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# Chapter Eight Resource Lands

#### Introduction

- 4 The growth and harvest of farm products, re-generation and harvesting of timber,
- 5 and excavation of minerals all shape Whatcom County's landscape and strongly
- 6 influence the economy. Resource lands, which include agriculture, forestry, and
- 7 mineral resource lands, also largely represent Whatcom County's cultural heritage.
- 8 These natural resource activities have been major industries since settlement began
- 9 in the area.

# **Chapter Organization**

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This chapter is divided into three sections: Agricultural Lands, Forest Resource Lands, and Mineral Resources. The action plans for all three sections appear at the end of the chapter.

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Reason for Change: The action plans at the end of this chapter have already been completed or have been consolidated into goals/policies.

## Purpose

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This chapter contains goals and policies designed to identify and protect the important natural resource lands found in Whatcom County as defined by RCW 36.70A. The development of these goals and policies is necessary to ensure the provision of land suitable for long-term farming, forestry, and mineral extraction so the production of food, fiber, wood products, and minerals can be maintained as an important part of our economic base through the planning period. Without protection of these resource lands, some of the lands could be inappropriately or prematurely converted into land uses incompatible with long-term resource production. The premature conversion of resource lands into incompatible uses places additional constraints on remaining resource lands and can lead to further erosion of the resource land base.

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#### **Process**

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Each section of this chapter includes a description of the process followed in creating that section.

35 36 GMA Goals, and County-Wide Planning Policies, and Visioning Community Value Statements

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The following goals and policies in this chapter have been developed:

39 40 • to be consistent with and help achieve the state-wide GMA goals to "maintain and enhance" natural resource based industries

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- to implement County-Wide Planning Policies which that express the desire for the county to become a government of rural lands and sustainable resource based industries
- to fulfill the citizens' vision of Whatcom County where resource based industries are widely practiced and encouraged

The Agricultural Lands, Forest Resource Lands, and Mineral Resources sections of this chapter address Goal 8 of the GMA, which reads:

"Natural Resource Industries. Maintain and enhance natural resource based industries, including productive timber, agricultural, and fisheries industries. Encourage the conservation of productive forest lands and productive agricultural lands, and discourage incompatible uses." (RCW 36.70A.020)

The goals, policies, and action plans of this chapter support the achievement of this goal by identifying, designating, and protecting productive resource lands from incompatible uses, thereby helping to maintain the county's important natural resource based industries.

Identifying and designating productive resource lands also helps implement the County-Wide Planning Policies which that state that Whatcom County shall "become a government of rural areas in land use matters directed towards agriculture, forestry and other natural resources." [CWPP B(1)]. In addition, land use policies which that encourage best management practices are included within this chapter to support the County-Wide Planning Policies regarding economic development:

As part of a broad based economy, productive timber, agriculture and fisheries industries should be maintained in a sustainable manner. (CWPP I-9)

The results of the Visioning Process place a great importance on preserving agricultural lands while recognizing the economic pressures facing the farming community. The economics of forestry are recognized as well, along with the necessity of mining and the reality of impacts on affected neighbors. The goals, policies, and action plans of the Resource Lands chapter support the future vision of Whatcom County as a semi-rural region with productive resource based industries and a healthy environment by encouraging the use of good management practices and resource conservation measures as well as designating and protecting resource <del>lands.</del>

Reason for Change: Removing references to older processes.

### Agricultural Lands – Introduction

**Purpose** 

The purpose of this section is to provide a clear set of guidelines that both preserve the agricultural base in Whatcom County and ensure that both the agricultural industry and the cultural heritage thrive in the years to come.

# **Process**

In 1991 an Agricultural Resource Land Advisory Committee was formed to adopt Interim—Agricultural Resource Land Designations under the GMA. After 13 committee meetings and three public information meetings, the committee recommended adoption of refined goals and objectives and re-adoption of the existing Agriculture zoning and plan designations. Their recommendation was adopted by Council through Ordinance 92-013. Exhibit A to Ordinance 92-013 explains the locational criteria that were used to designate agricultural lands. These criteria are found in Policy 8A-3.

<u>Currently, approximately 88,000 acres are designated as agricultural lands of long-term commercial significance.</u>

Committee members were chosen for their interest or expertise in Whatcom County agriculture and included dairy and berry producers, food processors, Whatcom County Farm Bureau, a Darigold Board member, a small farmer, interested citizens, Cooperative Extension Service, Agriculture Stabilization and Conservation Service, and Soil Conservation Service.

After 13 committee meetings and three public information meetings in 1991, the committee recommended adoption of refined goals and objectives and re-adoption of the existing Agriculture zoning and plan designations on an interim basis. This included consolidation of the existing body of agriculture policies into one document; a refined set of goals, objectives, issues, and planning horizon; a list of consensus items agreed upon by the Committee; an Action Plan; and a right to farm ordinance. Much of the material in this section was taken from that original process and distributed among the agricultural community for their review prior to submission of the final draft to the County Council and Planning Commission for action.

Reason for Change: Outdated narrative and shortened for brevity.

#### **GMA Requirements**

The Growth Management Act requires the Whatcom County Comprehensive Plan to identificationy of the "general distribution and general location and extent of the uses of land... for agriculture..." Map 8-1Map 18 and Map 8-2Map 19 show agricultural soils and existing agricultural zoning boundaries.

Map 8-1 Map 18 shows prime agricultural soils, and the Agricultural Comprehensive Plan designation. Those lands designated as Agriculture in the comprehensive plan are Designated Agricultural Lands of Long-Term Commercial Significance as defined by GMA: "includes the growing capacity, productivity, and

soil composition of the land for long-term commercial production, in consideration with the land's proximity to population areas, and the possibility of more intense uses of the land." (RCW 36.70A.030(10). for GMA planning purposes.

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Reason for Change: Added the GMA definition.

Prime farmland, as defined by the Natural Resources Conservation Service (NRCS), "is the land that is best suited to food, feed, forage, fiber, and oilseed crops." Categories of prime soils depicted on <a href="Map 8-1Map 18">Map 8-1Map 18</a> are described as follows:

- Category I: All areas are prime farmland.
- Category II: Prime farmland if when drained.
- Category IV: Prime farmland <u>if irrigated when protected from flooding</u>.
- Category V: Prime if drained and protected from flooding or not frequently flooded during the growing season. Prime farmland when irrigated.
- Category VII: <u>Prime if irrigated and either protected from flooding or not frequently flooded during the growing season.</u> <u>Prime when drained and protected from flooding.</u>
- <u>Category VII: Prime if subsoiled, completely removing the root inhibiting soil layer.</u>

These prime soil categories are taken directly from the NRCS National Soil Survey Handbook Part 622. Whatcom County does not contain all NRCS categories of prime soils.

Reason for Change: The NRCS has altered its prime soils classifications since the last update.

Map 8-2Map 19 shows Agriculture Protection Overlay soils, and provides a visual representation of those areas that are subject to the Agriculture Protection Overlay (APO). The APO recognizes that agriculturally important soils may lie outside existing agricultural zoning, in designated rural areas, and provides a mechanism for conserving these soils for agricultural use, if conservation is appropriate. Soils are were classified as APO soils based on the NRCS's Prime Farmland classification system and Land Evaluation and Site Assessment (LESA) system.

The purpose of the APO is to promote and encourage commercial agricultural activity, meet long-term agricultural needs not otherwise met in the Agriculture zone district, provide a reasonable mix of uses and activities which that may enhance the economic resources available to the farmer, and provide for a variety of uses within the rural areas which that are not inconsistent with or incompatible with the use of lands within these areas for agricultural activities.

 Conserving productive agricultural lands in rural areas, without infringing on private property rights, is a primary objective of the APO. The APO applies to all lands zoned Rural-5A or Rural-10A that are outside designated urban growth area boundaries and held in parcels of 20 acres or larger. Map 8-2Map 19 shows lands

zoned Rural-5A or Rural-10A that are outside UGAs. Applied at the time of subdivision, the APO <u>utilizes uses</u> cluster zoning in order to allow development on one portion of a parcel, while leaving the remainder of the parcel available for agricultural use. The portion available for development will be limited to 20 percent (or possibly, up to 30 percent).

The APO seeks to conserve lands, with agriculturally important soils, whose predominant use has been and continues to be, or could be commercial agriculture. This overlay zone shall include areas which that:

- 1. Have been designated as agricultural open space for county property tax purposes within the past seven years; and/or
- 2. Those that include more than 50 percent APO soils;

GMA also specifies the need for regulatory protection relative to agriculture. It requires that the county "shall adopt development regulations on or before September 1, 1991, to assure the conservation of agricultural, forest, and mineral resource lands . . ." Whatcom County has enacted a Right-To-Farm ordinance that meets this requirement.

## Agricultural Lands - Background Summary

Agriculture has been practiced continuously in Whatcom County since long before Euro-American settlers arrived. Native American peoples had developed and cultivated root crops in the natural prairies along the Nooksack Valley, where sub-irrigated meadows were ideal sites for such plants as camas and "Indian carrot." Euro-American settlers expanded the area under cultivation, logging and planting crops on thousands of acres of forest land.

Today agriculture plays an important role in both Whatcom County's economy and its identity.

Agricultural activity is generally considered to be a condition or activity which occurs on agricultural land in connection with the commercial production of agricultural products. Agricultural land can be described as the land, buildings, freshwater ponds, including the buildings and machinery used in the commercial production of agricultural products. Agricultural products are those plants and animals useful to humans. Commercially viable agricultural products require generally rich and fertile soil with appropriate amounts of water to bring them to a harvestable stage.

## Reason for Change: Shortened for brevity.

Agricultural lands are an important resource to the people of Whatcom County and Washington State—. Yyet if not adequately protected through zoning and other measures, these lands may be converted to are often considered available for urban or rural uses. Often the conversion process begins when rural uses move onto agricultural land, creating smaller parcels, more buildings, and activities that,

in some cases, are incompatible with agriculture. In many cases, this blurs the line of distinction between agriculture uses and other uses and sets the stage for further conversion of the limited agricultural land base in Whatcom County.

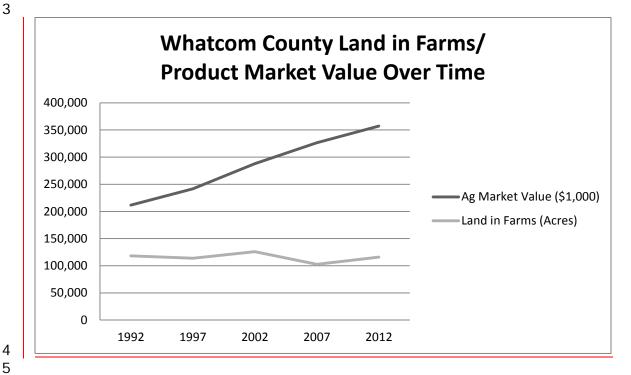
Reason for Change: Clarification of the meaning of the first sentence.

The viability of an agricultural resource economy is dependent upon the presence of certain agriculture related industries and activities. These include processors (for example, fruit and vegetable packers and milk processors in Whatcom County), farm implement sales and repair, fertilizer and pesticide suppliers, trucking firms, certified meat inspectors and processors, a pool of farm labor, etc. These activities, in turn depend on a stable (or expanding) agricultural products economy which that is in turn dependent on maintaining a stable agricultural resource land base. If agricultural production is reduced below a certain level in a given geographical area, then it becomes no longer economical for the agriculture related activities to remain in that area. Loss of these support industries results in further reduction and conversion of the agricultural land base and an accelerating downward spiral for the local agricultural economy.

Another important consideration is maintaining a large contiguous land base—without a significant potential for conversion to non-agricultural residential uses—for agriculture. Smaller, discontinuous agricultural areas are more vulnerable to conversion pressures resulting from longer hauling routes, difficulty in transporting farm equipment and supplies on roads dedicated to residential traffic, conflicts with neighboring non-agricultural land uses, and the reduced importance of agriculture in the local economy. Maintaining such a large contiguous land base sometimes requires preserving within the agricultural resource land area some lands that are not well suited to actual production of crops. Such inclusions may best be used for building sites, windbreaks, specialty crops, livestock wintering, forestry, etc. Thus it is important to consider both the size and the configuration of the agricultural resource area to provide long term stability of the agricultural resource and support industry economy.

In 1949, 200,000 acres of land were reported to be in farm production in Whatcom County. Between 1949 and 1992, land in farm production declined. Since that time, land in farm production has declined. In 1994, agriculture accounted for 139,680 acres, a decline of over 60,000 acres. The number of farms in Whatcom County declined from 1,463 in 1987 to 1,367 in 1992. Although farm size remained about the same over this period, averaging 86 acres, the total number of acres in farm production declined by 6,539 acres between 1987 and 1992. In 2012, agriculture accounted for 115,831 acres, nearly 85,000 fewer acres than 1949. However, since 1992, the amount of land in farms has remained relatively stable (between 100,000 and 125,000 acres). But at the same time, both the number and diversity of farms in the County has been increasing. Even while the amount of land in agricultural use has remained relatively stable over the past two decades, the economic value of the products produced on those farms has increased by more than \$100 million

in the same time period. These figures illustrate how the amount of land in farm production has been steadily shrinking over time.



Reason for Change: Updating figures to the most recent ag census data.

#### Agricultural Lands - Issues, Goals, and Policies

# **Agricultural Land Base**

Agricultural viability is dependent upon long-term supplies of clean water and a large fertile land base. Erosion of the farm land base has been recognized as a national and local problem. The maintenance of a sufficiently large land area devoted to agricultural activity is necessary to support associated farm processing operations such as milk and berry processing facilities.

Increasing dDemand for low cost residential building sites coupled with fluctuating profit margins for agricultural operations and availability of residential development rights brings increasing pressure to convert agricultural land to residential and other non-agricultural uses.

Whatcom County passed Resolution 2009-040 on July 7, 2009 in which the County Council confirmed that 100,000 acres of land available for agricultural use is the minimum goal for ensuring a land base necessary to support a viable agricultural industry in Whatcom County. The resolution also stated the need to strengthen agricultural land protection in the County's Rural Study Areas as defined in the 2007 Rural Land Study by the Agricultural Advisory Committee (AAC). The AAC assisted in the creation of the County's Agricultural Strategic Plan in 2011, which

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Goal 8A:

Policy 8A-1:

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46 47 included the task of reviewing rural study areas and identifying any new agricultural zoning designations or where agricultural land protection efforts should be strengthened.

Reason for Change: Resolution 2009-040 is new since the last Comp Plan update, and directly relates to maintaining the agricultural land base of Whatcom County.

# Conserve and enhance Whatcom County's agricultural land base for the continued production of food and fiber.

Conserve productive agricultural lands and agricultural resource lands, including areas with prime soils which that are not now zoned agriculture, or where the area is composed of agricultural operations that have historically been and continue to be economically viable, by developing and implementing a long range strategy. The planning horizon should be twenty years in

the short-term and 250 years in the long-term.

# Reason for Change: 250 year planning horizon is unreasonable.

#### Policy 8A-2: Maintain a working agricultural land base sufficient to support a

viable local agricultural industry by considering the impacts to farmers and agricultural lands as part of the legislative decision making process. Measures that can be taken to support working farms and maintain the agricultural land base may include: A long range conservation strategy should include:

- Maintaining aA Purchase of Development Rights (PDR) program which that facilitates the removal of development rights from productive farmland and provides permanent protection of those agricultural lands through the use of conservation easements or other legal mechanisms.
- Maintenance of a sufficient quantity of agricultural land to support a healthy agricultural industry.
- Required mitigation in the event that designated agricultural land is converted to another use.
- Required buffers on all new non-agricultural uses located adjacent to agricultural activities.
- Development assistance to agricultural-related enterprises.
- Farm friendly regulations.
- Incentives and cooperation between landowners and public agencies such as the utilization use of the current use tax assessment provisions.
- Implementing land use policies that encourage farming on Rural lands of high agricultural productivity and potential.
- Discouraging conversion of designated agricultural lands to non-agricultural uses.

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- Mitigation for loss of productive agricultural lands, including loss due to policy implementation such as critical areas ordinance, etc.
- Education and marketing of programs that emphasize recognition of the local and regional significance of agricultural land as a natural resource and the economic, social and ecological benefits it provides.
- Working cooperatively with local farmers and coordinating with local and state agencies to address water quality impacts of agricultural activities on local streams and groundwater.
- Securing an adequate, sustainable and legal supply of irrigation water sufficient to support the long-term viability of the local agricultural industry.

Reason for Change: Addresses the No Net-Loss of Ag Lands issue and identifies the range of actions the County could take to protect the agricultural land base while preserving discretion for the County Council in their legislative decision-making processes. The AAC recommended several other actions such as a transfer of development rights program, and a natural resource marketplace. The planning commission did not recommend including those. See 7-23-15 planning commission minutes.

### Policy 8A-3:

The criteria for designating or de-designating lands under the Agriculture land use designation are:

- 1. The majority of the area contains Prime Farmland Soils as determined by the Natural Resource Conservation Service (NRCS).
- 2. The area may contain 100-year floodplains as delineated by the Federal Emergency Management Agency (FEMA).
- 3. Existing land uses are primarily full-time agriculture intermixed with part-time agriculture and woodlots; and minimal commitment to non-farm uses has been made.
- 4. The area is composed of agricultural operations that have historically been and continue to be economically viable.
- 5. Parcel sizes are generally greater than forty acres.
- 6. Urban utility services including public sewer and water are not planned.
- 7. Special purpose districts that are oriented to enhancing agricultural operations exist, including drainage improvement, watershed improvement, and flood control.
- 8. Areas have a pattern of landowner capital investment in agricultural operations improvements including irrigation, drainage, manure storage, the presence of barns and support buildings, enhanced livestock feeding techniques, agricultural worker housing, etc.

1 1.9. Areas contain a predominance of parcels that have 2 current use tax assessment derived from the Open Space 3 Taxation Act. 4 5 Reason for Change: These are the Agriculture designation criteria Council adopted 6 via Ordinance 92-013, with a few slight changes to wording to bring up to date. 7 8 Policy 8A-<u>34</u>: Support conservation of productive agricultural land by requiring 9 the use of best management practices including soil and water 10 conservation, livestock waste nutrient management, etc. 11 12 Policy 8A-<u>45</u>: Discourage conversion of productive agricultural land to 13 incompatible non-agricultural uses. 14 15 Policy 8A-<u>56</u>: Require all requests for re-designation from agriculture to demonstrate that changed site conditions or circumstances have 16 17 occurred since the original designation to such an extent that the site no longer satisfies the designation criteria for 18 19 agricultural lands. 20 Prioritize agricultural activity in land use decisions when land is 21 Policy 8A-67: 22 composed of prime and/or productive agricultural soils and agriculture is the highest value resource use. 23 24 25 Policy 8A-<del>7</del>8: Establish flexibility in land use plans and regulations to encourage maintenance of the productive agricultural land base, 26 27 such as agricultural parcel reconfiguration. 28 29 Policy 8A-8: Maintain NRCS Soil Survey as basic guideline for designating 30 agricultural resource lands. 31 32 Reason for Change: Designation criteria are now listed in Policy 8A-3. 33 34 Policy 8A-9: Conserve water resources from both a quantity and a quality 35 perspective to ensure and possibly enhance continued 36 agricultural viability. 37 Work to ensure water rights are available for agricultural uses. 38 Policy 8A-10: 39 40 Reason for Change: These policies were moved and became Policies 8F-2 and -3. 41 42 Policy 8A-119: Use an "Agriculture Protection Overlay" (APO) designation in 43 certain Rural zoned areas as one way to achieve this goal 44 increase agricultural production in areas outside of designated agricultural land of long-term commercial significance. 45 46

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Policy 8A-<del>12</del>10: 5

Reason for Change: Clarity as to what goal the APO is supporting.

The Agricultural Advisory Committee shall advise the Whatcom County Executive and Council on agricultural issues and agricultural land use. Whatcom County shall support the Agricultural Advisory Committee with staff and other resources.

# **Agricultural Products Industry**

Agriculture is an essential contributor to the local Whatcom County economy. Agriculture is most productive in large agricultural communities where neighbors support agriculture and where labor, farm supplies and market systems for farm products are available.

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Goal 8B:

Maintain and enhance Whatcom County's agricultural products industry as a long-term and sustainable industry.

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19 Policy 8B-1: 20

Promote the expansion and stability of local and regional agricultural economies.

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23 24 Policy 8B-2:

Assist Whatcom County's agricultural industry in the pursuit of its long-term economic potential. This should include the development of strategies and policies necessary to reach this potential, in terms of both production and diversity.

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Policy 8B-3:

Support agricultural product processing facilities through appropriate planning, zoning, and land use regulations.

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Policy 8B-4:

Support methods and strategies to market Whatcom County agriculture in ways which that ensure that agricultural activities (such as dairying) and entities (such as processors) will remain here in the long term.

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35 Policy 8B-5: Support improving the efficiency and flexibility of state and local environmental regulations affecting the agricultural products industry.

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Policy 8B-6:

Develop a range of non-regulatory programs, options, and incentives which that agricultural landowners can employ to meet or exceed county environmental goals.

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# **Agriculture Related Cultural Heritage**

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Agriculture is not just a business but a way of life, with many farmers farming the same land their parents and grandparents farmed. The sense of community that these people have built over the years is one of the most valuable assets of our county.

Nevertheless, the livelihood of these people appears to be threatened. Property has become a valuable commodity in Whatcom County and oftentimes young farmers cannot afford to buy productive farmland because the cost is so prohibitive. The reverse is true for retiring farmers. Often they cannot find buyers who can afford the high market value of the land. In some cases this creates pressure to convert the land to other uses.

Reason for Change: The AAC didn't think this was always true; depends on economic environment.

Goal 8C: Preserve and enhance the cultural heritage that is related to agriculture.

Policy 8C-1: Find ways for <u>Encourage</u> retiring farmers to pass their farms on to their children and for young farmers to be able to afford to buy productive farmland.

Reason for Change: The Planning Commission recommended striking this policy. While they support the intent, they didn't feel there was anything the County could do to achieve it.

Policy 8C-12: Identify, preserve, and enhance community character, landscape, and buildings associated with agricultural activity.

Policy 8C-23: Involve those who actually are engaged in agricultural activities in the planning process. <a href="Utilize\_Use">Utilize\_Use</a> groups working effectively with the agricultural community to help preserve and/or create a sustainable economic agricultural base.

Policy 8C-34: Support the continuation of owner occupied/family owned farms.

#### **Land Use Conflicts**

Agriculture may conflict with other land uses. Residents of non-farm housing adjacent to farms, and owners and patrons of nearby commercial uses, have complained of nuisances such as odors, dust, chemical sprays, and noise from machinery. Farm equipment, crops, and livestock may suffer from increased vandalism. In addition, non-farm residential development, particularly residential subdivisions, can raise assessed valuation or lead to special assessments on adjacent farmlands, resulting in higher property taxes for farmers. The same is true of commercial uses. On the other hand, the open space value of farmland can be

diminished or destroyed by the location of commercial uses such as junk yard, auto wrecking yards, etc.

Many agricultural drainage districts have been in existence since the early 1900s with little or no outside influence. Their sole function has been to keep the water table down low enough to allow crops to grow throughout the season. In the last few years, however, there has been growing concern about the impact this activity may have on fish habitat and fish populations. As a result, Hydraulic permits have been difficult to get from the Washington State Department of Fish & Wildlife and drainage activity has been slowed.

Mining activities, such as the extraction of sand and gravel, are often an alternative use of land zoned for agriculture. Such activities may limit options for later agricultural use, depending upon the intensity of the activity and the extent of soil rehabilitation efforts.

Many profitable agricultural operations are located on land outside of predominantly agricultural areas. Although these operations may not be entirely compatible with neighboring urban and suburban developments, they are important contributors to the agricultural base in Whatcom County.

# Goal 8D: Reduce land use conflicts between Whatcom County's agriculture and non-agricultural landowners.

 Policy 8D-1:

Strive to Work to reduce potential conflicts between incompatible agricultural activities by establishing maintaining zoning regulations which that protect productive agricultural lands of long-term commercial significance from conversion to non-compatible uses. This zoning should recognize the diversity of agricultural landowners and agricultural land uses. This zoning should provide flexible regulations, which encourage all agricultural landowners to maintain the productive agricultural land base while protecting them from conflicting uses.

Reason for Change: Such zoning regulations have been adopted.

 Policy 8D-2: Affirm and build upon Maintain the Right-To-Farm ordinance, in order to help curb pressures to convert farms to non-farm uses.

# Reason for Change: This ordinance has been adopted.

Policy 8D-3: Support improved communication and understanding between agricultural landowners and the public through such mechanisms as voluntary agricultural management plans, community forums, and educational programs.

 Reason for Change: Given that farm plans are non-disclosable, the AAC didn't see

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1 2 3 4 5 6 7 8	Policy 8E-1:	Ensure that adequate riparian buffers are maintained along rivers and streams.
	Policy 8E-2:	Encourage fencing along rivers and streams to prevent livestock from degrading riparian and instream habitat.
	Policy 8E-3:	Encourage <u>utilization_the use</u> of integrated pest management practices, including herbicides and pesticides, that protect water quality.
10 11 12 13 14 15	Policy 8E-4:	Encourage proper storage and application of <u>compounds that</u> <u>can pollute our waterways such as manure and other fertilizers, pesticides and herbicides</u> . <del>and other compounds that can pollute our waterways.</del>
16 17 18 19 20 21	Reason for Change waterways.	e: Manure isn't the only ag by-product that pollutes our
	Policy 8E-5:	Encourage voluntary restoration to properly functioning habitat conditions for those riparian areas and stream reaches that do not currently provide such habitat conditions.
22 23 24 25 26	Policy 8E-6:	Encourage the maintenance and operation of drainage systems such that the habitat impacts from such systems are minimized and agricultural uses remain viable.
27 28 29 30 31	Policy 8E-7:	Work with the watershed improvement districts, drainage districts, and the Washington State Department of Fish and Wildlife to resolve tradeoffs associated with fish and wildlife habitat on agricultural lands.
32 33		e: Moved from action item list to incorporate as policy; add ewly formed WIDs.
34 35 36 37	Policy 8E-8:	Continue to work with farmers on improving water quality practices.
38 39 40 41	Policy 8DE-9:	Provide outreach and education to farmers on using Best Management Practices as defined by WCC 14.02.020 to protect water quality.
42	Reason for Change	e: Due to increased concern with water resources in the County.

# **Water for Agriculture**

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Agriculture uses a significant amount of water, most of which is pumped from wells or surface waters. Given the competition for scarce water supplies (addressed in

<u>Chapter 11, Environment, Water Resources), ways must be found to secure an adequate long-term water supply while reducing water usage and improving water quality prior to it entering the waterways.</u>

Goal 8F: Strive to ensure adequate water supplies to support a thriving agricultural sector.

Policy 8F-1: Actively participate in the WRIA 1 Watershed and Salmon Recovery Programs to ensure that the agricultural sector's needs are addressed.

Policy 8AF-92: Conserve water resources from both a quantity and a quality perspective to ensure and possibly enhance continued agricultural viability.

<u>Policy 8AF-103:</u> Support the agricultural community in Work to ensure ensuring that legal water rights are available for agricultural uses.

Reason for Change: Water is an important agricultural issue. Staff thought it best to have an actual goal about it, moved existing agricultural water policies, and created a policy (8F-1) describing the mechanism through which water issues are to be resolved.

# Forest Resource Lands – Introduction Purpose

This section contains policies to guide Whatcom County in conservation of forest resources land of long-term commercial significance, and to implement the provisions of the Growth Management Act and, the adopted County-Wide Planning Policies, and the citizen developed Visioning Community Value Statements.

# **GMA Requirements**

<u>Designation and conservation of forest resource lands of long-term commercial significance is required under the Growth Management Act (RCW 36.70A.060). The Growth Management Act [RCW 36.70A.030 (8)] defines forest lands as follows:</u>

"Forest land" means land primarily devoted to growing trees for long-term commercial timber production on land that can be economically and practically managed for such production, including Christmas trees subject to the excise tax imposed under RCW 84.33.100 through 84.33.140, and that has long-term commercial significance. In determining whether forest land is primarily devoted to growing trees for long-term commercial timber production on land that can be economical and practically managed for such production, the following factors shall be considered: (a) the proximity of the land to urban, suburban, and rural settlements; (b) surrounding parcel size and the compatibility and intensity of adjacent and nearby land uses; (c) long-term local economic conditions that affect the ability to manage for

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conducive to conversion of forest land to other uses. Long-term commercial significance is defined by RCW 37.70A.030 (10) as

timber production; and (d) the availability of public facilities and services

including: The growing capacity, productivity, and soil composition of the land for long-

term commercial production, in consideration with the land's proximity to population areas, and the possibility of more intense uses of the land.

Map 8-3 shows lands designated as forest resource lands of long-term commercial significance.

#### **Process**

Whatcom County has implemented zoning regulations for forest land since the 1970s. With the passage of the Growth Management Act, the county began to review the zoning classifications which had been previously in place. The county's Forest Resource Lands Program was established to review the current forest designations and zoning regulations for compliance with the Growth Management Act. The Planning Division began preliminary project work in early 1991. At that time, a citizens' advisory committee was formed to review draft forest land definitions, criteria, and designations.

In 1991 a The Forest Resource Lands Citizens' Advisory Committee was composed of small forest landowners, industrial forest landowners, representatives of the Washington State Department of Natural Resources, forestry consultants, and private citizens was formed. The committee reviewed the interim The purpose of the committee was to provide review and recommendations on the draft designation of forest resource lands and the , reviewed the Rural Forestry and Commercial Forestry zones and land use code. , and made recommendations for changes in the zoning text regulating these two forestry zones. In addition, the committee reviewed and made recommendations for a Right-To-Practice-Forestry ordinance. The draft forest land designations were developed under the original GMA definition utilizing a set of locally derived criteria for more refined definition of forest lands. These criteria included average parcel size, parcel tax status, type of road access to each parcel, ownership status, presence of public services, and environmental constraints. In 1992, the committee's recommendations went were forwarded to the Planning Commission and on to the County Council before adoption in 1993, which by and large accepted the committee's proposals. The Planning Commission passed on to the County Council the forest lands designations and, by the end of 1993, the County Council had adopted the Planning Commission's recommendations, with minor changes along the way. The draft forest resource land designations and policies fulfilled the Growth Management Act's interim designation and conservation requirements for resource lands. ... These interim designations were eventually adopted as part of the Final 1997

Comprehensive Plan, in which over 35,000 acres were designated as Rural Forestry and over 186,000 acres were designated as Commercial Forestry.

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In March 1994, the <u>Forest Resource Lands</u> Citizens' Advisory Committee was reconvened to develop and recommend goals and policies for the comprehensive land use plan. <del>These goals and polices are presented below.</del> The goals and policies are a compilation of the previously existing county goals regarding forest lands, statements from the Visioning Committee's work, and statements generated by the committee. These goals and policies reflect a broad consensus of the community for the conservation and <u>utilization use</u> of the forest resources of Whatcom County.

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Reason for Change: These changes were made for brevity while still clarifying the process used for designating resources lands.

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# **GMA Requirements**

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Designation and conservation of forest resource lands of long-term commercial significance is required under the Growth Management Act (RCW 36.70A.060). The Growth Management Act [RCW 36.70A.030 (8)] defines forest lands as follows:

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37 38 "Forest land" means lands primarily devoted to growing trees for longterm commercial timber production on land that can be economically and practically managed for such production, including Christmas trees subject to the excise tax imposed under RCW 84.33.100 through 84.33.140, and that has long-term commercial significance. In determining whether forest land is primarily devoted to growing trees for long-term commercial timber production on land that can be economical and practically managed for such production, the following factors shall be considered: (a) the proximity of the land to urban, suburban, and rural settlements; (b) surrounding parcel size and the compatibility and intensity of adjacent and nearby land uses; longterm economic conditions that affect the ability to manage for timber production; and (d) the availability of public facilities and services conducive to conversion of forest land to other uses. The Washington State Office of Community Development recommends (WAC 365-190-060) that the following factors be considered, when classifying forest lands, in addition to those found in RCW 36.70A.030: (e) Property tax classification: Property is assessed as open space or forest land pursuant to chapter 84.33 or 84.34 RCW; (f) Local economic conditions which affect the ability to manage timberlands for long-term commercial production and (g) History of land development permits issued nearby.

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Long-term commercial significance is defined by RCW 37.70A.030 (10) as including:

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The growing capacity, productivity, and soil composition of the land for long-term commercial production, in consideration with the land's

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proximity to population areas, and the possibility of more intense uses of the land.

Reason for Change: GMA Requirements portion of the Comprehensive Plan was moved ahead of the Process portion of the Comprehensive Plan.

The interim forest land designations were developed under the original GMA definition utilizing a set of locally derived criteria for more refined definition of forest lands. These criteria included average parcel size, parcel tax status, type of road access to each parcel, ownership status, presence of public services, and environmental constraints. By utilizing these criteria Whatcom County effectively considered the same factors for designating forest land required under the amended definition of forest lands. In addition, the Washington State Department of Natural Resource lands and the Mount Baker National Forest lands within eastern Whatcom County are recognized as forest lands of long term commercial significance. Designated forest lands for purposes of long term commercial significance are displayed on Map 20.

# Forest Resource Lands - Background Summary

Forest resource lands are lands which are used primarily for growing trees for commercial purposes. In order to be designated as forest resource lands, they must have the potential for long-term commercial investment for the management of forest products.

The forest resources of Whatcom County have historically been one of the most important natural resources in the region. Lands in the lower foothills which that were initially harvested between 1900 and 1950 now support commercially mature stands of timber. In addition, a few areas of original forest still remain.

The majority of the county's non-federal forest resource lands (about 268,597 acres) are located in the foothills of western Whatcom County. Most of this land (223,613 acres) is zoned for forest production uses, and is. The majority of the land currently zoned for forest production is owned and managed by a few large institutions, including natural resource based corporations, insurance companies, the State of Washington, and small private forest management companies. These landowners manage their lands primarily for the production of timber resources. The State of Washington manages about 94,000 acres of timber land in Whatcom County for a variety of public trusts, including state schools and universities, capital buildings, state and local governments. Forest Board Lands provide revenue from timber sales to the State general fund, Whatcom County government, and other junior taxing districts in Whatcom County.

A smaller portion of the land zoned for forest production is owned and managed by individual woodlot owners and farm/foresters, some of whom reside on their properties. An additional 108,514 acres of land in lowland Whatcom County is supporting stands of commercial timber, but is not necessarily managed for

 production of forest products. The majority of these lowland areas are zoned either Rural or Agriculture. Individual woodlot owners and farm/foresters constitute the majority of landowners of forest lands outside the forestry zone. The goals of individual forest landowners, whether in the forestry zone or not, encompass a broader range of objectives than just timber production and may include management for wildlife, conservation, specialty forest products, firewood, privacy, aesthetics, and low density residential or other uses compatible with forestry.

Based on data collected from forest practice applications, the average standing volume of a second growth stand of timber in Whatcom County today is about 30,000 to 40,000 board feet per acre. Today, most timber is harvested between 40 and 90 years of age. The harvested areas are replanted with seedlings specifically selected for desired growing characteristics, collected from seed trees in the same elevation and climatic zone as the harvested area.

Traditionally, forest land use has been seen as a lower economic value compared to agriculture, rural, suburban, urban, commercial, or industrial uses. As a result, some forest landowners have held forest land in reserve at low cost (current use tax status) while managing for forest products and waiting for the growth of more intense land uses in the vicinity of their property. Many landowners in Whatcom County have taken advantage of the current use taxation programs in order to make forest management on their land more economical. These programs greatly benefit community interests by helping forest landowners keep land in open space and forest use.

With a growing population, there is a genuine need to promote conservation of productive forest land and associated public resources through a balanced combination of regulatory protection as mandated by the Growth Management Act, and the provision of incentives for maintaining lands in long-term commercial timber production. It is state and county policy to provide forest landowners with long-term land use predictability, for both productive forest lands and adjacent non-forest use lands. Premature conversion of those productive forest lands to other land uses which that are incompatible with the management of forest resources is recognized as a threat to the forest industry. Such conversions include changing the use of forest land from commercial timber production to incompatible residential, commercial, industrial, or and agricultural land uses, or parks and preserves that exclude intense forest management. Once forest land has been converted and roads, utilities and other infrastructure have been constructed, the land is not as useful for long-term commercial forest production. In addition, the encroachment of land uses such as non-forestry related residential into areas devoted to forest production can create conflicts between residents and forest landowners.

### Forest Resource Lands - Issues, Goals, and Policies

The following goals and policies apply to both Rural and Commercial Forest lands and address the issues of conserving productive forest land and meeting the goals of the Growth Management Act.

## **Forest Land Base**

The <u>commercial</u> forest land base in Washington State and in Whatcom County has been steadily <u>fluctuating decreasing</u> over time. Most of the forest land base change has been attributed to conversion of forest land to parks, preserves, and set-asides, or environmental regulations. A minor amount of land has been converted to rights-of-way and urban and suburban uses. With the additional population growth forecast for Whatcom County (coming mostly from in-migration), there will be continued pressure to convert all types of lands to residential uses. The greatest pressure to convert forest land will likely occur along the margins of traditional forest land where a spectrum of possible land uses may exist, in areas near infrastructure, and on forest sites with commanding views.

Complicating the issue of maintaining and protecting the forest land base from conversion is the existing diverse character of forest resource ownerships and forest management goals among Whatcom County's timber landowners. While the larger forest landowners manage their lands primarily for timber production, the smaller forest landowners tend to have diverse forest management goals ranging from small scale timber and woodlot uses to preservation of forests for wildlife habitat. Zoning and land use regulations to conserve forest land in Whatcom County need to recognize the range of diverse ownership goals and provide for a range of allowed land uses to ensure the viability of both large and small scale forest management goals while achieving the broader comprehensive goal of conserving the forest land base of the county.

Goal 8F: <u>Maintain and enhance Support increasing Whatcom</u>
County's <u>working forest land base and support policies</u>
that do not adversely impact the commercial forest land base.

Reason or change: The recommendation attempts to recognize the limitations of the county's ability to increase the forest land base. The following policies would support increasing the forest land base, while shielding the county from litigation should increases not be achieved. Staff also recommends using the term "working forest" rather than "commercial forest" to differentiate them from "Designated Forest Lands" as defined and required by the Growth Management Act.

Policy 8F-1: Recognize that rural woodlot owners, farm/foresters, small private timber companies as well as large natural resource corporations, the Federal Government, and the State of Washington constitute the ownership of the forest resource land base of Whatcom County.

Policy 8F-2: Provide appropriate land use regulation for the diverse forest resource lands within the county through the designation of Rural Forestry and Commercial Forestry zones.

1 Policy 8F-3: Apply the following general criteria for Rural and Commercial 2 Forestry comprehensive plan designations and zones: 3 4 Rural Forestry Zone: Lands mostly devoted to growing trees for 5 commercial timber production, usually located within public 6 service districts such as fire or water districts, accessed by 7 private roads built to Whatcom County development standards 8 or public roads, with low density residential development. Land parcels are generally 20 acres or greater in size. 9 10 11 Commercial Forestry Zone: Lands primarily devoted to growing trees for long-term commercial timber production, located 12 13 outside of public service districts such as fire and water districts, 14 and accessed by private or state forest roads. Land parcels are 15 generally 40 acres or greater in size. 16 17 Policy 8F-4: Support conservation of productive forest land by requiring the 18 use of best management practices such as proper road 19 construction and maintenance, prompt re-planting of harvested 20 areas, and protection of forest soils. 21 22 Policy 8F-5: Support conservation of the working forest land base through 23 cooperation between landowners, private organizations and 24 public agencies, and through a broad range of incentives and cooperation between landowners and public agencies such as 25 the utilization of the current use tax assessment provisions of 26 27 RCW 84.28, RCW 84.33, and RCW 84.34. 28 29 Reason for Change: Private land trusts were identified in Action Item #5, which is similar to this policy and proposed for deletion from Action Items section of comp 30 plan. Changed from "land trusts" to "organizations" to include a larger group of 31 stakeholders who may share this vision. RCW 84.28 no longer exists. Rewording 32 33 clarifies that the RCWs are incentives, and not necessarily tied to cooperation between landowners/organizations/public. 34 35 36 Policy 8F-6 Encourage and support the utilization use of the Small fforest Landowner Forestry Riparian Easement Program to help small 37 38 landowner's economic viability and willingness to keep the land 39 in forestry use (WAC 222-21-005). 40 41 Policy 8F-7: Establish flexibility in land use plans and regulations to 42 encourage maintenance of the productive forest land base. 43 44 Policy 8F-8: Review Title 20.42 (Rural Forestry) and 20.43 (Commercial 45 Forestry) for opportunities to provide for compatible non-forest 46 uses that encourage forest landowners to keep their land in productive forest uses. 47

Policy 8F-8:

Policy 8F-9:

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Reason for Change: Action Item #2 proposed as a policy to maintain and enhance forest land base.

> Discourage inappropriate conversion of productive forest land to incompatible non-forest uses. It is the intent of this policy not to allow conversion of forest land if the proposed use is incompatible with the maintenance of long-term forest management. Incompatible uses include those which:

Reason for Change: This is an incomplete version of Policy 8F-9 and was added as a mistake.

> Discourage inappropriate conversion of productive designated forest land to incompatible non-forest uses. It is the intent of this policy not to allow conversion of GMA designated forest lands of long-term commercial significance if the proposed use is incompatible with the maintenance of long-term forest management. Incompatible uses include those which that:

- create fire or safety hazards to adjacent forest land;
- permanently alter or remove a significant portion of a parcel from productionve of forest productsuse;. A significant portion would be greater than 20% of the lot;
- create significant financial hardships for adjacent forest landowners; or
- can lead to land use conflicts with adjacent forest landowners.

Reason for Change: Language clarifies that this policy addresses designated forest lands, as opposed to other lands that are forested (ex: Rural or Agriculture). Clarifying the amount of a lot that can be removed from production of forest products before it is considered significant is consistent with the standard lot coverage requirements of the zoning code for the Rural Forestry zone. The Commercial Forestry lot coverage standards would need to be amended from 25% to 20%. The Forestry Advisory Committee supports this amendment, as it is unclear why the zoning code would allow a greater portion of a lot to be removed from active forestry within the Commercial Forestry zone as opposed to the Rural Forestry zone where residential uses are allowed.

Policy 8F-10: Special districts should review their boundaries (e.g. fire districts, water districts) for conformance with forestry designations and consider making appropriate adjustments.

Reason for Change: Similar to Action Item #4. Special districts are best suited to review their service boundaries and ability to serve within the boundaries.

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Policy 8F-11: Recognize the difference between designated (mapped) forest lands and working forests. Designated forest lands may include public or private forest lands not actively managed for timber production, such as for parks, open space or habitat preservation purposes. Working forests are actively managed for timber production and to provide a balance of social, economic, and ecological benefits, products, and values.

## Policy 8F-12:

Maintain a working forest land base sufficient to support a viable local forestry industry by considering the impacts of working forests as part of the legislative decision making process. Measures that can be taken to support working forests may include:

- Land use policies that encourage active management plans on Rural Forest lands;
- Mitigation for loss of forest lands from productivity, including loss due to policy implementation of critical areas ordinance, etc;

Reason for Change: Policy 8F-12 is a new policy proposed by staff and the Forest Advisory Committee. Planning Commission recommended adding "including loss due to policy implementation of critical areas ordinance, etc" to the above bullet point.

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- Land use policies that recognize the multiple values of working forests and respect the rights and responsibilities of private and public forest landowners;
- Education programs that emphasize recognition that wood is a renewable natural resources;
- Public and institutional education programs that promote the benefits of working forests;
- Championing the implementation of the Northwest Forest Plan and completion of individual forest plans in order to rebalance the social, economic, and ecological benefits and products on a national forest specific basis;
- Ensuring that timber management plans submitted as part of the Designated Forest Land Current Use Tax program are implemented, or remove the property from the program; and
- <u>Discouraging conversion of designated forest lands to non-forest uses.</u>

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Reason for Change: Policy 8F-11 and 12 support forestry and are similar to language within the Forestry Advisory Committee No Net-Loss memo to the County Council dated July 22, 2014.

# **Forest Products Industry**

Goal 8G:

Investment in forest land is complicated by the long time it takes to realize any financial return from growing trees. Once a forest is harvested and a new forest plantation is established, it can take from 40 to 60 years at a minimum before another harvest can occur. Due to the fact that investments in forest land and timber growing are long term in nature, it is necessary to provide forest landowners with assurance that their investments will be realized.

Forest resource lands make an important contribution to the local economy in Whatcom County. Resource based employment continues to provide some of the better paying jobs in our local area. Several major employers operate primary and secondary forest product processing facilities. Furthermore, Whatcom County has a long history of involvement in the forest industry, with many families and communities involved in forest management.

Environmental regulations have constrained timber production in some locations, though the impact industry-wide is not as significant as other factors. According to a recent timber supply study conducted by the University of Washington, timber production on private lands is more sensitive to changes in the minimum harvest age of the available timber supply than it is to changes in the land base as a result of restrictions on harvest, such as wetlands protection rules. Other timber supply factors, such as currently available growing stock, stumpage prices, and labor/technology costs have more influence on timber supply than environmental regulations.

Reason for Change: This study by UW was referenced in the 1994 DRAFT Comprehensive Plan. It is no longer a recent study and was not cited in the Bibliography of the 1994 draft, therefore there is no knowledge about this study.

	Whatcom County's forest products industry.
Policy 8G-1:	Support improving the efficiency and flexibility of state and local environmental regulations affecting the forest products industry, in order to assure environmental protection and improve predictability for the forest products industry while minimizing the regulatory costs to forest landowners.
Policy 8G-2:	Develop a range of non-regulatory programs, options, and incentives which that forest landowners can employ to meet or exceed county environmental goals.

Policy 8G-3: Support the efforts of the forest landowners and managers in Whatcom County to operate in a long-term, sustainable manner as part of a stable, broad based economy.

Maintain and enhance Support increasing the viability of

Policy 8G-4: Work cooperatively with the Washington State Department of Natural Resources to ensure the most productive and appropriate use of Whatcom County's Forest Board State Forest lands within Whatcom County. Policy 8G-5: Support Consider surface mining, along with rock crushing, washing, and sorting, when done as part of conducting forest practices within the forestry zones, as compatible uses. Policy 8G-6: Support primary and secondary forest product production facilities through appropriate planning, zoning, and land use regulations. Reason for Change: Removal of language clarifies support for all forest product production facilities, not just primary and secondary. 

Policy 8G-7: Encourage the United States Forest Service and the Department

of Natural Resources to implement harvest practices that

Reduce land use conflicts between Whatcom County's

maximize the use of forest lands.

#### **Land Use Conflicts**

Goal 8H:

One of the most significant impacts for timber landowners in Washington State is the growing number of conflicts between forest landowners and their neighbors. These conflicts are the result of expansion into the margins of commercial forest land base by people seeking residential land and recreational tracts, and who bring with them conflicting values concerning resource extraction, such as logging.

Cour or	forest and non-forest landowners.
Policy 8H-1:	Refine the Rural and Commercial Forestry zoning regulations to conserve productive forest lands of long-term commercial significance from conversion to non-compatible uses. This zoning recognizes the diversity of Forest Resource landowners and forestry land uses. This zoning should include provisions for compatible, non-forestry uses <a href="https://www.which-that-encourage-all-forest-landowners">which-that-encourage-all-forest-landowners</a> to maintain the productive forest land base while conserving them from conflicting uses.
Policy 8H-2:	Affirm Whatcom County Code Chapter 14.04, the Right-To- Practice-Forestry ordinance, which requires notification of property owners in the vicinity of forestry zones of the types of normal forest management operations likely to be conducted on forest land.

1 2 3 4 5 6 7 8	Policy 8H-3:	Prior to issuing a development permit or receiving approval for a rezone, every attempt should be made to annex all development into local fire district boundaries. Before a development permit or a rezone is approved, it should be demonstrated to the satisfaction of the County that adequate fire prevention measures will be in place for the resident and adjacent properties.
9 10 11 12 13	Policy 8H-4:	Support and encourage improved communication and understanding between forest landowners and the public through such mechanisms as voluntary forest management plans, community forest forums, and educational programs.
14 15 16   17	Policy 8H-5:	Work cooperatively with the Washington State Department of Natural Resources, forest landowners, and the general public to address community concerns and land use conflicts which that may arise as a result of forest practices.

#### Fish and Wildlife

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45 46 Utilization Use of forestlands can impact habitat, including riparian areas, stream flows, channel habitat structure, and water quality.

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23	Goal 81:	Support the Department of Natural Resources in
24		Eensuringe that forest practices avoid adverse impacts to
25		the habitat of threatened and endangered fish and
26		wildlife species and to marine waters that support
27		shellfish resources.
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29	Policy 81-1:	Ensure that adequate riparian buffers are maintained along
30		rivers and streams.
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32	Policy 81-2:	Minimize, to the greatest extent feasible, using BMPs,
33		sedimentation to rivers and streams.
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35	Policy 81-3:	Ensure that riparian and stream functions are protected when
36		forestlands are converted to non-forestry uses.
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#### **Mineral Resources – Introduction**

# **Purpose**

The purpose of this section is to guide Whatcom County in conservation of mineral resource lands of long-term commercial significance and in land use decisions involving lands where mineral resources are present, and to implement the provisions of the Growth Management Act and the adopted County-Wide Planning Policies.

## **Process**

 In 1990, the Washington State Legislature passed the Growth Management Act. One of the goals of the act is to maintain and enhance resource-based industries. The Act mandates that each county planning under the Act classify and designate mineral resource lands of long term commercial significance.

To address the mandates of the Growth Management Act, Whatcom County formed a Surface Mining Citizens' Advisory Committee in the 1990s to produce, through a consensus process, the issues, goals, and policies found in this chapter. Planning staff drafted the sub-section on mineral designations following review and comments from the committee.

In 1992, Whatcom County adopted an Interim Classification of Mineral Resources provided by the Washington State Department of Natural Resources. This classification system, as well as existing resource information, was used for the interim designation of mineral resource lands of long-term commercial significance. Through their involvement, the Surface Mining Advisory Committee recommended a longer planning horizon, which would require additional mineral resource areas. Additional MRLs were, in fact, designated when the Comprehensive Plan was adopted in 1997.

Since 1997, amendments for MRL designation have been landowner initiated. Planning staff drafted the sub-section on mineral designations following review and comments from the committee. The committee was comprised of a cross-section of community members including mining operators, foresters, farmers, and rural homeowners representing diverse interests and geographic areas in Whatcom County. The County Council adopted the original mineral resource provisions in the 1997 Comprehensive Plan. These provisions were updated in 2004-2005 after reviewing the GMA, Surface Mining Advisory Committee recommendations and new information.

#### **GMA Requirements**

One of the goals of the Growth Management Act is to maintain and enhance resource based industries, including the aggregate and mineral resource industries, with the purpose of assuring the long-term conservation of resource lands for future use. The goals and policies in this section support that goal. In addition, the Act GMA mandates that each county shall classify mineral resource lands and then designate and conserve appropriate areas that are not already characterized by urban growth or have other GMA values that may preclude designation and that have long-term commercial significance.

The Growth Management Act requires that each county planning under the act shall designate mineral resource lands. Mineral resource lands are lands primarily devoted to the extraction of minerals or that have known or potential long-term commercial significance for the extraction of minerals.

Classification is first step in implementing natural resource lands designations, as required in RCW 36.70A.170, and requires defining categories to which natural resource lands and critical areas will be assigned. Designation is the second step in implementation, in which natural resource lands must be designated based on their defined classifications. Designated Mineral Resource Lands of Long Term Commercial Significance are displayed on Map 8-4.

As part of the required periodic review, Whatcom County must consider new information in determining if amendments are necessary to the mapped designated mineral resources.

## **Mineral Resources -** Background Summary

Mining activities in Whatcom County have taken place since the 1850s, though the nature, scope and extent of such activities has changed considerably through time. These changes have reflected the economics involved at each point in time at least as much as they reflect the geologic character of Whatcom County. Historically, the more important mineral commodities of Whatcom County have been coal, gold (placer and lode), sandstone, clay, peat, limestone, olivine, and sand and gravel aggregate, with the latter three being especially important at present. Many other commodities, however, have been prospected for or extracted.

In 2004, there were 24 Mineral Resource Land (MRL) designations throughout the County, covering 4,204 acres. For planning purposes, the Surface Mining Advisory Committee recommended using an annual demand for sand and gravel of 12.2 cubic yards per capita and annual demand for bedrock of 1.3 cubic yards per capita in the 2004-05 Comprehensive Plan update, consistent with the rates in the 1997 Comprehensive Plan. There were approximately 108 people directly employed by the mining industry in 2000 (Greater Whatcom Comprehensive Economic Development Strategy, p. III-16).

 In Whatcom County, sand and gravel mining has been occurs historically concentrated mainly to the east of Interstate-5 and north of Bellingham, with some exceptions. The more important historic aggregate mining areas from east to west include: (1) the Siper and Hopewell Road area two miles north of Nugent's Corner; (2) the Breckenridge Road area just east of Nooksack; (3) the Pangborn and Van Buren Road area two and one half miles southwest of Sumas; (4) the Pole and Everson-Goshen Road area to the southwest of Everson; (5) the Axton Road area one mile east of Laurel; and (6) the Valley View Road area three miles to the east of Blaine. It is estimated that between 1999-2001 approximately 1.73 million cubic yards of sand and gravel from upland pits were excavated annually in Whatcom County (Report Engineering Geology Evaluation Aggregate Resource Inventory Study Whatcom County, Washington (GeoEngineers, Inc., Sept. 30, 2003, p.7). Limestone has been mined since the early 1900s in Whatcom County. Historically, the main use for limestone was for pertand cement manufacturers and pulp and paper industries. Today, limestone is mined in the Red Mountain area north and

east of Kendall and is primarily used for rip-rap to mitigate effects of flooding, and

for crushed rock., and for pulp mills. Limestone mining has decreased significantly over the years. In 1966, about 500,000 tons of limestone were produced annually from deposits on Red Mountain and from deposits north of Maple Falls. Since then, limestone mining has decreased significantly.

Whatcom County is home to one of the largest known deposits of olivine in the United States, located in the Twin Sisters Mountain. The extraction of high quality Twin Sisters dunite (olivine) by the Olivine Corporation, largely from the Swen Larsen Quarry, has ranged from 400 tons in the early years of operation to a more recent annual average of approximately 70,000 to 80,000 tons.

In the past extraction of river gravel occurred primarily within the banks of the Nooksack River between Deming and Lynden, as determined by aggregate size and composition. As of March, 1993, 34 gravel bars had approved status for extraction. Between 1990 and 1993, an average of 170,000 cubic yards per year of river gravel were removed from the Nooksack River. Between 1960 and 1987, removal rates averaged about 50,000 cubic yards per year. However, because of federal regulations and decreasing seasonal windows in which gravel could be removed from the river due to impacts to riparian habitat and endangered salmon spawning and habitat, there has not been any river bar scalping on the Nooksack River since 1995.

# Mineral Resources - Issues, Goals and Policies

#### **General Issues**

While urbanization development creates demand for sand and gravel resources, it may also encroach upon or build over those same resources, rendering them inaccessible. Strong community opposition to mining near residential, agricultural, or sensitive environmental areas may also limit extractive opportunities. Adequate resource protection could help to assure the long-term conservation of resource lands for future use. It would also help to ensure a competitive market and to guard against inflated land prices by allowing the supply of minerals to respond to the demand of a free market. Helping the aggregate industry and the associated businesses, trades, and export markets also creates jobs and stimulates the economy, to the benefit of the county.

<u>Surface mining can create</u> <u>Potential</u> conflicts with other land uses. <u>Those impacts</u> however, may include increased noise, dust, <u>scenic impacts</u> visual blight, traffic, road wear, and neighboring property devaluation. Un\_reclaimed mines can affect property values while at the same time nearby residents may use the area for shooting, dirt bike riding, and other activities. Controlling trespassing to surface mining can be a significant safety issue for mine operators. Property rights issues range from the right to mine and use the value of mineral resource land to the right to live in an area with a high quality of life and retain home values. Citizens may be generally unaware of the county zoning of surrounding property and the mining uses that are allowed. These and other factors may contribute to a climate of

distrust and hostility between the aggregate industry and property owners in the vicinity.

Environmental issues associated with surface mining <u>may</u> include groundwater <u>or</u> <u>aquifer impacts contamination</u> and disruption of fish and wildlife habitat. Surface mines <u>do have the potential</u>, <u>however</u>, <u>if reclaimed properly</u>, <u>to reclamation can</u> create wetlands and fish and wildlife habitat, <u>possible productive agricultural land for a limited number of crops</u>, or provide land for parks, housing, industrial <u>or and other uses</u>.

As a natural result of geologic forces, it is not uncommon in Whatcom County to have excellent mineral deposits located under prime farmland soil and above an aquifer recharge area. Mining in these areas can substantially reduce—impact the productive capacity of the soil and make the underlying aquifer more susceptible to contamination. Removing the soil overburden eliminates the natural filtration system, exposing the aquifer to direct contamination from turbidity, industrial spills, illegal dumping and agriculture products. Removing, stockpiling and spreading soil may creates an unacceptable—risk of compromising the productive capacity of the most productive and versatile farmland in the County. Another potential problem is that digging out a side hill and/or through a clay barrier could tap the groundwater and suddenly drain an aquifer. This creates a conflict between competing natural resource industries; agriculture and mining. While agriculture is a sustainable industry, mining is an industry that relies on a fixed, nonrenewable resource.

Associated mining activities such as rock crushing on-site can greatly increase the "industrial atmosphere" experienced by nearby property owners. This activity, however, helps to keep material transportation costs down. In addition, accessory uses are a necessary part of most operations, and to carry them out on site is cost-effective.

 Goal 8J:

Sustain and enhance, when <u>and where</u> appropriate, Whatcom County's mineral resource industries, support the conservation of productive mineral lands, and discourage incompatible uses upon or adjacent to these lands.

Policy 8J-1:

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

Policy 8J-2:

Support the use of new technology and innovative techniques for extraction, processing, recycling and reclamation. Support recycling of concrete and other aggregate materials. Support the efficient use of existing materials and explore the use of

1 other materials which that are acceptable substitutes for mineral 2 resources. 3 4 Policy 8J-3: Minimize the duplication of authority in the regulation of surface 5 mining. 6 7 Ensure that mineral extraction industries do not Goal 8K: 8 adversely affect the quality of life in Whatcom County, by 9 establishing appropriate and beneficial designation and resource conservation policies, while recognizing the 10 11 rights of all property owners. 12 13 Policy 8K-1: Avoid significant mineral extraction impacts on adjacent or 14 nearby land uses, public health and safety, or natural resources 15 from mineral extraction. 16 17 Policy 8K-2: Consider the maintenance and upgrade of public roads before 18 approving mineral extraction. Address all traffic on county roads 19 in a fair and equitable fashion. 20 21 Policy 8K-2 represents current comprehensive plan language as of 4/14/2015, as amended by Whatcom County Ordinance #2015-016. 22 23 24 Policy 8K-3: Avoid adversely impacting ground and surface water quality. The protection of aquifers and recharge zones should have 25 precedence over surface mining in the event it is determined by 26 the county that adverse impacts cannot be avoided through the 27 28 standard use of best management practices. 29 contamination of aquifers by using uncontaminated and inert 30 materials best management practices for reclamation or on-site 31 storage. 32 Policy 8K-4: Require, wWhere there exists County has jurisdiction, the 33 require reclamation of mineral resource lands to other 34 35 compatible uses on an ongoing basis as mineral deposits are 36 depleted. Best Management Practices should be used to achieve 37 this. 38 39 Policy 8K-5: As part of the mining permit process, Have an plan for an ultimate end use for land used for mineral extraction which that 40 will complement and preserve the value of adjoining land. 41 42 43 Policy 8K-6: Where not subject to the Surface Mining Act, Rrequire security to cover the costs of reclamation prior to extraction activity, and 44 45 insurance policies or a similar type of protection as appropriate 46 to cover other potential liabilities associated with the proposed 47 activity.

Designate site-specific mineral resource lands only after mineral extraction impacts have been anticipated and evaluated, and potential adverse environmental impacts have been addressed through appropriate mitigation and/or reasonable alternatives.

Expansion of MRL designations to parcels contiguous to, and held by more than 1% common beneficial ownership or beneficial interest with an existing mine, shall require that the existing mine is substantially in compliance with all operating permits and regulations before expansion of the designation will be approved and must be in complete compliance before extraction of the additional area may commence.

Policies 8K-7 and 8K-8 represent current comprehensive plan language as of 4/14/2015, as amended by Whatcom County Ordinance #2015-016. Planning Commission recommendation to strike policy 8K-8.

#### **Rural and Urban Areas**

Many of the rural areas in Whatcom County have been and are being used for mineral extraction. Low density rural areas with potential natural resources such as sand and gravel may be able to accommodate a variety of uses, and surface mining has been a traditional use. Significant mineral deposits occur in certain parts of the rural areas. Some of these areas have higher surrounding residential densities than others, and many rural residents expect less intrusive forms of land uses. Determining which areas are the most appropriate for mineral extraction is a difficult and challenging task.

Goal 8L: Achieve a balance between the conservation of productive mineral lands and the quality of life expected by residents within and near the rural and urban zones of Whatcom County.

Policy 8L-1: Discourage new residential uses from locating near designated mineral deposit sites until mineral extraction is completed unless adequate buffering is provided by the residential developer.

Policy 8L-2: Protect areas where existing residential uses predominate against intrusion by mineral extraction and processing operations, unless adequate buffering is provided by the mine operator.

 Policy 8L-3:

Allow accessory uses to locate near or on the site of the mineral extraction source when appropriate. Authorize crushing equipment to locate near the mineral extraction source as a conditional use provided that all pertinent regulatory standards

1 2		are maintained. Site asphalt and concrete batch plants as a conditional use, addressing potential impacts for the site.
3		
4	Policy 8L-4:	Buffer mineral resource areas adjacent to existing residential
5		areas. Buffers preferably should could consist of berms and
6		vegetation to minimize impacts to adjacent property owners.
7		Buffers should be reduced for a limited period of time during
8		reclamation if quality minerals are contained therein.
9		
10	Policy 8L-5:	Encourage mineral extraction operators in the county to
11		voluntarily provide resource use information to nearby
12		landowners, and to develop a good neighbor policy.
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14	Reason for Change	e: Similar to Action Item #2

# Reason for Change: Similar to Action Item #2

## Agricultural Areas

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There is considerable overlap between high quality aggregate lands and high quality agriculture lands. Several deposits represent a primary source for sand and gravel and, as well, form the parent material for prime agricultural soils. Both large, deep, open pit mines and smaller projects removing ridges and high ground have been operating in these overlap areas in the agricultural district. The smaller projects usually occur on dairy farms where corn or grass is cultivated. Potential drawbacks from commercial mining in agricultural areas may include reclamation problems, the loss of scenic terrain, an increased risk of groundwater contamination from future agricultural practices, soil rehabilitation difficulties, negative cost-benefit balance, and drainage may also be adversely affected.

Some farmers want the freedom of choice to use their land for farming or surface mining, especially in cases where mining income could "save the farm." Others want to preserve farmland. Some questions to consider are the extent to which surface mining should occur on farmland and the extent to which it should be reclaimed back to farmland if it does occur.

The agriculture zone is sparsely populated and there are fewer conflicts between homeowners and mining industries than in urban or rural zones. Nevertheless, mining activities can significantly impact nearby landowners.

36 37 38 39 40 41	Goal 8M:	Recognize the importance of conserving productive mineral lands and conserving productive agricultural lands within or near the agricultural zones of Whatcom County without jeopardizing the critical land base that is necessary for a viable agricultural industry.
42 43 44 45	Policy 8M-1:	Allow mining in the agriculture zone that would enhance farming by leveling knolls and ridges when appropriate. In these areas, reclamation of mineral extraction sites should occur in a timely fashion. The site should also be restored for uses allowed in an

1 2 3		agricultural zone and blend with the adjacent landscape and contours.
4 5 6 7	Policy 8M-2:	Avoid the use of designated agricultural land for mineral or soil mining purposes unless the soils can be restored to their original productive capabilities as soon as possible after mining occurs.
8 9 10 11 12 13	Policy 8M-3:	Allow accessory uses such as washing and/or screening of material to locate near or on the site of the mineral extraction source when appropriate. Within MRL designations, authorize application for mineral processing facilities such as rock crushers and concrete plants through the conditional use process.
14 15	Policy 8M-4:	Recognize the role of commercial surface mining as part of farm enhancement.

## **Forestry Areas**

Surface mining of gravel and rock resources is an integral part of a forest landowner's forest management. Adequate supplies of gravel and rock not only add to the economics of forest management, but also reduce environmental impacts of forest roads. Rock crushing helps conserve a valuable commodity by reducing the amount of material necessary for road construction. The use of crushed rock on roads reduces the amount of sediment developed and better protects water quality. Zoning densities in the Forestry Districts protect the access to mineral resources in the future. These regions contain most of the county's hard rock reserves, such as olivine and limestone. In some areas, the soils overlaying mineral deposits may have a lower productivity for growing timber compared to the high mineral resource value.

As lowland sand and gravel resources become exhausted or unavailable, the commercial potential of mining in forest zones increases enough to warrant the expense of hauling. While this would increase the potential for impacts, such as heavier truck traffic, land use conflicts may be minimal based on the lack of or low residential densities in these zones.

36 37 38	Goal 8N:	Maintain the conservation of productive mineral lands and of productive forestry lands within or near the forestry zones of Whatcom County.
39 40 41 42	Policy 8N-1:	Recognize the importance of forest lands in the county and the importance and appropriateness of surface mining as part of conducting forest practices within the forest zones.
43 44 45 46	Policy 8N-2:	Allow rock crushing, washing and sorting in the forest zones when appropriate as long as conflicts with other land uses can be mitigated.

Policy 8N-3: Allow commercial surface mining operations in the forest zones

when appropriate as long as conflicts with other land use zones

can be mitigated.

4 5 Policy 8N-4: Carefully consider the siting of asphalt and concrete batch plants

due to possible adverse impacts.

## **Riverine Areas**

 Proponents of river bar scalping support it for both economic and flood control purposes. River bar aggregate supplies high quality rock material (although it produces poor quality sand due to excessive organic material). In addition and, if done properly, bar scalping can stabilize a section of the river channel and decrease flood damage immediately downstream.

However, Although the public believes river bar scalping will significantly reduce flooding along the entire river, in fact its benefits are local and it may have negative effects in areas surrounding the mining site. Adverse impacts may include For example, if done improperly gravel removal can de-stabilize the river channel locally and increased, rather than decrease, flooding damage further downstream. After intensive bar scalping, floodwater that is normally stored on the floodplain of the mined reach can be concentrated and dumped on the reach immediately downstream. If gravel mining exceeds the rate of replenishment from upstream, the river bed may lower both upstream and downstream; this bed degradation, infrastructure damage, can undermine bridge supports and other structures, cause adjacent banks to erosion, de (or stabilize, depending on how much and where gravel is removed), lowered groundwater tables adjacent to the river, and damage to critical instream and riparian vegetation habitat. Finally, petroleum spills from mining equipment can degrade local surface water quality if not responded to properly.

Improper mining methods in fish spawning reaches can de-stabilize spawning gravel or clog it with silt, remove cover vegetation or trap smolts during out-migration. Over harvesting of gravel can erode the river bed and expose the underlying substrate, reducing or eliminating pool and riffle habitat for fish and other aquatic animals. Finally, petroleum spills from mining equipment can degrade local surface water quality if not responded to properly.

While river gravel is a renewable—resource that could extend the life of other Whatcom County gravel resources, seasonal and yearly environmental factors make it riverso river bars are not a reliable source from year to year. These factors include The amount of gravel that can be mined varies with seasonal and yearly rates of gravel deposition rates; high and low water levels and timing; and fish lifecycles migration, spawning and out-migration timing.

<u>Further</u>, <u>V</u>various costs raise the price of river bar gravel, <u>including</u>. <del>For example, there are several streams (e.g. Boulder Creek, Porter Creek, Glacier Creek, etc.)</del>

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12 13 Goal 8P:

Policy 8P-1:

Policy 8P-2:

Policy 8P-3:

Policy 8P-4:

Policy 8P-5:

Policy 8P-6:

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Subject to Federal and State regulations, Support the extraction of gravel from river bars and stream channels in Whatcom County for flood control purposes and market adverse hydrologic demands where environmental effects are avoided or minimized.

which may offer significant quantities of sand and gravel, but which are not

currently being mined due to prohibitive-transportation costs. Other factors include

the cost and limited availability of access easements, to the river, the repeated

handling that is necessary for extraction and processing of the material, and the

Finally, many state and federal regulations restrict scalping locations and practices. The cost and time delay of duplicate regulation, environmental restrictions, royalty

cost of complying compliance with multi-jurisdictional regulations.

charges and the regulatory process are deterrents to river bar mining.

Designate river gravel as a supplemental source to upland

reserves.

Allow, when appropriate, the stockpiling, screening, and washing of river gravel in all zone districts when associated with river gravel extraction as close to the extraction site as possible to keep handling and transportation costs to a minimum.

Design river gravel extraction to work with natural river processes so that no adverse flood, erosion, or degradation impacts occur either upstream or downstream of extraction sites. Base mining extraction amounts, rates, timing, and locations on a scientifically determined sediment budget adjusted periodically according to data provided by a regular monitoring plan.

Locate and operate river gravel extraction to provide long-term protection of water quality and quantity, fish and wildlife populations and habitat, and riparian vegetation.

Plan and conduct operations on rivers and streams so that short- and long-term impacts and hazardous conditions are either prevented or held to minimum levels which that are not harmful to the general public. Create as little adverse impact on the environment and surrounding uses as possible.

Fully consider the recommendations of the Flood Hazard Management Committee to encourage gravel bar scalping that decreases the likelihood of flooding and lowers the costs of flood damage and repair, flood management, and emergency services.

1 2 3 4	Policy 8P-7:	Support the use of gravel from tributary streams for flood hazard control, provided environmental impacts are fully addressed.
5 6 7	Policy 8P-8:	Support the use of <u>existing</u> public access easements <u>that exist</u> to allow gravel removal.
8 9 10 11 12	Policy 8P-9:	Work with other jurisdictions and related agencies to reduce or eliminate redundant regulations, streamline the permitting process, and provide greater opportunities for appropriate river gravel extraction to enhance other important resources, specifically agricultural.

## **Mineral Designations**

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Whatcom County's interim designation work, accomplished in 1992, was based upon the following statutory direction:

"On or before September 1, 1991, each county [required to plan under the Act] 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).

""Minerals" include gravel, sand, and valuable metallic substances" [RCW 36.70A.030(11)].

The Growth Management Act also directed counties to:

"adopt development regulations ...to assure the conservation of... [designated] mineral resource lands..." [RCW 36.70A.060(1)].

Whatcom County responded to the above mandates as follows:

- By adopting interim Mineral Resource Lands (MRL) designations covering 1,250 acres of lowland sand and gravel deposits. All of these areas had existing reclamation permits from the Washington State DNR covering at least twenty acres.
- By restricting density to one unit per twenty acres within MRL designations and, more recently, by requiring disclosure notices on property and development within three five feet of the MRLs.

The CMA goes on to state that counties:

"shall review these designations...when adopting their comprehensive plans ...and may alter such designations...to insure consistency" [36.70A.060(3)].

This is the most pertinent part of the Act in terms of plan direction.

The Washington State Department of Community Development was required to produce "Procedural Criteria," (Chapter 365-195 WAC), to further assist interpretation of the act by counties and cities. This helped to further elucidate the link between mineral designations and the GMA comprehensive plan. The

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"Procedural Criteria" provides guidance in Section 400, Natural Resource Lands, as follows:

Prior to the development of comprehensive plans, cities and counties planning under the Act ought to have designated natural resource lands of long-term commercial significance and adopted development regulations to assure their conservation. Such lands include agricultural lands, forest lands and mineral resource lands. The previous designations and development regulations shall be reviewed in connection with the comprehensive plan adoption process and where necessary be altered to ensure consistency.

Generally, natural resource lands should be located beyond the boundaries of urban growth areas. In most cases, the designated purposes of such lands are incompatible with urban densities.

The review of existing designations should, in most cases, be limited to the question of consistency with the comprehensive plan, rather than revisiting the entire prior designation and regulation process. However, to the extent that new information is available or errors have been discovered, the review process should take this information into account.

Review for consistency in this context should include whether the planned use of lands adjacent to agriculture, forest or mineral resource lands will interfere with the continued use in an accustomed manner and in accordance with the best management practices of the designated lands for the production of food, agricultural products, timber, or for the extraction of minerals.

If these guidelines are followed, then the comprehensive plan should address mineral designations by asking the following questions: Is there new information that might lead to different designations at this point and have errors been made?

The linterim designations, adopted as discussed above part of the 1993 Comprehensive Plan, were based upon minimal criteria. A more complete set of designation criteria is necessary in order to better define which areas in the county are appropriate for mineral designations. These designations should also include quarry rock and valuable metallic mineral sites because interim designations did not include these resources.

The interim designations were also based more upon a twenty year planning horizon than a fifty year planning horizon. The Minimum Guidelines to Classify Agriculture, Forest, and Mineral Lands (Chapter 365-190 WAC) state that "the Department of Natural Resources has a detailed minerals classification system counties and cities may choose to use" (section 070(b). This classification system recommends a fifty year planning horizon. In the past, Tthe Surface Mining

1 Advisory Committee also has recommended planning for a fifty year supply. While 2 achieving a 50-year local supply may not be practical due to limitations of mineral 3 resources, protecting identified mineral resource areas that are not currently in 4 conflict with other important goals of the GMA is an important long-term goal. However, it should be recognized that due to geologic constraints particular to 5 6 Whatcom County long-term aggregate supply may not be entirely met by local 7 supplies and some areas of Whatcom County may be better served by import of aggregate materials from sources outside of Whatcom County. Implementing the 8 9 protection of mineral resources of long-term economic significance this goal would 10 will require the adoption of criteria allowing for additional mineral resource areas. Additional MRLs were, in fact, designated when the Comprehensive Plan was 12 adopted in 1997 in an attempt to plan for a fifty-year supply of mineral resources. 13 The fifty year demand for minerals in Whatcom County is difficult to project and 14 requires many assumptions. However, iIn 2004, after review of multiple studies, 15 the Surface Mining Advisory Committee concluded that the existing MRLs do not 16 contain a fifty-year supply of mineral resources, and that meeting the demand for construction aggregate in Whatcom County will require expansion of the mineral 17 18 resource land designations and the consideration of importing aggregate. The 19 policies and criteria below are meant to guide meeting the demand for construction 20 aggregate. The Surface Mining Advisory Committee estimated that, as of 2005, there will be a supply of approximately 60.7 million cubic yards of sand and gravel 21 22 and 8.7 million cubic yards of bedrock in existing MRLs that will be available for 23 future use. 24

The fifty year demand for minerals in Whatcom County is difficult to project and requires many assumptions. Based upon Whatcom County's per capita rate of consumption of 12.2 cubic yards of sand & gravel and 1.3 cubic yards of bedrock that is being utilized for official planning purposes, approximately 174.4 million cubic yards would be required over the fifty year planning period from 2005-2054. The Washington State Department of Natural Resources, however, has recommended a per capita rate that would result in a fifty year demand of approximately 129 million cubic yards in Whatcom County. This estimate assumes that conservation, recycling, increased cost, high density development (which requires less rock per person), and political decisions will result in reduced demand despite continued population growth. Conversely, some factors may increase demand for aggregate such as the construction of mass transportation systems, the possible substitution of masonry materials for wood products, and increased exports to Canada or other United States counties.

Meeting the demand for construction aggregate in Whatcom County requires expansion of the mineral resource land designations and the consideration of the importation of aggregates. The policies and criteria below are meant to guide meeting the demand for construction aggregate.

Goal 8Q:

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Designate Mineral Resource Lands (MRLs) containing commercially significant deposits throughout the county in proximity to markets in order to minimize construction

 aggregate shortages, higher transport costs, future land use conflicts and environmental degradation. Balance MRL designations with other competing land uses and resources.

Goal 8Q represents current comprehensive plan language as of 4/14/2015, as amended by Whatcom County Ordinance #2015-016.

 Policy 8Q-1:

Seek to <u>identify and protect all designate a 50 year supply of potential</u> commercially significant construction aggregate supply, to meet future demand, to the extent compatible with protection of water resources, agricultural lands, and forest lands and other GMA goals.

Policy 8Q-2:

Ensure that at least 50% of the total areas designated for construction aggregate is within ten miles from cities and urban growth areas where feasible.

Reason for Change: May not be possible. Resources are located based on geologic history, not human development patterns.

 Policy 8Q-<del>3</del>2:

Ensure that designations of urban growth boundaries are consistent with mineral designations by considering existing and planned uses for the designated areas and adjacent properties. Intergovernmental agreements should demonstrate how future land uses of mined areas will protect underlying aquifers, given the increased groundwater vulnerability to contamination.

Policy 8Q-43:

Allow mining within designated MRLs through a conditional use permit process requiring:

- (1) on-site environmental review, with county as lead agency, and
- (2) application of appropriate site specific conditions, and
- (3) notification to neighboring property owners within 2,000 feet to insure opportunity for written and oral input.

Consider potential resource areas (PRA) identified in the Report

Policy  $8Q-\frac{43}{2}$  represents current comprehensive plan language as of 4/14/2015, as amended by Whatcom County Ordinance #2015-016.

Policy 8Q-<u>54</u>:

Engineering Geology Evaluation Aggregate Resource Inventory Study Whatcom County, Washington (GeoEngineers, Inc., Sept. 30, 2003) and updated in the Aggregate Resource Inventory 2014 Study Update Whatcom County, Washington (Element Solutions, December 22, 2014) for MRL designation and during county review of land development projects in order to avoid development incompatible with mineral resource extraction.

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Policy 8Q-65: Work with the Port of Bellingham, the City of Bellingham, or waterfront property owners to facilitate the importation of mineral resources necessary to provide County citizens with adequate mineral resources at reasonable prices.

Policy 8Q-6: Consider removal of land from Mineral Resource Designation after mining and subsequent reclamation is completed.

Reason for Change: Similar to language in Action Item #8.

#### Fish and Wildlife

Policy 8R-5:

<u>Utilization Use</u> of mineral resource lands can impact habitat, including riparian areas, stream flows, channel habitat structure, and water quality.

areas, stream nows, channel habitat structure, and water quality.		
Goal 8R:	Ensure that mining avoids adverse impacts to the habitat of threatened and endangered fish and wildlife species.	
Policy 8R-1:	Ensure that adequate riparian buffers are maintained along rivers and streams.	
Policy 8R-2:	Ensure proper treatment of wastewater prior to discharge.	
Policy 8R-3:	Provide and maintain best management practices for erosion control to prevent sedimentation.	
Policy 8R-4:	Provide proper storage and containment of hazardous materials, and provide for appropriate on-site spill response and clean-up materials and personnel.	
Policy 8R-5:	Provide for appropriate on-site spill response, containment and	

Policy 8R-6: Allow river bar scalping, except where it would adversely affect spawning or critical habitat areas.

Policy 8R-76: Work with state and federal agencies to develop policies and regulations regarding in-stream gravel extraction to ensure that spawning protected species, essential fish habitat, or other critical habitat is areas are not adversely impacted and that flooding or erosion in surrounding areas is not increased.

<u>clean-up materials and personnel.</u>

Avoid surface mining in the floodplain.

Reason for Change: Expand the language in proposed Policy 8R-6 to include critical areas and protected species with the intent to incorporate Policies 8R-5 & 6, as frequently flooded areas and protected species are regulated through the Critical Areas Ordinance.

# Mineral Resource Lands (MRL) - Designation Criteria **Non-Metallic Mineral Deposits**

General Criteria

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- 1. Non-metallic deposits must contain at least one million-250,000 cubic yards of proven and extractable sand, gravel, or rock material per new MRL Designation.
- Minimum MRL Designation size is tentwenty acres.

Reason for Change: Line 31- Planning Commission Recommendation. See 7-23-15 PC minutes.

- 14 <del>2.</del>3. Expansion of an existing MRL does not need to meet criteria 1 or 2.
- 16 <del>3.</del>4. MRL Designation status does not apply to surface mines permitted as an accessory or conditional use for the purpose of enhancing agriculture or facilitating forestry resource operations.
  - All pre-existing legal permitted sites meeting the above criteria will be designated.
  - The site shall have a proven resource that meets the following criteria: <del>5.</del>6.
    - Construction material must meet <u>current</u> WSDOT Standard Specifications for common borrow criteria for road, bridge and municipal construction, or Whatcom County standards for other uses.
    - Sand and gravel deposits must have a net to gross ratio greater than 80% (1290 cy/acre/foot).
  - <del>6.</del>7. MRL Designations must not be within nor abut developed residential zones or subdivisions platted at urban densities.
- 34 <del>7.</del>8. MRL Designations must not occur within the 10 year zone of contribution for designated wellhead protection areas, as approved by the State Department of Health for Group A systems, and by the Whatcom County Health Department for Group B systems, in accordance with source control provisions of the regulations on water system comprehensive planning. MRL designations may be modified if a wellhead protection area delineated subsequent to MRL designation encompasses areas within a designated MRL. If a fixed radii method is used to delineate a wellhead protection area, the applicant may elect to more precisely delineate the wellhead protection boundary using an analytical model; provided, that the delineated boundary proposed by the applicant is prepared by a professional hydrogeologist; and further provided, that the delineated boundary has been reviewed and approved by the Washington State Department of Health for Group A systems, and by the Whatcom County Health Department for Group B

systems. The hydrogeologist shall be selected by mutual agreement of the county, water purveyor, and applicant; provided, if agreement cannot be reached the applicant shall select a consultant from a list of no less than three qualified consultants supplied by the county and water purveyor.

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MRL Designation should not enclose by more than 50% non-designated parcels.

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9 <del>9.</del>10. Site-specific MRL designations shall only be approved after mineral extraction 10 impacts have been anticipated and evaluated, and potential adverse 11 environmental impacts have been addressed through appropriate mitigation 12 and/or reasonable alternatives.

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14<del>10.</del>11. MRL Designations must be reviewed for internal consistency with other parts 15 of the comprehensive plan so that the MRL designation does not preclude 16 achievement of other parts of the comprehensive plan.

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18<del>11.</del>12. Expansion of MRL Designations to parcels contiguous to, and held by more than 1% common beneficial ownership or beneficial interest with an existing mine, shall require that the existing mine is substantially in compliance with all operating permits and regulations before expansion of the designation will be approved.

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Designation Criteria #10-12 represent the current comprehensive plan language as of 4/14/2015, as amended by Whatcom County Ordinance #2015-016.

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Additional Criteria for Designated Urban and Rural Areas

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29<del>12.</del>13. Abutting parcel size density must not exceed one unit per nominal five acres 30 for more than 25% of the perimeter of the site unless project specific 31 mitigation is created.

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Additional Criteria for Designated Forestry Areas

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35<del>13.</del>14. Must demonstrate higher value as mineral resource than forestry resource based upon:

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• soil conditions.

38 39 40 • quality of mineral resource. sustainable productivity of forest resource.

41 42 Designation Criteria #14 represents the current comprehensive plan language as of 4/14/2015, as amended by Whatcom County Ordinance #2015-016.

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Additional Criteria for Designated Agricultural Areas

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46<del>14.</del>15. Prohibit MRL designations in areas designated Agriculture by the Whatcom County Comprehensive Plan that contain "Prime Farmland Soils" as listed in 1 Table 5, Soil Survey of Whatcom County Area, Washington, U.S. Department 2 of Agriculture Soil Conservation Service. A Goldin (1983).

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## **River and Stream Gravel**

6<del>15.</del>16. MRL Designation status applies to river gravel bars possessing necessary 7 permits and containing significant quality reserves. 8

9<del>16.</del>17. MRL Designation status may apply to those upland sites located in proximity 10 to river gravel sources and used primarily for handling and processing 11 significant amounts of river gravel.

# **Metallic and Industrial Mineral Deposits**

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14<del>17.</del>18. For metallic and rare minerals, mineral designation status extends to all patented mining claims. 15

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17<del>18.</del>19. Mineral Resource Designation status extends to all currently permitted industrial mineral deposits of long-term commercial significance. 18

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20<del>19.</del>20. All other non-patented mineral deposits must meet the non-metallic MRL 21 Designation criteria, numbers 6 through 15, as applicable.

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Designation Criteria #20 represents the current comprehensive plan language as of 4/14/2015, as amended by Whatcom County Ordinance #2015-016.

#### 25 Mineral Resources - Site Selection Method

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1. Sites meeting Mineral Resources Designation Criteria 1-5 (and areas enclosed by these sites greater than 50%).

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30 2. Sites requested by owner or operator meeting designation criteria.

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32 3. Sites that are regionally significant meeting designation criteria.

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Sites adjacent to both roads and other proposed MRL sites meeting 4. designation criteria.

#### 36 **Resource Lands - Action Plan**

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**Agricultural Lands** 

39 Direct the Advisory Committee to review the existing Comprehensive Plan 1. 40 and zoning designations for Agriculture during subarea review to determine whether any adjustments in these boundaries are warranted. The review should include parcels within the Agriculture designation to determine if they 42 43 should no longer be designated Agriculture, and should include parcels in the

Rural designation (and possibly other designations) to determine if they should be designated Agriculture. The review should also include areas outside the immediate Agriculture boundary as available research and data indicate. Designation as "Agriculture Protection Overlay" may be one tool to implement this recommendation.

Reason for Change: APO has been implemented.

2. Direct the Advisory Committee to develop a process that conserves and enhances the Agricultural resource land base.

Reason for Change: Agricultural Strategic Plan in place. See Policy 8A-1.

3. To assist staff and public in evaluating lands for possible inclusion in the Agriculture zone, develop a system such as the LESA (Land Evaluation and Site Assessment) system or a similar mechanism. This system will consider County-wide Planning Policies and Growth Management Act goals for the conservation of the agricultural resource. Other uses for such a system could include:

 Evaluating requests for agricultural land divisions pursuant to the exceptions to the 40 acre minimum parcel size in the Agriculture zone district of Title 20.

• Evaluating applications for Conditional Use Permits for non-agricultural production uses in the Agriculture zone district of *Title 20*.

Reason for Change: These have been done.

4. Establish buffers or setback requirements on non-agricultural lands when they are adjacent to agricultural lands. As a part of this task, establish the quality and type of buffers or setbacks.

Reason for Change: This is accomplished now, either through code or Inter-local agreements (ILAs) with cities.

5.—Implement strategies that reduce negative impacts by agricultural uses on natural systems.

Reason for Change: Policies that support this are present under Goal 8E.

6. Coordinate with the members of the agricultural community when addressing issues that affect agriculture in Whatcom County. Representative entities such as the Whatcom Conservation District, the Natural Resource Conservation Service, the Whatcom County Agricultural Preservation Committee, the Whatcom County Farm Bureau, the Whatcom County Dairy

Federation, the Whatcom County Cooperative Extension Service and other 1 2 agriculture related organizations should be included. Reason for Change: The Agricultural Advisory Committee contains representatives 3 from agricultural community as listed above, and they are consulted on issues that 4 affect agriculture. Also addressed in policy 8C-3. 5 -Support educational short courses which address methods of structuring 6 7 agricultural estates to minimize inheritance taxes; give special emphasis to utilization of Land Trust as a mechanism by which to protect their farmlands 8 9 in perpetuity for agricultural uses by their heirs or other farmers. Reason for Change: See Policy 8C-1. 10 11 -Work with the drainage districts and the Washington State Department of 12 Fish and Wildlife to resolve conflicting interests associated with fish and 13 wildlife habitat. Reason for Change: Created Policy 8E-7 to address this action item. 14 15 -Encourage equity in present tax assessment systems relating to agricultural 16 land use. Reason for Change: Incorporated in current use tax assessment procedures. 17 18 **Forest Resource Lands** Review criteria for Rural Forestry and Commercial Forestry and make 19 1. amendments as necessary in order to conform with the requirements of the 20 Growth Management Act. 21 22 23 Reason for Change: Statutorily required. No need to have as an action item. -Review Title 20.42 (Rural Forestry) and 20.43 (Commercial Forestry) for 24 25 opportunities to provide for compatible, non-forest uses which encourage forest landowners to keep their land in productive forest uses. 26 Reason for Change: Moved to Policy 8F-8. 27 28 -Review Chapter WAC 222-21 for opportunities to encourage and support 29 small landowners to use the Small Forest Landowner Riparian Easement 30 Program. 31 Reason for Change: See Policy 8F-6.

-Review special district boundaries (e.g. fire districts, water districts) for 1 2 conformance with forestry designations and make recommendations to 3 appropriate agencies for adjustments. Reason for Change: Moved to Policy 8F-10. 4 5 5. Establish a comprehensive program of forest land conservation incentives to offer to landowners who wish to keep their land in long-term productive 6 7 forest use. Coordinate this program with private land trusts, state agencies, 8 and federal programs. 9 Reason for Change: See Policy 8F-5. 10 -Adopt a memorandum of agreement with the Washington State Department of Natural Resources outlining the roles and responsibilities of Whatcom 11 12 County and the Department of Natural Resources with regard to regulating 13 forest practice activities in Whatcom County. Reason for Change: Statutory requirement upon compliance with GMA. 14 15 -The County shall adopt standards, by December 31, 2005, for the administration and enforcement of regulations related to Class IV Forest 16 Practice conversion activities in Whatcom County as specified in RCW 17 76.09.240. 18 Reason for Change: Statutory requirement upon compliance with GMA. 19 20 -Develop criteria and best management practices for establishing minimum 21 fire prevention measures for development that takes place outside of a fire 22 district boundary. 23 Reason for Change: Done through 2012 International Wildland-Urban Interface 24 Code. 25 9. Formally review designations of productive forest land to determine if changes are necessary to meet forest land designation criteria. 26 27 Reason for Change: Statutory requirement, reviewed as part of regular update to 28 comprehensive plan.

### **Mineral Resources**

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1.—Investigate the problems associated with inactive and non-permitted mining sites and work with the appropriate government agencies to resolve such problems.

Reason for Change: No indications there are problems, either identifiable by staff or 1 2 the SMAC. 3 -Encourage mineral extraction operators in the county to voluntarily provide 4 resource use information to nearby landowners, and to develop a good 5 neighbor policy. Reason for Change: Moved to Policy 8L-5. 6 7 Make regulatory processes more efficient and timely, while protecting the land use rights of those affected. 8 Reason for Change: See Policy 2D-3, which reads "Streamline development 9 regulations to eliminate unnecessary time delays". 10 11 4.—Implement a surface mining regulatory program, consistent with the comprehensive plan that addresses those areas where there is a conflict 12 between land uses. Maintain an ongoing advisory committee consisting of 13 representatives of diverse interests. 14 15 Reason for Change: See WCC 20.73 MRL regulations that implement MRL designations. 16 17 -Develop and/or implement standards that optimize the life cycles of roads, 18 bridges, and buildings, favoring durability over low, initial cost. Such standards can include improved road sub-base preparation (better 19 compaction), thicker road bases, reinforcement, alternative materials, and 20 concrete surfaces for some applications. 21 22 Reason for Change: Delete. Road standards are tied to WSDOT specifications and sometimes Federal grant requirements. 23 24 6.—Encourage the use of alternative materials through educational programs. Reason for Change: See Policy 8J-2, which reads "Support the use of new 25 technology and innovative techniques for extraction, processing, recycling and 26 reclamation. Support recycling of concrete and other aggregate materials. Support 27 the efficient use of existing materials and explore the use of other materials which 28 29 are acceptable substitutes for mineral resources. 30 7.—Develop a program for use of alternative methods and materials in County 31 projects. 32 Reason for Change: See Policy 8J-2 (referenced above in Action Item #6)

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- 8. The Mineral Resource Land map designations and/or designation criteria should be reviewed at least once every seven years to determine if changes are necessary to meet mineral resource goals and policies. Such review should include consideration of the removal of land from Mineral Resource Designation after mining activity is completed and the addition of new designations in order to maintain a 50-year supply of mineral resources. Review may occur through subarea plan updates provided a complete review will occur within the seven year time frame.
- Reason for Change: Statutory requirement, reviewed as part of regular update to comprehensive plan. See Policy 8Q-6.
  - 9.—Investigate and implement methods to reduce inefficient uses of high quality gravel deposits.
- Reason for Change: See Policy 8J-2 (referenced above in Action Item #6).
- 14 10. Budget for and update the Aggregate Resource Inventory study to document
   15 the short and long range availability and location of quality mineral resources, to be completed by 2010.
- 17 Reason for Change: In process and to be completed by December 31, 2014.
- 18 11. Support and encourage legislation streamlining regulatory processes and other actions to encourage appropriate utilization of gravel from the Nooksack drainage as a resource where appropriate and a method to stabilize and/or reduce flooding events and/or reduce the loss of agricultural land to erosion.

Reason for Change: See Policy 8P-7 (Support the use of gravel from tributary streams for flood hazard control, provided environmental impacts are fully addressed.) and 8P-9 (Work with other jurisdictions and related agencies to reduce or eliminate redundant regulations, streamline the permitting process, and provide greater opportunities for appropriate river gravel extraction to enhance other important resources, specifically agricultural).