

**PLANNING COMMISSION
MEETING**

**December 3, 2014
6:30 p.m.**

AGENDA



"Where Dreams Can Soar"

The City of Bonney Lake's Mission is to protect the community's livable identity and scenic beauty through responsible growth planning and by providing accountable, accessible and efficient local government services.

www.ci.bonney-lake.wa.us

Location: Justice & Municipal Center, 9002 Main Street East, Bonney Lake.

Planning Commission Members:

Grant Sulham – Chair
L. Winona Jacobsen – Vice Chair
David Baus
Brad Doll
Dennis Poulsen
Craig Sarver
Debbie Strous-Boyd

City Staff:

Jason Sullivan, Senior Planner
Debbie McDonald, Planning Commission Clerk

- I. Call to Order**
- II. Roll Call & Next Meeting Poll** (*January 20, 2015*)
- III. Approval of Minutes**
- IV. Public Comments and Concerns**
- V. Public Hearing**
 1. Resolution 2421 Statement of Intent to Adopt Comprehensive Plan Update – Environmental Conservation Element
 2. Ordinance D15-05 – Subdivision Access Standards
- VI. New Business**
 1. Planning Commission 2015 – 2016 Work Plan
 2. 2015 City Council – Planning Commission Joint Meeting
- VII. Old / Continuing Business**
- VIII. For the Good of the Order**
 - A. Correspondence
 - B. Staff Comments
 - C. Commissioner Comments
- IX. Adjournment**

Next Meeting: January 20, 2015

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**PLANNING
COMMISSION MEETING**

**NOVEMBER 19, 2014
6:30 p.m.**

DRAFTED MINUTES



“Where Dreams Can Soar”

The City of Bonney Lake's Mission is to protect the community's livable identity and scenic beauty through responsible growth planning and by providing accountable, accessible and efficient local government services.

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Location: Justice & Municipal Center, 9002 Main Street East, Bonney Lake.

I. Call to Order: The meeting was called to order at 6:57 P.M.

II. Roll Call: Planning Commissioners in attendance were Grant Sulham – Chair, Winona Jacobsen – Vice Chair, David Baus, Dennis Poulsen, Brad Doll, Debbie Strous-Boyd and Craig Sarver

Staff members in attendance were Senior Planner Jason Sullivan and Planning Commission Clerk Debbie McDonald

III. Approval of Minutes:

Motion was made by Commissioner Doll and seconded by Vice-Chair Jacobsen to approve the minutes from the November 9, 2014 with a minor correction.

Motion approved 7-0

IV. Public Hearing: NONE

V. Public Comments and Concerns: NONE

VI. New Business:

1. City of Bonney Lake Market Analysis – BERK Consulting Presentation

Senior Planner Sullivan introduced the BERK group and the purpose for the market analysis.

Brian Murphy from BERK introduced himself and his co-worker Kevin Gifford. They presented their Economic Development Plan for Bonney Lake. They distributed hard copies of their presentation to the Commissioners.

Commissioners asked questions and gave suggestions throughout the presentation.

Motion was made by Vice-Chair Jacobsen and seconded by Commissioner Baus to extend the meeting for another 30 minutes till 9 P.M.

Chair Sulham amended the motion to include a 5 minute recess.

Motion approved 7-0

Chair Sulham adjourned the meeting for a 5 minute break at 8:23.

Chair Sulham reconvened the meeting at 8:32.

Commissioners thanked Mr. Murphy and Mr. Gifford from BERK for their presentation.

Senior Planner Sullivan will take the suggestions back to creating a policy document.

2. Comprehensive Plan Update – Environmental Conservation Element

Senior Planner Sullivan introduced the Environmental Conservation Element that will go before a Public Hearing at the December 3rd, Planning Commission meeting.

Vice-Chair Jacobsen questioned the wording used in regards to a lahar flow route.

Senior Planner Sullivan suggest at the Public Hearing to amend the document if the Commissioners had any changes.

VII. Old/Continuing Business:

1. Planning Commission Futures

Senior Planner Sullivan updated the Commissioners on the future Planning Commission meetings. Dec 3rd, will be the last meeting for 2014. Will not have another meeting till Jan. 20th, which will be a joint meeting with City Council. Will see if there is any business that would warrant holding a January 7th, meeting. Commissioners can prepare for the joint meeting by thinking of agenda items to discuss.

Chair Sulham mentioned the presentation on Marijuana has been moved to the City Council's January 6th meeting.

VIII. For the Good of the Order:

A. Correspondence: NONE

B. Staff Comments: NONE

C. Commissioner Comments:

Vice-Chair Jacobson visited the Marijuana retailer in Buckley and wishes she would have seen the store before the vote. There was some miss-information given at the public hearing. The cameras are not set up and monitored and always monitored. They had a security guard at the door who was not armed but does have other equipment to take down customer. Also found out that most customers were over the age of 50.

Commissioner Baus suggested that City Council take a tour before the January 6th meeting.

Adjournment

Motion was made by Vice-Chair Jacobsen and seconded by Commissioner Sarver to adjourn.

Motion approved 7-0

Meeting adjourned at 8:50

Debbie McDonald Planning Commission Clerk

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Community Development Department Briefing Memorandum

Date: November 21, 2014
To: Planning Commission
From: Jason Sullivan – Senior Planner
Re: **Bonney Lake Comprehensive Plan Update – Environmental Conservation Element**

PURPOSE:

The purpose of the memorandum is to facilitate the Planning Commission's Public Hearing on the Environment Conservation Element which is being rewritten as part of the Comprehensive Plan Update process required to be completed by June 31, 2014. This item is tentatively schedule for the January 6, 2015 City Council Workshop under AB15-06.

SUGGESTED MOTION: *"I move to recommend that the City Council adopt Resolution 2429 stating the City Council's intent to adopt the Environmental Conservation Element as part of the Comprehensive Plan update."*

ATTACHMENTS:

1. Resolution 2429
2. Environment Conservation Element
3. Planning Commission Recommendation Memo

BACKGROUND:

The City of Bonney Lake is currently updating its comprehensive plan and development regulations as required by RCW 36.70A.130. As part of this periodic review and update, the City has identified a number of changes that are required to ensure compliance with the Growth Management Act (GMA), Multi-Countywide Planning Policies (MPP), and Countywide Planning Policies. (CPP) In addition to the required changes, a number of optional changes have been

proposed to be made as part of the update process. There are a number of required changes to the Environmental Conservation Element as the result of the following:

- *2015 Comprehensive Plan Update – Scope of Work and Public Participation Plan* (Scope of Work and PPP) adopted on October 22, 2013 pursuant to Resolution 2320. The Scope of Work and PPP established the framework and initial breath of the update of the City’s comprehensive plan.
- *2014 – 2015 Planning Commission Work Plan* adopted on January 14, 2014 pursuant to Resolution 2347 and amended on May 27, 2014 pursuant to Resolution 2385.
- The Bonney Lake Planning Commission reviewed the Element at the November 19, 2014 Planning Commission Meetings and as a result changes were made to the section related to volcanic hazards and lahars.

DISCUSSION:

The structure and look of the element was updated to be consistent with the new template for all Comprehensive Plan elements as discussed in the Scope of Work and PPP. In addition to the reformatting and reorganization of the element, a list of the changes that were made to the document, as discussed in the Consistency Report, is provided below:

- The critical area maps were updated.
- Maps were added to identify the geologically hazardous areas within the City based on the criteria established for each of the following types of hazards: erosion hazard (WAC 365-190-120(5)); landslide hazard (WAC 365-190-120(6)); seismic hazard (WAC 365-190-120(7)); and volcanic hazards (WAC 365-190-120(8)).
- Goals and policies related to the reduction of ground-level ozone, carbon monoxide, and fugitive dust and incorporate the policies of the Puget Sound Clean Air Agency were added to the Environmental Conservation Element
- Goals and policies were added related to the reduction of greenhouse gas emissions as required by both the MPPs and CPPs.
- A discussion of impaired water bodies within the City was added to the Environmental Conservation Element.
- Policies for the enhancement of habitat and the restoration of native vegetation were added to the Environmental Conservation Element.

RESOLUTION NO. 2429

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BONNEY LAKE, PIERCE COUNTY, WASHINGTON EXPRESSING THE INTENT TO ADOPT AN ENVIRONMENTAL CONSERVATION ELEMENT.

WHEREAS, RCW 36.70A.130(4) requires the City of Bonney Lake to review and revises, if needed, its Comprehensive Plan and development regulations by June 30, 2015 to ensure compliance with the Growth Management Act (GMA) – Chapter 36.70A RCW; and

WHEREAS, Council passed Resolution 2379 directing staff to prepare amendments to the Comprehensive Plan consist with the *Bonney Lake 2035 – Consistency Report*; and

WHEREAS, the Bonney Lake Planning Commission has reviewed the proposed amendments to the Comprehensive Plan related to Environment Conservation Element on November 19, 2014; and

WHEREAS, the Bonney Lake Planning Commission conducted a public hearing on the proposed amendments to the Comprehensive Plan related to Environmental Conservation Element on December 3, 2014; and

NOW THEREFORE, THE CITY COUNCIL OF THE CITY OF BONNEY LAKE, WASHINGTON DOES HEREBY RESOLVE AS FOLLOWS:

The City Council of the City of Bonney Lake provides notice of its intent to adopt the Environmental Conservation Element of the Comprehensive Plan, attached as Exhibit A.

BE IT FURTHER RESOLVED, that the City staff is directed to prepare the final version of the Environment Conservation Element of the Comprehensive Plan which will be brought back to the City Council for final consideration prior to June 30, 2015.

PASSED by the City Council and approved by the Mayor this ____ day of _____, 2014.

PASSED by the City Council this ____ day of _____, 201__.

Neil Johnson, Jr., Mayor

AUTHENTICATED:

Harwood T. Edvalson, MMC, City Clerk

APPROVED AS TO FORM:

Kathleen Haggard, City Attorney

Chapter 7

Environmental Conservation

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1. INTRODUCTION

“Land, air and water resources are indispensable to life and, thus, constitute social values. For example, the water contained in underground aquifers is a valuable resource if not polluted. Prevention of erosion, and visual amenity are two social values of existing vegetation. Recognition of these social values, inherent in natural processes, can serve as the basis for wise land use and environmental management.”

*Comprehensive Plan
The City of Bonney Lake
October 23, 1985*

The purpose of the Environmental Conservation Element is to provide a framework to guide decision making in regards to the conservation, management, and utilization of Bonney Lake’s natural resources. The topics of this element overlap with other elements in the Comprehensive Plan including the Community Development, Community Facilities and Services, and Mobility Elements. However, the Conservation Element distinguishes itself by being primarily oriented to the conservation

of natural resources, including air and water quality protection, greenhouse gas reduction, and energy conservation.

While all elements of the Comprehensive Plan have equal weight under the Growth Management Act (GMA) – Chapter 36.70A RCW, four of the fourteen goals of the GMA specifically pertain to environmental conservation:

- **Natural Resource Industries.** Maintain and enhance natural resource-based industries, including productive timber, agricultural, and fisheries industries. Encourage the conservation of productive forest lands and productive agricultural lands, and discourage incompatible uses.
- **Open Space and Recreation.** Encourage the retention of open space and development of recreational opportunities, conserve fish and wildlife habitat, increase access to natural resource lands and water, and develop parks.
- **Environment.** Protect the environment and enhance the state's high quality of life, including air and water quality, and the availability of water
- **Citizen participation and coordination.** Encourage the involvement of citizens in the planning process and ensure coordination between communities and jurisdictions to reconcile conflicts.

The Element is divided into four sections. The first section address the preservation and protection of environmental critical areas: (1) geological hazards, (2) critical aquifer recharge areas, (3) surface waters, (4) floodplains, (5) wetlands, and (6) fish and wildlife habitat areas. The second section address urban

forestry focused on steps need to maintain, preserve, and enhance Bonney Lake’s tree canopy. The third section address the need for the City to protect agricultural resources lands and promote urban agriculture. The final section provides policies related to regulating air pollution, toxic air contaminates, and greenhouse gas emissions. The policies in the Element are based on best available science and are meant guide day-to-day City decisions on topics such as related to the protection of the environment and the review of new development.

2. VISION

Bonney Lake is a City that preserves, enhances, and responsibly uses the areas natural resources which are critical to maintaining Bonney Lake’s natural setting cherished by the City’s residents and contributes to the City’s general quality of life. Bonney Lake is framed within a beautiful natural setting, with open spaces, an abundance of trees and scenic mountain vistas visible for the enjoyment of Bonney Lake residents. Bonney Lake’s surface water provide both habitat functions and recreational enjoyment.

Bonney Lake is a City that prides itself for its environmental stewardship, including an emphasis on sustainable land use and development patterns, while still flourishing as a successful suburban community and protecting the rights property owners’.

3. CRITICAL AREAS

The Washington State Growth Management Act (GMA) and implementing rules require cities to protect of environmental critical areas which includes:

- Maintaining functions and values of hydrological ecosystems and watersheds through the protection, preservation, and restoration of wetlands, lakes, rivers, ponds, streams, and floodplains. As part of preventing pollutants from enter the waters of the state, jurisdictions subject to U.S. Environmental Protection Agency (EPA) National Pollution Discharge Elimination System (NPDES) must also comply with all permit requirements and are encouraged to adopted the Department of Ecology’s *Stormwater Manual for Western Washington* or the equivalent, incorporate relevant land-use recommendations from adopted local watershed plans, and adopt a clearing and grading ordinance.
- Identifying and providing policies to conserve, connect, restore, and prevent impacts to fish and wildlife habitat conservation areas (FWHCA), but not every parcel of land that constitutes fish and wildlife habitat.¹ FWHCA include areas where endangered, threatened, and sensitive species have a primary association; habitats and species of local importance (determined locally); commercial and recreational shellfish areas; kelp and eelgrass beds; herring, smelt, and other forage fish spawning areas; naturally occurring ponds under twenty acres and submerged aquatic beds that provide fish or wildlife habitat; waters of the state; lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity; and state natural area preserves, natural resource conservation areas, and state wildlife areas.²

- Designating and providing policies to protect the functions and values of geological hazardous areas and prevent impacts associated with development within geological hazardous areas. Geological hazardous areas are areas that because of their susceptibility to erosion, sliding, earthquake, or other geological events, are not suited to the siting of commercial, residential, or industrial development. There is no affirmative mandate associated with this definition except to “protect the functions and values.” However, if a local jurisdiction, as the City has, requires lower densities in geologically hazardous areas, the geologically hazardous areas must be mapped using “best available science.”
- Designating and providing policies to protect the functions and values of Critical Aquifer Recharge Areas (CARAs) and prevent impacts associated with development within CARAs. CARAs are established to protect sources of drinking water that are vulnerable to contamination that would affect the potability of the water or are susceptible to reduced recharging.³ Potable water is an essential life sustaining element for people and once contaminated it is difficult, costly, and sometimes impossible to clean up. Preventing contamination is necessary to avoid exorbitant costs, hardships, and potential physical harm to people and ecosystems.⁴ Therefore, WAC 365-190-100(3) requires cities to classify recharge areas for aquifers according to aquifer vulnerability.

Policies to protect the functions and value of critical areas are mandated to be based “best available science.”⁵ The CPSGMH in *DOE/CTED v. City of Kent* (Kent) referencing *Honesty in Environmental Analysis and Legislation v. Seattle*, 96 Wn. App. 522, 979 P.2d 864 (1999) stated, “...purpose of the best available science requirement is to ensure that critical areas regulations are not based on speculation and surmise, but on meaningful, reliable, relevant evidence.”⁶ The CPSGMHB also found in Kent that there is no bright-line definition of “best available science” but rather a requirement to consider the following factors as established in *Ferry County v. Concerned Friends of Ferry County, et al.*, 155 Wn.2d 824, 123 P.3d 102 (2005):

- (1) The scientific evidence contained in the record;
- (2) Whether the analysis by the local decision-maker of the scientific evidence and other factors involved a reasoned process; and
- (3) Whether the decision made by the local government was within the parameters of the Act as directed by the provisions of RCW 36.70A.172(1).

In other words, a jurisdiction is not required to win the scientific argument, but only demonstrate that the jurisdiction policies and regulations are based on reliable evidences reviewed through a reasoned process.

Maps are presented as references but are not intended to identify precise locations of critical areas or environmental features; rather, at the time of development, best available information including site specific analysis will determine presences or absence of such features.

3.1 GEOLOGICAL HAZARDS

Seismic and geological conditions must be taken into account in the planning and development of land. The geological foundation of the Bonney Lake area consists of impermeable sedimentary and bedrock formed by volcanic activity during the Eocene to Miocene age. Receding glaciers left 5 to 100 feet of till,

ranging from porous sand and gravel to hardpan composites. Glaciers, glacial meltwater, and rivers created the Puyallup and Fennel Creek valleys.

The soil map in **Figure 7-1** illustrates soil associations within the City of Bonney Lake. Soil associations consists of one or more major soils and other minor soils and are named for the major soils. Soil association maps provide a broader perspective of the soils in order to identify areas that have soil properties that are either favorable or unfavorable for certain land uses.⁷

Eighty-two percent (82%) of the soils within Bonney Lake are within in the Alderwood - Everett association. This soil association consist of Alderwood, Everett, Indianola Kitsap and small amounts of other soil types and is poor for farming but good for pasture and timber. The soil association is well suited for urban residential and industrial development. Onsite sewerage disposal systems are suited to as much as one-third of this association.⁸

Seventeen percent (17%) of the soils are within the Buckely association. The parent material of this soil association is the lobe of the Osceola mudflow, a portion of Mount Rainier which liquefied and flowed into the Puyallup River valley through Fennel Creek approximately 5,700 years ago⁹. Buckley loam soils make up nearly 70% of this association but includes small amounts of Alderwood, and other minor soil types making it a hydric soil that is favorable for pasture and hay farming and residential developments provided that there is access to community sewage facilities.¹⁰

The remaining 1% consist of the Puyallup-Sultan association which is well suited to both farming and residential development.¹¹

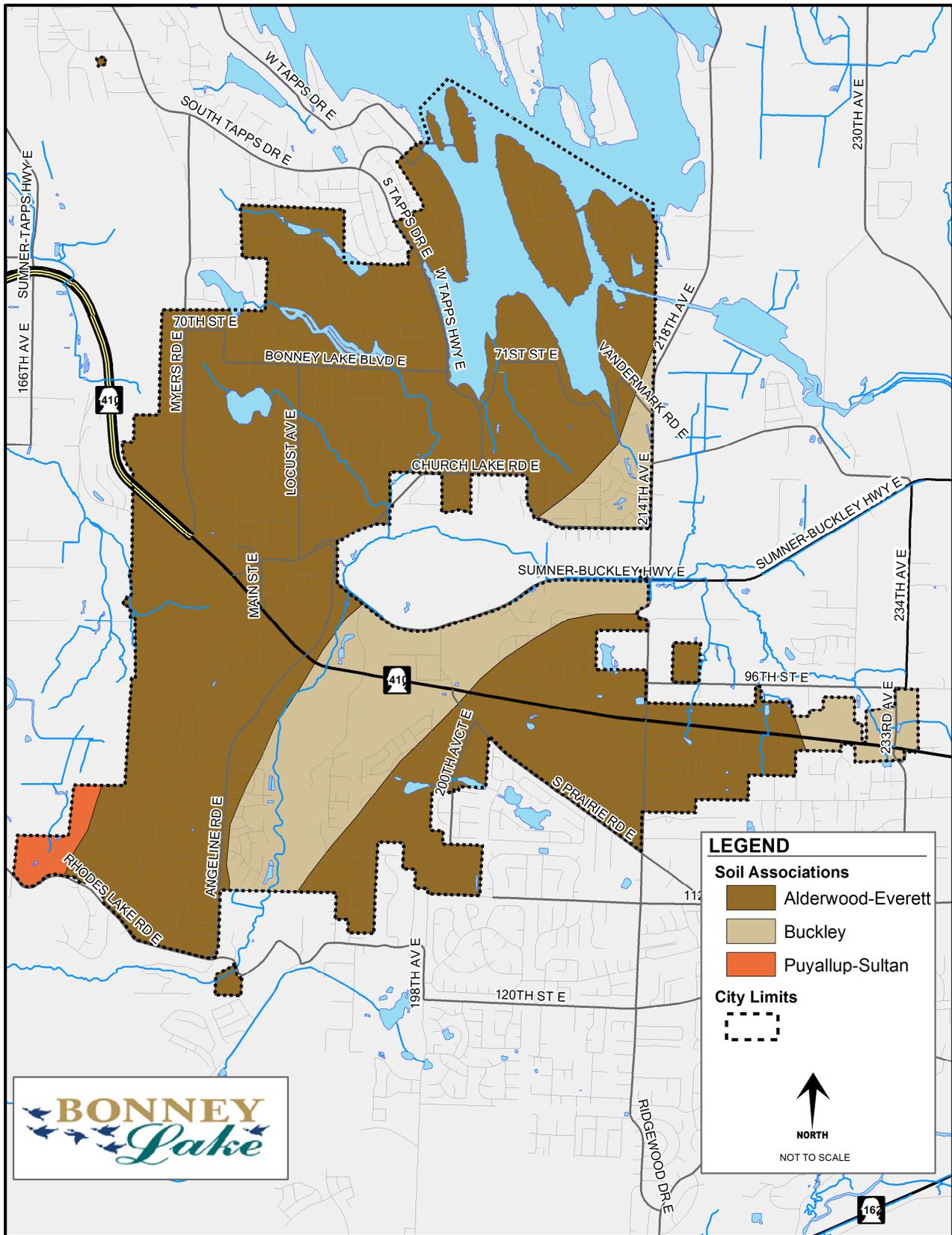


Figure 7-1: Soil Associations

According to RCW 36.70A.030, Geologically Hazardous Areas are “those areas that are susceptible to erosion, sliding, earthquake, or other geological events and are not suited to the siting of commercial, residential, or industrial development consistent with public health and safety concerns”. There are four main hazards in Bonney Lake which are discussed below:

“Bonney Lake is surround by land that is on slopes exceeding 25 percent. These slopes should be retained in their natural state and will help delineate the urban areas since land having slopes exceeding 15 percent are difficult to develop...”

*Plan for Bonney Lake,
Washington May 2, 1964*

Landslide Hazards

The soils in the Bonney Lake area are susceptible to landslide at slopes of 15% or more. The slopes bordering the Puyallup valley are highly dangerous because of their steepness and their soils, which consist of unconsolidated glacial materials. Slopes generally collapse when their soils become oversaturated during rain storms. Such failure is especially likely where a permeable layer lies atop a less permeable layer because percolating water seeps out at the layer boundary. Areas of Bonney Lake with a high and moderate degree of slope instability are illustrated in **Figure 7-2**.

Erosion Hazards

In addition to landslides, land clearing, earth movement, and unmanaged stormwater can cause erosion which damages the site itself, the downstream drainage network, and aquatic habitat. The finer the soil and the steeper the slope, the greater the erosion hazard.

Seismic Hazards

The Puget Sound area is also seismically active. An earthquake could cause improperly built structures to collapse, trigger landslides, and cause liquefaction. Liquefaction occurs when increasing water pressure during an earthquake or other ground vibration causes loose, fine sandy and silty sediments layers below the water table to temporarily behave as a liquid, similar to quick sand.¹² The majority of the City has a low risk of liquefaction as illustrated in **Figure 7-3**.

Volcanic Hazards

Mount Rainier, a dormant volcano, is the highest peak in the Cascade Range and carries a larger load of glacier ice than any other mountain in the contiguous United States posing geologic hazards during both future eruptions and time periods without eruptive activity especially given the Mountain’s great topographic relief.¹³ Bonney Lake is far enough away to avoid lava flows, blown rock, and landslides. However, in addition to these associated hazards, lahars that originate on Mount Rainier could impact the plateau. There are four types or cases of lahars which are described below:

- **Case M:** This is a low-probability and high-consequence lahar. The Osceola Mudflow is an example in this category which occurred about 5,600 years ago and has occurred on Mount Rainier only once in the last 10,000 years.¹⁴
- **Case I:** This type of lahar has occurred once every 500 to 1,000 years during the last 5,600 years. The annual probability of such a flow originating somewhere on Mount Rainier is thus about 0.1 to 0.2 percent. The Electron Mudflow, which reached the Puget Lowland about 600 years ago via the Puyallup River, is the most recent example.¹⁵
- **Case II:** The typical recurrence interval of this type of lahar is near the lower end of the 100- to 500-year range. The annual probability of such a flow is therefore close to 1 percent for the volcano as a whole. For planning purposes, Case II flows are analogous to the 100-year flood commonly considered in engineering practice. Some Case II flows have inundated flood plains well beyond the volcano, and a few have reached the Puget Lowland. Case II flows have a fairly low clay content. The most common origin for this class of flows is melting of snow and glacier ice by hot rock fragments during a volcanic eruption. An example is the National Lahar, which occurred about 2,000 years ago in the Nisqually River valley.¹⁶
- **Case III:** This type of lahar is fairly small but have recurrence intervals of 1 to 100 years for the volcano as a whole. This class of flow includes small debris avalanches as well as lahars. Case III flows are not eruptively triggered, but are largely restricted to the slopes of the volcano and rarely move beyond the National Park boundary.¹⁷

Portions of the City could be impacted by a Case I lahar that flows down either the Carbon River or Puyallup River valleys or by a Case M lahars that flowed down the White River valley. Bonney Lake would not be impacted by Case I, Case II, Case III lahars that flowed down the White River or by Case M lahars that flowed down either the Puyallup River or Carbon River valleys.¹⁸

Given the extremely low-probability of a Case M lahar, less than 0.1% of all lahars that have originated on Mount Rainier, areas impacted only by this case of lahar are not considered to be within the volcanic hazard area zone as delineated by the Washington State Department of Natural Resources as illustrate in the **Figure 7-4**.

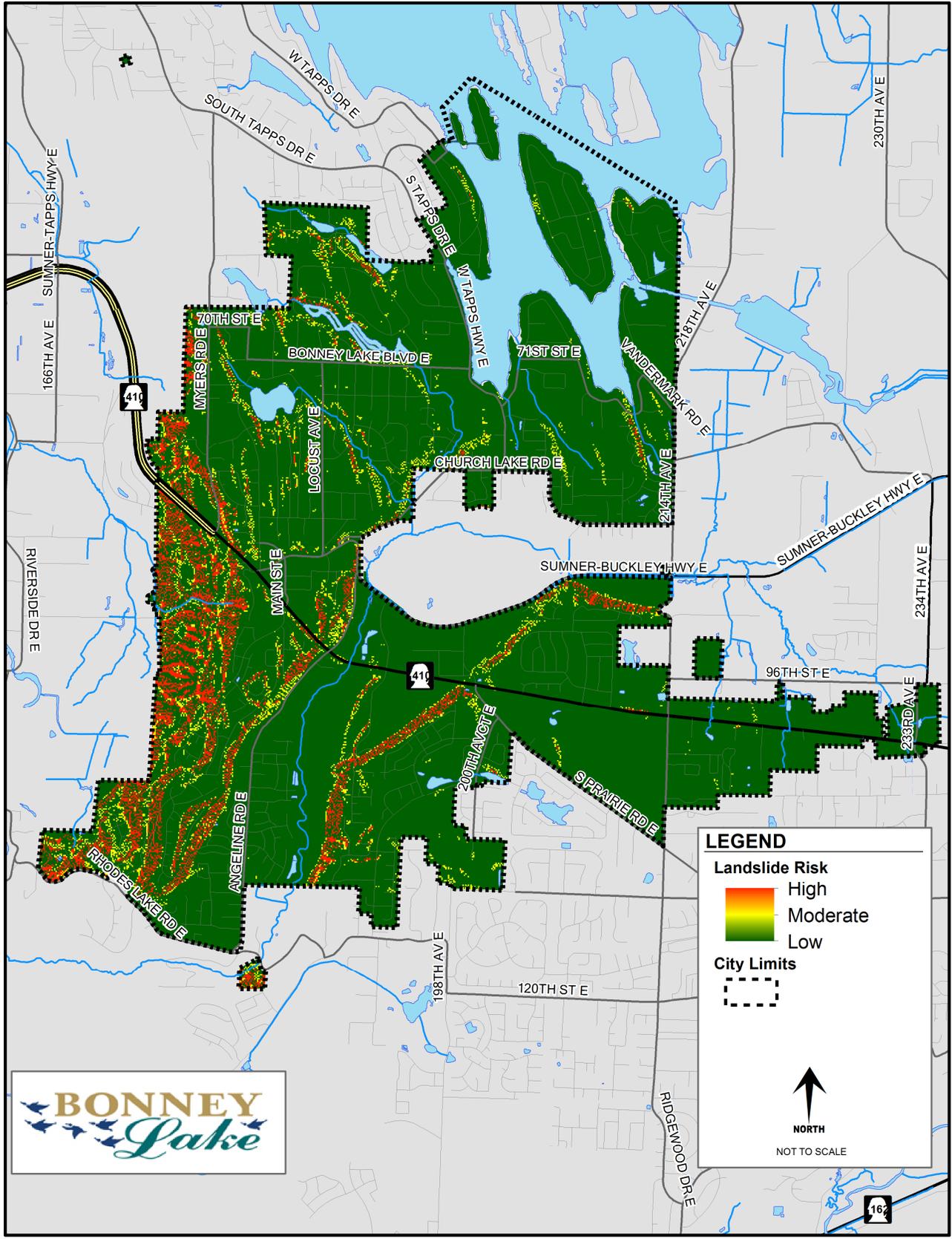


Figure 7-2: Slope Stability

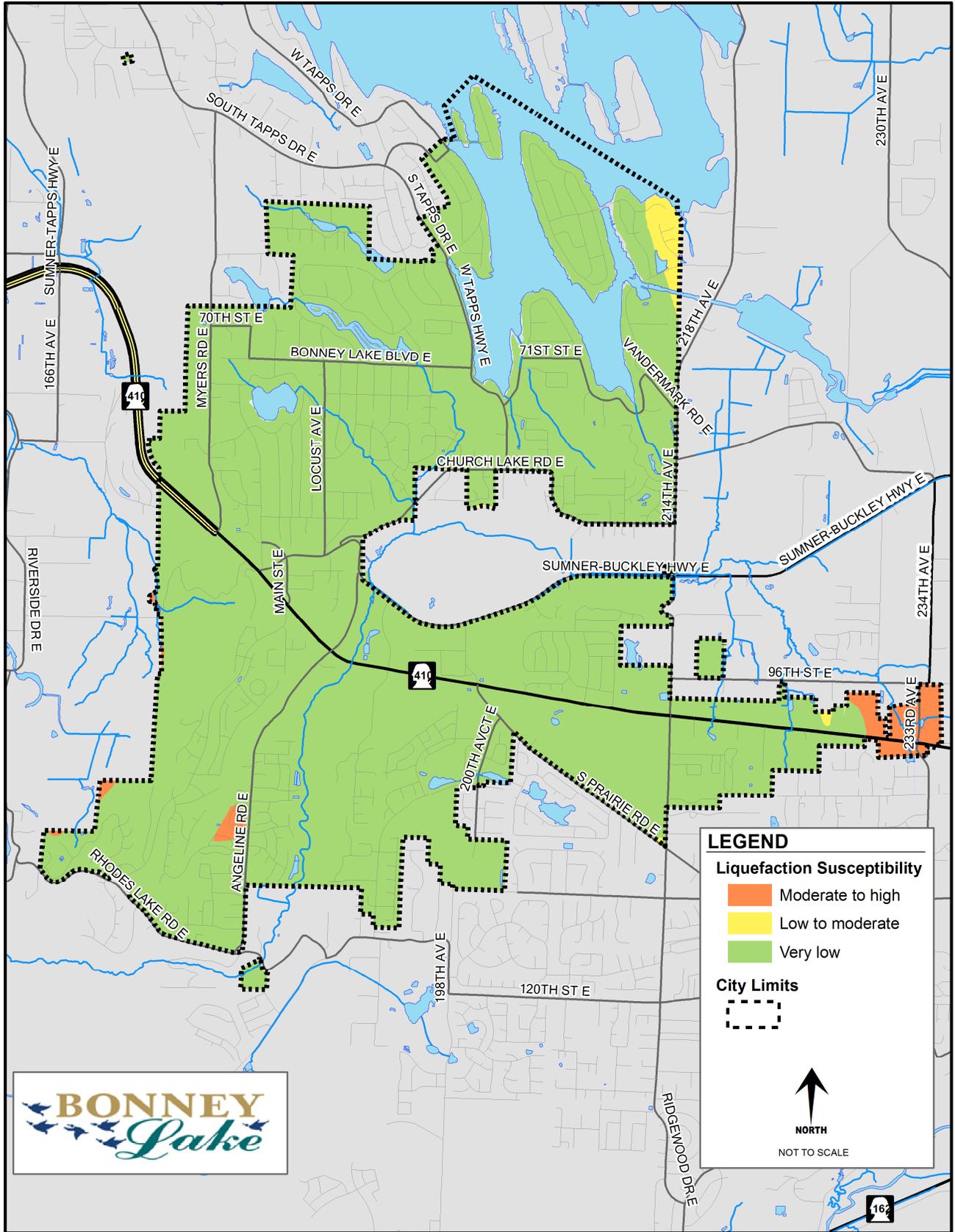


Figure 7-3: Liquefaction Susceptibility

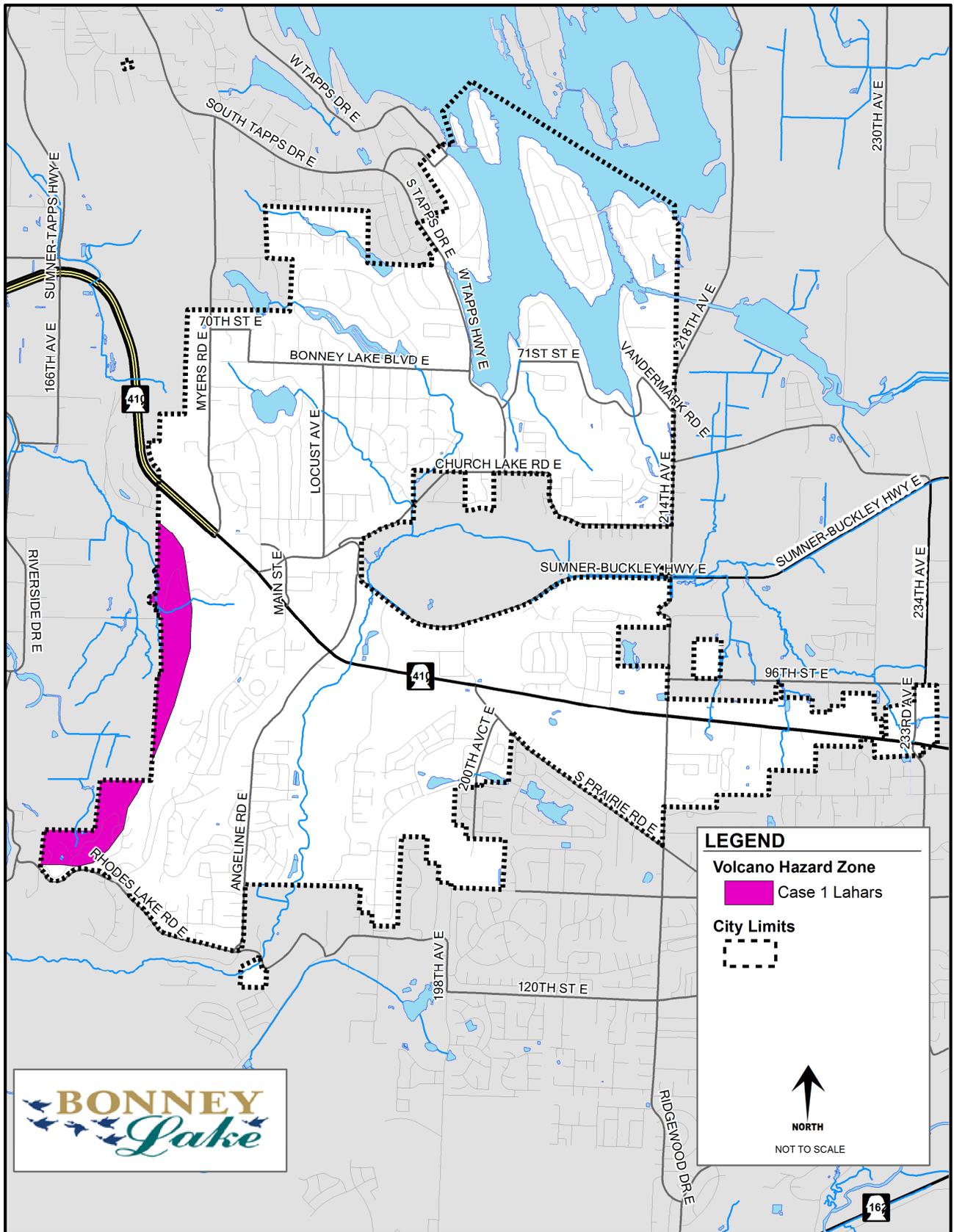


Figure 7-4: Volcano Hazard Zone

Goal EC-1: Development accounts for soil conditions and avoids land surface modifications that would induce erosion, create landslides, or unnecessarily scar the land in order to protect the environment, public health, and property.

Policy EC-1.1: Discourage development and disturbance of native vegetation on steep slopes.

Policy EC-1.2: Require buildings to be set back from the toe and top of unstable slopes.

Policy EC-1.3: Require geotechnical or engineering studies to demonstrate that any proposed development in areas that have a high or moderate landslide hazard risk has been designed to withstand the hazard and not aggravate the hazard for other properties.

Policy EC-1.4: Designate areas with a moderate or high risk of slope instability either as Open Space – Conservancy, Open Space – Private, or Open Space – Public to limit the development intensity, site coverage, and vegetation removal within these hazardous areas.

Policy EC-1.5: Ensure that soils are suitable for the development proposed. Where soil suitability is questionable, require review by a geotechnical engineer.

Policy EC-1.6: Maintain existing vegetation to the greatest extent possible in order to prevent erosion. In case where development necessitates removal of vegetation, a reasonable amount of landscaping should be required to replace trees, shrubs, and ground cover removal during construction.

Policy EC-1.7: When erosion hazard areas are disturbed, require erosion control measures and limit the duration of site exposure.

Policy EC-1.8: Enforce building codes designed to prevent earthquake damage.

Policy EC-1.9 Cooperate with other agencies in preparing evacuation plans in the event of eruption.

3.2 CRITICAL AQUIFER RECHARGE AREAS

Potable water is an essential life sustaining element for people and once contaminated it is difficult, costly, and sometimes impossible to clean up; therefore, preventing contamination is necessary to avoid exorbitant costs, hardships, and potential physical harm to people and ecosystems.¹⁹ A primary source of potable water in the City is aquifers which are geologic formation that readily transmits water to wells or springs.

The importance of protecting these aquifers and the associated recharge areas for public water supplies is evident by the fact that the GMA address this issue in two different sections: (1) land use elements are required to provide for protection of the quality and quantity of groundwater used for public water supplies pursuant to RCW 36.70A.070 and (2) aquifer recharge areas are designated as environmental critical areas pursuant to WAC 365-190-100. Critical Aquifer Recharge Areas (CARAs) are established to protect sources of drinking water that are vulnerable to contamination that would affect the potability of the water or are susceptible to reduced recharging. Therefore, cities classify recharge areas for aquifers according to aquifer vulnerability which is defined in WAC 365-190-100(3):

Vulnerability is the combined effect of hydrogeological susceptibility to contamination and the contamination loading potential. High vulnerability is indicated by land uses that contribute directly or indirectly to contamination that may degrade groundwater, and hydrogeological conditions that facilitate degradation. Low vulnerability is indicated by land uses that do not contribute contaminants that will degrade groundwater, and by hydrogeological conditions that do not facilitate degradation. Hydrological conditions may include those induced by limited recharge of an aquifer. Reduced aquifer recharge from effective impervious surfaces may result in higher concentrations of contaminants than would otherwise occur.

In order to protect the Bonney Lake's groundwater the City has designated the one-year, five year, and ten year time-of-travel (TOT) zones identified in the *City of Bonney Lake Wellhead Protection and Monitoring Program Phase II* (November 2000) as Critical Aquifer Recharge Areas (CARAs). Additionally, the City has designed the one-year TOT zones as having very high contamination susceptibility, the five-year TOT zones as having high contamination susceptibility, and the 10-year TOT zone as having moderate to low contamination susceptibility.

Goal EC-2: Protect the quality of groundwater used for public water supplies to ensure adequate sources of potable water for Bonney Lake and the region.

Policy EC-2.1: Evaluate the potential impacts of land development on critical aquifer recharge areas to ensure that the level of protection provided corresponds with the potential for contaminating the water supply aquifer.

Policy EC-2.2: Work with Pierce County, the Washington State Department of Ecology, and other agencies to protect Bonney Lake's water supply from contaminants originating outside the city limits.

Policy EC-2.3: Periodically review and update land use policies, regulations, or development or operating standards that ensure appropriate levels of groundwater recharge while prevent degradation of groundwater quality.

Policy EC-2.3: Manage surface water so as to maintain water quality and maximize groundwater recharge.

Policy EC-2.4: Require new subdivisions and commercial development to connect to public sewers.

Policy EC-2.5: Encourage homes and businesses with septic systems to connect to public sewers.

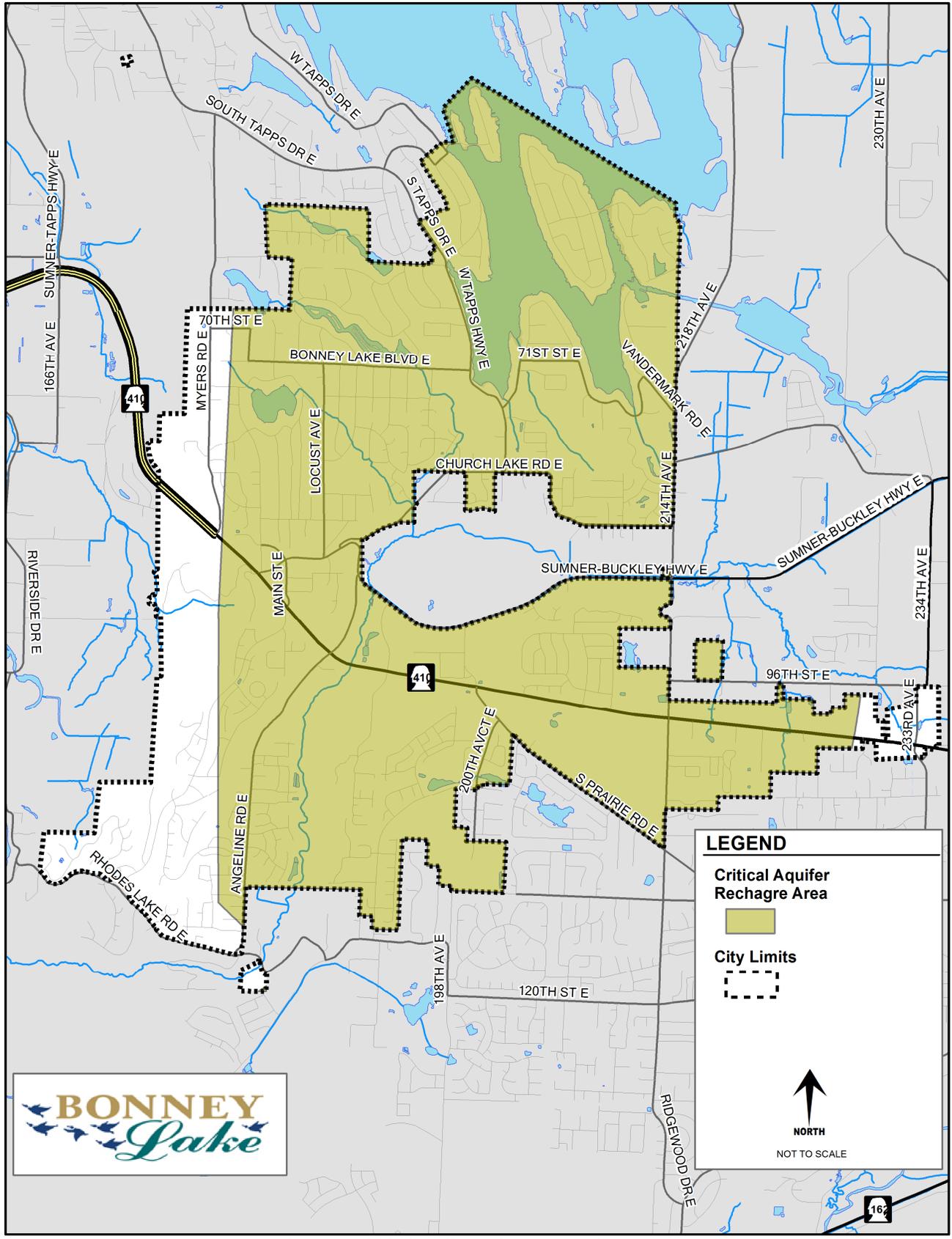


Figure 7-5: Critical Aquifer Recharge Areas (CARA)

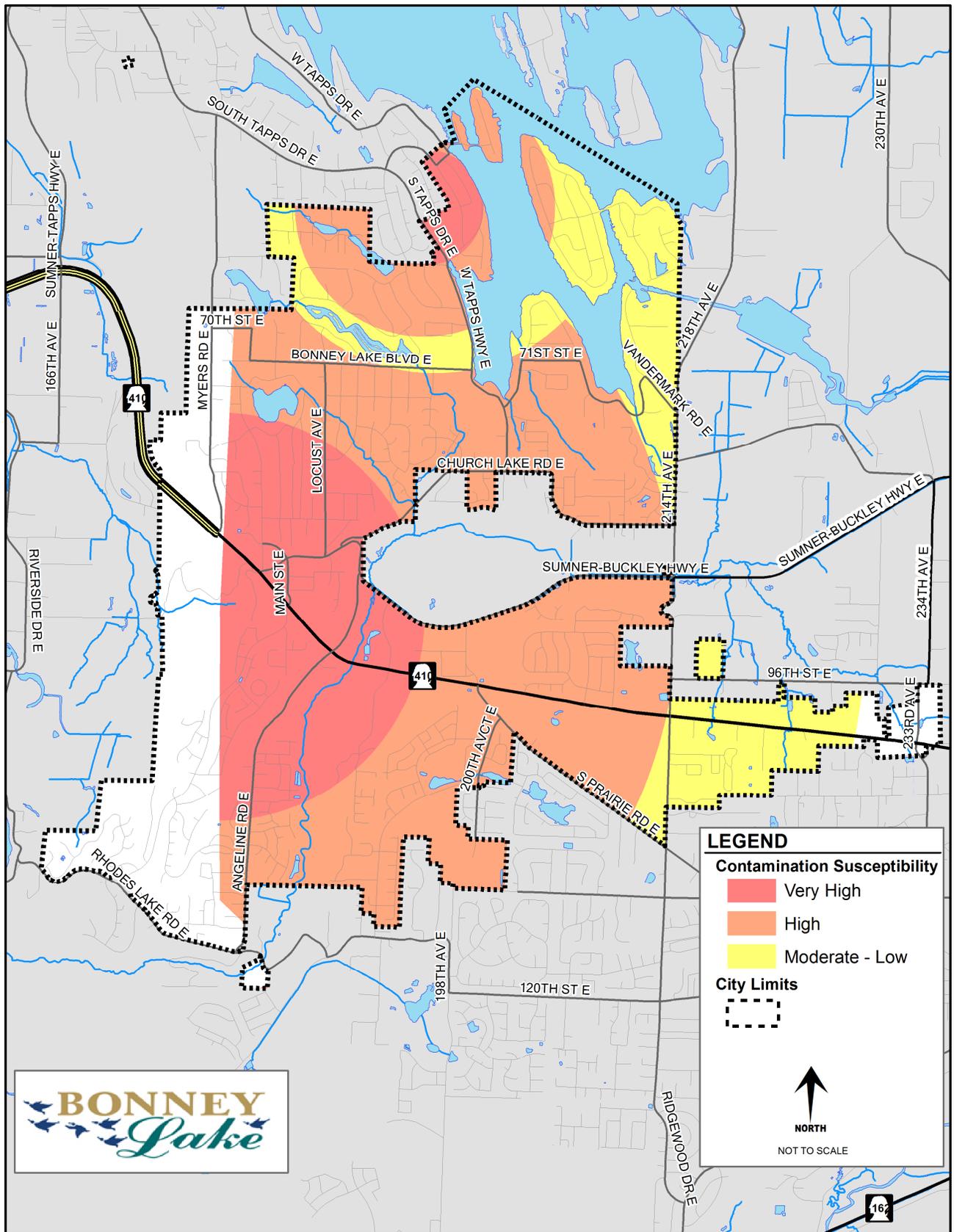


Figure 7-6: Aquifer Contamination Susceptibility

3.3 SURFACE WATER

“Maintain and enhance the quality of streams, wetlands, and lakes by retaining their natural characteristics.”

*City of Bonney Lake Comprehensive Plan
August 1985*

Water quality of Bonney Lake’s surface waters is closely tied to the amount of development that occurs nearby, as development has the potential to cause impacts from contaminated runoff and siltation. Poor water quality can adversely impact natural resources, including streams, aquatic, and terrestrial ecosystems,

and the plants and animals that depend on them. Poor water quality also has a negative impact on public health.

The Federal Clean Water Act’s 1987 Amendment requires that storm waste discharge from municipal storm drain systems be regulated under a nationwide surface water permit program referred to as the National Pollutant Discharge Elimination System (NPDES) to prevent impacts to surface waters as the result of development. The City’s Public Works Department is responsible for managing the City’s compliance with the NPDES permit under the guidance of the Washington State Department of Ecology.

Lake Tapps

Puget Sound Energy (PSE) created Lake Tapps in 1910 by diverting water from the White River into a diked area of the plateau. The 2,500-acre, now owned by the Cascade Water Alliance, is considered a shoreline of statewide significance and as such is discussed in the Shoreline Element of *Bonney Lake 2035* (Chapter 8).

Lake Bonney

Lake Bonney a 17 acre lake that has a mean water depth of 11 feet with a maximum depth of 21 feet located in a depression fed by surface and ground water. Lake Bonney is used for swimming, fishing, and non-power boating. Almost the entire shoreline has been developed for homes. Waterfowl frequent the lake. The lake is experiencing a mesotrophic to early eutrophic state of enrichment due to non-point pollution associated with residential development and lawn maintenance that over time will result in eutrophic lake with decreasing water quality and aesthetic value, odor problems, and algae blooms during the summer due to the presence of sunlight and nutrients.²⁰

Lake Debra Jane

A former swamp was altered to create Lake Debra Jane. It is about 15 acres in size and ranges from seven to 15 feet in depth. The lake is used for fishing, swimming, and non-power boating. Waterfowl frequent the lake. Lake Debra Jane is fed by local springs that are augmented in late summer by nearby wells. The lake has little inflow/outflow for two to three months during the year. Algae grow in the weeds along the shoreline, especially in the summer. The lake has a history of total coliform counts that have been in gross excess of the Department of Ecology’s standards and occasionally too high for the Pierce County Health Department.²¹

Fennel Creek

Fennel Creek begins at a spring near the intersection of SR-410 and 234th Ave. E. It flows west then south through a flat, shallow valley to Victor Falls, then west through a deep canyon to the Puyallup River. The creek collects surface and spring runoff all along the corridor, including excess flows from the municipal water supply springs near Victor Falls. The Fennel Creek drainage basin covers about 11 square miles, of which three square miles are located within the City of Bonney Lake.

The reach of Fennel Creek below Victor Falls is within the highest class range (Class AA) established for Washington state surface waters and is classified as an Urban Natural Open Space consisting of a high value riparian corridor with multiple vegetation layers and a predominance of native plant species providing high quality habitat for wildlife species including Coho Salmon, cutthroat trout, and winter steelhead which are considered threatened or endangered under the Endangered Species Act (ESA).²² Human activities above the falls affect the health of salmonid habitat below the falls. This portion of Fennel Creek is also considered a Shoreline of State and is discussed in the Shoreline Element (Chapter 8).

The reach of Fennel Creek above Victor Falls that gently meanders through the plateau has high water quality values (Class A) and moderate habitat values containing a mosaic of vegetation classes including forested uplands, forested wetlands, palustrine emergent wetlands, scrub-shrub wetlands, riverine wetlands, and pastures.²³ Bonney Lake's greatest concentration of wetlands are along in the Fennel Creek corridor. The corridor's riparian (streamside) vegetation, its linear nature, and its close association with wetlands make it Bonney Lake's most valuable asset in terms of wildlife habitat and biological potential.

In 1999, the Foster Wheeler Environmental Corporation prepared for the City an Environmental Analysis of the Fennel Creek Corridor. It thoroughly studied the corridor's environmental quality, providing a baseline for future comparison. The Environmental recommended improvements designed to remedy its environmental problems. For example, where the creek has been straightened it recommends that it be restored to its original sinuosity by installing diversion berms and large woody debris. Where riparian vegetation has been destroyed it recommends plantings. Where it floods a road the study recommends culverts. Where wetlands have been damaged it recommends that they be enhanced by hydrological connections and plantings. Because its wetland functions and values can be greatly enhanced at reasonable cost, the corridor has great potential for wetland mitigation. That is, if a wetland outside the corridor is in the path of development and not worth saving, the developer could pay to enhance wetlands inside the corridor, thus preventing a net loss of wetland functions and values.

Other Streams

Figure 7-7 illustrates other small unnamed streams draining Lake Debra Jane and Lake Bonney. These streams join near Church Lake Road then flow into Fennel Creek. Narrow wetlands lie along them.

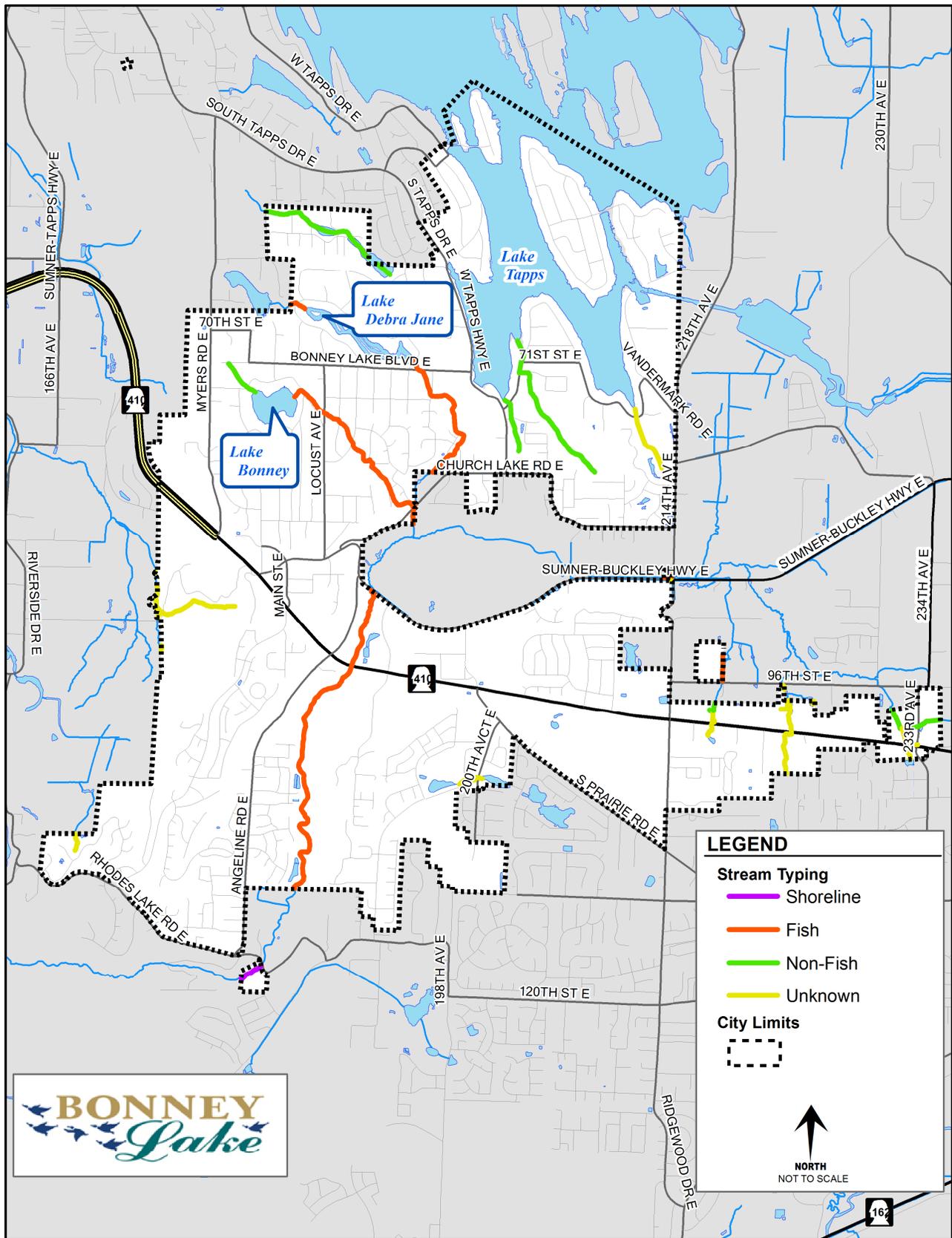


Figure 7-7: Surface Waters and Stream Typing

The federal Clean Water Act, requires that all states restore their waters to be “fishable and swimmable.” Washington's Water Quality Assessment, which meets the federal requirements for an integrated report under Sections 303(d) and 305(b) of the Clean Water Act, does not identify any impaired water bodies within Bonney Lake.

Goal EC-3: Preserve and restore the quality of surface waters to provide high quality natural habitats protected from point and non-point pollution sources.

Policy EC-3.1: Protect water bodies from point and non-point sources of contamination and nitrification.

Policy EC-3.2: Promote the enhancement or restoration of surface waters as adjacent development activities occur.

Policy EC-3.3: Protect against erosion of drainage channels.

Policy EC-3.4: Encourage land developments to maximize stormwater infiltration.

Policy EC-3.5: Promote Low Impact Development techniques as an alternative to standard development practices such as, using natural systems to maintain and enhance environmental quality by having them perform such functions as cleaning air and water, and controlling storm water runoff.

Policy EC-3.5: Preserve vegetative buffers along streams and drainage ways to enhance water quality, protect habitat, and prevent erosion.

Policy EC-3.6: Mitigate stormwater related impacts through best management practices.

Policy EC-3.7: Protect Fennel Creek's natural functions by being especially diligent in applying to the Fennel Creek corridor those policies relating to wetlands and fish and wildlife habitat as stated elsewhere in this Element.

Policy EC-3.8: Construct the Fennel Creek corridor environmental improvements identified in the 1999 Environmental Analysis of the Fennel Creek Corridor.

Policy EC-3.9: Continue to purchase property along the Fennel Creek Corridor to preserve the corridor and consider using property around the creek as wetland mitigation sites.

3.4 FLOODPLAINS

Floodplains are regulated to protect the natural functions and habitat value of these areas and to manage potential risks to public safety. Bonney Lake regulates floodplains as special flood hazard areas, which is defined as land within a community subject to a one percent or greater chance of flooding in any given year” (BLMC 16.26.020). To minimize flood damage, and maintain FEMA flood insurance eligibility, the City has administered floodplain regulations since 1982.

Bonney Lake adopted a Comprehensive Stormwater Plan (CSP) Plan in September 2000 to manage stormwater in compliance with Ecology requirements and regional goals. The CSP plan contains a process for evaluating drainage capacities, ranking flood problem areas, and initiating improvement projects.

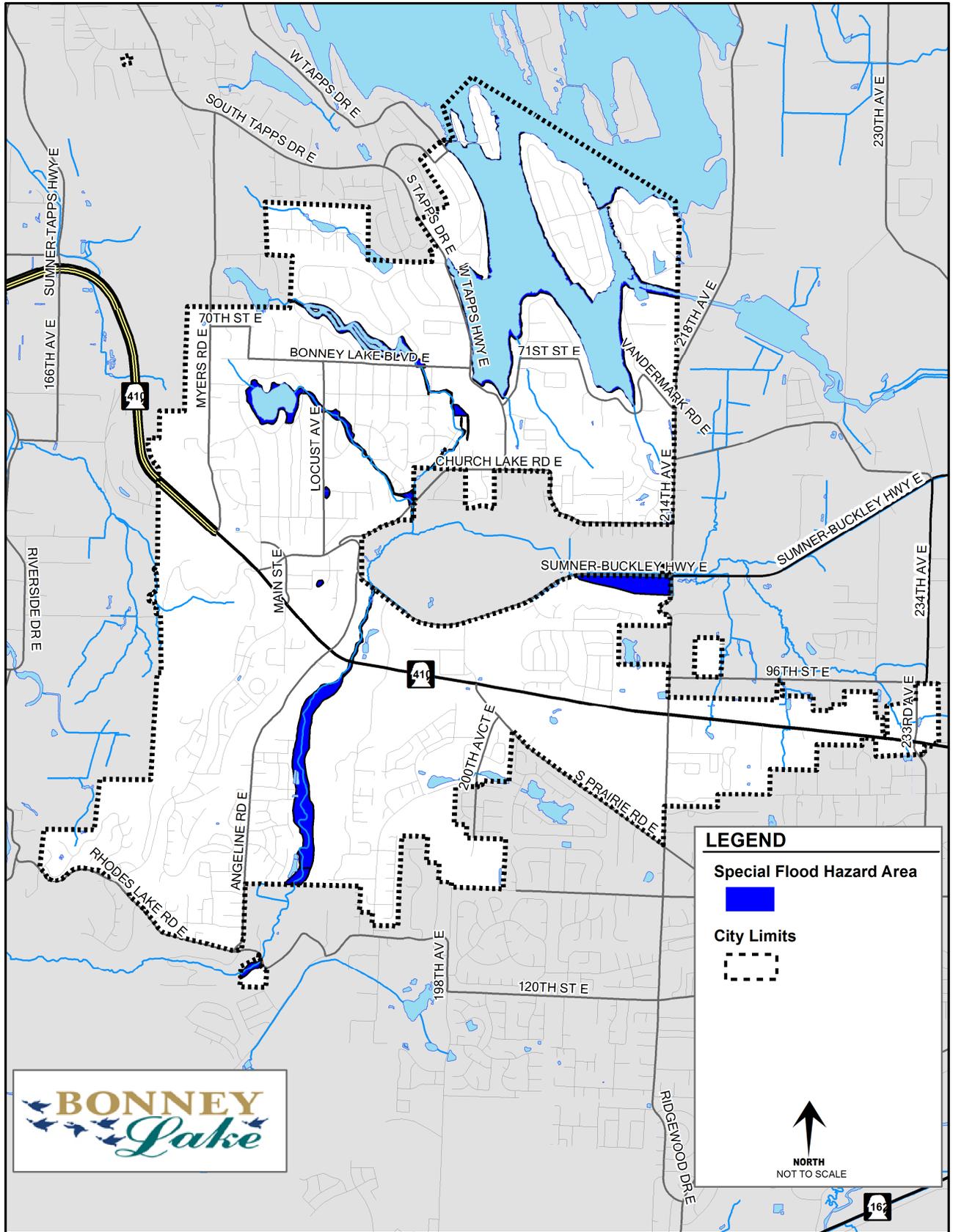


Figure 7-8: Special Flood Hazard Areas

Goal EC-4: Minimize risks to life and property resulting from flooding and preserve habitat associated with floodplains.

Policy EC-4.1: Prohibit new buildings in the 100 year flood zone as determined by the Federal Emergency Management Agency (FEMA) and as shown on the FEMA Flood Insurance Rate Maps (FIRM) unless the base elevation is above the floodplain elevation, the structure has been flood proofed, or the area is removed from the flood zone in the 100-year floodplain.

Policy EC-4.2: Protect floodplains and from filling, excavating, and other activities that would interfere with natural drainage patterns and negatively impact the habitat functions provided in floodplains.

Policy EC-4.3: Preserve floodplains to provide natural flood storage protection and habitat functions.

Policy EC-4.4: Design new development and redevelopment projects to minimize hazards associated with flooding and limit the amount of runoff that contributes to flooding.

3.5 WETLANDS

The commonly used wetland definition as issued by the U.S. Environmental Protection Agency (EPA) the U.S. Army Corps of Engineers (Corps), Shoreline Management Act (SMA), Growth Management Act (GMA) and recorded in the Washington Administrative Code (WAC 173-22-030(10)) is:

Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from non-wetland areas to mitigate the conversion of wetlands.

Wetland scientists generally acknowledge that wetlands perform the following eight functions: 1) flood/storm water control, 2) base stream flow/groundwater support, 3) erosion/shoreline protection, 4) water quality improvement, 5) natural biological support, 6) general habitat functions, 7) specific habitat functions, and 8) cultural and socioeconomic values.²⁴ In the past these functions were not understood. Many wetlands were senselessly destroyed by clearing, dredging, draining, and filling. Federal, state, and local government regulations now protect significant wetlands and an undisturbed buffer around the wetland. The higher the wetland's "functions and values," the wider the buffer must be.

The Bonney Lake area contains bogs, forested wetlands, scrub/shrub wetlands, wet meadows, shallow marsh wetlands, and deep marsh. The greatest concentration of wetlands is in the Fennel Creek corridor. Wetlands also exist along swales draining Lake Bonney and Lake Debra Jane, along the certain lake shoreline, and in a few isolated spots.

Goal EC-5: Protect wetlands and the natural functions they perform.

Policy EC-5.1: Ensure that wetland buffers are adequately size to protect functions and values of wetlands.

Policy EC-5.2: Allow no net loss of wetland functions and values.

Policy EC-5.5: Avoid denying all reasonable use on any parcel.

Policy EC-5.6: Protect wetlands from water quantity or quality impacts stemming from improper stormwater management.

Policy EC-5.7: Encourage environmental stewardship programs aimed at wetland preservation.

Policy EC-5.8: Pursue implementation of a wetland mitigation banking program.

3.6 FISH AND WILDLIFE HABITAT

Urbanization and agriculture have reduced Bonney Lake’s wildlife habitat, but the area’s lakes, stream corridors, wetlands, floodplains, and forests support many plants and animals. Urban development and habitat conservation are not entirely incompatible sensitive design, a reasonable balance can be maintained.

According to State rules (WAC 365-190), fish, and wildlife conservation areas (FWHCAs) are “...areas that serve a critical role in sustaining needed habitats and species for the functional integrity of the ecosystem, and which, if altered, may reduce the likelihood that the species will persist over the long term. These areas may include, but are not limited to, rare or vulnerable ecological systems, communities, and habitat or habitat elements including seasonal ranges, breeding habitat, winter range, and movement corridors; and areas with high relative population density or species richness.” Areas that are considered FWHCA, as determined by the Department of Natural Resources, are illustrated in Figure 7-9.

Goal EC-6: Preserve and restore fish and wildlife habitat conservation areas.

Policy EC-6.1: Preserve habitats for species which the state or federal government have identified as endangered, threatened, or sensitive.

Policy EC-6.2: Encourage conservation of sites that protect fish and wildlife habitat conservation areas through incentives or acquisition.

Policy EC-6.3: Encourage the restoration of ecological functions and the natural environment in environmentally damaged areas through incentives.

Policy EC-6.4: Protect water quality in lakes and streams.

Policy EC-6.5: Promote clustered developments, common areas, buffers, conservation easements and retention of native vegetation as means of conserving critical habitat.

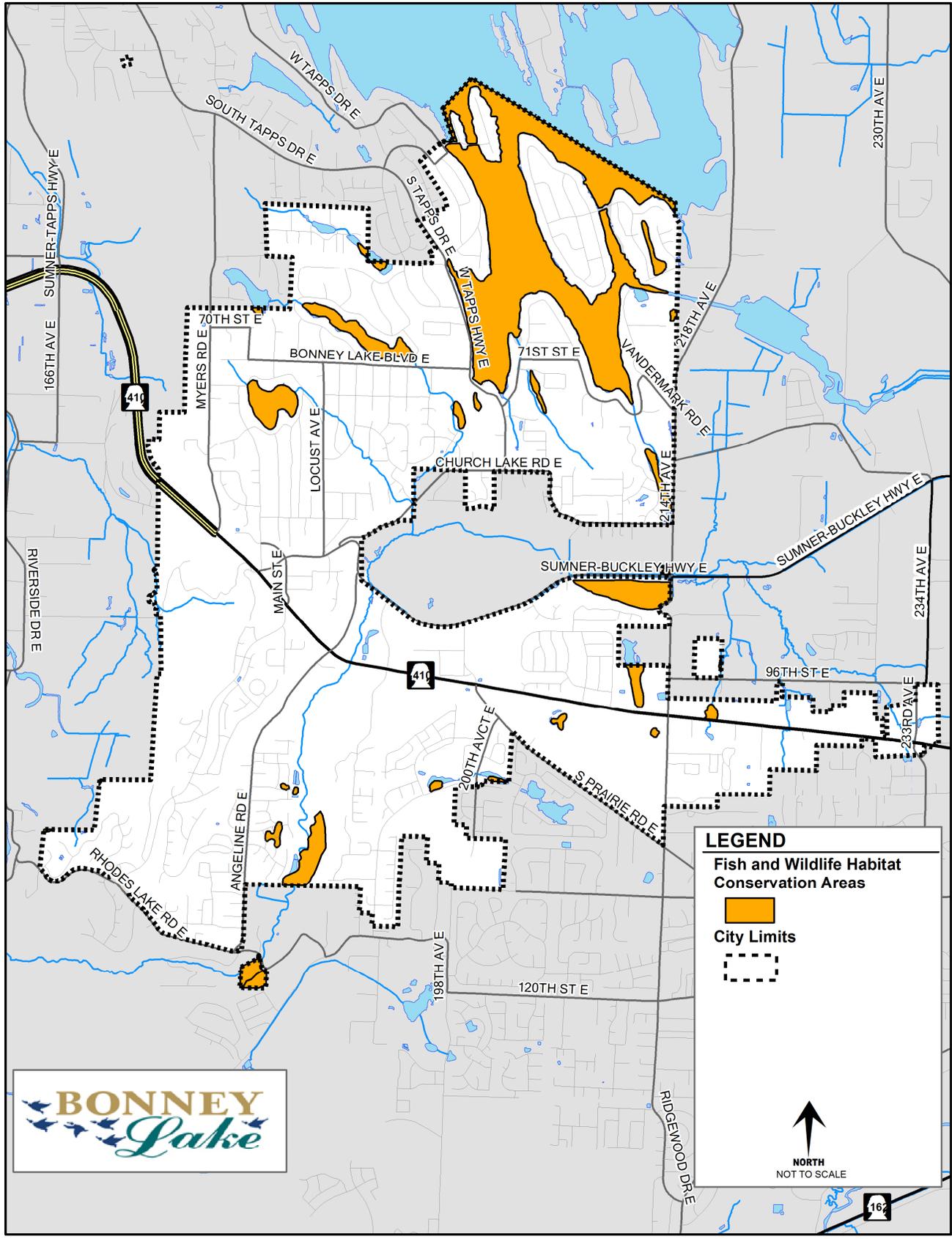


Figure 7-9: Fish and Wildlife Conservation Areas

4. URBAN FORESTRY

A healthy urban forest contributes to a sustainable city in a number of ways. Trees consume carbon dioxide (CO₂) (which is a greenhouse gas) and absorb air and water pollutants. They also provide shade (which reduces energy consumption), absorb runoff, reduce soil erosion, provide habitat for plants and animals, and make walking more pleasant. The Center for Urban Forest Research estimates that over a 40 year period 100 urban trees in the Pacific Northwest provide \$202,000 in benefits.²⁵

“Preserve Bonney Lake’s character by maintaining significant trees, tree lines, and wooded lots to the maximum extent possible through the regulation of clearing prior to development.”

*City of Bonney Lake
Comprehensive Plan
August 1985*

As a Tree City, USA, with an active Community Forest Program, Bonney Lake has made a commitment to protect and manage the community’s tree resources. As part of this commitment the City contract with Davey Resource Group to prepare an Urban Tree Assessment which determined that the City of Bonney Lake has an overall tree canopy coverage of 43% slightly higher than the goal of 40% suggested by American Forest.²⁶

Each year, the City plants and prunes trees to expand and maintain the urban forest. The City also has tree-planting requirements in parking lots to help offset air pollution from cars and reduce the heat island effect. In addition, there are many thousands of trees in private yards across the City. These make an important contribution to the aesthetics of the City, as well as the natural environment. However, without a plan to replace trees lost to development, there could be a significant reduction in the overall canopy and the environmental services provided to the community.

Goal EC-7: Promote, preserve, and emphasize a healthy urban forest with an overall tree canopy of 50%.

Policy EC-7.1: Protect and conserve open space, including transition buffers between urban and rural areas.

Policy EC-7.2: Preserve and protect public views of mountains and valley corridors.

Policy EC-7.3: Practice land cover management with includes forest and topsoil preservation, native growth protection easements, dense vegetative zones, and preservation of tree canopy zones.

Policy EC-7.4: Protect significant trees and promote tree replanting, and encourage the use of native plants.

Policy EC-7.6: Promote the preservation of native vegetation and mature trees; revegetation; and appropriate landscaping to improve air and water quality and fish and wildlife habitat.

Policy EC-7.7: Encourage preservation of the urban forest, and promote the use of native plants in residential and commercial landscapes.

5. AGRICULTURAL LANDS

The GMA requires jurisdictions to prevent urban conversion of agricultural lands of long-term commercial significance. The City recognizes no such lands in the BLUGA. However, as a suburban community located on the edge of the Pierce County’s urban growth area boundaries, Bonney Lake is surrounded by pockets of agricultural lands of long term commercial significance and as such the City should work cooperatively with the County to preserve and protect these areas. Additionally, two of the City’s proposed additions to the BLUGA, Fennel Creek Corridor Area and 214th Area, contain lands designated as agricultural resource lands (ARL). Areas designated as ARL are considered agricultural lands of long term commercial significance which should be preserved and protected from urban development. The City proposes to retain that designation for those lands by designating the areas as Open Space – Conservancy and zoning the area Residential/Conservancy District which is compare the County’s zoning in both the terms of allowed uses and density.

In addition to preserving agricultural lands of long-term commercial significance, Bonney Lake should also take steps to promote and preserve urban agricultural lands. Urban agriculture is an umbrella term encompassing backyard gardens, community gardens, urban farms, and farmer’s markets involved in a wide range of activities including raising, cultivation, processing, marketing, and distribution of food in urban areas.²⁷ Preserving and promoting urban agriculture would have a number of positive impacts on Bonney Lake which include:

- Promoting community health by expanding access to fresh foods;
- Reducing green-house gas emissions caused transporting food over long distances;
- Increasing social-capital by facilitating community engagement (See Community Development Element for a discussion of the health impacts of social capital); and
- Activating underutilized community spaces.²⁸

Goal EC-8: Preserve and protect agricultural resource lands and urban agriculture sites to improve access to healthy foods access, build social connections, and provide local source of food.

Policy EC-8.1: Preserve Pierce County’s designation of “urban agricultural land of long-term commercial significance” for properties so designated in the proposed Fennel Creek Corridor UGA.

Policy EC-8.2: Allow continued agricultural production in areas which currently produce such products but which have not been designated agricultural resource lands if such production is compatible with their urban context.

Policy EC-8.3: Maintain agricultural production as the principal use on agricultural lands by limiting residential development, preventing conversion to non-agricultural uses, and prohibiting uses that are incompatible with long term agricultural production.

Policy EC-8.4: Protect property owner’s rights to cultivate gardens to produce fresh vegetables and to keep a limited number of farm animals through the City’s development regulations.

Policy EC-8.5: Expand access to community gardens through Bonney Lake to support local farms and also increasing access to fresh produce.

Policy EC-8.6: Remain open to further designations of agricultural resource lands on land shown to merit that designation.

Policy EC-8.7: Ensure that land uses proposed adjacent to resource lands designated as agricultural resource lands are compatible with agricultural activities.

6. AIR QUALITY

“The emission of noise, smoke, dust, other obnoxious matter are to be limited and controlled by specific performance standards.”

*Plan for Bonney Lake,
Washington May 2, 1964*

While air quality is not specifically identified as critical area, protecting air quality is listed as goal of the GMA and both the MPPs and CPPs include specific provisions that require the City to establish policies related to air quality. In the Puget Sound Region the primary concern is ground-level ozone, carbon monoxide, and fugitive dust which can damage lung tissue leading to respiratory disease, contribute to cancer and cardiovascular disease, and obscure many of our most scenic vistas, such as views of the Olympic and Cascade mountain ranges, including Mount Rainier.²⁹

Air quality in Bonney Lake is monitored and regulated by the Puget Sound Clean Air Agency (PSCAA) which covers, King Kitsap, Pierce and Snohomish Counties. The PSCAA a special purpose, regional government agency chartered by state law in 1967 under the Washington Clear Air Act and monitors air quality in the basin through a regional network of air pollution monitoring stations to determine if the national and State standards for criteria air pollutants and emission limits of toxic air contaminants are being achieved.

Criteria Air Pollutants

The Federal and Washington Clean Air Act have established ambient air quality standards for different air pollutants. The national ambient air quality standards (NAAQS) were established by the Federal Clean Air Act of 1970 (amended in 1977 and 1990) for six "criteria" pollutants: carbon monoxide (CO), ozone (O3), nitrogen dioxide (NO2), particulate matter (PM10 and PM2.5), sulfur dioxide (SO2), and lead (Pb), which are known to be hazardous to human health. Over the years PSCAA has made great strides toward reducing levels of carbon monoxide, sulfur dioxide, nitrogen dioxide and lead, which are now well below federal air quality standards. However, two air pollutants remain a concern Puget Sound region: particle pollution and ozone (smog) which can cause heart attacks, strokes, asthma attacks and even premature death.³⁰

Toxic Air Contaminants

In addition to the six criteria air pollutants, the PSCAA increasingly is focusing efforts on reducing air toxics, which is a group of over 400 pollutants known or suspected to cause a number of health problems, including cancer and birth defects, as well as damage to lungs, and immune and nervous systems. In our region, health risk from air toxics comes primarily from fine particles in diesel exhaust.³¹

“Residential areas should be protected from the dangers of fire, explosions, toxic, noxious matter, and other similar objectionable influences.”

*City of Bonney Lake
Comprehensive Plan
August 1985*

Greenhouse Gas Emissions

In addition to the air quality, cities in the central Puget Sound Region are required to address climate change. While addressing climate change is not specifically addressed in the GMA goals established by RCW 36.70A.020 nor the mandatory elements established by RCW 36.70A.070, the City is required to be consistent with adopted MPPs and CPPs pursuant to RCW 36.70A.100 and RCW 36.70A.210. Both the MPPs and CPPs include specific provisions that require the City to establish goals, policies, strategies, and performance measures related to the reduction of greenhouse gas emissions and to address adaptation to the effects of climate change.

Unlike emissions of criteria pollutants and toxic air pollutants, which have local or regional impacts, emissions of greenhouse gases (GHGs) have a broader, global impact. The principal GHGs are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated compounds. These gases allow visible and ultraviolet light from the sun to pass through the atmosphere, but they prevent heat from escaping back out into space, a process known as the “greenhouse effect”. Human-caused emissions of these GHGs in excess of natural ambient concentrations are responsible for intensifying the greenhouse effect and have led to a trend of unnatural warming of the earth’s climate.

The City’s efforts to reduce GHGs began in 2010 with the passage of Resolution 2049 which adopted policies to reduce emissions of GHGs. As part of Resolution 2049, the City stated that local governments throughout the nation, both large and small, are reducing the production of global warming pollutants through programs that provide economic and quality of life benefits, such as reduced energy bills, green space preservation, air quality improvements, reduced traffic congestion, improved transportation choices, and economic development and job creation through energy conservation and new energy. The City of Bonney Lake adopted the following policies, as part of Resolution 2049, to reduce GHGs:

- The City will strive to assure that all new municipal buildings are models of cost effective, energy-efficient design.
- The City will encourage energy conservation practices in City buildings by raising the awareness of employee energy use.

- The City will use the recently approved shared resource conservation manager position to conduct energy audits of publicly owned buildings, evaluate potential conservation measures, and then carry out those measures that are appropriate.
- The City will monitor the efficiency of the pumps in water and sewer systems, and operate and maintain them at peak efficiency whenever practically feasible. When evaluating new systems, the most cost effective option using the least amount of energy will be preferred.
- The City will participate in the County-wide solid waste management plan which reduces the solid waste stream by recycling and other means, investigates ways to convert nonrecyclable solid waste to energy, and promotes the purchase of recycled and recyclable goods.
- Where and when permitted under the building code, the City will encourage the use of building construction materials made from recycled and recyclable materials.
- The City will publicize energy conservation actions to raise public awareness of the value of wise energy use.
- The City will promote internal recycling programs, purchasing policies, and employee education to reduce the amount of waste produced.
- The City will implement its non-motorized transportation plan, on a funding available basis, to provide safe and convenient access for pedestrians and bicyclists to, across, and along major transit priority streets.
- The City will continue to support water conservation through the use of conservation based rates and a tiered rate structures for water use

In Puget Sound region, nearly 50% of the GHGs pollution comes from transportation. The goals and policies in the Community Development Element and Mobility Elements attempt to address the GHGs related to transportation by encouraging a local balance of jobs and housing, promote the proximity of shopping, recreational, childcare and other uses to residential areas in order to minimize the number and distance of vehicle trips, encourage higher intensity uses near transit to reduce dependence on the automobile, and encourage the use of alternative transportation modes such as transit, walking and bicycling.

In addition to transportation, GHGs are released during energy production and consumption, such as electricity used to power homes and businesses, and fuel used to power cars and trucks. Reducing the carbon content of the fuel source (e.g. solar or wind power versus fossil fuels) or reducing energy consumption (e.g. using energy efficient appliances or designing buildings for solar access) will help to further reduce overall GHGs emissions.

Goal EC-9: Meet the Washington State goal to reduce greenhouse emissions to 25% below 1990 levels by 2035 established by RCW 70.235.020(1)(a)(ii) and ensuring that overall air quality meets or exceeds State and Federal standards.

Policy EC-9.1: Support efforts of other local, regional and State agencies to improve regional air quality.

Policy EC-9.2: Coordinate land use planning and local transportation planning to reduce the potential for long-term exposure criteria air pollutants and to toxic air contaminants.

Policy EC-9.3: Reduce the air quality impacts created by truck traffic, hazardous materials and development.

Policy EC-9.4: Continue to implement the policies adopted by Resolution 2049

Policy EC-9.5: Encourage energy efficiency in site design, building orientation, landscaping, and utilities/infrastructure for all development and redevelopment projects.

Policy EC-9.6: Encourage renewable energy sources for new and existing buildings and infrastructure.

Endnotes:

¹ *Pilchuck, et al v. Snohomish County*. Final Decision and Order. Case Number 95-3-0047c. (December 6, 1995).

² WAC365-190-130(2)

³ WAC 365-090-030(3)

⁴ WAC 365-190-100(1)

⁵ RCW 36.70A.172(1)

⁶ *Washington State Department of Ecology and Washington State Department of Commerce, Trade, and Economic Development v. City of Kent*. Final Decision and Order. Case Number 05-3-0034. (April 19, 2006).

⁷ Zulauf, A. S., et. al. (February 1979) *Soil Survey of Pierce County Area, Washington*. Prepared for the Natural Resource Conservation Service (formerly Soil Conservation Service).

⁸ *ibid.*

⁹ Dragovich J.D, et. al. (September 1995) *Liquefaction Susceptibility for the Sumner 7.5-minute Quadrangle, Washington*. Prepared for Washington State Department of Natural Resources.

¹⁰ Zulauf, A. S., et. al. (February 1979) *Soil Survey of Pierce County Area, Washington*. Prepared for the Natural Resource Conservation Service (formerly Soil Conservation Service).

¹¹ *ibid.*

¹² Dragovich J.D, et. al. (September 1995) *Liquefaction Susceptibility for the Sumner 7.5-minute Quadrangle, Washington*. Prepared for Washington State Department of Natural Resources.

¹³ Cakir R. and Walsh T. (May 2012) *Loss Estimation Pilot Project for Lahar Hazards from Mount Rainier Washington*. Prepared for the Washington State Department of Natural Resources.

¹⁴ *ibid*

¹⁵ *ibid*

¹⁶ *ibid*

¹⁷ *ibid*

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- ¹⁸ *ibid*
- ¹⁹ WAC 365-190-100(1)
- ²⁰ Parati of Oregon, LLC. (February 2007). *Bonney Lake Preliminary Water Quality Assessment: An Analysis of Conditions 2004 through 2007*. Prepared for the City of Bonney Lake.
- ²¹ RH2 Engineering, Inc. (June 1998). *City of Bonney Lake Wellhead Protection and Monitoring Program – Phase I*. Prepared for the City of Bonney Lake.
- ²² Foster Wheeler Environmental Corporation. 1999. Environmental Analysis of the Fennel Creek Corridor. Pg. 2-75.
- ²³ *ibid*.
- ²⁴ Cooke Scientific Services. (February 2000). *Wetland and Buffer Functions Semi-Quantitative Assessment Methodology (SAM)*.
- ²⁵ Davey Resource Group. (March 2011). *City of Bonney Lake Washington: Urban Tree Canopy Assessment*. Prepared for the City of Bonney Lake.
- ²⁶ *ibid*.
- ²⁷ National Policy & Legal Anayliss Network to Prevent Childhood Obesity. (?). *Seeding the City: Land Use Policies to Promote Urban Agriculture*.
- ²⁸ *ibid*.
- ²⁹ Puget Sound Regional Council. *Vision 2040*. 2008 pg. 39.
- ³⁰ PSCAA Website: <http://www.pscleanair.org/airquality/airqualitybasics/airtoxics/Pages/default.aspx> Accessed on 11/5/14
- ³¹ *ibid*.

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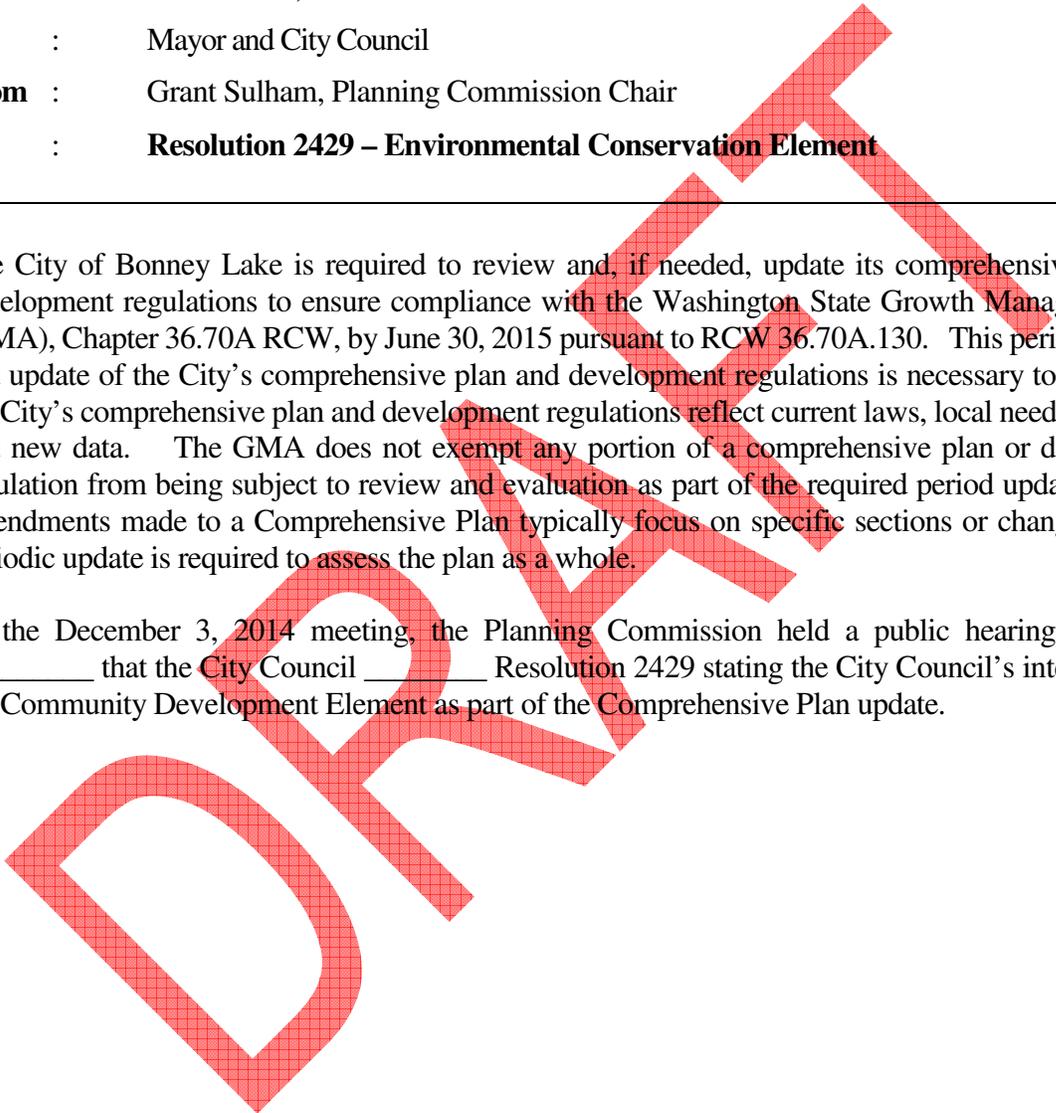


Memo

Date : December 3, 2014
To : Mayor and City Council
From : Grant Sulham, Planning Commission Chair
Re : **Resolution 2429 – Environmental Conservation Element**

The City of Bonney Lake is required to review and, if needed, update its comprehensive plan and development regulations to ensure compliance with the Washington State Growth Management Act (GMA), Chapter 36.70A RCW, by June 30, 2015 pursuant to RCW 36.70A.130. This periodic review and update of the City’s comprehensive plan and development regulations is necessary to ensure that the City’s comprehensive plan and development regulations reflect current laws, local needs and goals, and new data. The GMA does not exempt any portion of a comprehensive plan or development regulation from being subject to review and evaluation as part of the required period update. Annual amendments made to a Comprehensive Plan typically focus on specific sections or changes, but the periodic update is required to assess the plan as a whole.

At the December 3, 2014 meeting, the Planning Commission held a public hearing and voted _____ that the City Council _____ Resolution 2429 stating the City Council’s intent to adopt the Community Development Element as part of the Comprehensive Plan update.



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Community Development Department Briefing Memorandum

Date: November 21, 2014
To: Planning Commission
From: Jason Sullivan – Senior Planner
Re: **Bonney Lake Comprehensive Plan Update – Environmental Conservation Element**

PURPOSE:

The purpose of the memorandum is to facilitate the Planning Commission’s Public Hearing on the Ordinance D15-05 which will amend the City’s Subdivision access standards in order to achieve consistency with the requirements of East Pierce Fire and Rescue. This item is tentatively schedule for the February 3, 2015 City Council Workshop under AB15-05.

SUGGESTED MOTION: *“I move to recommend that the City Council adopt Ordinance D15-05 amending the access standards for ‘pipe steam lots’ and ‘flag lots’.”*

ATTACHMENTS:

1. Ordinance D15-05
2. Planning Commission Recommendation Memo

BACKGROUND:

Currently, East Pierce Fire and Rescue requires that the stem portion of all “flag lots” or “pipes team lots” be a minimum of 20 feet in width in order to provide access for emergency equipment. However, BLMC 17.20.090 requires that the stem portion of all “flag lots” or “pipe steam lots” be a minimum of 15 feet in width in order to provide access for emergency equipment. The conflicting standards can create confusion for property owners and developers.

DISCUSSION:

The proposed amendment to BLMC 17.20.090 will ensure consistency between the standards of East Pierce Fire and Rescue and the City's subdivision standards by requiring that the access portion of lots commonly referred to as "flag lots" or "pipe steam lots," due to the shape of the lot, is a minimum of twenty feet wide.

ORDINANCE NO. D15-05

AN ORDINANCE OF THE CITY OF BONNEY LAKE, PIERCE COUNTY, WASHINGTON, AMENDING SECTION 17.20.090 OF THE BONNEY LAKE MUNICIPAL CODE, RELATING TO THE DESIGN STANDARDS FOR FLAG LOTS OR PIPESTEAM LOTS.

WHEREAS, East Pierce Fire and Rescue requires that the stem portion of all “flag lots” or “pipesteam lots” be a minimum of 20 feet in width in order to provide access for emergency equipment; and

WHEREAS, BLMC 17.20.090 requires that the stem portion of all “flag lots” or “pipesteam lots” be a minimum of 15 feet in width in order to provide access for emergency equipment; and

WHEREAS, the City Council of the City of Bonney Lake desires ensure consistency between the requirements of East Pierce Fire and Rescue and the Bonney Lake Municipal Code; and

WHEREAS, the Community Development Director acting as the SEPA Responsible Official determined that the proposed amendment is categorically exempt from the SEPA pursuant to WAC197-11-800(19)(b); and

WHEREAS, pursuant to the Growth Management Act - Chapter 36.70A RCW this Ordinance was provided to the Department of Commerce for 60-day review and comment by the Department and other State agencies; and

WHEREAS, expedited review was requested and _____ by Commerce and the review period concluded on _____.

WHEREAS, notice of the public hearing was given to the public in accordance with law and a public hearing was held by the Planning Commission on December 3, 2014,

NOW THEREFORE, the City Council of Bonney Lake, Washington, do ordain as follows:

Section 1. Section 17.20.090, “Lots” of the Bonney Lake Municipal Code and the corresponding portions of Ordinance Nos. 1131 § 3 is hereby amended to read as follows:

17.20.090 Lots.

- A. No property may be so reduced in area that it would be smaller than the minimum lot size as per the zoning code applicable thereto, with the exception of tracts dedicated or restricted by covenant for open space, park, recreational or other community use, so designated as tracts without lot numbers.
- B. At intersections of streets the lot abutting a street corner shall be rounded by a curve with a minimum radius of:
 - 1. Twenty-five feet for arterial, collector and local streets;

- 2. Ten feet for cul-de-sac streets.
- C. Sidelines of lots shall be at right angles or radial to the abutting streets.
- D. Where possible, lots shall be designed to access from local streets, rather than collector or arterial streets.
- E. Where flag lots, pipestem lots or panhandle lots are created, the stem portion of the lot shall be a minimum of ~~15~~ 20 feet wide and no longer than 150 feet long.

Section 2. Severability. If any one or more section, subsection, or sentence of this ordinance is held to be unconstitutional or invalid, such decision shall not affect the validity of the remaining portion of this ordinance and the same shall remain in full force effect.

Section 3. Effective Date. This ordinance shall take effect five (5) days after its passage, approval and publication as required by law.

PASSED BY THE CITY COUNCIL this _____ day of _____, 2015.

Neil Johnson, Jr., Mayor

AUTHENTICATED:

Harwood T. Edvalson, MMC, City Clerk

APPROVED AS TO FORM:

Kathleen Haggard, City Attorney



Memo

Date : December 3, 2014
To : Mayor and City Council
From : Grant Sulham, Planning Commission Chair
Re : **Ordinance D15-05**

The proposed amendment of BLMC 17.20.090 will ensure consistency between the standards of East Pierce Fire and Rescue and the City’s subdivision standards by requiring that the access portion of lots commonly referred to as “flag lots” or “pipe steam lots,” due to the shape of the lot, is a minimum of twenty feet wide.

On December 3, 2014, the Planning Commission held a public hearing on Ordinance D15-05 which amends the 17.20.090 and voted X-X-X to recommend that the City Council approve Ordinance D15-05.

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RESOLUTION NO. 2385

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BONNEY LAKE, PIERCE COUNTY, WASHINGTON AMENDING THE PLANNING COMMISSION WORK PLAN FOR THE 2014-2015 BEINNIUM.

WHEREAS, the City Council adopted Resolution 2089 to establish a policy for establishing and maintaining a Work Plan for the Planning Commission to facilitate comprehensive planning and the development of land use regulation of the City pursuant to RCW 35.63;

WHEREAS, the intention of Resolution 2089 is that the Work Plan is adopted during either the last two months of the previous biennium or the first two months of the new biennium;

WHEREAS, the City Council passed Resolution 2347 on January 14, 2014 adopting the 2014 – 2015 Planning Commission Work Plan; and

WHEREAS, since the adoption of the 2014 – 2015 Planning Commission Work Plan additional items have been assigned to the Planning Commission.

NOW, THEREFORE City Council of the City of Bonney Lake do hereby resolve as follows:

Section 1. 2014-2015 Biennial Work Plan Amended. The Planning Commission Work Plan for the 2014-2015 biennium, attached hereto as Attachment “A”, is hereby adopted and supersedes the Work Plan attached to Resolution 2347.

PASSED by the City Council and approved by the Mayor this 27th day of May, 2014.



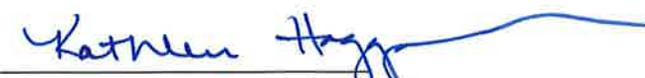
Neil Johnson, Jr., Mayor

ATTEST:



Harwood T. Edvalson, MMC, City Clerk

APPROVED AS TO FORM:



Kathleen Haggard, City Attorney

ATTACHMENT A

City of Bonney Lake 2014 - 2015 Biennium Planning Commission Work plan

Description	Department	PC Review	Note	Initiated By	Date Added	Date Completed
		Completion Date				
Comprehensive Plan Periodic Update Phase 2.	CD	2014 Q1	The Consistency Report identifies all of the mandatory changes that the City will have to make to the City's Comprehensive Plan and Development Regulations to ensure consistency with the Growth Management Act, Vision 2040, and the Countywide Planning Policies	Staff	11/13/2013	2/5/2014
Update Planning Commission By-Laws	CD	2014 Q1	The Planning Commission By-Laws were updated to reflect changes in the City Council Rules, add public hearing procedures, voting rules, and to bring the by-laws into compliance with the adopted rules of order.	Staff	2/3/2014	3/19/2014
Amendment to the Land Use Matrix to separate Assisted Living Facilities and Nursing Homes into two lines instead of grouped together.	CD	2014 Q2	These uses are not the same and should not be included on the same line in the Land Use Matrix. The primary difference is that nursing facilities provide care for an extended period of time to individuals requiring nursing care by a permanent core staff of nurses; whereas, assisted living facilities provide meals, housekeeping, social, leisure, and other services available to assist residents in daily living for the elderly who are unable to fully care for themselves or do not desire to live independently.	Staff	4/18/2014	
Amendments Chapter 16.04 BLMC - State Environmental Policy Act (SEPA)	CD	2014 Q2	On April 9, 2014, the Department of Ecology issued the final rule changes related to the State Environmental Policy Act (SEPA) – Chapter 197-11 WAC as a result the City will need to make some modifications to Chapter 16.04 BLMC (SEPA).	Staff	4/22/2014	
Amendments to Title 14 BLMC - Development Code	CD	2014 Q2	The <i>Bonney Lake 2035 Consistency Report</i> identified some changes required to the City's land use review procedures in order to bring the City into compliance with the Local Project Review Act (Chapter 36.70B RCW). The City will also need to make some modifications to Title 14 BLMC (Development Code Administration) in order to comply with some of the changes made by DOE during the rulemaking process.	Staff	4/22/2014	
Comprehensive Plan Periodic Update Phase 3.	CD	2014 Q2	Phase 3 of the Periodic Update is the adopting of the City's Visioning and Growth Strategy. The Planning Commission will review the required and recommended changes to the Community Character Element, Land Use Element, and Economic Vitality Element. The Planning Commission will also host an open house as part of this phase to gather public input on the community's vision of the City in the future.	Staff	11/13/2013	
Update the BLUGA on the Future Land Use Map	CD	2014 Q3	The City's request to added a portion of the CUGA to the BLUGA has been approved by the County, subject to the completion of a Joint Planning Agreement between the City and the County. The City has also been informed that the City's maps did not reflect the existing BLUGA in Easttown (2 Parcels adjacent to SR 410)	Staff	11/13/2013	
Regulations related to Recreational Marijuana	CD	2014 Q3	The Planning Commission will study and propose development regulations to the Council on or before the expiration of the moratorium. The Planning Commission was directed to study a range of approaches to regulation, including zoning, development regulations, and a complete or partial prohibition in all zones.	Council	4/8/2014	
Modification Easttown Future Roads Map	CD/PW	2014 Q4	Requested by the Public Works Director. This work will be completed in conjunction with the Comprehensive Plan Periodic Update Phase 4	Staff	1/18/2013	
Modify R-2 to add Single Family as a Permitted Use	CD	2014 Q4	The R-2 is intended to be a higher density residential zone and has been applied to the CUGA proposed to be annexed into the City. However, the R-2 does not allow SFR which means upon annexation the entire area would be non-conforming.	Staff	4/8/2013	
Comprehensive Plan Periodic Update Phase 4.	CD	2015 Q1	Phase 4 of the Periodic Update will involve the Planning Commissions review the required and recommended changes to the Housing, Parks, Utilities, Transportation, Natural Environment, Capital Facilities, Community Health, Cultural Resources Elements and the City's adopted Sub-Area Plans.	Staff	11/13/2013	

2014

ATTACHMENT A

Department **PC Review Completion Date** **Note** **Initiated By** **Date Added** **Date Completed**

2015	Add the parcels adjacent to 90th Avenue between 214th Ave. E and 223rd Ave. E; the parcels on the west side of 214th Ave. E, behind Home Depot, the Fennel Corridor (the area commonly referred to as the thumb), and Lakeridge Junior High as "proposed UGA" to Zoning Map	CD	2015 Q1	The areas were once part of the BLUGA, but were moved in 2004 due to a hearings board decision and were never added back as proposed UGA with a preferred land use designation.	Staff	1/18/2013	
	Comprehensive Plan Periodic Update Phase 4.	CD	2015 Q1	Phase 4 of the Periodic Update will involve the Planning Commissions review the required and recommended changes to the Housing, Parks, Utilities, Transportation, Natural Environment, Capital Facilities, Community Health, Cultural Resources Elements and the City's adopted Sub-Area Plans.	Staff	11/13/2013	
	Review the side yard setbacks in the RC-5	CD	2015 Q1	Some Councilmembers are concerned that he setbacks are two small in the RC-5 zoning classification given that the properties are supposed to be larger 5 acre parcels.	Council	12/3/2013	
	Comprehensive Plan Periodic Update Phase 6.	CD	2015 Q2	The Planning Commission will hold the public hearings on the periodic update of the City's Comprehensive Plan.	Staff	11/13/2013	
	Add "proposed UGA" to Zoning Map	CD	2015 Q3	City Administrator clarified that Falling Water needed to be added to the zoning map as well. The change as been made to the Future Land Use Map in 2012, but was not added to the Zoning Map	Exec	6/7/2011	