



City of Shoreline
Planning & Development Services Dept.

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ADMINISTRATIVE ORDER #000071 040505
INTERPRETATION OF DEVELOPMENT CODE

CODE SECTION: SMC 20.80.030G

The Development Code provides for several exemptions from the provisions of the Critical Areas Chapter 20.80. The County is seeking an exemption from Chapter 20.80 for the replacement of sewer pipe that will traverse small sections of Richmond Beach Park and the Richmond Beach Pump Station sites adjacent to steep slopes. The specific exemption the County is seeking is as follows:

20.80.030G The following activities shall be exempt from the provisions of this chapter: G. Activities occurring in areas which may be considered small steep slopes (areas of 40 percent slope or greater with a vertical elevation change of up to, but not greater than 20 feet), such as berms, retaining walls, excavations and small natural slopes, and activities on steep slopes created through prior legal grading activity may be exempted based upon City review of soils report prepared by a qualified geologist or geotechnical engineer which demonstrates that no adverse impact will result from the exemption.

In addition, the County would like to reduce the buffer from the toe of the steep slope to fifteen feet in a few areas at the Richmond Beach Pump Station and Richmond Beach Saltwater Park sites. SMC 20.80.230 (C) states: "Buffers may be reduced to minimum of 15 feet when technical studies conclusively demonstrate that the reduction will adequately protect the proposed and surrounding development from the critical landslide hazard."

The County submitted the following supporting documentation:

- Final Hidden Lake Pump Station/Boeing Creek Trunk Project Geotechnical Engineering Design dated December 2004
- Plan and Profile sheets
- Letter dated 1/4/05 requesting the exemption and highlighting the rationale for the exemption
- Geotechnical Engineering Design: Supplement for Certain Slope Critical Areas along Boeing Creek Trunk Sewer Replacement dated March 22, 2005
- Cross sections
- Soil Boring Logs

FINDINGS:

Richmond Beach Park Site

- The proposed pipeline replacement in Richmond Beach Park will cross the top of a steep slope.
- The greatest elevation change from the roadway to the top of the slope in this segment is elevation 287 to 302 (approximately 15 vertical feet).

- Pipe Segment 1: From the park's north property line to the east side of the park entrance road the replacement sewer alignment is approximately 35 feet away from the top of the slope. According to Supplemental Technical Memorandum dated March 22, 2005, this will provide an ample buffer.
- Pipe Segment 2: On the east side of the park access road the slope is less than 40% and 80 feet of sewer pipe will be located along this slope. The slope will be unloaded during excavation increasing slope stability during construction.
- Pipe Segment 3: the slope increases to slightly greater than 40% but the total elevation difference is less than 20 feet.
- To mitigate adverse impacts during and post construction, as prescribed in the Geotechnical Engineering Design Memorandum dated December 2004, backfill gradation and compaction requirements, seepage barrier dams, and erosion control measures will be implemented to prevent destabilization of the slope.
- According to the Supplemental Technical Memorandum dated March 22, 2005, the soil borings indicate that the "subsurface conditions are conducive to a stable excavation to the depth required for the BCT Sewer Replacement construction in the Richmond Beach Saltwater Park as proposed.
- The Geotechnical Engineering Design Memorandum dated December 2004 states that if the recommendation made in the Memorandum are followed, "the long term slope stability of these slopes should not be adversely impacted by the completed construction of the proposed pipeline."

Richmond Beach Pump Station

- The pipeline travels along the toe of a steep slope at the Richmond Beach Pump Station.
- The site has been modified by the construction of Richmond Beach Drive NW and site grading (the conversion of Richmond Beach Treatment Plant to the Richmond Beach Pump Station in the early 1990's).
- The pipe alignment is closest to the toe of the slope at the eastern entrance to the site. The slope at this location is less than 20 feet in vertical height.
- As the alignment of the pipe moves west, it is greater than 15 feet from the steep slope.
- The existing sewer pipe is closer to the steep slope.
- No work will be allowed on the steep slope.
- Excavation spoils will be placed to the west of the trench away from the slope.
- According to the Supplemental Technical Memorandum dated March 22, 2005, the soil borings indicate that the "subsurface conditions are conducive to a stable excavation to the depth required for the BCT Sewer Replacement construction in the vicinity of the RBPS. The borings do not, however, provide information on the subsurface conditions in the steep slopes."
- Excavation will be relatively shallow at the RBPS site: 5-8 feet.
- The width of the excavation will be 7.5 feet.
- Excavation will be shored and braced to provide lateral support for the excavation side walls and adjacent soil.
- Length of the excavation will be limited to 50 feet.
- Surficial sliding has occurred, about 2 feet in depth attributed to water runoff from Richmond Beach Drive NW.
- According to the Supplemental Technical Memorandum dated March 22, 2005, the slopes have been existence for more than 30 years and there has been no evidence of instability except the above mentioned surficial sliding.
- The Geotechnical Engineering Design Memorandum dated December 2004 states that, "The proposed pipeline alignment is sufficient distance from the toe of the slope to prevent influencing slope instability..."

DECISION:

Proposed Pipe Replacement in Richmond Beach Park

The Director finds that the proposed project to replace a portion of sewer pipe in Richmond Beach Park that will cross a section of steep slope meets exemption 20.80.030G and is therefore exempt from the provisions of SMC Chapter 20.80. This decision is supported by the evidence that the slope in question meets the definition of a small steep slope by having a vertical elevation change of 15 feet and the affirmation in the Geotechnical Engineering Design Memorandum dated December 2004 the slope's stability will not be adversely impacted as long as the recommendations in the Geotechnical Memorandum are implemented. In addition, slope buffers may be reduced to 15 feet where supported by the Final Geotechnical Report prepared by CH2MHill dated December 2004. A clearing and grading permit will be required to complete this work in the Park. The permit will be conditioned to adhere to the recommendations in the Geotechnical Report and associated memorandum.

Proposed Pipe Replacement at the Richmond Beach Pump Station Site

- The Director finds that the proposed project to replace a portion of sewer pipe at the Richmond Beach Pump Station site located along the toe of a steep slope meets exemption 20.80.030G and is therefore exempt from the provisions of SMC Chapter 20.80. This decision is supported by the evidence that the slope in question meets the definition of a small steep slope by having a vertical elevation change of less than 20 feet and the affirmation in the Geotechnical Engineering Design Memorandum dated December 2004 that the proposed pipeline alignment is sufficient distance from the toe of the slope to prevent influencing slope instability. In addition, slope buffers may be reduced to 15 feet where supported by the Final Geotechnical Report prepared by CH2MHill dated December 2004. A clearing and grading permit will be required to complete this work at the Pump Station. The permit will be conditioned to adhere to the recommendations in the Geotechnical Report and associated memorandum.

original signed 4/05/05

Director's Signature

Date