

# **LHMP ANNEX**

## **Jefferson Union High School District**

### **Daly City, California**

#### **Introduction**

The Jefferson Union High School District (JUHSD), “The District”, is a small-sized high school district at the north end of San Mateo County that borders San Francisco, California. The District’s boundaries include the cities of Pacifica, Daly City, Colma, and Brisbane. The 9<sup>th</sup> through 12<sup>th</sup> grade student population, which totals in excess of 5050, is composed of approximately 25.5% Hispanic, 31.1% Filipino, 19.9% Caucasian, 15.3% Asian Pacific Islander, and 5.4% African American. 475 day school students who certified Limited English Proficient (LEP) are also receiving services. The District provides special education services to approximately 470 students. The District also provides for the transportation requirements for the “Special Needs” students.

The District operates three comprehensive high schools, one restructured high school, one continuation high school, and multiple alternative programs. Our restructured school is affiliated with the Coalition of Essential Schools. The District also provides an extensive adult education program. All schools are fully accredited by the Western Association of Schools and Colleges. Three of our high schools have earned the prestigious “Distinguished Schools” recognition. The District is also affiliated with the Daly City Youth Medical Center. Recent and ongoing modernization programs have provided seismic and ADA updated school facilities at all our campuses including extensive technology improvements.

The District Governing Board (Trustees) is comprised of five members elected from the community. The District is managed by the Superintendent and assisted by an Associate Superintendent-Education, and an Associate Superintendent-Business Services, and four Directors. There are approximately 360 certificated staff members and 260 classified employees.

The District’s annual budget is \$45.9 million including all Federal and State programs. The District has also been successful in acquiring private foundation grants.

Based on the 2000 census (2010 census data is not currently available) the population of these cities is:

- ◆ Daly City 103,621.
- ◆ Pacifica 38,390.
- ◆ Brisbane 3597.
- ◆ Colma 1191.

Each City provides separate local police services; however, the fire services are supplied and managed by a consolidated North County Fire District based in Daly City.

#### **The Local Planning Process**

JUHSD staff is accustomed in preparing this type of plan. The District has in place an Emergency & Disaster Preparedness Plan within its Board Policy [3516 (a)] that includes an overview of fire, earthquake, flooding, and landslide hazards. In addition, the District routinely enforces the requirements of the California Environmental Quality Act (CEQA). The District continues to evaluate, on an on-going basis, these programs in order to identify any gaps that may lead to disaster vulnerabilities so that it can work on ways to address these risks through mitigation. The District also is updating our “Memorandum of Understanding” with the American Red Cross Bay Area in order to provide temporary mass care shelters

for victims of disasters. The District’s “Education Mitigation Strategies” are also aligned with the regional priorities in collaboration with ABAG.

Many of the emergency management and facility planning activities conducted by the District were fed into the planning process for the multi-jurisdictional plan. Key District staff met on multiple occasions to identify and prioritize mitigation strategies appropriate for the District. Staff involved included the Superintendent; Associate Superintendent of Business; Director of Operations, Maintenance, Health & Safety, Transportation and Emergency Coordinator; San Mateo County Safety Director, site administration representatives and the District’s Modernization Bond Manager. At these meetings, the general priorities for District were identified and preliminary budgets along with potential funding sources for strategies designed as “High” priority were discussed. Since the District is currently in the midst of a Bond funded modernization program, the team took this advantage to identify those areas that affect the integrity and safety of our facilities. The areas identified were than given high priority and are being addressed and funded by the community approved Bond Measure.

A final Board resolution adopting the plan and strategies will be on the District’s agenda once the final plan is approved by FEMA. These mitigation strategies will become an appendix to the District’s existing Emergency Preparedness Plan and added to the District’s Board Policy as needed.

## Public Participation

The District provided the opportunity for the public to comment on the DRAFT mitigation strategies selected by District staff at the Board of Trustees regular meeting on September 15, 2009. The District also placed the mitigation strategies on the District’s web site for ongoing public viewing and comment. The District formed a Bond Measure Oversight Committee, which along with comments from the public were reviewed and the suggestions acted on and funded by the Bond.

The District will continue to solicit public insight on the safety of our facilities by continued use of our website and Board Agenda Items as needed. Once major projects are completed a press release is given to the local newspaper informing the public on what has been accomplished.

## Incorporation of Existing Studies

Existing Plans, Studies, and Reports	Method of Incorporation into the Annex
Emergency Management Handbook and Response Plan	A specific plan for each site to use prior to, during and after a major disasters. Also provides opportunities for training staff on disaster preparedness.
Pandemic Flu Response Plan	Provides a means of disseminating vital health issues to staff, students, and the public. This plan is currently on the District Web site.
Board of Trustees’ Policy [3516 (a)]	Stipulates District’s and staffs responsibilities prior to, during and an event the affects the integrity of our facilities.
District’s Master Plan	Developed to identify high risk facilities in order to mitigate them once the Bond Measure was approved.
Bond Oversight Committee	A community based committee, which provides review of Bond expenditures, makes recommendation, and ensures that the District is in compliance.
CERT Certified Program	The District sponsors and has several staff members at each site CERT trained.

## Process for Updating Plan Sections

The Planning Process Section was updated to reflect the activities that took place as part of the plan update process. The Risk Assessment section was updated to include the new hazard mapping and land use data. The Hazards Assessment section included any new disasters that occurred since the last plan and reflected updates to the hazard maps. The planning team reviewed each section of the plan and determined that there needed to be updates based on new information or better data.

Jefferson Union High School District staff collaboratively reviews our mitigation plans and provides necessary input as needed on regular basis. With the ongoing bond funded modernization program in place, meetings are also held to review the overall Master Plan of the District to ensure that any potential hazardous areas are addressed.

- ◆ A Bond Oversight Committee was molded to oversee the DSA approved modernization projects being performed. This committee is comprised of representatives from the community (parents, tax payers, District staff--etc.). The committee reviews current authorized projects to assure compliance with the approved Bond Measure. Minutes of the meetings are posted on the District's web site for public review and comment.
- ◆ Weekly project meetings are held to ensure that any potential hazardous condition is addressed properly.
- ◆ The District also has biweekly School Board of Trustees meeting, which are advertised and open to the public; and the public is allowed and encouraged to comment on any issue that concerned them including our Hazardous Mitigation Plan.
- ◆ The District continues to work collaboratively with both the community leaders of Daly City and Pacifica to ensure that our hazardous mitigation objectives are in line with their plans.
- ◆ The District is also a very active member of the Pacifica Emergency Preparedness Committee, which provides insight and advise on how to keep the community aware and become prepared in case of emergency situations.

Public participation in these meeting and their input is greatly encouraged; and is properly reviewed when received. It is also an avenue for the District to keep the public aware of what is going on and how the District plans on addressing specific issues (either during an emergency and or mitigating safety concerns prior to a tragedy). The District will continue updating our website and advertise any public meetings on these issues.

## Hazard and Risk Assessment

The ABAG multi-jurisdictional Local Hazard Mitigation Plan, to which this Annex, lists nine hazards that impact the Bay Area, five related to earthquakes (faulting, shaking, earthquake-induced landslides, liquefaction, and tsunamis) and four related to weather (flooding, landslides, wildfires, and drought). The Jefferson Union High School District is concerned mostly about potential earthquakes and weather related landslides due the geophysical conditions and locations of our schools.

The District does not have any hazard mapping or risk information more detailed than those available from ABAG at <http://quake.abag.ca.gov/mitigation/>. The District has had a number of landslides on the hills within the Oceana and Terra Nova High School campuses, including one that caused significant damage in 1982 and 2005. The slippage of the hillsides behind both Oceana and Terra Nova High Schools are still a major concern to the District. Prior to every winter storm, we are vigilant in preparing and mitigating the hillsides and drainage areas to prevent potential landslides. As this is a small district that comprises a relatively

small amount of land over a distributed area, there were no “local declared emergencies” related to natural hazards since the last development of the plan in 2005.

Information on disasters declared in San Mateo County is at:

<http://quake.abag.ca.gov/mitigation/disaster-history.html>.

The District examined the hazard exposure of District’s land based on the information on ABAG’s website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>. The District encompasses approximately 236 urban acres, which include the following parameters:

- ◆ The City of Pacifica, a coastal community, has both Oceana and Terra Nova High Schools within its boundaries. The remaining are within the boundaries of Daly City.
- ◆ The City of Pacifica has a unique topographical pattern. It is comprised of several mountains and hills that lead to the Pacific Ocean. Pacifica has also been a prime area for landslides. In 1982, Pacifica had several severe landslides due extensive winter rains. In one instance, it claimed the lives of several young children.
- ◆ Jefferson High School, Daly City, has 20.5 acres (includes 10 buildings).
- ◆ Thornton High School, Daly City, has .09 acres (includes 2 buildings).
- ◆ Serramonte Del Rey (Adult Education Center and District Office), Daly City, has 56.1 acres (includes 3 buildings).
- ◆ Westmoor High School, Daly City, has 59.1 acres (includes 4 buildings).
- ◆ Oceana High School, Pacifica, has 54.7 acres (includes 10 buildings).
- ◆ Terra Nova High School, Pacifica, has 45.1 acres (includes 16 buildings).

### Relative Risk & Susceptibility Mapping of each High School Site

Type Of Risk	Jefferson (Daly City)	Thornton (Daly City)	Serramonte (Daly City)	Westmoor (Daly City)	Oceana (Pacifica)	Terra Nova (Pacifica)
Liquefaction	Very Low	Very Low	Very Low	Low	High	High
Shaking Intensity	Violent	Violent	Violent	Violent	Very Violent	Very Violent
Faulting (San Andreas-Peninsula)	Adjacent	Adjacent	Adjacent	Adjacent	Adjacent	Adjacent
Landslides	N/A	N/A	N/A	N/A	Very High ongoing issue	High has occurred
Erosion	N/A	N/A	N/A	Minimum Danger	High Danger	High Danger
Wildfire	Low	Low	Moderate	Moderate	High	High
Flooding (100 yr & 500 yr)	Urbanized Area	Urbanized Area				
Tsunamis (Not within zoned area)	Urbanized Area	Urbanized Area				
Mudslides (Ca)	N/A	N/A	N/A	Slight	Very High	High
Hazardous Minerals (Ca) (i.e. Asbestos)	AHERA 3-year Inspection Compliant	AHERA 3-year Inspection Compliant				
Environmental & Forest Protection >Watershed (Ca)	No Forested or Water Shed Areas	Within the “Milagra Ridge” watershed boundary. (High Wildland Fire Hazard Rating)	Within the “Sweeny Ridge” watershed boundary. (High Wildland Fire Hazard Rating)			

## Risk Assessment

- ◆ Hydrology and Watersheds: Water resources in both Milagra Ridge (which includes Oceana High School) and Sweeny Ridge (which includes Terra Nova High School) watershed boundaries include rainfall, springs and streams. Both ridges are comprised of steep coastal bluffs permitting the water to flow into streams and creeks which goes directly into the ocean. During the 2008-2009 installation of an all weather athletic stadium at both Jefferson and Terra Nova High Schools, all of the storm drains were thoroughly inspected and cleaned out. A pre-existing stream at Terra Nova High School was rerouted through a storm drain around the new athletic stadium. Both Oceana and Westmoor High Schools will undergo similar storm drain inspections and repairs during their upcoming modernization programs.
- ◆ Both the Milagra Ridge and Sweeny Ridge are classified as **high fire danger zones**, due to their unique topographic characteristics and the combination of plant growth (coastal scrubs, grasses, native forests and non-native trees).
- ◆ During March 2005, the Golden Gate National Recreation Area (which includes portions of Milagra and Sweeny Ridges) submitted their Fire Management Plan in conformance with the Federal Wildland Fire Management Policy. The fire management actions include a range of mechanical treatments, from hand-tools to heavy equipment, aviation use and prescribed burning applied with the goals of fire hazard reduction and resource benefit. Both the communities of Pacifica and Daly City are also covered by the collaborative efforts of the North County Fire Authority, based in Daly City.
- ◆ Drought, though a potential problem throughout the District, it is not fully assessed. However, the District is working with the “North Coast County Water District” in the implementation and installation of using recycled (“reclaimed”) water on the Oceana High School athletic fields and throughout the campus vegetation areas.
- ◆ Oceana is located on the south-western flank of Milagra Ridge at the edge of a broad alluvial valley east of Highway 1 in the northern part of Pacifica.
- ◆ As indicated on ABAG’s mapping, the Milagra Ridge is considered a **“mostly landslide” and a “very highly”** prone area for slides.
- ◆ During the construction of Oceana High School in early 1960’s, the hillside directly behind the school was significantly modified by mass grading and a “steep cut and fill” operation. This made the hill highly susceptible to rippling and erosion.
- ◆ Oceana High School experienced several landslides during 1982 due to heavy precipitation, totaling twice the normal rainfall.
- ◆ After the slides of 1982, a geotechnical evaluation was completed on Oceana’s surrounding hillsides. It was determined that the excessive slippage and soil scoring caused the exposure of the bedrock (Greenstone of the Franciscan formation).
- ◆ Several areas were identified as unstable and mitigation was recommended. In 1983, with FEMA’s support, the hillside was stabilized and drainage ditches were installed to redirect the rainfall.
- ◆ Again in 1999-2000, Pacifica experienced another excessively wet “El Nino” winter. During this time several hillside homes fell into the ocean. In addition, the Oceana High School hillside experienced significant surface sliding as well (100’x 60’ area). The hill was graded once again to regain stability.
- ◆ Currently, the hillside above the area that was repaired in 1982-1983 has shown signs of sliding and significant erosion. The specific area is virtually bare of vegetation and tree growth. Closer examination of the area reveals an exposure of highly weathered, closely fractured greenstone bedrock. Surface soil creep appears to be the dominant type of mass erosion. Initial

observation shows no obvious evidence of any deep-seated movement in this area. However, there is great concern about the visible rippling affect of the entire hill and its history of instability.

- ◆ In addition, the District examined the hazard exposure information of the potential hillside areas supplied by ABAG. The District has determined that the combination grading of the hillside during the 1960's construction of Oceana High School, and the work done in 1982-1983 to the hill contributed to the serious conditions that currently exist.
- ◆ Oceana High School also experienced a landslide in 2005, which the hillside was mitigated and stabilized with the assistance of FEMA.
- ◆ In May of 2005, the District consulted with a professional geologist on the stability of the Oceana High School hillside. The District performed the recommended actions in order to stabilize the hillside in specific areas by using burlap matting ("jute mesh") and planting native plants.

The District also examined specific hazard exposure of infrastructure based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>.

- ◆ None of the District's facilities are in the designated 100-year or 500-year flood zones.
- ◆ Chlorine gas systems located at the District's pool buildings were susceptible to damage, with an accompanying toxic gas release, in an event of an earthquake. In 2006, the District took action and replaced the chlorine gas systems with a liquid system as recommended by the San Mateo County inspector.

Finally, the District examined the hazard exposure of its critical school buildings based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickcrit.html>.

- ◆ All of the high schools are located in strategic locations throughout the communities they serve. They have been used as an alternative sheltering facility in case of a natural disaster.
- ◆ Jefferson High School is a designated Red Cross emergency shelter, which has a fully certified emergency generator.
- ◆ Westmoor High School is a designated Red Cross emergency shelter, which has a fully certified emergency generator.
- ◆ Terra Nova High School is a designated Red Cross emergency shelter, which has a fully certified emergency generator.
- ◆ Oceana High School is a designated Red Cross emergency shelter, which does not have an emergency generator.
- ◆ If any of these high schools become damaged, it will cause significant loss to the local communities and victims during any natural disaster.
- ◆ Due to the City of Pacifica's unique geographical location and configuration, it has minimal ingress and egress to and from the surrounding communities. In a crisis, emergency services would more than likely be redirected to the highly populated and industrial cities on the Peninsula. In cases of major catastrophes, this would isolate Pacifica and the District schools for more than 72-hours, forcing Pacifica and the District to be self-sufficient.
- ◆ The District has offered to pre-stage emergency equipment for community use on our sites.
- ◆ In 2009, Westmoor's HVAC system was upgraded.
- ◆ In 2010, Oceana High School's pool facility underwent a massive bond supported modernization program in order to address structural and ADA concerns.
- ◆ In 2010, Westmoor High School replaced its existing pool facility with a new bond supported facility due to structural integrity concerns.

- ◆ In 2010, Jefferson High School’s expansion bridge structure, which provides walkways from the various buildings; was structurally and seismically upgraded.
- ◆ In 2010, Westmoor and Jefferson High Schools’ infrastructure (fire main, irrigation, potable water, gas supply, electrical---etc.) was upgraded.
- ◆ In 2010, Jefferson, Westmoor, Oceana, and Terra Nova High Schools had solar panels installed on their roofs to support energy savings and environmental concerns.

In spite of the areas of the District that are located in slide-prone areas, there is no repetitive property loss in the District based on the information at <http://quake.abag.ca.gov/mitigation/pickflood.html>.

- ◆ Since our 2005 plan update, we have experienced several years of unsavory winter weather patterns.
- ◆ These seasonal storms have been very harsh, which affects mainly our aging pine and cypress trees throughout the District. There is also an ongoing concern on potential landslides along both the Milagra and Sweeny Ridge lines.

The District plans to continue to work with ABAG to improve the risk assessment information being compiled by providing information on landslide prone areas located throughout the District. The District will also work with ABAG in further developing the hazard impact (for the level of damage to critical facilities and infrastructure) on each of our school campuses as indicated in ABAG’s Annex, which specifically states that ABAG will provide further statistics as needed.

## **Evaluation of Progress from 2005 Plan**

No specific mitigation projects were identified in the 2005 mitigation plan so this update cannot identify completed, deleted or deferred mitigation strategies; with the exception of the modernization of both the Oceana and Westmoor’s pools. Progress has been made in hazard mitigation throughout the District over the last five years. These activities outlined in the Future Mitigation section will carry over to the next 5 years and become high priorities for completion.

Since these impacts are not fully developed, the District has reviewed the hazards identified and ranked those based on past disasters and expected future influences. Since all our high schools are in close proximity of the San Andreas Fault (“San Francisco Peninsula”), we are concerned about the integrity of all of our facilities. The District has recently undergone an extensive facilities safety assessment, which has determined that our schools are safe to the current seismic regulations in accordance with DSA. The District is currently in the midst of a District wide, bond supported, modernization program. During the implementation of this current program, we are addressing all structural concerns that come up. The District’s leading concern is also the integrity of the hillside on Milagra Ridge behind the Oceana High School. As indicated above, this hillside historically has experienced severe erosion and multiple landslides. The conclusion is that earthquakes (particularly shake intensity), landslides, and wildfire are more important than tsunamis and flooding throughout the District. However, if a tsunami and/or flooding occur; it would affect major access roads to and from the District’s facilities. The City of Pacifica has recently installed a tsunami early warning system; which includes sirens, posted evacuation routes; “SMC Alert” and “Tens” telephone notification systems.

## **Future Mitigation Actions and Priorities**

The District developed a “Master Plan” in expectations that a community bond funded measure would pass to support facility upgrades throughout the District. Input to the “Master Plan” was collaboratively provided by District staff, public input, and architectural guidance.

Based on the District's "Master Plan", we are continuing our bond funded, DSA approved, modernization program as follows:

- ◆ At Terra Nova High School the vulnerable portable classrooms are being replaced with two DSA approved academic buildings.
- ◆ At Jefferson High School the unstable portable classrooms are being replaced with a DSA approved academic building.
- ◆ At all sites the facilities infrastructure (fire mains, sewer lines, storm drains, gas supplies,--- etc.) are being evaluated and upgraded as needed in support of the installation of the new structures.
- ◆ As of January 1, 2011, the District will incorporate green building standard codes (CALGreen), which will provide a uniform and consistent process in which new facilities are designed and constructed as outlined by the Division of the State Architects office. "CALGreen was established to reduce construction waste, make buildings more efficient in the use of materials and energy, and reduce environmental impact during and after construction."

At this time, the District can only address and correct items that are covered by the bond approved measures. Currently there is no District funding to support any other issues and or programs that can support staff training, public awareness and/or mitigation of areas not covered by the bond (see strategies).

## **Mitigation Activities and Priorities**

As a participant in the ABAG multi-jurisdictional planning process, Jefferson Union High School District staff helped in the development and review of the comprehensive list of mitigation strategies in the overall multi-jurisdictional plan. At the Board of Trustees regular meeting on September 15, 2009, in a public forum the District's "Education Mitigation Strategies" were presented and discussed. The strategies are also currently on the District's web site for public viewing and feedback.

The tentative decision on priority was made based on a variety of criteria, not simply on an economic cost-benefit analysis. These criteria include being technically and administratively feasible, politically acceptable, socially appropriate, legal, economically sound, and not harmful to the environment or our heritage.

Over time, we are committed to developing better hazard and risk information to use in making those trade-offs. We are not trying to create a disaster-proof region, but a disaster-resistant one. In addition, several of the strategies are existing District programs; which are part of the planning process through Board of Trustees policy review, DSA and fire code enforcement, and the development of the District's Emergency & Disaster Preparedness Plan to its Board Policy [3516 (a)]. Any new activities identified as part of the Annex will be incorporated into these existing mechanisms. The District will be working to identify potential funding sources in support of these issues, including capital improvement budgets, bond measures, and federal or state grants.

The final mitigation priorities will be submitted to the District Superintendent for review and then to the Board of Trustees for formal resolution once the District's plan is approved by the state and FEMA. The public will be given an additional opportunity to comment on the mitigation priorities at that time. Once approved, the final strategies (as shown in the attached Table) will become an *Implementation Appendix* to the District's *Emergency & Disaster Preparedness Plan [Board Policy 3516 (a)]*.

## **The Plan Maintenance and Updating Process**

The Jefferson Union High School District is committed to reviewing and updating this plan annex at least once every five years, as required by the Disaster Mitigation Act of 2000. The Director of Operations-Maintenance will contact ABAG four years after this plan is approved to ensure that ABAG plans to undertake the plan update process. If so, the District again plans to participate in the multi-jurisdictional plan. If ABAG is unable to act as the lead agency in the multi-jurisdictional effort, other agencies will be contacted, including the County's Office of Emergency Services. Counties should then work together to identify another regional forum for developing a multi-jurisdictional plan.

The District will ensure that monitoring of this Annex will occur on an on-going basis. However, the major disasters affecting our District and communities, legal changes, notice from ABAG as the lead agency in the process, and other triggers will be used. Finally, the Annex will be an item of discussion in a meeting with each school administrator and superintendents at least once a year in August. At that meeting, the administrators will focus on evaluating the Annex in light of technological and political changes during the past year or other significant events. This group will be responsible for determining if the plan should be updated.

The public will continue to be involved whenever the plan is updated and, as appropriate, during the monitoring and evaluation process. At a regularly scheduled "Board of Trustees Meeting", the District will address any changes to the plan in an open public forum. All public comments will be reviewed. Publicly-initiated practical changes will be integrated into the plan updates whenever reasonable and/or within the scope of the plan. Any changes to the Plan will be posted on the District's website to encourage public oversight.