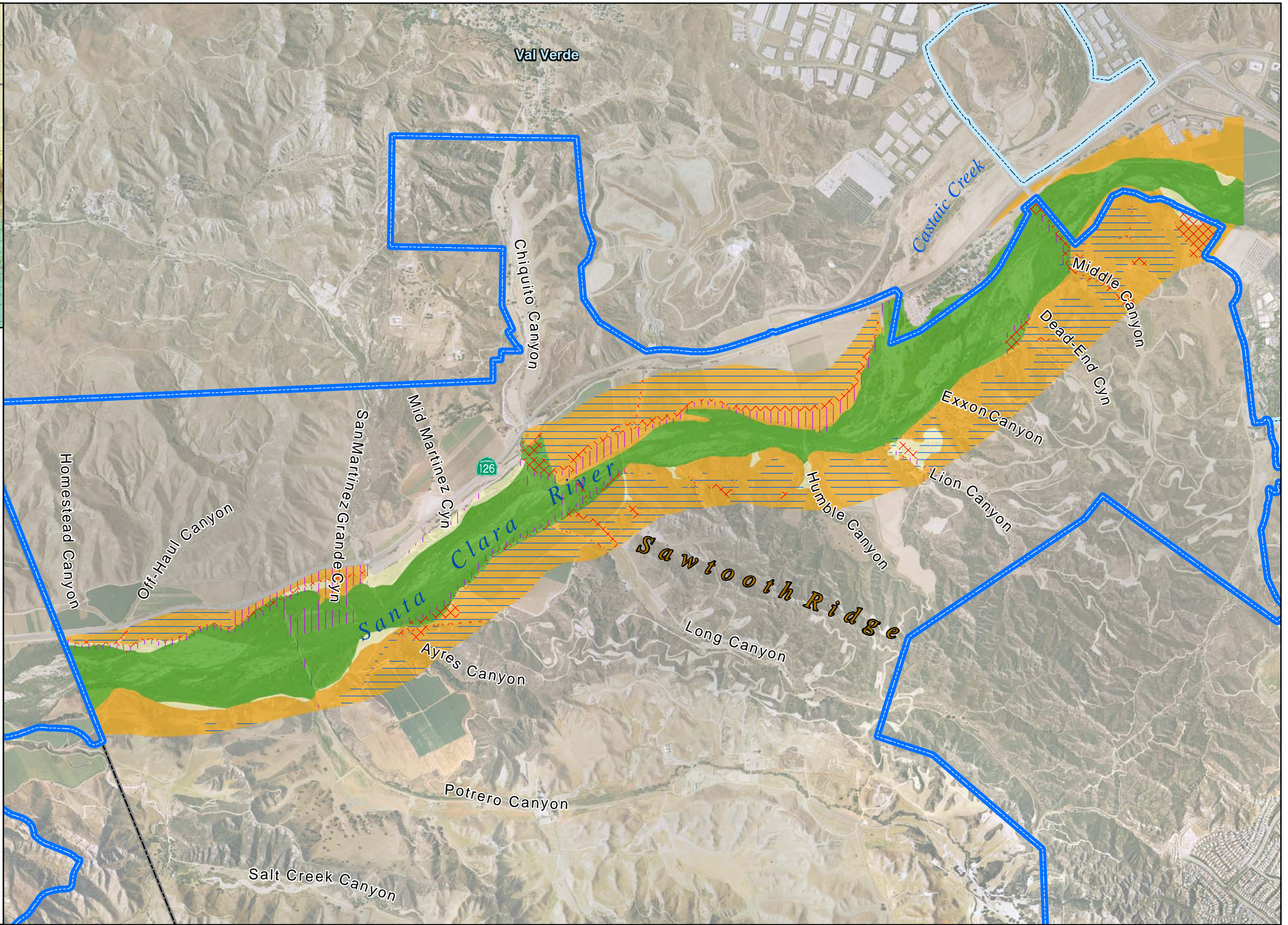
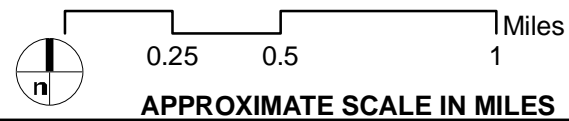
- RMDP Boundary
- SCP Boundary
- County Boundary

Impacts

- Direct Permanent
- Direct Temporary
- Indirect Permanent

Habitat

- High
- Moderate
- Low



AERIAL SOURCE: DigitalGlobe, 2007

FIGURE 4.5-50

Newhall Ranch - RMDP/SCP EIS/EIR

Alternative 4 Impacts to Arroyo Toad



Legend

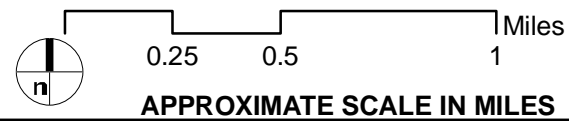
- RMDP Boundary
- SCP Boundary
- County Boundary

Impacts

- Direct Permanent
- Direct Temporary
- Indirect Permanent

Habitat

- High
- Moderate
- Low



AERIAL SOURCE: DigitalGlobe, 2007

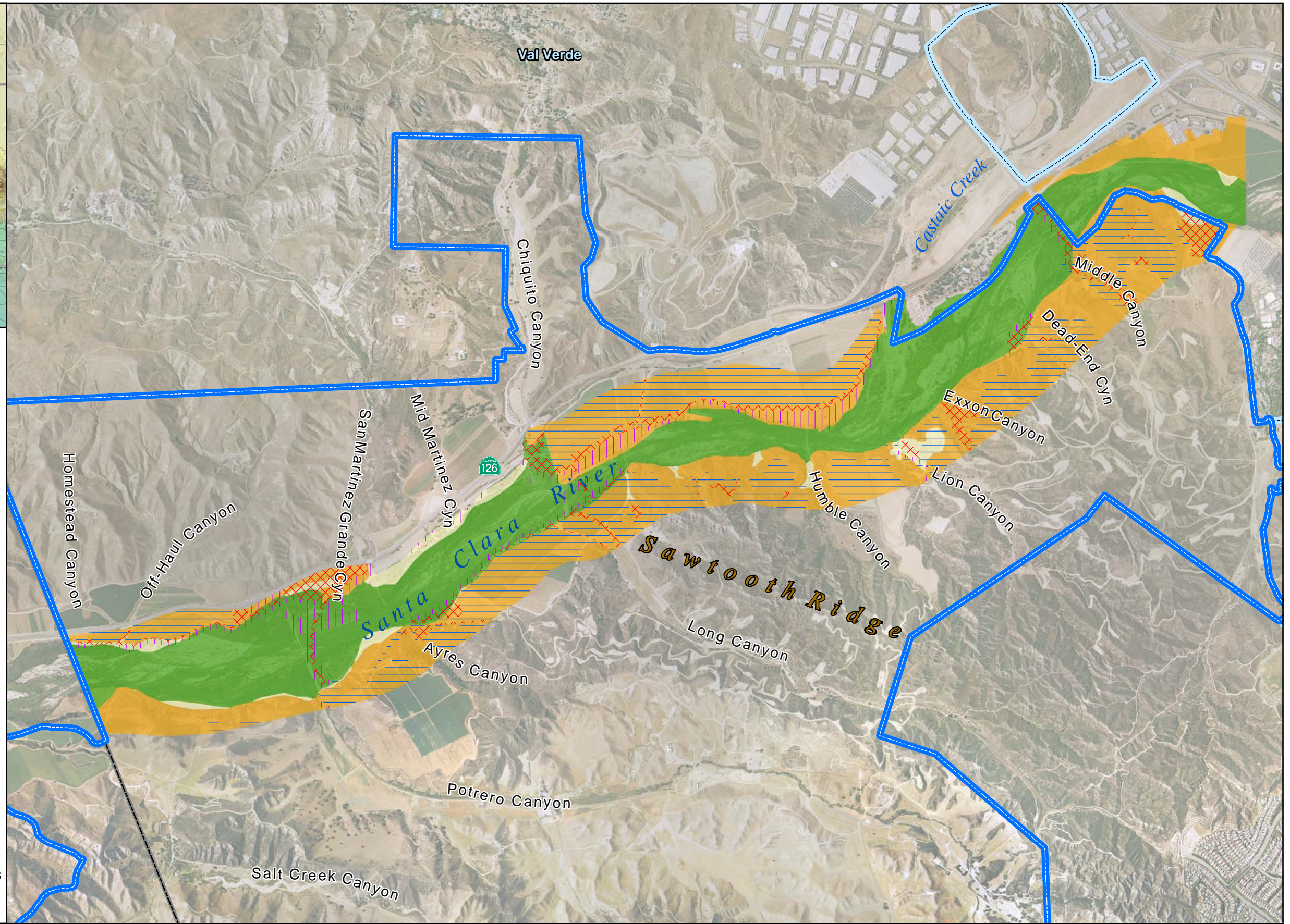


FIGURE 4.5-51

Newhall Ranch - RMDP/SCP EIS/EIR

Alternative 5 Impacts to Arroyo Toad



Legend

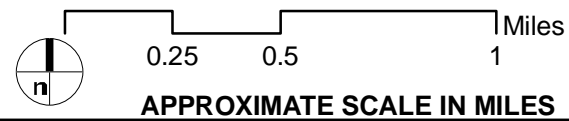
- RMDP Boundary
- SCP Boundary
- County Boundary

Impacts

- Direct Permanent
- Direct Temporary
- Indirect Permanent

Habitat

- High
- Moderate
- Low



AERIAL SOURCE: DigitalGlobe, 2007

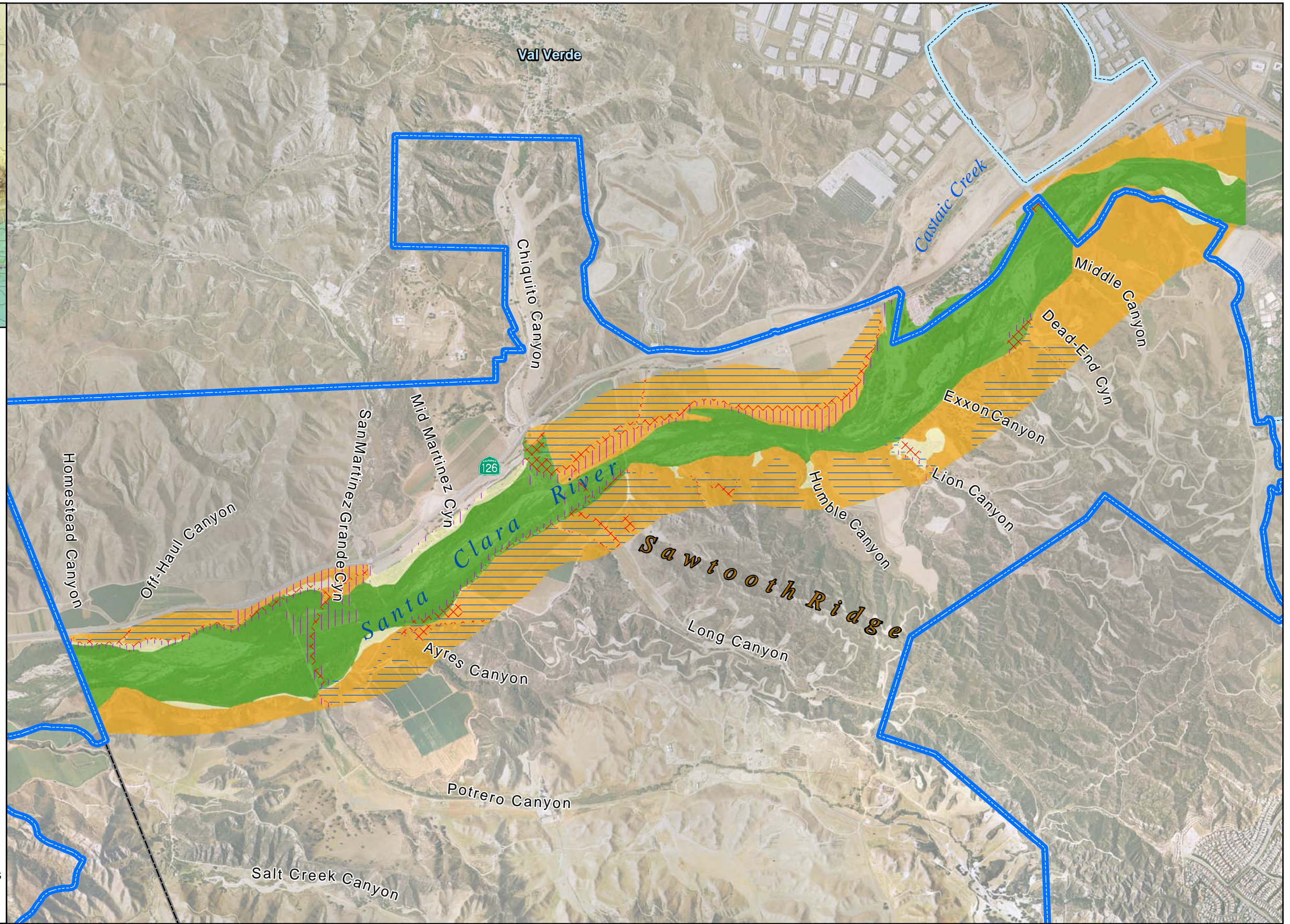


FIGURE 4.5-52

Newhall Ranch - RMDP/SCP EIS/EIR

Alternative 6 Impacts to Arroyo Toad



Legend

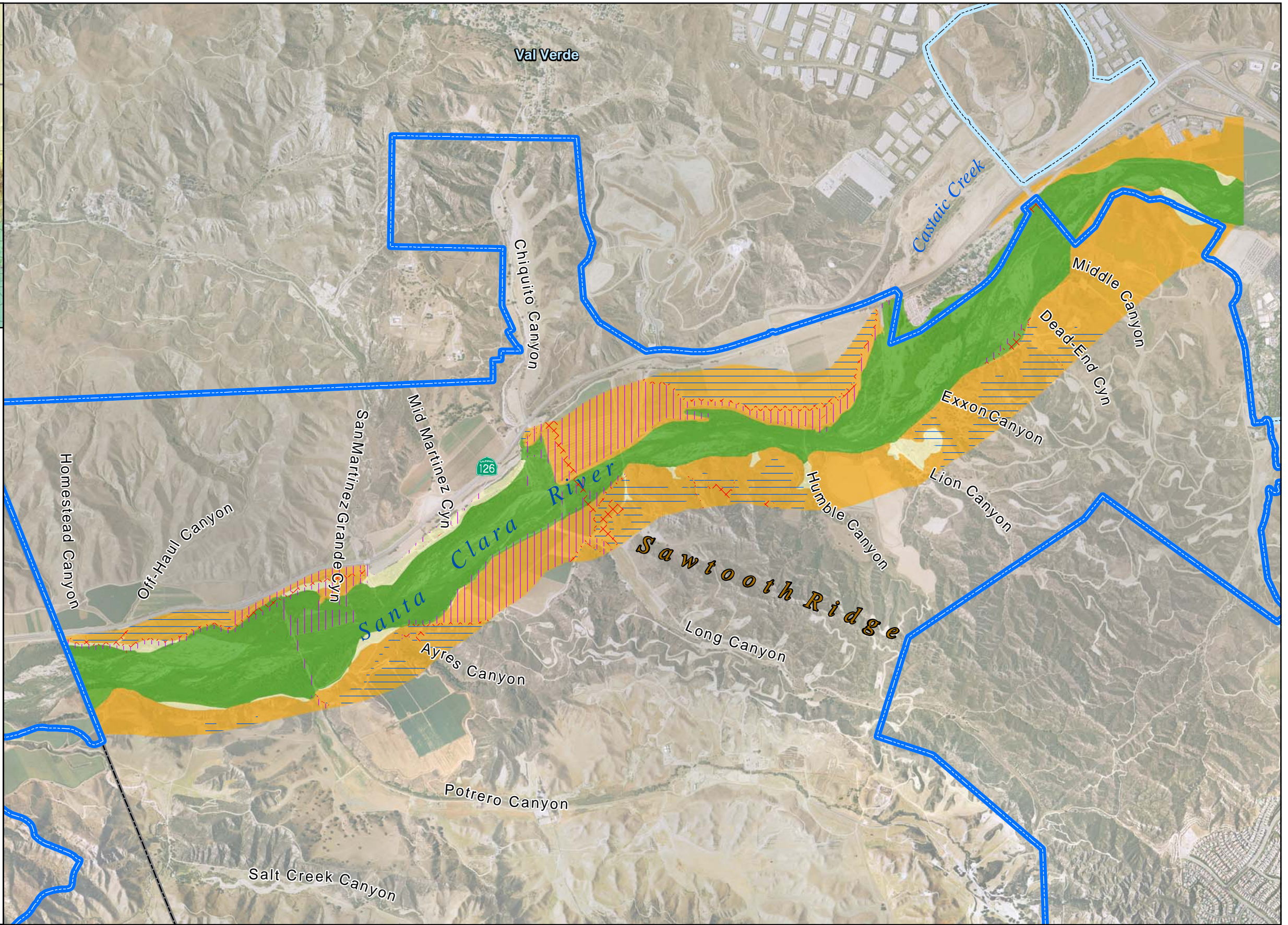
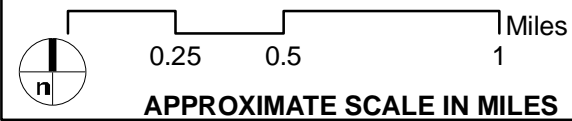
- RMDP Boundary
- SCP Boundary
- County Boundary

Impacts

- Direct Permanent
- Direct Temporary
- Indirect Permanent

Habitat

- High
- Moderate
- Low



AERIAL SOURCE: DigitalGlobe, 2007

FIGURE 4.5-53

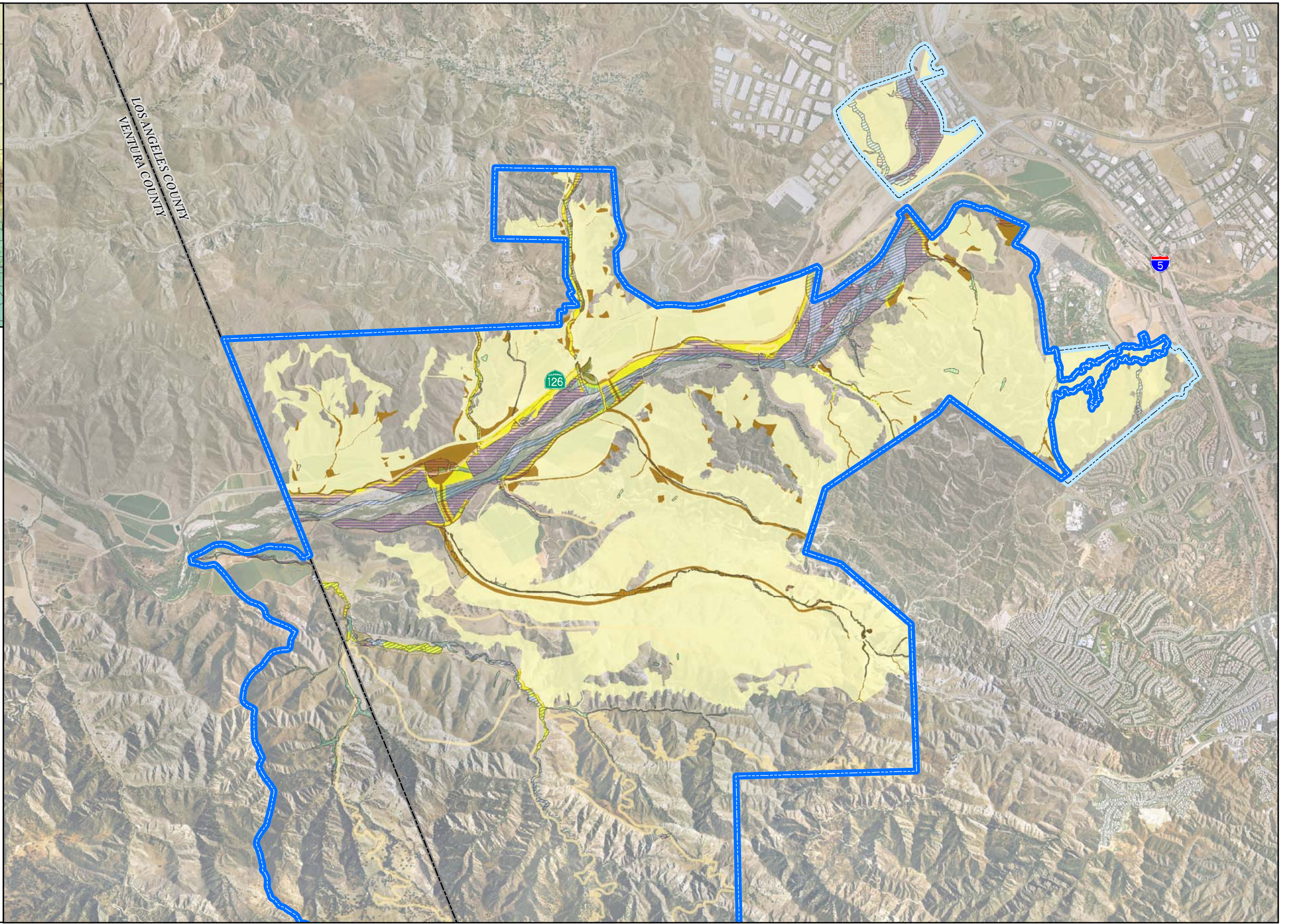
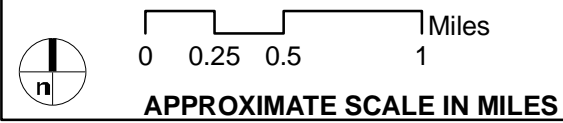
Newhall Ranch - RMDP/SCP EIS/EIR

Alternative 7 Impacts to Arroyo Toad



Legend

- RMDP Boundary
- SCP Boundary
- County Boundary
- Riparian / Wetland Wildlife Habitat**
- Bulrush-cattail wetland
- Cismontane alkali marsh
- Coastal and valley freshwater marsh
- River wash
- Mulefat scrub
- Mexican elderberry scrub
- Southern cottonwood-willow riparian forest
- Southern willow scrub
- Southern coast live oak riparian forest
- Impacts**
- Direct Permanent
- Direct Temporary
- Indirect Permanent



AERIAL SOURCE: DigitalGlobe, 2007

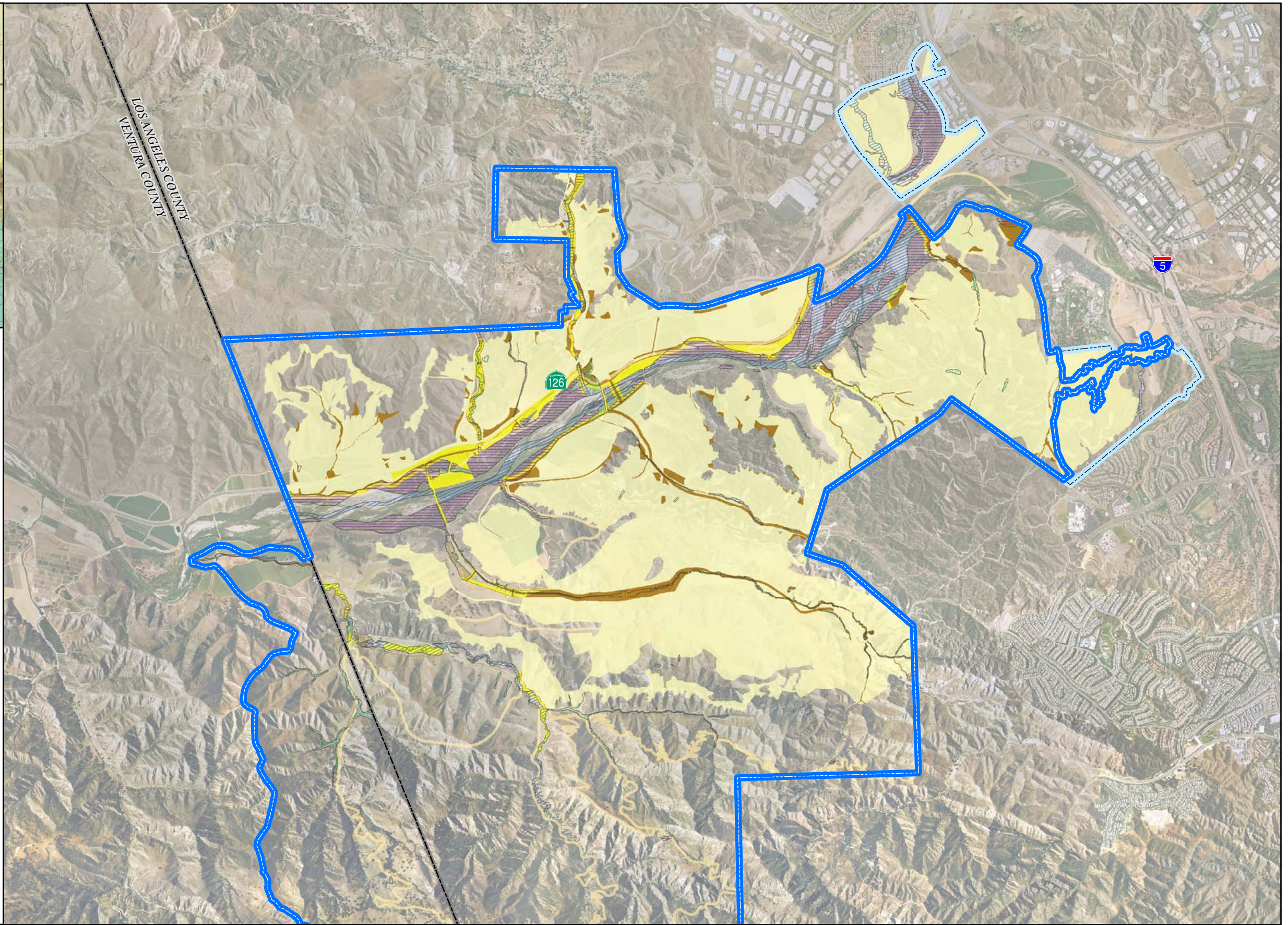
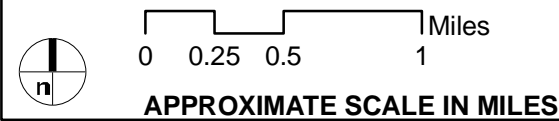
FIGURE 4.5-54

Newhall Ranch - RMDP/SCP EIS/EIR



Legend

- RMDP Boundary
- SCP Boundary
- County Boundary
- Riparian / Wetland Wildlife Habitat**
- Bulrush-cattail wetland
- Cismontane alkali marsh
- Coastal and valley freshwater marsh
- River wash
- Mulefat scrub
- Mexican elderberry scrub
- Southern cottonwood-willow riparian forest
- Southern willow scrub
- Southern coast live oak riparian forest
- Impacts**
- Direct Permanent
- Direct Temporary
- Indirect Permanent



AERIAL SOURCE: DigitalGlobe, 2007

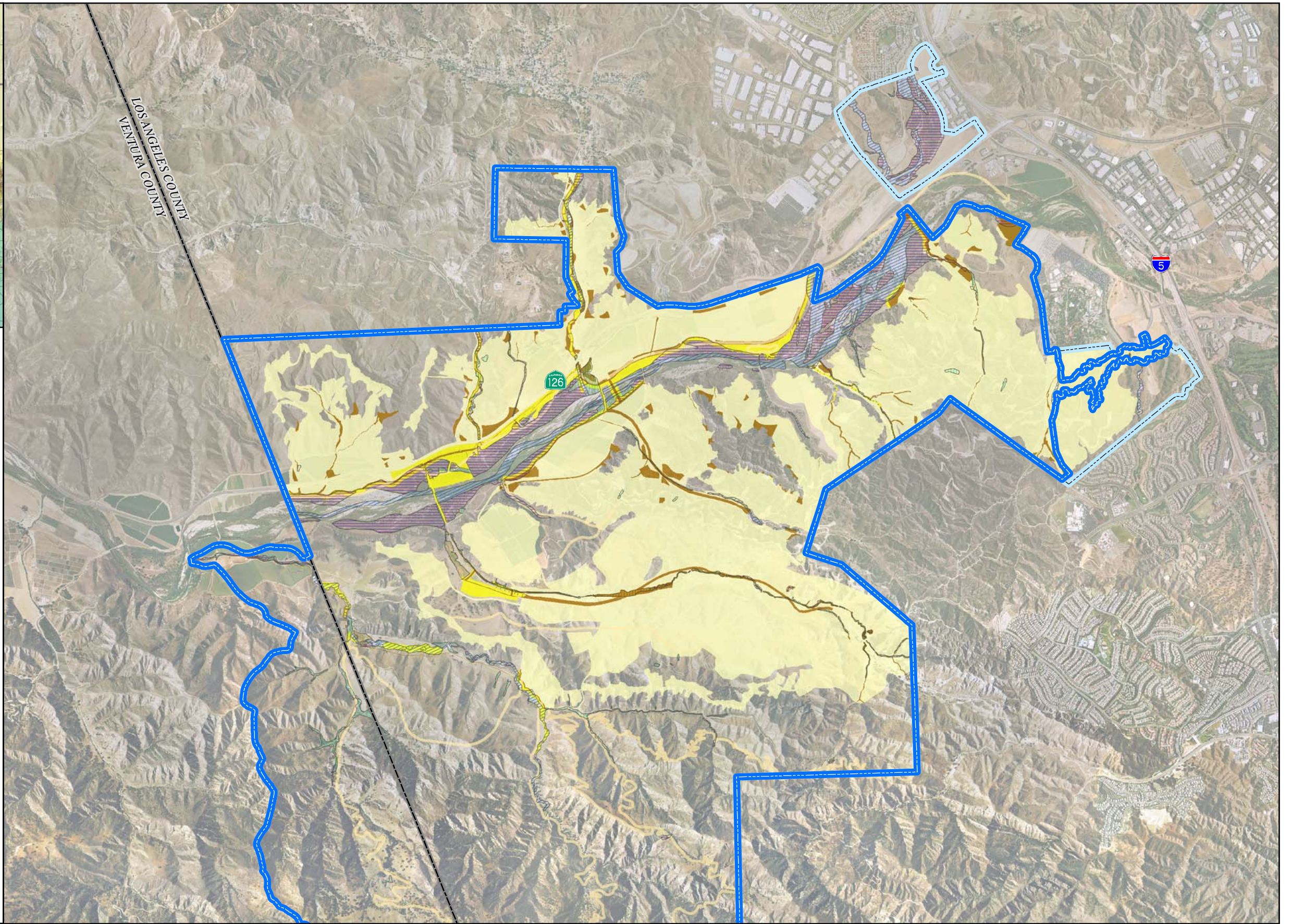
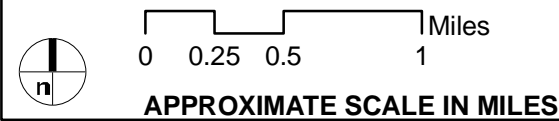
FIGURE 4.5-55

Newhall Ranch - RMDP/SCP EIS/EIR



Legend

- RMDP Boundary
- SCP Boundary
- County Boundary
- Riparian / Wetland Wildlife Habitat**
- Bulrush-cattail wetland
- Cismontane alkali marsh
- Coastal and valley freshwater marsh
- River wash
- Mulefat scrub
- Mexican elderberry scrub
- Southern cottonwood-willow riparian forest
- Southern willow scrub
- Southern coast live oak riparian forest
- Impacts**
- Direct Permanent
- Direct Temporary
- Indirect Permanent



AERIAL SOURCE: DigitalGlobe, 2007

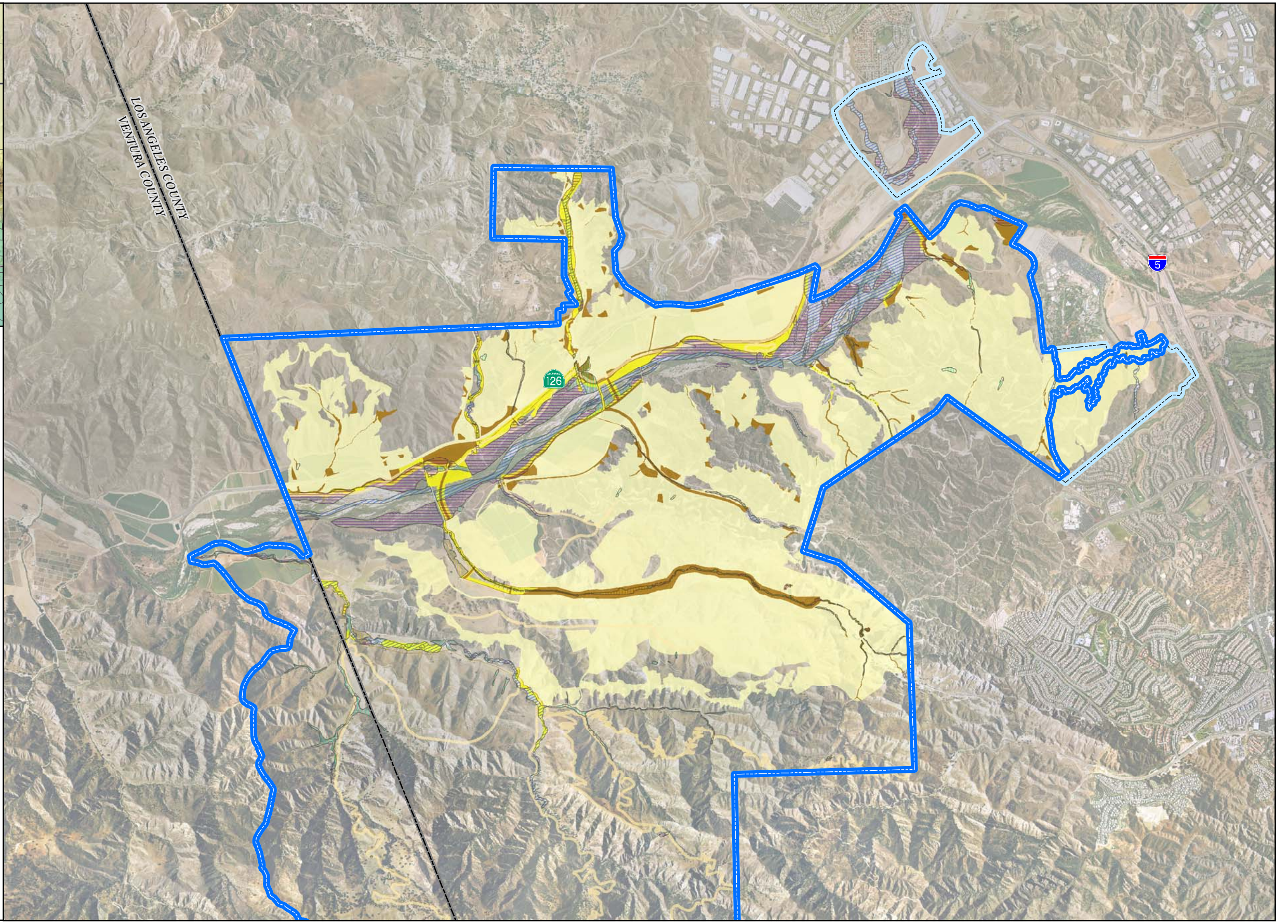
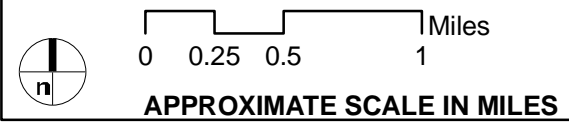
FIGURE 4.5-56

Newhall Ranch - RMDP/SCP EIS/EIR



Legend

- RMDP Boundary
 - SCP Boundary
 - County Boundary
- Riparian / Wetland Wildlife Habitat**
- Bulrush-cattail wetland
 - Cismontane alkali marsh
 - Coastal and valley freshwater marsh
 - River wash
 - Mulefat scrub
 - Mexican elderberry scrub
 - Southern cottonwood-willow riparian forest
 - Southern willow scrub
 - Southern coast live oak riparian forest
- Impacts**
- Direct Permanent
 - Direct Temporary
 - Indirect Permanent



AERIAL SOURCE: DigitalGlobe, 2007

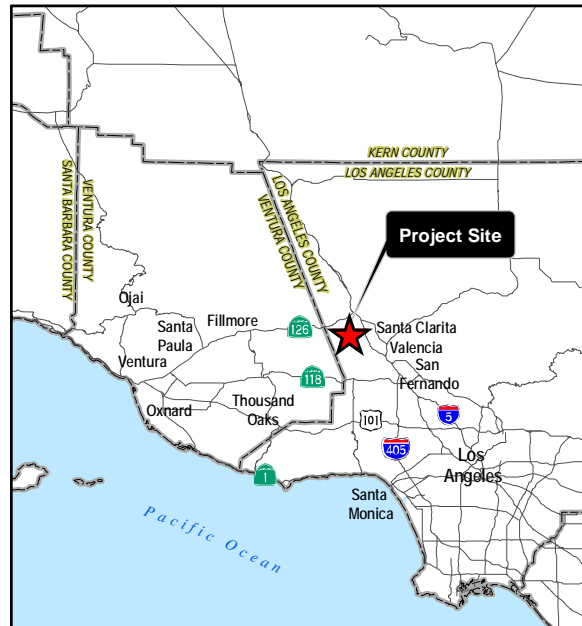
FIGURE 4.5-57

Newhall Ranch - RMDP/SCP EIS/EIR

Alternative 5 Impacts to Riparian/Wetland Wildlife Habitat

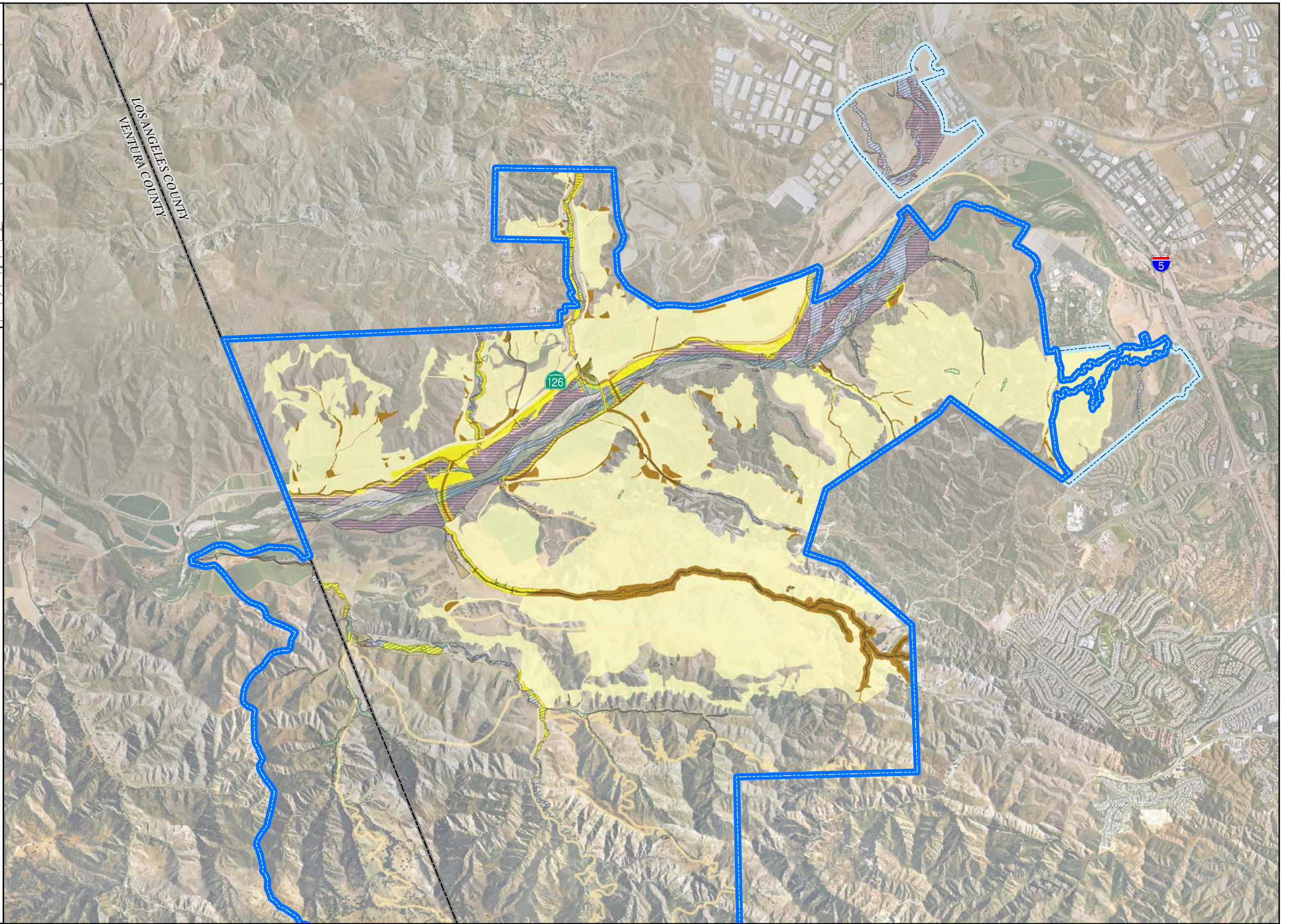
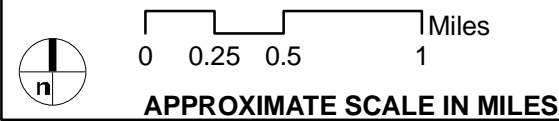


Z:\Projects\373801\Newhall Ranch\arcmap\EIS-EIR



Legend

- RMDP Boundary
- SCP Boundary
- County Boundary
- Riparian / Wetland Wildlife Habitat**
- Bulrush-cattail wetland
- Cismontane alkali marsh
- Coastal and valley freshwater marsh
- River wash
- Mulefat scrub
- Mexican elderberry scrub
- Southern cottonwood-willow riparian forest
- Southern willow scrub
- Southern coast live oak riparian forest
- Impacts**
- Direct Permanent
- Direct Temporary
- Indirect Permanent


















AERIAL SOURCE: DigitalGlobe, 2007

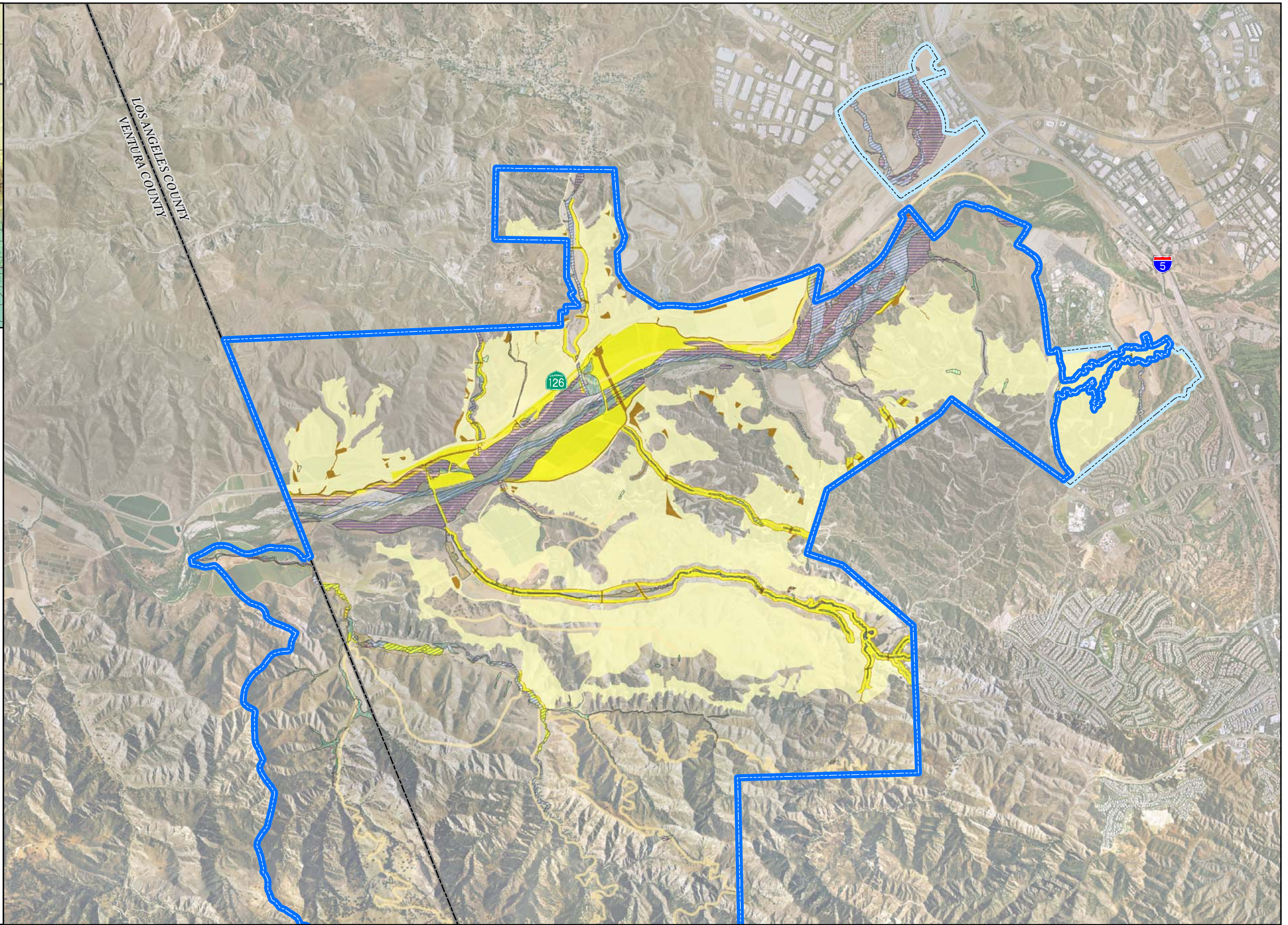
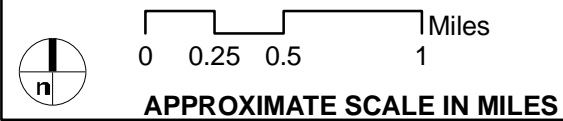
FIGURE 4.5-58

Newhall Ranch - RMDP/SCP EIS/EIR



Legend

-  RMDP Boundary
 -  SCP Boundary
 -  County Boundary
- Riparian / Wetland Wildlife Habitat**
-  Bulrush-cattail wetland
 -  Cismontane alkali marsh
 -  Coastal and valley freshwater marsh
 -  River wash
 -  Mulefat scrub
 -  Mexican elderberry scrub
 -  Southern cottonwood-willow riparian forest
 -  Southern willow scrub
 -  Southern coast live oak riparian forest
- Impacts**
-  Direct Permanent
 -  Direct Temporary
 -  Indirect Permanent



AERIAL SOURCE: DigitalGlobe, 2007

FIGURE 4.5-59

Newhall Ranch - RMDP/SCP EIS/EIR

Alternative 7 Impacts to Riparian/Wetland Wildlife Habitat

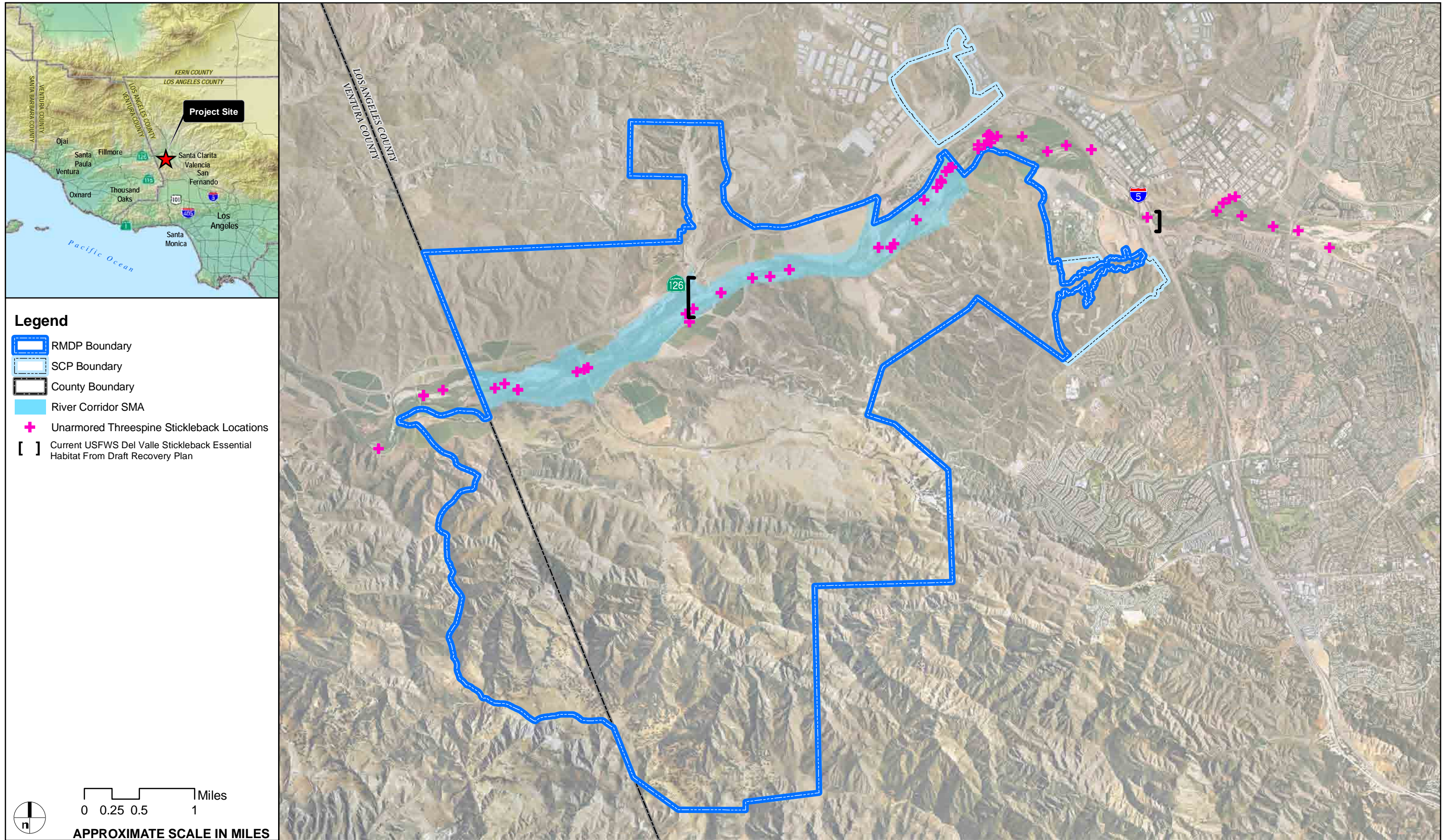
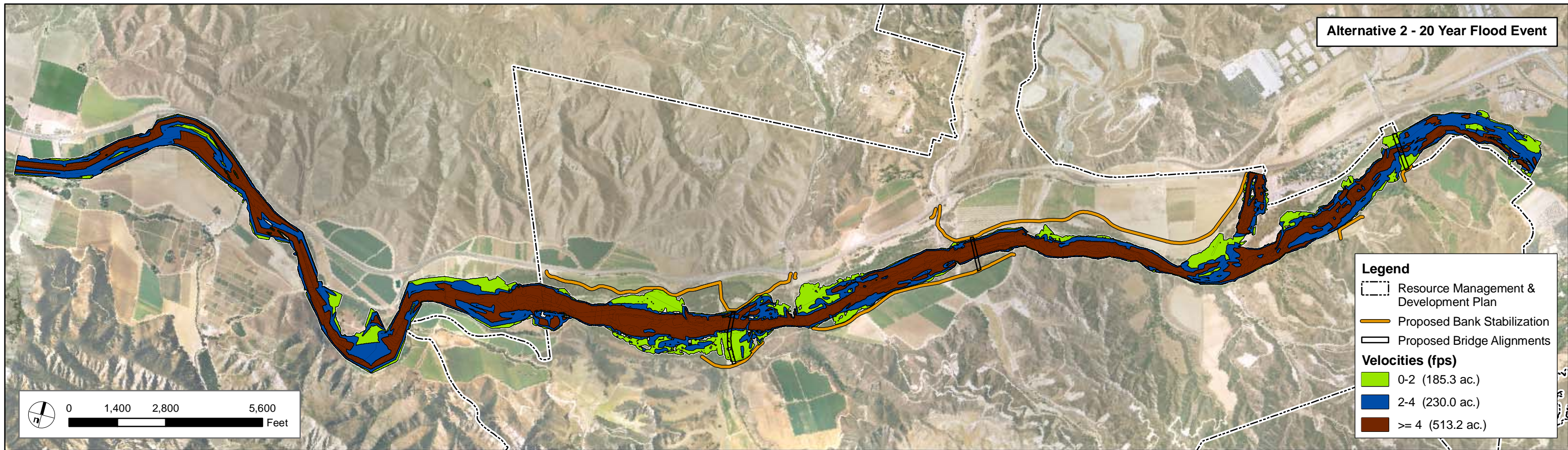
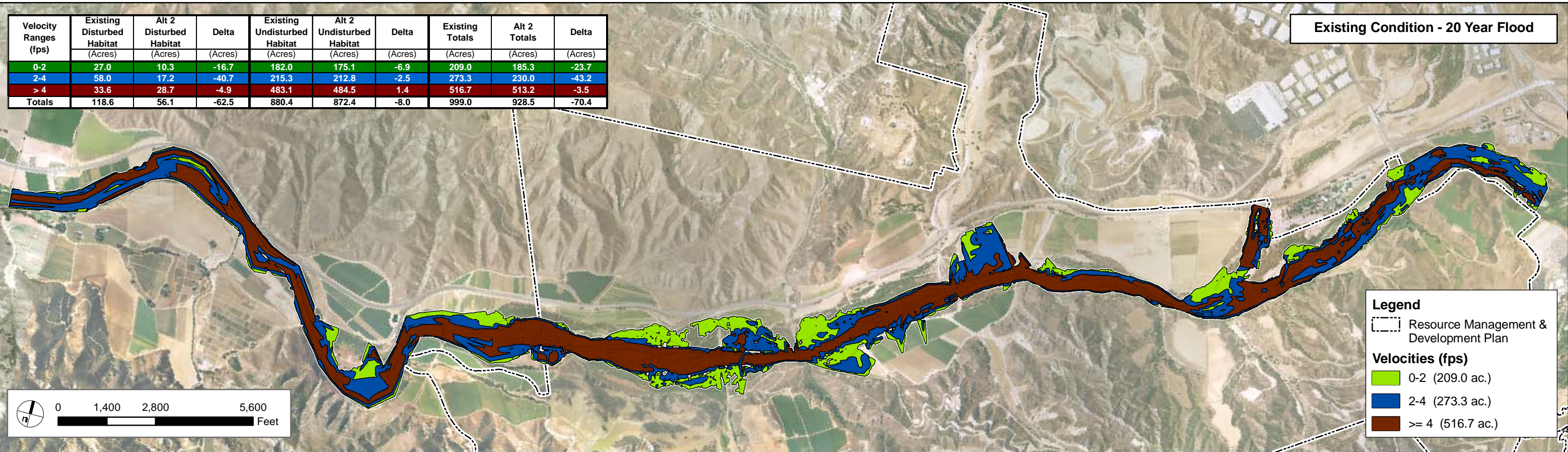


FIGURE 4.5-60

Newhall Ranch - RMDP/SCP EIS/EIR

Habitat in RMDP/SCP for Unarmored Threespine Stickleback

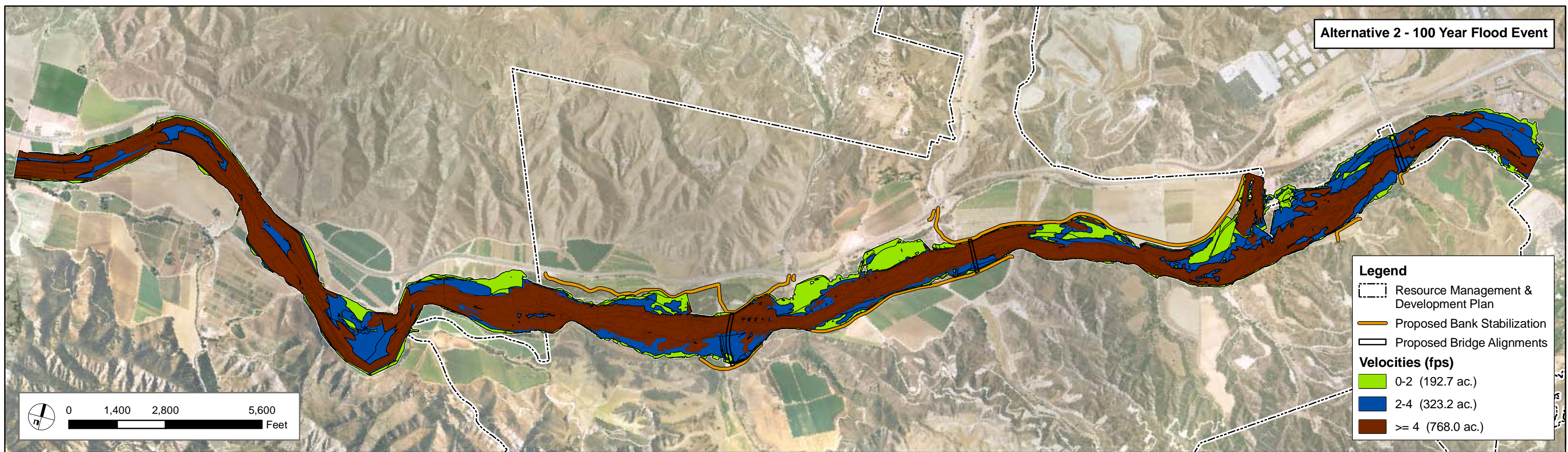
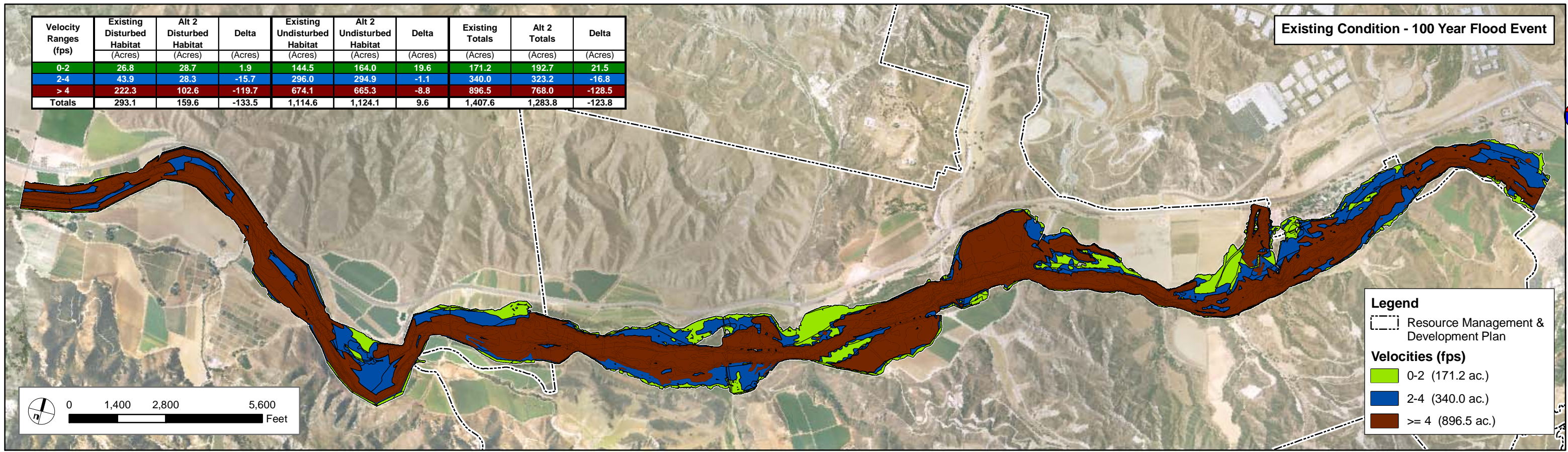


SOURCE: PACE 2008

FIGURE 4.5-61a

Newhall Ranch - RMDP/SCP EIS/EIR

Potential Hydrologic Impacts to Habitat for Unarmored Threespine Stickleback Existing Condition and Alternative 2 – 20 Year Flood Event Velocity Comparison



SOURCE: PACE 2008

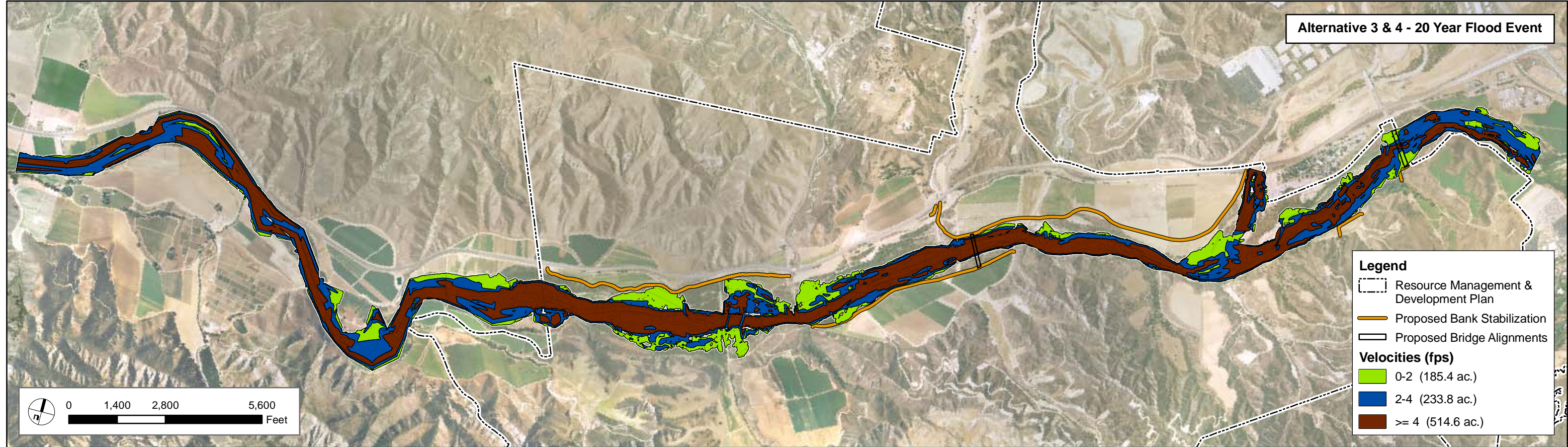
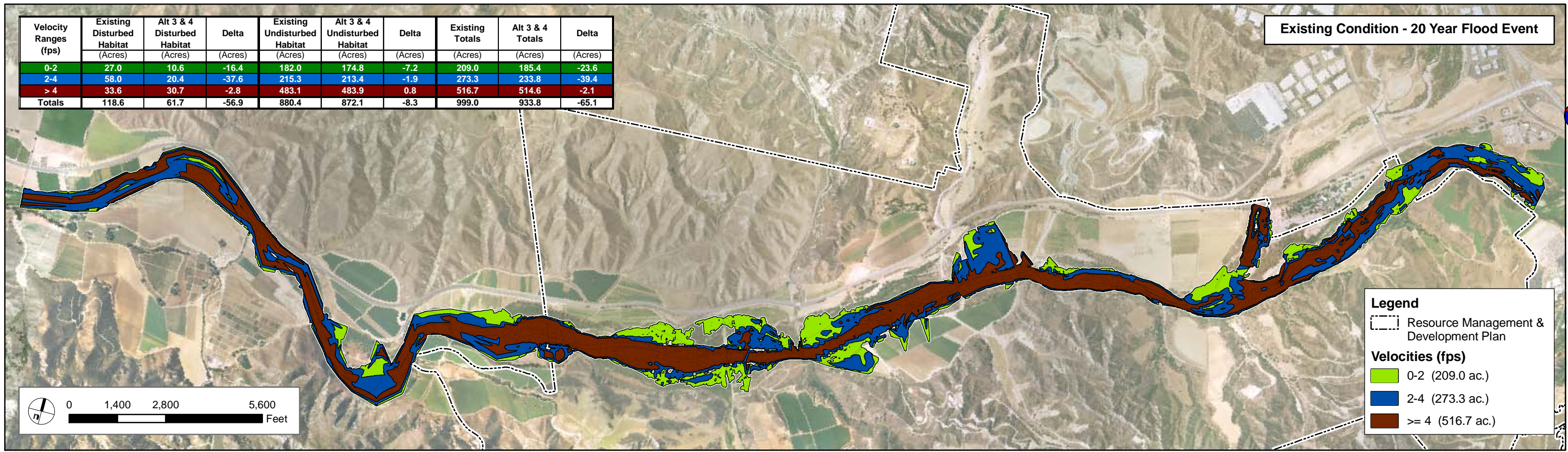
FIGURE 4.5-61b

Newhall Ranch - RMDP/SCP EIS/EIR

Potential Hydrologic Impacts to Habitat for Unarmored Threespine Stickleback Existing Condition and Alternative 2 – 100 Year Flood Event Velocity Comparison

P:\8238E\GIS\mxds\EIR_2008\Section4_5\8238E_FIGURE-4-5-61b_PotentialHabitatImpactsUnarmored3SpineSticklebackAlt2_100Yr_031009.mxd

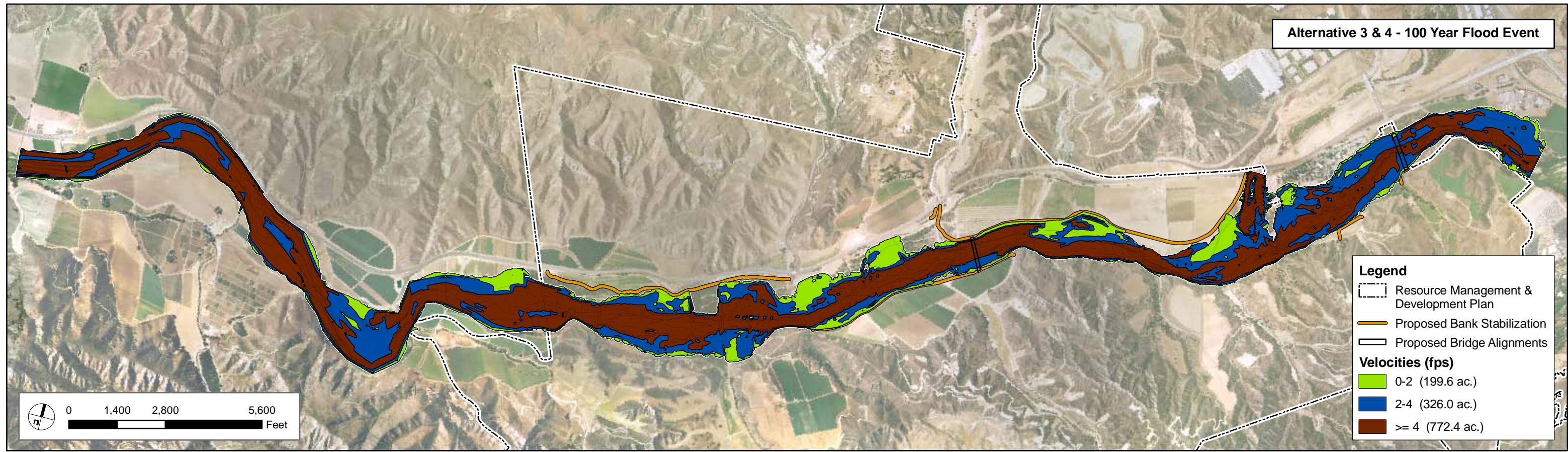
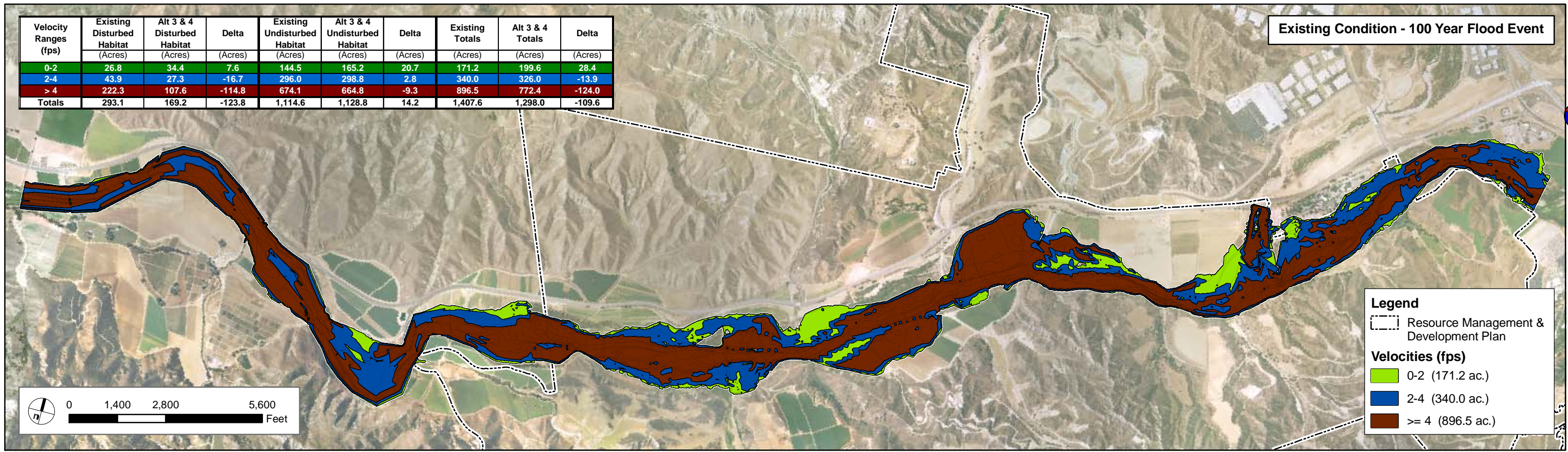
Velocity Ranges (fps)	Existing Disturbed Habitat (Acres)	Alt 3 & 4 Disturbed Habitat (Acres)	Delta (Acres)	Existing Undisturbed Habitat (Acres)	Alt 3 & 4 Undisturbed Habitat (Acres)	Delta (Acres)	Existing Totals (Acres)	Alt 3 & 4 Totals (Acres)	Delta (Acres)
0-2	27.0	10.6	-16.4	182.0	174.8	-7.2	209.0	185.4	-23.6
2-4	58.0	20.4	-37.6	215.3	213.4	-1.9	273.3	233.8	-39.4
> 4	33.6	30.7	-2.8	483.1	483.9	0.8	516.7	514.6	-2.1
Totals	118.6	61.7	-56.9	880.4	872.1	-8.3	999.0	933.8	-65.1



SOURCE: PACE 2008

FIGURE 4.5-62a
Newhall Ranch - RMDP/SCP EIS/EIR
Potential Hydrologic Impacts to Habitat for Unarmored Threespine Stickleback Existing Condition and Alternative 3 & 4 – 20 Year Flood Event Velocity Comparison

Velocity Ranges (fps)	Existing Disturbed Habitat (Acres)	Alt 3 & 4 Disturbed Habitat (Acres)	Delta (Acres)	Existing Undisturbed Habitat (Acres)	Alt 3 & 4 Undisturbed Habitat (Acres)	Delta (Acres)	Existing Totals (Acres)	Alt 3 & 4 Totals (Acres)	Delta (Acres)
0-2	26.8	34.4	7.6	144.5	165.2	20.7	171.2	199.6	28.4
2-4	43.9	27.3	-16.7	296.0	298.8	2.8	340.0	326.0	-13.9
> 4	222.3	107.6	-114.8	674.1	664.8	-9.3	896.5	772.4	-124.0
Totals	293.1	169.2	-123.8	1,114.6	1,128.8	14.2	1,407.6	1,298.0	-109.6



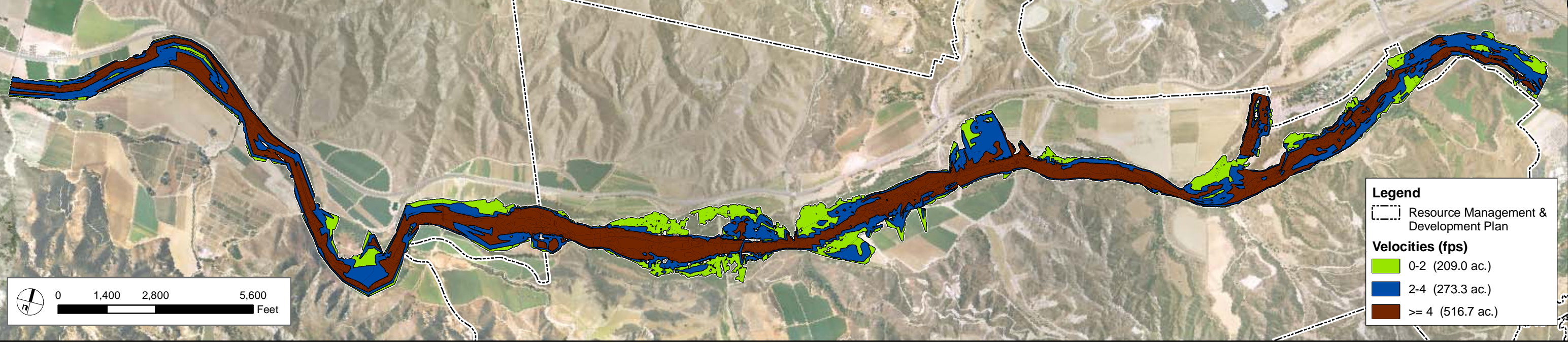
SOURCE: PACE 2008

FIGURE 4.5-62b

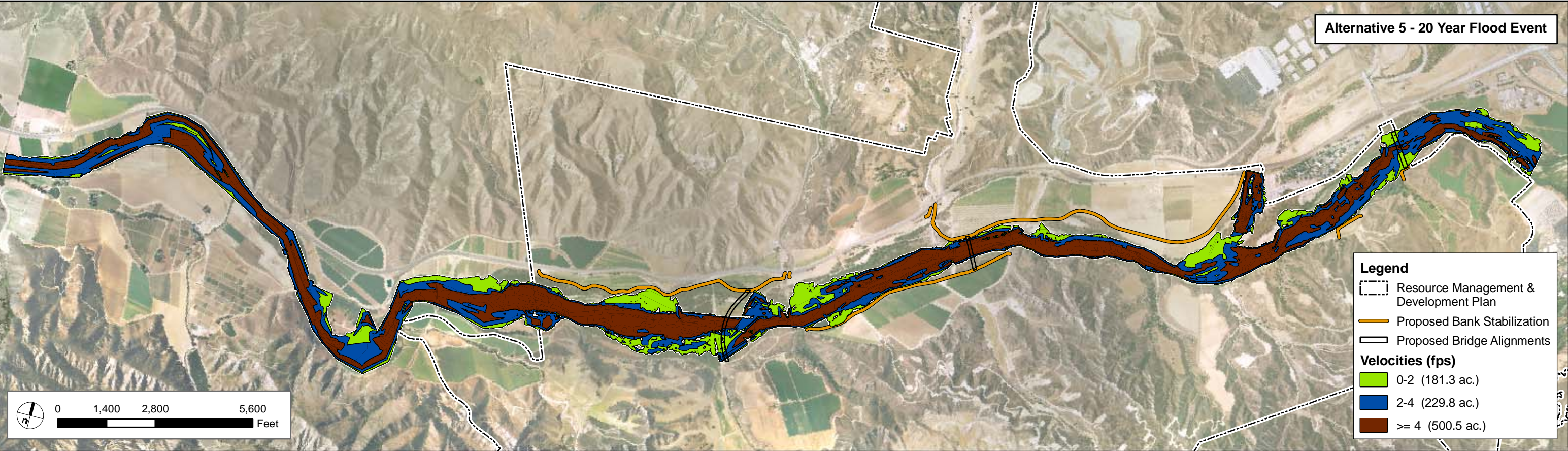
Newhall Ranch - RMDP/SCP EIS/EIR
Potential Hydrologic Impacts to Habitat for Unarmored Threespine Stickleback Existing Condition and Alternative 3 & 4 – 100 Year Flood Event Velocity Comparison

Velocity Ranges (fps)	Existing Disturbed Habitat (Acres)	Alt 5 Disturbed Habitat (Acres)	Delta (Acres)	Existing Undisturbed Habitat (Acres)	Alt 5 Undisturbed Habitat (Acres)	Delta (Acres)	Existing Totals (Acres)	Alt 5 Totals (Acres)	Delta (Acres)
0-2	27.0	9.3	-17.7	182.0	172.0	-10.1	209.0	181.3	-27.7
2-4	58.0	15.1	-42.9	215.3	214.7	-0.6	273.3	229.8	-43.4
> 4	33.6	22.5	-11.1	483.1	478.0	-5.1	516.7	500.5	-16.2
Totals	118.6	46.9	-71.7	880.4	864.7	-15.7	999.0	911.6	-87.3

Existing Condition - 20 Year Flood Event



Alternative 5 - 20 Year Flood Event



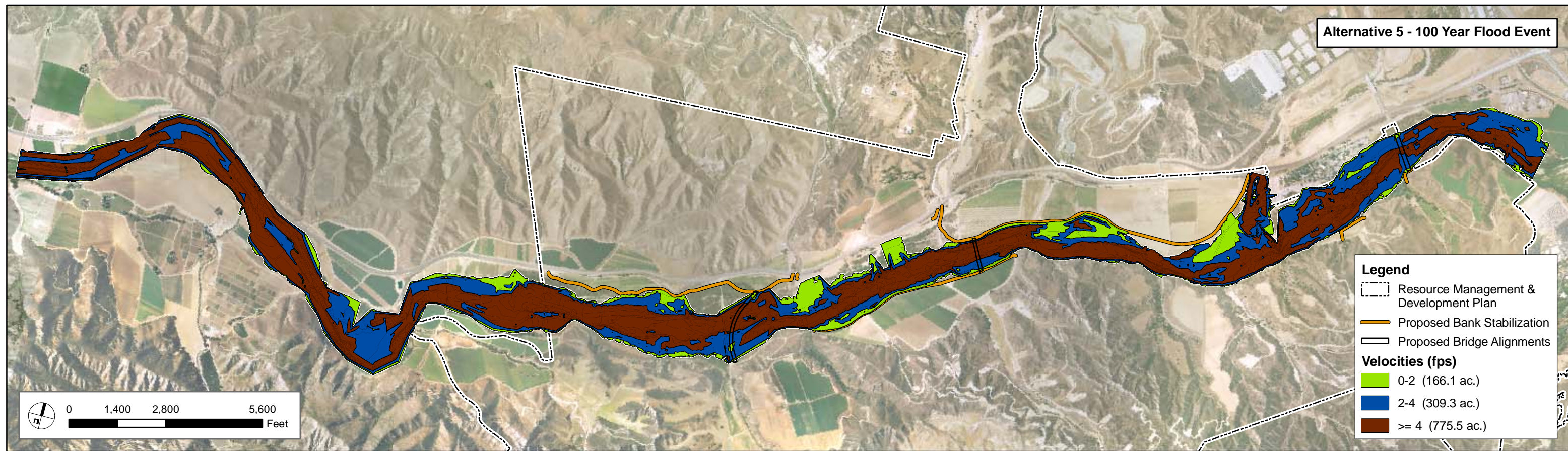
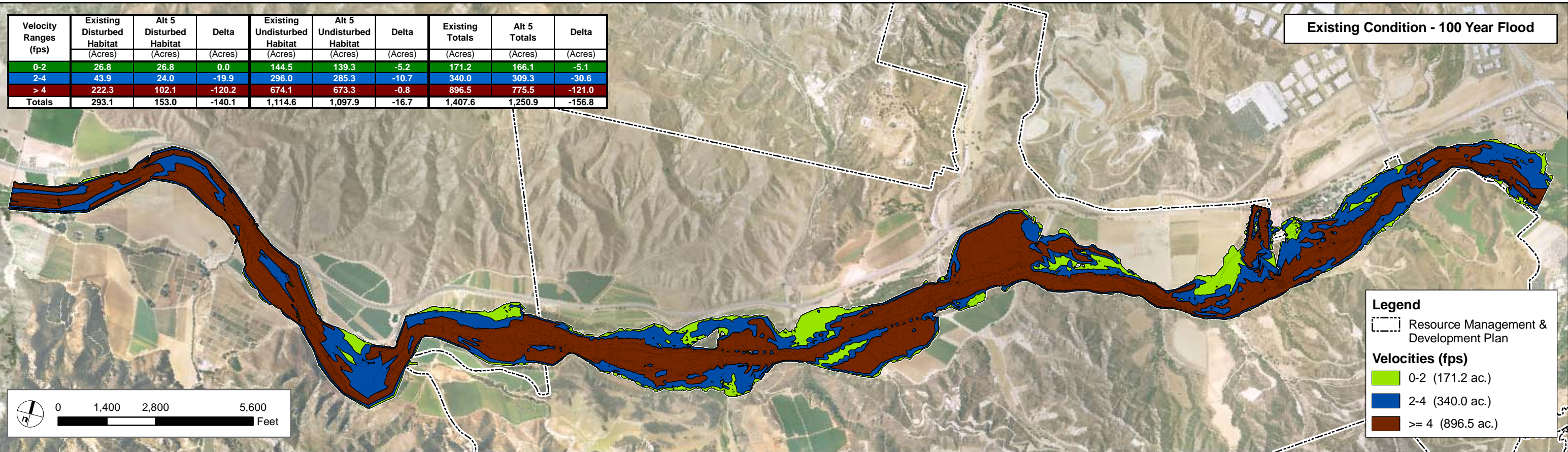
SOURCE: PACE 2008

FIGURE 4.5-63a

Newhall Ranch - RMDP/SCP EIS/EIR

Potential Hydrologic Impacts to Habitat for Unarmored Threespine Stickleback Existing Condition and Alternative 5 – 20 Year Flood Event Velocity Comparison

P:\8238E\GIS\mxds\EIR_2008\Section4_5\8238E_FIGURE-4-5-63a_PotentialHabitatImpactsUnarmored3SpineSticklebackAlt5_20Yr_031009.mxd

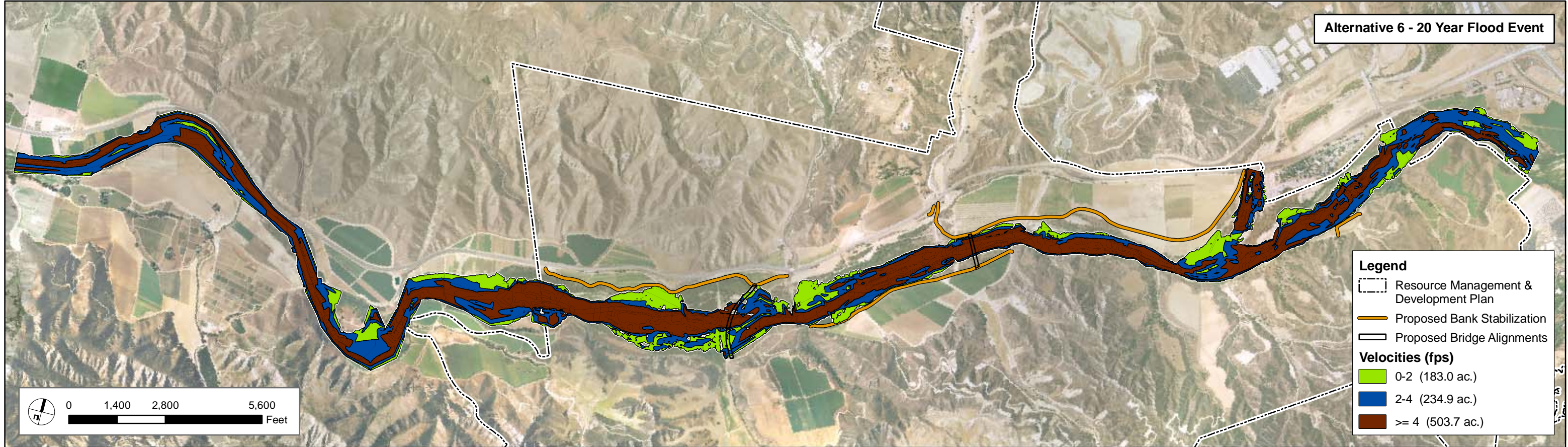
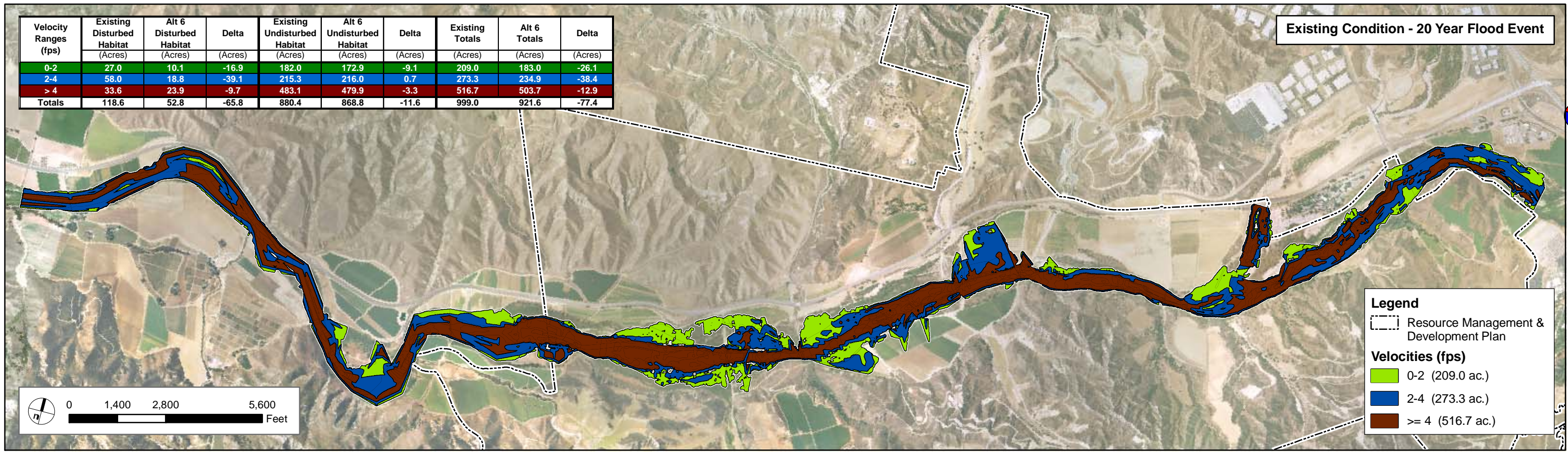


SOURCE: PACE 2008

FIGURE 4.5-63b

Newhall Ranch - RMDP/SCP EIS/EIR
Potential Hydrologic Impacts to Habitat for Unarmored Threespine Stickleback Existing Condition and Alternative 5 – 100 Year Flood Event Velocity Comparison

Velocity Ranges (fps)	Existing Disturbed Habitat (Acres)	Alt 6 Disturbed Habitat (Acres)	Delta (Acres)	Existing Undisturbed Habitat (Acres)	Alt 6 Undisturbed Habitat (Acres)	Delta (Acres)	Existing Totals (Acres)	Alt 6 Totals (Acres)	Delta (Acres)
0-2	27.0	10.1	-16.9	182.0	172.9	-9.1	209.0	183.0	-26.1
2-4	58.0	18.8	-39.1	215.3	216.0	0.7	273.3	234.9	-38.4
> 4	33.6	23.9	-9.7	483.1	479.9	-3.3	516.7	503.7	-12.9
Totals	118.6	52.8	-65.8	880.4	868.8	-11.6	999.0	921.6	-77.4



SOURCE: PACE 2008

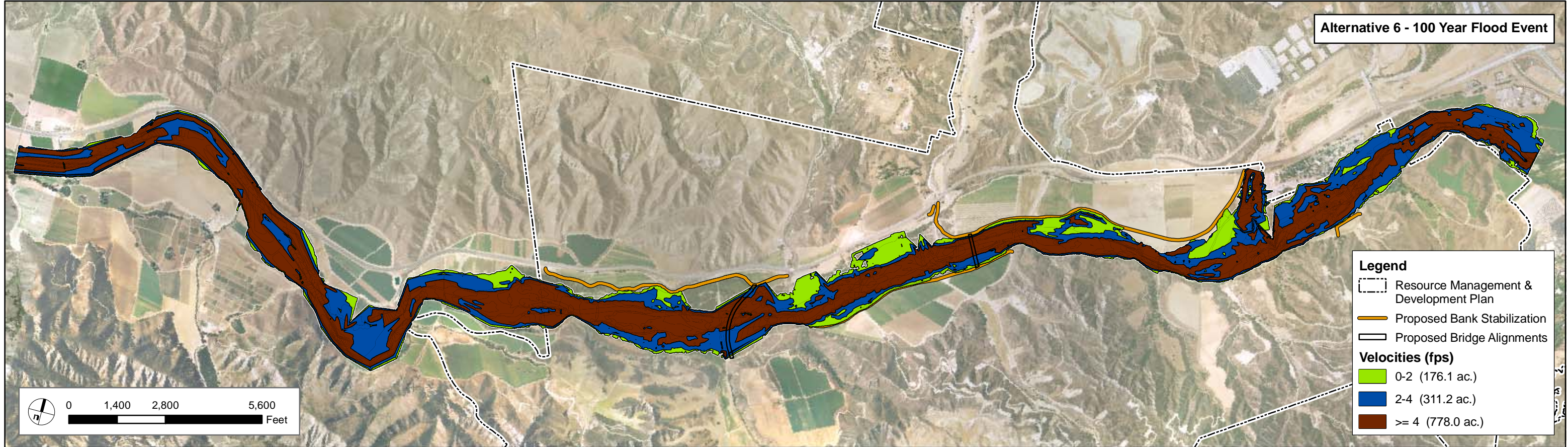
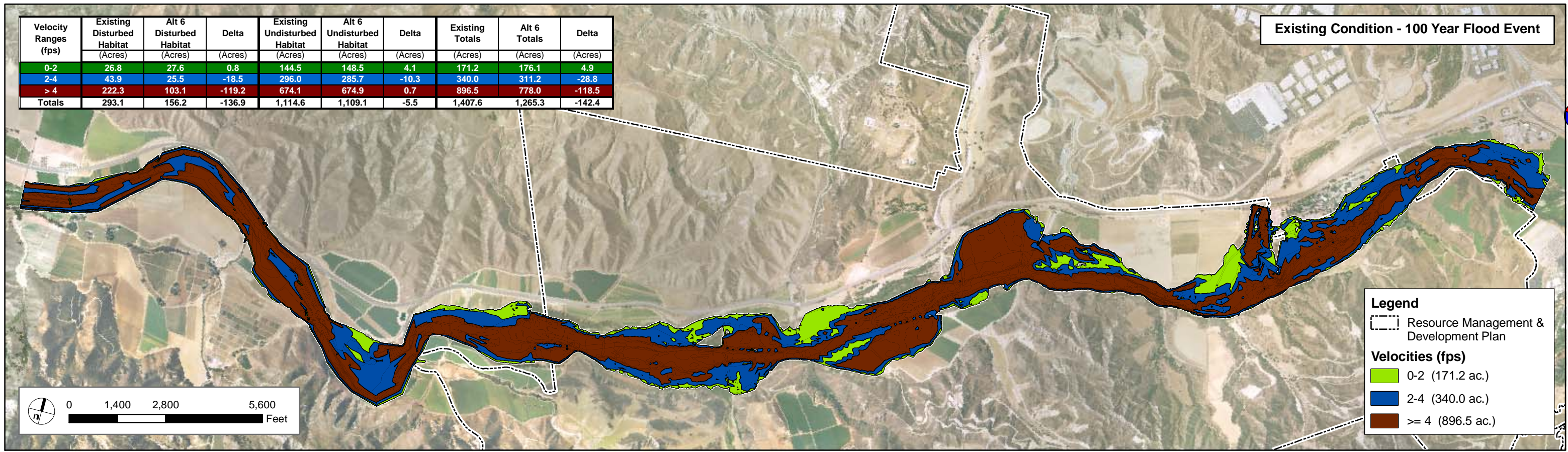
FIGURE 4.5-64a

Newhall Ranch - RMDP/SCP EIS/EIR

Potential Hydrologic Impacts to Habitat for Unarmored Threespine Stickleback Existing Condition and Alternative 6 – 20 Year Flood Event Velocity Comparison

P:\8238E\GIS\mxds\EIR_2008\Section4_5\8238E_FIGURE-4-5-64a_PotentialHabitatImpactsUnarmored3SpineSticklebackAlt6_20Yr_031009.mxd

Velocity Ranges (fps)	Existing Disturbed Habitat (Acres)	Alt 6 Disturbed Habitat (Acres)	Delta (Acres)	Existing Undisturbed Habitat (Acres)	Alt 6 Undisturbed Habitat (Acres)	Delta (Acres)	Existing Totals (Acres)	Alt 6 Totals (Acres)	Delta (Acres)
0-2	26.8	27.6	0.8	144.5	148.5	4.1	171.2	176.1	4.9
2-4	43.9	25.5	-18.5	296.0	285.7	-10.3	340.0	311.2	-28.8
> 4	222.3	103.1	-119.2	674.1	674.9	0.7	896.5	778.0	-118.5
Totals	293.1	156.2	-136.9	1,114.6	1,109.1	-5.5	1,407.6	1,265.3	-142.4



SOURCE: PACE 2008

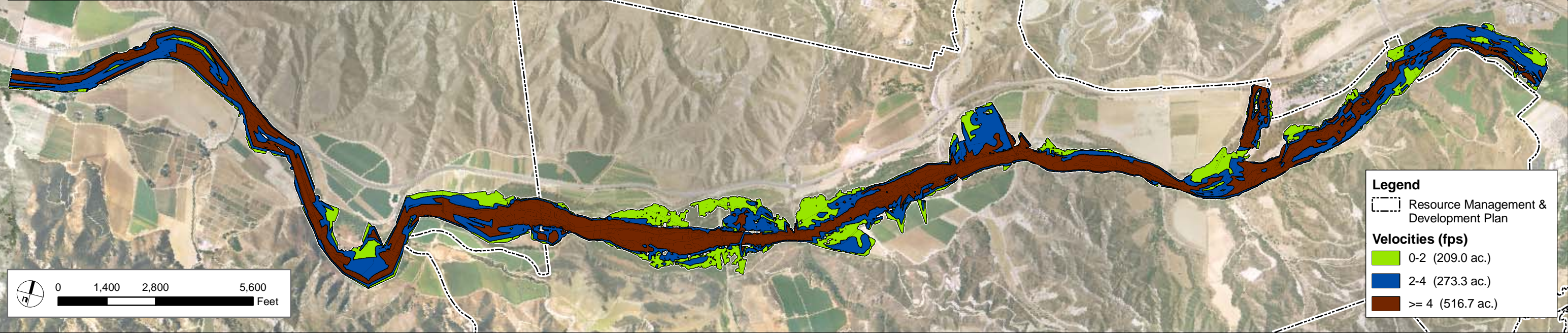
FIGURE 4.5-64b

Newhall Ranch - RMDP/SCP EIS/EIR
Potential Hydrologic Impacts to Habitat for Unarmored Threespine Stickleback Existing Condition and Alternative 6 – 100 Year Flood Event Velocity Comparison

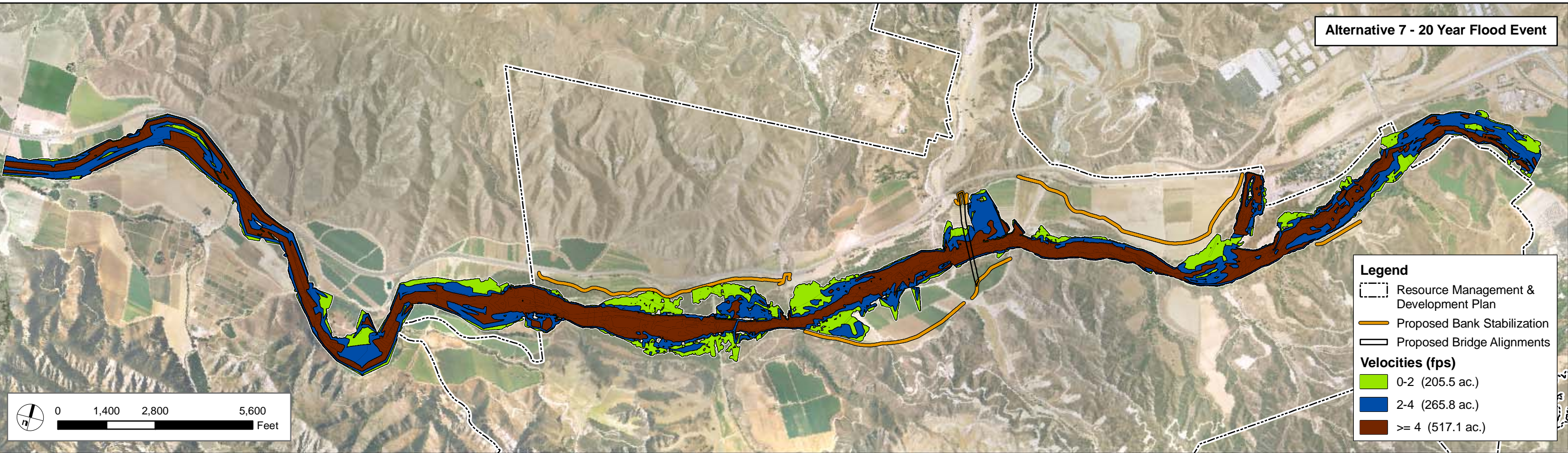
P:\8238E\GIS\mxd\IEIR_2008\Section4_5\8238E_FIGURE-4-5-64b_PotentialHabitatImpactsUnarmored3SpineSticklebackAlt6_100Yr_031009.mxd

Existing Disturbed Habitat (Acres)	Alt 7 Disturbed Habitat (Acres)	Delta (Acres)	Existing Undisturbed Habitat (Acres)	Alt 7 Undisturbed Habitat (Acres)	Delta (Acres)	Existing Totals (Acres)	Alt 7 Totals (Acres)	Delta (Acres)
27.0	24.4	-2.6	182.0	181.1	-0.9	209.0	205.5	-3.5
58.0	50.8	-7.1	215.3	215.0	-0.3	273.3	265.8	-7.4
33.6	33.3	-0.3	483.1	483.8	0.7	516.7	517.1	0.4
118.6	108.5	-10.2	880.4	879.9	-0.6	999.0	988.4	-10.5

Existing Condition - 20 Year Flood Event



Alternative 7 - 20 Year Flood Event



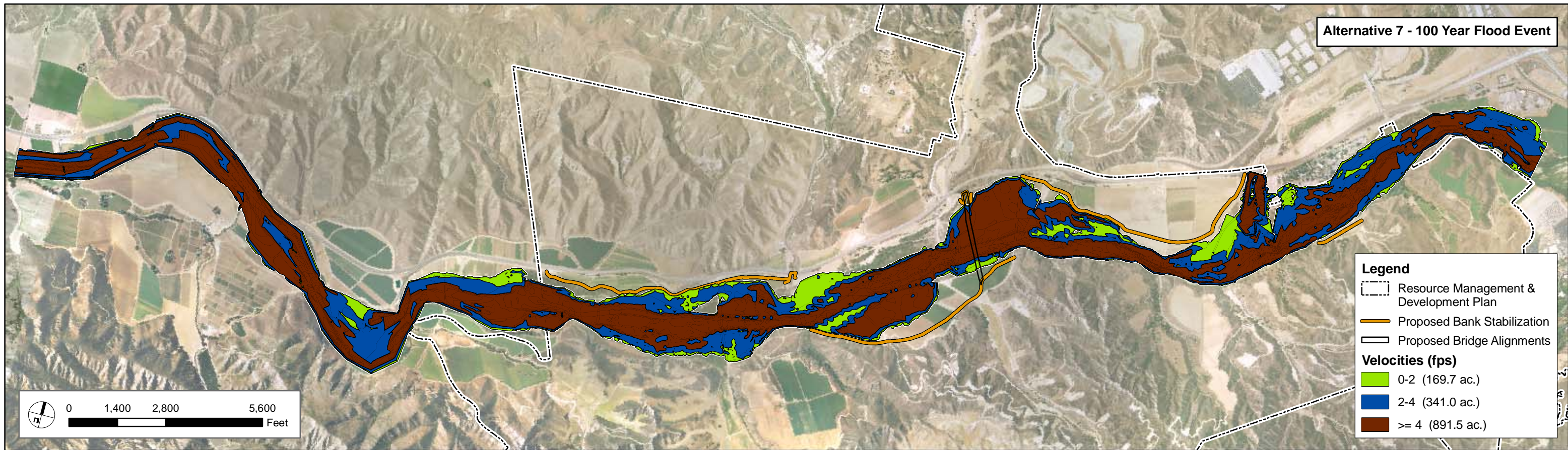
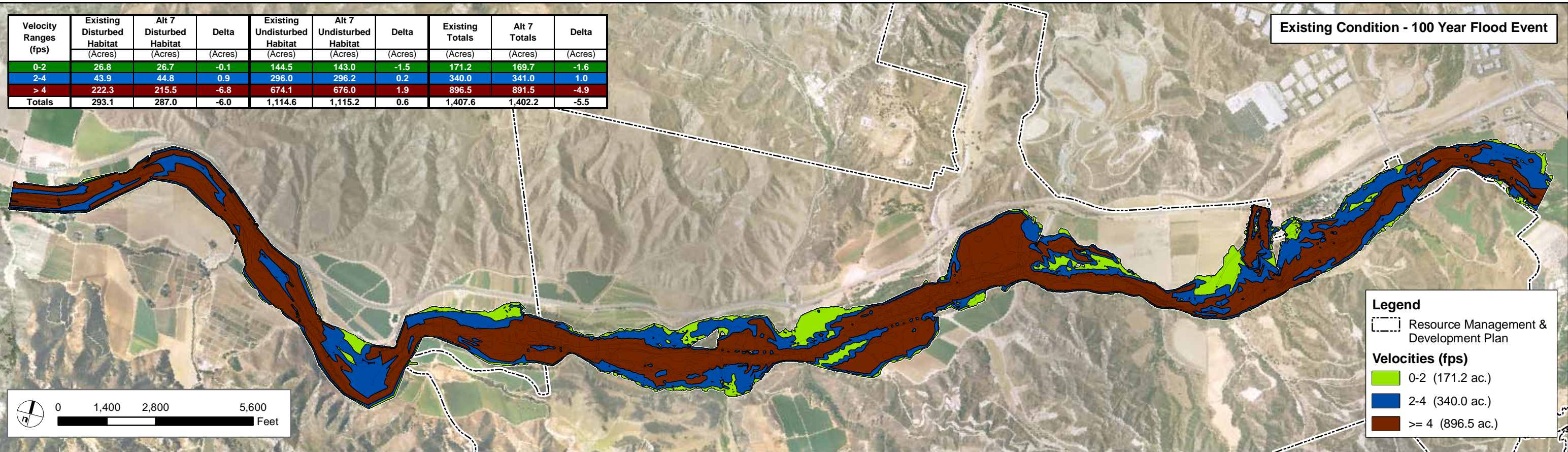
SOURCE: PACE 2008

FIGURE 4.5-65a

Newhall Ranch - RMDP/SCP EIS/EIR

Potential Hydrologic Impacts to Habitat for Unarmored Threespine Stickleback Existing Condition and Alternative 7 – 20 Year Flood Event Velocity Comparison

P:\8238E\GIS\mxds\EIR_2008\Section5_2\8238E_RefugiaVelocityAnalysisAlt7_20Yr_011209.mxd



SOURCE: PACE 2008

FIGURE 4.5-65b

Newhall Ranch - RMDP/SCP EIS/EIR
Potential Hydrologic Impacts to Habitat for Unarmored Threespine Stickleback Existing Condition and Alternative 7 – 100 Year Flood Event Velocity Comparison



Legend

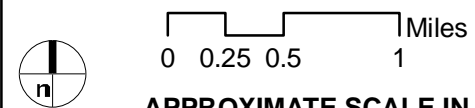
- RMDP Boundary
- SCP Boundary
- County Boundary

Grassland, Agriculture and Disturbed Land Wildlife Habitat

- California Annual Grassland
- Agriculture
- Disturbed Land

Impacts

- Direct Permanent
- Direct Temporary
- Indirect Permanent



APPROXIMATE SCALE IN MILES

AERIAL SOURCE: DigitalGlobe, 2007

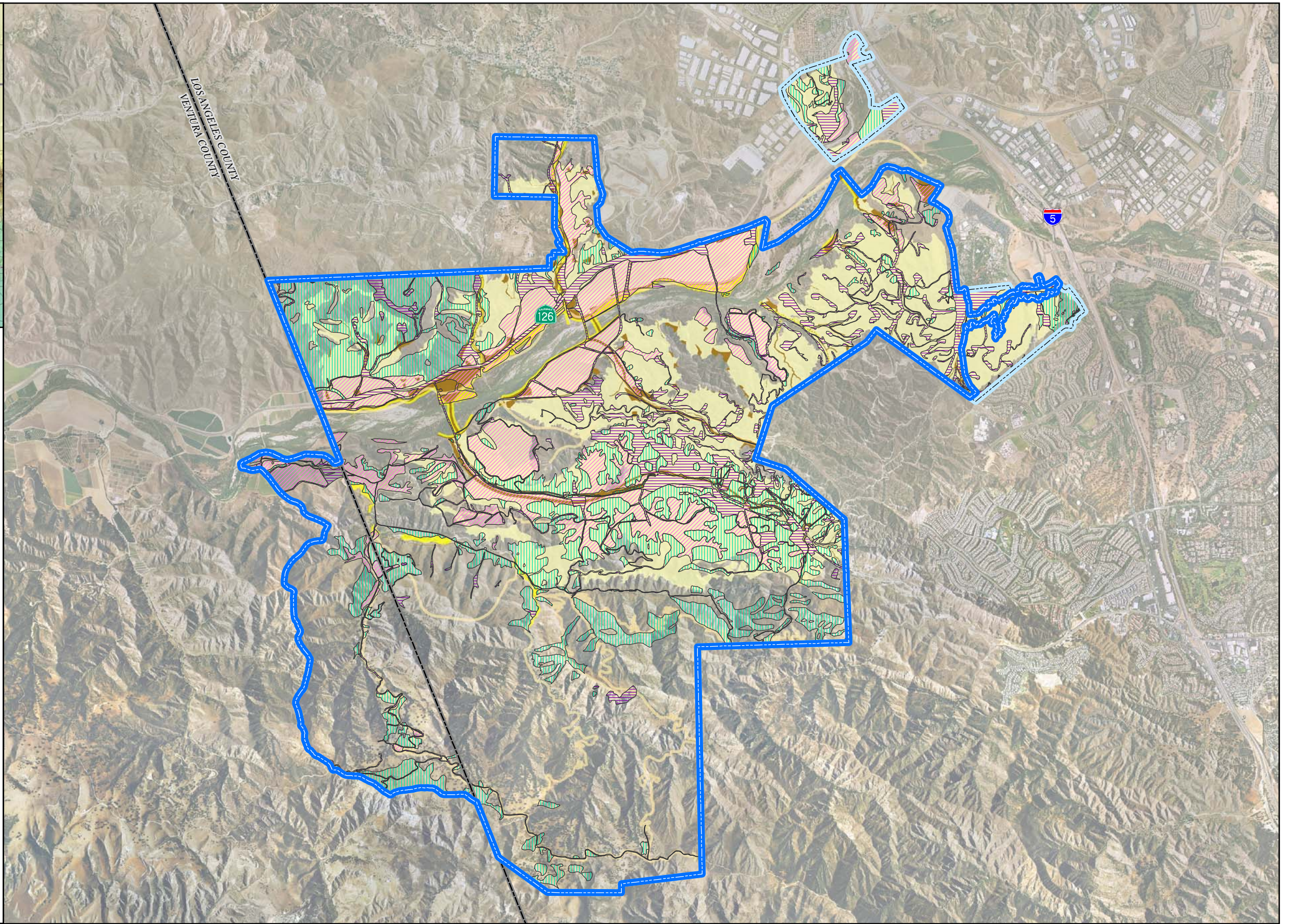
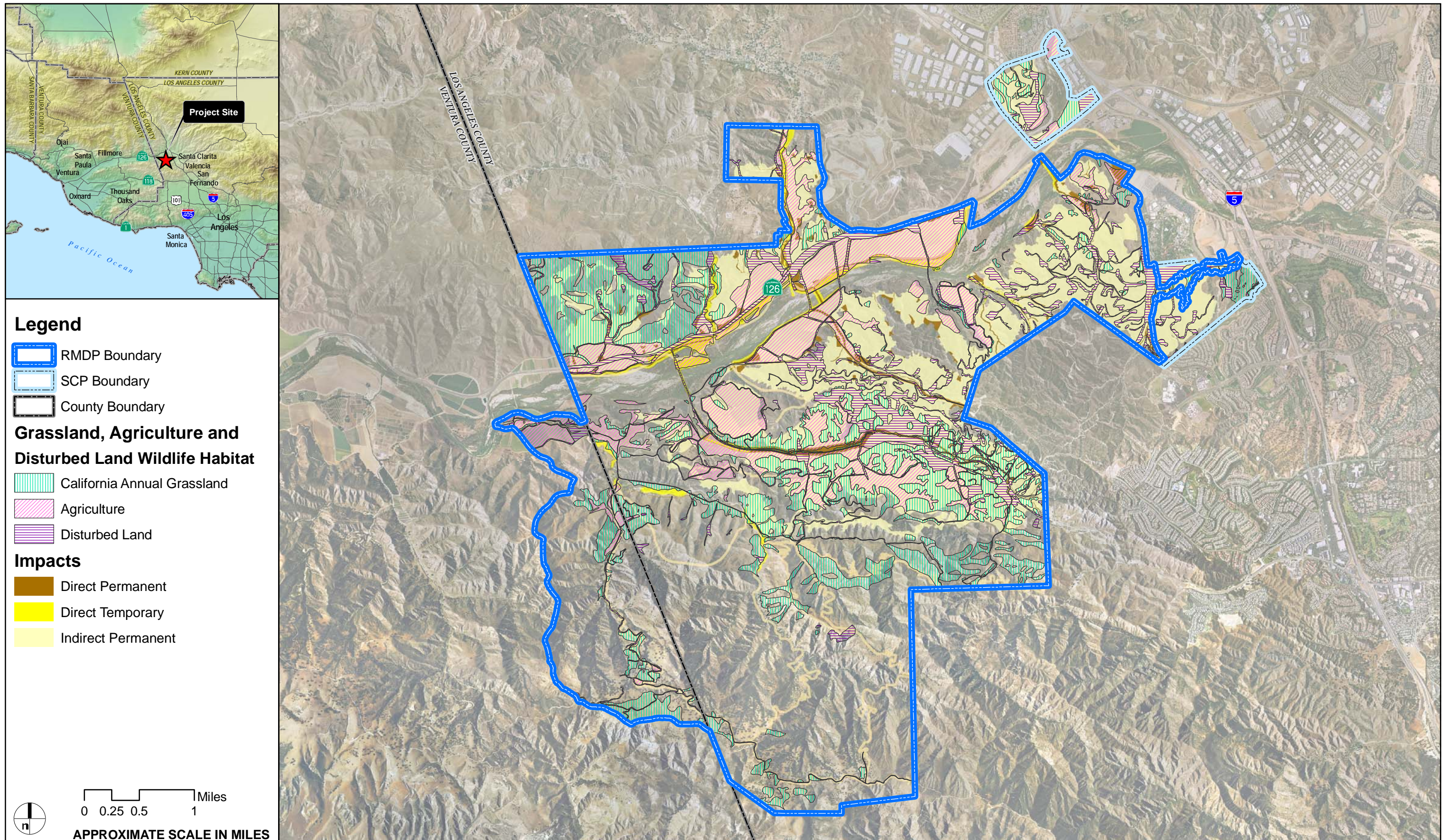


FIGURE 4.5-66

Newhall Ranch - RMDP/SCP EIS/EIR

Alternative 2 Impacts to Grassland, Agriculture, and Disturbed Land Wildlife Habitat



Legend

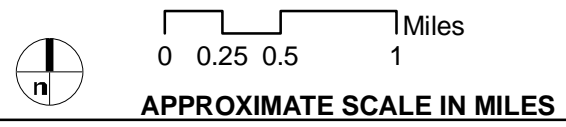
- RMDP Boundary
- SCP Boundary
- County Boundary

Grassland, Agriculture and Disturbed Land Wildlife Habitat

- California Annual Grassland
- Agriculture
- Disturbed Land

Impacts

- Direct Permanent
- Direct Temporary
- Indirect Permanent



AERIAL SOURCE: DigitalGlobe, 2007

FIGURE 4.5-67

Newhall Ranch - RMDP/SCP EIS/EIR

Alternative 3 Impacts to Grassland, Agriculture, and Disturbed Land Wildlife Habitat