

DRAFT

CHAPTER SIX

Natural Environment Element

Introduction

The Washington Growth Management Act (GMA) does not require a Natural Environment Element in the comprehensive plan, but does set a number of requirements with regard to natural systems:

- Conservation of resource lands and fish and wildlife habitat
- Protection of the environment and critical areas
- Designation of resource lands and critical areas
- Provisions for the protection of the quality and quantity of groundwater used for public water supplies
- Where applicable, a review of drainage, flooding, and storm water run-off in the area covered by the plan and nearby jurisdictions, and guidance for corrective actions to mitigate or cleanse those discharges that pollute the waters of the state.

The latter two requirements will be addressed in the Land Use Element.

Applicable Countywide Planning Policies

The Yakima Countywide Planning Policies are not specifically required by the GMA to address the physical character of the land or natural resource and critical areas. Nonetheless, several of the Countywide Planning Policies do specifically address natural resource issues. The following Countywide Planning Policies apply to discussion of the Natural Environment Element.

1. When determining land requirements for urban growth areas (UGAs), allowances will be made for greenbelt and open space areas and for protection of wildlife habitat and other environmentally sensitive areas [RCW 36.70A.110(2)] (Countywide Planning Policy: A.3.7.).
 - a. Encourage economic growth within the capacities of the region's natural resources, public services and public facilities.
 - b. Identify current and potential physical and fiscal capacities for municipal and private water systems, wastewater treatment plants, roadways and other infrastructure systems.
2. Identify economic opportunities that strengthen and diversify the county's economy while maintaining the integrity of our natural environment (G.3.1.).
3. Special districts, adjacent counties, state agencies, the tribal government and federal agencies will be invited to participate in comprehensive planning and development

activities that may affect them, including the establishment and revision of UGAs; allocation of forecasted population; regional transportation, capital facility, housing and utility plans; and policies that may affect natural resources (I.3.).

Relationship to Other Elements or Land Uses

Natural environments are closely tied to both economic development and land use. In an area where the economy is based on the productive use of land for agriculture, the land resource must be protected to assure continued economic viability of the area. At the same time, land is needed for housing and economic development, including sites suitable for industries related to agriculture. Prevailing winds, flood potential, and soil types make some areas more suitable than others for various land uses. Land use planning needs to allow for protection of critical areas such as wetlands and wildlife habitat.

Critical Areas

The GMA requires cities and counties to identify and protect critical areas including the following areas or ecosystems:

1. Wetlands
2. Areas with a critical recharging effect on aquifers used for potable water
3. Fish and wildlife habitat conservation areas
4. Frequently flooded areas
5. Geologically hazardous areas

This section inventories the type and potential location of critical areas in the Selah UGA. The purpose is to identify critical areas that require protection and areas that may be either hazardous to development, or may impose limitations which can only be overcome with costly engineering and building techniques. This analysis allows the City to identify where development would be less efficient and economical, as opposed to areas where development could occur that would be more compatible with the natural environment.

Maps are based on the best data currently available. Because no on-the-ground field inventories of critical areas were conducted in Selah, the maps should be considered as a guide for the City and permit seekers when applying the CAO during development review processes. When needed, experts at the appropriate State agencies may be consulted. The exception is the flood hazard data, which is provided by the Federal Emergency Management Agency (FEMA) and is considered legally binding.

Best Available Science

Selah adopted a Critical Areas Ordinance (CAO) on April 8, 2014 and adopted an update to the CAO on {insert date}. The Selah CAO includes standards and procedures for the protection of critical areas identified in this Natural Environment Element as falling within the City of Selah UGA.

As required by the GMA (RCW 36.70A.172), protection of critical areas is based on the best available science (BAS), according to the criteria set forth in WAC 365-195-905. The City of Selah will weigh the most current scientific information from agencies, scientific consultants and published sources to

determine the values and functions of natural systems existing in or near the City. The City will base protection of critical areas upon evaluation of the BAS along with scientific studies made available by proponents and opponents of projects in determining how best to protect natural and critical areas. The City of Selah adopts Yakima County's *Review of Best Available Science for Inclusion in Critical Areas Ordinance*, October 2006, as amended, as a basis for decisions to support protections required by the Critical Area Ordinance and the Shoreline Master Program.

Soils

Soil information is an important tool in both the design and evaluation of different types of development proposals and can aid in the identification of critical areas. Soil types react differently to different types of development. Consequently, proper soil information can save developers both time and money in the design stages of their proposals. For example, certain soils make septic tank design extremely costly because of poor drainage qualities.

Additionally, soil types may vary greatly over short distances. To know what the actual soil conditions are on a given property, it may be helpful to consult a Natural Resources Conservation Service (NRCS) soil survey, or have an on-site analysis performed by a soil scientist. Inclusion of soil information in development proposals can help public officials to evaluate whether the developer has considered soil conditions.

Major Soil Types in the Selah UGA

Soil maps and information are developed by the NRCS. The NRCS maintains detailed descriptions of soils types, including agricultural rating and limitations for agriculture, septic, and buildings.

There are a great variety of soil types in the Selah UGA, as illustrated in Figure 1, page 14. Some of the most predominant soils types include Selah silt loam, Esquatzel silt loam, Roza clay loam, Kiona stony silt loam, and Starbuck-Rock outcrop complex.

Table 1 summarizes the characteristics of the predominant soils types discussed above.

Table 1. Characteristics of Predominant Soils Types, Selah UGA

SOIL CLASSIFICATION		LIMITATIONS		
Soil Type No.	Name	Farmland Class	Septic Tank	Buildings (Dwellings without Basements)

SOIL CLASSIFICATION		LIMITATIONS		
Soil Type No.	Name	Farmland Class	Septic Tank	Buildings (Dwellings without Basements)
68897	Roza clay loam	5-8% slope: Farmland of statewide importance 8-30% slope: Farmland of unique importance	5-30% slope: Very limited	5-60% slope: Very limited
68912	Selah silt loam	2-5% slope: Prime farmland if irrigated 5-30% slope: Farmland of unique importance	2-30% slope: Very limited	2-15% slope: Somewhat limited 15-30% slope: Very limited
68999	Esquatzel silt loam	0-5% slope: Prime farmland if irrigated	0-5% slope: Somewhat limited	0-8% slope: Not limited
69035	Kiona stony silt loam	15-45% slope: Not prime farmland	15-45% slope: Very limited	15-45% slope: Very limited
68929	Starbuck-rock outcrop complex	0-45% slope: Not prime farmland 45-60% slope: Not prime farmland	0-45% slope: Very limited	0-60% slope: Very limited

Preservation of productive agricultural land is a high priority in Yakima County. As a result, non-farm use of this resource should be kept to a minimum in areas not already experiencing high-density urban development, and where the combination of past trends and future population projections do not indicate a need for urban expansion in the near future. Farmland preservation is less of a priority in UGAs, which are meant to reserve an appropriate amount and type of serviceable land for urban development within a 20-year timeframe.

Wetlands

Wetlands provide a broad spectrum of natural and physical functions. Freshwater wetlands have flood storage capacity, serve as groundwater recharge areas, and tend to moderate flow regimes of associated drainages. Wetlands also work to remove suspended solids from water, absorb and recycle mineral and organic constituents, and otherwise contribute to improved water quality. Biological functions include food chain production, general habitat, nesting, spawning, rearing, and resting sites for aquatic and land species.

In the Selah CAO adopted in 2014 and updated in {insert year}, wetlands are rated according to the Washington State Department of Ecology wetland rating system found in the Washington State Wetland Rating System documents Washington State Wetland Rating System for Eastern Washington – Revised (Publication No. 04-06-015, Hruby, T., 2004) or as revised. These documents contain the definitions and methods for determining if the criteria below are met.

1. Category I.
 - a. Characteristics of Category I wetlands are as follows:
 - (i) Represent a unique or rare wetland type; or
 - (ii) Are more sensitive to disturbance than most wetlands; or
 - (iii) Are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; and
 - (iv) Provide a high level of function.
 - b. Category I wetlands are:
 - (i) Alkali wetlands; or
 - (ii) Wetlands that are identified by scientists of the Washington Natural Heritage Program/DNS as high quality wetlands; or
 - (iii) Bogs; or
 - (iv) Mature and old-growth forested wetlands over ¼ acre with slow-growing trees; or
 - (v) Forests with stands of aspen; and
 - (vi) Wetlands that perform many functions very well (scores of 70 points or more).
2. Category II.
 - a. Characteristics. These wetlands are difficult, though not impossible to replace, and provide high levels of some functions.
 - b. Category II wetlands are:
 - (i) Forested wetlands in the floodplains of rivers; or
 - (ii) Mature and old-growth forested wetlands over ¼ acre with fast-growing trees; or
 - (iii) Vernal pools; and
 - (iv) Wetlands that perform functions well (scores between 51 and 69 points)
3. Category III.

- a. Characteristics. Wetlands having a moderate level of function which do not satisfy Category I, II, or IV criteria.
 - b. Category III wetlands are:
 - (i) Vernal pools that are isolated; and
 - (ii) Wetlands with a moderate level of functions (scores between 30-50-points).
4. Category IV.
- a. Characteristics. These are wetlands with the lowest level of function but still provide functions that warrant protection. Often the low function is because they have been heavily disturbed. Replacement of these wetlands can sometimes provide improved function.
 - b. Category IV wetlands have a function score of less than 30.

Figure 2, page 15 illustrates wetland data for the Selah vicinity, which were mapped using the wetlands data set developed for the Yakima County Critical Areas Ordinance (CAO). The map includes information from the National Wetlands Inventory produced by the U.S. Fish and Wildlife Service and soil maps produced by the NRCS, which are useful in helping to identify potential wetland areas.

The wetland map is used as a guide for the City, project applicants and/or property owners, and may be continuously updated as wetlands are more accurately identified, located and delineated. Figure 2 illustrates the presence of Category 1 and 2 wetlands within the Selah City limits or unincorporated UGA, primarily along the City's southern and southeastern boundaries that border the Naches River and Yakima River. There is also a small Category 3 wetland identified inside the southwest portion of the City limits.

The Selah CAO provides standards and procedures for protection of wetlands.

Frequently Flooded Areas

Flooding is one of the most significant natural occurrences limiting development. Floodplains are legally delineated by the Federal Emergency Management Agency (FEMA) on Flood Insurance Rate Maps (FIRMs). A "regulatory floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. Communities must regulate development in these floodways to ensure that there are no increases in upstream flood elevations. "Special flood hazard areas," or floodplains, are high-risk flood areas that have special flood, mudflow, or flood-related erosion hazards.

Figure 3, page 16 illustrates Selah's flood hazard areas. As indicated by the Federal Emergency Management Agency FIRM, Community Panel No. 53077C0719D for the City of Selah (effective 11/18/2009), a Zone A floodway occurs within the northeastern portion of the City along the Yakima River and, to a lesser degree, within the southern portion of the City along the Naches River. FEMA defines Zone A floodway as "areas subject to inundation by the 1-percent-annual-chance flood event, generally determined using approximate methodologies." In other words, there is a 1% chance of these areas flooding annually. The 1-percent-annual-chance flood is also referred to as the base flood or 100-year flood.

Yakima County and the City of Selah regulate building in floodplain areas. These permits require all

development to be floodproofed. For residential development, the first inhabited floor must be one foot above the 100-year floodplain. In addition, the City of Selah and Yakima County also regulate shoreline management along the Yakima River.

Critical Aquifer Recharge Areas

Areas of growing concern are the critical aquifer recharge areas (CARA), which store and recharge critical groundwater supplies, and where groundwater stands the greatest risk of contamination. The GMA requires that cities and counties identify and protect “areas with a critical recharging effect on aquifers used for potable water.” Land uses and density of development in these areas can affect the quality of groundwater.

“Aquifers” are geologic materials that are able to store and transmit groundwater. In the lower Yakima Basin, aquifers are the main source of groundwater for residences using individual wells. The depth of wells using aquifers ranges from approximately 10 to 200 feet below ground surface.

Groundwater systems are replenished (recharged) by the addition of water to the aquifer through precipitation, runoff and infiltration from surface water bodies. A “recharge area” is an area in which water reaches an aquifer by surface infiltration, and where there is a downward component of hydraulic head (pressure head). “Recharge potential” is the likelihood that water will infiltrate and pass through the surface materials to recharge the underlying aquifer system. Recharge potential is dependent on a number of relatively static physical conditions, including soil permeability, geological materials at or near the Earth’s surface, depth to water, and topography.

Potential for groundwater contamination in these shallow aquifers is high, especially near ditches, canals and the Yakima River. Care must be taken to avoid contamination of groundwater when shallow wells are used in conjunction with septic tanks, as it is possible for septic effluent to seep into the well water supply. This condition typically occurs during peak irrigation periods in areas with high water tables.

In general, the aquifers in the Yakima River Basin are recharged by precipitation, infiltration of surface water, irrigation water, seepage losses from ditches, canals and rivers, and upward migration of water from lower aquifers. Groundwater discharges into rivers, lakes and streams, or through evapotranspiration, pumping, and upward flow of water into the shallower aquifers.

Figure 4, page 17 shows the CARA in the City of Selah UGA, with estimated areas of moderate, high and extreme susceptibility to contamination, in addition to wellhead protection areas. The CARA data was developed by Yakima County.

Geologically Hazardous Areas

Figure 5, page 18 shows geologically hazardous areas within the Selah UGA. Identified geologically hazardous areas in Selah and unincorporated UGA include Oversteepened Slopes, Landslide Risk, and Alluvial Fan/Flash Flooding, as defined below. These definitions are taken from the January 1991 “*Yakima County Mineral Resources and Geologic Hazards Report*” by Newell Campbell, who mapped geologic hazards for Yakima County. This identification of geologic hazards was not based on actual site inventories conducted in the study area, but on general published sources of information and maps;

therefore, these sites can only be considered potential geologic hazard areas.

- Landslide Hazard Areas (LS). These include places where landslides, debris flows, or slumps have already occurred. Where sliding is presumed to have occurred within ten thousand years or less is shown as High Risk (LS3) on the map. Slides thought to be older than ten thousand years but still capable of movement are shown as Intermediate Risk (LS2). Areas where slides are absent are unlabeled and combined with other Low Risk areas.
- Oversteepened Slope Hazard Areas (OS). These include areas with slopes steep enough to create potential problems. High Risk areas (OS3) have a high potential to fail, and include slopes greater than forty percent, and consist of areas of rock fall, creep, and places underlain with unstable materials. Intermediate Risk areas (OS2) are less likely to fail but are still potentially hazardous. This category also includes some slopes between fifteen and forty percent. Low Risk areas, unlikely to fail, are unlabeled and combined with other Low Risk categories.
- Alluvial Fan/Flash Flooding Hazard Areas (AF). These are areas where flash flooding can occur, and are often associated with inundation by debris from flooding. They include alluvial fans, canyons, gullies, and small streams where catastrophic flooding can occur. They do not include all areas where flash flooding may occur. Flooding may also occur in larger streams and rivers, but these are depicted in the “Flood Insurance Study for the Unincorporated Areas of Yakima County,” dated March 2, 1998, with accompanying flood insurance rate maps (FIRMs) and flood boundary and floodway maps, and any amendments which may thereafter be made by the Federal Emergency Management Agency, rather than on the geologically hazardous areas map.

Steep slopes can limit development. Topography of an area limits development when the slope becomes too steep to safely accommodate structures. Generally, areas with slopes exceeding 15% should be avoided to reduce the likelihood of property damage due to soil slippage or erosion. Designations of steep sloped areas were based upon data from the NRCS soil maps. Limitations to development in the Selah UGA are predominately in the northwestern and southern portions of the UGA. These areas contain high-risk slopes (see Figure 5, page 18).

Fish and Wildlife Habitat Conservation Areas

WAC 365-190-130 defines fish and wildlife habitat conservation areas as:

- Areas where endangered, threatened, and sensitive species have a primary association;
- Habitats and species of local importance, as 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 their 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.

“Fish and wildlife habitat conservation areas” does not include such artificial features or constructs as irrigation delivery systems, irrigation infrastructure, irrigation canals, or drainage ditches that lie within the boundaries of and are maintained by a port district or an irrigation district or company (RCW

36.70a.030).

The below inventory of flora, fauna, and habitats is used to identify fish and wildlife species and habitats that may require protection in Selah. The Selah CAO provides standards and procedures for protection of fish and wildlife habitat conservation areas.

Plants

The Selah area lies within the shrub-steppe region (“high desert”) of the Columbia Basin Province of the Pacific Northwest. The shrub-steppe region encompasses the basins in the rain shadow east of the Cascade Mountain range, and is characterized by sagebrush and bunch grasses. Farming practices such as cultivation, grazing of livestock, and introduction of exotic plant species have resulted in the alteration of the vegetation in the Selah area. The most arable lands are now under cultivation, and the less arable, formerly cultivated lands have been abandoned. In areas where arable lands lack sufficient moisture, irrigation has occurred through federal irrigation projects. Most of the remaining lands have been used for grazing by domestic and native livestock. Many of these lands have been overgrazed, resulting in environmental and soil degradation. Human-caused range fires have also contributed to the alteration of the shrub-steppe vegetation as invasive species have displaced native species after fire events.

The native vegetation found in the Selah area consists mainly of grasses, narrow-leaved forbs and shrubs. In addition to these plants, the following native vegetation may also be found as they are characteristic of the specific types of soils found within the City of Selah UGA.

- Grasses and Forbs: Basin wildrye grass, big bluegrass, bluebunch wheatgrass (*Agropyron spicatum*, a preferred forage plant), Carey balsamroot, needle and thread grass, Sandberg bluegrass (*Poa sandberii*) and Thurber needlegrass.
- Shrubs and Trees: Big sagebrush (*Artemesia tridentata*), Rabbitbrush (*Chrysothamnus nauseosus*), both of the latter plants are found in areas where overgrazing has occurred, and are considered to be less desirable forage plants. Trees include: willow (*Salix exigua spp. Exigua*), western sumac, red elderberry, hard hack spirea, and Russian olive (*Elaiagnus angustifolia*), with elm (*Ulmus sp.*), alder, or in some areas black cottonwood (*Populus trichocarpa*).

Emergent marsh vegetation within wetlands or on the banks of the Naches River and the Yakima River may also include the following:

- American bulrush, curly dock, canadian bull thistle, cattail (*Typha latifolia*), vield mustard, hardstem bulrush, jointed rushes, manna grass, marshelder (*Iva xanthifolia*), medic, orchard grass (*Dactylis glomerata*), Quackgrass (*Agropyron repens*), Reed canarygrass (*Phalaris arundiances*), sedges, smartweeds (*Polygonum spp.*), spikerush (*Eleocharis spp.*), tall fescue, watercress (*Rorripa nasturtium-aquaticum*), water foxtail, and willowweed.

The wetland vegetation provides habitat for food, cover, and breeding as well as a movement corridor for birds and mammals. Amphibians may find limited breeding sites within the streams and wetlands within the Selah UGA, though the runoff of agricultural chemicals may affect habitat quality.

(Discussion pending response from agency): Information on rare plants was requested from the Washington State Department of Natural Resources (DNR) Natural Heritage Program.

Wildlife

Bird species that may be present in the Selah area are those species common in grasslands and open areas. Species frequenting these areas include: the American kestrel; western meadowlark; mourning dove; ruffed grouse; black-billed magpie; common snipe; California quail; killdeer, starlings; western kingbird; Brewer’s blackbird; and ring-necked pheasant. Additionally, in the scrub/shrub habitat associated with the return flow ditches, yellow warblers and song sparrows can be found. Golden eagles, bald eagles, ferruginous hawks, and great blue herons have also been observed in the area.

Amphibians or reptiles may be present within the irrigation canals, supported on the food, cover, water, and marginal breeding habitat these areas provide. Small mammals such as mice and voles are abundant throughout the area. Ground squirrels may also occasionally be seen. Larger mammals make use of the canals and ditches, particularly the more vegetated edges, as a corridor leading to the more sheltered habitat found elsewhere. Signs of deer, coyote, and raccoons are found throughout the more rural portions of the area. Portions of the area are particularly valuable as a foraging area for raptors. Red-tailed hawks can be seen circling agricultural properties and other raptors including golden eagles may make use of the habitat.

Information was requested from the Washington State Department of Fish and Wildlife (WDFW) Priority Habitat and Species Program concerning species of concern in the Selah vicinity. Table 2 lists threatened, candidate, species of concern, and monitored species that were identified in the Selah UGA.

Table 2. Threatened, candidate, species of concern, and monitored species in the Selah UGA.

Species or Habitat	Status	Type of Occurrence Identified
Bald Eagle	Federal Species of Concern	Regular concentration in the Naches River floodplain
Ferruginous Hawk	State Threatened	Breeding area – nest
Golden Eagle	State Candidate	Breeding area – nest
Great Blue Heron	State Monitored	Breeding area – breeding occurrence; colony
Greater Sage Grouse	Federal Candidate; State Threatened	Biotic detection
Townsend’s Ground Squirrel	State Candidate	Regular concentration – colony

(Map pending response from agency): Species habitat mapping data was requested from WDFW to identify the approximate locations of sensitive habitats.

Fish

Fish have different habitat needs based in part on their life history stages. “Anadromous fish” are fish that are born in fresh water, spends most of their life in the sea, and then return to fresh water to spawn. Anadromous fish migrate and have unique needs throughout the aquatic system which may be frustrated by the presence of dams or other barriers, low stream flow, and high temperatures during times of passage. Resident fish have year round requirements as well as specific habitat needs during critical times such as spawning. Salmonids need colder temperatures than many non-game fish and require higher dissolved oxygen concentrations particularly over spawning gravels. Successful salmonid reproduction requires channel and substrate stability and adequate winter water flow to prevent freezing. Channels to accommodate fish moving between safe wintering areas and summer foraging areas are also necessary.

The WDFW maintains a database of the presence, spawning, and rearing locations of salmon species and other fish species of concern. Table 3 summarizes the salmon species, their location, and the type of presence identified by WDFW in the vicinity of the Selah UGA.

Table 3. Location and Presence of Fish Species of Concern, Selah UGA Vicinity

Species	Type of Presence	Water Body
Fall Chinook	Documented presence and spawning	Yakima River Naches River Cowiche Creek
Bull Trout	Documented presence	Yakima River Naches River
Coho	Documented presence	Yakima River Naches River
Coho	Documented spawning	Cowiche Creek
Summer Steelhead	Documented rearing	Yakima River
Summer Steelhead	Documented presence and spawning	Yakima River Naches River

Surface Water

The Yakima River Basin occupies approximately 6,150 square miles. Its headwaters are situated along the crest of the Cascade Range. The mainstream Yakima River is joined by a number of tributaries and flows generally southeast until it joins the Columbia River.

Streams are an important source of prime wildlife habitat. WAC 222-16-031 establishes an “interim”

water typing system to be used until a permanent typing system is established. Water typing is established based on the structure and function of waterways. Selah has no typed stream identified in the UGA. There are several canals and one unclassified stream occurring in Selah (See Figure 2, page 15).

The Yakima and Naches Rivers which border the Selah UGA are classified as Type 1 Streams and are designated as “Shorelines of the State,” falling under the purview of the Washington State Shoreline Management Act (SMA). In compliance with the SMA, the Yakima County Regional Shoreline Master Program (SMP) was adopted December 18, 2007 and effective on February 25, 2010.

Priority Habitats

Priority habitats, such as those that provide breeding, roosting, foraging, or migration opportunities have been identified and mapped by the WDFW Priority Habitat and Species program. All of the priority habitats identified in the Selah UGA are wetlands, which are discussed in the Wetlands section above.

Natural Resource Lands

The GMA requires cities and counties to designate natural resource lands, including agricultural, forest, and mineral lands that have long-term commercial significance, and are not characterized by urban growth. This section inventories resource lands in the Selah UGA.

Agricultural Lands

Agricultural lands were identified through the County Assessor’s database of existing land use. There are 16 agricultural parcels (either fallow or in current agricultural use) totaling approximately 650 acres in the Selah City limits (Figure 1, page 14). Most of this agricultural land is located in the southern end of the City limits, and much of it is characterized by the Starbuck-rock outcrop complex soil and Kiona stony silt loam soil types, which are not considered prime farmland. For the most part, they are also near or adjacent to residential, commercial, light industrial/manufacturing, and other urban development. They are also near various types of infrastructure, including water and sewer lines, and/or have access to I-82 and the Burlington Northern Santa Fe Railroad line.

Existing agricultural lands in the Selah UGA are allowed to continue and have some protections. However, for the reasons stated as follows, the City has determined that it is not appropriate to designate these parcels of land as agricultural lands of long-term commercial significance.

- 1) A majority of the City’s area is already built-up; and
- 2) These parcels are near the built-up area, are zoned for a more intensive land use, or are near infrastructure with the capacity to serve additional growth on these parcels. These parcels represent the next logical areas for residential, commercial, or light industrial/manufacturing urban growth; and
- 3) These parcels are within the City limits and as such are part of the UGA. State law does not allow agricultural lands within a UGA to be designated as “agricultural lands of long-term commercial significance,” unless the governing jurisdiction already has in place a program for purchase or transfer of development rights.

Forest Lands

In the City of Selah, there are no lands (commercial or noncommercial) that are used to grow trees, including Christmas trees subject to the state excise tax that is imposed on harvesters of timber. Thus, no forest lands of long-term commercial significance have been designated within the City.

Mineral Lands

Mineral resources are the only identified natural economic resource within the Selah UGA. This resource is primarily found in the form of gravel deposits. Concrete grade gravel is found along the floodplain of the Yakima River. This type of gravel is round, clean and free from fractures and surface coatings. The gravel in the Selah UGA is good to fair concrete-grade gravel.

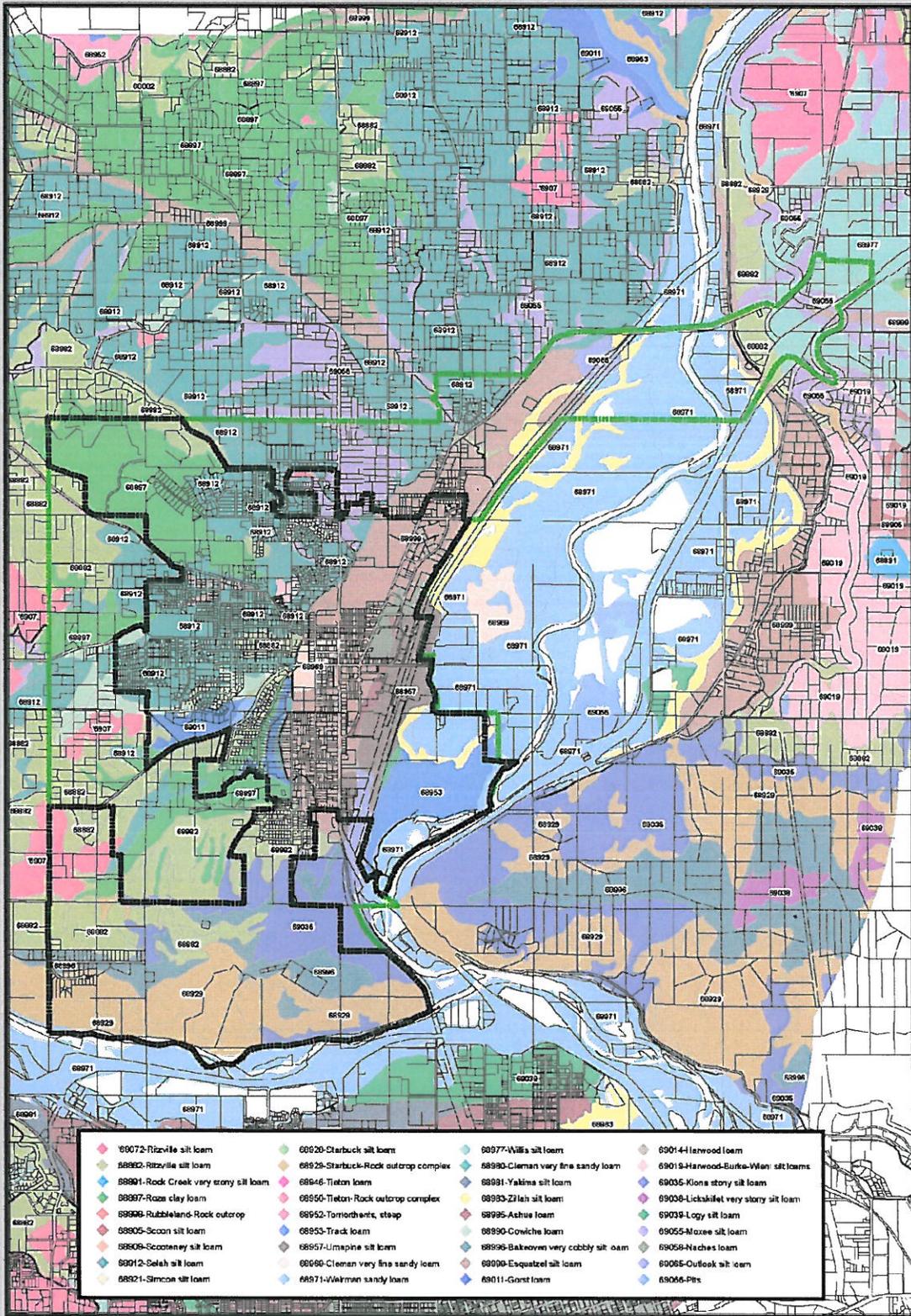
No mineral resource lands of long-term commercial significance have been identified within the City of Selah; therefore, no designation is necessary.

One existing mineral resource site is located adjacent to the southeast side of the UGA (see Figure 5, page 18). The 500-foot buffer on this site falls within the City limits and the unincorporated UGA. According to 36.70A.060 of the GMA, counties and cities must require that all plats, short plats, development permits, and building permits issued for development activities on, or within 500 feet of, lands designated as mineral resource lands contain a notice that the subject property is within or near the mineral resource lands, on which a variety of commercial activities may occur that are not compatible with residential development for certain periods of limited duration. The notice for mineral resource lands must also inform that an application might be made for mining-related activities, including mining, extraction, washing, crushing, stockpiling, blasting, transporting, and recycling of minerals. Responsibility for enforcement of this provision for the portion of the 500-foot buffer falling within the City falls to Selah, while the portion falling within the unincorporated UGA is the responsibility of the County. If Selah annexes additional land that falls in the buffer in the future, the City will be required to adopt and enforce this provision.

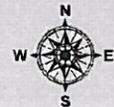
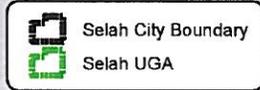
(Or near or within)

City of Selah, WA Soils

Figure 1. Major Soils Types, Selah UGA



Yakima Valley Conference of Governments
311 North 4th Street SUITE 204
Yakima, WA 98901
October 2015



City of Selah, WA Waterways and Wetlands

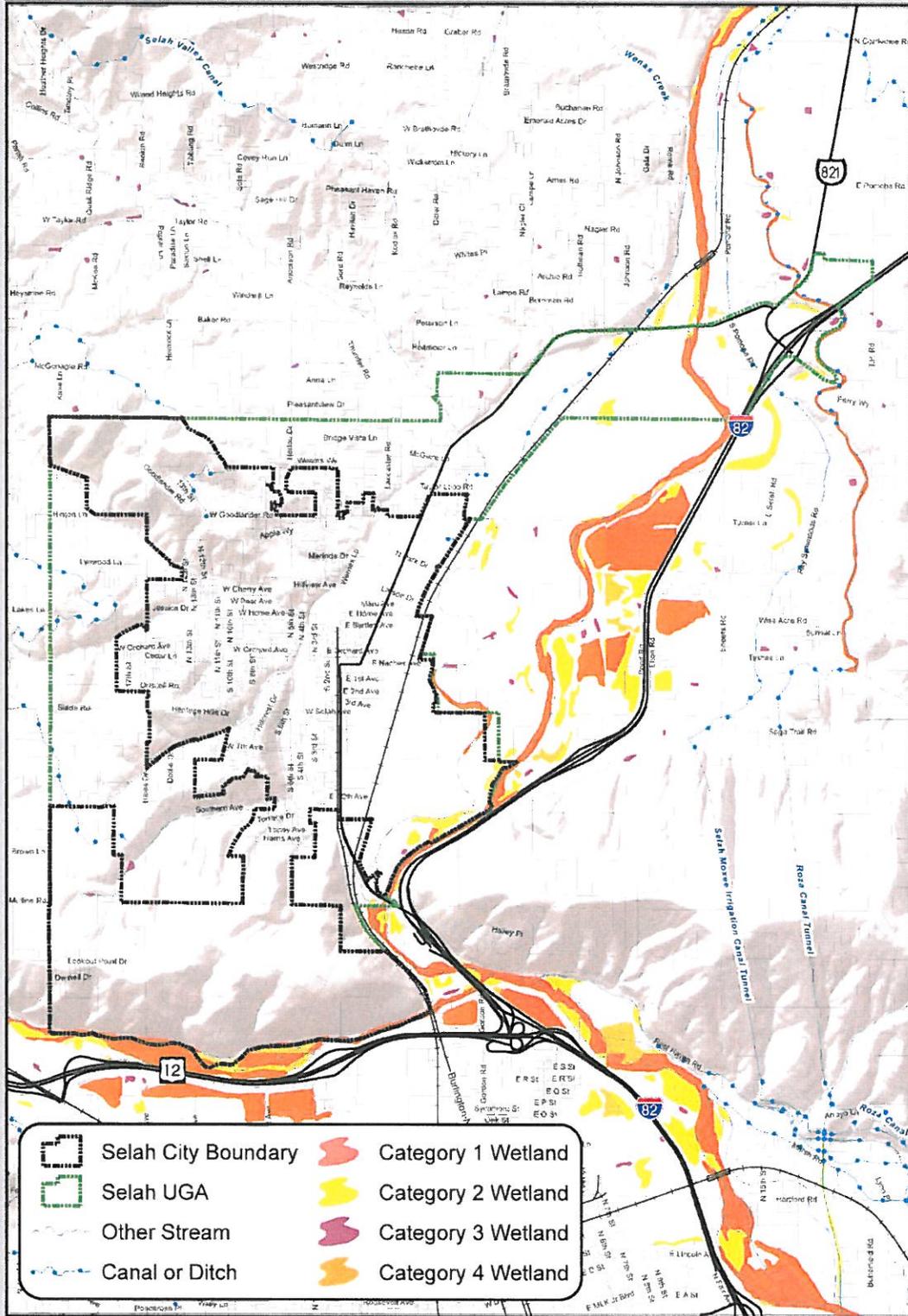
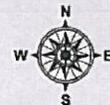


Figure 2. Wetlands and Waterways, Selah UGA



**City of Selah, WA
Flood Hazard (FEMA DATA)**

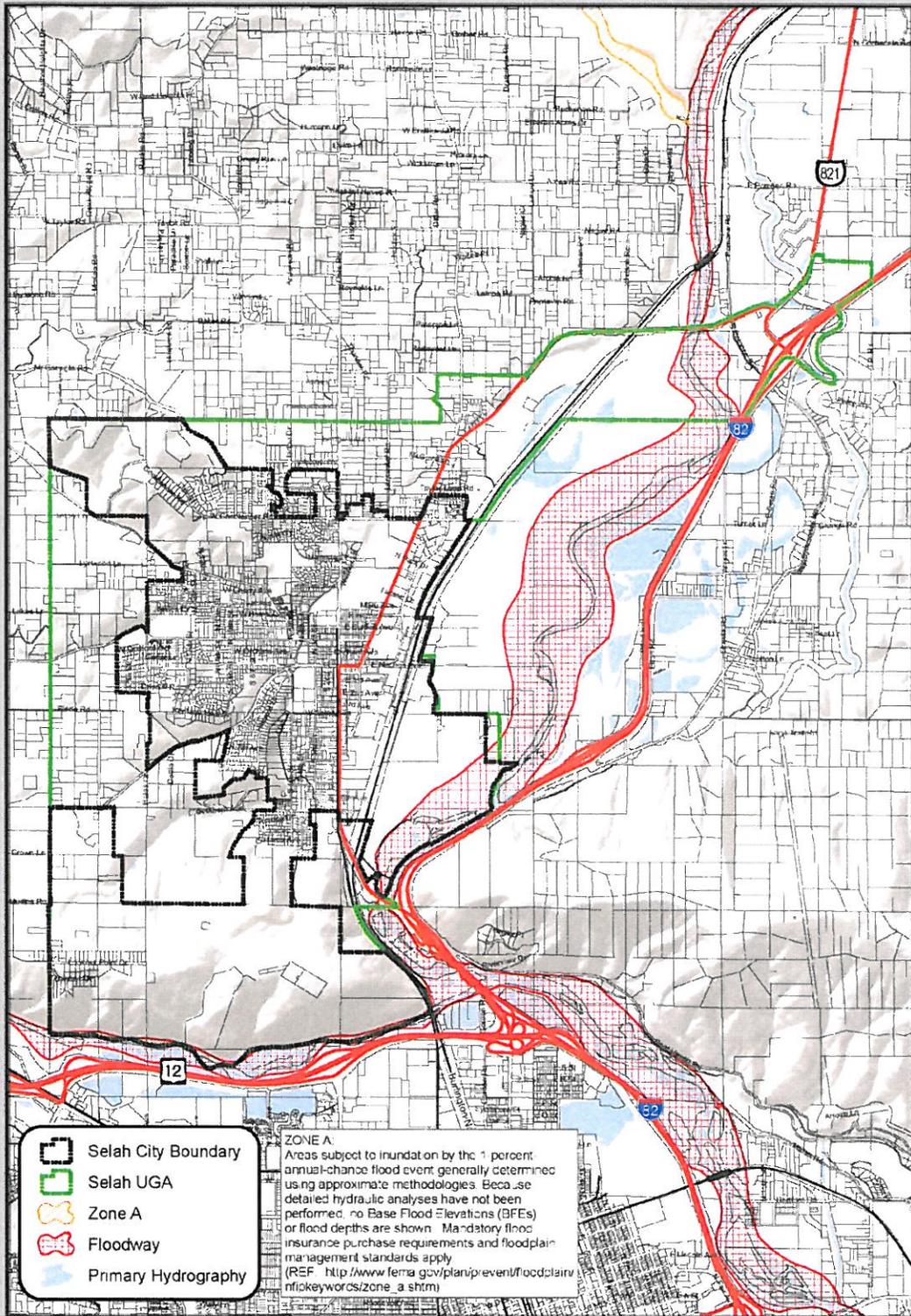
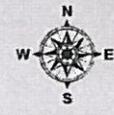


Figure 3. Flood Hazard Areas, Selah UGA



City of Selah, WA Aquifer Recharge Area Contamination Susceptibility

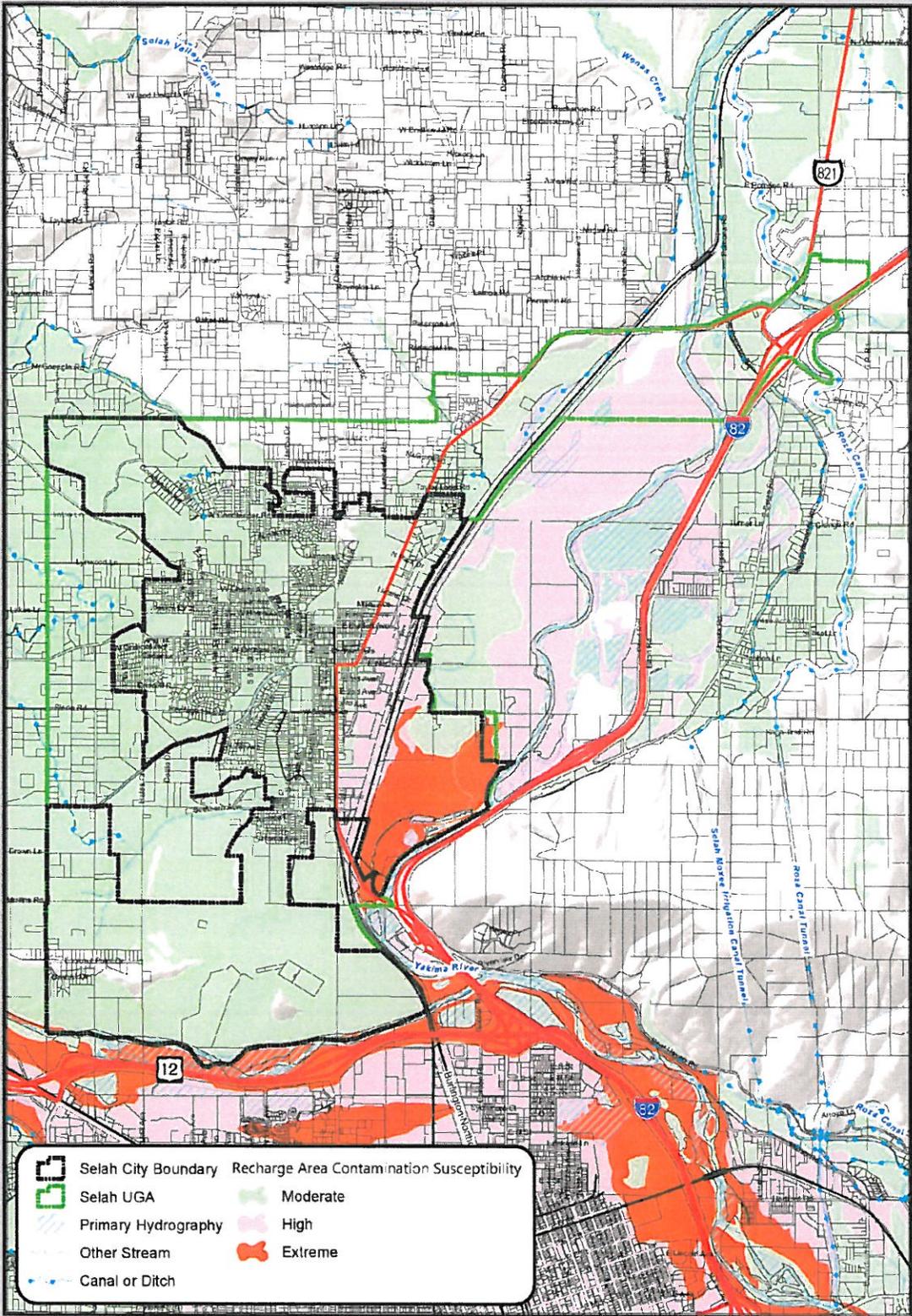


Figure 4. Critical Aquifer Recharge Areas, Selah UGA



City of Selah, WA Geologic Hazards and Mineral Resources

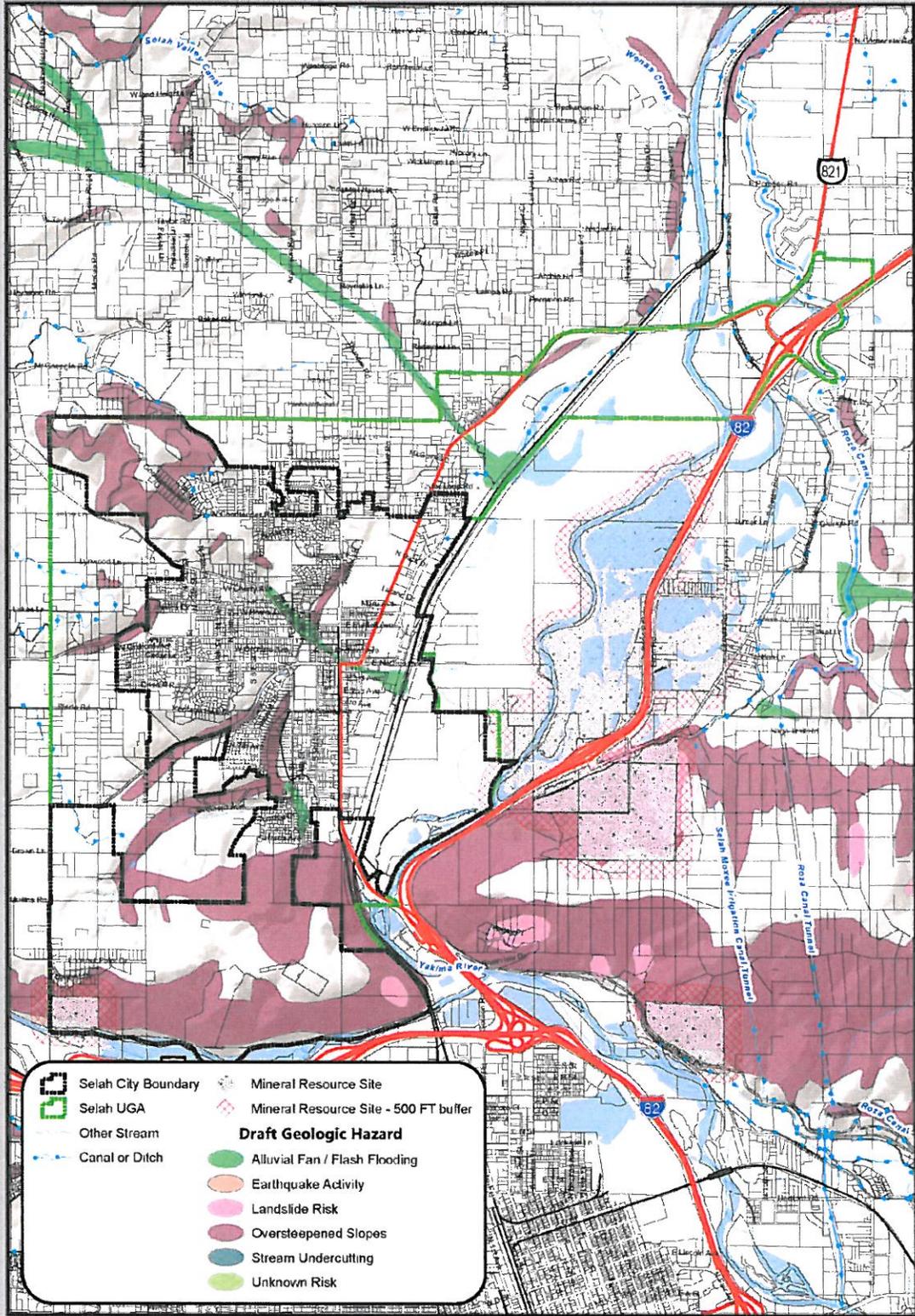


Figure 5. Geologically Hazardous Areas and Mineral Resource Areas, Selah UGA



City of Selah, WA Agricultural Resource Lands

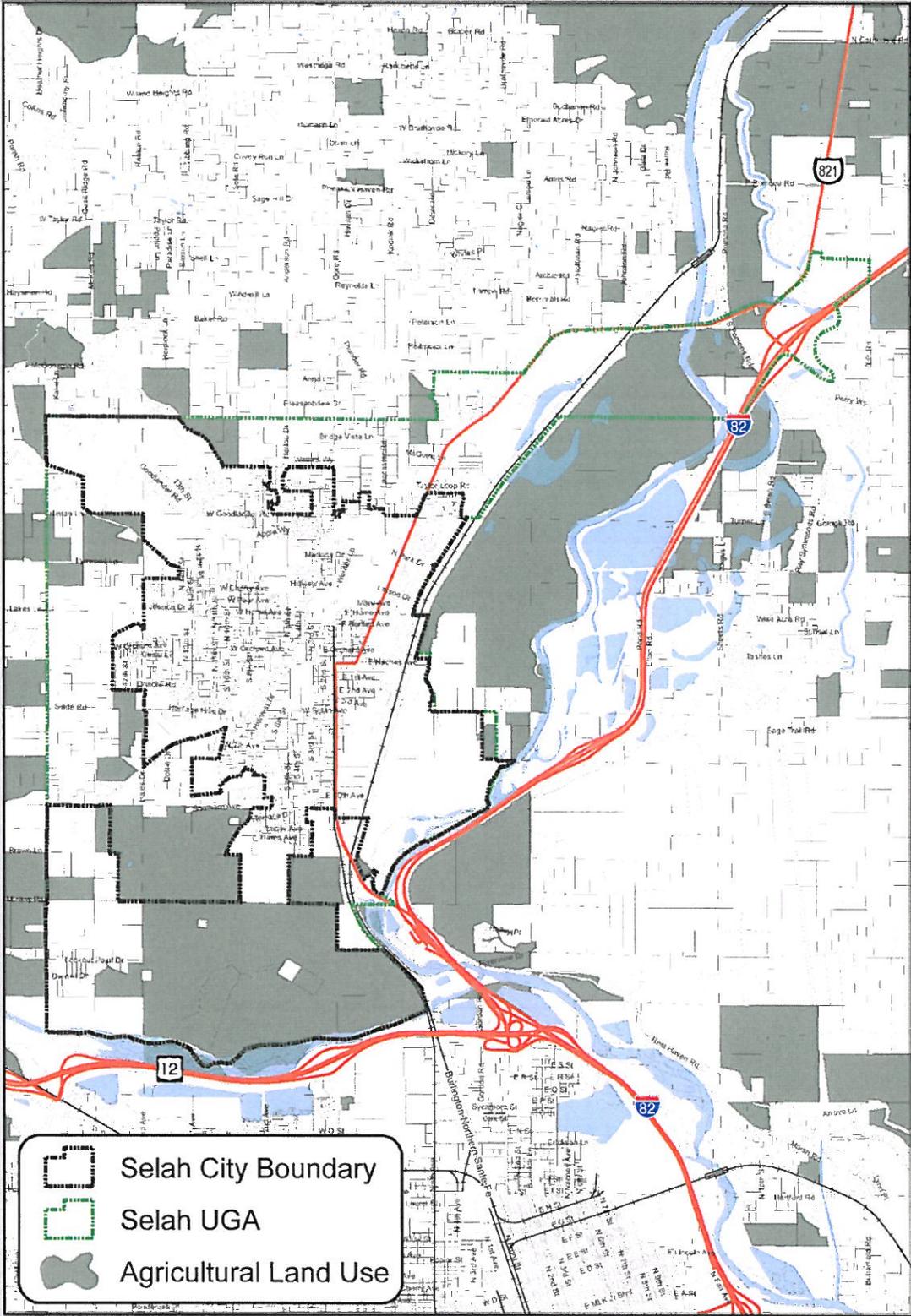


Figure 6. Agricultural Lands, Selah UGA



EXISTING GOALS AND POLICIES

The City of Selah recognizes the value of the large expanse of floodplain bordering the City. The floodplain is an important habitat and wetland area, location of scenic value, floodwater storage area, and plays an important water quality role in the Valley. As a result of its importance to the region, the floodplain should be protected from incompatible encroachment.

The City of Selah also recognizes the importance of working cooperatively with adjoining local governments and agencies in protecting valuable natural resources. Many of the policies below parallel Yakima County policies and support regional consistency in future development of critical area regulations as required by GMA.

GOAL: Respect the floodplain.

Objective ENV 1: Respect habitat and wetland areas within the 100-year floodplain.

Policy ENV 1.1: Map important habitat and wetland areas within the 100-year floodplain.

Policy ENV 1.2: Adopt wildlife and wetland habitat overlay zones within the zoning ordinance.

Policy ENV 1.3: Require appropriate studies for projects in the 100-year floodplain, as identified on Federal Emergency Management Agency (FEMA) flood maps.

Policy ENV 1.4: Only developments which respect the floodplain and meet appropriate local, state and federal requirements will be allowed in the 100-year floodplain.

GOAL: Preserve the natural stormwater storage capacity of the floodplain.

Objective ENV 2: Adopt land use policies that reduce or eliminate negative impacts of development on stormwater drainage capacities and systems.

Policy ENV 2.1: Encourage the retention of native vegetation or the creation of vegetative buffers near drainage courses to preserve water quality, and to aid in bio-filtration of stormwater.

Policy ENV 2.2: Minimize adverse stormwater impacts generated by the removal of vegetation and alteration of landforms.

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Policy ENV 2.3: Require the utilization of on-site detention and/or infiltration facilities as a part of new developments which demonstrate the capacity to accommodate such facilities and/or would significantly burden the City's stormwater infrastructure facilities if not utilized.

Policy ENV 2.4: Insure that new development will not increase peak stormwater runoff.

Policy ENV 2.5: Control stormwater in a manner that has positive or neutral impacts on the quality of surface and groundwater and does not sacrifice one for the other.

GOAL: Promote and enhance surface and groundwater quality.

Objective ENV 3: Maintain and manage the quality of surface and groundwater resources as near as possible to their natural

condition and in compliance with state water quality standards.

Policy ENV 3.1: Develop performance standards and regulate uses for activities which adversely impact water quantity and quality in aquifers, watersheds and surface waters.

Policy ENV 3.2: Evaluate the potential impact of development proposals on groundwater quality, and require alternative site designs to reduce contaminant loading where site conditions indicate that the proposed action will measurably degrade groundwater quality.

Policy ENV 3.3: Encourage the retention of natural open spaces in development proposals overlying areas highly susceptible for contaminating groundwater resources.

Policy ENV 3.4: Support regional educational efforts which inform citizens of measures they can take to reduce contaminant loading of groundwater systems.

Policy ENV 3.5: Protect water quality from the adverse impacts associated with erosion and sedimentation.

Policy ENV 3.6: Encourage the use of drainage, erosion, and sediment control practices for all construction or development activities.

Policy ENV 3.7: Make use of local and regional data sources to monitor and assess surface and groundwater quality.

Policy ENV 3.8: Participate in water quality improvement planning and implementation efforts by local, regional, state, federal and tribal agencies.

GOAL: Provide appropriate protection for recognized habitat and critical areas.

Objective ENV 4: Establish specific, science-based criteria for identification and protection of environmentally sensitive resources.

Policy ENV 4.1: Monitor designated environmental critical areas to ensure continue viability and protection.

Policy ENV 4.2: Integrate environmental considerations into all planning efforts and comply with all state and federally mandated environmental legislation.

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Policy ENV 4.3: Support regional efforts for the protection of fish and wildlife habitat consistent with science-based criteria to protect the natural values and functions of those habitats. Fish and wildlife habitat protection considerations should include:

1. The physical and hydrological connections between different habitat types to prevent isolation of those habitats;
2. Diversity of habitat types both on a local and regional scale;
3. Large tracts of fish and wildlife habitat;
4. Areas of high species diversity;
5. Locally or regionally unique or rare habitats;

6. Winter range and migratory bird habitat of seasonal importance.

Policy ENV 4.4: Direct development away from area containing significant fish and wildlife habitat areas, especially areas that are currently undeveloped or are primarily dominated by low intensity land uses.

Policy ENV 4.5: Limit development projects or require mitigation measures in areas adjacent to public lands containing significant fish and wildlife habitat.

Policy ENV 4.6: Protect the habitat of *Washington State Listed Species of Concern and Priority Habitats and Species* in order to maintain their populations.

Policy ENV 4.7: Cooperate with resource agencies to prioritize habitats and provide appropriate measures to protect them according to their respective values.

Objective ENV 5: Provide for long-term protection of wetlands.

Policy ENV 5.1: Preserve, protect, manage and regulate wetlands for purposes of public health, safety and general welfare by:

1. Conserving fish, wildlife, and other natural resources;
2. Regulating property use and development to maintain the natural and economic benefits provided by wetlands, consistent with the general welfare of the City;
3. Protecting private property rights consistent with the public interest;
4. Requiring wetland buffers and building setbacks around regulated wetlands to preserve vital wetland functions and values.

Policy ENV 5.2: Adopt a clear definition of a regulated wetland and a method for delineating regulated wetland boundaries.

Policy ENV 5.3: Manage and mitigate human activities or actions that would have a probable adverse impact on the existing conditions or regulated wetlands or their buffers.

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Policy ENV 5.4: Require mitigation for any regulated activity which alters regulated wetlands and their buffers.

PROPOSED GOALS AND POLICIES

Goal 1: *Manage development according to the severity of natural constraints in order to reduce risks and minimize damage to life and property.*

Policy 1.1 The City will continue to amend and adopt land development regulations which ensure the protection of the attributes, functions and amenities of the natural environment under all projected growth scenarios.

- Policy 1.2 Support the preservation and enhancement of natural resource lands and support occupations associated with agriculture, farming and tourism within agricultural areas adjacent to the City and its UGA.
- Policy 1.3 Support the protection of agricultural and other resource lands within the Selah area from incompatible development, keeping them available for recreational use and economic purposes.
- Policy 1.4 Encourage new developments to locate in areas that are relatively free of environmental problems relating to soil, slope, bedrock, and the water table. Proposed developments should be reviewed by the appropriate City staff or consultants to identify site-specific environmental problems.
- Policy 1.5 Development shall take adequate measures to minimize significant erosion and flash flooding conditions by:
- 1) Limiting the total amount of impervious surface to be created;
 - 2) Planting sufficient vegetation to offset the effects of the impervious surfaces created; and/or
 - 3) Providing sufficient drainage facilities to control storm runoff.

Goal 2: *Maintain high ground water quality.*

- Policy 2.1 Coordinate with Yakima County to limit development outside the projected service area to a density where cumulative groundwater degradation for Selah area residents will be prevented.
- 1) Ensure that lot sizes in areas lacking public sewer service are large enough to accommodate individual septic systems without cumulative degradation of water quality by continuing Yakima County Health District's requirement of on-site tests as a prerequisite for building permits; and
 - 2) Require development to include provisions which ensure that increased runoff from impervious surfaces does not damage the natural drainage system or deteriorate water quality.
- Policy 2.2 Conduct and support educational efforts which inform citizens of measures they can take to reduce contaminant loading of groundwater systems.
- Policy 2.3 The City shall consider the impacts of new development on water quality as part of its review process and will require any appropriate mitigating measures.
- Policy 2.4 Ensure that abandoned wells are closed properly.

Goal 3: **Protect surface waters from degradation.**

- Policy 3.1 Identify those natural conditions, land uses and practices that together could result in loss of water quality if not properly managed.
- Policy 3.2 Evaluate the measures that are already in place to prevent degradation, and determine the best, cost effective means for protecting surface water from identified threats to water quality.
- Policy 3.3 Adequate on-site disposal of surface water runoff shall be provided by all types of development.
- Policy 3.4 Support efforts to encourage improved farming practices which will minimize runoff from farmlands and subsequent degradation of surface water by fertilizers, insecticides, sedimentation, etc.
- 1) Coordinate with the existing conservation districts and support their planning and implementation effort by:
 - a) Supporting long-range planning efforts which address conservation in a variety of different areas; and
 - b) Implementing appropriate methods and techniques for conservation and
 - c) Using the Yakima County Extension Service, the Natural Resources and Conservation Service, the Bureau of Reclamation, etc., for more information on related subjects.
- Policy 3.5 Review available best management practices which can be used to reduce erosion and sedimentation associated with development within Selah. Investigate the need for additional erosion control measures for construction projects.
- Policy 3.6 Maintain local control over water quality planning by: 1) providing guidance to state and federal agencies regarding water quality issues, priorities and needs; and 2) demonstrating progress in accomplishing the goals and objectives of locally developed water quality plans, thereby pre-empting externally-imposed solutions to water quality problems as much as possible.
- Policy 3.7 Encourage the implementation of best management practices through information dissemination and cooperation.
- Policy 3.8 Investigate the need for additional measures to control storm drainage and improve the storm drainage system.
- Policy 3.9 Work cooperatively with other jurisdictions and agencies to educate the public on the proper use and disposal of stored chemicals and hazardous materials.
- Policy 3.10 Maintain commercially viable farmland in agricultural production.
- Policy 4.11 Discourage urban density development on productive agricultural lands outside of areas needed for future growth and development.

Goal 4: *Establish critical areas protection measures to protect environmentally sensitive areas, and protect people and property from hazards.*

Policy 4.1: Use the best available science in a reasonable manner to develop regulations to protect the functions and values of critical areas. (WAC 365-195-900)

Policy 4.2: Ensure proposed subdivisions, other development, and associated infrastructure are designed at a density, level of site coverage, and occupancy to preserve the structure, values and functions of the natural environment or to safeguard the public from hazards to health and safety.