

AGENDA

2014 November 20

Regular Meeting: 6 pm

Lincoln City, Council Chambers

801 SW Hwy 101, 3rd Floor



Devils Lake Water Improvement District

Post Office Box 974, Lincoln City, Oregon 97367

Phone: (541) 994-5330 Fax: (541) 994-6040

www.DLWID.org

Quick Look:

- **HABs:
Aeration/
Oxidation
Design RFQ**
- **Life Jacket
Loaner Station**
- **Dam
Replacement**

I. Roll Call

II. Consent Agenda

- Minutes of the Previous Meetings
- Financial Report

III. Comments from Citizens Present on Agenda/Non-Agenda Items: *This is an opportunity for members of the audience to bring to the District's attention any item not listed on the agenda for public hearing. Comments are limited to five (5) minutes per citizen, and the Board of Directors may use the light system. Speakers may not yield their times to others, and as a general rule this is not a time for exchange of questions. At the conclusion of this agenda item, a board member may discuss or raise questions regarding an item presented by a citizen. The Chair has the authority to reduce the time allowed for comment in accordance with the number of persons present and signed up to speak.*

IV. Unfinished Business

(Agenda Support Item A)

- The Devils Lake Plan
 - Septic / Sewer
 - Save our Shoreline
 - Vegetation Management
- Communications Report
- Safety Report
- MidCoast TMDL
- East Devils Lake Road
- Policy Updates
- Harmful Algal Blooms
- Water Quality Monitoring
- Intern Report
- Life Jacket Loaner Station (Randy Weldon)

V. New Business

(Agenda Support Item B)

- Replacement of the Water Impoundment Device (The dam) (Randy Weldon)

VI. Non-agenda Items

VII. Additional Comments from Citizens Present on Non-Agenda Items: *This is an opportunity for members of the audience to bring to the District's attention any item not listed on the agenda for board discussion. Comments are limited to five (5) minutes per citizen, and the Board of Directors may use the light system. Speakers may not yield their times to others, and as a general rule this is not a time for exchange of questions. At the conclusion of this agenda item, a board member may discuss or raise questions regarding an item presented by a citizen. The Chair has the authority to reduce the time allowed for comment in accordance with the number of persons present and signed up to speak.*

VIII. Board Comments & Announcement

IX. Adjournment

Meetings of DLWID are handicapped accessible under the ADA.

If special accommodations are needed, please contact the District Office at (541) 994-5330 48 hours prior to the meeting.

**Staff Reports 2014-11-20
Robertson & Laszlo**

Consent Agenda:

- Minutes of the Previous Meeting
- Financial Report:

Unfinished Business

Agenda Support Item A

- a. **The Devils Lake Plan:** A watershed based plan adopted by the Board in 2011 that seeks to address the root causes of nuisance aquatic vegetation and/or Harmful Algal blooms which are excessive nutrients.

Executive Summary excerpt:* “Devils Lake is a shallow, 680 acre coastal lake that has long suffered from the effects of inputs of excess nutrients. Most prominent of these effects was the domination of the lake by nuisance aquatic plants in the 1980’s. Aquatic weed infestations largely choked the lake covering over 60% of the surface. Recreation was greatly impacted, and property values were in decline. In 1984, a local government entity, Devils Lake Water Improvement District (DLWID), was formed with the purpose of improving water quality, improving the environment for fish and wildlife, and generally reestablishing beneficial uses, including safe navigation and public access.

“Current concerns in the watershed are ongoing inputs of nitrogen and phosphorus, increasing sedimentation, erosion, stormwater, annual cyanobacteria blooms, and the threat of the return of nuisance aquatic plants to the lake.”

*View the full document online: http://www.dlwid.org/Projects/Devils_Lake_Plan/Devils_Lake_Plan_v2.1.pdf

Projects within the scope of the plan are being worked on simultaneously and are listed on the Agenda and in this staff report as subheadings. Updates to the work on the projects are presented month to month as change happens and are left on the agenda until the project is complete. For a full background and all updates, please refer to previous staff reports and the Projects Page of the District’s Website under these headings: <http://www.dlwid.org/Projects.html>

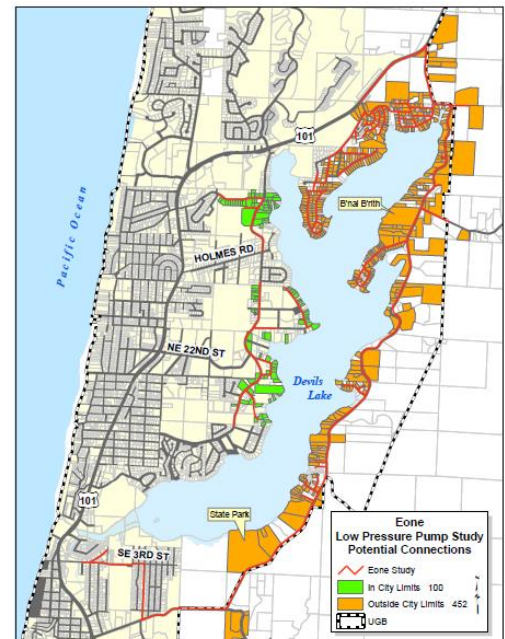
i. Septic / Sewer

- <http://www.dlwid.org/Projects.html#Septics>
- <http://www.dlwid.org/Projects.html#Sewer>

No update since last meeting.

To Do and Pending Items:

- Mandatory Septic System Inspection Ordinance: Lincoln City, goal is by 2014-12-31 per City Manager
- Full buildable lands inventory: Lincoln County - Sent follow up inquiry on 2014-08-06. Spoke with GIS coordinator 2014-09-19 at GIS Symposium by the Sea. Still on the list, just not as high of ranked priority.



- Urban Growth Management Agreement: Lincoln City and Lincoln County, with FY 2014-2015
- Sewer Master Plan Update: Lincoln City – expected by April 2015
- Environmental Review of low pressure sewer backbone: City & DLWID expected by April 2015

Voyage LID: (Chair Green)

Direct Link to Engineer Report:

http://www.dlwid.org/Projects/Sewer/Voyage_LID.pdf

ii. Save our Shoreline (SOS)

- <http://www.dlwid.org/Projects.html#SOS>

Ava has been conducting a wide ranged outreach campaign. We have had an additional interested party come forward with a potential project which we have contacted and will make further arrangements to survey their property in the next few weeks.

The previous potential project mentioned last month retracted their interest at least temporarily due to structural improvements they believe they may need to make on their wooden wall. We did visit the site with a landscaper who developed a planting plan within the modest \$750 DLWID budget for such a project. This however was merely a conversion from grass to nitrogen scavenging clover for a narrow band along their sea wall. This might be worth additional funding in my estimation as it is high profile site relative to other neighbors and there is a fair amount of property adjacent to the parcel too.

iii. Vegetation Management

- <http://www.dlwid.org/Projects.html#Vegetation>

Awaiting official word from ODFW staff as to when their review maybe done such that we can get in front of the Commission. Joe Eilers did receive a link to a picture of what assumingly is a large mouth bass swallowing whole what appears to be a salmonid, likely 8-10" rainbow trout. We are seeking permission from the owner of the photo to share this very telling image with ODFW and the Commission. You may recall that the warm-water fishery supporters highly contend that bass are significantly predatory on salmonids.



- Clearwater E-Newsletter: Fall issue released in conjunction with autumnal equinox. Click here to see a copy: <http://myemail.constantcontact.com/Clear-Water-Newsletter-Fall-2014.html?soid=1102761961457&aid=ufs-4JHSYvs>
- Lincoln City Kiwanis: I was the guest speaker at the Thursday, October 23, 2014 Lunch at Surftides. 100 Year History of Devils Lake, In Brief was presented.
- North American Lake Management Society: Annual conference was November 11-14. Attended multiple field trips, presentations (mostly focused on oxidation as most pertinent to DLWID currently) and networked with North America's top limnologists. www.NALMS.org

c. **Safety Report** (Robertson) Ava has been drafting a safety manual which is readying for my review. Safety is no accident!

d. **MidCoast TMDL** (Robertson)

- <http://www.dlwid.org/Projects.html#TMDL>

Department of Environmental Quality (DEQ) has begun the planning process for developing an Implementation Ready - Total Maximum Daily Load (IR-TMDL) for 303(d) listed waterbodies in the Oregon Mid-Coast Basin. The initiation of this TMDL process has been a long-time in the works and the process itself will be lengthy stretching over the next 18 - 20 months. Devils Lake is listed for Weeds/Algae, Chlorophyll a and pH and Thompson Creek is listed for fecal coliforms, and thus as a local government we have been invited to participate. Notably, temperature listings are also proposed by EPA for the lake and one of its tributaries. Representatives from local, state and federal government, special districts, Tribal Nations, private industry, forestry, agriculture, conservation, NGOs, watershed councils, landowners, and others were also identified.

- Links to the DEQ's website are posted below.

<http://www.deq.state.or.us/WQ/TMDLs/midcoast.htm>

<http://www.deq.state.or.us/WQ/TMDLs/midcoastLSAC.htm>

Stakeholder Meeting: No meetings since our last DLWID meeting. View the website for more information.

Bacteria Technical Working Group: Most recent meeting was held in Newport in October which we reported on last time. Next meeting to be held in January 14, 2015.

e. **East Devils Lake Road**: Fish are running in the D River, but no word as to any fish being high centered on the road. Elevation changes to the road last year prevented the initiation of any salmon rescue efforts, which hopefully will continue through this year.

f. **Policy Updates**: To be continued until next month.

The District has proposed updates and additions to its Policy Manual for the following items: **(BOLDED require further actions)**

- Policy and Procedures Manual (Adopted 2014-02-13)
- **Personnel Policy/Manual (Draft sent 2013-12-31: reviewed, edited, and tabled)**
- Mandatory Reporter Policy (Adopted: May 2013)
- Safety Policy (included in larger update)

- Financial Manual (Adopted 2014-01-09)
- Records Policy (Adopted 2014-01-09)
- Board Duties and Responsibilities (See Policy and Procedures Manual)
- **MSDS (Intern beginning to address the collection of new SDS)**
- Employee Training (Policy added to Personnel Policy - **Safety Manual forthcoming separately**)
- Light Duty Return to Work (included in Personnel Policy)
- Investment Policy (Adopted 2014-10-09)

Links to these drafts are available on the website:

[http://dlwid.org/Board%20Directors.html#Board Official Actions](http://dlwid.org/Board%20Directors.html#Board%20Official%20Actions)

g. Harmful Algal Blooms:

Aeration Project: We had been in the process of developing a Request for Proposals for a full lake wide design-build aeration project. However further review of the fine print in ORS 552, the statute we are formed under, requires that we do a more traditional approach with development of an engineering plan, a hearing on such, followed by the separate RFP for construction. This was relayed to the Board on October 23, 2014 and has been confirm by the District's lawyer the following week. Further 2012 changes made by the Oregon State Legislature to ORS 297C require that the engineering solicitation follow a separate process which requires the District to seek the most qualified entity by solicitation of a Request for Qualifications (RFQ). While the expected engineering cost may be below the threshold requiring the most formal approach to obtaining this plan, the process itself is designed to provide the best value to the public for public works improvements through a competitive process based on qualifications and is generally set up as summarized:

1. Request for Qualifications (RFQ) is released and advertised
2. Responses received and opened publically
3. Review and prioritization of most qualified respondents
4. District works with most qualified respondent to determine more precisely the scope of the project and the cost of the project.
5. If the District finds that the cost is prohibitive, it may seek the same process with the second most qualified respondent, and so forth.
6. Given an Engineering Contract, an Engineering Plan and General Report is produced.
7. A public hearing is held on the Engineering Plan and General report.
8. The Board approves the Engineering Plan and General Report with any necessary modifications
9. Board determines how the project is to be funded
10. A four week period is provided
11. Request for Proposals on the Engineering Plan is released and advertised
12. Permitting and Easement acquisition
13. Responses are received and opened publically
14. Contract is awarded to lowest qualified respondent
15. Project is initiated and executed until completion.

A draft RFQ will be provided to the Board for their approval at the November meeting. This effectively will be on the same timeline as the original design-build RFP with qualifications expected to be received by mid-January. The RFQ will be advertised broadly and be sent to a

number of highly qualified engineering firms who were contacted at the NALMS conference and to those already showing interest in the project.

h. Water Quality Update:

HABS: The District issued a water contact advisory on July 31, 2014 for toxins exceeded the state's guidelines. Given that we have reached the end of the recreational period we have reduced the extent of the bi-weekly monitoring of toxins to include only a limited number of sites to gauge the bloom. Further we have been using the strip test methodology to reduce staff time and analysis costs associated with monitoring the bloom until it is showing significant improvement.

Samples taken on Wednesday 2014-10-29 showed toxins still in excess of the 10 ppb standard, but only at one sample site (Holmes Road) where scum existed extensively. As a result of the exceedance the lake was not yet able to be delisted. An update to the advisory however was sent out notifying the public of the increase in water quality. Given staff scheduling, the next available time for sampling was November 17, 2014, which was conducted. All sites were visually low or had no visible signs of the blooms. Clarity exceeded 3.2 m or 11'. An integrated photic zone sample from the mid lake was taken and shipped to King County Environmental Lab for analysis of four toxins and cell counts. It is expected that the samples will allow the lake to be delisted shortly. We will then update all the stakeholders, public and take the signage down around the lake.

i. Intern: Ava Laszlo

Water Quality, Outreach, and Miscellaneous

October and November have been busy months, filled to the brim with a variety of activities and tasks!

We have continued our water quality monitoring for cyanobacteria and associated toxins, most recently on November 17th obtaining samples, making observations, and recording data. I attended a Lincoln City Kiwanis meeting on October 23rd, where Paul was the guest speaker. He discussed the monitoring that we do in addition to a brief 100 year history of Devils Lake. Current lake conditions and projects were also the District is currently involved were also discussed on October 21st and November 18th on KBCH radio.

I have been working, slowly but surely, on learning the ropes of Dreamweaver website maintenance software. I replaced the website's header with that of one I created, and have a to-do list of other updates that need attending to. I've also been working on building e-newsletters for Winter 2014, Spring 2015, and Summer 2015.

The Senior Fair at Chinook Winds Casino on October 7th was a unique event that allowed us to reach out to those in the retirement community in Lincoln City and beyond. Our booth was stocked with SOS fliers and associated materials, brochures about recreation on Devils Lake, information on the 100 year history of Devils Lake, and additional items promoting the District.

The Columbia River Maritime Museum provided an excellent setting for the Oregon Lakes Association conference. The conference and the surrounding networking mixer activities

October 10-12 in Astoria provided many educational learning opportunities, and I feel better able to understand issues our own Devils Lake is struggling with as well as possible ways to ameliorate them.

I recently produced a nearly 50 page Safety Manual to aid with staff training and promote safe practices in both the field and the workplace. Example contents include: lab safety, preparing for and responding to emergencies, proper use of equipment, personal protective equipment, field safety, boat safety, vehicle safety, and conflict management.

SOS Update

We have kicked off the start of the next round of fall SOS promotion! I have been busy going door-to-door visiting lake front property owners on Devils Lake, rain or shine. The District ordered native plant seeds which I packaged in envelopes and attached to door-hanger fliers, which are left if the residents are not home when I visit.

For home owners that are present and interested, I have been able to provide 3 different species of native, live plants that are suited to the regional Devils Lake area. These include Mertens' Sedge (*Carex mertensii*), Slough Sedge (*Carex obnupta*), and Soft-Stem Bulrush (*Scirpus validus*). The plants were ordered from Blake's Coastal Nursery and arrived in bunches. Upon arrival of the plants, I spent time potting them at the nursery.

I have been lucky enough to have the help and assistance of Lincoln City's GIS Coordinator, Sandy Gruber, with plotting and mapping my progress. _____ homes have been visited thus far.

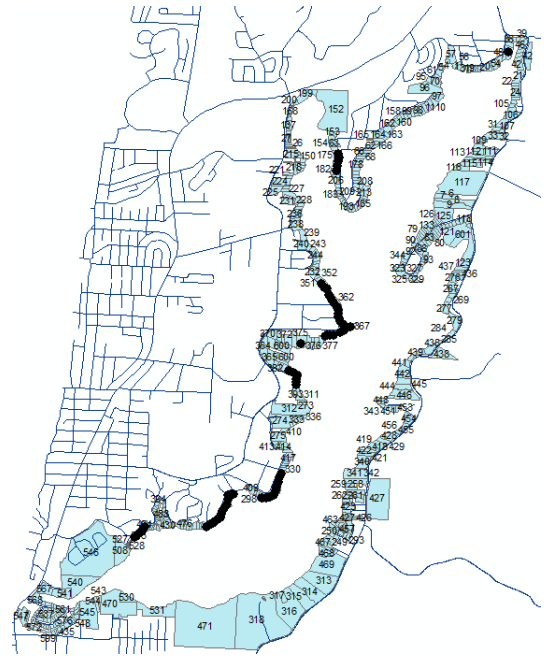


Figure 1. Map displaying tax lots and properties visited. Each black dot represents one property visited as of Nov. 17, 2014.

j. Life Jacket Loaner Station: (Randy Weldon)

Sign to be unveiled at meeting!

New Business

A. Replacement of the Water Impoundment Device (The dam) (Director Randy Weldon)

My proposal to the board of directors is that we discontinue use of the current dam used for impounding water in the summer and remove the concrete base from the river. Once the concrete base is removed we should use temporary impoundment devices in D River since we only impound water for 3-4 months each summer. This could be accomplished by using sandbags, newer technology flood control water tubes or similar style products that would only stay in the river during the summer impoundment period.

Our wooden and steel dam is temporary but the concrete base is permanent, creating numerous problems for Devils Lake and the surrounding area. The top of the concrete base sits at 8.03 feet above sea level which creates a catch basin behind the dam. The strong winter storms push waves up the river into the lake multiple times each winter. This reversal of D River brings sand with it and deposits sand on the lake side of the concrete base. The sandbar now extends over 100 yards up the river, increasing in volume every year. Much of this sandbar is now over 9 feet in elevation. In the past, the DLWID budgeted for and spent tens of thousands of dollars to dredge the river channel on the east side of the dam but discontinued this over a decade ago.

By returning D River back to a natural river system for 8-9 months of the year it would improve the following: water quality, recreation and the environment for fish and wildlife in Devils Lake. These are all directives of our mission statement.

Below are the benefits we would expect to see by removing the permanent concrete base:

- 1) For the last three summers, the district has raised the lake to 9.0 instead of 9.53, reducing erosion at the shoreline from boat wave action. So far we have been unable to address winter erosion, caused by higher lake levels and wind-driven waves. If we remove the concrete base in the river it will allow more of the sand to flush out to the beach during rising lake levels caused by heavy rains. When the channel in the river gets deeper and wider the lake will flush faster, reducing the average winter lake level.
- 2) A lower winter lake level will also reduce saturation of low lying septic tanks and drain fields.
- 3) Increasing the volume and flow of water out of the lake in the winter will replace nutrients and algae with rainfall and runoff. This is known as lake turn over. Increasing lake turnovers is a positive factor in reducing Harmful Algae Blooms (HABS).
- 4) Flooding issues are a serious problem for some lakefront homeowners. A deeper, unimpeded river channel in the winter will allow water to exit the lake faster, creating a lower lake level on average. This will increase the lake's capacity to absorb heavy rainfall before flooding becomes a problem.
- 5) Wild Coho salmon and other native species traveling into and out of our lake will benefit in the winter from an unimpeded and deeper river channel. Not only would there be less

stress on the fish from having to cross the shallow sandbar but there would be less exposure to predators.

6) Reduction or elimination of the sandbar in front of the dam will reduce the summer gathering of seagulls. The district's DNA tests have shown that *E. coli* in the river come from avian species. Reducing the bird congregation on the sandbar in the summer will reduce the repeated *E. coli* warnings that we have posted about the river. We are very concerned about the health of kids and others who play in the river and out on the beach where the rivers exit.

7) Reduction or elimination of the sandbar will open up the river to kayaks, canoes and paddle boarders.

After much research, I have not identified any negative environmental or recreational aspects of going back to a natural river system for 8-9 months of the year.

There will be costs in removing the concrete base, permits and purchasing sandbags, flood tubes, or bladders, however these costs seem reasonable for the multiple benefits to Devils Lake.

Unlike installing sewer around the lake which could take years, this project could most likely be completed in a year or less, quickly advancing our goal of improving water quality.

Randy Weldon
Director, DLWID