Thurston County Board Briefing

Briefing Dates: **Wednesday February 22, 2012 9:00 to 10:00 AM**

Thursday March 1, 2012 2:00 to 3:00 PM

Office/Dept. & Staff Contact: **Planning Department**

Scott Clark ext. 3005

Olivia Story ext. 5477

Subject: **GMHB Compliance Order – Mineral Lands**

Purpose (check one):

- ☑ Information only
- ☐ Decision needed
- ☑ Follow up from previous briefing

Overview of Surrounding Issues:

1. Background Summary:

On September 7, 2010, the Board of County Commissioners amended the County's criteria for designating mineral lands of long-term commercial significance by adopting Resolution No. 14401 and Ordinance No. 14402. The adoption followed significant research and analysis by stakeholder committees, the Planning Commission, and the Board of County Commissioners.

Resolution No. 14401 amended the designation criteria in the Comprehensive Plan for designating mineral lands of long term commercial significance. Ordinance No. 14402 amended the associated Thurston County Code designation criteria. Ordinance No. 14402 also prohibited mineral extraction outside of sites designated as mineral lands of long term commercial significance. Designating new mineral lands of long term commercial significance now requires a comprehensive plan amendment.

The above resolution and ordinance were the culmination of a process that began in October of 2003 when the Board of County Commissioners (Board) approved Ordinance No. 13030 which enacted a moratorium on new mineral lands designations, mineral extraction or their accessory uses on sites outside of already designated mineral lands of long term commercial significance, and new asphalt plants (except in the Rural Resource Industrial zoning district). The Board has renewed and/or amended the moratorium numerous times between the initial adoption and the present. The moratorium was last renewed on February 14, 2012 for six months.

A mineral lands task force met from January through June 2004. Their final recommendations report was reviewed by the Planning Commission several times during their review process of the amendments adopted by Resolution No. 14401 and Ordinance No. 14402.

On November 23, 2010, mineral lands interest groups filed a challenge to the County's adoption of Resolution No. 14401 and Ordinance No. 14402 with the Growth Management Hearings Board (GMHB). The mineral lands designation criteria were not invalidated by the GMHB, however, the county was found out of compliance on several issues:

- Prohibition against mining in designated forest lands.
- Prohibition against mining in designated forest lands; particularly the prohibition against expansion of state's primary jetty rock quarries.
- Making designation contingent upon issuance of a reclamation permit from DNR.
- Excluding lands with or near critical areas from potential designation.
- Exclusionary criteria based on the presence of critical areas without regard to BAS.

The seven compliance issues were thoroughly reviewed by the Thurston County Planning Commission during several work sessions through 2011 and January of 2012. The Planning Commission held a public hearing on February 8, 2012. Staff received five (5) public comment letters. All were generally in support of the draft ordinance; a few with some wording suggestions. After the hearing, the Planning Commission went into a work session, considered the merits of the Best Available Science and other information provided by staff and the public during the work sessions, and made its recommendation accordingly.

In a vote of seven (7) for, and zero (0) against, the Planning Commission recommended the amendment to the Chapter 3 Natural Resources in the Thurston County Comprehensive Plan and Chapter 20.30B.030 of the Thurston County Code to change the mineral lands designation requirements. A copy of the planning commission's recommended draft amendments with staff comments are located in Attachment A. The Planning Commission letter of recommendation is located in Attachment B. A staff report with an analysis of other policies in the comprehensive plan, county-wide planning policies, best available science, growth management act requirements, and the guidance in applicable sections of the Washington Administrative Code is located in Attachment C.

2. GMA Requirements Summary:

The Growth Management Act (GMA), Chapter 36.70A Revised Code of Washington (RCW), requires Thurston County to designate resource uses (mineral, forest, and agricultural lands not already characterized by urban growth), as well as protect critical areas (RCW 36.70A.170). These can sometimes be competing requirements of the GMA, but all need conservation and protection from incompatible development by the county through its regulations and preservation activities.

The GMA does not list resource lands/critical areas in any order of priority; nor does it present them as mutually exclusive designations. More analysis is available in the attached staff report.

3. GMA Goals Summary:

In addition, the GMA requires county amendments to be guided by the goals of the GMA. GMA goals are found in RCW 36.70A.020 and 36.70A.480. The most pertinent goals to the present discussion are (8) Natural Resources, (9) Open space and recreation, (10) Environment, and (14) Shorelines. These goals are not listed in any priority, and should be given equal weight in analysis and discussion.

8. *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.

9. *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.

10. *Environment.* Protect the environment and enhance the state's high quality of life, including air and water quality, and the availability of water.

14. *Shorelines.* Manage shorelines wisely according to the goals in the Shorelines Management Act (RCW 36.70A.480).

More analysis of the GMA goals and how they pertain to the present issue is available in the attached staff report.

4. Washington Administrative Code (WAC):

RCW 36.70A.170 requires that the minimum guidelines in WAC 365-190 be "considered.". WAC 365-190-070 states the following:

(1) In designating mineral resource lands, counties and cities must approach the effort as a county-wide or regional process, with the exception of owner-initiated requests for designation. Counties and cities should not review mineral resource lands designations solely on a parcel-by-parcel basis.

(2) Counties and cities must identify and classify mineral resource lands from which the extraction of minerals occurs or can be anticipated. Counties and cities may consider the need for a longer planning period specifically to address mineral resource lands, based on the need to assure availability of minerals for future uses, and to not inadvertently preclude access to available mineral resources due to incompatible development. Other proposed land uses within these areas may require special attention to ensure future supply of aggregate and mineral resource material, while maintaining a balance of land uses.

The Planning Commission had a substantial discussion about the minimum guidelines within the WACs during their deliberations on their final recommendation to the Board, and again during their work sessions on the proposed amendments to the Critical Areas Ordinance. Past review of the WACs also took place in 2005 during previous deliberations on mineral lands designation criteria.

In general, co-designation does not mean a critical area may be mined, as this would be contrary to the mandate by the GMA that the county protect critical areas, and would be contrary to the accompanying WAC for the designation of critical areas. Further analysis of the applicable WACs is available in the attached staff report.

5. Required Regulations:

RCW 36.70A.060 requires the county to adopt regulations for the conservation of resource lands and for the protection of critical areas. As with other sections of the GMA, the county must designate resource lands and protect critical areas both, and neither is given priority over the other. Where the GMA does not give a specific priority, it is then up to the local jurisdiction to make a balanced decision based on the GMA, associated WAC, and local circumstances that accomplishes both. This takes place when GMA mandates are completed. More analysis is available in the attached staff report.

6. Critical Areas Regulations Summary:

Under the GMA, critical areas that must be designated include wetlands, fish and wildlife habitat conservation areas, frequently flooded areas, critical aquifer recharge areas, and geologically hazardous areas (RCW 36.70A.030). In the classification and designation of critical areas, the GMA requires Thurston County to substantively consider best available science (BAS) in developing policies and development regulations to protect the structure, value and functions of critical areas (RCW 36.70A.172). Based on previous case law, the Growth Management Hearings Board generally will

apply three factors to determine if the Thurston County CAO is based on BAS:

1. If Thurston County's decision is within the parameters of the Growth Management Act, including its goals, as directed by RCW 36.70A.172(1) on the designation of critical areas.
2. The evidence provided in the record, including scientific analysis and documentation.
3. Whether Thurston County's analysis of the evidence provided in the record, including scientific analysis and documentation, involved a reasoned process.

More analysis, a description of how critical areas are regulated in Thurston County, and the rules for BAS are in the attached staff report.

7. County-Wide Planning Policies:

The Thurston County County-Wide Planning Policies provide guidance on urban growth areas, orderly urban development and provision of urban services, joint planning, transportation, housing, economic development and environmental quality. The policies generally call for environmentally sound development policies and expansions of urban growth areas. Section IX of the County-Wide Planning Policies specifically covers environmental quality including critical areas regulation and natural resource lands preservation. Two other sections also include applicable policies.

8. Thurston County Comprehensive Plan:

The Thurston County Comprehensive Plan provides guidance for development regulations, capital facilities planning, land use permitting, related plans, inter-local agreements, and other various county programs. The Comprehensive Plan also includes the joint plans adopted for the unincorporated urban growth areas as well as other specialized plans and sub-area plans.

Chapter 3 Natural Resources, includes both the designation criteria and policies for mineral extraction, as well as for agricultural and forest lands. At issue in the current matter is the designation criteria, which are covered elsewhere in this report. Policies for mineral extraction are located under Goal 7, which states "Mineral resource lands of long-term commercial significance should be allowed to be used by extraction industries, with minimal harm to the environment."

9. Draft Amendments:

The following sections provide a summary of the Planning Commission recommended changes to the Comprehensive Plan, Chapter 3 Natural Resources, Mineral Resources, Minimum Designation Criteria and to Chapter 20.30B Mineral Lands. A complete bill format (strike though and underline) version of the

recommended changes is located in Attachment A. More analysis of each subject is available in the attached staff report.

11. Requirement for a Department of Natural Resources Permit

At issue is the requirement for a reclamation permit from the DNR prior to designation of a site as mineral lands of long-term commercial significance. This subsection was not amended in 2010, and was intended to be used with the previous system of mine permitting and mineral lands designation. Previously, the hearing examiner conditionally approved a special use permit and designation at the same time. Currently, a comprehensive plan amendment designating property as mineral lands of long-term commercial significance is required prior to approval of a special use permit.

Since designation now occurs prior to permitting instead of concurrent with permitting, staff is recommending that:

- Subsection 20.30B.030(1)(d) TCC be deleted as it is no longer necessary.

Planning Commission Recommendation:

Title 20, Subsection 20.30B.030(1)(d) TCC

~~d. The mineral extraction site must have a special use permit if required by Chapter 20.54 unless otherwise specified in Section 20.30B.035. Designation approval shall be contingent upon issuance of reclamation permit from the Washington State Department of Natural Resources.~~

12. Proposed Text Change for Co-Designation of Forest Lands and Mineral Lands

In August of 2011, the Planning Commission selected to allow the designation of mineral resource lands in designated forest lands, thus making the County's rules consistent with the state's guidance on co-designation.

Planning Commission Recommendation:

Title 20, Subsection 20.30B.030(1)(f) TCC

~~f. Mineral resource lands may not include lands designated for long-term forestry.~~

In the Comprehensive Plan, Chapter 3:

~~9. Mineral resource lands may not include lands designated for long-term forestry.~~

13. Critical Aquifer Recharge Areas:

The effects on water quality and quantity due to the designation of the land as a mineral land of long term commercial significance will not in and of itself pose as a direct risk. However, aggregate mining

increases the risk of pathogenic contamination to groundwater. Regulated activities that accompany aggregate mining also generate spills of hazardous materials that pose significant risk to groundwater and in many cases go unreported. The long-term effects of these hazardous material spills are an area of study where data is lacking. A majority of the region's drinking water sources are wellheads located in CARA I designated areas. The contamination of these sources for even a short period of time in a region reliant on groundwater creates substantial public health and economic risk. Therefore, the designation of Mineral Lands of Long Term Commercial Significance within the 1- and 5-year time of travel of municipal wellhead protection areas should be avoided. More information is provided in the staff report attached to the briefing.

Planning Commission Recommendation:

Title 20, Subsection 20.30B.030(1)(i) TCC

i. Mineral resource lands shall not be designated within the Zone 1 (one-year) or Zone 2 (five-year) Horizontal Time of Travel boundaries for any Group A Public Water System~~include delineated wellhead protection areas CARA I~~

And in the Comprehensive Plan, Chapter 3:

5. Mineral resource lands shall not be designated within the Zone 1 (one-year) or Zone 2 (five-year) Horizontal Time of Travel boundaries for any Group A Public Water System~~include delineated wellhead protection areas CARA.~~

14. Fish and Wildlife Habitat Conservation Areas:

Best available science indicates that fish and wildlife habitat conservation areas are irreversibly affected by mining. The designation of Mineral Lands of Long Term Commercial Significance where federal or state studies have mapped conservation habitat with either threatened or endangered species is incompatible with Federal and State conservation policies. Where the range of habitat is in question as is the case with prairie and Oregon white oak woodlands, it is not feasible to exclude the designation of Mineral Lands of Long Term Commercial Significance. Rather the conservation areas would be addressed at the time of permitting when details of the proposal are available and site-specific analyses can be prepared. The delineation of these areas at the time of designation can be more difficult due to the different types of habitat and natural changes over time. The intent of designation of a mineral land is to locate and preserve potential mineral resources, not to outline where the applicant intends to mine. Protection of fish and wildlife habitat conservation areas will still be a high priority at the time of a permit application. Protection measures for these areas will be better evaluated at the permitting stage and the permit will be required to meet the Critical Areas Ordinance in effect at that time. More

information is located in the staff report attached to the briefing.

Planning Commission Recommendation:

Title 20, Subsection 20.30B.030(1)(i) TCC

iv. Mineral resource lands shall not include ~~important habitats and species areas~~ habitats of primary association to species listed as endangered or threatened under the Endangered Species Act or state law and their buffers as established by the Critical Areas Ordinance at the time of designation.

And in the Comprehensive Plan, Chapter 3:

6. Mineral resource lands shall not include ~~important habitats and species areas~~ habitats of primary association to species listed as endangered or threatened under the Endangered Species Act or state law and their buffers as established by the Critical Areas Ordinance at the time of designation.

15. Frequently Flooded Areas:

Surface mining in the 100-year floodplain negatively impacts important hydrologic functions and anadromous fisheries through vegetation removal, changes in water temperature, reductions in water quality, among other effects. Climate change is expected to increase flood frequency and severity in Washington State, thus exacerbating impacts and risks currently experienced locally. In addition to the impacts outlined herein, authorizing development activities such as surface mining within the 100-year floodplain contravenes federal guidance for endangered species preservation and should be avoided.

Planning Commission Recommendation:

Title 20, Subsection 20.30B.030(1)(i) TCC

i. Mineral resource lands shall not include agriculture lands of long term commercial significance, historical/cultural preservation sites, and any Federal Emergency Management Agency (FEMA) one hundred-year floodplain.

And in the Comprehensive Plan, Chapter 3:

7. Mineral resource lands shall not include agriculture lands of long term commercial significance, historical/cultural preservation sites, and any Federal Emergency Management Agency (FEMA) 100 year floodplain.

16. Wetlands:

Wetland science suggests that sand and gravel mining activities pose a high risk to wetland functions and that both wetlands and their buffers should be protected from disturbance. Further, given that wetlands are composed of silts, clays and other decaying organic matter that is typically devoid of significant sand and gravel deposits, extraction of minerals within these areas would not be anticipated to occur. It is highly unlikely than any Category 1 or 2 wetland could

be considered as Mineral Lands of Long Term Commercial Significance. More information is provided in the staff report attached to the briefing.

Planning Commission Recommendation:

Title 20, Subsection 20.30B.030(1)(ii) TCC

ii. Mineral resource lands shall not include Category (class) One (1) or Two (2) wetlands or their protective buffers, but may include ~~class~~ Category (class) Three (3) and (4) wetlands.

In the Comprehensive Plan, Chapter 3:

8. Mineral resource lands shall not include Category (class) One (1) or Two (2) wetlands or their protective buffers, but may include ~~class~~ Category (class) Three (3) and (4) wetlands.

17. Geologic Hazards:

Some geologically hazardous areas as defined by the critical areas ordinance may be minable. Such areas would not include marine bluffs, the bluff area in the Nisqually Hillside Overlay, mining a geologically hazardous area that would cause a public safety hazard, or mining that may negatively impact other property owners.

Planning Commission Recommendation:

In the Comprehensive Plan, Chapter 3:

~~10. Mineral resource lands shall be located away from geologically hazardous areas such as steep and/or unstable slopes as provided by the Critical Areas Ordinance.~~

18. Co-designation with Long Term forestry :

In August of 2011, the Planning Commission selected to allow the designation of mineral resource lands in designated forest lands, thus making the County's rules consistent with the state's guidance on co-designation. Further, at this time there does not appear to be any evidence in front of the Planning Commission to justify departure from the minimum guidelines.

Planning Commission Recommendation:

In the Comprehensive Plan, Chapter 3:

~~9. Mineral resource lands may not include lands designated for long-term forestry.~~

19. Additional Considerations to Ensure Consistency

The Planning Commission recommend the following changes to the Thurston County Code, Chapter 20.30B:

…

1. Criteria for Designation. A mineral extraction site may be designated as mineral resource lands if it meets all of the following criteria:

   a. The site must contain nonstrategic minerals which are minable, recoverable, and marketable under the technologic and economic conditions that exist at the time of application for designation or which can be estimated to exist in the foreseeable future as determined by a licensed professional geologist. In determining whether minerals are minable, recoverable, and marketable, the county will consider the guidelines in Washington Administrative Code Section 365-190-070, as amended.

   ~~e~~g. Critical areas: Critical areas will be examined at the time of designation review using the County's ~~Geodata~~Geographic Information System information. ~~If there are known critical areas and/or buffers predominantly covering the site, it will not be designated. A more comprehensive critical areas review will be done at time of permitting.~~ The applicant may be required to provide detailed information (such as a wetland delineation, habitat evaluation, or geotechnical report) prepared by a qualified expert to clarify County mapping of critical areas. A more comprehensive critical areas review will be done at time of permitting.

20. Planning Commission Public Hearing Comments

During the Planning Commission public hearing held on February 8, 2012, six (6) written public comments were received by Thurston County. One (1) citizen gave oral testimony during at the public hearing. All the comments were received were generally in support of the draft regulation amendments.

Documents Attached:

- Attachment 1: Planning Commission Recommendation
- Attachment 2: Full Staff Report
- Attachment 3: Planning Commission Public Hearing Written Comments

Recap: The Board of Commissioners adopted mineral lands designation regulations in September 7, 2010 through Ordinance 14402 and Resolution 14401.

The newly adopted mineral lands designation criteria were challenged to the Growth Management Hearings Board.

The Growth Management Hearings Board ordered Thurston County to review, and if needed amend the designation criteria for mineral lands.

The Planning Commission reviewed and made a recommendation regarding the seven issues in the compliance ordered by the Growth Management Hearings Board.

Compliance is due to the Growth Management Hearings Board by April 17, 2012.

Staff Recommendation(s): Review the draft mineral lands designation criteria, and provide staff with any changes to the proposed amendments.

Set a public hearing to take public testimony.

Board Recommendation(s): **Board Discussion, Deliberation and Direction**

Next Steps/Timeframe:

- Several more work sessions are scheduled with the Board of Commissioners in February, March and April.
- In order to stay on a compliance timeline, a hearing will need to be held on April 10, 2012 and a decision made by April 17, 2012. Compliance is Due by April 19, 2012.

Conclusion:

Briefing Attachment 1:

Planning Commission Recommendation

THURSTON COUNTY
WASHINGTON
SINCE 1852

COUNTY COMMISSIONERS

Cathy Wolfe
District One
Sandra Romero
District Two
Karen Valenzuela
District Three

PLANNING DEPARTMENT

Creating Solutions for Our Future

Scott Clark
Director

February 8, 2012

Thurston County Board of Commissioners
2000 Lakeridge Drive SW
Olympia, WA 98502

SUBJECT: Planning Commission recommendation on draft regulations relating to the designation of mineral resource lands criteria as required by the Western Washington Growth Management Hearings Board Final Decision Order.

Dear Commissioners,

The Thurston County Planning Commission has completed their review of the draft regulations relating to the designation of mineral resource lands criteria as required by the Western Washington Growth Management Hearings Board Final Decision Order. The Planning Commission held many work sessions throughout 2011 and 2012, as well as a public hearing on February 8, 2012.

The Planning Commission considered the merits of the Best Available Science and other information provided by staff and the public during the work sessions, and has made its recommendation accordingly. In a vote of 7 for, and 0 against, the Planning Commission recommends the attached text amendment to the Chapter 3 Natural Resources in the Thurston County Comprehensive Plan and Chapter 20.30B.030 of the Thurston County Code to change the mineral lands designation requirements.

Thank you for the opportunity to review and comment on this important issue. If you have any questions, please contact me.

Sincerely,

Chris Lane, Chair

CC: Don Krupp, County Manager
Scott Clark, Planning Director
Thurston County Planning Commission Members

Deleted Text: ~~Strikethrough~~ Proposed Changes: Underlined
Staff Comments: *Italics* Unaffected Omitted Text: (…)

...

The above criteria were applied throughout unincorporated county areas to designate those forest lands of long-term commercial significance. Those lands that currently meet the criteria are shown on Map M-42. Future lands meeting these criteria may also be designated.

IV. MINERAL RESOURCES

Community Vision: The citizens of Thurston County recognize mining as an important part of the rural economy. Mineral resources such as sand and gravel supply materials for road maintenance and construction projects throughout the region. The community seeks a balance between the need for mineral resources and the need to protect the environment and the community from adverse impacts of mining. Good stewardship of mining operations, including reclamation and restoration, takes a partnership among mining operators, county citizens, and regulatory agencies.

Background: As a result of major glacial activity in Thurston County's geologic past, major deposits of sand and gravel are located in Thurston County. This geologic heritage provides the raw material for dozens of sand and gravel operations throughout the County. The deposits are perhaps doubly significant considering their proximity to major population areas and construction projects that use sand and gravel. Although rich in sand and gravel, the County has relatively few areas of high quality basalts used in construction activities.

Balancing conflicts: The extraction process does pose potential conflicts with surrounding uses, particularly rural residential uses and critical areas. During the process of designating resource lands of long-term commercial significance, the county evaluates the location and value of the resource and critical areas as well as its proximity to existing residential areas (see below). For permitting new mining activity, the county considers groundwater protection, air quality impacts, hazards posed by gravel truck travel, and residential densities surrounding the mine, among other concerns. In response to these concerns, the county implements conditions and BMPs through the Special Use Permit process to ensure that mining operations are in keeping with public health and safety and environmental protection. Just as sand and gravel is a natural resource, so too is the groundwater and air quality the county depends on. The policies provide that generally, mining should minimize adverse impacts on the environment, and specifically, should minimize its effect on surface and groundwater and air quality.

The policies also specify that mineral extraction sites should be restored as mining occurs. Existing, non-operating or abandoned mining sites pose a

concern to many county residents because they may leave aquifers vulnerably exposed, and invite illegal waste dumping. The action recommendations also seek to address the problem of these nonoperating sites.

The policies recognize the necessity for mineral extraction to be located in rural areas of the county with low population densities or in industrial-zoned areas. The movement of large amounts of mineral resource necessitates good roads capable of handling significant numbers of heavily-loaded trucks. Loaded trucks en route from the extraction site may lose a very small but potentially hazardous portion of their load, and track dirt or mud onto public roadways. Therefore, the policies also respond to the need for better prevention of such mining impacts on county residents.

Designating Mineral Resources of Long-Term Commercial Significance: The Growth Management Act states that "...each county...shall designate where appropriate...mineral resource lands that are not already characterized by urban growth and that have long-term significance for the extraction of minerals." RCW 36.70A.170(1) The Act defines "minerals" as gravel, sand, and valuable metallic substances. Other minerals may be designated as appropriate. RCW 36.70A.060(1)(a) states that "...each county...shall adopt development regulations...to assure the conservation of...mineral resource lands designated under RCW 36.70A.170."

Within Thurston County, minerals of potentially long-term commercial significance include sand and gravel deposits, coal deposits, and a few rock resources, such as columnar basalt (shot rock) and sandstone. Basalt "shot rock" is important for highway construction and flood control rip rap. The sandstone quarries at Tenino have provided valuable building material for the State Capitol and other structures around the County. There are no known valuable metallic minerals within the County.

Protecting these mineral deposits of long-term commercial significance for mining use is an important goal of the policies, as is preventing residential and other incompatible uses from locating adjacent to these deposits. The County recognizes that a mining operator's hauling distance to the resource user is an important factor to its economic viability. However, the policies also provide that mining activity should not encroach on existing residential uses nor adversely affect the environment. In addition, significant geologic features, including Mima mounds, shall not be used for mining purposes. Additional significant geologic features may be identified by future study.

To determine the location of mineral resource lands of long-term commercial significance, the County applies the criteria provided by the Washington State Department of Commerce (DOC). Based on the DOC Guidelines and additional considerations to protect public health, safety, and the environment, the County has developed the following criteria to designate mineral resource lands of long-term commercial significance.

MINIMUM DESIGNATION CRITERIA

1. Mineral Deposits. Designated mineral resource lands should contain deposits consisting of sand and gravel, coal, sandstone, basalt, or other igneous rock, based on U.S. Geological Survey maps or site-specific information prepared by a geologist, or as indicated by State Department of Natural Resources (DNR) mining permit data.

2. Location. Designated mineral resource lands shall be separated by a distance of at least 1,000 feet from public preserves, which include parks, national wildlife refuges, state conservation areas, wild life areas, and other government owned preserves, but excluding exclusive hunting areas. In addition, designated mineral resource lands shall be, at least 1,000 feet from urban growth areas and rural residential areas with existing densities predominantly one dwelling unit per five acres or higher, in order to minimize land use conflicts during the long-term operation of the mine.

   To qualify for mineral resource designation, at least 60% of the area within 1,000 feet of a proposed site must be made up of parcels 5 acres in size or larger, excluding parcels owned by the applicant.

3. Minimum Site Size. An area proposed for mineral resource lands designation should be at least 5 acres in size.

4. Marketability. Mineral resource lands shall contain non-strategic minerals which are minable, recoverable and marketable in the present or foreseeable future as determined by a licensed professional geologist.

5. Mineral resource lands shall not <u>be designated within the Zone 1 (one-year) or Zone 2 (five-year) Horizontal Time of Travel boundaries for any Group A Public Water System</u>~~include delineated wellhead protection areas CARA I~~.

6. Mineral resource lands shall not include~~ important habitats and species areas~~ <u>habitats of primary association to species listed as endangered or threatened under the Endangered Species Act or state law</u> and their buffers as established by the Critical Areas Ordinance at the time of designation.

7. Mineral resource lands shall not include agriculture lands of long term commercial significance, historical/cultural preservation sites, and any Federal Emergency Management Agency (FEMA) 100 year floodplain.

8. Mineral resource lands shall not include <u>Category</u> <u>(class)</u> <u>One (1)</u> or <u>Two (2)</u> wetlands or their protective buffers, but may include ~~class~~ <u>Category (class) Three (3)</u> and <u>(4)</u> wetlands.

9. Mineral extraction activities shall not negatively affect nor endanger surface and groundwater flows and quality.

~~9. Mineral resource lands may not include lands designated for long-term forestry.~~

~~10. Mineral resource lands shall be located away from geologically hazardous areas such as steep and/or unstable slopes as provided by the Critical Areas Ordinance.~~

Designation process.

Lands meeting the above criteria may be designated mineral resource lands through a Comprehensive Plan Amendment process. The County may require detailed information (such as a wetland delineation, habitat evaluation, and geotechnical report) prepared by a qualified expert. Such designation does not guarantee or forecast that a permit for mineral extraction will be granted. Such designation should not be used as a basis for granting a special use permit. Mine operators must go through all required review and permitting prior to beginning any mining activity on designated land. Map M-43 identifies ~~the~~ existing mining sites meeting the designation criteria, although this map is provided for reference only. An updated map of designated mineral resource lands of long-term commercial significance is the "Official Designated Mineral Resource Lands" map accompanying the official zoning map, available at the County. This map is immediately updated following approval of a new designated site.

Long-term commercially significant (designated) mineral deposits should be conserved for long-term resource extraction. To this end, the following measures shall be implemented:

- Resource use notice shall be provided to new developments within 1,000 feet of:

  1. Designated mineral lands and,
  2. Existing mining operations outside designated mineral lands, informing prospective property owners of the long-term resource use nearby.

These measures are intended to assure that the use of lands adjacent to designated mineral lands shall not interfere with the continued use, in accordance with best management practices (BMPs), of the designated lands for mineral extraction.

THURSTON COUNTY PLANNING DEPARTMENT

DRAFT

AMENDMENTS FOR MINERAL LANDS DESIGNATION CRITERIA COMPLIANCE

02/08/2012

CHAPTER 20.30B TCC

Deleted Text:	~~Strikethrough~~	Proposed Changes:	Underlined
Staff Comments:	*Italics*	Unaffected Omitted Text:	(…)

20.30B.030 - Designation criteria.

1. Criteria for Designation. A mineral extraction site may be designated as mineral resource lands if it meets all of the following criteria:

   a. The site must contain nonstrategic minerals which are minable, recoverable, and marketable under the technologic and economic conditions that exist at the time of application for designation or which can be estimated to exist in the foreseeable future as determined by a licensed professional geologist. In determining whether minerals are minable, recoverable, and marketable, the county will consider the guidelines in Washington Administrative Code Section 365-190-070, as amended.

   b. At least sixty percent of the area within one thousand feet of a site must have parcels five acres in size or larger at the time of the application for designation (see Appendix Figure 18) excluding parcels less than 5 acres in size owned by the applicant.

   c. An area proposed for mineral resource lands designation shall be at least five acres.

   ~~d. The mineral extraction site must have a special use permit if required by Chapter 20.54 unless otherwise specified in Section 20.30B.035. Designation approval shall be contingent upon issuance of reclamation permit from the Washington State Department of Natural Resources.~~

   d~~e~~. The site shall be separated by a distance of at least one thousand feet from public preserves, which include parks, national wildlife refuges, state conservation areas, wildlife areas, and other government-owned preserves, but excluding exclusive hunting areas. In addition, designated

mineral resource lands shall be at least one thousand feet from urban growth areas.

~~f. Designated mineral resource lands may not include lands designated for long-term forestry.~~

~~e~~g. Critical areas: Critical areas will be examined at the time of designation review using the County's ~~Geodata~~Geographic Information System information. ~~If there are known critical areas and/or buffers predominantly covering the site, it will not be designated. A more comprehensive critical areas review will be done at time of permitting.~~ The applicant may be required to provide detailed information (such as a wetland delineation, habitat evaluation, or geotechnical report) prepared by a qualified expert to clarify County mapping of critical areas. A more comprehensive critical areas review will be done at time of permitting.

i. Mineral resource lands shall not be designated within the Zone 1 (one-year) or Zone 2 (five-year) Horizontal Time of Travel boundaries for any Group A Public Water System~~include delineated wellhead protection areas CARA I~~

ii. Mineral resource lands shall not include Category (class) One (1) or Two (2) wetlands or their protective buffers, but may include ~~class~~ Category (class) Three (3) and (4) wetlands.

iii. Mineral resource lands shall not include agriculture lands of long term commercial significance, historical/cultural preservation sites, and any Federal Emergency Management Agency (FEMA) one hundred-year floodplain.

iv. Mineral resource lands shall not include~~ important habitats and species areas~~ habitats of primary association to species listed as endangered or threatened under the Endangered Species Act or state law and their buffers as established by the Critical Areas Ordinance at the time of designation.

v. Mineral extraction activities shall not negatively affect nor endanger surface and ground water flows and quality.

Briefing Attachment 2:

Final Staff Report

FINAL STAFF REPORT

Mineral Lands GMA Compliance Issue

Date:	February 15, 2012
Public Hearing Date:	Not scheduled
Prepared by:	Scott Clark, Planning Director Cindy Wilson, Senior Planner Jeremy Davis, Senior Planner Olivia Story, Assistant Planner
Proponent/Applicant:	Thurston County
Action Requested:	Consider amendments to the Chapter 3 Natural Resources in the Thurston County Comprehensive Plan and Chapter 20.30B.030 of the Thurston County Code to change the mineral lands designation requirements.
Location:	County-wide

☐ Map Changes ☒ Text Changes ☐ Both ☒ Affects Comprehensive Plans/documents
☐ Affected Jurisdictions

PURPOSE:

The intent of this preliminary staff report is to:

- Provide the Planning Commission with sufficient background information to objectively hear public testimony on proposed amendments.
- Provide the Planning Commission an analysis of relevant sections of the Revised Code of Washington and the Washington Administrative Code.
- Allow the Planning Commission to make informed recommendations to the Board of County Commissioners (Board).

BACKGROUND:

On September 7, 2010, the Board of County Commissioners amended the County's criteria for designating mineral lands of long-term commercial significance by adopting Resolution No. 14401 and Ordinance No. 14402. The adoption followed significant research and analysis by stakeholder committees, the Planning Commission, and the Board of County Commissioners. On November 23, 2010, mineral lands interest groups filed a challenge to the County's ordinance

with the WWGMHB. Of the 23 issues brought by the challenge, the WWGMHB held that Thurston County must reconsider seven.

WESTERN WASHINGTON GROWTH MANAGEMENT HEARINGS BOARD COMPLIANCE ORDER:

In its Final Decision and Order dated May 23, 2011, the Western Washington Growth Management Hearings Board found that Thurston County must reconsider seven of the 23 issues brought by the challenge. In summary, the Hearings Board found that Thurston County:

- **Failed to show record that Thurston County considered minimum state guidelines.** While jurisdictions are not required to follow minimum state guidelines, they are required to show record that they at least *considered* them. According to the Growth Management Hearings Board, Thurston County showed inadequate record of its consideration of the minimum guidelines, particularly when the county barred the co-designation of mineral-resource lands and forest lands, and prohibited land from being designated as mineral-resource land if it contained certain types of critical areas. The minimum guidelines are discussed on the following page. Among other things, the plaintiffs held that Thurston County's prohibition against mining in forest-resource lands barred the expansion of one of the state's primary quarries that provides a unique type of rock used in marine jetties. Thus, the plaintiffs claimed, Thurston County violated the goals of the GMA to maintain and enhance the mineral resource industry.

- **Failed to comply with the Growth Management Act's requirements for protecting critical areas**. In summary, the Hearings Board found that Thurston County's prohibition on designating mineral resource lands if they contain certain types of critical areas amounts to a defacto type of critical areas protection that is not supported by Best Available Science.

- **Violated standards for public participation** as set forth in RCW 360.70A.035(2): The Growth Management Hearings Board found that, after holding public hearings, Thurston County made significant revisions to the drafts of Resolution No. 14401 and Ordinance No. 14402 and then approved them. (Those revisions banned the co-designation of mineral lands of long-term commercial significance and forest lands of long-term commercial significance.) The Hearings Board found that, because of those significant revisions, Thurston County should have provided the public with an additional opportunity to review and comment.

Thurston County must be in compliance by November 21, 2011.

GMA REQUIREMENTS:

The Growth Management Act (GMA), Chapter 36.70A Revised Code of Washington (RCW), requires Thurston County to designate resource uses (mineral, forest, and agricultural lands not already characterized by urban growth), as well as protect critical areas (RCW 36.70A.170). These can sometimes be competing requirements of the GMA, but all need conservation and protection from incompatible development by the county through its regulations and preservation activities.

The GMA does not list resource lands/critical areas in any order of priority; nor does it present them as mutually exclusive designations. RCW 36.70A.030 defines them as follows:

- (2) "Agricultural land" means land primarily devoted to the commercial production of horticultural, viticultural, floricultural, dairy, apiary, vegetable, or animal products or of berries, grain, hay, straw, turf, seed, Christmas trees not subject to the excise tax imposed by *RCW 84.33.100 through 84.33.140, finfish in upland hatcheries, or livestock, and that has long-term commercial significance for agricultural production.
- (5) "Critical areas" include the following areas and ecosystems: (a) Wetlands; (b) areas with a critical recharging effect on aquifers used for potable water; (c) fish and wildlife habitat conservation areas; (d) frequently flooded areas; and (e) geologically hazardous areas.
- (8) "Forest land" means land primarily devoted to growing trees for long-term commercial timber production on land that can be economically and practically managed for such production, including Christmas trees subject to the excise tax imposed under RCW 84.33.100 through 84.33.140, and that has long-term commercial significance. In determining whether forest land [*meets these requirements*]. . ., the following factors shall be considered: (a) the proximity of the land to urban, suburban, and rural settlements; (b) surrounding parcel size and the compatibility and intensity of adjacent and nearby land uses; (c) long-term local economic conditions that affect the ability to manage for timber production; and (d) the availability of public facilities and services conducive to conversion of forest land to other uses.
- (11) "Minerals" include gravel, sand, and valuable metallic substances.

In designating resource lands/critical areas, the county must consider guidelines developed pursuant to RCW 36.70A.050 by the Department of Commerce to classify agriculture, forest, and mineral lands and critical areas. These guidelines are adopted as part of the Washington Administrative Code (WAC), and are the minimum guidelines for all jurisdictions. Regulations adopted by the jurisdiction for the continuation of the resource designations and the protection of critical areas must also be adopted in consideration of the guidelines.

GMA GOALS:

In addition, the GMA requires county amendments to be guided by the goals of the GMA. GMA goals are found in RCW 36.70A.020 and 36.70A.480:

1. *Urban growth.* Encourage development in urban areas where adequate public facilities and services exist or can be provided in an efficient manner.

2. *Reduce sprawl.* Reduce the inappropriate conversion of undeveloped land into sprawling, low-density development.

3. *Transportation.* Encourage efficient multimodal transportation systems that are based on regional priorities and coordinated with county and city comprehensive plans.

4. *Housing.* Encourage the availability of affordable housing to all economic segments of the population of this state, promote a variety of residential densities and housing types, and encourage preservation of existing housing stock.

5. *Economic development.* Encourage economic development throughout the state that is consistent with adopted comprehensive plans, promote economic opportunity for all citizens of this state, especially for unemployed and for disadvantaged persons, and encourage growth in areas experiencing insufficient economic growth, all within the capacities of the state's natural resources, public services, and public facilities.

6. *Property rights.* Private property shall not be taken for public use without just compensation having been made. The property rights of landowners shall be protected from arbitrary and discriminatory actions.

7. *Permits*. Applications for both state and local government permits should be processed in a timely and fair manner to ensure predictability.

8. *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.

9. *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.

10. *Environment.* Protect the environment and enhance the state's high quality of life, including air and water quality, and the availability of water.

11. *Citizen participation and coordination.* Encourage the involvement of citizens in the planning process and ensure coordination between communities and jurisdictions to reconcile conflicts.

12. *Public facilities and services.* Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards.

13. *Historic preservation.* Identify and encourage the preservation of lands, sites, and structures that have historical or archaeological significance.

14. *Shorelines.* Manage shorelines wisely according to the goals in the Shorelines Management Act (RCW 36.70A.480).

The most pertinent goals to the present discussion are (8) Natural Resources, (9) Open space and recreation, (10) Environment, and (14) Shorelines. These goals are not listed in any priority, and should be given equal weight in analysis and discussion. In consideration of the goals, the courts have found that specific requirements of the GMA, such as the use of best available science in the protection of critical areas or the designation of resource lands can and do outweigh the more general GMA goals (Swinomish v. Western Washington Growth Management Hearings Board 161 Wn.2d 415; 166 P.3d 1198; 2007).

For natural resource lands, including mineral lands, Goal (8) provides three prongs: (1) To maintain and enhance; (2) To encourage conservation; and, (3) To discourage incompatible uses. (WEAN v.Island County 95-2-0063 (Compliance Order, 4-10-96)).

Preserving natural resource lands either under critical areas regulations or a resource overlay or designation both essentially preserve the resource. Critical areas regulations are required to protect property from further degradation. This usually means that development for certain

critical areas, such as wetlands or habitat areas, is either very restricted or not permitted. While a mineral resource can not be mined, the resource is still protected from incompatible development that would preclude future extraction of the resource should other mineral resources become unavailable. Essentially, critical areas designation accomplishes part or all of the four pertinent goals noted above.

WASHINGTON ADMINISTRATIVE CODE:

During an August 3, 2011 meeting, Thurston County staff presented the minimum guidelines contained in WAC 365-190-020(7), and WAC 365-190-040 (7a) to the Planning Commission during its regularly scheduled meeting. The Planning Commission had a substantial discussion about the minimum guidelines within the WACs and the Best Available Science that was discussed in 2005, 2010, and again in 2011 during Planning Commission work sessions on the Critical Areas Ordinance.

The minimum guidelines contained in the WACs were in fact considered by the Planning Commission during a meeting back in June 22, 2005. As stated in the meeting minutes, "Ms. Hayes referred to critical areas and mineral lands designation. The minimum guidelines for designating resource lands and critical areas are located in Chapter 365-190 WAC.

It should be noted "By directing all cities and counties to 'consider' the Minimum Guidelines, the Legislature did not order them to adopt the recommendations contained in the Minimum Guidelines, but assured that the decisions of cities and counties would be informed by the guidance developed" *1000 Friends of Washington et al., v. City of Anacortes*, WWGMHB No. 03-2-0017 (FDO 2-10-04 at 22). RCW 36.70A.170 requires that the minimum guidelines in WAC 365-190 be "considered."

As part of its review, the GMHB found the county did not substantiate in the record the review of the minimum guidelines in Chapter 365-190 WAC. Specifically, that the county precludes co-designation of mineral lands and specified critical areas without evidence in the record as to why the county deviated from the guidelines. WAC 365-190-040 addresses co-designation:

> "(7) Overlapping designations. The designation process may result in critical area designations that overlay other critical area or natural resource land classifications. Overlapping designations should not necessarily be considered inconsistent. If two or more critical area designations apply to a given parcel, or portion of a given parcel, both or all designations apply.
>
> (a) If a critical area designation overlies a natural resource land designation, both designations apply. For counties and cities required or opting to plan under the act, reconciling these multiple designations will be the subject of local development regulations adopted pursuant to RCW 36.70A.060.
>
> (b) If two or more natural resource land designations apply, counties and cities must determine if these designations are incompatible. If they are incompatible, counties and cities should examine the criteria to determine which use has the greatest long-term commercial significance, and that resource use should be assigned to the lands being designated."

In order to preclude co-designation due to a local environmental circumstance, the county must provide the appropriate evidence and analysis in the record. Using environmental information in

the development of designation criteria for and classification of mineral resource lands is consistent with WAC 365-190-070(3)(a) which states, "Counties and cities classify mineral resource lands based on geologic, environmental, and economic factors, existing land uses, and land ownership (emphasis added)."

Limiting designation of specific known critical areas would also be consistent with WAC 365-190-070(3)(d) which indicates that the classification of mineral resources should be based on geology and the distance to market:

> "(d) Classifying mineral resource lands should be based on the geology and the distance to market of potential mineral resource lands, including:
>
> (i) Physical and topographic characteristics of the mineral resource site, including the depth and quantity of the resource and depth of the overburden;
>
> (ii) Physical properties of the resource including quality and type;
>
> (iii) Projected life of the resource;
>
> (iv) Resource availability in the region; and
>
> (v) Accessibility and proximity to the point of use or market.
>
> (e) Other factors to consider when classifying potential mineral resource lands should include three aspects of mineral resource lands:
>
> (i) The ability to access needed minerals may be lost if suitable mineral resource lands are not classified and designated; and
>
> (ii) The effects of proximity to population areas and the possibility of more intense uses of the land in both the short and long-term, as indicated by the following:
>
> (A) General land use patterns in the area;
>
> (B) Availability of utilities, including water supply;
>
> (C) Surrounding parcel sizes and surrounding uses;
>
> (D) Availability of public roads and other public services; and
>
> (E) Subdivision or zoning for urban or small lots.
>
> (iii) Energy costs of transporting minerals."

Eliminating specified critical areas, such as wetlands, can be based on the general physical properties of the proposed site and the quantity and quality of the available resource. Certain critical areas, such as wetlands, are not generally viable mining resources, and therefore would not be classified as having potential long-term commercial significance. An overlapping designation would not be appropriate given the guidelines and the requirement to protect critical areas. Overlapping designations would be appropriate when it is difficult to delineate a critical area at the time of designation because of changing occupancy by species, lack of access by the county to analyze critical areas other than through remote sensing (aerial photography), or when there may be conflicts or justification for later delineation. Please see later in this report for analysis on designation of certain critical areas that are in the designation criteria including Category I and II wetlands, marine bluff hazard areas, frequently flooded areas, and fish and wildlife conservation areas.

Definitions are located in 365-190-020. While all of the definitions are applicable to the current discussion, aside from the definitions for critical areas, two definitions to note include:

> (11) "Long-term commercial significance" includes the growing capacity, productivity, and soil composition of the land for long-term commercial production, in consideration with the land's proximity to population areas, and the possibility of more intense uses of land. Long-term commercial significance means the land is capable of producing the specified natural resources at commercially sustainable levels for at least the twenty-year planning period, if adequately conserved. Designated mineral resource lands of long-term commercial significance may have alternative post-mining land uses, as provided by the Surface Mining Reclamation Act, comprehensive plan and development regulations, or other laws.
>
> (13) "Mineral resource lands" means lands primarily devoted to the extraction of minerals or that have known or potential long-term commercial significance for the extraction of minerals.

Not designating certain critical areas as a mineral resource land when it is well known that mining is not commercially viable due to reasons that may include geologic conditions, or because mining may jeopardize the environmental function of a natural resource (drinking water, habitat, and etc.) is consistent with the above definitions for mineral resource lands and long term commercial significance. In order for land to have long term commercial significance for gravel or hard rock mining, it would necessarily need to have a soil composition for producing economically sustainable gravel. Certain critical areas such as a wetland do not generally have the appropriate soil composition or type for gravel production.

An analysis of co-designating resource lands and specific critical areas is discussed later in this report, the critical areas to be discussed include:

- Category I Critical Aquifer Recharge Areas and Wellhead Protection Areas
- Mining in Category I and II Wetlands
- Mining in Fish and Wildlife Conservation Areas
- Frequently Flooded Areas

In general, co-designation does not mean a critical area may be mined, as this would be contrary to the mandate by the GMA that the county protect critical areas, and would be contrary to the accompanying WAC for the designation of critical areas described later in this report. If designation of a known or unknown critical area as a resource land of long-term commercial significance is allowed, then the conditions under which mining is or is not permitted need to be addressed in the development code. This can take place in the critical areas ordinance or the zoning ordinance. To guide the regulations, the Comprehensive Plan should be amended to address and guide the resolution of conflicts between resource uses and critical areas.

REQUIRED REGULATIONS:

RCW 36.70A.060 requires the county to adopt regulations for the conservation of resource lands and for the protection of critical areas. Policies guiding the protection of critical areas are in the Comprehensive Plan with specific regulations governing critical areas in the Thurston County Code. In the context of the GMA, to protect critical areas means, at a minimum, to prevent new

harm to critical areas and not to allow degradation of existing conditions (Swinomish v. WWGMHB 2007).

Designation of resource uses takes place in the Comprehensive Plan and the zoning code through overlay areas and specific land use designations and zoning districts. New regulations for resource uses need to assure the continuation of agricultural, mineral and forest resource uses, and that surrounding land uses will not interfere with their continued use for the designated purpose while also adhering to other requirements. Resource uses do need to follow best practices, and the GMA does not preclude the county from adopting operational conditions as it would normally do for permitted and special uses.

As with other sections of the GMA, the county must designate resource lands and protect critical areas both, and neither is given priority over the other. Where the GMA does not give a specific priority, it is then up to the local jurisdiction to make a balanced decision based on the GMA, associated WAC, and local circumstances that accomplishes both. This takes place when GMA mandates are completed.

CRITICAL AREAS REGULATIONS:

Under the GMA, critical areas that must be designated include wetlands, fish and wildlife habitat conservation areas, frequently flooded areas, critical aquifer recharge areas, and geologically hazardous areas (RCW 36.70A.030). These terms are further defined in the GMA, in the Washington Administrative Code (Chapter 365-190 WAC), and in the Thurston County Code (TCC). In the Thurston County Critical Areas Ordinance (CAO), critical areas are generally classified according to the five major areas mentioned above.

In Thurston County, designation of critical areas is achieved through textual definition and criteria in the CAO, Chapter 17.15 TCC. Policies are also included in the Comprehensive Plan. While maps are maintained by Thurston County GeoData, these maps are not all inclusive, and are not always intended to be used as a final indicator for the location of a critical area. Some maps, such as prairie and gopher soils and wetland maps, are used as an initial screening tool. Other maps, such as the high groundwater hazard map, show the location of mapped high groundwater hazards from previous flooding events.

In the classification and designation of critical areas, the GMA requires Thurston County to substantively consider best available science (BAS) in developing policies and development regulations to protect the structure, value and functions of critical areas (RCW 36.70A.172). This provision was added to the Growth Management Act in 1995. In order to assist jurisdictions in deciding what constitutes best available science, between 1998 and 2000, the Washington State Department of Commerce developed the rules in Chapter 365-195 WAC, as amended. In addition, a Critical Areas Assistance Handbook and a list of BAS were developed by various State of Washington agencies. Jurisdictions in and around Thurston County have also developed BAS for their CAO. Under the GMA, it is up to the Board of County Commissioners to decide what is the best available science that provides a basis for the Thurston County CAO.

Based on previous case law, the Growth Management Hearings Board generally will apply three factors to determine if the Thurston County CAO is based on BAS:

1. If Thurston County's decision is within the parameters of the Growth Management Act, including its goals, as directed by RCW 36.70A.172(1) on the designation of critical areas.

2. The evidence provided in the record, including scientific analysis and documentation.

3. Whether Thurston County's analysis of the evidence provided in the record, including scientific analysis and documentation, involved a reasoned process.

(Clark County Natural Resources Council, et al. v. Clark County, et al, WWGMHB Case No. 96-2-0017c)

Whenever a regulatory approach is used that is not supported by BAS, the County will have to demonstrate how it considered BAS and why local circumstances prompted the County to use a different approach. The County does have the discretion of adopting critical areas regulations that allow localized impacts on critical areas, however, this must be used sparingly and for good cause. The effect of critical areas regulations must result in no net loss of the structure, value and functions of natural systems (Pilchuck v. Snohomish County CPSGMHB 1995).

The rules and criteria for BAS in Chapter 365-195 WAC are briefly described below:

1. Methods for determining what is BAS. WAC 365-195-905.

2. Criteria for obtaining BAS. WAC 365-195-910. This section outlines the specific criteria which generally includes obtaining technical assistance, publications, and guidance from state and federal agencies, developing, acquiring and compiling scientific information that meets best available science through county efforts and expertise.

3. Assessment of inadequate scientific information. WAC 365-195-920. In some cases, there may be a lack of scientific data for a given critical area subject. This section of criteria addresses such situations, and guides jurisdictions to take a precautionary or no risk approach in which development and land use activities are strictly limited.

4. Inclusion of BAS in developing policies and development regulations. WAC 365-195-915. This section outlines the criteria for including BAS in the development of critical areas, and that BAS must be used in granting variances, waivers, and exemptions.

5. Special considerations for anadromous fisheries. WAC 365-195-925). Counties must give special consideration or protection measures for anadromous fisheries.

BAS needs to be the product of a valid scientific process as shown in Section 365-195-905 (5) WAC, which is as follows:

> "To ensure that the best available science is being included, a county or city should consider the following:
>
> (a) Characteristics of a valid scientific process. In the context of critical areas protection, a valid scientific process is one that produces reliable information useful in understanding the consequences of a local government's regulatory decisions and in developing critical areas policies and development regulations that will be effective in protecting the functions and values of critical areas. To determine whether information received during the public participation process is reliable scientific information, a county or city should determine whether the source of the information displays the characteristics of a valid scientific process. The characteristics generally to be expected in a valid scientific process are as follows:
>
> 1. Peer review. The information has been critically reviewed by other persons who are qualified scientific experts in that scientific discipline. The criticism of the peer reviewers has been addressed by the proponents of the information. Publication in a refereed scientific journal usually indicates that the information has been appropriately peer-reviewed.

2. Methods. The methods that were used to obtain the information are clearly stated and able to be replicated. The methods are standardized in the pertinent scientific discipline or, if not, the methods have been appropriately peer-reviewed to assure their reliability and validity.

3. Logical conclusions and reasonable inferences. The conclusions presented are based on reasonable assumptions supported by other studies and consistent with the general theory underlying the assumptions. The conclusions are logically and reasonably derived from the assumptions and supported by the data presented. Any gaps in information and inconsistencies with other pertinent scientific information are adequately explained.

4. Quantitative analysis. The data have been analyzed using appropriate statistical or quantitative methods.

5. Context. The information is placed in proper context. The assumptions, analytical techniques, data, and conclusions are appropriately framed with respect to the prevailing body of pertinent scientific knowledge.

6. References. The assumptions, analytical techniques, and conclusions are well referenced with citations to relevant, credible literature and other pertinent existing information.

The list of science in this report is not intended to be an exhaustive list or summary of scientific documents for all critical areas in relation to mineral extraction. The information that has been reviewed for this summary report is pertinent to Thurston County, and appears to be the best available given the issue of mineral extraction and critical areas present in the county.

C0UNTY-WIDE PLANNING P0LICIES:

The Thurston County County-Wide Planning Policies were initially adopted by Thurston County after ratification by the cities and towns in 1993 to ensure a consistent planning approach under the Growth Management Act, and updated in 2003. The policies provide guidance on urban growth areas, orderly urban development and provision of urban services, joint planning, transportation, housing, economic development and environmental quality. The policies generally call for environmentally sound development policies and expansions of urban growth areas. Both expansions and reductions in urban growth areas must be compatible with critical areas and resource lands.

Section IX of the County-Wide Planning Policies specifically covers environmental quality including critical areas regulation and natural resource lands preservation. Two other sections listed below also have pertinent policies.

The related policies in Section II. Promotion of Contiguous and Orderly Development & Provision of Urban Services include:

2.1 Concentrate development in growth areas by:

...

d. Designate rural areas for low density, non-urban uses that preserve natural resource lands, protect rural areas from sprawling, low-density development and assure that rural areas may be served with lower cost, non-urban public services and utilties.

...

2.3 Provide capacity to accommodate planned growth by:

...

b. Protection of ground water supplies from contamination and maintenance of groundwater in adequate supply by identifying and reserving future supplies well in advance of need.

The related policies in Section IV Economic Development and Employment include:

6.2 Support the retention and expansion of existing public sector and commercial development and environmentally sound, economically viable industrial development and resource uses;

The related policies in Section IX Environmental Quality include:

9.1 Recognize our interdependence on natural systems and maintain a balance between human uses and the natural environment by:

a. Establishing a pattern and intensity of land and resource use in concert with the ability of land and resources to sustain such use; and

b. Concentrating development in urban growth areas in order to conserve natural resources and enable continued resource use;

9.2 Protect ground and surface water and the water of Puget Sound from further degradation by adopting and participating in comprehensive, multi-jurisdictional program to protect and monitor water resources for all uses;

9.3 Protect and enhance air quality;

9.4 Minimize high noise levels that would degrade the residents' quality of life;

9.5 Maintain significant wildlife habitat and corridors; and

9.6 Preserve and promote awareness of our historic, cultural, and natural heritage.

.....

9.9 Plan for the amount of population that can be sustained by our air, land and water resources without degrading livability and environmental quality.

THURSTON COUNTY COMPREHENSIVE PLAN:

The Thurston County Comprehensive Plan (Comprehensive Plan) provides the policy direction for making decisions in the unincorporated area of Thurston County. It provides guidance for development regulations, capital facilities planning, land use permitting, related plans, inter-local agreements, and other various county programs. The Comprehensive Plan also includes the joint plans adopted for the unincorporated urban growth areas as well as other specialized plans and sub-area plans.

Chapter 3 Natural Resources, includes both the designation criteria and policies for mineral extraction, as well as for agricultural and forest lands. At issue in the current matter is the designation criteria, which are covered elsewhere in this report. Policies for mineral extraction are located under Goal 7, which states "Mineral resource lands of long-term commercial significance should be allowed to be used by extraction industries, with minimal harm to the environment." The subsequent policies generally call for

- Conservation of mineral resource lands of long-term commercial significance for mineral extraction
- Allowing mineral extraction industries where the prime natural resource exists
- Restoration
- The incompatibility of agricultural lands
- Discouraging incompatible uses from nearby areas
- Protecting existing residential uses from mineral extraction activities
- Protecting public health and safety from mineral extraction

The policies in this section do not directly indicate that critical areas should not be mined, however, two policies address issues related to critical areas. Specifically, Mima mounds are referenced in Policy 7 as follows, "Extraction industries should not alter significant geologic features such as mima mounds." Mima mounds are a significant geologic feature unique to Thurston County, and are not replicable. Mounds can exist in native, semi-native, and historic prairies. Prairies are considered a critical area. Mima mounds can be detected through onsite visits, review of LiDAR imagery, or aerial photography.

The Spanaway-Nisqually Complex 2 to 10% slopes (soil type 114) is primarily located in areas with Mima mounds and in areas in between the mounds. The soil description is largely based on the presence of Mima mounds. It has been used in the past to help map the historic extent of prairies in Thurston County, and is a listed Prairie soil in the WDFW *Priority Habitat and Species List*. For a complete description of each soil type please see the USDA Natural Resources Conservation Service *Soil Survey of Thurston County*. This soil type also can be a good source of gravel for mineral extraction.

Policy 10 indicates that "mineral extraction should not negatively affect nor endanger surface and ground water quality." This touches on fish and wildlife habitat areas, wetlands, critical aquifer recharge areas, and wellhead protection areas, all of which will be discussed later in this report.

Chapter 9 Environment includes narrative, goals and policies on critical areas. In addition to consideration of best available science, the GMA and the associated WACs, these are used to guide development of critical areas regulations. The Growth Management Hearings Board requested further analysis of several criteria for the designation of mineral lands of long-term commercial significance relating to critical areas. The specific critical areas in question include geologic hazard areas including marine bluffs, critical aquifer recharge areas, wetlands, fish and wildlife conservation areas, and frequently flooded areas. Chapter 9 Environment has been attached for your review.

For geologic hazards in Section III Part A. Geologic Hazard Areas, the goal and associated policies focus on hazard avoidance and mitigation, particularly in ensuring that development, including mining, does not exacerbate hazards. The designation criteria indicate that marine bluff hazard areas are inappropriate for designation. Policies 2 and 4 in this section support this, and indicate that:

> 2. The county should restrict development and resource use within or near areas susceptible to significant damage from erosion, landslides, earthquakes or lahar flows, as necessary to protect life, property, and wildlife habitats (e.g. streams and marine waters downslope).

...

4. The county should protect the public from natural hazards, minimize the need for emergency rescues and replacement of public facilities damaged by natural forces, and aviod public subsidy of private development located in areas vulnerable to damage from natural events by minimizing the amount of development at risk.

Permitting designation of marine bluff hazard areas as mineral lands of long term commercial significance in the comprehensive plan and subsequent mining would be inconsistent with the above policies.

Policies for critical aquifer recharge areas are located in Section III B. Groundwater and Aquifer Recharge Areas. The goal is clear, simple and proscriptive " Protect Groundwater Quality and Quantity." The policies generally call for:

- Cumulative impact assessment
- Prevention of contamination, degradation, and depletion through comprehensive management
- Implementation of restrictions and management practices to sustain anadromous fish
- Special consideration of reduced density and development where withdrawls would diminish stream flows and elevate water temperatures
- Regulation of land uses in wellhead protection areas to prevent degradation of groundwater quality as well as development and implementation of wellhead protection area plans

Permitting designation of wellhead protection areas as mineral lands of long term commercial significance in the comprehensive plan and subsequent mining may be inconsistent with the policies in this section of the comprehensive plan if it increases the likelihood for contamination and degradation of groundwater supplies, or if the activity negatively impacts anadromous fish.

Section III C. Surface Water, includes a goal, objectives and associated policies for the protection of surface water, including wetlands, shorelines, lakes, and rivers. The goal is clear and succinct, "Protect and improve the water quality and biological health of lakes, wetlands, rivers, streams, and Puget Sound." The policies in this section area also clear, succinct and address the issue at hand. The more pertinent policies call for:

- Protection and management of surface water consistent with best available science and cumulative impact assessments of existing and planned future land and resource uses within watersheds.
- Retention of ponds, wetlands, rivers, lakes, and streams and their associated buffers substantially in their natural state.
- Protection from adverse impacts including elevation of water temperatures, flow, and channel damage and sedimentation.
- Designate and protect wetlands and surface waters through natural or restored native vegetation buffers, as well as prevention of development and activity that would damage water quality and habitat functions.

- Restoration of degraded buffers
- Regulate uses and activities along the marine shoreline based on best available
- Identify and protect sensitive marine habitats and special shoreline features.

Section III D. Frequently Flooded Areas includes a succinct goal "protect life and structures from flood hazards and retain the flood storage, transmission capacity, and habitat value of flood plains." The object and policies of this section add more detail. The more pertinent policies call for:

- Providing the highest degree of flood protection at the least cost with natural flooding and channel migration processes.
- Prohibit development and placement of fill in floodways and floodplains except to accommodate public infrastructure and utilities that cannot be placed elsewhere.
- Provide for resource uses such as forestry and existing agriculture and water-dependant uses in areas subject to river flooding to minimize risks and retain or enhance habitat functions. Other uses need to be restricted to minimize risk and loss of habitat function.

Allowing the designation and subsequent mineral extraction of gravel from streams and floodplains would be inconsistent with the policies of this section of the Comprehensive Plan. Two resource uses, forestry and existing agriculture, are specifically indicated as generally appropriate for frequently flooded areas, thereby permitting overlapping resource and critical areas designations.

Section III E. Important Fish, Wildlife, and Plant Habitat also has a clear goal, "Protect, conserve, and enhance the ecological functions of important fish, wildlife, and plant habitats." Like other sections above, the objective and policies include more specificity to the goal. The policies indicate the following:

- Protect habitats that are important to the long term viability of important habitat and species.
- Identify and protect land essential for important habitat connectivity including riparian areas, opens spaces and other habitats.
- Establish riparian areas to maintain or enhance habitat functions in associated streams.
- Study stream and riparian areas for andadromous fish and other native fish for long-term habitat viability. If any would not be sustainable for fish in the long-term, then amend zoning and development regulations and other remedial actions.
- Identify priorities for fish and wildlife habitat protection.
- Removal prohibition of man made barriers.
- Preserve water quality and quantity for fish including dissolved oxygen, chemical content, sediment load, and temperature.
- Prohibition of uses and activities that degrade lakes and streams and result in the loss of natural functions.

- Policy 14: "The county should prevent development and activities in streams, riparian areas, wetlands, other protected wildlife habitats and any associated buffers that would damage their functions, except for the minimum extent necessary when there is no reasonable alternative for accommodating an essential use (e.g., an essential road or utility crossing).

Designating and subsequent mining of known habitat and riparian areas would be inconsistent with the policies in this section of the Comprehensive Plan. Avoidance and preservation of the natural state is a common theme in the policies. The policies actually call for remedial actions when necessary. Remedial actions may include increase buffer widths and retention of riparian areas, streams, and other important habitats in their natural state.

HISTORY OF RESEARCH AND DELIBERATIONS:

Board of County Commissioners:

During the seven-year review of the Comprehensive Plan in 2003, the Board of County Commissioners reviewed and, in some cases, expanded existing designated mineral lands of long-term commercial significance. The Board's decision led to citizen challenges over these new designations. To provide time for the County to consider citizens' concerns, the Board in October 2003 adopted Interim Ordinance No. 13030. The ordinance effectively froze future decisions about mineral lands until a Mineral Lands Task Force provided recommendations for consideration by the Planning Commission and Board. Specifically, the ordinance prohibited the:

- designation of new mineral resource lands.
- permitting of new gravel mining operations.
- permitting of new asphalt plants outside the Rural Resource Industrial zone.

The Mineral Lands Task Force was formed shortly after the ordinance was passed. Its mission was to develop policy recommendations that would address citizens' concerns and comply with the GMA and, in doing so, ultimately enable the Board of Commissioners to lift the prohibitions.

The Board of Commissioners has renewed Interim Ordinance No. 13030 several times, most recently on August 9, 2011 for a six-month period (with amendments). This latest renewal will allow time for Thurston County to come into compliance with the Growth Management Hearings Board findings.

Mineral Lands Task Force:

In October 2003, the Board of Commissioners appointed an 11-member Mineral Lands Task Force made up of representatives from the mining and asphalt industries, building industry, municipalities, environmentalists, and the general public. A facilitator was hired to help the task force develop recommendations. The task force reviewed existing County policies and regulations, case law, scientific studies, maps, and related technical information. It also heard from experts on mining and asphalt plant regulation. The task force met from January through June 2004 and delivered its final recommendations in July 2004. The task force recommended the following with regard to the designation of mineral lands of long-term commercial significance:

- Lands may be co-designated as both forest lands of long-term commercial significance and as mineral lands of long-term commercial significance, provided Thurston County experiences no net loss in forest lands of long-term commercial significance.

- Designated mineral lands may contain Class 3 and Class 4 wetlands, but not Class 1 or 2 wetlands and their protective buffers.
- Designated mineral lands may not be located within 100-year floodplains.
- Designated mineral lands should be located at least 1,000 feet away from public preserves, including parks, national wildlife refuges, state conservation areas, wildlife areas, and other government-owned preserves (except exclusive hunting areas).
- Designated mineral lands may include important habitats and species. Potential impacts to these areas would be evaluated during the permitting process.
- Designated mineral lands may include wellhead protection areas, critical aquifers, and other critical areas not excluded by the criteria above. Potential impacts to these areas would be evaluated during the permitting process.

Planning Commission Review:

On February 18, 2009, the Planning Commission decided to form a subcommittee to further review the designation and permitting criteria for mineral lands of long-term commercial significance in light of Best Available Science. The subcommittee gave its final report to the full Planning Commission in October 2009, and the Planning Commission then held a public hearing on November 18, 2009. The Planning Commission gave its final recommendations to the Board of County Commissioners on February 17, 2010. The recommendations included the following provisions:

- Forest lands of long-term commercial significance may be co-designated as mineral lands of long-term commercial significance.
- Mineral resource lands shall not include Class 1 or Class 2 wetlands or their protective buffers, but may include Class 3 and Class 4 wetlands.
- Mineral resource lands shall not include any Federal Emergency Management Agency (FEMA) 100-year floodplains.
- Mineral resource lands shall <u>not</u> include important habitats and species areas and their buffers as established by the Critical Areas Ordinance at the time of designation.
- Mineral resource lands shall <u>not</u> include delineated wellhead protection areas and Category 1 Critical Aquifer Recharge Areas.

Board of County Commissioner Review and Adoption of Ordinance No. 14402:

The Board held a work session on March 30, 2010 and a hearing on April 20, 2010 and several follow up work sessions on May 19, June 2 and June 16, 2010. During these work sessions, the Board considered Best Available Science and deliberated on the recommendations from the Mineral Lands Task Force, the Planning Commission, staff, and the public. The Board of County Commissioners adopted Resolution No. 14401 and Ordinance No. 14402 amending mineral lands designation criteria on September 7, 2010.

In general, Ordinance No. 14402 adopted the Planning Commission's recommendations, with one significant exception: The ordinance prohibits forest lands of long-term commercial significance

from being co-designated as mineral lands of long-term commercial significance – in effect, prohibiting mining in forest resource lands.

In November 2010, mineral lands interest groups filed a challenge to Ordinance No. 14402 with the Western Washington Growth Management Hearings Board.

REQUIREMENT FOR A DEPARTMENT OF NATURAL RESOURCES PERMIT

At issue is the requirement for a reclamation permit from the DNR prior to designation of a site as mineral lands of long-term commercial significance in Subsection 20.30B.030(1)(d) TCC. Subsection 20.30B.030(1)(d) reads as follows:

> d. The mineral extraction site must have a special use permit if required by Chapter 20.54 unless otherwise specified in Section 20.30B.035. Designation approval shall be contingent upon issuance of reclamation permit from the Washington State Department of Natural Resources.

This subsection was not amended in 2010, and was intended to be used with the previous system of mine permitting and mineral lands designation. Previously, the hearing examiner conditionally approved a special use permit and designation at the same time. Currently, a comprehensive plan amendment designating property as a mineral lands of long-term commercial significance is required prior to approval of a special use permit.

Subsection 30.30B.035 referenced in the above subsection does not grant any exception to the requirement for a special use permit. Instead, it lays out the basic application requirements for amending the comprehensive plan to designate mineral lands.

Staff Recommendation:

Since designation now occurs prior to permitting instead of concurrent with permitting, staff is recommending that:

- Subsection 20.30B.030(1)(d) TCC be deleted as it is no longer necessary.

Planning Commission Recommendation:

The Planning Commission recommended to delete this requirement.

PROPOSED TEXT CHANGE FOR CO-DESIGNATION OF FOREST LANDS AND MINERAL LANDS PLANNING COMMISSION RECOMMENDATION:

In August of 2011, the Planning Commission selected to allow the designation of mineral resource lands in designated forest lands, thus making the County's rules consistent with the state's guidance on co-designation. Further, at this time there does not appear to be any evidence in front of the Planning Commission to justify departure from the minimum guidelines.

CRITICAL AQUIFER RECHARGE AREAS:

CARAs are not defined in the GMA (RCW 36.70A.030), but are included as a critical area. The State of Washington, through WAC 365–190-030 defines Critical Aquifer Recharge Areas (CARAs) as:

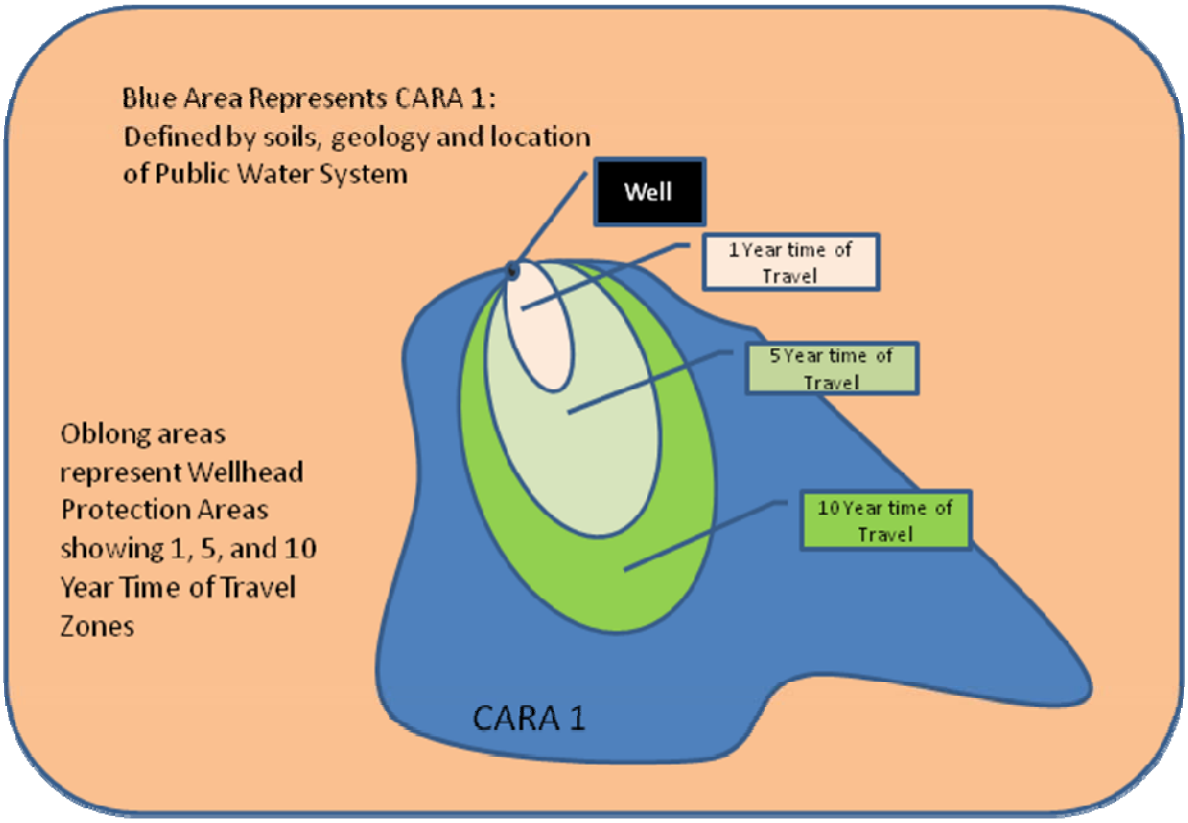
> "areas with a critical recharging effect on aquifers used for potable water, including areas where an aquifer that is a source of drinking water is vulnerable to contamination that would affect the potability of the water, or is susceptible to reduced recharge."

Thurston County, in its current Critical Areas Ordinance, defines CARAs based on their susceptibility to contamination. The rankings are CARA I through IV with CARA I denoting the most sensitive areas. The county defines a CARA I as:

> "Category I, extreme aquifer sensitivity - are those areas which provide very rapid recharge with little protection, contain coarse soil textures and soil materials, and are derived from glacial outwash materials."

Generally, Wellhead Protection Areas are geographically located within CARA I(Figure 1). The State of Washington Wellhead Protection Program Guidance Document provides guidance to jurisdictions to delineate management zones for wellhead protection areas (WHPA):

> "…a wellhead protection area is based on established times of travel. Each management zone in the wellhead protection area corresponds to an established time-of-travel in the aquifer. Thus, each of the zones represents the interval between the time a particle of water is introduced at the zone boundary and its eventual arrival at the well."



CARA Figure 1.

The state defines three zones within WHPAs. Zone 1 is the one-year time of travel zone; Zone 2 is the five-year time of travel zone; and Zone 3 is the 10-year time of travel zone. Zone 1 is managed to protect the drinking water supply from viral, microbial, and direct chemical contamination. Zone 2 is managed to control potential chemical contaminants. All potential contaminant sources must be addressed with emphasis on pollution prevention and risk reduction.

Thurston County is a region whose public health and economic prosperity depend on ground water quality and quantity. Groundwater sources account for 99 percent of the drinking water supplies for County residents (TRPC 2011). Thurston County and the incorporated municipalities

of Lacey, Olympia, Tumwater, Tenino and Yelm's WHPAs are geographically located within CARA I areas. In a region reliant on ground water, the contamination of a ground water source for even a short time could have significant public health and economic consequences.

Best Available Science

In 1995 Thurston County published the study The Direct and Cumulative Effects of Gravel Mining on Ground Water within Thurston County Washington (Mead, 1995). In his study, Mead considered the following effects related to mineral extraction in relation to impacts on ground water:

- Water Level Effects
- Increased Evaporation
- Water Chemistry Effects
- Interchanges between Aquifers

Mead found that the effects of mining on water quality and quantity were very localized to the area where the mining activity was occurring. Mead summarized his review of mining effects in the following:

> "The simplest form of gravel mining, excavating well above the water table with no associated activities such as vehicle maintenance or asphalt batch plants, causes relatively low risk to the groundwater quantity and quality. Because the protective soils have been removed, these types of excavations are extremely sensitive to the introduction of any type of contamination. But this type of mining, because it is essentially a relatively simple process of loading unconsolidated materials, does not pose a serious risk of introducing those contaminants."

A later science review for the Canadian Ministry of Natural Resources, titled Applied Research on Source Water Protection Issues in the Aggregate Industry Phase 1 Findings (Blackport Hydrogeology Inc. and Golder Associates, 2006), supported Mead's findings that sand and gravel mining poses a low risk to ground and surface water quality and quantity for CARAs:

> "…the main issue with respect to the aggregate industry, is the impact of removal of the soil zone and additional aggregate material from the water table. Although the aggregate industry does not generate pathogens, some of the factors that could affect survival and retention time of pathogens have been altered with the removal of the soil zone and some of the unsaturated zone. The impact of this alteration will be variable. Each setting will be different, but consideration should be given to:
>
> - The travel times from an aggregate operation to a source of drinking water;
> - Surface water runoff from outside the area of active aggregate extraction into an active aggregate operation or un-rehabilitated area; and,
> - Post extraction land use with the potential to increase pathogen risks in areas of higher aquifer vulnerability if there are drinking water sources within a two-year time of travel of the extraction operation."

While Mead classifies the risk to groundwater quality and quantity as relatively moderate to low with regard to mining in CARAs, he does acknowledge that the accessory uses that accompany mining create significant risk:

> "Asphalt batch plants present a lower risk to groundwater than concrete plants fromstormwater, vehicle fueling, and fuel storage and handling. Like concrete plants

however, asphalt plants are a very significant source of risk to ground water and require adequate regulatory oversight and enforcement.

Petroleum leaks and spills resulting from vehicle fueling, maintenance, and washing are probably the most common major threat to groundwater sand and gravel mining. This risk can be difficult to assess because it is highly variable depending on the scale of these activities and the degree of oversight provided by the mining operation management. That a problem exists with petroleum leaks and spills is clear from the Department of Ecology incident reports. *Because a lack of groundwater monitoring and follow-up investigation these incidents, the actual degree of ground water impact is unknown."* (Emphasis added.)_

The Ministry of Natural Resources study suggests that additional research be performed on the effects of aggregate mining activities and its impacts to groundwater and CARAs:

"…the removal of the active soil zone and at least a portion of the underlying

unsaturated zone is relatively unique to the aggregate industry…. Although this can occur to varying degrees with any land development, aggregate extraction usually takes place over a longer time, so there is an increased vulnerability for a longer time."

"The impact of this removal on the attenuative capability of the site, with respect to the rate and mobility of pathogens and degradation of hydrocarbons… should be addressed to determine whether it has any implications for source water protection, as related to time of travel within the aquifer."

It is clear that spills of hazardous materials associated with mining activities are still occurring. The January 2010 Department of Ecology fact sheet on sand and gravel permitting provides the following information:

"SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT

A compliance report covering the period from February 2005 to September 2009 (18 quarterly reporting periods) showed 4992 permit violations for the 644 active reporting facilities. Nonreporting (no submittal of a discharge monitoring report or not analyzing for a required parameter) accounted for 4006 (80%) of these violations. Of the 980 other violations, 502 were for pH exceedance, 353 were for turbidity exceedance, 56 were for oil/grease exceedance, 40 were for TDS exceedance and 29 were for TSS exceedance. During this same period, Ecology took 2221 enforcement actions. Most enforcement actions were informal (e.g. warning letters) but Ecology also issued 62 penalties and 55 notices of violation or enforcement orders in this period.

Nearly all of the facilities covered under this general permit have received a least one site visit and have received technical assistance to help them comply with the terms and conditions of the current permit. Because of the large number of Permitees, Ecology has concentrated repeat visits on those facilities with compliance problems."

Growth Management Act and CARAs:

The Growth Management Act (GMA) requires jurisdictions to protect critical areas as well as natural resource lands (forest, agricultural and mineral lands) (WAC 365-190-050 to 080). While both critical areas and natural resource lands require protection, the GMA also recognizes that not all critical areas are equal and some, due to their public value, should be protected to the maximum extent possible – that is, to avoid the critical area altogether:

> WAC 365–190–020(4) "There are qualitative differences between and among critical areas. Not all areas and ecosystems are critical for the same reasons. Some are critical because of the hazard they present to public health and safety, some because of the values they represent to the public welfare. In some cases, the risk posed to the public by use or development of a critical area can be mitigated or reduced by engineering or design; in other cases that risk cannot be effectively reduced except by avoidance of the critical area. Classification and designation of critical areas is intended to lead counties and cities to recognize the differences among these areas, and to develop appropriate regulatory and nonregulatory actions in response." (Emphasis added.)

Conclusion:

The effects on water quality and quantity due to the designation of the land as a mineral land of long term commercial significance will not in and of itself pose as a direct risk. However, aggregate mining increases the risk of pathogenic contamination to groundwater. Regulated activities that accompany aggregate mining also generate spills of hazardous materials that pose significant risk to groundwater and in many cases go unreported. The long-term effects of these hazardous material spills are an area of study where data is lacking. A majority of the region's drinking water sources are wellheads located in CARA I designated areas. The contamination of these sources for even a short period of time in a region reliant on groundwater creates substantial public health and economic risk. Therefore, the designation of Mineral Lands of Long Term Commercial Significance within the 1- and 5-year time of travel of municipal wellhead protection areas should be avoided.

Recommendations and Proposed Text Amendments:

Recommendation for Designation Criteria:

The Planning Commission has recommended the following changes in consideration of staff recommendations, public testimony, and the information available on mining in critical aquifer recharge areas and well head protection areas summarized above. Thurston County should prohibit the designation of mineral lands of long-term commercial significance within the one-year and five-year time horizontal time of travel zone of municipal water supplies.

Corresponding Text Amendments in the Comprehensive Plan and Chapter 20.30B TCC:

Designation criterion five (5) in Section IV. Mineral Resources in Chapter 3 of the Comprehensive Plan currently reads as follows:

> 5. Mineral resource lands shall not include delineated wellhead protection areas CARA I.

The corresponding designation criterion in Subsection 20.30B.030(1)(g)(i) currently reads as follows:

> i. Mineral resource lands shall not include delineated wellhead protection areas CARA I.

Designation criterion five (5) would be amended as follows to be consistent with the recommendation:

> 5. Mineral resource lands shall not be designated within the Zone 1 (one-year) or Zone 2 (five-year) Horizontal Time of Travel boundaries for any Group A Public Water System~~include delineated wellhead protection areas CARA I~~.

The corresponding criterion in Subsection 20.30B(1)(g) would be amended as follows:

i. Mineral resource lands shall not be designated within the Zone 1 (one-year) or Zone 2 (five-year) Horizontal Time of Travel boundaries for any Group A Public Water System~~include delineated wellhead protection areas CARA I~~.

Staff Recommendations for mining goal and policies in Chapter 3 Natural Resources and for the permitting of gravel mines in Title 20 as a special use:

1. Require hydrologic studies during the permit process that assess site-specific conditions and predict effects to ground and surface water quality and quantity, including impacts to public and private water systems.

2. Develop specific policies under the mining goal in Chapter 3 Natural Resources to address mining in CARAs.

FISH AND WILDLIFE HABITAT CONSERVATION AREAS:

Fish and wildlife habitat conservation areas are one of five types of critical areas that are required to be identified by the GMA.

WAC 365-190-030(6)(a) and (b) define Fish and Wildlife Habitat Conservation Areas as:

> (a) "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. Counties and cities may also designate locally important habitats and species.
>
> (b) "Habitats of local importance" designated as fish and wildlife habitat conservation areas include those areas found to be locally important by counties and cities.

WAC 365-190-130(4)(a) recommends counties:

> "…identify and classify seasonal ranges and habitat elements where federal and state listed endangered, threatened and sensitive species have a primary association and which, if altered, may reduce the likelihood that the species will persist over the long term. Counties and cities should consult current information on priority habitats and species identified by the Washington state department of fish and wildlife."

Furthermore WAC 365-190-130(4)(b) recommends that counties:

> "…identify, classify and designate locally important habitats and species. Counties and cities should consult current information on priority habitats and species identified by the Washington state department of fish and wildlife. Priority habitat and species information includes endangered, threatened and sensitive species, but also includes candidate species and other vulnerable and unique species and habitats. While these priorities are those of the Washington state department of fish and wildlife, they should be considered by counties and cities as they include the best available science. The Washington state department of fish and wildlife can also provide assistance with identifying and mapping important habitat areas at various landscape scales. Similarly, the Washington state department of natural resources' natural heritage program can provide a list of high quality ecological communities and systems and rare plants."

Fish and Wildlife Conservation Area Identification:

To identify known conservation areas, Thurston County refers to data maintained by the United States Fish and Wildlife Service, Washington Department of Natural Resources' Natural Heritage and Aquatic Resource Programs, and the Priority Habitat and Species List maintained by the Washington Department of Fish and Wildlife. In cases where the science is emerging regarding "seasonal ranges and habitat elements, the County takes a precautionary approach and consults with federal and state agencies as well as local sources, e.g. Tribes or Nature Conservancy.

When the presence of habitat and/or species are in question, staff conducts a site visit and may recommend a formal biological survey by a licensed professional, that in turn may result in the requirement for a habitat conservation plan.

An example of this process is with implementation of the Interim Prairie and Oregon White Oak Ordinance. The range of prairie and Oregon white oak habitats and the species associated with these types of habitat are currently being studied by federal and state wildlife agencies.

Development applications are reviewed and screened for the presence of prairie and oak woodland habitat using the prairie soils map maintained by Thurston Geodata. If the proposed development site is identified as being located on prairie soils, staff visits the site to determine the presence of habitat and/or species.

Historically, the range of south Puget Sound prairie and other grasslands may have exceeded 300,000 acres across the region. County maps show approximately 93,000 acres identified as having prairie soil (excluding cities, including UGAs), equating to about 36,600 total parcels. Approximately 79,000 acres and 21,000 of those properties are in rural county, outside of city urban growth areas. Soils known to be utilized by the Mazama pocket gopher, a state threatened and federal candidate species cover approximately 73,000 acres (excluding cities, including UGAs).

From 2007 - April 2011, there have been approximately 4,400 applications on prairie or gopher soils, and a total of 26 habitat management plans have been required. Looking from July 2009 (original adoption of interim prairie ordinance) - April 2011, there have been about 1,200 projects on prairie or gopher soils. During this time, twelve pocket gopher surveys were required, and only six habitat management plans were required. Two of those were county projects.

What this data demonstrates is that designation of conservation areas requires study and support of federal and state agencies or, in the case of locally important species and habitat, county analysis and site visits to accurately identify conservation areas requiring protection. Given that species move (nest site to nest site or burrow to burrow) overtime, the studies that identify conservation habitat areas should be appropriately current.

Best Available Science Review:

<u>Prairies:</u>

Science suggests habitat loss to development has eliminated most of the prairie vegetation, and that expanding human development has resulted in an increasing number of species being restricted to small pieces of isolated habitat that require intensive management for the species to survive (Stinson, 2005). Basically, habitat loss due to forest succession, agriculture and development has eliminated most of the prairie vegetation.

South Puget Sound prairies are located on glacial outwash gravels. Some of these glacial gravel deposits are very deep and valuable for use in construction and road-building, and prairie sites of

significant size may be destroyed by gravel mining. According to Stinson (2005), one of the historic sites where Tacoma pocket gophers were collected became a large gravel pit, and two gravel pits have been opened on occupied gopher habitat in Pierce County south of the City of Roy.

Riparian Zone and 100 Year Flood Plains:

Destruction of the riparian zone during gravel extraction operations can have multiple deleterious effects on anadromous fish habitat, which are afforded special consideration under the Growth Management Act (RCW 36.70A.172). The importance of riparian habitat to anadromous fish should not be underestimated. For example, a stream's capacity to produce salmonids is controlled by the structure and function of the riparian zone. The riparian zone includes stream banks and riparian vegetative cover. Damaging any one of these elements can cause stream bank destabilization resulting in increased erosion, sediment and nutrient inputs, and reduced shading and bank cover leading to increased stream temperatures. Destruction of riparian trees also means a decrease in the supply of large woody debris. This results in a loss of instream habitat complexity and diversity caused by removing the source of materials partially responsible for creating pools and riffles that are critical for anadromous fish growth and survival (Hogarth, 2005).

In the complex geology of glacial beach ridge setting, the removal of sand and gravel can alter ground water flow paths and affect the supply of water available to wetlands that are fed by discharge from the sand and gravel. Open-water ponds created by sand and gravel mining change ground water temperatures, though the magnitude and extent of those changes is not yet known. This is an ongoing concern that needs further study (Green, 2005). During excavation, if floodplain pits are kept dry via pumping, local water tables may be lowered, potentially dewatering nearby tributary channels and desiccating riparian vegetation and floodplain wetlands (White Paper, 2002).

Gravel mining can significantly alter the natural habitat structures and processes to which native plants and animals are adapted. Depending on the type of habitat affected, biological consequences include changes in the quantity and quality of spawning, rearing, migration, and disturbance refuge habitats, availability and quality of food, greater exposure to predators and increased competitive interactions. (Thurston County, 2005) Further, mineral extraction in and near streams can cause many adverse impacts to anadromous fish and their habitat. The impacts can extend far beyond the mining site, and stream recovery can take decades. (Hogarth, 2005)

The transport of sand- and gravel-sized sediment is particularly important in determining channel form, and a reduction in the supply of these sediments may induce channel changes. Moreover, gravel and cobbles have tremendous ecological importance as habitat for benthic macroinvertebrates and as spawning habitat for salmon and trout (White Paper, 2002). Mineral extraction of alluvial material from within or near a stream bed has a direct impact on the stream's physical habitat parameters such as channel geometry, bed elevation, substrate composition and stability, instream roughness elements (large woody debris, boulders, etc.), depth, velocity, turbidity, sediment transport, stream discharge, and temperature (Hogarth, 2005).

Smolts (juvenile fish) migrate seaward with the flowing water, so their progress is affected not so much by minor barriers, but passage over dams or through hydroelectric turbines, diversion into irrigation ditches, post-flood stranding in off-channel water bodies such as captured gravel pits, excessive water temperatures, and predation (White Paper, 2002). As pointed out in the White Paper, (2002), floodplain gravel pits, highway prisms, railroad grades and other urbanization

reduce floodplain connectivity and restrict channel migration, which, along with reduced base flows from irrigation diversions, have substantially reduced habitat diversity. At one site investigated, 90% of the ground water basin's flow is now surfacing in the quarry. Ground water that previously discharged at a spring now discharges in the quarry where it is exposed to quarrying activities. This premature surfacing of the ground water also alters its temperature, changing the temperature characteristics of the receiving stream and potentially affecting its aquatic life (Green, 2005).

The National Marine Fisheries Service (NMFS) recommends that mining pit excavations located on the adjacent floodplain or terraces should be preferentially sited outside the channel migration zone, and as far from the stream as possible. They also recommend that pits be separated from the active channel by a buffer designed to maintain this separation for several decades (Hogarth, 2005). NMFS continues that the cumulative impacts of gravel extraction operations to anadromous fish and their habitat be addressed by federal, state, and local resource management and permitting agencies and be considered in the permitting process (Hogarth, 2005).

Conclusion:

Best available science indicates that fish and wildlife habitat conservation areas are irreversibly affected by mining. The designation of Mineral Lands of Long Term Commercial Significance where federal or state studies have mapped conservation habitat with either threatened or endangered species is incompatible with Federal and State conservation policies. Where the range of habitat is in question as is the case with prairie and Oregon white oak woodlands, it is not feasible to exclude the designation of Mineral Lands of Long Term Commercial Significance. Rather the conservation areas would be addressed at the time of permitting when details of the proposal are available and site-specific analyses can be prepared. The delineation of these areas at the time of designation can be more difficult due to the different types of habitat and natural changes over time. The intent of designation of a mineral land is to locate and preserve potential mineral resources, not to outline where the applicant intends to mine. Protection of fish and wildlife habitat conservation areas will still be a high priority at the time of a permit application. Protection measures for these areas will be better evaluated at the permitting stage and the permit will be required to meet the Critical Areas Ordinance in effect at that time.

Recommendations:

<u>Recommendation for designation criteria:</u>

The Planning Commission has recommended the following changes in consideration of staff recommendations, public testimony, and the information available on mining in critical aquifer recharge areas and well head protection areas summarized above. Thurston County should prohibit the designation of mineral lands of long-term commercial significance in habitats of primary association to species listed as endangered or threatened by federal, or state agencies. The intent of the above recommendation is to use federal, state and local resources to ensure that known mapped conservation areas for listed species are not designated as a mineral land of long-term commercial significance in order to preserve known habitats of primary association.

Designation criterion six (6) in Section IV. Mineral Resources in Chapter 3 of the Comprehensive Plan currently reads as follows:

6. Mineral resource lands shall not include important habitats and species areas and their buffers as established by the Critical Areas Ordinance at the time of designation.

The corresponding designation criterion in Subsection 20.30B.030(1)(g)(iv) currently reads as follows:

iv. Mineral resource lands shall not include important habitats and species areas and their buffers as established by the Critical Areas Ordinance at the time of designation.

Designation criterion six (6) would be amended as follows to be consistent with the recommendation:

6. Mineral resource lands shall not include ~~important habitats and species areas~~ habitats of primary association to species listed as endangered or threatened under the Endangered Species Act or state law and their buffers as established by the Critical Areas Ordinance at the time of designation.

Subsection 20.30B(1)(g)(iv) would be amended as follows:

iv. Mineral resource lands shall not include ~~important habitats and species areas~~ habitats of primary association to species listed as endangered or threatened under the Endangered Species Act or state law and their buffers as established by the Critical Areas Ordinance at the time of designation.

Staff Recommendations for mining goal and policies in Chapter 3 Natural Resources and for the permitting of gravel mines in Title 20 as a special use:

1. In areas where emerging science has not yet led to a consensus of the vulnerability of a species or habitat (e.g. where species are candidates for listing under a federal or state agency), provisionally allow the designation of mineral lands of long-term commercial significance, and evaluate current science and other relevant data during the permitting process.

2. Review criteria in mineral extraction special use permit requirements to ensure that fish and wildlife habitat conservation areas are addressed at the time of permit application.

3. Review mineral lands goal and policies in Chapter 3 of the Comprehensive Plan to ensure they are adequate to guide the development of regulations for the protection of fish and wildlife conservation areas during permitting.

FREQUENTLY FLOODED AREAS:

These areas perform important hydrologic functions but may present a risk to persons and property. Classifications of frequently flooded areas should include, at a minimum, the 100-year flood plain, designations of the Federal Emergency Management Agency, and the National Flood Insurance Program (WAC 365-190-110).

The GMA does not define frequently flooded areas; they are defined in WAC 365-190-030 as follows:

> (8) "Frequently flooded areas" are lands in the flood plain subject to at least a one percent or greater chance of flooding in any given year, or within areas subject to flooding due to high groundwater. These areas include, but are not limited to, streams, rivers, lakes, coastal areas, wetlands and areas where high groundwater forms ponds on the ground surface."

In September 2008, the National Marine Fisheries Service (NMFS) released a biological opinion on the effects of FEMA's National Flood Insurance Program (NFIP) throughout Puget Sound. The opinion, required by a decision of the U.S. District Court in November 2004, finds that FEMA

has the ability to change the way the NFIP is implemented in Puget Sound communities to reduce impacts on critical habitat areas for certain species of salmon and Southern Resident killer whales (Release Number: R10-08-132).

The Biological Opinion (BiOp) developed by NMFS suggests that no development, including mining, should be allowed in floodways, channel migration zones and an area extending landward fifty feet, and/or the riparian buffer zone. In order to protect fish habitat and flood storage in the remaining 100-year floodplain, NMFS suggests either prohibiting development in the 100-year floodplain, or providing mitigation for any effects to floodwater storage and fish habitat function within the 100-year floodplain.

Best Available Science:

Impacts in Floodplains:

According to the Federal Interagency Stream Restoration Working Group (1998), agriculture, forestry, grazing, mining, recreation, and urbanization are some of the main land uses that can result in disturbance of stream corridor structure and functions. Even small scale developments can cause impacts in floodplains and have cumulative effects (NMFS, 2008).

Exploration, extraction, processing, and transportation of coal, minerals, sand, gravel, and other materials have had and continue to have a profound effect on stream corridors across the nation. Both surface mining and subsurface mining damage stream corridors. Changes to hydrologic conditions due to mining activity are extensive. Surface mining is, perhaps, the only land use with a greater capacity to change the hydrologic regime of a stream than urbanization. Increased runoff and decreased surface roughness will cause peaks earlier in the hydrograph with steeper rising and falling limbs. Once-perennial streams may become intermittent or short-lived as base flow decreases. (Federal Interagency Stream Restoration Working Group, 1998)

Protecting floodplain areas from cumulative impacts caused by development and climate change is increasingly urgent because of the expected increases in flood frequency and severity caused by future development (NMFS, 2008). To protect these systems, it is necessary to safeguard against upstream river development and damaging land uses that modify runoff and sediment supply in the watershed (Poff, 1997).

Recently, there has been considerable degradation of natural floodplains. This is mainly due to dredging, bank armoring, and stream channelization. Other development has also continued this process of stream channel manipulation. (May and Peterson, 2003) To prevent or reduce these negative effects, Judge et al. from the Puget Sound Partnership (2010) suggest that development within 100-year floodplains and inside the riparian buffer zone (RBZ) should be prohibited or at the least, mitigated. In its analysis of proposed regulations developed in response to listing under the Federal Endangered Species Act, Parametrix suggests that prohibiting development activity in inner portions of riparian areas and allowing native vegetation to recover is beneficial to salmon. This could include placing riparian areas in separate, protected tracts such as native growth protection or conservation easements (Parametrix, 2002).

Impacts in Aquatic Environments:

Human influences have had profound impacts on the abundance of many prey species in the northeastern Pacific Ocean during the past 150 years. Foremost among these, many stocks of salmon have declined significantly due to overfishing, harmful artificial propagation practices, and degradation of freshwater and estuarine habitats through habitat conversion due to development and urbanization, dam building, and forestry, agricultural, and mining practices

(NMFS, 2008). Further, the Federal Interagency Stream Restoration Working Group (1998) suggests that increasing development and urbanization may reduce the ability of the stream corridor to support a wide variety of fish and wildlife species and, at the same time, generate additional pressure for recreational uses.

In spite of the important scientific, cultural, and socio-economic value of salmonids, many genetically unique salmon populations are in danger of being lost forever. This is especially true in the Puget Sound Lowland eco-region, where rapid population growth and widespread development are putting pressure on the remaining natural resource areas that support native salmonids (May and Peterson, 2003). Development activities have limited access to historical spawning grounds and altered downstream flow and thermal conditions. Watershed development and associated urbanization throughout the Puget Sound, Hood Canal, and Strait of Juan de Fuca regions have increased sedimentation, raised water temperatures, decreased large woody debris, decreased gravel, reduced river pools and spawning areas, and dredged and filled estuarine rearing areas (NMFS, 2008). The specific practices that have resulted in diminished ecosystem health include mining, among other activities. The cumulative effects of timber harvest, fire suppression, livestock grazing, mining, irrigation, and other factors have greatly altered the health of river basins in eastern Washington and have consequently lead to widespread declines in anadromous fish populations (Knutson & Naef, 1997).

Recent effects of mining on stream and riparian ecosystems include water contamination with leachates from sand and gravel excavation in stream channels and floodplains. Removing gravel from rivers can alter flow patterns in channels and overload aquatic habitats with sediments. This causes changes in substrate composition, depth, velocity flow patterns, turbidity, suspended sediments, and temperature, all of which determine the abundance and biodiversity of aquatic organisms. (Knutson, 1997)

Water temperature is affected by air temperature, flow, shade, turbidity, groundwater-surface water interactions, channel complexity, water diversions, substrate composition, the presence of headwater wetlands and lakes, and reservoir releases. Many of these conditions and associated impacts are affected by land development practices. Cool, well-oxygenated water is essential for salmonid survival, and natural streams generally contain an abundant supply of dissolved oxygen. Changes in temperature can influence water chemistry, with warmer temperatures increasing the metabolic demand for oxygen while at the same time decreasing the capacity of freshwater to hold oxygen in solution. The concentration of dissolved oxygen must be above a critical level for salmonids to exist in freshwater streams (Knight, 2009). Declining base flows (from increased water withdrawals and loss of groundwater recharge), and loss of riparian vegetation associated with increased urbanization and development activities has contributed to an upward trend in water temperatures over the last 20 years (Parametrix, 2002).

Mining can often remove large areas of vegetation at the mine site and associated transportation facilities, processing plants, and tailings piles. Reduced shade can increase water temperatures enough to harm aquatic species. Loss of vegetation cover, poor water quality, changes in food availability, disruption of migration patterns, and similar difficulties can have serious effects on terrestrial wildlife. Species composition may change significantly with a shift to more tolerant species. Population is also likely to decline. Mining holds few positive benefits for most wildlife species (Federal Interagency Stream Restoration Working Group, 1998). Development within the floodplain results in stream channelization, habitat instability, vegetation removal, and point and nonpoint source pollution all of which contribute to degraded salmon habitat (NMFS, 2008).

In the process of building their redds (nests), salmonids actually fan away the fine sediment from the streambed gravels thus improving the flow of water to the incubating eggs. Survival to alevin emergence from the streambed is generally strongly correlated to the percentage of fine sediment ("fines") in the substratum. Elevated levels of fine sediment in spawning gravels have been associated with timber-harvest activities, mining, grazing, and other human activities (May, 2003).

Continued development of floodplains will exacerbate flood conditions in a manner that reduces juvenile Chinook salmonid survival rates, further lowering the rate of productivity which is already non-viable, hastening the trend toward extirpation of these populations (NMFS, 2008). Coho salmon, which normally out-compete cutthroat trout in natural streams, appear to be more sensitive to changes associated with urbanization and therefore decline in abundance as urban development increases (May, 2009). These effects impair conditions for juvenile salmon development and migration.

Conclusion:

Surface mining in the 100-year floodplain negatively impacts important hydrologic functions and anadromous fisheries through vegetation removal, changes in water temperature, reductions in water quality, among other effects. Climate change is expected to increase flood frequency and severity in Washington Sttate, thus exacerbating impacts and risks currently experienced locally. In addition to the impacts outlined herein, authorizing development activities such as surface mining within the 100-year floodplain contravenes federal guidance for endangered species preservation and should be avoided.

Recommendation and Proposed Amendment:

<u>Recommendation for Designation Criteria and TCC:</u>

The Planning Commission has recommended no changes to the existing designation criteria in consideration of staff recommendations, public testimony, and the information available on mining in critical aquifer recharge areas and well head protection areas summarized above. Thurston County should prohibit designation of mineral lands in the 100-year floodplain.

Designation criterion seven (7) in Section IV. Mineral Resources in Chapter 3 of the Comprehensive Plan currently reads as follows:

7. Mineral resource lands shall not include agriculture lands of long-term commercial significance, historical/cultural preservation sites, and any Federal Emergency Management Agency (FEMA) 100-year floodplain.

The corresponding designation criterion in Subsection 20.30B.030(1)(g)(iii) currently reads as follows:

iii. Mineral resource lands shall not include agriculture lands of long-term commercial significance, historical/cultural preservation sites, and any Federal Emergency Management Agency (FEMA) one hundred-year floodplain.

Staff Recommendations for mining goal and policies in Chapter 3 Natural Resources and for the permitting of gravel mines in Title 20 as a special use:

1. Review criteria in mineral extraction special use permit requirements to prohibit gravel mining in frequently flooded areas consistent with the critical areas ordinance.

2. Review mineral lands goal and policies in Chapter 3 of the Comprehensive Plan to ensure they are adequate to guide the development of regulations prohibiting mining in frequently flooded areas, except for high groundwater hazard areas.

WETLANDS:

The Growth Management Act, RCW 36.70A.030, WAC 365-190-030 and Thurston County's Critical Areas Ordinance (CAO) define wetlands as follows:

> "Wetland" or "wetlands" means areas that are inundated or saturated by surface water 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 those artificial wetlands intentionally created from nonwetland 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 nonwetland areas created to mitigate conversion of wetlands.

Wetlands in Thurston County are rated according to the Washington State Wetland Rating System for Western Washington, August 2006, as amended. Wetlands are rated as Category 1-4. Thurston County's current CAO identifies wetlands as Class 1-3, with Categories 3 and 4 grouped together under Class 3. For purposes of this chapter, Class and Category should be considered to be the same.

The current Thurston County Critical Areas Ordinance (CAO) prohibits mining in Category 1 (I) and 2 (II) wetlands. Thurston County's CAO defines Category 1 and 2 wetlands as such:

> "Class I wetlands" can be described as the cream of the crop. Generally, these wetlands are not common and would make up a small percentage of the wetlands in the state. These are wetlands that: (1) provide a life support function for threatened or endangered species that have been documented, and the wetland is on file in databases maintained by state agencies, (2) represents a high quality example of a rare wetland type, (3) are rare habitat type within a given region, or (4) are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime.

Class I wetland are:

1. Those that have a documented occurrence in the wetland of a federal or state listed endangered, threatened plant, animal, or fish species; or
2. High quality native wetland communities which qualify for inclusion in the Natural heritage Information System; or
3. Documented as regionally significant waterfowl or shorebird concentration areas; or
4. Wetlands with irreplaceable ecological attributes which are impossible to replace in a human lifetime, such as bogs.

> "Class II wetlands" occur more commonly than Class I wetlands. These wetlands are those that: (1) provide habitat for very sensitive or important wildlife or

plants, (2) are either difficult to replace, or (3) provide very high functions and values, particularly for wildlife habitat.

Class II wetlands satisfy no Class I criteria and are:

1. Those that have a documented occurrence in the wetland of a federal or state listed sensitive plant, animal, or fish species; or
2. Those that contain priority species or habitats recognized by state agencies; or
3. Wetlands with significant functions which may not be adequately replicated through creation or restoration; or
4. Wetlands with significant habitat value of twenty-two or more points from the rating system.

Best Available Science Review:

Wetlands provide many benefits to watersheds such as water purification, flood control, carbon sequestration, recreation and open space, shoreline stability, and support for biodiversity and wildlife habitat. Regrettably, many have recently been damaged from draining for development or other uses. Development alters the movement and storage of surface water and groundwater within a wetland's contributing basin. These changes can significantly affect the wetlands and other aquatic resources, causing a negative effect on many wetland functions (Sheldon, 2005). These negative effects can include decreased species richness and local extinctions, isolation of wetlands and habitat fragmentation (King County, 2004). The specific practices that have resulted in diminished ecosystem health include mining (Knutson & Naef, 1997).

In 1989, Governor Booth Gardner signed an Executive Order establishing a statewide goal of no net loss addressing wetlands protection. State agencies reporting to the Governor were directed to implement this goal through specific tasks, and other agencies and local governments were encouraged to make their actions consistent with the goal.

"It is the interim goal...to achieve no overall net loss in acreage and function of Washington's remaining wetlands base. It is further the long-term goal to increase the quantity and quality of Washington's wetlands resource base." (E.O. 89-10).

Wetland Functions Descriptions:

Wetlands perform an array of ecological functions that we have only recently begun to appreciate. Scientists today recognize the environmental benefits that wetlands provide, and the importance of preserving rather than eliminating our wetland resources.

Our understanding of the complexities of wetland ecosystems is still developing, and it seems the more we learn, the more valuable wetlands become. Wetland ecologists have already documented the following environmental benefits of wetlands: water purification, flood protection, shoreline stabilization, groundwater recharge, and streamflow maintenance. Wetlands also provide habitat for fish and wildlife species, including endangered species. Not all wetlands provide all of these benefits, and how a particular wetland functions depends on its location and its type. Here is a simple summary of how wetlands perform their complicated functions, along with a brief explanation of how these functions support humans and other species.

Water Purification:

Wetlands protect water quality by trapping sediments and retaining excess nutrients and other pollutants such as heavy metals. These functions are especially important when a wetland is

connected to groundwater or surface water sources (such as rivers and lakes) that are in turn used by humans for drinking, swimming, fishing, or other activities. These same functions are also critical to the fish and other wildlife that inhabit these waters. (Sheldon, 2005)

Sediments, nutrients, and toxic chemicals enter wetlands primarily by way of "runoff," a term used to describe the rain and stormwater that travels over land surfaces on its way to receiving waters. In urban areas, runoff washes over buildings and streets in industrial, commercial, and residential areas where it picks up pollutants and carries them to receiving waters. In rural areas, agricultural and forest practices can affect runoff. Where the runoff drains a disturbed area it may carry too much sediment. Runoff may also carry pesticides and fertilizers if these have been applied to the land. (Sheldon, 2005)

Sediments, which are particles of soil, settle into the gravel of streambeds and disrupt or prevent fish from spawning, and can smother fish eggs. Other pollutants -- notably heavy metals -- are often attached to sediments and present the potential for further water contamination. Wetlands remove these pollutants by trapping the sediments and holding them. The slow velocity of water in wetlands allows the sediments to settle to the bottom where wetland plants hold the accumulated sediments in place. Removing these soils and plants poses a greater risk to wildlife species as well as the groundwater we drink. (Sheldon, 2005)

Runoff waters often carry nutrients that can cause water quality problems. An example of such an occurrence is an "algae bloom." Besides the aesthetic problems associated with algae blooms (a green, smelly slime) they result in low levels of oxygen in the water. This oxygen depletion can result in the death of fish and other aquatic life. Some algae release toxins that can kill pets and livestock when bloom conditions occur. Wetlands protect surface waters from the problems of nutrient overload by removing the excess nutrients, some of which are taken up and used by wetland plants, and some of which are converted to less harmful chemical forms in the soil. (Sheldon, 2005)

Toxic chemicals reach surface waters in the same way as nutrients, and can cause disease, death, or other problems upon exposure to plants and animals (including humans). In a function similar to nutrient removal, wetlands trap and bury these chemicals or may even convert some of them to less harmful forms. Scientists are continuing to study the fate of toxic chemicals when they enter wetlands, and they warn us that even if the toxins are buried, they are still potentially dangerous. Disruption of wetland soils could release the toxins back into the aquatic environment. (Sheldon, 2005)

Flood Protection:

Almost any wetland can provide some measure of flood protection by holding excess runoff after a storm, and then releasing it slowly. The size, shape, location, and soil type of a wetland determine its capacity to reduce local and downstream flooding. While wetlands cannot prevent flooding, they do lower flood peaks by temporarily holding water and by slowing the water's velocity. Wetland soils act as a sponge, holding much more water than other soil types. Even isolated wetlands can reduce local flooding -- if the wetlands were not there to hold stormwater runoff, backyards and basements might end up under water. (Sheldon, 2005)

Shoreline Stabilization:

Wetlands that occur along the shoreline of lakes or along the banks of rivers and streams help protect the shoreline soils from the erosive forces of waves and currents. The wetland plants act as a buffer zone by dissipating the water's energy and providing stability by binding the soils with their extensive root systems. (Sheldon, 2005)

Groundwater Recharge and Streamflow Maintenance:

Aquifers and groundwater are "recharged," that is, replenished with water by precipitation that seeps into the ground and supplies surface waters. Those wetlands that are connected to groundwater systems or aquifers represent important areas for groundwater exchange. They retain water, thus providing time for infiltration to occur. Groundwater, in turn, provides water for drinking, irrigation, and maintenance of streamflow and lake and reservoir levels. During periods of low streamflow (or low lake water levels), the slow discharge of groundwater often helps maintain minimum water levels. In addition, wetlands located along streams, lakes, and reservoirs may release stored water directly into these systems, thus also contributing to their maintenance. Wetlands' many intricate connections with groundwater, streamflow, and lake and reservoir water levels make them essential in the proper functioning of the hydrologic cycle. (Sheldon, 2005)

Fish and Wildlife Habitat:

Many species of birds, fish, mammals, reptiles, and amphibians rely on wetland habitat for breeding, foraging, and cover. The special wetland conditions provide unique habitat for species that cannot survive elsewhere. Migratory birds depend on wetlands, and many endangered and threatened animal species require wetlands during part of their life cycle. The incredibly high rate of wetlands loss has contributed to the demise of dependent species. (Sheldon, 2005)

Wetland plants and small animals -- especially insects -- are essential links at the lowest levels of the food chain. A wetlands environment supports these plants and animals, which in turn support the larger animals that feed on them. While an otter or a trout may be a more attractive species to protect than some anonymous insect or plant, the latter are no less important in the overall scheme. If we diminish the lowest levels of the food chain, the higher levels will suffer as well. (Sheldon, 2005)

Economic Benefits:

The economic benefits associated with the environmental functions of wetlands can be substantial. For example, construction of flood control or water treatment systems to replace those functions provided by wetlands can result in costs that far outweigh the land purchase price of preserving the natural wetland systems. Similarly, when wetlands lose their value as fish habitat, this value is difficult to replace, and the consequential losses to the recreational and commercial fishing industries can be significant. There are as yet no precise formulas that can be used to determine the accurate dollar value per acre of wetland, but the more we learn about wetlands, the higher that value becomes. (Sheldon, 2005)

The Limits of Wetlands:

As broad as the benefits of wetlands are, and for all their ecological contributions, they do have limits. A partially filled or otherwise damaged wetland is one that only partially meets its potential for flood control, shoreline stabilization, or groundwater recharge. A badly degraded wetland can lose its capacity to remove excess sediments, nutrients, and other pollutants, and can lose habitat value for fish and wildlife. Wetlands may have tremendous capacities to provide environmental benefits, but they are not indestructible. In order for wetlands to continue to perform their ecological functions, they need to be protected. (Sheldon, 2005)

Results of Mining on Wetlands:

In reviewing scientific literature regarding impacts from mining on wetlands and their buffers, staff was careful to distinguish between the types of mining being discussed e.g. hard rock versus sand and gravel. For the purposes of this report only those impacts addressed by activities

regulated by the county's Critical Areas Ordinance are addressed, that is, sand and gravel mining. The direct link from specific surface mining activities to degradation of adjacent wetlands is not well documented in scientific literature, however impacts from disturbance and disruption of functions is well researched (Sheldon, 2005).

The literature supports that there are threats to wetlands from mining due to:

- alterations in the landscape processes that support healthy wetlands,
    - "Mining disrupts wetland ecosystems by altering watershed processes that ultimately influence the attributes of streams, lakes, and estuaries. Further, mining may alter the timing and routing of surface and subsurface flows. This may increase stream flow and storm runoff, as a result of compaction of mine spoils, reduction of vegetated cover, and the loss of organic top soils, all of which reduce infiltration," (Spence 1996).
- localized effects to water quality due nearby mining activities,
    - "Surface and gravel mining activities increase turbidity. In locations where ground water discharges to surface water, increasing turbidity of ground water may have a harmful effect on the surface water ecosystem (Mead 1995)."
- and hypotheses based on the experience of state wetland scientists,
    - See attached Table 4.3. Summary of types of environmental disturbances created by some types of land uses from Sheldon 2005.

Wetlands can be severely degraded by storm water discharges from development due both to pollutants and to the disruption of natural flow rates into the wetland. If unchecked, sediments washed off construction sites can fill in wetlands. Since wetlands provide multiple benefits including flood storage, groundwater recharge, and water purification, it is important that discharges to wetlands be controlled to protect the hydrologic characteristics necessary to support the wetland (FEMA, 2002).

Mining generates large quantities of unusable rock that is often left on the surface after it is extracted. This exposes the rock (called spoils) to an oxidizing environment, resulting in several chemical reactions. The minerals contained in the spoils are not in equilibrium with the environment and almost immediately begin weathering. The reactions are similar to geologic weathering which usually takes hundreds to thousands of years. The accelerated weathering can release damaging amounts of acid and metals into the environment. Because of this, the two major disturbances created by surface mining are an increase in the acidity of surface waters and an increase in the levels of heavy metals that are toxic to many organisms (Sheldon, 2005). The most serious consequence of mining on aquatic ecosystems might be contamination of surface waters by acid leaching from mine spoils (Spence, 1996).

In addition to the introduction of pollutants, development near a wetland can alter the quantity and timing of surface and ground water inputs to the wetland. Considerable research has documented the adverse impacts from changes in wetland hydroperiod (Granger, 2005). Spence

(1996) stated that mining disrupts wetland ecosystems by altering watershed processes that ultimately influence the attributes of streams, lakes, and estuaries. Further, mining may alter the timing and routing of surface and subsurface flows. This may increase stream flow and storm runoff, as a result of compaction of mine spoils, reduction of vegetative cover, and the loss of organic top soils, all of which reduce infiltration. Lower infiltration rates results in increases to overland runoff and stream flows, particularly during storm events (Spence, 1996). Additionally, mining may increase the amount of suspended fine sediments and turbidity in the water column. Fine sediments may settle in gravel pits or travel downstream to settle in other slow-water areas. As a result, downstream areas may become covered with sand, mud, and silt (Spence, 1996).

Development in or near wetlands can have serious negative impacts to the functions of watersheds. Draining and filling of wetlands and swamps in floodplains reduces the storage capacity of the system and leads to more downstream flooding (Bolton, 2001). Currently, watershed development, and associated increased imperviousness, alters all aspects of wetland hydrology by intercepting precipitation, reducing the water that infiltrates into the soil and causing higher runoff volumes and more frequent peaks to either enter or bypass wetlands (King County, 2004). Development can change stormwater flows and add pollutants to water bodies, impacting the water quality, quantity, and habitat. Even low levels of development can degrade fish populations. Research indicates that very low levels of development alters biological functions with measurable impacts to salmon populations occurring with as little one home per acre as a result of changes in storm water flows (CH2M Hill, 2001).

An additional factor in determining whether to co-designate wetlands and mineral lands is to look to whether wetland areas meet the criteria of Mineral Lands. To determine whether to designate Category 1 and 2 wetlands as Mineral Lands of Long Term Commercial Significance, the composition of wetlands must be assessed for their value to mineral lands. Wetlands are composed of silts, clays, and decaying organic matter that are typically devoid of significant deposits of sand and gravel materials. Wetland soils such as Norma or Mukilteo Muck are not considered soils that contain gravel or sand. Typical wetland soils are highly organic and poorly drained. The water table is high and uses are limited. Typical soils for gravel mines are Spanaway-Nisqually which are coarse, well-drained and contain sufficient gravel for extraction (NRCS Soil Survey for Thurston County 1990). Wetland, or hydric, soils are not appropriate for gravel mining, therefore wetlands would not be considered Mineral Lands of Long Term Commercial Significance. Because wetland soils are not considered appropriate for mineral extraction, it would be inconsistent with WAC 365-190 to co-designate as a mineral land of long-term commercial significance.

With regard to wetland buffers, scientific literature indicates that buffers are crucial to protecting the functions of the wetlands they surround. Moreover, runoff from clearing and construction activities and from residential and commercial development would maintain higher winter wetland water levels than with infiltration, therefore decreasing the live storage and flood control capacities. Higher runoff also means lessened subsurface flows, recharge, and storage. Therefore wetlands may be expected to dry out for greater lengths and more frequency with concomitant hydrological effects on other aquatic areas.

In considering whether or not Class 1 and 2 wetland buffers should be excluded from designation as MLTS, staff found evidence to suggest that even the widest wetland buffers may not be sufficient in certain geologic settings. Ground water interaction is largely determined by surficial geology and land use setting, although buffer widths may also influence this process (Dunne and Leopold 1978). The hydrology of wetlands in high recharge areas of outwash soil with deep

organic matter and vegetative complexity may be sustained by proposed buffer widths. However, in bedrock and till areas with low organic soils and sparse vegetation structure, buffers of 300 feet or greater averaged widths may not protect hydrological functions. In these situations, protecting watershed characteristics, especially infiltration areas, organic soils, and diverse vegetation is critical (King County 2004).

Impacts of Mining on Wetlands:

Urbanization permanently alters many natural watershed processes, and in some cases, little may be done to mitigate effects. Thus, Spence (1996) suggests that the most effective way to minimize impacts is through careful land-use planning that minimizes the total impervious area and that prevents development along streams and in natural floodplains. The risk comes from altering the hydrologic recharge in timing, quantity and quality of ground and surface water sources to wetlands, the sedimentation of wetlands due to mining runoff, and the alteration of water chemistry due to runoff from sand and gravel stock piles.

Protection of wetlands was also included in the Parametrix review of proposed land use regulations aimed at protecting salmon after listing under the Federal Endangered Species Act (2002). Parametrix concluded that the proposed rules would have a beneficial effect on salmon habitat. Additionally, according to Larson (2004), activities such as mining that significantly alter the landscape or vegetation in wildlife habitat areas should be avoided.

Maximum protection from a fish and wildlife perspective would likely involve no development anywhere (Knutson & Naef, 1997). However, a more likely and reasonable solution to protect fish and wildlife is to integrate fish and wildlife management considerations in all land use decisions. High impact development should be focused away from priority fish and wildlife habitats. Lands outside critical areas are also important to fish and wildlife as they help protect critical areas from surrounding urban development (Knutson & Naef, 1997). Development activities could have setback provisions that minimize impacts on groundwater movement and avoid the filling of wetlands (Parametrix, 2002). These suggestions are consistent with the County's current CAO which prohibits mining within Category 1 and 2 wetlands and further language could be incorporated into the Thurston County Comprehensive Plan and designation criteria by prohibiting the designation of mineral lands in these specified areas. The potential impacts to the highest quality wetlands (those identified as irreplaceable in our lifetimes) represents a high risk should these wetlands be designated as mineral lands.

Analysis:

During the June 15, 2005 Planning Commission meeting, staff presented several maps showing the likelihood of future gravel site location. The task force recommended that those sites with Category 1 and 2 wetlands were not suitable for Mineral Land designation, but that Category 3 and 4 wetlands could be included in Mineral Land designation and evaluated and protected at the time of permitting subject to critical areas regulations. Category 1 and 2 wetlands are larger and could be identified through a wetland report. The smaller Category 3 and 4 wetlands would be identified at the permit stage although not allowed to be impacted due to the high functional values of wetlands. In order to identify the category of wetland, a wetland report that categorizes the wetland would have to be required at the time of designation. Identifying the Category 1 and 2 wetlands at the time of designation prevents designation of lands that are not appropriate for gravel mining and that do not contain mineral lands of long term commercial significance.

Conclusion:

Wetland science suggests that sand and gravel mining activities pose a high risk to wetland functions and that both wetlands and their buffers should be protected from disturbance. Further, given that wetlands are composed of silts, clays and other decaying organic matter that is typically devoid of significant sand and gravel deposits, extraction of minerals within these areas would not be anticipated to occur. It is highly unlikely than any Category 1 or 2 wetland could be considered as Mineral Lands of Long Term Commercial Significance.

Recommendations:

Recommendation for designation criteria:

The Planning Commission has recommended the following changes in consideration of staff recommendations, public testimony, and the information available on mining in critical aquifer recharge areas and well head protection areas summarized above. Thurston County should prohibit the designation of mineral resource lands in known mapped wetlands that are Category 1 and 2 wetlands due to their high quality and irreplaceable functions. Also, Thurston County should address Category 3 and 4 wetlands and any specific impacts of mining development at the time of permitting when site specific details are available

Designation criterion eight (8) in Section IV. Mineral Resources in Chapter 3 of the Comprehensive Plan currently reads as follows:

8. Mineral resource lands shall not include class 1 or 2 wetlands or their protective buffers, but may include class 3 and 4 wetlands.

The corresponding designation criterion in Subsection 20.30B.030(1)(g)(ii) currently reads as follows:

ii. Mineral resource lands shall not include class 1 or 2 wetlands or their protective buffers, but may include class 3 and 4 wetlands.

Designation criterion eight (8) would be amended as follows to be consistent with the recommendation:

8. Mineral resource lands shall not include Category (class) One (1) or Two (2) wetlands or their protective buffers, but may include ~~class~~ Category (class) Three (3) and (4) wetlands.

Subsection 20.30B(1)(g)(ii) would be amended as follows:

ii. Mineral resource lands shall not include Category (class) One (1) or Two (2) wetlands or their protective buffers, but may include ~~class~~ Category (class) Three (3) and (4) wetlands.

Recommendations for mining goal and policies in Chapter 3 Natural Resources and for the permitting of gravel mines in Title 20 as a special use:

1. Address Category 3 and 4 wetland and any specific impacts of mineral extraction at the time of permitting when site-specific details are available.

GEOLOGIC HAZARDS:

The Planning Commission has recommended the following changes in consideration of staff recommendations, public testimony, and the information available on mining in critical aquifer recharge areas and well head protection areas summarized above. Thurston County should Delete criterion ten (10) in the Comprehensive Plan.

Some geologically hazardous areas as defined by the critical areas ordinance may be minable. Such areas would not include marine bluffs, the bluff area in the Nisqually Hillside Overlay, mining a geologically hazardous area that would cause a public safety hazard, or mining that may negatively impact other property owners.

Policy 10 in Chapter 3 section IV addresses geologic hazard areas and mineral lands designation.

Designation criterion ten (10) in section IV. Mineral Resources in Chapter 3 of the Comprehensive Plan currently reads as follows:

10. Mineral resource lands shall be located away from geologically hazardous areas such as steep and/or unstable slopes as provided by the Critical Areas Ordinance.

There is no corresponding designation criterion in Subsection 20.30B.030. Criterion 10 should be deleted from the Comprehensive Plan.

Recommendation for mining goal and policies in Chapter 3 Natural Resources and for the permitting of gravel mines in Title 20 as a special use:

1. Review criteria in mineral extraction special use permit requirements to prohibit gravel mining in specific geologically hazardous areas such as Marine Bluffs consistent with the critical areas ordinance, and to ensure that a public safety hazard would not be created.

2. Review mineral lands goal and policies in Chapter 3 of the Comprehensive Plan to ensure they are adequate to guide the development of regulations prohibiting mining in appropriate geologically hazardous areas.

NEXT STEPS:

Public Hearing:
The Board of County Commissioners will need to schedule a public hearing by late March or early April to meet the compliance deadline of April 19, 2012. Any additional amendments options should be completed prior to the public hearing to allow for public comment.

Board of County Commissioner Briefings:
Staff has scheduled a series of briefings with the Board of County Commissioners including the following dates:

- February 22, 2012
- March 1, 2012
- March 8, 2012
- March 21, 2012
- April 12, 2012

Briefings may be added or cancelled based on need.

SEPA:
A SEPA determination is likely to be issued by February 24, 2012, or by March 2, 2012.

60-Day Notice to State Agencies
The proposed amendment was submitted to the Department of Commerce for the required 60-day notice to state agencies on February 15, 2012. This will allow the Board of County Commissioners to make their decision at the April 17, 2012 Board of County Commissioners meeting in time for the April 19, 2012 compliance deadline.

Board of County Commissioners Decision:

The Board of County Commissioners decision is due by April 19, 2012. A decision must be made by Thurston County by April 19, 2012 which is the compliance deadline.

ATTACHMENTS:

Attachment A: Proposed Amendments to Section IV. Mineral Lands of Chapter 3 Natural Resources in the Comprehensive Plan and to Section 20.30B.030 of the Thurston County Code
Attachment B: Final version of the 2010 Amendments to Chapter 3 Natural Resources
Attachment C: Final Version of the 2010 Amendments to Chapter 20.30B TCC
Attachment D: Applicable Sections of the Washington Administrative Code
Attachment E: Works Cited

Attachment A:

Proposed Amendments to Section IV. Mineral Lands of Chapter 3 Natural Resources in the Comprehensive Plan and to Section 20.30B.030 of the Thurston County Code

Deleted Text: ~~Strikethrough~~ Proposed Changes: Underlined
Staff Comments: *Italics* Unaffected Omitted Text: (…)

...

The above criteria were applied throughout unincorporated county areas to designate those forest lands of long-term commercial significance. Those lands that currently meet the criteria are shown on Map M-42. Future lands meeting these criteria may also be designated.

IV. MINERAL RESOURCES

Community Vision: The citizens of Thurston County recognize mining as an important part of the rural economy. Mineral resources such as sand and gravel supply materials for road maintenance and construction projects throughout the region. The community seeks a balance between the need for mineral resources and the need to protect the environment and the community from adverse impacts of mining. Good stewardship of mining operations, including reclamation and restoration, takes a partnership among mining operators, county citizens, and regulatory agencies.

Background: As a result of major glacial activity in Thurston County's geologic past, major deposits of sand and gravel are located in Thurston County. This geologic heritage provides the raw material for dozens of sand and gravel operations throughout the County. The deposits are perhaps doubly significant considering their proximity to major population areas and construction projects that use sand and gravel. Although rich in sand and gravel, the County has relatively few areas of high quality basalts used in construction activities.

Balancing conflicts: The extraction process does pose potential conflicts with surrounding uses, particularly rural residential uses and critical areas. During the process of designating resource lands of long-term commercial significance, the county evaluates the location and value of the resource and critical areas as well as its proximity to existing residential areas (see below). For permitting new mining activity, the county considers groundwater protection, air quality impacts, hazards posed by gravel truck travel, and residential densities surrounding the mine, among other concerns. In response to these concerns, the county implements conditions and BMPs through the Special Use Permit process to ensure that mining operations are in keeping with public health and safety and environmental protection. Just as sand and gravel is a natural resource, so too is the groundwater and air quality the county depends on. The policies provide that generally, mining should minimize adverse impacts on the environment, and specifically, should minimize its effect on surface and groundwater and air quality.

The policies also specify that mineral extraction sites should be restored as mining occurs. Existing, non-operating or abandoned mining sites pose a

concern to many county residents because they may leave aquifers vulnerably exposed, and invite illegal waste dumping. The action recommendations also seek to address the problem of these nonoperating sites.

The policies recognize the necessity for mineral extraction to be located in rural areas of the county with low population densities or in industrial-zoned areas. The movement of large amounts of mineral resource necessitates good roads capable of handling significant numbers of heavily-loaded trucks. Loaded trucks en route from the extraction site may lose a very small but potentially hazardous portion of their load, and track dirt or mud onto public roadways. Therefore, the policies also respond to the need for better prevention of such mining impacts on county residents.

Designating Mineral Resources of Long-Term Commercial Significance: The Growth Management Act states that "...each county...shall designate where appropriate...mineral resource lands that are not already characterized by urban growth and that have long-term significance for the extraction of minerals." RCW 36.70A.170(1) The Act defines "minerals" as gravel, sand, and valuable metallic substances. Other minerals may be designated as appropriate. RCW 36.70A.060(1)(a) states that "...each county...shall adopt development regulations...to assure the conservation of...mineral resource lands designated under RCW 36.70A.170."

Within Thurston County, minerals of potentially long-term commercial significance include sand and gravel deposits, coal deposits, and a few rock resources, such as columnar basalt (shot rock) and sandstone. Basalt "shot rock" is important for highway construction and flood control rip rap. The sandstone quarries at Tenino have provided valuable building material for the State Capitol and other structures around the County. There are no known valuable metallic minerals within the County.

Protecting these mineral deposits of long-term commercial significance for mining use is an important goal of the policies, as is preventing residential and other incompatible uses from locating adjacent to these deposits. The County recognizes that a mining operator's hauling distance to the resource user is an important factor to its economic viability. However, the policies also provide that mining activity should not encroach on existing residential uses nor adversely affect the environment. In addition, significant geologic features, including Mima mounds, shall not be used for mining purposes. Additional significant geologic features may be identified by future study.

To determine the location of mineral resource lands of long-term commercial significance, the County applies the criteria provided by the Washington State Department of Commerce (DOC). Based on the DOC Guidelines and additional considerations to protect public health, safety, and the environment, the County has developed the following criteria to designate mineral resource lands of long-term commercial significance.

MINIMUM DESIGNATION CRITERIA

1. Mineral Deposits. Designated mineral resource lands should contain deposits consisting of sand and gravel, coal, sandstone, basalt, or other igneous rock, based on U.S. Geological Survey maps or site-specific information prepared by a geologist, or as indicated by State Department of Natural Resources (DNR) mining permit data.

2. Location. Designated mineral resource lands shall be separated by a distance of at least 1,000 feet from public preserves, which include parks, national wildlife refuges, state conservation areas, wild life areas, and other government owned preserves, but excluding exclusive hunting areas. In addition, designated mineral resource lands shall be, at least 1,000 feet from urban growth areas and rural residential areas with existing densities predominantly one dwelling unit per five acres or higher, in order to minimize land use conflicts during the long-term operation of the mine.

   To qualify for mineral resource designation, at least 60% of the area within 1,000 feet of a proposed site must be made up of parcels 5 acres in size or larger, excluding parcels owned by the applicant.

3. Minimum Site Size. An area proposed for mineral resource lands designation should be at least 5 acres in size.

4. Marketability. Mineral resource lands shall contain non-strategic minerals which are minable, recoverable and marketable in the present or foreseeable future as determined by a licensed professional geologist.

5. Mineral resource lands shall not <u>be designated within the Zone 1 (one-year) or Zone 2 (five-year) Horizontal Time of Travel boundaries for any Group A Public Water System</u>~~include delineated wellhead protection areas CARA I~~.

6. Mineral resource lands shall not include~~ important habitats and species areas~~ <u>habitats of primary association to species listed as endangered or threatened under the Endangered Species Act or state law</u> and their buffers as established by the Critical Areas Ordinance at the time of designation.

7. Mineral resource lands shall not include agriculture lands of long term commercial significance, historical/cultural preservation sites, and any Federal Emergency Management Agency (FEMA) 100 year floodplain.

8. Mineral resource lands shall not include <u>Category</u> <u>(class)</u> <u>One (1)</u> or <u>Two (2)</u> wetlands or their protective buffers, but may include ~~class~~ <u>Category (class) Three (3)</u> and <u>(4)</u> wetlands.

9. Mineral extraction activities shall not negatively affect nor endanger surface and groundwater flows and quality.

~~9. Mineral resource lands may not include lands designated for long-term forestry.~~

~~10. Mineral resource lands shall be located away from geologically hazardous areas such as steep and/or unstable slopes as provided by the Critical Areas Ordinance.~~

Designation process.

Lands meeting the above criteria may be designated mineral resource lands through a Comprehensive Plan Amendment process. The County may require detailed information (such as a wetland delineation, habitat evaluation, and geotechnical report) prepared by a qualified expert. Such designation does not guarantee or forecast that a permit for mineral extraction will be granted. Such designation should not be used as a basis for granting a special use permit. Mine operators must go through all required review and permitting prior to beginning any mining activity on designated land. Map M-43 identifies ~~the~~ existing mining sites meeting the designation criteria, although this map is provided for reference only. An updated map of designated mineral resource lands of long-term commercial significance is the "Official Designated Mineral Resource Lands" map accompanying the official zoning map, available at the County. This map is immediately updated following approval of a new designated site.

Long-term commercially significant (designated) mineral deposits should be conserved for long-term resource extraction. To this end, the following measures shall be implemented:

- Resource use notice shall be provided to new developments within 1,000 feet of:

  1. Designated mineral lands and,
  2. Existing mining operations outside designated mineral lands, informing prospective property owners of the long-term resource use nearby.

These measures are intended to assure that the use of lands adjacent to designated mineral lands shall not interfere with the continued use, in accordance with best management practices (BMPs), of the designated lands for mineral extraction.

THURSTON COUNTY PLANNING DEPARTMENT

DRAFT

AMENDMENTS FOR MINERAL LANDS DESIGNATION CRITERIA COMPLIANCE

02/08/2012

CHAPTER 20.30B TCC

Deleted Text:	~~Strikethrough~~	Proposed Changes:	Underlined
Staff Comments:	*Italics*	Unaffected Omitted Text:	(…)

20.30B.030 - Designation criteria.

1. Criteria for Designation. A mineral extraction site may be designated as mineral resource lands if it meets all of the following criteria:

   a. The site must contain nonstrategic minerals which are minable, recoverable, and marketable under the technologic and economic conditions that exist at the time of application for designation or which can be estimated to exist in the foreseeable future as determined by a licensed professional geologist. In determining whether minerals are minable, recoverable, and marketable, the county will consider the guidelines in Washington Administrative Code Section 365-190-070, as amended.

   b. At least sixty percent of the area within one thousand feet of a site must have parcels five acres in size or larger at the time of the application for designation (see Appendix Figure 18) excluding parcels less than 5 acres in size owned by the applicant.

   c. An area proposed for mineral resource lands designation shall be at least five acres.

   ~~d. The mineral extraction site must have a special use permit if required by Chapter 20.54 unless otherwise specified in Section 20.30B.035. Designation approval shall be contingent upon issuance of reclamation permit from the Washington State Department of Natural Resources.~~

   d~~e~~. The site shall be separated by a distance of at least one thousand feet from public preserves, which include parks, national wildlife refuges, state conservation areas, wildlife areas, and other government-owned preserves, but excluding exclusive hunting areas. In addition, designated

mineral resource lands shall be at least one thousand feet from urban growth areas.

~~f. Designated mineral resource lands may not include lands designated for long-term forestry.~~

~~e~~g. Critical areas: Critical areas will be examined at the time of designation review using the County's ~~Geodata~~Geographic Information System information. ~~If there are known critical areas and/or buffers predominantly covering the site, it will not be designated. A more comprehensive critical areas review will be done at time of permitting.~~ The applicant may be required to provide detailed information (such as a wetland delineation, habitat evaluation, or geotechnical report) prepared by a qualified expert to clarify County mapping of critical areas. A more comprehensive critical areas review will be done at time of permitting.

i. Mineral resource lands shall not be designated within the Zone 1 (one-year) or Zone 2 (five-year) Horizontal Time of Travel boundaries for any Group A Public Water System~~include delineated wellhead protection areas CARA I~~

ii. Mineral resource lands shall not include Category (class) One (1) or Two (2) wetlands or their protective buffers, but may include ~~class~~ Category (class) Three (3) and (4) wetlands.

iii. Mineral resource lands shall not include agriculture lands of long term commercial significance, historical/cultural preservation sites, and any Federal Emergency Management Agency (FEMA) one hundred-year floodplain.

iv. Mineral resource lands shall not include~~ important habitats and species areas~~ habitats of primary association to species listed as endangered or threatened under the Endangered Species Act or state law and their buffers as established by the Critical Areas Ordinance at the time of designation.

v. Mineral extraction activities shall not negatively affect nor endanger surface and ground water flows and quality.

Attachment B:

2010 Amendments to Chapter 3 Natural Resources

...

The above criteria were applied throughout unincorporated county areas to designate those forest lands of long-term commercial significance. Those lands that currently meet the criteria are shown on Map M-42. Future lands meeting these criteria may also be designated.

IV. MINERAL RESOURCES

Community Vision: The citizens of Thurston County recognize mining as an important part of the rural economy. Mineral resources such as sand and gravel supply materials for road maintenance and construction projects throughout the region. The community seeks a balance between the need for mineral resources and the need to protect the environment and the community from adverse impacts of mining. Good stewardship of mining operations, including reclamation and restoration, takes a partnership among mining operators, county citizens, and regulatory agencies.

Background: As a result of major glacial activity in Thurston County's geologic past, major deposits of sand and gravel are located in Thurston County. This geologic heritage provides the raw material for dozens of sand and gravel operations throughout the County. The deposits are perhaps doubly significant considering their proximity to major population areas and construction projects that use sand and gravel. Although rich in sand and gravel, the County has relatively few areas of high quality basalts used in construction activities.

Balancing conflicts: The extraction process does pose potential conflicts with surrounding uses, particularly rural residential uses and critical areas. During the process of designating resource lands of long-term commercial significance, the county evaluates the location and value of the resource as well as its proximity to existing residential areas (see below). For permitting new mining activity, the county considers groundwater protection, air quality impacts, hazards posed by gravel truck travel, and residential densities surrounding the mine, among other concerns. In response to these concerns, the county implements conditions and BMPs through the Special Use Permit process to ensure that mining operations are in keeping with public health and safety and environmental protection. Just as sand and gravel is a natural resource, so too is the groundwater and air quality the county depends on. The policies provide that generally, mining should minimize adverse impacts on the environment, and specifically, should minimize its effect on surface and groundwater and air quality.

The policies also specify that mineral extraction sites should be restored as mining occurs. Existing, non-operating or abandoned mining sites pose a concern to many county residents because they may leave aquifers vulnerably exposed, and invite illegal waste dumping. The action recommendations also seek to address the problem of these nonoperating sites.

The policies recognize the necessity for mineral extraction to be located in rural areas of the county with low population densities or in industrial-zoned areas. The movement of large amounts of mineral resource necessitates good roads capable of handling significant numbers of heavily-loaded trucks. Loaded trucks en route from the extraction site may lose a very small but potentially hazardous portion of their load, and track dirt or mud onto public roadways. Therefore, the policies also respond to the need for better prevention of such mining impacts on county residents.

Designating Mineral Resources of Long-Term Commercial Significance: The Growth Management Act states that "...each county...shall designate where appropriate...mineral resource lands that are not already characterized by urban growth and that have long-term significance for the extraction of minerals." RCW 36.70A.170(1) The Act defines "minerals" as gravel, sand, and valuable metallic substances. Other minerals may be designated as appropriate. RCW 36.70A.060(1)(a) states that "...each county...shall adopt development regulations...to assure the conservation of...mineral resource lands designated under RCW 36.70A.170."

Within Thurston County, minerals of potentially long-term commercial significance include sand and gravel deposits, coal deposits, and a few rock resources, such as columnar basalt (shot rock) and sandstone. Basalt "shot rock" is important for highway construction and flood control rip rap. The sandstone quarries at Tenino have provided valuable building material for the State Capitol and other structures around the County. There are no known valuable metallic minerals within the County.

Protecting these mineral deposits of long-term commercial significance for mining use is an important goal of the policies, as is preventing residential and other incompatible uses from locating adjacent to these deposits. The ~~c~~County recognizes that a mining operator's hauling distance to the resource user is an important factor to its economic viability. However, the policies also provide that mining activity should not encroach on existing residential uses nor adversely affect the environment. In addition, significant geologic features, including M~~m~~ima mounds, shall~~should~~ not be used for mining purposes. Additional significant geologic features may be identified by future study.

To determine the location of mineral resource lands of long-term commercial significance, the County applies the criteria provided by the Washington State Department of Commerce (DOC). Based on the DOC Guidelines and additional considerations to protect public health, safety, and the environment, the County has developed the following criteria to designate mineral resource lands of long-term commercial significance.

MINIMUM DESIGNATION CRITERIA

1. Mineral Deposits. Designated mineral resource lands should contain deposits consisting of sand and gravel, coal, sandstone, basalt, or other igneous rock, based on U.S. Geological Survey maps or site-specific information prepared by a geologist, or as indicated by State Department of Natural Resources (DNR) mining permit data.

2. Location. Designated mineral resource lands shall be separated by a distance of at least 1,000 feet from public preserves, which include parks, national wildlife refuges, state conservation areas, wild life areas, and other government owned preserves, but excluding exclusive hunting areas. In addition, designated mineral resource lands shall be, at least 1,000 feet from urban growth areas and rural residential areas with existing densities predominantly one dwelling unit per five acres or higher, in order to minimize land use conflicts during the long-term operation of the mine.

   To qualify for mineral resource designation, at least 60% of the area within 1,000 feet of a proposed site must be made up of parcels 5 acres in size or larger, excluding parcels owned by the applicant.

3. Minimum Site Size. An area proposed for mineral resource lands designation should be at least 5 acres in size.

4. Marketability. Mineral resource lands shall contain non-strategic minerals which are minable, recoverable and marketable in the present or foreseeable future as determined by a licensed professional geologist.

5. Mineral resource lands shall not include delineated wellhead protection areas CARA I.

6. Mineral resource lands shall not include important habitats and species areas and their buffers as established by the Critical Areas Ordinance at the time of designation.

7. Mineral resource lands shall not include agriculture lands of long term commercial significance, historical/cultural preservation sites, and any Federal Emergency Management Agency (FEMA) 100 year floodplain.

8. Mineral resource lands shall not include class 1 or 2 wetlands or their protective buffers, but may include class 3 and 4 wetlands.

9. Mineral resource lands may not include lands designated for long-term forestry.

10. Mineral resource lands shall be located away from geologically hazardous areas such as steep and/or unstable slopes as provided by the Critical Areas Ordinance.

Designation process.

Lands meeting the above criteria may be designated mineral resource lands through a Comprehensive Plan Amendment process. The County may require detailed information (such as a wetland delineation, habitat evaluation, and geotechnical report) prepared by a qualified expert. Such designation does not guarantee or forecast that a permit for mineral extraction will be granted. Such designation should not be used as a basis for granting a special use permit. Mine operators must go through all required review and permitting prior to beginning any mining activity on designated land. Map M-43 identifies ~~the~~ existing mining sites meeting the designation criteria, although this map is provided for reference only. An updated map of designated mineral resource lands of long-term commercial significance is the "Official Designated Mineral Resource Lands" map accompanying the official zoning map, available at the County. This map is immediately updated following approval of a new designated site.

Long-term commercially significant (designated) mineral deposits should be conserved for long-term resource extraction. To this end, the following measures shall be implemented:

- Resource use notice shall be provided to new developments within 1,000 feet of:

    1. Designated mineral lands and,
    2. Existing mining operations outside designated mineral lands, informing prospective property owners of the long-term resource use nearby.

These measures are intended to assure that the use of lands adjacent to designated mineral lands shall not interfere with the continued use, in accordance with best management practices (BMPs), of the designated lands for mineral extraction.

V. GOALS, OBJECTIVES AND POLICIES

…

GOAL 7: MINERAL RESOURCE LANDS OF LONG-TERM COMMERCIAL SIGNIFICANCE SHOULD BE ALLOWED TO BE USED BY EXTRACTION INDUSTRIES, WITH MINIMAL HARM TO THE ENVIRONMENT.

OBJECTIVE A: The county should provide regulatory mechanisms that balance and minimize the conflicts between extractive industries, other land uses, and general environmental concerns.

POLICIES:

1. Mineral extraction industries should be allowed to locate where prime natural resource deposits exist.

2. Designated mineral resource lands of long-term commercial significance should be conserved for mineral extraction, and the use of adjacent lands should not interfere with the continued use of the designated mining sites that are being operated in accordance with applicable best management practices and other laws and regulations.

3. Designated mineral resource sites that are being operated in accordance with applicable best management practices and other laws and regulations should be given increased protection from nuisance claims from landowners who have been notified of the presence of the long-term mineral extraction site.

4. Restoration of mineral extraction sites should occur as the site is being mined. The site should be restored for appropriate future use and should blend with the adjacent landscape and contours.

5. Prime and unique farmland (as defined by the Natural Resources Conservation Service) shall not be used for mineral or soil mining purposes.

6. New residential uses shall be discouraged from locating near prime designated mineral deposit sites until mineral extraction is completed unless adequate buffering is provided by the residential developer.

7. Extraction industries shall not adversely impact adjacent or nearby land uses, or public health and safety.

8. Proposed mining activities shall not alter significant geologic features such as Mima mounds.

9. Areas where existing residential uses at densities of greater than 1 unit per five acres predominate shall be protected against intrusion by mineral extraction operations.

10. Mineral extraction activities shall not negatively affect nor endanger surface and ground water flows and quality.

11. County information on the location and quality of mineral resource deposits should be updated as information becomes available from the Department of Natural Resources, United States Geological Survey or other licensed geologist. This information can be useful in planning for future designations of mineral resource lands of long-term commercial significance.

…

Attachment C:

2010 Amendments to Chapter 20.30B Mineral Lands TCC

Chapter 20.30B - DESIGNATED MINERAL LANDS

*Editor's note—

Ord. No. 14402, § 6, adopted Sept. 7, 2010, amended the former Ch. 20.30B, §§ 20.30B.010—20.30B.050, and enacted a new Ch. 20.03B as set out herein. The former Ch. 20.30B pertained to similar subject matter. For complete derivation see the Code Comparative Table and Disposition List at the end of Volume II.

Sections:

20.30B.010 - Purpose.

This chapter establishes the requirements and procedures for a mineral extraction site to receive designation as mineral resource lands of long-term commercial significance. The requirements and procedures are designed to conserve long-term commercially significant mineral lands and to minimize land use conflicts by allowing designation status only where a long-term mining operation would be compatible with surrounding land uses and by providing notification to surrounding property owners of the long-term nature of a designated mining operation. This chapter also provides increased protection to designated mineral extraction operations by limiting nuisance claims from neighboring property owners. Sites must be designated under this chapter before new mineral extraction activities may occur.

(Ord. No. 14402, § 6, 9-7-2010)

20.30B.020 - Designation of existing mineral lands.

Mineral extraction operations existing on the effective date of this chapter which meet the criteria established in Section 20.30B.030(1), and as shown on the map entitled, "Official Designated Mineral Resource Lands," on file with the county, are recognized as mineral resource lands of long-term commercial significance, and are hereafter referred to as designated mineral resource lands. The precise boundaries of these designated lands are as indicated in the DNR permit associated with the land as shown on the table on this map.

(Ord. No. 14402, § 6, 9-7-2010)

20.30B.025 - Designation process for future mineral lands.

1.

No new or expanded mineral extraction activities may be permitted by the County on sites not designated under the requirements of this chapter. Nothing in this chapter shall be construed as preventing the ongoing operation of existing, permitted mines in Thurston County in accordance with their DNR and/or special use permit conditions. However, expansion of existing, permitted mineral extraction operations will require designation pursuant to this chapter and will require a new special use permit pursuant to Chapter 20.54. Legal nonconforming mines are allowed to continue pursuant to any and all laws that apply to such mines.

2.

The county will review designation applications through the Comprehensive Plan amendment process.

3.

Upon approval, all designated mineral resource lands shall be mapped on the "Official Designated Mineral Resource Lands" map and shall accompany the "Official Thurston County Zoning Map," on file in the County.

4.

In addition to the mapping requirements, mineral resource lands designation shall be provided as a written statement of the actual survey corners of the land being designated.

(Ord. No. 14402, § 6, 9-7-2010)

20.30B.030 - Designation criteria.

1.

Criteria for Designation. A mineral extraction site may be designated as mineral resource lands if it meets all of the following criteria:

a.

The site must contain nonstrategic minerals which are minable, recoverable, and marketable under the technologic and economic conditions that exist at the time of application for designation or which can be estimated to exist in the foreseeable future as determined by a

licensed professional geologist.

b.

At least sixty percent of the area within one thousand feet of a site must have parcels five acres in size or larger at the time of the application for designation (see Appendix Figure 18) excluding parcels less than 5 acres in size owned by the applicant.

c.

An area proposed for mineral resource lands designation shall be at least five acres.

d.

The mineral extraction site must have a special use permit if required by Chapter 20.54 unless otherwise specified in Section 20.30B.035. Designation approval shall be contingent upon issuance of reclamation permit from the Washington State Department of Natural Resources.

e.

The site shall be separated by a distance of at least one thousand feet from public preserves, which include parks, national wildlife refuges, state conservation areas, wildlife areas, and other government-owned preserves, but excluding exclusive hunting areas. In addition, designated mineral resource lands shall be at least one thousand feet from urban growth areas.

f.

Designated mineral resource lands may not include lands designated for long-term forestry.

g.

Critical areas: Critical areas will be examined at the time of designation review using the County's Geodata information. If there are known critical areas and/or buffers predominantly covering the site, it will not be designated. A more comprehensive critical areas review will be done at time of permitting. The applicant may be required to provide detailed information (such as a wetland delineation, habitat evaluation, or geotechnical report) prepared by a qualified expert to clarify County mapping of critical areas.

i.

Mineral resource lands shall not include delineated wellhead protection areas CARA I.

ii.

Mineral resource lands shall not include class 1 or 2 wetlands or their protective buffers, but may include class 3 and 4 wetlands.

iii.

Mineral resource lands shall not include agriculture lands of long term commercial significance, historical/cultural preservation sites, and any Federal Emergency Management Agency (FEMA) one hundred-year floodplain.

iv.

Mineral resource lands shall not include important habitats and species areas and their buffers as established by the Critical Areas Ordinance at the time of designation.

v.

Mineral extraction activities shall not negatively affect nor endanger surface and ground water flows and quality.

(Ord. No. 14402, § 6, 9-7-2010)

20.30B.035 - Application requirements.

1.

An application for designation shall be filed with the department as a comprehensive plan amendment and shall include:

a.

A report and any associated maps developed by a licensed geologist to provide evidence of the marketability and threshold value of the mineral deposit.

b.

A map at a scale of one inch equals eight hundred feet or greater of the project site and surrounding area, including the area within one thousand feet of the site, and which shows parcel boundaries, adjacent land uses and zoning, and known critical areas and their type or class, if known, as defined in Chapter 17.15 TCC to demonstrate that the requirements of this chapter have been complied with.

(Ord. No. 14402, § 6, 9-7-2010)

20.30B.040 - Removal of designation status.

1.

The property owner may file an application for removal of designated mineral resource lands with the department. The application shall be reviewed by the board of county commissioners which may grant the application if one or more of the following conditions exist:

a.

The mineral resource is depleted to a point that it is no longer economically feasible to continue mining on the site.

b.

Market conditions have changed to such a degree that it is no longer economically feasible to continue mining on the site.

c.

Conditions in the surrounding area have changed to such a degree that the site no longer meets the criteria for designation in Section 20.30B.030.

2.

Removal of designation by the board of county commissioners will be processed as a comprehensive plan amendment during the next available amendment cycle. No fee will be charged to the applicant for designation removal.

(Ord. No. 14402, § 6, 9-7-2010)

20.30B.050 - Mineral extraction protection.

1.

For purposes of this section, a site is a protected, legally operating mine when it meets the following requirements:

a.

The site is designated as mineral resource lands;

b.

The extraction operation has a valid special use permit;

c.

The extraction operation is carried out in accordance with governing law and any applicable best management practices;

d.

The extraction operation does not have any substantial adverse effect on the public health or safety; and

e.

The site obtained designation status before the notice under chapters 18.04, 14.20 or 14.44 TCC was given.

2.

An owner or occupier of real property for which notice has been given pursuant to Chapters 14.20, 14.44 or 18.04 TCC may not be limited in bringing a private nuisance claim against a protected, legally operating mine.

(Ord. No. 14402, § 6, 9-7-2010)

20.30B.055 - Designation is not a permit.

Designation as mineral resource lands does not imply that mineral extraction will be permitted on the site. All proposed mineral extraction operations are subject to special use permitting requirements of Chapter 20.54, associated environmental review and all other applicable laws.

Attachment D:

Applicable Sections of the Washington Administrative Code

Chapter 365-190 Minimum Guidelines to Classify Agriculture, Forest, Mineral Lands, and Critical Areas

Chapter 365-195 GMA Best Available Science

Chapter 365-190 WAC

Last Update: 11/2/10

Minimum guidelines to classify agriculture, forest, mineral lands and critical areas

WAC Sections

PART ONE

PURPOSE/AUTHORITY

365-190-010 Authority.

365-190-020 Purpose.

PART TWO

GENERAL REQUIREMENTS

365-190-030 Definitions.

PART THREE

GUIDELINES

365-190-040 Process.

365-190-050 Agricultural resource lands.

365-190-060 Forest resource lands.

365-190-070 Mineral resource lands.

365-190-080 Critical areas.

365-190-090 Wetlands.

365-190-100 Critical aquifer recharge areas.

365-190-110 Frequently flooded areas.

365-190-120 Geologically hazardous areas.

365-190-130 Fish and wildlife habitat conservation areas.

365-190-010
Authority.

This chapter is established pursuant to RCW 36.70A.050.

[Statutory Authority: RCW 36.70A.050. 91-07-041, § 365-190-010, filed 3/15/91, effective 4/15/91.]

365-190-020
Purpose.

(1) The intent of this chapter is to establish minimum guidelines to assist all counties and cities in classifying and designating agricultural lands, forest lands, mineral resource lands, and critical areas.

(2) Growth management, natural resource land conservation, and critical areas protection share problems related to governmental costs and efficiency. The unwise development of natural resource lands or areas susceptible to natural hazards may lead to inefficient use of limited public resources, jeopardize environmental resource functions and values, subject persons and property to unsafe conditions, and affect the perceived quality of life. It is more costly to remedy the loss of natural resource lands or critical areas than to conserve and protect them from loss or degradation. The inherent economic, ecological, social, and cultural values of natural resource lands and critical areas should be considered in the development of strategies designed to conserve and protect these lands.

(3) In recognition of these common concerns, classification and designation of natural resource lands and critical areas is intended to assure the long-term conservation of natural resource lands and the protection of critical areas, and to preclude land uses and developments which are incompatible with natural resource lands and critical areas. When classifying and designating natural resource

lands and critical areas, counties and cities should integrate regulatory and nonregulatory approaches together in a comprehensive program that relates to existing local, state, and federal efforts. An integrated approach should also consider other applicable planning requirements, including the need to identify open space corridors in RCW 36.70A.160, and the need to include the best available science in policies and regulations protecting critical areas in RCW 36.70A.172.

(4) There are qualitative differences between and among critical areas. Not all areas and ecosystems are critical for the same reasons. Some are critical because of the hazard they present to public health and safety, some because of the values they represent to the public welfare. In some cases, the risk posed to the public by use or development of a critical area can be mitigated or reduced by engineering or design; in other cases that risk cannot be effectively reduced except by avoidance of the critical area. Classification and designation of critical areas is intended to lead counties and cities to recognize the differences among these areas, and to develop appropriate regulatory and nonregulatory actions in response.

(5) There are also qualitative differences between and among natural resource lands. The three types of natural resource lands (agricultural, forest, and mineral) vary widely in their use, location, and size. One type may overlap another type. For example, designated forest resource lands may also include designated mineral resource lands. Agricultural resource lands vary based on the types of crops produced, their location on the landscape, and their relationship to sustaining agricultural industries in an identified geographic area.

(6) Counties and cities required or opting to plan under the act should consider the definitions and guidelines in this chapter when preparing development regulations that preclude uses and development incompatible with natural resource lands and critical areas (see RCW 36.70A.060). Precluding incompatible uses and development does not mean a prohibition of all uses or development. Rather, it means governing changes in land uses, new activities, or development that could adversely affect natural resource lands or critical areas. For each type of natural resource land and critical area, counties and cities planning under the act should define classification schemes and prepare development regulations that govern changes in land uses and new activities by prohibiting clearly inappropriate actions and restricting, allowing, or conditioning other activities as appropriate.

(7) It is the intent of these guidelines that critical areas designations overlay other land uses including designated natural resource lands. For example, if both critical area and natural resource land use designations apply to a given parcel or a portion of a parcel, both or all designations must be made. Regarding natural resource lands, counties and cities should allow existing and ongoing resource management operations, that have long-term commercial significance, to continue. Counties and cities should encourage resource land managers to use the best management practices of their industry, especially where existing and ongoing resource management operations that have long-term commercial significance include designated critical areas. Future operations or expansion of existing operations should be done in consideration of protecting critical areas, and with special consideration for conservation or protection measures needed to preserve or enhance anadromous fisheries.

[Statutory Authority: RCW 36.70A.050 and 36.70A.190. 10-03-085, § 365-190-020, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050. 91-07-041, § 365-190-020, filed 3/15/91, effective 4/15/91.]

365-190-030
Definitions.

(1) "Agricultural land" is land primarily devoted to the commercial production of horticultural, viticultural, floricultural, dairy, apiary, vegetable, or animal products or of berries, grain, hay, straw, turf, seed, Christmas trees not subject to the excise tax imposed by RCW 84.33.100 through 84.33.140, finfish in upland hatcheries, or livestock, and that has long-term commercial significance for agricultural production. These lands are referred to in this chapter as agricultural resource lands to distinguish between formally designated lands, and other lands used for agricultural purposes.

(2) "City" means any city or town, including a code city.

(3) "Critical aquifer recharge areas" are areas with a critical recharging effect on aquifers used for potable water, including areas where an aquifer that is a source of drinking water is vulnerable to contamination that would affect the potability of the water, or is susceptible to reduced recharge.

(4) "Critical areas" include the following:

(a) Wetlands;

(b) Areas with a critical recharging effect on aquifers used for potable water, referred to in this chapter as critical aquifer recharge areas;

(c) Fish and wildlife habitat conservation areas;

(d) Frequently flooded areas; and

(e) Geologically hazardous areas.

(5) "Erosion hazard areas" are those areas containing soils which, according to the United States Department of Agriculture Natural Resources Conservation Service Soil Survey Program, may experience significant erosion. Erosion hazard areas also include coastal erosion-prone areas and channel migration zones.

(6)(a) "Fish and wildlife habitat conservation areas" 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. Counties and cities may also designate locally important habitats and species.

(b) "Habitats of local importance" designated as fish and wildlife habitat conservation areas include those areas found to be locally important by counties and cities.

(7) "Forest land" is land primarily devoted to growing trees for long-term commercial timber production on land that can be economically and practically managed for such production, including Christmas trees subject to the excise tax imposed under RCW 84.33.100 through 84.33.140, and that has long-term commercial significance. These lands are referred to in this chapter as forest resource lands to distinguish between formally designated lands, and other lands used for forestry purposes.

(8) "Frequently flooded areas" are lands in the flood plain subject to at least a one percent or greater chance of flooding in any given year, or within areas subject to flooding due to high groundwater. These areas include, but are not limited to, streams, rivers, lakes, coastal areas, wetlands, and areas where high groundwater forms ponds on the ground surface.

(9) "Geologically hazardous areas" are areas that because of their susceptibility to erosion, sliding, earthquake, or other geological events, are not suited to siting commercial, residential, or industrial development consistent with public health or safety concerns.

(10) "Landslide hazard areas" are areas at risk of mass movement due to a combination of geologic, topographic, and hydrologic factors.

(11) "Long-term commercial significance" includes the growing capacity, productivity, and soil composition of the land for long-term commercial production, in consideration with the land's proximity to population areas, and the possibility of more intense uses of land. Long-term commercial significance means the land is capable of producing the specified natural resources at commercially sustainable levels for at least the twenty-year planning period, if adequately conserved. Designated mineral resource lands of long-term commercial significance may have alternative post-mining land uses, as provided by the Surface Mining Reclamation Act, comprehensive plan and development regulations, or other laws.

(12) "Mine hazard areas" are those areas directly underlain by, adjacent to, or affected by mine workings such as adits, tunnels, drifts, or air shafts.

(13) "Mineral resource lands" means lands primarily devoted to the extraction of minerals or that have known or potential long-term commercial significance for the extraction of minerals.

(14) "Minerals" include gravel, sand, and valuable metallic substances.

(15) "Natural resource lands" means agricultural, forest and mineral resource lands which have long-term commercial significance.

(16) "Public facilities" include streets, roads, highways, sidewalks, street and road lighting systems, traffic signals, domestic water systems, storm and sanitary sewer systems, parks and recreational facilities, and schools.

(17) "Public services" include fire protection and suppression, law enforcement, public health, education, recreation, environmental protection, and other governmental services.

(18) "Seismic hazard areas" are areas subject to severe risk of damage as a result of earthquake induced ground shaking, slope failure, settlement, soil liquefaction, debris flows, lahars, or tsunamis.

(19) "Species of local importance" are those species that are of local concern due to their population status or their sensitivity to habitat alteration or that are game species.

(20) "Urban growth" refers to growth that makes intensive use of land for the location of buildings, structures, and impermeable surfaces to such a degree as to be incompatible with the primary use of such land for the production of food, other agricultural products, or fiber, or the extraction of mineral resources. Urban growth typically requires urban governmental services. "Characterized by urban

growth" refers to land having urban growth located on it, or to land located in relationship to an area with urban growth on it as to be appropriate for urban growth.

(21) "Volcanic hazard areas" shall include areas subject to pyroclastic flows, lava flows, and inundation by debris flows, lahars, mudflows, or related flooding resulting from volcanic activity.

(22) "Wetland" or "wetlands" means areas that are inundated or saturated by surface water 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 those artificial wetlands intentionally created from nonwetland sites, 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. However, wetlands may include those artificial wetlands intentionally created from nonwetland areas to mitigate conversion of wetlands, if permitted by the county or city.

[Statutory Authority: RCW 36.70A.050 and 36.70A.190. 10-03-085, § 365-190-030, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050. 91-07-041, § 365-190-030, filed 3/15/91, effective 4/15/91.]

365-190-040
Process.

(1) The classification and designation of natural resource lands and critical areas is an important step among several in the overall growth management process. These steps, outlined in subsections (4) and (5) of this section comprise a vision of the future, and that vision gives direction to the steps in the form of specific goals and objectives. Under the act, the timing of the first steps coincided with development of the larger vision through the comprehensive planning process.

(2) The act required preliminary classifications and designations of natural resource lands and critical areas to be completed in 1991. Counties and cities planning under the act were to enact interim regulations to protect and conserve these natural resource lands and critical areas by September 1, 1991. By July 1, 1992, counties and cities not planning under the act were to bring their development regulations into conformance with their comprehensive plans. By July 1, 1993, counties and cities planning under the act were to adopt comprehensive plans, consistent with the goals of the act. Implementation of the comprehensive plans was to occur by the following year.

(3) Under RCW 36.70A.130, all counties and cities must review, and if needed, update their natural resource lands and critical areas designations. Counties and cities fully planning under the act must also review and, if needed, update their natural resource lands conservation provisions, comprehensive plans and development regulations. Legal challenges to some updates have led to clarifications of the ongoing review and update requirements in RCW 36.70A.130, and the process for implementing those requirements. The process description and recommendations in this section incorporate those clarifications and describe both the initial designation and conservation or protection of natural resource lands and critical areas, as well as subsequent local actions to amend those designations and provisions.

(4) Classification is the first step in implementing RCW 36.70A.170 and requires defining categories to which natural resource lands and critical areas will be assigned.

(a) Counties and cities are encouraged to adopt classification schemes that are consistent with federal and state classification schemes and those of adjacent jurisdictions to ensure regional consistency. Specific classification schemes for natural resource lands and critical areas are described in WAC 365-190-050 through 365-190-130.

(b) State agency classification schemes are available for specific critical area types, including the wetlands rating systems for eastern and western Washington from the Washington state department of ecology, the priority habitats and species categories and recommendations from the Washington state department of fish and wildlife, and the high quality ecosystem and rare plant categories and listings from the department of natural resources, natural heritage program. The Washington state department of natural resources provides significant information on geologic hazards and aquatic resources that may be useful in classifying these critical areas. Not all areas classified by state agencies must be designated, but such areas may be likely candidates for designation.

(5) Designation is the second step in implementing RCW 36.70A.170.

(a) Pursuant to RCW 36.70A.170, natural resource lands and critical areas must be designated based on their defined classifications. For planning purposes, designation establishes:

(i) The classification scheme;

(ii) The distribution, location, and extent of the uses of land, where appropriate, for agriculture, forestry, and mineral extraction; and

(iii) The general distribution, location, and extent of critical areas.

(b) Inventories and maps should indicate designations of natural resource lands. In circumstances where critical areas cannot be readily identified, these areas should be designated by performance standards or definitions, so they can be specifically identified during the processing of a permit or development authorization.

(c) Designation means, at a minimum, formal adoption of a policy statement, and may include further legislative action. Designating inventoried lands for comprehensive planning and policy definition may be less precise than subsequent regulation of specific parcels for conservation and protection.

(d) Successful achievement of the natural resource industries goal set forth in RCW 36.70A.020 requires the conservation of land base sufficient in size and quality to maintain and enhance those industries, and the development and use of land use techniques that discourage uses incompatible to the management of designated lands.

(e) Mineral resource lands especially should be designated as close as possible to their likely end use areas, to avoid losing access to those valuable minerals by development, and to minimize the costs of production and transport. It is expected that mineral resource lands will be depleted of minerals over time, and that subsequent land uses may occur on these lands after mining is completed.

(6) Classifying, inventorying, and designating lands or areas does not imply a change in a landowner's right to use his or her land under current law. The law requires that natural resource land uses be protected from land uses on adjacent lands that would restrict resource production. Development regulations adopted to protect critical areas may limit some land development options. Land uses are regulated on a parcel basis and innovative land use management techniques should be applied when counties and cities adopt development regulations to conserve and protect designated natural resource lands and critical areas. The purpose of designating natural resource lands is to enable industries to maintain access to lands with long-term commercial significance for agricultural, forest, and mineral resource production. The purpose is not to confine all natural resource production activity only to designated lands nor to require designation as the basis for a permit to engage in natural resource production. The department provides technical assistance to counties and cities on a wide array of regulatory options and alternative land use management techniques.

(7) Overlapping designations. The designation process may result in critical area designations that overlay other critical area or natural resource land classifications. Overlapping designations should not necessarily be considered inconsistent. If two or more critical area designations apply to a given parcel, or portion of a given parcel, both or all designations apply.

(a) If a critical area designation overlies a natural resource land designation, both designations apply. For counties and cities required or opting to plan under the act, reconciling these multiple designations will be the subject of local development regulations adopted pursuant to RCW 36.70A.060.

(b) If two or more natural resource land designations apply, counties and cities must determine if these designations are incompatible. If they are incompatible, counties and cities should examine the criteria to determine which use has the greatest long-term commercial significance, and that resource use should be assigned to the lands being designated.

(8) Counties and cities must involve the public in classifying and designating natural resource lands and critical areas. The process should include:

(a) Public participation program:

(i) Public participation should include, at a minimum, representative participation from the following entities: Landowners; representatives of agriculture, forestry, mining, business, environmental, and community groups; tribal governments; representatives of adjacent counties and cities; and state agencies. The public participation program should include early and timely public notice of pending designations and regulations and should address proposed nonregulatory incentive programs.

(ii) Counties and cities are encouraged to consider a variety of opportunities to adequately communicate with the public. These methods of notification may include, but are not limited to, traditional forms of mailed notices, published announcements, electronic mail, and internet sites to distribute informational brochures, meeting times, project timelines, and design and map proposals to provide an opportunity for the public to participate.

(iii) The department provides technical assistance in preparing public participation programs.

(b) Adoption process. Statutory and local processes already in place governing land use decisions are the minimum processes required for designation and regulation pursuant to RCW 36.70A.060 and 36.70A.170. At a minimum the following steps should be included in the adoption process:

(i) Accept the requirements of chapter 36.70A RCW;

(ii) Consider minimum guidelines developed by the department under RCW 36.70A.050;

(iii) Consider other definitions used by state and federal regulatory agencies;

(iv) Consider definitions used by similarly situated counties and cities;

(v) Determine recommended definitions and check conformance with minimum definitions in chapter 36.70A RCW;

(vi) Adopt definitions, classifications, and standards;

(vii) Apply definitions by mapping designated natural resource lands; and

(viii) Establish procedures for amending natural resource lands and critical areas designations.

(c) Intergovernmental coordination.

(i) The act requires coordination among counties and cities to reconcile conflicts and strive for consistent definitions, standards, and designations within regions. The minimum coordination process may include one of two options:

(A) Notification option: Adjacent cities (or those with overlapping or adjacent planning areas); counties and the cities within them; and adjacent counties would provide each other and special purpose districts and special purpose districts within them notice of their intent to classify and designate natural resource lands and critical areas within their jurisdiction. Counties or cities receiving notice may provide comments and input to the notifying jurisdiction. The notifying jurisdiction specifies a comment period prior to adoption. Within forty-five days of the jurisdiction's date of adoption of classifications or designations, affected jurisdictions are supplied information on how to locate a copy of the proposal. The department may provide mediation services to counties and cities to help resolve disputed classifications or designations.

(B) Interlocal agreement option: Adjacent counties and cities; all the cities within a county; or several counties and the cities within them may choose to cooperatively classify and designate natural resource lands and critical areas within their jurisdictions. Counties and cities by interlocal agreement would identify the definitions, classification, designation, and process that will be used to classify and designate lands within their areas. State and federal agencies or tribes may participate in the interlocal agreement or be provided a method of commenting on designations and classifications prior to adoption by jurisdictions.

(ii) Counties or cities may begin with the notification option in (c)(i)(A) of this subsection and choose to change to the interlocal agreement method in (c)(i)(B) of this subsection prior to completion of the classification and designations within their jurisdictions. Approaches to intergovernmental coordination may vary between natural resource land and critical area designation. It is intended that state and federal agencies with land ownership or management responsibilities, special purpose districts, and Indian tribes with interests within the counties or cities adopting classification and designation be consulted and their input considered in the development and adoption of designations and classifications. The department may provide mediation services to help resolve disputes between counties and cities that are using either the notification or interlocal agreement method of coordinating between jurisdictions.

(d) Mapping natural resource lands. Mapping should be done to identify designated natural resource lands. For counties and cities fully planning under the act, natural resource lands designations must be incorporated into the comprehensive plan land use element and should be shown on the future land use map required under RCW 36.70A.070.

(9) Evaluation. When counties and cities adopt a comprehensive plan, the act requires them to evaluate their designations and development regulations to assure that they are consistent with and implement the comprehensive plan. When considering changes to the designations or development regulations, counties and cities should seek interjurisdictional coordination and must include public participation.

(10) Designation amendment process.

(a) Land use planning is a dynamic process. Designation procedures should provide a rational and predictable basis for accommodating change.

(b) Reviewing natural resource lands designation. In classifying and designating natural resource lands, counties must approach the effort as a county-wide or regional process. Counties and cities should not review natural resource lands designations solely on a parcel-by-parcel process. Designation amendments should be based on consistency with one or more of the following criteria:

(i) A change in circumstances pertaining to the comprehensive plan or public policy related to designation criteria in WAC 365-190-050(3), 365-190-060(2), and 365-190-070(3);

(ii) A change in circumstances to the subject property, which is beyond the control of the landowner and is related to designation criteria in WAC 365-190-050(3), 365-190-060(2), and 365-190-070(3);

(iii) An error in designation or failure to designate;

(iv) New information on natural resource land or critical area status related to the designation criteria in WAC 365-190-050(3), 365-190-060(2), and 365-190-070(3); or

(v) A change in population growth rates, or consumption rates, especially of mineral resources.

(11) Use of innovative land use management techniques.

(a) Natural resource uses have preferred and primary status in designated natural resource lands. Counties and cities must determine if and to what extent other uses will be allowed. If other uses are allowed, counties and cities should consider using innovative land management techniques that minimize land use incompatibilities and most effectively maintain current and future natural resource lands.

(b) Techniques to conserve and protect agricultural, forest lands, and mineral resource lands include the purchase or transfer of development rights, fee simple purchase of the land, less than fee simple purchase, purchase with leaseback, buffering, land trades, conservation easements, current use assessments, innovative zoning, or other innovations which maintain current uses and assure the conservation of these natural resource lands.

(12) Development in and adjacent to agricultural, forest, and mineral resource lands shall assure the continued management of these lands for natural resource production. Uses that would convert natural resource lands to other uses or would interfere with the allowed natural resource uses must be prohibited except as authorized in accessory uses under RCW 36.70A.177 or other applicable statutes. Any uses adjacent to agricultural, forest, and mineral resource lands of long-term commercial significance must not interfere with their continued use for the production of agricultural, forest, or mineral products respectively. Counties and cities should consider the adoption of right-to-farm provisions, and may also adopt measures to conserve and enhance marine aquaculture. Covenants or easements recognizing that farming, forestry, and mining activities will occur should be imposed on new development in or adjacent to agricultural, forest, or mineral resource lands. Where buffering is used it should be on land within the adjacent development unless an alternative is mutually agreed on by adjacent landowners.

[Statutory Authority: RCW 36.70A.050 and 36.70A.190. 10-03-085, § 365-190-040, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050. 91-07-041, § 365-190-040, filed 3/15/91, effective 4/15/91.]

365-190-050
Agricultural resource lands.

(1) In classifying and designating agricultural resource lands, counties must approach the effort as a county-wide or area-wide process. Counties and cities should not review resource lands designations solely on a parcel-by-parcel process. Counties and cities must have a program for the transfer or purchase of development rights prior to designating agricultural resource lands in urban growth areas. Cities are encouraged to coordinate their agricultural resource lands designations with their county and any adjacent jurisdictions.

(2) Once lands are designated, counties and cities planning under the act must adopt development regulations that assure the conservation of agricultural resource lands. Recommendations for those regulations are found in WAC 365-196-815.

(3) Lands should be considered for designation as agricultural resource lands based on three factors:

(a) The land is not already characterized by urban growth. To evaluate this factor, counties and cities should use the criteria contained in WAC 365-196-310.

(b) The land is used or capable of being used for agricultural production. This factor evaluates whether lands are well suited to agricultural use based primarily on their physical and geographic characteristics. Some agricultural operations are less dependent on soil quality than others, including some livestock production operations.

(i) Lands that are currently used for agricultural production and lands that are capable of such use must be evaluated for designation. The intent of a landowner to use land for agriculture or to cease such use is not the controlling factor in determining if land is used or capable of being used for agricultural production. Land enrolled in federal conservation reserve programs is recommended for designation based on previous agricultural use, management requirements, and potential for reuse as agricultural land.

(ii) In determining whether lands are used or capable of being used for agricultural production, counties and cities shall use the land-capability classification system of the United States Department of Agriculture Natural Resources Conservation Service as defined in relevant Field Office Technical Guides. These eight classes are incorporated by the United States Department of Agriculture into map

units described in published soil surveys, and are based on the growing capacity, productivity and soil composition of the land.

(c) The land has long-term commercial significance for agriculture. In determining this factor, counties and cities should consider the following nonexclusive criteria, as applicable:

(i) The classification of prime and unique farmland soils as mapped by the Natural Resources Conservation Service;

(ii) The availability of public facilities, including roads used in transporting agricultural products;

(iii) Tax status, including whether lands are enrolled under the current use tax assessment under chapter 84.34 RCW and whether the optional public benefit rating system is used locally, and whether there is the ability to purchase or transfer land development rights;

(iv) The availability of public services;

(v) Relationship or proximity to urban growth areas;

(vi) Predominant parcel size;

(vii) Land use settlement patterns and their compatibility with agricultural practices;

(viii) Intensity of nearby land uses;

(ix) History of land development permits issued nearby;

(x) Land values under alternative uses; and

(xi) Proximity to markets.

(4) When designating agricultural resource lands, counties and cities may consider food security issues, which may include providing local food supplies for food banks, schools and institutions, vocational training opportunities in agricultural operations, and preserving heritage or artisanal foods.

(5) When applying the criteria in subsection (3)(c) of this section, the process should result in designating an amount of agricultural resource lands sufficient to maintain and enhance the economic viability of the agricultural industry in the county over the long term; and to retain supporting agricultural businesses, such as processors, farm suppliers, and equipment maintenance and repair facilities.

(6) Counties and cities may further classify additional agricultural lands of local importance. Classifying additional agricultural lands of local importance should include, in addition to general public involvement, consultation with the board of the local conservation district and the local committee of the farm service agency. It may also be useful to consult with any existing local organizations marketing or using local produce, including the boards of local farmers markets, school districts, other large institutions, such as hospitals, correctional facilities, or existing food cooperatives.

These additional lands may include designated critical areas, such as bogs used to grow cranberries or farmed wetlands. Where these lands are also designated critical areas, counties and cities planning under the act must weigh the compatibility of adjacent land uses and development with the continuing need to protect the functions and values of critical areas and ecosystems.

[Statutory Authority: RCW 36.70A.050, 36.70A.190. 10-22-103, § 365-190-050, filed 11/2/10, effective 12/3/10; 10-03-085, § 365-190-050, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050. 91-07-041, § 365-190-050, filed 3/15/91, effective 4/15/91.]

365-190-060
Forest resource lands.

(1) In classifying and designating forest resource lands, counties must approach the effort as a county-wide or regional process. Cities are encouraged to coordinate their forest resource lands designations with their county and any adjacent jurisdictions. Counties and cities should not review forest resource lands designations solely on a parcel-by-parcel basis.

(2) Lands should be designated as forest resource lands of long-term commercial significance based on three factors:

(a) The land is not already characterized by urban growth. To evaluate this factor, counties and cities should use the criteria contained in WAC 365-196-310.

(b) The land is used or capable of being used for forestry production. To evaluate this factor, counties and cities should determine whether lands are well suited for forestry use based primarily on their physical and geographic characteristics.

Lands that are currently used for forestry production and lands that are capable of such use must be evaluated for designation. The landowner's intent to either use land for forestry or to cease such use is not the controlling factor in determining if land is used or capable of being used for forestry production.

(c) The land has long-term commercial significance. When determining whether lands are used or capable of being used for forestry production, counties and cities should determine which land grade constitutes forest land of long-term commercial significance, based on local physical, biological, economic, and land use considerations. Counties and cities should use the private forest land grades of the department of revenue (WAC 458-40-530). This system incorporates consideration of growing capacity, productivity, and soil composition of the land. Forest land of long-term commercial significance will generally have a predominance of the higher private forest land grades. However, the presence of lower private forest land grades within the areas of predominantly higher grades need not preclude designation as forest land.

(3) Counties and cities may also consider secondary benefits from retaining commercial forestry operations. Benefits from retaining commercial forestry may include protecting air and water quality, maintaining adequate aquifer recharge areas, reducing forest fire risks, supporting tourism and access to recreational opportunities, providing carbon sequestration benefits, and improving wildlife habitat and connectivity for upland species. These are only potential secondary benefits from retaining commercial forestry operations, and should not be used alone as a basis for designating or dedesignating forest resource lands.

(4) Counties and cities must also consider the effects of proximity to population areas and the possibility of more intense uses of the land as indicated by the following criteria as applicable:

(a) The availability of public services and facilities conducive to the conversion of forest land;

(b) The proximity of forest land to urban and suburban areas and rural settlements: Forest lands of long-term commercial significance are located outside the urban and suburban areas and rural settlements;

(c) The size of the parcels: Forest lands consist of predominantly large parcels;

(d) The compatibility and intensity of adjacent and nearby land use and settlement patterns with forest lands of long-term commercial significance;

(e) Property tax classification: Property is assessed as open space or forest land pursuant to chapter 84.33 or 84.34 RCW;

(f) Local economic conditions which affect the ability to manage timberlands for long-term commercial production; and

(g) History of land development permits issued nearby.

(5) When applying the criteria in subsection (4) of this section, counties or cities should designate at least the minimum amount of forest resource lands needed to maintain economic viability for the forestry industry and to retain supporting forestry businesses, such as loggers, mills, forest product processors, equipment suppliers, and equipment maintenance and repair facilities. Economic viability in this context is that amount of designated forestry resource land needed to maintain economic viability of the forestry industry in the region over the long term.

[Statutory Authority: RCW 36.70A.050 and 36.70A.190. 10-03-085, § 365-190-060, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050. 91-07-041, § 365-190-060, filed 3/15/91, effective 4/15/91.]

365-190-070
Mineral resource lands.

(1) In designating mineral resource lands, counties and cities must approach the effort as a county-wide or regional process, with the exception of owner-initiated requests for designation. Counties and cities should not review mineral resource lands designations solely on a parcel-by-parcel basis.

(2) Counties and cities must identify and classify mineral resource lands from which the extraction of minerals occurs or can be anticipated. Counties and cities may consider the need for a longer planning period specifically to address mineral resource lands, based on the need to assure availability of minerals for future uses, and to not inadvertently preclude access to available mineral resources due to incompatible development. Other proposed land uses within these areas may require special attention to ensure future supply of aggregate and mineral resource material, while maintaining a balance of land uses.

(3) Classification criteria.

(a) Counties and cities classify mineral resource lands based on geologic, environmental, and economic factors, existing land uses, and land ownership. It is expected that mineral resource lands will be depleted of minerals over time, and that subsequent land uses may occur on these lands after mining is completed. Counties and cities may approve and permit land uses on these mineral resource lands to occur after mining is completed.

(b) Counties and cities should classify lands with potential long-term commercial significance for extracting at least the following minerals: Sand, gravel, and valuable metallic substances. Other minerals may be classified as appropriate.

(c) When classifying these areas, counties and cities should use maps and information on location and extent of mineral deposits provided by the department of natural resources, the United States Geological Service and any relevant information provided by property owners. Counties and cities may also use all or part of a detailed minerals classification system developed by the department of natural resources.

(d) Classifying mineral resource lands should be based on the geology and the distance to market of potential mineral resource lands, including:

(i) Physical and topographic characteristics of the mineral resource site, including the depth and quantity of the resource and depth of the overburden;

(ii) Physical properties of the resource including quality and type;

(iii) Projected life of the resource;

(iv) Resource availability in the region; and

(v) Accessibility and proximity to the point of use or market.

(e) Other factors to consider when classifying potential mineral resource lands should include three aspects of mineral resource lands:

(i) The ability to access needed minerals may be lost if suitable mineral resource lands are not classified and designated; and

(ii) The effects of proximity to population areas and the possibility of more intense uses of the land in both the short and long-term, as indicated by the following:

(A) General land use patterns in the area;

(B) Availability of utilities, including water supply;

(C) Surrounding parcel sizes and surrounding uses;

(D) Availability of public roads and other public services; and

(E) Subdivision or zoning for urban or small lots.

(iii) Energy costs of transporting minerals.

(4) Designation of mineral resource lands.

(a) Counties and cities must designate known mineral deposits so that access to mineral resources of long-term commercial significance is not knowingly precluded. Priority land use for mineral extraction should be retained for all designated mineral resource lands.

(b) In designating mineral resource lands, counties and cities should determine if adequate mineral resources are available for projected needs from currently designated mineral resource lands.

(c) Counties and cities may consult with the department of transportation and the regional transportation planning organization to determine projected future mineral resource needs for large transportation projects planned in their area.

(d) In designating mineral resource lands, counties and cities must also consider that mining may be a temporary use at any given mine, depending on the amount of minerals available and the consumption rate, and that other land uses can occur on the mine site after mining is completed, subject to approval.

(e) Successful achievement of the natural resource industries goal set forth in RCW 36.70A.020 requires the conservation of a land base sufficient in size and quality to maintain and enhance those industries and the development and use of land use techniques that discourage uses incompatible with the management of designated lands.

[Statutory Authority: RCW 36.70A.050 and 36.70A.190. 10-03-085, § 365-190-070, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050. 91-07-041, § 365-190-070, filed 3/15/91, effective 4/15/91.]

365-190-080
Critical areas.

(1) Counties and cities must protect critical areas. Counties and cities required or opting to plan under the act must consider the definitions and guidelines in this chapter when designating critical areas and when preparing development regulations that protect the function and values of critical areas. The department provides additional recommendations for adopting critical areas regulations in WAC 365-196-485.

(2) Counties and cities must include the best available science as described in chapter 365-195 WAC, when designating critical areas and when developing policies and regulations that protect critical areas. Counties and cities must give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fisheries. Counties and cities are encouraged to also protect both surface and groundwater resources, because these waters often recharge wetlands, streams and lakes.

(3) Counties and cities are encouraged to develop a coordinated regional critical areas protection program that combines interjurisdictional cooperation, public education, incentives to promote voluntary protective measures, and regulatory standards that serve to protect these critical areas.

(4) Counties and cities should designate critical areas by using maps and performance standards.

(a) Maps may benefit the public by increasing public awareness of critical areas and their locations. County and city staff may also benefit from maps which provide a useful tool for determining whether a particular land use permit application may affect a critical area. However, because maps may be too inexact for regulatory purposes, counties and cities should rely primarily on performance standards to protect critical areas. Counties and cities should apply performance standards to protect critical areas when a land use permit decision is made.

(b) Counties and cities should clearly state that maps showing known critical areas are only for information or illustrative purposes.

[Statutory Authority: RCW 36.70A.050 and 36.70A.190. 10-03-085, § 365-190-080, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050. 91-07-041, § 365-190-080, filed 3/15/91, effective 4/15/91.]

365-190-090
Wetlands.

(1) The wetlands of Washington state are fragile ecosystems that serve a number of important beneficial functions. Wetlands assist in reducing erosion, siltation, flooding, ground and surface water pollution, and provide wildlife, plant, and fisheries habitats. Wetlands destruction or impairment may result in increased public and private costs and property losses.

(2) In designating wetlands for regulatory purposes, counties and cities must use the definition of wetlands in RCW 36.70A.030. Counties and cities are requested and encouraged to make their actions consistent with the intent and goals of "protection of wetlands," Executive Orders 89-10 and 90-04 as they existed on September 1, 1990. Additionally, counties and cities should consider wetlands protection guidance provided by the department of ecology, including the management recommendations based on the best available science, mitigation guidance, and provisions addressing the option of using wetland mitigation banks.

(3) Wetlands rating systems. Wetland functions vary widely.

(a) When designating wetlands, counties and cities should use a rating system that evaluates the existing wetland functions and values to determine what functions must be protected.

(b) In developing wetlands rating systems, counties and cities should consider using the wetland rating system developed jointly by the department of ecology and the United States Army Corps of Engineers.

(c) If a county or city chooses to use an alternative rating system, it must include the best available science.

(d) A rating system should evaluate, at a minimum, the following factors:

(i) Wetlands functions and values;

(ii) Degree of sensitivity to disturbance;

(iii) Rarity;

(iv) The degree to which a wetland contributes to functions and values of a larger ecosystem. Rating systems should generally rate wetlands higher when they are well-connected to adjacent or nearby habitats, are part of an intact ecosystem or function in a network of critical areas; and

(v) The ability to replace the functions and values through compensatory mitigation.

(4) Counties and cities may use the National Wetlands Inventory and a landscape-scale watershed characterization as information sources for determining the approximate distribution and extent of wetlands. The National Wetlands Inventory is an inventory providing maps of wetland areas according to the definition of wetlands issued by the United States Department of Interior Fish and Wildlife Service. A landscape-scale watershed characterization may identify areas that are conducive to forming wetlands based on topography, soils and geology, and hydrology. Any potential locations of wetlands based on the National Wetlands Inventory or landscape-scale watershed characterization should be confirmed by field visits, either before or as part of permitting activities, and identified wetlands should have their boundaries delineated for regulation consistent with the wetlands definition in RCW 36.70A.030.

(5) Counties and cities must use the methodology for regulatory delineations in the adopted state manual identified in RCW 36.70A.175.

[Statutory Authority: RCW 36.70A.050 and 36.70A.190. 10-03-085, § 365-190-090, filed 1/19/10, effective 2/19/10.]

365-190-100
Critical aquifer recharge areas.

(1) Potable water is an essential life sustaining element for people and many other species. Much of Washington's drinking water comes from groundwater. Once groundwater is 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.

(2) The quality and quantity of groundwater in an aquifer is inextricably linked to its recharge area. Where aquifers and their recharge areas have been studied, affected counties and cities should use this information as the basis for classifying and designating these areas. Where no specific studies have been done, counties and cities may use existing soil and surficial geologic information to determine where recharge areas exist. To determine the threat to groundwater quality, existing land use activities and their potential to lead to contamination should be evaluated.

(3) Counties and cities must classify recharge areas for aquifers according to the aquifer vulnerability. 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 hydrogeologic conditions that facilitate degradation. Low vulnerability is indicated by land uses that do not contribute contaminants that will degrade groundwater, and by hydrogeologic 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.

(a) To characterize hydrogeologic susceptibility of the recharge area to contamination, counties and cities may consider the following physical characteristics:

(i) Depth to groundwater;

(ii) Aquifer properties such as hydraulic conductivity, gradients, and size;

(iii) Soil (texture, permeability, and contaminant attenuation properties);

(iv) Characteristics of the vadose zone including permeability and attenuation properties; and

(v) Other relevant factors.

(b) The following may be considered to evaluate vulnerability based on the contaminant loading potential:

(i) General land use;

(ii) Waste disposal sites;

(iii) Agriculture activities;

(iv) Well logs and water quality test results;

(v) Proximity to marine shorelines; and

(vi) Other information about the potential for contamination.

(4) A classification strategy for aquifer recharge areas should be to maintain the quality, and if needed, the quantity of the groundwater, with particular attention to recharge areas of high susceptibility.

(a) In recharge areas that are highly vulnerable, studies should be initiated to determine if groundwater contamination has occurred. Classification of these areas should include consideration of the degree to which the aquifer is used as a potable water source, feasibility of protective measures to preclude further degradation, availability of treatment measures to maintain potability, and availability of alternative potable water sources.

(b) Examples of areas with a critical recharging effect on aquifers used for potable water may include:

(i) Recharge areas for sole source aquifers designated pursuant to the Federal Safe Drinking Water Act;

(ii) Areas established for special protection pursuant to a groundwater management program, chapters 90.44, 90.48, and 90.54 RCW, and chapters 173-100 and 173-200 WAC;

(iii) Areas designated for wellhead protection pursuant to the Federal Safe Drinking Water Act;

(iv) Areas near marine waters where aquifers may be subject to saltwater intrusion; and

(v) Other areas meeting the definition of "areas with a critical recharging effect on aquifers used for potable water" in these guidelines.

(c) Some aquifers may also have critical recharging effects on streams, lakes, and wetlands that provide critical fish and wildlife habitat. Protecting adequate recharge of these aquifers may provide additional benefits in maintaining fish and wildlife habitat conservation areas.

[Statutory Authority: RCW 36.70A.050 and 36.70A.190. 10-03-085, § 365-190-100, filed 1/19/10, effective 2/19/10.]

365-190-110
Frequently flooded areas.

Frequently flooded areas. Flood plains and other areas subject to flooding perform important hydrologic functions and may present a risk to persons and property.

(1) Classifications of frequently flooded areas should include, at a minimum, the 100-year flood plain designations of the Federal Emergency Management Agency and the National Flood Insurance Program.

(2) Counties and cities should consider the following when designating and classifying frequently flooded areas:

(a) Effects of flooding on human health and safety, and to public facilities and services;

(b) Available documentation including federal, state, and local laws, regulations, and programs, local studies and maps, and federal flood insurance programs, including the provisions for urban growth areas in RCW 36.70A.110;

(c) The future flow flood plain, defined as the channel of the stream and that portion of the adjoining flood plain that is necessary to contain and discharge the base flood flow at build out;

(d) The potential effects of tsunami, high tides with strong winds, sea level rise, and extreme weather events, including those potentially resulting from global climate change;

(e) Greater surface runoff caused by increasing impervious surfaces.

[Statutory Authority: RCW 36.70A.050 and 36.70A.190. 10-03-085, § 365-190-110, filed 1/19/10, effective 2/19/10.]

365-190-120
Geologically hazardous areas.

(1) Geologically hazardous areas. Geologically hazardous areas include areas susceptible to erosion, sliding, earthquake, or other geological events. They pose a threat to the health and safety of citizens when incompatible commercial, residential, or industrial development is sited in areas of significant hazard.

(2) Some geological hazards can be reduced or mitigated by engineering, design, or modified construction or mining practices so that risks to public health and safety are minimized. When technology cannot reduce risks to acceptable levels, building in geologically hazardous areas must be avoided. The distinction between avoidance and compensatory mitigation should be considered by counties and cities that do not currently classify geological hazards, as they develop their classification scheme.

(3) Areas that are susceptible to one or more of the following types of hazards shall be classified as a geologically hazardous area:

(a) Erosion hazard;

(b) Landslide hazard;

(c) Seismic hazard; or

(d) Areas subject to other geological events such as coal mine hazards and volcanic hazards including: Mass wasting, debris flows, rock falls, and differential settlement.

(4) Counties and cities should assess the risks and classify geologically hazardous areas as either:

(a) Known or suspected risk;

(b) No known risk; or

(c) Risk unknown - data are not available to determine the presence or absence of risk.

(5) Erosion hazard areas include areas likely to become unstable, such as bluffs, steep slopes, and areas with unconsolidated soils. Erosion hazard areas may also include coastal erosion areas: This information can be found in the Washington state coastal atlas available from the department of ecology. Counties and cities may consult with the United States Department of Agriculture Natural Resources Conservation Service for data to help identify erosion hazard areas.

(6) Landslide hazard areas include areas subject to landslides based on a combination of geologic, topographic, and hydrologic factors. They include any areas susceptible to landslide because of any combination of bedrock, soil, slope (gradient), slope aspect, structure, hydrology, or other factors, and include, at a minimum, the following:

(a) Areas of historic failures, such as:

(i) Those areas delineated by the United States Department of Agriculture Natural Resources Conservation Service as having a significant limitation for building site development;

(ii) Those coastal areas mapped as class u (unstable), uos (unstable old slides), and urs (unstable recent slides) in the department of ecology Washington coastal atlas; or

(iii) Areas designated as quaternary slumps, earthflows, mudflows, lahars, or landslides on maps published by the United States Geological Survey or Washington department of natural resources.

(b) Areas with all three of the following characteristics:

(i) Slopes steeper than fifteen percent;

(ii) Hillsides intersecting geologic contacts with a relatively permeable sediment overlying a relatively impermeable sediment or bedrock; and

(iii) Springs or groundwater seepage.

(c) Areas that have shown movement during the holocene epoch (from ten thousand years ago to the present) or which are underlain or covered by mass wastage debris of this epoch;

(d) Slopes that are parallel or subparallel to planes of weakness (such as bedding planes, joint systems, and fault planes) in subsurface materials;

(e) Slopes having gradients steeper than eighty percent subject to rockfall during seismic shaking;

(f) Areas potentially unstable as a result of rapid stream incision, stream bank erosion, and undercutting by wave action, including stream channel migration zones;

(g) Areas that show evidence of, or are at risk from snow avalanches;

(h) Areas located in a canyon or on an active alluvial fan, presently or potentially subject to inundation by debris flows or catastrophic flooding; and

(i) Any area with a slope of forty percent or steeper and with a vertical relief of ten or more feet except areas composed of bedrock. A slope is delineated by establishing its toe and top and measured by averaging the inclination over at least ten feet of vertical relief.

(7) Seismic hazard areas must include areas subject to severe risk of damage as a result of earthquake induced ground shaking, slope failure, settlement or subsidence, soil liquefaction, surface faulting, or tsunamis. Settlement and soil liquefaction conditions occur in areas underlain by cohesionless soils of low density, typically in association with a shallow groundwater table. One indicator of potential for future earthquake damage is a record of earthquake damage in the past. Ground shaking is the primary cause of earthquake damage in Washington, and ground settlement may occur with shaking. The strength of ground shaking is primarily affected by:

(a) The magnitude of an earthquake;

(b) The distance from the source of an earthquake;

(c) The type or thickness of geologic materials at the surface; and

(d) The type of subsurface geologic structure.

(8) Other geological hazard areas:

(a) Volcanic hazard areas must include areas subject to pyroclastic flows, lava flows, debris avalanche, or inundation by debris flows, lahars, mudflows, or related flooding resulting from volcanic activity.

(b) Mine hazard areas are those areas underlain by, adjacent to, or affected by mine workings such as adits, gangways, tunnels, drifts, or air shafts. Factors which should be considered include: Proximity to development, depth from ground surface to the mine working, and geologic material.

[Statutory Authority: RCW 36.70A.050 and 36.70A.190. 10-03-085, § 365-190-120, filed 1/19/10, effective 2/19/10.]

365-190-130
Fish and wildlife habitat conservation areas.

(1) "Fish and wildlife habitat conservation" means land management for maintaining populations of species in suitable habitats within their natural geographic distribution so that the habitat available is sufficient to support viable populations over the long term and isolated subpopulations are not created. This does not mean maintaining all individuals of all species at all times, but it does mean not degrading or reducing populations or habitats so that they are no longer viable over the long term. Counties and cities should engage in

cooperative planning and coordination to help assure long term population viability.

Fish and wildlife habitat conservation areas contribute to the state's biodiversity and occur on both publicly and privately owned lands. Designating these areas is an important part of land use planning for appropriate development densities, urban growth area boundaries, open space corridors, and incentive-based land conservation and stewardship programs.

(2) Fish and wildlife habitat conservation areas that must be considered for classification and designation include:

(a) Areas where endangered, threatened, and sensitive species have a primary association;

(b) Habitats and species of local importance, as determined locally;

(c) Commercial and recreational shellfish areas;

(d) Kelp and eelgrass beds; herring, smelt, and other forage fish spawning areas;

(e) Naturally occurring ponds under twenty acres and their submerged aquatic beds that provide fish or wildlife habitat;

(f) Waters of the state;

(g) Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity; and

(h) State natural area preserves, natural resource conservation areas, and state wildlife areas.

(3) When classifying and designating these areas, counties and cities must include the best available science, as described in chapter 365-195 WAC.

(a) Counties and cities should consider the following:

(i) Creating a system of fish and wildlife habitat with connections between larger habitat blocks and open spaces, integrating with open space corridor planning where appropriate;

(ii) Level of human activity in such areas including presence of roads and level of recreation type (passive or active recreation may be appropriate for certain areas and habitats);

(iii) Protecting riparian ecosystems including salmonid habitat, which also includes marine nearshore areas;

(iv) Evaluating land uses surrounding ponds and fish and wildlife habitat conservation areas that may negatively impact these areas, or conversely, that may contribute positively to their function;

(v) Establishing buffer zones around these areas to separate incompatible uses from habitat areas;

(b) Counties and cities may also consider the following:

(i) Potential for restoring lost and impaired salmonid habitat;

(ii) Potential for designating areas important for local and ecoregional biodiversity; and

(iii) Establishing or enhancing nonregulatory approaches in addition to regulatory methods to protect fish and wildlife habitat conservation areas.

(4) Sources and methods.

(a) Endangered, threatened and sensitive species. Counties and cities should identify and classify seasonal ranges and habitat elements where federal and state listed endangered, threatened and sensitive species have a primary association and which, if altered, may reduce the likelihood that the species will persist over the long term. Counties and cities should consult current information on priority habitats and species identified by the Washington state department of fish and wildlife. Recovery plans and management recommendations for many of these species are available from the Unites States Fish and Wildlife Service, the National Marine Fisheries Service and the Washington state department of fish and wildlife. Additional information is also available from the Washington state department of natural resources, natural heritage program, and aquatic resources program.

(b) Habitats and species areas of local importance. Counties and cities should identify, classify and designate locally important habitats and species. Counties and cities should consult current information on priority habitats and species identified by the Washington state department of fish and wildlife. Priority habitat and species information includes endangered, threatened and sensitive species, but also includes candidate species and other vulnerable and unique species and habitats. While these priorities are those of

the Washington state department of fish and wildlife, they should be considered by counties and cities as they include the best available science. The Washington state department of fish and wildlife can also provide assistance with identifying and mapping important habitat areas at various landscape scales. Similarly, the Washington state department of natural resources' natural heritage program can provide a list of high quality ecological communities and systems and rare plants.

(c) Shellfish areas. All public and private tidelands or bedlands suitable for shellfish harvest shall be classified as critical areas. Counties and cities should consider both commercial and recreational shellfish areas. Counties and cities should consider the Washington state department of health classification of commercial and recreational shellfish growing areas to determine the existing condition of these areas. Further consideration should be given to the vulnerability of these areas to contamination. Shellfish protection districts established pursuant to chapter 90.72 RCW shall be included in the classification of critical shellfish areas.

(d) Kelp and eelgrass beds; herring, smelt and other forage fish spawning areas. Counties and cities must classify kelp and eelgrass beds, identified by the Washington state department of natural resources and the department of ecology. Though not an inclusive inventory, locations of kelp and eelgrass beds are compiled in the Washington coastal atlas published by the department of ecology. Herring, smelt and other forage fish spawning times and locations are outlined in WAC 220-110-240 through 220-110-271.

(e) Naturally occurring ponds under twenty acres and their submerged aquatic beds that provide fish or wildlife habitat. Naturally occurring ponds do not include ponds deliberately designed and created from dry sites, such as canals, detention facilities, wastewater treatment facilities, farmponds, temporary construction ponds (of less than three years duration) and landscape amenities. However, naturally occurring ponds may include those artificial ponds intentionally created from dry areas in order to mitigate conversion of ponds, if permitted by a regulatory authority.

(f) Waters of the state.

(i) Waters of the state are defined in RCW 90.48.020 and include lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and water courses in Washington. Stream types are classified in Title 222 WAC, the forest practices regulations. Counties and cities may use the classification system established in WAC 222-16-030 to classify waters of the state. Counties and cities using the water types defined in WAC 222-16-030 or 222-16-031 (interim) should not rely solely on Washington state department of natural resources maps of these stream types for purposes of regulating land uses or establishing stream buffers.

(ii) Counties and cities that use the stream typing system developed by the department of natural resources should develop a process to verify actual stream conditions, identify flow alterations, and locate fish passage barriers by conducting a field visit. Field verification of all intermittent or nonfish bearing streams should occur during the wet season months of October to March or as determined locally.

(iii) Counties and cities may consider the following factors when classifying waters of the state as fish and wildlife habitat conservation areas:

(A) Species present which are endangered, threatened or sensitive, and other species of concern;

(B) Species present which are sensitive to habitat manipulation (e.g., priority habitats and species program);

(C) Historic presence of species of local importance;

(D) Existing surrounding land uses that are incompatible with salmonid habitat;

(E) Presence and size of riparian ecosystems;

(F) Existing water rights; and

(G) The intermittent nature of some waters of the state.

(g) Lakes, ponds, streams, and rivers planted with game fish. This includes game fish planted in these water bodies under the auspices of a federal, state, local, or tribal program or which supports priority fish species as identified by the Washington state department of fish and wildlife.

(h) State natural area preserves, natural resource conservation areas, and state wildlife areas. Natural area preserves and natural resource conservation areas are defined, established, and managed by the department of natural resources. State wildlife areas are defined, established, and managed by the Washington state department of fish and wildlife, which provides information about state wildlife areas for each county.

(i) Salmonid habitat. Counties and cities should consider recommendations found in salmon recovery plans (see the governor's salmon recovery office). Counties and cities may use information prepared by the United States Department of the Interior Fish and Wildlife Service, National Marine Fisheries Service, the Washington state department of fish and wildlife, the state recreation and

conservation office, and the Puget Sound partnership to designate, protect and restore salmonid habitat.

[Statutory Authority: RCW 36.70A.050 and 36.70A.190. 10-03-085, § 365-190-130, filed 1/19/10, effective 2/19/10.]

Chapter 365-195 WAC
Growth management act — best available science

Last Update: 1/19/10

WAC Sections

PART NINE

BEST AVAILABLE SCIENCE

365-195-900 Background and purpose.

365-195-905 Criteria for determining which information is the "best available science."

365-195-910 Criteria for obtaining the best available science.

365-195-915 Criteria for including the best available science in developing policies and development regulations.

365-195-920 Criteria for addressing inadequate scientific information.

365-195-925 Criteria for demonstrating "special consideration" has been given to conservation or protection measures necessary to preserve or enhance anadromous fisheries.

DISPOSITIONS OF SECTIONS FORMERLY CODIFIED IN THIS CHAPTER

365-195-010 Background. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-010, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-020 Purpose. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-020, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-030 Applicability. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-030, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-040 General method. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-040, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-050 Presumption of validity. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-050, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-060 Regional and local variations. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-060, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-070 Interpretations. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-070, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-200 Statutory definitions. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-200, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-210 Definitions of terms as used in this chapter. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-210, filed 8/11/93, effective 9/11/93; 92-23-065, § 365-195-210, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-220 Additional definitions to be adopted locally. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-220, filed 8/11/93, effective 9/11/93; 92-23-065, § 365-195-220, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-300 Mandatory elements. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-300, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-305 Land use element. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-305, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-310 Housing element. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-310, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-315 Capital facilities element. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-315, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-320 Utilities element. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-320, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-325 Transportation element. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-325, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-330 Rural element. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-330, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-335 Urban growth areas. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-335, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-340 Siting essential public facilities. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-340, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-345 Optional elements. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-345, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-400 Natural resource lands. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-400, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-410 Critical areas. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-410, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-420 Identification of open space corridors. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-420, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-430 Identification of lands useful for public purposes. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-430, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-500 Internal consistency. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-500, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-510 Concurrency. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-510, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-520 Interjurisdictional consistency. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-520, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-530 Coordination with other plans. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-530, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-540 Analysis of cumulative effects. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-540, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-600 Public participation. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-600, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-610 State Environmental Policy Act (SEPA). [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-610, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-620 Submissions to state. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-620, filed 8/11/93, effective 9/11/93; 92-23-065, § 365-195-620, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-630 Amendment. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-630, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-640 Record of process. [Statutory Authority: RCW 36.70A.190 (4)(b). 92-23-065, § 365-195-640, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-700 Background. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-700, filed 8/11/93, effective 9/11/93; 92-23-065, § 365-195-700, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-705 Basic assumptions. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-705, filed 8/11/93, effective 9/11/93.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-710 Identification of other laws. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-710, filed 8/11/93, effective 9/11/93; 92-23-065, § 365-195-710, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-715 Integrating external considerations. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-715, filed 8/11/93, effective 9/11/93.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-720 Sources of law. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-720, filed 8/11/93, effective 9/11/93; 92-23-065, § 365-195-720, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-725 Constitutional provisions. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-725, filed 8/11/93, effective 9/11/93.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-730 Federal authorities. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-730, filed 8/11/93, effective 9/11/93.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-735 State and regional authorities. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-735, filed 8/11/93, effective 9/11/93.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-740 Regional perspective. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-740, filed 8/11/93, effective 9/11/93.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-745 Special siting statutes. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-745, filed 8/11/93, effective 9/11/93.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-750 Explicit statutory directions. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-750, filed 8/11/93, effective 9/11/93.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-755 Voluntary interjurisdictional planning efforts. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-755, filed 8/11/93, effective 9/11/93.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-760 Integration of SEPA process with creation and adoption of comprehensive plans and development regulations. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-760, filed 8/11/93, effective 9/11/93.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-765 State agency compliance. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-765, filed 8/11/93, effective 9/11/93.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-770 Compliance by regional agencies and special districts. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-770, filed 8/11/93, effective 9/11/93.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-800 Relationship to comprehensive plans. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-800, filed 8/11/93, effective 9/11/93; 92-23-065, § 365-195-800, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-805 Implementation strategy. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-805, filed 8/11/93, effective 9/11/93.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-810 Timing of initial adoption. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-810, filed 8/11/93, effective 9/11/93; 92-23-065, § 365-195-810, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-815 Review for compliance. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-815, filed 8/11/93, effective 9/11/93.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-820 Submissions to state. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-820, filed 8/11/93, effective 9/11/93; 92-23-065, § 365-195-820, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-825 Regulations specifically required by the act. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-825, filed 8/11/93, effective 9/11/93.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-830 Optional authorizations. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-830, filed 8/11/93, effective 9/11/93; 92-23-065, § 365-195-830, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-835 Concurrency regulations. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-835, filed 8/11/93, effective 9/11/93.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-840 Essential public facilities. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-840, filed 8/11/93, effective 9/11/93; 92-23-065, § 365-195-840, filed 11/17/92, effective 12/18/92.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-845 Permit process. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-845, filed 8/11/93, effective 9/11/93.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-850 Impact fees. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-850, filed 8/11/93, effective 9/11/93.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-855 Protection of private property. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-855, filed 8/11/93, effective 9/11/93.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-860 Housing for persons with handicaps. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-860, filed 8/11/93, effective 9/11/93.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-865 Supplementing, amending and monitoring. [Statutory Authority: RCW 36.70A.190 (4)(b). 93-17-040, § 365-195-865, filed 8/11/93, effective 9/11/93.] Repealed by 10-03-085, filed 1/19/10, effective 2/19/10. Statutory Authority: RCW 36.70A.050 and 36.70A.190.

365-195-900
Background and purpose.

(1) Counties and cities planning under RCW 36.70A.040 are subject to continuing review and evaluation of their comprehensive land use plan and development regulations. Every five years they must take action to review and revise their plans and regulations, if needed, to ensure they comply with the requirements of the Growth Management Act. RCW 36.70A.130.

(2) Counties and cities must include the "best available science" when developing policies and development regulations to protect the functions and values of critical areas and must give "special consideration" to conservation or protection measures necessary to preserve or enhance anadromous fisheries. RCW 36.70A.172(1). The rules in WAC 365-195-900 through 365-195-925 are intended to assist counties and cities in identifying and including the best available science in newly adopted policies and regulations and in this periodic review and evaluation and in demonstrating they have met their statutory obligations under RCW 36.70A.172(1).

(3) The inclusion of the best available science in the development of critical areas policies and regulations is especially important to salmon recovery efforts, and to other decision-making affecting threatened or endangered species.

(4) These rules are adopted under the authority of RCW 36.70A.190 (4)(b) which requires the department of community, trade, and economic development (department) to adopt rules to assist counties and cities to comply with the goals and requirements of the Growth Management Act.

[Statutory Authority: RCW 36.70A.190 (4)(b). 01-08-056, § 365-195-900, filed 4/2/01, effective 5/3/01; 00-16-064, § 365-195-900, filed 7/27/00, effective 8/27/00.]

365-195-905
Criteria for determining which information is the "best available science."

(1) This section provides assessment criteria to assist counties and cities in determining whether information obtained during development of critical areas policies and regulations constitutes the "best available science."

(2) Counties and cities may use information that local, state or federal natural resource agencies have determined represents the best available science consistent with criteria set out in WAC 365-195-900 through 365-195-925. The department will make available a list of resources that state agencies have identified as meeting the criteria for best available science pursuant to this chapter. Such information should be reviewed for local applicability.

(3) The responsibility for including the best available science in the development and implementation of critical areas policies or regulations rests with the legislative authority of the county or city. However, when feasible, counties and cities should consult with a qualified scientific expert or team of qualified scientific experts to identify scientific information, determine the best available science, and assess its applicability to the relevant critical areas. The scientific expert or experts may rely on their professional judgment based on experience and training, but they should use the criteria set out in WAC 365-195-900 through 365-195-925 and any technical guidance provided by the department. Use of these criteria also should guide counties and cities that lack the assistance of a qualified expert or experts, but these criteria are not intended to be a substitute for an assessment and recommendation by a qualified scientific expert or team of experts.

(4) Whether a person is a qualified scientific expert with expertise appropriate to the relevant critical areas is determined by the person's professional credentials and/or certification, any advanced degrees earned in the pertinent scientific discipline from a recognized university, the number of years of experience in the pertinent scientific discipline, recognized leadership in the discipline of interest, formal training in the specific area of expertise, and field and/or laboratory experience with evidence of the ability to produce peer-reviewed publications or other professional literature. No one factor is determinative in deciding whether a person is a qualified scientific expert. Where pertinent scientific information implicates multiple scientific disciplines, counties and cities are encouraged to

consult a team of qualified scientific experts representing the various disciplines to ensure the identification and inclusion of the best available science.

(5) Scientific information can be produced only through a valid scientific process. To ensure that the best available science is being included, a county or city should consider the following:

(a) **Characteristics of a valid scientific process.** In the context of critical areas protection, a valid scientific process is one that produces reliable information useful in understanding the consequences of a local government's regulatory decisions and in developing critical areas policies and development regulations that will be effective in protecting the functions and values of critical areas. To determine whether information received during the public participation process is reliable scientific information, a county or city should determine whether the source of the information displays the characteristics of a valid scientific process. The characteristics generally to be expected in a valid scientific process are as follows:

1. **Peer review.** The information has been critically reviewed by other persons who are qualified scientific experts in that scientific discipline. The criticism of the peer reviewers has been addressed by the proponents of the information. Publication in a refereed scientific journal usually indicates that the information has been appropriately peer-reviewed.

2. **Methods.** The methods that were used to obtain the information are clearly stated and able to be replicated. The methods are standardized in the pertinent scientific discipline or, if not, the methods have been appropriately peer-reviewed to assure their reliability and validity.

3. **Logical conclusions and reasonable inferences.** The conclusions presented are based on reasonable assumptions supported by other studies and consistent with the general theory underlying the assumptions. The conclusions are logically and reasonably derived from the assumptions and supported by the data presented. Any gaps in information and inconsistencies with other pertinent scientific information are adequately explained.

4. **Quantitative analysis.** The data have been analyzed using appropriate statistical or quantitative methods.

5. **Context.** The information is placed in proper context. The assumptions, analytical techniques, data, and conclusions are appropriately framed with respect to the prevailing body of pertinent scientific knowledge.

6. **References.** The assumptions, analytical techniques, and conclusions are well referenced with citations to relevant, credible literature and other pertinent existing information.

(b) **Common sources of scientific information.** Some sources of information routinely exhibit all or some of the characteristics listed in (a) of this subsection. Information derived from one of the following sources may be considered scientific information if the source possesses the characteristics in Table 1. A county or city may consider information to be scientifically valid if the source possesses the characteristics listed in (a) of this subsection. The information found in Table 1 provides a general indication of the characteristics of a valid scientific process typically associated with common sources of scientific information.

Table 1

	CHARACTERISTICS					
SOURCES OF SCIENTIFIC INFORMATION	Peer review	Methods	Logical conclusions & reasonable inferences	Quantitative analysis	Context	References
A. Research. Research data collected and analyzed as part of a controlled experiment (or other appropriate methodology) to test a specific hypothesis.	**X**	**X**	**X**	**X**	**X**	**X**
B. Monitoring. Monitoring data collected periodically over time to determine a resource trend or evaluate a		**X**	**X**	**Y**	**X**	**X**

management program.						
C. Inventory. Inventory data collected from an entire population or population segment (e.g., individuals in a plant or animal species) or an entire ecosystem or ecosystem segment (e.g., the species in a particular wetland).		X	X	Y	X	X
D. Survey. Survey data collected from a statistical sample from a population or ecosystem.		X	X	Y	X	X
E. Modeling. Mathematical or symbolic simulation or representation of a natural system. Models generally are used to understand and explain occurrences that cannot be directly observed.	X	X	X	X	X	X
F. Assessment. Inspection and evaluation of site-specific information by a qualified scientific expert. An assessment may or may not involve collection of new data.		X	X		X	X
G. Synthesis. A comprehensive review and explanation of pertinent literature and other relevant existing knowledge by a qualified scientific expert.	X	X	X		X	X
H. Expert Opinion. Statement of a qualified scientific expert based on his or her best professional judgment and experience in the pertinent scientific discipline. The opinion may or may not be based on site-specific information.			X		X	X

X = characteristic must be present for information derived to be considered scientifically valid and reliable

Y = presence of characteristic strengthens scientific validity and reliability of information derived, but is not essential to ensure scientific validity and reliability

(c) **Common sources of nonscientific information.** Many sources of information usually do not produce scientific information because they do not exhibit the necessary characteristics for scientific validity and reliability. Information from these sources may provide valuable information to supplement scientific information, but it is not an adequate substitute for scientific information. Nonscientific information should not be used as a substitute for valid and available scientific information. Common sources of nonscientific information include the following:

(i) Anecdotal information. One or more observations which are not part of an organized scientific effort (for example, "I saw a grizzly bear in that area while I was hiking").

(ii) Nonexpert opinion. Opinion of a person who is not a qualified scientific expert in a pertinent scientific discipline (for example, "I do not believe there are grizzly bears in that area").

(iii) Hearsay. Information repeated from communication with others (for example, "At a lecture last week, Dr. Smith said there were no grizzly bears in that area").

(6) Counties and cities are encouraged to monitor and evaluate their efforts in critical areas protection and incorporate new scientific information, as it becomes available.

[Statutory Authority: RCW 36.70A.190 (4)(b). 00-16-064, § 365-195-905, filed 7/27/00, effective 8/27/00.]

365-195-910
Criteria for obtaining the best available science.

(1) Consultation with state and federal natural resources agencies and tribes can provide a quick and cost-effective way to develop scientific information and recommendations. State natural resource agencies provide numerous guidance documents and model ordinances that incorporate the agencies' assessments of the best available science. The department can provide technical assistance in obtaining such information from state natural resources agencies, developing model GMA-compliant critical areas policies and development regulations, and related subjects. The department will make available to interested parties a current list of the best available science determined to be consistent with criteria set out in WAC 365-195-905 as identified by state or federal natural resource agencies for critical areas.

(2) A county or city may compile scientific information through its own efforts, with or without the assistance of qualified experts, and through state agency review and the Growth Management Act's required public participation process. The county or city should assess whether the scientific information it compiles constitutes the best available science applicable to the critical areas to be protected, using the criteria set out in WAC 365-195-900 through 365-195-925 and any technical guidance provided by the department. If not, the county or city should identify and assemble additional scientific information to ensure it has included the best available science.

[Statutory Authority: RCW 36.70A.190 (4)(b). 00-16-064, § 365-195-910, filed 7/27/00, effective 8/27/00.]

365-195-915
Criteria for including the best available science in developing policies and development regulations.

(1) To demonstrate that the best available science has been included in the development of critical areas policies and regulations, counties and cities should address each of the following on the record:

(a) The specific policies and development regulations adopted to protect the functions and values of the critical areas at issue.

(b) The relevant sources of best available scientific information included in the decision-making.

(c) Any nonscientific information -- including legal, social, cultural, economic, and political information -- used as a basis for critical area policies and regulations that depart from recommendations derived from the best available science. A county or city departing from science-based recommendations should:

(i) Identify the information in the record that supports its decision to depart from science-based recommendations;

(ii) Explain its rationale for departing from science-based recommendations; and

(iii) Identify potential risks to the functions and values of the critical area or areas at issue and any additional measures chosen to limit such risks. State Environmental Policy Act (SEPA) review often provides an opportunity to establish and publish the record of this assessment.

(2) Counties and cities should include the best available science in determining whether to grant applications for administrative variances and exemptions from generally applicable provisions in policies and development regulations adopted to protect the functions and values of critical areas. Counties and cities should adopt procedures and criteria to ensure that the best available science is included in every review of an application for an administrative variance or exemption.

[Statutory Authority: RCW 36.70A.190 (4)(b). 00-16-064, § 365-195-915, filed 7/27/00, effective 8/27/00.]

365-195-920
Criteria for addressing inadequate scientific information.

Where there is an absence of valid scientific information or incomplete scientific information relating to a county's or city's critical areas, leading to uncertainty about which development and land uses could lead to harm of critical areas or uncertainty about the risk to critical area function of permitting development, counties and cities should use the following approach:

(1) A "precautionary or a no risk approach," in which development and land use activities are strictly limited until the uncertainty is sufficiently resolved; and

(2) As an interim approach, an effective adaptive management program that relies on scientific methods to evaluate how well regulatory and nonregulatory actions achieve their objectives. Management, policy, and regulatory actions are treated as experiments that are purposefully monitored and evaluated to determine whether they are effective and, if not, how they should be improved to increase their effectiveness. An adaptive management program is a formal and deliberate scientific approach to taking action and obtaining information in the face of uncertainty. To effectively implement an adaptive management program, counties and cities should be willing to:

(a) Address funding for the research component of the adaptive management program;

(b) Change course based on the results and interpretation of new information that resolves uncertainties; and

(c) Commit to the appropriate time frame and scale necessary to reliably evaluate regulatory and nonregulatory actions affecting critical areas protection and anadromous fisheries.

[Statutory Authority: RCW 36.70A.190 (4)(b). 00-16-064, § 365-195-920, filed 7/27/00, effective 8/27/00.]

365-195-925
Criteria for demonstrating "special consideration" has been given to conservation or protection measures necessary to preserve or enhance anadromous fisheries.

(1) RCW 36.70A.172(1) imposes two distinct but related requirements on counties and cities. Counties and cities must include the "best available science" when developing policies and development regulations to protect the functions and values of critical areas, and counties and cities must give "special consideration" to conservation or protection measures necessary to preserve or enhance anadromous fisheries. Local governments should address both requirements in RCW 36.70A.172(1) when developing their records to support their critical areas policies and development regulations.

(2) To demonstrate compliance with RCW 36.70A.172(1), a county or city adopting policies and development regulations to protect critical areas should include in the record evidence that it has given "special consideration" to conservation or protection measures necessary to preserve or enhance anadromous fisheries. The record should be developed using the criteria set out in WAC 365-195-900 through 365-195-925 to ensure that conservation or protection measures necessary to preserve or enhance anadromous fisheries are grounded in the best available science.

(3) Conservation or protection measures necessary to preserve or enhance anadromous fisheries include measures that protect habitat important for all life stages of anadromous fish, including, but not limited to, spawning and incubation, juvenile rearing and adult residence, juvenile migration downstream to the sea, and adult migration upstream to spawning areas. Special consideration should be given to habitat protection measures based on the best available science relevant to stream flows, water quality and temperature, spawning substrates, instream structural diversity, migratory access, estuary and nearshore marine habitat quality, and the maintenance of salmon prey species. Conservation or protection measures can include the adoption of interim actions and long-term strategies to protect and enhance fisheries resources.

[Statutory Authority: RCW 36.70A.190 (4)(b). 00-16-064, § 365-195-925, filed 7/27/00, effective 8/27/00.]

Attachment E:

Works Cited in the Staff Report.

Works Cited

This document covers works cited in the staff report. It is not a comprehensive list of best available science for the designation of mineral lands of long-term commercial significance, or for mining.

Scientific Documents

Bailey, G. 2010. Fact sheet: sand and gravel general permit. Washington State Department of Ecology, Water Quality Program.

Blackport Hydrogeology, Inc., and Golder Associates. 2006. Applied research on source water protection issues in the aggregate industry – phase I findings. Prepared for The [Canadian] Ministry of Natural Resources, Natural Resources Management Division, Lands and Waters Branch.

Bolton, S., and J. Shellberg. 2001. White Paper: Ecological Issues in Floodplains and Riparian Corridors. Prepared for Washington State Transportation Commission, Department of Transportation, and in cooperation with U.S. Department of Transportation and Federal Highway Administration.

CH2M HILL. 2001. Washington Stormwater Management Study – Report and Recommendations from the Stormwater Policy Advisory Committee. Final Report to the Washington State Legislature.

Dunne and Leopold. 1978. Water in Environmental Planning. W.H. Freeman and Company, New York.

Federal Emergency Management Agency. 2002. Floodplain management: Higher regulatory standards. 2nd edition. Produced by FEMA – Region 10.

Federal Interagency Stream Restoration Working Group. 1998. Stream corridor restoration: Principles, processes, and practices. Adopted as Part 653 of the National Engineering Handbook, USDA-Natural Resources Conservation Service. Revised 2001.

Granger, T., T. Hruby, A. McMillan, D. Peters, J. Rubey, D. Sheldon, S. Stanley, E. Stockdale. April 2005. Wetlands in Washington State - Volume 2: Guidance for Protecting and Managing Wetlands. Washington State Department of Ecology. Publication #05-06-008. Olympia, WA.

Green, J.A., J.A. Pavlish, R.G. Merritt, and J.L. Leete. 2005. Hydraulic impacts of quarries and gravel pits. Minnesota Department of Natural Resources, Division of Waters. Prepared for the Legislative Commission on Minnesota Resources.

Hogarth, W.T. 2005. Final National Marine Fisheries Service (NMFS) national gravel extraction guidance. United States Department of Commerce, National Oceanographic and Atmospheric Administration.

Judge, M., David S., and C. Imaki. 2010. Floodplain management: A synthesis of issues affecting recovery of Puget Sound. Puget Sound Partnership.

King County, Washington. 2004. Best available science – Volume I: A review of scientific literature. King County Executive Report. Critical areas, stormwater, and clearing and grading proposed ordinances. King County Department of Natural Resources and Parks, Water and Land Resources Division, Department of Development and Environmental Services, Department of Transportation.

Knight, K. 2009. Land use planning for salmon, steelhead and trout. Washington Department of Fish and Wildlife. Olympia, Washington.

Knutson, K.L., and V.L. Naef. 1997. Management recommendations for Washington's priority habitats: riparian. Washington Department of Fish and Wildlife.

Kondolf, G.M., M. Smeltzer, and L. Kimball. 2002. Freshwater gravel mining and dredging issues. Center for Environmental Design Research, University of California. Prepared for Washington Department of Fish and Wildlife, Washington Department of Ecology, and Washington Department of Transportation.

Larsen, E., J. M. Azerrad, N. Nordstrom, editors. 2004. Management recommendations for Washington's priority species, Volume IV: Birds. Washington Department of Fish and Wildlife, Olympia, Washington, USA.

May, C. 2009. Watershed processes and aquatic resources: A literature review. Washington Department of Fish and Wildlife.

May, C.W. 2003. Stream-riparian ecosystems in the Puget Sound lowland eco-region: A review of best available science. Watershed Ecology, LLC.

May, C.W., and G. Peterson. 2003. Kitsap salmonid refugia report – Landscape assessment and conservation prioritization of freshwater and nearshore salmonid habitat in Kitsap County. Prepared for Kitsap County.

Mead, R. 1995. The direct and cumulative effects of gravel mining on groundwater with Thurston County, Washington. Thurston County Public Health and Social Services Department, Environmental Health Division, Groundwater Management Program.

National Marine Fisheries Service, Northwest Region. 2008. Endangered Species Act – Section 7 Consultation Final Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation. Implementation of the National Flood Insurance Program in the State of Washington Phase One Document – Puget Sound Region.

Parametrix. 2002. Biological review: Tri-county model 4(d) rule response proposal. Prepared for Tri-County Salmon Conservation Coalition.

Poff, N.L., J.D. Allan, M.B. Bain, J.R. Karr, K.L. Prestegaard, B.D. Richter, R.E. Sparks, and J.C. Stromberg. 1997. The natural flow regime – A paradigm for river conservation and restoration. *BioScience*. 47(11). pp. 769-84.

Pringle, R.F. 1990. Soil survey of Thurston County, Washington. United States Department of Agriculture, Soil Conservation Service, in cooperation with the Washington State Department of Natural Resources and Washington State University, Agriculture Research Center.

Sheldon, D., T. Hruby, P. Johnson, K. Harper, A. McMillan, T. Granger, S. Stanley, and E. Stockdale. March 2005. Wetlands in Washington State - Volume 1: A Synthesis of the Science. Washington State Department of Ecology. Publication #05-06-006. Olympia, WA.

Spence, B. C., G. A. Lomnicky, R. M. Hughes, and R. P. Novitzki. 1996. An ecosystem approach to salmonid conservation. TR-4501-96-6057. ManTech Environmental Research Services Corp., Corvallis, OR.

Stinson, D. W. 2005. Washington State status report for the Mazama pocket gopher, streaked horned lark, and Taylor's checkerspot. Washington Department of Fish and Wildlife, Olympia. 129+ xii pp.

Washington State Department of Health. 2010. Washington state wellhead protection program guidance document. Division of Environmental Health, Office of Drinking Water. Publication DOH 331-018.

Legal and Policy Documents

Clark County Natural Resources Council, et al. v. Clark County, et al. Western Washington Growth Management Hearings Board Case No. 96-2-0017c.

Office of the Governor of Washington State. 1989. Executive Order 89-10: Protection of wetlands.

Pilchuck v. Snohomish County. 1995. Central Puget Sound Growth Management Hearings Board.

Swinomish v. Western Washington Growth Management Hearings Board. 2007. 161 Wn.2d 415; 166 P.3d 1198.

Thurston County. 2010. Comprehensive Plan.

Thurston County. 2005. Draft Best Available Science Document: Important Habitats and

Species.

Thurston County. 2003. County-wide planning policies.

Thurston County. 1993. Chapter 17.15, Thurston County Code: Critical Areas Ordinance.

Thurston Regional Planning Council. 2011. The Profile.

Washington State Legislature. 1991. Chapter 365-190 Washinton Administrative Code: Minimum guidelines to classify agriculture, forest, mineral lands and critical areas.

Washington State Legislature. 1991. Chapter 365-195 Washington Administrative Code: Growth management act – best available science.

Washington State Legislature. 1990. Chapter 36.70A Revised Code of Washington: Growth management — planning by selected counties and cities.

Whidbey Environmental Action Network v.Island County 95-2-0063 (Compliance Order, 4-10-96).

1000 Friends of Washington et al., v. City of Anacortes. Western Washington Growth Management Hearings Board No. 03-2-0017 (FDO 2-10-04 at 22).

Briefing Attachment 3:

Planning Commission Public Hearing Written Comments

Public Comment Index

Letter #	Date Received	Comment	Name	Address
	Comments Generally **Supporting**			
S-1	02/07/2012	Generally supports staff recommendation with two changes; First, Item 2 in the Comprehensive Plan the word "area" should be changed to read, "any compass direction". Second, item 7, "any FEMA 100 year floodplain" should read, "mine contiguous to or within any FEMA 100 year floodplain".	Howard Glastetter	11110 Kuhlman Road SE Olympia,WA 98502
S-2	02/08/2012	Generally supports staff recommendation, but would like to keep reference to CAO regulations out of the designation of mineral lands.	Jami Balint for Segale	PO Box 88028 Tukwila, WA 98138
S-3	02/08/2012	Generally supports staff recommendation, but would like to keep reference to CAO regulations out of the designation of mineral lands.	Karen Rentz for Weyerhaeuser	1201 3rd Ave, Suite 4800 Seattle, WA 98101
S-4	02/08/2012	Generally supports staff recommendation.	Susan Markey	3956 Holladay Park Loop SE Lacey, WA 98503
S-5	02/08/2012	Generally supports staff recommendation. Will voice concerns with the draft when it is before the Board of Commissioners.	Dave Lewis for Miles Sand and Gravel	400 Valley Ave NE Puyallup, WA 98372
S-6	02/08/2012	Generally supports staff recommendation. Concerend with wording of a three areas.	Tom Cook	652 Sandra Lee Ct SE Olympia, WA 98513

Howard Glastetter
11110 Kuhlman Road SE
Olympia, WA 98513-9605

February 6, 2012

Thurston County Development Services
C/O Mr. Jeremy Davis
2000 Lakeridge Drive SW
Olympia WA 98502-6045

Jeremy,

I have a couple comments about the Planning Commission's February 8, 2012 public meeting on Minimum Designation Criteria for designating potential gravel mines. I'm particularly concerned about portions of items 2 and 7 on page 3-16. See below:

MINIMUM DESIGNATION CRITERIA

2. ...
To qualify for mineral resource designation, at least 60% of the **area** Within 1,000 feet of a proposed site must be made up of parcels 5 acres in size or larger, excluding parcels owned by the applicant.

7. Mineral resource lands shall not ... **any Federal Emergency Management Agency (FEMA) 100 year floodplain**.

Page 3-16

First, Item 2 allows for a gravel company to designate a portion of land they own that is bordered on three sides by 1000 feet of their own property. That gives them a 75% approval margin right there. I believe the word "area" in item 2 should read "**any compass direction**".

Second, Item 7 misses the point. You don't often find a potential gravel mine in a flood plain. Often gravel deposits are found contiguous to a flood plain at the end of an ancient glacier. The rule should read that any mine contiguous to or within a FEMA 100 year flood plain should not be allowed to mine below 4 feet above that flood plain. The difference between a 100 year flood and a 500 year flood is 2 feet. The above rule would reasonably protect the environment, while allowing the mining of much of the resource.

Thank you,

Howard Glastetter

Howard Glastetter
howard.glastetter@comcast.net
(360) 491-6645

Olivia Story - RE: Thurston County public hearing on mineral lands

From: Olivia Story
To: Jami Balint
Date: 2/8/2012 1:31 PM
Subject: RE: Thurston County public hearing on mineral lands
CC: Jeremy Davis

Thank you for your comments. I will ensure they are included in the record and presented tonight at the hearing.

Olivia Story

>>> "Jami Balint" <JBalint@segaleproperties.com> 2/8/2012 1:27 PM >>>
Hi Olivia,

Please submit this email to the Planning Commission as Segale Properties LLC's official comment on the draft mineral land designation criteria.

Segale is pleased with the progress made toward creating designation criteria that satisfies the GMA. In particular, Segale is pleased that the proposed criteria is less prohibitive than the previous draft. Furthermore, Segale is pleased that the County has recognized the inherent overlap between critical aquifer recharge areas (CARA) and mineral lands of long-term significance, and that the County is following best available science by allowing dual designation of mineral lands and CARA I. However, Segale has long advocated for leaving the critical areas regulations in the critical areas ordinance; such an approach simplifies the designation process without jeopardizing the critical areas. As the Growth Management Hearing Board has said, on more than one occasion, allowing designation of critical areas does not invalidate critical areas regulations. The proposed draft still requires analysis of critical areas at the designation stage, an approach that is unnecessarily burdensome on both the landowner and the County (remember, the County will have to designate mineral lands).

Finally, though we appreciate that the County is moving toward a more reasonable approach to protecting habitat areas, the following language is quite ambiguous:

"Mineral resource lands shall not include known important habitats and

known habitats of primary association to species listed under the

Endangered Species Act or state law and their buffers as established

by the Critical Areas Ordinance at the time of designation."

It is not clear whether what can't be known is that a particular site has a important habitat features, or the habitat features themself (in which case analysis would be required at the desigation stage). I suggest re-writing this sections as follows:

Mineral resource lands shall not include <u>lands with</u> known important habitats and

known habitats of primary association to species listed under the

Endangered Species Act or state law and their buffers as established

by the Critical Areas Ordinance at the time of designation. <u>For purposes of this section, the term "known" shall mean data or information is readily available to the County without further investigation or study.</u>

Regards,

Jami Balint

From: Olivia Story [mailto:storyo@co.thurston.wa.us]
Sent: Wed 2/8/2012 9:54 AM
To: dward@buchalter.com; ALane@cairncross.com; NRogers@cairncross.com; SWebster@cairncross.com; howard.glastetter@comcast.net; slmarkey@comcast.net; tcookoly@comcast.net; James.Essig@gcinc.com; davel@gravelpits.com; deans@lakesideind.com; AMackie@perkinscoie.com; EMerrifield@perkinscoie.com; KRentz@perkinscoie.com; Daina Mereness; Jami Balint; Mark Segale; MIBrandon@stoel.com; RLMonroe@stoel.com; bchattin@washingtonconcrete.org
Cc: Scott Clark; Jeremy Davis; Jeff Fancher; Cindy Wilson
Subject: Thurston County public hearing on mineral lands

This is a reminder about the Thurston County Planning Commission public hearing tonight. The hearing will start at 7:00, in Room 152, Building #1, of the Thurston County Courthouse Complex, followed by a work session. The purpose of the hearing is to accept public comment on the draft regulations relating to the designation of mineral resource lands criteria as required by the Western Washington Growth Management Hearings Board Final Decision Order. The proposed changes include:

- Thurston County Comprehensive Plan: Amending the designation criteria in Chapter 3 Natural Resources for Mineral Lands of Long Term Commercial Significance, and other related amendments.
- Title 20, Zoning: Amending Chapter 20.30B Designated Mineral Lands to amend the designation criteria and for other related amendments to ensure consistency with the Thurston County Comprehensive Plan.

The hearing agenda and draft regulations are attached and available for review online at: www.thurstonplanning.org. If you have a comment letter you wish to submit, please send it to me by 4:00 today, or present it to the Planning Commission tonight.

Olivia Story
Thurston County
Assistant Planner
(360) 754-3355 x5477

Olivia Story - Re: Mineral Lands - February 8, 2012 Planning Commission Hearing comments

From: Olivia Story
To: Karen (Perkins Coie) Rentz
Date: 2/8/2012 1:32 PM
Subject: Re: Mineral Lands - February 8, 2012 Planning Commission Hearing comments
CC: Grant Newport; Jeff Fancher; Jim Johnston; John T. (JT) (Perkins Coie) Cooke; Sandy (Perkins Coie) Mackie

Thank you for your comments. I will ensure they are included in the record and presented tonight at the hearing.

Olivia Story

>>> "Rentz, Karen (Perkins Coie)" <KRentz@perkinscoie.com> 2/8/2012 1:30 PM >>>
Re: Mineral Lands - February 8, 2012 Planning Commission Hearing

Olivia,

Attached is a comment letter on behalf of Weyerhaeuser for tonight's Mineral Lands public hearing. The original is being mailed to you.

Karen Rentz | Perkins Coie LLP
LEGAL SECRETARY TO:
Sandy Mackie | **Patrick Ryan**
1201 Third Avenue, Suite 4800
Seattle, WA 98101-3099
PHONE: 206.359.6140
FAX: 206.359.7140
E-MAIL: krentz@perkinscoie.com

Perkins Coie

John T. Cooke
PHONE: (206) 359-8638
FAX (206) 359-9638
EMAIL: JCooke@perkinscoie.com

1201 Third Avenue, Suite 4800
Seattle, WA 98101-3099
PHONE: 206.359.8000
FAX: 206.359.9000
www.perkinscoie.com

February 8, 2012

Via Email: storyo@co.thurston.wa.us

Thurston County Planning Commission
c/o Olivia Story, Assistant Planner
Thurston County Planning Dept.
2000 Lakeridge Drive SW
Olympia, WA 98502

Re: Mineral Lands—February 8, 2012 Planning Commission Hearing

Dear Ladies and Gentlemen of the Planning Commission:

This firm represents Weyerhaeuser. Through this letter, Weyerhaeuser expresses its general support of the proposed amendments to the designation criteria for mineral lands of long-term commercial significance. Specifically, Weyerhaeuser supports removing minimum designation criteria 9 and 10 from the Comprehensive Plan, which prohibited mineral designation in areas designated for long-term commercial forestry and in geologically hazardous areas. Likewise, Weyerhaeuser supports the deletion of existing Thurston County Code provision 20.30B.020(1)(d), which required a reclamation from DNR prior to designation.

Weyerhaeuser maintains, however, that the Growth Management Act requires designation of mineral lands regardless of the presence of critical areas. Critical area concerns should be addressed at the permitting level and should not be a factor in the designation of mineral lands of long-term commercial significance. Weyerhaeuser respectfully disagrees with those criteria that prohibit mineral land designation because of the presence of certain critical areas.

Please feel free to contact me with any questions.

Sincerely yours,

John T. Cooke

JTC/kr
cc: Jim Johnston and Grant Newport (via email)
Jeff Fancher (via email)

Olivia Story - Re: Thurston County public hearing on mineral lands

From: Susan Markey <slmarkey@comcast.net>
To: Olivia Story <storyo@co.thurston.wa.us>
Date: 2/8/2012 2:18 PM
Subject: Re: Thurston County public hearing on mineral lands
Attachments: Mineral Lands Designation_Revision Comments.pdf

Hi Olivia:

The attached documents are comments in favor of the proposed revisions. Please enter these as my testimony.

Thank you.

Susan Markey

On 2/8/2012 9:54 AM, Olivia Story wrote:

> This is a reminder about the Thurston County Planning Commission public hearing tonight. The hearing will start at 7:00, in Room 152, Building #1, of the Thurston County Courthouse Complex, followed by a work session. The purpose of the hearing is to accept public comment on the draft regulations relating to the designation of mineral resource lands criteria as required by the Western Washington Growth Management Hearings Board Final Decision Order. The proposed changes include:
>
> - Thurston County Comprehensive Plan: Amending the designation criteria in Chapter 3 Natural Resources for Mineral Lands of Long Term Commercial Significance, and other related amendments.
> - Title 20, Zoning: Amending Chapter 20.30B Designated Mineral Lands to amend the designation criteria and for other related amendments to ensure consistency with the Thurston County Comprehensive Plan.
>
> The hearing agenda and draft regulations are attached and available for review online at: www.thurstonplanning.org. If you have a comment letter you wish to submit, please send it to me by 4:00 today, or present it to the Planning Commission tonight.
>
> Olivia Story
> Thurston County
> Assistant Planner
> (360) 754-3355 x5477

3956 Holladay Park Loop SE
Lacey, WA 98503
8 February 2012

Thurston County Planning Commission
2000 Lakeridge Drive SW
Olympia, WA 98502

Dear Planning Commission Members:

This letter is in support of the proposed revisions to the Thurston County Comprehensive Plan and Title 20 Zoning regarding the designation of mineral lands of long-term commercial significance.

I was a member of the Mineral Lands Task Force that discussed revisions to the Comprehensive Plan and Zoning. These proposed changes are consistent with the majority recommendations issued by the Task Force in its 2004 final report.

Thank you for your work to maintain the Task Force's recommendations through these adjustments.

Respectfully,

Susan Markey

Olivia Story - Mineral Lands/Hearing 02-08-2012/Draft Ordinance

From: Dave Lewis <davel@gravelpits.com>
To: Olivia Story <storyo@co.thurston.wa.us>
Date: 2/8/2012 3:57 PM
Subject: Mineral Lands/Hearing 02-08-2012/Draft Ordinance
CC: Jerry Trudeau <jerryt@gravelpits.com>, Mike Schuh <mikes@gravelpits.com>, bchattin <bchattin@washingtonconcrete.org>, "James Essig " <james.essig@gcinc.com>, "rlmonroe@stoel.com" <rlmonroe@stoel.com>

Olivia,
On behalf of Miles Sand & Gravel would you please present the following comments to the Planning Commission:

We can support the concept of the proposed changes to the Draft Ordinance for Comprehensive Plan Amendment Chapter 3 Natural Resource Lands and Chapter 20.30B TCC. We still have concerns but will wait until the proposed ordinance goes to the Board of County Commissioners. We do have concerns about the negative way the section on Balancing Conflict is written. The extraction process can (not "does") pose potential conflicts. But any conflicts can be prevented using proper mining methods. When surface mining comes in conflict with critical areas surface mining again can be preformed as long as these critical areas are protected.
Thax,
DEL

Dave Lewis
Miles Sand & Gravel Co
400 Valley Ave. NE
Puyallup, WA 98372
253-833-3705 x437
253-370-6862 cell
davel@gravelpits.com

February 8, 2012

Thurston County Planning Commission
2000 Lakeridge Drive SW
Olympia, WA 98502-6056

Dear Planning Commissioners:

My name is Tom Cook and I live at 652 Sandra Lee Court SE, Olympia, Washington 98513. I was a citizen member of the Mineral Lands Task Force that was established by the Board of County Commissioners in October 2003.

My purpose in writing this letter is to voice my support and selective concerns and recommendations regarding the draft regulations relating to the designation of mineral lands criteria.

My concerns will follow in line with the draft regulations as they are presented.

IV. Mineral Resources

Balancing Conflicts (pages 3-14 approx.)

Concern: Under Balancing Conflicts. The second sentence of this paragraph briefly discusses the process of designation by evaluating "the location and value of the resources as well as its proximity to existing residential areas". My concern is that the **critical areas** component of the process of designating resource lands is **not** included in this second sentence and must be to balance **all** designation conflicts.

Recommendation: In the second sentence of this paragraph include after the words "value", the words **critical areas** since this is a major component in balancing conflicts during the designation process. Also for grammatical purposes remove the word "and" after the word location and move it to after the word "value" and before the words **critical areas**.

Minimum Designation Criteria (pages 3-16)

Concern: The Minimum Designation Criteria (pages 3-16) of the Mineral Resources Chapter 3 of the Comprehensive Plan does **not** include the designation criteria, 1.e.v. under Chapter 20.30.030 BTCC "Criteria for Designation" which states "mineral extraction activities shall not negatively affect nor endanger surface and groundwater flows and quality". For purposes of continunity the Mineral Resource Chapter 3 of the Comprehensive Plan needs to have this same designation criteria as the 20.30.030 BTCC.

Recommendation: For the purpose of continuity, consistency and coverage, add to the Minimum Designation Criteria (pages 3-16) of the Comprehensive Plan Chapter 3 the following: **"Mineral extraction activities shall not negatively affect nor endanger surface and groundwater flows and quality".**

Concern: The third sentence under "20.30B.030-Designation Criteria 1.e. Critical areas" discusses permitting in this sentence and in my opinion makes it sound as though it is part of the designation process and Minimum Designation Criteria which, it clearly is not and therefor should be deleated to avoid confusion or at least moved to the end of the paragraph.

Recommendation: Delete the third sentence under "20.30B.030 -Designation Criteria 1.e to avoid confusion or move it to the end of the paragraph.

Providing my concerns and recommendations above, I support the remainder of the proposed amendments to the Comprehensive Plan Chapter 3 Natural Resource Lands – Mineral Lands of Long Term Commercial Significance Designation Criteria and Chapter 20.30.B.030 – Designation Criteria.

Thank you for the opportunity to comment.

Sincerely,

Tom Cook

Tom Cook