



**City of Normandy Park, Washington**

**HAZARD MITIGATION PLAN**

**ANNEX TO THE KING COUNTY**

**REGIONAL HAZARD MITIGATION PLAN**

**7/1/05**

**Revised 7/12/2009**

## **CITY OF NORMANDY PARK, WASHINGTON HAZARD MITIGATION STRATEGY**

### **Profile:**

The City of Normandy Park was established in 1953 and consists of 1681 acres with a population of approximately 6,395 according to the 2002 estimate projected from the 2000 census. The City is governed by a seven member Council that are elected by the registered voters of the City for 4-year terms. The Council sets policy and hires a City Manager to manage the City government. The City is primarily single-family residences, with a few small to moderate retail sales and service oriented businesses. Geographically, the City is located in southwest King County, Washington west of Sea-Tac Airport between the Cities of Burien to the north and northeast, Des Moines to the south and southeast and the Puget Sound to the west. State route 509 runs along the eastern border of the City. The City is also served by Burien/Normandy Park Fire Department (King County Fire District #2); two independent sewer districts; 3 independent water districts; both Seattle City Light and Puget Sound Energy, which provide electricity; and it lies wholly within the Highline School District.

### **Hazard Identification:**

State route 509 travels along the eastern border of most of the City. The primary hazard presented to the City, because of the location of this state route in proximity to neighborhoods, could be hazardous material accidents or radiological incidents occurring on the state route. Severe winter storms, snow or ice and earthquake potential could create landslides and tree falling conditions which could result in significant property damage and compromise the delivery of essential services and utilities to the residents of the area. Flooding is also an issue with Miller and Walker Creeks, which drain parts of upstream areas and flow through the City into the Puget Sound. These streams have in the past caused significant damage and service delivery problems. There is an bridge on the City's only secondary arterial, Sylvester Road, in the north end of the City, which is still serviceable but will eventually need replacement, even if it survives a future earthquake. The Miller Creek Sewer Plant operated by the Southwest Suburban Sewer District in the northern part of the City as are two pumping stations. The City roads have significant utilities including water mains and wastewater as well as storm-water utility lines, which have in the past broken, causing problems. It is believed that our citizens are woefully unprepared for the possibility that services could be disrupted for days or weeks.

### **Hazard History:**

The last major event for the City was the significant rain storm in November 2003 which precipitated the collapse of a culvert under 1<sup>st</sup> Avenue South after which it was determined that the culvert had been compromised by the Nisqually earthquake of February 2001.

**Regional Goals:**

The City of Normandy Park’s goals and objectives are consistent with the regional goals and objectives.

**Historic Projects and Programs:**

The City has established an Emergency Operations Center in City Hall at 801 SW 174<sup>th</sup> Street with a back up generator to power the building as well as a back up antenna for Police Dispatch. In 2002, the City established a relationship with resident Ham Radio Operators (HRO). This included installing radio antennas and gear in the Emergency Operations Center to allow for a back up communication mechanism in case of VHF or dispatch failure due to terrorism or sabotage.

**Strategy Implementation:**

The City of Normandy Park will implement its strategy through Operating and Capital Budgets, Bond Levies and Grant funds as available. Large projects will be implemented over multiple budget cycles or as funding sources become available.

**Strategy**

The City is updating the public education program and looking at different means to involve the community and citizens.

Priorities are:

1. Review and update public education/volunteer response team
2. Provide emergency power for the Police Radio Transmitter
3. Dig two wells in public parks for an emergency water supply
- 4 Seismic retrofit of the elderly (but still serviceable) bridge on Sylvester Road

Priorities to be numbered 1-4 with number 1 being of the highest priority for benefit during disasters. Priorities were established using benefit cost ratios but will be implemented as funding becomes available.

**Benefit Cost Review**

Benefit Cost Review included replacement costs for critical facilities and equipment at 2004 estimated prices and estimation of a single life saved as \$2.3 million. The later figure was used following the World Trade Center Terrorist attack. Only projects with Benefit Cost ratios of greater than 1 to 1 were considered for our strategy.

**EVENTS & LOSSES/REPETITIVE LOSSES**

| <b><u>Event</u></b>  | <b><u>Date</u></b> | <b><u>Impact</u></b>                             |
|----------------------|--------------------|--|
| Nisqually Earthquake | 2001               | Weakened culvert under 1 <sup>st</sup> Avenue    |
| Rainstorm            | 2003               | Collapse of culvert under 1 <sup>st</sup> Ave S. |
| Windstorm            | 2006               | Loss of power for up to 6 days                   |
| Windstorm            | 2007               | Loss of Power                                    |
| Snow Storm           | 2008               | Difficulty moving around                         |

## MITIGATION INITIATIVES

### **1. Review and update the city's public education plan/volunteer response team.**

*Vulnerability:*

The City of Normandy Park has a small staff and most staff members do not live within the city. As a result, volunteers may be heavily relied upon in response to an emergency. In addition, residents of Normandy Park who are well prepared for an emergency or disaster may reduce the response burden. The western border of Normandy Park is Puget Sound and the extensive shoreline provides natural habitat for a variety of species. Several local creeks, including salmon bearing Miller and Walker Creeks, flow through Normandy Park into the Puget Sound.

*Initiative:*

The city has arranged with the Burien/Normandy Park Fire Department to sponsor Normandy Park residents into the Burien/SeaTac CERT Program but that gives us individuals who have been trained as CERT volunteers. The city needs to coordinate them as a team as well as augment them with an Oil Spill Response team that has been organized and then trained by the Washington State Department of Ecology to properly respond to an oil spill in Puget Sound that would threaten one of the few brackish estuaries in central Puget Sound. The city would also like to extend that team to respond to problems in the local creeks. The first portion of this initiative would be to hold classes and educate career staff and community volunteer specialists. The second portion would be to educate individual community groups and members through the CERT program. The third portion would be to establish tools for the groups allowing them to be supportive in disaster events to help mitigate the impact to the city's level of service.

*Benefit:*

With additional funding our public education division would create. Train, and equip an emergency response team and implement an educational program. We need to acquire class material, training props and qualified instructors. Basic tools to help the citizens groups and homeowners associations take care of critical needs will also be addressed.

### **2. Emergency Water Supply**

*Vulnerability*

The city is served by three independent water districts, each of which has as its primary water source, the City of Seattle water distribution system from dams located in the foothills of the Cascade mountains.

*Initiative:*

Two wells would be drilled on existing public parks into the Highline Aquifer, which lies under the city.

*Benefit:*

In the event of a disaster, probably a severe earthquake, that disrupted the current water distribution system, residents could come to the parks to receive sufficient water to survive.

**3. Sylvester road bridge replacement**

*Vulnerability:*

The bridge over Sylvester Road is old but was rated as still serviceable during the last evaluation (but is due for a new evaluation this year). The bridge is on the most direct route from most of the City to Highline Community Hospital.

*Initiative:*

The bridge will have to be replaced eventually. In the mean time, the city has received a grant to update the structural portions of the bridge but the bridge needs a seismic retrofit to survive an large earthquake.

*Benefit:*

A retrofitted bridge would be updated and would be much more likely to withstand a significant earthquake.

**IMPLEMENTATION**

Our current direction with all of these goals is to provide partial or full funding as time and financial conditions allow. Creation of the emergency response team program has been discussed and proposals are being drafted. A water right to access the aquifer is being sought. The bridge is being monitored on a monthly basis and state funding will be sought when replacement is necessary.

*Plan Maintenance:*

This plan will be reviewed at least once every five years in September, and any changes that are necessary will be presented to the public during the City Council first regular meeting in September. The plan will also be reviewed after any future disaster events. If changes are made or not the City's representative will send a report at the end of September notifying King County as holder of the Regional Hazard Mitigation Plan. The regional plan with the city's annex will be sent to the state in November as required.

*Public Participation:*

The City's goal is to post our Hazardous Mitigation Plan on the City's website for public review and comment. This will be in addition to the public review and participation efforts presented by the County. Once our plan is adopted we will draft a resolution and present the plan during a public portion of a City Council meeting.

*Document of Adoption:*

Once the City's plan is accepted by the County, the state, and FEMA, the City Council will vote to adopt the Regional Hazard Mitigation Plan and Local Mitigation Plan during a regularly scheduled City Council meeting, which was done on January 11, 2005.



**REGIONAL HAZARD MITIGATION PLAN OF KING COUNTY INITIATIVES**

**JURISDICTION AGENCY:** CITY OF NORMANDY PARK

**TYPE OF HAZARD:** HIGH WINDS, EARTHQUAKE, WINTER STORMS, VOLCANO, FLOODING, LANDSLIDES, FIRES, LIGHTNING, DROUGHT, HAIL AND ALL NATURAL AND MANMADE HAZARDS.

**CATEGORY:** LIFE SAFETY

**PRIORITY:** 3

**PLAN ADOPTION** \_\_\_\_\_

**BRIEF DESCRIPTION OF PROJECT:** PROVIDE EMERGENCY WATER SUPPLY

**RATIONAL FOR PROJECT:** (RECOGNIZING THE HAZARD AND PROPOSED SOLUTION, RESOLUTION, AND/OR SPECIFIED LAW OR REGULATION IMPINGING ON THE PROJECT)  
Provide capability to provide water during disasters.

Primary \_\_\_\_\_  
Secondary \_\_\_\_\_  
Tertiary \_\_\_\_\_

Source and Date: City of Normandy Park's Local Hazard Mitigation Plan

Adoptive Date and/or Ordinance #: \_\_\_\_\_

Status: Initial Stages; applying for Water Right

Benefit/Cost Ratio: 3 to 1

**REGIONAL HAZARD MITIGATION PLAN OF KING COUNTY INITIATIVES**

**JURISDICTION AGENCY:** CITY OF NORMANDY PARK

**TYPE OF HAZARD:** EARTHQUAKE, WINTER STORMS LANDSLIDE, AND MANMADE HAZARDS.

**CATEGORY:** LIFE SAFETY

**PRIORITY:** 4 **PLAN ADOPTION** \_\_\_\_\_

**BRIEF DESCRIPTION OF PROJECT:** SEISMIC REETROFIT OF THE SYLVESTER ROAD BRIDGE

**RATIONAL FOR PROJECT:** (RECOGNIZING THE HAZARD AND PROPOSED SOLUTION, RESOLUTION, AND/OR SPECIFIED LAW OR REGULATION IMPINGING ON THE PROJECT)  
MAINTAIN TRANSPORTATION THROUGHTOUT THE CITY AND ACCESS TO MAJOR MEDICAL CENTER AND PROXIMITY.

**RHMP GOALS:**

**RHMP OBJECTIVES:**

Goal #1 Protect life and property

Lead Jurisdiction: City of Normandy Park, Public Works Director  
Participating Jurisdictions: N/A

Cost of Project: \$1.5 Million  
Benefit: \$25 Million total value of facilities

Estimated time period implemented: Engineering and implementation 20013-2014

Funding Sources: Grants Matching %  
Primary \_\_\_\_\_  
Secondary \_\_\_\_\_  
Tertiary \_\_\_\_\_

Source and Date: City of Normandy Park’s Local Hazard Mitigation Plan; City of Normandy Park Six-year Transportation Plan

Adoptive Date and/or Ordinance #: \_\_\_\_\_

Status: Ongoing, when bridge status is reviewed. Structural updates contracted for

Benefit/Cost Ratio: 5 to 1

## **HAZARD MITIGATION PLAN**

Requirements- FEMA Interim Final Rule 44 CFR Part 201.1 “for local governments to identify actions and activities to reduce any losses from those hazards.” See also 44 CFR 201.6 (c). Possession of approved Hazard Mitigation Plan is a prerequisite for receiving any federal money under the Hazard Mitigation Grant Program (HMGP). Eventually all Federal Emergency Management Agency (FEMA) mitigation programs will be gathered together: Flood Mitigation Assistance, Community Rating System, Pre-Disaster Mitigation, and HMGP.

Potential natural and man-made disasters (list adapted from SWSSD HMP)

|                     |                                  |
|---------------------|----------------------------------|
| Earthquake          | Transportation accident          |
| Winter storm        | Erosion                          |
| Terrorism           | Volcanic activity                |
| Civil unrest        | Economic (Urban) problems        |
| Drought             | Economic (agricultural) problems |
| Wildfire            | Air and water quality            |
| Tsunami-seiche      | Food contamination               |
| Technology accident | Epidemic                         |
| Industrial accident |                                  |

Previous FEMA declared disasters:

- 3/1/01 Nisqually Earthquake FEMA-1361-DR
- 1/3/96 High Winds/Floods FEMA-1079-DR
- 10/20/03 Rains/Floods

### **Potential Hazards in Normandy Park:**

Bridges: Sylvester Road Bridge is old and needs to be upgraded to current seismic standards. It is on the only secondary arterial in the City and its loss would impact the major northern exit route from the City.

- Miller Creek Bridge (by Helen Kludt’s house) is in danger during large floods. Seismic standard unknown. Losing it would split the City in two requiring two mile detours.

Culverts

- Miller Creek culvert under 1<sup>st</sup> Ave S.
- Walker Creek culvert under 1<sup>st</sup> Ave S. (upgraded in 2004)

**SOUTHWEST SUBURBAN SEWER DISTRICT (SWSSD) HAZARD MITIGATION PLAN (HMP) – OCTOBER 2003-2008**

**Hazards they have found within their service area within Normandy Park:**

Miller Creek Treatment Plant could be subject to several hazards.

Maintenance Building (at MCTP) could be subject to damage in landslide

Sodium hypochlorite is relatively benign in its delivered and stored form.

Part of hillside west of MCTP was cleared of trees in 2003 and has not (yet) been replanted – Proposed mitigation to replace trees (\$20,000)

36" and 30" trunk lines could be damaged by earthquake, flood, or landslide.

Backup radios have not been tested and crews have not been trained in their operation.

District does not have any 800 MHz capabilities

District does not have an agreement with local fire districts to obtain fuel.

Lift Station 11 flooded during high water in Miller Creek.; fallen tree could block access

Sewer District is not a member of the Washington Association of Water and Sewer District's (WAWSD) mutual aid agreement.

Connect to Burien's emergency network; conduct exercises with Fire Departments.

Prepare and implement Emergency Response Plan

Add public emergency response to newsletter and website.

Include Hazard Mitigation Planning into yearly (fall) update of Capital Improvement Plan (CIP)