Deltares USA

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From : Stendert Laan and Kees Nederhoff, Deltares USA
Subject : Alameda County Flood Control District - Phase III - San Francisco Bay-Delta model update
Date : 8/28/2025
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Phase III – Update of San Francisco Bay-Delta Community Model

Deltares USA has developed and applied a Delft3D FM Community Model of the complete San Francisco Bay and Delta to simulate Still Water Levels (SWL) to support climate resiliency projects and provide options for flood protection of San Francisco Bay and Alameda County coastlines. This model, generated reanalysis datasets and also contains an overview of published research. The information is available on the Community Platform (https://www.d3d-baydelta.org/) under the terms of the Creative Commons Attribution-ShareAlike 4.0 International License (CC BY-SA 4.0), allowing users to share and adapt the materials, provided that appropriate credit is acknowledged and any and all model derivatives are shared and distributed under the same license.

Building on previous work, the San Francisco Bay-Delta Community Model has been updated to include the latest available datasets and increase its resolution in shallow coastal waters and Baylands. These model improvements result in a better representation of the coastal-riverine interface and therefore make this model more suitable to assess coastal and riverine flood events under the present-day and future climate conditions. The updated model is a useful tool for climate adaptation and coastal resilience studies throughout the entire Bay.

1 Changes to model schematization

The model schematization developed in Phase I was published by Nederhoff et al. (2021) and consisted of a combination of 1D and 2D model grid sections and covered the historical period from water years (WY) 1951 to 2019. The updated model schematization is fully 2D and forcing has been extended to cover the period WY1941 to WY2024. Furthermore, bathymetry and levees have been updated based on recently published data. The model has been recalibrated by adjusting bed roughness and tidal forcing.

1.1 Grid, bathymetry and levees

1.1.1 Grid

Since its release, the 1D components of the original Community Model have posed challenges for users. Therefore, the model has been updated to use a fully 2D grid to include all creeks, rivers and the Delta. An added benefit of this change is the inclusions of floodplains and surrounding low-lying areas across the combined Estuary.

The model grid is divided into two main sections. East of the confluence of the Sacramento and San Joaquin Rivers at Antioch, the model grid from the 3D Water Quality Community Model (Martyr-Koller et al., 2017; Vroom et al. 2017) is used to represent the Delta. This section is represented by a curvilinear grid following all rivers and channels. Flood plains and islands are covered by triangular grid cells. West of the confluence at Antioch, the San Francisco Bay and Pacific Ocean are schematized with squared grid cells of varying resolutions. The model grid covers both water bodies and adjacent lands up to an elevation of 20 m NAVD88

(66 ft) to ensure suitability for simulating extreme flood events and sea level rise scenarios. The deepest parts of the domain in the Pacific Ocean and deep channels near the Golden Gate below 16 m (52 ft) have a resolution of about 200 m (656 ft). This resolution is refined stepwise by a factor 2 following the local bathymetry. Channels deeper than 4 m (13 ft) throughout the Bay have a resolution of 100 m (328 ft) and shallow areas of less than 4 m deep have a grid resolution of 50 m (164 ft). Transitions between resolutions are made with rows of triangular cells. A spatial overview of grid resolutions is presented in Figure 1-1.

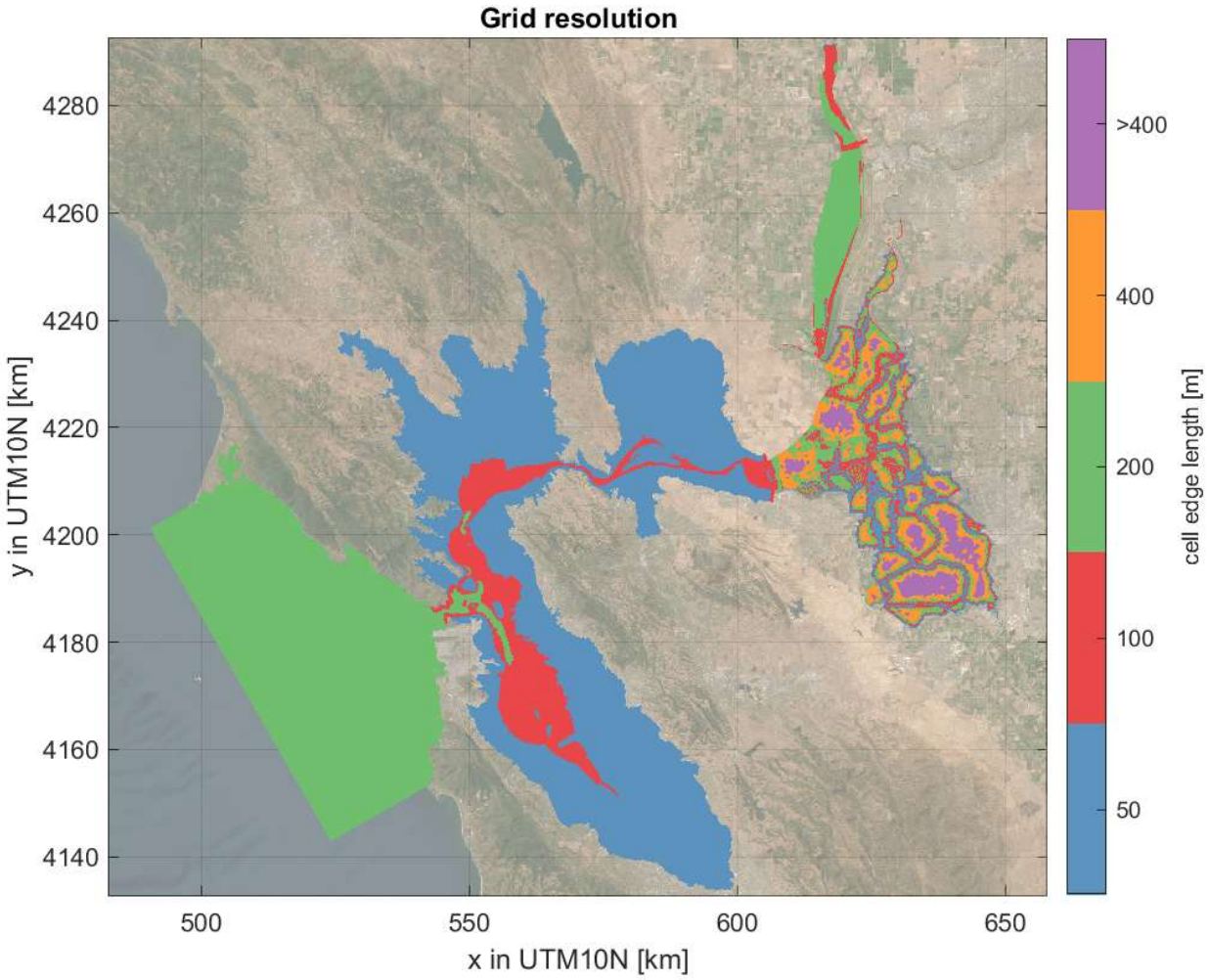


Figure 1-1 Average length of grid cell edges in the updated San Francisco Bay-Delta Community Model

1.1.2 Bathymetry

A compound topo-bathymetry dataset of 2m resolution is generated with national and regional products. An overview of the data sources used and the location where they have been applied is given in Table 1-1. The datasets are listed in order of priority from lowest to highest in the table, meaning that lower-listed datasets take precedence over higher-listed ones whenever elevation data is available.

The resulting compound Digital Elevation Model (DEM) is used to generate the model's topo-bathymetry on the updated grid. Elevations are defined on the grid cell nodes (corners) and computed as the average of the available samples in a search area of the local grid cell size around each node. The resulting model bathymetry is shown in Figure 1-2.

In South Bay, channel dimensions are deliberately overestimated to improve tidal propagation in the slough system. In particular, for areas below Mean Lower Low Water (MLLW), the lowest available sample elevation in the search area is used for the model bathymetry. This approach is further discussed in Section 1.3.1. The transition between the two approaches is visualized in the zoomed-in panel in Figure 1-2.

1.1.3 Levees

Levees are included in the model as “fixed weirs”. The levee positions in the Bay are based from the previous model schematization and were defined by Alameda County Flood Control District staff. From the compound DEM levee crest heights are determined at a fixed interval of 10 m (33 ft) by searching for the maximum elevation in a 50 m (164 ft) radius.

Where needed, levee positions are adjusted to fit the model grid. Channels are widened to ensure forced discharges reach the Bay or to allow tidal action at upstream tide gauges or stage sensors. Furthermore, throughout the entire model domain, primary levees are altered to match simulated flood extents with the satellite-based Normalized Difference Water Index (NDWI) from Sentinel-2 data by Copernicus. The model levees are presented in Figure 1-2.

Table 1-1 Overview of used topographic and bathymetric datasets

Organi-zation	Dataset	Reference	Data selection	Reso-lution	Applied area
NOAA	U.S. Coastal Relief Model	NOAA National Geophysical Data Center, 2003	all	1 arcsec	high elevations in Delta
USGS	Coastal National Elevation Database	Danielson et al., 2018	all	2 m	Pacific Ocean
USGS	High-resolution (1 m) digital elevation model (DEM) of San Francisco Bay	Fregoso et al., 2021	all	1 m	deep and subtidal areas of Bay
USGS	LEAN-corrected San Francisco Bay Digital Elevation Model	Buffington et al., 2018	above 0m NAVD88	5 m	Baylands
DWR	A Revised Continuous Surface Elevation Model for Modeling (v. 4.2)	Wang et al., 2018	all	10 m	Delta east of Antioch
Alameda County	LiDAR dataset	pers. com.	above 0m NAVD88	<1 m	Baylands and sloughs Alameda
Valley Water	LiDAR dataset	pers. com.	above 0m NAVD88	<1 m	Baylands Santa Clara

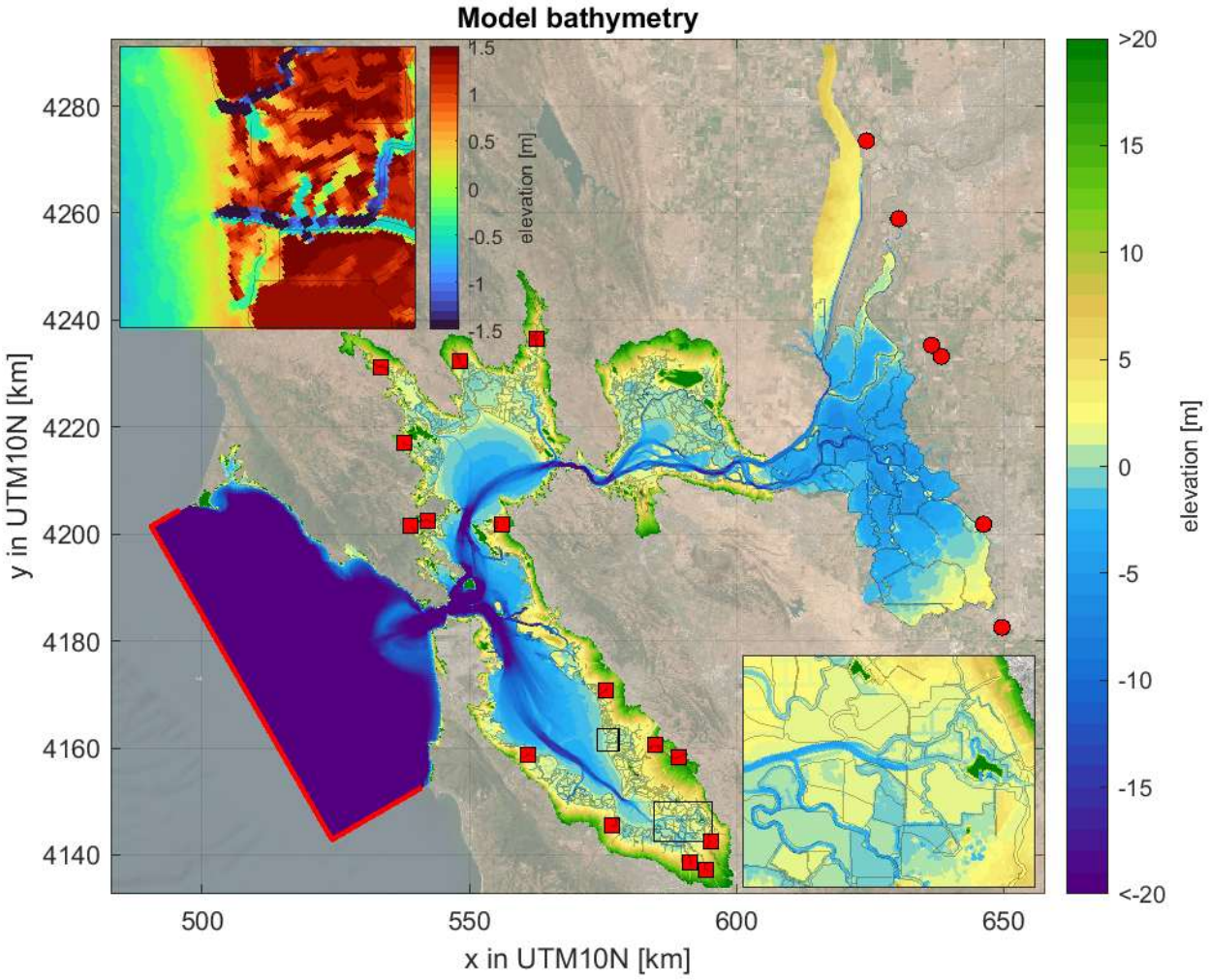


Figure 1-2 Model bathymetry, position of levees (gray lines) and model forcing (red line: open boundary with forced water levels, red circles: open boundaries with forced discharges, red squares: point source discharges); top left: transition from average to minimum bathymetry at Eden Landing; bottom right: detail of Coyote Creek

1.2 Model forcing

The updated Community Model is driven by several types of forcing, including meteorological conditions, river discharges, and oceanic boundary conditions. Together, these inputs enable the simulation of water levels and hydrodynamics throughout the Bay-Delta system for both historical and future conditions. All forcing data have been extended to cover the period from water year (WY) 1941 to WY2024.

Meteorological forcing in the model is provided by the ERA5 reanalysis dataset (Hersbach et al., 2020), which now extends back to 1940. Additional key forcings are described in more detail below.

1.2.1 River discharges

River discharges to the model were derived from the National Water Information System (NWIS) by the USGS. Missing data is filled with scaled discharges from the best-correlated streams with observations in the same period, following the same approach as used in the previous model schematization (see Nederhoff et al., 2021 for more information). Smaller streams in the Bay are included as point discharges into single grid cells at their upstream stream gauging station. Forced discharges in the Delta are included through open boundaries to

distribute the relatively larger volumes over the full width of the channel. Locations of forced river discharges are indicated in Figure 1-2 (red lines and dots).

1.2.2 Offshore non-tidal residual water level

At the Pacific Ocean open boundary, the model incorporates both tidal and non-tidal residual water levels. Tidal forcing is applied using a set of tidal constituents consistent with the previous schematization. The Non-Tidal Residual (NTR), also known as the Sea Level Anomaly (SLA), is derived from long-term water level observations at the San Francisco tide gauge. To isolate the NTR signal, a daily moving average is applied to filter out short-term fluctuations and noise. The resulting NTR captures contributions from inverse barometric effects, steric changes, and long-term sea level rise. To focus on variability rather than long-term trends, the historical sea level rise component is removed by detrending the time series relative to the mean sea level in 2020, using a least-squares linear fit.

1.3 Calibration

Model calibration was carried out to improve the representation of tidal dynamics and Still Water Levels (SWL) in water year 2011 (WY2011). The calibration process began with adjusting the tidal boundary conditions at the offshore Pacific Ocean boundary by comparing modeled results with observed water levels at the San Francisco tide gauge. Once the tidal forcing was aligned, further calibration focused on optimizing bed friction coefficients throughout the model domain to enhance the accuracy of tidal propagation and water levels. This iterative calibration process was essential to achieve a reliable simulation of SWL under both typical and extreme conditions in WY2011.

1.3.1 Grid resolution and bathymetry interpolation

In numerical hydrodynamic modeling, it is generally recommended to use at least 3 to 5 grid cells in the cross-channel direction to prevent staircasing effects and otherwise poor representation of bathymetry impacting tidal propagation and channel flow. For an optimal representation of the upstream slough system, this means a high resolution of 12 to 25 m of the grid is required. However, such fine model resolution is not feasible, as it would lead to very high computation times. As an alternative approach to ensure tidal propagation in most sloughs, the bathymetry is deepened. For all areas landward of the MLLW line along the Bayshore, the deepest value of the bathymetry samples is used, instead of the average of all samples.

This approach was evaluated in Laguna Creek, a side branch flowing into Coyote Creek from the Fremont area. The left panels of Figure 1-3 the amplitude and phase of the M2 tide are plotted on the centerline of the creek. When using an averaged bathymetry, tidal propagation goes further into the creek with increasing resolution until it reaches a point where the channel is blocked due to a poor representation of upstream bathymetry (blue, red, and pink lines). When the minimum bathymetry approach, overestimating channel dimensions, tidal propagation reaches the same most upstream location for all resolutions (orange, purple, and gray lines).

The right panel of Figure 1-3 shows the water level during a tidal cycle. Assuming the grid with the highest resolution and averaged bathymetry produces the result closest to real-world water levels (pink line), the overestimation of the minimum bathymetry causes an underestimation of the peak water levels (gray line) and the low grid resolution delays the tidal maximum (orange line). Despite these limitations, the minimum bathymetry approach provides a practical compromise, allowing tidal signals to propagate into upstream Baylands areas without prohibitive computational costs.

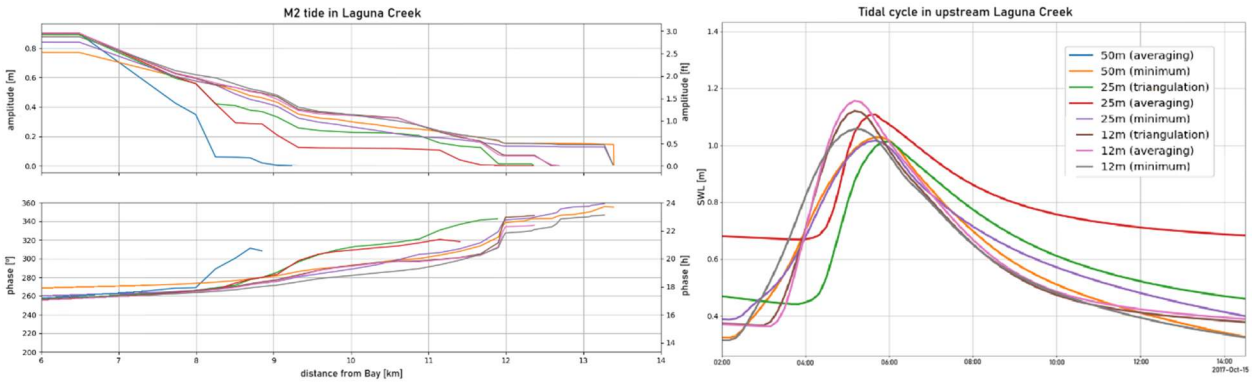


Figure 1-3 M2 tidal amplitude (top left) and phase (bottom left) and water levels during a tidal cycle (right) in Coyote and Laguna Creek for various grid resolutions and bathymetry interpolation methods

1.3.2 Tidal boundary conditions

The forced tidal constituents at the offshore open boundary in the Pacific Ocean were calibrated to optimize the tidal representation at the San Francisco tide gauge. For the tidal constituents with a vector difference of more than 0.5 cm, the amplitudes and phases forced at the boundary, and observed and modeled at San Francisco, are listed in Table 1-2**Error! Reference source not found.**.

Table 1-2 Amplitudes, phase and vector difference for tidal constituents with the largest impact on model skill at San Francisco, as forced on the boundary, observed, and modeled at San Francisco (P: previous schematization, U: updated schematization, C: change, O: observed)

Tidal consti-tuent	Forced amplitude (cm)			Amplitude (cm) at San Francisco			Forced phase (°)		Phase (°) at San Francisco			Vector difference (cm)		
	P	*U*	*C*	*O*	*P*	*U*	*P*	*U*	*O*	*P*	*U*	*P*	*U*	*C*
A0	96.9	98.0	1.1	98.0	96.4	97.9						1.6	0.1	-1.5
M2	48.0	49.0	1.0	56.6	56.8	57.2	193	190	208	209	208	0.9	0.6	-0.3
L2	1.1	0.5	-0.5	1.1	1.8	1.1	212	243	233	214	219	0.9	0.3	-0.6
RHO1	0.8	52.5	51.7	0.8	0.2	0.2	197	350	194	145	141	0.7	0.7	0.0
M4	0.1	0.1	0.0	2.5	1.9	1.6	253	253	132	140	143	0.7	1.0	0.3
MSM	0.1	0.1	0.0	2.0	2.4	2.5	79	79	66	82	79	0.7	0.7	0.0
MF	1.2	1.1	-0.1	2.2	2.4	2.4	134	148	149	135	142	0.6	0.4	-0.2
MK3	0.1	0.1	0.0	2.1	1.7	1.3	195	195	125	133	144	0.5	1.0	0.4
Q1	4.2	4.2	0.0	4.0	4.5	4.4	196	196	204	200	201	0.5	0.4	-0.1
PHI1	0.5	1.6	1.0	0.4	0.2	0.2	215	18	263	3	2	0.5	0.5	0.0
SSA	3.2	2.9	-0.3	2.5	2.6	2.4	265	274	267	257	268	0.5	0.1	-0.4
SIG1	0.5	0.4	-0.2	0.3	0.4	0.4	195	21	257	345	343	0.5	0.5	0.0

1.3.3 Bed friction coefficient

The model skill of water level in WY2011 was optimized by calibrating Manning's bed friction coefficient (n) in the model. The current calibration is limited to the Pacific Ocean and Bay, including Suisun Bay. In the Delta, a. uniform coefficient of 0.030 s/m$^{1/3}$ is used without further calibration. Values above 0.035 s/m$^{1/3}$ in Baylands and at higher elevations are based on land-use data from NLCD (USGS, 2024). In the Bay, the coefficient varies with depth and subsystem. The final values for Manning's n are presented in Figure 1-4. The resulting model skill after calibration is discussed in Section 2.1.

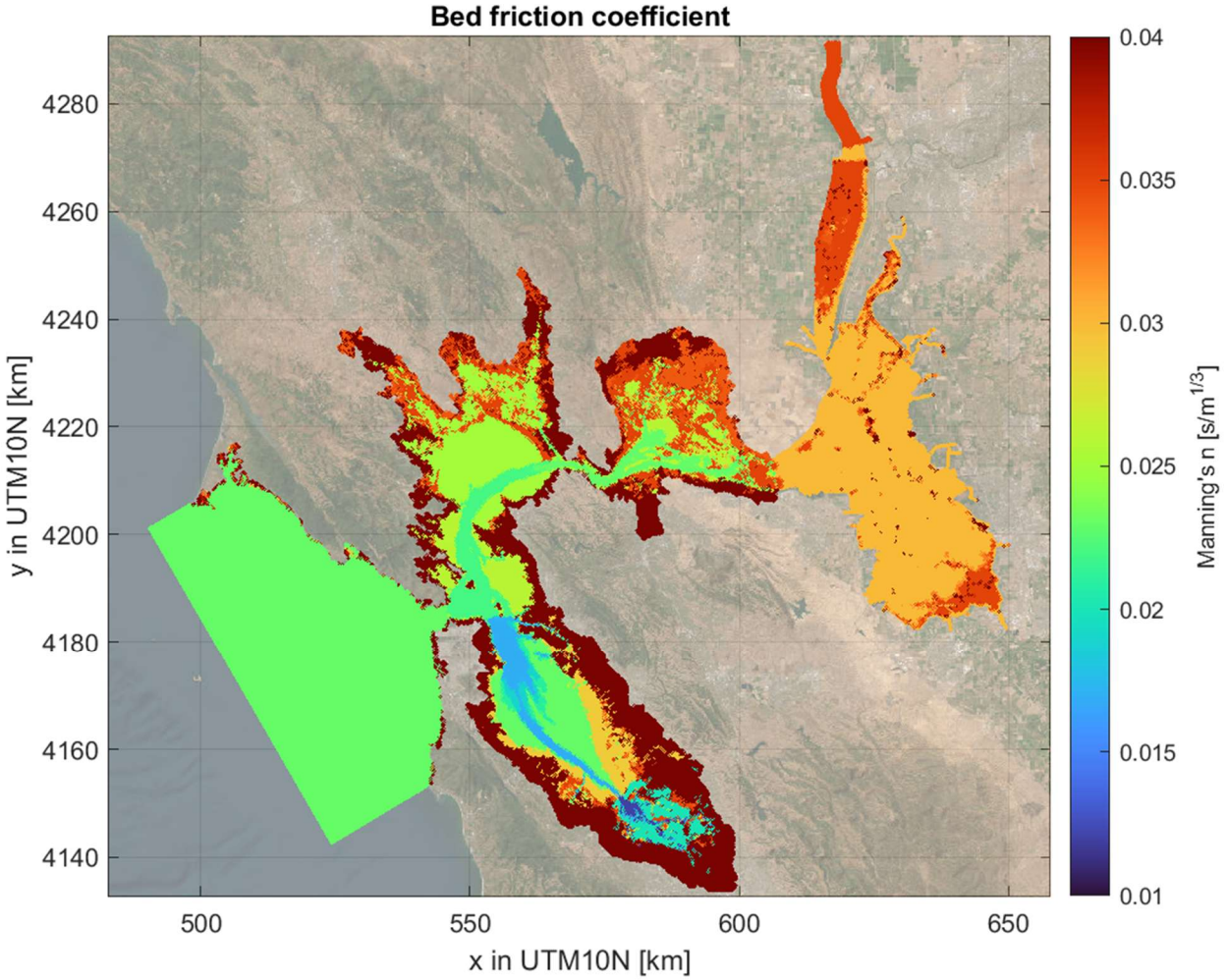


Figure 1-4 Calibrated values for Manning's bed friction coefficient; dark orange and red values (>0.035 s/m$^{1/3}$) are based on land-use

2 Validation

The skill of the updated model schematization is assessed by comparing to observations. The skill is determined by comparing the bias and root-mean-square error (RMSE) of the Still Water Level (SWL), tide, Non-Tidal Residual (NTR), and highwater (HW) events. Tidal and non-tidal signals are separated by means of a harmonic analysis using the T_Tide toolbox by Pawlowicz (2002). In Section 2.1 the skills of the previous and updated schematizations are compared. Section 2.2 contains a larger validation of the updated model against a large set of available observations in Bay and Delta. The tidal propagation of the main constituents is evaluated in more detail.

2.1 Comparison with Previous Schematization (WY2011)

The model skill of the previous and updated model schematizations is assessed for WY2011. This year has observed water levels for most **NOAA CO-OPS tide gauges** in the Bay. Bias and RMSE for SWL, tide, NTR and HW events are presented in Table 2-1.

Overall model skill in South Bay (RMSE) is similar, but its change varies from station to station. The bias has increased, mainly at Oakland Inner Harbor (1.8 cm) and Redwood City (2.0 cm). The most noticeable improvement is visible in the Lower South Bay (Coyote Creek, Figure 2-1), where the RMSE for SWL is 2.0 cm lower, which can mainly be attributed to a better representation of the tides. Around Dumbarton Narrows (Redwood City and Dumbarton Bridge), model skills are slightly reduced with an increased RMSE for SWL of about 1.0 cm, mainly caused by the modeled tides. Around Alameda Island, a mixed signal is found. At Alameda and Oakland Inner Harbor the RMSE for tides increases by about 0.8 cm, where at Park Street Bridge the RMSE for tides and NTR decreases (1.8 cm and 0.4 cm), likely due to a better representation of the Tidal Canal.

Also in **North Bay**, the overall model skill stays similar. Here the bias improves at all stations but Pinole Point. In Carquinez Strait and Suisun Bay (Mare Island and Port Chicago) the RMSEs for SWL reduced by 0.7 cm, due to the reduced bias. In the downstream reaches of the Delta (Antioch and Rio Vista) tides have improved.

Overall, the model skill for tides gives a mixed signal with some stations performing better than previously and others slightly worse. After applying a bias correction, simulated NTR shows a very minor improvement of 0.1 cm on average. In South Bay, the choice to prioritize channel depths in the slough system seems to have an impact on the overall model bias and RMSE of the tides.

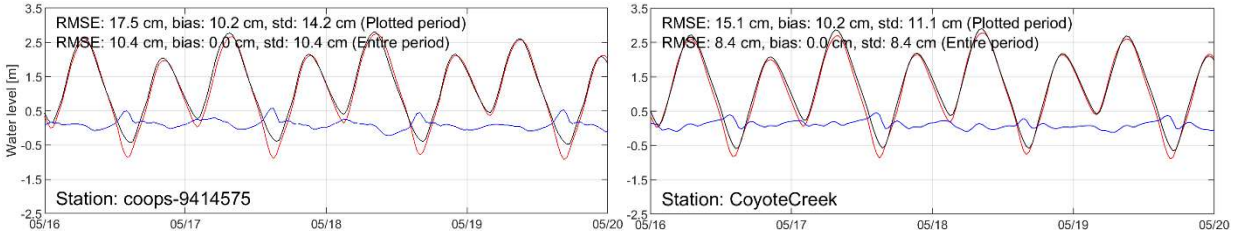


Figure 2-1 Timeseries of still water level at Coyote Creek in WY2011 (observed: red, modeled: black, difference: blue) in previous (left) and updated (right) schematization.

The **model skill of HW events** shows an overall improvement throughout the model for regular events (99th percentile) with an average reduction in uRMSE of 0.2 cm in North Bay and 0.3 cm in South Bay. The largest events of WY2011 (>99%) show a more mixed change in uRMSE where some stations show an increase and others a decrease. On average, a reduction of 0.5 cm is found in South Bay. Noticeable improvements of extreme HW events, where uRMSEs reduce by more than 1.0 cm, occur at Port Chicago, Oakland Inner Harbor, Park Street Bridge and Coyote Creek. The error at Dumbarton Bridge increases for all HW events.

*Table 2-1 Bias, root-mean-square error (RMSE) of still and tidal water levels and unbiased RMSE for non-tidal residuals and highwaters (HW, sorted and binned) in WY2011 at available NOAA gauges in the previous and updated Community Model; [+] stations have no clearly defined vertical reference level (VRL), bias correction applied to SWL; [o] comparison based on short observation period in WY; * stations excluded from mean calculation (SF and stations with derived tidal signal from other period); changes of more than 2 mm in the update are highlighted (green for improved and red for decreased skill)*

WY2011		**bias SWL**		**RMSE SWL**		**RMSE tide**		**uRMSE NTR**		**uRMSE HW (<99%)**		**uRMSE HW (>99%)**		**VRL**
NOAA CO-OPS stations		*old*	*new*	*old*	*new*	*old*	*new*	*old*	*new*	*old*	*new*	*old*	*new*	*NAVD88*
#	*name*	*cm*	*cm*	*cm*	*cm*	*cm*	*cm*	*cm*	*cm*	*cm*	*cm*	*cm*	*cm*	*m MSL*
9415229	Korth's Harbor[+*]					10.5	10.5							
9415316	Rio Vista[+*]					10.1	9.7							
9415064	Antioch[+*]					9.2	8.8							
9415144	Port Chicago	-7.3	-6.5	10.3	9.6	3.0	3.3	6.5	6.4	7.2	6.7	10.2	9.1	-1.116
9415102	Martinez*					5.2	5.2							
9415218	Mare Island	-5.1	-4.5	8.1	7.4	3.1	2.5	5.5	5.4	5.6	5.4	6.1	5.9	-1.046
9415338	Sonoma Creek*					16.5	13.1							
9415056	Pinole Point[o]	2.8	3.7	4.8	5.3	2.4	2.4	3.0	2.9	3.2	3.0	1.3	2.1	-0.995
9415252	Petaluma River*					14.6	13.4							
9414863	Richmond	-3.2	-1.6	6.6	6.3	3.1	3.8	4.8	4.8	5.0	4.7	4.7	4.9	-0.996
9414290	San Francisco*	-1.6	-0.1	5.7	5.4	1.8	1.7	5.1	5.1	5.5	5.3	4.1	3.3	-0.969
9414767	Alameda NAS[+*]					16.1	16.2							
9414750	Alameda	-0.9	0.4	6.7	7.1	4.3	5.1	5.0	5.0	5.5	5.0	6.3	6.4	-0.981
9414764	Oakland Inner Harbor[o]	3.6	5.4	6.5	8.1	4.0	4.9	3.8	3.7	5.0	4.1	3.0	1.9	-0.976
9414746	Park Street Bridge[o]	4.8	4.6	8.1	6.6	5.6	3.8	3.2	2.8	3.3	3.3	3.8	2.5	-0.984
9414688	San Leandro Marina*					17.0	17.1							
9414458	San Mateo Bridge[+*]					15.0	15.0							
9414523	Redwood City	0.3	2.3	7.2	8.2	3.8	5.0	6.1	6.1	6.5	6.2	7.5	6.9	-0.982
9414509	Dumbarton Bridge[+o]	*bias corrected*		7.3	8.2	5.9	6.9	5.0	5.1	7.2	7.6	5.4	6.9	
9414575	Coyote Creek[+o]	*bias corrected*		10.4	8.4	9.8	7.5	5.6	5.6	6.2	5.7	9.6	7.9	
MEAN (North Bay)		|4.6|	|4.1|	7.4	7.4	2.9	3.0	5.0	4.8	5.2	5.0	5.6	5.5	
MEAN (South Bay)		|2.4|	|3.2|	7.7	7.7	5.6	5.5	4.8	4.7	5.6	5.3	5.9	5.4	

2.2 Model skill in full model domain

A large set of all publicly **available tide gauges and stage monitors** are included in the San Francisco Bay-Delta Community Model. This data comes from a variety of sources. Most SWL observations are provided through a large dataset collected by Stefan Talke of CalPoly[1]. Main stations throughout the Bay and Delta come from NOAA (see Section 2.1) and USGS. Local observations deeper in the slough system was provided by ACFCD (Alameda County) and Valley Water (Santa Clara County). The model skill is determined for WY2023, because this year is recent, has a data available for most stations, and includes a large flood event on January 1, 2023.

2.2.1 South Bay (South of Bay Bridge)

A visual presentation of the **RMSEs of the SWL, tide and NTR** is given in Figure 2-2. As presented in Section 2.1, modeled water levels compare well to observations in the Bay at main NOAA tide gauges (Alameda, Redwood City, Dumbarton Bridge). Observations at Coyote Creek in WY2023 have a lower temporal frequency (1 hour vs. 10 minutes), which explains the larger RMSE (18.6 cm) compared to the previously presented skill in WY2011 (Section 2.1).

Further upstream in the **slough system in Lower South Bay** the model skill depends on the presence of a clear tidal signal. Stations with strong tidal action have a reasonable RMSE of SWL (Sunnyvale East Channel at Baylands Park: 17.2 cm, Guadalupe River at Gold Street: 21.4 cm, Artesian Slough 41.9 cm, and Alviso Slough: 21.0 cm). Stations where water levels show a mostly riverine pattern are typically of poorer quality. Smaller streams (e.g. Matadero Creek, Sunnyvale East Channel, Berryessa Creek) have no upstream USGS gauge – used as model forcing – and therefore no flood waves are captured by the model. Modeled flood waves in streams gauged by USGS (e.g. Guadalupe River, Coyote Creek) typically underestimate the flood peak and overestimate the duration, because local bed friction has not been calibrated and channel dimensions are not properly resolved on the coarse model grid. For more details about such locations, see the results in Section 4.2.

Similarly, further north, at two observation sites in Lion Creek and San Leandro Creek, both discharging into San Leandro Bay, a good model skill is found because their water levels are mostly tidally driven. Timeseries at these locations are presented in Figure 2-3. It is clearly visible how the tidal signal during calm regular conditions are very well represented (left panel), but the large discharge event is not captured (right channel) because it is not included in the model forcing.

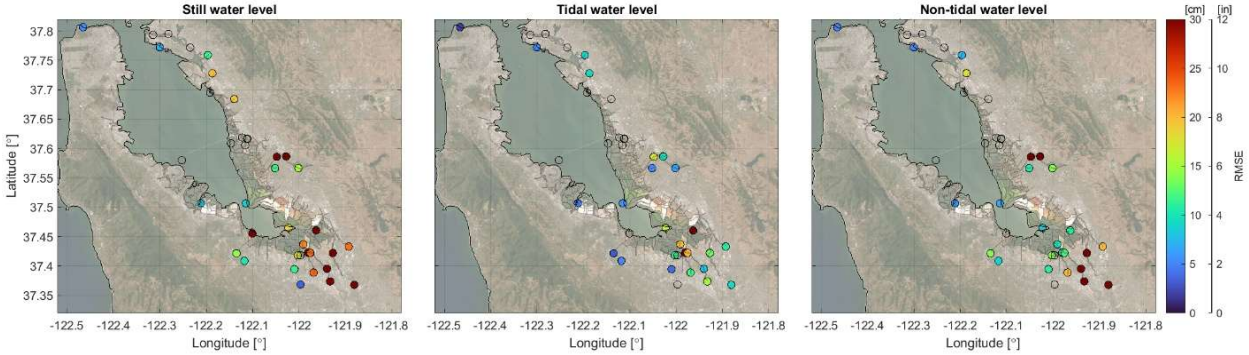


Figure 2-2 Root-mean-square errors of still water level (left), tide (center) and non-tidal residual (right) in South Bay; empty circles indicate stations without data in WY2023, or insufficient data for a harmonic analysis

[1] https://sciencetracker.deltacouncil.ca.gov/node/53106

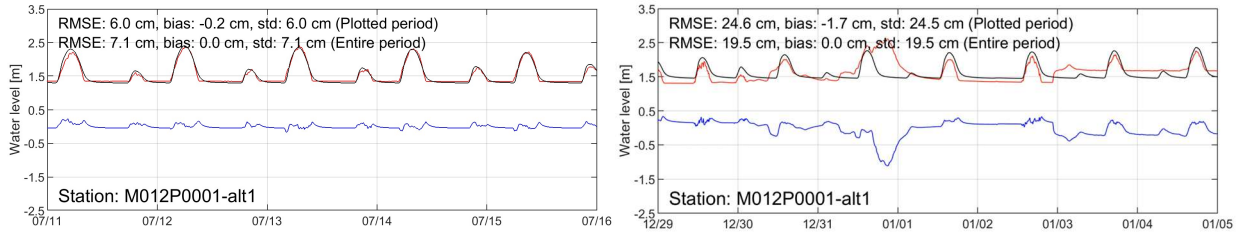


Figure 2-3 Still water level in San Leandro Creek (observed: red, modeled: black, difference: blue) in WY2018 (left) during high discharge event in WY2023 (right)

The tidal propagation along the centerline of the South Bay for the amplitudes and phases of tidal constituents M2 and K1 is presented in Figure 2-5 and Figure 2-6 respectively. For WY2011, observations between San Francisco and Coyote Creek show a clear amplification of the tidal amplitudes from 57 cm to 97 cm and 37 cm to 41 cm, for M2 and K1 respectively. Phases go up from 208° to 254° and from 225° to 249° respectively. Modeled amplitudes and phases are very well represented at San Francisco, because this station was used to calibrate the offshore tidal forcing. At Coyote Creek there is a vector difference between the observed and modeled tidal constituents of 4.0 cm for both M2 and K1. Tidal propagation into sloughs in the Lower South Bay is further discussed in Section 4.1.

2.2.2 Central, San Pablo and Suisun Bays

Tide gauges in North Bay located along the main shoreline show a good representation of modeled water levels. Both tides and non-tidal residuals at these locations are well represented with typical root-mean-square errors of about 4 cm and 7 cm respectively. At upstream locations in rivers and creeks (Gallinas Creek, Novate Creek and Napa River) modeled tides are of lower skill due to the coarse grid resolution compared to local channel dimensions. Similarly to South Bay, where water levels are mostly discharge-driven, the model representation is inaccurate due to a poor representation of flood waves. In Suisun Bay, tide gauges in wider sloughs show a good skill (14 cm in downstream Montezuma Slough), where narrower sloughs have a less accurate representation of (tidal) water levels.

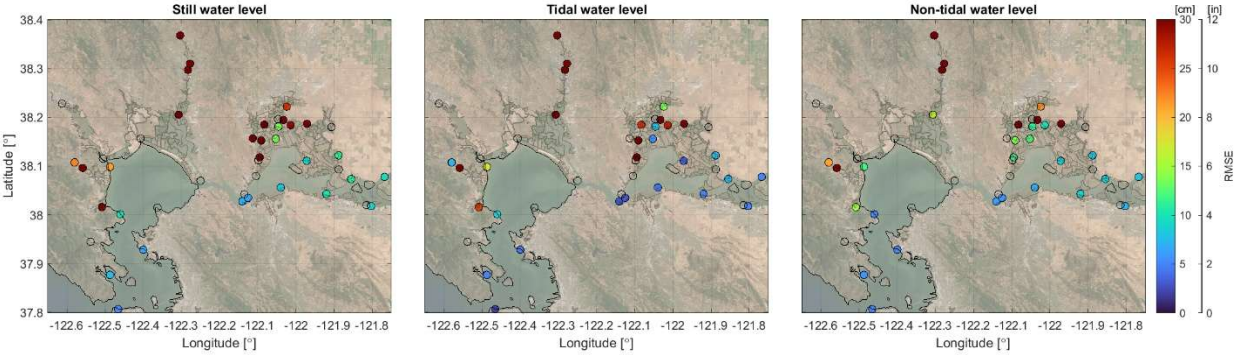


Figure 2-4 Root-mean-square errors of still water level (left), tide (center) and non-tidal residual (right) in North Bay; empty circles indicate stations without data in WY2023, or insufficient data for a harmonic analysis

Tidal propagation of the M2 and K1 tides is visualized in Figure 2-7 and Figure 2-8 respectively. Modeled tides along the centerline of the Bay matches observations well. The model shows the initial increase in M2 amplitude till it enters San Pablo Bay, followed by a gradual decrease. The modeled K1 amplitude remains constant till it enters San Pablo Bay before it starts its decrease.

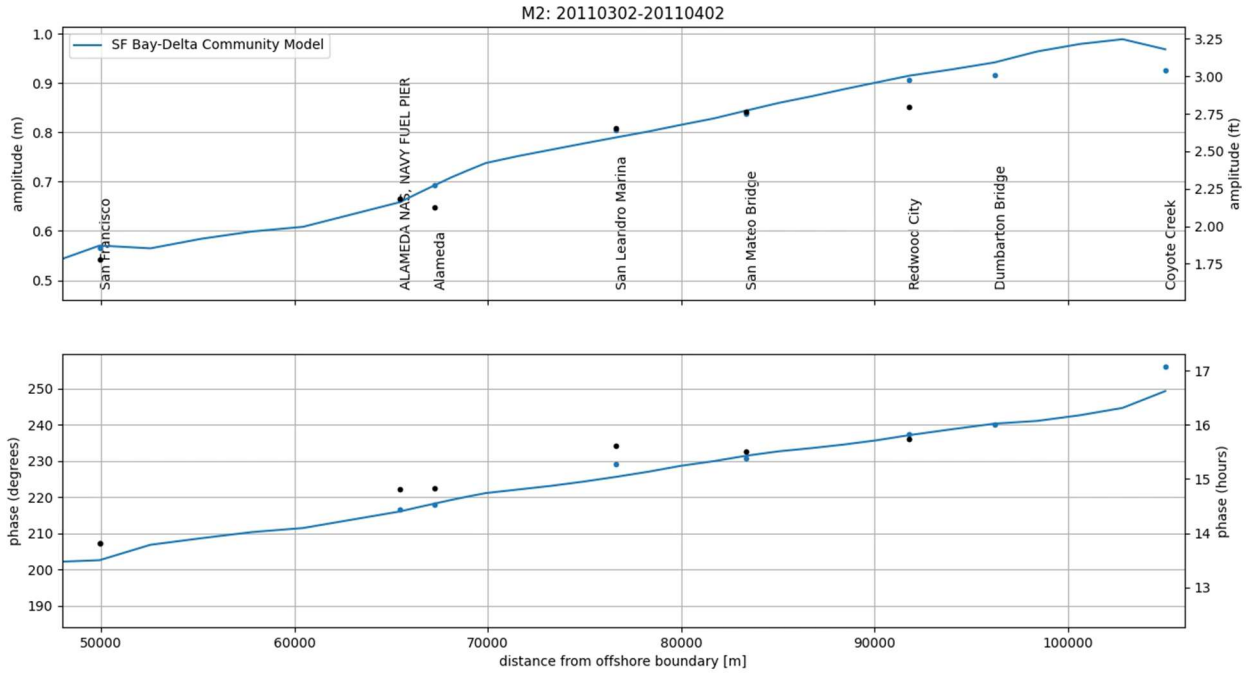


Figure 2-5 Modeled amplitude (top) and phase (bottom) of tidal constituent M2 along the centerline of South Bay (blue line) and at NOAA CO-OPS tide gauges (observed: black dots, modeled: blue dots)

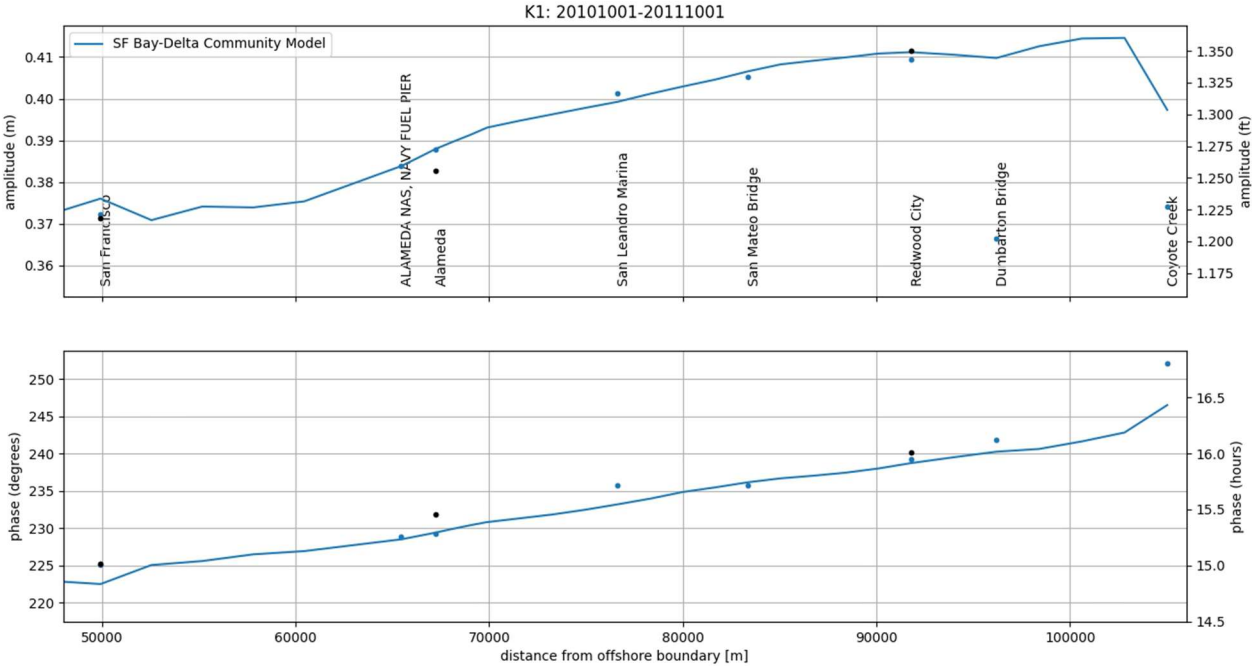


Figure 2-6 Modeled amplitude (top) and phase (bottom) of tidal constituent K1 along the centerline of South Bay (blue line) and at NOAA CO-OPS tide gauges (observed: black dots, modeled: blue dots)

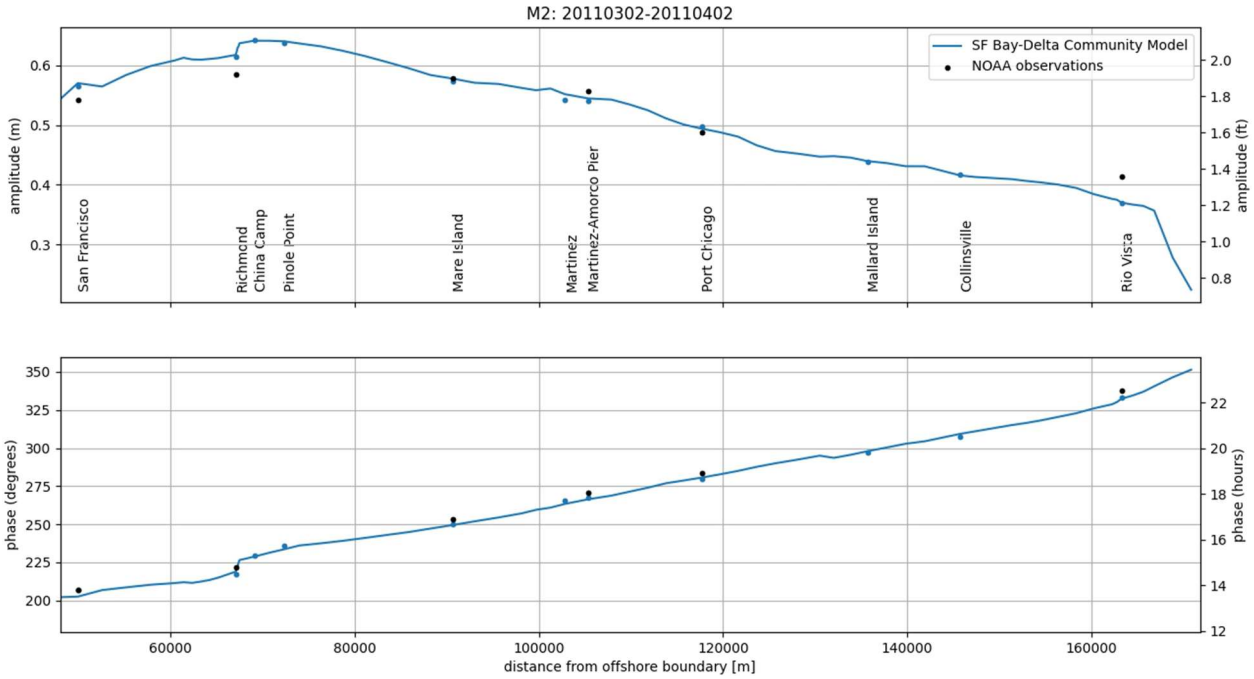


Figure 2-7 Modeled amplitude (top) and phase (bottom) of tidal constituent M2 along the centerline of North Bay (blue line) and at NOAA CO-OPS tide gauges (observed: black dots, modeled: blue dots)

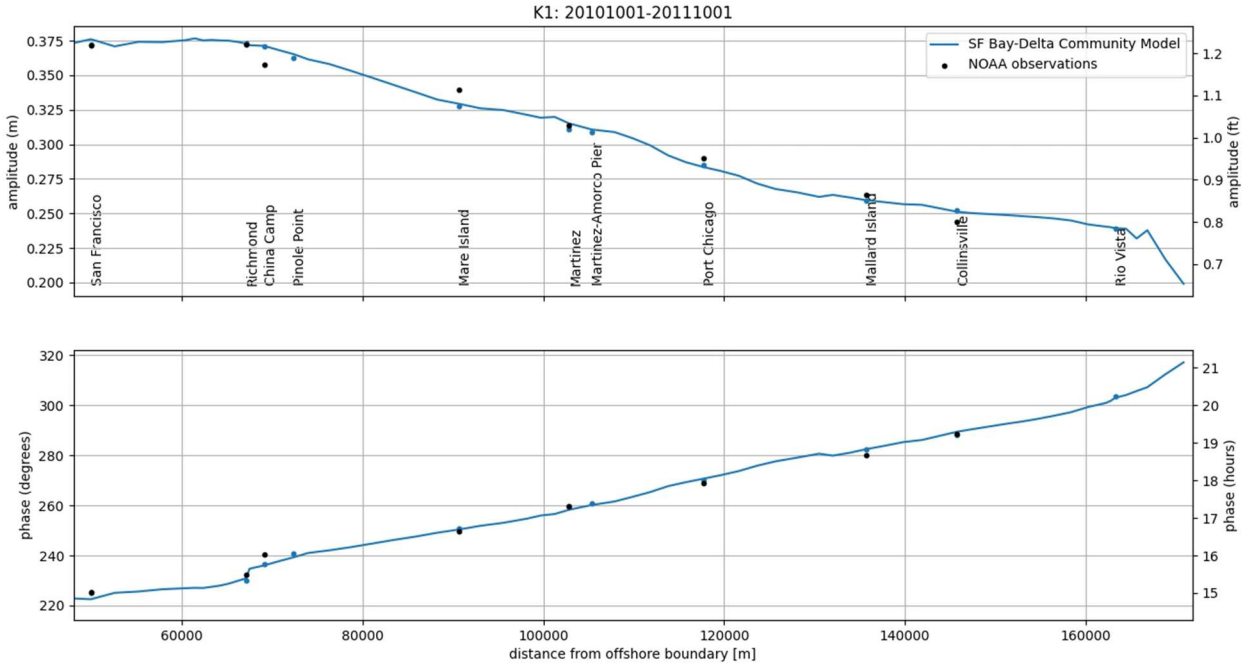


Figure 2-8 Modeled amplitude (top) and phase (bottom) of tidal constituent K1 along the centerline of North Bay (blue line) and at NOAA CO-OPS tide gauges (observed: black dots, modeled: blue dots)

2.2.3 Sacramento-San Joaquin River Delta

The model skill expressed in RMSEs is about 10 cm for SWL, 4 cm for tides and 9 cm for NTR in the downstream and central Delta. This increases to about 30 cm, 15 cm and 25 cm respectively in the upstream reaches of the Sacramento and San Joaquin Rivers as channels narrow and tidal influence reduces. The narrowest upstream channels have a poor water level representation in the model.

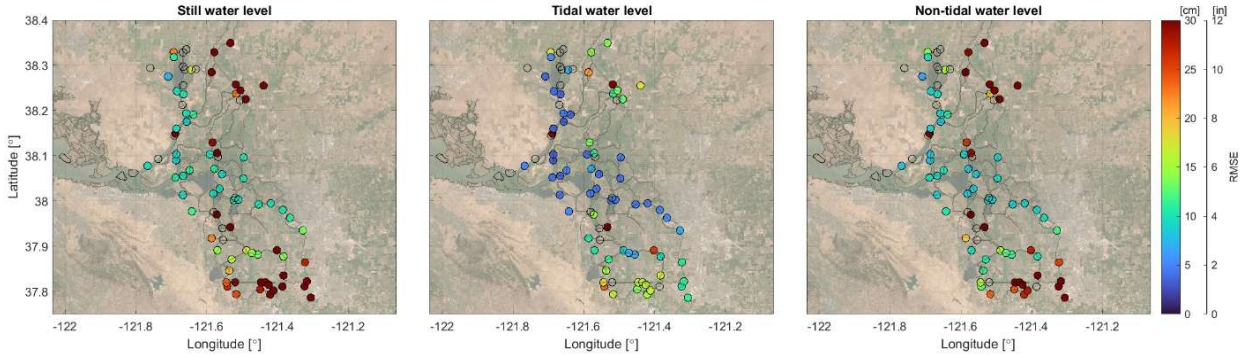


Figure 2-9 Root-mean-square errors of still water level (left), tide (center) and non-tidal residual (right) in Delta; empty circles indicate stations without data in WY2023, or insufficient data for a harmonic analysis

Important to point out is the good quality of the main tidal constituents in the Delta. Figure 2-10 and Figure 2-11 show the modeled and observed amplitudes and the vector difference – an error measure for the combination of amplitude and phase – for the M2 and K2 tide respectively. Both constituents show a low vector difference in the downstream reaches of the Delta and in the main rivers (San Joaquin and Sacramento). In narrower, upstream channels, vector differences are larger.

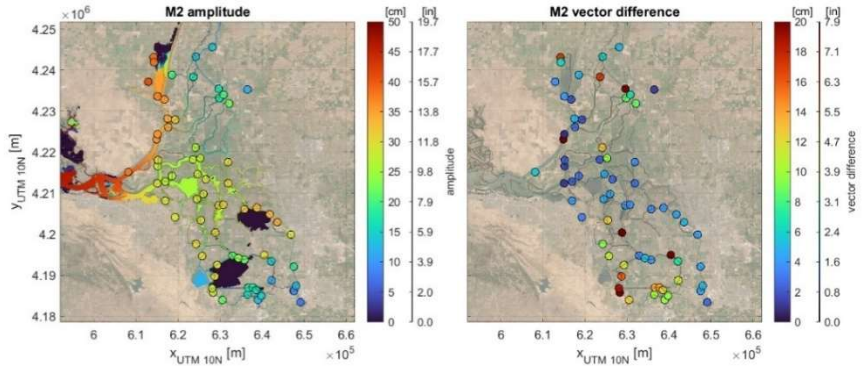


Figure 2-10 Amplitude (background: modeled, dots: observed) and vector difference of M2 tide in Delta

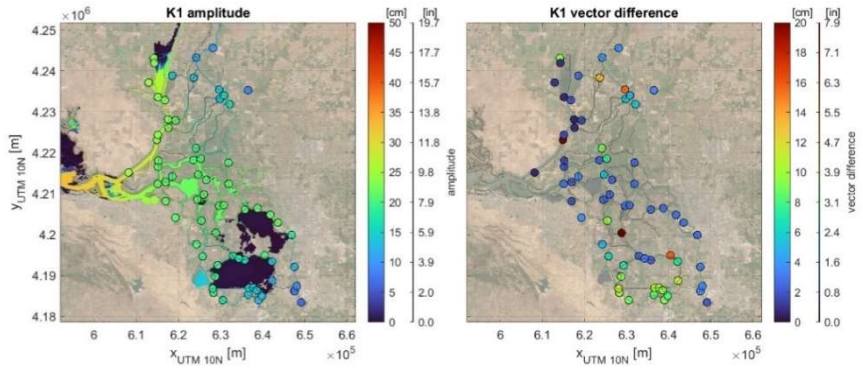


Figure 2-11 Amplitude (background: modeled, dots: observed) and vector difference of K1 tide in Delta

3 Extension of reanalysis dataset

3.1 Method

The extension of the reanalysis dataset from 1940 to 2024 follows the same modeling framework and statistical analysis approach described in Nederhoff et al. (2021). In that earlier study, the previous schematization was used to simulate continuous time series of still water levels (SWL) in San Francisco Bay and the Delta. For extreme value analysis, a robust Peaks-Over-Threshold (POT) method was employed, fitting the Generalized Pareto Distribution (GPD) to exceedances above an automatically selected threshold, ensuring statistical stability and maximizing use of available data.

In the present work, the same methodological approach was used, but the simulation period was extended to cover WY 1941 through 2024. This extension leverages the availability of ERA5 reanalysis meteorological forcing from 1940 onward.

The decision to continue using the earlier model schematization, rather than re-run the entire period with the next generation model, was driven by computational efficiency and consistency. Model skill assessments showed that the earlier model configuration produces comparable accuracy in reproducing SWL across the Bay, while requiring substantially lower computational resources for multi-decade simulations. This balance between accuracy and computational cost makes it suitable for generating long-term datasets needed for statistical analysis of extreme water levels.

Thus, the extended reanalysis maintains methodological consistency with the original work, enabling direct comparison of results and preserving continuity in the ongoing assessment of flood risks in the San Francisco Bay and Delta region.

3.2 Updated statistics

A comparison of results at more than 1,200 points across San Francisco Bay between the previous and updated model simulations is presented in Appendix A. The median annual extreme water level shows minimal change, with an average difference of +0.018 cm. The 95% confidence interval (CI) for this change ranges from -4.83 cm to +0.98 cm (or -1.9 to +0.39 inch), indicating a skewed distribution where more locations experienced slightly lower water levels than higher ones.

A clearer pattern emerges for the 10-year and 100-year extreme water levels, with median decreases of approximately -2.09 cm and -5.45 cm (or -0.82 to -2.14 inch), respectively, across San Francisco Bay. Spatial analyses reveal these changes are not uniform (Figure 3-1): regions such as San Pablo Bay and the area near the Dumbarton Bridge show negligible change, while other areas exhibit reductions in water levels of 4 to 6 cm (1.5 to 2.5 inches). Due to the longer simulation record, the median width of the 95% CI for the 100-year event has also narrowed by approximately 4.86 cm (or almost 2 inches), reflecting increased statistical certainty.

These findings suggest that the significant 1983 event—often regarded as the largest on record, particularly in the South Bay—is now characterized as more extreme than previously estimated. Under the prior simulation covering 1950–2019, the 1983 event corresponded roughly to a 70-year return period. In the updated analysis, extending from 1940 to 2024, it is now equivalent to an approximately 85-year return period, reflecting its increased rarity in the longer dataset.

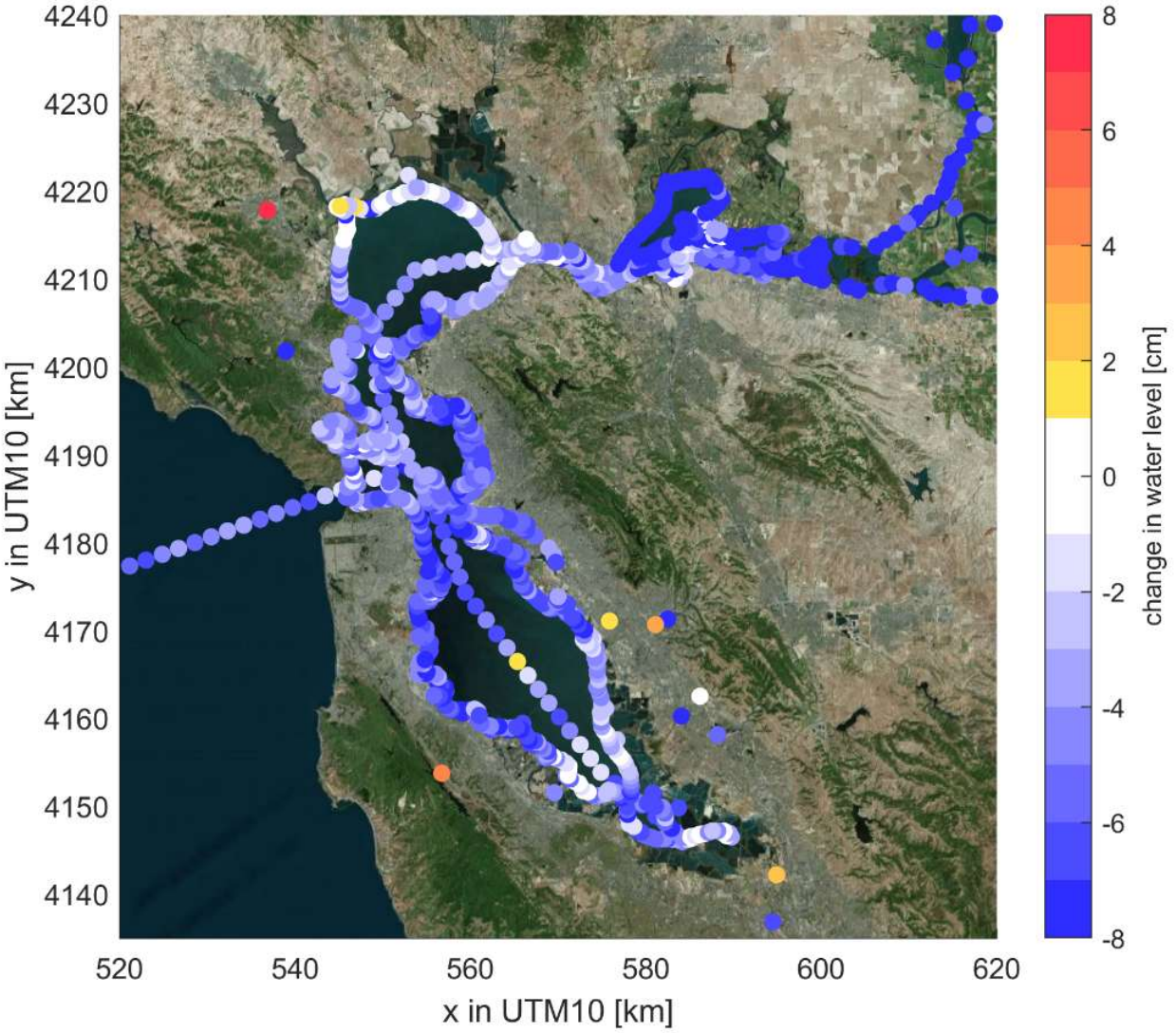


Figure 3-1 Change in 100-year extreme water levels across San Francisco Bay between the previous simulation period (1950–2019) and the updated extended record (1940–2024).

4 Coastal-riverine interface

4.1 Slough systems in Lower South Bay

The damping effect of the slough system was assessed for a transect from the Bay Bridge to Coyote Creek, into Alviso Slough to upstream Guadalupe River. Different water level components for WY2023 are plotted in Figure 4-1. Modeled extreme tidal water levels and amplitudes agree well with observations. Tidal water levels increase throughout the entire South Bay and decrease in the slough system. Modeled phases of the M2 and K1 tide show a slightly slower propagation through Alviso Slough than observed. The modeled extreme SWL is well aligned with observations in the downstream reaches of the slough. Upstream in Guadalupe River, where high river discharge – and thus NTR – is the driving factor, the model underestimates extreme levels (observed extremes were 6.1 m at Gold St and 5.7 m at Montague Expressway).

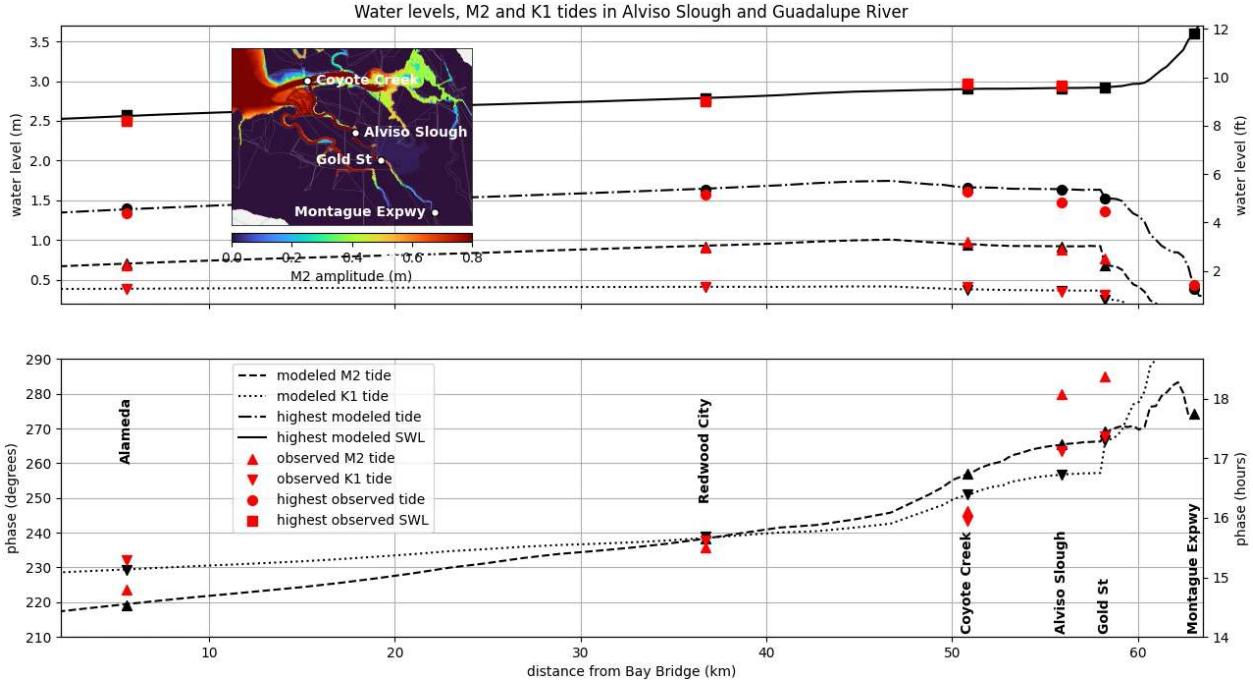


Figure 4-1 Maximum SWL, maximum tide, M2 and K1 tidal amplitude (top) and phase (bottom) in Alviso Slough and Guadalupe River for WY2023; modeled (black lines and dots) and observed at tide gauges (red dots); inset map shows M2 tidal amplitude in Lower South Bay.

4.2 WY2023 in Alameda Creek

During New Year in WY2023, flooding in the Bay occurred due to heavy rainfall. This was also experienced in Alameda Creek, where multiple USGS gauges are located. Deltares USA studied the Creek with a detailed, calibrated model of 5 m resolution. This allows for a comparison of the coarser regional model with a dedicated local model and observations (Figure 4-2). The main differences between the models are the representation of the channel dimensions (grid resolution and bathymetry interpolation method) and the bed friction (more representative (higher) in local model). Forced discharges are identical, but the peak discharge is slightly lower and somewhat more spread over time in the regional model, most probably caused by the lower bed friction coefficient. Consequently, the peak water level in the regional model is underestimated by about 20 cm, where the local model matches observations better. Observed and modeled water levels are compared at multiple locations (Figure 4-3). This shows a mixed pattern of under- and overestimations of the flood peak.

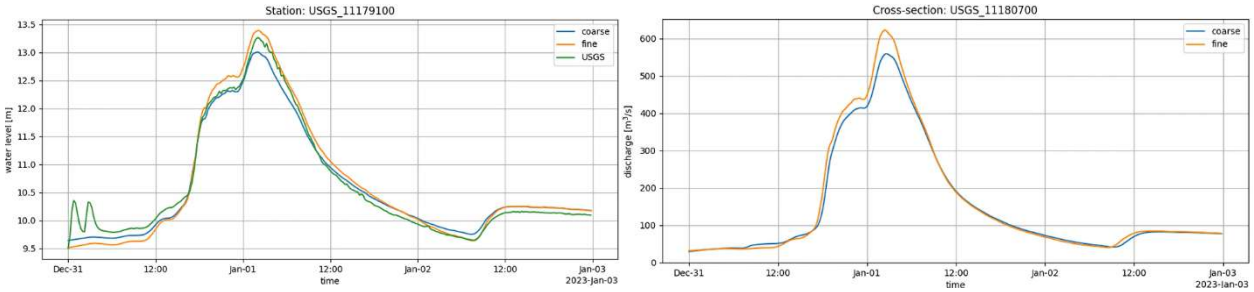


Figure 4-2 Water level at Fremont (left) and discharge at Dry Creek (right) in Alameda Creek during peak discharge event in WY2023 (observed water level: green, regional model (50m): blue and local model (5m): orange)

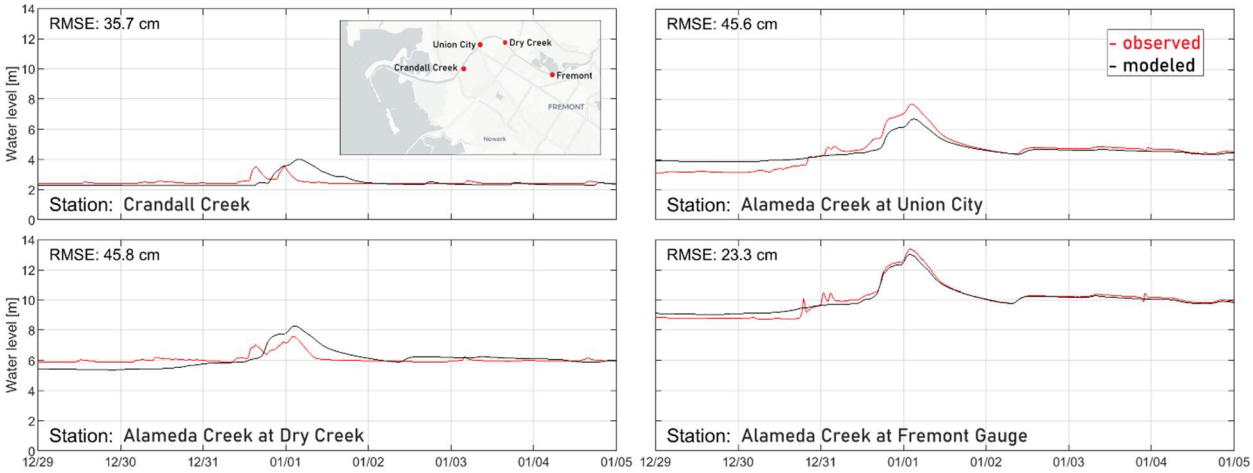


Figure 4-3 Water levels at observation sites in Alameda Creek (observed: red, modeled: black)

5 Conclusion and recommendations

The update of the schematization has made San Francisco Bay-Delta Community Model easier to use by removing the 1D component, while retaining similar model skill. The higher resolution along the coastline provides more detail for first indications of water levels at specific sites in the Bay. Furthermore, the inclusion of all floodplains in both Bay and Delta enables its use to generate inundation maps. The extension of the historical reanalysis period enforces trust in the derived statistics.

The larger extent and higher resolution of the grid allow for tidal propagation deeper into the slough system. However, the model is limited to areas that are tidally driven. Water level peaks due to high discharges are underestimated because of a poor representation of (narrow) channel dimensions, local bed friction and missing forcing data.

Extending the reanalysis period simulated the previous schematization results in a higher statistical certainty of the presented results. 100-y return values of extreme still water levels remain roughly the same in Dumbarton Narrows and San Pablo Bay. In other areas reductions of about 4 to 6 cm are found. The extended period also confirms the rarity of the WY1983 event.

5.1 Recommendations

During the update of the San Francisco Bay-Delta Community Model many ideas and next steps for the model's application and further development were identified. These recommendations can be categorized in:

- General updates
    - Include new datasets as they are released: A **new LiDAR-based DEM** will be developed by WRMP and SFEI for the Delta Stewardship Council and BCDC.
    - Include **more river discharges**: Forcing in many small streams (e.g. San Tomas Aquino, Calabazas, Sunnyvale) and consequent flood peaks during rainfall events are missing. Local Flood Control Districts likely have data available that can be added to the model.
    - Current wind products are often too coarse to fully capture the complex wind patterns in the Bay caused by terrain and land-sea contrasts. Developing **higher-resolution wind fields**, for example through machine-learning downscaling using convolutional neural networks (CNNs), would provide more realistic wind inputs. This in turn would significantly improve the accuracy of the hydrodynamic model and subsequent wave and flood simulations.
- Further development
    - Calibration and validation in **Delta**: Bed friction and forced discharges in the Delta have not been calibrated. For applications of this model in the Delta it is important to further inspect model skill in the region and conduct a more extensive validation of water levels and discharges.
    - To overcome computational limitations while improving floodplain resolution, subregional models should be developed that nest within the larger Bay-Delta framework. For example, a dedicated **Lower South Bay or San Lorenzo Creek** model could provide finer detail for local flood risk assessments, while maintaining consistency with the regional circulation.
    - Model variant with **averaged bathymetry throughout domain**: Consider generating a model schematization without the bathymetry based on minimum values. This approach allows for tidal motion further upstream but seems to have a negative impact on the overall tides and consequently water levels in South Bay. Depending on the topic and area of interest, this approach can be considered.
    - The current framework is an exclusive flow model. Introducing a **coupled flow-wave model** would improve predictive skill and provide greater value for the community. Such a model

should incorporate updated bathymetry and be validated against National Data Buoy Center (NDBC) stations and USGS short-term wave buoys in South Bay to ensure reliability. This would expand the model's ability to assess extreme wave conditions and their role in flood hazards.

- Future development should also aim to incorporate **shallow groundwater dynamics** alongside surface hydrodynamics and waves, ideally within a coupled modeling framework. This integration will allow a more comprehensive assessment of flood processes, including interactions between surface water, tides, storm surge, and groundwater rise.
- **Publication** of the updated model: To distribute this update to the user-base, the model should be published on Community Website. At a later point, the reanalysis dataset can be regenerated with this new schematization.

- Research topics
  - Better inclusion of **bathymetry in sloughs**: Multiple approaches have been tested to include the slough system in the model and work with the lack of bathymetric data of channel depths (i.e. averaging, minimum, deepening to MLLW). Possibly another approach, estimating local depth from channel width or distance from the Bay gives better results.

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A Estimated extreme water level across the SF Bay

In the Table below, return values computed with the previous model schematization of the San Francisco Bay and Delta are presented. The 1-, 10- and 100-year return values (RV) and the 95% confidence interval (CI) of the later were computed for the original reanalysis period (1950-2019) and the extended reanalysis period (1940-2024). Station IDs and names are those as published on www.d3d-baydelta.org.

Station		**Coordinates**		**1-year RV**		**10-year RV**		**100-year RV**		**CI (100-y)**	
ID	Name	X	Y	old	new	old	new	old	new	old	new
1	CO-OPS 9414290	547095	4184503	2.27	-	2.49	2.47	2.72	2.69	0.33	0.32
2	CO-OPS 9414458	565957	4159479	2.62	-	2.84	2.81	3.06	3.00	0.32	0.28
3	CO-OPS 9414509	578219	4151452	2.72	-	2.93	2.91	3.15	3.08	0.32	0.27
4	CO-OPS 9414523	569548	4151579	2.69	2.69	2.90	2.89	3.12	3.07	0.32	0.27
5	CO-OPS 9414575	586332	4146872	-	2.77	2.97	2.96	3.16	3.15	0.33	0.26
6	CO-OPS 9414688	571234	4172283	2.60	2.60	2.82	2.80	3.05	3.01	0.33	0.28
7	CO-OPS 9414746	567373	4180761	2.46	2.46	2.68	2.67	2.91	2.86	0.33	0.29
8	CO-OPS 9414750	561722	4180619	2.46	2.47	2.69	2.67	2.94	2.87	0.34	0.29
9	CO-OPS 9414764	563244	4183226	2.43	-	2.66	2.64	2.89	2.83	0.35	0.30
10	CO-OPS 9414863	552730	4198030	2.34	2.35	2.57	2.55	2.81	2.74	0.38	0.30
11	CO-OPS 9415020	502046	4205383	2.21	2.23	2.44	2.46	2.68	2.67	0.34	0.32
12	CO-OPS 9415056	555916	4207671	2.40	2.40	2.64	2.62	2.87	2.84	0.37	0.36
13	CO-OPS 9415102	576770	4210015	2.35	2.33	2.59	2.56	2.82	2.78	0.42	0.36
14	CO-OPS 9415144	584266	4212464	2.35	2.33	2.63	2.59	2.89	2.82	0.41	0.38
15	CO-OPS 9415218	565786	4213847	2.36	2.36	2.59	2.58	2.83	2.80	0.39	0.36
16	CO-OPS 9415252	544743	4218225	-	2.44	2.67	2.67	2.89	2.90	0.37	0.32
17	CO-OPS 9415338	552910	4221805	2.45	2.45	2.69	2.67	2.92	2.90	0.38	0.35
20	USGS 11162753	556695	4153801	46.23	46.20	47.03	47.02	47.86	47.91	1.07	1.06
22	USGS 11169025	594471	4136878	8.25	8.24	9.44	9.42	10.65	10.58	1.79	1.74
23	USGS 11169500	585186	4123525	153.16	153.15	153.35	153.34	153.53	153.52	0.25	0.23
24	USGS 11172175	594902	4142246	5.61	5.48	6.89	6.80	7.99	8.01	1.67	1.57
26	USGS 11179100	588169	4158199	10.79	10.75	12.65	12.76	14.83	14.78	3.34	2.97
27	USGS 11180500	586161	4162554	19.28	19.28	19.45	19.44	19.59	19.59	0.20	0.19
28	USGS 11180700	584026	4160282	6.86	6.59	9.12	8.77	11.29	10.87	3.34	2.99
29	USGS 11181000	582493	4171332	43.46	43.43	44.34	44.28	45.28	45.10	1.20	1.04
30	USGS 11181008	581078	4170701	33.39	33.38	33.55	33.55	33.65	33.69	0.17	0.17
31	USGS 11181040	575832	4171114	5.90	5.92	7.38	7.37	8.85	8.86	1.87	1.77
32	USGS 11304810	646735	4199971	2.52	2.51	3.00	2.94	3.40	3.30	0.60	0.49
33	USGS 11311300	635762	4206111	2.46	2.45	2.94	2.87	3.34	3.23	0.56	0.44
34	USGS 11312672	629292	4192502	2.41	2.41	2.97	2.87	3.49	3.21	0.71	0.54
35	USGS 11312676	628804	4200471	2.44	2.43	2.92	2.84	3.37	3.18	0.61	0.46
36	USGS 11312685	630743	4207200	2.44	2.43	2.91	2.84	3.34	3.21	0.60	0.49
37	USGS 11312968	628301	4185789	2.51	2.47	3.10	3.01	3.70	3.56	1.01	0.87
38	USGS 11313240	628085	4186841	2.46	2.46	3.05	3.00	3.66	3.55	1.01	0.80

39	USGS 11313315	625719	4194689	2.40	2.37	2.92	2.84	3.36	3.22	0.64	0.53
40	USGS 11313405	625414	4203439	2.41	-	2.89	2.78	3.34	3.12	0.63	0.33
41	USGS 11313431	624477	4208582	2.39	2.38	2.87	2.78	3.29	3.11	0.61	0.43
42	USGS 11313433	616951	4208154	2.31	2.30	2.74	2.68	3.12	3.07	0.56	0.49
43	USGS 11313434	625995	4209808	2.40	2.39	2.87	2.79	3.28	3.13	0.58	0.44
44	USGS 11313440	616952	4212849	-	2.31	2.74	2.70	3.12	3.06	0.45	0.48
45	USGS 11313452	624652	4214658	-	2.38	2.82	2.78	3.19	3.12	0.46	0.46
46	USGS 11313460	626573	4213393	2.40	2.39	2.88	2.79	3.31	3.16	0.60	0.46
47	USGS 11336600	630799	4234024	3.05	3.09	3.80	3.79	4.60	4.51	1.43	1.37
48	USGS 11336680	632073	4231918	3.05	3.02	3.86	3.75	4.66	4.46	1.64	1.39
49	USGS 11336685	630667	4231648	2.93	2.94	3.63	3.63	4.27	4.31	1.26	1.23
50	USGS 11336790	631868	4217578	2.45	2.44	2.94	2.86	3.37	3.22	0.58	0.47
51	USGS 11336930	625275	4218552	2.40	2.38	2.88	2.79	3.31	3.16	0.61	0.50
52	USGS 11337080	615196	4218095	2.32	2.31	2.78	2.71	3.16	3.10	0.57	0.53
53	USGS 11337190	615037	4212412	-	2.29	2.71	2.68	3.10	3.03	0.40	0.46
54	USGS 11447650	630762	4257477	5.85	5.68	7.01	6.94	8.03	8.28	1.72	1.72
55	USGS 11447830	624189	4243293	4.30	-	5.12	4.91	6.05	5.95	2.03	1.83
56	USGS 11447850	623609	4238351	-	3.54	4.47	4.39	5.41	5.42	1.95	1.62
57	USGS 11447890	629637	4235445	3.17	3.19	3.93	3.89	4.70	4.64	1.45	1.29
58	USGS 11447903	629743	4233175	3.02	3.04	3.75	3.74	4.48	4.50	1.42	1.33
59	USGS 11447905	629282	4233343	2.96	2.98	3.69	3.66	4.41	4.38	1.38	1.26
60	USGS 11455095	623546	4259677	2.90	2.81	4.31	4.11	7.02	6.52	4.23	3.66
61	USGS 11455140	618426	4245426	2.81	2.72	4.26	4.07	7.24	6.61	4.33	3.70
62	USGS 11455143	617272	4243882	3.91	4.12	6.03	6.35	7.99	8.18	3.29	3.04
63	USGS 11455146	616465	4243143	-	-	5.60	5.30	9.45	8.93	3.54	3.74
64	USGS 11455165	619734	4239063	3.18	3.12	4.38	4.16	6.53	5.75	3.45	2.81
65	USGS 11455167	616991	4238881	-	-	5.30	5.10	8.57	8.46	3.62	3.82
66	USGS 11455280	612909	4237177	-	-	4.65	4.19	7.55	7.43	3.99	4.26
67	USGS 11455315	614978	4233507	-	-	4.54	4.13	7.34	7.18	3.73	4.06
68	USGS 11455335	616657	4235072	-	-	4.41	4.02	6.93	6.80	3.56	3.77
69	USGS 11455350	616508	4230261	2.66	2.57	3.95	3.76	6.34	5.91	3.68	3.14
70	USGS 11455385	617515	4228186	2.63	2.53	3.83	3.67	6.05	5.43	3.38	2.94
71	USGS 11455420	614876	4223164	2.52	-	3.20	3.07	3.82	3.74	1.35	1.23
72	USGS 11455478	610734	4216915	2.43	2.40	2.88	2.81	3.32	3.23	0.64	0.63
73	USGS 11458000	560861	4246904	-	-	13.40	13.23	14.43	14.28	1.57	1.58
74	USGS 11458500	544193	4241802	35.11	35.06	36.44	36.36	37.79	37.65	1.75	1.53
76	USGS 11459500	536823	4217848	7.58	7.60	8.34	8.38	9.10	9.23	1.09	0.95
77	USGS 11460000	538921	4201800	6.55	-	7.66	7.54	8.62	8.54	1.41	1.15
79	USGS 373025122065901	578096	4151478	2.72	-	2.93	2.90	3.15	3.08	0.32	0.27
80	USGS 381934121403201	615780	4242818	-	-	5.72	6.12	8.04	7.96	3.48	3.00
81	USGS 381946121402301	615973	4243210	-	3.96	5.65	6.10	8.29	8.17	3.47	3.14
82	USGS 382006121401601	616143	4243821	3.92	4.06	5.79	6.20	8.58	8.30	3.99	3.20

83	USGS 382010121402301	615982	4243948	-	4.05	5.84	6.22	8.11	8.25	3.43	3.08
84	USGS 11303500	653027	4171336	-	-	8.55	8.48	10.84	10.85	2.94	2.60
85	outfall 01	588811	4146977	-	2.75	2.95	2.94	3.13	3.13	0.33	0.27
87	outfall 03	580899	4151386	2.71	-	2.93	2.90	3.17	3.08	0.32	0.28
88	outfall 04	583711	4149861	2.76	2.77	2.97	2.95	3.19	3.12	0.31	0.28
89	outfall 05	580781	4151567	2.72	2.72	2.93	2.91	3.15	3.09	0.29	0.26
90	outfall 06	576686	4157600	-	2.69	2.88	2.87	3.08	3.05	0.32	0.27
91	outfall 07	575405	4161177	-	2.66	2.85	2.84	3.05	3.02	0.31	0.28
92	outfall 08	574549	4166775	2.63	2.63	2.85	2.83	3.07	3.04	0.33	0.28
93	outfall 09	574340	4168021	2.63	2.63	2.84	2.82	3.05	3.00	0.33	0.28
94	outfall 10	573970	4169031	2.62	2.62	2.84	2.83	3.05	3.03	0.34	0.28
95	outfall 11	573682	4169411	2.62	-	2.84	2.81	3.04	3.01	0.33	0.30
96	outfall 12	571945	4171840	2.61	2.61	2.83	2.81	3.06	3.00	0.32	0.29
97	outfall 13	564723	4182796	2.44	-	2.67	2.64	2.90	2.84	0.33	0.32
98	outfall 14	568888	4179434	2.51	-	2.73	2.71	2.94	2.91	0.33	0.33
99	outfall 15	569498	4178507	2.51	-	2.73	2.70	2.95	2.91	0.34	0.35
100	outfall 16	569724	4177787	2.51	2.51	2.73	2.71	2.95	2.89	0.34	0.30
102	outfall 18	561892	4187529	2.39	2.40	2.62	2.60	2.85	2.80	0.37	0.32
103	offshore bay 0001	509963	4173378	2.20	2.28	2.43	2.50	2.65	2.73	0.31	0.35
104	offshore bay 0002	511821	4174042	2.21	2.20	2.43	2.41	2.65	2.60	0.32	0.28
105	offshore bay 0003	513680	4174706	2.21	2.21	2.43	2.41	2.65	2.60	0.32	0.27
106	offshore bay 0004	515538	4175371	2.21	2.21	2.43	2.41	2.66	2.60	0.33	0.30
107	offshore bay 0005	517397	4176035	2.21	2.21	2.43	2.41	2.66	2.60	0.32	0.26
108	offshore bay 0006	519255	4176700	2.21	-	2.44	2.41	2.66	2.60	0.32	0.28
109	offshore bay 0007	521114	4177364	2.22	-	2.44	2.41	2.66	2.60	0.31	0.28
110	offshore bay 0008	522972	4178029	2.22	-	2.44	2.42	2.66	2.60	0.32	0.27
111	offshore bay 0009	524831	4178693	2.22	-	2.44	2.42	2.66	2.62	0.35	0.31
112	offshore bay 0010	526689	4179358	2.22	-	2.44	2.42	2.66	2.62	0.31	0.31
113	offshore bay 0011	528548	4180022	2.22	-	2.45	2.43	2.68	2.62	0.35	0.30
114	offshore bay 0012	530406	4180686	2.23	-	2.45	2.43	2.66	2.61	0.32	0.29
115	offshore bay 0013	532265	4181351	2.23	-	2.45	2.43	2.66	2.63	0.34	0.29
116	offshore bay 0014	534123	4182015	2.23	2.23	2.46	2.44	2.68	2.64	0.33	0.31
117	offshore bay 0015	535982	4182680	2.24	2.24	2.47	2.45	2.70	2.65	0.33	0.30
118	offshore bay 0016	537840	4183344	2.24	2.24	2.47	2.45	2.70	2.65	0.35	0.31
119	offshore bay 0017	539699	4184009	2.24	2.24	2.47	2.45	2.69	2.63	0.35	0.29
120	offshore bay 0018	541557	4184673	2.24	2.24	2.46	2.44	2.69	2.63	0.35	0.30
121	offshore bay 0019	543416	4185338	2.17	2.17	2.39	2.38	2.61	2.58	0.33	0.31
122	offshore bay 0020	545274	4186002	-	-	2.48	2.47	2.69	2.67	0.36	0.30
123	offshore bay 0021	547133	4186666	2.28	-	2.50	2.48	2.73	2.69	0.35	0.31
124	offshore bay 0022	548991	4187331	-	-	2.52	2.50	2.72	2.70	0.34	0.30
125	offshore bay 0023	550849	4187995	2.33	-	2.56	2.54	2.79	2.73	0.35	0.31
126	offshore bay 0024	552708	4188660	2.35	2.35	2.58	2.56	2.80	2.73	0.33	0.30

127	bay north 0001	553392	4188287	2.36	2.36	2.58	2.56	2.80	2.77	0.37	0.31
128	bay north 0002	552725	4189896	2.35	-	2.57	2.56	2.79	2.76	0.33	0.33
129	bay north 0003	552059	4191504	-	2.34	2.55	2.55	2.77	2.74	0.38	0.31
130	bay north 0004	551392	4193112	-	2.34	2.55	2.54	2.77	2.73	0.39	0.30
131	bay north 0005	550725	4194721	2.34	-	2.57	2.55	2.79	2.74	0.35	0.32
132	bay north 0006	550058	4196329	2.34	2.34	2.57	2.55	2.78	2.73	0.38	0.29
133	bay north 0007	549391	4197938	2.34	-	2.57	2.55	2.80	2.77	0.36	0.32
134	bay north 0008	549317	4199629	2.35	2.35	2.57	2.56	2.80	2.75	0.37	0.31
135	bay north 0009	549244	4201321	2.35	2.35	2.59	2.57	2.83	2.77	0.39	0.31
136	bay north 0010	549170	4203013	2.36	2.36	2.60	2.58	2.84	2.79	0.37	0.32
137	bay north 0011	549097	4204705	2.37	2.37	2.61	2.59	2.85	2.81	0.38	0.32
138	bay north 0012	550244	4206279	2.38	2.38	2.62	2.61	2.87	2.82	0.37	0.30
139	bay north 0013	551392	4207853	2.39	2.40	2.63	2.62	2.87	2.84	0.37	0.31
140	bay north 0014	552539	4209427	2.40	2.40	2.64	2.63	2.88	2.84	0.38	0.33
141	bay north 0015	553687	4211001	2.41	2.41	2.65	2.64	2.90	2.86	0.38	0.34
142	bay north 0016	555354	4211335	2.41	2.41	2.65	2.64	2.90	2.87	0.38	0.33
143	bay north 0017	557021	4211668	2.41	2.41	2.66	2.64	2.91	2.87	0.42	0.34
144	bay north 0018	558688	4212002	2.41	2.41	2.65	2.64	2.90	2.87	0.39	0.34
145	bay north 0019	560383	4212202	2.41	2.41	2.65	2.64	2.89	2.87	0.40	0.34
146	bay north 0020	562078	4212402	2.39	2.39	2.63	2.62	2.87	2.87	0.38	0.36
147	bay north 0021	563773	4212602	2.37	2.37	2.61	2.60	2.86	2.83	0.40	0.35
148	bay north 0022	565467	4212802	2.35	2.35	2.59	2.57	2.82	2.80	0.38	0.36
149	bay north 0023	567162	4213002	2.34	2.34	2.58	2.56	2.83	2.78	0.43	0.33
150	bay north 0024	568967	4212688	2.33	2.32	2.56	2.55	2.81	2.79	0.42	0.36
151	bay north 0025	570771	4212375	2.33	2.33	2.57	2.55	2.82	2.74	0.40	0.33
152	bay north 0026	571876	4211577	2.33	2.32	2.57	2.55	2.81	2.77	0.41	0.35
153	bay north 0027	572981	4210779	2.34	2.33	2.58	2.55	2.81	2.78	0.40	0.37
154	bay north 0028	574086	4209982	2.33	2.33	2.58	2.55	2.81	2.76	0.42	0.36
155	bay north 0029	575871	4210482	2.34	2.33	2.58	2.56	2.83	2.79	0.44	0.36
156	bay north 0030	577656	4210982	2.34	-	2.60	2.58	2.89	2.84	0.43	0.34
157	bay north 0031	579055	4211786	2.35	2.34	2.61	2.57	2.89	2.79	0.46	0.36
158	bay north 0032	580454	4212591	2.35	2.34	2.61	2.57	2.92	2.78	0.47	0.35
159	bay north 0033	581853	4213395	2.35	2.34	2.62	2.58	2.89	2.79	0.43	0.37
160	bay north 0034	583220	4213415	2.36	2.34	2.63	2.59	2.89	2.87	0.42	0.39
161	bay north 0035	584586	4213434	2.35	2.33	2.63	2.59	2.90	2.87	0.41	0.38
162	bay north 0036	585953	4213454	-	2.33	2.64	2.59	2.95	2.86	0.37	0.35
163	bay north 0037	587385	4213258	2.35	2.32	2.64	2.60	2.90	2.88	0.44	0.40
164	bay north 0038	588817	4213062	2.35	2.32	2.65	2.60	2.95	2.89	0.46	0.39
165	bay north 0039	590248	4212866	2.35	2.32	2.66	2.61	2.96	2.89	0.43	0.40
166	bay north 0040	591955	4212405	2.35	2.32	2.66	2.61	2.98	2.90	0.46	0.39
167	bay north 0041	593661	4211944	2.34	2.31	2.68	2.62	3.03	2.94	0.49	0.39
169	bay south 0004	555626	4184774	2.39	2.39	2.62	2.60	2.84	2.78	0.34	0.30

170	bay south 0005	556253	4183041	2.41	2.41	2.64	2.62	2.87	2.81	0.33	0.27
171	bay south 0006	556881	4181308	2.43	2.44	2.66	2.64	2.89	2.83	0.35	0.29
172	bay south 0007	557509	4179576	2.46	2.46	2.68	2.66	2.92	2.86	0.34	0.30
173	bay south 0008	558136	4177843	2.48	2.49	2.70	2.68	2.93	2.87	0.31	0.27
174	bay south 0009	558764	4176111	2.50	2.50	2.72	2.70	2.95	2.89	0.32	0.27
175	bay south 0010	559392	4174378	2.52	2.52	2.74	2.72	2.96	2.89	0.31	0.29
176	bay south 0011	560582	4172803	2.53	2.54	2.75	2.74	2.97	2.91	0.32	0.26
177	bay south 0012	561773	4171228	2.55	2.55	2.77	2.75	2.97	2.92	0.31	0.25
178	bay south 0013	562963	4169652	2.57	2.57	2.78	2.77	3.01	2.94	0.32	0.25
179	bay south 0014	564154	4168077	2.58	2.58	2.80	2.78	3.01	2.97	0.32	0.24
180	bay south 0015	565344	4166502	-	2.59	2.80	2.80	2.99	3.00	0.32	0.29
181	bay south 0016	566534	4164927	2.61	2.61	2.82	2.81	3.02	3.01	0.30	0.26
182	bay south 0017	567725	4163352	2.62	2.62	2.83	2.82	3.05	3.01	0.34	0.27
183	bay south 0018	568915	4161776	2.63	2.63	2.84	2.83	3.05	3.01	0.32	0.26
184	bay south 0019	570106	4160201	2.64	-	2.86	2.83	3.07	3.01	0.34	0.28
185	bay south 0020	571296	4158626	2.66	2.66	2.87	2.84	3.07	3.02	0.31	0.28
186	bay south 0021	572487	4157051	-	-	2.87	2.85	3.06	3.04	0.30	0.28
187	bay south 0022	573677	4155476	-	-	2.88	2.87	3.07	3.05	0.30	0.28
188	bay south 0023	574868	4153901	-	2.69	2.89	2.89	3.09	3.07	0.31	0.26
189	bay south 0024	576427	4152655	2.70	-	2.91	2.89	3.14	3.07	0.32	0.27
190	bay south 0025	577986	4151410	2.72	-	2.93	2.91	3.15	3.08	0.32	0.28
191	bay south 0026	579546	4150164	2.74	2.75	2.95	2.93	3.17	3.10	0.30	0.30
192	bay south 0027	581105	4148919	2.75	2.76	2.97	2.94	3.19	3.12	0.32	0.27
193	bay south 0028	582665	4147673	2.76	2.77	2.97	2.95	3.20	3.13	0.33	0.27
194	bay south 0029	584224	4146428	2.76	2.77	2.97	2.95	3.20	3.13	0.31	0.27
195	north delta1 0001	592583	4212023	2.35	2.31	2.67	2.61	2.99	2.91	0.43	0.40
196	north delta1 0002	593878	4211797	2.34	2.31	2.68	2.61	3.03	2.92	0.47	0.38
197	north delta1 0003	595172	4211572	2.35	2.31	2.68	2.62	3.02	2.93	0.45	0.38
198	north delta1 0004	596637	4211918	2.35	2.32	2.69	2.63	3.01	2.94	0.46	0.38
199	north delta1 0005	598101	4212265	2.36	2.33	2.71	2.64	3.04	2.96	0.47	0.39
200	north delta1 0006	599566	4212611	2.36	2.33	2.71	2.65	3.07	2.97	0.48	0.42
201	north delta1 0007	599566	4212611	2.36	2.33	2.71	2.65	3.07	2.97	0.48	0.42
202	north delta1 0008	602302	4213690	-	2.33	2.73	2.68	3.07	3.01	0.38	0.44
203	north delta1 0009	603489	4213592	2.38	2.34	2.74	2.68	3.10	3.00	0.45	0.42
204	north delta1 0010	603489	4213592	2.38	2.34	2.74	2.68	3.10	3.00	0.45	0.42
205	north delta1 0011	606248	4213723	2.39	2.36	2.76	2.70	3.13	3.00	0.49	0.42
206	north delta1 0012	607359	4214461	2.40	2.36	2.80	2.73	3.16	3.06	0.54	0.45
207	north delta1 0013	608471	4215200	2.41	2.38	2.85	2.76	3.33	3.13	0.65	0.49
208	north delta1 0014	609839	4216352	2.43	2.39	2.86	2.79	3.27	3.21	0.59	0.59
209	north delta1 0015	611207	4217505	2.44	2.40	2.90	2.82	3.35	3.25	0.66	0.64
210	north delta1 0016	612575	4218657	2.44	2.40	2.91	2.83	3.40	3.27	0.71	0.67
211	north delta1 0017	613943	4219810	2.47	2.42	3.01	2.89	3.58	3.40	0.90	0.74

212	north delta1 0018	614316	4220820	2.48	2.43	3.04	2.94	3.69	3.45	1.03	0.86
213	north delta1 0019	614689	4221830	-	-	3.08	2.97	3.70	3.49	1.20	1.01
214	north delta1 0020	615524	4223510	2.52	-	3.20	3.07	3.82	3.74	1.35	1.23
215	north delta1 0021	616358	4225190	2.54	-	3.27	3.14	4.03	3.89	1.44	1.35
216	north delta1 0022	617193	4226871	2.58	-	3.30	3.18	4.06	3.97	1.53	1.36
217	north delta1 0023	618612	4227577	2.65	-	3.38	3.29	4.13	4.08	1.61	1.45
218	north delta1 0024	620031	4228283	2.65	2.61	3.35	3.28	4.16	4.07	1.53	1.54
220	north delta1 0026	621678	4229833	2.81	2.75	3.54	3.41	4.28	4.07	1.58	1.31
221	north delta1 0027	621972	4231706	2.88	2.83	3.61	3.49	4.35	4.14	1.67	1.46
222	north delta1 0028	622267	4233579	2.95	2.89	3.67	3.58	4.34	4.32	1.62	1.54
223	north delta1 0029	622806	4234737	3.18	3.16	4.04	3.91	5.09	4.67	1.86	1.58
224	north delta1 0030	623346	4235894	3.44	3.29	4.25	4.10	5.32	5.09	2.04	1.67
225	north delta1 0031	623336	4236934	3.51	3.38	4.33	4.20	5.28	5.23	2.00	1.61
226	north delta1 0032	623326	4237973	3.59	3.46	4.41	4.30	5.35	5.33	1.96	1.57
227	north delta1 0033	623326	4237973	3.59	3.46	4.41	4.30	5.35	5.33	1.96	1.57
228	north delta1 0034	624150	4239719	3.84	3.77	4.61	4.58	5.66	5.65	1.96	1.65
229	north delta1 0035	624650	4242131	4.26	4.01	5.05	4.85	6.03	5.90	1.97	1.56
230	north delta1 0036	624719	4243387	4.30	-	5.12	4.91	6.05	5.95	2.03	1.83
231	north delta1 0037	624719	4243387	4.30	-	5.12	4.91	6.05	5.95	2.03	1.83
232	north delta1 0038	625680	4244662	4.41	4.23	5.29	5.09	6.20	6.18	1.89	1.65
233	north delta1 0039	627073	4245152	-	4.39	5.45	5.26	6.22	6.29	1.83	1.59
234	north delta1 0040	628426	4246270	-	4.54	5.59	5.43	6.48	6.52	1.90	1.64
235	north delta1 0041	629348	4249006	-	-	5.90	5.72	6.69	6.75	1.93	1.73
236	north delta1 0042	629799	4250154	-	-	6.01	5.83	6.66	6.87	1.80	1.62
237	north delta1 0043	629593	4251272	-	-	6.14	6.01	6.82	6.86	2.13	1.80
238	north delta1 0044	629387	4252390	5.22	-	6.28	-	7.49	-	1.73	-
239	north delta1 0045	628828	4253223	5.28	-	6.38	-	7.50	-	1.81	-
240	north delta1 0046	628269	4254057	5.37	-	6.48	-	7.58	-	1.73	-
241	north delta1 0047	628269	4254057	5.37	-	6.48	-	7.58	-	1.73	-
242	north delta1 0048	628760	4255038	5.55	-	6.68	-	7.76	-	1.79	-
243	north delta1 0049	629525	4255116	5.60	-	6.73	-	7.76	-	1.74	-
244	north delta1 0050	630584	4255960	5.79	-	6.95	-	7.89	-	1.71	-
245	south delta 0001	593710	4211887	2.34	-	2.68	-	3.03	-	0.49	-
246	south delta 0002	595122	4211796	2.35	-	2.68	-	3.03	-	0.44	-
247	south delta 0003	596535	4211704	2.35	2.32	2.69	2.63	3.02	2.95	0.42	0.41
248	south delta 0004	597947	4211613	2.36	2.33	2.71	2.64	3.05	2.96	0.48	0.41
249	south delta 0005	597947	4211613	2.36	2.33	2.71	2.64	3.05	2.96	0.48	0.41
250	south delta 0006	598437	4210475	2.36	2.32	2.70	2.64	3.04	2.96	0.45	0.41
251	south delta 0007	600144	4209848	2.36	2.31	2.71	2.65	3.07	2.97	0.45	0.41
252	south delta 0008	603066	4209132	2.35	2.31	2.72	2.66	3.10	3.00	0.47	0.44
253	south delta 0009	604204	4208749	2.35	2.30	2.72	2.66	3.07	2.99	0.46	0.43
254	south delta 0010	604204	4208749	2.35	2.30	2.72	2.66	3.07	2.99	0.46	0.43

255	south delta 0011	606970	4209347	2.35	2.30	2.72	2.66	3.09	3.02	0.49	0.46
256	south delta 0012	608088	4209553	2.34	2.30	2.72	2.65	3.08	2.98	0.50	0.43
257	south delta 0013	608088	4209553	2.34	2.30	2.72	2.65	3.08	2.98	0.50	0.43
258	south delta 0014	609539	4209259	2.34	2.30	2.72	2.67	3.07	3.02	0.49	0.47
259	south delta 0015	611795	4209063	2.29	2.28	2.71	2.66	3.10	3.00	0.55	0.47
260	south delta 0016	612599	4208416	2.30	2.29	2.71	2.67	3.10	3.02	0.57	0.48
261	south delta 0017	614198	4208190	2.30	2.29	2.72	2.67	3.11	3.00	0.57	0.43
262	south delta 0018	615796	4207965	2.30	2.29	2.72	2.67	3.12	3.01	0.56	0.49
263	south delta 0019	617503	4208014	2.31	2.30	2.74	2.68	3.12	3.07	0.56	0.49
264	south delta 0020	619209	4208063	2.33	2.32	2.79	2.71	3.19	3.06	0.60	0.46
265	south delta 0021	619209	4208063	2.33	2.32	2.79	2.71	3.19	3.06	0.60	0.46
266	south delta 0022	620053	4207612	2.35	2.34	2.82	2.73	3.23	3.05	0.60	0.42
267	south delta 0023	620740	4206161	2.37	2.35	2.84	2.76	3.27	3.10	0.61	0.48
268	south delta 0024	621093	4204474	2.38	2.37	2.85	2.77	3.26	3.12	0.58	0.46
269	south delta 0025	621839	4204062	2.39	2.38	2.87	2.79	3.31	3.10	0.64	0.44
270	south delta 0026	623055	4203964	2.40	2.39	2.88	2.79	3.34	3.11	0.64	0.44
271	south delta 0027	624055	4203336	2.40	-	2.88	2.78	3.32	3.12	0.62	0.31
272	south delta 0028	625271	4203238	2.41	-	2.89	2.78	3.34	3.12	0.63	0.33
273	south delta 0029	626056	4202140	2.41	2.40	2.89	2.81	3.35	3.13	0.62	0.46
274	south delta 0030	626173	4201218	2.42	2.40	2.91	2.83	3.33	3.21	0.58	0.49
275	south delta 0031	627017	4200394	2.42	2.40	2.91	2.83	3.34	3.18	0.60	0.47
276	south delta 0032	628429	4200002	2.43	2.42	2.92	2.84	3.38	3.17	0.66	0.46
277	south delta 0033	629861	4198746	2.44	2.42	2.93	2.85	3.35	3.21	0.59	0.48
278	south delta 0034	631714	4196275	2.43	2.41	2.93	2.86	3.32	3.23	0.62	0.50
279	south delta 0035	632450	4195431	2.41	2.41	2.95	2.86	3.46	3.21	0.67	0.49
281	south delta 0037	634157	4193960	2.43	2.42	2.95	2.89	3.40	3.25	0.65	0.54
282	south delta 0038	634157	4193960	2.43	2.42	2.95	2.89	3.40	3.25	0.65	0.54
283	south delta 0039	636138	4194136	2.43	-	2.98	2.91	3.51	3.30	0.85	0.56
284	south delta 0040	637138	4194568	2.45	2.45	3.01	2.95	3.59	3.42	0.84	0.68
285	south delta 0041	638766	4194490	2.45	2.47	3.00	2.98	3.54	3.51	0.98	0.80
286	south delta 0042	640100	4194058	2.48	2.49	3.05	3.01	3.60	3.57	1.15	0.99
290	south delta 0046	642414	4188958	-	-	4.07	4.04	5.53	5.36	1.73	1.56
291	south delta 0047	643915	4187252	-	-	4.35	4.33	5.88	5.72	1.94	1.65
292	south delta 0048	644768	4186664	-	-	4.40	4.37	5.90	5.75	1.92	1.73
294	south delta 0050	646808	4185742	-	-	4.52	4.49	6.15	5.93	1.99	1.85
295	south delta 0051	646808	4185742	-	-	4.52	4.49	6.15	5.93	1.99	1.85
296	south delta 0052	648927	4183623	-	-	4.73	4.70	6.55	6.34	2.06	1.87
297	south delta 0053	649849	4182446	-	-	5.06	4.97	6.57	6.56	2.26	1.92
298	south delta 0054	649849	4182446	-	-	5.06	4.97	6.57	6.56	2.26	1.92
299	south delta 0055	649869	4182430	-	-	5.06	4.97	6.57	6.56	2.26	1.92
300	south delta 0056	649235	4181464	-	-	4.92	4.91	7.02	6.79	2.36	2.26
301	south delta 0057	649311	4180584	-	-	5.24	5.19	6.84	6.71	2.11	1.93

302	south delta 0058	649522	4179467	-	-	5.35	5.48	7.28	6.84	2.29	2.00
303	south delta 0059	650095	4179691	-	-	5.74	5.65	7.21	7.11	2.26	2.06
304	south delta 0060	650510	4179221	-	-	5.74	5.79	7.61	7.35	2.48	2.00
305	south delta 0061	649974	4178131	-	-	5.97	5.86	7.84	7.79	2.66	2.36
306	south delta 0062	649967	4176879	-	-	6.31	6.17	8.08	8.15	2.57	2.36
307	south delta 0063	650412	4176531	-	-	6.42	6.29	8.26	8.37	2.44	2.41
308	south delta 0064	651038	4175546	-	-	6.70	6.57	8.47	8.59	2.45	2.36
309	south delta 0065	651906	4175139	-	-	6.92	7.03	9.04	8.46	2.59	2.28
310	south delta 0066	651679	4175736	-	-	7.05	7.00	9.21	9.03	2.62	2.32
311	south delta 0067	651981	4176157	-	-	7.19	7.11	9.22	9.13	2.77	2.34
312	south delta 0068	653143	4176295	-	-	7.56	7.50	9.90	9.71	2.88	2.39
313	south delta 0069	652302	4173682	-	-	7.92	7.87	10.29	10.05	2.81	2.55
314	south delta 0070	652079	4172659	-	-	8.12	8.10	10.51	10.15	2.90	2.60
315	south delta 0071	652079	4172659	-	-	8.12	8.10	10.51	10.15	2.90	2.60
316	south delta 0072	653724	4172363	-	-	8.37	8.32	10.66	10.38	2.93	2.61
317	south delta 0073	653558	4170608	-	-	8.61	8.55	10.89	10.93	2.93	2.57
318	south delta 0074	654184	4169812	-	-	8.74	8.72	11.03	10.99	2.93	2.47
319	FEMA 714 SantaClara	583996	4146062	2.76	2.77	2.98	2.96	3.19	3.15	0.31	0.29
320	FEMA 695 Alameda	584599	4146417	2.76	2.77	2.98	2.95	3.19	3.13	0.31	0.28
321	FEMA 693 Alameda	583591	4146752	2.76	-	2.97	2.95	3.18	3.14	0.30	0.27
322	FEMA 690 Alameda	582486	4147842	2.76	2.77	2.97	2.95	3.19	3.13	0.30	0.27
323	FEMA 728 SanMateo	578000	4148568	2.74	2.75	2.95	2.94	3.16	3.13	0.31	0.26
324	FEMA 682 Alameda	580535	4150174	2.75	2.76	2.96	2.94	3.18	3.12	0.33	0.26
325	FEMA 682 Alameda	580535	4150174	2.75	2.76	2.96	2.94	3.18	3.12	0.33	0.26
326	FEMA 681 Alameda	580347	4150296	2.75	2.76	2.96	2.93	3.19	3.11	0.33	0.26
327	FEMA 677 Alameda	579080	4150478	2.73	2.74	2.95	2.93	3.18	3.12	0.30	0.26
328	FEMA 675 Alameda	578806	4150549	2.73	2.73	2.95	2.93	3.18	3.11	0.30	0.26
329	FEMA 676 Alameda	578893	4150600	2.73	2.73	2.95	2.93	3.17	3.11	0.30	0.26
330	FEMA 674 Alameda	578705	4150722	2.73	2.73	2.94	2.92	3.15	3.11	0.31	0.27
331	FEMA 673 Alameda	578416	4151016	2.72	-	2.94	2.91	3.16	3.09	0.30	0.28
332	FEMA 757 SanMateo	571103	4153790	2.68	2.68	2.89	2.88	3.10	3.06	0.29	0.26
333	FEMA 758 SanMateo	571174	4154064	-	2.68	2.88	2.87	3.07	3.06	0.31	0.26
334	FEMA 759 SanMateo	571230	4154561	-	2.68	2.88	2.87	3.06	3.06	0.31	0.25
335	FEMA 798 SanMateo	559076	4160636	2.59	-	2.81	2.78	3.03	2.96	0.29	0.27
336	FEMA 794 SanMateo	560810	4160843	2.60	2.60	2.81	2.80	3.03	2.99	0.30	0.25
337	FEMA 797 SanMateo	559421	4160839	2.59	-	2.81	2.78	3.03	2.96	0.30	0.27
338	FEMA 796 SanMateo	559902	4161006	2.59	-	2.81	2.78	3.02	2.96	0.28	0.27
339	FEMA 799 SanMateo	558960	4161031	2.59	-	2.81	2.78	3.03	2.96	0.29	0.27
340	FEMA 795 SanMateo	560435	4161087	2.60	2.60	2.81	2.79	3.01	2.98	0.29	0.26
341	FEMA 800 SanMateo	558377	4161037	2.59	-	2.80	2.78	3.03	2.95	0.29	0.27
342	FEMA 893 SanFrancisco	557161	4163105	2.58	-	2.80	2.77	3.01	2.94	0.30	0.26
343	FEMA 894 SanFrancisco	557130	4163551	2.58	-	2.80	2.77	3.01	2.94	0.31	0.26

344	FEMA 895 SanFrancisco	556618	4163830	2.58	-	2.79	2.77	3.01	2.94	0.31	0.26
345	FEMA 896 SanFrancisco	556193	4164159	2.58	-	2.79	2.77	3.00	2.93	0.30	0.26
346	FEMA 897 SanFrancisco	556335	4164707	-	-	2.78	2.77	2.96	2.93	0.31	0.25
347	FEMA 902 SanFrancisco	554434	4164981	2.57	2.57	2.78	2.77	3.01	2.96	0.31	0.27
348	FEMA 898 SanFrancisco	555995	4165087	2.57	2.57	2.79	2.77	3.01	2.97	0.30	0.25
349	FEMA 899 SanFrancisco	555412	4165092	2.57	2.57	2.79	2.77	3.01	2.97	0.31	0.25
350	FEMA 903 SanFrancisco	554024	4165087	2.57	2.57	2.79	2.77	3.01	2.96	0.30	0.25
351	FEMA 901 SanFrancisco	554916	4165148	2.57	-	2.79	2.76	3.01	2.92	0.30	0.25
352	FEMA 900 SanFrancisco	555037	4165336	2.57	-	2.79	2.76	3.01	2.93	0.29	0.26
353	FEMA 904 SanFrancisco	554318	4165376	2.57	2.57	2.78	2.77	3.00	2.96	0.32	0.25
354	FEMA 905 SanFrancisco	554850	4165457	2.57	-	2.79	2.76	3.02	2.93	0.30	0.25
355	FEMA 906 SanFrancisco	554870	4165817	2.57	-	2.79	2.76	3.02	2.93	0.31	0.25
356	FEMA 805 SanMateo	554617	4166248	2.57	2.57	2.78	2.77	3.00	2.96	0.30	0.26
357	FEMA 809 SanMateo	555088	4167221	2.57	-	2.78	2.76	3.00	2.92	0.30	0.26
358	FEMA 810 SanMateo	555367	4167733	2.56	2.56	2.78	2.76	3.01	2.94	0.32	0.25
359	FEMA 811 SanMateo	555215	4167992	2.56	2.56	2.78	2.76	3.01	2.94	0.31	0.26
360	FEMA 812 SanMateo	555337	4168179	2.56	2.56	2.78	2.76	3.01	2.94	0.32	0.25
361	FEMA 813 SanMateo	555393	4168676	2.56	2.56	2.77	2.76	3.00	2.93	0.30	0.25
362	FEMA 814 SanMateo	554932	4168868	2.55	2.56	2.77	2.76	3.00	2.93	0.32	0.25
363	FEMA 815 SanMateo	554592	4169249	2.55	2.55	2.77	2.75	2.98	2.93	0.29	0.26
364	FEMA 818 SanMateo	554851	4169401	2.55	2.55	2.77	2.75	2.99	2.94	0.29	0.25
365	FEMA 817 SanMateo	554577	4169472	2.55	2.55	2.77	2.75	2.99	2.93	0.32	0.26
366	FEMA 819 SanMateo	554922	4169674	2.55	2.55	2.77	2.75	2.99	2.93	0.32	0.26
367	FEMA 820 SanMateo	554927	4170257	2.55	2.55	2.76	2.75	2.98	2.93	0.30	0.26
368	FEMA 821 SanMateo	554415	4170536	2.54	2.54	2.76	2.74	2.98	2.92	0.30	0.25
369	FEMA 822 SanMateo	554212	4170881	2.54	2.54	2.76	2.74	2.98	2.92	0.31	0.25
370	FEMA 622 Alameda	571178	4171810	2.60	-	2.82	2.80	3.07	2.99	0.33	0.30
371	FEMA 823 SanMateo	554131	4171413	2.54	2.54	2.76	2.74	3.00	2.92	0.31	0.26
372	FEMA 621 Alameda	570940	4172018	2.60	2.60	2.82	2.80	3.06	3.00	0.33	0.29
373	FEMA 620 Alameda	571198	4172170	2.60	2.60	2.82	2.81	3.04	3.01	0.33	0.28
374	FEMA 619 Alameda	570924	4172241	2.60	2.60	2.82	2.80	3.06	3.01	0.33	0.28
375	FEMA 824 SanMateo	553964	4171895	2.54	2.54	2.76	2.74	2.99	2.92	0.32	0.26
376	FEMA 608 Alameda	569160	4172479	2.59	2.59	2.81	2.79	3.05	2.98	0.33	0.27
377	FEMA 825 SanMateo	553898	4172204	2.54	2.54	2.76	2.74	2.99	2.91	0.33	0.26
378	FEMA 609 Alameda	569642	4172647	2.60	-	2.81	2.79	3.03	2.97	0.35	0.29
379	FEMA 607 Alameda	568836	4172637	2.59	2.59	2.80	2.79	3.02	2.98	0.35	0.26
380	FEMA 826 SanMateo	553883	4172427	2.54	2.54	2.76	2.74	2.99	2.92	0.33	0.26
381	FEMA 606 Alameda	568223	4173088	2.58	-	2.80	2.77	3.02	2.96	0.35	0.29
382	FEMA 827 SanMateo	553904	4172787	2.54	2.54	2.76	2.74	2.99	2.92	0.30	0.26
383	FEMA 828 SanMateo	553802	4172959	2.54	2.54	2.76	2.74	2.98	2.92	0.30	0.26
384	FEMA 605 Alameda	567797	4173418	2.57	-	2.79	2.77	3.02	2.95	0.33	0.29
385	FEMA 833 SanFrancisco	555075	4173359	2.53	2.53	2.75	2.73	2.98	2.92	0.31	0.27

386	FEMA 834 SanFrancisco	555298	4173375	2.53	2.53	2.75	2.73	2.98	2.92	0.32	0.27
387	FEMA 831 SanFrancisco	554492	4173365	2.53	2.54	2.76	2.74	2.98	2.92	0.31	0.27
388	FEMA 832 SanFrancisco	554715	4173380	2.53	2.53	2.75	2.74	2.98	2.92	0.31	0.27
389	FEMA 829 SanFrancisco	553909	4173370	2.54	2.54	2.76	2.74	2.98	2.93	0.29	0.27
390	FEMA 830 SanFrancisco	554132	4173385	2.53	2.54	2.76	2.74	2.98	2.93	0.30	0.26
391	FEMA 604 Alameda	567458	4173798	2.57	-	2.79	2.76	3.01	2.94	0.32	0.29
392	FEMA 835 SanFrancisco	555455	4173699	2.52	2.53	2.75	2.73	2.97	2.92	0.32	0.26
393	FEMA 603 Alameda	567032	4174127	2.56	2.56	2.78	2.76	3.02	2.95	0.34	0.29
394	FEMA 836 SanFrancisco	555353	4173871	2.52	2.53	2.75	2.73	2.96	2.92	0.31	0.26
395	FEMA 837 SanFrancisco	555115	4174079	2.52	2.53	2.75	2.73	2.97	2.91	0.31	0.27
396	FEMA 845 SanFrancisco	556180	4174241	2.52	2.52	2.74	2.72	2.96	2.91	0.32	0.26
397	FEMA 602 Alameda	566556	4174543	2.56	2.56	2.77	2.76	2.98	2.94	0.32	0.28
398	FEMA 838 SanFrancisco	555237	4174267	2.52	2.53	2.75	2.73	2.97	2.92	0.31	0.26
399	FEMA 844 SanFrancisco	555683	4174297	2.52	2.52	2.74	2.73	2.96	2.91	0.31	0.26
400	FEMA 843 SanFrancisco	555632	4174383	-	2.53	2.73	2.73	2.92	2.91	0.32	0.26
401	FEMA 839 SanFrancisco	555085	4174525	2.53	2.53	2.75	2.73	2.96	2.91	0.30	0.26
402	FEMA 842 SanFrancisco	555308	4174540	2.53	2.53	2.75	2.73	2.96	2.92	0.30	0.26
403	FEMA 601 Alameda	566216	4174923	2.55	2.55	2.77	2.75	2.99	2.93	0.32	0.28
404	FEMA 846 SanFrancisco	556509	4174667	2.51	2.52	2.73	2.71	2.95	2.88	0.32	0.29
405	FEMA 841 SanFrancisco	555207	4174713	2.53	2.53	2.75	2.73	2.98	2.92	0.33	0.26
406	FEMA 847 SanFrancisco	556545	4174804	2.51	2.51	2.73	2.72	2.95	2.90	0.32	0.26
407	FEMA 848 SanFrancisco	556580	4174940	2.50	2.51	2.73	2.71	2.96	2.90	0.33	0.28
408	FEMA 600 Alameda	565790	4175253	2.54	2.54	2.76	2.75	2.99	2.93	0.32	0.28
409	FEMA 849 SanFrancisco	556824	4175316	2.50	-	2.72	2.70	2.94	2.88	0.32	0.29
410	FEMA 599 Alameda	565709	4175785	2.54	2.54	2.76	2.74	2.99	2.93	0.32	0.29
411	FEMA 850 SanFrancisco	556966	4175863	2.49	-	2.72	2.69	2.94	2.88	0.32	0.29
412	FEMA 598 Alameda	565730	4176145	2.53	2.54	2.76	2.74	2.98	2.92	0.34	0.27
413	FEMA 597 Alameda	565390	4176525	2.53	2.53	2.75	2.74	2.98	2.92	0.34	0.26
414	FEMA 851 SanFrancisco	556712	4176294	2.49	-	2.71	2.68	2.95	2.88	0.31	0.29
415	FEMA 852 SanFrancisco	556114	4176522	2.48	-	2.71	2.68	2.93	2.86	0.32	0.29
416	FEMA 596 Alameda	565051	4176905	2.53	-	2.75	2.73	2.97	2.90	0.35	0.28
417	FEMA 854 SanFrancisco	555567	4176664	2.48	-	2.70	2.68	2.93	2.86	0.31	0.29
418	FEMA 853 SanFrancisco	555790	4176679	2.48	2.48	2.70	2.69	2.93	2.88	0.32	0.26
419	FEMA 856 SanFrancisco	556033	4177054	2.48	2.48	2.70	2.68	2.93	2.86	0.32	0.29
420	FEMA 595 Alameda	564797	4177336	2.52	-	2.75	2.72	2.97	2.90	0.35	0.28
421	FEMA 857 SanFrancisco	555744	4177348	2.47	2.48	2.70	2.68	2.92	2.87	0.32	0.28
422	FEMA 594 Alameda	564939	4177884	2.52	-	2.74	2.72	2.96	2.90	0.32	0.29
423	FEMA 858 SanFrancisco	555577	4177830	2.46	-	2.69	2.66	2.92	2.85	0.32	0.29
424	FEMA 859 SanFrancisco	555324	4178261	2.46	-	2.69	2.66	2.93	2.84	0.34	0.28
425	FEMA 860 SanFrancisco	555157	4178742	2.45	2.46	2.68	2.66	2.92	2.85	0.34	0.29
426	FEMA 589 Alameda	564402	4179192	2.52	-	2.74	2.72	2.97	2.90	0.36	0.30
427	FEMA 861 SanFrancisco	554817	4179123	2.45	-	2.68	2.65	2.92	2.84	0.33	0.28

428	FEMA 586 Alameda	563257	4179562	2.51	-	2.74	2.71	2.97	2.89	0.35	0.31
429	FEMA 585 Alameda	562709	4179704	2.50	-	2.73	2.70	2.97	2.89	0.33	0.31
430	FEMA 862 SanFrancisco	554650	4179604	2.44	-	2.67	2.64	2.90	2.83	0.35	0.28
431	FEMA 587 Alameda	563637	4179901	2.51	-	2.74	2.71	2.96	2.90	0.36	0.31
432	FEMA 584 Alameda	562284	4180033	2.50	-	2.72	2.69	2.94	2.89	0.34	0.31
433	FEMA 583 Alameda	561736	4180175	2.49	-	2.72	2.69	2.95	2.88	0.35	0.30
434	FEMA 582 Alameda	561153	4180181	-	2.49	2.70	2.69	2.90	2.89	0.31	0.31
435	FEMA 863 SanFrancisco	554397	4180035	2.44	2.44	2.66	2.64	2.89	2.83	0.31	0.29
436	FEMA 581 Alameda	560657	4180236	-	-	2.69	2.68	2.89	2.87	0.33	0.30
437	FEMA 580 Alameda	560145	4180515	2.47	2.47	2.69	2.67	2.92	2.87	0.33	0.30
438	FEMA 579 Alameda	561346	4180642	2.47	2.47	2.69	2.67	2.91	2.87	0.32	0.29
439	FEMA 864 SanFrancisco	554589	4180496	2.43	2.44	2.66	2.64	2.90	2.83	0.35	0.29
440	FEMA 578 Alameda	560834	4180921	-	-	2.68	2.67	2.88	2.86	0.35	0.29
441	FEMA 577 Alameda	560251	4180926	-	-	2.67	2.66	2.88	2.85	0.33	0.31
442	FEMA 568 Alameda	566359	4181386	2.45	-	2.67	2.65	2.90	2.84	0.34	0.32
443	FEMA 865 SanFrancisco	554595	4181079	2.42	2.43	2.65	2.63	2.88	2.81	0.34	0.31
444	FEMA 576 Alameda	559826	4181255	2.46	2.46	2.69	2.67	2.92	2.86	0.34	0.30
445	FEMA 575 Alameda	559227	4181484	2.45	2.45	2.68	2.65	2.91	2.84	0.32	0.29
446	FEMA 569 Alameda	565847	4181665	2.45	-	2.67	2.65	2.89	2.84	0.34	0.32
447	FEMA 574 Alameda	558731	4181540	2.44	-	2.67	2.64	2.91	2.83	0.32	0.30
448	FEMA 866 SanFrancisco	554255	4181459	2.41	2.42	2.64	2.62	2.87	2.81	0.35	0.29
449	FEMA 567 Alameda	566451	4182020	2.45	-	2.67	2.65	2.91	2.84	0.36	0.32
450	FEMA 565 Alameda	565508	4182045	2.44	-	2.67	2.64	2.89	2.84	0.34	0.32
451	FEMA 573 Alameda	558477	4181970	2.43	2.44	2.66	2.64	2.90	2.83	0.34	0.28
452	FEMA 564 Alameda	564910	4182273	2.44	-	2.67	2.64	2.90	2.84	0.33	0.32
453	FEMA 867 SanFrancisco	554174	4181992	2.41	2.42	2.63	2.61	2.86	2.81	0.34	0.30
454	FEMA 566 Alameda	565888	4182385	2.44	-	2.67	2.65	2.89	2.84	0.34	0.32
455	FEMA 563 Alameda	564398	4182552	2.44	-	2.67	2.64	2.90	2.83	0.34	0.30
456	FEMA 572 Alameda	558619	4182518	2.43	2.43	2.65	2.63	2.89	2.83	0.33	0.30
457	FEMA 868 SanFrancisco	554367	4182453	2.41	-	2.63	2.61	2.87	2.80	0.34	0.32
458	FEMA 562 Alameda	563886	4182831	2.44	-	2.66	2.64	2.90	2.83	0.34	0.30
459	FEMA 558 Alameda	561727	4182953	2.43	-	2.65	2.63	2.88	2.83	0.32	0.33
460	FEMA 559 Alameda	562259	4183034	2.43	-	2.66	2.63	2.88	2.83	0.33	0.30
461	FEMA 557 Alameda	561093	4183044	2.43	-	2.65	2.63	2.87	2.82	0.33	0.31
462	FEMA 561 Alameda	563374	4183110	2.43	-	2.66	2.64	2.90	2.83	0.34	0.30
463	FEMA 560 Alameda	562791	4183115	2.43	-	2.66	2.63	2.88	2.83	0.34	0.30
464	FEMA 869 SanFrancisco	554113	4182884	2.40	2.40	2.63	2.61	2.86	2.79	0.35	0.27
465	FEMA 571 Alameda	558625	4183101	2.42	-	2.65	2.62	2.87	2.82	0.33	0.31
466	FEMA 556 Alameda	560409	4183222	2.42	-	2.65	2.63	2.88	2.82	0.33	0.31
467	FEMA 870 SanFrancisco	553774	4183264	2.39	2.39	2.62	2.60	2.84	2.78	0.33	0.28
468	FEMA 555 Alameda	559811	4183450	2.42	-	2.64	2.62	2.86	2.82	0.34	0.32
469	FEMA 554 Alameda	559127	4183628	2.42	-	2.64	2.62	2.87	2.82	0.36	0.30

470	FEMA 570 Alameda	558544	4183633	2.41	2.42	2.64	2.62	2.87	2.81	0.35	0.27
471	FEMA 871 SanFrancisco	553434	4183644	2.38	2.39	2.61	2.59	2.84	2.77	0.34	0.28
472	FEMA 552 Alameda	558118	4183963	2.41	2.41	2.63	2.62	2.86	2.80	0.35	0.28
473	FEMA 553 Alameda	558650	4184044	2.41	2.42	2.64	2.62	2.86	2.80	0.34	0.28
474	FEMA 551 Alameda	557657	4184155	2.41	2.41	2.63	2.61	2.86	2.79	0.35	0.28
475	FEMA 872 SanFrancisco	553267	4184126	2.38	2.38	2.60	2.58	2.81	2.78	0.34	0.30
476	FEMA 907 SanFrancisco	556217	4184237	2.40	2.40	2.62	2.61	2.84	2.80	0.34	0.30
477	FEMA 908 SanFrancisco	555584	4184328	2.39	2.40	2.62	2.60	2.84	2.78	0.33	0.29
478	FEMA 873 SanFrancisco	552928	4184506	2.37	-	2.59	2.57	2.81	2.78	0.35	0.31
479	FEMA 909 SanFrancisco	555072	4184607	2.38	-	2.61	2.59	2.83	2.77	0.36	0.29
480	FEMA 550 Alameda	557576	4184687	2.40	2.41	2.63	2.61	2.84	2.78	0.32	0.30
481	FEMA 924 SanFrancisco	556547	4184662	2.40	2.40	2.62	2.61	2.84	2.79	0.34	0.28
482	FEMA 884 SanFrancisco	547322	4184573	2.27	-	2.49	2.47	2.72	2.68	0.33	0.31
483	FEMA 883 SanFrancisco	547854	4184654	2.28	-	2.51	2.49	2.73	2.71	0.33	0.32
484	FEMA 549 Alameda	558007	4184941	2.40	2.40	2.62	2.61	2.84	2.79	0.33	0.28
485	FEMA 307 Solano	584410	4215775	2.37	2.35	2.64	2.60	2.91	2.82	0.43	0.37
486	FEMA 321 Solano	585388	4215887	2.36	2.34	2.64	2.60	2.91	2.83	0.41	0.37
487	FEMA 246 Solano	587309	4215973	2.36	2.34	2.64	2.60	2.91	2.88	0.44	0.39
488	FEMA 212 Solano	580228	4215984	2.36	2.35	2.62	2.59	2.91	2.80	0.44	0.37
489	FEMA 167 Solano	561793	4215581	2.42	2.42	2.66	2.65	2.90	2.88	0.42	0.35
490	FEMA 245 Solano	586797	4216251	2.36	2.34	2.64	2.60	2.92	2.84	0.44	0.38
491	FEMA 308 Solano	584380	4216221	-	2.35	2.65	2.60	2.95	2.82	0.35	0.36
492	FEMA 106 Marin	545776	4215208	2.43	2.43	2.67	2.66	2.89	2.89	0.34	0.33
493	FEMA 313 Solano	586027	4216378	2.37	2.35	2.64	2.60	2.91	2.83	0.40	0.37
494	FEMA 312 Solano	585480	4216520	2.37	2.35	2.65	2.60	2.93	2.83	0.43	0.37
495	FEMA 244 Solano	586372	4216581	2.36	2.34	2.64	2.60	2.91	2.89	0.44	0.38
496	FEMA 309 Solano	584040	4216602	2.37	2.35	2.64	2.60	2.96	2.83	0.43	0.36
497	FEMA 107 Marin	545969	4215669	2.43	2.43	2.67	2.66	2.90	2.89	0.36	0.33
498	FEMA 166 Solano	561489	4216098	2.42	2.42	2.66	2.65	2.91	2.89	0.41	0.37
499	FEMA 310 Solano	584385	4216804	2.37	2.36	2.64	2.60	2.94	2.82	0.43	0.37
500	FEMA 214 Solano	580938	4216749	2.36	2.35	2.63	2.60	2.92	2.85	0.43	0.38
501	FEMA 243 Solano	585895	4216997	2.37	2.35	2.65	2.61	2.95	2.85	0.43	0.36
502	FEMA 165 Solano	561013	4216513	2.43	2.43	2.67	2.66	2.91	2.89	0.41	0.35
503	FEMA 108 Marin	545888	4216201	2.43	2.43	2.67	2.66	2.90	2.89	0.34	0.33
504	FEMA 242 Solano	586189	4217286	2.38	2.36	2.64	2.61	2.87	2.84	0.44	0.38
505	FEMA 215 Solano	581440	4217276	2.37	2.35	2.64	2.60	2.95	2.85	0.44	0.37
506	FEMA 241 Solano	586757	4217503	2.38	2.37	2.65	2.61	2.95	2.84	0.44	0.37
507	FEMA 164 Solano	560673	4216894	2.43	2.43	2.67	2.66	2.93	2.89	0.40	0.36
508	FEMA 109 Marin	545893	4216784	2.43	2.43	2.68	2.66	2.91	2.90	0.38	0.33
509	FEMA 239 Solano	587791	4218112	2.38	2.37	2.66	2.62	2.96	2.84	0.44	0.33
510	FEMA 163 Solano	560232	4217446	2.43	2.43	2.68	2.66	2.93	2.90	0.39	0.36
511	FEMA 110 Marin	545726	4217266	2.43	-	2.68	2.66	2.95	2.86	0.36	0.32

512	FEMA 217 Solano	581997	4218300	2.37	2.36	2.64	2.60	2.93	2.84	0.45	0.37
513	FEMA 162 Solano	559756	4217862	2.43	2.43	2.68	2.67	2.92	2.91	0.41	0.34
514	FEMA 238 Solano	588293	4218639	2.38	2.37	2.66	2.62	2.96	2.84	0.44	0.34
515	FEMA 161 Solano	559072	4218039	2.44	2.43	2.68	2.67	2.92	2.91	0.38	0.36
516	FEMA 137 Sonoma	547789	4217899	-	-	2.67	2.66	2.89	2.87	0.37	0.32
517	FEMA 138 Sonoma	548321	4217980	2.43	-	2.69	2.66	2.96	2.87	0.39	0.32
518	FEMA 140 Sonoma	549213	4218041	-	2.44	2.67	2.66	2.90	2.88	0.38	0.32
519	FEMA 218 Solano	582089	4218933	2.38	2.36	2.65	2.61	2.95	2.83	0.44	0.36
520	FEMA 139 Sonoma	548853	4218061	2.43	-	2.69	2.66	2.96	2.88	0.37	0.34
521	FEMA 160 Solano	558646	4218369	2.44	2.44	2.68	2.67	2.92	2.91	0.39	0.33
522	FEMA 141 Sonoma	549593	4218380	-	2.44	2.67	2.66	2.90	2.88	0.34	0.32
523	FEMA 159 Solano	558220	4218698	2.44	2.44	2.68	2.67	2.93	2.90	0.41	0.34
524	FEMA 133 Sonoma	545599	4218467	2.44	2.44	2.68	2.67	2.90	2.91	0.35	0.31
525	FEMA 142 Sonoma	550024	4218634	-	2.44	2.67	2.67	2.89	2.90	0.38	0.33
526	FEMA 219 Solano	581957	4219552	2.38	2.36	2.65	2.61	2.95	2.83	0.44	0.36
527	FEMA 158 Solano	557708	4218977	2.44	2.44	2.68	2.67	2.93	2.88	0.37	0.36
528	FEMA 143 Sonoma	550318	4218923	-	-	2.67	2.66	2.90	2.89	0.39	0.33
529	FEMA 157 Solano	557196	4219256	2.44	2.44	2.68	2.67	2.93	2.88	0.41	0.35
530	FEMA 144 Sonoma	550749	4219176	-	2.44	2.67	2.67	2.90	2.90	0.39	0.33
531	FEMA 145 Sonoma	551281	4219257	2.44	2.44	2.68	2.67	2.92	2.89	0.37	0.33
532	FEMA 146 Sonoma	551677	4219373	2.44	2.44	2.68	2.67	2.92	2.90	0.39	0.33
533	FEMA 156 Solano	556684	4219535	2.44	2.44	2.68	2.67	2.93	2.91	0.41	0.35
534	FEMA 155 Solano	556137	4219677	2.44	2.44	2.68	2.67	2.92	2.91	0.40	0.34
535	FEMA 147 Sonoma	552021	4219576	2.44	2.44	2.68	2.67	2.91	2.90	0.38	0.32
536	FEMA 221 Solano	582378	4220611	2.38	2.37	2.66	2.61	2.97	2.82	0.44	0.35
537	FEMA 154 Solano	555539	4219905	2.44	2.44	2.68	2.67	2.91	2.91	0.40	0.36
538	FEMA 148 Sonoma	552452	4219829	2.44	2.44	2.68	2.67	2.91	2.90	0.38	0.34
539	FEMA 150 Sonoma	553567	4219905	2.44	2.44	2.68	2.67	2.90	2.91	0.39	0.34
540	FEMA 149 Sonoma	552984	4219910	2.44	2.44	2.68	2.67	2.92	2.91	0.39	0.34
541	FEMA 153 Solano	554905	4219996	2.44	2.44	2.68	2.67	2.91	2.91	0.40	0.36
542	FEMA 223 Solano	582859	4220778	-	2.37	2.66	2.61	2.94	2.83	0.32	0.35
543	FEMA 224 Solano	583341	4220946	2.38	2.37	2.66	2.61	2.96	2.83	0.43	0.34
544	FEMA 152 Solano	554393	4220275	2.44	-	2.68	2.67	2.91	2.90	0.39	0.37
545	FEMA 222 Solano	582348	4221057	2.38	2.37	2.66	2.62	2.96	2.83	0.45	0.34
546	FEMA 226 Solano	584355	4221194	2.38	2.37	2.66	2.61	2.96	2.82	0.42	0.33
547	FEMA 225 Solano	583772	4221199	2.38	2.37	2.66	2.61	2.97	2.81	0.43	0.34
548	FEMA 151 Solano	553846	4220417	2.44	-	2.69	2.67	2.93	2.89	0.39	0.38
549	FEMA 229 Solano	585916	4221300	2.38	2.37	2.66	2.62	2.96	2.84	0.41	0.36
550	FEMA 874 SanFrancisco	552639	4184800	2.36	-	2.58	2.56	2.80	2.78	0.34	0.33
551	FEMA 882 SanFrancisco	548472	4184786	2.29	-	2.52	2.50	2.76	2.70	0.35	0.30
552	FEMA 879 SanFrancisco	550034	4184892	2.31	-	2.54	2.52	2.78	2.72	0.36	0.32
553	FEMA 875 SanFrancisco	552178	4184993	2.35	2.35	2.57	2.56	2.79	2.75	0.34	0.30

554	FEMA 910 SanFrancisco	554905	4185088	2.38	-	2.60	2.58	2.82	2.78	0.33	0.30
555	FEMA 878 SanFrancisco	550566	4184973	2.32	-	2.55	2.53	2.76	2.72	0.33	0.29
556	FEMA 548 Alameda	558437	4185194	2.40	2.40	2.62	2.61	2.85	2.79	0.33	0.29
557	FEMA 881 SanFrancisco	548954	4184953	2.30	-	2.53	2.50	2.76	2.71	0.35	0.32
558	FEMA 885 SanFrancisco	546896	4184902	2.25	-	2.48	2.46	2.70	2.67	0.34	0.31
559	FEMA 877 SanFrancisco	551098	4185054	2.33	-	2.56	2.53	2.80	2.74	0.34	0.30
560	FEMA 923 SanFrancisco	556689	4185210	2.40	2.40	2.62	2.61	2.85	2.80	0.34	0.28
561	FEMA 880 SanFrancisco	549486	4185034	2.30	-	2.53	2.51	2.78	2.72	0.36	0.32
562	FEMA 547 Alameda	559056	4185326	2.40	2.40	2.62	2.60	2.85	2.78	0.33	0.30
563	FEMA 876 SanFrancisco	551716	4185185	2.34	2.34	2.56	2.55	2.79	2.74	0.36	0.30
564	FEMA 546 Alameda	559588	4185407	2.40	2.40	2.62	2.61	2.85	2.80	0.33	0.30
565	FEMA 886 SanFrancisco	546298	4185131	2.25	2.25	2.47	2.46	2.70	2.65	0.35	0.29
566	FEMA 887 SanFrancisco	545801	4185186	2.25	2.25	2.48	2.46	2.71	2.65	0.33	0.29
567	FEMA 911 SanFrancisco	554910	4185671	2.37	2.37	2.60	2.58	2.82	2.77	0.34	0.29
568	FEMA 543 Alameda	559695	4185817	2.40	2.40	2.62	2.60	2.84	2.79	0.34	0.30
569	FEMA 922 SanFrancisco	556608	4185742	2.39	2.39	2.62	2.60	2.84	2.79	0.34	0.28
570	FEMA 545 Alameda	560141	4185848	2.40	2.40	2.62	2.61	2.85	2.79	0.34	0.30
571	FEMA 542 Alameda	559112	4185823	2.40	2.40	2.62	2.60	2.85	2.79	0.33	0.30
572	FEMA 921 SanFrancisco	556248	4185762	2.39	2.39	2.62	2.60	2.84	2.79	0.34	0.28
573	FEMA 541 Alameda	558651	4186015	2.39	2.40	2.62	2.60	2.84	2.77	0.34	0.30
574	FEMA 920 SanFrancisco	556319	4186036	2.39	2.39	2.62	2.60	2.84	2.79	0.34	0.28
575	FEMA 544 Alameda	560521	4186187	2.40	2.40	2.62	2.61	2.85	2.79	0.34	0.31
576	FEMA 912 SanFrancisco	554656	4186102	2.37	2.38	2.59	2.57	2.82	2.78	0.36	0.31
577	FEMA 540 Alameda	558843	4186476	2.39	2.39	2.62	2.60	2.84	2.79	0.36	0.29
578	FEMA 919 SanFrancisco	556238	4186568	2.38	2.39	2.61	2.59	2.84	2.78	0.34	0.28
579	FEMA 913 SanFrancisco	554403	4186533	2.37	2.37	2.59	2.57	2.81	2.77	0.33	0.32
580	FEMA 1 Marin	545948	4186317	2.26	-	2.49	2.46	2.72	2.68	0.36	0.31
581	FEMA 925 SanFrancisco	550992	4186615	2.33	-	2.56	2.54	2.78	2.73	0.35	0.30
582	FEMA 926 SanFrancisco	550632	4186635	2.33	2.33	2.55	2.53	2.76	2.74	0.35	0.30
583	FEMA 2 Marin	546141	4186778	2.26	2.26	2.48	2.46	2.71	2.67	0.34	0.31
584	FEMA 918 SanFrancisco	556071	4187050	2.38	-	2.60	2.58	2.82	2.79	0.36	0.29
585	FEMA 927 SanFrancisco	550703	4186909	2.32	-	2.55	2.53	2.78	2.73	0.35	0.31
586	FEMA 914 SanFrancisco	554408	4187116	2.37	2.37	2.59	2.57	2.82	2.78	0.34	0.32
587	FEMA 3 Marin	546572	4187031	-	-	2.50	2.48	2.71	2.70	0.36	0.32
588	FEMA 917 SanFrancisco	555817	4187481	2.37	2.38	2.60	2.58	2.82	2.77	0.33	0.29
589	FEMA 533 Alameda	560688	4187677	2.39	2.39	2.61	2.60	2.84	2.78	0.34	0.30
590	FEMA 532 Alameda	560106	4187683	2.39	2.39	2.61	2.60	2.84	2.78	0.34	0.30
591	FEMA 915 SanFrancisco	554738	4187542	2.37	2.37	2.59	2.57	2.82	2.78	0.34	0.32
592	FEMA 916 SanFrancisco	555219	4187709	2.37	2.37	2.59	2.57	2.82	2.78	0.34	0.31
593	FEMA 4 Marin	546800	4187629	2.28	-	2.51	2.49	2.75	2.70	0.37	0.30
594	FEMA 531 Alameda	559938	4188164	2.39	2.39	2.61	2.60	2.84	2.78	0.34	0.30
595	FEMA 528 Alameda	560729	4188397	2.39	2.39	2.61	2.60	2.84	2.78	0.34	0.30

596	FEMA 5 Marin	546633	4188111	-	-	2.50	2.49	2.71	2.72	0.36	0.31
597	FEMA 527 Alameda	561211	4188564	2.39	2.39	2.61	2.60	2.84	2.78	0.35	0.29
598	FEMA 526 Alameda	561469	4188716	2.39	2.39	2.61	2.60	2.84	2.78	0.34	0.29
599	FEMA 530 Alameda	560080	4188712	2.39	2.39	2.61	2.60	2.84	2.78	0.34	0.29
600	FEMA 529 Alameda	560613	4188793	2.39	2.39	2.61	2.59	2.84	2.80	0.34	0.33
601	FEMA 6 Marin	546380	4188542	2.29	2.29	2.51	2.49	2.74	2.67	0.34	0.30
602	FEMA 525 Alameda	561216	4189147	2.39	2.39	2.61	2.60	2.84	2.78	0.34	0.29
603	FEMA 7 Marin	546213	4189023	2.29	-	2.52	2.50	2.75	2.70	0.35	0.30
604	FEMA 524 Alameda	561221	4189730	2.39	2.39	2.61	2.60	2.84	2.78	0.37	0.29
605	FEMA 8 Marin	546182	4189469	2.29	-	2.52	2.50	2.74	2.70	0.33	0.30
606	FEMA 114 Marin	550967	4189615	2.33	-	2.55	2.53	2.77	2.75	0.35	0.32
607	FEMA 116 Marin	549887	4189677	2.33	2.33	2.55	2.54	2.77	2.73	0.33	0.29
608	FEMA 113 Marin	551226	4189768	2.33	2.32	2.54	2.53	2.74	2.71	0.35	0.29
609	FEMA 115 Marin	550420	4189758	2.33	-	2.56	2.54	2.77	2.74	0.33	0.31
610	FEMA 117 Marin	549340	4189819	2.33	-	2.55	2.53	2.77	2.75	0.33	0.34
611	FEMA 521 Alameda	560385	4190166	2.39	2.39	2.61	2.60	2.84	2.78	0.37	0.29
612	FEMA 520 Alameda	559888	4190222	2.38	2.39	2.61	2.59	2.83	2.77	0.35	0.29
613	FEMA 523 Alameda	561140	4190262	2.39	2.39	2.61	2.60	2.84	2.78	0.37	0.29
614	FEMA 118 Marin	548965	4190062	2.32	2.32	2.54	2.53	2.76	2.73	0.34	0.32
615	FEMA 9 Marin	546187	4190052	-	2.30	2.52	2.51	2.73	2.68	0.36	0.31
616	FEMA 112 Marin	551058	4190249	2.33	-	2.54	2.53	2.75	2.73	0.36	0.32
617	FEMA 522 Alameda	560714	4190592	2.39	2.39	2.62	2.60	2.84	2.78	0.34	0.31
618	FEMA 36 Marin	547733	4190381	2.31	2.31	2.54	2.52	2.76	2.72	0.34	0.30
619	FEMA 519 Alameda	559721	4190704	2.38	2.39	2.61	2.59	2.84	2.78	0.34	0.28
620	FEMA 35 Marin	547272	4190574	-	-	2.52	2.51	2.74	2.71	0.37	0.30
621	FEMA 10 Marin	546106	4190585	-	2.31	2.52	2.51	2.73	2.73	0.35	0.33
622	FEMA 119 Marin	548610	4190665	-	2.32	2.53	2.52	2.74	2.70	0.37	0.29
623	FEMA 126 Marin	551200	4190796	-	2.32	2.54	2.53	2.75	2.72	0.38	0.30
624	FEMA 37 Marin	547977	4190757	2.32	2.32	2.54	2.53	2.76	2.71	0.33	0.30
625	FEMA 11 Marin	545559	4190727	2.31	2.31	2.53	2.52	2.76	2.70	0.34	0.29
626	FEMA 120 Marin	549092	4190832	2.33	-	2.55	2.53	2.77	2.73	0.34	0.31
627	FEMA 518 Alameda	559640	4191236	2.38	2.39	2.61	2.59	2.83	2.77	0.36	0.29
628	FEMA 34 Marin	546846	4190904	2.31	2.31	2.53	2.52	2.76	2.70	0.34	0.29
629	FEMA 12 Marin	545133	4191056	2.31	2.31	2.53	2.52	2.75	2.70	0.34	0.28
630	FEMA 125 Marin	550947	4191227	2.33	2.33	2.55	2.54	2.77	2.72	0.35	0.28
631	FEMA 13 Marin	544637	4191112	2.31	-	2.54	2.52	2.75	2.71	0.34	0.31
632	FEMA 38 Marin	547810	4191238	2.32	-	2.55	2.52	2.76	2.75	0.33	0.35
633	FEMA 33 Marin	546421	4191233	2.31	-	2.54	2.52	2.77	2.71	0.34	0.31
634	FEMA 517 Alameda	559300	4191616	2.38	2.39	2.61	2.59	2.82	2.77	0.36	0.29
635	FEMA 121 Marin	549320	4191430	2.33	-	2.54	2.53	2.76	2.74	0.36	0.32
636	FEMA 39 Marin	548104	4191527	2.33	2.33	2.55	2.54	2.77	2.73	0.35	0.30
637	FEMA 124 Marin	550694	4191658	-	2.33	2.55	2.54	2.76	2.73	0.37	0.30

638	FEMA 40 Marin	548636	4191608	2.32	-	2.55	2.53	2.77	2.73	0.35	0.31
639	FEMA 512 Alameda	560623	4191930	2.38	2.38	2.61	2.59	2.83	2.78	0.36	0.30
640	FEMA 32 Marin	546167	4191664	2.31	-	2.54	2.52	2.75	2.71	0.35	0.31
641	FEMA 14 Marin	544556	4191644	2.31	-	2.54	2.52	2.74	2.73	0.33	0.32
642	FEMA 516 Alameda	559047	4192047	2.38	2.38	2.61	2.59	2.83	2.77	0.36	0.29
643	FEMA 123 Marin	550096	4191886	-	2.33	2.55	2.54	2.77	2.73	0.39	0.32
644	FEMA 513 Alameda	560335	4192224	2.38	2.38	2.61	2.59	2.85	2.78	0.36	0.30
645	FEMA 41 Marin	549016	4191947	2.33	-	2.55	2.54	2.77	2.74	0.34	0.32
646	FEMA 515 Alameda	559427	4192387	2.38	2.38	2.61	2.59	2.84	2.77	0.36	0.29
647	FEMA 15 Marin	544216	4192024	2.31	2.32	2.54	2.52	2.75	2.73	0.34	0.31
648	FEMA 511 Alameda	560542	4192462	2.38	2.38	2.61	2.59	2.83	2.78	0.37	0.30
649	FEMA 31 Marin	546000	4192146	2.31	-	2.54	2.52	2.77	2.72	0.37	0.32
650	FEMA 42 Marin	549310	4192236	-	2.33	2.55	2.54	2.77	2.74	0.36	0.32
651	FEMA 514 Alameda	559909	4192554	2.38	2.38	2.61	2.59	2.84	2.78	0.37	0.30
652	FEMA 16 Marin	543755	4192217	2.32	2.32	2.54	2.52	2.75	2.73	0.33	0.31
653	FEMA 21 Marin	544064	4192283	2.32	2.32	2.54	2.52	2.75	2.73	0.35	0.31
654	FEMA 43 Marin	549604	4192525	-	2.33	2.55	2.54	2.77	2.73	0.36	0.31
655	FEMA 510 Alameda	560066	4192878	2.38	2.38	2.61	2.59	2.83	2.78	0.36	0.30
656	FEMA 30 Marin	546056	4192642	2.31	-	2.54	2.52	2.78	2.72	0.36	0.32
657	FEMA 23 Marin	544566	4192810	2.31	-	2.55	2.52	2.80	2.71	0.36	0.31
658	FEMA 508 Alameda	559367	4193279	2.38	2.38	2.61	2.59	2.83	2.78	0.36	0.30
659	FEMA 509 Alameda	559813	4193309	2.38	2.38	2.61	2.59	2.84	2.77	0.36	0.31
660	FEMA 19 Marin	543349	4192906	-	2.32	2.53	2.53	2.74	2.70	0.34	0.28
661	FEMA 44 Marin	549609	4193108	-	2.33	2.55	2.54	2.76	2.74	0.39	0.31
662	FEMA 29 Marin	546026	4193088	2.31	-	2.55	2.52	2.78	2.72	0.36	0.32
663	FEMA 507 Alameda	558855	4193558	2.38	2.38	2.61	2.59	2.84	2.77	0.37	0.30
664	FEMA 24 Marin	544313	4193241	2.32	-	2.54	2.52	2.75	2.72	0.34	0.32
665	FEMA 45 Marin	549320	4193402	2.33	2.33	2.56	2.54	2.78	2.74	0.36	0.31
666	FEMA 28 Marin	545600	4193418	2.32	-	2.54	2.52	2.77	2.72	0.35	0.31
667	FEMA 506 Alameda	558911	4194054	2.38	2.38	2.61	2.59	2.84	2.78	0.36	0.34
668	FEMA 27 Marin	545088	4193697	2.32	-	2.55	2.52	2.77	2.73	0.32	0.32
669	FEMA 46 Marin	549067	4193833	2.33	2.33	2.56	2.54	2.79	2.73	0.35	0.33
670	FEMA 26 Marin	544764	4193854	2.32	-	2.54	2.52	2.76	2.73	0.35	0.31
671	FEMA 485 ContraCosta	559564	4194323	2.38	2.38	2.61	2.59	2.83	2.77	0.36	0.29
672	FEMA 503 ContraCosta	557147	4194293	2.37	2.38	2.61	2.59	2.87	2.78	0.37	0.33
673	FEMA 484 ContraCosta	559103	4194515	2.38	2.38	2.61	2.59	2.83	2.78	0.34	0.34
674	FEMA 47 Marin	548814	4194264	2.33	2.33	2.56	2.55	2.78	2.75	0.35	0.31
675	FEMA 48 Marin	548302	4194543	2.34	-	2.56	2.55	2.78	2.75	0.36	0.35
676	FEMA 49 Marin	547719	4194548	2.34	2.35	2.57	2.55	2.80	2.76	0.37	0.32
677	FEMA 499 ContraCosta	555231	4194790	2.36	2.37	2.59	2.57	2.83	2.79	0.37	0.32
678	FEMA 483 ContraCosta	559022	4195048	2.38	2.38	2.62	2.59	2.87	2.79	0.38	0.33
679	FEMA 498 ContraCosta	554633	4195018	2.36	2.36	2.59	2.57	2.82	2.75	0.37	0.30

680	FEMA 50 Marin	547293	4194877	2.35	2.35	2.57	2.56	2.80	2.74	0.36	0.30
681	FEMA 475 ContraCosta	555834	4195145	2.36	2.36	2.59	2.57	2.82	2.76	0.37	0.30
682	FEMA 497 ContraCosta	553999	4195109	2.35	-	2.58	2.56	2.81	2.77	0.37	0.35
683	FEMA 496 ContraCosta	553452	4195251	2.34	-	2.57	2.55	2.80	2.75	0.37	0.33
684	FEMA 474 ContraCosta	555150	4195322	2.35	2.35	2.58	2.56	2.82	2.75	0.35	0.31
685	FEMA 476 ContraCosta	556265	4195398	2.36	2.36	2.59	2.57	2.83	2.76	0.37	0.32
686	FEMA 480 ContraCosta	557740	4195453	2.38	2.38	2.61	2.59	2.87	2.79	0.37	0.33
687	FEMA 479 ContraCosta	557157	4195459	2.37	2.37	2.60	2.58	2.82	2.77	0.38	0.33
688	FEMA 473 ContraCosta	554739	4195429	2.35	2.35	2.58	2.56	2.80	2.76	0.37	0.31
689	FEMA 472 ContraCosta	554156	4195434	-	2.34	2.56	2.55	2.78	2.76	0.37	0.31
690	FEMA 51 Marin	546954	4195258	2.35	2.35	2.58	2.56	2.80	2.73	0.36	0.30
691	FEMA 478 ContraCosta	556559	4195687	2.36	2.37	2.60	2.58	2.84	2.76	0.38	0.32
692	FEMA 471 ContraCosta	553558	4195662	2.34	-	2.57	2.55	2.81	2.76	0.37	0.33
693	FEMA 477 ContraCosta	556098	4195879	2.36	2.37	2.59	2.58	2.82	2.76	0.34	0.31
694	FEMA 52 Marin	546614	4195638	2.35	2.35	2.58	2.56	2.81	2.74	0.36	0.29
695	FEMA 470 ContraCosta	553305	4196093	2.34	-	2.56	2.54	2.78	2.76	0.37	0.36
696	FEMA 53 Marin	546533	4196170	2.35	2.35	2.58	2.56	2.81	2.74	0.36	0.29
697	FEMA 469 ContraCosta	553533	4196691	2.34	-	2.57	2.55	2.79	2.77	0.39	0.34
698	FEMA 54 Marin	546452	4196702	2.35	-	2.58	2.56	2.81	2.77	0.35	0.35
699	FEMA 468 ContraCosta	553366	4197172	2.34	-	2.57	2.55	2.81	2.76	0.37	0.33
700	FEMA 55 Marin	546113	4197083	2.35	-	2.58	2.56	2.81	2.77	0.36	0.32
701	FEMA 56 Marin	545702	4197189	2.35	-	2.58	2.56	2.82	2.77	0.35	0.32
702	FEMA 467 ContraCosta	553113	4197603	2.34	-	2.57	2.55	2.81	2.76	0.36	0.33
703	FEMA 57 Marin	545190	4197468	2.35	-	2.58	2.56	2.81	2.77	0.36	0.31
704	FEMA 466 ContraCosta	552601	4197882	2.34	-	2.57	2.55	2.81	2.77	0.38	0.33
705	FEMA 494 ContraCosta	549909	4197923	2.34	2.34	2.56	2.55	2.78	2.74	0.37	0.29
706	FEMA 495 ContraCosta	550218	4197989	2.34	2.34	2.57	2.55	2.83	2.74	0.36	0.30
707	FEMA 465 ContraCosta	552003	4198110	2.35	-	2.56	2.55	2.78	2.76	0.37	0.33
708	FEMA 493 ContraCosta	550016	4198334	2.34	2.34	2.57	2.55	2.80	2.74	0.40	0.29
709	FEMA 464 ContraCosta	551577	4198440	2.34	2.35	2.57	2.55	2.79	2.74	0.37	0.29
710	FEMA 63 Marin	545150	4198720	2.36	-	2.59	2.57	2.80	2.78	0.35	0.32
711	FEMA 62 Marin	544567	4198725	2.36	-	2.59	2.57	2.82	2.78	0.36	0.32
712	FEMA 463 ContraCosta	551273	4198957	2.35	-	2.57	2.56	2.80	2.77	0.37	0.33
713	FEMA 61 Marin	544106	4198918	2.36	-	2.59	2.57	2.81	2.78	0.34	0.31
714	FEMA 64 Marin	545616	4199110	2.36	-	2.59	2.57	2.81	2.78	0.37	0.34
715	FEMA 462 ContraCosta	551466	4199418	2.35	2.35	2.57	2.56	2.79	2.76	0.38	0.32
716	FEMA 65 Marin	546047	4199363	2.35	-	2.59	2.57	2.82	2.78	0.37	0.35
717	FEMA 461 ContraCosta	550954	4199697	-	2.35	2.57	2.56	2.79	2.75	0.40	0.31
718	FEMA 66 Marin	546154	4199774	2.35	2.36	2.58	2.57	2.81	2.76	0.37	0.32
719	FEMA 460 ContraCosta	550442	4199976	2.34	2.35	2.58	2.55	2.84	2.78	0.38	0.34
720	FEMA 67 Marin	545728	4200104	2.35	2.35	2.58	2.57	2.82	2.77	0.36	0.31
721	FEMA 459 ContraCosta	550634	4200437	2.34	2.34	2.58	2.55	2.83	2.78	0.40	0.35

722	FEMA 68 Marin	545302	4200433	2.35	-	2.59	2.57	2.81	2.78	0.35	0.32
723	FEMA 458 ContraCosta	550381	4200868	2.34	2.34	2.58	2.56	2.84	2.77	0.38	0.30
724	FEMA 69 Marin	545221	4200965	2.36	2.36	2.59	2.57	2.81	2.77	0.34	0.31
725	FEMA 457 ContraCosta	550163	4201436	2.35	2.35	2.58	2.57	2.84	2.78	0.39	0.31
726	FEMA 70 Marin	545054	4201447	2.36	2.36	2.59	2.57	2.81	2.77	0.34	0.32
727	FEMA 492 ContraCosta	549515	4201750	2.35	2.35	2.59	2.57	2.85	2.78	0.38	0.30
728	FEMA 491 ContraCosta	549859	4201953	2.35	2.35	2.58	2.57	2.82	2.80	0.36	0.32
729	FEMA 127 Marin	546995	4201893	2.36	2.36	2.58	2.58	2.80	2.78	0.36	0.30
730	FEMA 128 Marin	546499	4201948	2.36	-	2.59	2.57	2.83	2.79	0.40	0.32
731	FEMA 453 ContraCosta	551730	4202125	2.36	2.36	2.61	2.59	2.86	2.80	0.38	0.31
732	FEMA 455 ContraCosta	550772	4202373	2.35	2.35	2.59	2.58	2.80	2.80	0.36	0.33
733	FEMA 454 ContraCosta	551218	4202404	2.36	2.36	2.60	2.58	2.84	2.78	0.37	0.31
734	FEMA 129 Marin	546159	4202329	2.36	2.36	2.59	2.57	2.84	2.77	0.35	0.32
735	FEMA 456 ContraCosta	550138	4202465	2.35	2.35	2.59	2.58	2.84	2.80	0.38	0.32
736	FEMA 73 Marin	545439	4202369	2.36	2.36	2.59	2.58	2.83	2.78	0.35	0.32
737	FEMA 74 Marin	545921	4202536	2.36	2.36	2.59	2.58	2.83	2.78	0.35	0.32
738	FEMA 450 ContraCosta	552541	4202718	2.37	2.37	2.61	2.59	2.87	2.81	0.40	0.30
739	FEMA 449 ContraCosta	553022	4202885	2.37	2.37	2.62	2.60	2.87	2.82	0.40	0.33
740	FEMA 75 Marin	546215	4202825	2.36	2.36	2.59	2.58	2.83	2.78	0.38	0.31
741	FEMA 76 Marin	546408	4203286	2.36	-	2.60	2.58	2.83	2.79	0.37	0.33
742	FEMA 79 Marin	547558	4203499	2.36	-	2.60	2.58	2.86	2.80	0.38	0.34
743	FEMA 80 Marin	548091	4203580	2.36	2.36	2.60	2.58	2.85	2.79	0.39	0.32
744	FEMA 81 Marin	548521	4203834	2.36	2.36	2.60	2.58	2.85	2.79	0.35	0.31
745	FEMA 82 Marin	548851	4204259	2.36	2.37	2.60	2.59	2.84	2.79	0.38	0.31
746	FEMA 83 Marin	548770	4204791	2.37	2.37	2.61	2.59	2.85	2.81	0.38	0.32
747	FEMA 84 Marin	548517	4205222	2.37	2.37	2.61	2.60	2.85	2.81	0.37	0.30
748	FEMA 85 Marin	548091	4205552	2.38	2.38	2.62	2.60	2.86	2.81	0.37	0.30
749	FEMA 86 Marin	547838	4205983	2.38	2.38	2.62	2.61	2.87	2.81	0.36	0.29
750	FEMA 439 ContraCosta	555299	4206311	2.39	2.40	2.63	2.62	2.87	2.83	0.37	0.33
751	FEMA 430 ContraCosta	558198	4206508	2.41	2.41	2.65	2.63	2.89	2.84	0.40	0.34
752	FEMA 429 ContraCosta	558593	4206625	2.41	2.41	2.65	2.63	2.90	2.85	0.41	0.32
753	FEMA 87 Marin	547584	4206414	2.39	2.39	2.63	2.61	2.87	2.82	0.38	0.32
754	FEMA 431 ContraCosta	557737	4206701	2.41	2.41	2.65	2.63	2.89	2.84	0.38	0.33
755	FEMA 428 ContraCosta	559075	4206792	2.41	2.41	2.65	2.63	2.89	2.86	0.38	0.36
756	FEMA 438 ContraCosta	555218	4206843	2.39	2.40	2.64	2.62	2.91	2.83	0.39	0.33
757	FEMA 432 ContraCosta	557362	4206944	2.41	2.41	2.65	2.63	2.89	2.84	0.36	0.33
758	FEMA 88 Marin	547072	4206692	2.39	2.39	2.63	2.62	2.88	2.83	0.37	0.30
759	FEMA 427 ContraCosta	559369	4207081	2.41	2.41	2.65	2.63	2.89	2.86	0.38	0.36
760	FEMA 433 ContraCosta	556814	4207086	2.40	2.40	2.64	2.63	2.89	2.84	0.38	0.33
761	FEMA 89 Marin	546525	4206835	2.39	-	2.64	2.62	2.89	2.83	0.38	0.33
762	FEMA 434 ContraCosta	556318	4207142	2.40	2.40	2.64	2.63	2.87	2.85	0.37	0.31
763	FEMA 437 ContraCosta	555273	4207340	2.40	2.40	2.64	2.62	2.89	2.84	0.37	0.34

764	FEMA 426 ContraCosta	559698	4207506	2.41	2.41	2.65	2.63	2.89	2.86	0.38	0.33
765	FEMA 425 ContraCosta	560180	4207674	2.41	2.41	2.65	2.63	2.89	2.86	0.38	0.33
766	FEMA 435 ContraCosta	556064	4207573	2.40	2.40	2.64	2.62	2.88	2.84	0.38	0.36
767	FEMA 436 ContraCosta	555654	4207679	2.40	2.40	2.64	2.62	2.87	2.84	0.37	0.36
768	FEMA 391 ContraCosta	574525	4208918	2.35	2.34	2.59	2.57	2.84	2.79	0.41	0.36
769	FEMA 390 ContraCosta	575057	4208999	2.35	2.34	2.60	2.57	2.84	2.79	0.42	0.37
770	FEMA 421 ContraCosta	561904	4208687	2.41	2.41	2.65	2.63	2.89	2.87	0.38	0.33
771	FEMA 420 ContraCosta	562436	4208768	2.40	2.40	2.64	2.63	2.88	2.86	0.38	0.35
772	FEMA 392 ContraCosta	574013	4209197	2.35	2.34	2.59	2.57	2.84	2.79	0.42	0.36
773	FEMA 388 ContraCosta	575883	4209369	2.35	2.34	2.59	2.56	2.82	2.78	0.40	0.37
774	FEMA 389 ContraCosta	575387	4209425	2.35	2.34	2.59	2.57	2.83	2.78	0.44	0.35
775	FEMA 393 ContraCosta	573501	4209476	2.35	2.34	2.59	2.56	2.84	2.79	0.40	0.37
776	FEMA 419 ContraCosta	562988	4209209	2.40	2.40	2.64	2.63	2.88	2.85	0.38	0.35
777	FEMA 387 ContraCosta	576228	4209572	2.35	2.34	2.59	2.57	2.82	2.79	0.38	0.37
778	FEMA 332 ContraCosta	599175	4210192	2.36	2.32	2.70	2.65	3.07	2.98	0.46	0.44
779	FEMA 394 ContraCosta	573075	4209806	2.34	2.34	2.59	2.56	2.83	2.78	0.40	0.35
780	FEMA 333 ContraCosta	598526	4210507	2.36	2.32	2.70	2.64	3.04	2.96	0.45	0.41
781	FEMA 342 ContraCosta	593381	4210381	2.35	2.31	2.67	2.62	2.98	2.93	0.43	0.39
782	FEMA 367 ContraCosta	583897	4210139	2.19	-	2.57	2.53	3.00	2.96	0.62	0.47
783	FEMA 418 ContraCosta	563318	4209635	2.40	2.40	2.64	2.63	2.88	2.85	0.41	0.38
784	FEMA 371 ContraCosta	582853	4210337	2.21	2.19	2.56	2.51	2.90	2.83	0.55	0.48
785	FEMA 395 ContraCosta	572873	4210150	2.34	2.33	2.58	2.56	2.83	2.78	0.41	0.37
786	FEMA 343 ContraCosta	593042	4210761	2.35	2.31	2.67	2.62	2.99	2.93	0.42	0.38
787	FEMA 385 ContraCosta	577161	4210353	2.35	2.33	2.59	2.57	2.83	2.79	0.43	0.37
788	FEMA 333 ContraCosta	598136	4210973	2.36	2.33	2.71	2.64	3.07	2.96	0.49	0.40
789	FEMA 341 ContraCosta	593797	4210857	2.35	2.31	2.68	2.62	2.99	2.95	0.49	0.42
790	FEMA 366 ContraCosta	583953	4210635	2.18	-	2.58	2.53	3.01	2.99	0.61	0.45
791	FEMA 384 ContraCosta	577642	4210520	2.34	2.33	2.60	2.56	2.88	2.78	0.43	0.37
792	FEMA 337 ContraCosta	596114	4211060	2.35	2.32	2.70	2.63	3.06	2.94	0.51	0.40
793	FEMA 200 Solano	575088	4210525	2.33	2.32	2.58	2.55	2.81	2.78	0.43	0.36
794	FEMA 417 ContraCosta	563323	4210218	2.40	2.40	2.64	2.62	2.88	2.85	0.39	0.38
795	FEMA 396 ContraCosta	572670	4210495	2.34	2.33	2.58	2.56	2.82	2.78	0.40	0.37
796	FEMA 338 ContraCosta	595480	4211151	2.35	2.32	2.68	2.62	3.03	2.93	0.45	0.39
797	FEMA 336 ContraCosta	596732	4211191	2.35	2.32	2.70	2.63	3.05	2.94	0.49	0.38
798	FEMA 369 ContraCosta	583132	4210848	2.24	2.22	2.57	2.52	2.90	2.84	0.54	0.47
799	FEMA 364 ContraCosta	584384	4210889	2.19	2.16	2.58	2.53	2.99	2.98	0.59	0.57
800	FEMA 201 Solano	575706	4210657	2.33	2.32	2.58	2.55	2.82	2.78	0.44	0.36
801	FEMA 344 ContraCosta	592702	4211141	2.34	2.31	2.67	2.62	2.97	2.91	0.44	0.39
802	FEMA 339 ContraCosta	594983	4211207	2.35	2.31	2.68	2.62	3.00	2.92	0.44	0.39
803	FEMA 335 ContraCosta	597264	4211272	2.35	2.32	2.70	2.63	3.06	2.94	0.49	0.39
804	FEMA 202 Solano	576238	4210738	2.34	2.33	2.59	2.56	2.83	2.79	0.45	0.36
805	FEMA 199 Solano	574267	4210738	2.33	2.31	2.57	2.54	2.79	2.78	0.42	0.37

806	FEMA 198 Solano	573684	4210743	2.32	2.31	2.56	2.54	2.79	2.76	0.42	0.36
807	FEMA 203 Solano	576669	4210991	2.35	2.33	2.59	2.57	2.83	2.79	0.43	0.36
808	FEMA 397 ContraCosta	572416	4210926	2.34	2.33	2.58	2.56	2.84	2.78	0.40	0.35
809	FEMA 416 ContraCosta	563602	4210730	2.39	2.39	2.63	2.62	2.87	2.84	0.43	0.36
810	FEMA 415 ContraCosta	564220	4210861	2.38	2.38	2.62	2.61	2.86	2.83	0.41	0.34
811	FEMA 379 ContraCosta	580410	4211335	2.35	2.33	2.60	2.57	2.82	2.78	0.40	0.34
812	FEMA 197 Solano	573243	4211296	2.34	2.33	2.58	2.56	2.84	2.79	0.43	0.35
813	FEMA 398 ContraCosta	572163	4211357	2.33	2.33	2.58	2.55	2.82	2.78	0.41	0.36
814	FEMA 279 Solano	597204	4212165	2.35	2.32	2.70	2.64	3.04	2.98	0.52	0.41
815	FEMA 414 ContraCosta	564413	4211323	2.38	2.38	2.61	2.60	2.85	2.84	0.40	0.36
816	FEMA 272 Solano	593346	4212216	2.34	2.31	2.67	2.61	3.00	2.91	0.48	0.40
817	FEMA 196 Solano	573126	4211691	2.34	2.33	2.58	2.56	2.84	2.79	0.40	0.36
818	FEMA 399 ContraCosta	571824	4211737	2.33	2.32	2.57	2.55	2.81	2.77	0.40	0.35
819	FEMA 354 ContraCosta	587121	4212151	-	2.32	2.65	2.60	2.95	2.88	0.40	0.39
820	FEMA 195 Solano	572700	4212021	2.34	2.34	2.58	2.56	2.83	2.80	0.41	0.36
821	FEMA 400 ContraCosta	571398	4212067	2.32	2.32	2.56	2.54	2.80	2.76	0.39	0.35
822	FEMA 413 ContraCosta	564504	4211956	2.37	2.37	2.60	2.59	2.84	2.82	0.37	0.36
823	FEMA 270 Solano	594020	4212844	2.35	2.32	2.67	2.62	2.98	2.91	0.46	0.39
824	FEMA 401 ContraCosta	570937	4212259	2.33	2.32	2.57	2.55	2.81	2.78	0.43	0.36
825	FEMA 412 ContraCosta	564986	4212123	2.36	2.36	2.59	2.58	2.83	2.81	0.37	0.36
826	FEMA 194 Solano	572275	4212350	2.34	2.34	2.58	2.56	2.83	2.75	0.39	0.34
827	FEMA 402 ContraCosta	570303	4212351	2.33	2.33	2.57	2.55	2.82	2.73	0.40	0.32
828	FEMA 356 ContraCosta	586047	4212795	2.35	2.32	2.63	2.59	2.92	2.86	0.45	0.38
829	FEMA 359 ContraCosta	584435	4212774	2.35	2.33	2.63	2.59	2.90	2.82	0.42	0.35
830	FEMA 411 ContraCosta	565467	4212290	2.35	2.35	2.59	2.57	2.82	2.80	0.41	0.36
831	FEMA 358 ContraCosta	584967	4212855	2.35	2.33	2.63	2.59	2.91	2.88	0.45	0.41
832	FEMA 190 Solano	570561	4212503	2.33	2.33	2.57	2.55	2.82	2.74	0.40	0.33
833	FEMA 403 ContraCosta	569756	4212493	2.33	2.32	2.57	2.55	2.80	2.81	0.39	0.36
834	FEMA 357 ContraCosta	585499	4212937	2.35	2.33	2.63	2.59	2.90	2.88	0.45	0.38
835	FEMA 193 Solano	571935	4212731	2.35	2.34	2.58	2.56	2.79	2.76	0.38	0.34
836	FEMA 191 Solano	570992	4212756	2.34	2.33	2.57	2.55	2.81	2.78	0.40	0.35
837	FEMA 189 Solano	569963	4212731	2.33	2.32	2.57	2.55	2.81	2.80	0.40	0.36
838	FEMA 410 ContraCosta	565848	4212630	2.35	2.35	2.58	2.57	2.81	2.81	0.37	0.36
839	FEMA 404 ContraCosta	569157	4212721	2.33	2.32	2.56	2.55	2.79	2.79	0.40	0.36
840	FEMA 407 ContraCosta	567546	4212701	2.34	2.34	2.58	2.56	2.83	2.78	0.41	0.33
841	FEMA 405 ContraCosta	568661	4212777	2.32	2.32	2.56	2.54	2.80	2.78	0.39	0.37
842	FEMA 406 ContraCosta	568078	4212782	2.33	2.33	2.57	2.55	2.82	2.77	0.40	0.35
843	FEMA 408 ContraCosta	566912	4212792	2.34	2.34	2.58	2.56	2.80	2.78	0.39	0.37
844	FEMA 409 ContraCosta	566329	4212797	2.34	2.34	2.58	2.56	2.82	2.79	0.41	0.35
845	FEMA 185 Solano	568063	4213005	2.34	2.33	2.57	2.56	2.80	2.78	0.41	0.35
846	FEMA 188 Solano	569624	4213111	2.34	2.33	2.57	2.55	2.81	2.76	0.42	0.36
847	FEMA 186 Solano	568595	4213086	2.33	2.33	2.56	2.55	2.81	2.75	0.42	0.34

848	FEMA 207 Solano	577805	4213399	2.35	2.34	2.61	2.58	2.88	2.80	0.45	0.37
849	FEMA 187 Solano	569127	4213167	2.33	2.33	2.57	2.55	2.80	2.75	0.40	0.34
850	FEMA 184 Solano	567465	4213233	2.34	2.34	2.57	2.56	2.80	2.76	0.42	0.36
851	FEMA 173 Solano	562320	4213107	2.37	2.37	2.61	2.60	2.84	2.82	0.39	0.36
852	FEMA 174 Solano	562852	4213188	2.37	2.37	2.61	2.60	2.86	2.84	0.39	0.35
853	FEMA 175 Solano	563384	4213269	2.37	2.37	2.61	2.60	2.86	2.82	0.42	0.35
854	FEMA 176 Solano	563916	4213350	2.37	2.37	2.61	2.59	2.86	2.82	0.41	0.36
855	FEMA 177 Solano	564586	4213396	2.36	2.36	2.59	2.58	2.82	2.80	0.36	0.36
856	FEMA 178 Solano	565118	4213477	2.36	2.36	2.60	2.58	2.84	2.80	0.40	0.37
857	FEMA 183 Solano	567039	4213563	2.35	2.35	2.59	2.58	2.84	2.82	0.40	0.37
858	FEMA 179 Solano	565549	4213730	2.36	2.36	2.59	2.58	2.83	2.82	0.39	0.38
859	FEMA 182 Solano	566699	4213943	2.36	2.35	2.59	2.58	2.83	2.81	0.40	0.35
860	FEMA 180 Solano	566015	4214120	2.36	2.36	2.59	2.58	2.83	2.81	0.43	0.36
861	FEMA 209 Solano	578707	4214625	2.36	2.34	2.62	2.58	2.91	2.82	0.44	0.37
862	FEMA 104 Marin	545507	4213890	-	2.43	2.65	2.65	2.87	2.85	0.35	0.33
863	FEMA 181 Solano	566345	4214546	2.36	2.36	2.58	2.58	2.82	2.82	0.39	0.36
864	FEMA 213 Solano	580558	4216409	2.36	2.35	2.63	2.59	2.92	2.80	0.44	0.37
865	FEMA 311 Solano	584983	4216576	2.37	2.35	2.65	2.61	2.94	2.85	0.42	0.38
866	FEMA 240 Solano	587411	4217772	2.38	2.37	2.66	2.62	2.94	2.84	0.42	0.33
867	FEMA 216 Solano	581719	4217788	2.37	2.35	2.64	2.60	2.93	2.84	0.44	0.36
868	FEMA 111 Marin	545559	4217747	-	-	2.67	2.66	2.89	2.86	0.38	0.32
869	FEMA 136 Sonoma	547378	4218006	-	-	2.67	2.66	2.89	2.87	0.37	0.32
870	FEMA 237 Solano	588709	4219115	2.39	2.37	2.66	2.62	2.94	2.86	0.42	0.36
871	FEMA 131 Sonoma	545047	4218026	-	2.44	2.67	2.67	2.89	2.90	0.37	0.32
872	FEMA 135 Sonoma	546780	4218234	-	2.44	2.67	2.67	2.89	2.90	0.36	0.35
873	FEMA 134 Sonoma	546147	4218325	2.44	-	2.68	2.66	2.90	2.88	0.35	0.31
874	FEMA 132 Sonoma	545118	4218300	-	2.44	2.67	2.67	2.89	2.91	0.37	0.31
875	FEMA 236 Solano	588455	4219546	2.39	2.37	2.66	2.62	2.96	2.85	0.44	0.36
876	FEMA 235 Solano	588202	4219977	2.39	2.37	2.66	2.62	2.89	2.85	0.40	0.35
877	FEMA 220 Solano	582200	4219927	2.38	2.36	2.65	2.61	2.95	2.83	0.44	0.36
878	FEMA 234 Solano	587898	4220494	2.39	2.37	2.66	2.62	2.97	2.84	0.44	0.35
879	FEMA 233 Solano	587645	4220925	2.39	2.37	2.66	2.62	2.97	2.84	0.44	0.36
880	FEMA 232 Solano	587305	4221305	2.39	2.37	2.66	2.62	2.97	2.84	0.43	0.35
881	FEMA 228 Solano	585419	4221356	2.38	2.37	2.66	2.62	2.96	2.84	0.42	0.36
882	FEMA 227 Solano	584836	4221361	2.38	2.37	2.66	2.62	2.96	2.85	0.42	0.36
883	FEMA 230 Solano	586398	4221467	2.39	2.37	2.66	2.62	2.96	2.84	0.44	0.35
884	FEMA 231 Solano	586879	4221635	2.39	2.37	2.66	2.62	2.96	2.84	0.44	0.36
885	FEMA 713 SantaClara	584133	4146027	2.77	2.77	2.98	2.96	3.20	3.15	0.31	0.27
886	FEMA 712 SantaClara	584168	4146163	2.77	2.77	2.98	2.96	3.20	3.15	0.31	0.27
887	FEMA 711 SantaClara	584700	4146244	-	2.77	2.97	2.95	3.15	3.13	0.32	0.26
888	FEMA 716 SantaClara	582952	4146260	2.76	2.77	2.98	2.96	3.20	3.15	0.31	0.28
889	FEMA 715 SantaClara	583398	4146290	2.77	2.77	2.98	2.96	3.19	3.15	0.30	0.28

890	FEMA 719 SantaClara	581563	4146255	2.76	2.76	2.97	2.96	3.20	3.14	0.30	0.27
891	FEMA 717 SantaClara	582455	4146316	2.76	2.77	2.97	2.95	3.19	3.12	0.31	0.26
892	FEMA 710 SantaClara	585182	4146412	-	2.77	2.97	2.96	3.15	3.15	0.32	0.27
893	FEMA 718 SantaClara	582095	4146336	2.76	2.76	2.97	2.96	3.19	3.14	0.31	0.27
894	FEMA 706 SantaClara	589744	4146542	2.68	-	2.88	2.87	3.08	3.05	0.29	0.29
895	FEMA 720 SantaClara	581066	4146311	2.76	-	2.97	2.95	3.19	3.14	0.31	0.28
896	FEMA 694 Alameda	584102	4146473	2.76	2.77	2.98	2.96	3.20	3.15	0.31	0.28
897	FEMA 707 SantaClara	589197	4146684	-	2.68	2.87	2.87	3.07	3.07	0.32	0.30
898	FEMA 696 Alameda	585081	4146584	-	2.77	2.96	2.96	3.15	3.16	0.32	0.27
899	FEMA 721 SantaClara	580605	4146504	2.76	-	2.97	2.94	3.19	3.13	0.32	0.29
900	FEMA 697 Alameda	585613	4146665	2.77	2.77	2.96	2.95	3.16	3.14	0.31	0.29
901	FEMA 722 SantaClara	580194	4146611	2.76	-	2.97	2.94	3.18	3.13	0.31	0.28
902	FEMA 698 Alameda	586095	4146832	-	2.77	2.97	2.96	3.15	3.15	0.33	0.28
903	FEMA 705 Alameda	589491	4146973	2.68	2.68	2.88	2.86	3.08	3.04	0.31	0.26
904	FEMA 699 Alameda	586627	4146913	-	2.77	2.97	2.96	3.16	3.15	0.34	0.27
905	FEMA 708 SantaClara	588771	4147014	-	2.75	2.95	2.94	3.13	3.13	0.33	0.27
906	FEMA 723 SantaClara	579733	4146803	2.76	2.76	2.97	2.94	3.18	3.12	0.30	0.26
907	FEMA 700 Alameda	587108	4147080	2.76	2.76	2.98	2.96	3.20	3.16	0.32	0.28
909	FEMA 704 Alameda	588893	4147201	-	2.75	2.95	2.94	3.13	3.13	0.33	0.27
910	FEMA 702 Alameda	588173	4147242	2.76	2.76	2.97	2.95	3.18	3.13	0.31	0.28
912	FEMA 701 Alameda	587590	4147247	2.76	2.76	2.97	2.96	3.18	3.16	0.31	0.30
913	FEMA 692 Alameda	583251	4147132	2.76	-	2.97	2.95	3.18	3.14	0.31	0.27
914	FEMA 724 SantaClara	579444	4147097	2.75	2.76	2.97	2.94	3.18	3.12	0.31	0.26
915	FEMA 725 SantaClara	578932	4147376	2.75	2.75	2.96	2.95	3.20	3.13	0.33	0.27
916	FEMA 691 Alameda	582912	4147512	2.76	2.77	2.97	2.95	3.20	3.12	0.31	0.26
917	FEMA 726 SanMateo	578593	4147757	2.75	2.75	2.96	2.94	3.14	3.13	0.29	0.26
918	FEMA 727 SanMateo	578081	4148035	2.75	2.75	2.95	2.94	3.14	3.13	0.29	0.26
919	FEMA 689 Alameda	582146	4148222	2.76	2.77	2.97	2.94	3.18	3.13	0.31	0.27
920	FEMA 688 Alameda	582202	4148719	2.76	2.77	2.97	2.95	3.16	3.13	0.31	0.27
921	FEMA 729 SanMateo	577919	4149100	2.74	2.75	2.95	2.93	3.17	3.10	0.29	0.27
922	FEMA 687 Alameda	582121	4149251	2.76	2.76	2.97	2.95	3.19	3.14	0.31	0.26
923	FEMA 730 SanMateo	577853	4149409	2.74	2.75	2.95	2.92	3.18	3.10	0.29	0.27
924	FEMA 686 Alameda	581782	4149631	2.76	2.77	2.97	2.94	3.18	3.13	0.31	0.27
925	FEMA 731 SanMateo	577838	4149632	2.73	2.74	2.95	2.93	3.17	3.12	0.30	0.26
926	FEMA 732 SanMateo	577874	4149769	2.73	2.74	2.95	2.93	3.17	3.12	0.30	0.26
927	FEMA 684 Alameda	581630	4149890	2.75	2.76	2.97	2.94	3.18	3.12	0.32	0.27
928	FEMA 685 Alameda	581853	4149905	2.76	2.76	2.97	2.95	3.18	3.14	0.32	0.27
929	FEMA 683 Alameda	581082	4150032	2.75	2.76	2.96	2.94	3.18	3.12	0.32	0.26
930	FEMA 733 SanMateo	577858	4149992	2.73	2.73	2.95	2.93	3.18	3.12	0.30	0.26
931	FEMA 734 SanMateo	577843	4150215	2.73	2.73	2.94	2.92	3.17	3.11	0.30	0.26
932	FEMA 678 Alameda	579628	4150336	2.74	2.74	2.95	2.94	3.17	3.12	0.29	0.27
933	FEMA 679 Alameda	580160	4150417	2.74	-	2.96	2.93	3.19	3.12	0.31	0.28

934	FEMA 680 Alameda	580332	4150519	2.75	-	2.96	2.93	3.19	3.12	0.33	0.28
935	FEMA 735 SanMateo	577691	4150474	2.73	-	2.94	2.91	3.15	3.08	0.31	0.27
936	FEMA 736 SanMateo	577625	4150783	2.72	-	2.93	2.91	3.15	3.08	0.32	0.28
937	FEMA 737 SanMateo	577524	4150955	2.72	-	2.93	2.91	3.14	3.08	0.31	0.27
938	FEMA 738 SanMateo	577387	4150991	2.72	-	2.93	2.91	3.15	3.08	0.30	0.28
939	FEMA 739 SanMateo	577250	4151026	2.71	-	2.93	2.90	3.17	3.08	0.30	0.28
940	FEMA 672 Alameda	578264	4151274	2.72	-	2.93	2.91	3.15	3.08	0.32	0.27
941	FEMA 740 SanMateo	577098	4151285	2.71	-	2.93	2.90	3.14	3.08	0.32	0.27
942	FEMA 746 SanMateo	574458	4151240	2.70	-	2.91	2.88	3.12	3.07	0.32	0.27
943	FEMA 745 SanMateo	574990	4151321	2.70	-	2.90	2.88	3.10	3.07	0.31	0.28
944	FEMA 671 Alameda	578163	4151447	2.72	-	2.93	2.91	3.15	3.08	0.32	0.27
945	FEMA 747 SanMateo	573824	4151331	2.69	-	2.91	2.88	3.12	3.06	0.33	0.29
946	FEMA 744 SanMateo	575471	4151488	2.70	-	2.91	2.89	3.10	3.07	0.31	0.27
947	FEMA 670 Alameda	578198	4151584	2.72	-	2.93	2.90	3.15	3.08	0.32	0.27
948	FEMA 669 Alameda	578285	4151634	2.72	-	2.93	2.90	3.15	3.08	0.32	0.27
949	FEMA 741 SanMateo	576673	4151614	2.71	-	2.92	2.90	3.12	3.08	0.32	0.28
950	FEMA 668 Alameda	578234	4151720	2.71	-	2.93	2.90	3.15	3.08	0.32	0.27
951	FEMA 748 SanMateo	573398	4151661	-	2.69	2.89	2.89	3.09	3.08	0.29	0.25
952	FEMA 742 SanMateo	576125	4151756	2.70	-	2.91	2.89	3.11	3.08	0.31	0.28
953	FEMA 743 SanMateo	575715	4151863	2.70	-	2.91	2.89	3.10	3.07	0.31	0.28
954	FEMA 749 SanMateo	572851	4151803	-	2.69	2.89	2.89	3.08	3.07	0.31	0.26
955	FEMA 667 Alameda	578305	4151994	2.71	-	2.93	2.90	3.15	3.08	0.32	0.28
956	FEMA 666 Alameda	578325	4152354	2.71	2.71	2.92	2.91	3.14	3.09	0.31	0.27
957	FEMA 750 SanMateo	572598	4152234	-	-	2.89	2.88	3.08	3.06	0.31	0.28
958	FEMA 751 SanMateo	572344	4152665	-	2.69	2.89	2.88	3.08	3.07	0.31	0.26
959	FEMA 665 Alameda	578244	4152886	2.71	2.71	2.92	2.90	3.14	3.09	0.31	0.27
960	FEMA 752 SanMateo	571883	4152857	-	2.69	2.89	2.88	3.08	3.07	0.31	0.26
961	FEMA 753 SanMateo	571371	4153136	2.68	2.68	2.90	2.88	3.13	3.08	0.29	0.26
962	FEMA 664 Alameda	578250	4153469	2.71	2.71	2.91	2.89	3.11	3.08	0.30	0.30
963	FEMA 755 SanMateo	570895	4153552	2.68	2.68	2.89	2.88	3.10	3.06	0.29	0.26
964	FEMA 754 SanMateo	571118	4153567	-	2.68	2.88	2.88	3.07	3.07	0.31	0.26
965	FEMA 663 Alameda	578083	4153951	2.70	-	2.91	2.89	3.10	3.08	0.32	0.28
966	FEMA 662 Alameda	577829	4154382	-	2.71	2.90	2.89	3.09	3.07	0.31	0.29
967	FEMA 661 Alameda	577662	4154863	-	2.71	2.90	2.89	3.09	3.07	0.31	0.29
968	FEMA 760 SanMateo	570890	4154941	-	2.67	2.87	2.86	3.05	3.04	0.31	0.27
969	FEMA 660 Alameda	577409	4155294	-	2.70	2.90	2.89	3.09	3.07	0.31	0.27
970	FEMA 761 SanMateo	570328	4155306	-	-	2.86	2.85	3.05	3.03	0.30	0.28
971	FEMA 762 SanMateo	569780	4155448	2.66	2.66	2.87	2.86	3.10	3.05	0.31	0.26
972	FEMA 659 Alameda	577069	4155674	-	2.69	2.89	2.89	3.09	3.09	0.32	0.28
973	FEMA 766 SanMateo	568564	4155545	2.64	-	2.85	2.83	3.07	3.02	0.32	0.28
974	FEMA 763 SanMateo	569405	4155692	-	2.66	2.86	2.85	3.05	3.04	0.30	0.26
975	FEMA 765 SanMateo	568685	4155732	2.65	2.65	2.86	2.85	3.08	3.04	0.32	0.26

976	FEMA 764 SanMateo	568908	4155747	2.65	2.66	2.87	2.85	3.08	3.02	0.32	0.25
977	FEMA 658 Alameda	576730	4156055	-	2.69	2.89	2.89	3.09	3.08	0.32	0.28
978	FEMA 767 SanMateo	568670	4155955	2.65	2.65	2.86	2.85	3.07	3.03	0.30	0.25
979	FEMA 768 SanMateo	568827	4156280	2.65	-	2.86	2.84	3.08	3.02	0.31	0.28
980	FEMA 657 Alameda	576476	4156486	-	2.69	2.89	2.88	3.09	3.07	0.32	0.25
981	FEMA 769 SanMateo	568315	4156559	2.65	2.65	2.86	2.84	3.08	3.03	0.32	0.26
982	FEMA 656 Alameda	576051	4156815	-	2.69	2.88	2.87	3.09	3.05	0.32	0.27
983	FEMA 770 SanMateo	567890	4156888	2.64	-	2.86	2.83	3.07	3.02	0.31	0.29
984	FEMA 774 SanMateo	567119	4157015	2.64	2.64	2.85	2.84	3.07	3.01	0.32	0.26
985	FEMA 655 Alameda	575883	4157297	-	2.69	2.88	2.87	3.09	3.05	0.32	0.27
986	FEMA 775 SanMateo	566795	4157172	2.64	-	2.85	2.83	3.07	3.00	0.31	0.27
987	FEMA 773 SanMateo	567190	4157289	2.64	2.64	2.85	2.83	3.07	3.01	0.31	0.26
988	FEMA 771 SanMateo	567636	4157319	2.64	2.64	2.86	2.84	3.07	3.04	0.31	0.27
989	FEMA 772 SanMateo	567312	4157476	2.64	2.64	2.85	2.84	3.07	3.01	0.31	0.26
990	FEMA 654 Alameda	575716	4157778	-	2.69	2.88	2.87	3.08	3.05	0.31	0.27
991	FEMA 776 SanMateo	566679	4157568	2.64	-	2.85	2.83	3.08	3.00	0.33	0.27
992	FEMA 777 SanMateo	566425	4157999	2.63	-	2.85	2.82	3.07	3.00	0.32	0.27
993	FEMA 653 Alameda	575549	4158260	-	-	2.88	2.86	3.07	3.05	0.31	0.29
994	FEMA 652 Alameda	575210	4158640	-	2.67	2.87	2.87	3.06	3.06	0.31	0.27
995	FEMA 778 SanMateo	566172	4158429	2.63	-	2.84	2.82	3.06	3.00	0.32	0.28
996	FEMA 783 SanMateo	564271	4158704	2.62	-	2.83	2.80	3.06	2.98	0.31	0.28
997	FEMA 779 SanMateo	565746	4158759	2.63	-	2.84	2.82	3.06	2.99	0.32	0.27
998	FEMA 651 Alameda	574956	4159071	2.67	-	2.88	2.86	3.09	3.05	0.33	0.29
999	FEMA 788 SanMateo	562386	4158755	2.61	2.61	2.82	2.80	3.04	2.98	0.31	0.25
1000	FEMA 787 SanMateo	562421	4158892	2.61	2.61	2.82	2.80	3.04	2.98	0.31	0.25
1001	FEMA 782 SanMateo	564702	4158957	2.62	-	2.83	2.81	3.04	2.99	0.31	0.28
1002	FEMA 780 SanMateo	565371	4159002	2.62	-	2.84	2.81	3.06	2.99	0.32	0.28
1003	FEMA 784 SanMateo	563759	4158982	2.61	2.62	2.83	2.81	3.03	2.99	0.30	0.24
1004	FEMA 786 SanMateo	562730	4158957	2.61	-	2.82	2.80	3.03	2.97	0.31	0.28
1005	FEMA 781 SanMateo	565234	4159038	2.62	-	2.84	2.81	3.06	2.99	0.32	0.28
1006	FEMA 785 SanMateo	563212	4159125	2.61	-	2.83	2.80	3.05	2.97	0.31	0.28
1007	FEMA 789 SanMateo	562269	4159150	2.61	2.61	2.82	2.80	3.03	2.99	0.31	0.26
1008	FEMA 650 Alameda	574875	4159603	2.66	2.67	2.88	2.86	3.08	3.04	0.33	0.26
1009	FEMA 790 SanMateo	561722	4159292	2.61	2.61	2.82	2.80	3.03	2.98	0.31	0.25
1010	FEMA 791 SanMateo	561174	4159434	2.60	2.61	2.82	2.80	3.04	2.98	0.30	0.26
1011	FEMA 649 Alameda	574880	4160186	-	2.66	2.86	2.86	3.06	3.04	0.31	0.25
1012	FEMA 792 SanMateo	560835	4159814	2.60	2.61	2.82	2.80	3.04	2.98	0.30	0.25
1013	FEMA 648 Alameda	574800	4160719	-	-	2.86	2.85	3.05	3.02	0.31	0.26
1014	FEMA 793 SanMateo	560977	4160362	2.60	-	2.81	2.79	3.03	2.97	0.30	0.27
1015	FEMA 647 Alameda	574942	4161266	-	2.66	2.86	2.84	3.05	3.03	0.31	0.28
1016	FEMA 801 SanMateo	557794	4161042	2.59	2.59	2.80	2.79	3.03	2.96	0.29	0.24
1017	FEMA 802 SanMateo	557606	4161163	2.59	2.59	2.80	2.78	3.01	2.96	0.31	0.24

1018	FEMA 646 Alameda	574947	4161849	-	2.65	2.86	2.85	3.05	3.02	0.31	0.27
1019	FEMA 803 SanMateo	557181	4161493	2.59	-	2.80	2.78	3.02	2.95	0.29	0.27
1020	FEMA 804 SanMateo	556841	4161873	2.59	-	2.80	2.78	3.02	2.95	0.28	0.27
1021	FEMA 645 Alameda	574866	4162381	2.65	2.65	2.86	2.85	3.08	3.03	0.31	0.25
1022	FEMA 891 SanFrancisco	556674	4162355	2.59	-	2.80	2.78	3.02	2.95	0.29	0.26
1023	FEMA 644 Alameda	574699	4162863	2.65	2.65	2.86	2.85	3.08	3.04	0.31	0.28
1024	FEMA 890 SanFrancisco	556400	4162426	2.59	-	2.80	2.78	3.02	2.95	0.29	0.25
1025	FEMA 892 SanFrancisco	556932	4162507	2.59	-	2.80	2.77	3.03	2.95	0.31	0.26
1026	FEMA 889 SanFrancisco	556436	4162563	2.59	-	2.80	2.78	3.02	2.95	0.29	0.25
1027	FEMA 888 SanFrancisco	555802	4162654	2.59	2.59	2.80	2.79	3.02	2.97	0.29	0.24
1028	FEMA 643 Alameda	574531	4163344	2.64	2.65	2.86	2.85	3.08	3.04	0.32	0.29
1029	FEMA 642 Alameda	574430	4163517	2.64	-	2.86	2.83	3.07	3.01	0.31	0.27
1030	FEMA 641 Alameda	574379	4163603	2.64	2.64	2.86	2.84	3.08	3.03	0.33	0.27
1031	FEMA 640 Alameda	574501	4163790	2.64	2.64	2.86	2.84	3.08	3.03	0.33	0.28
1032	FEMA 639 Alameda	574593	4164424	2.64	2.64	2.85	2.84	3.06	3.04	0.31	0.29
1033	FEMA 638 Alameda	574461	4165042	2.63	2.64	2.85	2.84	3.07	3.04	0.32	0.28
1034	FEMA 637 Alameda	574431	4165488	2.63	2.63	2.85	2.84	3.07	3.03	0.32	0.27
1035	FEMA 636 Alameda	574486	4165985	2.63	2.63	2.85	2.83	3.07	3.03	0.33	0.28
1036	FEMA 635 Alameda	574319	4166467	2.63	2.63	2.85	2.83	3.06	3.03	0.33	0.27
1037	FEMA 806 SanMateo	554120	4166304	2.57	2.57	2.79	2.77	3.01	2.96	0.28	0.25
1038	FEMA 634 Alameda	574152	4166948	2.63	2.63	2.84	2.83	3.06	3.02	0.34	0.27
1039	FEMA 807 SanMateo	554277	4166628	2.57	2.57	2.79	2.77	3.00	2.96	0.30	0.25
1040	FEMA 808 SanMateo	554810	4166709	2.57	-	2.79	2.76	3.02	2.92	0.30	0.25
1041	FEMA 633 Alameda	574157	4167531	2.63	-	2.84	2.82	3.05	3.01	0.34	0.29
1042	FEMA 632 Alameda	573904	4167962	2.62	2.62	2.84	2.83	3.05	3.04	0.31	0.29
1043	FEMA 631 Alameda	573615	4168256	2.62	2.62	2.84	2.83	3.06	3.03	0.34	0.28
1044	FEMA 630 Alameda	573189	4168586	2.62	2.62	2.84	2.82	3.05	3.03	0.33	0.28
1045	FEMA 629 Alameda	572850	4168966	2.62	2.62	2.83	2.82	3.05	3.04	0.33	0.29
1046	FEMA 628 Alameda	572906	4169463	2.62	2.62	2.83	2.81	3.04	3.00	0.32	0.28
1047	FEMA 816 SanMateo	554095	4169305	2.55	2.55	2.77	2.75	2.99	2.93	0.30	0.26
1048	FEMA 627 Alameda	572997	4170096	2.61	2.62	2.84	2.81	3.08	3.00	0.35	0.28
1049	FEMA 626 Alameda	572536	4170289	2.61	2.61	2.83	2.82	3.08	3.01	0.35	0.28
1050	FEMA 625 Alameda	572283	4170720	2.61	2.61	2.83	2.81	3.08	3.01	0.36	0.30
1051	FEMA 624 Alameda	572029	4171151	2.61	2.61	2.83	2.81	3.08	3.00	0.35	0.29
1052	FEMA 623 Alameda	571603	4171480	2.61	-	2.83	2.80	3.06	2.99	0.32	0.28
1053	FEMA 618 Alameda	570757	4172722	2.60	-	2.82	2.80	3.05	2.98	0.34	0.30
1054	FEMA 617 Alameda	570980	4172738	2.60	-	2.82	2.80	3.05	2.98	0.34	0.30
1055	FEMA 616 Alameda	571051	4173011	2.60	2.60	2.82	2.80	3.05	2.99	0.35	0.28
1056	FEMA 614 Alameda	570332	4173052	2.60	-	2.82	2.80	3.05	2.98	0.35	0.30
1057	FEMA 615 Alameda	570778	4173082	2.60	-	2.82	2.80	3.05	2.98	0.35	0.30
1058	FEMA 610 Alameda	569784	4173194	2.60	-	2.82	2.79	3.03	2.98	0.32	0.29
1059	FEMA 613 Alameda	570078	4173483	2.60	-	2.82	2.80	3.05	2.98	0.33	0.30

1060	FEMA 611 Alameda	569789	4173777	2.60	-	2.82	2.80	3.05	2.98	0.33	0.30
1061	FEMA 612 Alameda	569962	4173878	2.60	2.60	2.82	2.80	3.03	2.99	0.32	0.29
1062	FEMA 840 SanFrancisco	554730	4175128	2.53	2.53	2.75	2.73	2.98	2.92	0.33	0.27
1063	FEMA 855 SanFrancisco	555156	4176771	2.48	2.49	2.71	2.69	2.94	2.86	0.32	0.26
1064	FEMA 593 Alameda	565456	4178188	2.52	-	2.74	2.72	2.97	2.90	0.32	0.29
1065	FEMA 592 Alameda	565887	4178441	2.52	-	2.74	2.72	2.96	2.91	0.33	0.30
1066	FEMA 591 Alameda	565375	4178720	2.52	-	2.74	2.72	2.98	2.91	0.36	0.30
1067	FEMA 590 Alameda	565000	4178963	2.52	-	2.74	2.72	2.96	2.90	0.35	0.30
1068	FEMA 588 Alameda	563890	4179470	2.51	-	2.74	2.71	2.97	2.90	0.36	0.30
1069	FEMA 539 Alameda	559325	4186644	2.39	-	2.61	2.59	2.84	2.81	0.35	0.33
1070	FEMA 538 Alameda	559806	4186811	2.39	-	2.61	2.59	2.84	2.79	0.35	0.33
1071	FEMA 535 Alameda	561266	4187089	2.39	-	2.62	2.60	2.84	2.80	0.37	0.33
1072	FEMA 536 Alameda	560769	4187145	2.39	2.39	2.61	2.60	2.83	2.78	0.33	0.30
1073	FEMA 537 Alameda	560308	4187338	2.39	2.39	2.61	2.60	2.84	2.78	0.34	0.30
1074	FEMA 534 Alameda	561271	4187672	2.39	2.40	2.62	2.60	2.84	2.80	0.35	0.32
1075	FEMA 122 Marin	549715	4191547	2.33	2.33	2.55	2.54	2.77	2.73	0.34	0.31
1076	FEMA 22 Marin	544561	4192227	2.32	-	2.54	2.52	2.75	2.72	0.32	0.31
1077	FEMA 17 Marin	543106	4192531	2.32	2.32	2.54	2.52	2.75	2.70	0.34	0.30
1078	FEMA 20 Marin	543638	4192612	2.32	2.32	2.54	2.53	2.75	2.71	0.34	0.29
1079	FEMA 18 Marin	542853	4192962	-	2.32	2.54	2.53	2.74	2.71	0.32	0.30
1080	FEMA 25 Marin	544095	4193809	2.32	-	2.55	2.52	2.77	2.72	0.33	0.32
1081	FEMA 502 ContraCosta	556701	4194262	2.37	2.38	2.61	2.58	2.87	2.78	0.37	0.34
1082	FEMA 501 ContraCosta	556239	4194455	2.37	2.37	2.60	2.58	2.84	2.78	0.36	0.33
1083	FEMA 504 ContraCosta	556893	4194724	2.37	2.37	2.60	2.58	2.83	2.76	0.36	0.31
1084	FEMA 500 ContraCosta	555727	4194734	2.37	2.37	2.59	2.58	2.82	2.76	0.37	0.33
1085	FEMA 505 ContraCosta	556554	4195104	2.36	2.36	2.59	2.57	2.82	2.76	0.37	0.32
1086	FEMA 482 ContraCosta	558992	4195494	2.38	2.39	2.61	2.59	2.83	2.79	0.38	0.33
1087	FEMA 481 ContraCosta	558358	4195585	2.38	2.38	2.62	2.59	2.87	2.79	0.38	0.33
1088	FEMA 58 Marin	544729	4197661	2.36	-	2.58	2.56	2.80	2.78	0.35	0.31
1089	FEMA 59 Marin	544131	4197889	2.35	-	2.59	2.57	2.84	2.77	0.35	0.31
1090	FEMA 60 Marin	544222	4198522	2.36	-	2.59	2.57	2.81	2.77	0.34	0.31
1091	FEMA 452 ContraCosta	552069	4201745	2.37	2.37	2.60	2.59	2.84	2.79	0.37	0.31
1092	FEMA 71 Marin	544938	4201842	2.36	-	2.59	2.57	2.82	2.78	0.34	0.33
1093	FEMA 451 ContraCosta	552262	4202206	2.37	2.37	2.61	2.59	2.87	2.81	0.40	0.33
1094	FEMA 130 Marin	546707	4202187	2.36	2.36	2.59	2.58	2.83	2.79	0.35	0.30
1095	FEMA 72 Marin	544907	4202288	2.36	2.36	2.60	2.58	2.84	2.80	0.37	0.32
1096	FEMA 448 ContraCosta	553504	4203052	2.37	2.38	2.62	2.60	2.88	2.82	0.39	0.33
1097	FEMA 447 ContraCosta	553646	4203600	2.38	2.38	2.62	2.60	2.86	2.82	0.37	0.33
1098	FEMA 445 ContraCosta	554660	4203848	2.38	2.39	2.63	2.61	2.88	2.82	0.39	0.31
1099	FEMA 446 ContraCosta	554077	4203853	2.38	2.38	2.62	2.61	2.88	2.83	0.38	0.33
1100	FEMA 78 Marin	546960	4203727	2.36	2.36	2.60	2.59	2.86	2.81	0.36	0.31
1101	FEMA 444 ContraCosta	555141	4204015	2.39	2.39	2.63	2.61	2.88	2.82	0.39	0.33

1102	FEMA 77 Marin	546550	4203834	2.36	2.36	2.60	2.58	2.85	2.80	0.36	0.30
1103	FEMA 443 ContraCosta	555471	4204441	2.39	2.39	2.63	2.61	2.90	2.83	0.40	0.33
1104	FEMA 442 ContraCosta	555714	4204816	2.39	2.39	2.64	2.61	2.91	2.83	0.38	0.33
1105	FEMA 441 ContraCosta	555719	4205399	2.39	2.39	2.64	2.62	2.90	2.82	0.37	0.33
1106	FEMA 440 ContraCosta	555380	4205779	2.39	2.39	2.64	2.62	2.90	2.83	0.38	0.32
1107	FEMA 90 Marin	546064	4207027	2.40	2.40	2.64	2.62	2.88	2.82	0.38	0.33
1108	FEMA 424 ContraCosta	560778	4207445	2.41	2.41	2.65	2.63	2.88	2.86	0.40	0.33
1109	FEMA 423 ContraCosta	561346	4207663	2.41	2.41	2.65	2.63	2.89	2.85	0.39	0.34
1110	FEMA 91 Marin	545638	4207357	2.40	2.40	2.64	2.63	2.89	2.83	0.36	0.30
1111	FEMA 92 Marin	545212	4207686	2.40	-	2.65	2.62	2.89	2.85	0.37	0.33
1112	FEMA 422 ContraCosta	561985	4208155	2.41	2.41	2.65	2.63	2.89	2.86	0.39	0.34
1113	FEMA 93 Marin	545146	4207995	2.40	-	2.65	2.63	2.89	2.83	0.37	0.30
1114	FEMA 94 Marin	545116	4208441	-	-	2.64	2.63	2.87	2.84	0.35	0.33
1115	FEMA 386 ContraCosta	576796	4209790	2.35	2.33	2.59	2.56	2.82	2.78	0.42	0.36
1116	FEMA 95 Marin	545035	4208974	-	2.41	2.64	2.63	2.87	2.83	0.35	0.30
1117	FEMA 370 ContraCosta	583279	4210007	2.18	-	2.56	2.52	2.98	2.98	0.61	0.47
1118	FEMA 96 Marin	545005	4209420	-	-	2.64	2.63	2.86	2.84	0.35	0.32
1119	FEMA 372 ContraCosta	582255	4210565	2.28	2.26	2.59	2.55	2.89	2.84	0.46	0.39
1120	FEMA 383 ContraCosta	578311	4210565	2.34	-	2.60	2.58	2.86	2.84	0.43	0.33
1121	FEMA 331 ContraCosta	598395	4211125	2.36	2.33	2.71	2.64	3.06	2.95	0.48	0.39
1122	FEMA 330 ContraCosta	598826	4211379	2.36	2.33	2.71	2.64	3.05	2.97	0.48	0.41
1123	FEMA 334 ContraCosta	597797	4211353	2.36	2.33	2.70	2.64	3.03	2.96	0.44	0.40
1124	FEMA 97 Marin	544924	4209952	2.41	-	2.65	2.63	2.89	2.85	0.35	0.32
1125	FEMA 340 ContraCosta	594350	4211298	2.34	2.31	2.68	2.62	3.02	2.92	0.50	0.38
1126	FEMA 382 ContraCosta	578692	4210905	2.35	-	2.60	2.58	2.87	2.84	0.45	0.31
1127	FEMA 373 ContraCosta	582225	4211011	2.29	2.27	2.59	2.56	2.85	2.84	0.45	0.41
1128	FEMA 329 ContraCosta	599307	4211546	2.37	2.33	2.70	2.65	3.06	2.97	0.45	0.40
1129	FEMA 368 ContraCosta	583203	4211122	2.24	2.22	2.57	2.52	2.91	2.83	0.54	0.49
1130	FEMA 346 ContraCosta	591521	4211375	2.35	2.32	2.66	2.61	2.96	2.88	0.45	0.39
1131	FEMA 328 ContraCosta	599839	4211627	2.36	2.33	2.71	2.65	3.05	2.98	0.48	0.40
1132	FEMA 381 ContraCosta	579123	4211158	2.35	2.34	2.60	2.57	2.87	2.79	0.44	0.36
1133	FEMA 345 ContraCosta	592363	4211521	2.35	2.31	2.67	2.61	2.98	2.91	0.43	0.38
1134	FEMA 365 ContraCosta	583685	4211289	2.23	2.22	2.56	2.51	2.90	2.81	0.52	0.48
1135	FEMA 375 ContraCosta	581850	4211254	2.30	2.28	2.60	2.57	2.87	2.84	0.44	0.41
1136	FEMA 348 ContraCosta	590254	4211557	2.35	2.32	2.66	2.61	2.96	2.89	0.44	0.38
1137	FEMA 277 Solano	596291	4211744	2.35	2.32	2.69	2.63	3.02	2.95	0.42	0.41
1138	FEMA 347 ContraCosta	590923	4211603	2.35	2.32	2.66	2.61	2.97	2.91	0.45	0.39
1139	FEMA 276 Solano	595708	4211749	2.35	2.32	2.69	2.63	3.04	2.93	0.48	0.39
1140	FEMA 275 Solano	595125	4211754	2.35	2.31	2.68	2.62	3.03	2.92	0.44	0.37
1141	FEMA 274 Solano	594542	4211759	2.35	2.31	2.68	2.62	3.01	2.93	0.43	0.40
1142	FEMA 278 Solano	596823	4211825	2.35	2.32	2.70	2.63	3.04	2.95	0.49	0.39
1143	FEMA 380 ContraCosta	579776	4211427	2.35	2.34	2.61	2.57	2.89	2.80	0.43	0.37

1144	FEMA 98 Marin	545066	4210499	-	-	2.64	2.63	2.87	2.84	0.35	0.32
1145	FEMA 363 ContraCosta	583979	4211578	2.21	2.18	2.57	2.52	2.93	2.91	0.58	0.50
1146	FEMA 273 Solano	593858	4211937	2.34	2.31	2.68	2.62	3.03	2.94	0.49	0.39
1147	FEMA 349 ContraCosta	589742	4211836	2.35	2.32	2.65	2.60	2.94	2.88	0.45	0.39
1148	FEMA 353 ContraCosta	587719	4211922	-	2.32	2.65	2.60	2.95	2.87	0.38	0.38
1149	FEMA 376 ContraCosta	581769	4211786	2.34	2.33	2.61	2.58	2.89	2.83	0.47	0.38
1150	FEMA 378 ContraCosta	580740	4211761	2.35	2.34	2.62	2.58	2.92	2.82	0.47	0.36
1151	FEMA 204 Solano	576847	4211676	2.34	2.33	2.60	2.56	2.87	2.77	0.41	0.34
1152	FEMA 280 Solano	597736	4212246	2.36	2.32	2.70	2.64	3.03	2.97	0.47	0.45
1153	FEMA 327 ContraCosta	599880	4212347	2.37	2.33	2.71	2.65	3.07	2.97	0.48	0.42
1154	FEMA 281 Solano	598268	4212327	2.36	2.33	2.70	2.64	3.05	2.96	0.45	0.39
1155	FEMA 377 ContraCosta	581358	4211893	2.35	2.34	2.62	2.58	2.93	2.79	0.45	0.35
1156	FEMA 350 ContraCosta	589230	4212115	2.35	2.32	2.65	2.60	2.93	2.88	0.45	0.37
1157	FEMA 99 Marin	544985	4211032	2.41	-	2.66	2.64	2.91	2.84	0.36	0.32
1158	FEMA 352 ContraCosta	588237	4212227	2.35	2.32	2.65	2.60	2.94	2.88	0.47	0.40
1159	FEMA 374 ContraCosta	582286	4212090	2.35	2.33	2.62	2.59	2.90	2.85	0.43	0.39
1160	FEMA 351 ContraCosta	588769	4212308	2.35	2.32	2.65	2.60	2.93	2.88	0.45	0.38
1161	FEMA 362 ContraCosta	583624	4212182	2.35	2.33	2.63	2.59	2.91	2.87	0.43	0.39
1162	FEMA 326 ContraCosta	600260	4212686	2.36	2.32	2.71	2.65	3.10	2.97	0.47	0.43
1163	FEMA 286 Solano	578788	4212121	2.35	-	2.61	2.59	2.89	2.85	0.44	0.31
1164	FEMA 355 ContraCosta	586437	4212328	-	2.32	2.64	2.60	2.95	2.89	0.39	0.37
1165	FEMA 282 Solano	598735	4212717	2.36	2.33	2.71	2.65	3.06	2.95	0.45	0.38
1166	FEMA 289 Solano	579407	4212253	2.35	2.34	2.61	2.58	2.89	2.82	0.43	0.37
1167	FEMA 205 Solano	577161	4212324	2.35	2.34	2.60	2.57	2.88	2.80	0.44	0.35
1168	FEMA 271 Solano	593488	4212763	2.35	2.32	2.67	2.62	2.98	2.91	0.44	0.41
1169	FEMA 283 Solano	599165	4212970	2.37	2.33	2.71	2.65	3.07	2.96	0.48	0.38
1170	FEMA 360 ContraCosta	583953	4212607	2.35	2.33	2.63	2.59	2.90	2.88	0.45	0.39
1171	FEMA 361 ContraCosta	583593	4212628	2.35	2.33	2.63	2.59	2.90	2.87	0.41	0.39
1172	FEMA 287 Solano	579254	4212512	2.35	2.34	2.61	2.58	2.89	2.81	0.43	0.36
1173	FEMA 100 Marin	544990	4211614	2.42	-	2.66	2.64	2.89	2.84	0.34	0.32
1174	FEMA 269 Solano	594502	4213011	2.36	2.32	2.67	2.62	2.97	2.92	0.45	0.39
1175	FEMA 288 Solano	579736	4212679	2.35	2.34	2.61	2.58	2.89	2.79	0.43	0.37
1176	FEMA 284 Solano	599546	4213310	2.36	2.33	2.71	2.65	3.10	2.98	0.47	0.43
1177	FEMA 206 Solano	577526	4212887	2.35	2.34	2.61	2.57	2.89	2.80	0.46	0.37
1178	FEMA 487 ContraCosta	588794	4213250	2.35	2.32	2.65	2.60	2.95	2.89	0.46	0.39
1179	FEMA 290 Solano	580872	4213115	2.35	2.34	2.62	2.58	2.95	2.79	0.50	0.37
1180	FEMA 296 Solano	581541	4213160	2.35	2.34	2.62	2.58	2.88	2.80	0.43	0.36
1181	FEMA 486 ContraCosta	589190	4213367	2.35	2.32	2.65	2.60	2.96	2.91	0.41	0.39
1182	FEMA 488 ContraCosta	588161	4213342	2.35	2.32	2.65	2.60	2.93	2.87	0.44	0.38
1183	FEMA 101 Marin	545081	4212248	-	-	2.65	2.64	2.87	2.84	0.35	0.32
1184	FEMA 489 ContraCosta	587441	4213382	2.35	2.32	2.64	2.60	2.93	2.89	0.42	0.41
1185	FEMA 268 Solano	594593	4213645	2.36	2.32	2.67	2.62	2.98	2.92	0.43	0.38

1186	FEMA 295 Solano	582022	4213327	2.35	2.34	2.62	2.58	2.89	2.79	0.43	0.37
1187	FEMA 285 Solano	599774	4213908	2.37	2.33	2.72	2.66	3.10	2.99	0.45	0.44
1188	FEMA 291 Solano	581389	4213419	2.35	2.34	2.62	2.58	2.93	2.79	0.41	0.36
1189	FEMA 192 Solano	571408	4213232	2.34	2.34	2.58	2.56	2.81	2.76	0.41	0.34
1190	FEMA 325 Solano	588850	4213747	2.35	2.32	2.65	2.60	2.93	2.89	0.45	0.40
1191	FEMA 292 Solano	581906	4213723	2.36	2.34	2.62	2.58	2.90	2.80	0.43	0.36
1192	FEMA 102 Marin	545137	4212745	-	-	2.65	2.64	2.87	2.85	0.35	0.32
1193	FEMA 293 Solano	582352	4213753	2.36	2.34	2.63	2.58	2.90	2.80	0.44	0.37
1194	FEMA 304 Solano	585079	4213849	2.35	2.33	2.63	2.59	2.91	2.88	0.46	0.38
1195	FEMA 324 Solano	588252	4213975	2.35	2.33	2.65	2.60	2.94	2.89	0.43	0.38
1196	FEMA 172 Solano	562218	4213279	2.40	2.40	2.63	2.63	2.87	2.85	0.41	0.35
1197	FEMA 305 Solano	584582	4213905	2.35	2.33	2.63	2.59	2.89	2.89	0.39	0.39
1198	FEMA 294 Solano	582747	4213870	2.36	2.34	2.63	2.59	2.89	2.84	0.42	0.38
1199	FEMA 303 Solano	585474	4213966	2.35	2.33	2.63	2.59	2.90	2.88	0.44	0.38
1200	FEMA 267 Solano	594598	4214228	2.36	2.33	2.67	2.62	2.99	2.91	0.45	0.38
1201	FEMA 306 Solano	583948	4213996	2.35	2.33	2.63	2.59	2.90	2.88	0.44	0.39
1202	FEMA 254 Solano	590209	4214198	2.35	2.32	2.65	2.60	2.96	2.89	0.44	0.40
1203	FEMA 253 Solano	589626	4214203	2.35	2.32	2.65	2.60	2.95	2.87	0.45	0.38
1204	FEMA 297 Solano	583624	4214153	2.36	2.34	2.63	2.59	2.91	2.82	0.45	0.34
1205	FEMA 302 Solano	585905	4214219	2.35	2.33	2.64	2.60	2.91	2.88	0.45	0.38
1206	FEMA 266 Solano	595029	4214481	2.36	2.33	2.67	2.62	2.96	2.90	0.42	0.38
1207	FEMA 208 Solano	578342	4214063	2.35	2.34	2.61	2.58	2.90	2.79	0.46	0.36
1208	FEMA 255 Solano	590640	4214452	2.35	2.32	2.66	2.61	2.96	2.88	0.42	0.39
1209	FEMA 171 Solano	562548	4213705	2.40	2.40	2.64	2.63	2.86	2.85	0.39	0.35
1210	FEMA 103 Marin	545279	4213292	-	2.43	2.65	2.64	2.88	2.85	0.36	0.31
1211	FEMA 317 Solano	586473	4214437	-	2.33	2.65	2.60	2.95	2.88	0.37	0.39
1212	FEMA 257 Solano	591704	4214614	2.35	2.32	2.66	2.61	2.98	2.88	0.44	0.38
1213	FEMA 316 Solano	587005	4214518	2.36	2.33	2.64	2.60	2.88	2.88	0.41	0.37
1214	FEMA 301 Solano	585393	4214498	2.35	2.33	2.64	2.60	2.91	2.88	0.46	0.38
1215	FEMA 258 Solano	592236	4214695	2.35	2.32	2.66	2.61	2.97	2.89	0.45	0.38
1216	FEMA 315 Solano	587537	4214599	2.35	2.33	2.64	2.60	2.94	2.86	0.43	0.37
1217	FEMA 318 Solano	585925	4214579	-	2.33	2.64	2.59	2.95	2.86	0.37	0.35
1218	FEMA 265 Solano	595496	4214872	2.36	2.33	2.67	2.62	2.98	2.92	0.45	0.40
1219	FEMA 251 Solano	589185	4214756	-	2.32	2.65	2.60	2.97	2.88	0.40	0.39
1220	FEMA 259 Solano	592718	4214862	2.35	2.32	2.67	2.62	2.98	2.90	0.42	0.39
1221	FEMA 256 Solano	591329	4214857	2.35	2.32	2.66	2.61	2.96	2.89	0.44	0.38
1222	FEMA 250 Solano	588688	4214812	2.35	2.32	2.64	2.60	2.90	2.91	0.42	0.40
1223	FEMA 300 Solano	584795	4214726	2.36	2.34	2.64	2.60	2.91	2.83	0.44	0.37
1224	FEMA 252 Solano	589580	4214872	-	2.32	2.65	2.60	2.97	2.87	0.40	0.39
1225	FEMA 260 Solano	593199	4215029	2.35	2.32	2.67	2.62	2.98	2.90	0.42	0.38
1226	FEMA 299 Solano	584161	4214817	2.36	2.34	2.63	2.59	2.91	2.82	0.43	0.36
1227	FEMA 170 Solano	562467	4214237	2.41	2.41	2.65	2.64	2.89	2.88	0.40	0.35

1228	FEMA 262 Solano	594315	4215105	2.36	2.33	2.67	2.62	2.98	2.90	0.42	0.38
1229	FEMA 261 Solano	593732	4215110	2.36	2.33	2.67	2.62	2.98	2.90	0.42	0.38
1230	FEMA 314 Solano	587781	4214974	2.36	2.33	2.64	2.60	2.90	2.88	0.41	0.39
1231	FEMA 319 Solano	585586	4214959	2.36	2.34	2.64	2.60	2.91	2.83	0.44	0.37
1232	FEMA 323 Solano	585226	4214979	2.36	2.34	2.64	2.59	2.90	2.83	0.43	0.36
1233	FEMA 264 Solano	595379	4215267	2.36	2.33	2.67	2.62	2.98	2.92	0.42	0.40
1234	FEMA 263 Solano	594796	4215272	2.36	2.33	2.67	2.62	2.98	2.92	0.42	0.39
1235	FEMA 249 Solano	588262	4215141	2.36	2.33	2.65	2.60	2.94	2.87	0.43	0.39
1236	FEMA 210 Solano	579260	4215066	2.36	2.34	2.62	2.59	2.92	2.83	0.45	0.37
1237	FEMA 320 Solano	585606	4215319	2.36	2.34	2.64	2.60	2.90	2.84	0.44	0.38
1238	FEMA 169 Solano	562300	4214719	2.41	2.41	2.65	2.64	2.88	2.86	0.38	0.35
1239	FEMA 248 Solano	588369	4215552	2.36	2.33	2.65	2.60	2.91	2.88	0.43	0.39
1240	FEMA 105 Marin	545512	4214473	-	2.43	2.66	2.66	2.88	2.88	0.38	0.32
1241	FEMA 247 Solano	587821	4215694	2.36	2.34	2.64	2.60	2.90	2.87	0.41	0.35
1242	FEMA 322 Solano	584957	4215633	2.36	2.34	2.64	2.60	2.91	2.83	0.41	0.37
1243	FEMA 211 Solano	579762	4215593	2.36	2.34	2.62	2.59	2.93	2.84	0.44	0.36
1244	FEMA 168 Solano	562046	4215150	2.42	2.42	2.65	2.64	2.88	2.87	0.41	0.34