

AGENDA

2015 February 12

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:

- Sewer LID
- HABS: Aeration
- 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
- Replacement of the Water Impoundment Device (The dam) (Randy Weldon)

V. New Business

(Agenda Support Item B)

- Board Election
- Oregon and California Land Grant Act of 2014 (S.1784)

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

- Devils Lake Family Fishing Frenzy – March 28, 2015

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 2015-02-12
Robertson**

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

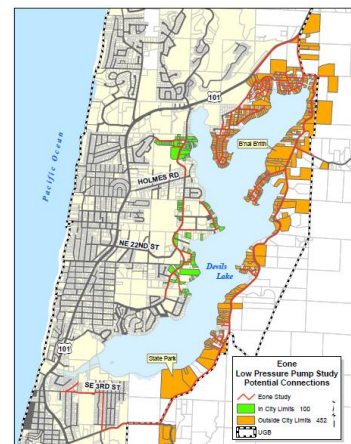
Projects within the scope of the plan are being worked on simultaneously and are listed on the Agenda and in this staff report as subheadings. Updates to the work on the projects are presented month to month as change happens and are left on the agenda until the project is complete. For a full background 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>

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)

City of Lincoln City to hold a hearing on the Voyage Lake LID and Reimbursement District on Monday, February 9, 2015, 6pm meeting start time.

See agenda packet: Pages 144 to 166

<http://lincolncityor.iqm2.com/citizens/FileOpen.aspx?Type=1&ID=1398&Inline=True>

ii. Save our Shoreline (SOS)

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

Met with another property owner on a potential project. Provided 20 or so plants, stored at our nursery.

We have a surplus of plants to move and planting time is upon us, so call 541-994-5330 to arrange for free delivery or to arrange to pick up some sedges and rushes.

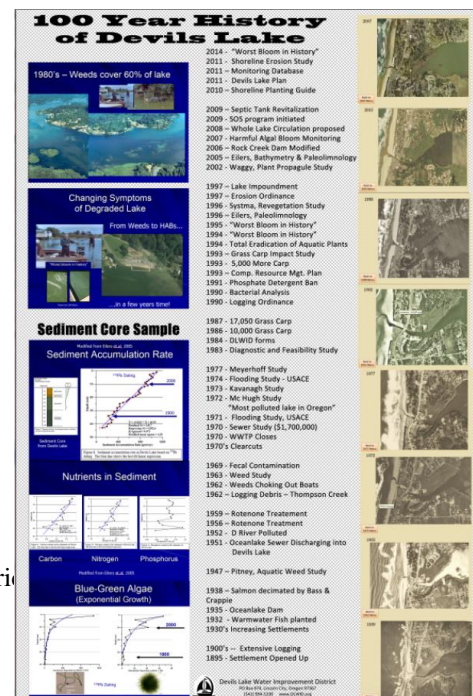
iii. Vegetation Management

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

No word as of yet on being scheduled for a return trip to the OFW Commission. ODFW are currently in the process of hiring a new director.

b. Communications Report

- Internet Streaming: Meetings the DLWID are now available for live streaming and/or recorded streaming on the internet. The internet feed can be accessed via the City's website: <http://www.lincolncity.org/> by clicking on Agenda, Packets & Video or from the following link: <http://lincolncityor.iqm2.com/citizens/default.aspx>
- Government Access Channel 4: The District's monthly meetings continue to be broadcast live and throughout the month repeatedly airs. This channel is available for Charter subscribers.
- Social Media: The District uses these social media components to reach the general public periodically.
 - YouTube: <http://www.youtube.com/user/DLWID>
 - Facebook: <https://www.facebook.com/DevilsLake.Oregon>
 - Twitter: https://twitter.com/Devils_Lake



Devils Lake Water Improvement District
Staff Reports: 2015-02-12

- KBCH am 1400: The District has had a standing interview spot on the THIRD Tuesday of the Month from 7:30 – 8:00 am.
- 100 History of Devils Lake: Available Online.

Download: http://www.dlwid.org/Communications/Know_Your_Lake/100_Year_History.pdf

- Know Your Lake: The District, led by Chair Brian Green, has been publishing informational articles in the News Guard. The articles are meant to inform the public on the activities of the District. You can download copies of the articles from our website's Project Page: <http://www.dlwid.org/Projects.html>
- Devils Lake Radio 1610 am: Audio updates have been made and added to the airwaves. Tune in next time you are in Regatta Grounds or EDLSP.
- Clearwater E-Newsletter: Winter issue released in conjunction with solstice. Click here to see a copy: <http://myemail.constantcontact.com/Clearwater-e-Newsletter--Winter-2014-edition.html?soid=1102761961457&aid=ecrIMnSdyJ4>
- Lake Steward: Seeking nominations – Application online! Due back by March meeting. http://www.dlwid.org/Communications/Lake_Steward_Nomination.pdf
- Devils Lake Dash: Organizers seeking DLWID's willingness to reimburse them for two permit fees should the event have to be cancelled for reasons of poor water quality. (Lincoln City Special Event \$50, Regatta Rental \$100).
 - BOARD CONSIDERATION: Motion to reimburse the Devils Lake Dash up to \$150 for permit fees should the event be canceled due to water quality advisory.
- Chamber Super Auction: This is an annual fundraiser where chamber members offer goods and services for auction to benefit the operational budget of the chamber. As members, we have been approached to provide an auction item with the suggestion of a 2 hour guided boat trip on Devils Lake. This could be a low effort opportunity to get some recognition on the broadcasted event and provide some direct outreach to what would be a captive audience. This I believe would fall well into our outreach efforts and be coupled with time on a Friday afternoon in the summer when the District seeks to have lake presence anyways.
 - BOARD CONSIDERATION: Approve the offering of a 2 hour guided boat trip as an auction item of the Lincoln City Chamber.
- Devils Lake Revival: District needs to decide if it is going to hold event this year again, and if so what day and how. Last year BAMA organized the event, whom I am checking with to determine their possible interest in acting as coordinator or other level of involvement. Prior to BAMA stepping up (which they did at no charge or cost to the District) we offered an RFP to non-profits to be organizers. This call went unanswered though, likely due to the fact that most non-profits are strap for volunteer time with their own projects and events. As such I don't recommend we invest the

time in pursuing this as alternative. If anything I would suggest we determine and offer an actual cash donation to qualified respondents to a similar RFP. This might be \$1,000 by way of example.

The other viable option would be to simply organize this event internally again as we did in previous years. This will require a fair amount of time up front followed by a few dedicated weeks of focused implementation. This has been estimated to be effectively 6 weeks of effort over 3-4 months by the Project Manager who as you know has since resigned. Should we be able to successfully hire an intern, they could be responsible for approximately ½ of this effort, given their start dates of typically the third week in June with the Revival most recently being on the third week in July, which for 2015 would be the 18th.

- **BOARD CONSIDERATION:** Decide whether the District will hold the Revival, and if so determining how and when.

c. Safety Report (Robertson) No incidents or updates. 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: January 14, 2015 meeting was cancelled, next meeting is scheduled for Feb 24, 2015 8 am in Newport, which conflicts with an appointment I have with another stakeholder. Goal for the meeting is to beginning the review the Beach Water Quality data which we will participate with for the northern beaches of Lincoln County.

e. East Devils Lake Road: County confirms they are moving forward with a culvert replacement.

f. Policy Updates:

Personnel Policy: At our last meeting the board agreed to review the draft and provide staff with thoughts and suggestions. At this time we have not received any additional comments, but will pass on any that are received prior to the meeting. Without any additional changes the policy would be ready for adoption based on input from the initial review which were relatively minor.

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 (Being updated as part of Safety manual)**
- Employee Training (Policy added to Personnel Policy)
- 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: <http://www.dlwid.org/Projects.html#Aeration>

Aeration/Oxidation Project: The District held a bid opening on January 16, 2015 at 2pm at Oregon Coast Community College. This was attended by two members of the public. Unfortunately, the District did not received any actual submissions of qualifications. As such though the District is left with a decision point as to what to do next. We did receive some valuable feedback though from two reputable entities which are shown below. One comes from the entity that designed, among other projects, the hypolimnetic aeration project in Oswego Lake, which to my knowledge is the only large lake aeration project in the state. The other comes from a consultant with a long history working as a consultant for the District and was the lead consultant during the grass carp implementation.

Possible considerations include, but are not limited to:

- Reissuing the RFP as is.
- Issue new separate RFPs decoupling the civil engineering components with the more limnological parts.
- Conduct a direct appointment process for an engineering plan based on existing RFP or similar.
- Issuing a new RFP. This might be changing the outcomes to be achieved, (e.g. achieving Chlorophyll a levels to be less than 25 ug/l vs. state standard of 15 ug/l; muck reduction vs. Harmful Algal Bloom reduction as stated goal).
- Table the project until a subsequent time.

- Abandoning the project with a return focus on the Devils Lake Plan including evaluation of vegetation management plans and implementation of external nutrient controls (currently shoreline improvements, septic inspections & sewer, but also stormwater, wetland establishment, etc. as called out in the plan).

- Other possibilities....

Discussion points: I would not expect many additional responses from reissuing as is. This was widely advertised and many contacts at the North American Lake Management Society meeting where contacted who knowingly reviewed this RFP. Decoupling the project may have the benefit of getting greater participation of limnologists, but the one firm working in Oregon clearly suggested that they had an engineer as part of the consultation, so this might not have been the obstacle in getting submissions generally. We have heard from a vendor, but not confirmed, that there is interest from a mid-west firm, very familiar with some aeration technology and installations which the vendor provides, as being willing to submit to an RFP that removes the civil engineering aspect, so there may be reasoning to consider this. We have also been in more in depth conversation with this vendor who has high confidence in their ability to have success in Devils Lake and may have

The District under state law may have the option of a direct appointment of an engineer for the project, based on the overall expected cost of the engineering plan and general report. This might be a watered down pursuit from the initial RFP or not. Issuing a new RFP with a change of scope and effectively lower expectation may attract additional participation. We may however be left with a project which does not achieve what has been the primary concern of harmful algal bloom control to a level which is commensurate with the investment. Tabling the project would provide for additional planning and implementation of existing projects without declaring the aeration project dead. This might be an opportunity to reflect on our whole lake management goals as they relate to most recent input we have received. Abandoning the project may be considered based on the lack of willingness for participation and feedback received from experts in the field. This would allow the District to direct resources on watershed wide management approaches with known long-term benefits.

Other considerations.....

Response #1 (33 page attachment on Cyanobacteria and management approaches not shown)

I reviewed a great deal of information and data about Devils Lake. I do agree that internal loading of soluble reactive phosphorus (SRP) is a contributing factor to stimulating Cyanobacteria blooms (Harmful Bacteria Blooms). Maintaining aerobic conditions at the sediment-water interface can help reduce that SRP contribution. However, I've concluded that it is not feasible for a "lake-wide sub-surface aeration/oxygenation system" to meet the stated RFP objectives (Chl-a and pH criteria for 303d de-listing) and will probably have a modest benefit relative to reducing Cyanobacteria. The central area of the lake, where depth exceeds about 4m, would benefit from enhanced artificial circulation to increase aerobic conditions at the sediment-water interface. I suspect that a downward circulating system, probably powered by wind (coastal lake) would be cost-effective. The lake exhibits very high TP (averaging 60 ppb at the surface, 100 ppb over bottom); nitrate will be exhausted early by uptake and denitrification; and silica availability is low compared to TP. That all sets the stage for buoyant N-fixing Cyanobacteria (scum forming ecostrategists). Maintaining silica, CO2 availability, healthy grazing rate, and

circulating phytoplankton cells out of the trophogenic zone are probably the things you need to focus on for Cyanobacteria reduction. In short, manage for the type of phytoplankton (Greens and Diatoms favored over N-fixing Cyanobacteria).

From my examination of data and information I've been able to find, I've concluded that the "best management approach" would be to modify your macrophyte management strategy in a manner that retains some degree of littoral productivity (to compete with phytoplanktonic productivity) and then manage the water column (probably by downward artificial circulation from the average summer compensation depth to bottom- maintaining a warmer surface. Lack of littoral zone productivity appears to be a problem (re: Carp).

Unfortunately, we are not able to submit an aeration/oxygenation proposal that is responsive to your RFP. Thank you for the opportunity to examine Devils Lake. I have attached a pre-print of a paper I have in press at the NEWWA Journal. It discusses the nature of Cyanobacteria and some management approaches. We wish you success with your restoration efforts.

Bob Kortmann
Robert (Bob) Kortmann, Ph.D.
www.EcosystemConsulting.com

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Response #2

Thank you for the opportunity to propose on your project to design an aeration system for Devils Lake. When I received your request for proposals I engaged several collaborators (Sam Mackey and Tim Sullivan of E&S Environmental, Mike Deas of Watercourse Engineering, and Stephen McCord of McCord Environmental) with the intent to form a team to respond. After discussions within the group, we have decided not to submit a proposal.

Aeration and mixing has been successful in several shallow lakes but it is not reliably so. Based on our knowledge of Devils Lake and our experience with aeration systems in lakes, we felt that Devils Lake was perhaps not a good candidate for successful aeration and mixing. We felt it inappropriate to submit a proposal for a project we could not wholeheartedly endorse.

As you know, I have a significant and continuing interest in the fortunes of Devils Lake. I appreciated our informative discussion about potential remedial actions at Devils Lake. I would be pleased to continue discussion as you proceed with your water quality actions.

Regards,

Richard Raymond
ESR Environmental Science Resources, LLC

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

Robertson - The District has been in contact with George Drake, PE, ENV SP who is the Director of Civil Engineering with PBS Engineering + Environmental. PBS is currently involved with and have been involved with a number of projects in Lincoln City, including the recent Schooner Creek project off of SE 51st. A large section of the road has been eroding into the estuary and in order to isolate the incoming tide from the work area to enable restoration, they deployed a water dam (See photos). This is one of the technologies the District has considered as an option for moving to a truly summer time

only impoundment and thus it made sense to try to work with some civil engineers with direct experience with the technology.

The objective is to have PBS determine an inexpensive, easily deployable, and suitable means of impounding water for the summer months to further the discussion on whether or not the District might remove the concrete base partially or in full to among other things allow better fall, winter, and spring flushing of the lake. With such designs in hand, the District is then seeking to hold a public hearing on this matter as well as the use of the water right outright which will be forth coming, possibly in March, but at this stage more likely in April.





New Business

- A. Board Election:** Three positions are up for election - Positions 1, 2, and 3 which are currently held by Directors Norris, Weldon, and Ward, respectfully. All terms are four years, which would start in July 2015. Information on filing can be obtained through the Lincoln County Clerk's Office:

http://www.co.lincoln.or.us/clerk/election_info.html

Important Dates for May 19, 2015 Special Election

1st day to file for office (district offices)	February 9, 2015
Last day to file ballot title for measures (county & city)	February 27, 2015
Last day to file for office (all candidates)	March 19, 2015
Last day to file measures & explanatory statements	March 19, 2015
Last day to file for Voters' Pamphlet (district offices)	March 23, 2015
Last day to file for Voters' Pamphlet (arguments)	March 23, 2015
Ballots mailed to military & overseas voters	April 3, 2015
Ballots mailed to out-of-state voters	April 20, 2015
Voter Registration Deadline	April 28, 2015
Ballots mailed out	April 30, 2015
Election Day	May 19, 2015

B. Oregon and California Land Grant Act of 2014 (S.1784):

Available: <https://www.congress.gov/bill/113th-congress/senate-bill/1784>

Proposed by Senator Ron Wyden this act would transfer ownership in the Rock Creek Watershed from the US Forest Service (USFS) to the Bureau of Land Management (BLM). Land would be moved from the USFS current objective of late successional reserve (similar to Old Growth) to timber harvest. The City of Lincoln City is considering a resolution opposing this bill at their next meeting – February 9, 2015 6pm. David Hawker has a memo in the packet starting on page 25 and there is a proposed resolution on page 171.

Much of the concern the city poses is to their drinking water supply of Schooner Creek which would be threatened, and similarly applied to the Rock Creek drainage which they also hold water rights on and have concerns of threats to native Coho Salmon. The District might also consider opposing this bill as a threat to the Rock Creek watershed which is the bulk of the drainage of Devils Lake. Intensive timber can have and has had significant impacts to water quality, causing erosion and thus sediment and nutrient transport to the lake. Notably the EPA and NOAA recently rejected Oregon's Coastal Zone Management Plan to protected streams for timber management practices (and other non-point including agriculture) as they did not go far enough to insure the protections required for native species.

Oregon Live:

http://www.oregonlive.com/environment/index.ssf/2015/01/feds_reject_oregons_coastal_po.html

Board Consideration: Submit a letter in opposition of the bill.