Re-issued and Revised
Squalicum Ridge Road
Mitigated Determination of Non-significance (MDNS)
SEPA 2008-00063

File: SEP2008-00063

Project Description: The construction of a road to serve future residential home construction on up to on up to 28 existing 20-acre residential properties currently located in the Rural Forestry zone. The proposed private road would require clearing and grading for roughly 10,300 linear feet of roadway. The total project impact area (clearing) produced by road construction would be approximately 11.05 acres in size.

Proponent: CLN LLC, Christopher and Nancy Secrist, Gordon and Carol Iverson

Location: The proposed project lies northerly and approximately 2 miles east of the intersection of Academy Road and Northshore Drive on Squalicum Mountain.

APN #: 380324 066302, 380324 066366, 380324 066432, 380324 200432, 380324 200495, 380324 200366, 380324 200302, 380313 094020, 380313 027119, 380313 083119, 380313 066230, 380313 229052, 380313 277058, 380313 319056, 380313 333111, 380313 466495, 380313 491440, 380313 496386, 380313 481336, 380313 472289, 380313 137128, 380313 211152, 380313 333171, 380313 333231, 380313 355328, 380313 295341, 380313 368452, 380313 307476, 380313 261171, 380313 261121, 380313 263100.

Lead Agency: Whatcom County Planning and Development Services

Zoning: Rural Forestry (RF) Comp Plan: Rural Forestry

Facts and Findings:

Whatcom County Planning and Development Services (PDS) issued a Mitigated Determination of Non-Significance (MDNS) on January 8th, 2009 for the proposal as described above. Following the issuance of the MDNS, Whatcom County PDS received comments regarding the project proposal and the mitigating conditions. Whatcom County PDS officially withdrew the original MDNS on January 30th, 2009

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1 This is a re-issued MDNS to address all of the comments submitted based on the January 8th, 2009 issuance of an MDNS on the same proposal. The original MDNS was officially withdrawn on January 30th, 2009. The list of parcel numbers has also been revised, to include all parcel numbers associated with the project to be consistent with WAC 197-11-060 (3) and (4).
to reassess mitigation needs and to do additional investigation into potential environmental impacts, including cumulative impacts.

The original SEPA determination took into context the description as identified on the SEPA checklist. This description is for the construction of approximately 10,300 linear feet of roadway to access 28 existing 20-acre residential properties located in the Rural Forestry zone in Whatcom County. After reassessing the mitigation needs and doing additional investigation into the environmental impacts, Whatcom County acknowledged that the original MDNS did not adequately address the environmental impacts and the full scope of the project. With the inclusion of environmental review to all residential construction on the 28 existing lots of record that have the ability to be accessed off of the proposed road and a mitigating condition requiring future environmental review if other users are added to the proposed road, Whatcom County PDS believes that the SEPA review of the proposal is consistent with WAC 197-11-060(3)(b), which states:

(b) Proposals or parts of proposals that are related to each other closely enough to be, in effect, a single course of action shall be evaluated in the same environmental document. (Phased review is allowed under subsection (5).) Proposals or parts of proposals are closely related, and they shall be discussed in the same environmental document, if they:
(i) Cannot or will not proceed unless the other proposals (or parts of proposals) are implemented simultaneously with them; or
(ii) Are interdependent parts of a larger proposal and depend on the larger proposal as their justification or for their implementation.

And WAC 197-11-060(4) which provide:

(c) Agencies shall carefully consider the range of probable impacts, including short-term and long-term effects. Impacts shall include those that are likely to arise or exist over the lifetime of a proposal or, depending on the particular proposal, longer.
(d) A proposal's effects include direct and indirect impacts caused by a proposal. Impacts include those effects resulting from growth caused by a proposal, as well as the likelihood that the present proposal will serve as a precedent for future actions.

With the corrected scope of the proposal indentified, additional mitigating conditions were developed to sufficiently mitigate for the probable adverse environmental impact, including cumulative impacts.

Based on the Lake Whatcom Watershed Total Phosphorus and Bacteria Total Maximum Daily Loads (TMDL), Washington State Department of Ecology Publication No. 08-03-024, November 2008, Phosphorus loading is the main cause of Lake Whatcom's documented low-oxygen level problem. Although Phosphorus occurs naturally, development increases phosphorus entering the lake in stormwater. Roofs, driveways, loss of tree canopy, exposed soil, and lawns interrupt the absorption and filtration provided by forest and soils, instead sending phosphorus-laden stormwater into the lake. This phosphorus transferred from runoff and other means, feeds algae growth, which depletes dissolved oxygen that
fish and other beneficial aquatic life need to survive. When dissolved oxygen levels are low, phosphorus is released from lake sediment and re-enters the water, continuing the cycle. The dissolved oxygen levels is a main contributing factor in Lake Whatcom being listed on Ecology's 303(d) list of impaired water bodies.

The following conclusions were drawn as a result of the above referenced TMDL study:

**Dissolved oxygen and total phosphorus**
- Lake Whatcom is a highly complex system in which dissolved oxygen levels decrease as nutrient (phosphorus) loads increase over time.
- Watershed and lake models were developed, calibrated, and reviewed. These models are deemed adequate for the development of a TMDL for dissolved oxygen in Lake Whatcom.
- Modeling of pre-development watershed conditions provides a baseline for watershed phosphorus loading and lake dissolved oxygen. This baseline is used for evaluation of compliance with the Washington State water quality standards.
- Modeling of Lake Whatcom with the CE-QUAL-W2 model, and its watershed with the HSPF model, shows that land use changes from full development of the watershed without controls on phosphorus loading, would cause increased phosphorus loading to the lake, which in turn would degrade oxygen in the lake.
- The lake's loading capacity for phosphorus was determined and correlated to reductions in developed acreage from the 2003 Base condition and from the Full-Buildout condition. The loading capacity was found to be 14.15 kg/day (annual average) of phosphorus when reduced from the Base scenario or from the Full-Buildout scenario. The loading capacity is equivalent to 524 developed acres that generate total phosphorus loading at 2003 levels when reduced from the Base scenario, and 563 developed acres when reduced from the Full-Buildout scenario. The loading capacity represents an 85.5% reduction of developed acres from Base conditions, and a 94.6% reduction of developed acres from Full-Buildout.

**Bacteria**
- Eleven streams and drains that are tributaries to Lake Whatcom were found to not meet Washington State standards for fecal coliform bacterial contamination during monitoring surveys for this TMDL.
- The statistical rollback method has identified geometric mean bacteria targets that ranged from 4 to 50 cfu/100 mL in the dry season, and from 3 to 42 cfu/100mL in the wet season, corresponding to meeting the 90th percentile exceedance criterion of 100 cfu/100 mL.
- A Beales ratio estimator formula was used to calculate annual fecal coliform loads for allocations based on bacteria loading.
- Bacteria reduction targets from 2003 levels for the 11 tributaries ranged from a 0% to a 92% reduction in the dry season, and from a 37% to a 96% reduction in the wet season.

The conclusions above and the TMDL provide relevant scientific studies and evidence that existing land uses are contributing to a violation of the water quality standards in the Agate Bay and Academy basin of the Lake Whatcom watershed and that there are at-risk systems that will be very sensitive to more impact, no
matter how small. According to the TMDL, since all tributaries fail to meet standards, no allocation for future growth is provided. Therefore, additional sources would only be accommodated through additional reductions in existing sources. Because there is no allocation for addition growth, Whatcom County has determined that without adequate mitigating conditions that the proposal would have a significant environmental impact. However, with adequate mitigation, such impacts would be consistent with the TMDL mandate.

The following information will address the comments that have been submitted, discuss existing regulations in place, and indicate any mitigating conditions that the proposal will be required to meet to assure that no significant adverse environmental impacts or important cumulative impacts would occur:

**Water Resource Protection Overlay and Water Resource Special Management Areas:**

- Some of the comments address the loss of tree canopy. Whatcom County Code (WCC) 20.80.735.2(d)(ii) states that no more than 35% of the existing canopy area may be removed for development purposes. The applicants have submitted detailed information on the amount of tree canopy to be removed. Staff has calculated that each parcel is totally covered by effective forest canopy (except for parcels that have been partially cleared for the Bonneville Power Authority transmission line corridor) and that the largest percentage of canopy to be removed from any one parcel is 6%. Whatcom County Staff will add parcel tags into the permit tracking database, which will indicate how much canopy was cleared for road purposes on each parcel. When the building permits for the residences are submitted, staff will ensure that no more than 35% of the existing canopy is removed.

- Operations and maintenance of Temporary Erosion and Sedimentation Control (TESC) measures and stormwater facilities shall be required as part of the Department of Ecology (DOE) National Pollutant Discharge Elimination System (NPDES) General Construction permit and WCC 20.80.632(2), 20.80.634(2)(a), 20.80.735(2)(a), and 20.80.737(1). The applicant shall retain a Certified Erosion and Sediment Control Lead (CESCL) to design the TESC plan, oversee its implementation, monitor and certify its effectiveness throughout the construction process.

- Regardless of whether the Geohazard report or the Stormwater report was included in the Stormwater Site Plan, the applicants shall be held to the standards of those reports, which are approved by Whatcom County Public Works for consistency with County code and the 2005 DOE Stormwater Manual.

- Comments made regarding the sensitivity of the Lake Whatcom watershed are accurate. However, WCC 20.71, 20.80.735, 20.80.634, and 20.80.737 are regulations that protect the sensitivity of the Lake Whatcom watershed. Therefore, no additional SEPA conditions are required as these codes will be applicable to the Land Disturbance Permit (LDP).
• The concerns about the 100 feet of vegetated flow path required to mitigate runoff from the road will be addressed with the approval of the Land Disturbance Permit (LDP). Once the LDP is approved, the applicants shall not be permitted to clear outside of the approved clearing limits.

• As far as a construction schedule, WCC 20.80.735(2)(e) states that no activities will be permitted which lead to more than 500 square feet of exposed soils between September 1st and April 30th. At the time of LDP approval, the project shall be held to the seasonal closure dates. The applicant’s surveyor has submitted a letter stating that the applicant understands this and that if they cannot complete construction by September 1st 2009, construction within the watershed shall cease and construction shall not commence again until May 1st, 2010. This shall be a condition of the LDP. A pre-construction meeting shall also be held 3 days prior to the beginning of construction. At this time, the necessity to adhere to the seasonal moratorium dates will be re-iterated.

• No cut and fill quantities were provided with the Stormwater Site Plan. However, these numbers are included with the LDP and will be reviewed and approved through that permit.

• Many comments were made stating that the Stormwater Pollution Prevention Plan (SWPPP) was inaccurate. Upon further review, staff agrees with these assessments to a certain extent. Prior to approval of the LDP, Whatcom County staff will be requiring the SWPPP to be updated to accurately depict the scope of the project. Due to the scope of this project, the DOE will also be requiring an NPDES General Construction permit. At this time the applicants shall be required to meet the DOE standards for a SWPPP as well as provide water quality monitoring on site.

Based on the findings above, full compliance with Whatcom County Code, specifically WCC20.71 (Water Resource Protection Overlay District) and WCC20.80.735 (Water Resource Special Management Areas) will adequately avoid and/or mitigate most impacts from construction of the proposed road through the approval of the LDP.

However, as Whatcom County Code does not require a DOE Certified Erosion and Sedimentation Control Lead (CESCL) to be on site to monitor Best Management Practices (BMP’s), and it is imperative that all work be done consistent with the 2005 DOE Stormwater Management Manual, therefore the following SEPA condition is included in the SEPA Determination:

1. A Department of Ecology Certified Erosion and Sedimentation Control Lead (CESCL) shall design, oversee the implementation of, and monitor plan implementation for effectiveness during times of the construction when ground disturbance is occurring. The CESCL must be identified prior to construction and shall be present at the pre-construction meeting. The CESCL shall comply with all record requirements as

Stormwater and Engineering

- The road would be constructed using a modified Special District Street Section (designed for the watershed) Drawing 505.U-4, Whatcom County Road Standards.
- The stormwater report, when complete, shall meet all DOE 2005 Stormwater Management Manual requirements.
- To address the comments about the intersection of Northshore Drive and Academy Road, about 350’ of the roadway is proposed to discharge to Academy Road ditch system and that runoff does not make it to North Shore Drive due to other natural features and culverts.
- DOE 2005 Stormwater Manual, Volume III, Appendix C, 7.2.4 Full Dispersions for Road Projects, states that if all the criteria are met then no other treatment or flow control is required.
- To address the reduction of existing logging roads on the properties, abandoning these would disturb soil and may cause unnecessary erosion needing control(s) and may allow the option to be used as areas for driveway construction.
- The applicant has submitted a Traffic Concurrency Report, prepared by Transportation Solutions Inc., which has been agreed by Whatcom County Engineering that concurrency for traffic has been met.

Based on the findings above, Whatcom County Regulations and Development Standards, as well as the 2005 Washington State Department of Ecology Stormwater Management Manual for Western Washington, would adequately mitigate most impacts from construction of the proposed road through the approval of the LDP.

However, in regards to the issuance of the TMDL study, the Whatcom County Development Standards and 2005 DOE Stormwater Management Manual have not been applied to the residential construction as acknowledged by the scope of the SEPA checklist as well as those regulations may not adequately address all of environmental impact of the road construction. There is a potential for important cumulative impacts to occur taking the proposed road and subsequent residential development into consideration. Therefore, the following SEPA conditions shall be included in the SEPA Determination:

1. All private road stormwater management system designs shall meet the requirements outlined in the current edition of the Washington State Department of Ecology Stormwater Management Manual for Western Washington, Volume III, Appendix III-C, Section no 7.2, “Dispersion”, paragraph no 7.2.4 “Road Projects”. All areas needed for road stormwater dispersion/amended soils shall lie within the private road easement or a stormwater easement.

3. All driveway stormwater management systems shall meet the current Washington State Department of Ecology *Stormwater Management Manual for Western Washington*.

4. The private road constructor shall provide to Whatcom County a Temporary Erosion and Sedimentation Control surety per *Whatcom County Development Standards* Section no 212.

5. The private road stormwater management system constructor shall provide to Whatcom County a drainage facility maintenance surety per *Whatcom County Development Standards* Section no 218.B.

6. Private road stormwater management system maintenance shall comply with *Whatcom County Development Standards* Section no 220.

7. *Covenants, Conditions, and Restrictions* shall include maintenance of the private road and stormwater facilities per *Whatcom County Development Standards* paragraph no 505.E.1.

**Environmental Review including Geohazards and Wetlands**

- Article 3 of the Whatcom County Critical Areas Ordinance (CAO) - Geologically Hazardous Areas (GHA). The subject road proposal crossed areas that possess one or more of the characteristics of a "Potential landslide hazard areas", as defined by WCC 16.16.310(C)(1)(a). For this reason geological principles were applied to assess where additional professional assessment was needed along the subject road alignment as required by WCC 16.16.255. Specific cut and fill locations were identified that may be hazardous to up and down slope residents, or along the road right-of-way. These were addressed in a professional assessment by a qualified licensed professional who provided appropriate design recommendations.
Based on a site inspection it appears the existing road that runs along the steep precipice overlooking the valley (Section RD7 and RD8 on the submitted site plan) through and past an existing intersection where another existing road branches (incomplete sentence). The plans illustrated their proposal to by-pass this intersection with new road and a way to reduce the cumulative effect of the proposal and to reduce environmental impacts to a minimum would be to use the existing road way for this proposal.

If the proposal was conditioned to require using the existing road along the steep precipice that road design would probably fall within any geohazard setback if it were established by professional assessment. Using the existing road and building homes on the upland side of it would probably place the homes far enough from the edge of the slope, thereby eliminating the need for costly professional geotechnical assessment. All the area upland of the existing road should be suitable for locating houses, whereas that suitability decreases exponentially as the steep bank is approached.

It seemed like the proposal included a broad swath to be cleared in the road right-of-way. This doesn't seem to be necessary for so few lots in an essentially forested area and when 19 acres of each lot will remain in forestry use and tax base. If road clearing could be narrowed, less environmental impacts would occur.

Other than the steep precipice and slope mentioned above, the underlying sediments and bedrock are stable and suitable for road construction.

The information submitted indentified a “study area” and a “project area”. The project area is the proposed road corridor. The study area is the project area (road corridor) plus 300 feet on either side to indentify any elements of the environment that may be affected.

There are no streams identified within the proposed road corridor.

The document entitled Revised Wetland Fish and Wildlife Study meets the requirements for wetland delineations. Data was gathered for vegetation, hydrology, and hydric soil information. Data sheets with the appropriate information were included for each test plot. The wetlands were rated using an approved DOE rating procedure. For further information, the documentation is on record. The report was prepared by Jim Wiggins of ATSI.

Buffer mitigation at the appropriate 1:1 ratio was provided for the 500 SF of buffer impact. Per WCC16.16.620(E), access to private development sites may be permitted to cross Category II, III, or IV wetlands or their buffers provided that there are no feasible alternative alignments. Steep slopes and/or increased buffer impacts precluded alternative alignments.

There are no documented priority fish or wildlife species or habitat, and therefore Habitat Conservation Areas in the project or study area.
Based on the findings above, Whatcom County Critical Area Ordinance would adequately mitigate most impacts from construction of the proposed road through the approval of the LDP.

However, to lessen the overall adverse environmental affects of the project, by reducing the tree canopy removal and increasing developed areas, the following SEPA conditions shall be included in the SEPA Determination:

1. The proposed road should be realigned to use the existing road grade within section identified as RD 6/RD 7/RD 8 on the submitted site plan. If this road alignment proves to be infeasible, abandonment of that section of the existing road (section RD6/RD7/RD8) and replanting as approved by Whatcom County will be required.

2. Tree removal shall be the minimum necessary for the constructed project footprint (road, ditches, and utilities). A submitted tree removal plan shall be submitted and approved by Whatcom County Planning and Development Services prior to any land disturbance. Elements of the tree removal plan shall include identification of trees to be removed, tree protection areas, ground disturbance areas, and stock pile locations. All trees to be removed shall be clearly identified on site using brightly colored ribbon or other similar material. Trees to be preserved within the 60’ easement shall be clearly identified using brightly colored ribbon of a different color.

Residential Construction

- The SEPA Checklist has been revised to clearly identify that the proposal is for a road construction project that is intended to serve future residential home construction on 28 existing 20-acre residential properties. Whatcom County is very aware of the applicant’s past efforts of bringing forward a clustered type subdivision on the same property. For a multitude of reasons a large subdivision is no longer being proposed. The development proposal of the subject properties is for road construction and future single family residences on the 28 lots of record. There is other property owned by the proponents in which zoning allows for future development, although access to these properties is not being proposed through this project. With the inclusion of environmental review to all residential construction on the 28 existing lots of record that have the ability to be accessed off of the proposed road and a mitigating condition requiring future environmental review if other users are added to the proposed road, Whatcom County PDS believes that this SEPA review is in accordance with WAC 197-11-060.
- Pursuant to WCC20.42.450 no more than 20 percent of the lot area shall be permanently altered or removed from production of forest products.

To assure that the SEPA is being reviewed consistent with WAC 197-11-060 (3) and (4) and that the future residential construction would not have a significant environmental impact by contributing to the further degradation of Lake Whatcom, the following SEPA conditions shall be included in the SEPA Determination:
1. Any of the existing 28 lots of record, located within the Lake Whatcom watershed, that are currently accessing or has the ability to access from the subject road shall be required to implement construction techniques consistent with the current Washington State Department of Ecology *Stormwater Management Manual for Western Washington* and the current Low Impact Development Manuel as developed by Puget Sound Partnership’s and designed by a Professional Engineer or qualified consultant.

2. Any action to add additional users to the proposed road, greater than the reviewed 28 existing lots of record, shall require additional environmental review to this SEPA determination.

3. Purveyors of public water systems and private water system applicants must comply with Washington State Department of Ecology water right requirements.

**Conclusion:**

The lead agency for this proposal has determined that with the following proper mitigation, no significant adverse environmental impacts would likely occur;

1. A Department of Ecology Certified Erosion and Sedimentation Control Lead (CESCL) shall be on site during times of the construction when ground disturbance is occurring. The CESCL must be identified prior to construction and shall be present at the pre-construction meeting. The CESCL shall comply with all record requirements as established in the 2005 DOE Stormwater Management manual for Western Washington.


4. All driveway stormwater management systems shall meet the current Washington State Department of Ecology *Stormwater Management Manual for Western Washington*.

5. The private road constructor (developer/owner) shall provide to Whatcom County a Temporary Erosion and Sedimentation Control surety per *Whatcom County Development Standards* Section no 212.

6. The private road stormwater management system constructor (developer/owner) shall provide to Whatcom County a drainage facility maintenance surety per *Whatcom County Development Standards* Section no 218.B.

7. Private road stormwater management system maintenance shall comply with *Whatcom County Development Standards* Section no 220.

8. *Covenants, Conditions, and Restrictions* shall include maintenance of the private road and stormwater management system per *Whatcom County Development Standards* paragraph no 505.E.1.

9. The proposed road should be realigned to use the existing road grade within section identified as RD 6/RD 7/RD 8 on the submitted site plan. If this road alignment proves to be infeasible, abandonment of that section of the existing road (section RD6/RD7/RD8) and replanting as approved by Whatcom County will be required.

10. Tree removal shall be the minimum necessary for the constructed project footprint (road, ditches, and utilities). A submitted tree removal plan shall be submitted and approved by Whatcom County Planning and Development Services prior to any land disturbance. Elements of the tree removal plan shall include trees to be removed, tree protection areas, ground disturbance areas, and stock pile locations. All trees to be removed shall be clearly identified on site using brightly colored ribbon or similar material. Trees to be preserved within the 60’ easement are to be clearly identified using brightly colored ribbon of a different color.

11. Any of the existing 28 lots of record, located within the Lake Whatcom watershed, that are currently accessing or has the ability to access from the subject road shall be required to implement construction techniques consistent with the current Washington State Department of Ecology *Stormwater Management Manual for Western Washington* and the current Low Impact Development Manual as developed by Puget Sound Partnership’s and designed by a Professional Engineer or qualified consultant.

12. Any action to add additional users to the proposed road, greater than the reviewed 28 existing lots of record, shall require additional environmental review to this SEPA determination.

13. Purveyors of public water systems and private water system applicants shall comply with Washington State Department of Ecology water right requirements.

14. SEPA mitigating conditions #3 and #11, above, shall be recorded as deed restrictions to the existing 28 lots of record, if located within the Lake Whatcom Watershed, that are currently being proposed to be accessed from the subject road, to allow future property owners to be aware of the requirement and to ensure compliance of the SEPA conditions. This document shall be recorded and returned to Whatcom County PDS prior to the issuance of the LDP application.
Pursuant to RCW 43.21C.030(2)(c), an environmental impact statement (EIS) is not required. This decision was made following review of a completed SEPA environmental checklist and other information on file with the lead agency. This information is available to the public on request.

There is no comment period for this MDNS.

X Pursuant to WAC 197-11-340(2), the lead agency will not act on this proposal for 14 days from the date of issuance indicated below. Comments must be received by March 20, 2009 and should be sent to:

**Responsible Official:** Tyler Schroeder

**Title:** Current Planning Supervisor

**Telephone:** 360.676.6907

**Address:** 5280 Northwest Drive

Bellingham, WA 98226

**Date of Issuance:** March 6, 2009

**Signature:**

An aggrieved agency or person may appeal this determination to the Whatcom County Hearing Examiner. Application for appeal must be filed on a form provided by and submitted to the Whatcom County Land Use Division located at 5280 Northwest Drive, Bellingham, WA 98226, no later than the end of the business day on March 30, 2009.

You should be prepared to make a specific factual objection. Contact Whatcom County Current Planning for information about the procedures for SEPA appeals.