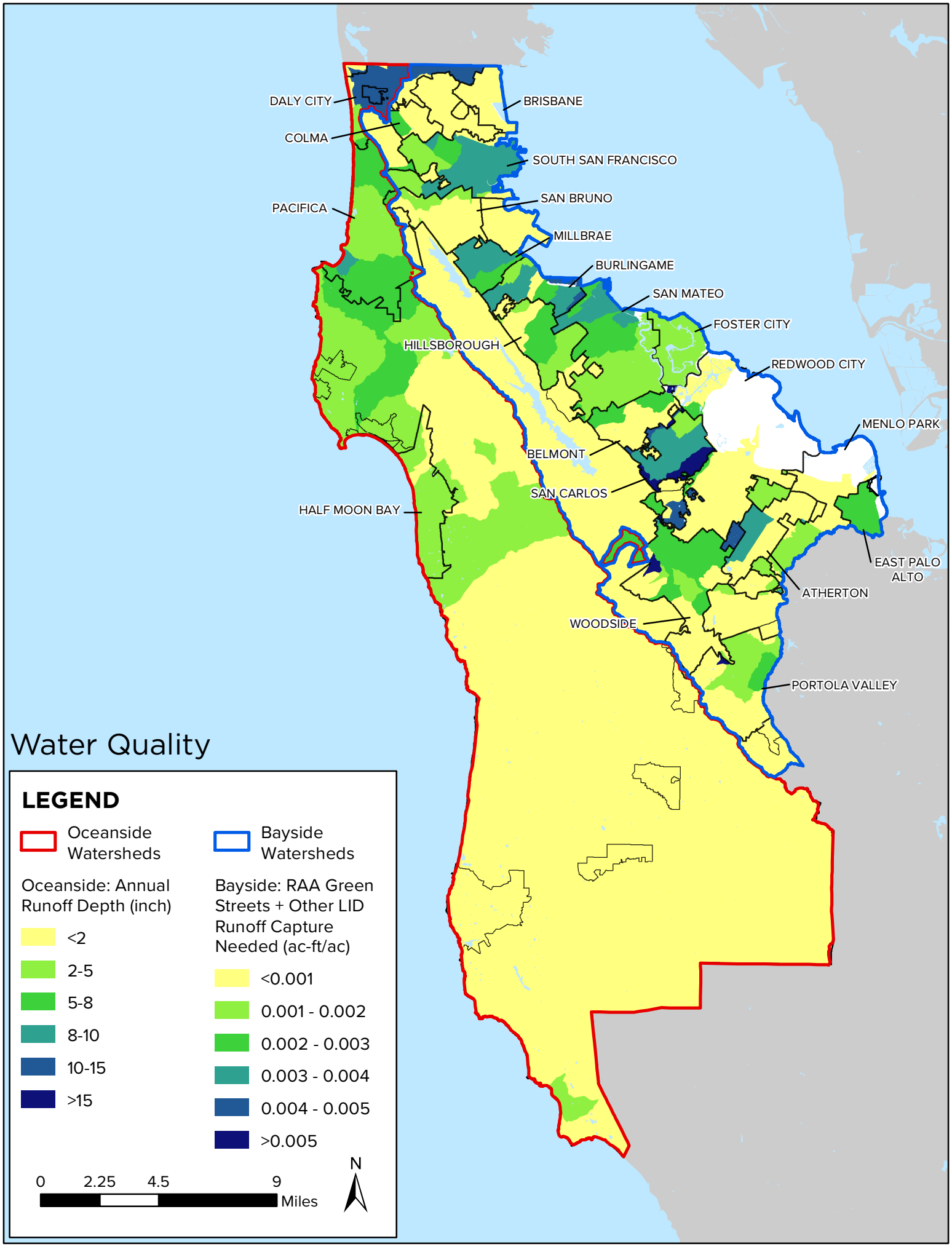
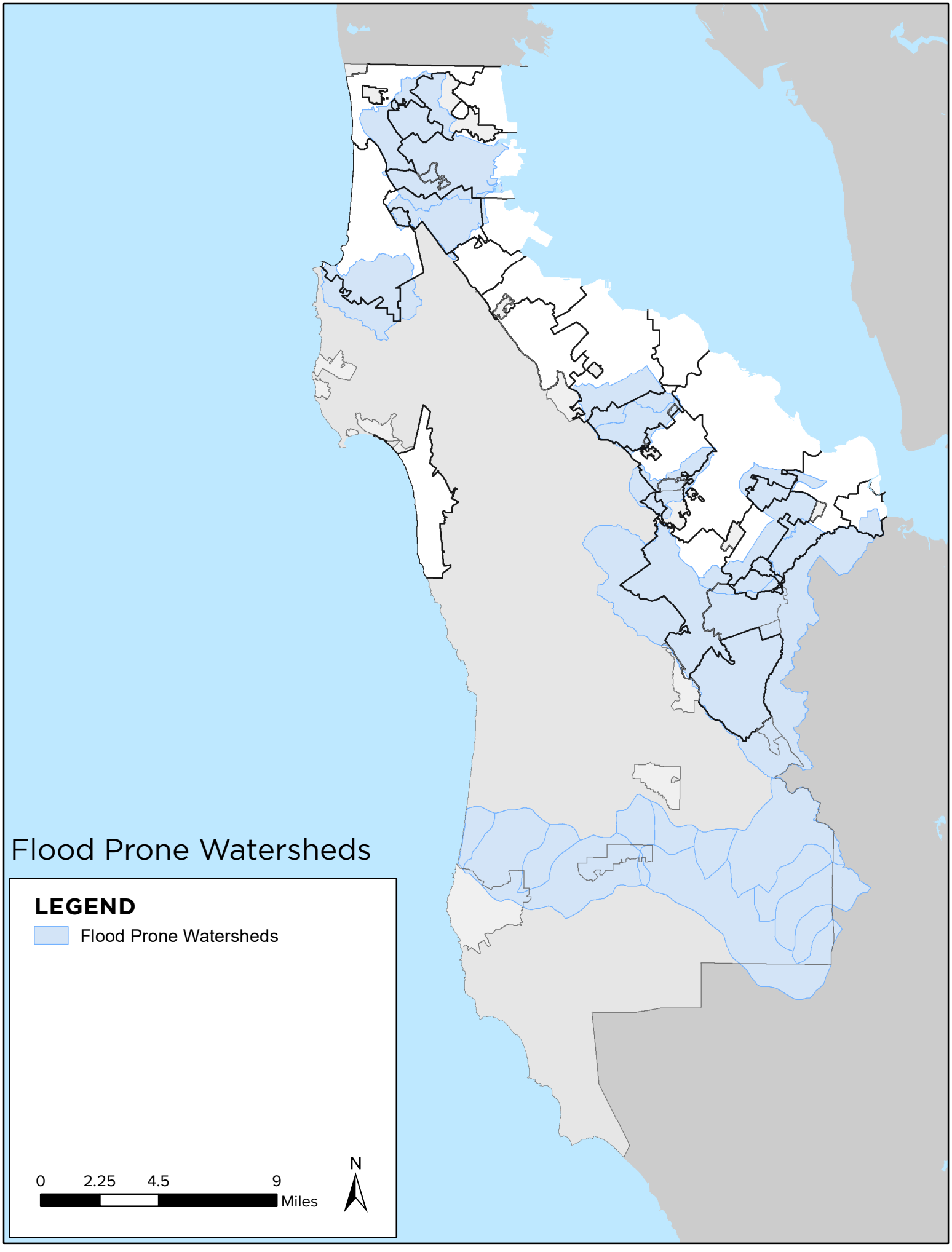
G *Sustainable Street Technical Suitability and Co-Benefit Maps*

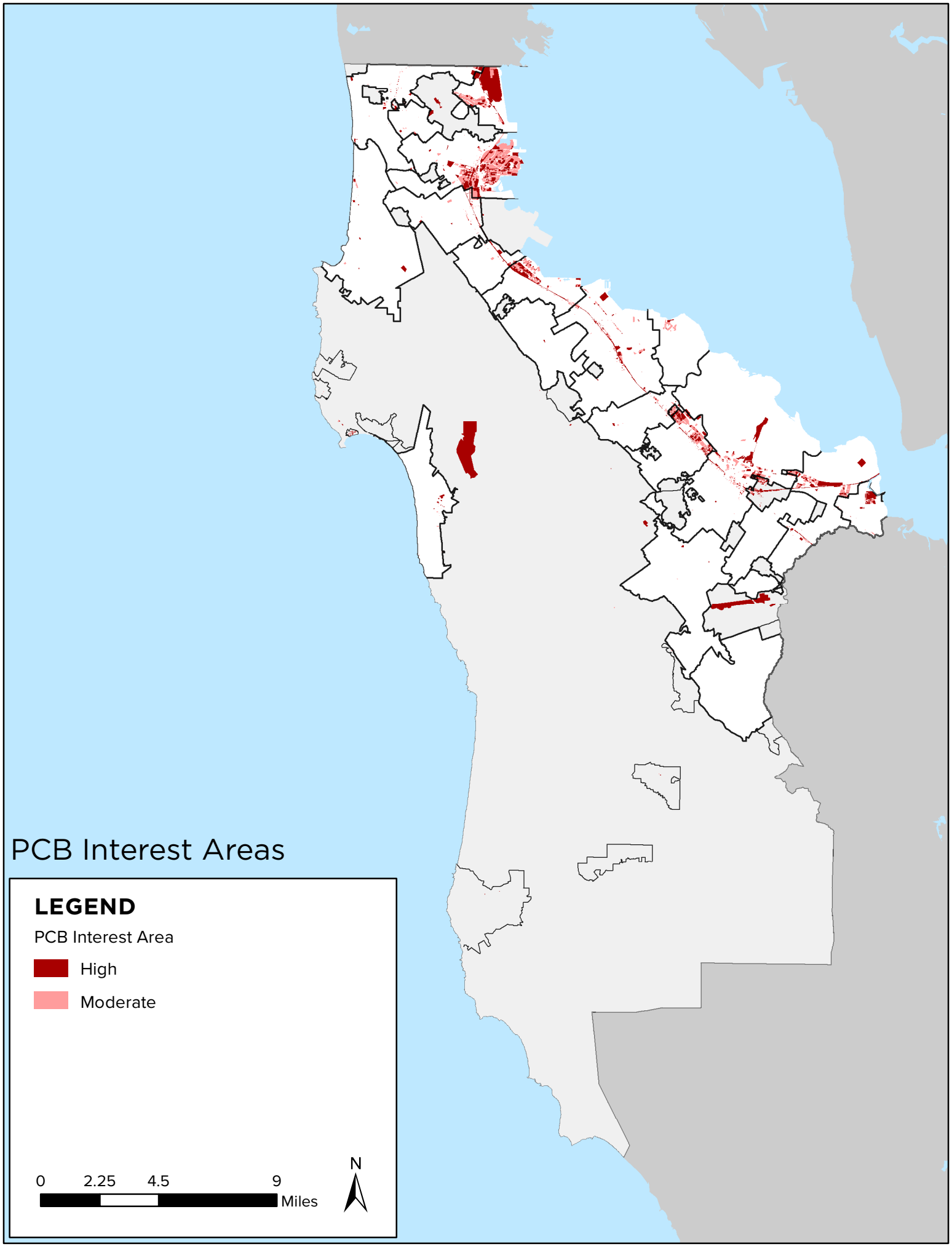
Lotus Water engineering
660 Mission Street, 2nd Floor
San Francisco, CA 94105
(415) 800-6805 www.lotuswater.com

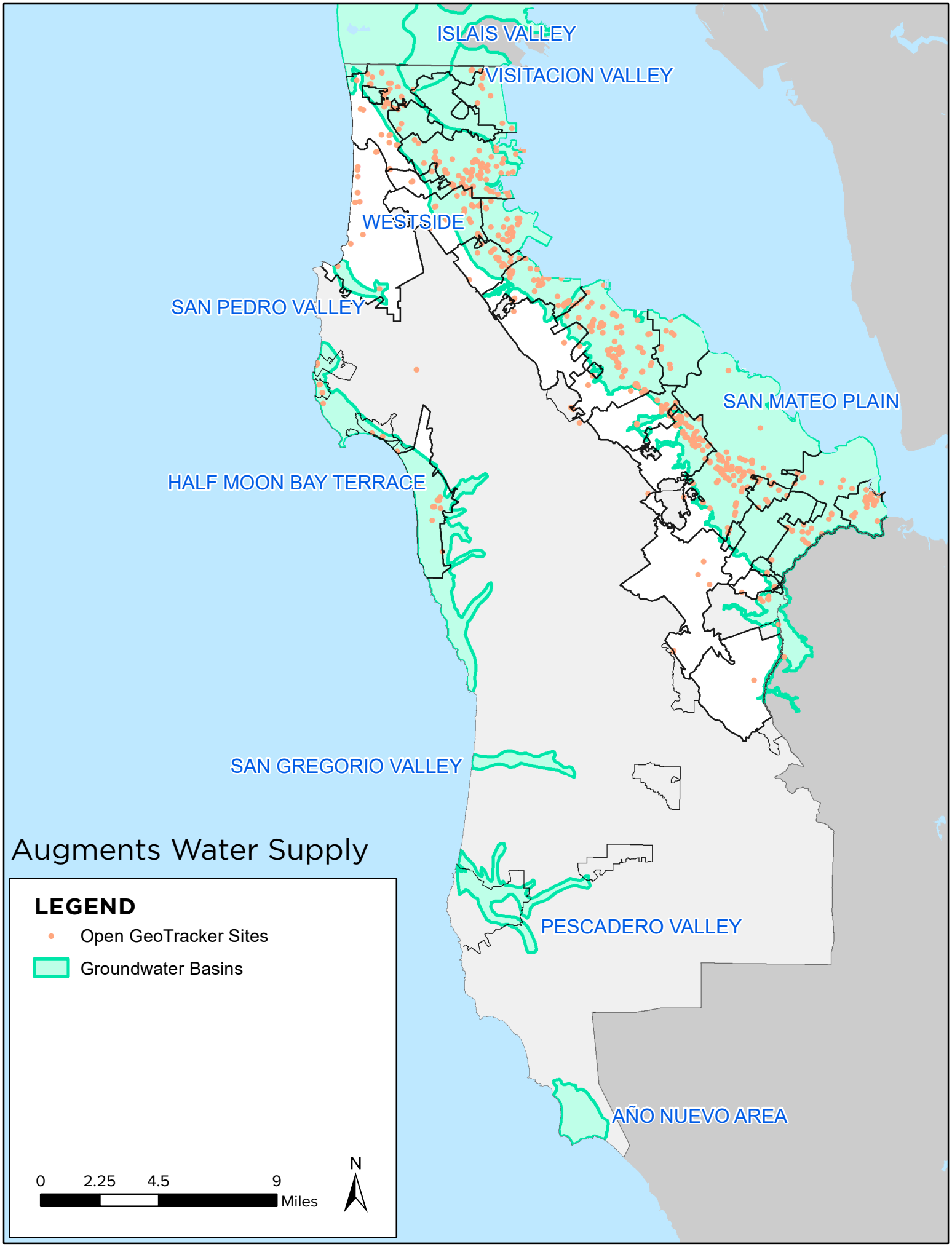
Appendix G

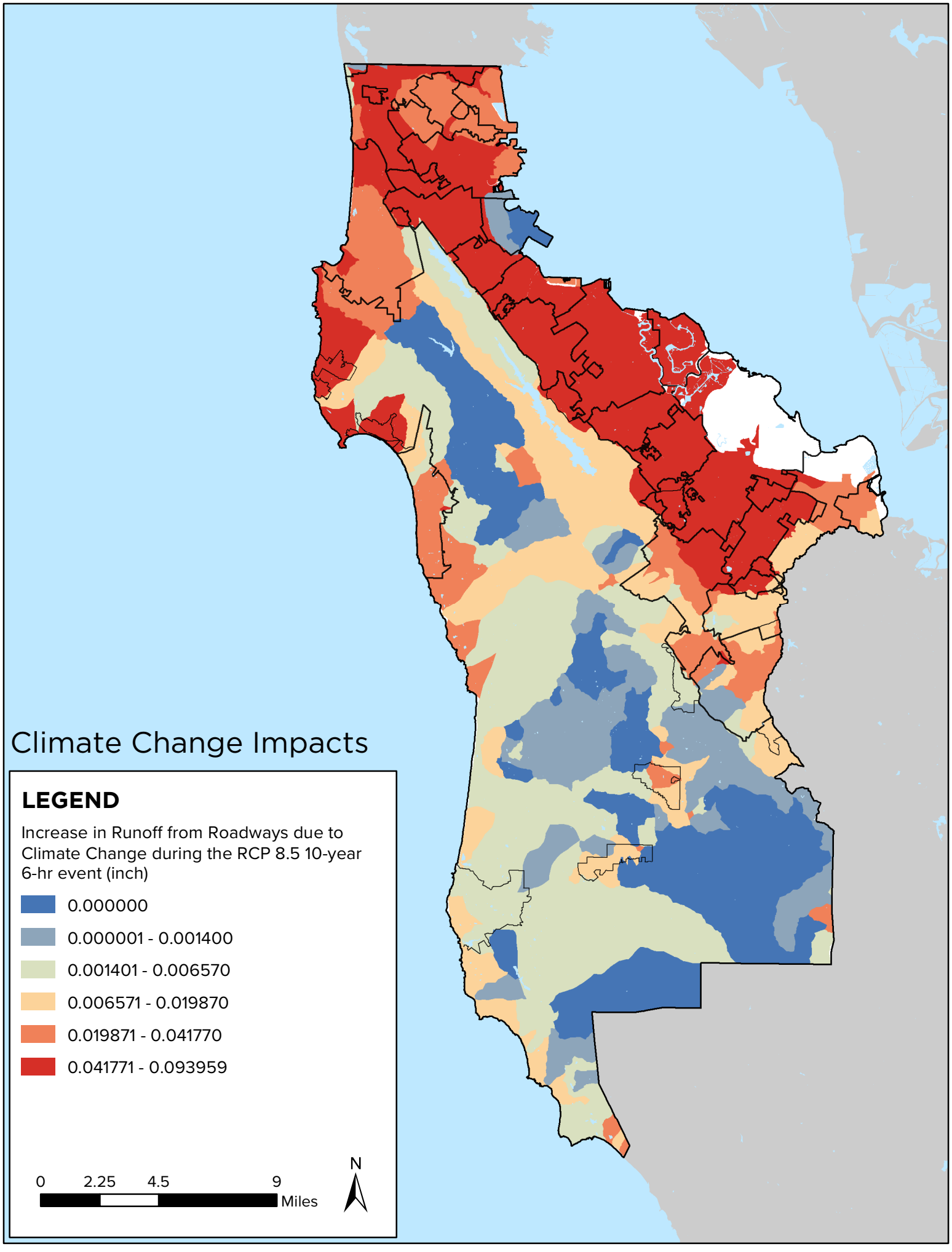
Technical Suitability and Prioritization Maps
San Mateo Countywide Sustainable Streets Master Plan

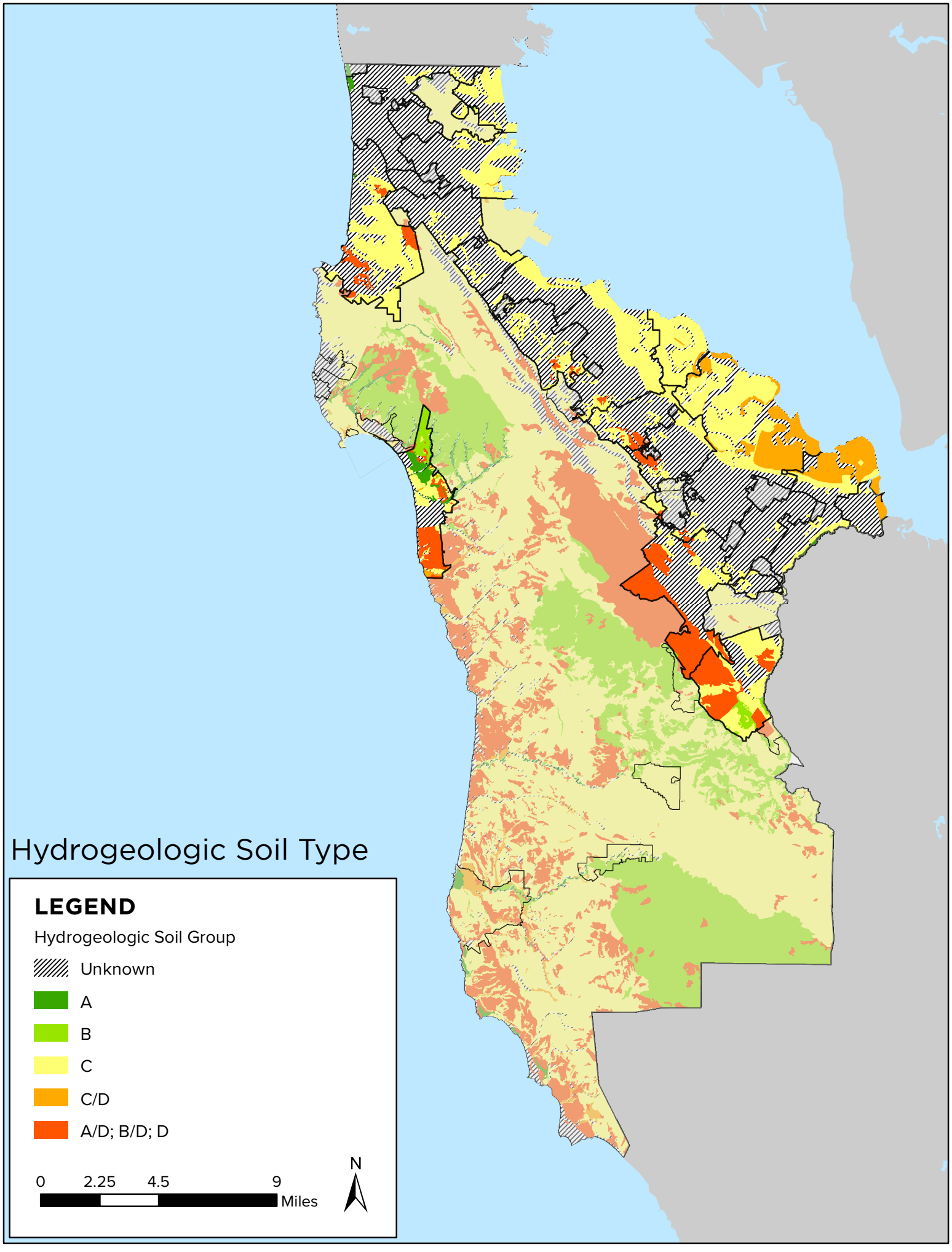

DALY CITY
BRISBANE
COLMA
SOUTH SAN FRANCISCO
PACIFICA
SAN BRUNO
MILLBRAE
BURLINGAME
SAN MATEO
FOSTER CITY
HILLSBOROUGH
REDWOOD CITY
MENLO PARK
BELMONT
SAN CARLOS
HALF MOON BAY
EAST PALO ALTO
ATHERTON
WOODSIDE
PORTOLA VALLEY
Water Quality
LEGEND
Oceanside Watersheds
Bayside Watersheds
Oceanside: Annual Runoff Depth (inch)
<2
2-5
5-8
8-10
10-15
>15
Bayside: RAA Green Streets + Other LID Runoff Capture Needed (ac-ft/ac)
<0.001
0.001 - 0.002
0.002 - 0.003
0.003 - 0.004
0.004 - 0.005
>0.005
0
2.25
4.5
9
Miles
N

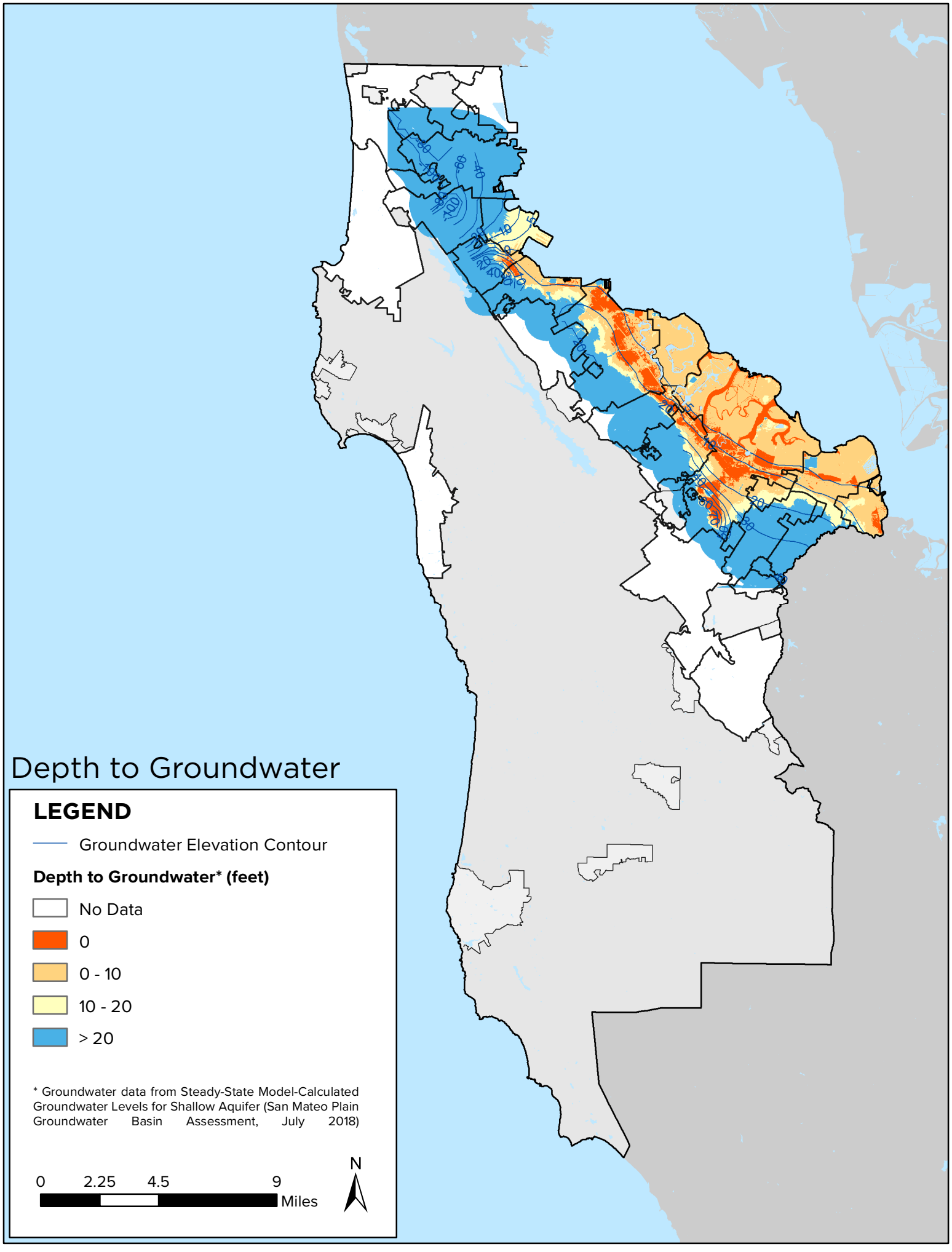

Flood Prone Watersheds
LEGEND
Flood Prone Watersheds
0
2.25
4.5
9
Miles
N

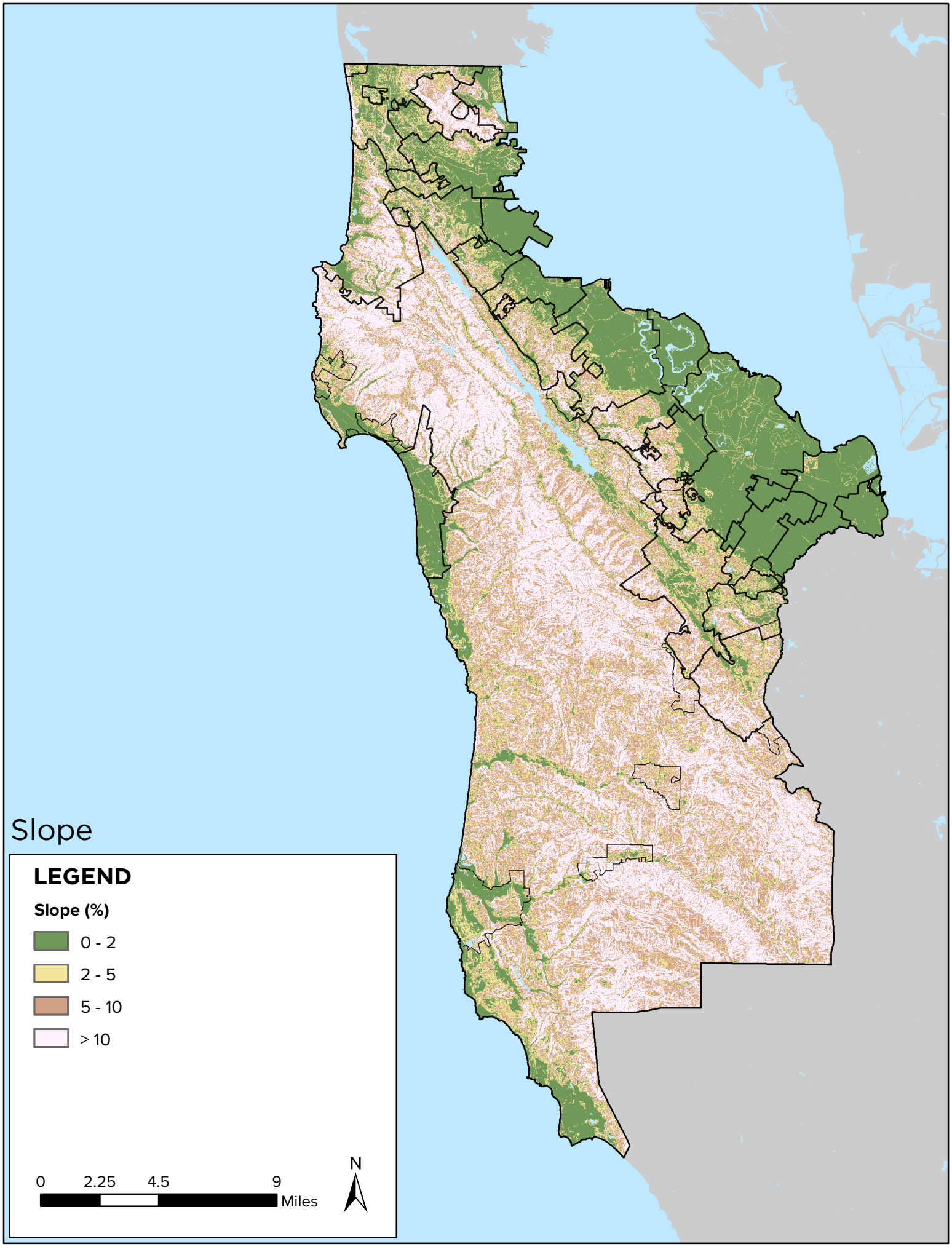

PCB Interest Areas
LEGEND
PCB Interest Area
High
Moderate
0
2.25
4.5
9
Miles
N

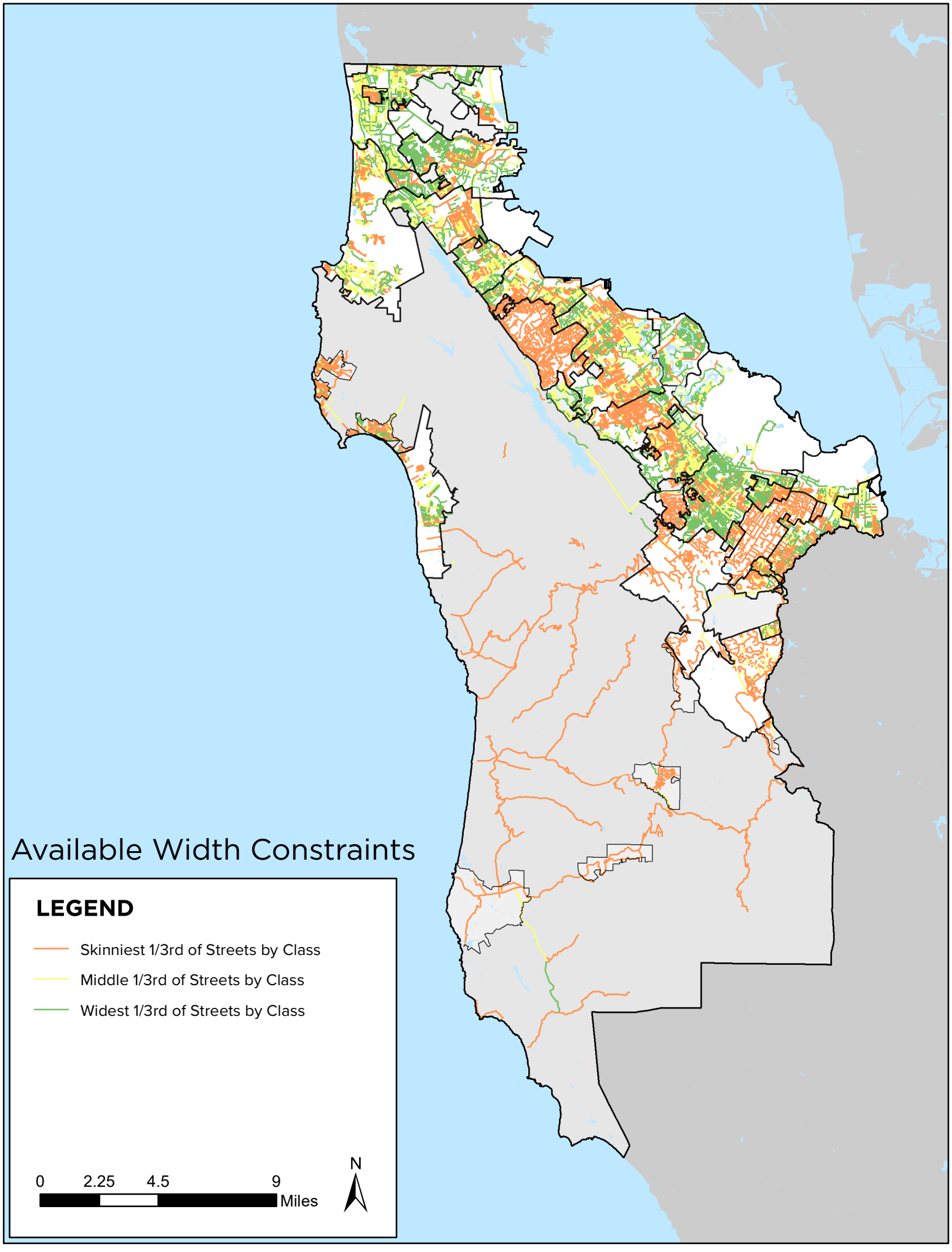

ISLAIS VALLEY
VISITACION VALLEY
WESTSIDE
SAN PEDRO VALLEY
SAN MATEO PLAIN
HALF MOON BAY TERRACE
SAN GREGORIO VALLEY
PESCADERO VALLEY
AÑO NUEVO AREA
Augments Water Supply
LEGEND
Open GeoTracker Sites
Groundwater Basins
0
2.25
4.5
9
Miles
N

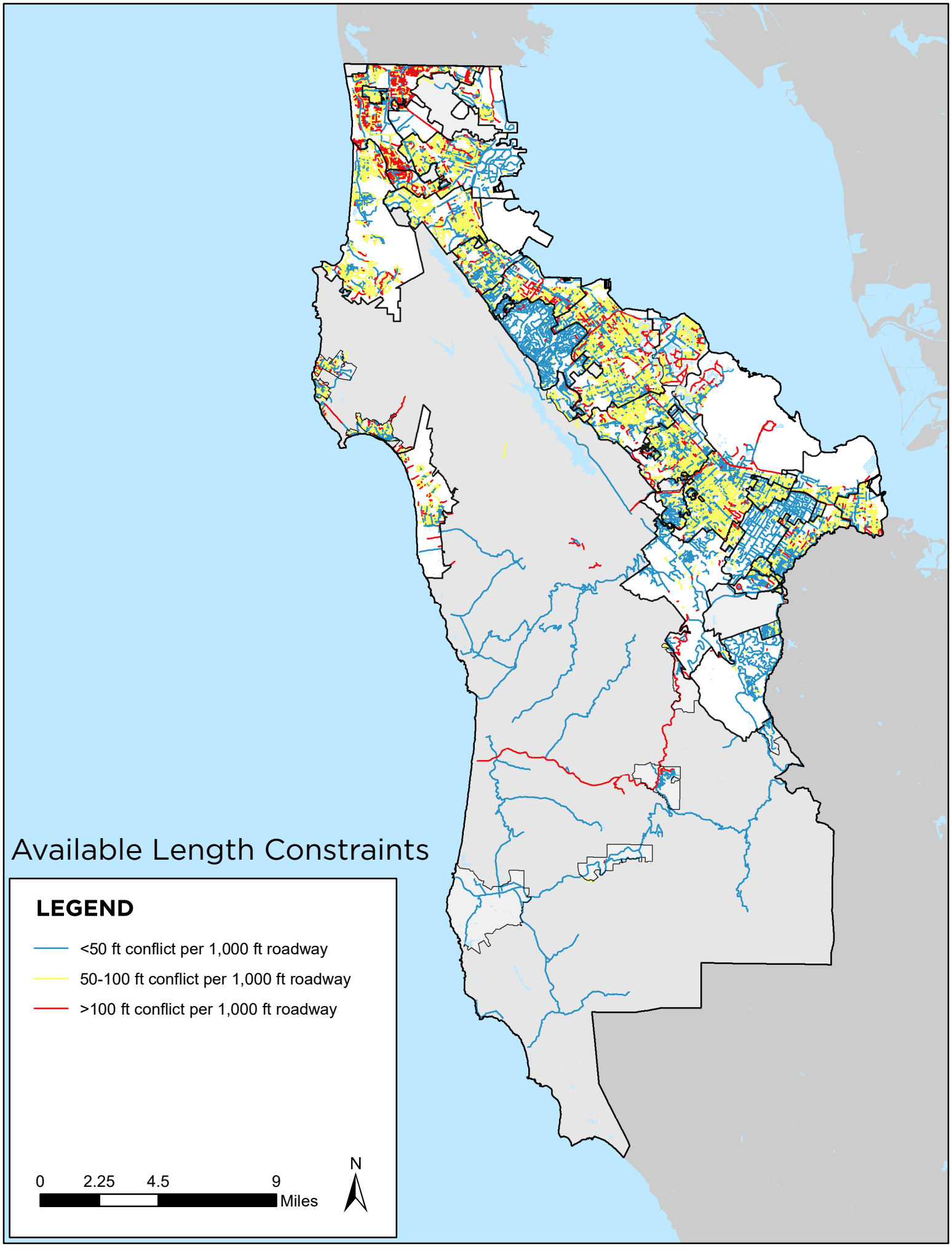

Climate Change Impacts
LEGEND
Increase in Runoff from Roadways due to Climate Change during the RCP 8.5 10-year 6-hr event (inch)
0.000000
0.000001 - 0.001400
0.001401 - 0.006570
0.006571 - 0.019870
0.019871 - 0.041770
0.041771 - 0.093959
0
2.25
4.5
9
Miles
N

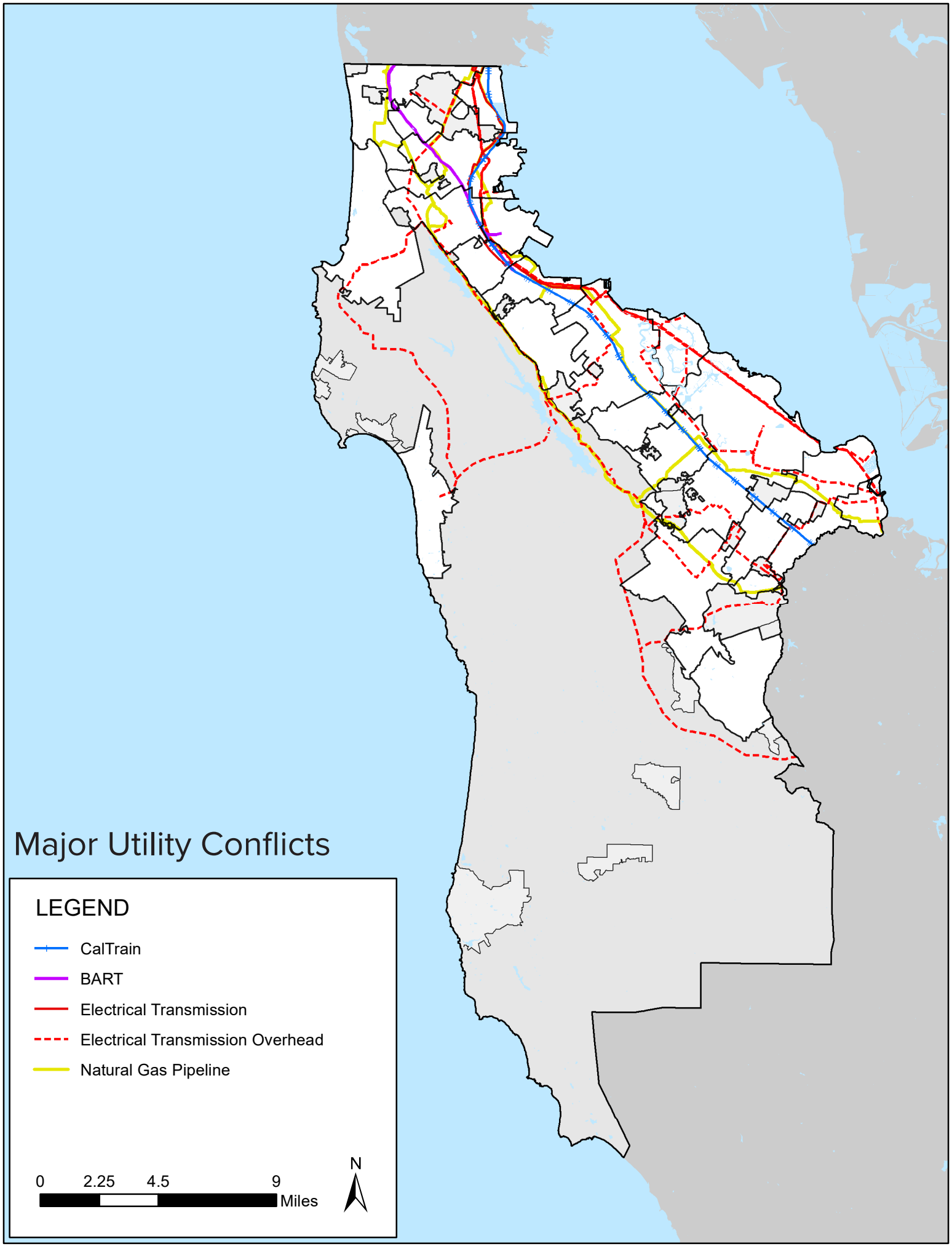

Hydrogeologic Soil Type
LEGEND
Hydrogeologic Soil Group
Unknown
A
B
C
C/D
A/D; B/D; D
0
2.25
4.5
9
Miles
N

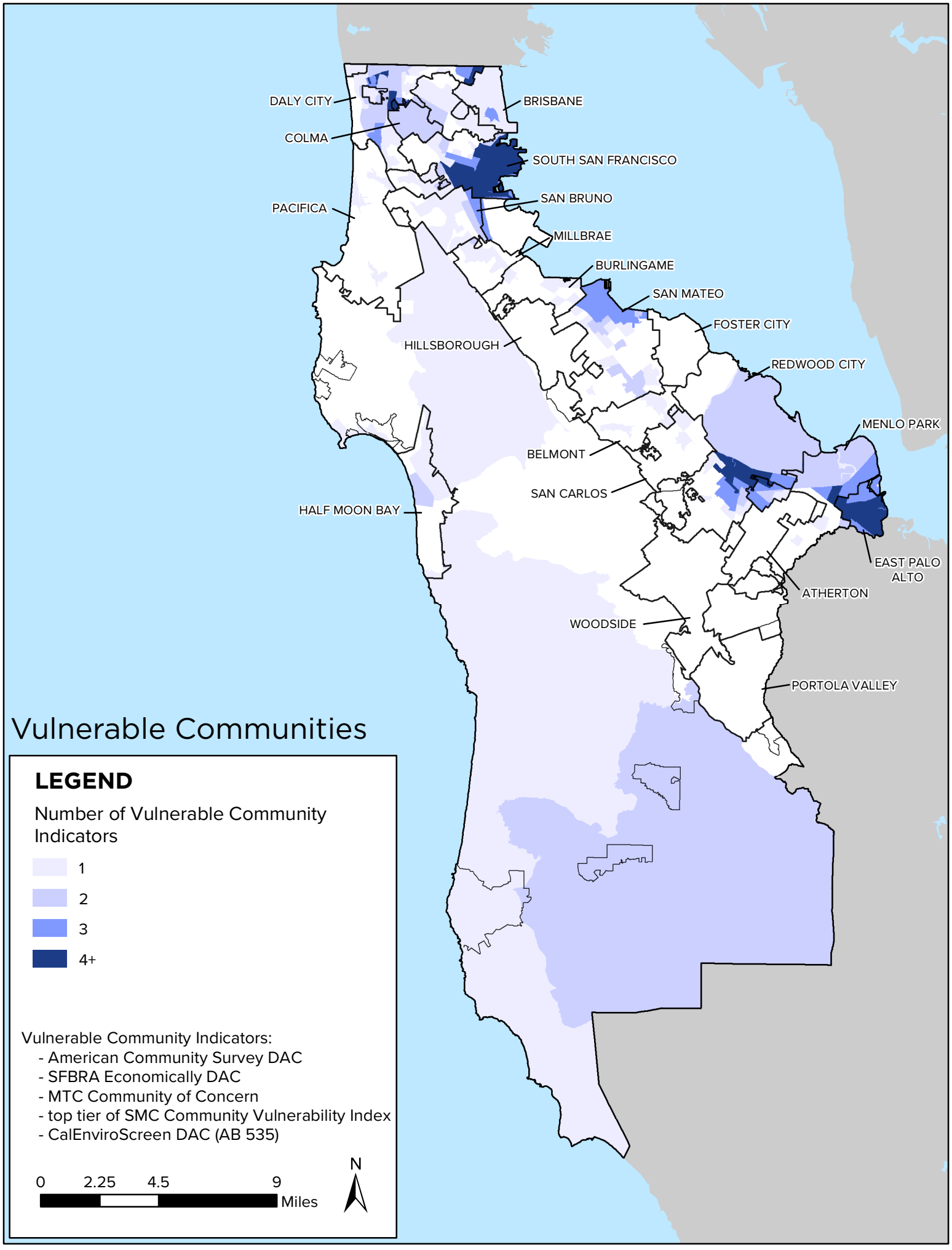

Depth to Groundwater
LEGEND
Groundwater Elevation Contour
Depth to Groundwater* (feet)
No Data
0
0 - 10
10 - 20
> 20
* Groundwater data from Steady-State Model-Calculated Groundwater Levels for Shallow Aquifer (San Mateo Plain Groundwater Basin Assessment, July 2018)
0
2.25
4.5
9
Miles
N

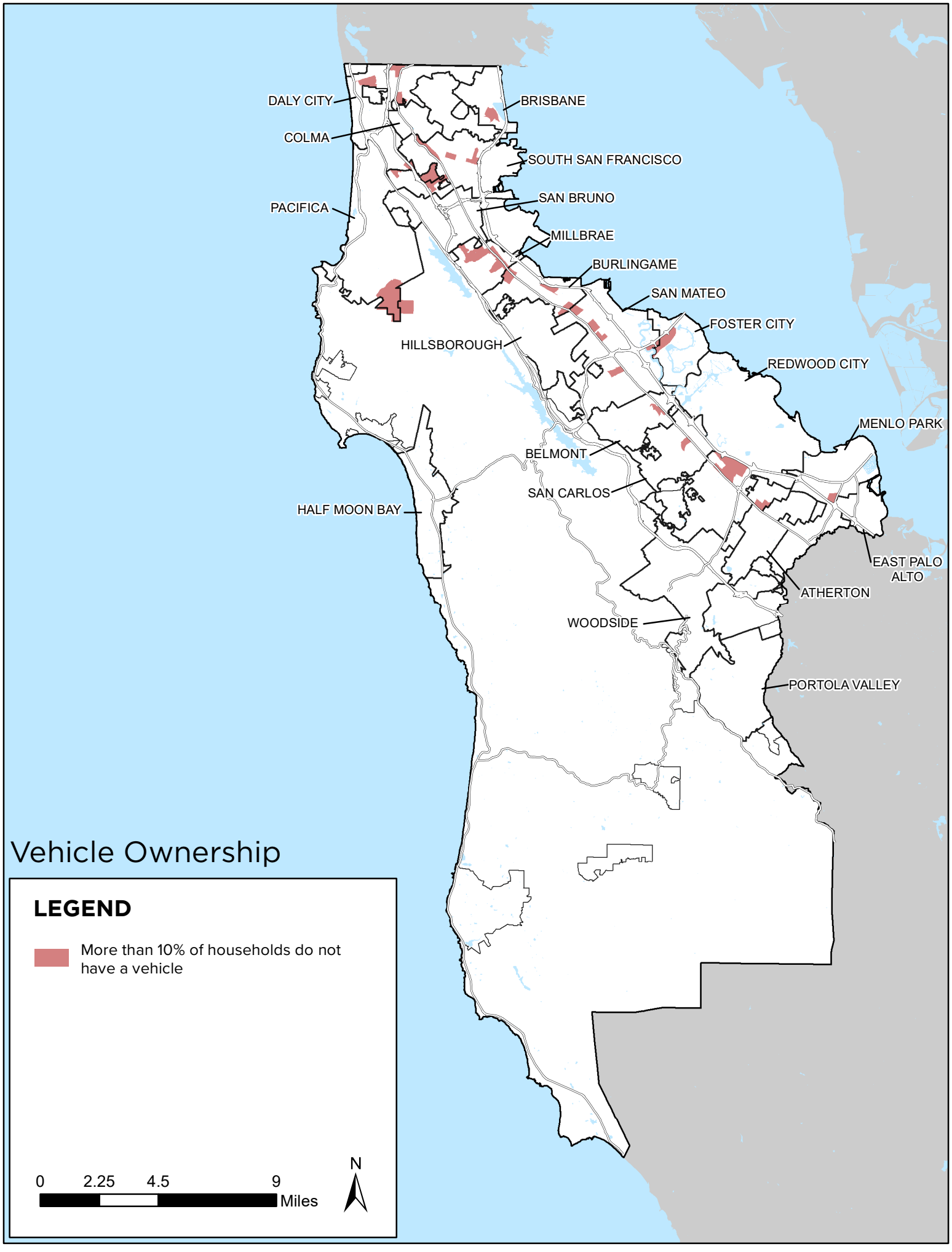

Slope
LEGEND
Slope (%)
0 - 2
2 - 5
5 - 10
> 10
0
2.25
4.5
9
Miles
N

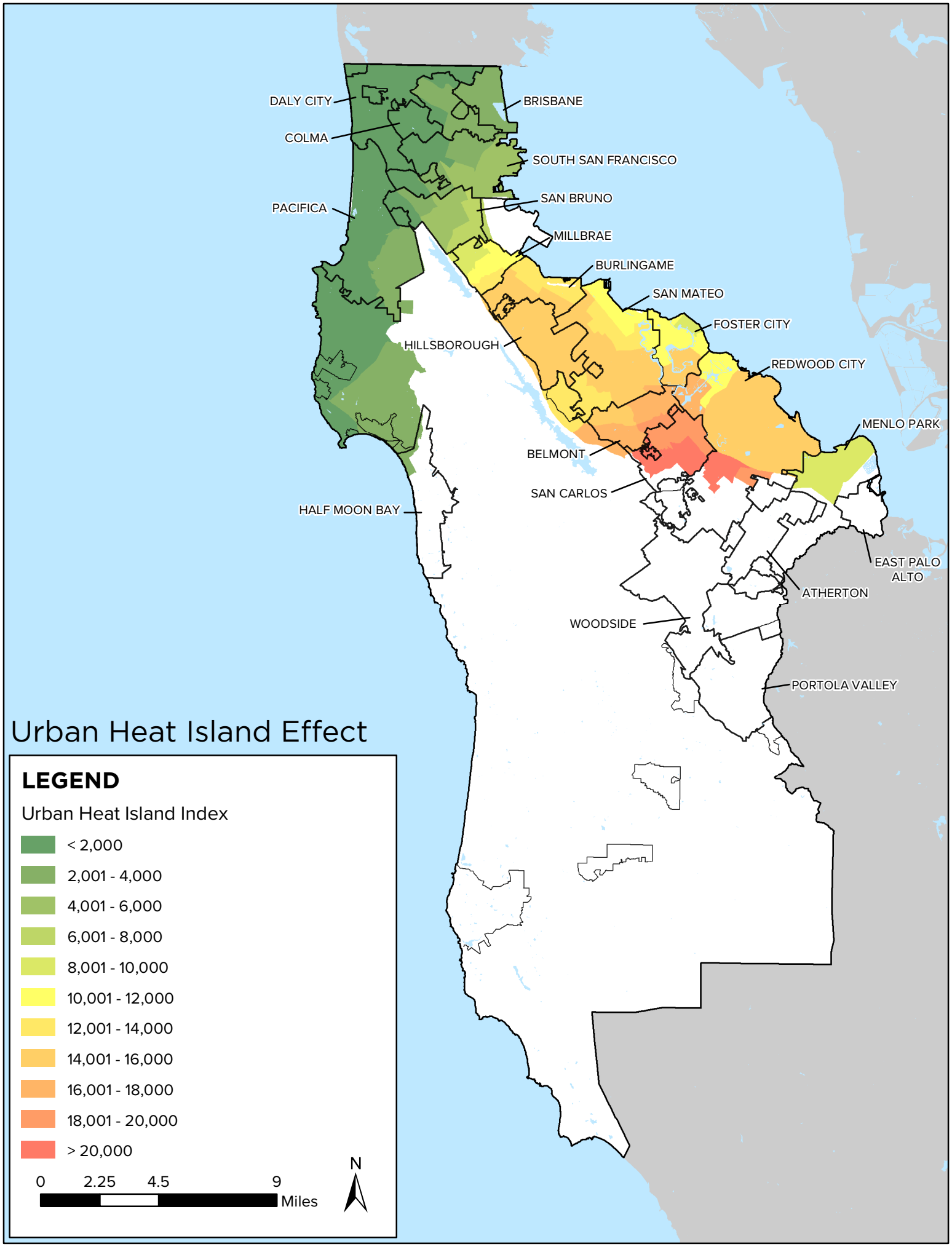

Available Width Constraints
LEGEND
Skinniest 1/3rd of Streets by Class
Middle 1/3rd of Streets by Class
Widest 1/3rd of Streets by Class
0
2.25
4.5
9
Miles
N

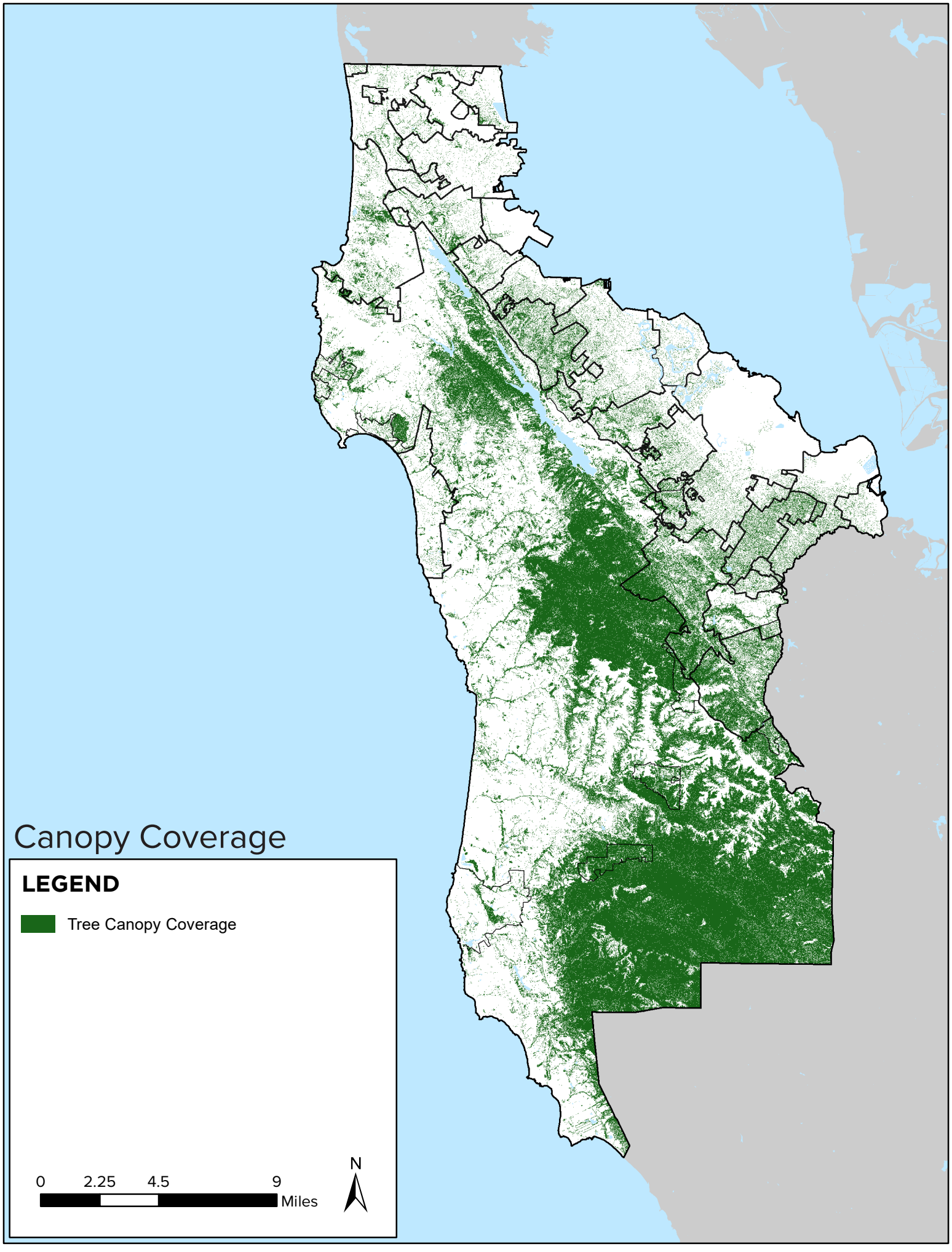

Available Length Constraints
LEGEND
<50 ft conflict per 1,000 ft roadway
50-100 ft conflict per 1,000 ft roadway
>100 ft conflict per 1,000 ft roadway
0
2.25
4.5
9
Miles
N

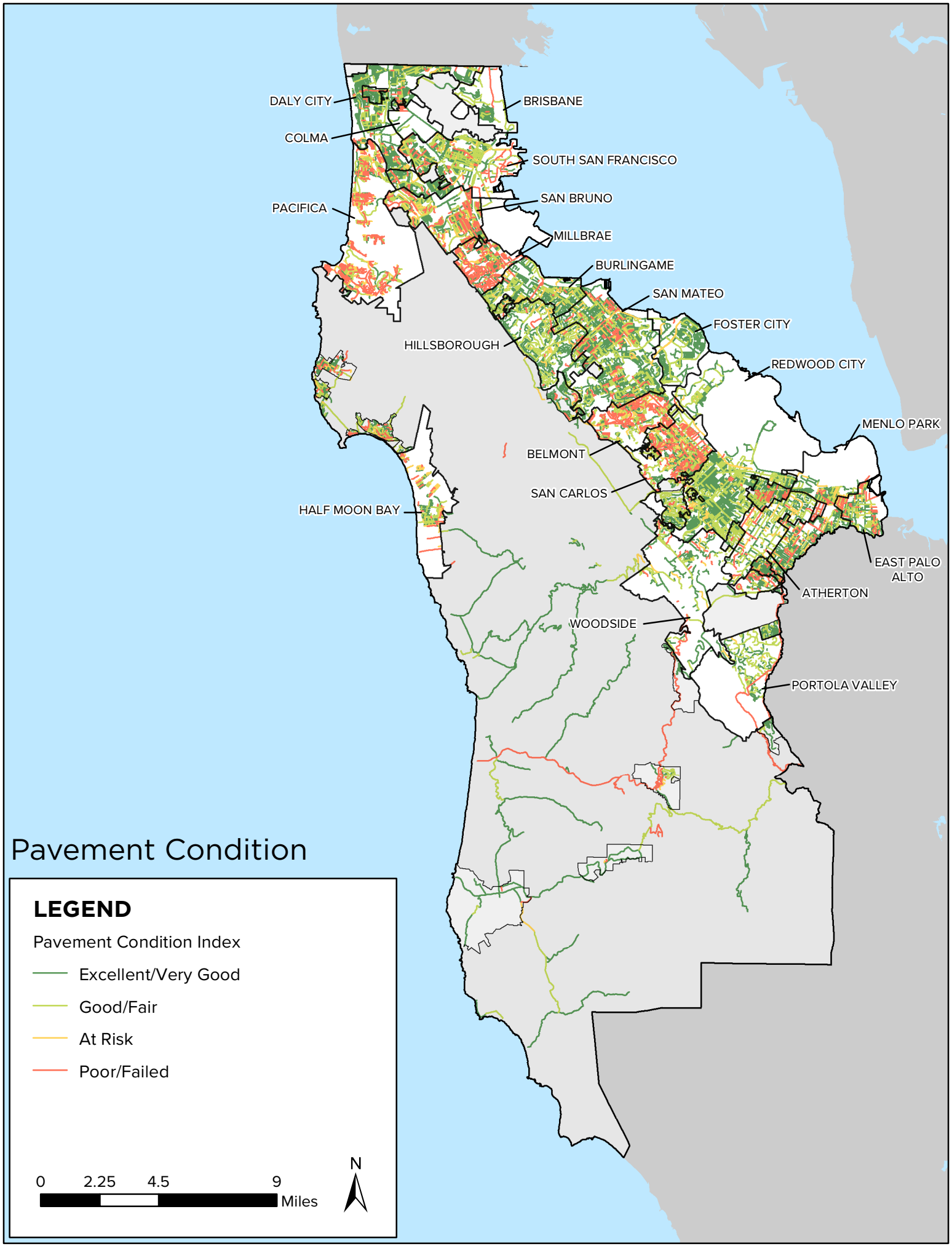

Major Utility Conflicts
LEGEND
CalTrain
BART
Electrical Transmission
Electrical Transmission Overhead
Natural Gas Pipeline
0
2.25
4.5
9
Miles
N


DALY CITY
BRISBANE
COLMA
SOUTH SAN FRANCISCO
PACIFICA
SAN BRUNO
MILLBRAE
BURLINGAME
SAN MATEO
FOSTER CITY
HILLSBOROUGH
REDWOOD CITY
MENLO PARK
BELMONT
SAN CARLOS
HALF MOON BAY
EAST PALO ALTO
ATHERTON
WOODSIDE
PORTOLA VALLEY
Vulnerable Communities
LEGEND
Number of Vulnerable Community Indicators
1
2
3
4+
Vulnerable Community Indicators:
- American Community Survey DAC
- SFBRA Economically DAC
- MTC Community of Concern
- top tier of SMC Community Vulnerability Index
- CalEnviroScreen DAC (AB 535)
0
2.25
4.5
9
Miles
N

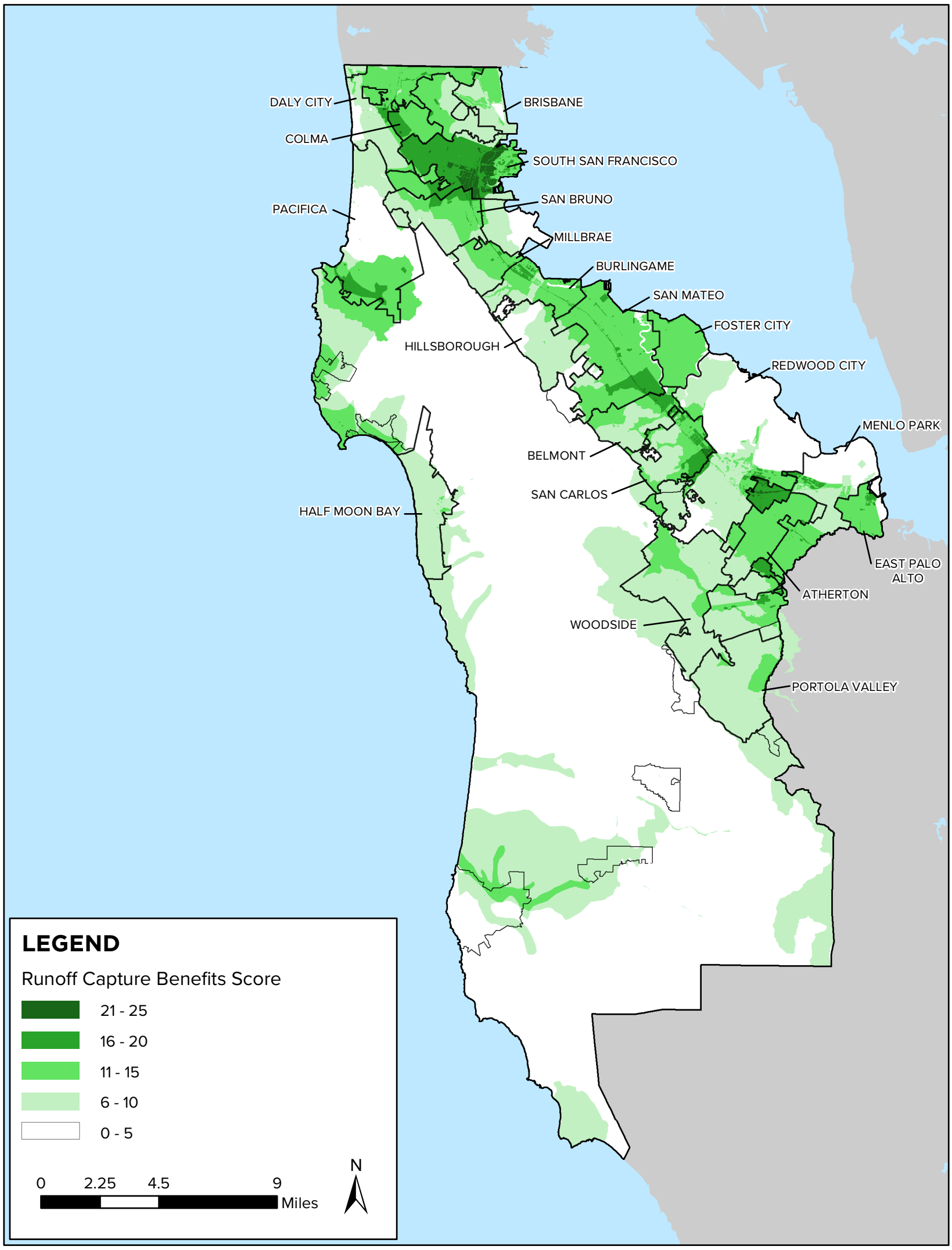

DALY CITY
BRISBANE
COLMA
SOUTH SAN FRANCISCO
PACIFICA
SAN BRUNO
MILLBRAE
BURLINGAME
SAN MATEO
FOSTER CITY
HILLSBOROUGH
REDWOOD CITY
MENLO PARK
BELMONT
SAN CARLOS
HALF MOON BAY
EAST PALO ALTO
ATHERTON
WOODSIDE
PORTOLA VALLEY
Vehicle Ownership
LEGEND
More than 10% of households do not have a vehicle
0
2.25
4.5
9
Miles
N


DALY CITY
BRISBANE
COLMA
SOUTH SAN FRANCISCO
PACIFICA
SAN BRUNO
MILLBRAE
BURLINGAME
SAN MATEO
FOSTER CITY
HILLSBOROUGH
REDWOOD CITY
MENLO PARK
BELMONT
SAN CARLOS
HALF MOON BAY
EAST PALO ALTO
ATHERTON
WOODSIDE
PORTOLA VALLEY
Urban Heat Island Effect
LEGEND
Urban Heat Island Index
< 2,000
2,001 - 4,000
4,001 - 6,000
6,001 - 8,000
8,001 - 10,000
10,001 - 12,000
12,001 - 14,000
14,001 - 16,000
16,001 - 18,000
18,001 - 20,000
> 20,000
0
2.25
4.5
9
Miles
N

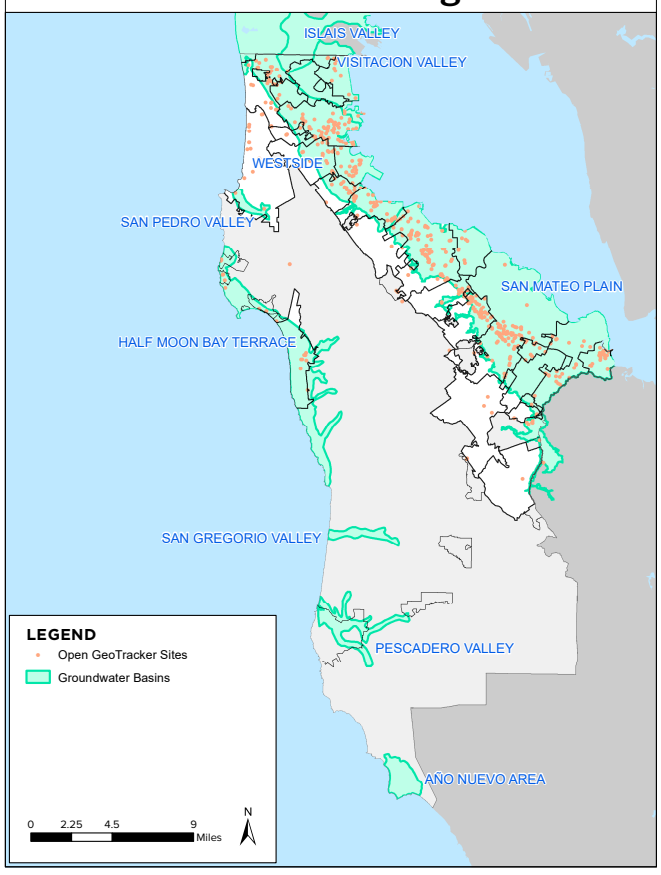

Canopy Coverage
LEGEND
Tree Canopy Coverage
0
2.25
4.5
9
Miles
N


DALY CITY
BRISBANE
COLMA
SOUTH SAN FRANCISCO
PACIFICA
SAN BRUNO
MILLBRAE
BURLINGAME
SAN MATEO
FOSTER CITY
HILLSBOROUGH
REDWOOD CITY
MENLO PARK
BELMONT
SAN CARLOS
HALF MOON BAY
EAST PALO ALTO
ATHERTON
WOODSIDE
PORTOLA VALLEY
Pavement Condition
LEGEND
Pavement Condition Index
Excellent/Very Good
Good/Fair
At Risk
Poor/Failed
0
2.25
4.5
9
Miles
N

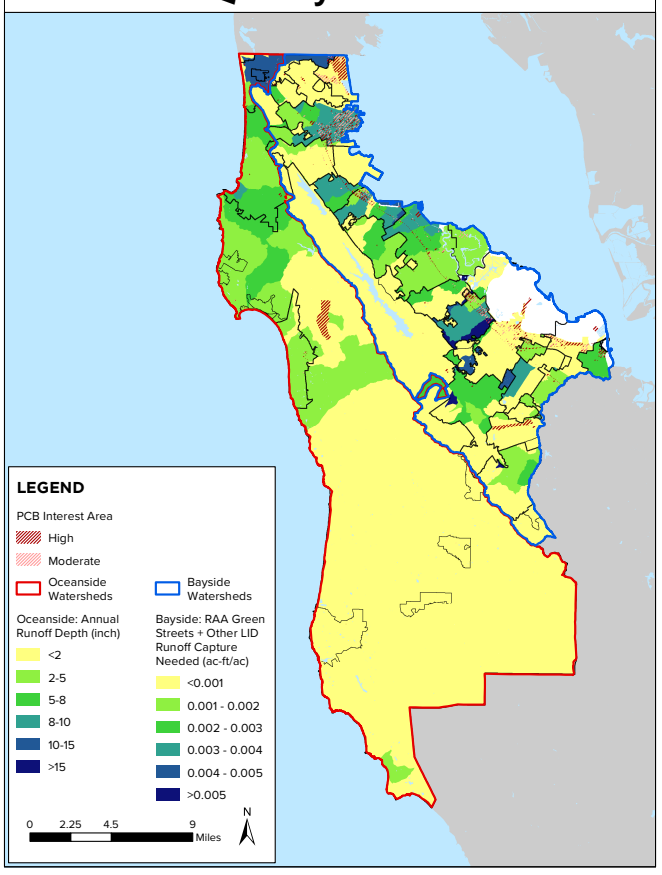
TECHNICAL SUITABILITY: RUNOFF CAPTURE BENEFIT



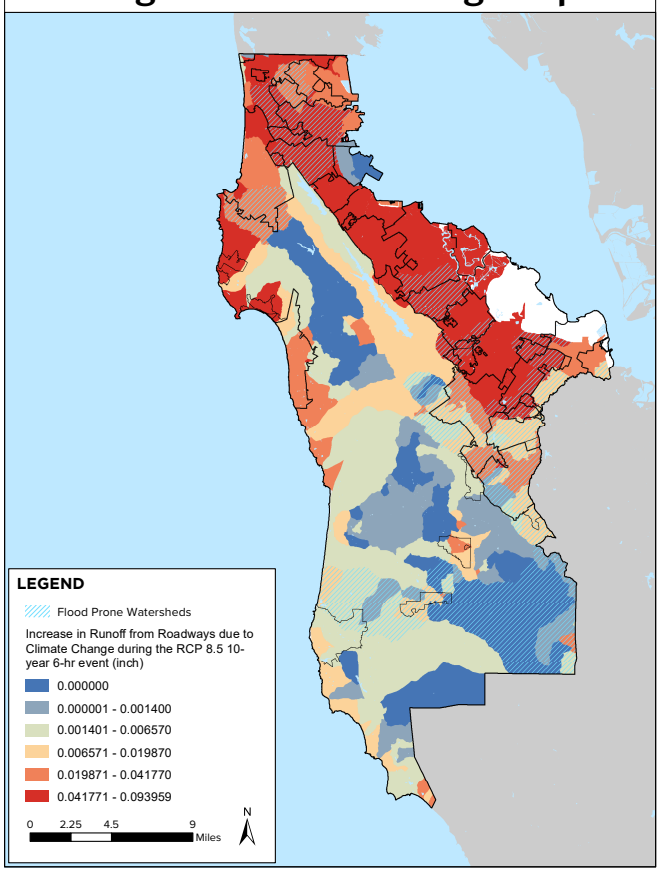
Groundwater Recharge Area



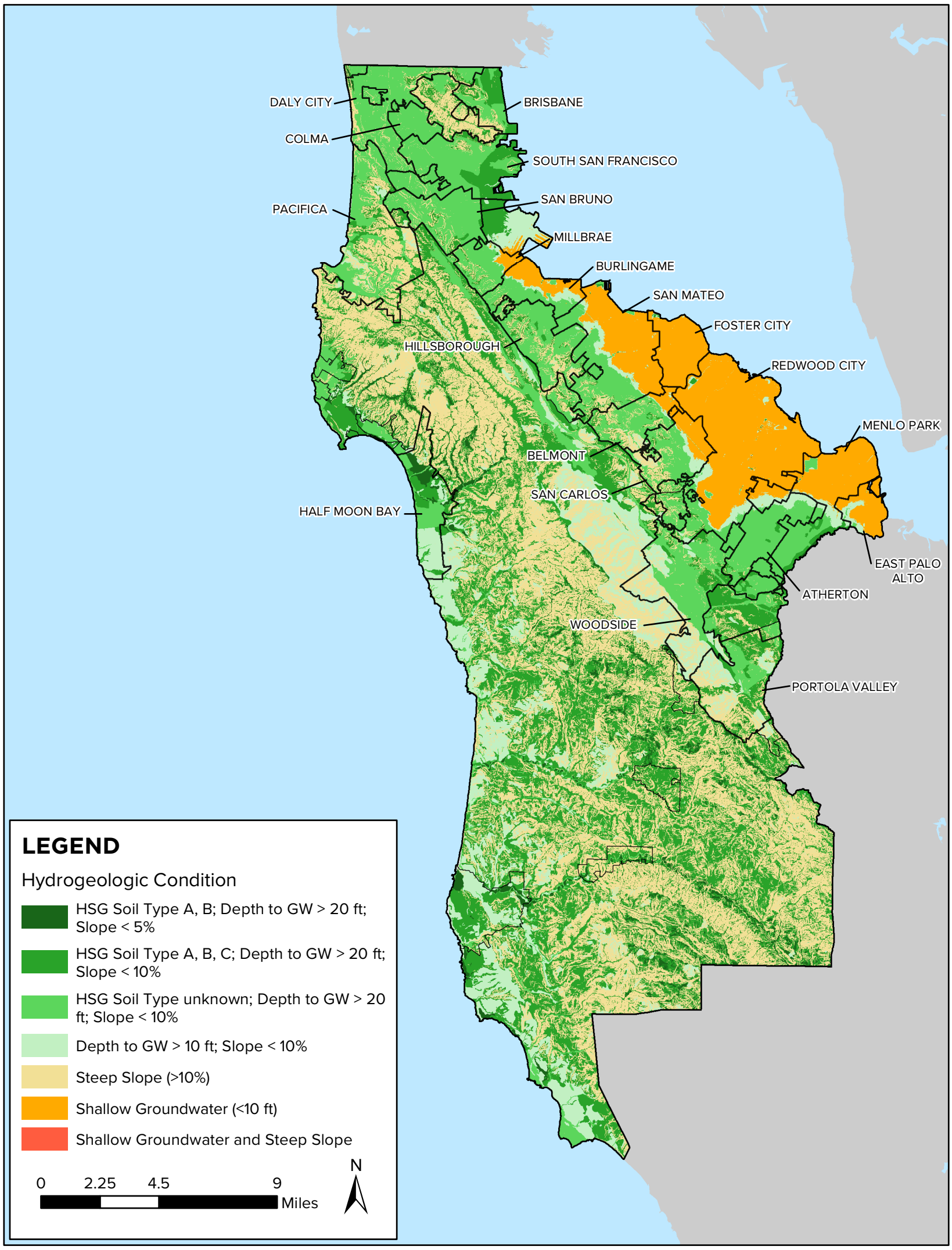
Water Quality Effectiveness



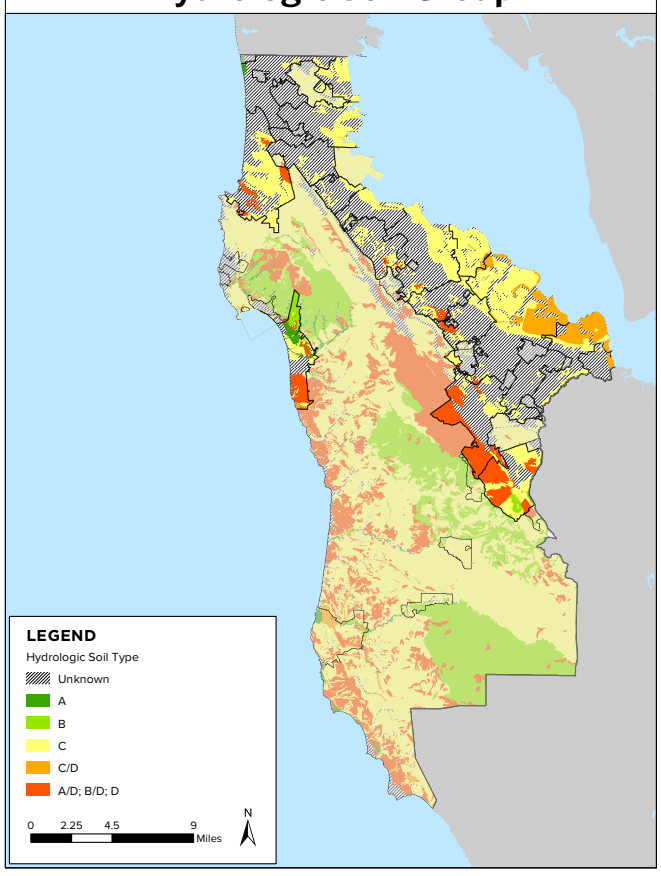
Flooding and Climate Change Impacts



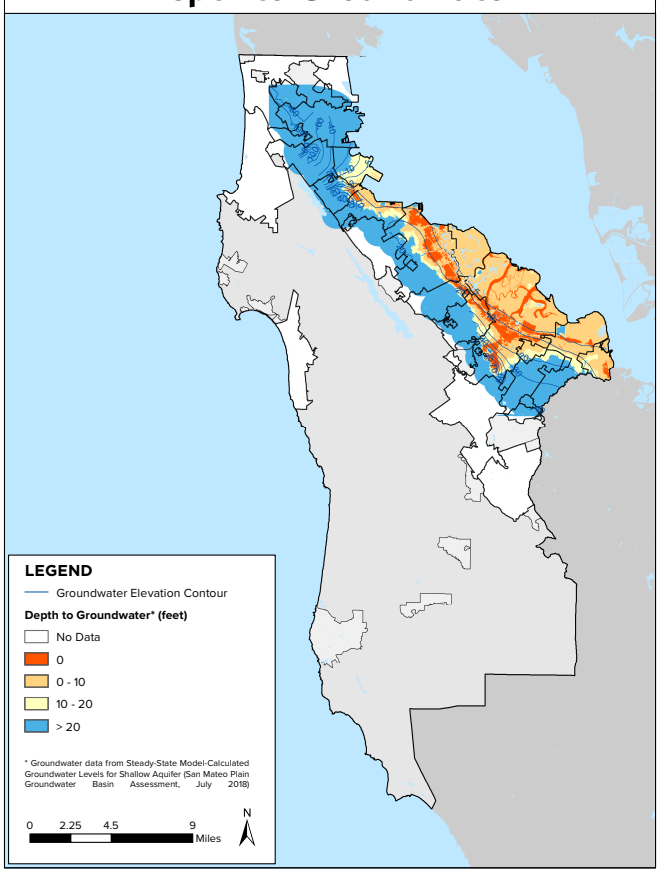
TECHNICAL SUITABILITY: HYDROGEOLOGIC CONDITION



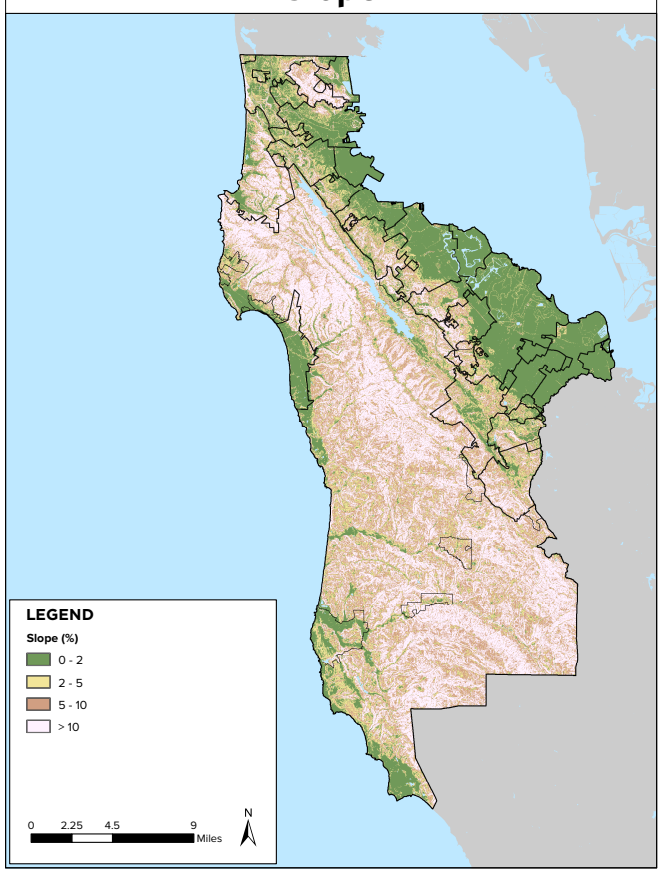
Hydrologic Soil Group



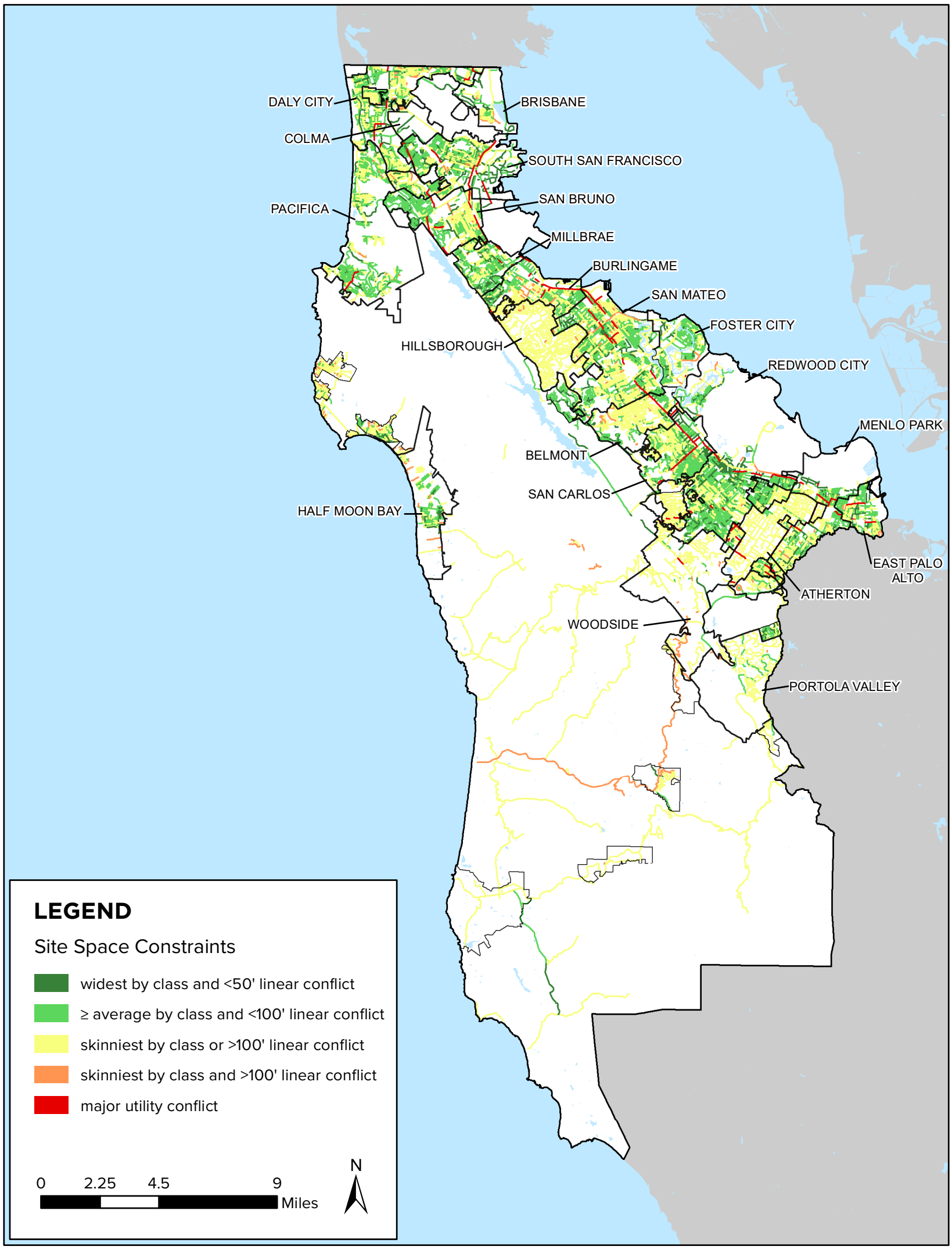
Depth to Groundwater



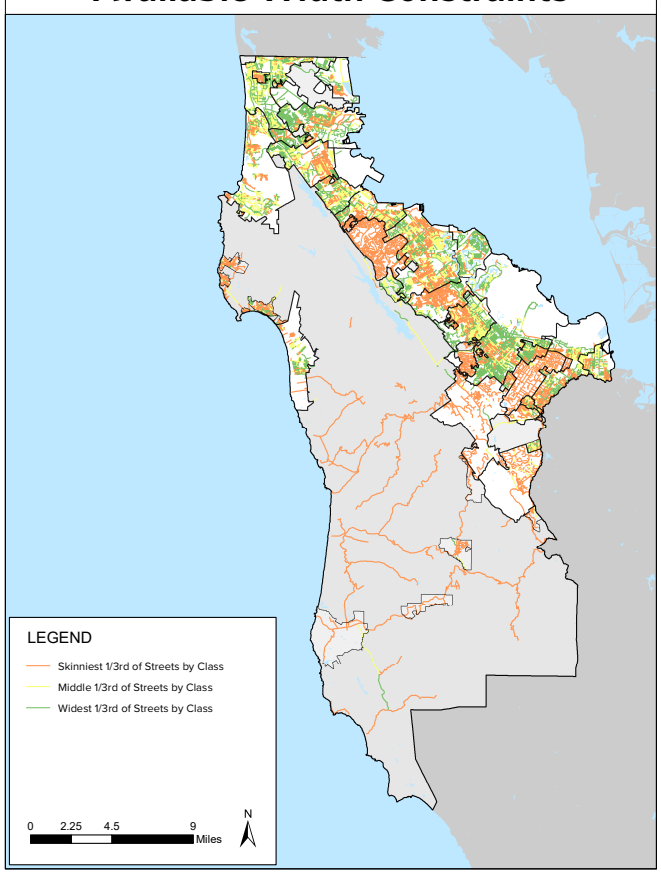
Slope



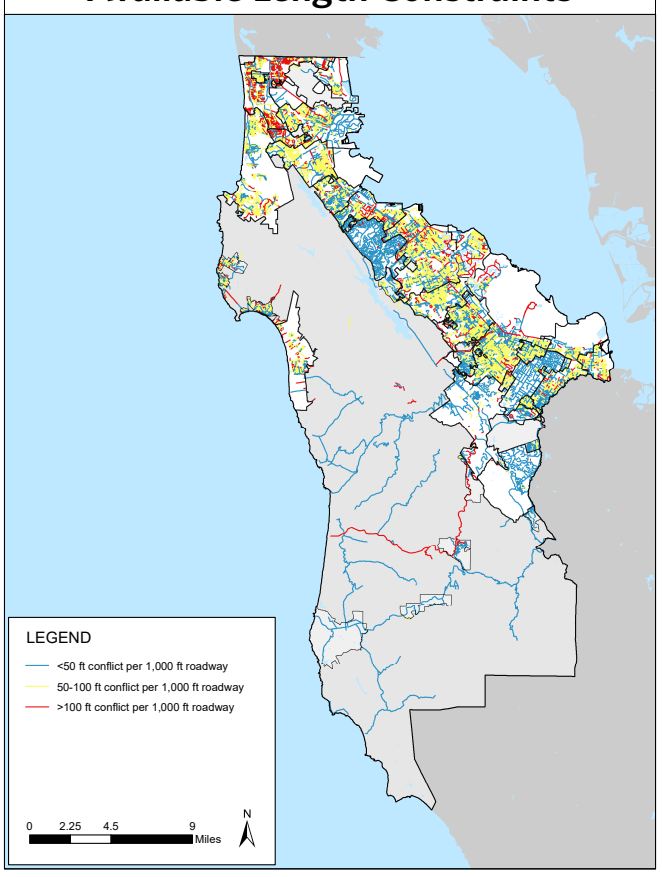
TECHNICAL SUITABILITY: SITE CONSTRAINTS



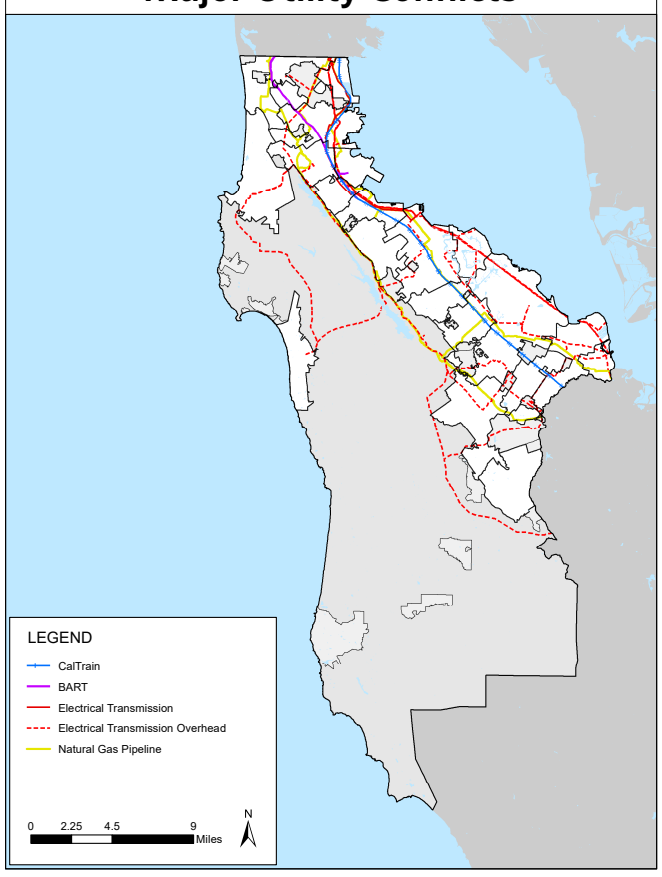
Available Width Constraints

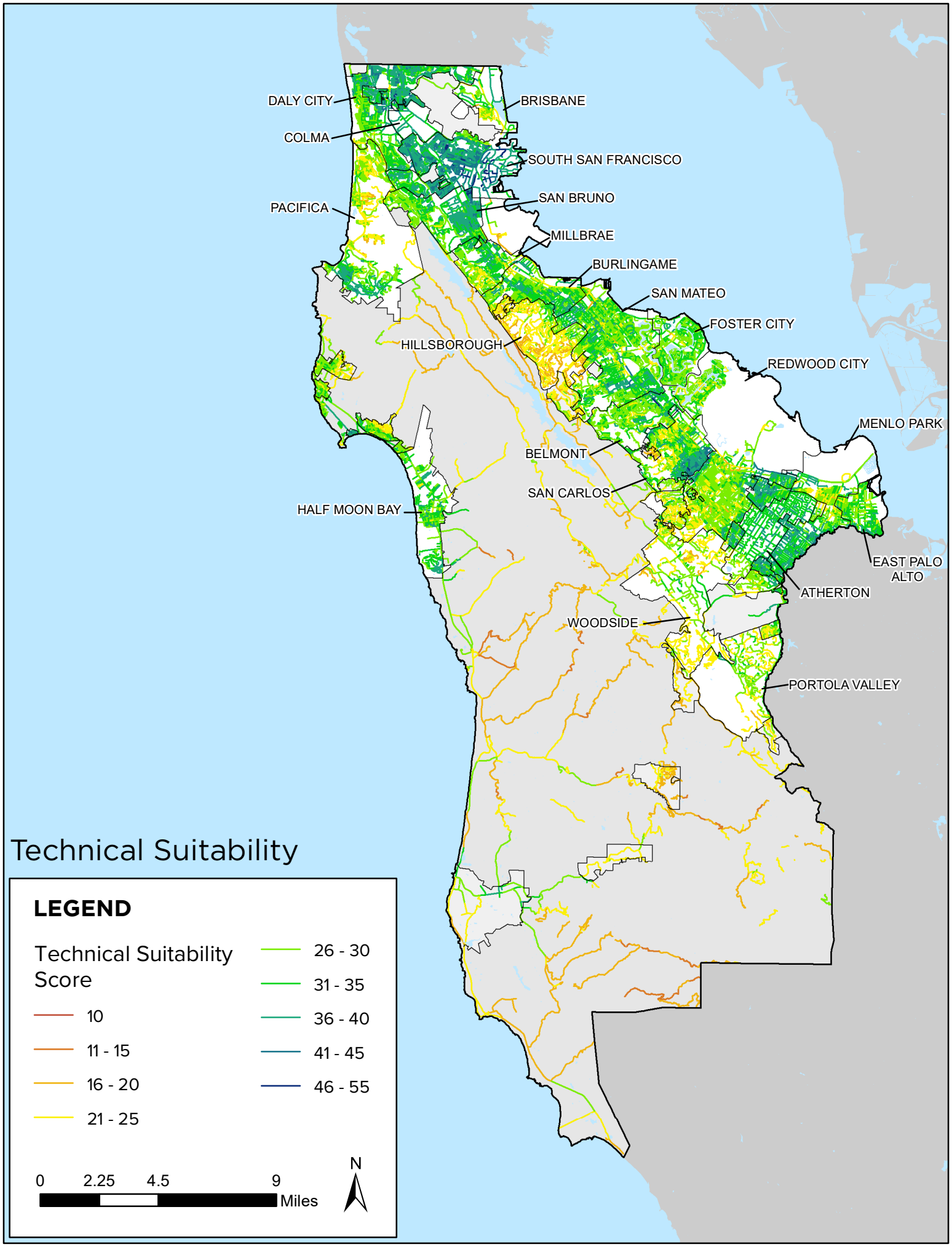


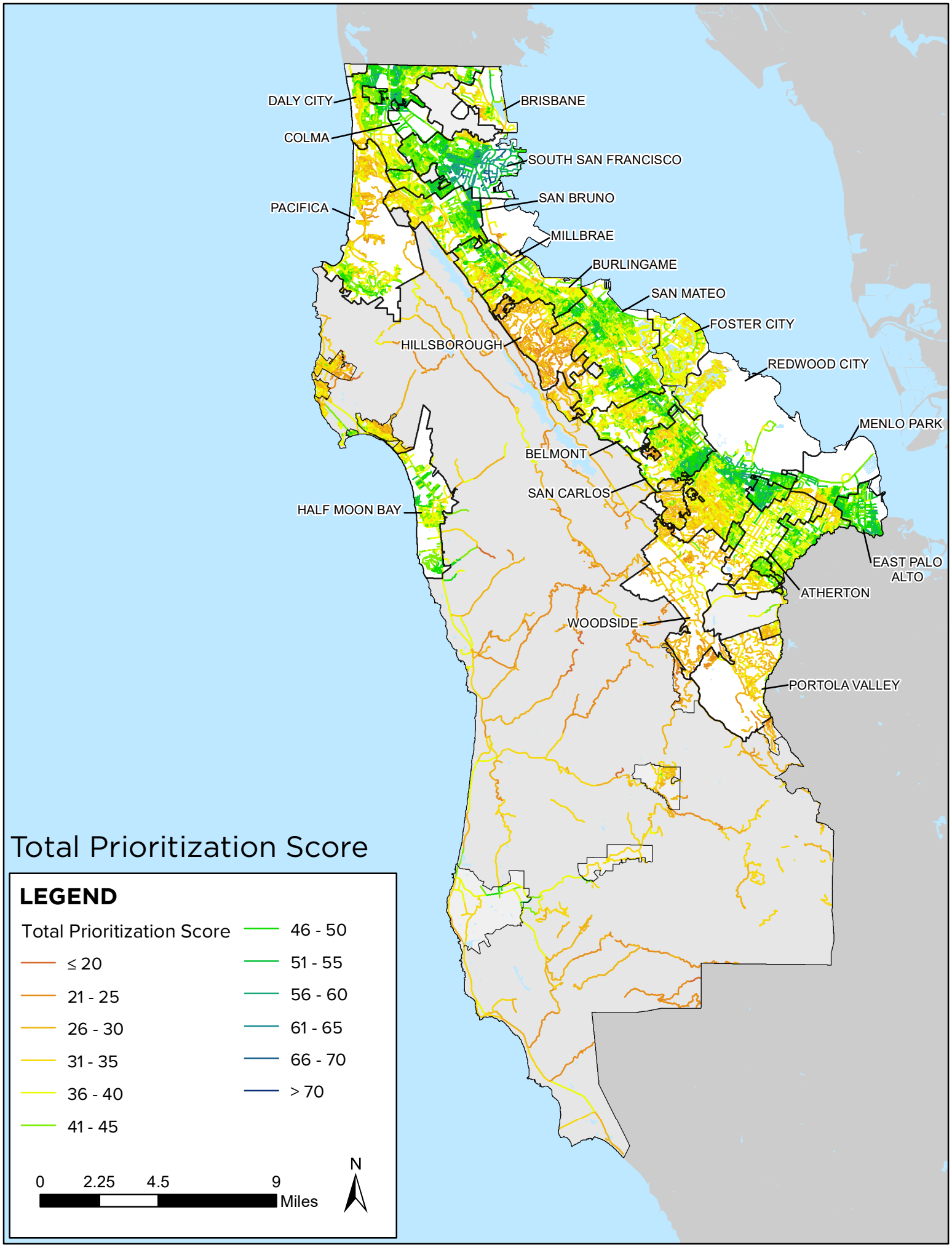
Available Length Constraints

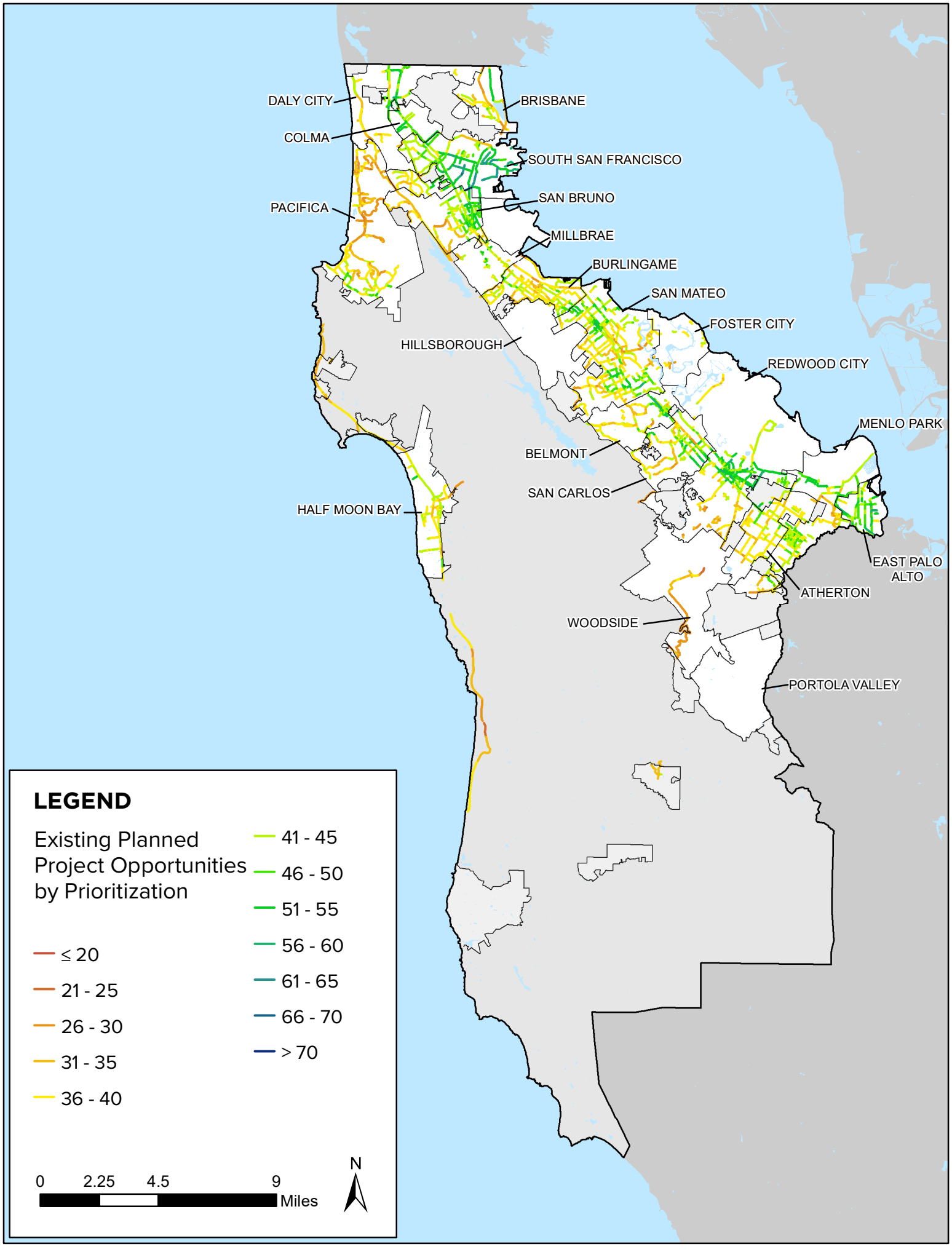


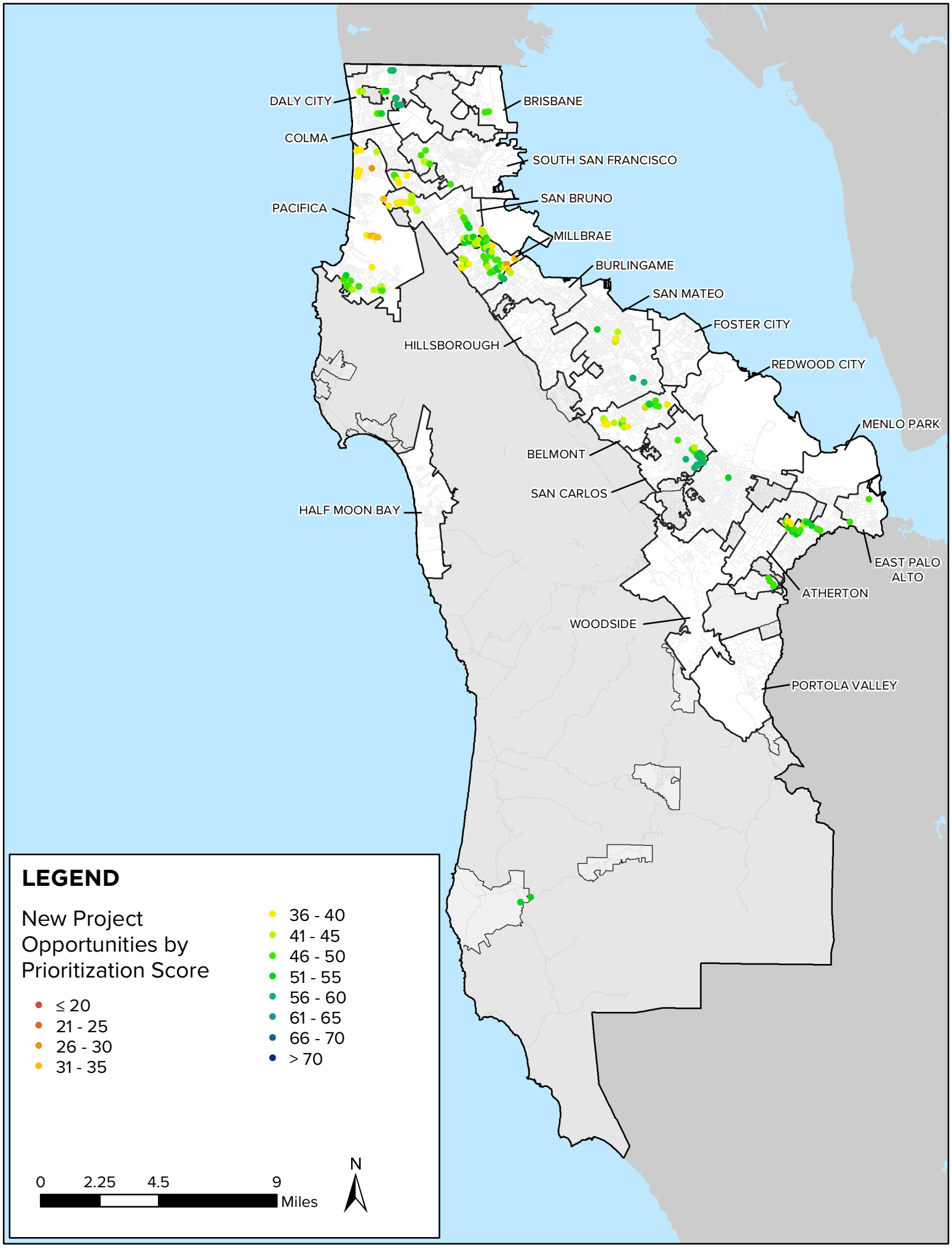
Major Utility Conflicts




DALY CITY
BRISBANE
COLMA
SOUTH SAN FRANCISCO
SAN BRUNO
PACIFICA
MILLBRAE
BURLINGAME
SAN MATEO
FOSTER CITY
HILLSBOROUGH
REDWOOD CITY
MENLO PARK
BELMONT
SAN CARLOS
HALF MOON BAY
EAST PALO ALTO
ATHERTON
WOODSIDE
PORTOLA VALLEY
Technical Suitability
LEGEND
Technical Suitability Score
10
11 - 15
16 - 20
21 - 25
26 - 30
31 - 35
36 - 40
41 - 45
46 - 55
0
2.25
4.5
9
Miles
N


DALY CITY
BRISBANE
COLMA
SOUTH SAN FRANCISCO
SAN BRUNO
PACIFICA
MILLBRAE
BURLINGAME
SAN MATEO
FOSTER CITY
HILLSBOROUGH
REDWOOD CITY
MENLO PARK
BELMONT
SAN CARLOS
HALF MOON BAY
EAST PALO ALTO
ATHERTON
WOODSIDE
PORTOLA VALLEY
Total Prioritization Score
LEGEND
Total Prioritization Score
≤ 20
21 - 25
26 - 30
31 - 35
36 - 40
41 - 45
46 - 50
51 - 55
56 - 60
61 - 65
66 - 70
> 70
0
2.25
4.5
9
Miles
N


DALY CITY
BRISBANE
COLMA
SOUTH SAN FRANCISCO
SAN BRUNO
PACIFICA
MILLBRAE
BURLINGAME
SAN MATEO
FOSTER CITY
HILLSBOROUGH
REDWOOD CITY
MENLO PARK
BELMONT
SAN CARLOS
HALF MOON BAY
EAST PALO ALTO
ATHERTON
WOODSIDE
PORTOLA VALLEY
LEGEND
Existing Planned Project Opportunities by Prioritization
≤ 20
21 - 25
26 - 30
31 - 35
36 - 40
41 - 45
46 - 50
51 - 55
56 - 60
61 - 65
66 - 70
> 70
0
2.25
4.5
9
Miles
N


DALY CITY
BRISBANE
COLMA
SOUTH SAN FRANCISCO
PACIFICA
SAN BRUNO
MILLBRAE
BURLINGAME
SAN MATEO
FOSTER CITY
HILLSBOROUGH
REDWOOD CITY
MENLO PARK
BELMONT
SAN CARLOS
HALF MOON BAY
EAST PALO ALTO
ATHERTON
WOODSIDE
PORTOLA VALLEY
LEGEND
New Project Opportunities by Prioritization Score
≤ 20
21 - 25
26 - 30
31 - 35
36 - 40
41 - 45
46 - 50
51 - 55
56 - 60
61 - 65
66 - 70
> 70
0
2.25
4.5
9
Miles
N