Lecture Forest Consulting

May 31, 2018

William Neal Manager North Beach Water District Ocean Park, WA

RE: Tree Liability Analyses for the 3 Wellheads Located in Parcel B, East ¼ SW ¼ Section 33, Township, Range, Willamette Meridian, Pacific County, Washington.

Dear Mr. Neal,

You requested that I review the above parcel that has 3 wellheads belonging to the North Beach Water District. As the District Manager, you were concerned that there are large standing trees near the wellheads that could possibly blow down and damage the wellhead infrastructures.

Consequently, I have visited the site and have the following professional observations:

- 1. There is an abundant amount of physical evidence surrounding the wellhead locations of recent and active blowdown from periodic wind storms;
- 2. There are 35 standing and large trees/snags that are shallow rooted Sitka Spruce and Hemlock with potential to uproot and blow down during periodic wind storms that would cause significant damage to the wellheads and associated electrical infrastructure;
- 3. It is my professional opinion that there is a 99% chance that over time some of these large shallow rooted trees will destabilize, blow down, and significantly damage these wellhead infrastructures;
- 4. When winter windstorms periodically lash our local area, the cleanup of the blow down is difficult, expensive, and results in a direct loss of significant merchantable timber value; and,
- 5. Interruption of water to customers and repairs to the infrastructure due to this situation will cause the public to be upset.

Therefore, I offer you the following recommendations for eliminating potential damage to the wellhead infrastructures:

- Since storm winds come out of the south to southwest direction and to best protect the wellhead
 infrastructure, I suggest that all the large shallow rooted trees marked in the field with pink ribbon
 (and as shown on the attached map) be removed during dry weather and controllable conditions;
- 2. Market the merchantable logs; and,
- 3. Utilize the timber proceeds to clean up the brush and slash, burn the brush/slash piles, and plant hemlock and spruce trees to reforest the area.
- 4. If there are not enough timber revenue to accomplish this work, then additional District resources may be needed/budgeted to complete the cleanup and reforestation effort.

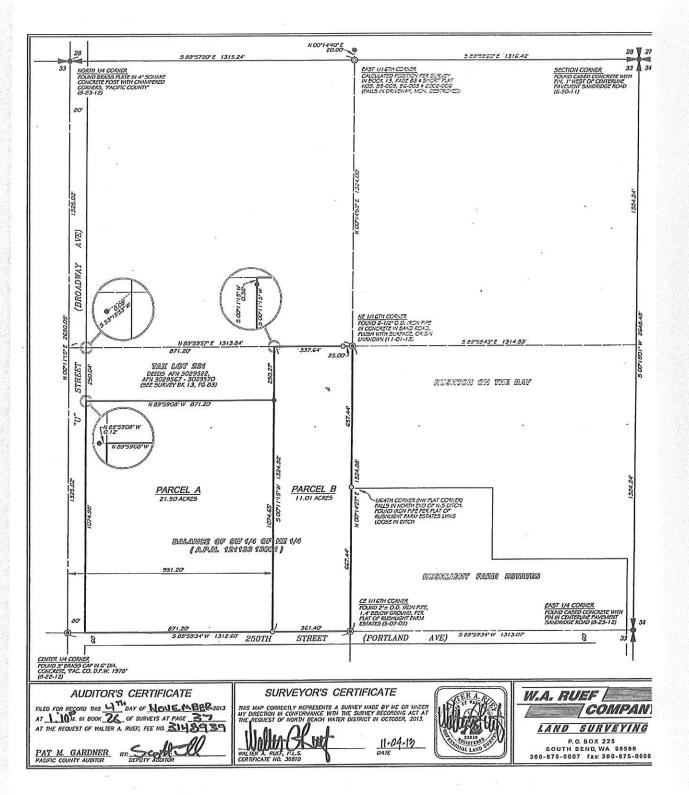
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If the District supports my observations and recommendations, then note that I have measured/cruised the trees and can provide you with a timber cruise and appraisal. I could also develop a logging contract and negotiate for getting all the work done.

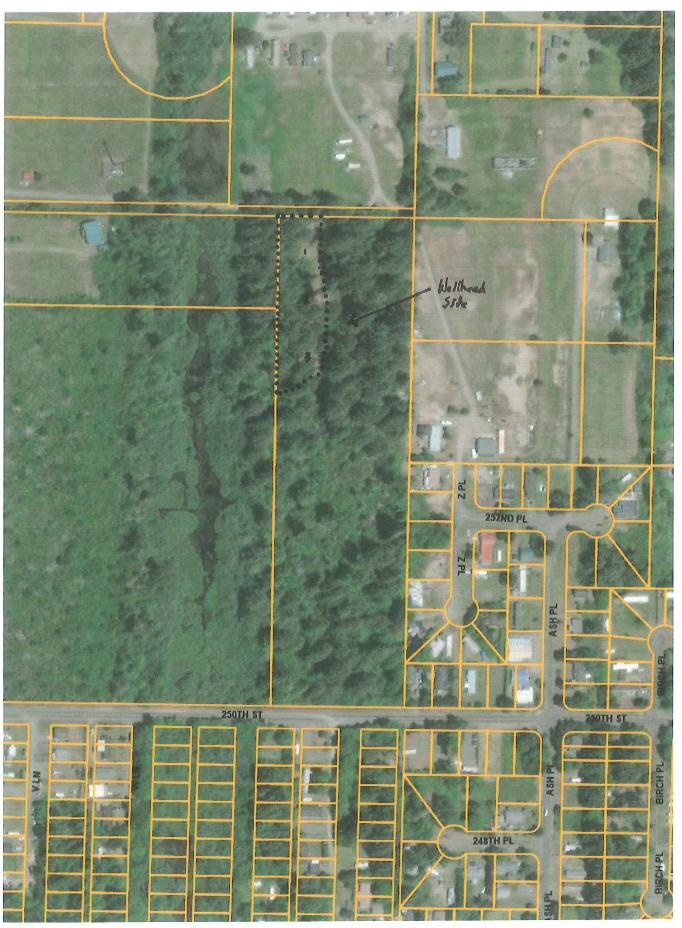
If you have any questions, please give me a telephone call.

Sincerely,

William Lecture Certified Forester Lecture Forest Consulting



PARCEL #12113313262
SITUS 25480 4 STREET



Wollhead Site North Beach Water District 25486 U Street

RESUME

WILLIAM LECTURE

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Professional Associations

• Member of the Society of American Foresters since 1971.

Certifications

Certified Forester #3120 with the National Society of American Foresters.

Education

- Bachelor Degree, Forest Management, 1973. University of Washington.
- Masters Degree, Forest Soils, 1974. University of Washington.
- Forest Land Appraising, 1985. World Forestry Center.

Forestry/Engineering Experience

- 1970-1975. Miscellaneous forestry work with the US Forest Service, Weyerhaeuser Company, University of Washington- College of Forest Resources, and Oregon Department of Forestry (Astoria, Forest Grove, & Salem).
- 1975-1990. Management Unit Forester with Oregon Department of Forestry- Astoria District. Involved in planning, engineering, cruising, appraising, marketing, and administering parcels of State timber within the 76,000-acre Jewell Unit.
- 1990-2003. Operations Manager of the Clatsop State Forest, Astoria District, Oregon Department of Forestry (136,000 acres). Involved in supervising 5 functional units in the Astoria District responsible for planning, engineering, appraising, and marketing timber sales. In addition, responsible for all land acquisitions and land exchanges (involving approximately 20,000 acres), reforestation activities, maintaining state lands, and the district recreation program. Retired from the Oregon Department of Forestry after 32 years.
- 2003-2007. President/Owner of Lecture Forest Consulting, LLC. Formed to assist various land owners in all forestry related matters, such as: timber cruising, timber and forest land appraising, management planning, timber marketing, developing timber sale contracts, contract oversight, reforestation, young stand management & timber-trepass evaluations.
- 2007-2012. Willapa Forester for The Nature Conservancy (Ellsworth Creek Preserve) & Willapa National Wildlife Refuge. All planning, contracting, supervising, implementing, budgeting, & engineering on 15,000 acres located in South Willapa Bay, WA. Retired in 2012
- 2012-present. President/Owner of Lecture Forest Consulting, LLC.