



PLANNING & DEVELOPMENT SERVICES

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MEMORANDUM

To: Skagit County Planning Commission
From: Planning & Development Services Staff
Date: February 20, 2007
Re: Deliberations on 2005 GMA Update: Mineral Resource Overlay (MRO) Mapping

This memorandum is intended to help guide the Planning Commission through deliberations on the proposed update to the Mineral Resource Overlay (MRO), and associated MRO map amendment proposals. This is the last of a series of memos provided in advance of Planning Commission deliberations on map amendments in the following categories:

- ✓ ~~Rural~~
- ✓ ~~Urban Growth Areas (UGA)~~
- ✓ ~~Agricultural NRL (Ag-NRL)~~
- ✓ ~~Open Space of Regional/Statewide Importance (OSRSI)~~
- ✓ ~~Rural Resource NRL (RRc-NRL)~~
- ✓ ~~Forestry~~
- ✓ ~~Master Planned Resort (MPR)~~
- Mineral Resource Overlay (MRO)

Supplementary memos may follow if needed. Otherwise, following these mapping deliberations the Department will work with the Planning Commission to compile its findings and recommendations into a formal recorded motion document to be forwarded to the Board of County Commissioners.

As with previous memos, this memorandum supplements the individual map amendment pages in the *Integrated SEPA/GMA Report*, February 17, 2006. It provides additional information and analysis, as necessary, to address issues raised in public testimony and correspondence during the public comment period, and seeks to identify and elaborate on the key factors that result in a recommendation either for approval or denial. The "Department Recommendations" below either hold to the original (February 17, 2006) recommendation, or reverse/modify the recommendation where new information or changes in circumstances warrant a different recommendation. Also included are recommendations on MRO map amendment proposals made during the public comment period. For efficiency, the analyses of the various amendment proposals focus on the key decision points, not all applicable Comprehensive Plan designation criteria. See the *Integrated SEPA/GMA Report*, February 17, 2006, pages 70-72, and on page 45, paragraphs 3 & 4, for more detail.

Please note: All Comprehensive Plan citations correlate to the *Draft Comprehensive Plan*.

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Memo Organization and Attachments

The analyses and recommendations below are included in 4 parts:

1. Summary and recommendations regarding adoption of the proposed county-wide Mineral Resource Overlay map update. Map of proposed county-wide MRO enclosed.
2. February, 2006 MRO map-amendment proposals submitted by members of the public in 2004. Supplementary maps are included as Attachment A.
3. Responses to MRO map-amendment requests made during the public comment period between February 17 and April 18, 2006. Supplementary maps are included in Attachment B.

Important Considerations

- The Growth Management Act requires the designation of agricultural, forest, and “*mineral resource lands that are not already characterized by urban growth and that have long-term commercial significance for the extraction of minerals...*” (RCW 36.70A.170(c)). Further, RCW 36.70A.131 requires that the County include in its update “*new information made available since the adoption or last review of its designations or development regulations, including data available from the department of natural resources relating to mineral resource deposits...*”. The expanded Mineral Resource Overlay is the result of a methodic and careful consideration of Comprehensive Plan designation criteria consistent with the above requirements. Skagit County’s MRO policies are intended to ensure that *all* mineral resources of long-term commercial significance are designated now and for the long term, before encroaching development precludes such designation in the future.
- The proposed, February 17, 2006, Mineral Resource Overlay is the result of a scientific and systematic county-wide process of identifying and confirming deposits of commercially significant mineral resources, applying land-use designation factors, comparing the resulting draft map with site-specific map-amendment proposals and, finally, removing from the map portions of the existing MRO that were not verified through the update process.
- The foundation of the proposed MRO is existing scientific and technical data. Using published sources first, rather than recollections or personal preferences, provides an objective starting point for the subsequent evaluation of submitted MRO requests and other sources of information.
- Map requests are not initially viewed as proof of the presence or absence of minerals, but are nevertheless an integral part of the designation process. They are viewed as an opportunity to incorporate local knowledge, and to point to potential gaps or errors in the geologic data. Map requests can also be viewed as indicators of market demand, and therefore, the “commercial significance” of a particular category of minerals.

- The process used to update the Mineral Resource Overlay is described in the February 17, 2006 *Integrated SEPA/GMA Report*. The Department's geologist will be on hand during deliberations to answer questions relating to the process and the underlying geologic data, if necessary. These maps and data are available for viewing in the Department prior to deliberations.
- Requests to remove the MRO from either specific or area-wide locations are no less important in the designation process. However, the Growth Management Act requires designation. Personal preferences simply cannot be assumed to automatically trump that mandate. But the designation criteria includes several measures to constrain the MRO as much as possible in order to balance competing interests.
- Where the existing (currently adopted) MRO does not correspond to the proposed new MRO, such areas will be removed. Underlying zoning will be retained unless otherwise noted.
- Certain locations exist where, historically, areas of higher (than 1 dwelling unit/10 acres) densities lie adjacent to existing mines or quarries, or a designated MRO area. To a very limited extent, Skagit County has found such relationships unavoidable, and has therefore allowed for the designation of the MRO where separation of the two pre-existing uses would be impractical or impossible (e.g., Fidalgo Island (Havekost Rd), south of Mount Vernon (Pleasant Ridge area), and other areas).
- In regulatory terms the MRO does not change the allowed uses, dimensional standards, or other requirements of the underlying zoning. Rather, it adds a set of permitted uses, and a layer of additional regulations relating to those uses. Whether the property is used for mining, forestry, farming, or other allowed uses is up to the property owner. However, the presence of the MRO can affect the ability of a Rural Reserve property owner to receive a Conservation and Reserve Development (CaRD) subdivision density bonus. This provision has been in effect since the adoption of the CaRD policies and regulations. Restricting the densities surrounding the MRO as to 1 dwelling unit/10 acres is a key factor in reducing the potential for land-use conflicts to the extent possible.
- New mining is not allowed outside of the MRO. Mineral Resource Overlay policies and regulations, perhaps more than any other zoning designation, strike a careful balance between several competing goals. Maintaining an average density of 1 dwelling unit/10 acres within 1/4 mile of the MRO is a key factor in reducing the potential for conflicts to the greatest extent possible. The potential for conflicts in the Rural Reserve and Rural Intermediate areas is greater than in areas of lesser density. Skagit County mining regulations (SCC 14.16.440) allow pre-existing, permitted mining operations in the rural area to continue, and to expand to the limits of the mined parcel. However, Rural Reserve landowners wishing to be designated MRO may request so through the annual Comprehensive Plan amendment process. Suitability of the site for designation would be determined through review of designation criteria, along with public, agency and planning commission review.
- During deliberations on September 12, 2006, the Planning Commission considered, but did not take action on, the question of whether mining should be allowed in Rural Reserve. Instead, the Planning Commission deferred the matter to later policy discussions. In later deliberations, on

November 14, the Planning Commission again took up the matter of whether some level of mining should be allowed in the rural area. Of particular concern to some members is the fact that there are valuable mineral resources in rural areas that will remain inaccessible, and the attendant economic development opportunities will be lost, because of the restriction on mining outside the MRO. However, a motion to remove the restriction on mining outside the MRO was defeated. Most Planning Commissioners were not opposed to considering the possibility, but reasoned that the complexity and potential implications were beyond what could be considered during these deliberations. Therefore, the Planning Commission approved a motion recommending that the question of mining in the rural area be taken up as a trailing issue.

- Skagit County’s MRO policies and regulations work in concert with other jurisdictions’ requirements to ensure that when and where mining does occur, stringent development regulations, standards, procedures, and other measures are employed to minimize and mitigate the impacts of mining to the greatest extent possible.
- The Mineral Resource Overlay may include critical areas and other sensitive lands. As is the case in designating agricultural and forest lands, the MRO is applied according to the characteristics of the land, in broad terms, to produce commercially significant natural resources. The MRO is neither a guarantee that mining will occur, nor a permit to do so. Rather, it is a recognition of the existence of commercially significant resources, and a tool for protecting those resources from the encroachment of higher-density and potentially conflicting uses. Whether mining is feasible in certain areas within the MRO is a question asked and answered during the public, agency and environmental review of a particular mining permit application, and in compliance with all applicable regulations. Mining is not necessarily large in scale; it can be limited and selective. Therefore, it is unreasonable to assume, for instance, that because a stream runs through an MRO area, that the entire area is off limits to mining, and the impacts of mining, of whatever size, cannot be mitigated.
- The MRO is not created equal – meaning that no two mineral deposits are likely the same. There are many variations in the types of minerals, the quality and quantity available, and the typical uses of the various deposits. Therefore, it is not correct to view “the MRO” as a monolithic quantity of a single type of mineral, nor is it correct to assume that because of the aerial extent of the MRO, the County has designated “too much” resources. Market demand, distance to market, the availability and location of a particular type of resource, and the choices made by an MRO landowner all play a role in what is mined and when.

The Updated Mineral Resource Overlay

The Department recommends adoption of the updated Mineral Resource Overlay. In addition to the above considerations, the reasons and rationale for proposing this update are stated in the *Integrated SEPA/GMA Report*, February 17, 2006, pages 70-72, and on page 45, paragraphs 3 & 4.

A note on procedure: Unique to these MRO mapping deliberations is that an entire Comprehensive Plan/Zoning district is proposed to be updated. But the Department is recommending a number of modifications to the original proposal. It is therefore important to keep in mind that after a vote is

taken on each of the site-specific proposals below, a final vote will be needed to adopt the proposed Mineral Resource Overlay “as modified during these proceedings,” or something to that effect.

February, 2006 MRO Map Amendment Proposals

CPA05-12 (Unimin Corporation)

Department Recommendation:

Affirm the original recommendation: **Approve**

Summary of Proposal:

The applicant requests that specific olivine/dunite deposits be recognized and designated under the MRO.

Analysis:

The area proposed for designation is remote, of low density and limited access. The applicant mines industrial minerals, specifically olivine, which was inadvertently omitted from the MRO.

Conclusion/Recommendation:

The proposed MRO now recognizes olivine/dunite deposits. The proposed area for designation includes commercially significant industrial minerals that are mined and processed locally. Designation is warranted.

CPA05-18 (Keith Johnson)

Department Recommendation:

Affirm with the original recommendation: **Approve, but limit to County-proposed MRO** as shown in Attachment A, supplementary map CPA05-18.

Summary of Proposal:

The applicant requests the addition of MRO to approximately 215 acres of contiguous parcels, west of the Cascade Ridge development and surrounding Ten Lake¹. The applicant wishes to

¹ The applicant subsequently expressed an interest in converting the subject area to residential development (correspondence, page 914). The Department found that the “applicant would have to demonstrate, for one, that the land is no longer suitable for the growing and harvesting of trees, or the production of mineral resources. Nothing in the record supports the conversion of this property to non-resource use.” The Planning Commission, during deliberations on February 13th, upheld the Department’s recommendation to take no further action on the request.

protect deposits of metavolcanic greenstone, “highly desired by the Army Corp for bulkhead and dike revetment work due to its soundness and resistance to block degradation.”

Analysis:

The Department’s geologist agrees with the applicant’s assessment of the high quality and quantity of the onsite resources, and has confirmed the presence of large basaltic outcrops through field verification. Surrounding parcel density is below 1 unit per 10 acres within 1/4 mile from the nearest residential development and is approximately 3/4 of a mile from the Mount Vernon city limits. Access to the site is via the Cascade Ridge residential development to the west. An environmental checklist submitted by the applicant indicates that “[f]or a limited production quarry, this access may be used,” but proposes that “an alternative access, not yet identified, would be built for any substantial mining proposal.”

The County received more correspondence in opposition to this MRO proposal than for any other.² The applicant, upon submittal, predicted the likelihood that residents of the Cascade Ridge development would oppose MRO designation, but offered that the subject property is more remote, in relation to the subdivision, than the existing quarry operation to its north. An analysis submitted by the applicant shows two conceptual quarry areas that are each over 1/4 mile from the nearest portion of the Cascade Ridge subdivision.

The applicant acknowledges that “if the site were actually permitted, there would be impacts typical of normal quarry operations,” and that “exhaustive studies” would be required to assess impacts to traffic, noise, dust, groundwater, surface water, aesthetics, blasting and vibration.

The quality and quantity of the resources, and characteristics of this subject property qualify it for designation (see “County-propose MRO” below). The general land-use pattern and remoteness of the subject property reduce the potential for land-use conflicts. The Department agrees with the applicant’s own assessment that impact assessments would be required if and when mining is pursued. The requirements of Skagit County Code – particularly regulations relating to mining, special-uses, critical areas, transportation, public health, and SEPA multi-agency review and permitting – ensure that the appropriate conditions will be applied, should a permit be approved.

County-proposed MRO: Designation of the all but the northwest 40 acres of the subject property is warranted. Also, designation of County-proposed areas lying outside the subject property should be limited. Mining in the area north of the subject property is impractical due to the existence of a 1/2-mile-wide “bottleneck” of developed Secondary Forest-NRL parcels between two developed areas. MRO designation criteria allows for the establishment of an MRO adjacent to Rural Reserve. But because of the proximity of the Cascade Ridge development to ongoing mining to its north, adding the potential for new mining within 1/4 mile of the development would, in the Department’s view, place an unreasonable expectation on the development to coexist with neighboring mineral resource activities. These considerations outweigh the County’s mandate to protect the mineral resources in this 1/4-mile wide area.

² Please re-read public correspondence at pages 56, 592, 766, 797, 1034, 1035, 1042, 1105, 1107, 1271, 1272, 1350, 1359, 1370, 1377, 1378, 1379, 1380, 1381, 1382, 1674, 1743, 1777, and 1786.

Conclusion/Recommendation:

Designation to MRO is warranted for a portion of the subject property, and for the County-proposed MRO extending east and south. However, even though previously determined to be suitable for forestry, the area north and west of the subject property is not suitable for MRO designation due to pre-existing land-use constraints. See Attachment A, map CPA05-18.

CPA05-24 (Nancie Elwick-Scott) [See also: CPA05-31, CPA05-32, and CPA05-34]

Department Recommendation:

This proposal is addressed as part of CPA05-31

CPA05-29 (Trillium Corporation)

Department Recommendation:

Affirm the original recommendation: **Approve**

Summary of Proposal:

The applicant requests the expansion of an existing, approximately 40-acre area of MRO over the remainder of a 160-acre property to preserve deposits of high-quality aggregate for future use. A geologic report is included.

Analysis:

The property is predominantly composed of Darrington Phyllite, marketable as fill material, with veins of high-quality metavolcanic basalts meeting WSDOT specifications for road, bridge and municipal construction. Geologic reports estimate 8 million tons of metavolcanic basalts in veins throughout 20% of the subject property. The subject property is surrounded on 4 sides by 40-acre Rural Resource-NRL parcels, on the southeast corner by a 20-acre Rural Reserve parcel, and on the southwest by a subdivision of approximately 5-acre Rural Reserve parcels. An applicant-submitted geologic report and conceptual mining plan shows a more-than 1/4-mile separation from the residential area, and alternate access from the northwest corner of the property.

Conclusion/Recommendation:

Low surrounding parcel density and presence of marketable aggregate material warrant extension of the MRO in this area.

CPA05-31 (Day Creek Sand & Gravel); CPA05-24 (Nancie Elwick-Scott); CPA05-32 (Russell & Georgann Johnson); and CPA05-34 (Judy Anderson)

Department Recommendation:

Affirm the original recommendation: **Approve**

Summary of Proposal:

Applicant proposes to expand the MRO surrounding an existing designated area to encompass an approximately 85-acre unit of glacial sand and gravel.

Analysis:

The proposal incorporates portions of CPA05-32 & 34. Because the proposed area lies within a larger area of proposed new MRO, these requests are combined. The proposed area is a terrace formation containing a very high quality and quantity of sand and gravel. Existing mining in the area produces construction and concrete aggregate sand. The subject properties lie within a larger region of proposed MRO.

Conclusion/Recommendation:

This area lies within a larger area recommended for designation to MRO. Approving the proposed MRO will also approve this proposal.

CPA05-32 (Russell & Georgann Johnson) [See also: CPA05-24, CPA05-31, and CPA05-34]

Department Recommendation:

This proposal is addressed as part of CPA05-31

CPA05-34 (Judy Anderson) [See also: CPA05-24, CPA05-31, and CPA05-32]

Department Recommendation:

This proposal is addressed as part of CPA05-31

CPA05-36 (Robert & Nancy Tiffany; See: CPA05-37)

Department Recommendation:

This proposal is addressed as part of CPA05-37

CPA05-37 (Carl Loeb); CPA05-36 (Robert & Nancy Tiffany)

Department Recommendation:

Affirm the original recommendation to deny request for Rural Intermediate. Instead, **Approve County Alternative**, as proposed in the *Integrated SEPA/GMA Report*, to **designate to Rural Reserve** and **Remove MRO**.

Summary of Proposal:

Applicant proposes to redesignate approximately 70 acres (including CPA05-36) from Rural Resource-NRL/MRO to Rural Intermediate. Applicant points to existing parcel density of 3 acres and the predominately residential, non-resource use of the area.

Analysis:

The area contains glacial-marine sediments, similar to what is mined on adjacent parcels to the northeast and within the City of Mount Vernon. However, the Department agrees that existing parcel densities and uses preclude future access to these resources. The Department does not agree that the existing parcel density warrants a redesignation to Rural Intermediate, and finds that infill at Rural Intermediate densities may increase the potential for land-use conflicts with the neighboring resource operation.

Conclusion/Recommendation:

Parcel densities and uses warrant redesignation from Rural Resource-NRL/MRO to Rural Reserve.

CPA05-45 (3dh Aggregates); CPA05-106a (Goodyear-Nelson Hardwood), and SC05-37 (Skagit County) Combined

Department Recommendation:

Affirm the original recommendations for all three requests: **Approve**

Summary of Proposals:

CPA05-45: The applicant requests the redesignation of approximately 40 acres of Rural Reserve to Rural Resource-NRL/MRO to recognize the existing use of the property.

CPA05-106a: The applicant requests the addition of MRO to an 80-acre parcel of Rural Resource-NRL to allow for the permitting and extraction of sand and gravel resources.

SC05-37: This is a County-initiated proposal to redesignate approximately 38 acres of Rural Reserve to Rural Resource-NRL/MRO to appropriately designate existing sand and gravel resources, and to provide for a contiguous block of Rural Resource-NRL/MRO zoning.

Analysis:

CPA05-45 currently contains a Department of Natural Resources reclamation permit for a gravel mine, which has been in existence since 1978. The parcel lies south adjacent to a WA Department of Transportation gravel pit and is accessed from SR-20. Two 20-acre wooded and unimproved parcels lie to the east (SC05-37). The northern of these two parcels contains a shut-down gravel pit and solid-waste transfer station. Next, to the east, is an 80-acre wooded and unimproved parcel (CPA05-106a). There is a 20-acre wooded and unimproved parcel adjacent to the west, and to 28-acre wooded and unimproved parcel to the south. Three, approximately 5-acre parcels with single-family residences lie adjacent to the southwest, the nearest of which is approximately 1000 feet from the closest perimeter of the existing mine. Access to all three properties is off SR-20.

A certified geologist's report for this property (CPA05-45) indicates a "substantial volume" (approx. 3 million cubic yards) of "highly desirable" and marketable glacial outwash sediments. Skagit County data confirms similar deposits for the 3-parcel area.

Conclusion/Recommendation:

This proposal, combined with CPA05-106a and SC05-37 amount to approximately 160-acre block of land containing high-quality glacial outwash sediments, which are mined from the area and marketed locally. Historic uses, current permits, low surrounding density, ready access to SR-20, logical boundaries to existing RRC-NRL, and confirmed geological data support approval of all three requests (CPA05-45, CPA05-106a, and SC05-37).

CPA05-68 (Sharon & Allen Hemmat) CPA05-69 (Andrea & Dell Needham)

Department Recommendation:

Affirm the original recommendation for both requests: **Deny** removal of MRO. Note: The February, 2006 "Preferred Alternative" draft Comprehensive Plan land-use/zoning map depicts a proposed 1/4-mile separation between the Lake Sixteen development and the subject property. Approval of the proposed MRO will also approve this proposed separation.

Summary of Proposal:

Applicants CPA05-68 and CPA05-69 request removal of the MRO from a parcel of land (P17162), not owned by the applicants, and in the vicinity of the applicant's residences.

Applicants oppose mining on the subject property, citing community [Lake Sixteen] concerns over "quality of life issues, environmental issues, incompatibilities, dangers to the safety of school children and negative impacts to all residents of this community...". Applicant asserts that the Skagit County Hearing Examiner "determined that the site was incompatible with existing and planned land use, and posed negative impacts that could not be mitigated to the land, water, air,

wildlife and members of this community.” The applicant credits the “extensive testimony” of “community members, organizations, [the] school superintendent, school board members, lawyers and other witnesses detailing the unique characteristics of this area and why the site should not be allowed a permit under any circumstances.”

Applicants further state the parcel “has had sufficient safety/ traffic/ noise/ health/ groundwater/ fisheries/ buffer issues in regards to being mined...that it should never have been deemed appropriate [for MRO].” Applicants also assert that in light of the fact that Skagit County has permitted residential development “within the MRL [sic] buffer zone,” and “the increased traffic volume on SR534 and additional school enrollment...[the parcel] does not meet the GMA requirements for [MRO] designation.”

Analysis:

A previously-denied permit does not negate the presence of commercially viable mineral resources, nor does it undo the mandate to designate these resources according to GMA-compliant designation criteria. Moreover, a denial of a permit does not preclude the opportunity for a landowner to comply with applicable laws in the future. If anything, a denied permit demonstrates the effectiveness of the regulatory process in protecting public health and safety, and affirms the notion that zoning does not guarantee that permits will be issued. Mine owners and operators are responsible for complying with applicable regulations, permits, and the conditions placed on those permits.

The subject parcel is currently zoned Secondary Forest-NRL, with a surrounding parcel density of 42.65 acres. Access is directly from SR-534. The site contains commercially significant glacial outwash sand and gravel sediments. There is an existing mining pit on the northern half of the property. The current MRO on the site falls within 1/4 mile of the neighboring Lake Sixteen development, but the proposed MRO includes the removal of a portion of the MRO from the subject property to maintain a 1/4-mile separation. However, any mining activity currently permitted within the proposed 1/4-mile separation area would be allowed to continue and expand to the limits of the property boundary, subject to applicable buffers and other regulations, as well as any conditions placed on such a permit. No new mining permits will be allowed in this area.

Conclusion/Recommendation:

Existing resources, surrounding parcel densities, access and current use of the property warrant continued designation as MRO. A 1/4-mile zoning separation from the neighboring Lake Sixteen development, as proposed on the Preferred Alternative map, should be maintained and approved along with the county-wide MRO.

CPA05-69 (Andrea & Dell Needham; See: CPA05-68)

Department Recommendation:

Combined with CPA05-68

CPA05-106a (Goodyear Nelson Hardwood)

Department Recommendation:

This proposal is addressed in CPA05-45 above

CPA05-106b&c (Goodyear Nelson Hardwood)

Department Recommendation:

Affirm the original recommendation: **Approve**

Summary of Proposal:

The applicant requests retention of the MRO designation on a 40-acre parcel of Industrial Forest-NRL, and full coverage of MRO on an 80-acre parcel of Secondary Forest-NRL.

Analysis:

The subject parcels are within the proposed MRO. The subject property is surrounded on three sides by parcels 400 to 440 acres in size, and to the north by a 38-acre parcel, and the Presentin Creek Wilderness Subdivision. Contact with the adjacent subdivision is limited to 2 parcels fronting 75 feet along the northern property line. The parcels and surrounding area contain marketable glacial outwash sediments. Access to the property is via logging roads to the east.

Conclusion/Recommendation:

The MRO and adjacent residential lots have historically existed in close proximity. Limited frontage, required buffers between adjacent properties and around Presentin Creek, and alternate access routes minimize potential conflicts. Approval of the MRO will also approve this request.

SC05-37 (Skagit County; See also CPA05-45 and CPA05-106b&c)

Department Recommendation:

This proposal is addressed in CPA05-45 above

Response to Public Comments: MRO Map Amendment Requests

The following is a summary, by the Department's geologist, John Cooper, of the field verification reports for each of the letters submitted to Planning and Development Services concerning the proposed updates to the mineral resource overlay.

Letter, page 14, submitted by Marjorie Anderson, questions the validity of the proposed MRO map in the Skagit River valley floor north of the Cascade River Road. Field verification indicated that some sand and gravel deposits in this area. However the silt content (fines) in the deposits are highly variable ranging from 5% to in excess of 50%. Although there are some good economic sand and gravel deposits in the area, the overall quality of the resource is poor. The Department recommends that this area NOT be designated to MRO. (See Attachment B)

Letter, page 52, submitted by Ruth Aven, indicated that that mineral resources are present on the subject site, and wishes to have her property added to the MRO. Field verification indicated that an outcrop of what appears as Phylite (Darrington Phylite) is present on the subject site. The rock appears as a moderately well indurated (hard) metamorphosed sedimentary rock which may be suitable for use as road base. The outcrop appears of sufficient size for small scale commercial mining and vehicle access to the area is good. The area is currently designated MRO. The Department now finds that this site should retain its MRO designation. (See Attachment B)

Letter, page 336, submitted by Gertrude & David Cochran, questions the validity of the MRO map indicating the presence of mineral resources located east of the intersection of Lake Cavanaugh Road and Grandstrom Road. Field verification indicated that the surface soil in the area is of very high clay and silt content which is not suitable for sand and gravel extraction. Although the high silt content precludes mining, boring logs of the area indicate sandstone may be present at a depths ranging to 30 feet +/- . However, information is not available which verifies the suitability of the sandstone for mining operations. The Department recommends removal of the proposed MRO as shown in Attachment B.

Letter, page 344, submitted by James Cook, indicates that mineral resources are present on the subject site, and that the MRO should be retained. Field verification indicated that an outcrop of what appears as andesite is present on the subject site in addition to sand and gravel deposits. Although the sand and gravel deposits appear limited, the outcrop appears of sufficient size for small scale commercial mining. The subject property is adjacent to an area of Rural Intermediate, but finds that his proximity to be pre-existing and unavoidable. The Department recommends retaining the property in MRO. (See Attachment B)

Letter, page 895, submitted by Homer Hughes, indicated that the proposed MRO map excluded his property as a mineral resource and that mineral resources are present on the subject site located in the Skagit Valley near Hamilton. Mr. Hughes wishes to have his property added to the MRO. Field verification indicated that some sand and gravel deposits in this area but appear limited to a geologic terrace formation on the northern portions of the parcels. The majority of the area owned by Mr. Hughes, adjacent to Highway 20, appears to have a high silt and clay content resulting in a poor sand and gravel resource. The Department does not recommend MRO designation. (See Attachment B)

Letter, page 981, submitted by William and Nancy Joy, questions the validity of the MRO map indicating the presence of mineral resources in the Skagit River valley floor east and adjacent to Grandy Creek. Field verification indicated that the surface soil in the area is of very high clay and silt content which is not suitable for sand and gravel harvest. The Department recommends removal of the proposed MRO from the subject properties. (See Attachment B)

Letter, pages 984 and 1022, submitted by David Cohen, are addressed above (see Letter, page 14).

Letter, page 1016, submitted by Michael Larson, indicated that mineral resources are present on the his property, and wishes to be added to the MRO. Field verification indicated that abundant sand and gravel deposits are present on the subject site and the volume of the deposit is of sufficient size for commercial mining. However, the property owner is currently permitted to mine, and may continue to do so, subject to the conditions of his permit. The Department does not recommend MRO designation. (See Attachment B)

Letter, page 1105, submitted by James Murphy, requests that the MRO be removed from his property and surrounding area, on the Sauk River valley floor near the Skagit-Snohomish County border, to allow for an additional development right as part of a CaRD subdivision. Field verification indicated that commercially significant sand and gravel deposits are present in this area. The Department recommends designating the MRO as originally proposed. (See Attachment B)

Letter, page 1114, submitted by Sam Nersten, requests that the MRO be removed from his property, and the surrounding area, near the southeast end of Big Lake on SR-9. Field verification of neighboring properties indicated that abundant sand and gravel deposits are present on the subject site. The Department recommends designating the MRO as originally proposed. (See Attachment B)

Letter, page 1211, submitted by Cunningham Crushing, indicated that the proposed MRO map excluded their property as a mineral resource and that mineral resources are present on the subject site. Field verification indicated that abundant sand and gravel deposits are present on the subject site and the volume of the deposit is of sufficient size for commercial mining. The Department recommends designating the MRO as originally proposed. (See Attachment B)

Letter, page 1213, submitted by Herbert & Grace Payne, indicated that the proposed MRO map excluded his property as a mineral resource and that mineral resources are present on the subject site. Field verification indicated that the surface soil on most of the property is of high clay and silt content which is not suitable for sand and gravel extraction. The little resources that do exist on the northeastern edge of the property are not sufficient to warrant retaining the MRO designation on such a small portion of the subject property. The Department does not recommend MRO designation. (See Attachment B)

Letter, page 1354 (see response to letters on pages 14 and 984).

Letter, page 1436, submitted by Charles Shaw, a retired geologist, indicated that the proposed MRO map excluded his property, east of Big Lake, as a mineral resource and that mineral resources are present on the subject site. Field verification indicated that a large basaltic-andesite outcrop is present

on the subject site which would be suitable for extraction and crushing. The Department recommends retaining the MRO in the area shown in Attachment B).

Letter, page 1758, submitted by Andrea Torland, questions the validity of the MRO map indicating the presence of mineral resources in the Lake Tyee recreational development area. Field verification indicated that some sand and gravel deposits are present in this area. However, the silt/clay content (fines) in the deposits are highly variable ranging to in excess of 50%. These resources do not appear suitable for commercial mineral extraction. Areas to the northwest and to the southwest around Grandy Lake are of similar low quality. The Department recommends removal of the proposed MRO as shown in Attachment B.

Letter, page 1764, submitted by Shamrock Lands, indicated that the proposed MRO map excluded their property as a mineral resource area and that mineral resources are present on the subject site. Field verification indicated that abundant sand and gravel deposits are present on the subject site and the volume of the deposit is of sufficient size for commercial mining. The MRO is proposed to be removed in this area due to the proximity to Rural Intermediate and increasing residential development south of SR-20. The Department recommends that this area be removed from the MRO as proposed. (See Attachment B)

Letter, page 1820 (see response to letters on pages 14 and 984).