Appendix A
San Rafael’s Levees and Shorelines

Section A: Downtown San Rafael
Section B: Inner Canal
Section C: East San Rafael Shoreline
Section D: San Pedro Peninsula
Section E: Gallinas Creek Basin
Locator Map for Downtown San Rafael
A.1
Second St. and Lincoln Ave.
Owner: City of San Rafael

Conditions and Characteristics:
lowest elevations in Downtown; areas at sea level and subject to regular flooding during high tides and heavy rain
Appendix A  
San Rafael’s Levees and Shorelines  
Section A: Downtown

A.2  
Mahon Creek  
Owner: City of San Rafael

**Conditions and Characteristics:**  
Open creek channel bordering Downtown; remains of San Rafael Creek west of US101; subject to tidal action
Locator Map for the Inner Canal Area
Appendix A
San Rafael’s Levees and Shorelines
Section B: Inner Canal

B.1
San Rafael Canal
Owner: City of San Rafael

Conditions and Characteristics:
open creek; navigable; most properties bordering channel are developed; some properties built over waterway; some sea walls/bulkheads developed on private properties bordering on canal.
Appendix A
San Rafael’s Levees and Shorelines
Section B: Inner Canal

B.2 Mooring Road and Residential Lots
Owners: City of San Rafael + private (residential lots and adjacent marina)

Conditions and Characteristics:
residential buildings constructed at low elevations (some at sea level); no sea wall or protection along water’s edge
Appendix A
San Rafael’s Levees and Shorelines
Section B: Inner Canal

B.3
Summit Ave. and Marina Vista
Subdivision
Owner: City of San Rafael + private residential lots

Conditions and Characteristics:
Residential buildings constructed at low elevations (some at sea level); no sea wall or protection along water’s edge; some private sea walls and small berms
Appendix A
San Rafael’s Levees and Shorelines
Section C: East San Rafael Shoreline

Locator Map for East San Rafael shoreline
C.1 Spinnaker Point + Shoreline Park levee
Owner: City of San Rafael + private
(Spinnaker Point HOA common areas)

Conditions and Characteristics:
Public shoreline path; shoreline levee protecting residential development
(portions in FEMA Zone A); levee elevation and engineering likely not adequate to accommodate projected rise in sea level
Appendix A
San Rafael’s Levees and Shorelines
Section C: East San Rafael Shoreline

C.2
Canalways levee
Owner: Private (levee and diked marsh) and City of San Rafael (drainage pond.)

Conditions and Characteristics:
levee constructed at low elevations + mostly un-engineered fill; levee provides seasonal inundation of greater diked marshland comprising most of Canalways properties (diked marshland); current levee not adequate to accommodate projected sea level rise
C.3
Piombo Place levee
Owner: City of San Rafael

Conditions and Characteristics:
public shoreline path; levee constructed at currently acceptable elevations; levee elevation and engineering likely not adequate to accommodate projected rise in sea level
Appendix A
San Rafael’s Levees and Shorelines
Section C: East San Rafael Shoreline

C.4 Shoreline Center levee
Owner: City of San Rafael

Conditions and Characteristics:
public shoreline path; levee constructed at currently acceptable elevation; upland property inland of levee (Shoreline Center) is a closed landfill with finished surface elevations of over 20ft MSL; conditions likely adequate to accommodate projected sea level rise along this one stretch of bay front
Appendix A
San Rafael’s Levees and Shorelines
Section D: San Pedro Peninsula

Locator Map for San Pedro Peninsula
Appendix A
San Rafael’s Levees and Shorelines
Section D: San Pedro Peninsula

D.1
Loch Lomond Marina
Owner: Private

Conditions and Characteristics:
site developed at low elevations; no formal levee protection except breakwater and inner-marina seawall; development approved for site which includes significant improvements to breakwater plus site filling to elevations exceeding current FEMA standards; developed elevations likely not adequate to accommodate projected sea level rise
Appendix A
San Rafael’s Levees and Shorelines
Section D: San Pedro Peninsula

D.2
Glenwood and Peacock Gap sea wall
Owner: City of San Rafael

Conditions and Characteristics:
Riprap sea wall is a substantial improvement but has not been adequate to during extreme wet weather and high tide conditions; current elevation likely not adequate to accommodate projected sea level rise.
Locator Map for Gallinas Creek Basin
E.1 McInnis Park and San Rafael Airport levees
Owner: County of Marin + private (San Rafael Airport)

Conditions and Characteristics:
Levee system along the Gallinas Creek (portions of north and south forks); inland area is combination of diked marsh (former agricultural use) and natural upland
E.2  
**Marin Lagoon**  
Owner: Private (Marin Lagoon HOA)  

**Conditions and Characteristics:**  
Private pedestrian path; development on landfill (former marsh); fill transitions to marsh (no levee); current conditions likely not adequate to accommodate projected rise in sea level
Appendix A
San Rafael’s Levees and Shorelines
Section E: Gallinas Creek Basin

E.3
Contempo Marin levee (small berm)
Owner: Private (Contempo Marin)

Conditions and Characteristics:
Development on landfill (former marsh); limited levee improvements along Gallinas Creek; small levee likely not adequate to accommodate projected sea level rise
Appendix B
San Rafael Possible Opportunity Areas for Adaptation

B.1: Mahon Creek @ San Rafael Corporate Center
B.2: Seastrand Open Space
B.3: San Pedro Cove Public Open Space
B.4: Dutra Quarry diked bay lands/seasonal wetland
B.5: Pickleweed Community Center and Park canal front lands
B.6: Spinnaker Point Diked Marsh
B.7: Canalways
B.8: East San Rafael Tidelands
B.9: San Rafael Canal (Creek)
Appendix B
San Rafael Possible Opportunity Areas for Adaptation

B.1 Mahon Creek @ San Rafael Corporate Center
Owner: Public (City of San Rafael)
Zoning: P/OS-WO
Land Use Status: Permanent/Secured Open Space

Opportunity: Possible widening of channel and/or returning adjacent upland portion to tidal marsh

Constraints/Issues: biological resources
Appendix B
San Rafael Possible Opportunity Areas for Adaptation

B.2 Seastrand
Owner: Public (City of San Rafael)
Zoning: P/OS-WO-C
Land Use Status: Permanent/Secured Open Space.

Opportunity: possible retreat and expanded tidal marsh on low-lying fill areas

Constraints/Issues: biological resources
Appendix B
San Rafael Possible Opportunity Areas for Adaptation

B.3 San Pedro Cove Public Open Space
Owner: Private (San Pedro Cove HOA)
Zoning: PD-WO
Land Use Status: Publicly-accessible open space with paths and beach access

Opportunity: possible retreat, return to tidal marsh

Constraints/Issues: biological resources, loss of publicly-accessible area; private ownership
Appendix B
San Rafael Possible Opportunity Areas for Adaptation

B.4
Dutra Quarry (County)
Owner: Private (Dutra San Rafael Properties)
Zoning: Residential Multiple Planned Commercial (RMPC) District
Land Use: private, undeveloped land; some marsh

Opportunity: possible retreat and return to tidal marsh

Constraints/Issues: biological resources, drainage/hydrology, private ownership
Appendix B
San Rafael Possible Opportunity Areas for Adaptation

B.5
Pickleweed Community Center & Park - canal front lands
Owner: (Public) City of San Rafael
Zoning: P/OS-WO-C
Land Use: vacant land (land fill with some isolated wetlands)

Opportunity: possible retreat and return to tidal marsh

Constraints/Issues: biological resources
B.6
Spinnaker Point Diked Marsh
Owner: Private (Rockport Land Corp.)
Zoning: P/OS-WO
Land Use: vacant diked marshland separated from Bay by levee

Opportunity: possible retreat and return to tidal marsh

Constraints/Issues: biological resources, private ownership
Appendix B
San Rafael Possible Opportunity Areas for Adaptation

B.7
Canalways
Owner: Private (Canalways/Joseph Lemon)
Zoning: PD-WO

Land Use Status: Undeveloped
Private Land; diked marshland

Opportunity: possible retreat and conversion to tidal marsh

Constraints/Issues: biological issues, hydrology/drainage, private ownership
Appendix B
San Rafael Possible Opportunity Areas for Adaptation

B.8
East San Rafael Tidelands
Owner: Private + City of San Rafael
Zoning: W (Water) District
Land Use: undeveloped tidelands

Opportunity: possible horizontal levee; use of dredge spoils from San Rafael Canal

Constraints/Issues: biological resources, hydrology, cost for improvements, utilities (sewer outfall), private ownership
Appendix B
San Rafael Possible Opportunity Areas for Adaptation

B.9
San Rafael Canal
Owners: City of San Rafael + Private
Zoning: W District
Land Use: tidelands

Opportunity: Continuation of dredging, possible sea walls

Constraints/Issues: hydrology, toxicity (spoils contamination), cost, utilities, extensive private ownership
Appendix B
San Rafael Possible Opportunity Areas for Adaptation

B.10
San Rafael Airport/McInnis Park
Diked Bay lands
Owner: Private (San Rafael Airport LLC) + County of Marin
Zoning: PD-1764-WO District (Airport);
Land Use Status: Private, undeveloped land; public open space

Opportunity: possible retreat and restore to tidal marsh

Constraints/Issues: biological resources, hydrology, private ownership
Appendix C
Examples of Private Improvements

C.1
Example of Sea Wall

750 Grand Ave.
Owner: Harold Geister
Land Use Status: M-C
Appendix C
Examples of Private Improvements

C.2 Example of Sea Wall.
83 Summit Ave.
Owner: Joanne C. Dunne
Zoning: P/OS-WO-C
Appendix C
Examples of Private Improvements

C.4 Example of Private Sea Wall
330 Canal Street
Apartments
Owner: 330 Canal St. LP
Zoning: HR1-C, W
Appendix D
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Appendix D
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