MEMORANDUM

TO: Thurston County Planning Commission
FROM: Jeremy Davis, Senior Planner
MEETING DATE: January 4, 2012
SUBJECT: Mineral Lands Recommendation Summary of Recommendations

At the December 21, 2011 Planning Commission meeting, commission members requested clarification of the recommendations in the staff report handed out at the meeting dated December 21, 2011.

In addition to clarified recommendations, staff has prepared a bill format of all recommended changes to the Comprehensive Plan and Chapter 20.30B TCC. These are located in Attachment A.

A bill format version of the 2010 amendments to the Mineral Resources section of Chapter 3 Natural Resources and the associated goal and policies made with Resolution No. 14401 are shown in Attachment B. The final version of the 2010 amendment is located in Attachment C.

A bill format version of the 2010 amendments to Chapter 20.30B of the Thurston County Code (TCC) made with Ordinance No. 14402 is shown in Attachment D. The final version of the amendment is located in Attachment E.

At issue in the Comprehensive Plan are designation criteria five (5) through ten (10) which were added in 2010. The criteria are highlighted in grey on page 33 and 34 of this memorandum in Attachment C. Please note, only the last part of criterion seven (7) on mining in the 100-year flood plain is at issue.

At issue in Chapter 20.30B TCC are related designation criteria in Subsections 20.30B.030(1)(d) on a requirement for a reclamation permit from the Department of Natural Resources (DNR),(f) which addresses long-term forestry and mineral lands co-designation, and (g) which addresses co-designation of specified critical areas and mineral lands.
Requirement for a DNR Reclamation 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.

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.

Co-Designation of Critical Areas and Mineral Lands

Co-designation of specified critical areas is addressed in Comprehensive Plan designation criteria five (5) through eight (8), and ten (10), and in Subsection 20.30.030(1)(g) TCC. Amendments to the Comprehensive Plan criteria and the corresponding subsection are addressed separately below.

It should be noted for discussion that subsection 20.30B.30(g) indicates that

g. Critical areas will be examined at the time of designation review using the County’s Geodata Geographic Information System. 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.

(Please note, Geodata needs to be corrected to read as Geographic Information System)
Critical Aquifer Recharge Areas and Wellhead Protection Areas

The staff report issued on December 21, 2011 includes several recommendations in regards to designating mineral lands of long-term commercial significance when the proposed site is located in an area also designated as either a wellhead protection area or Critical Aquifer Recharge Area I (CARA I), and the permitting of a gravel mine. The recommendation number from each section of the original staff report has been retained for reference purposes.

**Recommendation for Designation Criteria:**

1. 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.

**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:**

2. 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.

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

**Fish and Wildlife Habitat Conservation Areas:**

The staff report issued on December 21, 2011 includes several recommendations in regards to designating mineral lands of long term commercial significance when the proposed site is located in a known fish and wildlife habitat area. The recommendation number from each section of the original staff report has been retained for reference purposes.
Recommendation for designation criteria:

1. Prohibit the designation of mineral lands of long-term commercial significance in known conservation areas for species identified by federal, state or local 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 habitat areas.

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 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.

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

iv. 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.

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:

2. 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.

3. 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.

4. 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

The staff report issued on December 21, 2011 included one recommendation in regards to designating mineral lands of long-term commercial significance when the proposed site is located in a frequently flooded area.

1. Prohibit designation of mineral lands in the 100-year flood plain.

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.

Recommendation for Designation Criteria and TCC:

The current policy and corresponding regulation would need no change to be consistent with the recommendation above.

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:

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

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 prohibiting mining in frequently flooded areas, except for high groundwater hazard areas.

Wetlands

The staff report issued on December 21, 2011 includes several recommendations in regards to designating mineral lands of long-term commercial significance and the permitting of a gravel mine when the proposed site may have wetlands. The recommendation number from each section of the original staff report has been retained for reference purposes. Please note, Category 1 means the same as Class 1, Category 2 means the same as Class 2, and so on.

Recommendation for designation criteria:

1. 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.
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 known mapped Category Class One (1) or Two (2) wetlands or their protective buffers, but may include Category Class Three (3) and Four (4) wetlands.

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

ii. Mineral resource lands shall not include known mapped Category Class One (1) or Two (2) wetlands or their protective buffers, but may include Category Class Three (3) and Four (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:

2. 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 staff report issued on December 21, 2011 did not include specific recommendations in regards to designating mineral lands of long term commercial significance when the proposed site may have geologic hazard areas, and the permitting of a gravel mine. 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.

New Recommendation for designation criteria include:

1. 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.
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:

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

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 prohibiting mining in appropriate geologically hazardous areas.
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
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 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, wildlife 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 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.

6. 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.

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 known mapped Category (class) One (1) or Two (2) wetlands or their protective buffers, but may include class Category (class) Three (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.
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.
designated mineral resource lands may not include lands designated for long-term forestry.

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.

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 known mapped category (class) one (1) or two (2) wetlands or their protective buffers, but may include 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 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.

v. mineral extraction activities shall not negatively affect nor endanger surface and ground water flows and quality.
Attachment B:

2010 Bill Format of the 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 in the County used in construction activities.

Another significant area of mining activity is the Centralia coal mine on the county's southern border with Lewis County. This is an "open pit" mine which supplies the Centralia Steam Plant with coal. Unlike many open pit mines of the past which remain as open scars on the earth, the Centralia mine sets the industry standard for reclamation and minimizing environmental damage. Land that was mined ten years ago now supports a mixed forest of fir and alder, and several wetlands.

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 non-operating 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:**

Section 17 of 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. Section 6 of the Act RCW 36.70A.060(1)(a) states that "...each county...shall adopt development regulations...to assure the conservation of...mineral resource lands designated under Section 17 of this Act RCW 36.70A.170."

Within Thurston County, minerals of potentially long-term commercial significance include sand and gravel deposits, coal deposits (Centralia mine), 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), and 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, should not be used for mining purposes. Additional significant geologic features may be identified by future study. Prime and unique farmland (as defined by the Natural Resources Conservation Service) should not
be used for mining purposes unless they can be restored to their original production capacity as mining occurs.

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 Community, Trade and Economic Development's (CTED) (DOC). "Minimum Guidelines to Classify Agriculture, Forest, Mineral Lands, and Critical Areas." Based on the DOC CTED 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 existing 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 are shall be located outside separated by a distance of at least 1,000 feet from public parks and 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, and 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 Area Width Site Size.** The minimum area width is 500 feet for sand and gravel, coal, and basalt, which allows for 100-foot setbacks and a 300-foot width for the working site and reclamation. 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 (50 years) as determined by a licensed professional geologist.
5. Minimum Value. The resource value over the life of the mine must exceed certain thresholds. The minimum threshold values in 1990 equivalent dollars are as follows:

a. Construction materials: $5,000,000.
b. Quarried rock: $1,000,000.
c. Industrial and chemical mineral materials: $1,000,000.
d. Metallic and rare minerals: $500,000.
e. Non-fluid mineral fuels: $1,000,000.

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.
Mining operations Lands meeting the above criteria, and which have all legally required permits at the onset of the extraction operation are may be designated as long-term commercially significant mineral resource lands. Mining operations that meet the criteria above may apply for designation status concurrently with application for a Special Use Permit under the Zoning Ordinance. In addition, the County may, through a Comprehensive Plan Amendment process, designate additional mineral lands of long-term commercial significance without requiring an active Special Use Permit. This type of designation does not consider site-specific environmental impacts, which are reviewed at the permitting stage. 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 Development Services Department. 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 should 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; and

- Limit private nuisance claims against operators of designated mines when certain conditions are met.

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.
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 unless they can be restored to their original production capacity as mining occurs.

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 according to new information provided by 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.
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 in the County used in construction activities.

Another significant area of mining activity is the Centralia coal mine on the county's southern border with Lewis County. This is an "open pit" mine which supplies the Centralia Steam Plant with coal. Unlike many open pit mines of the past which remain as open scars on the earth, the Centralia mine sets the industry standard for reclamation and minimizing environmental damage. Land that was mined ten years ago now supports a mixed forest of fir and alder, and several wetlands.

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:**
Section 17 of 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. Section 6 of the Act RCW 36.70A.060(1)(a) states that "...each county...shall adopt development regulations...to assure the conservation of...mineral resource lands designated under Section 17 of this Act RCW 36.70A.170."

Within Thurston County, minerals of potentially long-term commercial significance include sand and gravel deposits, coal deposits (Centralia mine), 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), and 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. Prime and unique farmland (as defined by the Natural Resources Conservation Service) should not
be used for mining purposes unless they can be restored to their original production capacity as mining occurs.

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 Community, Trade and Economic Development's (CTED) (DOC) "Minimum Guidelines to Classify Agriculture, Forest, Mineral Lands, and Critical Areas." Based on the DOC CTED 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 existing 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 located outside separated by a distance of at least 1,000 feet from public parks and 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 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 Area Width Site Size.** The minimum area width is 500 feet for sand and gravel, coal, and basalt, which allows for 100-foot setbacks and a 300-foot width for the working site and reclamation. 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 (50 years) as determined by a licensed professional geologist.
5. Minimum Value. The resource value over the life of the mine must exceed certain thresholds. The minimum threshold values in 1990 equivalent dollars are as follows:
   a. Construction materials: $5,000,000.
   b. Quarried rock: $1,000,000.
   c. Industrial and chemical mineral materials: $1,000,000.
   d. Metallic and rare minerals: $500,000.
   e. Non-fluid mineral fuels: $1,000,000.

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.
Mining operations Lands meeting the above criteria, and which have all legally required permits at the onset of the extraction operation are may be designated as long-term commercially significant. mineral resource lands Mining operations that meet the criteria above may apply for designation status concurrently with application for a Special Use Permit under the Zoning Ordinance. In addition, the County may, through a Comprehensive Plan Amendment process, designate additional mineral lands of long-term commercial significance without requiring an active Special Use Permit. This type of designation does not consider site-specific environmental impacts, which are reviewed at the permitting stage. 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 Development Services Department. 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 should 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,

informed prospective property owners of the long-term resource use nearby.

- Limit private nuisance claims against operators of designated mines when certain conditions are met.

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) should not be used for mineral or soil mining purposes unless they can be restored to their original production capacity as mining occurs.

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

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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 according to new information provided by 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.

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Attachment C:

Final clean version of the 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.

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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 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, wildlife 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

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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.

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Attachment D:

2010 Bill Format of the Amendments to Chapter 20.30B TCC
Chapter 20.30B

DESIGNATED MINERAL LANDS

Sections:
20.30B.010 Purpose.
20.30B.020 Designation of existing mineral lands.
20.30B.025 Designation process for future mineral lands.
20.30B.030 Designation criteria of future mineral lands.
20.30B.035 County designation of future mineral lands.
20.30B.035 Application requirements
20.30B.040 Removal of designation status.
20.30B.050 Mineral extraction protection.
20.30B.055 Designation is not a permit.

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. Nothing in this chapter shall be construed as prohibiting mineral extraction on nondesignated sites. Sites must be designated under this chapter before new mineral extraction activities may occur.

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 development services department County, are recognized designated 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.

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.

20.30B.030 Designation criteria of future mineral lands.

1. Criteria for Designation. A mineral extraction site may be designated as mineral resource lands of long-term commercial significance 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 (fifty years) as determined by a licensed professional geologist.

   b. The following threshold values in 1990 equivalent dollars shall be met or exceeded. Threshold value is the projected value (gross selling price) of the first marketable product from an individual mineral deposit, upon completion of the extraction and any required mineral separation and processing. These threshold values are intended to indicate in a general way the approximate minimum size of a mineral deposit that will be considered significant for designation. The values are not intended, nor in practice could they be, for use as precise cut-off values. For some deposits in some areas, larger or smaller values than those specified would be required for a marketable deposit.

      i. Construction Materials. Sand, gravel, and pit run rock, capable of being used in construction, that normally receive minimal processing (commonly washing and grading). Minimum value: five million dollars;

      ii. Quarried Rock. Quarried rock products, such as shot rock, meeting all strength and durability specifications of the Washington State Department of Transportation’s 1988 Standard Specifications for Road, Bridge and Municipal Construction (or later editions). Due to the limited availability of such rock within Thurston County, a lower threshold value, than that used for pit run rock, is applied. Minimum value: one million dollars;

      iii. Industrial and Chemical Mineral Materials. Nonmetallic mineral materials, such as building and dimension stone, or specialty sands, that normally receive extensive processing. Minimum value: one million dollars;
iv. Metallic and Rare Minerals. Metallic elements and minerals, gemstones, and minerals that possess special properties valuable to science or industry. Minimum value: five hundred thousand dollars.

v. Nonfluid Mineral Fuels. Nonhydrothermal mineral fuels occurring in sedimentary rocks such as coal, coal bed methane, lignite, peat, organic shale, tar sand, uranium and thorium. Minimum value: one million dollars.

e b. At least sixty percent of the area within one thousand feet of the site must have parcels larger than 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.

d c. No portion of any sand and gravel, coal or basalt extraction site shall be less than five hundred feet in width, to ensure sufficient land area for one hundred foot setbacks on each site boundary, and three hundred feet of land area for the working site and reclamation. An area proposed for mineral resource lands designation shall be at least 5 acres.

e 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.

f e. The site must shall be separated by a distance of at least 1,000 feet outside from of a public parks or 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 1,000 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) 100 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.

2. Process for Future Designation. Sites in addition to those designated under Section 20.30B.020 may be designated as mineral lands of long-term commercial significance through the following process, unless otherwise specified in Section 20.30B.035:

a. An application for designation shall be filed with the development services department and shall include:

   i. A report and any associated maps developed by a qualified geologist to provide evidence of the marketability and threshold value of the mineral deposit. A qualified geologist earns his or her livelihood from the field of geology and has received a degree from an accredited four-year institution of higher education;

   ii. Evidence of application for a reclamation permit from the Washington State Department of Natural Resources;

   iii. A map at a scale of one inch equals eight hundred feet or greater (providing greater detail) of the project site and surrounding area, including the area within one thousand feet of the site, and which shows parcel boundaries, to demonstrate that Sections 20.30B.030(1)(c) and 20.30B.030(1)(d) have been complied with.

b. The hearing examiner shall review the application for designation concurrently with the review of any required special-use permit for the mineral extraction operation. A public hearing shall be held, with the concomitant public notice, in accordance with Section 20.60.020(3). The hearing examiner shall grant designation status if all of the criteria listed in Section 20.30B.030(1) are met.

e. All future 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 development services department.

d. The decision of the hearing examiner may be appealed to the board of county commissioners pursuant to Chapter 2.06 TCC.
20.30B.035 County designation of future mineral lands.

1. The county may, through a comprehensive plan amendment process, designate additional mineral resource lands of long-term commercial significance without requiring an active special use permit or reclamation permit. These lands must still meet the criteria described in Section 20.30B.030(1)(a) through (d), and (f). Such designation shall not be used as the basis for granting a special use permit. The county may also remove designated lands through an amendment process if the sites no longer meet the criteria described in Section 20.30B.030(1).

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.

20.30B.040 Removal of designation status.

1. The property owner may file an application for removal of designated mineral resource lands with the development services department. The application shall be reviewed by the hearing examiner according to the procedure set out in Section 20.30B.030(2)(b). The hearing examiner 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(1)(e).

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.

2. The decision of the hearing examiner may be appealed to the board of county commissioners pursuant to Chapter 2.06 TCC.
3. The development services department director shall remove the designation of any site which no longer has the permits required by Section 20.30B.030(1)(e).

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 of long-term commercial significance;
   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.

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 E:

Final Clean Version of the 2010 Amendments to Chapter 20.30B 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.