



CITY OF KIRKLAND
Fire & Building Department
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MEMORANDUM

To: Dave Ramsay, City Manager
From: Helen Ahrens-Byington, Deputy Chief
Date: February 16th, 2007
Subject: Hazard mitigation plan

RECOMMENDATION:

The City Council pass the resolution to accept and approve the King County multi-jurisdictional Hazard Mitigation Plan including the Kirkland Hazard Mitigation Plan Annex which was approved by FEMA on March 8th, 2005.

BACKGROUND DISCUSSION:

FEMA requires all public agencies to have a Hazard Mitigation Plan. King County determined that agencies within the county were at risk of similar hazards. They received approval from FEMA to write one County wide plan and each public agency within the County would write an annex to the plan. On November 18th 2003 the Kirkland City Council signed a resolution (R-4406) to develop an annex to the King County plan. The City of Kirkland annex was completed and sent to the County, State, and FEMA for approval. March 8th, 2005 FEMA formally accepted our plan and it has become part of the King County Hazard Mitigation Plan.

In January of 2007 the Department began to apply for a hazard mitigation grant. After being in contact with King County they said even though we have a FEMA accepted annex we were not compliant with the whole plan because it requires the City Council to pass the resolution to accept and approve the King County multi-jurisdictional Hazard Mitigation Plan including the Kirkland Hazard Mitigation Plan Annex and then to send our resolution to the County. The King County Hazard Mitigation Plan can be viewed at, http://www.metrokc.gov/prepare/programs/hazmit_plan.aspx.

Passage of the resolution will allow Kirkland to apply for grants to mitigate hazards within our community. Each action we take to mitigate hazards will reduce the impacts of disasters on our citizens and city.

Attachments: Kirkland Hazard Mitigation

HAZARD MITIGATION STRATEGY

City of Kirkland

Jurisdiction Profile

The City of Kirkland was established in 1888 on the banks of Lake Washington. Incorporated in 1905, the 5.75 square mile community is the home to 45,054 residents. Kirkland is largely a residential community of professionals. The City of Kirkland has its own fire, building, police, and public works departments. The City of Kirkland is served by Lake Washington School District.

It is the strategy of the City of Kirkland to maintain continuity of government and emergency services in the event of a catastrophic incident within the city.

Vulnerability

The City of Kirkland has identified areas of vulnerability within the city. These hazards are also profiled in the adopted County Regional plan. The primary threats to the City of Kirkland are:

- Earthquake
- Windstorm
- Mudslide

The City of Kirkland is home to industrial, retail, and educational facilities. Interstate 405 divides the city, separating North Rose Hill and Totem Lake Neighborhoods from the rest of the city. Vehicle and pedestrian overpasses connect the two areas. Many structures and overpasses in Kirkland are old, and were built before modern seismic standards were in place. Earthquakes, winter storms, ice and snow have a potential of causing mudslides, tree falling, structural damage or collapse, loss of life, and interruption of essential services such as fire, emergency medical, and utilities. Kirkland crosses the freeway using several bridges located at NE 132nd ST, NE 124th ST, NE 116th ST NE 85th, and NE 70th. Some of these are older bridges and are in danger of collapse in the event of a significant earth quake. Failure of some or all the bridges would isolate the North Rose Hill Fire Station from receiving additional Kirkland response units.

Juanita Drive is a winding road connecting the City to the Finn Hill response area. This road is heavily traveled and runs along an embankment to the west. Mud slides in that area would close the road and pose potential property damage and loss of life. Wind storms in Kirkland pose a threat of falling trees that may also cause power outages, delayed emergency response, and property damage.

Hazard History

The City of Kirkland has experienced several mud slide and windstorm events, in past years, to various degrees of severity. The most significant event occurred in the late 1980's when a section of Juanita Drive slid down the embankment causing the complete destruction of a house and significant damage to other homes. This incident also caused severe injuries and near loss of life of one home owner. The road was closed for several months. The total monetary loss was in the millions of dollars.

Kirkland also experienced the Nisqually earthquake in February of 2001. Although Kirkland facilities were not heavily damaged some of the private businesses incurred minor to moderate damages. These damages were primarily contents rather than structural in nature.

Probabilities of future events for the City of Kirkland are consistent with the regional probabilities shown in the County Regional Plan.

Regional Goals

The City of Kirkland's goals and objectives are consistent with the regional goals and objectives.

Funded Current Mitigation

Kirkland is currently taking steps to mitigate natural and man-made disasters. The following mitigation efforts are ranked in order of priority and are partially or completely funded. They will be continued as long as funding is available. Funding is received from the CIP, current revenue, and available grants.

- Providing public education in preparing for disaster. Kirkland has a Public Educator to reach out to the community and schools within the area.
- Maintaining emergency food and supplies storage at its fire stations.
- Emergency power back up to some of its critical facilities
- Constructing a new fire Station on Finn Hill
- Seismic upgrades to several of the city owned buildings.
- Build a new Public Safety Building in Kirkland
- Secure critical electronic equipment in Kirkland critical facilities

The criteria used for the prioritization of the funded mitigation efforts are:

- Benefit /Cost review
- Protection of life
- Maintaining public safety emergency response
- Maintaining city services to the public
- Public education

Non-funded Future Mitigation

Kirkland is currently taking steps to mitigate natural and man-made disasters. The following mitigation efforts are ranked in order of priority and are not currently funded. They will be continued as funding becomes available from the acquisition of new grants and increased revenues.

- Provide emergency generators for all Kirkland owned critical facilities.
- Provide emergency supplies containers for all Kirkland owned critical facilities.
- Secure and stabilize all critical electronic equipment (i.e.: radios, computers, etc.).
- Build a new fire station on Finn Hill to combine the services of two existing stations.
- Build a new Public Safety building which will also house the Emergency Operations Center

The criteria used for the prioritization of the non-funded mitigation efforts are:

- Benefit cost review
- Protection of life
- Maintaining public safety emergency response
- Potential of available funding sources
- Maintaining city services to the public
- Public education

Benefit Cost Review

A Benefit to Cost review was done on each initiative to establish their prioritization. Loss of life is a primary, but not the only, consideration in prioritizing mitigation projects. The projects may change priority based on availability of funding.

The Benefit /Cost Review included replacement costs for critical facilities, retrofitting of existing buildings to modern earthquake standards, public education and supplying safety materials to existing facilities. The materials, manpower, and building supplies listed in the initiatives are based on 2004 prices. It is difficult to put a price on human life. The figure used in the initiatives for the saving of one life is \$2.3 million dollars. This figure is based upon the figure used after the World Trade Center terrorist attacks on September 11th, 2001.

Without Additional Funding

Without additional funding the City of Kirkland will maintain its current level of disaster mitigation preparedness and continue to explore avenues of funding in order to improve preparedness. Kirkland will continue to be involved in regional planning and mutual aid agreements with neighboring agencies.

Regional Hazard Mitigation Plan City of Kirkland Government Administration

Planning/Participation

Members of the City of Kirkland formed a work group to develop the Hazard Mitigation Plan. The group was represented by members of the following city departments:

- Deputy Chief of Operations- Jack Henderson
- Battalion Chief- Mike Dettmer
- Senior Management Analyst- Tracy Burrows
- Director of Information Technology- Brenda Cooper
- Director of Public Works- John Hopauf

The work group provided technical information relating to their department and offered their technical skills in producing the mitigation plan. Participation included regular attendance at the Regional meetings by one or more members of the group.

A public meeting was held at Kirkland City Hall on Friday December 10th, 2005 at 11:00 AM for the purpose of soliciting public input on the plan. There were no attendees representing the public. In addition, the fire department has made site visits to public facilities to discuss emergency plans. Our public educator has fielded input from the general public on the topic of Kirkland's Hazard Mitigation Plan. On November 18th the plan was brought to the public through a public City Council Meeting where a resolution to adopt Kirkland's participation in the county plan was approved.

Plan Adoption

The adoption process for Kirkland's annex to the King County Hazard Mitigation Plan included several steps. First, the work group reviewed and edited the plan. The plan was then forwarded to the Deputy Chief of Fire Department Operations for review and preliminary approval. The plan was then sent to the City's legal department for a review which took approximately two weeks. The document was then sent to the City Manager for review. Then a resolution was written recommending the participation in the King County Regional Hazard Mitigation Plan. Resolution number R-4406 was brought before the seven member city council on November 18th, where it received a unanimous vote for adoption.

Plan Implementation

The City of Kirkland will implement its plan through the sources listed below. Larger projects will be implemented over multiple budget cycles or as funding sources become available.

- General Operating Budget
- Capitol Improvement Budget
- State and Federal Grants
- Bonds
- Public and Corporate Donations of money, supplies, and Manpower

Plan Maintenance

Kirkland's Hazard Mitigation plan will be reviewed annually and revised as needed. The Deputy Chief of Fire Operations and the managers of the appropriate departments will review the plan. All significant changes will be made. The group will send a representative to attend the regional meetings. There will be an annual meeting of the local group in October of each year.

RESOLUTION R-4636

A RESOLUTION OF THE CITY COUNCIL AUTHORIZING THE CITY MANAGER TO ACCEPT AND APPROVE THE KING COUNTY MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN, AS APPROVED BY FEMA, INCLUDING THE KIRKLAND HAZARD MITIGATION PLAN ANNEX AND FUTURE ADMINISTRATIVE CHANGES.

WHEREAS, the City of Kirkland is vulnerable to the human and economic costs of natural, technological, and societal disasters; and

WHEREAS, the Kirkland City Council supports disaster mitigation efforts and regional disaster planning as a means of reducing or eliminating those vulnerabilities for the overall good and welfare of the City of Kirkland and the region; and

WHEREAS, the City of Kirkland and other jurisdictions within King County participated in the development of the King County Multi-jurisdictional Hazard Mitigation Plan; and

WHEREAS, 48 public agencies including the City of Kirkland have annexes to the King County Multi-jurisdictional Hazard Mitigation Plan; and

WHEREAS, additional agencies are expected to join the King County Multi-Jurisdictional Hazard Mitigation Plan as annexes; and

WHEREAS, regular revisions and updates are required by FEMA; and

WHEREAS, a locally adopted plan reviewed and approved by FEMA is required under the Mitigation Act, 44 Code of Federal Regulations (CFR) Part 201; and

WHEREAS, the Kirkland Hazard Mitigation Plan Annex to the King County Multi-jurisdictional Mitigation Plan meets the FEMA mitigation requirements and makes the City of Kirkland eligible to apply for FEMA hazard mitigation programs;

NOW, THEREFORE, be it resolved by the City Council of the City of Kirkland as follows:

1. The Kirkland City Council authorizes the City Manager to accept and approve the King County Multi-Jurisdictional Hazard Mitigation Plan as approved by FEMA on March 8, 2005, including the City of Kirkland Hazard Mitigation Plan Annex, and future administrative changes to the King County Multi-jurisdictional Mitigation Plan.

Passed by majority vote of the Kirkland City Council in open meeting
this ____ day of _____, 2007.

Signed in authentication thereof this ____ day of _____, 2007.

MAYOR

Attest:

City Clerk