



**TECHNICAL COMMITTEE REPORT  
TO THE HEARING EXAMINER**

**Project Name:** Ellsworth Geologic Hazard Area Alteration

**Location:** NE 100<sup>th</sup> Street and 134<sup>th</sup> Avenue NE

**Project File Number:** LAND 2013-01665, PR 2013-00580

**Project Description:** Alteration of Geologic Hazard Areas for installation of sewer line from an existing sewer line located adjacent to the Rowen Tree Church site to the Ellsworth site through steep slopes for future service to the Ellsworth property.

**File Numbers:** LAND 2013-01665, Alteration of Geologic Hazard Area  
SEPA-2014-00363  
PR 2013-00580

**Applicant:** Tom Ellsworth  
8425 219<sup>th</sup> Street SE, Suite 100  
Woodinville, WA 98072

**Applicant's Representative:** Jon Nelson  
12865 SE 47<sup>th</sup> Place  
Bellevue, WA 98006

**Planner:** Thara Johnson, Associate Planner

**Decisions Included:** Alteration of Geologic Hazard Areas, Type III (RZC 21.76)

**Recommendation:** **Approval with Conditions**  
**Public Hearing Date:** July 21, 2014

**Conclusion in Support of Recommendation:** The Technical Committee has found the proposal to be in compliance with the Redmond Zoning Code (RZC), Redmond Comprehensive Plan, Redmond Municipal Code, and State Environmental Policy Act (SEPA).

*Robert G. Odle*

ROBERT G. ODLE, DIRECTOR  
Planning and Community Development  
Department

*Linda E. De Boldt*

LINDA E. DE BOLDT, Director  
Public Works Department

### **Project Review Authority and Procedures**

The City of Redmond **Technical Committee** is comprised of staff from different departments and disciplines who analyze project applications for compliance with City codes and regulations. Based on this analysis, **the Technical Committee** provides responses, conclusions, and recommendations (in the form of this report) to the **Hearing Examiner**. The **Hearing Examiner** will conduct a public hearing to review the **Technical Committee's** analysis and recommendations on the Alteration of Geologic Hazard Areas Permit. And receive public testimony regarding the proposal. Based upon the **Technical Committee's** recommendations and testimony received at the public hearing, the **Hearing Examiner** will make a decision to approve, approve with conditions, or deny the Alteration of Geologic Hazard Areas Permit.

### **Key Dates**

Application/Completeness Date: February 12, 2014  
Date SEPA Determination Issued: April 22, 2013  
SEPA Appeal Deadline: N/A  
Date SEPA Addendum Issued: June 23, 2014  
Public Hearing Date: July 21, 2014

### **Report Attachments**

1. General Application Form
2. Project Contact Form
3. Vicinity Map
4. Zoning Map
5. SEPA Application Form
6. Completeness Letter
7. Public Notice Site Plan
8. Public Notice Tree Preservation Plan
9. Notice of Application and Certificate of Publishing
10. SEPA Determination of Non-Significance, Addendum & Environmental Checklist
11. Notice of Public Hearing and Certificates of Posting
12. Plan Set (Sheets 1-5; Note: there is no Sheet 6)
13. Critical Areas Report
14. Geotechnical Report
15. Ellsworth Property Slope Review
16. Slope Stability Analysis
17. Tree Health Assessment
18. Fee in Lieu Tree Replacement Justification
19. Decision Criteria Analysis
20. Comprehensive Plan Map (Sewer Plan)
21. Notice of Application Public Comment Letter

**Technical Committee Analysis**

**I. Proposal Summary**

The project will extend a sanitary sewer from the existing sewer line just south of the Rowen Tree Church site to the Ellsworth parcel, located south of NE 100<sup>th</sup> Street. The route is generally in conformance with the alignment shown in the City's Sewer Comprehensive Plan, and includes crossing steep slopes classified as geologic Hazard area.

**II. Site Description and Context**

The Ellsworth Property consists of a 2.62 acre undeveloped parcel located at NE 100<sup>th</sup> Street and 134<sup>th</sup> Avenue NE. The proposed sewer line will extend across steep slopes. The route of the line through the Rowen Tree Church property was determined by the Church pastor to avoid certain areas with significant religious importance and minimize disruption to their property. In addition, construction techniques will be used to confine the construction work to the easement area or narrower as agreed with the Church. A sanitary sewer pipe is to be installed through a new easement in the southeastern corner of the Ellsworth property to serve a future subdivision. The new pipe would extend across the eastern side if the adjacent southern lot to connect to an existing sanitary manhole located on the Rowen Tree Church property.

**III. Public Notice and Comment**

Requirements for public notice are contained in RZC 21.76.080.

Notice of Application: The Notice of Application for this proposal was published on April 25, 2014. The notice was posted at City Hall, the Redmond Regional Library, and 2 notice signs were posted on the property. Notice was also mailed to property owners within 500 feet of the site (Attachment 9, Notice of Application and Certificate of Posting).

Public Input: During the public comment period for the Notice of Application, the City received one written comment.

Notice of SEPA Threshold Determination: The Notice for the Determination of Non-Significance (DNS) for this project was issued on April 22, 2013. The original DNS was issued for a boundary line adjustment application that was submitted to the City in 2013. The Environmental Checklist did not disclose the impacts associated with extending a sewer line through steep slopes. Therefore, the original DNS issued on April 22, 2013 is being adopted and the City is issuing an addendum which addresses extending a sewer line through steep slopes. The original DNS

notice was sent to state and local agencies, (Attachment 10, SEPA DNS Certificate of Posting). The addendum is being sent to all state and local agencies.

Notice of Public Hearing: The Notice of Public Hearing for this project was posted on the site, at City Hall, and at the Redmond Regional Library on June 30, 2014. The notice was also mailed to property owners within 500 feet of the site and to individuals who provided written correspondence to the City on the same date. The notice was also included in a one-time newspaper publication (Attachment 11, Notice of Public Hearing and Certificates of Posting).

#### **IV. State Environmental Policy Act**

The State Environmental Policy Act (SEPA) requires applicants to disclose potential impacts to the environment as a result of their project. The Environmental Checklist submitted by the applicant adequately discloses anticipated environmental impacts as a result of this project. City of Redmond codes and regulations; including those contained within the Zoning Code, Streets and Sidewalks, Water and Sewer, and Building and Construction Codes adequately mitigate for these anticipated environmental impacts. The Notice for the Determination of Non-Significance (DNS) for this project was issued on April 22, 2013. The original DNS was issued for a boundary line adjustment application that was submitted to the City in 2013. The Environmental Checklist did not disclose the impacts associated with extending a sewer line through steep slopes. Therefore, the original DNS issued on April 22, 2013 is being adopted and the City issued an addendum on June 23, 2014 which addressed extending a sewer line through steep slopes (Attachment 10, Environmental Checklist and SEPA Threshold Determination).

#### **V. Compliance with Development Regulations**

##### **A. Tree Protection**

The Redmond Zoning Code (RZC 21.72.060) requires that all healthy landmark trees and 35 percent of all healthy significant trees be saved. Landmark trees are those trees that are greater than 30 inches in diameter at breast height. Significant trees are those trees that are between 6 inches and 30 inches in diameter at breast height. Tree health of the existing trees on the Ellsworth and Rowen Tree property was assessed in an arborist's report prepared by Gilles Consulting dated November 23, 2011 (Attachment 17, Tree Health Assessment). The arborist evaluated a total of 105 trees within project limits. Since the site covers a large area and is heavily forested; the City did not require an inventory of the entire property. The arborist report indicates that fifty-six (53) trees within the project boundaries were determined to be significant, and seven (7) trees are proposed to be removed. The proposal is retaining 87% of significant and landmark trees, thereby meeting the City's requirement for 35% tree retention.

**Conclusion:** The applicant is proposing to remove seven (7) significant trees that are located within the proposed sewer line easement. The City of Redmond's Tree Protection Code provides an exemption for locating utilities and streets from meeting the Tree Protection permit requirements; however, replacement is required for all trees removed; and therefore the proposal is in compliance with the Tree Protection provisions of the Redmond Zoning Code (Attachment 12, Plan Set). Tree Replacement is being proposed through the City's fee-in-lieu program since the property is to be subdivided in the future and the location of the homes and the layout of the plat are not known at this time.

## B. Critical Areas

Section RZC 21.64 of the Redmond Zoning Code contains standards, guidelines, criteria, and requirements intended to identify, analyze, preserve, and mitigate potential impacts to the City's critical areas and to enhance and restore degraded resources such as wetlands, riparian stream corridors or habitat, where possible. A review of the critical areas on the site is as follows:

- a. Fish and Wildlife Habitat Conservation Areas (including streams):  
RZC 21.64.020 requires applicants to assess development sites for the presence of quality habitat areas.

**Conclusion:** The Critical Area Study for the Ellsworth Property Sewer Main Extension (Attachment 13, Critical Areas Report) identified one stream along and near the eastern property boundary.

The identified stream is a perennial feature that meets the criteria for a Class IV stream per RZC 21.64.020(2)(d). It enters the property in the northeast corner via a culvert under NE 100<sup>th</sup> Street, crosses the northeast property corner, and then flows off-site to the east. The stream is a tributary to the Sammamish River and does not support fish in the vicinity of the subject property, nor does it have the potential to support fish in that area. A steep gradient (greater than 16 percent) east of the property and a lack of suitable on-site, in stream habitat prevent fish access or use of the stream.

The City's Critical Areas Ordinance, RZC 21.64.020(B)(3), requires a 36-foot buffer for Class IV streams that are perennial.

Vegetation throughout the upland and buffer areas consists of trees in the northwest corner and along the eastern property boundary. The center of the property is open and appears to be abandoned pasture that is currently dominated by Himalayan blackberry (*Rubus armeniacus*) and creeping buttercup (*Ranunculus repens*). The southern portion of the subject

property is forested and part of a large, forested corridor that extends off-site to the south. Typical vegetation in the forested portions of the site is represented by big leaf maple (*Acer macrophyllum*), Indian plum (*Oemleria cerasiformis*), Himalayan blackberry (*Rubus armeniacus*), creeping buttercup (*Ranunculus repens*), and sword fern (*Polystichum munitum*). Vegetation in the abandoned pasture area is comprised of scattered, sapling big-leaf maple, with Himalayan blackberry, creeping buttercup, colonial bentgrass (*Agrostis tenuis*), orchard grass (*Dactylis glomerata*), and small patches of reed canarygrass (*Phalaris arundinacea*).

The proposed sanitary sewer project will have no impact to the stream or stream buffer. The proposed work will occur outside (west) of the stream buffer.

**b. Geologically Hazardous Areas**

The primary purpose of geologically hazardous area regulations is to avoid and to minimize potential impacts to life and property from geological hazards such that sites are rendered as safe as one not containing such hazard through appropriate levels of study and analysis, application of sound engineering principles, and regulation or limitation of land uses.

**Conclusion:** The Olsson Sewer Main Extension contains slopes that meet the definition for Landslide Hazard Areas and Erosion Hazard Areas. The Geologic Hazardous Areas Report (Attachment 14, Geotechnical Report) finds site topography with areas which meet the classification of a landslide hazard area in the report.

*Landslide Hazard Areas:* The Geotechnical Report indicates that the eastern portion of the Ellsworth property contains an inclination of slope that is approximately 10 percent. The eastern portion of the site contains a shallow ravine which trends downward towards the south and carries water discharged near the northeastern corner of the site both by open ditches located along NE 100<sup>th</sup> Street and 24" culvert that extends under the street from the north. The ravine is fairly shallow along the northern half of the site and becomes broader and deeper to the south. The southeastern portion of the site has topography that meets the City's criteria for a Landslide Hazard Area.

**C. Alteration of Geologic Hazard Area Decision Criteria**

The City may approve or approve with modifications the Alteration of Geologic Hazard Area only if the applicant demonstrates that (RZC 21.76.070E):

- a. There must be no reasonable alternative to locating in a Landslide Hazard Area. Alternative locations which would avoid impact to the Landslide Hazard Area must be shown to be economically or functionally infeasible.

**Response:** The proposed sewer line has been identified as a utility in the City of Redmond's Comprehensive Plan, General Sewer Plan. The project will extend a sanitary sewer from the existing sewer line just south of the Rowan Tree Church property, located along 132<sup>nd</sup> Avenue NE to the Ellsworth parcel, which is located south of NE 100<sup>th</sup> Street. The route is generally in conformance with the alignment shown in the City's Sewer Comprehensive Plan. The route of the line through the Church property was determined in the field with the Church pastor to avoid certain areas with significant religious importance and minimize disruption to their property. Other alignments were considered during the preparation of the City's Sewer Comprehensive Plan that resulted in this alignment to serve the properties lying south of 100th Avenue NE and east of 132nd Avenue NE.

The area of 40% and greater slopes will not be disturbed during the installation of the sewer line. The proposed alignment of the sewer main was determined to be the best route after working with City of Redmond staff. The proposed plan minimizes impact to on-site critical areas and there is no impact to the stream or its buffer. The disturbed area will be replanted and temporary erosion measures will be left in place until it has been re-established.

- b. A geotechnical evaluation must be conducted to identify the risks of damage from the proposal, both on-site and off-site, and to identify measures to eliminate or reduce risks. The proposal must not increase the risk of occurrence of the potential geologic hazard.

**Response:** Geotech Consultants prepared a report dated August 19, 2013 analyzing the proposal which meets the City's Redmond's requirements and complies with all applicable code sections. Their analysis concluded there would be no significant risks provided their recommendations were followed during construction. Recommendations were provided in that report for construction methods that will reduce impacts, and have been incorporated into the project plans.

- c. Impacts shall be minimized by limiting the magnitude of the proposed construction to the extent possible, any impacts must be eliminated or mitigated by repairing, rehabilitating, restoring, replacing, or providing substitute resources consistent with the mitigation and performance standards set forth in RZC 21.64.010(L) and (M).

**Response:** Impacts to the buffer area will be minimized by the use of trench shoring through all of the Church property to comply with agreements made between the church and the applicant. Disturbance to the ground surface will be restored by the Church in a manner consistent with their religious beliefs and activities.

The analyses by Geotech Engineering indicate that the potential for deep-seated instability on the steep ravine slopes along the eastern side of the site is low. The slope stability analysis reveals safety factors in excess of 3.0 for static conditions and 2.0 for seismic conditions. The report indicates that the potential for instability within the dense soil is negligible; however it is possible that the looser near-surface soils may erode or slide in the taller, steeper portions of the slope in the future.

Recommendations have been provided to address development from adversely impacting slope stability, within the landslide hazard area and its associated buffer, which are generally as follows:

- Maintain a minimum 15-foot buffer between the top of slope areas in the proposed development area
- Construct a highly-visible temporary fence along this 15-foot buffer prior to beginning substantial site clearing and grading activities
- Avoid placing debris or fill within the 15-foot buffer and on the steep slopes themselves
- Discharge concentrated runoff away from the steep slope areas

**V. Conclusions and Recommendations**

The Technical Committee has conducted its various reviews on this proposal, including ensuring compliance with the Redmond Zoning Code, Redmond Comprehensive Plan, Redmond Municipal Code and State Environmental Policy Act. The Technical Committee is requesting that the Hearing Examiner **approve the Ellsworth Property Sewer Main Alteration of Geologic Hazard Areas Permit subject to conditions** listed in Section VII.

This **Geologic Hazard Areas Permit** is vested to the regulations in effect upon the submission of a complete building or construction permit for the proposal unless the building or construction permit is cancelled or expires.



**VI. Recommended Conditions of Approval**

**A. Site Specific Conditions of Approval**

The following table identifies those materials that are approved with conditions as part of this decision.

<b>Item</b>	<b>Date Received</b>	<b>Notes</b>
Plan Set	05/30/2014	<i>and as conditioned herein.</i>
SEPA Checklist	05/30/2014	<i>and as conditioned herein and as conditioned by the SEPA threshold determination on April 22, 2013 and Addendum issued on June 23, 2014.</i>
Proposed Tree Retention Plan	05/30/2014	<i>and as conditioned herein.</i>
Geotechnical Report	09/27/2013	<i>and as conditioned herein.</i>

**The following conditions shall be reflected on the Civil Construction Drawings, unless otherwise noted:**

**1. Public Works Transportation and Engineering**

**Reviewer: Kurt Seemann, Senior Engineer**

**Phone: 425-556-2881**

**Email: kseemann@redmond.gov**

**a. Easements and Dedications.**

No easements or dedications are required.

(Code Authority: RZC 21.52.030(F); RMC 12.12)

**b. Street Frontage Improvements**

No street frontage improvements are required.

(Code Authority: RZC 21.52; RZC 21.54.020(B); RMC 12.12; RZC Appendix 2)

**2. Development Engineering – Water and Sewer**

**Reviewer: Jim Streit, P.E. Sr. Utility Engineer**

**Phone: 425-556-2844**

**Email: jstreit@redmond.gov**

- a. **Water Service.** Water services are not part of this project.  
(Code Authority: RZC 21.17)
  
- b. **Sewer Service.** Sewer service requires a developer extension of the City of Redmond sewer system as follows: Install a new 8-inch diameter sanitary sewer main as shown on drawing ELLS-001 by Land Development Advisors, LLC, dated April 21, 2014. No other sanitary sewers will be constructed as part of this project. This sanitary main will be constructed by boring under the neighbor’s property between MH 1 and the existing sanitary manhole shown to the south.  
(Code Authority: RZC 21.17)
  
- c. **Easements.** Easements shall be provided for all water and sewer improvements as required in the Design Requirements for Water and Sewer System Extensions. Easements for the water and sewer mains shall be provided for City of Redmond review at the time of construction drawing approval. Offsite easements must be recorded prior to construction drawing approval.  
(Code Authority: RZC Appendix 3)

**3. Development Engineering – Stormwater/Clearing and Grading**

**Reviewer: Lisa Rigg, P.E., Senior Engineer**

**Phone: 425-556-2758**

**Email: lrigg@redmond.gov**

- a. **Water Quantity Control:**
  - i. No formal water quantity control is required for this project.  
(Code Authority: RMC 15.24.080)
  
- b. **Water Quality Control**
  - i. No formal water quality control is required for this project.  
(Code Authority: RMC 15.24.080(2)(d))
  
- c. **Clearing and Grading.**
  - i. Peer Review has been completed. Recommendations from Geotech Consultants Inc. for the Geotechnical Engineering Study on Ellsworth Estates shall be complied with.  
(Code Authority: RMC 15.24.080)

- d. **Temporary Erosion and Sediment Control (TESC).**
  - i. Work prohibited October 1<sup>st</sup> through April 30<sup>th</sup>.  
(Code Authority: RMC 15.24.080)
- e. **Department of Ecology Notice of Intent Construction Stormwater General Permit.** Notice of Intent (NIO) must be submitted to the Department of Ecology (DOE) at least 60 days prior to construction on a site that disturbs an area of one acre or larger. Additional information is available at: [www.ecy.wa.gov/pubs/0710044.pdf](http://www.ecy.wa.gov/pubs/0710044.pdf).  
(Code Authority: Department of Ecology Rule)

4. **Fire Department**

**Reviewer: Scott Turner, Assistant Fire Marshal**

**Phone: 425-556-2273**

**Email: [sturner@redmond.gov](mailto:sturner@redmond.gov)**

- a. The current submittal is generally adequate for Site Plan Entitlement Approval,  
(Code Authority: RMC 15.06; RZC Appendix 2, RFD Standards, RFDD&CG)

5. **Planning Department**

**Reviewer: Thara Johnson, Associate Planner**

**Phone: 425-556-2470**

**Email: [tmjohnson@redmond.gov](mailto:tmjohnson@redmond.gov)**

- a. **Tree Preservation Plan.** A Tree Preservation Plan depicting all significant and landmark trees required to be preserved as part of the site development must be provided with the civil construction drawings. A plan showing the location of preserved trees and containing protection language approved by the City shall be shown on the face of the deed or similar document and shall be recorded with the King County Department of Records and Elections.

(Code Authority: RZC 21.72.060 (D) (2))

- b. **Tree Replacement.** Tree Replacement shall be provided at a 1:1 ratio with a total of seven trees to be replaced through the Fee-in-Lieu program.

Code Authority: RZC 21.72.080

**B. Compliance with City of Redmond Codes and Standards**

This approval is subject to all applicable City of Redmond codes and standards, including the following:

**Transportation and Engineering**

RMC 6.36:	Noise Standards
RZC 21.52:	Transportation Standards
RZC 21.54:	Utility Standards
RMC 12.08:	Street Repairs, Improvements & Alterations
RZC 21.76.020(G):	Site Construction Drawing Review
RZC 21.76.020(H)(6):	Preconstruction Conference
RZC 21.76.020(H)(7):	Performance Assurance
RZC Appendix 3:	Construction Specification and Design Standards for Streets and Access
City of Redmond:	Record Drawing Requirements, Version 10-2005 (2005)
City of Redmond:	Standard Specifications and Details (current edition)

**Water and Sewer**

RMC 13.04:	Sewage and Drainage
RMC 13.08:	Installing and Connecting Water Service
RMC 13.10:	Cross-Connection and Backflow Prevention
RZC 21.17.010:	Adequate Public Facilities and Services Required
RZC Appendix 4:	Design Requirements for Water and Wastewater System Extensions
City of Redmond:	Standard Specifications and Details (current edition)
City of Redmond:	Design Requirements: Water and Wastewater System Extensions - January 2000.

**Stormwater/Clearing and Grading**

RMC 15.24:	Clearing, Grading, and Storm Water Management
RZC21.64.060 (C):	Planting Standards
RZC 21.64.010:	Critical Areas
RZC 21.64.040:	Frequently Flooded Areas
RZC 21.64.050:	Critical Aquifer Recharge Areas
RZC 21.64.060:	Geologically Hazardous Areas
City of Redmond:	Standard Specifications and Details (current edition)
City of Redmond:	Stormwater Technical Notebook, Issue No. 5 (2007)
Department of Ecology:	Stormwater Management Manual for Western Washington (revised 2005)

## Fire

RMC 15.06:	Fire Code
RZC Appendix 3:	Construction Specification and Design Standards for Streets and Access
City of Redmond:	Fire Department Design and Construction Guide 5/6/97
City of Redmond:	Fire Department Standards

## Planning

RZC 21.08:	Residential Regulations
RMC 3.10	Impact Fees
RZC 21.32, 21.72:	Landscaping and Tree Protection
RZC 21.34:	Exterior Lighting Standards
RMC 6.36:	Noise Standards
RCZ 21.64:	Critical Areas
RZC 21.44:	Signs
RZC Appendix 1:	Critical Areas Reporting Requirements

## Building

2012 International Building Codes (IBCs)  
2012 Uniform Plumbing Code  
2012 International Residential Code (IRC)