SULTAN CITY COUNCIL
AGENDA ITEM COVER SHEET

ITEM NO:	A - 2
DATE:	September 9, 2010
SUBJECT:	Hazard Mitigation Plan Adoption Resolution 10-16
CONTACT PERSON:	Connie Dunn, Field Supervisor

ISSUE:
The issue before the city council is to authorize Mayor Eslick to sign Resolution 10-16 (Attachment A) adopting the Snohomish County and the City of Sultan chapter in the 2010 Natural Hazard Mitigation Plan (Attachment C).

STAFF RECOMMENDATION:
Approve Resolution 10-16 to adopt Snohomish County and the City of Sultan chapter of the Natural Hazard Mitigation Plan (NHMP) and authorize Mayor Eslick to sign Resolution 10 16.

SUMMARY:
Snohomish County Department of Emergency Management notified the City in 2009 of the requirement to update the City's Hazard Mitigation Plan.

The purpose of the plan is to:

- To be proactive in mitigating known hazards before a disaster event occurs.
- The Disaster Mitigation Act of 2000 (Public Law 106-390) established requirements for pre and post disaster hazard mitigation programs.
- The coalition of Snohomish County, Cities and Special Purpose Districts has completed a planning process that engages the public, assesses the risk and vulnerability to the impacts of natural hazards, and develops mitigation strategy consistent with a set of goals and objectives.

The current plan expired in April 2010. Snohomish County and partnering cities have been involved in updating the NHMP since June 2009.

The Snohomish County Department of Emergency Management received a grant to assist with consultant time to review existing plans and make necessary changes. Sultan and agencies that interact within our community used the opportunity to review the 2004 adopted NHMP and make any updates based on new information or changed conditions.

Participation from Sultan:

- Chief Merlin Halverson Snohomish County Fire District #5, Representative on the Steering Committee
- Chief Jeff Brand, Sultan Police, Snohomish County Sheriff
- Dan Chaplik, Sultan School District #311
- Connie Dunn, City of Sultan

Council reviewed the draft Sultan Annex on June 10, 2010 and directed staff to proceed with submitting the annex to Snohomish County for inclusion in the Hazard Mitigation Plan.

Submittal of the NHMP was made to Washington State Emergency Management Division and FEMA Region X Mitigation Division in June 2010. July 2010 Snohomish County Department of Emergency Management in two different locations, Monroe and Everett, city staff attended the Monroe Public Hearing. On August 23, 2010, Snohomish County, Tetra Tech, Inc. and partnering agencies received notice of approval, pending adoption by resolution by all agencies.

FISCAL IMPACT:
Updating the Natural Hazard Mitigation Plan is an unfunded mandate. Updating the NHMP is directly tied to FEMA for grant eligibility. Without an approved Annex the city is not eligible to seek FEMA storm or disaster mitigation funds.

The City carefully considered changes to the plan to ensure eligibility for future grants and support for public safety improvements such as siren warning systems and evacuation routes.

ALTERNATIVES:

1. Approve Resolution 10-16 to adopt the Snohomish Natural Hazards Mitigation Plan, which includes the City of Sultan as part of the annex. This provides funding sources for the city and citizens in case of a natural disaster.
2. Don't adopt the Resolution 10-16 and deny grant eligibility, thus making funds unavailable to the community until the plan is formally adopted by the City.

RECOMMENDED ACTION:
Approve Resolution 10-16 to adopt Snohomish County and the City of Sultan chapter 13 of the Natural Hazard Mitigation Plan (NHMP), authorizing Mayor Eslick to sign the resolution.

ATTACHMENTS:

A – Resolution 10 – 16
B – Summary of Process
C – Chapter 13, City of Sultan annexation

CITY OF SULTAN
WASHINGTON
RESOLUTION NO. 10 - 16

A RESOLUTION OF THE CITY OF SULTAN, WASHINGTON, ADOPTING THE SULTAN ANNEX OF THE SNOHOMISH COUNTY NATURAL HAZARDS MITIGATION PLAN

WHEREAS, all of Snohomish County has exposure to natural hazards that increase the risk to life, property, environment and the County's economy;

WHEREAS; pro-active mitigation of known hazards before a disaster event can reduce or eliminate long-term risk to life and property;

WHEREAS, The Disaster Mitigation Act of 2000 (Public Law 106-390) established new requirements for pre and post disaster hazard mitigation programs;

WHEREAS; a coalition of Snohomish County, Cities and Special Purpose Districts with like planning objectives has been formed to pool resources and create consistent mitigation strategies within the county;

WHEREAS, the coalition has completed a planning process that engages the public, assesses the risk and vulnerability to the impacts of natural hazards, develops a mitigation strategy consistent with a set of uniform goals and objectives, and creates a plan for implementing, evaluating and revising this strategy;

NOW, THEREFORE, BE IT RESOLVED that the City of Sultan:

1.) Adopts in its entirety, Volume 1 and parts 1, the City of Sultan jurisdictional annex of part 2, part 3 and the appendices of Volume 2 of the Snohomish County Natural Hazards Mitigation Plan (SCNHMP).

2.) Will use the adopted portions of the SCNHMP to guide pre and post disaster mitigation of the hazards identified.

3.) Will coordinate the strategies identified in the SCNHMP with other planning programs and mechanisms under its jurisdictional authority.

4.) Will continue its support of the Steering Committee and continue to participate in the Coalition Partnership as described by the SCNHMP.

5.) Will help to promote and support the mitigation successes of all SCNHMP Coalition Partners.

ATTACHMENT A

PASSED BY THE CITY COUNCIL AT A REGULAR MEETING THEREOF ON THE 9TH DAY OF SEPTEMBER 2010.

CITY OF SULTAN

_____
Carolyn Eslick, Mayor

ATTEST/AUTHENTICATED:

_____
Laura Koenig, City Clerk

Approved as to form:

_____
Margaret J. King, City Attorney

Passed by the City Council:
Resolution No.:
Date Posted:

ATTACHMENT A

Summary of Process

I. Disaster Mitigation Act Overview

The Disaster Mitigation Act (PL 106-390, 10/30/2000) establishes a pre-disaster hazard mitigation program and new requirements of the national post-disaster Hazard Mitigation Grant Program (HMGP).

The Act encourages local governments to establish plans to reduce or eliminate long-term risk and vulnerability to natural hazards, as a prerequisite for receiving funds through the post-disaster Hazard Mitigation Grant Program. Mitigation plans support emergency management, as the plans set a course for responsive recovery.

New requirements redefine local government to include a broader group beyond traditional municipalities, counties and tribes; and this broader group includes all entities such as fire and library districts with taxing authority.

II. Plan Update Requirements

The original plan adopted by the county and Snohomish cities in 2004 will expire in April 2010. The cities and County have about 12 months to complete the update; although considering time for reviews, there is really 8 months to do the work.

The county wants to maintain the plan in good standing and not let it expire. The plan helps the county and its' planning partners qualify for federal aid and also supports the National Flood Insurance Program's Community Rating System, which provides a discount on flood insurance premiums.

The tasks that need to be completed are outlined in the handout, "Local Hazard Mitigation Plan, FEMA-Specified Plan Update Requirements."

A key task is to complete a new risk assessment, using the new DFIRMs. The county's consultants will be working on this new risk assessment, known as the Hazard Inventory Vulnerability Assessment (HIVA.) Snohomish County currently has a stand-alone HIVA, developed over five years ago by the University of Washington.

The new risk assessment will require a new public process, to show how the new flood losses and recent wind and snow events are factored into the new plan. Also, the county needs to re-evaluate risk of tsunamis now that the State mapping is available.

ATTACHMENT B

III. Funding

The county was awarded a grant to update the NHMP. The county received the money in late June-August 2009.

The grant award will allow the county and the planning partners to update the plan including (1) elevation projects that would prepare county records for the upcoming Community Rating System (CRS) Re-Verification audit by FEMA, and (2) a relatively comprehensive risk assessment that incorporates the latest technology and recent county data.

IV. Steering Committee Organization

At a meeting in April 2010, the county discussed reestablishing the Steering Committee, which includes filling all the positions. The original plan was developed with a 13-member steering committee. The representation was as follows:

- City, fire chief
- City, police commander
- City, engineer
- Snohomish County Director of Public Works
- Snohomish County Emergency Management Coordinator
- University of Washington Director of Institute for Hazard Mitigation and Planning
- Floodplain property owner
- Floodplain Business (Agriculture)/property owner
- Representative from Insurance Brokerage
- Representative from utility
- Flood Control District Representative
- Cascade Land Conservancy Representative
- Department of Ecology Floodplain Management Specialist

Brad Feilberg of the City of Monroe (city-engineer position), and Merlin Halverson of Snohomish County Fire District No. 5 in Sultan (city–fire chief position), volunteered to co-chair the Steering Committee.

Snohomish County Public Works Director Steve Thomsen reaffirmed his support; stating that either he, or County Engineer Owen Carter, would attend the Steering Committee Meetings.

Jeanne Moen of Snohomish County PUD volunteered to fill the utility company position.

Neil Wheeler will represent Flood Control Districts. Neil is Chairman of the Coordinated Diking District Commission, as well as District Manager of the French Slough Flood Control District.

Members expressed interest in getting one of the three hospital districts (Cascade, Monroe and Stevens) on board; as well as a representative from the Stillaguamish tribe, whose community settled along the Stillaguamish River. The Committee also needs a representative from the Department of Ecology, to replace Chuck Steele, who is unable to continue to serve.

Steering Committee positions can be shifted, to incorporate representatives from other key groups and potentially not continue with a group that was not able to actively participate in the original plan.

V. Planning Partner Expectations

Each planning partner must sign a commitment letter and provide a point of contact.

VI. Action Items

Key actions the Steering Committee needs to accomplish immediately include:

1. Filling the Steering Committee positions, and distributing the complete Steering Committee contact information to the planning partners
2. Completing a contract between the county and Tetra Tech for planning the course and products and production of a completely updated NHMP that will be accepted by FEMA

ATTACHMENT B

A-2
Attachment C
(24 pages)

CHAPTER 13.
CITY OF SULTAN ANNEX

13.1 HAZARD MITIGATION PLAN POINT OF CONTACT

Primary Point of Contact

Connie Dunn, Public Works Director
319 Main Street
Sultan, WA 98294
Telephone: 360-793-2231
e-mail Address: connie.dunn@ci.sultan.wa.us

Alternate Point of Contact

Jeff Brand
515 Main Street
Sultan, WA 98294
Telephone: 425-754-2360
e-mail Address: jeff.brand@snoco.org

13.2 JURISDICTION PROFILE

The following is a summary of key information about the jurisdiction and its history:

- **Date of Incorporation**—June 10, 1905
- **Current Population**—4,555 as of April 1, 2009 (estimate)
- **Population Growth**—Sultan was incorporated as a municipal jurisdiction in 1905 with a resident population of 576 persons. The resident population increased on a gradual basis averaging 1.5 to 1.8 percent per year from 1910 to 1940. The population declined by 1.6 percent between 1940 and 1950 and increased 0.1 percent from 1950 to 1960. The resident population increased at a rate considerably higher than the surrounding county between 1960 and 2000 as corporate boundaries expanded. The population grew an average of 3.1 to 4.1 percent per year from 1960 to 2000. In 2000, 3,695 persons resided within the Sultan UGA of which 3,344 persons resided within the city limits (Office of Financial Management, Forecasting Division, June 2007 and "Snohomish County Buildable Lands Report, 2007.).

  The Puget Sound Regional Council expects the Skykomish Valley, east of Monroe will eventually support 17,026 persons by the year 2010, 20,549 persons by the year 2020, and 23,977 persons by the year 2030. The projected Sultan population of 11,119 in 2025 would represent about half of these residents.

- **Location and Description**—The City of Sultan is located within Snohomish County in the western part of Washington State in the Skykomish River valley. This area is a semi-rural part of Snohomish County at the foot of the Cascade Mountains. The city is about 40 miles northeast of Seattle and 23 miles east of Everett on US 2.
- **Brief History**—Sultan was formed at the confluence of the Sultan and Skykomish Rivers by European settlers in the 1880s when gold was found nearby. The city's location is historically important to the community, first as an Indian village and then as a logging community. The town was named after the local Indian Chief Tseul-ted, but settlers mispronounced the name as "Sultan". By 1891, Sultan City played an important role in the building of the Burlington Northern Railroad which runs east from Everett adjacent to the Skykomish River. During the railroad construction, Sultan was as a supply station employing (at times) over 800 men. This boom brought many new businesses to the area and in 1905 Sultan incorporated. For most of the 20th century, the Sultan economy was driven by its proximity to logging, mining, agricultural resources. As the production and availability of natural resources declined in the

late 20th century, the City of Sultan has struggled to maintain its economic prosperity and redefine itself for the 21st century. Currently, the city is focused on building eco-tourism opportunities, capturing recreation and business travelers on US 2, and serving as the cultural and commercial center for local residents. Sultan still provides manufacturing and commercial services to the surrounding rural area including lumber production, foundry services, and light manufacturing of various products such as kayaks.

- **Climate**—The City of Sultan enjoys a moderate year-round climate, with average temperatures ranging from about 76.5°F in July to about 32.8°F in January. Annual precipitation in the City of Sultan is around 65.5 inches. At an elevation of 170 above sea level, Sultan receives around 11 inches of snowfall annually.
- **Governing Body Format**—The City has a council-mayor form of government, with seven at-large elected council members. This Council will assume the responsibility for the adoption of this plan.
- **Development Trends**—By the year 2012, the County's Buildable Lands Report expects approximately 7,300 persons will reside in the Sultan Urban Growth Area (UGA) of which 90 percent will reside in the city limits. The Buildable Lands Report further expects the current UGA will eventually support a population of 11,119 persons at build-out in 2025. It is assumed that the entire UGA will be incorporated into the City by that time. This is an official population estimate and is used by the City for its growth and capital facilities planning

  Washington State Law (RCW 36.70) requires that counties that meet specified population criteria, and the cities within those counties, to prepare and adopt a comprehensive long-range plan to serve as a guide for community development. The plan must consist of an integrated and internally consistent set of goals, policies, and implementation measures. In addition, the plan must focus on issues of the greatest concern to the community and be written in a clear and concise manner. City actions, such as those relating to land use allocations, annexations, zoning, subdivision and design review, redevelopment, and capital improvements, must be consistent with such a plan. The City of Sultan is in compliance and good standing with the provisions of RCW 36.70 and adopted its most recent general plan in 2008. The City will review and amend its Comprehensive Plan as necessary. Future growth and development will be managed as identified in this plan.

13.3 JURISDICTION-SPECIFIC NATURAL HAZARD EVENT HISTORY

Table 13-1 lists all past occurrences of natural hazards within the jurisdiction. Repetitive loss records are as follows:

- Number of FEMA Identified Repetitive Flood Loss Properties: 24 (as of 2/28/2010)
- Number of Repetitive Flood Loss Properties that have been mitigated: 3

13.4 HAZARD RISK RANKING

Table 13-2 presents the ranking of the hazards of concern.

13.5 CAPABILITY ASSESSMENT

The assessment of the jurisdiction's legal and regulatory capabilities is presented in Table 13-3. The assessment of the jurisdiction's administrative and technical capabilities is presented in Table 13-4. The assessment of the jurisdiction's fiscal capabilities is presented in Table 13-5. Classifications under various community mitigation programs are presented in Table 13-6.

13.6 HAZARD MITIGATION ACTION PLAN AND EVALUATION OF RECOMMENDED INITIATIVES

Table 13-7 lists the initiatives that make up the jurisdiction's hazard mitigation plan. Table 13-8 identifies the priority for each initiative. Table 13-9 summarizes the mitigation initiatives by hazard of concern and the six mitigation types.

13.7 STATUS OF PREVIOUS PLAN INITIATIVES

Table 13-10 summarizes the initiatives that were recommended in the previous version of the hazard mitigation plan and their implementation status at the time this update was prepared.

13.8 HAZARD AREA EXTENT AND LOCATION

Hazard area extent and location maps have been generated for the City of Sultan and are included at the end of this chapter. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes.

TABLE 13-1.
NATURAL HAZARD EVENTS

Type of Event	FEMA Disaster #(if applicable)	Date	Preliminary Damage Assessment
Severe Storm	1817-DR	01/2009	$3,391 - Emergency protection, debris removal
Severe Storm	1825-DR	12/2008	$10,327 – Building damage, road repair, snow and debris removal
Severe Storm/Flooding	1734-DR	12/2007	No estimates available
Severe Storm	1682-DR	12/2006	No estimates available
Flooding	1671-DR	11/2006	$37,087 – Water Treatment Plant repair, sandbagging, Sewage plant clean up and repair, parking lot repair
Severe Storm/Flooding	1641-DR	01/2006	No estimates available
Severe Storm/ Flooding	1499-DR	10/2003	$63,000
Earthquake (Nisqually)	1361-DR	02/2001	$1848 – Damaged Post Office, Sewage Treatment, Museum
Flooding/Landslide	1172-DR	03/1997	No estimates available
Earthquake (Duvall)	N/A	5/1996	No estimates available
Severe Storm	1159-DR	12/96	No estimates available
Flooding	1100-DR	01/1996	No estimates available
Flooding	1079-DR	11/1995	No estimates available
Severe Weather	981-DR	01/1993	No estimates available
Flooding	896-DR	12/1990	No estimates available
Flooding	883-DR	11/1990	No estimates available
Flooding	784-DR	11/1986	No estimates available
Volcano	823-DR	05/1980	No estimates available
Flooding	612-DR	12/1979	No estimates available
Flooding/Landslide	545-DR	12/1977	No estimates available
Flooding	492-DR	12/1975	No estimates available
Earthquake	196-DR	05/1965	No estimates available
Flooding	185-DR	12/1964	No estimates available
Flooding/ Wind	137-DR	10/1962	No estimates available

TABLE 13-2.
HAZARD RISK RANKING

Rank	Hazard Type	Risk Rating Score (Probability x Impact)
1	Flood	51
2	Severe Storm	51
3	Dam Failure	18
4	Earthquake	12
5	Landslide	12
6	Wildland Fire	12
7	Avalanche	0
8	Tsunami	0
9	Volcano/Lahar	0

TABLE 13-3.
LEGAL AND REGULATORY CAPABILITY

	Local Authority	State or Federal Prohibitions	Other Jurisdictional Authority	State Mandated	Comments
Codes, Ordinances & Requirements					
Building Code	Y	N	N	Y	International Building Code adopted July, 2004
Zonings	Y	N	N	Y	Title 16, Municipal Code adopted July, 1995
Subdivisions	Y	N	N	Y	Title 16, Municipal Code adopted July, 1995
Stormwater Management	Y	N	Y	Y	WA Stormwater Management manual and Utility, adopted 2008
Post Disaster Recovery	N	N	N	N	No adopted regulations
Real Estate Disclosure	N	Y	N	Y	No adopted regulations
Growth Management	Y	Y	Y	Y	Growth Management Act, 2008 GMA Compliant Comp Plan
Site Plan Review	Y	N	N	Y	Title 16, Municipal Code adopted July, 1995
Special Purpose (flood management, critical areas)	Y	Y	N	Y	Flood Mgmt. Code/Critical Areas Ordinance, Title 16, Flood Damage Prevention Title 17.08 *State law prohibits residential construction in designated floodway.*

TABLE 13-3 (continued).
LEGAL AND REGULATORY CAPABILITY

	Local Authority	State or Federal Prohibitions	Other Jurisdictional Authority	State Mandated	Comments
Planning Documents					
General or Comprehensive Plan	Y	Y	Y	Y	State-mandated GMA Plan, adopted 2008
Floodplain or Basin Plan	Y	Y	N	Y	City of Sultan Comprehensive Floodplain Management Plan, Adopted: 1999 Repetitive Flood Loss Plan, Adopted in 1999
Stormwater Plan	Y	N	N	Y	Storm Water Utility/Code
Capital Improvement Plan	Y	N	N	Y	Elements of Comprehensive Plan
Habitat Conservation Plan	Y	Y	Y	Y	Critical Areas Ordinance
Economic Development Plan	Y	N	N	Y	Elements of Comprehensive Plan
Emergency Response Plan					No adopted plan
Shoreline Management Plan	Y	Y	Y	Y	Shoreline Master Program
Post Disaster Recovery Plan					No adopted plan
Other					
Other	Sultan is member of WRIA 7 City of Sultan Hazard Identification and Vulnerability Analysis (March 2004) Design Standards Manual for Utilities and Roads Flood Hazard Topography mapping with flood zone overlay.				

TABLE 13-4.
ADMINISTRATIVE AND TECHNICAL CAPABILITY

Staff/Personnel Resources	Available?	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Y	City Community Development Director City Public Works Director
Engineers or professionals trained in building or infrastructure construction practices	Y	City Community Development Director w/ contract to Snohomish County Building Division
Planners or engineers with an understanding of natural hazards	Y	City Community Development Director, City Public Works Director w/ consultation to Snohomish County DEM
Staff with training in benefit/cost analysis	Y	City Administrator's office
Floodplain manager	Y	Community Development Director
Surveyors	N	Private contract
Personnel skilled or trained in GIS applications	N	None on staff, could privately contract
Scientist familiar with natural hazards in local area	N	None on staff, could privately contract
Emergency manager	Y	City Public Works Director
Grant writers	Y	City Economic Development Department

TABLE 13-5.
FISCAL CAPABILITY

Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	Y
Capital Improvements Project Funding	Y
Authority to Levy Taxes for Specific Purposes	Y
User Fees for Water, Sewer, Gas or Electric Service	Y-Full Service Utility
Incur Debt through General Obligation Bonds	Y
Incur Debt through Special Tax Bonds	Y
Incur Debt through Private Activity Bonds	Unknown
Withhold Public Expenditures in Hazard-Prone Areas	Y
State Sponsored Grant Programs	Y
Development Impact Fees for Homebuyers or Developers	Y

TABLE 13-6.
COMMUNITY CLASSIFICATIONS

	Participating?	Classification	Date Classified
Community Rating System	Yes	7	5/1/2008
Building Code Effectiveness Grading Schedule	Yes	3/3	5/2010
Public Protection	Yes	6	5/2010
Storm Ready	No	N/A	N/A
Firewise	No	N/A	N/A
Tsunami Ready	No	N/A	N/A

TABLE 13-7.
HAZARD MITIGATION ACTION PLAN MATRIX

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline	Included in Previous Plan?
S-1—Implement policies and recommendations indentified in the City of Sultan Comprehensive Floodplain Management and Repetitive Flood Loss Plan							
Existing	Flood	1,2,3,4,6,7, 8,9	City	High	General Fund, CIP, Possible FEMA Hazard Mitigation Grants	Short term, ongoing	Yes
S-2—Provide citizens of Sultan access to web-based information on natural hazards							
New	All Hazards	9,10,11,14	City	Medium	General Fund	Long term, ongoing	Yes
S-3—Acquire, relocate or retrofit identified repetitive flood loss properties							
Existing	Flood	7, 11, 14	City	High	General Fund, REET, FEMA Hazard Mitigation Grants	Short term, ongoing	Yes
S-4—Update, enhance and adopt the City's Emergency response plan based on the most current information and include identification of multi-hazard evacuation routes							
New & Existing	All Hazards	1,4,5,8,9, 10	City, County DEM	Medium	General Fund, FEMA Hazard Mitigation Grants	Long term, ongoing	Yes
S-5—Create additional evacuation routes out of the Sultan Bowl							
New	All Hazards	1,2,4,11	City	Low	Developer Fees, REET	Short term, ongoing	Yes
S-6—Promote flood insurance, reducing flood insurance rating by providing certified elevation data on all structures in the floodplain							
New	Flood	10,11,12	City	Medium	General Fund, Impact Fees	Long term, ongoing	Yes

TABLE 13-7 (continued).
HAZARD MITIGATION ACTION PLAN MATRIX

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline	Included in Previous Plan?
S-7—Enhance Outreach programs to promote preparedness and mitigate hazards that impact Sultan							
Existing	All Hazards	9,10,11,14	City	Low	General Fund, Grants, Snohomish Co DEM	Short term, ongoing	Yes
S-8—Promote mitigation of private property within Sultan by providing incentive and alternative ways to fund mitigation in Sultan							
New	All Hazards	10,11,12	City	Low	General Fund, Permit and Impact Fees	Short term, ongoing	Yes
S-9—Seismic retrofit of vulnerable water mains within Sultan							
Existing	Earthquake	1,2,4,11,14	City	High	CIP Fund, FEMA Hazard Mitigation Grants	Long term	Yes
S-10—Support County-wide initiatives identified in Chapter 21 of Volume 1.							
New and Existing	All Hazards	All	City	Low	General Fund	Short term, ongoing	No
S-11—Continue to maintain compliance and good standing under the National Flood Insurance Program (NFIP).							
New and existing	Flooding	1,2,9,10,11	City	Low	General Fund	Short term, ongoing	No
S-12—Continue participation and consider class improvement in the Community Rating System (CRS)							
New	Flooding	3, 5, 6, 7, 9, 10, 11, 13, 14	City	Low	General Fund	Short term, ongoing	Yes

TABLE 13-7 (continued).
HAZARD MITIGATION ACTION PLAN MATRIX

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline	Included in Previous Plan?
S-13—Where appropriate, support retrofitting, purchase, or relocation of structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority when applicable.							
Existing	All Hazards	6, 7, 11, 14	City	High	FEMA Hazard Mitigation Grant funding with local match provided by property owner contribution	Long term depends on funding	No
S-14—Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Chapter 7 of Volume 1.							
New and Existing	All Hazards	All	City	Low	General Fund, FEMA Mitigation Grant Funding for 5-year update	Short term, ongoing	No
S-15—Integrate, where appropriate, risk assessment information from the Snohomish County Hazard Mitigation Plan into other planning mechanisms available to the City such as; the Capital Improvements Program, the Comprehensive planning process, and Shoreline Master planning.							
New and Existing	All Hazards	All	City	Low	General Fund	Short term, ongoing	No

TABLE 13-8.
MITIGATION STRATEGY PRIORITY SCHEDULE

Initiative #	#of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/ Budgets?	Priority[a]
S-1	8	High	High	Yes	Yes	No	High
S-2	4	High	Medium	Yes	No	Yes	High
S-3	3	High	High	Yes	Yes	No	High
S-4	6	High	Medium	Yes	Yes	No	High
S-5	4	High	Medium	Yes	No	No	Low
S-6	3	High	Low	Yes	No	No	High
S-7	4	High	Medium	Yes	Yes	No	Medium
S-8	3	Medium	Low	Yes	No	No	Low
S-9	5	High	High	Yes	Yes	No	High
S-10	14	Medium	Low	Yes	No	Yes	High
S-11	5	Medium	Low	Yes	No	Yes	High
S-12	9	Medium	Low	Yes	No	Yes	High
S-13	4	High	High	Yes	Yes	No	Medium
S-14	14	Medium	Low	Yes	Yes	Yes	High
S-15	14	High	Low	Yes	No	Yes	High

a. Explanation of priorities
- High Priority: Project meets multiple plan objectives, benefits exceed cost, funding is secured under existing programs, or is grant eligible, and project can be completed in 1 to 5 years (i.e., short term project) once funded.
- Medium Priority: Project meets at least 1 plan objective, benefits exceed costs, requires special funding authorization under existing programs, grant eligibility is questionable, and project can be completed in 1 to 5 years once funded.
- Low Priority: Project will mitigate the risk of a hazard, benefits exceed costs, funding has not been secured, project is not grant eligible, and time line for completion is long term (5 to 10 years).

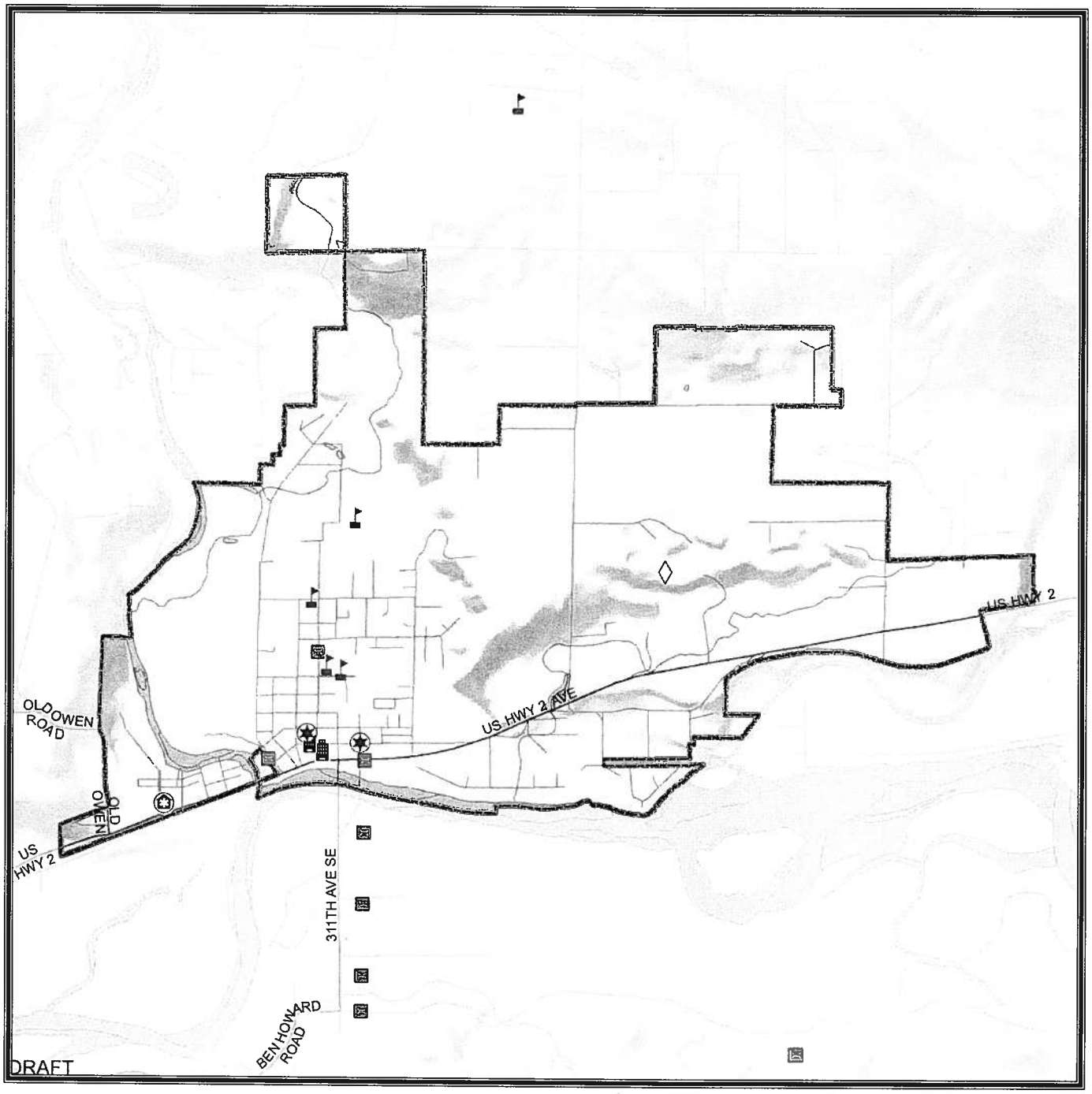
TABLE 13-9.
ANALYSIS OF MITIGATION INITIATIVES

	Initiative Addressing Hazard, by Mitigation Type					
Hazard Type	1. Prevention	2. Property Protection	3. Public Education and Awareness	4. Natural Resource Protection	5. Emergency Services	6. Structural Projects
Avalanche						
Dam Failure	S-4, S-10, S-14, S-15	S-10, S-13	S-2, S-6, S-7, S-8, S-10, S-14	S-10	S-4, S-5, S-10	S-10
Earthquake	S-4, S-10, , S-14, S-15	S-9, S-10, S-13	S-2, S-6, S-7, S-8, S-10, S-14	S-10	S-4, S-5, S-10	S-10
Flood	S-1, S-4, S-10, S-11, S-12, S-14, S-15	S-1, S-3, S-10, S-11, S-12, S-13	S-1, S-2, S-6, S-7, S-8, S-10, S-11, S-12, S-14	S-1, S-3, S-10, S-11, S-12	S-1, S-4, S-5, S-10, S-11, S-12	S-1, S-10, S-11, S-12
Landslide	S-4, S-10, S-14, S-15	S-10, S-13	S-2, S-6, S-7, S-8, S-10, S-14	S-10	S-4, S-5, S-10	S-10
Severe Weather	S-4, S-10, S-14, S-15	S-10, S-13	S-2, S-6, S-7, S-8, S-10, S-14	S-10	S-4, S-5, S-10	S-10
Tsunami						
Volcano/Lahar						
Wildfire	S-4, S-10, S-14, S-15	S-10, S-13	S-2, S-6, S-7, S-8, S-10, S-14	S-10	S-4, S-5, S-10	S-10

Notes:
1. Prevention: Government, administrative or regulatory actions that influence the way land and buildings are developed to reduce hazard losses. Includes planning and zoning, floodplain laws, capital improvement programs, open space preservation, and stormwater management regulations.
2. Property Protection: Modification of buildings or structures to protect them from a hazard or removal of structures from a hazard area. Includes acquisition, elevation, relocation, structural retrofit, storm shutters, and shatter-resistant glass.
3. Public Education and Awareness: Actions to inform citizens and elected officials about hazards and ways to mitigate them. Includes outreach projects, real estate disclosure, hazard information centers, and school-age and adult education.
4. Natural Resource Protection: Actions that minimize hazard loss and preserve or restore the functions of natural systems. Includes sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
5. Emergency Services: Actions that protect people and property during and immediately after a hazard event. Includes warning systems, emergency response services, and the protection of essential facilities.
6. Structural Projects: Actions that involve the construction of structures to reduce the impact of a hazard. Includes dams, setback levees, floodwalls, retaining walls, and safe rooms.

TABLE 13-10.
PREVIOUS ACTION PLAN IMPLEMENTATION STATUS

Action #	Action Status: Completed	Action Status: Carry Over to Plan Update	Action Status: Removed; No Longer Feasible	Comments
1		X		No action completed on this initiative during initial performance period. Act has been carried over to updated action plan (S-1)
2		X		No action completed on this initiative during initial performance period. Act has been carried over to updated action plan (S-3). Ongoing as the city is partially in a floodplain, driven grant availability
3		X		No action completed on this initiative during initial performance period. Act has been carried over to updated action plan (S-2)
4			X	Relocating police station action no longer feasible.
5		X		No action completed on this initiative during initial performance period. Act has been carried over to updated action plan (S-4)
6	X			No action completed on this initiative during initial performance period. Act has been carried over to updated action plan (S-5)
7		X		No action completed on this initiative during initial performance period. Act has been carried over to updated action plan (S-6)
8		X		No action completed on this initiative during initial performance period. Act has been carried over to updated action plan (S-7)
9		X		No action completed on this initiative during initial performance period. Act has been carried over to updated action plan (S-9). Action depends on funding.
10		X		No action completed on this initiative during initial performance period. Act has been carried over to updated action plan (S-8) Action will take place in regulations, zoning and planning ordinance updates.
11		X		No action completed on this initiative during initial performance period. Act has been carried over to updated action plan (S-12)



CITY OF SULTAN

Map 13-1

Critical Facilities

- Bridge
- Communication
- Dam
- Government
- Hazmat
- Medical
- Power
- Protective
- School
- Wastewater
- Water
- Other

Snohomish County

Tetra Tech, Inc.
May 2010

Data Sources:
Snohomish County
Project Planning Partners
Washington State Department of Natural Resources, Division of Geology and Earth Resources

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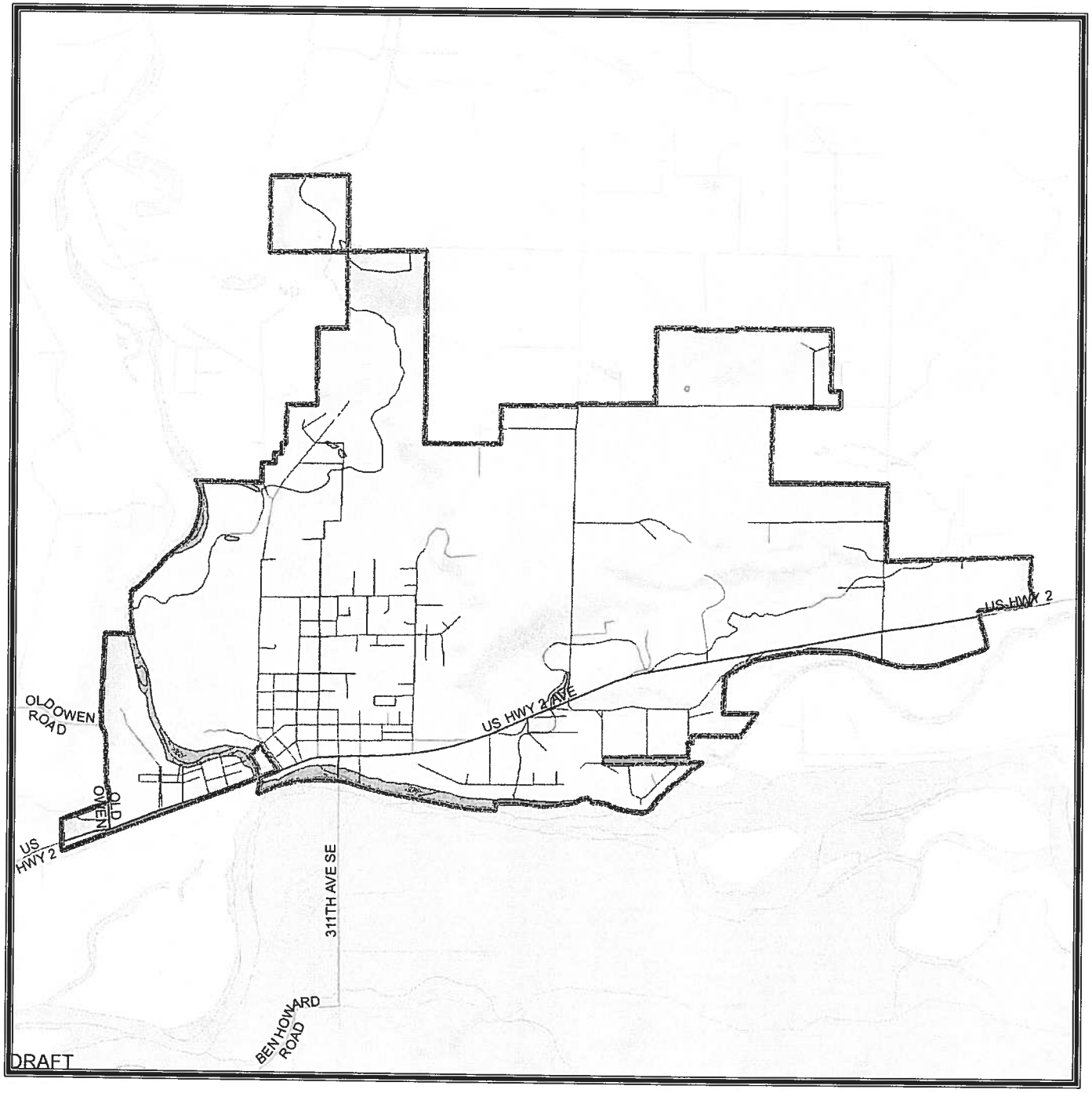

CITY OF SULTAN

Map 13-2

Earthquake
Peak Ground Acceleration
100-year Probabilistic
Scenario

Mercalli Scale, Potential Damage

- IV, None
- V, Very Light
- VI, Light
- VII, Moderate
- VIII, Moderate-Heavy
- IX, Heavy

Snohomish County

Tetra Tech, Inc.
May 2010

Data Sources:
Snohomish County
HAZUS-MH MR4 Output,
US Geological Survey
Washington State Department of
Natural Resources, Division of Geology
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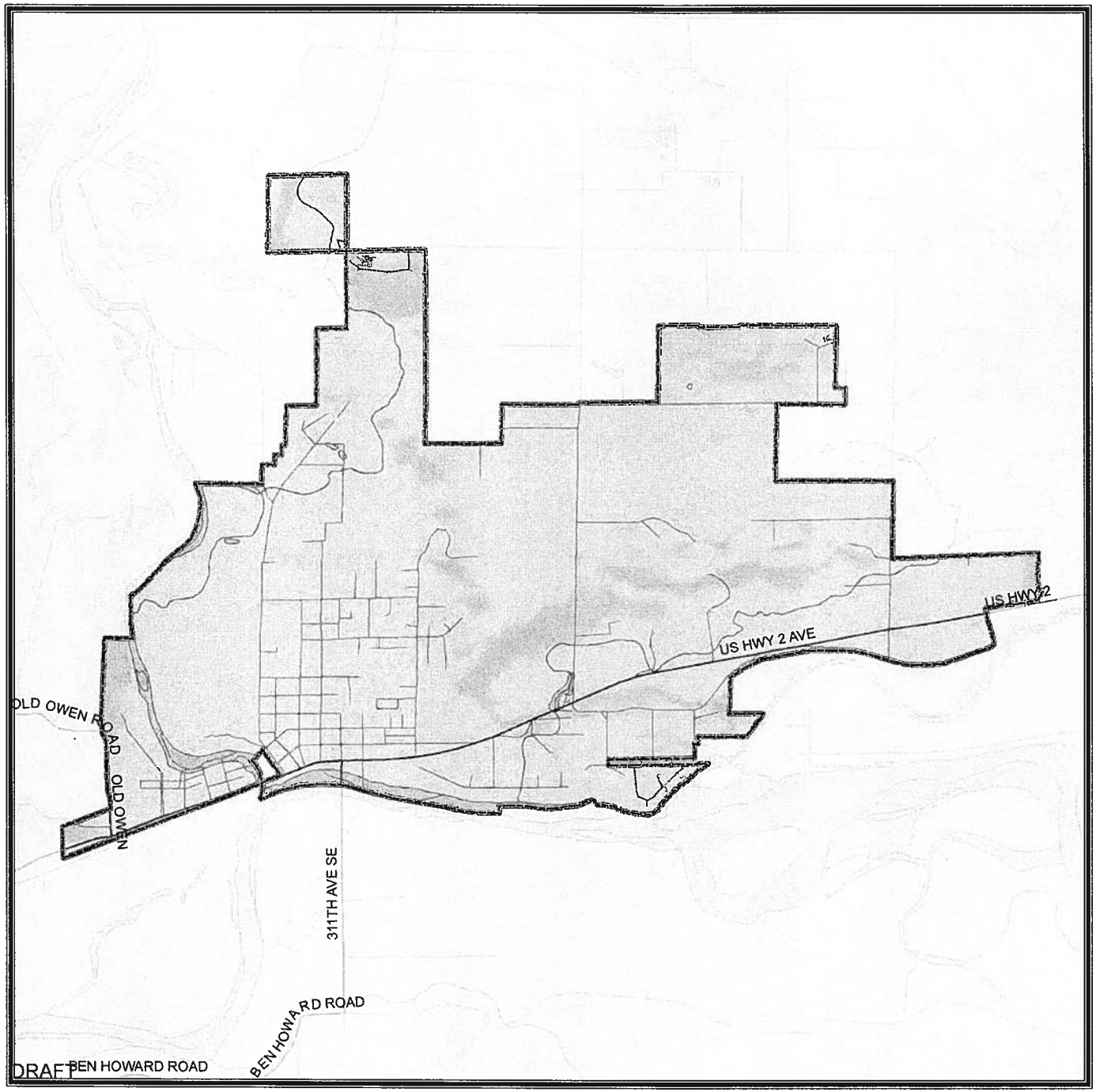

CITY OF SULTAN

Map 13-3

Earthquake
Peak Ground Acceleration
500-year Probabilistic
Scenario

Mercalli Scale, Potential Damage

- IV, None
- V, Very Light
- VI, Light
- VII, Moderate
- VIII, Moderate-Heavy
- IX, Heavy

Snohomish County

Tetra Tech, Inc.
May 2010

Data Sources:
Snohomish County
HAZUS-MH MR4 Output,
US Geological Survey
Washington State Department of Natural Resources, Division of Geology and Earth Resources

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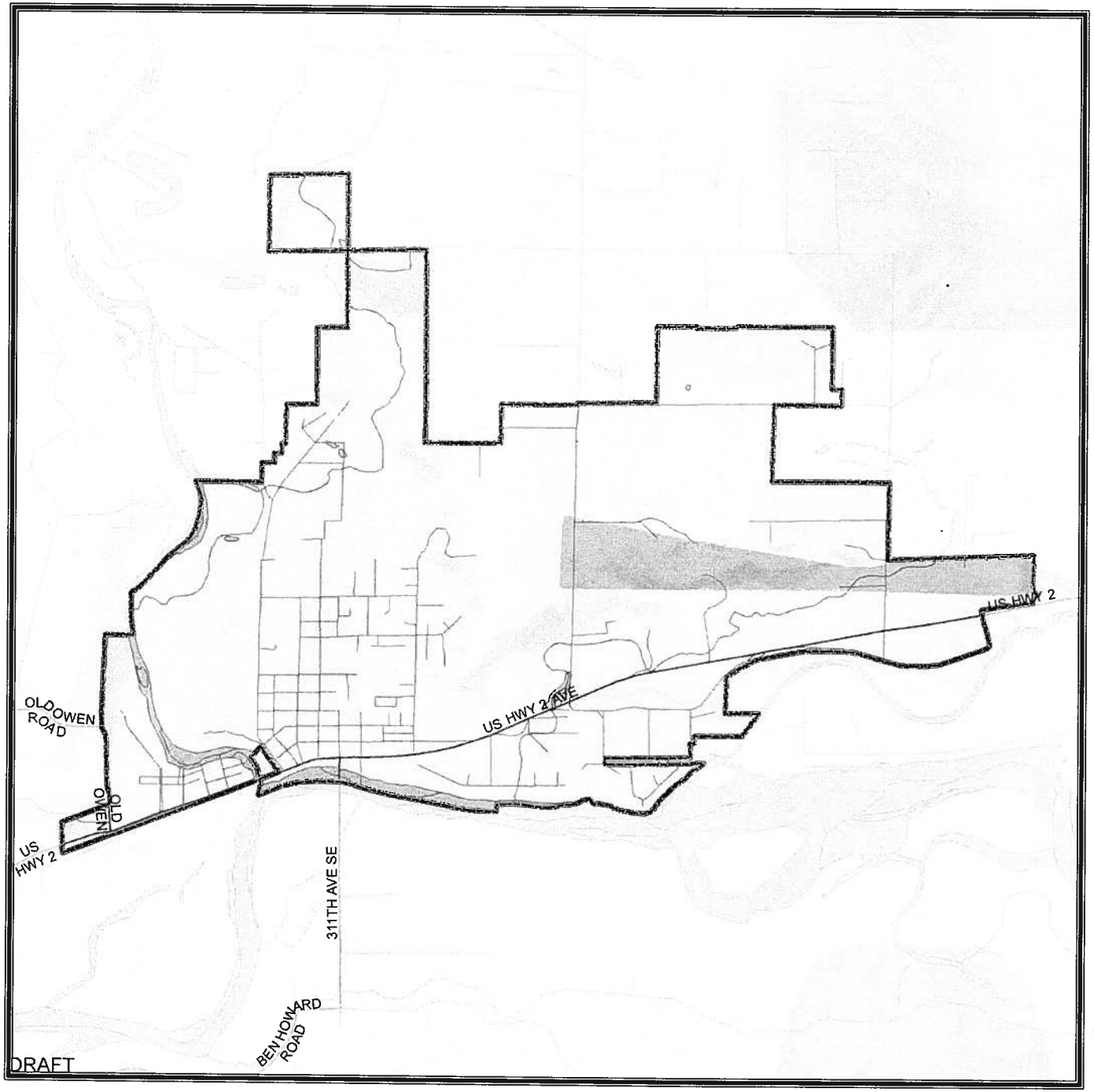

CITY OF SULTAN

Map 13-4

Devil's Mountain Fault
Peak Ground Acceleration
7.1-Magnitude Scenario
Shake Map

Mercalli Scale, Potential Damage

- IV, None
- V, Very Light
- VI, Light
- VII, Moderate
- VIII, Moderate-Heavy
- IX, Heavy

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Data Sources:
Snohomish County
US Geological Survey
Washington State Department of Natural Resources, Division of Geology and Earth Resources

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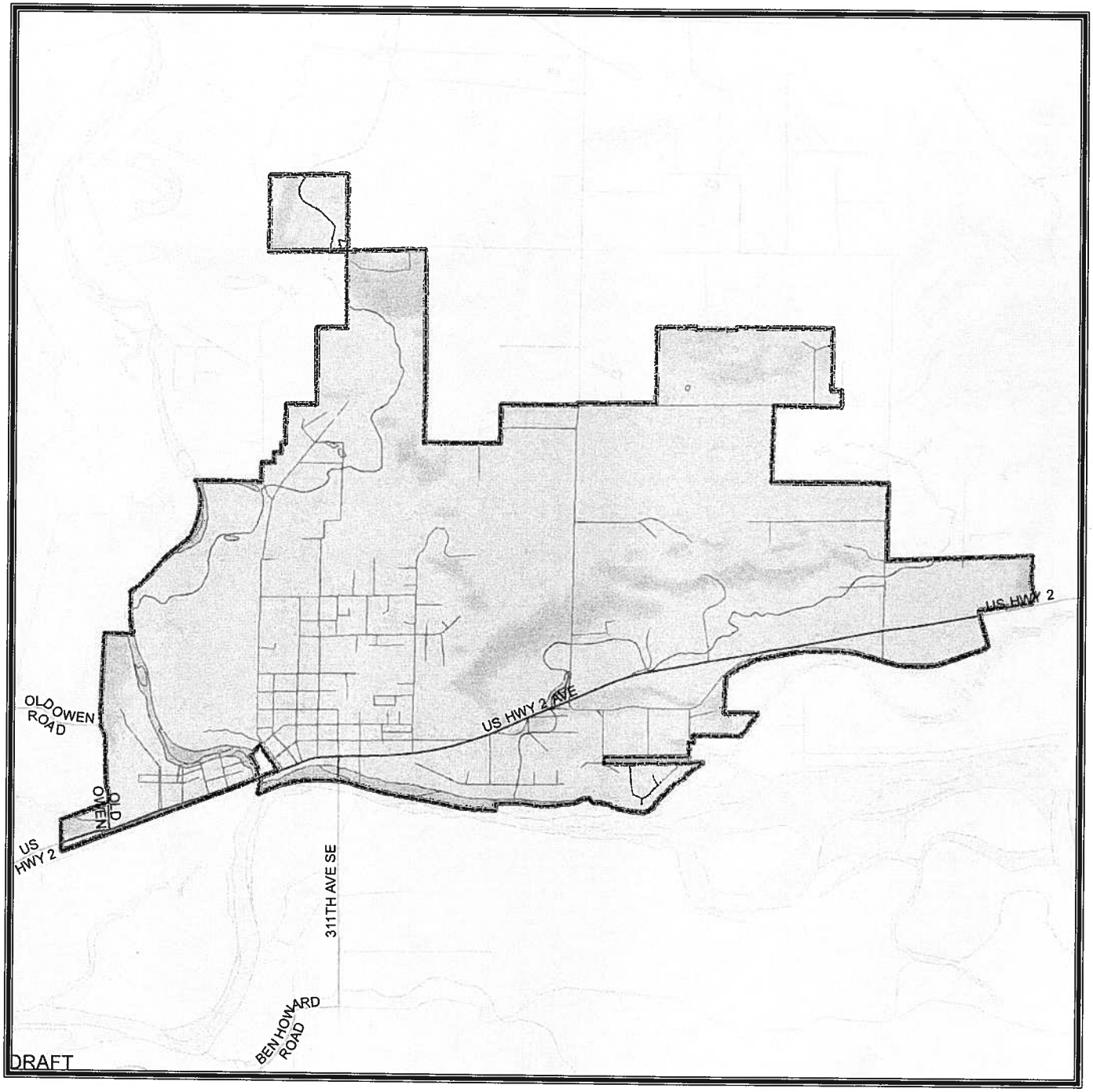

CITY OF SULTAN

Map 13-5

South Whidbey Fault
Peak Ground Acceleration
7.4-Magnitude Scenario
Shake Map

Mercalli Scale, Potential Damage

- IV, None
- V, Very Light
- VI, Light
- VII, Moderate
- VIII, Moderate-Heavy
- IX, Heavy

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Data Sources:
Snohomish County
US Geological Survey
Washington State Department of Natural Resources, Division of Geology and Earth Resources

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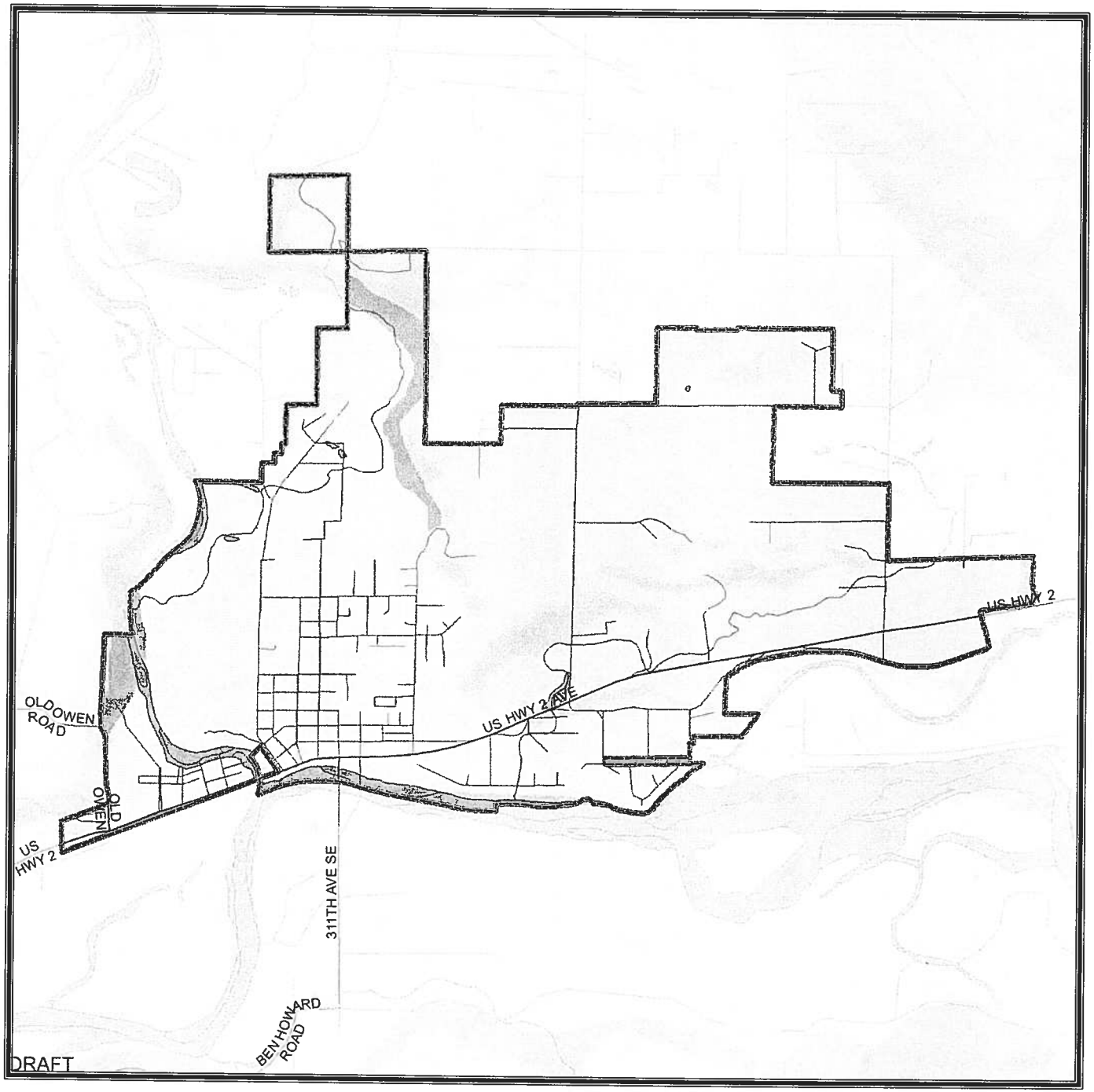

CITY OF SULTAN

Map 13-6

National Earthquake Hazard Reduction Program (NEHRP) Soil Site Classes

- Site Class F - Requires site-specific investigation
- Site Class E - Soft Soil
- Site Class D - Stiff Soil
- Site Class C - Very Dense Soil and Soft Rock
- Site Class B - Rock
- Water
- Ice

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Data Sources:
Snohomish County
US Geological Survey
Washington State Department of Natural Resources, Division of Geology and Earth Resources

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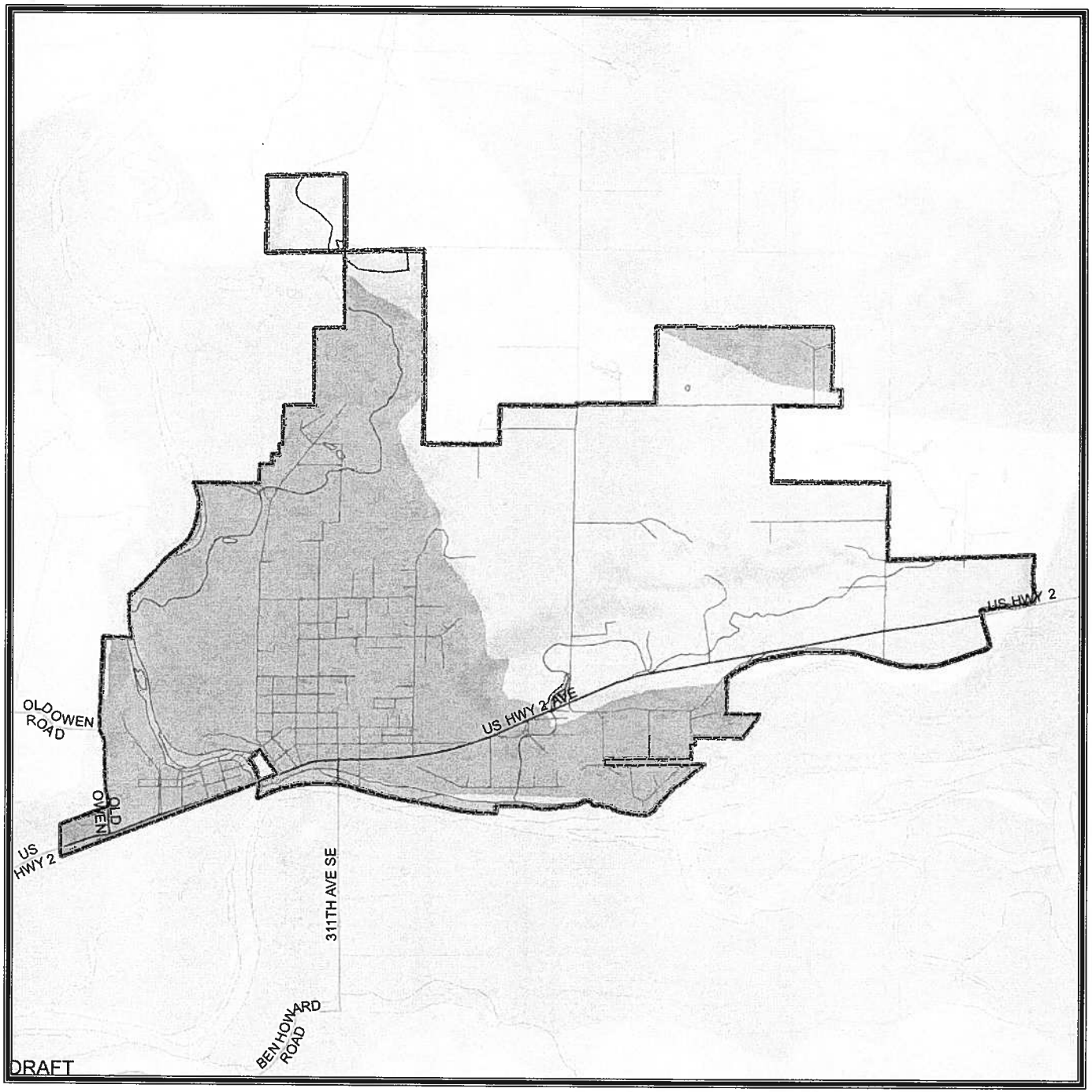

CITY OF SULTAN

Map 13-7

Liquefaction Susceptibility

Liquefaction Susceptibility

- High
- Moderate to High
- Moderate
- Low to Moderate
- Low
- Very Low to Low
- Very Low

Not Susceptible to Liquefaction

- Bedrock
- Peat
- Water
- Ice

Snohomish County

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Data Sources:
Snohomish County
US Geological Survey
Washington State Department of Natural Resources, Division of Geology and Earth Resources

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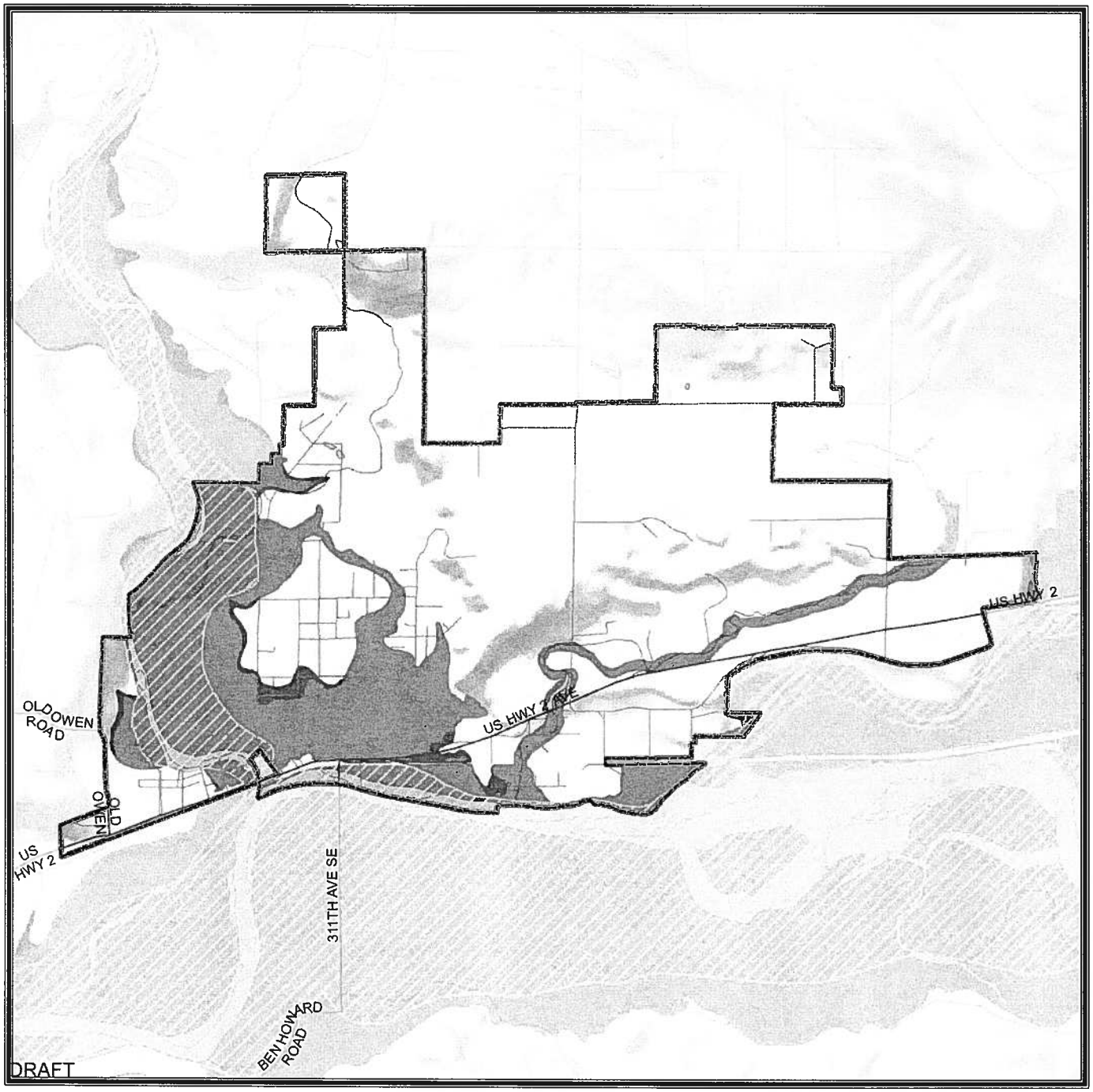

CITY OF SULTAN

Map 13-8

Flood Hazard Areas

Special Flood Hazard Area (100 Year)

Special Flood Hazard Area (500 Year)

Special Flood Hazard Area (Floodway)

Snohomish County

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Data Sources:
Snohomish County
FEMA Digital Flood Insurance Rate Maps
Washington State Department of Natural Resources, Division of Geology and Earth Resources

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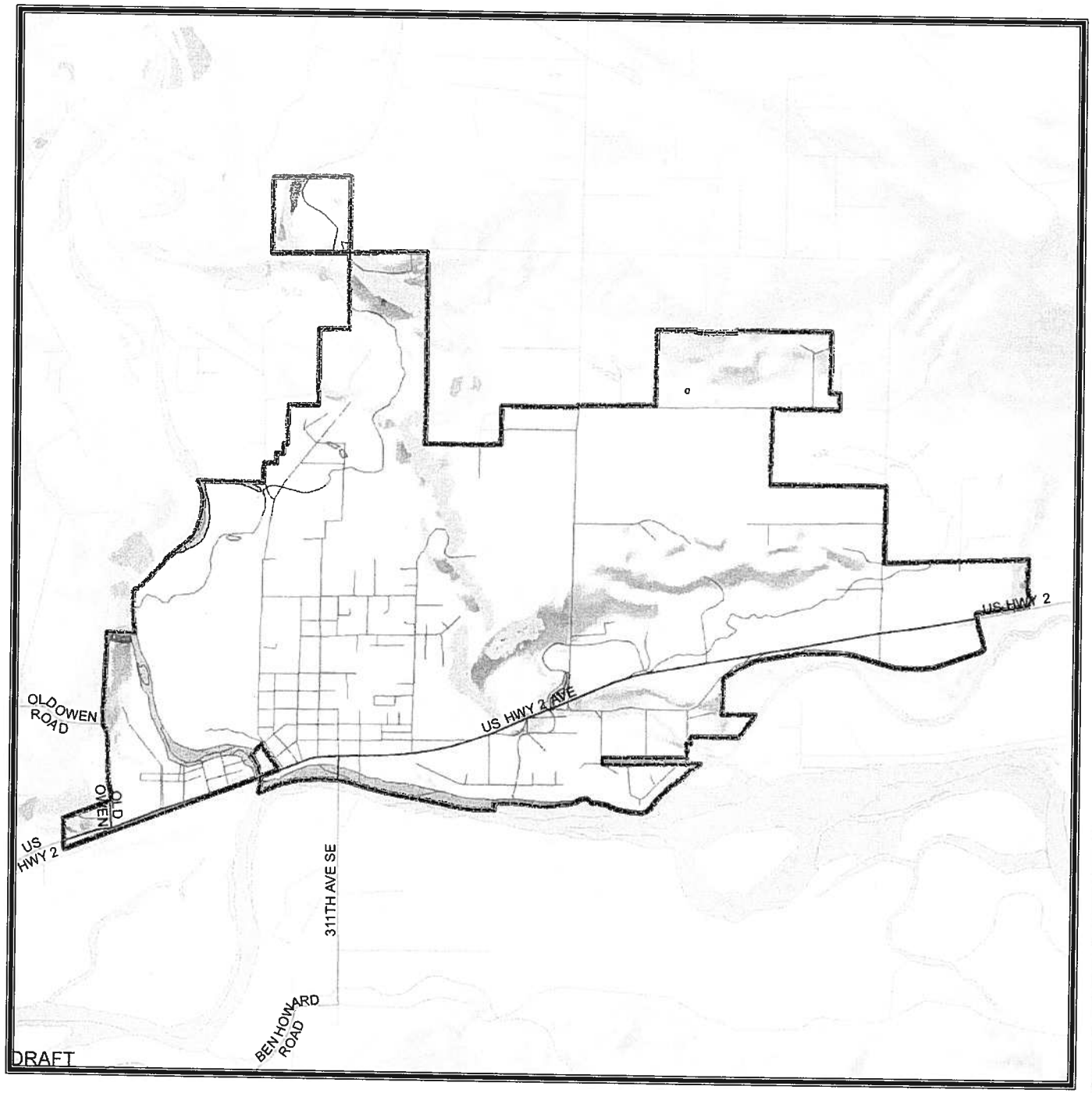

CITY OF SULTAN

Map 13-9

Landslide Hazard Areas

Landslide Potential Areas

Slope Greater than 33% and elevation change greater than or equal to 10 feet, intersecting soft and stiff soils.

DNR Landslide Areas

Snohomish County

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May 2010

Data Sources:
Snohomish County
US Geological Survey
Washington State Department of Natural Resources, Division of Geology and Earth Resources

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