LARKSPUR

Community Profile: Larkspur

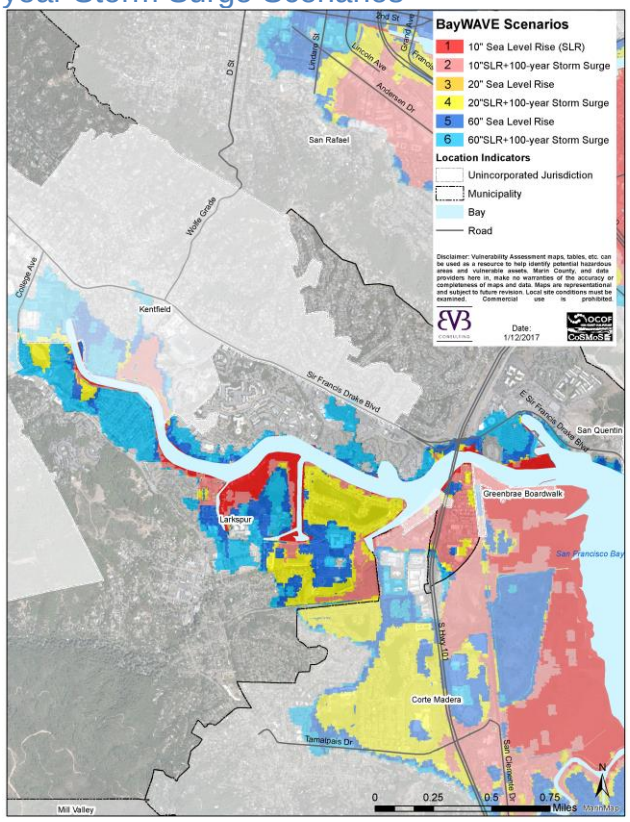
Larkspur borders both sides of Corte Madera Creek, sandwiched between the Town of Corte Madera and Wolfe Grade. The community is characterized by the creek, low-lying public lands, and uplands where downtown and additional hill side housing reside. Key issues include:

- The Golden Gate Bridge District's (GGBHTD) Larkspur site and hydraulic ferry facility may not be able to withstand near-term high tides.
- The several hundred thousand gallons of reserve fuel at the ferry facility could be vulnerable in the long-term.
- Housing along Corte Madera Creek canals, sloughs, and lagoons could be vulnerable in the near- to medium-terms. This includes, Boardwalk One, multi-family on Larkspur Plaza, the southern portion of Heatherwood Gardens, and housing west of S. Eliseo Drive. The elevated over marsh homes on Boardwalk One may be more adaptable than homes on solid foundations elsewhere.
- Industrial and commercial sites east of US Highway 101 could be vulnerable in the near-term with a storm surge, and to high tides in the medium-term along Redwood Highway.
- Riviera Circle homes could be vulnerable to sea level rise in the long-term, and storm surges and subsidence sooner.
- The Hillview neighborhood, while already vulnerable to stormwater back-ups, is vulnerable to sea level rise during a 100-year storm surge in the long-term, as is the Edgewater complex and buildings extending up Magnolia Avenue towards Kentfield.
- The Corte Madera/Larkspur Pathway could be compromised along Corte Madera Creek.
- Several schools along Doherty Drive could be vulnerable in the medium- to long-term.
- Stormwater infrastructure along the Corte Madera Creek, and its tributaries, could be burdened in the medium- to long-term.
- Access to and from Larkspur using US Highway 101 already floods during storms. The route is vulnerable to tidal flooding in the long-term.
- The Central Marin Police Department could be surrounded by flood waters.
- Piper Park, a historic land fill and current community sports facility and marsh habitat could be vulnerable in the long-term to sea level rise and 100-year storm surge.

IMPACTS AT-A-GLANCE: SCENARIO 6

1,200+ living units	12,000 people
544 acres exposed	27 commercial parcels
8.7 miles of roads	
Storm and tidal impacts already occur	
$2 billion in assessed property value; $1.2 billion in single-family market value[196]	Caltrans Property Owners Tamalpais Union School District GGBHTD

Map 86. Larkspur Sea Level Rise and 100-year Storm Surge Scenarios



Source: MarinMap, CoSMoS. Credit: BVB Consulting LLC

[196] 2016 dollars

Vulnerable Assets

Larkspur's most vulnerable assets interface with Corte Madera Creek and its tributaries as they enter San Francisco Bay. Some buildings on the creek already suffer from subsidence and have undergone repairs. The low lying area along Doherty Drive could be vulnerable by the long-term, and is highly susceptible to bay surges and stormwater flows.

Land

Much of Larkspur developed flat lands were marshy before the water was channeled and land filled. This area is vulnerable to flooding and subsidence. Larkspur Landing, a critical center for commuting and commerce, could also flood.

Acres

In the near-term, 132 acres, seven percent of Larkspur, could be exposed to tidal flooding. Ten percent of the community could be impacted by an additional 100-year storm surge. About another 100 acres could be exposed to storm surge flooding in medium-term scenario 4. In long-term scenario 5, nearly twenty percent of the community could expect tidal flooding, and 30 percent, or 544 acres, could be exposed with an additional 100-year storm surge. This third of the area of Larkspur is essential to accessing Larkspur, schooling, recreation, and emergency services.

Parcels

This acreage is broken in to parcels for ownership and development purposes. Parcels are also assigned land uses. Examining land uses can provide a representation of what types of human activities could be threatened by sea level rise and stormy seas. Nearly all land uses in the study area could face changing conditions that make their existing use infeasible and are therefore vulnerable. Without intervention, it is unlikely that parcels exposed to tidal flooding could sustain continued use, and even existing tidal marsh habitats could completely transition to mudflats and open water.

In near-term scenario1 almost 100 acres could face tidal flooding. More than twice that could experience storm surge flooding. Properties experiencing both would have an extremely difficult time recovering from soggy conditions. Around ten percent of Larkspur, or 445, acres, could flood in medium-term scenario 4. In long-term scenario 5, fifteen percent of the community along waterways large and small could experience tidal flooding. With and additional storm surge, one-third of the community could be under saltwater.

1973 Flood on US Highway 101 and fronting marshes. Larkspur. Credit: Marin County DPW

Table 93. Larkspur Exposed Acreage

Scenarios		Acres	
		#	%
Near-term	1	132	7
	2	202	10
Medium-term	3	147	7
	4	299	15
Long-term	5	379	19
	6	544	27

Source: MarinMap, CoSMoS

Table 94. Larkspur Vulnerable Parcels

Scenarios		Parcels	
		#	%
Near-term	1	90	2
	2	246	5
Medium-term	3	121	3
	4	445	10
Long-term	5	687	15
	6	1,216	27

Source: MarinMap, CoSMoS

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Table 95. Larkspur Vulnerable Residential and Commercial Parcels

Land Use	Scenarios					
	Near-term		Medium-term		Long-term	
	1		3		5	
	#	%	#	%	#	%
Residential	67	2	99	2	586	15
Commercial			6	4	27	18
Industrial			4	30	12	100

Source: MarinMap, CoSMoS.

Table 96. Larkspur Vulnerable Parcels by Land Use

Land Use	Scenarios					
	1		3		5	
	Near-term		Medium-term		Long-term	
	#	Ac.	#	Ac.	#	Ac.
Commercial Improved			6	10	25	24
Commercial Unimproved					2	0.5
Exemption Improved					21	0.4
Industrial Improved			3	1	10	6
Industrial Unimproved			1	0.1	2	1
Residential	67	21	99	23	586	70
Mobile Home			6	0.03	50	0.3
Multi-Family Improved	6	1	6	1	12	4
Multi-Family Unimproved					1	0.3
Single Family Attached			7	0.1	244	3
Single Family Improved	60	20	69	22	276	62
Single Family Unimproved	1	0.3	2	0.5	2	0.5
Tax Exempt	12	17	15	17	34	84

Source: MarinMap, CoSMoS

The three most impacted uses in Larkspur are public land uses, such as schools, parks, and, emergency services, residential, and industrial land uses. Industrial parcels east of US Highway 101 on the shoreline already flood seasonally and could continue to suffer from storms over the next fifteen years. In medium-term scenario 3, the few industrial parcels impacted are one-third of the city's industrial base. By the long-term, all of Larkspurs industrial land could flood tidally at MHHW rendering the properties the very narrow land uses, and not likely the existing uses. Moreover, any industrial products and contaminates from machining or the gas station could input pollutants into the surrounding properties and the Bay waters.

Residential development along Corte Madera Creek could experience tidal flooding in the near- and medium terms. In the long-term, tidal flooding could impact fifteen percent of residential parcels in Larkspur. Multi-family parcels could also see flooding on Larkspur Plaza Drive. Fifty mobile homes, some of Marin's limited affordable housing, could flood tidally at MHHW in the long-term and face storm flooding in the medium-term.

Similar portions of commercial parcels could be vulnerable to tidal flooding as residential, though far less in number and acreage, with 27 parcels and 27 acres flooded in the long-term.

Buildings

Larkspur contains a high number of potentially vulnerable buildings relative to other communities in the study area. In the near-term, forty buildings, two percent of all buildings in Larkspur, could experience tidal flooding. Several hundred buildings could anticipate additional storm surge impacts. In the medium-term, more than 150 buildings could anticipate MHHW tidal flooding, and several hundred more could anticipate impacts during a 100-year storm surge. By long-term scenario 5, 802, or 20 percent of buildings, could experience tidal flooding at MHHW. With the additional 100-year storm surge, 1,160, or 28 percent of buildings could be vulnerable to five feet of sea level rise combine d with a 100-year storm surge. A thirty percent loss of buildings would significantly impact Larkspurs ability to recover from disastrous flooding at a community level.

All industrial buildings east of US Highway 101 could experience tidal and storm surge flooding. Housing

along Corte Madera Creek canals, sloughs, and lagoons could be vulnerable in the near- to medium-terms. These properties include Boardwalk One, multi-family units across the canal on Larkspur Plaza, the southern portion of the Heather Garden neighborhood, and some housing west of S. Eliseo Drive. The homes along Boardwalk One are elevated on piers, which may make them more adaptable in the near term. All housing west of S. Eliseo Drive could be vulnerable by the long-term to tidal exposure. Riviera Circle homes could be vulnerable to sea level rise in the long-term, and storm surges and subsidence sooner. The Hillview neighborhood already suffers from stormwater back-ups during high tides. However, from sea level rise alone, this neighborhood could be vulnerable to a 100-year storm surge in the long-term, as could the Edgewater complex and buildings extending up Magnolia Avenue towards Kentfield. Nevertheless, higher high tides would exacerbate stormwater back-ups, and consequently fresh water.

Several schools could face tidal and storm surge flooding. These areas are also already impacted by storm water flooding, which sea level rise will only worsen. Finally, the Central Marin Police Department could be surrounded by flood waters making it difficult for employees to reach and leave the facility.

Buildings in the flooded areas of Larkspur are wood framed structures. Newer buildings are elevated on fill and off the ground, however, homes older than twenty years old may not be. In addition, because many areas were built on filled in marsh, developments, such as the Riviera Circle neighborhood, are also vulnerable to subsidence as underlying soils liquefy.

Table 98 divides the vulnerable buildings by how much tidal saltwater they could flood with, whether it is one, two, or eight feet of saltwater that could come rushing in. In the near- and medium-terms the majority of buildings are flooded with three feet or less of water. In the long-term, more than 450 buildings re vulnerable to more than 3 feet of flooding at MHHW relegating these buildings, unless elevated or protected, unusable.

Table 97. Larkspur Vulnerable Buildings

Scenarios		Buildings	
		#	%
Near-term	1	40	1
	2	382	9
Medium-term	3	165	4
	4	670	16
Long-term	5	802	19
	6	1,160	28

Source: MarinMap, CoSMoS

Table 98. Larkspur Tidal MHHW Flood Depth Estimates for Vulnerable Buildings

Flood Depth (feet)	Scenarios		
	Near-term	Medium-term	Long-term
	1	3	5
0.1-1	17	35	37
1.1-2	17	44	63
2.1-3	22	33	98
3.1-4	1	9	228
4.1-5	0	0	121
5.1-6	1	1	107
6.1-7			31
7.1- 8			15

** Flood depth data is not available for all exposed areas and assets.*
Source: MarinMap, CoSMoS

Table 99. Larkspur Vulnerable Buildings FEMA Hazus Storm Damage Cost Estimates in Long-term Scenario 6

Number of Buildings in Scenario 6	1,160
Yellow Tag :Minor Damage $5,000 minimum	$5,800,000
Orange Tag: Moderate Damage $17,001 minimum	$19,721,160
Red Tag: Destroyed Assessed structural value	$1,496,649,606

Source: MarinMap, CoSMoS

Table 99 outlines cost estimates using FEMA Hazus tagging levels for damage to buildings and their contents under scenario 6, the worst case scenario analyzed in this assessment. If every vulnerable building were to be destroyed, nearly $1.5 billion in losses could occur. At yellow tag levels, a minimum of $5.8 million[197] in damages could occur. Reality would likely reflect a mix of damage levels and monetary figure between these.

The maps on the following pages illustrate potentially vulnerable buildings by scenario. The areas in the call out circles enable the reader the see areas that are difficult to see on the large scale map. The circles do not indicate that these areas are more vulnerable than others along the shoreline.

[197] 2016 dollars

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Map 87. Larkspur Vulnerable Buildings

Vulnerable Assets

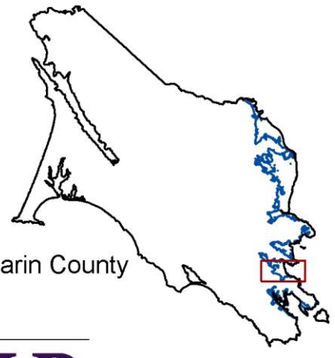
- School
- Emergency Shelter
- Fire Station
- Law Enforcement

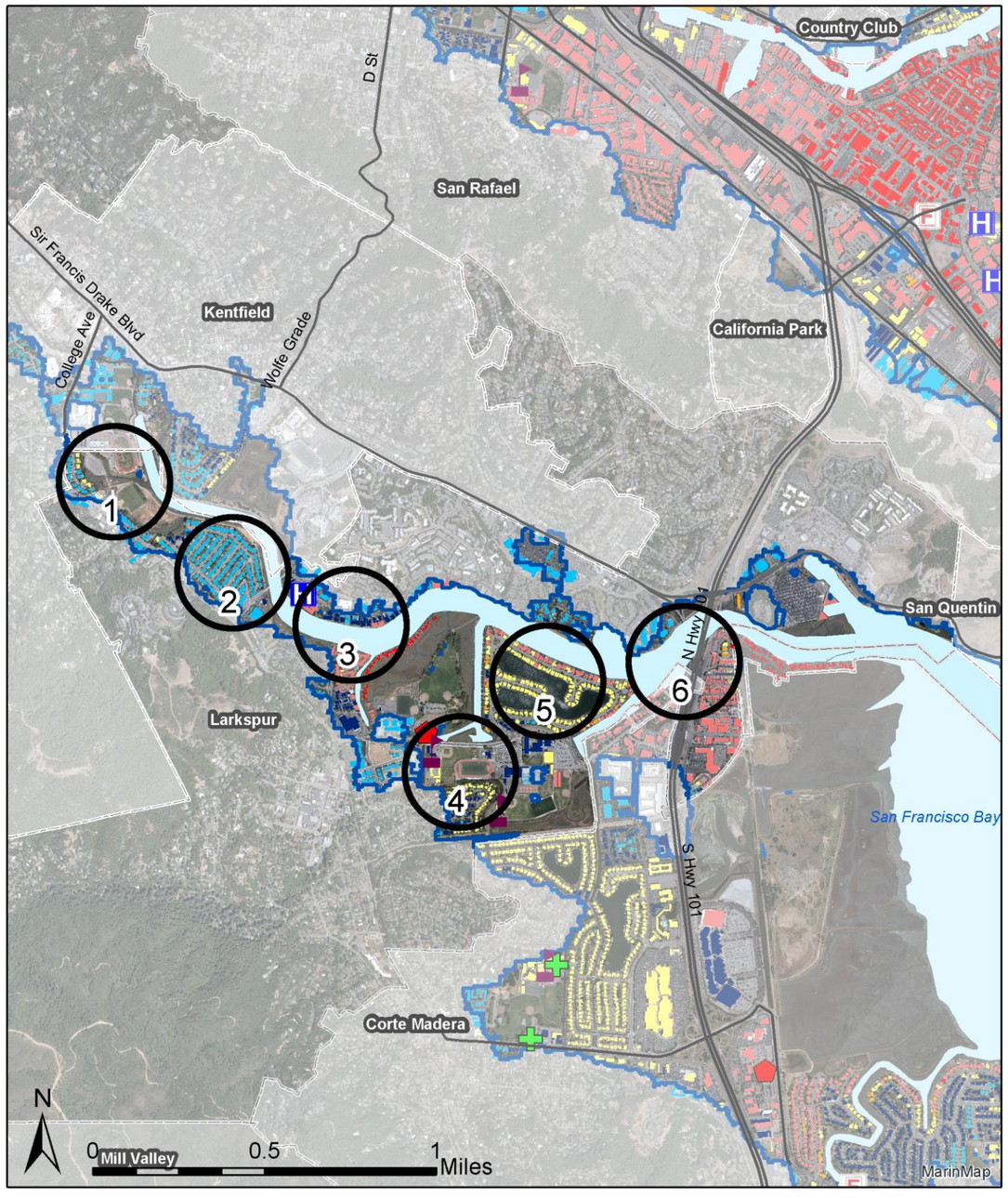
Vulnerable Buildings

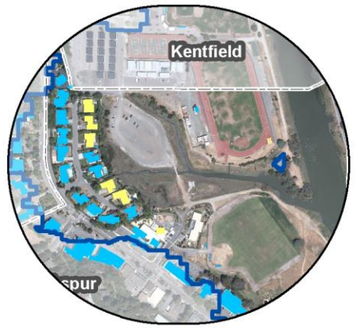
- Scen. 1: 10" Sea Level Rise (SLR)
- Scen. 2: 10" SLR+Storm Surge
- Scen. 3: 20" Sea Level Rise
- Scen. 4: 20"SLR+Storm Surge
- Scen 5: 60" Sea Level Rise
- Scen. 6: 60"SLR+Storm Surge

Location Indicators

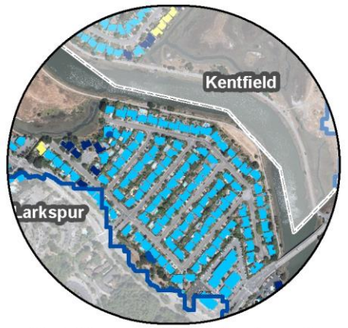
- Unincorporated
- Municipality
- Road
- Bay
- Inland Extent: Sea Level @ 60"+100-year Storm



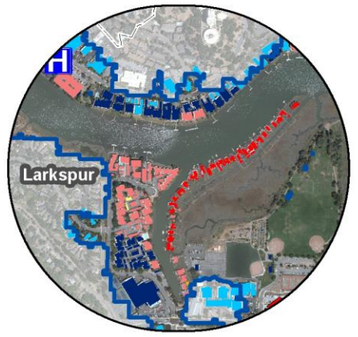




1: Magnolia Ave. @ College Ave.



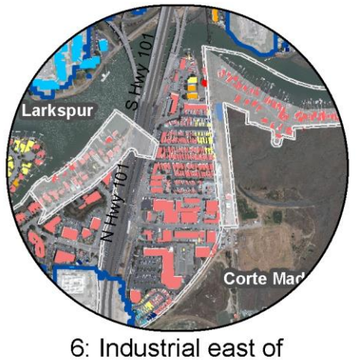
2: Hillview Neighborhood



3: S. Eliseo/Boardwalk 1/ Larskpur Plaza Dr.

4: Redwood High School

5: Riviera Circle



6: Industrial east of U.S. Hwy. 101

Date: 6/24/2017

Disclaimer: Vulnerability Assessment maps, tables, etc. can be used as a resource to help identify potential hazardous areas and vulnerable assets. Marin County, and data providers here in, make no warranties of the accuracy or completeness of maps and data. Maps are representational and subject to future revision. Local site conditions must be examined. Commercial use is prohibited.

Transportation

Southerly highway access to Larkspur could be compromised at Lucky Drive and Sir Francis Drake Boulevard US Highway 101 exits. Riviera Circle and Doherty Drive could anticipate storm impacts as early as scenario 2 and tidal flooding by the long-term and medium-term respectively. Floodwaters move up the creek and can reach into the neighborhoods, impacting streets in low elevation areas at Bon Air Road and west of Corte Madera Creek. Bon Air road is a critical route to area hospitals and has experienced flooding as recent as 2017 with up to one and one half feet of water at the Bon Air Bridge. These roads enable commuters, school children, and emergency vehicles to travel to, from, and within the community.

Preliminary conversations with Caltrans indicate that Caltrans is well aware of the existing and arising concerns in the County.[198] According to Caltrans and the CoSMoS model flooding occurs at low spots of US Highway 101 in Larkspur from Corte Madera Creek to Lucky Drive. These low spots typically benefit from levees and pumps others operate to protect the larger area from flooding.

Transit service along Marin Transit routes 17, 29, 113, 117, 119, and 228 and Golden Gate Transit routes 17, 18, 22, 24, 25, 27, 28, 29, 36, 37, 70, 71, 80, and 117 would be compromised if roads are flooded. Impacts to transit service could disproportionately impact low-income and mobility impaired residents. Stops that could be compromised include:

- Bon Air Rd.
- Doherty Dr. and Larkspur Plaza Dr.,
- Lucky Dr. and Riviera Cir.,
- E Sir Francis Drake Blvd. and Larkspur Landing,
- Redwood High School
- Sir Francis Drake Blvd. and McAllister Ave,
- Magnolia Ave. and Dartmouth Dr.,
- Magnolia Ave. and Frances Ave.,
- Magnolia Ave. and Estelle Ave.,
- Larkspur Ferry Terminal,
- Doherty Dr. and Larkspur Plaza,
- Hwy 101 and Lucky Dr., and
- E Sir Francis Drake Blvd. and Larkspur Landing.

The maps on the following pages illustrate vulnerable transportation features. The areas in the call out circles enable the reader the see areas that are difficult to see on the large scale map. The circles do not indicate that these areas are more vulnerable than others along the shoreline.

Golden Gate Ferry and Terminal. Credit: Marin County CDA

Lucky Dr at Doherty Drive. Redwood Highschool at King Tide. Jan. 21, 2015. Credit YESS Program, Redwood High School Students.

[198] Sea Level Rise Vulnerability Assessment Interview. Caltrans. April 30, 2015. J. Peterson. D. Fahey. Marin County Development Agency. BVB Consulting LLC.

LARKSPUR

Table 100. Larkspur Transportation Routes Vulnerable to Sea Level Rise and a 100-year Storm Surge

Near-term		Medium-term		Long-term	
Scenario 1	**Scenario 2**	**Scenario 3**	**Scenario 4**	**Scenario 5**	**Scenario 6**
0.5 miles	**1.5** miles	**0.5** miles	4 miles	**5** miles	9 miles
Hwy 101 [C] Redwood Hwy [L] Bon Air Rd [L]	Roads in scenario 1 Creekside Dr [P] Doherty Dr [L] Industrial Wy [L, P] Larkspur Plaza [L] Rich St [L, P] Riviera Cir Dr [L]	Roads in scenarios 1 and 2	Roads in scenarios 1-3 Corte del Coronado [L] Diane Ln [L] Liberty St [L] Midway Rd [L] Tulane Dr [L] Via la Brisa [L] William Ave [L]	Roads in scenarios 1-4 Sir Francis Drake Blvd [L, M, C] Camellia Cir [P] Heather Wy [L] Rose Ln [P] S Eliseo Dr [L] Stanford Ct [L]	Roads in scenarios 1-5 Barry Way [L, P] College Ave [L, M] Cornell Ave [L] Corte del Brayo Real [L] Creek View Cir [P] Cross Creek Pl [P] Dartmouth Dr [L] Elizabeth Cir [P] Estelle Ave [L] Frances Ave [L] Gregory Pl [P] Gretchen Pl [P] Harvard Dr [L] Laderman Ln [P] Larkspur Lndg Cir [L] Lupine Ct [P] Magnolia Ave [L] Murray Ave [L] Orchid Dr [P] Sandy Creek Wy [P] Scott Pl [P] Victoria Wy [L] Yale Ave [L]

M = Marin County; C = State of California; L = Local Municipality; P = Private. Source: MarinMap, CoSMoS

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Map 88. Larkspur Vulnerable Transportation Assets

Vulnerable Assets

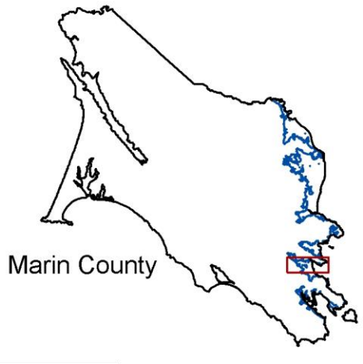
- Park & Ride
- Bike path
- Bay Trail
- Trail
- MT Bus Stop
- GGT Bus Stop
- Ferry

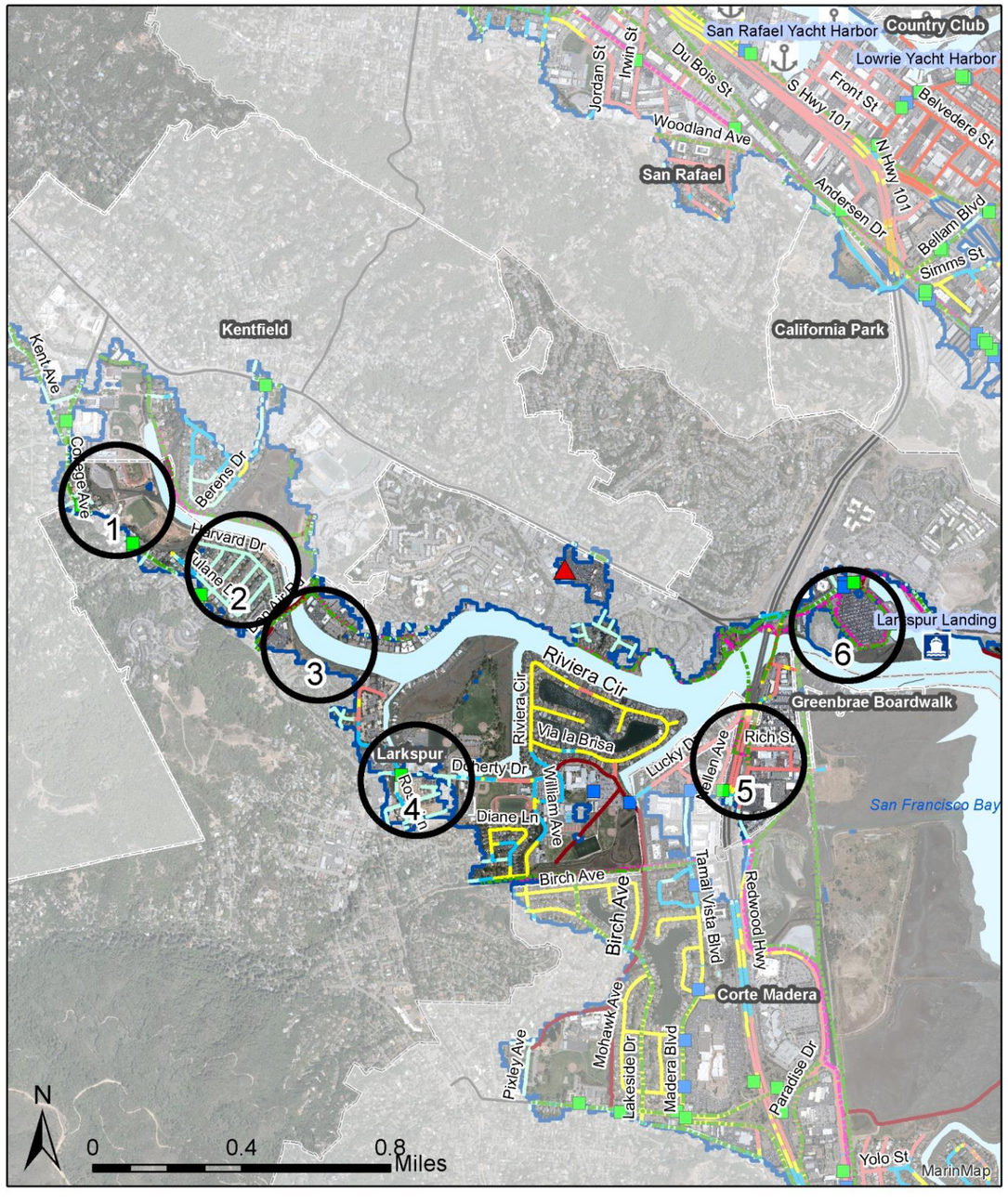
Vulnerable Roads

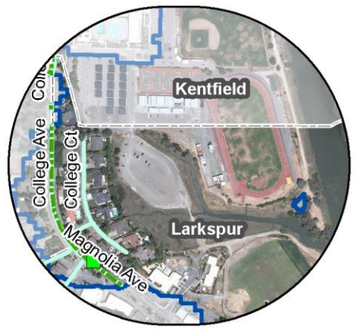
- @10" Sea Level Rise (SLR)
- @10"SLR+ 100-year Storm Surge
- @20" Sea Level Rise
- @20"SLR+ 100-year Storm Surge
- @60" Sea Level Rise
- @60"SLR+ 100-year Storm Surge

Location Indicators

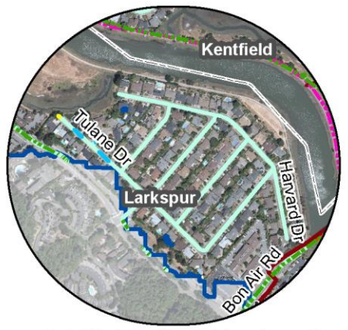
- Unincorporated
- Municipality
- Road
- Bay
- Inland Extent: Sea Level @ 60"+100-year Storm



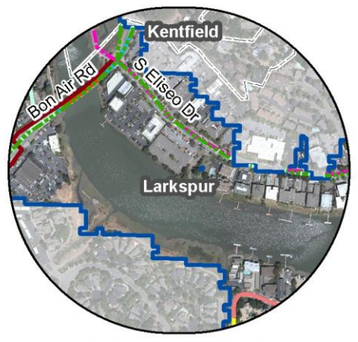




1: Magnolia Ave. @ College Avenue



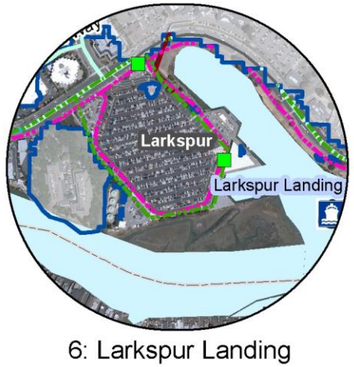
2: Hillview Neighborhood



3: Bon Air Rd. @ S. Eliseo Dr.

4: Doherty Dr.

5: U.S. Hwy. 101 @ Corte Madera/Larkspur



6: Larkspur Landing

Disclaimer: Vulnerability Assessment maps, tables, etc. can be used as a resource to help identify potential hazardous areas and vulnerable assets. Marin County, and data providers here in, make no warranties of the accuracy or completeness of maps and data. Maps are representational and subject to future revision. Local site conditions must be examined. Commercial use is prohibited.

EVB CONSULTING

Date: 3/29/2017

OCOF CoSMoS

Utilities
Larkspur could experience utility issues common in other shoreline communities in the study area, including:

- Underground pipes face compounding pressure forces from water and the road,
- Road erosion and collapse with underlain pipes,
- Saltwater inflow and infiltration causing inefficiencies in wastewater treatment,
- Continuously subsiding soils or fill, and
- Escalating activity, capacity demands, energy consumption, and wear and tear on pump stations in stormwater and wastewater systems,
- Aging individual site connections for water, sewer, and electrical, and
- Flood waters interrupting access for employees to reach work sites.

In addition, PG&E has a natural gas pipe line along US Highway 101 towards San Rafael and a substation bayside of Cost Plus World Market that could be vulnerable during a 100-year storm surge in the long-term, scenario 6, though may be less sensitive if all electrical components are adequately elevated off the ground.

Natural Resources
Marshes lining the Corte Madera Creek are narrow and bordered by development almost entirely, thus vulnerable to sea level rise. These marshes provide extensive habitat for birds, rodents, fish, reptiles, and amphibians. Changes in salinity in the creek and its tributaries may push freshwater and brackish animal and plant species upstream.

Found in Corte Madera, the smelt is list as threatened on the California species list and a candidate for the federal list. The Ridgway's Rail, tidewater goby, and harvest mouse are federally listed. The white-rayed pentachaeta is an endangered plant species in Corte Madera.

Recreation
The Corte Madera/Larkspur Path is vulnerable in the near-term at creek side segments. Private piers and docks could also be vulnerable. Boat launch sites for kayaking may need to adjust. Piper Park is also vulnerable in the long-term. This park features softball, soccer, and cricket accommodations that are used regionally. School sites off Doherty Drive used for recreation are vulnerable in the long-term.

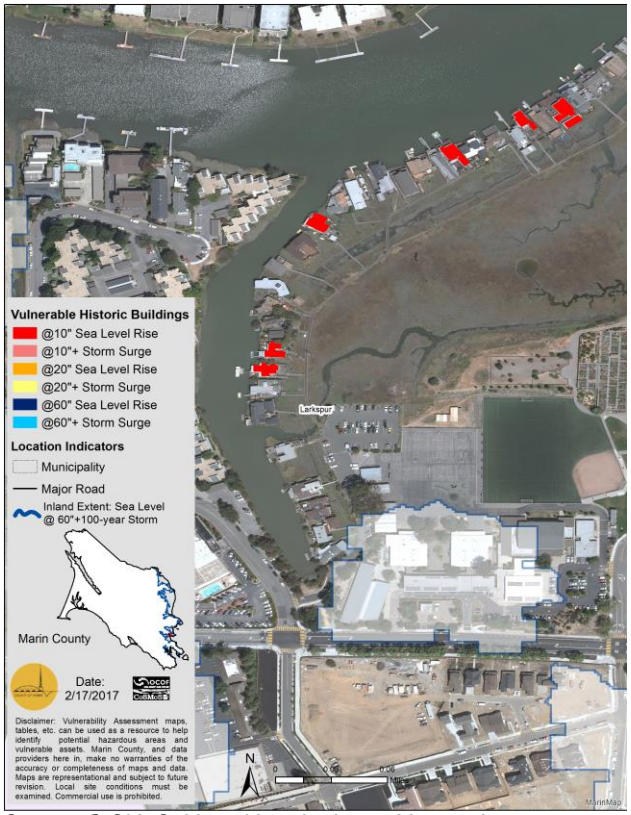
Emergency Services
Access through low lying roads is the primary concern for Larkspur residents and businesses that need assistance or transport to Marin General Hospital and other medical facilities in the area. The Central Marin Police Department would become an island as surrounding areas flood. This department also serves Corte Madera and San Anselmo.

Cultural Resources
Six vulnerable historic homes along Boardwalk One are the only remaining homes of the four original communities of arks, or houseboats on cement pedestals in water accessed by boardwalks elevated above the marshland. Many of the homes have had alterations and additions compromising the original defining features, though still retain historical character through size, materials, scale, and color.[199]

Homes on Riviera Circle at King Tide. Jan. 21, 2015. Credit YESS Program, Redwood High School Students

[199] City of Larkspur. 2005. Historic Resources Survey Re-evaluation

Map 89. Larkspur Vulnerable Cultural Resource Assets



Source: CoSMoS, MarinMap, Larkspur Historic Inventory

Table 101 ranks vulnerable asset by onset and flood depth. A 100-year storm surge would add an additional 1 to 3 feet of water to these properties. Note also, above average high tides could impact more properties than accounted for in this analysis. The Larkspur Plaza shopping center could expect storm surge flooding in the long-term at the sourthern end of the propoerty. The maps on the following pages illustrate vulnerable utility, natural resource, recreation, emergency and historic features. The areas in the call out circles enable the reader the see areas that are difficult to see on the large scale map. The circles do not indicate that these areas are more vulnerable than others along the shoreline.

Boardwalk One homes on the left and multi-family affordable housing on the right on Marin Lagoon, Larkspur. Credit: Marin County DPW

Table 101. Example Vulnerable Larkspur Assets by Onset and Flooding at MHHW

Asset	Scenarios		
	Near-term	Medium-term	Long-term
	1	3	5
Larkspur Landing Beach	Floods at existing high tide		
Boardwalk 1	2”-3’	5-“3’10”	3’2”-6’5”
Piper Park	7’2”	7’11”	10’8”
Bay Trail @ Larkspur Landing	0-5’4”	0-6’	0-8’6”
Cal Park Hill @ Sir Francis Drake Blvd	4’10”	5’3”	8’2”
Edgewater Place marsh	4’4”	5’	8’6”
Remillard Park	2’11”	3’6”	6’2”
Corte Madera Creek Path	0-3”	1”-2’	0-6’9”
Industrial & commercial east of Hwy 101	0-1’9”	0-2’4”	2’2”-6’7”
Hal Brown Park		6’3”	9’2”
Golden Gate Mobile Homes		10”-3’	2’-7’5”
Ferry Terminal		1’-2’6”	2’7”-7’9”
Riviera Circle Homes		3”-2’	7”-5’3”
GGBHTD fuel reserve		1’7”	4’2”
Tamiscal High School		1’7”	2’11”
San Andreas High School		1’5”	3’8”

Asset	Scenarios		
	Near-term	Medium-term	Long-term
	1	3	5
Central Marin Police Department		2'7"	6'9"
Redwood High fields and lots		1'4"	3'4"
Hamilton Park		10"	3'9"
Doherty Dr		0-3"	05'5"
Heatherwood Park			8'2"
Heather Gardens neighborhood			7'
Hwy 101NB @ Lucky Dr			3'6"-5'3"
Redwood Hwy			4'2"-5'2"
Hwy 101SB off ramp @ Sir Francis Drake Blvd			2'3"-5'
Riviera Circle (street)			1'8"-4'9"
Multi-family on Larkspur Plaza Dr.			4'5"
PG&E Substation			4'
Sir Francis Drake Blvd @ Hwy 101			7"-2'9"
Bon Air Landing Park			2'4"
Hillview neighborhood			1'8"
Passport Health			6"
Henry Hall Middle School	Surrounded by saltwater		
Corte Madera Creek	Water resource		
Marin Country Mart	Access issues only		

Source: MarinMap, CoSMoS, Asset Manager Interviews

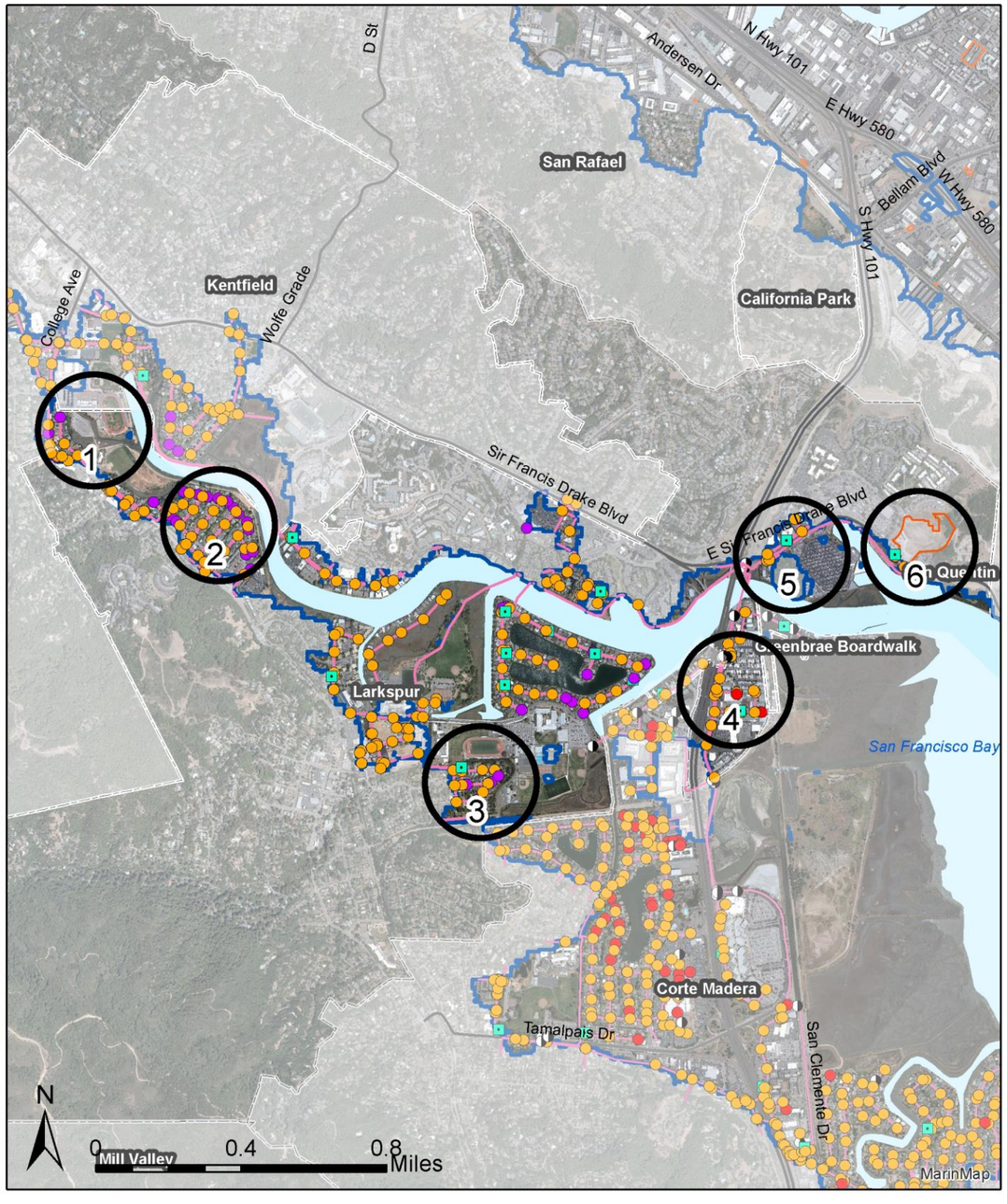
Map 90. Larkspur Vulnerable Wastewater Utility Asset

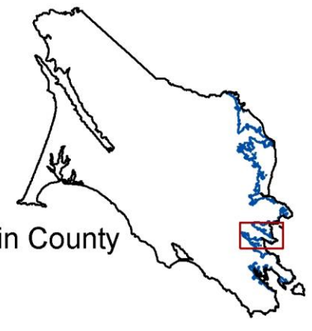
Vulnerable Assets

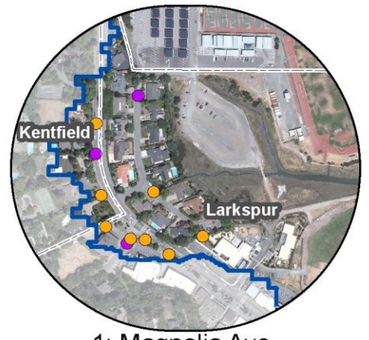
- Manhole
- Pump Station
- Residential Lateral
- Pipe
- Collector
- Junction

Location Indicators

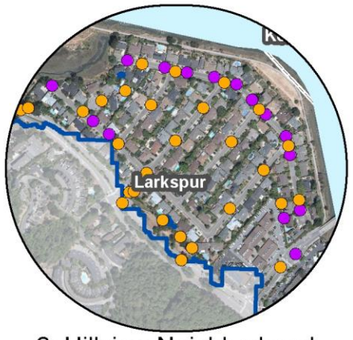
- Unincorporated
- Municipality
- Road
- Bay
- Inland Extent: Sea Level @ 60"+100-year Storm Surge



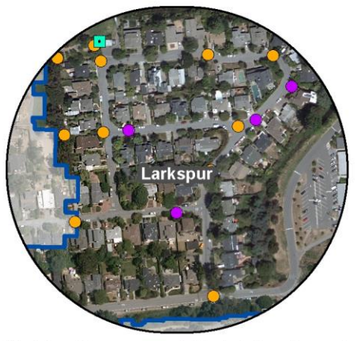




1: Magnolia Ave. @ College Ave.



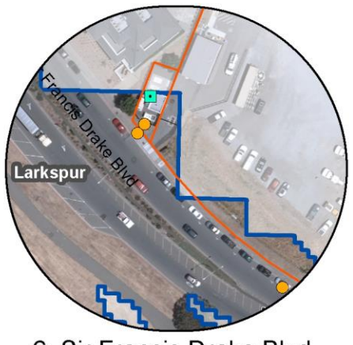
2: Hillview Neighborhood



3: Heatherwood Neighborhood

4: Redwood Highway Frontage Rd.

5: Sir Francis Drake Blvd. @ U.S. Hwy. 101



6: Sir Francis Drake Blvd. @ Larkspur Landing Cir.

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Map 91. Larkspur Vulnerable Gas and Electric Utility Assets

Vulnerable Assets

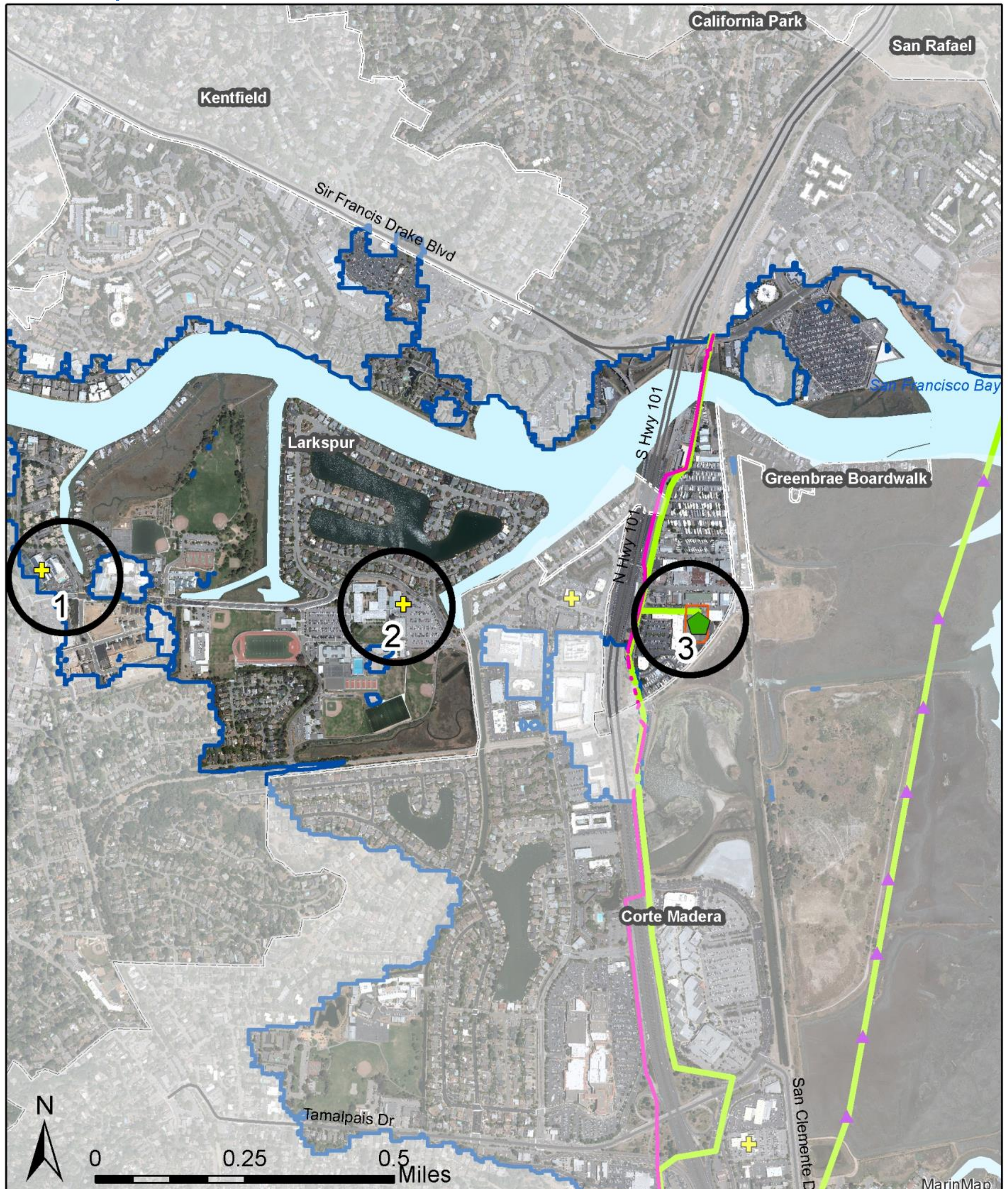
- Solar Installation

PG&E Assets

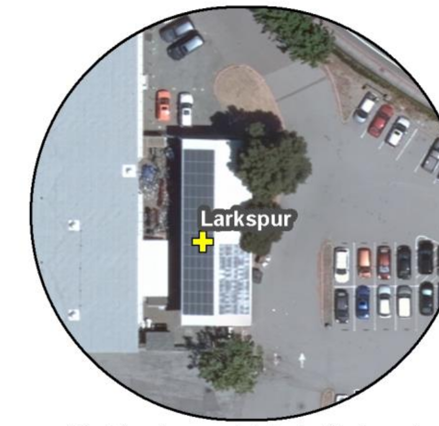
- Electric Transmission Lines
- Natural Gas Pipeline
- Substation
- Transmission Tower
- PG&E Property
- PG&E Buildings

Location Indicators

- Unincorporated
- Municipality
- Road
- Bay
- Inland Extent: Sea Level @ 60"+100-year Storm

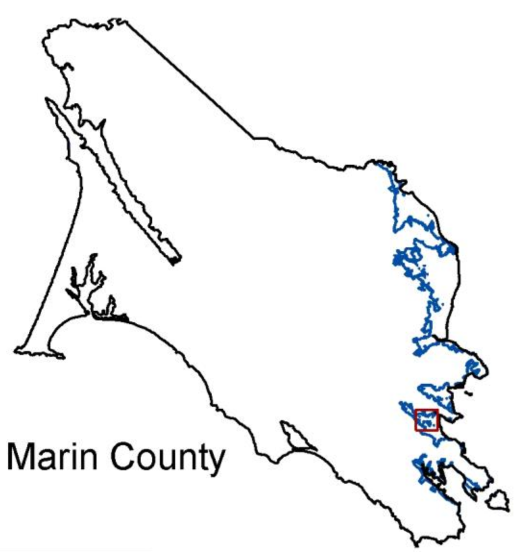


1: Athletic Club



2: Redwood High School

3: PG&E Substation



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LARKSPUR

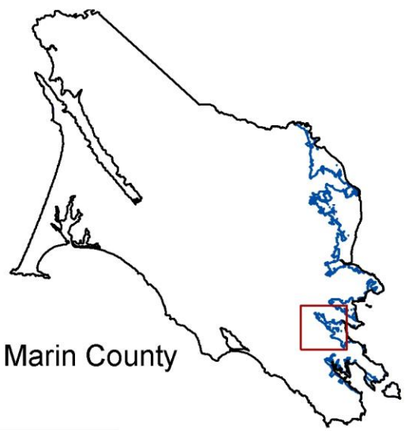
Map 92. Larkspur Vulnerable Stormwater Utility Assets

Vulnerable Assets

- Catch Basin
- Pump Station
- Manhole
- Pipe Inlet/Outlet
- Box
- Flap Gate
- Node
- Channel
- Culvert

Location Indicators

- Unincorporated
- Municipality
- Road
- Bay
- Inland Extent: Sea Level @ 60"+100-year Storm



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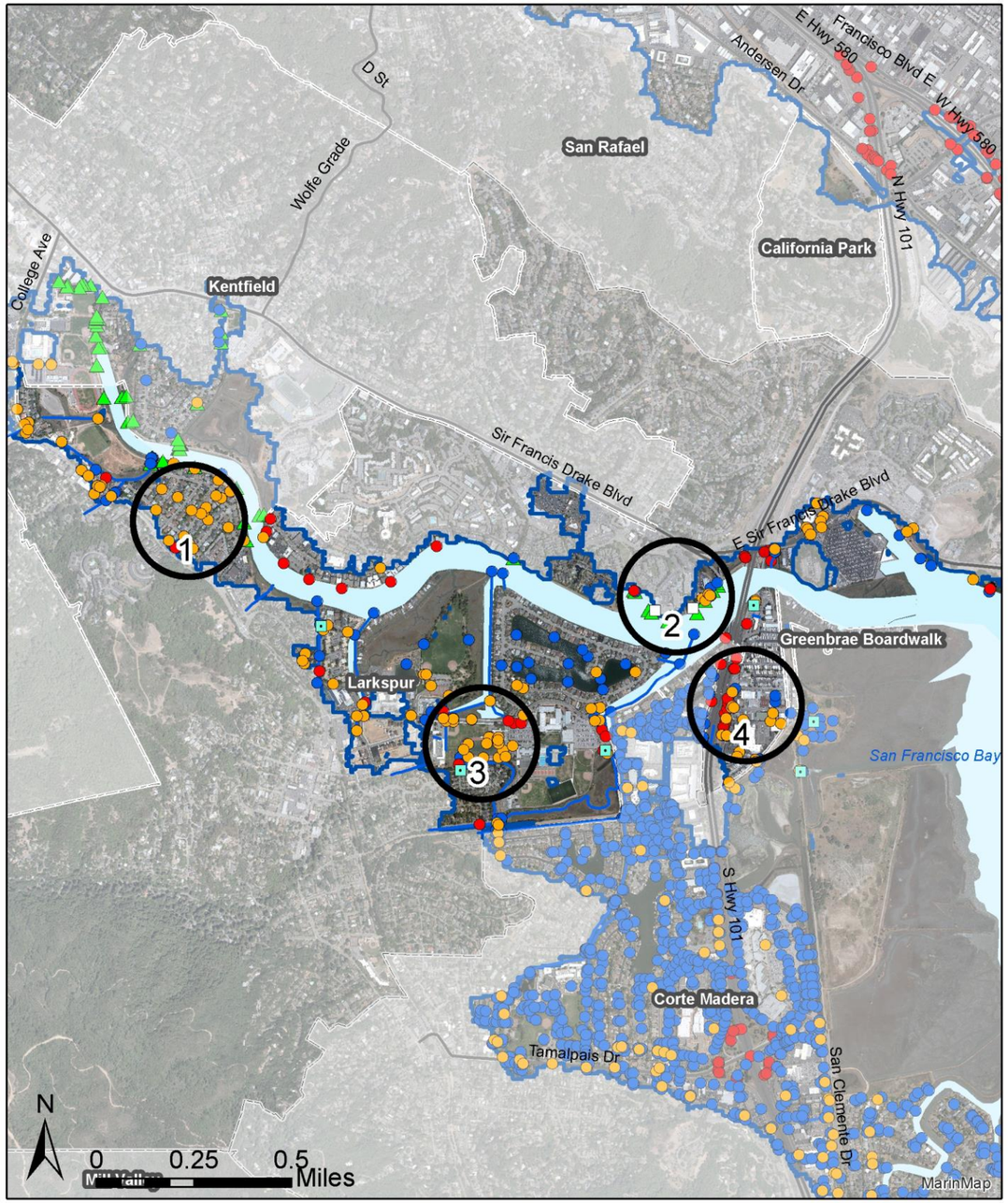
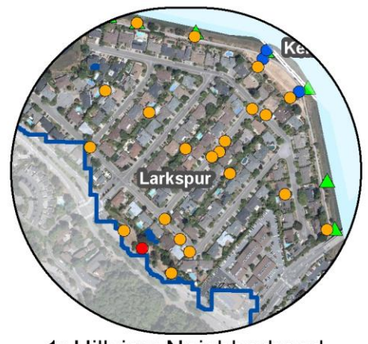
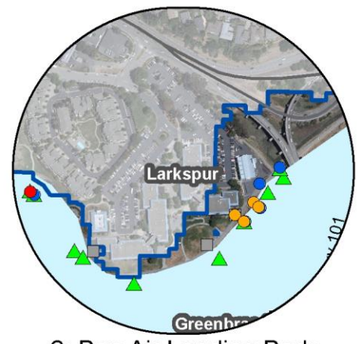




1: Hillview Neighborhood



2: Bon Air Landing Park

3: Redwood Highschool

4: U.S. Hwy. 101 Corridor

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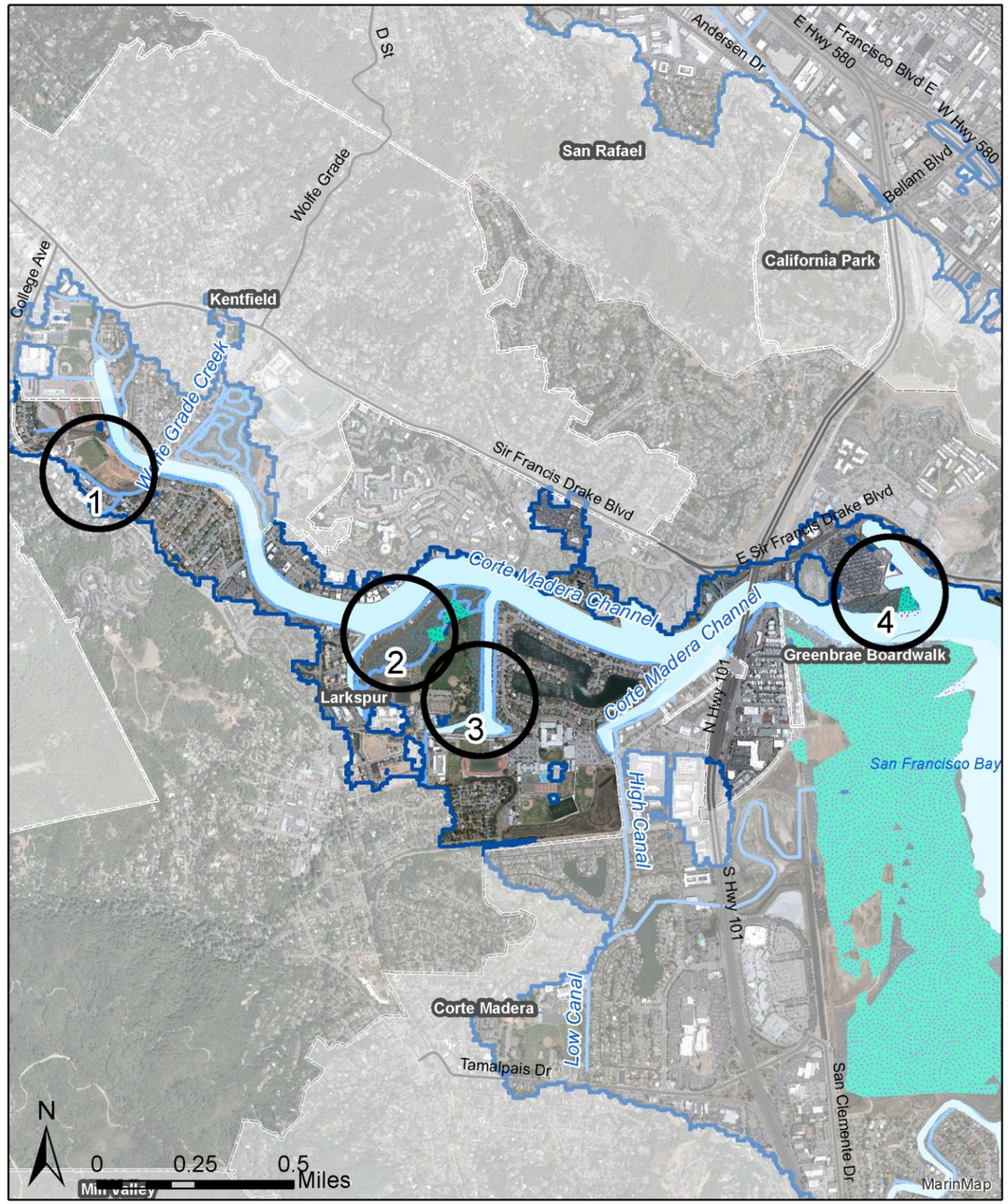
Map 93. Larkspur Vulnerable Natural Resource Assets

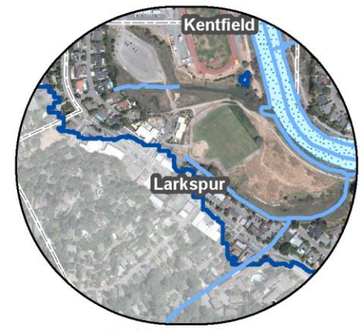
Vulnerable Assets

- Streams
- Marsh
- Estuary
- Wetland

Location Indicators

- Unincorporated
- Municipality
- Road
- Bay
- Inland Extent: Sea Level @ 60"+100-year Storm

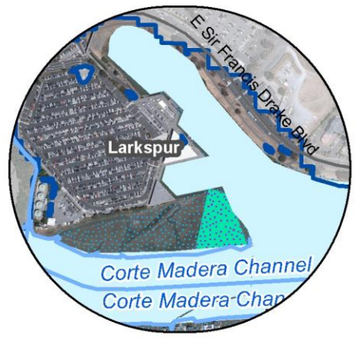




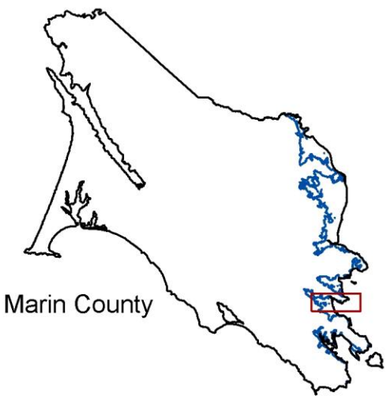
1: Upper Corte Madera Creek

2: Boardwalk One

3: Piper Park



4: Larkspur Landing



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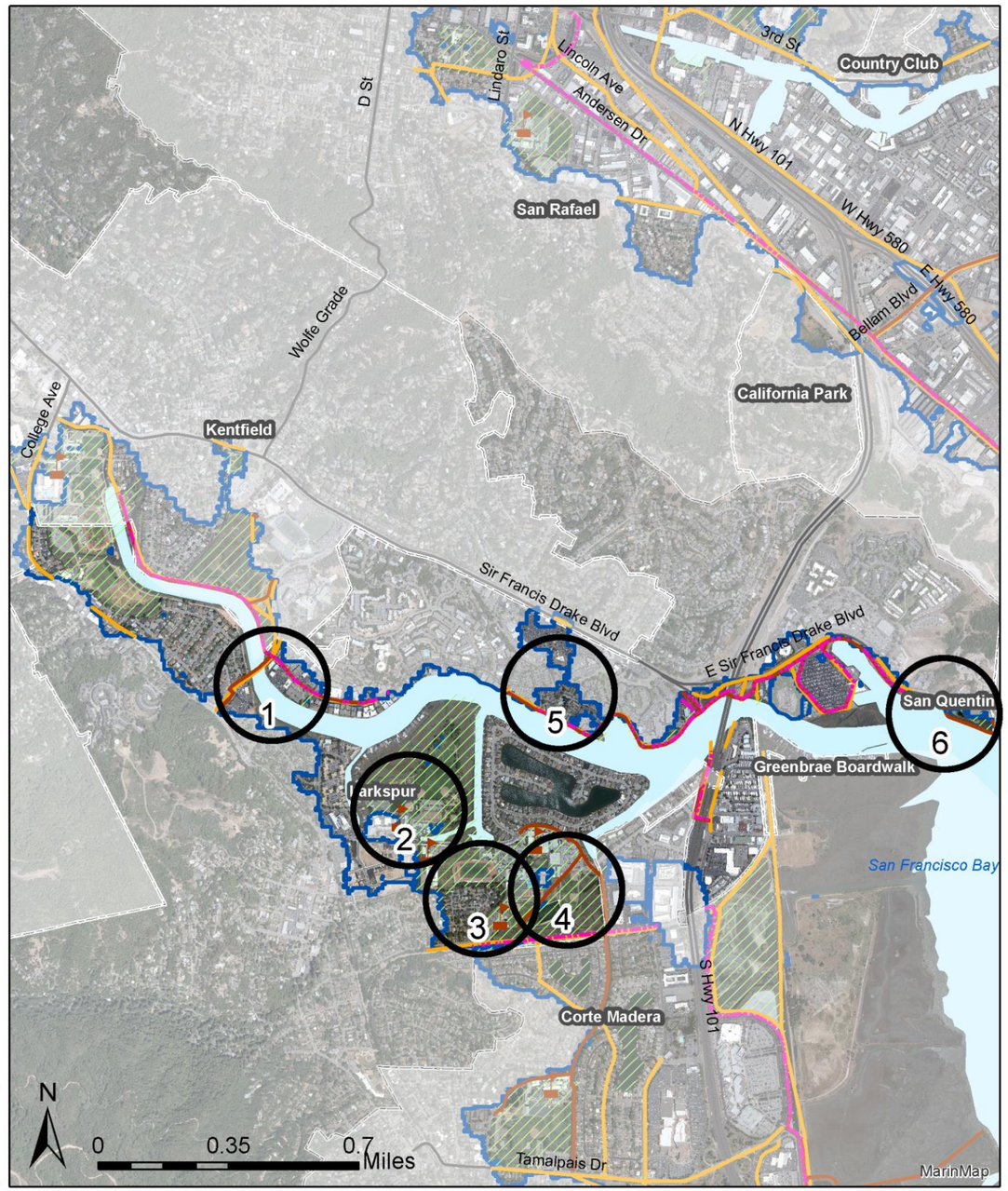
Map 94. Larkspur Vulnerable Recreation Assets

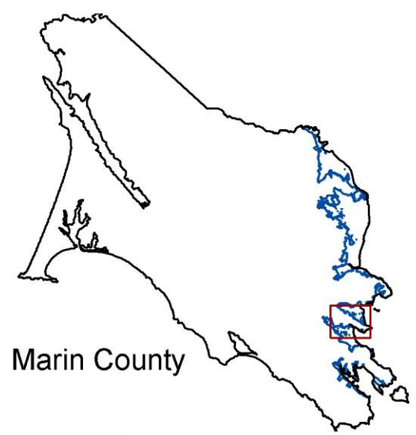
Vulnerable Assets

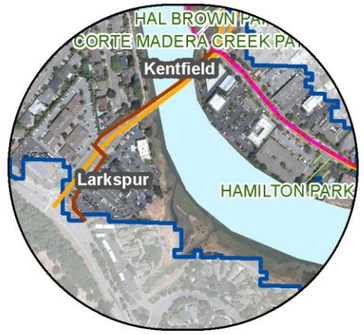
- School
- Bay Trail
- Trail
- Bikeway
- Park

Location Indicators

- Unincorporated
- Municipality
- Road
- Bay
- Inland Extent: Sea Level @ 60"+100-year Storm

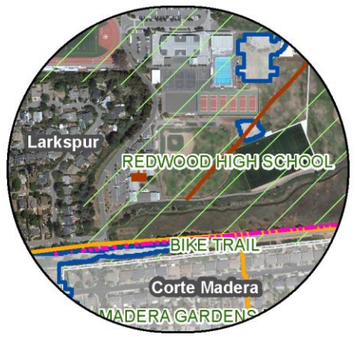






1: Bon Air Rd.

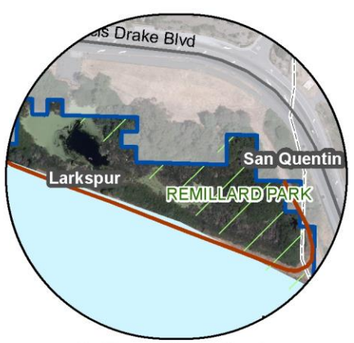
2: Piper Park & Schools



3: San Andreas High School

4: Redwood High School

5: Bon Air Landing Park



6: Remilllard Park

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Map 95. Larkspur Vulnerable Emergency Service Assets