



**MINUTES
DEVILS LAKE WATER IMPROVEMENT DISTRICT
GOAL SETTING WORKSHOP**

**Oregon Coast Community College, Lincoln City OR
July 20, 2015
6:00 P.M.**

PRESENT: Kent Norris, chair
Tina French, vice chair
Bill Sexton, treasurer
Brian Green, director
David Skirvin, director

STAFF: Paul Robertson, Lake Manager

(Audio: 0:00)

Chairman Kent Norris convened the workshop at 6:04 p.m.

I. ROLL CALL

All directors are present.

II. STAFF PRESENTATION ON CURRENT GOALS & DEVILS LAKE PLAN

ROBERTSON: Reviewed current board priorities, as shown in a slide presentation
http://www.dlwid.org/Meetings/FY_2015-2016/Presentation_2015-07-20_Goal_Setting_Workshop.pdf

DISCUSSION re: grass carp (history, etc.)

DISCUSSION re: Septic Tank Revitalization and Inspection (Audio: 9:30)

Robertson: Fear about inspection now is it could drive people to replace septic with expensive systems, making sewer system more difficult to complete

French: People can't decide what to do if they're faced with an expensive septic replacement

Green: Can resolve that by moving ahead with sewer; if DEQ requires septic replacement, county sanitarian has leeway if sewer coming

Discussed creation of sewer district, possible cost of \$5 million to \$6 million for city to place sewer

Audience (Larry Brown): Septic systems are not polluting lake; people aren't here 99% of the time; house septic has to be inspected when sold; blamed city sewer pump stations and birds for pollution; blue-green algae occurs around the world; we're not going to stop the problem

French: Have we inventoried contributors of nutrients to lake?

Green: Septic systems keep pollutants out of the lake but not nutrients (nitrogen and phosphorus)

Norris: How do we prove that a sewer will solve the nutrient problem?

Green: The literature says drainfields become saturated 30 years; we have 376 systems either with steel tanks at least 15 years old or drainfield at least 35 years old; 55% of the systems are at risk of failing or are failing

Audience (Jim Hoover): Asked for definition of "failure"

Green: A septic system doesn't have to be failing to be contributing nutrients to lake

French: Suggest we quantify all sources of nitrogen and phosphorus and present that to community to determine the worst contributors: is it the golf course, the city pump stations, failed septic systems? We need data to quantify problem.

Norris: Aged septic systems contribute nutrients to lake; systems might not be failing, but over time septic systems reach their functioning limit, and our goal should be to reduce nutrients, so we need to educate public, not to point fingers, but to explain

DISCUSSION re: SEWERS

(Audio: 35:00)

Robertson: Bids for Voyage LID due July 30.

Green: Properties with functioning septic systems will not have to hook up for 20 years; hookup will be required if a septic system needs repair or upon sale of the house

Audience (Hoover): Homeowners are concerned that septic inspection could oblige them to install a \$20,000 to \$30,000 system, but then sale of house would require another \$30,000 to hook to sewer

Norris: That's why we're avoiding septic inspection program

Robertson: A septic inspection ordinance could be created and then shelved until city decides not to sewer; then septic inspections would start; DEQ would recommend 3-5 year inspection, especially near water

Discussion continued re: sewer financing, buildable lands inventory, sewer master plan update, environmental review, UGMA (Urban Growth Management Agreement between city and county to manage the impact of development), seek additional LIDs

COMMUNICATION (Audio: 41:30)
Robertson summarized communication strategy and outreach

BACTERIA SOURCE TRACKING (Audio: 43:40)
Robertson summarized effort to determine source of bacteria, including *E. coli*, with focus on Thompson Creek

Audience (Hoover): Asked if sewer would include Park Lane area, where properties border Thompson Creek

Robertson: Current sewer plan would not include Thompson Creek; we try to communicate with property owners to try to reduce pollutants

PROMOTE RECREATION (Audio: 49:00)
Robertson summarized recreation efforts

French: Is the Devils Lake Revival the only recreation that we fund?

Robertson: Yes, along with some permitting and insurance costs for other events

SHORELINE REHABILITATION (Audio: 52:00)
Robertson summarized programs

HARMFUL ALGAL BLOOMS (Audio: 54:00)
Robertson: The main reason to update the Devils Lake Plan is to include strategy for combating HABs; reviewed nutrient problem; possible treatments; requests for proposals; aeration RFP; lack of bids; direct appointment; finance training planned

Audience (Jack Strayer): Asked about measuring factors in lake in order to monitor progress

Robertson: Discussed measuring cyanobacteria, chlorophyll, clarity, toxins

French: The more stuff we get off the bottom of the lake, the better off we are

Robertson: We would try to reduce scum-forming cyanobacteria

Norris: Any RFP would include a monitoring system to evaluate what's taking place

Audience (Hoover): Asked about HABs proposal from last year, and RFP approach

Norris: We've learned how to approach this in a different way

Audience (Brown): Asked about how much water is used by the golf course

Robertson: City of Lincoln City owns the water right on Rock Creek and city sells water to the golf course (75 acre feet)

Audience (Hoover): Asked if we know what nutrients the golf course is putting back into lake through fertilizer runoff

Discussed sampling of golf course runoff, other projects, including shoreline erosion study

III. BOARD COMMENTS AND QUESTIONS

(Audio: 1:07:00)

Norris: As a board, are we happy with current goals

Skirvin: #1 current goal has to be HABs abatement, working toward water quality; #2, nutrient abatement, with sewer and septic inspection a part of that

Green: Devils Lake Plan page 5 has objectives; #1, reduce nutrient loading; #2, reduce internal loading through aeration; reduce weed growth

French: #1, take care of what's on the bottom of lake and get it out; determine source of *E. coli* and control it; sewer doesn't address this; important because we've lost life in this community from *E.coli*; the Café - what is that? (suggested removal)

Robertson: Café would be an aspiration goal, would provide a location on the lake for research, community interaction; no action has been taken on this

French: Promoting a bond to fund aeration project would be more realistic than sewer project; could reach out to neighborhood associations; Devils Lake Neighborhood Association is promoting voluntary septic inspections; praised communication effort; questioned cost of Know Your Lake ad in News Guard; thanked Miles Schlesinger for his work in promoting lake; questioned cost of Devils Lake Revival

Norris: Most people at Revival were there because they happened to be going to Regatta Park, hadn't heard of the Revival; suggested evaluating event and cost

French: Re: septic/sewer, need to quantify external sources of all nutrient loading; homeowners need answers in order to make case for sewer

Norris: Suggested lake manager and intern keep daily logs so people know what staff does

Robertson: It can be part of the communication effort; we have done these in the past

Skirvin: Suggested executive session to review employer/employee expectations; Roads End now within our boundary and could be part of our tax base, option could be considered for another 7 years

Sexton: Monitor pump station outflow to see if sewage spill going into lake; nitrogen and phosphorus will always be coming from septic; mandatory septic inspection; would like more verbal reports from manager as follow-through; *E. coli* in water could be addressed if we spend money on source, concentrate on water clarity rather than Save Our Shoreline, save that for winter when we have more erosion; deal with *E. coli* and blue-green algae, sludge on bottom; dredge sand to increase water flow at mouth of D River in summer.

Discussion re:

- extending current permit to remove sand on west side of dam so sand on east side can be removed
- west side sand causes flooding, but east side sand does not
- call for dredging D River
- help landowners get permits to clear canals; generally too expensive for private owners to dredge canals
- timing of dredging depends on fish run
- modify emergency dredging permit, try to get permit so we can get help from Devils Lake Neighborhood Association, probably 120 days limited time frame
- tough sell to dredge on east side of dam because that would not help fish passage
- removing dam would help fish most of year, but removing sand doesn't help fish
- sand hasn't been dredged in 20 years, so benefit to get permit, especially if volunteers can do it
- proper timing to remove stumps from river

(Audio: 1:44:00)

Norris: Move ahead with aeration plan and funding strategy to control HABS; costs could far exceed initial expectation, but best chance to improve lake; engage shareholders, form committees to help promote and manage lake, could be shoreline restoration committee, recreational event committee; volunteers could help 12 months a year, perhaps with water quality monitoring, running the lab; give people more a sense of ownership; revise Devils Lake plan to include new goals; grass carp application is floundering; ask sheriff's office to mark hazardous objects in lake; need timelines so we have accountability

Green: First priority should be nutrient loading; proposed aeration contract could be reduced below the \$100,000 maximum to \$99,500 by reducing permitting

Norris: Let's meet with Dr. Horne so he can give presentation and be questioned (discussion re: costs, having questions in advance)

Green: Address external loading from septic systems and stormwater runoff; we don't have timber activity, agriculture

Audience (Strayer): How do we know we don't have runoff from forest lands or golf course; how much comes from forests as opposed to septic?

Green: Problem is from aging septic fields and bad soil conditions, that's how we determine systems are beyond useful life; septic systems delay nutrients, but doesn't stop them; don't know if it's realistic to try to quantify sources; that might be a way to delay sewer project; in

nature, proportion of nitrogen to phosphorus is 16:1, in our lake it's over 30:1, which means nitrogen is flowing through septic systems; previous bid on quantification was \$97,000, money could be better spent on solving problem rather than collecting data

French: Focus on identifying sources, especially if city sewer pump stations are a source

(Audio: 2:03:00)

IV. PUBLIC COMMENT

Larry Brown: Lake is too big for aeration, we're not going to beat mother nature; we've had algae blooms every year without ill effects, winter bloom last year was a first; blue-green algae exists all over the world; septic systems are not contributors; can test for nutrients; can pump it onto grass instead; shoreline program creates weed gardens, spent tens of thousands of dollars and they're ugly, not cost-effective; D River wayside needs to be cleaned up; neighborhood association volunteers can accomplish a lot; sheriff on the lake should meet people at the boat ramps to check licenses, inspect boats, not give tickets for inconsequential problems; fireworks a big success; executive sessions exclude public, nothing should be behind closed doors

Miles Schlesinger: Can county sanitarian be notified about septic problems at rental properties on Thompson creek?

Discussion re: county sanitarian and Thompson Creek properties

Pat Dooling: Thanks for holding meeting on Monday, helps to include weekend people; supports citizen committee idea, could work on septic tank inspections; systems are getting better as technology improves; his septic system cost \$27,000 seven years ago; could tap Oregon State University resources for engineering help

(Audio: 2:23:00)

Jack Strayer: Would like his email entered into minutes (attached); in 1980s, 52% of lake covered by vegetation, after grass carp, weeds gone and recreation enhanced, but lake is desert with no vegetation, grass carp poop on bottom and now nutrients are at high level; need to develop nutrient budget to trace all sources into lake; possibly Portland State University could do it cheaper than Joe Eilers; helps you make a more informed decision; grass carp as only solution is a problem, rejected by ODFW, more carp would require either legislation or special rule change; have ODFW come to a meeting and explain concerns; we've spent \$200,000 and have gotten nowhere; Devils Lake Plan 2.1 lacks focus, needs realistic goals, needs means of documenting actual results; not updated in 4 years; need vegetation management to make lake healthy, should plant native aquatic vegetation and protect it from carp; plants could control nutrients and erosion and provide oxygen; why stop Save Our Shoreline 3 feet from water, we're simply replacing non-native plants with native; native plants don't absorb more nutrients than plants they took out; should meet with new regional watermaster to ask about annual drawdown

French: How do we control weeds without carp?

Strayer: Plant the first 3 feet of shoreline and have mechanical means to remove plants from middle of lake; lots of places to plant that don't interfere with recreation; every lake manager he's talked to says grass carp wipe out needed vegetation

Sexton: Has been talking with watermaster; our water right permit was latest to be issued, so we're last in line to request modification; we have to observe older rights; our permit requires drawdown after August 1

Ann Norris: We need sewers but it will take a long time and a lot of money so let's get a septic inspection program going; when house sells, that's when you have to tie in; you would not have to hook up to sewer if your septic is working

Discussion re: sewer hookup requirements and sewer district ability to enforce septic inspections
(Audio: 2:48:00)

Jim Hoover: Asked about septic inspection, how do you measure failure, public needs to know standard for credibility; Lincoln City required homeowners to inspect septic systems in order to receive city water, but would hate to see board engage in governmental bullying; have we tested water quality coming off golf course? How else can we determine what percentage septic systems bring to problem; Thompson Creek conversation gets muddled between bacteria and nitrates; no one samples above and below properties with horses; we're ignoring probable sources of nitrates and focusing on septic without cause; needs to be a sellable project based on impact, can't ask people to spend \$30,000 on a new septic system and then throw that out if they have to sell their house and are obliged to hook up to sewer; how much staff time goes into Devils Lake Revival beyond \$6,000 event cost; bothered that we put out RFP and didn't get response; have we ever put RFP out to organizations that could help; could we get a better value and better product

Robertson: Difficult to test water from golf course because it flows through wetlands, not as simple as testing water flowing through a pipe; the golf course has been asked for data; runoff from horse properties can be tested

V. BOARD DISCUSSION

VI. GOAL PRIORITIZATION

Norris: Would like Lake Manager to put today's discussion into a goals document to consider, and we can formulate priorities; need timelines so we can evaluate our work

Skirvin: Four themes can be identified and weighted by priority

French: Would like to know what we've done in the last year, not the last 5 years

VII. ADJOURNMENT

Norris adjourned the meeting at 9:15 p.m. The next regularly scheduled board meeting will be August 13, 2015, at 6:00 p.m.

Respectfully submitted, Rick Mark

PUBLIC COMMENT

Devils Lake issues – 8/20/2015

Prepared by: Jack Strayer

Situation in the early 1980's – Lake was covered 52% by Macrophytes [aquatic plants] making recreation on the lake difficult.

Causes: Forrest

Agriculture

Sewage spills

Septics

Surface water runoff

Golf course

Others

Solution: Grass Carp

Result: Weeds [and nearly all native aquatic vegetation] ingested by the carp

The bottom of the lake is barren of nearly all aquatic vegetation

Lake Nutrients are at a high level – stimulating excessive cyano-bacteria

Situation in 2015 -- Grass carp are nearing the end of life so the Board should decide how to address the nutrient sources and their impacts.

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Even though the grass carp solved the apparent problem by clearing the weeds from the surface for recreation – they led to another problem of contributing to severe outbreaks of poison blue green algae that could last all summer – thus defeating the goal of improving recreation.

Recommendation – Commission a Nutrient Budget

To get a handle of the nutrients, the first step should be to develop a Nutrient Budget for the Devils Lake basin. All nutrients in the basin eventually find its way into the lake. A Nutrient Budget would trace all nutrient sources and their impact on the lake's nutrient load. The Budget would also include all methods to reduce the nutrients in the lake and their potential impacts. With this information the Board would able to analyze each solution based on its costs and impact on nutrients and prioritize the district efforts.

This study was purposed numerous times by DLWID but after many false starts was rejected. In order to make better decisions about alternatives and their impacts the source of the nutrients and its impact are critical.

Immediate measures to oxidize nutrients – such as aeration could be pursued immediately as they are not dependent on the nutrient source.

The nutrient budget is essential to prioritize District efforts and allocate funds to get the best results.

Recommendation – Discuss Grass Carp with ODFW

One issue that is holding up progress on solutions to help the lake ecology – has been the insistence by DLWID that grass carp is the only solution for the lake. The ODFW has officially rejected the District's grass carp request 5 times or more. ODFW has explained to various directors and the lake manager the scientific basis for their decision and explain that the only way to get authorization is the pass legislation and/or get special approval from the Fish and Wildlife Commission [who usually side with ODFW].

ODFW has written letters to DLWID explaining in detail why grass carp application has been disapproved based on the science of lake ecology. Since we are subject to public meetings laws – I suggest [and I will help set up] inviting ODFW officials to give 20 to 30 min talk and Q&A at an upcoming meeting – to discuss their views on grass carp for Devils Lake.

DLWID has spent upwards of \$200,000 on studies, mapping, testifying, completing forms and the Lake Manager's time, to try to get around the ODFW rejections of grass carp.

With the direct ODFW information – DLWID Board will be able to determine the impacts of grass carp and develop plans accordingly.

Other issues to deal with:

Devils Lake Plan 2.1

Devils lake plan is an embarrassment to the District by its lack of focus, lack of use and lack of usefulness. A workable action plan should include the following:

- Realistic workable objectives and expectations
- set of planned actions, resources to be used, results expected, and the time budgeted
- documentation of actual results achieved, and periodically reported to the board
- update plan for the next cycle

While the lake manager spent considerable effort drafting the "Devils Lake Plan 2.1" it does not serve as a usable work plan. The Devils Lake Plan 2.1 contains semi-factual, semi-opinion based lake topics with outdated actions plans, and objectives. The plan has 15 pages of actions that have not been updated since 2011.

Recommend that the Devils Lake Plan 2.1 be replaced by a series of realistic action plans that allocate resources, expect results and provide timely feedback to the Board.

Other DLWID Vegetation Management [not grass carp]

DLWID Vegetation management has been used as a substitute for reintroducing grass carp – [funding GC \$200k+ vs vegetation \$0]. There are many means to control noxious vegetation and maintain a healthy lake at about 20% native aquatic plants [general scientific agreement is on the 15% to 25% aquatic vegetation level]. This safe level of vegetation at 20% will help absorb much of the excess nutrients that are stimulating the toxic algae blooms, while also reducing erosion and increasing lake oxygen.

The first step is to plant native vegetation around the lake to include emergent and other not invasive aquatic plant. It has been considered by DLWID to gather existing beneficial aquatic plants from around the lake and have a nursery propagate them for replanting in the lake in non-recreation areas.

The second step is to monitor the lake for occurrences of invasive aquatic vegetation and develop a plan of mechanical harvesting [could be done by local dive groups or special machines] or use of environmentally safe chemicals on a spot basis.

By giving native vegetation a head start, monitoring for invasive, and taking actions as needed, the lake can maintain a healthy level of vegetation at about 20% [without grass carp] and minimize the impacts of toxic algae blooms.

Recommend that a Devils Lake Aquatic Plant Nursery program be started.

Sewering the Lake

The decision to sewer the lake is really the city and county's jurisdiction. The results of a Nutrient Budget would be critical in scoping the DLWID involvement.

Septics are also dependent on the results of the Nutrient Budget outcome. The DLWID monitoring has shown no e coli entering the lake from septic tanks. While septics only delay nutrients from entering the lake, a nutrient budget may show the percentage that septic tanks contribute to the lake's nutrient load.

Recommend that future sewer and septic projects be tabled until the Nutrient Budget is developed

Save our shoreline project

The original design of the Save our Shoreline Project included extending the planting from the land to the emergent zone to the lake zone. But somewhere in the implementation the SOS project stops about 3 feet from the water's edge. It was not shown that the SOS planting reduced more nutrients than the plants that were removed. The DLWID paid 75% for the costs to landscape lakefront owner's back yards. So the benefits of the project remain suspect at best.

Ironically if plantings were made in the emergent zone and in the lake itself, those would have made direct reductions in the lake nutrients, helped shoreline erosion, and provided beneficial oxygen.

Recommend SOS project be suspended pending inclusion of emergent and Lake Zone plantings.