

COOS BAY-NORTH BEND WATER BOARD
P O BOX 539 – 2305 Ocean Boulevard
Coos Bay, Oregon 97420

Minutes
Regular Board Meeting

March 18, 2021
7:00 a.m.

Coos Bay-North Bend Water Board met in open session in the Board Room at the above address, date, and time with Chair Greg Solarz presiding. Other Board members present: Dr. Charles Sharps, Bob Dillard and Melissa Cribbins. Board members absent: None. Water Board staff present: Ivan D. Thomas, General Manager; Matt Whitty, Engineering Manager; John McKeivitt, Water Treatment Supervisor; Jeff Page, Operations Manager; and Karen Parker, Administrative Assistant. Board Legal Counsel Jim Coffey was present. Present via teleconference was Bryan Tichota, Customer Relations Supervisor; and Rick Barnes of Barnes and Associates. Media present: None. Chair Solarz opened the meeting at 7:00 a.m. and asked Ms. Parker to lead the Board and assembly in the Pledge of Allegiance.

Chair Solarz asked if there were any corrections or additions to the February 25, 2021, Regular Board meeting minutes. Dr. Sharps moved the minutes be approved as written. The motion was seconded by Mr. Dillard and passed unanimously.

Chair Solarz asked if there were any public comments, and there were none.

Regarding the proposed Professional Services Agreement with Barnes and Associates Inc. for Timber Cruising and Stocking Surveys for Water Board Owned Timber, Engineering Manager Matt Whitty stated the Water Board issued Request for Qualifications (RFQ) for timber cruising and stocking surveys for its 1,389 acres of timberland in the Pony Creek and Joe Ney watershed in early January 2021. Four firms responded with statements of qualifications, as follows:

Farm Unlimited – North Bend
Stuntzner Engineering & Forestry – Coos Bay
Mason, Bruce & Girard - Portland
Barnes & Associates - Roseburg

A selection committee including two staff members, Ivan Thomas and Matt Whitty, and one Board member, Dr. Charles Sharps, reviewed and scored the statements of qualification. After consideration of a combination of experience, project approach, and cost, the selection committee recommends Barnes & Associates to perform the timber cruise and stocking surveys for harvest planning in the watershed.

In addition to fulfilling the requirements of the RFQ Barnes & Associates included an alternative approach to evaluating the watersheds. The approach they recommend includes use of a fixed wing aircraft to collect high-resolution Lidar (Light Detection and Ranging) data combined with limited conventional data collection to develop a complete inventory of the timberlands within the watersheds.

Lidar technology has advanced significantly in the past five years to the point where it can be used to provide accurate mapping of single tree locations and collect high quality fixed radius plot data to deliver a digital inventory of the harvest units. The Lidar data will be paired with conventional fixed radius plots to create an accurate digital inventory of individual trees.

The Lidar assisted volume determination will be utilized on stands older than 25 years. For stands aged 25 years and younger conventional methods including stocking surveys will be used because the Lidar method is less effective due to the undeveloped tree crowns in these units.

Mr. Thomas asked Mr. Barnes of Barnes and Associates if he had any additional information to present. Mr. Barnes stated after meeting with staff it was decided to go with a hybrid approach, blending conventional inventory methods with Aerial LIDAR (Light Detection and Ranging) to complete the inventory to improve the accuracy of the model. Ms. Cribbins asked if this technique has been used with other clients. Mr. Barnes commented their firm has not used this technique. Mr. Barnes stated they would contract with Northwest Management, Inc. This company is currently involved in a 3 million acre project throughout the U.S., but it is new technology. Ms. Cribbins asked if Barnes and Associates is comfortable with this. Mr. Whitty commented one of the reasons the Water Board is able to access this type of technology with the fixed-wing aircraft for the given price of \$3.00 per acre (includes flying it and analysis of the data) is because of the larger project they are doing of private forest land. Mr. Dillard inquired what has been paid previously for a timber cruise. Mr. Whitty stated there has never been a timber cruise of the watershed.

Mr. Coffey asked if the total price for the LIDAR field work and data processing is \$4,734. Mr. Barnes confirmed that is correct. Ms. Cribbins commented the point of this project to her is not to get a good price but to get a good product and wants reassurance of this. Ms. Cribbins asked what the differences in accuracy are between this and a standard ground cruise. Mr. Whitty emphasized there are still significant field plots being done – 1 plot per 20 acres with a minimum of 4 plots per stand which gives a level of confidence there is something to adjust it to. The models across the watershed would create a set of data and plots can be derived from that, and they should match up with the field plots. Mr. Thomas added he is comfortable with LIDAR as the technology has significantly improved over the last few years. Mr. Whitty stated a presentation was given to staff by Northwest Management of the LIDAR which was very detailed and he was very impressed with it.

Mr. Thomas asked Mr. Barnes if he could answer Ms. Cribbins' question regarding accuracy. Mr. Barnes stated in their original proposal they submitted a standard conventional approach and in that they were looking for the merchantable timber at a plot every 3 ½ acres, and with the LIDAR looking at a plot every 20 acres. It is new technology which has come a long ways. Looking at the information where they have done ground trooping and they had an example of a 6.2 acre unit and LIDAR was used and then they actually went in and measured every single tree in the 6.2 acres as a standpoint. The problem with LIDAR, they are very accurate at picking up tree height and the number of trees, although the LIDAR does have a problem not being able to pick up the species and no way to determine defects, whereas the field data will help with this information. As far as accuracy, Mr. Barnes said he wasn't sure but he feels it will be as good as it takes out a lot of sampling when they put in a plot for 3.5 acres and try to get a representative sample but there is still a sampling error associated with that, whereas with the LIDAR you have a very good handle on how many trees there are and what the height of those trees are. Ms. Cribbins commented the only concern she has heard about LIDAR is it works very well in the plantation stands but not necessarily as well in the mixed species non-plantation environment.

Ms. Cribbins asked if performing individual plot sampling would make up for that and does their model take that into account. Mr. Barnes stated yes that is why they work with hybrid rather than proposing just strictly LIDAR because with only LIDAR you don't get your defect and species as accurate. Mr. Barnes said for example one of the things that would need to be looked at closely when they are out doing field sampling is some of the areas that have significant components of spruce. They need to make sure to adequately sample those areas so they can tie that to the model.

Dr. Sharps commented anything is better than what the utility currently has and if they are going to do a plot and then the LIDAR actually flies that plot and the two agree what is in that plot, he would be convinced the LIDAR is doing a good job supplying confirmation.

Mr. Dillard inquired what happens if the sample points and the LIDAR do not match. Mr. Barnes commented in the event that happened they would need to meet with Northwest Management, figure out the issues and how they would be resolved.

The scope of work includes a written report of the consultant's findings. The report will describe the procedures used, a general description of the property followed by a narrative for each stand. Stand information will include site index, stand condition, net volume by species and general observations that will assist with future management decisions. In addition there will be a recommendation for actions to address invasive species and control of competing vegetation and other stand management opportunities such as pre-commercial and commercial thinning as well as identification of any threats to water quality, animal damage or disease issues.

Barnes & Associates recommends using an estimated cost for the project with costs based on the company's normal billing rates. This will allow the consultant to take advantage of any efficiency identified during the project that could reduce the overall cost of the project. Barnes & Associates provided a detailed scope of work for the project including fixed costs for the collection and processing of Lidar data. The estimated cost for the project is \$37,000. This project is included in the timber management budget.

Staff has prepared a professional services contract for the project. After a brief discussion, Dr. Sharps moved to authorize the General Manager to enter into a contract for Timber Services as described and in the scope of work prepared by Barnes & Associates at an estimated cost of \$37,000. The motion was seconded by Mr. Solarz and passed unanimously.

Regarding the proposed purchase of Turbidimeters for the Pony Creek Water Treatment Plant, Treatment Plant Supervisor John McKeivitt stated the treatment plant utilizes nine analytical instrumentation devices (Turbidimeters) that measure the turbidity of water as it enters the facility, passes through the filters, and as it leaves the treatment plant.

This is a critical measurement for operational control and is required by the regulatory agencies to assure compliance with the Safe Drinking Water Act. The instruments monitor the clarity of the water continuously 24 hours a day and the system archives this information for regulatory reporting purposes.

The existing instruments were installed approximately 20 years ago and have been discontinued for service by the manufacturer, HACH Chemical Company. HACH no longer supports the instruments and parts availability is limited to inventory on hand.

Recognizing the importance of the instruments and the end of the availability for support, staff has begun budgeting for the replacement of three instruments per year. This program lessens the

burden on any given budget year. There is enough spare part inventory to sustain this program over the next three years, until all nine are replaced.

Staff recommends the HACH Model TU5300 turbidimeter to replace the existing 1700E turbidimeters. The Water Board maintains a contract with HACH for other instrumentation calibration and repair. The new TU5300's will replace the 1700E's in the existing service contract for an initial installation and training fee of \$513.00 each.

Staff has researched continuous monitoring Turbidimeters accepted by the regulatory agencies for reporting purposes and found that in combination with the Board's existing service agreement and equipment compatibility they were not competitive. Staff recommends the purchase of three TU5300 HACH Turbidimeters. These are included in the current fiscal year's capital budget in the amount of \$12,954.20.

After a brief discussion, motion was made by Ms. Cribbins to authorize the General Manager to purchase three TU5300 HACH Turbidimeters. The motion was seconded by Mr. Solarz and passed unanimously.

The Board's next regular meeting was set for Wednesday, March 31, 2021, at 7:00 a.m.

Updates were given as follows:

- Phone System Upgrade – A request for proposals has been prepared to send out to vendors for a phone system upgrade. The current equipment is aged and the upgrade will enable it to be more user friendly. The upgrade will be approximately \$25,000 to \$30,000. This is included in the current fiscal year's budget.
- Siren Test – A test of the Pony Creek Dam Warning System will take place on March 20th at 10 a.m.
- Tank Maintenance – SUEZ is scheduled to begin restoration of the Radar Reservoir. They will enclose the reservoir as they will blast the outside of it, then recoat the inside and outside of the tank.
- Master Planning – Kickoff meeting is scheduled for today at 11 a.m.
- Telemetry Upgrades – The new units are installed and functional at the Pigeon Point pump station. Regarding the reconstruction of the Wisconsin Pump Station, staff is waiting for completion of the specifications of the project being prepared by RH2.

At 7:40 a.m. Chair Solarz directed they go into executive session for the purposes of discussing potential litigation pursuant to ORS 192.660(2)(h). They returned to open session at 7:58a.m. There being no other business to come before the Board, Chair Solarz adjourned the meeting at 7:58 a.m.

Approved: _____, 2021

By: _____
Chair Greg Solarz

ATTEST: _____