



Resilient Diamond Heights

Resilient Action Plan

2017/2018

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Section I

Program Overview

A. Vision & Mission Statements

Vision: The Diamond Heights Community will negotiate a disaster with the necessary social, economic and infrastructural resilience to support an expedited recovery and remain a diverse and inclusive place that residents, both current and future, will want to call home.

Mission: The Diamond Heights Advanced Disaster Resilience Project will provide Diamond Heights Neighborhood stakeholders (residents, merchant, faith-based, civic and nonprofit) a program/framework to achieve true disaster resilience.

B. Goals and Objectives

Resilient Diamond Heights Program Goals:

Community - The Diamond Heights Community has the collective capacity to respond to challenges in a manner that reflects the goals and priorities of its residents and stakeholder organizations.

Organizational - The businesses, faith-based organizations, non-profits and community organizations of Diamond Heights have the capacity to support both the needs of their existing and emerging audiences during times of stress.

Individual - Every resident has the capacity to care for themselves, and their neighbors, during times of stress.

2017 Goals by Functional Area:

Built Infrastructure - Ensure that the built infrastructure of the Diamond Heights neighborhood is able to withstand a disaster and quickly return to an operating condition that will support the recovery goals of the community.

Disaster Preparedness - Ensure that all members of the Diamond Heights Community, especially vulnerable populations, receive adequate levels of support post-disaster so they can remain a vibrant part of the Diamond Heights Community.

Economic - Promote resilience of businesses located in the Diamond Heights Community, so that those businesses can maintain and/or resume operations in the wake of the disaster and help ensure that the short and long-term economic needs of the neighborhood are met.

Education - Increase the overall resilience of the organizations which meet the educational goals of Diamond Heights Community, so that they are able to return to service as quickly as possible after a disaster.

Environment - Ensure that the natural environment of the Diamond Heights Community is protected during the response and recovery from a disaster in order to provide residents with a safe and healthy neighborhood to pursue their ongoing social and economic goals.

2017 Goals by Functional Area (Continued):

Health - Facilitate a sustained, supportive environment for all members of the Diamond Heights Community, in order to minimize the amount of psychological stress that occurs after a disaster.

Public Safety - Ensure that the highest level of safety for residents and visitors to the Diamond Heights Community is maintained before, during and after a disaster.

Social / Cultural / Spiritual - Promote strong and lasting social, cultural and spiritual connections that maintain a resilient, supportive and vibrant community.

2017 Objectives:

Community

- Connection: Ensure that neighborhood stakeholder organizations and their external resilience partners are able to communicate amongst themselves and residents before, during and after a disaster in a culturally-competent way.
- Capacity: Increase level of Interoperability between HUB Members and the agencies and organizations that are committed to contributing to their preparedness response and recovery goals.
- Resources: Advance the community's ability to identify and secure necessary resources and assets that will contribute to their collective ability to meet the needs of the neighborhood before, during and after times of stress.

Organizational

- Connection: Support HUB Member organizations' efforts to develop higher levels of interoperability amongst nearby stakeholder organizations and residents.
- Capacity: Ensure that HUB Member organizations have updated continuity of operations plans (COOP) in place at all times that are ready to be supported by trained staff through ongoing exercises and drills.
- Resources: Provide HUB Member organizations with the technical support to identify and procure essential resources they'll need to implement their continuity of operations plans (COOP).

Individual

- Connection: Provide streamlined access to information that supports an individual's ability to make smart decisions regarding mitigation, preparedness and response activities.
- Capacity: Increase the capacity of individuals, especially the most vulnerable, to meet their immediate health and safety needs during times of stress.
- Resources: Support residents' efforts to make one-time, and ongoing, investments in equipment and supplies that supports their needs during times of stress.

C. Program Background

In 2008 a group of leaders in the Diamond Heights Community came together to explore ways to advance the disaster resilience of their community. Taking the name The Diamond Heights Disaster Ready Workgroup, the group met at St. Aidan's Church and partnered with organizations such as the Red Cross and SF CARD (Community Agencies Responding to Disaster) to design and implement a disaster preparedness plan.

In the Summer of 2012, the Neighborhood Empowerment Network (NEN) was invited to present its Empowered Communities Program (ECP), which leverages the most current disaster resilience development data and advances FEMA's Whole Community Approach. As a result of this orientation, and the acquisition of funding from the CDC Foundation and FEMA, the Diamond Heights Community agreed to move forward with a deployment of the NEN's ECP.

Section II

Program Management

A. Projects

1. Project Plans by Working Group

- ◇ Neighborhood Emergency Response Team (NERT) Training
 - Sustain NERT trainings in Diamond Heights, increase the number of people who are NERT certified, re-certify trained NERT volunteers, and provide a consistent level of engagement and activation to ensure sustainability.
- ◇ Emergency Mass Feeding Planning, Psychological First Aid and other Trainings
 - Support the development of Emergency Mass Feeding protocols and trainings. Connect HUB members and the community at large with available trainings such as Psychological First Aid, etc.
- ◇ HUB Activation Working Group
 - Workshop and Table Top Exercise
- ◇ Neighborhood Support Center Working Group
 - Design and Implement a Neighborhood Support Center Plan
 - Train volunteers in advance to activate the Neighborhood Support Center during times of stress
- ◇ Preparedness Campaign
 - Create a disaster preparedness strategy for Diamond Heights
 - Engage housing developments with preparedness campaign

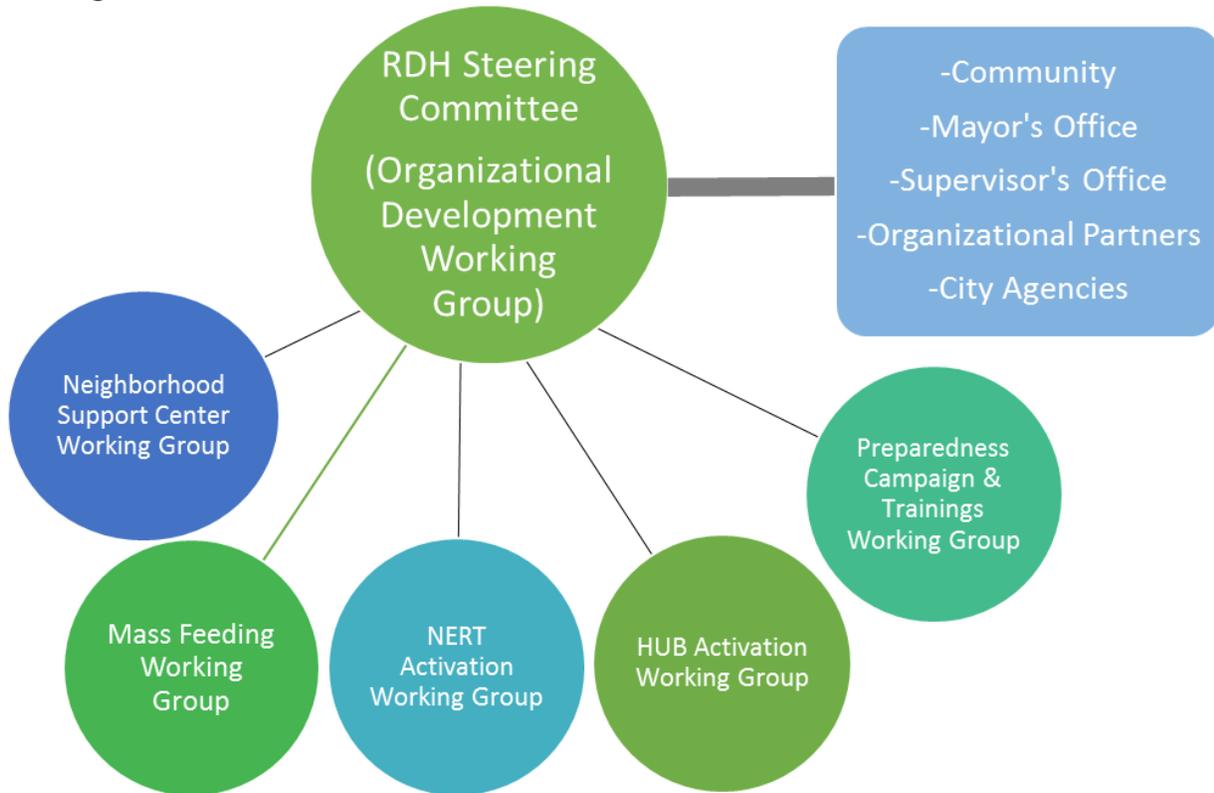
2. Timeline of Activities

2017 Project Timeline Summary														
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan		
2017/2018 RAP Development														
				St. Aidan's Neighborhood Support Center										
NERT Development														
				Mass Feeding Program Development and Trainings										
				Preparedness Campaign										
				HUB Member Assessments				HUB Workshop						
										Annual Planning Process				

Program Management

B. Governance

1. Organizational Chart



2. Steering Committee

The Resilient Diamond Heights Steering Committee is responsible for overseeing the Resilient Diamond Heights initiative and achieving the goals and objects outlined in the Resilient Action Plan.

- Betsy Eddy
- Greg Carey
- Jill Borofka
- Cynthia Woo

B. Governance

3. Working Groups

Each Resilient Diamond Heights Working Group is responsible for carrying out specific projects listed in the Resilient Action Plan.

- Neighborhood Support Center Working Group – (Chair: Betsy Eddy)

Convenes HUB members to assess the situation that is confronting their community and design and implement solutions using the core operating procedures of the Incident Command System (ICS).

- NERT Activation – (Chair: Greg Carey)

Sustain NERT trainings in Diamond Heights, increase the number of people who are NERT certified, as well as re-certify trained NERT volunteers, and provide a consistent level of engagement and activation to ensure sustainability.

- Mass Feeding and Trainings Working Group – (Chair: Jill Borofka)

Support the development of Emergency Mass Feeding protocols and trainings. Connect HUB members and the community at large with available trainings such as Psychological First Aid, etc.

- Preparedness Campaign Working Group (Chair: Jill Borofka)

Create a disaster preparedness strategy for Diamond Heights. Support individual, community and organizational preparedness campaigns.

- HUB Activation Working Group –

Assess and update the current status of continuity of operations plans (COOP) among organizations within the HUB. Annually, HUBs design and implement a Table Top Exercise in a workshop

C. Program Partners

1. HUB Members: NEN HUB Member are a vital part of each community's HUB development. Each member is either a member of the community or a partner institution that has shown an interest in the resilience of that community. All partner institutions and HUB members work together to make San Francisco a healthy and resilient place to live.
 - Betsy Eddy
 - Cynthia Woo
 - Greg Carey
 - Jill Borofka
 - Joe Castrovinci
2. Community Program Partners: Resilient Diamond Height's Community Program Partners offer various forms of support and guidance in the planning and implementation processes of the initiative. They are trusted community institutions that will become a lifeline post-disaster.
 - Academy of Arts and Sciences
 - Casa De Vida
 - Christopher Playground - Friends of Christopher Park
 - Diamond Heights Blvd Median Project
 - Diamond Heights Community Association
 - Diamond Heights Fire Station # 26
 - Diamond Heights Post Office
 - Diamond Heights Village Association
 - Diamond Hts. Shopping Center
 - Diamond Ridge
 - Diamond View Resident's Association
 - Eaves at Avalon
 - Glenridge Cooperative
 - Goldmine Hill Home Owners Association
 - Goldmine Terrace HOA
 - Harbor Villa
 - Harbor View Villas I
 - Harbor View Villas II
 - Jensen's Mail and Copy
 - Little Red Hen Community Garden
 - Neighborhood Empowerment Network
 - NERT Diamond Heights
 - Noe Valley Nursery School (NVNS)
 - Red Rock I HO Association
 - Red Rock II HO Association
 - Ruth Asawa School of the Arts (SOTA)
 - Safeway Diamond Heights
 - Safira Ct HO Association
 - San Francisco Police Department: Police Academy
 - Seven Hills Animal Hospital
 - SF CARD
 - SF VOAD
 - Shepherd of the Hills Lutheran Church/ New Life Congregation
 - St Nicholas Orthodox Church
 - St. Aidan's Episcopal Church
 - Topaz Way II
 - Vista Del Monte
 - Walgreens Diamond Heights
 - Walter Haas Park - Friends of WHP

C. NEN Member Partners: These organizations make up governmental, private sector and non-profit organizations that provide trainings, information and expertise to Resilient Communities pre and post-disaster.

- American Red Cross
- Bank of America
- Casa de Vida Housing Association
- FEMA
- Habitat for Humanity Greater San Francisco
- Healthy Hearts SF
- Institute of Civic & Community Engagement
- Mayor's Office of Neighborhood Services
- Meals on Wheels of San Francisco
- Microsoft
- Neighborhood Empowerment Network
- NERT, San Francisco Fire Department
- Nextdoor
- PG&E
- Project F.I.N. (Families in Need)
- Rebuilding Together SF
- Salesforce
- San Francisco Interfaith Council
- San Francisco Public Library
- San Francisco State University, ICCE
- SF Human Services Agency
- SF Office of Economic Workforce Development
- SF City Administrator's Office
- SF Department of Aging & Adult Services
- SF Department of Emergency Management
- SF Department of Environment
- SF Department of Public Health
- SF Department of Recreation and Parks
- SF CARD
- SF Public Utilities Commission
- SF SAFE
- SF VOAD
- Sterling Bank and Trust
- Team Rubicon
- The San Francisco Foundation
- University of California San Francisco
- US Bank
- US Post Office
- Walter & Elise Haas Foundation
- Warriors
- Young Community Developers

Section III

Supporting Documents

A. Community Profile

Below, information regarding the community has been compiled in order to further inform this Resilient Action Plan regarding the context of the community. The information has been gathered from various sources, including but not limited to the American Community Survey 2005-2009 5-year estimates, U.S. Census data and the San Francisco Planning Department. The following table includes data from Diamond Heights, West of Twin Peaks and Glen Park.

DEMOGRAPHICS		HOUSING CHARACTERISTICS	
Total Population*	22,830	Total Number of Units*	9,290
Group Quarter Population*	108	Units Built During 2010	10
Percent Female*	50%	Median Year Structure Built‡	1939
Households*	8,860	Occupied Units*	95%
Family Households*	66%	Owner occupied	84%
Households with Children, % of Total*	28%	Renter occupied	16%
Non-Family Households*	31%	Vacant Units*	5%
Single Person Households, % of Total*	21%	For rent	21%
Avg Household Size*	2.6	For sale only	14%
Avg Family Household Size*	3.1	Rented or sold, not occupied	9%
Race/Ethnicity*		For seasonal, recreational, or occ. Use	23%
Black/African American	2%	Other vacant	32%
Asian	31%	Median Year Moved In to Unit (Own)	1992
White	59%	Median Year Moved In to Unit (Rent)	2003
Native American Indian	0.20%	Structure Type	
Native Hawaiian/Pacific Islander	0.10%	Single Family Housing	88%
Other/Two or More Races	7%	2 - 4 Units	7%
% Latino (of Any Race)	9%	5 - 9 Units	1%
		10 - 19 Units	1%
Age*		20 Units or more	2%
0 - 4 years	5%	Other	0%
5 - 17 years	14%	Housing Prices	
18 - 34 years	15%	Median Rent	\$1,731
35 - 59 years	43%	Median Home Value Δ	\$929,594
60 and older	22%	Median Rent as % of Household Income	21%
Educational Attainment		Vehicles Available	15,500
(Residents 25 years and older)		Homeowners	87%
High School or Less	16%	Renters	13%
Some College/Associate Degree	20%	Vehicles Per Capita	0.7
College Degree	35%	Households with no vehicle	410
Graduate/Professional Degree	29%	Percent of Home owning households	3%
		Percent of Renting Households	11%

Section III

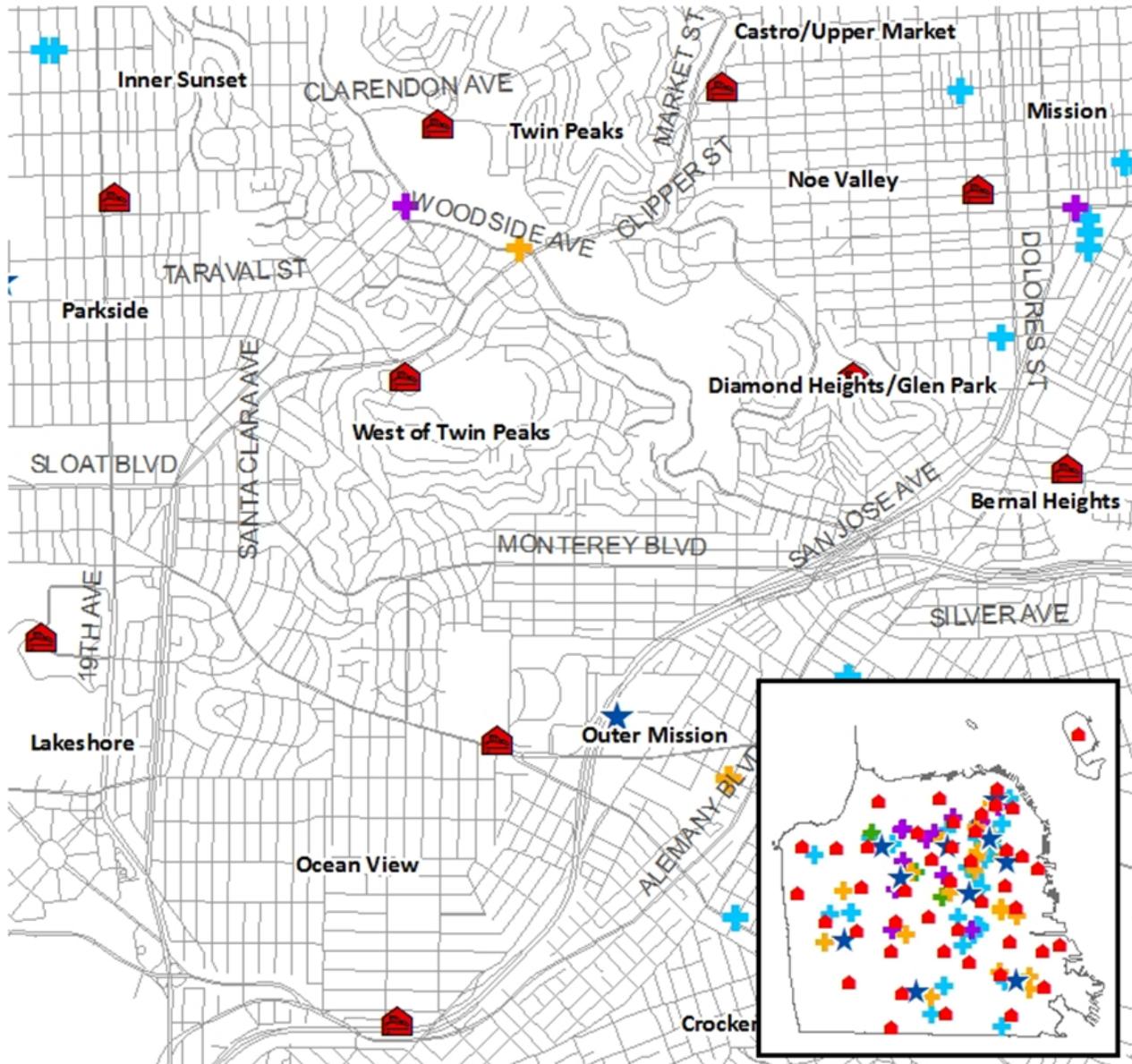
Supporting Documents

A. Community Profile (continued)

Nativity and Language		INCOME, EMPLOYMENT AND	
Foreign Born	26%	JOURNEY TO WORK	
Language Spoken at home		Income	
(Residents 5 years and older)		Median Household Income	\$121,151
English Only	65%	Median Family Income	\$139,153
Spanish Only	5%	Per Capita Income	\$58,240
Asian/Pacific Islander	20%	Percent in Poverty	6%
Other European Language	9%		
Other Languages	1%	Employment	5%
		Unemployment Rate	11,630
Linguistic Isolation		Employed Residents	62%
% of All Households	6%	Managerial and Professional Occupations	12%
% of Spanish-Speaking Households	7%	Service Occupations	18%
% of Asian Language Speaking Households	21%	Sales and Office Occupations	3%
% of Other European-Speaking Households	14%	Construction and Maintenance Occupations	5%
% of Households Speaking Other Languages	13%	Production and Transportation Occupations	
Notes:		Journey to Work	
* 2010 Census, Summary File 1.		Workers 16 years and over	11,240
‡ "1939" represents 1939 or earlier		Car	62%
Δ "\$1,000,000" means "\$1,000,000 or more"		Drove Alone	50%
2010 Census Tracts for area: 030600, 030700, 031000, 030800, 30400		Carpooled	12%
		Transit	27%
		Bike	1%
		Walk	2%
		Other	1%
		Worked at Home	7%

B. Neighborhood Asset Map

Public Assets



-  Fire Station
-  Police Station
-  Community Clinic
-  General Acute Care Hospital
-  Community Health Network
-  Free Clinic

City and County of San Francisco Department of Public Health: Environmental Health Branch

C. Community Resiliency Indicators

Community Resiliency Indicators measure both resilience and recovery to a hazard event. They are also used to assess areas and populations of high vulnerability, which are often indicative of an inability to resist or respond to disaster. Vulnerability and resilience play a role in how a disaster will impact a community and how that community will recover. The following list of community resiliency indicators was developed after an extensive literature review, engagement process, and review by City staff and community members. More information on Community Resiliency Indicators can be found at www.sfclimatehealth.org.

The Community Resiliency Indicators are divided into nine categories: hazards, transportation, environment, community, public realm, housing, economic, health, and demographic. Each category has a resiliency score on a scale of 1 (least resilient) to 5 (most resilient). The score is comparative and ranks Diamond Heights/Glen Park and West of Twin Peaks to other San Francisco neighborhoods.

The West of Twin Peaks and Diamond Heights/Glen Park neighborhoods are very resilient and score above the City average for almost all indicators. Indicators where these neighborhoods score below or near to city averages will be highlighted red. Specific indicators worth calling out include:

Children

The Diamond Heights and Miraloma Park neighborhoods have more children under 18 and under 5 than the San Francisco average. Children may be particularly vulnerable in a hazard event. Children develop dehydration, malnutrition, mental health impacts, and exhaustion more easily than adults. During hazards, children may need assistance and resources to evacuate.

Elderly

Elderly populations are at an increased risk for cardiovascular disease and respiratory disease, more sensitive to environmental stressors, and are more likely to have mobility constraints. This population is more likely to be socially isolated and dependent on city resources.

Community Resiliency Indicators (continued)

		Diamond Heights / Glen Park	West of Twin Peaks	San Francisco
Hazard	Percent of the neighborhood in the 100 year storm flood plain.	0.0%	0.0%	0.02%
	Percent of the neighborhood in 'high' or 'very high' heat vulnerability areas	0.0%	0.3%	26.70%
	Percent of the neighborhood in a liquefaction or landslide zone	19.8%	8.0%	22.86%
	Hazard Risk Score	4	5	
Environment	Percent impervious surface	43.3%	51.7%	63.50%
	Percent tree cover	24.1%	17.5%	13.74%
	Percent of land with 'low' or 'very low' air quality	0.40%	0.0%	3.73%
	Percent of the neighborhood within .25 miles of a contamination risk	0.6%	0.0%	0.00%
	Environmental Resiliency Score	5	5	
Transportation	Average minutes of active transportation (walk+bike) per day	19.1	15.1	16.4
	Public Transit Score	24.7	19.8	
	Transportation Resiliency Score	2	2	
Community	Violent crimes, per 1000 people	20.3	15.3	53.1
	Voting rates in the 2012 Presidential Election	84.0%	82.3%	72.50%
	Percent of the population that moved to San Francisco within the last year	7.2%	2.3%	7.60%
	Percent of the population without United States citizenship	11.5%	8.5%	18.00%
	Percent of population living in households without English spoken "Very Well"	5.4%	12.4%	23.20%
	Community Resiliency Score	5	5	

		Diamond Heights / Glen Park	West of Twin Peaks	San Francisco
Public Realm	Healthy Food Score	64.6	56.8	
	Percent of the population over 25 with a high school degree	95.8%	94.2%	85.90%
	Percent of the land area within .25 miles of a pharmacy	24.2%	25.7%	22.90%
	Public Realm Resiliency Score	3	3	
Housing	Percent of households with a resident living alone	37.7%	21.9%	39.40%
	Percent of households with a resident over 65 and living alone	10.2%	9.8%	10.00%
	Percent of households with 1 or more people per room	0.7%	1.1%	6.00%
	Residential housing violations, per 1000 people	5.5	3.6	12.1
	Percent of buildings with air conditioning	0.0%	0.0%	
	Percent of renter households whose gross rent is 50% or more of their household income	7.7%	3.7%	22.10%
	Housing Resiliency Score	4	4	
Economy	Percent of the population over 16 that are employed	93.8%	93.1%	92.00%
	Economy Resiliency Score	4	4	

Community Resiliency Indicators (continued)

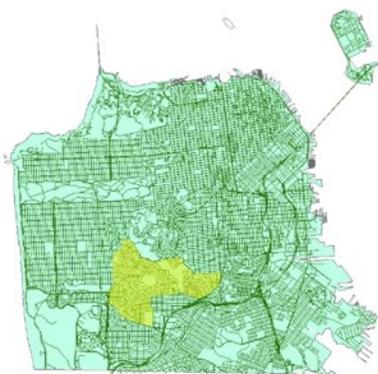
		Diamond Heights / Glen Park	West of Twin Peaks	San Francisco
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	Percent of buildings with air conditioning	0.0%	0.0%	
	Percent of renter households whose gross rent is 50% or more of their household income	7.7%	3.7%	22.10%
	Housing Resiliency Score	4	4	
Economy	Percent of the population over 16 that are employed	93.8%	93.1%	92.00%
	Economy Resiliency Score	4	4	
Health	Shelters and cooling centers within .25 miles, per 1000 people	0.35	0.24	0.13
	Shelters and cooling centers within .25 miles, per 1000 people (daytime population)	0.43	0.22	0.0001
	Percent of the population reporting a disability	7.4%	8.1%	10.50%
	Preventable hospitalizations, per 100,000 people	438.7	587.3	682.5
	Health Resiliency Score	4	4	
Demographics	Percent of the population over 85	1.5%	2.7%	2.20%
	Percent of the population over 65	13.2%	17.4%	13.70%
	Percent of the population under 18	14.7%	19.1%	13.40%
	Percent of the population under 5	7.1%	4.6%	4.40%
	Percent of the population non-white	32.2%	43.8%	50.00%
	Percent of the population Latino	12.0%	10.9%	14.70%
	Percent of the population Black / African American	3.3%	1.9%	5.80%
	Percent of the population Asian	16.3%	31.2%	33.20%
	Percent of households below 200% of the poverty rate	18.5%	14.1%	28.00%
	Population density, people per square mile	12163.5	10847.9	17179.1
	Daytime density, people per square mile	9734.7	11760.3	23280.9
	Demographics Resiliency Score	4	3	

D. Risk Hazard & Vulnerability Assessment

The objectives of this Neighborhood Resiliency Assessment are to identify potential hazards, prioritize their likelihood, and briefly summarize important contextual factors that will impact the severity of the hazard. These contextual factors include the accessibility of public transportation, community connectedness, the availability of goods and services, housing quality, economic wellbeing, demographics, health and well-being. Community resiliency is a compilation of these contextual factors: the ability or inability of a community to prepare and respond to acute external stressors, such as a disaster or chronic stressors such as climate change.

Diamond Heights / Miraloma Park Community Resiliency Assessment:

1. An introduction to the neighborhood.
2. A hazard-analysis of neighborhood vulnerability and resiliency. The hazards will be organized from greatest to least risk.
3. Hazard descriptions



Introduction: Diamond Heights and Miraloma Park

For the purpose of this community resiliency assessment, we examined the two neighborhoods most representative of the Diamond Heights and Miraloma Park communities: Diamond Heights/Glen Park and West of Twin Peaks. The boundaries of these neighborhoods can be seen highlighted yellow in the map to the left.

Bosworth Street and O'Shaughnessey Boulevard comprise the southern and western border of the Diamond Heights/Glen Park neighborhood, which extends up to Portola Avenue in the northwest, before heading southward along Diamond Heights Boulevard. The southwestern boundary of the neighborhood is San Jose Boulevard and Dolores Street. The West of Twin Peaks neighborhood is adjacent to the Diamond Heights/Glen Park neighborhood to the west and extends south along Phelan Avenue. The southern border of the neighborhood is Ocean Avenue, and its western border is 14th Street.

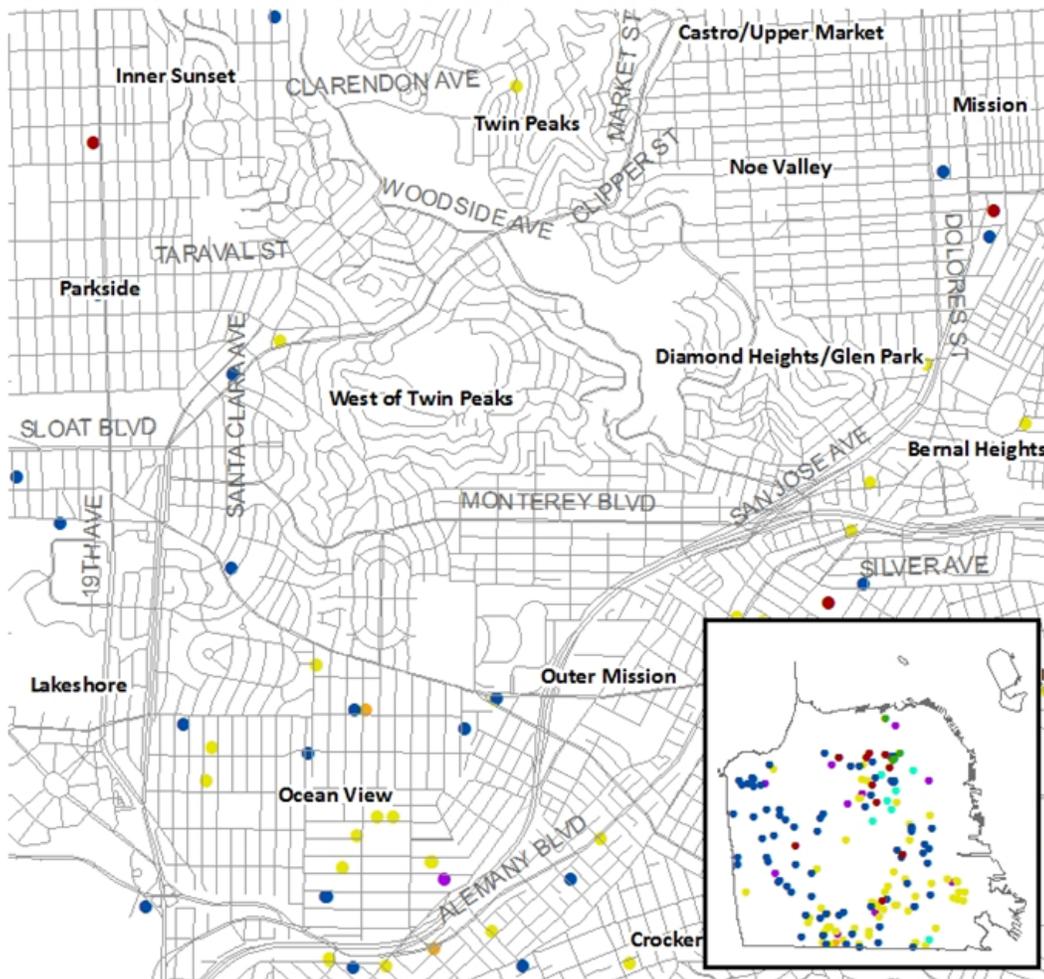
The following map identifies Residential Care Homes and Facilities. Diamond Heights/Glen Park and West of Twin Peaks are comparatively farther away from food retail, health services, and other public services than many other San Francisco neighborhoods. Although the Glen Park BART Station and bus lines cross the neighborhoods, many residents are auto-dependent because of the elevation change.

Hazard Assessment – Note on Residential Care Home and Facilities

In a hazard event, residents of residential care homes and facilities will require city resources as most of the residents are more likely to have pre-existing health conditions, and are often reliant on medicine, respirators and other medical devices. Any disruption in electricity service or public transportation service, or sheltering-in-place will be particularly impactful to this population.

The following is a map of residential care homes and facilities for the elderly, children, chronically ill, and other vulnerable populations that will require special aid and city services in the event of a hazard.

Residential Care Homes and Facilities



- Adult Residential Facility
- Assisted Living for the Elderly
- Elderly Residential Care Continuing Contracts
- Children's Residential Group Home
- Skilled Nursing Facility
- Transitional Housing Transition-Age Youth
- Residential Care for Chronically Ill Age 18+

City and County of San Francisco Department of Public Health: Environmental Health Branch

Hazard Assessment – Earthquakes (High Risk)

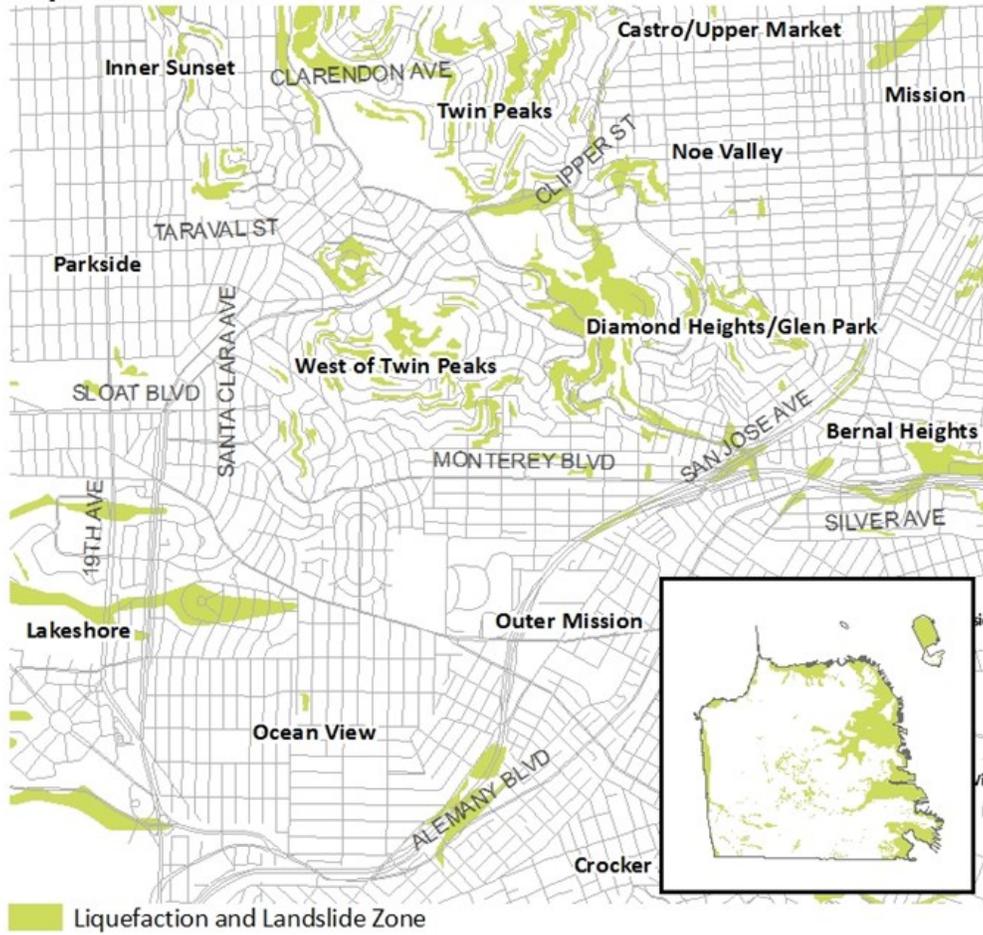
The Diamond Heights/Glen Park and West of Twin Peaks neighborhoods are at high risk for soil liquefaction in an earthquake due to their location on soil at risk for mudslides and landslides. In the event of an earthquake, proximity to community assets and commercial resources increases in importance if there are gaps in transportation, electricity, water, and other important services.

There are two maps on the next page. The first map is a liquefaction/landslide map. According to the liquefaction/landslide map, much of these neighborhoods have been built on sediment and unstable land predicted to liquefy in an earthquake. Structures built on top of liquefaction or landslide zones are more prone to more severe shaking in an earthquake. Liquefaction and landslide zones are a significant threat to public health. However, liquefaction is just one indicator that may predict the damage caused by an earthquake.

The second map, courtesy of the Association of Bay Area Governments (ABAG) shaking intensity viewer, shows the shaking intensity of a 7.9 magnitude earthquake on the San Andreas Fault. Areas that are 'red' in this map would have a high shaking intensity. In this scenario, much of the Diamond Heights/Glen Park and West of Twin Peaks neighborhoods would experience very strong shaking intensity. Areas with higher shaking intensity are more likely to suffer more damage in an earthquake event. The ABAG viewer can be found at <http://gis.abag.ca.gov/website/Hazards/>.

Both maps offer some insight into the neighborhoods likely to be impacted by an earthquake. Although liquefaction and shaking intensity are two established ways to predict the extent of damage, an earthquake's impact may be more or less than described on the following maps.

Liquefaction and Landslide Zones



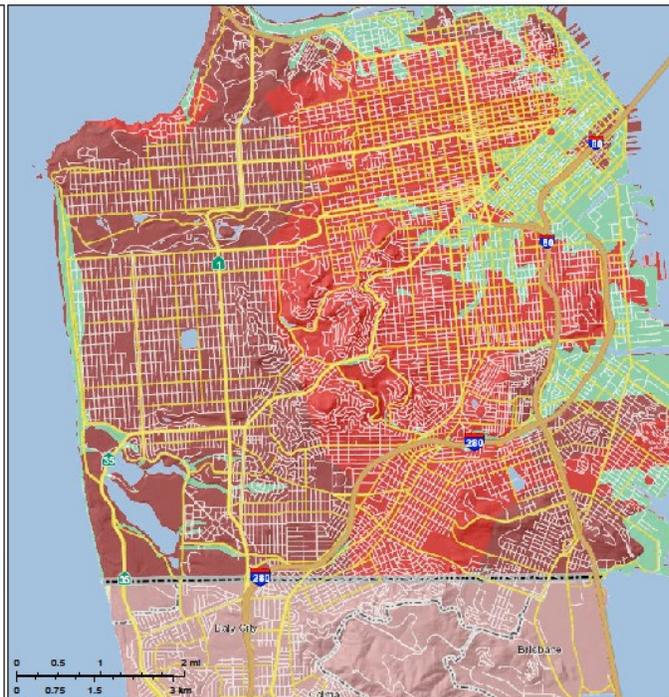
San Francisco Bay Area Hazards

Legend

- Liquefaction Hazard Zone
- Mapping Planned
- Mapping in Progress
- Area Not Yet Evaluated
- Light - MMI 5
- Moderate - MMI 6
- Strong - MMI 7
- Very Strong - MMI 8
- Violent - MMI 9
- Very Violent - MMI 10

This map is intended for planning only and is not intended to be site specific. Rather, it depicts the general risk within neighborhoods and the relative risk from community to community.

earthquake and hazards program
U.S. Geological Survey
 July 20, 2015



Hazard Assessment - Air Quality (Medium Risk)

Although the air quality of the Diamond Heights/Glen Park and West of Twin Peaks neighborhoods is generally good, exhaust from the busy 280 freeway and San Jose Avenue may impact some of the southern portions of the community.

Residents most vulnerable to the respiratory effects of poor air quality include children, the elderly, and those with preexisting conditions such as asthma or allergies.

Air Quality Risk

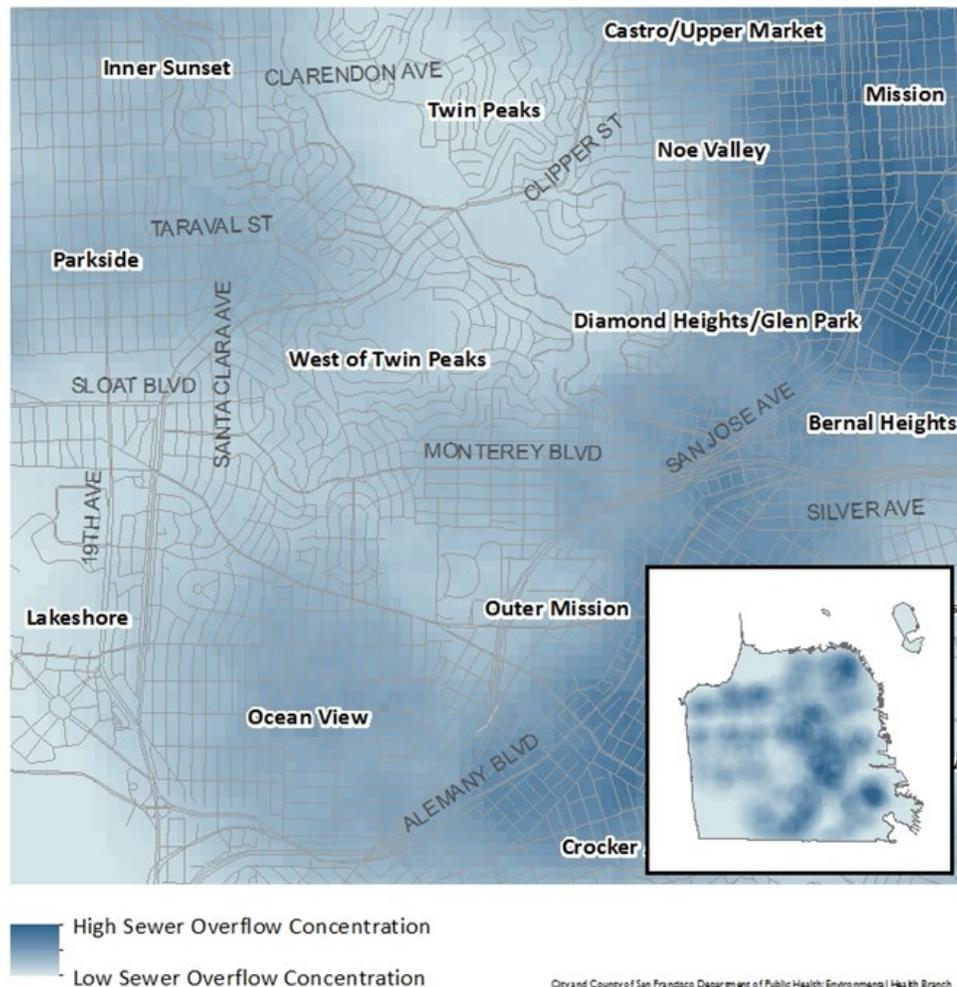


Hazard Assessment - Flood Inundation (Medium Risk)

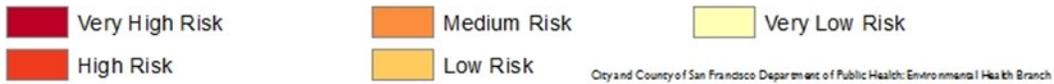
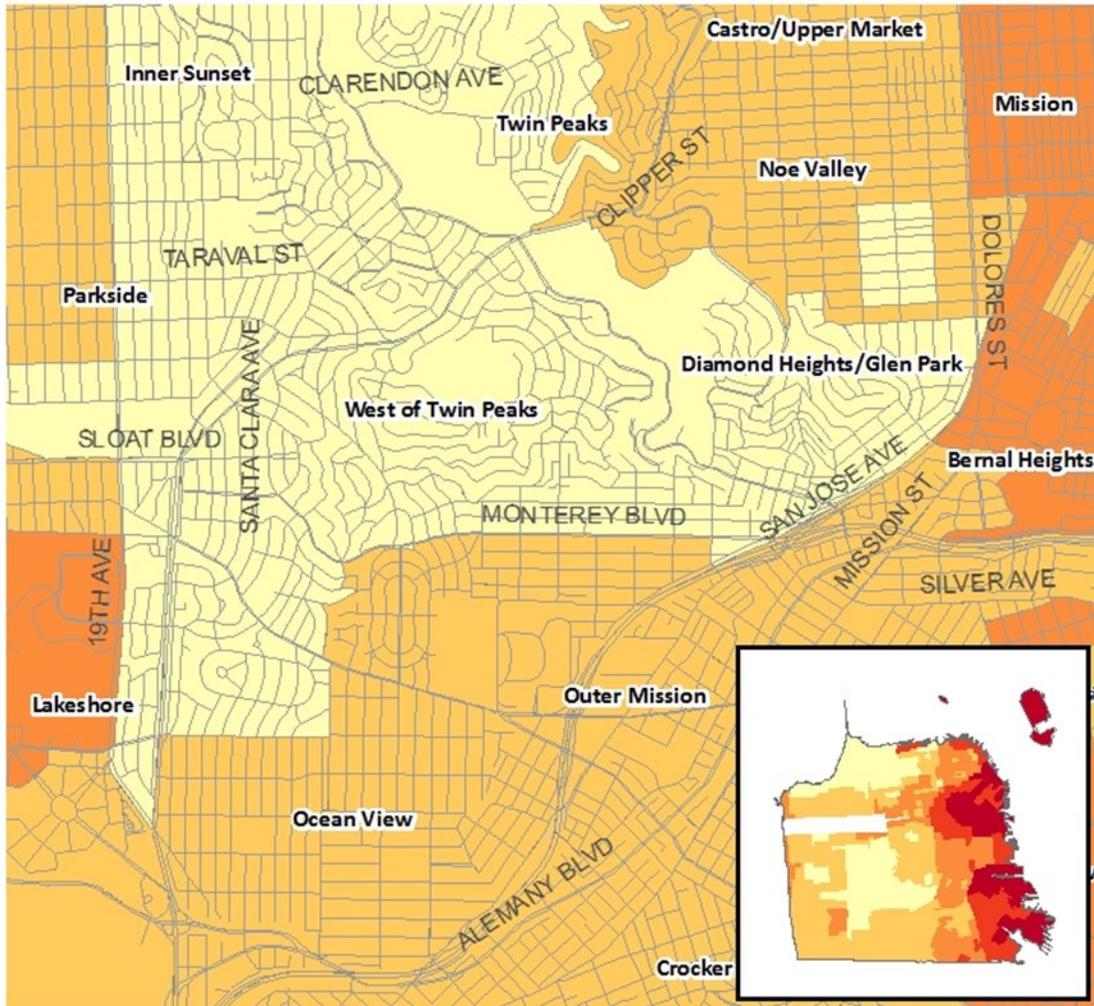
As climate change accelerates the pace of sea-level rise, and erratic precipitation patterns and pineapple express atmospheric rivers cause extreme storms, flood inundation will become a problem for San Francisco's coastlines.

The neighborhoods are not at risk for flooding associated with sea-level rise. However, San Francisco is prone to sewer overflows, mudslides, downed trees and power-lines, and other inland effects of storms.

Sewer Overflow Concentration



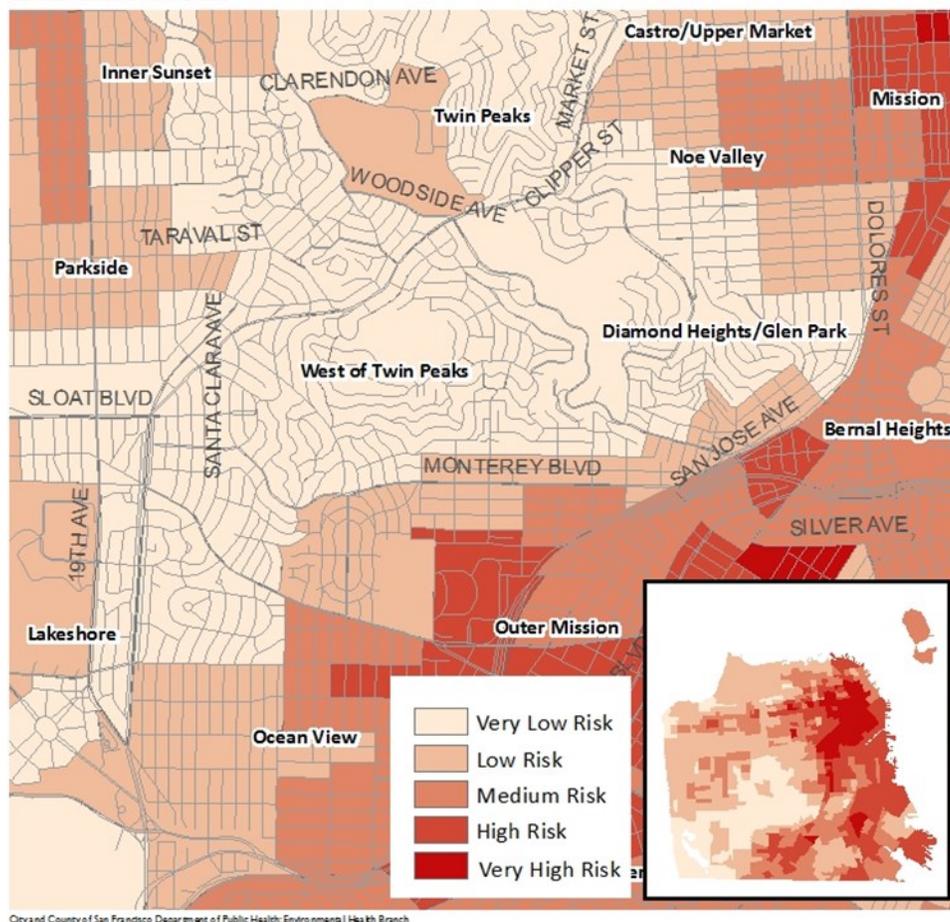
Flood Index



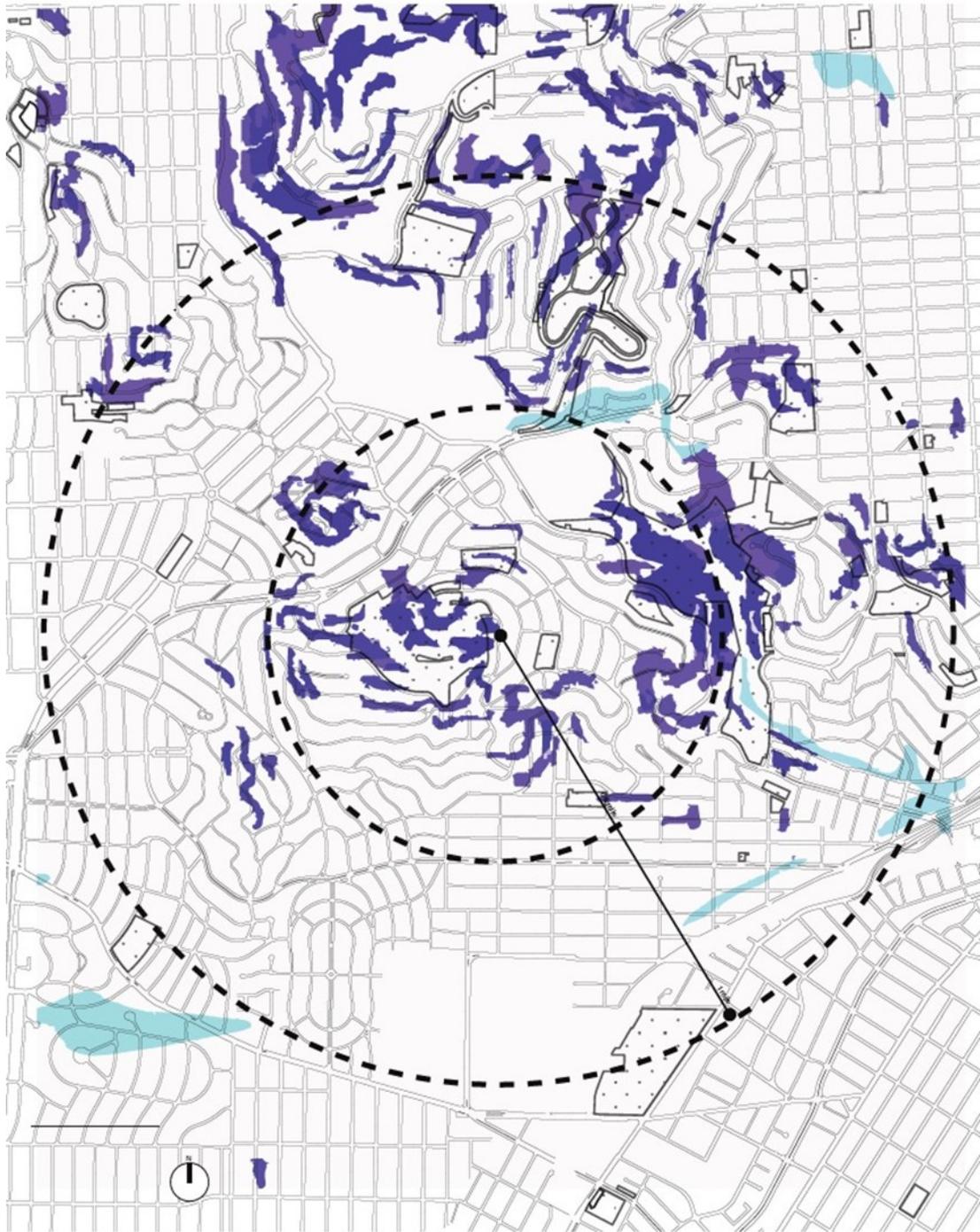
Hazard Assessment - Extreme Heat (Low Risk)

San Francisco is kept cool by the marine layer. As the marine layer off the Pacific Coast moves over San Francisco in the late afternoon or early evening, the city tends to cool. According to historical weather and mortality data gathered by the San Francisco Department of Public Health, there is an increase in health risk when temperatures ‘spike’ over 85-degrees for two straight days without an adequate drop in nighttime temperature. Those most vulnerable to extreme heat are children, the elderly, people with diabetes and other preexisting conditions, and people with mobility issues. The Diamond Heights/Glen Park and West of Twin Peaks neighborhoods have the lowest-risk of extreme heat compared to other San Francisco neighborhoods. However, because of the neighborhoods higher-than-average elderly and child populations, community members should remain vigilant in preparations for extreme heat events.

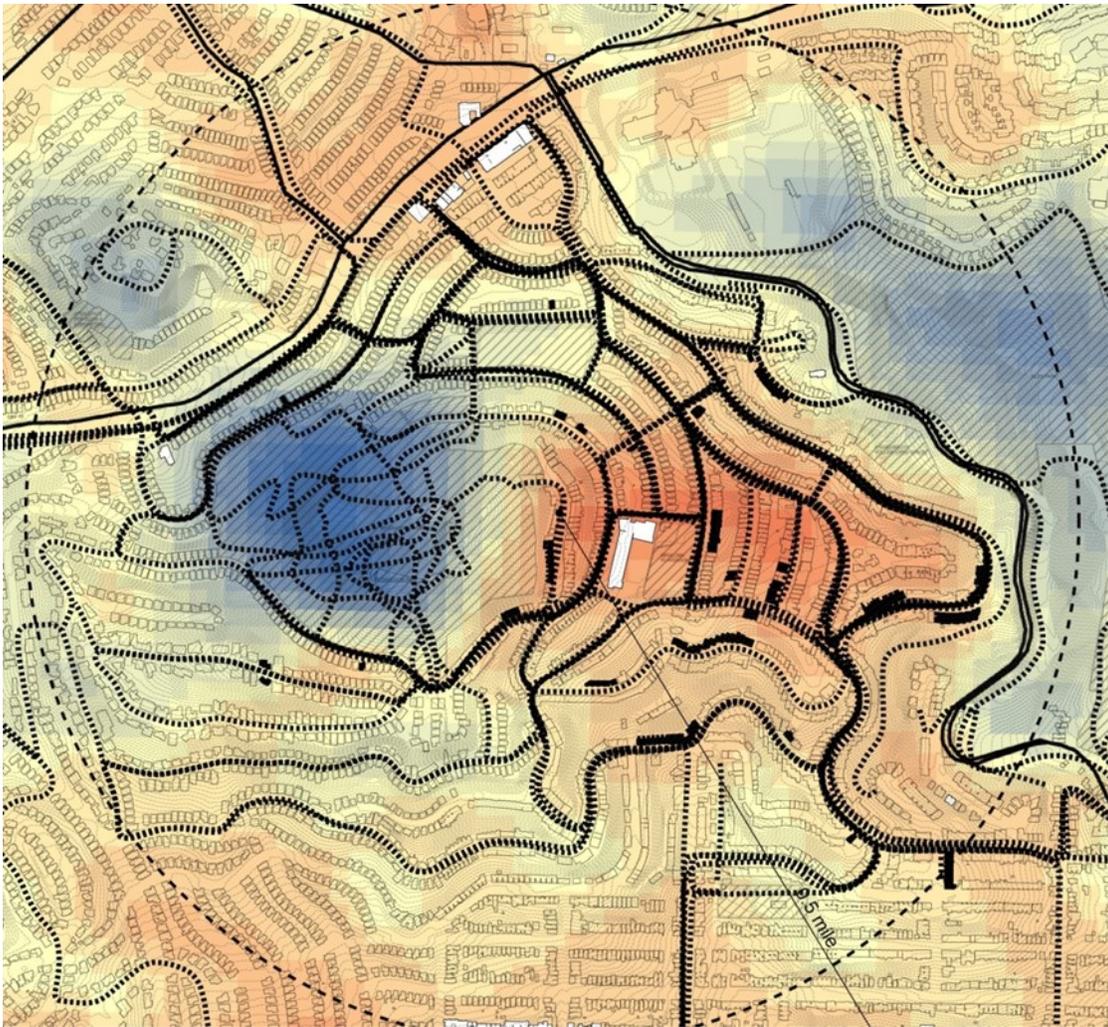
Extreme Heat



Diamond Heights Landslide Risk



Diamond Heights Heat Risk



Hazards Defined

- *Earthquake*: The sudden shaking of the earth due to the shifting of subterranean rock.
- *Epidemic*: A disease outbreak that is larger than expected over a certain period of time that substantially affects the population.
- *Flood*: A large amount of water in one area, due to a number of events and can either develop slowly or suddenly without visible signs of rain. Excessive rainfall after which waterways overflow their banks, a dam or levee failure, or when underground pipes or drains reach their capacity is possible reasons for floods.
- *Hazardous Materials Release*: The release of a substance, often due to an automobile or industrial accident that has any of the following characteristics: flammability, explosives, combustibility, poisonous, or radioactive.
- *Heat Wave*: Extreme heat over an extended length of time. A related term is "urban heat island effect", where urban areas are impacted due to asphalt and concrete storing heat longer and continuing to release heat at night, creating higher nighttime temperatures.
- *Landslide*: Masses of rock, earth, or debris move downslope often following an earthquake, heavy rainfall, fire or by human modification of the land.
- *Liquefaction*: A possible effect of an earthquake, where water-saturated earth temporarily loses strength and stiffness, which results in it behaving more like a liquid.
- *Power Outage*: Also known as a blackout or power failure, is a short or long-term loss of electric power to a particular area. Power outages can be caused by equipment failure or the result of other hazards such as inclement weather, earthquakes, floods or landslides.
- *Structure Fire*: A large fire affecting the built environment that is caused by human activity. These can be residential or industrial and spread beyond one structure.
- *Terrorism*: An act of violence that threatens human life, violates federal or state law, and appears to be intended to either intimidate or coerce a civilian population or the government. It often entails mass destruction, assassination, or kidnapping.
- *Tsunami*: A series of massive waves that are created by an underwater disturbance (earthquake, landslide, or volcanic eruption) and when they reach land, can be as high as 100 feet or more.
- *Violence*: Activities between people that can either cause or threaten physical harm. Such activities include, but are not limited to, homicide, physical assault, rape, and sexual assault.

Section IV

Appendices

- Appendix A: San Jose Flooding Summary and Analysis
- Appendix B: Resilient Diamond Heights Strategic Workshop Exercise Outputs 2015
- Appendix C: Resilient Diamond Heights HUB Boundary
- Appendix D: Resilient Diamond Heights Neighborhood Boundary

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Appendices

Appendix B. San Jose Flooding Summary and Analysis (continued)

Considering the fact that Anderson Reservoir had reached capacity the preceding weekend, and the National Weather Service Monterey office had issued a flood warning extending from Anderson Reservoir to the Bay, the San Jose *Mercury-News* was notably restrained on the morning of Tuesday, February 21. It informed readers that the flood warning remained in effect. <http://www.mercurynews.com/2017/02/21/san-jose-flood-warning-for-coyote-creek/>

Twelve hours after that story appeared, Coyote Creek was two feet over flood stage and was flooding along 12 miles, overwhelming an area encompassing hundreds of households. Many residents learned they were in serious danger for the first time from rescuers paddling boats on flooded streets, and hundreds were evacuated by boat. At the peak of the emergency, 14,000 residents were under evacuation orders and thousands more were given voluntary evacuation alerts or advisories. Sections of U.S. 101 in San Jose and Morgan Hill to the south were closed due to flooding. This map shows the area of greatest impact:

<http://www.mercurynews.com/2017/02/22/map-san-jose-flood-evacuation-zone-and-road-closures/>

With the crisis over, the people of San Jose demanded answers from their officials about why they received so little notice of imminent severe flooding. It seems the city does not have a mass warning system, and using radio, the internet, or other media does not always work because there are many people whose first language is Spanish or Vietnamese and mainstream media may not reach them. There are conflicting statements from the City of San Jose and the Santa Clara Valley Water District about who knew what, when, and how effectively people who needed to know were informed. Ironically, during this time, the attention of most of California and the rest of the country was on the compromised Oroville Dam Spillway, where the mandatory evacuation of thousands of people turned out to be unnecessary.

<http://www.mercurynews.com/2017/02/22/editorial-while-we-watched-oroville-san-jose-was-swamped-why/>

Also ironically, San Jose had not had a Director of Emergency Services since November. Other city officials were skeptical about whether this was a factor in how the response was managed. San Jose's emergency services agency is under the Fire Department, like those in Oakland and San Diego, while San Francisco and Los Angeles have separate departments. San Jose officials had no comment about whether an independent DES would make a difference.

<http://www.mercurynews.com/2017/03/06/san-jose-flood-city-hires-new-emergency-services-director/>

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Appendices

Appendix B. San Jose Flooding Summary and Analysis (continued)

Mayor Sam Liccardo acknowledged a “failure” in alerting residents in time, and accepted responsibility. He also said the city had relied on information from the Water District, while the Water District implicitly admitted that its calculations of how much flow the creek could absorb were inaccurate and flooding had occurred below the anticipated flood level. A District spokesman also mentioned possible unforeseen circumstances, like blockages; this was supported by a meteorologist who said that a channel’s carrying capacity can vary from year to year as conditions change.

<http://www.mercurynews.com/2017/02/22/san-jose-flood-mayor-clear-failure-delayed-warning/>

Property damage estimates have reached \$100,000,000. Two weeks after the waters engulfed their community, many people have been cleared to reoccupy their homes or shops, but that does not mean the places are habitable or usable. Nor does it mean they are safe, with mold having a foothold by now. Not all residents have insurance to cover the losses, and the California Office of Emergency Services is working with the city to determine what relief is available to owners. It seems likely that many, especially lower income residents or non-English-speaking people who are less versed in bureaucracy, will end up with large personal expenses. <http://www.nbcbayarea.com/news/local/Federal-Agencies-Tour-Flooded-Neighborhoods-San-Jose-Disaster-Assistance-Figure-415567603.html>

Without rehashing details, other cities, NGOs, or community groups like RDH can learn from San Jose’s experience about how to and how not to prepare for and respond to disasters. As San Jose agonizes through its post-mortems, we can look at some of the factors there that can be applied almost anywhere.

<http://www.mercurynews.com/2017/03/07/editorial-san-jose-turns-attention-to-what-went-wrong-with-flood-warning/>

Awareness that there is, in fact, a potential hazard: a reservoir upstream, earthquake fault under us, nuclear reactor next door. etc.

Known current conditions that could turn potential into kinetic energy with little notice: recent storms swelling the reservoir, unusual recent seismic activity, observed cracks in the reactor shielding.

Familiarity with demographics and how disasters may impact different populations: disabled, homebound, ethnic groups who may be even more leery of official presence now than they were six months ago.

For neighborhood groups, familiarity with how their local government services work in case of an emergency, and how we can work with them, including involvement in NERT or ALERT.

And of course, the realization that nature (or natural forces redirected, channeled, or controlled) can be unpredictable.

Section IV

Appendices

Appendix B: Resilient Diamond Heights Summit 2015 Maps

Strengths

- Shelter: ST. NICHOLAS COMMERCIAL KITCHEN
- Food/Water: ST. PIDAW'S
- Power: BATTERIES
- Health: VOL. HOME FIRST
- Transportation: VOL.

Weaknesses

- Shelter:
- Food/Water:
- Power: COMMUNICATIONS?
- Health:
- Transportation:

Run Your Resilientville

Vulnerable Populations
 CASA DE VIDA
 SENIORS
 PROSCHOOL STUDENTS
 SENIORS/RETIRED
 WILDLIFE/PETS

Impacts on Vulnerable Populations
 displacement
 mental health
 mobility
 eats/waters
 fear
 (shock)
 medication/medical

Opportunities

- Shelter: St. Aidans
- Food/Water:
- Power: GENERATORS
runners (communication)
- Health:
- Transportation: runners

Barriers

- Shelter: Lack of (Single Family Homes)
- Food/Water: 1 grocery store, 2 nearby
- Power:
- Health:
- Transportation:

Strengths

- Shelter: ST. NICHOLAS
- Food/Water: ST. PIDAW'S
- Power: LIGHTS & GENERATORS
- Health: WINGERS - FIRE
SUPPORTS - FIRE
- Transportation:

Weaknesses

- Shelter:
- Food/Water: Broken water mains
TERRIBLE
- Power: Power Lines
Lack of Solar Power
- Health: inadequate MEET & TRAINING
insufficient volunteer people
no Hospital near
- Transportation: TOPOGRAPHY - DIAMOND HEIGHTS
elevation!
DIRECTIONS

Run Your Resilientville

Vulnerable Populations
 CHILDREN
 COLPUN BRIDGES
 NOE VALLEY NURSERY SCHOOL
 ELDERLY
 CASA DE VIDA
 DISABLED
 INSURED
 PHYSICAL
 MENTAL
 'STRANDED'

Impacts on Vulnerable Populations
 children - calm down
 elderly - resources to help with isolation
 disabled - resources for checking on
 support of supplies
 causes teachers
 SPECIALTY CARE / PRIESTS RABBI
 who check on
 support of supplies

Opportunities

- Shelter: GLEN CANYON
POLICE DEPT.
(under the park)
- Food/Water:
- Power: GENERATOR
- Health:
- Transportation:

Barriers

- Shelter:
- Food/Water:
- Power:
- Health:
- Transportation: HILLS ARE ENORMOUS
HAVE DIFFICULTY GETTING
TO DESTINATIONS

Section IV

Appendices

Appendix B: Resilient Diamond Heights Summit 2015 Maps (continued)

Strengths

- Shelter** Police Academy, St. Aloysius, St. Aloysius, SORA school, park, SORA
- Food/Water** SPCA, wild greens, shopping center
- Power** Fire Dept, Police?
- Health** Vet Clinic, Pharmacy, First Aid kits, Churches
- Transportation** Uber + Lyft, bikes

Weaknesses

- Shelter**
- Food/Water**
- Power**
- Health** no hospital or med facility
- Transportation** cut off from outside resources

Run Your Resilientville

Vulnerable Populations

- wheel chair individuals at CASA
- Schools - nursery, elementary, high
- low-income housing
- Seniors & people w/ disabilities

Impacts on Vulnerable Populations

- Basic Resources - blankets, food, water
- No Power-limited communication

Opportunities

- Shelter**
- Food/Water**
- Power**
- Health** Vet, Pharmacy, 1st aid
- Transportation** bikes, vehicles

Barriers

- Shelter**
- Food/Water**
- Power** possibly no back up power
- Health** not close to a medical facility
- Transportation** roads blocked

Strengths

- Shelter** Churches, homes, fire stations, retail space
- Food/Water** SPCA, water heater, food, police academy, church, food bank, fire dept
- Power/FUEL** stove, generators (self-emp)
- Health** vet clinic, first responders
- Transportation** Local volunteers

Weaknesses

- Shelter** Possible collapse of homes built on hills wood
- Food/Water** resupply
- Power** few if any generators
- Health** St. Luliers - far senior pop disabilities
- Transportation** supplies cut off, bad access isolated, single entry DH Blvd.

Run Your Resilientville

Vulnerable Populations

Noe Valley Nursery School
DHV - Elderly
Casa - Elderly & Disabled w/ Wheel chair
Injured
Need Medication
Pets

Impacts on Vulnerable Populations

- young - elderly - disabled
- pets
- injured

Cold, wind, food, security, medication, deadly, shock

Opportunities

- Shelter** building assessment, fire safety inspection, temporary shelter / staging areas
- Food/Water** Distribution, resupply, retaining
- Power** Equip w/ solar chargers, "Cool Zone" - generators - radios
- Health** Professionals, first responders, neighborhood watch - "well being" clubs
- Transportation** Designate emergency drivers

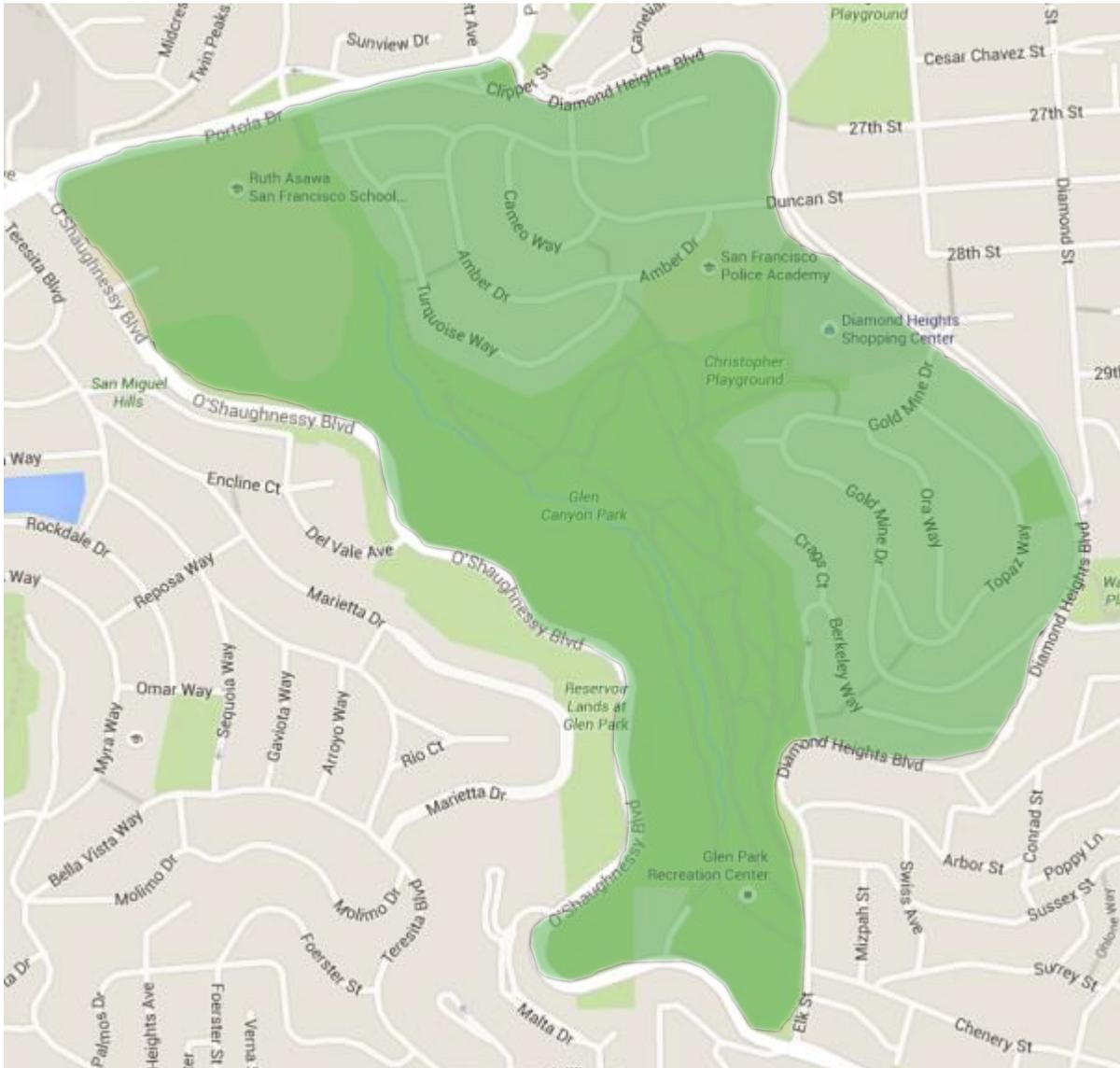
Barriers

- Shelter** coordination, Backups sites, cost - inspection, Planning, connections/relationships
- Food/Water** Security, Geography (mountain top), Treat water (potable)
- Power**
- Health**
- Transportation**

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Appendices

Appendix C: Resilient Diamond Heights HUB Boundaries



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Appendices

Appendix D: Resilient Diamond Heights Neighborhood Boundaries



Notes:
