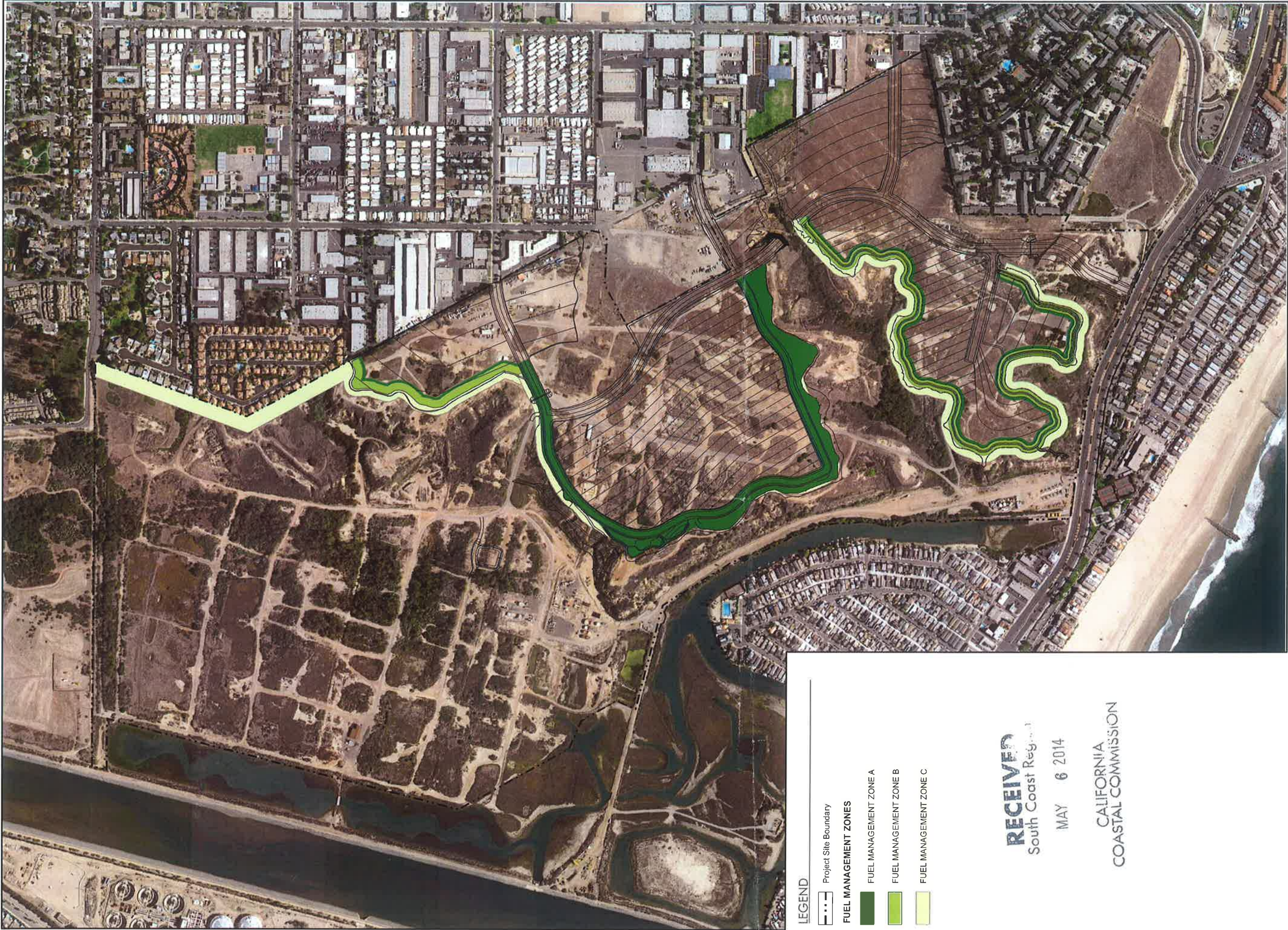
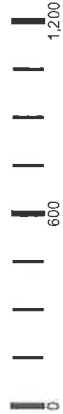
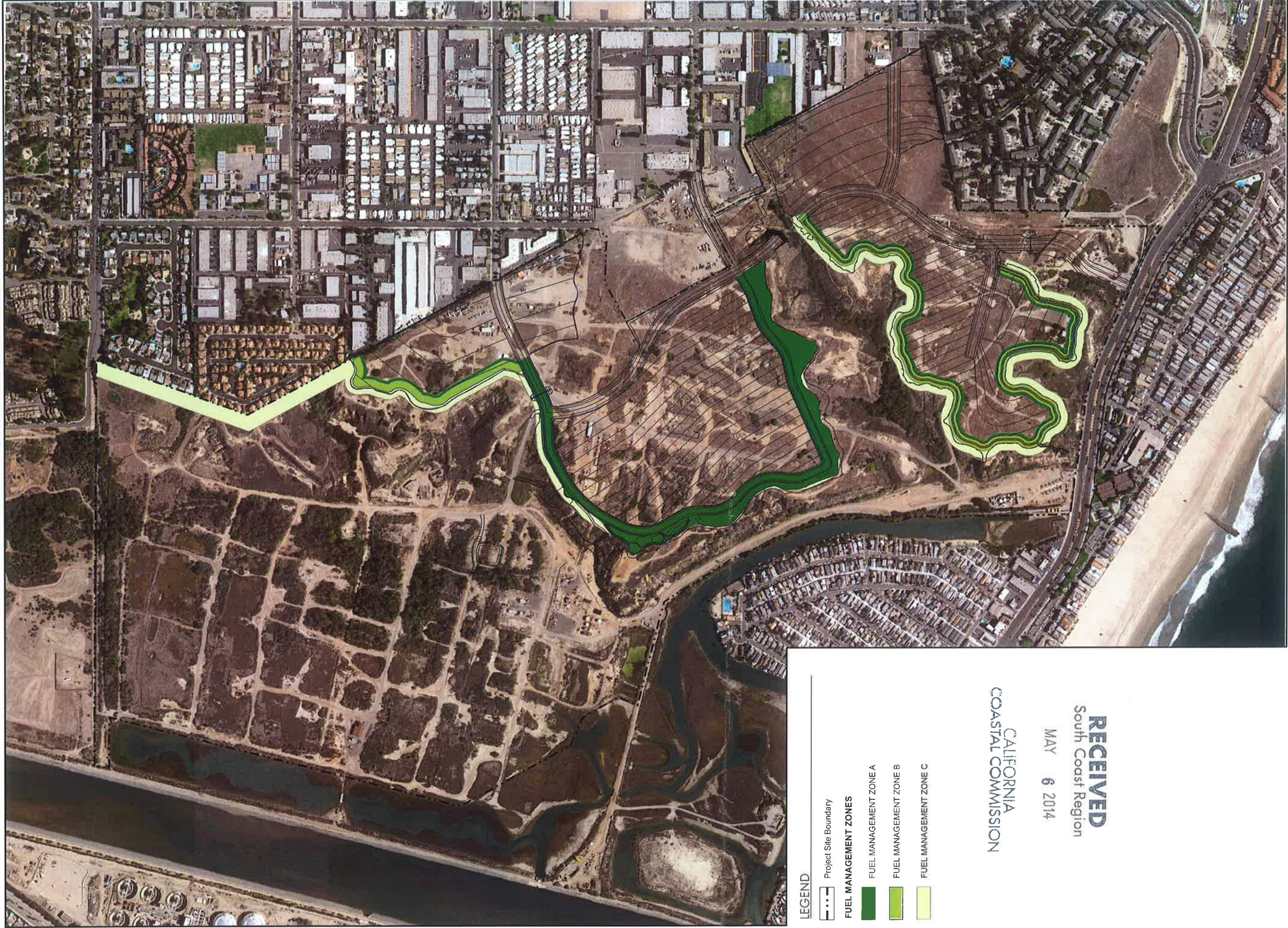


Exhibit 1



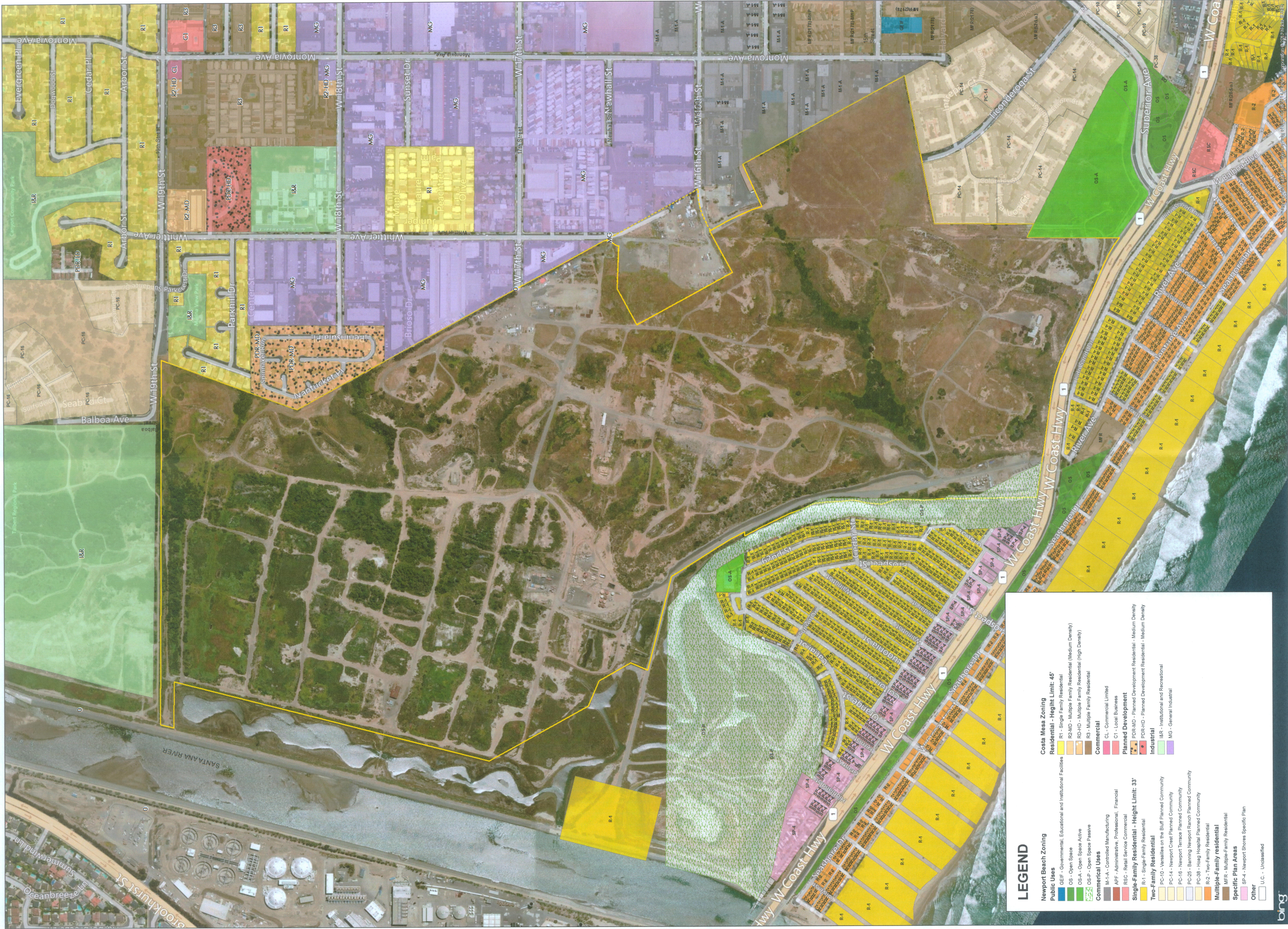
5/5/2014

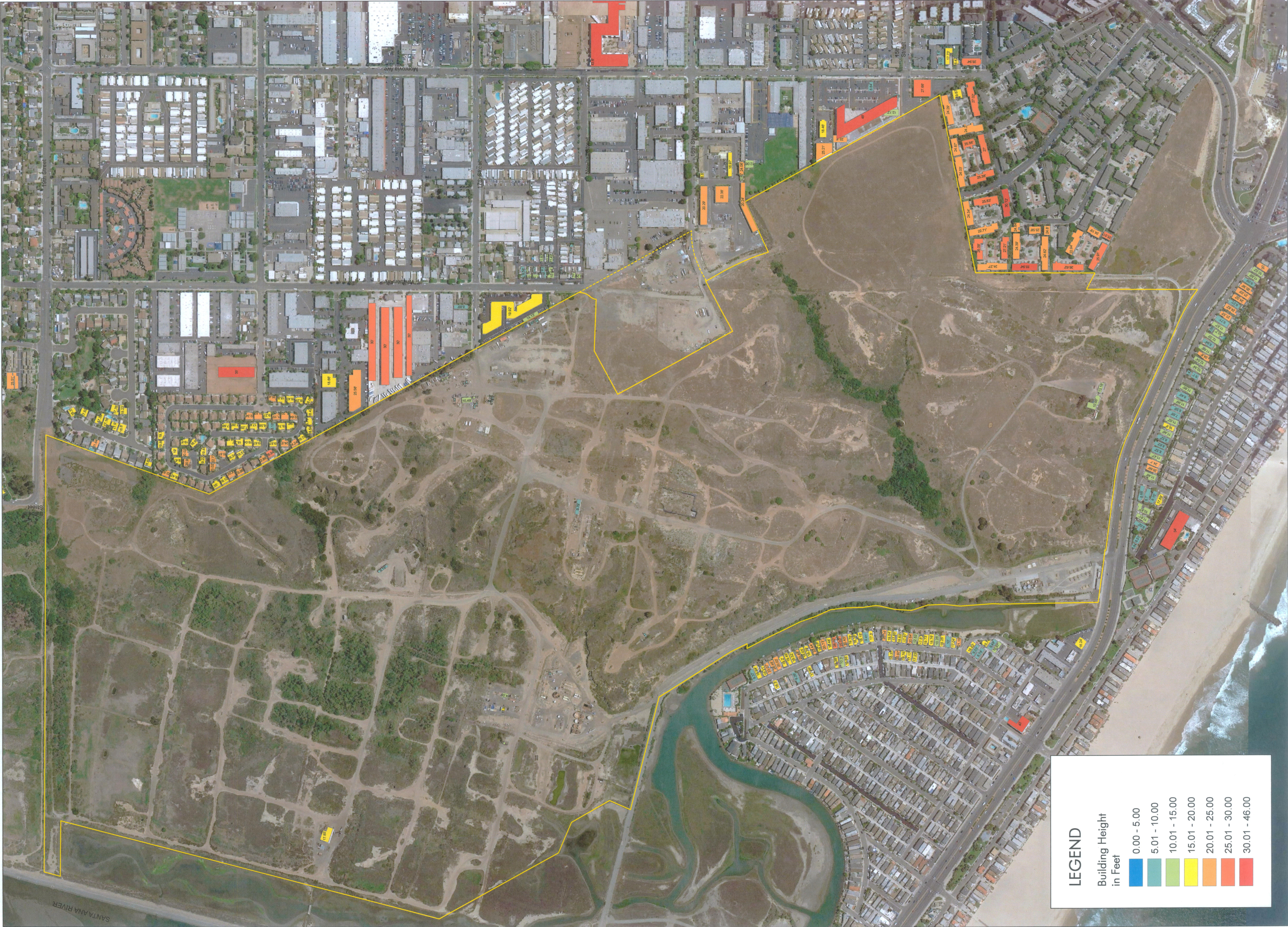




5/5/2014

Exhibit 3





LEGEND

Building Height in Feet	
0.00 - 5.00	■
5.01 - 10.00	■
10.01 - 15.00	■
15.01 - 20.00	■
20.01 - 25.00	■
25.01 - 30.00	■
30.01 - 46.00	■

Building Heights

Exhibit 4



RECEIVED
South Coast Region

MAY 6 2014

CALIFORNIA
COASTAL COMMISSION

**Newport Banning Ranch
Response to February 7, 2014 CCC Letter
Regarding January 10th, 2014 Supplemental Letters and Materials**

April 21, 2014

D.9 (Page 8/10)

Infiltration. The comment letter requests additional preliminary infiltration plans for each type of development showing where HSC's would be installed and what types.

The response on this particular issue previously identified the constraints to infiltration for the regional water quality BMPs across the entire project footprint on the mesa. This is due to the presence of bedrock and the likelihood of "perched" water that would eventually lead to seepage towards the bluff face and slope instability. See prior response for additional details.

The response also included a discussion of Hydrologic Source Control (HSC's) measures which serve as site design features at the "micro" scale on each lot by promoting incidental infiltration by directing runoff from impervious areas such as walkways to pervious areas such as landscaping, turf and shallow depressions such as small-scale rain gardens.

All lots will include hydrologic source control (HSC) measures to provide additional water quality treatment and runoff control. HSC measures are a class of LID BMPs integrated with site design that retain storm water runoff and reduce the volume and rate of storm water discharge to the downstream system. They are recognized in the County of Orange 2011 Model WQMP and accompanying Technical Guidance Document as a tool to reduce the volume of runoff that would result from a drainage area with a given imperviousness compared to what would result if the HSCs were not used. HSCs are differentiated from retention and biotreatment classes of LID BMPs by their higher level of integration with a site. They are not sized according to engineering design criteria, and they do not typically result in a distinct facility. Consequently, they are usually regarded as site design practices, as opposed to structural treatment control BMPs. Examples of HSCs planned for the project lots include localized on-lot shallow infiltration (i.e. rain gardens), impervious area dispersion (i.e. downspout to localized landscaping), street trees, and residential rain barrels.

The overall contribution of HSCs is quantified in terms of inches of the design capture storm depth (d_{HSC}) and the percentage of average annual runoff volume that is reduced. For the Newport Banning Ranch Project, the 85th percentile storm event is 0.7" and all regional downstream BMPs are sized in accordance with the 0.7" treatment criteria. When an HSC is incorporated upstream of the downstream regional BMP, it can treat a portion of the 0.7" requirement and theoretically the downstream BMP can be downsized by the same amount. For the NBR project, the use of upstream HSCs will not be used to downsize the downstream BMPs, but will be used to enhance and provide treatment and runoff reduction **above** the accepted requirements.



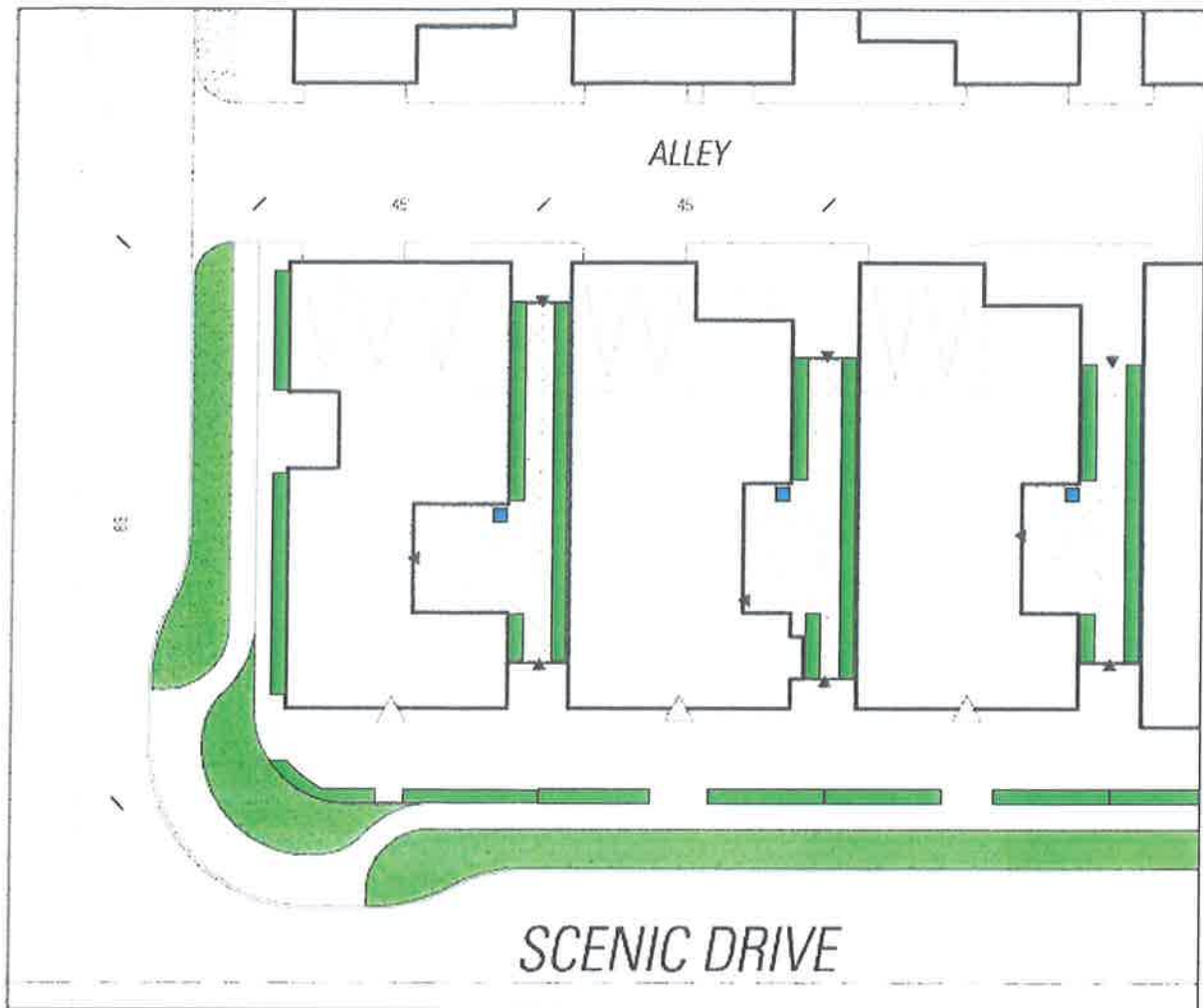
For example, a common HSC that will be used within the NBR project is HSC-2: Impervious Area Dispersion. This HSC refers to the practice of routing runoff from impervious areas, such as rooftops, walkways, and patios onto the surface of adjacent pervious (bioswales/raingardens) or landscaping areas (planted mulch areas). Per the TGD criteria, the amount of volume retained by HSC-2 is a function of the ratio of impervious to pervious area. For example, if 200 sf of patio surface is directed towards a 100 sf turf area, the pervious to impervious ratio is 0.5. Using the criteria, this represents a d_{HSC} of 0.25 inches which is equivalent to 36% retention of the 85th percentile storm. Under this scenario, the 100 sf of pervious turf area is providing a measurable positive impact on both water quality and runoff reduction, and could be used to reduce the impervious surface calculations for sizing downstream BMPs. However, as stated previously, HSCs will be used to enhance water quality treatment and not for the purpose of reducing downstream BMP sizes.

The NBR project includes a variety of residential types including single family residential and multi-family residential. The use of HSCs and their effectiveness differs with each residential type. A variety of HSCs will be incorporated as a treatment train approach, with initial runoff being directed to the HSC features for primary treatment/runoff control prior to draining to the proposed downstream regional BMPs. A summary of the proposed HSCs per residential lot and their combined benefit to water quality/runoff reduction are provided in the attached exhibits. HSC's will also be incorporated into the grading and drainage plans for the commercial areas similar to the residential lots.

The use of HSC's in the form of a treatment train approach will have a significant influence on runoff reduction measures at the lot by lot scale. On average, 25% to 28% of the long term average annual runoff will be reduced through the use of HSC's using a very conservative approach. Under final design, additional HSC opportunities will be incorporated and the percentage of long term average annual runoff will increase. Coupled with the downstream regional BMPs sized for the full 85th percentile (assuming no HSC upstream reductions), the sizing of both the large-scale and lot-scale water quality measures are appropriate for the anticipated amount of runoff for the project.

Exhibit Attachments:

- Traditional Homes
- Coastal Homes
- Beach Cottages
- Garden Court Homes
- Motor Court Homes
- Village Flats



Typical Plan (Footprints and Plotting Concept)

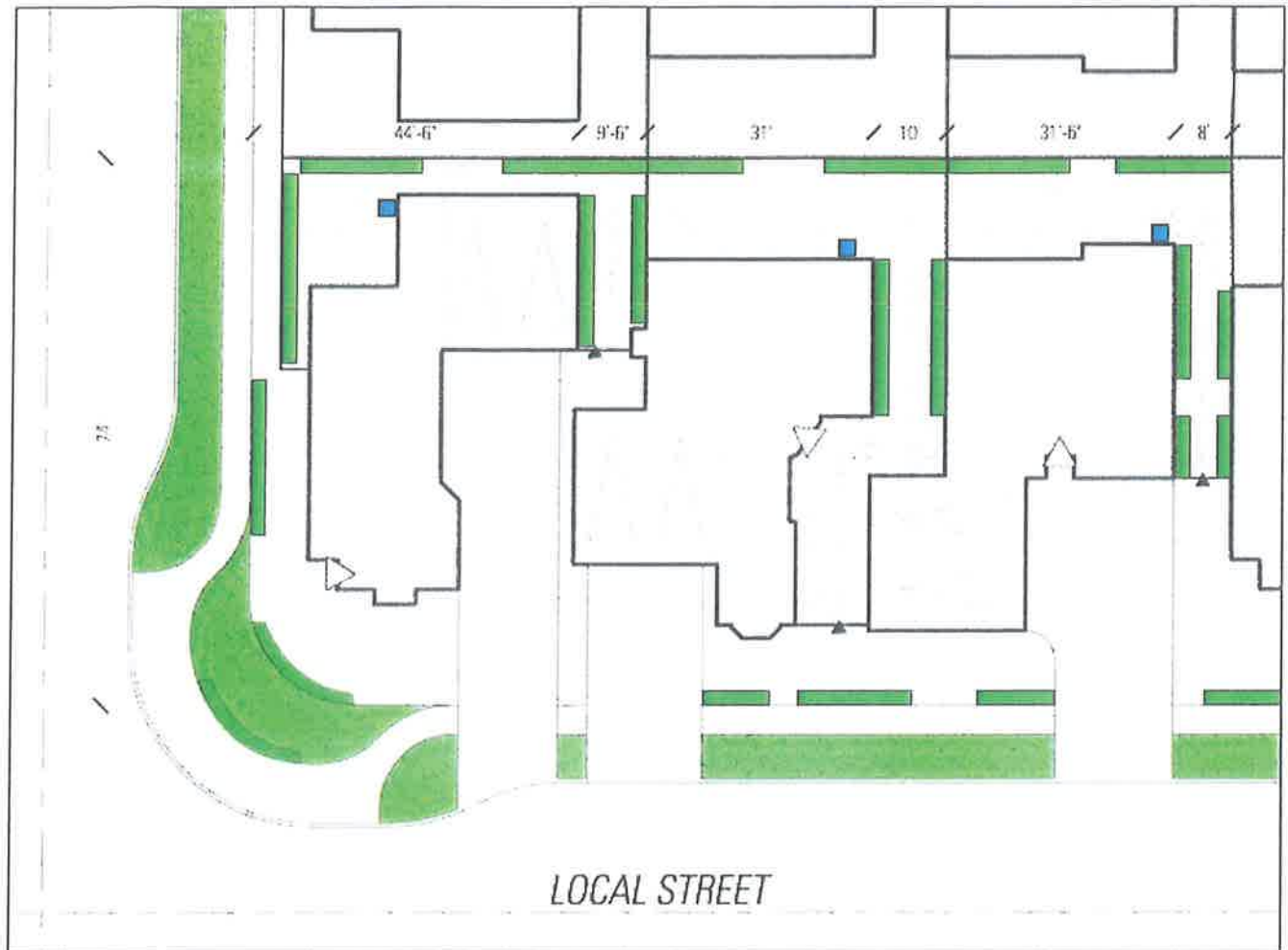
- △ Private Garden/Patio Area (incorporates reciprocal side yard easement)
 △ Primary Entrance

Legend

- HSC-1 / HSC-2: On-Lot Infiltration and Downspout Dispersion
 ■ HSC-4: Rain Barrel

Product Type	Average Lot Size	Approx. Impervious Area	HSC Type	HSC _i	Impervious Area Tributary to HSC	d _i x l _{ai}	Sum (d _i x l _{ai})	dHSC Total	Percent Capture
Traditional Homes (SFD)	4,050 SF (0.093 AC)	2,400 SF (0.055 AC)	HSC-1: On-Lot Infiltration 40 SF Rain Garden, Volume = 10	0.1"	1,000 SF (0.02 AC)	0.002	0.0076	0.14	27%
			HSC-2: Downspout Dispersion to 500 SF Landscaping	0.25"	1,000 SF (0.02 AC)	0.005			
			HSC-4: Rain Barrels (optional) 1 55-gallon barrel	0.07"	400 SF (0.009 AC)	0.0006			

Typical Water Quality BMP's Traditional Homes (SFD)



Typical Plan (Footprints and Plotting Concept)

Private Garden/Patio Area (incorporates reciprocal side yard easement)

△ Primary Entrance

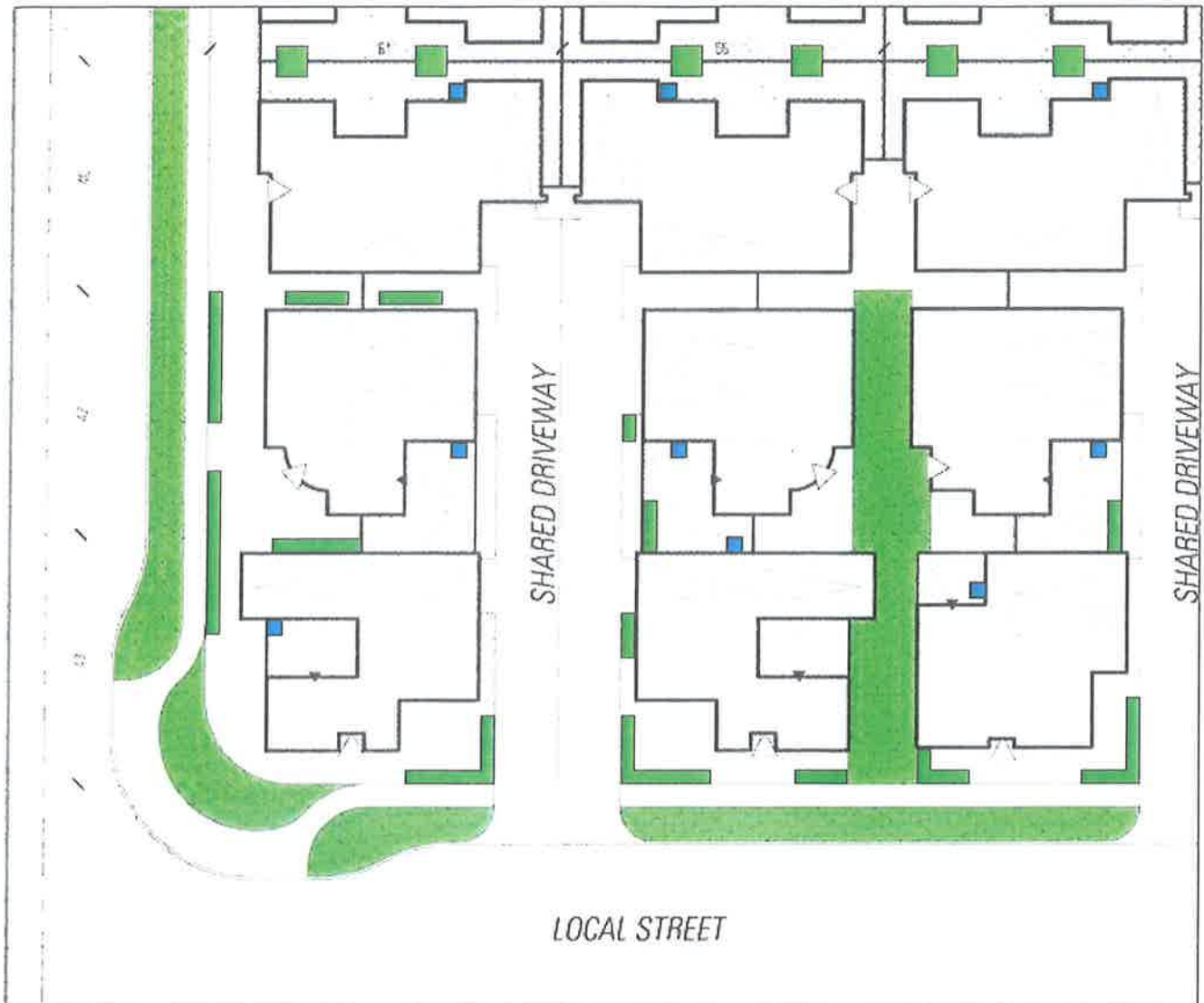
Legend

■ HSC-1 / HSC-2: On-Lot Infiltration and Downspout Dispersion

■ HSC-4: Rain Barrel

Product Type	Average Lot Size	Approx. Impervious Area	HSC Type	HSCi	Impervious Area Tributary to HSC	di x lai	Sum (di x lai)	dHSC Total	Percent Capture
Beach Cottages (SFD)	3,000 SF (0.069 AC)	1,800 SF (0.041 AC)	HSC-1: On-Lot Infiltration 28 SF Rain Garden, Volume = 7 CF	0.1'	700 SF (0.016 AC)	0.0016	0.0062	0.15	28%
			HSC-2: Downspout Dispersion to 350 SF Landscaping	0.25"	700 SF (0.016 AC)	0.004			
			HSC-4: Rain Barrels (optional) 1 55-gallon barrel	0.07"	400 SF (0.009 AC)	0.0006			

Typical Water Quality BMP's Beach Cottages



Typical Plan (Footprints and Plotting Concept)

Private Garden/Patio Area

△ Primary Entrance

Legend

■ HSC-1 / HSC-2: On-Lot Infiltration and Downspout Dispersion

■ HSC-4: Rain Barrel

Product Type	Average Lot Size	Approx. Impervious Area	HSC Type	HSCi	Impervious Area Tributary to HSC	$d_i \times l_{oi}$	Sum of $d_i \times l_{oi}$	dHSC Total	Percent Capture
Garden Court Homes (SFD)	2,688 SF (0.062 AC)	1,560 SF (0.037)	HSC-1: On-Lot Infiltration	0.1"	660 SF (0.015 AC)	0.0015	0.0048	0.13	25%
			24 SF Rain Garden, Volume = 6 CF						
			HSC-2: Downspout Dispersion to 250 SF Landscaping	0.25"	500 SF (0.011 AC)	0.0027			
			HSC-4: Rain Barrels (optional)	0.07"	400 SF (0.009 AC)	0.0006			
			1.55-gallon barrel						

Typical Water Quality BMP's Garden Court Homes



Typical Plan (Footprints and Plotting Concept)

Private Garden/Patio Area

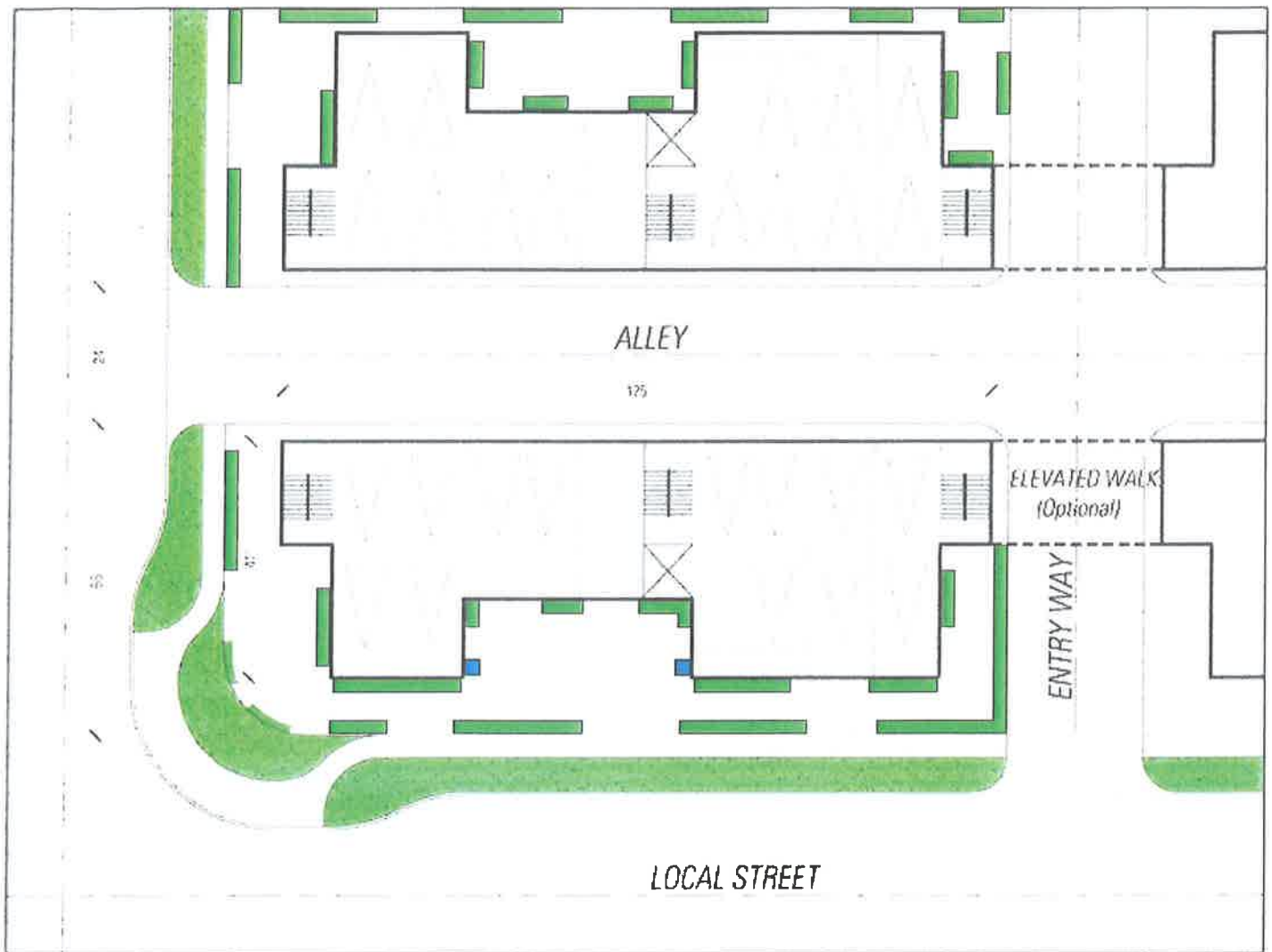
△ Primary Entrance

Legend

- HSC-1 / HSC-2: On-Lot Infiltration and Downspout Dispersion
- HSC-4: Rain Barrel

Product Type	Average Lot Size	Approx. Impervious Area	HSC Type	HSCi	Impervious Area Tributary to HSC	$d_i \times I_{ai}$	Sum of $d_i \times I_{ai}$	dHSC Total	Percent Capture
Motor Court Homes (SFD)	2,688 SF (0.062 AC)	1,560 SF (0.037)	HSC-1: On-Lot Infiltration 24 SF Rain Garden, Volume = 6 CF	0.1*	660 SF (0.015 AC)	0.0015	0.0048	0.13	25%
			HSC-2: Downspout Dispersion to 250 SF Landscaping	0.25*	500 SF (0.011 AC)	0.0027			
			HSC-4: Rain Barrels (optional) 1 55-gallon barrel	0.07*	400 SF (0.009 AC)	0.0006			

Typical Water Quality BMP's Motor Court Homes



Typical Plan (Footprints and Plotting Concept)

Legend

- HSC-1 / HSC-2: On-Lot Infiltration and Downspout Dispersion
- HSC-4: Rain Barrel

Product Type	Average Lot Size	Approx. Impervious Area	HSC Type	HSCi	Impervious Area Tributary to HSC	di x lai	Sum of di x lai	dHSC Total	Percent Capture
Village Flats (MFA)	5,125 SF (0.117 AC)	4,350 SF (0.1 AC)	HSC-1: On-Lot Infiltration	0.05"	3850 SF (0.09 AC)	0.0043	0.013	0.13	25%
			64 SF Rain Garden, Volume =16						
			HSC-2: Downspout Dispersion	0.25"	500 SF (0.016 AC)	0.0027			
			to 250 SF Landscaping						
			HSC-4: Rain Barrels (optional)	0.07"	400 SF (0.009 AC)	0.0006			
			1 55-gallon barrel						

Typical Water Quality BMP's Village Flats

Exhibit 6

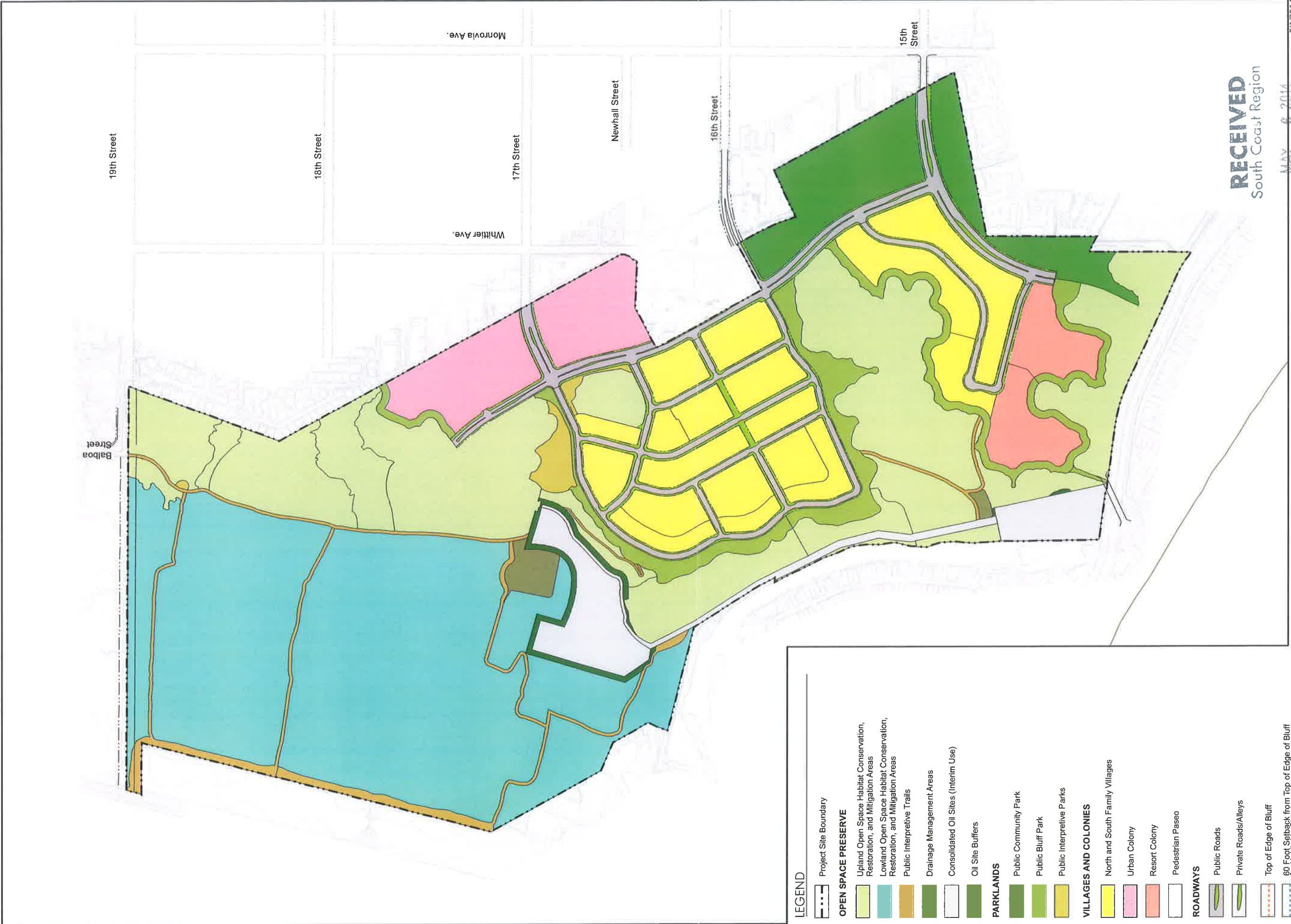
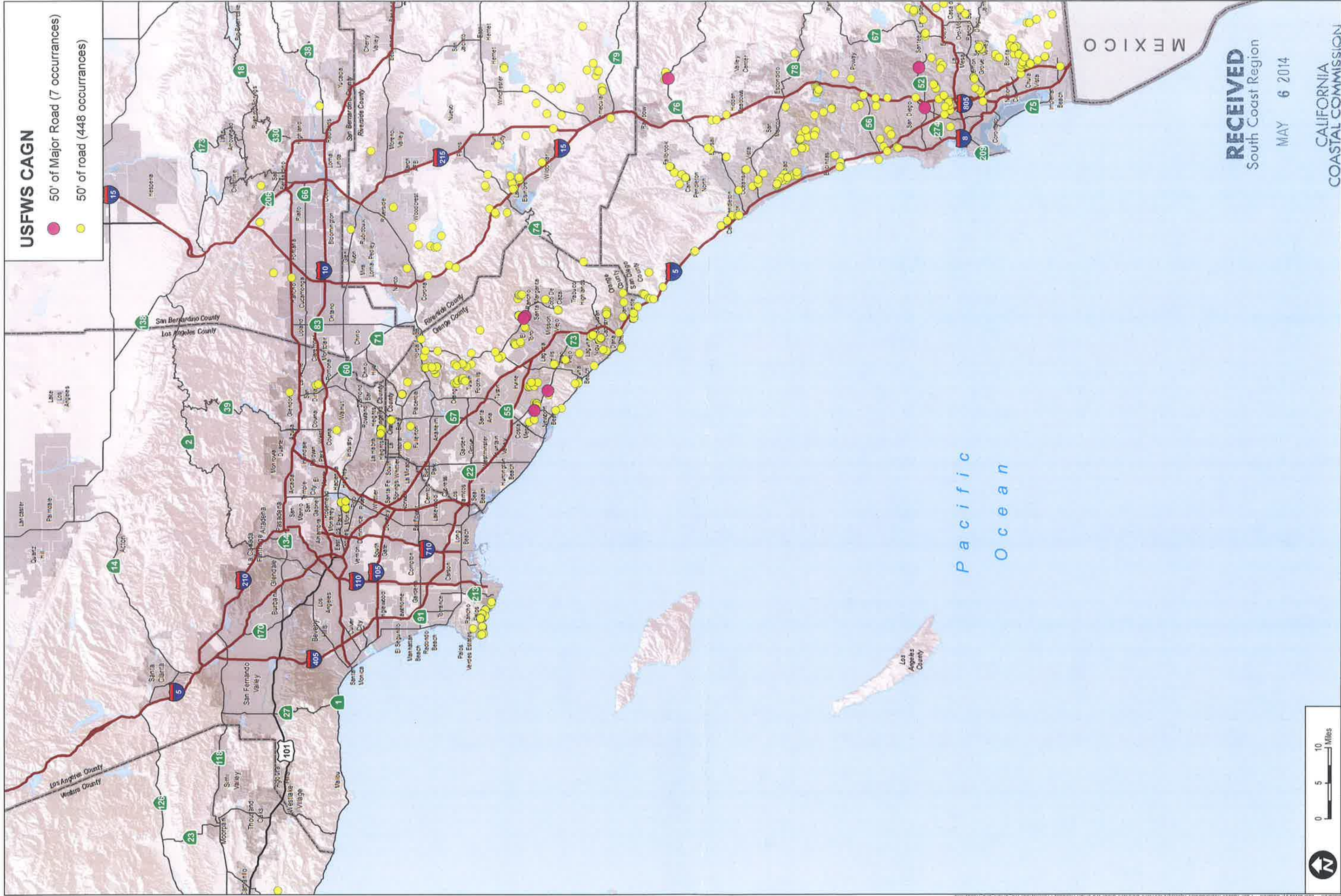


Exhibit 7



SOURCE: USFWS Centroids, US Tiger Roads, ESRI Online Basemap

NEWPORT BANNING RANCH

California Coastal Commission