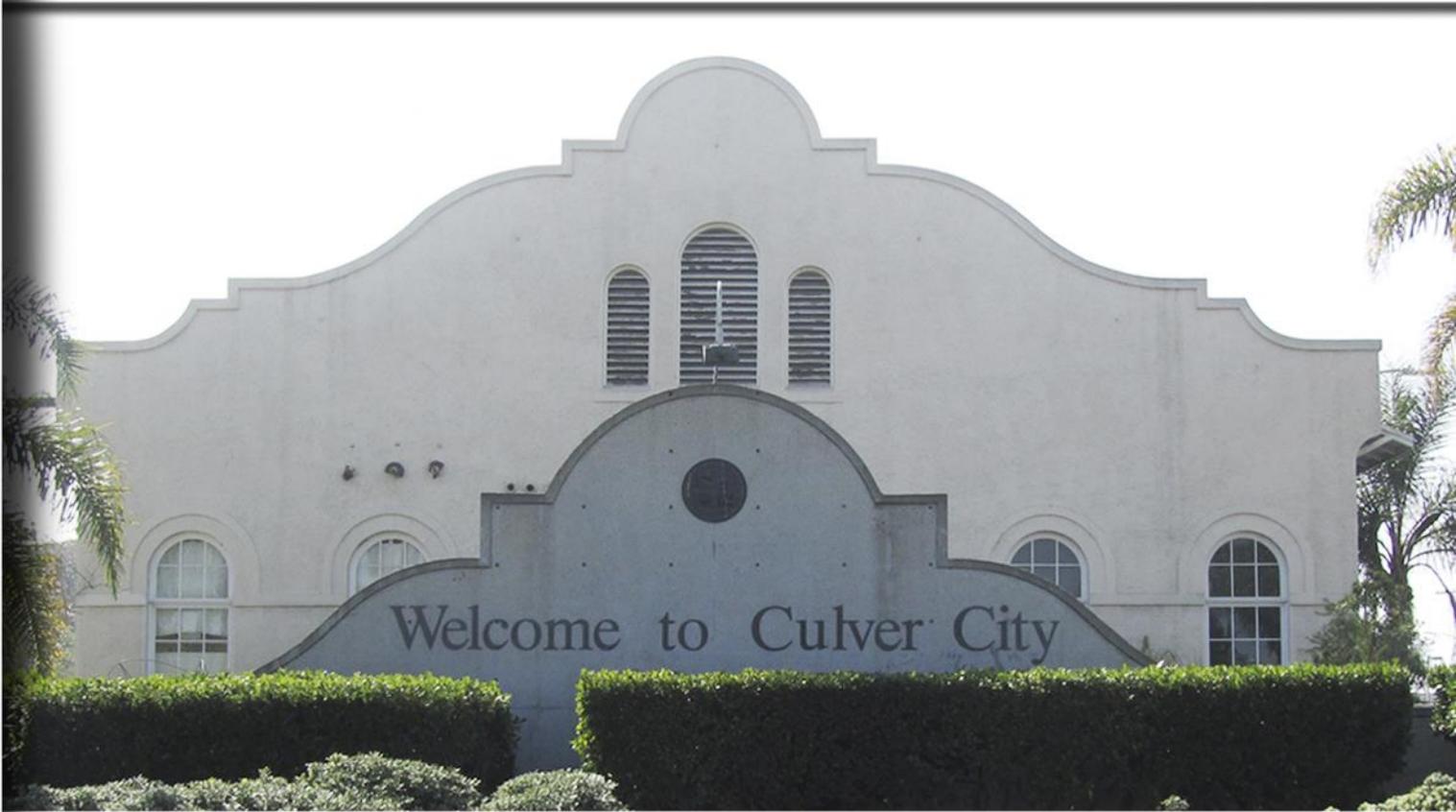


Culver City and Culver City Unified School District Multi-Jurisdictional Hazard Mitigation Plan Joint Meeting



January 12, 2016



Agenda

- Hazards and Risk Assessment/Vulnerability Overview (10 minutes)
- Mitigation Actions & Prioritization (30 minutes)
- Next Steps (5 minutes)

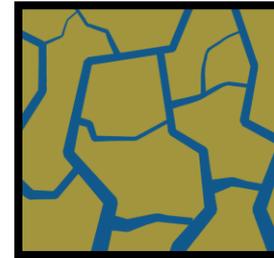
HAZARDS AND RISK ASSESSMENT/ VULNERABILITY OVERVIEW

Hazard Identification

HAZARD RANKING WORKSHEET - Culver City MJHMP					DATE: 7/20/2015	
Hazard Type	Probability	Impact			Total Score	Hazard Planning Consideration
		Location	Primary Impact	Secondary Impacts		
Drought	4	4	4	4	64.00	High
Sesimic Hazards	4	4	4	4	64.00	High
EQ Fault Rupture	4	2	4	4	51.20	High
Wildfire	3	3	4	4	43.20	High
Disease/Pest Management	4	4	1	1	35.20	Medium
Windstorm	4	4	1	1	35.20	Medium
Liquefaction	2	2	4	4	25.60	Medium
Flood	2	1	3	3	17.60	Medium
Landslide/Mudflow	2	1	3	3	17.60	Medium
Haz Mat	1	3	3	3	12.00	Low
Geo Hazards	1	2	3	3	10.40	Low
Dam Failure	1	2	2	4	10.00	Low
Tsunami	1	1	2	2	6.40	Low

Natural Hazards Being Evaluated

- Drought (not mapped)
- Seismic Hazards
 - Earthquake Fault Rupture
 - Ground Shaking
 - Liquefaction
 - Landslide/Mudflow
- Wildfire
- Severe Weather (not mapped)
 - Windstorm
 - Heavy rain
- Flood



Seismic Hazards



- LEGEND**
- Concealed Fault Trace
 - Inferred Fault Trace
 - Approximate Fault Trace
 - Accurate Fault Zone
 - Earthquake Fault Zone
 - Fault Zone 500 ft Buffer
 - Critical Facility
 - City Boundary
 - Parcel
 - Water Body
 - Sewer Pump Station

MAP PROJECTION: CALIFORNIA STATE PLANE
 UNIT: U.S. FEET
 DATUM: NAD 83
 ELLIPSOID: GRS 80

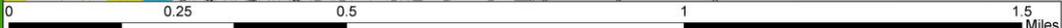
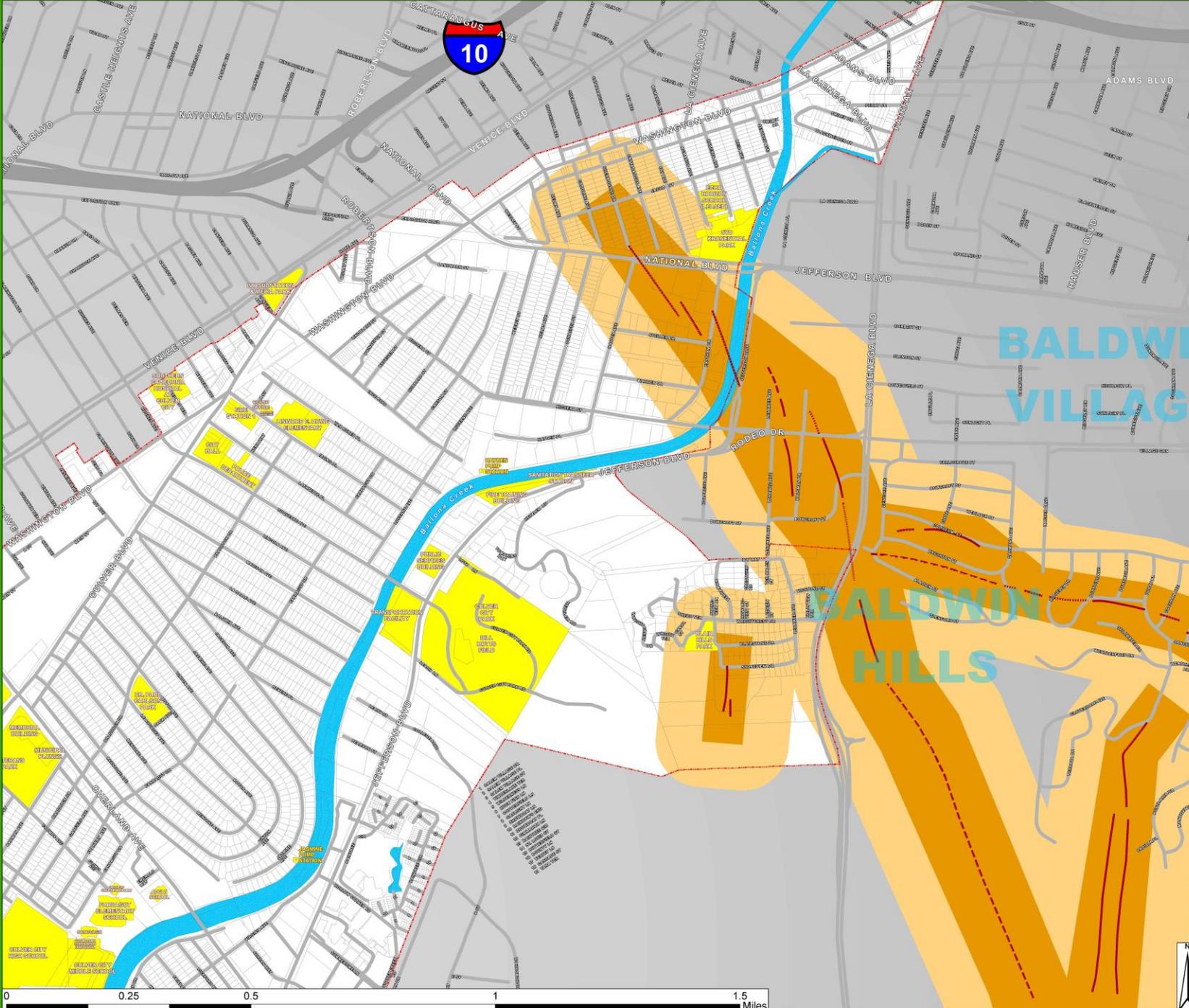
MAGNETIC DECLINATION: 14 DEGREES WEST
 YEAR: 2006
 ANNUAL CHANGE: 0.8 DEGREE WEST
 AVERAGE CLIMATE: 57 FEET ABOVE SEA LEVEL
 ELEVATION RANGE: 14 TO 610 FEET

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Fault Rupture

Critical Facility Name	Location	Facility Replacement Cost	Content Replacement Cost	Total Insurable Value
Echo Horizon School (CCUSD)*	3430 McManus Avenue	\$5,112,000	\$0	\$5,112,000
Syd Kronenthal Park (City)	3459 McManus Avenue	\$942,611	\$65,879	\$1,008,490
Blair Hills Park (City)	5950 Wrightcrest Drive	\$95,777	\$0	\$95,777
Total		\$6,150,388	\$65,879	\$6,216,267

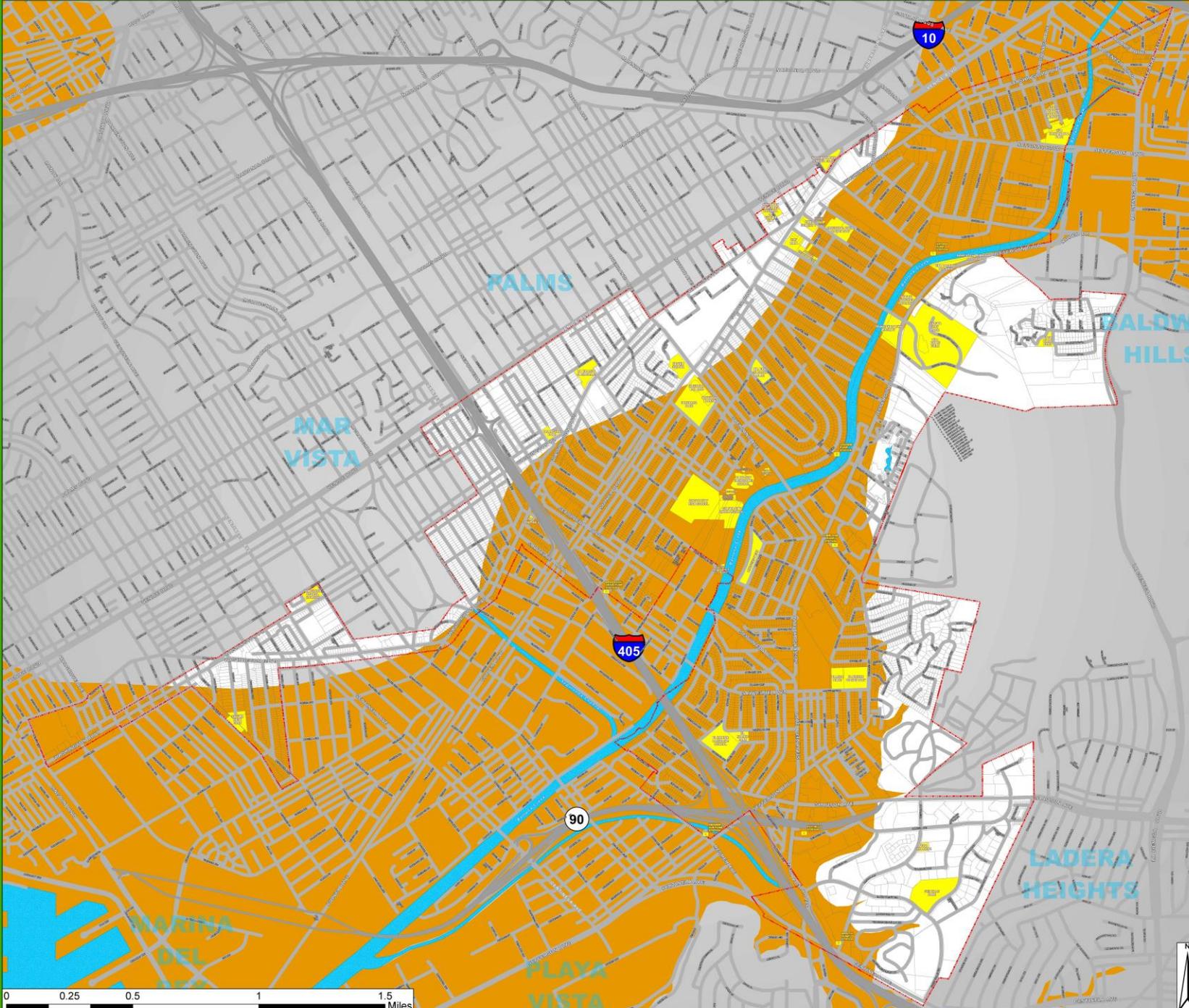
* The Echo Horizon School facility is owned by the CCUSD, but is leased to a private school.

Culver CITY
HAZARD MITIGATION
COMMUNITY WORKSHOP

LIQUEFACTION MAP



- LEGEND**
- Liquefaction
 - Critical Facility
 - City Boundary
 - Parcel
 - Water Body
 - Sewer Pump Station



MAP PROJECTION: CALIFORNIA STATE PLANE
 DATA: UTM
 UNIT: METERS
 ELLIPSOID: GRS 80

MAGNETIC DECLINATION: 13 DEGREES 54 MINUTES EAST
 YEAR: 2006
 ANNUAL CHANGE: 0.25 WEST
 AVERAGE ANGLE: 12 FEET ABOVE SEA LEVEL
 ELEVATION: 14.10 FEET

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Liquefaction – CCUSD

Critical Facility Name	Location	Facility Replacement Cost	Content Replacement Cost	Total Insurable Value
Unified School District Office	4034 Irving Place	\$6,277,215	\$580,000	\$6,857,215
High School	4401 Elenda Street	\$41,376,330	\$8,101,000	\$49,477,330
Culver Park Continuation High School	4601 Elenda Street	\$1,660,664	\$321,000	\$1,981,664
Middle School	4601 Elenda Street	\$26,524,743	\$2,598,000	\$29,122,743
El Marino Language School	11450 Port Road	\$8,348,419	\$1,496,000	\$9,844,419
El Rincon Elementary	11177 Overland Avenue	\$8,937,845	\$1,332,000	\$10,269,845
Farragut Elementary	10820 Farragut Drive	\$9,614,940	\$1,572,000	\$11,186,940
Linwood E. Howe	4100 Irving Place	\$9,130,373	\$1,679,000	\$10,809,373
Office of Child Development	10800 Farragut Drive	\$1,084,116	\$250,000	\$1,334,116
Adult School	4909 Overland Avenue	\$4,000,000	\$589,000	\$4,589,000
Maintenance Facilities	11102 Lucerne Avenue	\$1,607,074	\$258,000	\$1,865,074
Natorium	4601 Elenda Street	\$3,762,509	\$147,000	\$3,909,509
Warehouse/ District IMC	4034 Irving Place	\$1,339,000	\$209,000	\$1,548,000
Echo Horizon School*	3430 McManus Avenue	\$5,112,000	\$0	\$5,112,000
Total		\$,128,775,228	\$18,552,000	\$147,907,228

* The Echo Horizon School facility is owned by the CCUSD, but is leased to a private school.

Liquefaction – City

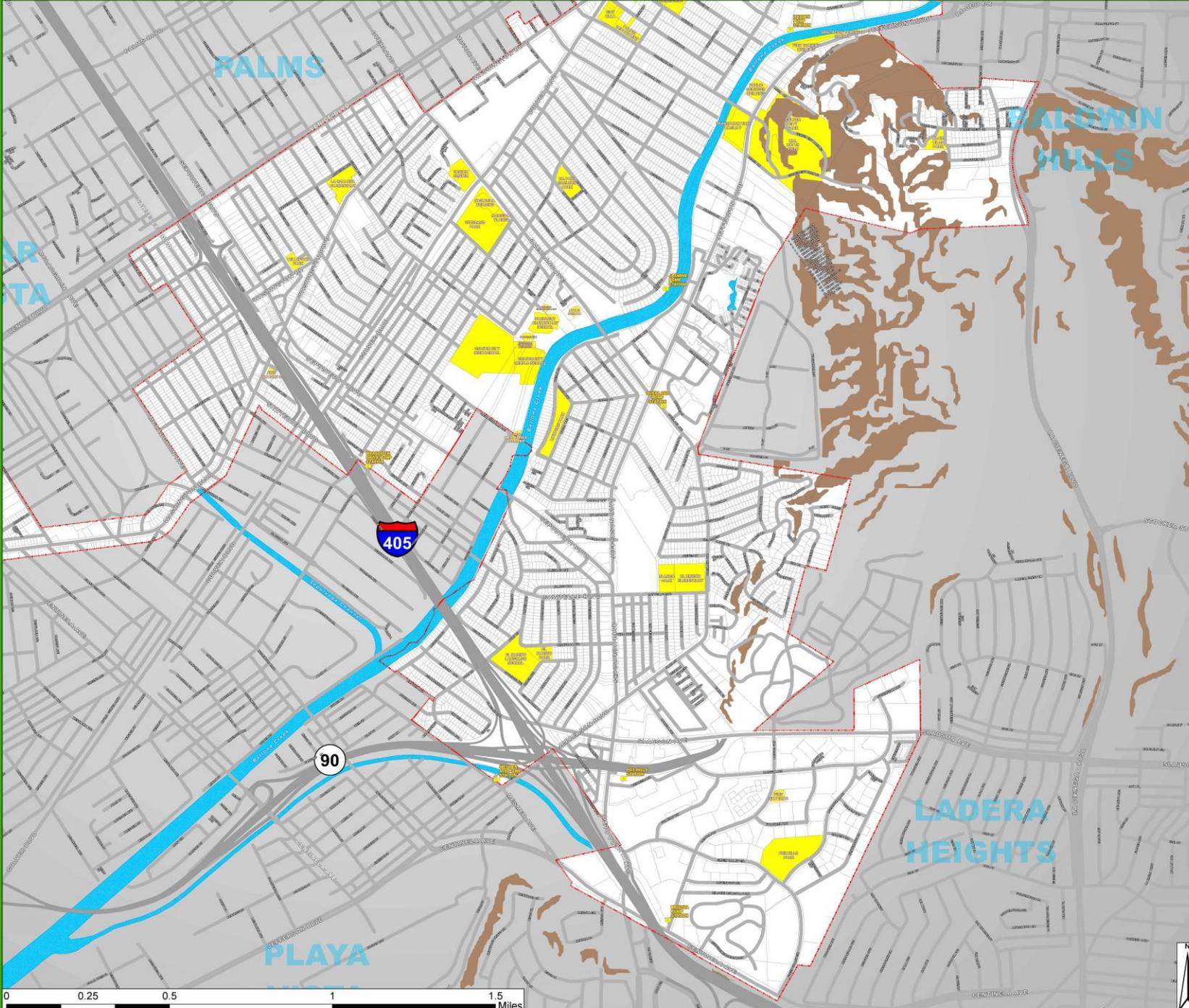
Critical Facility Name	Location	Facility Replacement Cost	Content Replacement Cost	Total Insurable Value
Police Department	4040 Duquesne Avenue	\$10,212,855	\$1,752,325	\$11,965,180
Fire Station No. 2	11252 Washington Boulevard	\$1,706,216	\$92,297	\$1,798,513
Fire Training Building	9275 Jefferson Boulevard	\$282,256	\$36,392	\$318,648
Public Works Yard	9505 Jefferson Boulevard	\$8,310,098	\$1,786,196	\$10,096,294
Sanitation Transfer Station	9255 Jefferson Boulevard	\$4,026,878	\$438,464	\$4,465,342
Transportation Facility	4343 Duquesne Avenue	\$26,036,981	\$2,761,451	\$28,798,432
Veterans Park & Memorial Building	4117 Overland Avenue	\$7,048,303	\$443,126	\$7,491,429
Syd Kronenthal Park	3459 McManus Avenue	\$942,611	\$65,879	\$1,008,490
Blanco Park	5801 Sawtelle Boulevard	\$164,087	\$0	\$164,087
Culver West Park	4162 Wade Street	\$912,258	\$77,608	\$989,866
El Marino Park	5301 Berryman Avenue	\$287,818	\$21,265	\$309,083
Dr. Paul Carlson Park	4233 Motor Avenue	\$132,746	\$0	\$132,746
Culver City Park (Botts Field)	9690 Jefferson Boulevard	\$459,048	\$32,444	\$491,492
Lindberg Park	5401 Rhoda Way	\$517,120	\$30,584	\$547,704
Municipal Plunge	4175 Overland Avenue	\$2,839,743	\$94,380	\$2,934,123
Total		\$63,879,018	\$7,632,411	\$71,511,429

LANDSLIDE MAP



LEGEND

- Landslide Hazard Zone
- Critical Facility
- City Boundary
- Parcel
- Water Body
- Sewer Pump Station



MAP PROJECTION: CALIFORNIA STATE PLANE
 UNIT: U.S. FEET
 DATUM: NAD 83
 ELLIPSOID: GRS 80

MAGNETIC DECLINATION: 12 DEGREES 54MINUTES EAST
 YEAR: 2008
 ANNUAL CHANGE: 0.82 MINUTES WEST
 AVERAGE CLIMATE: 57 FEET ABOVE SEA LEVEL
 ELEVATION RANGE: 14 TO 495 FEET

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Landslides

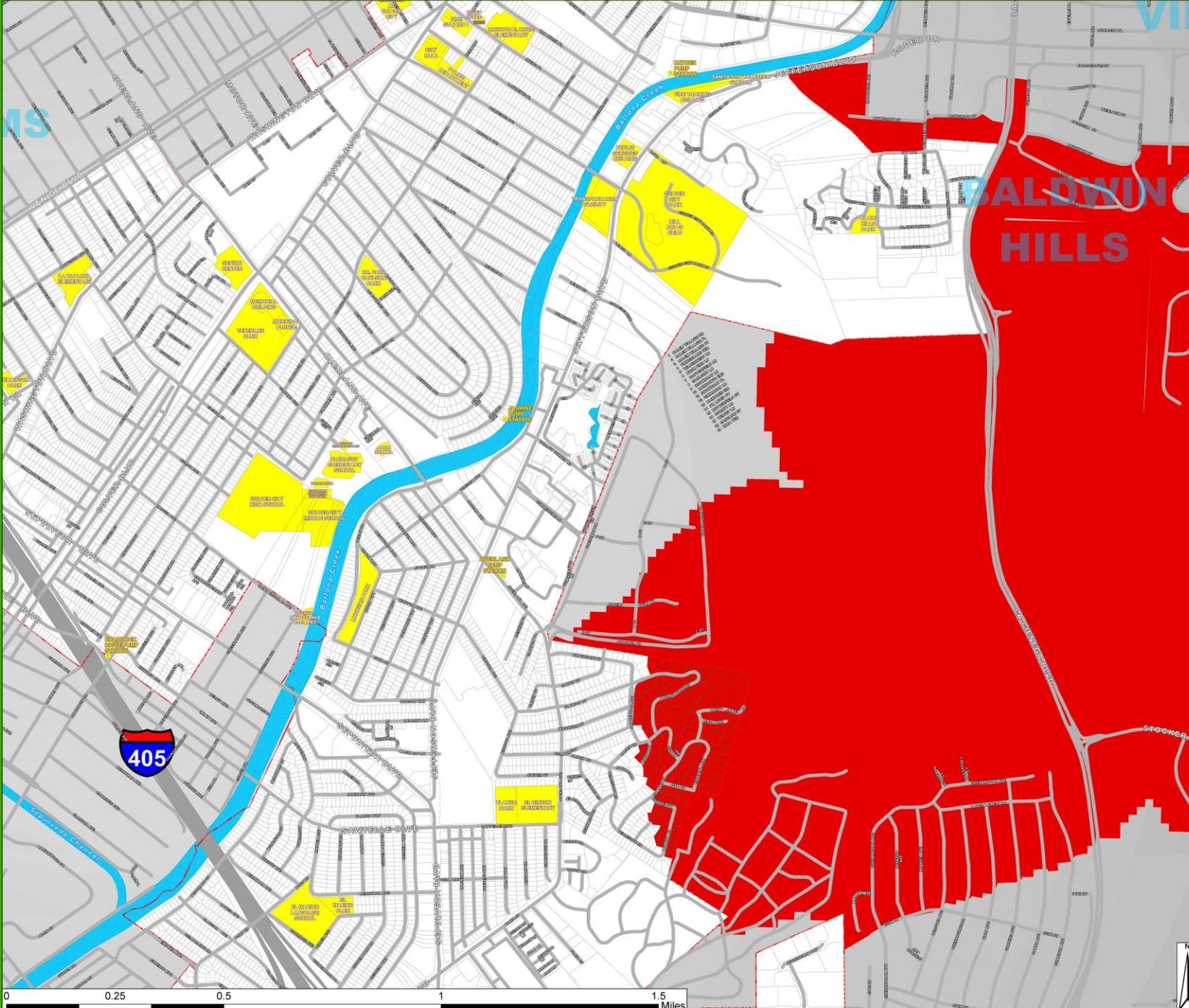
Critical Facility Name	Location	Facility Replacement Cost	Content Replacement Cost	Total Insurable Value
Blair Hills Park (City)	5950 Wrightcrest Drive	\$95,777	\$0	\$95,777
Culver City Park (Botts Field) (City)	9690 Jefferson Boulevard	\$459,048	\$32,444	\$491,492
Total		\$554,825	\$32,444	\$587,269

Wildfire

Culver CITY
HAZARD MITIGATION
COMMUNITY WORKSHOP
**FIRE HAZARD
AREAS MAP**



- LEGEND**
- VHFHSZ
Very High Fire Hazard Severity Zone
 - VHFHSZ LRA
Very High Fire Hazard Severity Zone, Culver City Local Responsibility Area (LRA)
 - Critical Facility
 - City Boundary
 - Parcel
 - Water Body
 - Sewer Pump Station



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MAP PROJECTION: CALIFORNIA STATE PLANE
SPHERICAL MERCATOR
UNIT: FEET
ELECTRIC: GRS 82

MAGNETIC DECLINATION: 13 DEGREES 54 MINUTES EAST
YEAR: 2008
ANNUAL CHANGE: 0.82 MINUTES WEST
AVERAGE CLIMATE: 57 FEET ABOVE SEA LEVEL
ELEVATION RANGE: 14 TO 107 FEET

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Flood

Culver CITY
HAZARD MITIGATION COMMUNITY WORKSHOP
FEMA FLOOD HAZARD ZONES MAP



- LEGEND**
- Zone A
Area of 100 year flood (base flood elevations & flood hazard factors not determined)
 - Zone AO
Area of 100 year shallow flooding where depths are between 1 & 3 feet
 - Zone B
Area between limits of 100 & 500 year flood (or subject to 100 year flood with average depths less than 1 foot)
 - Critical Facility
 - City Boundary
 - Parcel
 - Water Body
 - Sewer Pump Station

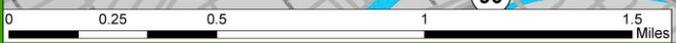
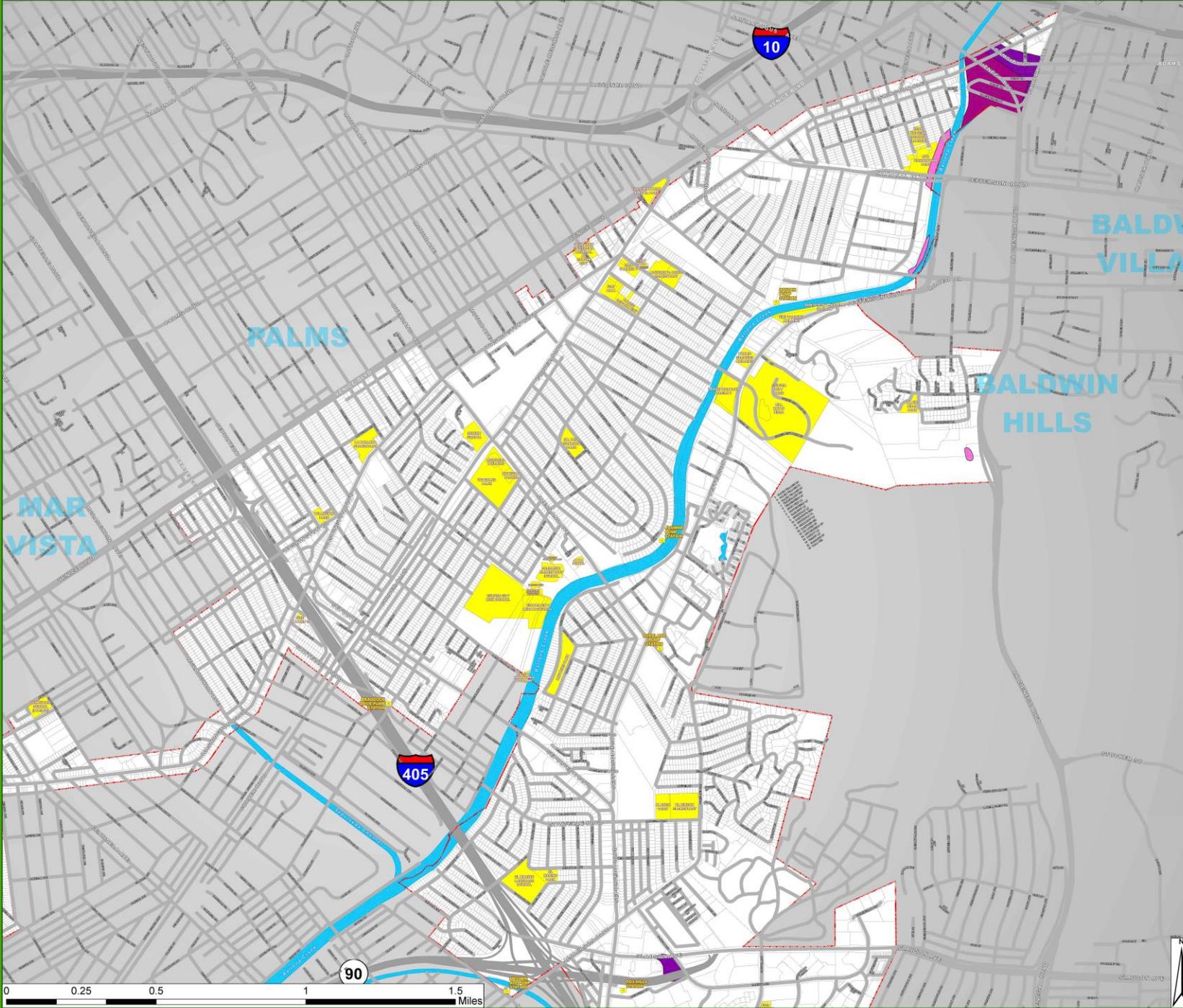
MAP PROJECTION: CALIFORNIA STATE PLANE
 UNIT: U.S. FEET
 DATUM: NAD 83
 CURVE: POLYBRID
 ZONE: NAD 83

MAGNETIC DECLINATION: 12 DEGREES 34MINUTES EAST
 YEAR: 2008
 ANGLE OF DIP: 12.57 DEGREES
 AVERAGE DIP: 12.57 DEGREES
 ELEVATION: 14.10 FEET

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Flood

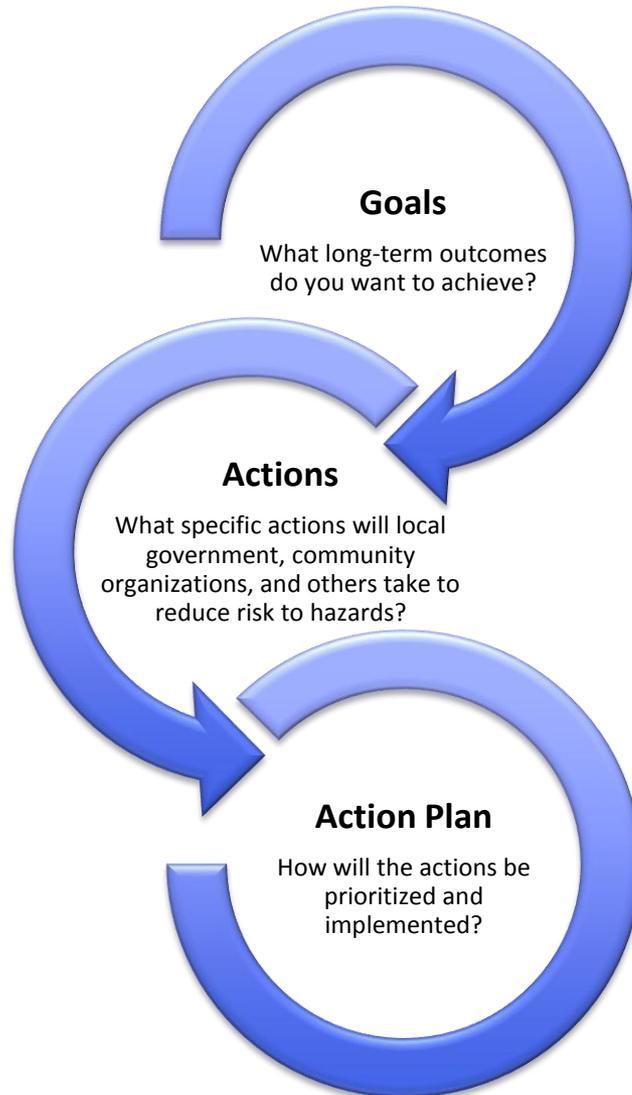
Critical Facility Name	Location	Facility Replacement Cost	Content Replacement Cost	Total Insurable Value
Syd Kronenthal Park (City)	3459 McManus Avenue	\$942,611	\$65,879	\$1,008,490

Vulnerability Summary

	Drought	Fault Rupture	Ground Shaking	Liquefaction	Landslide/ Mudflow	Wildfire	Windstorm/ Heavy Rain	Flood
Area (acres) (% of City)	3,289	187.5 (5.7%)	3,289	1996.9 (60.7%)	111.9 (3.4%)	48.1 (1.5%)	3,289	28.3 (0.8 %)
CULVER CITY								
Number of Residents (% of population)	39,105	736 (1.9%)	39,105	22,084 (56.5%)	0	190 (0.5%)	39,105	30 (.08%)
Number of Employees (% of employees)	45,340	1,353 (2.9%)	45,340	24,120 (53%)	0	72 (1.6%)	45,340	364 (0.8%)
CULVER CITY UNIFIED SCHOOL DISTRICT								
Number of Students (% of student population)	7,062	0	7,062	6,491 (92%)	0	0	7,062	0
Number of Staff (% of staff)	503	0	503	467 (93%)	0	0	503	0

MITIGATION ACTIONS & PRIORITIZATION

Mitigation Strategy



- Evaluate and prioritize goals and mitigation actions to reduce or avoid long-term vulnerabilities associated with each hazard

Mitigation Actions

- Consider a variety of mitigation activities:
 - Prevention
 - Property protection
 - Public education and awareness
 - Natural resource protection
 - Emergency services
 - Structural projects



nixle



Mitigation Actions Discussion

Next Steps

Complete Draft MJHMP

- January 29, 2016

Steering Committee Review of MJHMP

- February 1 – February 12, 2016

Prepare Public Review Draft MJHMP

- February 15 – February 22, 2016

Public Review Draft

- February 23 – March 23, 2016 (30-days)

Submit Draft MJHMP to Cal OES

- April 8, 2016

City Council and CCUSD Adoption

- Summer 2016

QUESTIONS?

MJHMP Goals

- **Protect Life and Property**
 - Implement activities that assist in protecting lives by making homes, businesses, infrastructure, critical facilities, and other property more resistant to losses from hazards.
 - Reduce losses and repetitive damages from chronic hazard events while promoting insurance coverage for catastrophic hazards.
 - Improve hazard assessment information to make recommendations for evaluating new development in high hazard areas and encouraging preventative measures for existing development in areas vulnerable to hazards.
- **Public Awareness**
 - Develop and implement educational outreach programs to increase public awareness of the risks associated with hazards.
 - Provide information on tools, partnership opportunities and funding resources to assist in implementing mitigation activities.

MJHMP Goals

- Natural Systems
 - Balance natural resource management and land use planning with natural hazard mitigation to protect life, property, and the environment.
 - Preserve, rehabilitate and enhance natural systems to mitigate natural hazards.
- Partnerships and Implementation
 - Strengthen communication and coordinate participation among and within public agencies, residents, non-profit organizations, business, and industry to develop a vested interest in implementation.
 - Encourage leadership within public and private sector organizations to prioritize and implement local and regional hazard mitigation activities.

MJHMP Goals

- Emergency Services
 - Establish policy to ensure mitigation projects for critical facilities, services and infrastructure.
 - Strengthen emergency operations by increasing coordination among public agencies, non-profit organizations, business and industry.
 - Where appropriate, coordinate and integrate hazard mitigation activities with emergency operations plans and procedures.

STAPLE/E Review and Selection Criteria

Social
<ul style="list-style-type: none">• Is the proposed action socially acceptable to the jurisdiction and surrounding community?• Are there equity issues involved that would mean that one segment of the jurisdiction and/or community is treated unfairly?• Will the action cause social disruption?
Technical
<ul style="list-style-type: none">• Will the proposed action work?• Will it create more problems than it solves?• Does it solve a problem or only a symptom?• Is it the most useful action in light of other jurisdiction goals?
Administrative
<ul style="list-style-type: none">• Can the jurisdiction implement the action?• Is there someone to coordinate and lead the effort?• Is there sufficient funding, staff, and technical support available?• Are there ongoing administrative requirements that need to be met?
Political
<ul style="list-style-type: none">• Is the action politically acceptable?• Is there public support both to implement and to maintain the project?

STAPLE/E Review and Selection Criteria

Legal

- Is the jurisdiction authorized to implement the proposed action?
- Are there legal side effects? Could the activity be construed as a taking?
- Will the jurisdiction be liable for action or lack of action?
- Will the activity be challenged?

Economic

- What are the costs and benefits of this action?
- Do the benefits exceed the costs?
- Are initial, maintenance, and administrative costs taken into account?
- Has funding been secured for the proposed action? If not, what are the potential funding sources (public, nonprofit, and private)?
- How will this action affect the fiscal capability of the jurisdiction?
- What burden will this action place on the tax base or local economy?
- What are the budget and revenue effects of this activity?
- Does the action contribute to other jurisdiction goals?
- What benefits will the action provide?

Environmental

- How will the action affect the environment?
- Will the action need environmental regulatory approvals?
- Will it meet local and state regulatory requirements?
- Are endangered or threatened species likely to be affected?