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Attention: Wayne Schwandt

Subject: Water Resource Consulting Services
Teanaway Subarea Planning Process
Kittitas County, Washington
GeoEngineers, Inc. File No. 17700-001-02

INTRODUCTION

This letter report provides a preliminary evaluation of water resources owned and managed by the American Forest Land Company, LLC (AFLC). AFLC owns a number of water rights that authorize various uses of the Teanaway River and its tributaries in the Teanaway River Subarea of Kittitas County, Washington. The water rights are located and used on a portion of the approximately 50,000 acres owned and managed by AFLC within the Teanaway River subbasin, located within Water Resource Inventory Area (WRIA) 39. This preliminary evaluation of AFLC's rights and summary of means to change rights responds to inquiries from participants in the Teanaway Subarea Planning Process (Teanaway SPP).

The findings and conclusions developed by GeoEngineers are based on review of a report completed by Perkins Coie, review of water rights records summarized in that report, review of site maps and photographs, prior experience in the Yakima and Teanaway River subbasins, and experience with water resource management in Washington State.

SITE DESCRIPTION

The Teanaway River basin is located on the eastern flank of the Cascade Mountains, north and northeast of the town of Cle Elum, Washington. The drainage basin is approximately 200 square miles in area, ranging between approximately 6000 feet above mean sea level (MSL) in the headwaters to approximately 1800 feet MSL at its confluence with the Yakima River. AFLC owns and manages approximately 80 square miles, roughly 40% of the Teanaway River subbasin. Within the subbasin, Kittitas County has established a Teanaway Subarea Planning Process, which includes approximately 56,800 acres of mid- and low-elevation lands down-basin from the Wenatchee National Forest (WNF) lands. AFLC manages approximately 80% of the lands in the Teanaway Subarea,



with the remaining 20% of land being managed by the Washington Department of Natural Resources and various private landowners.

Most of the land managed by AFLC is commercial forest and forest-range land located in upland terrace areas adjacent to the North Fork, Middle Fork, West Fork, and mainstem Teanaway River. Other land uses such as irrigation, pasture, and residential development are most prevalent in the valley bottoms adjacent to the Teanaway River and its tributaries.

The climate in the Teanaway River varies widely between hot, dry summers and cold, wet winters. Winter precipitation includes rain and snow. Streamflow within the Teanaway River basin is also variable, with infrequent peak flows in excess of 5,000 cubic feet per second (cfs) and low flows below 10 cfs.

PERKINS COIE WATER RIGHTS REPORT

Perkins Coie reported that AFLC has seven perfected surface water rights enabling it to withdraw and use up to 596 acre-feet per year (ac-ft/yr) from the seven sources combined. The seven water rights have been confirmed through the General Adjudication of water rights in the Yakima River basin. In addition, the validity and extent of two of the seven rights was further scrutinized by the Washington Department of Ecology through a recent change applications process, resulting in a tentative determination affirming the rights and authorizing change to the rights.

The seven uses presently have independent points of withdrawal, places of use, and purposes of use associated with lands located at the confluence of the North and Middle Fork Teanaway Rivers, along the left (east) bank of the North Fork Teanaway, and along the left (south-east) bank of Indian Creek. The existing uses authorize AFLC to irrigate a total of 145 acres using up to 2.9 cfs and 575 ac-ft/yr of the Teanaway River and its tributaries generally between the months of May through September. The seven rights also authorize lesser amounts of water use for road watering, stock, fire suppression, and domestic supply. All seven water rights predate May 10, 1905.

As part of its analysis of AFLC water rights, Perkins Coie outlined the general process by which a valid water right can be changed to meet certain future determined uses. Under Chapter 90.03 Revised Code of Washington (RCW), attributes of a valid right may be changed including: point of diversion or withdrawal, place of use, purpose of use, and the season or period of use, provided that certain standards are met. These standards or tests include:

- Beneficial use – The beneficial use test would include an evaluation of the consumptive and non-consumptive components of the instantaneous and annual volume utilized, verification of withdrawal point source and use locations, and verification that the use was a beneficial use.
- Public interest – An evaluation of whether or not the proposed change would be in the public interest may be made if any changes are proposed to convert surface water to groundwater sources.
- Impairment – An impairment test would include an evaluation of whether or not the proposed change would adversely affect the physical availability of water to others, the beneficial use of water by others, or other beneficial uses such as instream flows.



It is likely that there would be additional requirements of AFLC, if certain types of changes are requested. For example, if the season of use were proposed to be changed to a year-round use, such a change is potentially subject to regulation or mitigation to avoid impacts during the new “out-of-season” period.

CONCLUSIONS

Based on the information provided in the Perkins Coie report, a review of the associated water right documents, review of site maps and photographs, review of applicable water laws and procedures, and discussions with AFLC, we draw the following conclusions:

- AFLC appears to have valid rights to use surface waters of the Teanaway River and tributaries in the Teanaway basin and subarea.
- If the existing seven water rights held AFLC are valid, over 3 cfs and approximately 596 ac-ft/year of water is available. Using standard conversion factors of 1 cfs = 448.8 gallons per minute (gpm), AFLC has access to an instantaneous volume of water in excess of 1346 gpm. Similarly, using a standard conversion factor of 325,850 gallons per acre-foot, AFLC has access to an annual volume in excess of 194 million gallons of water per year.
- All seven of the surface water rights held by AFLC predate May 10, 1905 are not presently subject to Total Water Supply Available (TWSA) managed on an annual basis by the U.S. Bureau of Reclamation and partners.
- Under Chapter 90.03 RCW, AFLC has the right to change existing valid rights, subject to application and approval. Approval of certain proposed changes may be modified by limitations and contingent upon implementation of mitigation measures.
- Among the change options available to AFLC, applications could be made by AFLC to change any valid surface water rights to groundwater rights and season of use. Changes of surface water rights to groundwater and season of use would require an impairment analysis of the proposed change. An analysis of and mitigation for any potential impairment of other rights managed under TWSA would be necessary for that portion of the proposed use occurring during the “out-of-season” period.
- The volume of water represented by the seven rights owned by the AFLC, the broad geographic distribution of AFLC’s water rights throughout the Teanaway Subarea, and a large land area of over 50,000 acres managed by one entity enables the AFLC to consider a wide range of alternative natural resource management actions within the Teanaway River Subarea.



LIMITATIONS

We have prepared this letter report for the exclusive use of the AFLC and their authorized agents involved in the Teanaway Subarea Planning Process in Kittitas County, Washington. Within the limitations of scope, schedule and budget, our services have been executed in accordance with the generally accepted professional practices at the time this report was prepared. The conclusions and opinions presented in this report are based on our professional knowledge, judgment and experience. No warranty or other conditions, express or implied, should be understood.

Thank you,



John Monahan
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