

SEPTIC PROGRAM DOCUMENTED HISTORY

The current Septic Revitalization Program has been discussed in one form or another by the Devils Lake Water Improvement District Board since 2007. This document was created by performing a review of all online documentation available for DLWID. Excerpts related to "septic" from all DLWID online records are contained below. The size of each clip contained in this document are selected for maximum understanding. Given that context is important a hyper link is provided to the original document should the reader wish to continue their research. This document is presented in chronological order.

2006 Board Activities.....	3
Septic Program March 2006.....	3
2007 Board Activities.....	3
Vegetation Management Workshop February 20, 2007.....	3
Agenda and Managers Report April 5, 2007	3
Minutes April 5, 2007	4
Agenda and Managers Report May 3, 2007 Budget Committee	4
Minutes May 3, 2007 Budget Committee	4
2008 Board Activities.....	5
Draft Devils Lake Plan 2008.....	5
Goal Setting Workshop February 16, 2008	5
Budget Fiscal Year 2008-2009	7
Agenda and Managers Report May 1, 2008 Budget Committee	8
Minutes May 1, 2008 Budget Committee	8
Agenda and Managers Report June 4, 2008	9
Minutes June 4, 2008	10
Agenda and Managers Report May 1, 2008 Budget Committee	10
Minutes Special Meeting July 29, 2008.....	11
2009 Board Activities.....	14
Agenda and Managers Report January 8, 2009	14
Minutes January 8, 2009	15
Agenda and Managers Report March 5, 2009	15
Minutes March 5, 2009	16
Agenda and Managers Report April 2, 2009	17
Minutes April 2, 2009.....	17
Agenda and Managers Report May 7, 2009.....	17

Minutes May 7, 2009.....	19
Budget Fiscal Year 2009-2010	19
Agenda and Managers Report June 4, 2009 Budget Committee	22
Minutes June 4, 2009 Budget Committee.....	22
Agenda and Managers Report July 2, 2009.....	23
Minutes July 2, 2009.....	24
Agenda and Managers Report August 6, 2009.....	25
Minutes August 6, 2009	25
Agenda and Managers Report September 3, 2009	26
Minutes September 3, 2009.....	27
Agenda and Managers Report October 1, 2009.....	28
Minutes October 1, 2009	29
Agenda and Managers Report November 5, 2009.....	29
Minutes November 5, 2009.....	30
Agenda and Managers Report December 3, 2009	31

2006 BOARD ACTIVITIES

There were very few activities or discussions regarding septic systems in 2006. The district did trial a discount coupon for septic pumping that had very little result.

SEPTIC PROGRAM MARCH 2006

Septic System Clean Out

\$25 Discount pumping by T&L Septic Tank Service

www.dlwid.org/Projects/Septic%20Systems.pdf

2007 BOARD ACTIVITIES

Discussions began to include issues related to septic systems in 2007, 3 meetings contained a reference to this topic.

VEGETATION MANAGEMENT WORKSHOP FEBRUARY 20, 2007

Robertson: Yes, they have been using chemicals. There are still plenty of weeds in this lake. The bluegreen algae was their biggest problem. This is the group that has historic problems. This used to be a septic system lake. Now, all the old septic systems are being pumped out. Now that they have the septic systems going out, the nutrients are not going into the lake now. They didn't get everything they wanted. They had nine Solar Bees.

<http://www.dlwid.org/PDFs/Special%20Workshop%202007%2002%2020.pdf>

AGENDA AND MANAGERS REPORT APRIL 5, 2007

Agenda

V. New Business

- a. Resolution
- b. DLWID Archivist
- c. GPS Purchase Proposal
- d. Windpowered Circulators
- e. Blue Frog Absolute Aeration
- f. Bacteria Monitoring Program
- g. Lake Map at D River Space

Managers Report (none available)

<http://www.dlwid.org/PDFs/Agenda%202007%2004%2005.pdf>

MINUTES APRIL 5, 2007

WindPowered Circulators:

Landhuis stated that he has been researching methods of circulating water, which seems to be what the Board is ultimately interested in to partially solve the problems. Solar Bees are expensive, said Landhuis, and there are hundreds of methods of stirring up water. He found a windpowered circulator of a company that has been in business for 25 or 30 years. They circulate water for drinking and for **septic** systems. The Board studied the literature distributed, along with the proposal.

<http://www.dlwid.org/PDFs/Minutes%202007%2004%2005.pdf>

AGENDA AND MANAGERS REPORT MAY 3, 2007 BUDGET COMMITTEE

Agenda

- V. Budget Committee
 - a. Elect Budget Committee Officers
 - b. Budget Officer Presents Budget
 - c. Budget Committee Questions
 - d. Public Comment
 - e. Budget Committee Revisions
 - f. Budget Committee Approval

Managers Report (none available)

<http://www.dlwid.org/PDFs/Agenda%202007%2005%2003.pdf>

MINUTES MAY 3, 2007 BUDGET COMMITTEE

Public Comment

Todd and Marlene Nelson from Johns Loop in Neotsu told the Board that they had received a notice from the County informing them that a building permit was pending for a dock in their neighborhood. They expressed concern about the conditional use permit, since the house in question is a rental and they are afraid that additional renters will overwork the **septic** system that has not been updated. The house is listed as the Fish Catch Inn with www.horizonrentals.com as sleeping 12 with parking for 6 vehicles. It has one dock and they do not feel that another dock is warranted on such a small house.

The Nelsons said they are representing their neighbors in their plea to the Board for some support. Todd Nelson said the land has been surveyed incorrectly. With seven docks in this cove, they feel no more are warranted. Aschenbrenner asked if there was a hearing scheduled. Robertson stated that when there is a request for a dock, the County sends a notice to DLWID and the public and a period of 15 days is allowed for an appeal, along with a \$100 fee. Aschenbrenner asked if the appeal is open. Nelson replied it closes on May 10. Aschenbrenner advised Nelson to file an appeal and maybe hire an attorney; he stated that DLWID is attempting to get the County to have more control over docks. He advised Nelson to meet with Robertson and discuss options with the County and the Water Board, since DLWID has no enforcement capability; Robertson could write a letter.

Strayer asked if there were any visible sewage leaks. Nelson replied, “No.” Dave and Sue Bosniak arrived. Bosniak stated that the sewer has never been replaced or pumped that he is aware of. Moore submitted that the codes do not address the number of people who actually use bathrooms, rather, permits relate to the number of bedrooms in a house. He suggested that Nelson and Bosniak check to see how many bedrooms the house was permitted for and request that the County come out and inspect. Robertson said the State accepts fees for docks; the County has to approve installation. The land owner would have to provide a Division of State Lands waterways lease for the dock prior to obtaining a permit for a boathouse or dock. Bosniak stated that Ursula Sperry from State Lands said that the neighbors on either side of the dock would have to give approve prior to a permit being issued.

Further discussion ensued relating to Cannon Beach, transient room taxes requirements and the minimum number of days a house could be rented per Cannon Beach’s new regulations. Further discussion about how many homes on the lake are being used as rentals—it is believe that possibly as many as 40. Sell said he owns the Lakehouse B&B and he pays a 7% tax to the County. He said if Horizon Rentals is renting these houses without declaring them rentals, the County is not receiving their taxes. Robertson stated that the primary concern for him is the septic tank issue, since weekend pulses on septic systems does them no good. He said it is worth further investigation.

<http://www.dlwid.org/PDFs/Minutes%202007%2005%2003.pdf>

2008 BOARD ACTIVITIES

Discussions related to septic systems kicked into high gear during 2008. The first draft of the Devils Lake Plan contained a reference to a Septic Tank Revitalization Program. Septic tanks were mention in 6 meetings during the year with most of the discussion related to the Devils Lake Plan and SolarBees as there was an attempt to fund both SolarBees and the Septic Tank Revitalization Program from the Oregon DEQ Revolving Loan Program.

DRAFT DEVILS LAKE PLAN 2008

Page 17.

The plan would require mandatory certified inspections of all septic systems within the watershed every three years. Failure to comply with the proposed municipal ordinance would cause for the water service to be shut off.

<http://www.dlwid.org/Projects/Devils%20Lake%20Plan%20Draft%202008%2012%2002.pdf>

This plan has never acted upon by the board.

GOAL SETTING WORKSHOP FEBRUARY 16, 2008

Goals:

- Create Lake Management Plan to include information on cyanobacteria testing, SolarBee study, grass carp issues, warmwater fishery, salmon fisheries, septic tank pollution, monitoring of wetlands, etc.
- Investigate grants for home repair with an eye to septic tank revitalization within the watershed area.

Aschenbrenner: What is the difference between a lake management plan and a vegetation management plan?

Strayer: I guess I see the vegetation issue as more the problem we have. Lake management can include everything.

Aschenbrenner: At one time we considered that we would get Dr. Sytsma down here and he'd help us make one and we never completed it. Would it be worthwhile? Would you be able to do a lake management plan?

Robertson: It certainly wouldn't be something I would shy away from. Aschenbrenner: We could tie together the testing, SolarBees, warmwater fishery, salmon fisheries, septic tanks, not fertilizing. We should have something completed for when we go for any type of grant.

...

Green: So he is saying the sediment is increasing and the cyanobacteria are also increasing.

Robertson: The newest sediment is on the top. There is a steep increase in cyanobacteria and it is accelerating. In 1994 the weeds were gone. We have nutrients since the beginning of the lake, but intensive since the 1950's. We have constant inputs. Houses that have septic systems are dumping into the lake. We know that there are nutrients in the watershed. When you know you have nutrients and you remove the largest source, Sitka spruce, milfoil or what have you, you still have nutrients and the bacteria are making use of it. When you take wolves out of Yellowstone, you get coyotes. We've taken weeds out, and something is going to fill the void.

...

Robertson: This is a good goal from 1991. One thing that would be worth investigating would be septic tank revitalization inside the watershed. I found a grant this week for low income home repair. It isn't a real good one, but is something worth investigating. Whatever tools we can hand to people needing repairs to handle it. We can start doing this.

Strayer: I went to a PADL meeting years ago before we were annexed. Lila Bradley said you should be part of the city to be sewerred, but nothing has happened. They said they are not doing sewers. They are not going to do anything on sewers. All they did was raise our taxes.

Robertson: They have had some activity. There is a little enclave near the LDS church where I think they were trying to put together a local improvement district. There is one on the point between the hospital and the lake with a couple of exceptions is not sewerred. This goes back to the power outage thing—they are sewerred by virtue of power for pumping. If it was properly sewerred it would be the city that would be responsible for pumping—not individual homeowners. There has been some talk, but they haven't actually sewerred anybody.

Strayer: In 1982 they said it would be about five years until they would be sewerred. Winchester: They don't have to ask people [to be annexed] in The Dalles. But, you can put off three years putting in sewer and water.

...

Robertson: Things that I place priority on are cyanobacteria and toxin monitoring. Funding a bacteria source tracking study of the D River, the septic tanks are a problem in some places, but they are not reaching the D River as proof seen in the Campground having consistently good water quality. Nye Beach has a problem every

week and theirs is always sewer related. The D River problems are intermittent and the state is not finding problems in the winter, so likely the source is birds or slower water—all those things aggravate it.

New ideas:

Septic system revolving grant fund. Home owners in the city limits with a failing system could get a commercial grant to help replace existing ones.

<http://www.dlwid.org/PDFs/Minutes%202008%2002%2016%20Workshop.pdf>

BUDGET FISCAL YEAR 2008-2009

Budget Priorities for FY 2008-2009

In February of 2008, the District's Board of Directors formulated six objectives for focus and completion. These specific objectives are listed below. In order to meet these objectives, the District's spending and staff time in FY 2008-2009 shall be appropriated and designated accordingly.

- Create a Devils Lake Management Plan to include strategies and objectives for management of cyanobacteria, vegetation, and water quality, specifically addressing grass carp issues, warm-water fisheries issues, salmon fisheries, **septic** tank pollution, sewerage, and land-use.
- Investigate funding opportunities for purchase of the SolarBees.
- Take steps to plan for and establish Devils Lake as a research center for aquatic and freshwater ecology (The CAFÉ), partnering with the Center for Lakes and Reservoirs at Portland State University and the Oregon Coast Community College's Aquarium Science Program.
- Investigate grants for **septic** tank revitalization within the watershed.
- Develop a strategy and investigate funding opportunities to remove dilapidated structures around the lake, including cataloging such structures, contacting upland property owners and working with state agencies such as the Oregon Marine Board and Department of State Lands for their removal.
- Research subsidizing the purchase of organic fertilizers to acquaint the public with the benefits of its use over inorganic ones.

Reserve Fund Resources

Similarly, with grant funding, up to \$25,000 has been appropriated into Watershed Protection. The Devils Lake Water Improvement District has and strives to continue to play a role on private and public property improvements that benefit the watershed. Previously the District has provided some matching dollars for a grant for the removal of an agricultural dam on Rock Creek. Projects these monies may fund include riparian plantings, **septic** tank upgrades, and other Best Management Practices to reduce nutrients, sediment or pollutants from entering the lake.

<http://www.dlwid.org/PDFs/Budget%202008-2009%20FINAL.pdf>

AGENDA AND MANAGERS REPORT MAY 1, 2008 BUDGET COMMITTEE

Agenda

- IV. Budget Committee Meeting 6:15
 - a. Presentation of Budget
 - b. Budget Committee Questions
 - c. Public Comment
 - d. Discussion
 - e. Budget Amendments
 - f. Budget Recommended to Governing Body
- V. Unfinished Business
 - a. Boat House/Docks
 - b. Native Revegetation
 - c. Boat Launch Signage
 - d. The Devils Lake Plan
 - i. Grant Opportunities
 - ii. Cyanobacteria Control
 - iii. Lake & Watershed Modeling

Managers Report (none available)

<http://www.dlwid.org/PDFs/Agenda%202008%2005%2001.pdf>

MINUTES MAY 1, 2008 BUDGET COMMITTEE

Spending priorities:

One is the Lake Management plan.

(Moore asked how far into the future the plan carried. Robertson replied that it could be up to 25 years or the life of the District, or, more realistically, five to 15 years).

- Investigate opportunities for purchase of Solar Bees.
- Establish a Research center on Devils Lake.
- Investigate grants for septic tank revitalization.
- Develop strategy to remove dilapidated structures.
- Educate residents with the best management practices for using fertilizers— phosphate free or organic phosphate fertilizers.

General Fund:

The District is searching for funds for improving septic tanks and sewer system repairs. Robertson said he has allocated a \$25,000 expenditure to prevent phosphorous from seeking into the lake and for educating home owners.

Budget Committee Questions:

Strayer said it appears that there are too many things on the plate for one person to complete. He continued that the Manager's time should be prioritized. Green asked if this meant the budget items should be prioritized and Strayer replied, "Yes." Strayer asked if they should suggest the top two or three items.

Robertson said he would like to establish a free septic tank testing day, along with an incentive of a discount to assist in the replacement if a problem was discovered. This might generate more cooperation. Additional discussion ensued regarding testing the lake for septic tank pollution.

Robertson explained some of the testing procedures. Moore asked some questions on the Reserve Fund. The only absolute expenditure may be getting help with grants. The Management Lake Plan is the priority, explained Robertson.

In closing, Robertson said he would petition the Board to look at modeling as being part of the Lake Plan. The public will require that dollars spent really make a change. And, it seems to make more sense to calculate expenditures rather than to just do something, such as removing septic tanks.

<http://www.dlwid.org/PDFs/Minutes%202008%2005%2001.pdf>

AGENDA AND MANAGERS REPORT JUNE 4, 2008

Agenda Items

V. Unfinished Business (Agenda Support Item A)

d. The Devils Lake Plan

i Native Revegetation

1. Tetra Tech
2. DSL Removal/Fill
3. DSL Easement
4. USACE Removal/Fill

ii. Model: DEQ 319 Grant

iii. SolarBees

1. Grant Submission Update
2. DEQ Revolving Loan Program
3. SolarBee Proposal

Managers Report

DEQ Revolving Loan Program: I submitted a \$762,000 application for SolarBees and \$100,000 for a septic tank loan program. I have received two follow ups on our application, so I believe it is moving as best we can anticipate. Details for the loan are as follows: Calculating a 20 year \$762,000 loan at 0% interest with a 50% principle forgiveness, monthly payments would amount to \$1,587.51 or \$19,050.12 annually. We have been budgeting \$20,000 a year for debt servicing in each of the last two years, and would have been able to meet that obligation in both years.

<http://www.dlwid.org/PDFs/Manager%20Report%202009%2004%2002.pdf>

MINUTES JUNE 4, 2008

The Devils Lake Plan

Robertson passed out to the Board an outline of the Devils Lake plan that included the history of Devils Lake. He said he has been creating a document that is ready to be formulated with figures. He would like to create a 12-step program outline, including the following:

Agency Contacts

He listed contacts he has sent letters to seeking input and participation. **Septic** tank revitalization. Part of the plan would be to provide for a **septic** tank program with inspections to identify failed systems and potentially obtain support to revitalize them with a revolving, low-income DEQ grant that individuals could apply for. He stated that about 30 to 50 percent of homes on the lake still have **septic** tanks. Discussion continued regarding the method of obtaining permission for inspections and other issues. **Septic** Tank Revitalization should remain in the plan, it was determined; however, the entity under whose auspices the monitoring and administering would be is an issue.

Total Maximum Daily Load Process.

In speaking with the DEQ, Robertson confirmed that Devils Lake is not on their immediate priority list; however, it could be in two or three years. They are currently involved in other coastal lakes. In order for the process to be easy, Robertson recommended following existing protocol. The plan would identify sources of nutrients and then create a management plan to reduce them. Model what was done previously, and then attempt to improve the process. This might include modeling software, finding **septic** tanks and basically analyzing the lake.

Plan Outline to date.

Juenke stated that the outline is a good basis from which to build.

www.dlwid.org/PDFs/Minutes%202008%2006%2004.pdf

AGENDA AND MANAGERS REPORT MAY 1, 2008 BUDGET COMMITTEE

Agenda

- I. Devils Lake Plan
 - a. Review to date
 - b. Native Vegetation
 - c. SolarBees

Managers Report (none available)

<http://www.dlwid.org/PDFs/Agenda%202008%2007%2029%20Special%20Meeting.pdf>

MINUTES SPECIAL MEETING JULY 29, 2008

Decisions:

- Continue with creation of comprehensive Lake Plan for purposes of future projects and to obtain grants.
- Proceed with a two-year project as proposed by Strayer for native revegetation planting; reassess periodically, then opt for five-year plan, if project is deemed a success.
- Approach SolarBees with questions to determine feasibility of installing five SolarBees on an experimental basis. If terms are favorable, proceed. Reassess after two years, then opt for installing 18 if the project is deemed a success.
- Establish **Septic** Tank Revitalization as a priority for Nutrient Control.
- Include re-entry of grass carp into plan as an alternative remedy for invasive vegetation if the SolarBees project is considered a failure.

Action Items:

- Robertson to present list of questions to Joe Eilers for a positive response to begin process of installation of five SolarBees as an experimental project.
- Strayer to create list of action steps to proceed with native revegetation project on a two-year basis with periodic assessment of success.
- Robertson to revise plan for Lake Plan bullet list with priorities as discussed and add a few more bullets as discussed with one-year, three-year and fiveyear timelines.
- Robertson to create action steps for proceeding with **Septic** Tank Revitalization Project under Nutrient Control heading as a No. 1 priority issue.
- Robertson to draft a letter to present for the Board's signatures to the City to begin the process of creating a phosphorus-banning ordinance for the lake watershed residents.

Septic Tank Revitalization.

This is the key issue. First of all we need to have a system for identifying the failing **septic** systems. And a tool to hopefully help those folks pay for new systems that people cannot otherwise afford. The people that own properties around the lake are probably not the poorest people in our community; that being said, you go up a few of our tributaries and you might have some of the poorest people in the community. So, having a system in place where you can identify the failed **septic** systems, have an inspection program, and we have a means for financial assistance, is key to achieving our goal.

Green: Well, that is an enforcement issue. I think the word preservation captures that concept. It means you have to enforce the existing rules

Castelli: Regarding phosphorus, you guys already know that if you are trying to get officials to create ordinances, you have to tell them why and photos and graphs work a lot better than several pages of [word] data. Another thing, would you like to put everyone around the lake on a sewer system?

Robertson: Right. In the **septic** tank revitalization idea, if the State were to provide some public funds for some of that revitalization, then part of that revitalization should be the means to connect to a sewer if it should come. Part of it would be some way to connect to the tank, just if you are going to be digging up all that ground, provide the means to connect at a lower cost than it would be if you were to revitalize. The sewerage, though, would be something that could happen. How would we support sewerage? So, it is kind of an

independent thing. When I was jotting ideas about sewerage, most of it dealt with development and how to not, basically, sacrifice your watershed for the abatement of septic tanks. It's kind of a trade. You cannot say, well, we are going to do sewer, but you are going to take all of the trees down because we have the right to develop this property now. So, for me, in my mind, and hopefully, in the community's mind, there is a need to put on the books restrictions in development rights that would require huge buffers from aquatic resources. Huge, 25 to 50 feet. The 25 would have to be on a 100 foot parcel. If you have a sewer, you can build your house two inches from Devils Lake and then you have your deck going over the top of the lake. All of these things that would go into this perfect looking house. It would be much worse than if the house were set up on the hill. When looking at sewerage, we have to not open up willy nilly development because of a sewer. That has been a problem with other lakes. This is one reason that people push for or against sewerage—so they can develop the whole property or no, we don't want to develop. But, I think it is sensible to have sewer for one entity treating human waste versus having 400 people running their own little septic tank systems. So, from a management strategy, sewerage makes sense, but from a development standpoint, there needs to be some boundaries. That's what we need to decide. How we will establish that. There are going to be people who are totally against that. But, I think there are a lot of people that, given the right charts and graphs, who will say they can do that—it's valuable.

Juenke: I'm not sure what you are saying. Are we giving up on the idea of sewerage the entire lake at some point in time and working as we can at targets of opportunity and taking small chunks at a time? It seems to be the only way it's ever going to happen. I'm not sure what it is we're talking about here. There was a time when this Board decided the most important step that could be taken was to sewer the entire lake, but it turned out to be a complete bomb. It was absolutely financially impractical.

Robertson: Is that the only reason it bombed or what was the public opinion?

Green: It bombed because it was financially impractical, but we were thinking, and you make a really good point, what he's adding to this is a point against it is that going fullspeed ahead in sewerage, you increase the development around the lake. Development follows sewerage. And, additional development places new stresses on the lake that you didn't have before.

Juenke: So, you are saying that that is adding to the long-range plan of the lake being seweraged.

Green: He's saying sewerage without some precautions and without some developmental constraints can stress the environment as much or more than the issues you are solving.

Robertson: Very well said. The benefit to sewerage might not be outweighed by the loss through development of a watershed. That is something that, if we are going to be proactive in trying to correct the nutrient flow into Devils Lake, sewerage with unabated development is not going to solve it and put us in a position where we are making longterm corrections. We are correcting something, but we are opening up a huge can of worms. So, if sewerage comes around to the table, and there is an opportunity for somebody to come up with millions of dollars to sewer the lake, how do we support that and not risk Devils Lake?

...

Juenke: I would suggest those as two or three first priorities and then it would seem that wetland preservation and creation, lakescaping fit in the next area. Then sewerage and the rest and probably septic tank revitalization are probably in the long term the most effective of all, but maybe not. I recall that septic tank

pollution is in the 17 or 18 percent and I think it was far less than what was coming in with stormwater and other sources.

...

Castelli: Do you have a newsletter to the lakefront owners?

Robertson: PADL does. They have approximately 120 owners, oftentimes they will send it to all property owners. They have sometimes asked the Board for some cash to send information. We should respect that opportunity and encourage it.

Juenke: It has to go beyond that because we are talking about the entire watershed and not just those living on the lake front or one lot back to lake view.

Robertson: Yes. And the predominant members of PADL are lakefront and lakeview owners.

Juenke: Right, almost exclusively.

Robertson: I think research and education here has to be targeted. If we are going to do **septic** tank revitalization, and that's one of our goals, then we need to put in \$5,000 and five percent or whatever it is into outreach to get to the participants. For a lot of programs it should be 20 to 50%. I think I've used the analogy before that Umatilla where you wouldn't think they had much of a turnover where they have the weapons depot has 20% per year of re-education to identify the new home owners that come in to get them on the new emergency plan. This is the duck and cover. And, it's 20% of their funding per year is to keep everyone engaged. The key with property owners is trying to get them, like you were saying, in this, "Where did these guys come from?" idea. Oh, yes, we are on board with this. It makes sense to us, too. We support it. But, that is going to take agreement within the Board, stakeholders and coercion with everyone on the outside.

Green: Yes, I think once we figure out what we are going to do, what we want to do and what we can do, that's when it gets a lot easier to focus our efforts and your efforts on trying to decided priorities. For instance, instead of trying to decide what effect **septic** tank revitalization might have in the hierarchy, we should be thinking what we should be doing with each one of these things, like **septic** tank revitalization, if we are going to do an outreach program, then that's one thing that we are going to do. You floated the idea in the Plan of an ordinance somebody has to have their **septic** tank checked every three years. And, if they don't get it checked, the city shuts off their water. Then, it's pretty clear cut. Once we have that list of tasks that we want to do and that we can do, that's what we can prioritize rather than have these goals. Prioritize the actual tasks. First of all, we figure out what we want to do with each one of them, and then we take that whole menu of tasks and prioritize them.

Juenke: I thought that's what the workshop was going to help do.

Green: Maybe that should be part of the plan. Maybe the plan should be our determination of what we are going to do. Go back and prioritize and make it part of the plan. Another chapter on priorities.

...

Robertson: Maybe we should take a look at this other proposal as we are going through our ideas. We are not dumping the prioritization at this point. We need to just find out what Jack has got as his idea. If I was to look

at this for a 20-second prioritization, I would concur with emergency work with SolarBees and native revegetation for two reasons. First, I think we can effect change. As Chris was saying these are within our working scope and these are internal things we can work for. Looking at these, though, my first prioritization would be septic tank revitalization. Have it on the ground by the summer of 2009. Stormwater management is a lot bigger issue. Because you are looking at public infrastructure, digging up bigger pipes and more cost versus just looking at septic tanks. Another thing, septic tanks are visible to the public. The No. 1 perceived problem to the public is septic tanks. Perception is valid. It might not be correct, but it is valid. So looking at the perception and having the District work diligently with the city and the county in getting a revitalization program on the ground, potentially within a year. I think that's ambitious. I would put that at the top. Then, I would put lakescaping. Then stormwater management/wetland preservation. We would lump that into low impact development to lower their footprint. Then, down the line phosphorous and toxicant reduction. That doesn't happen on its own. Phosphorus ordinance is a harder thing. Septic tank revitalization is No.1. Sewering is not even within our capacity to think about it in a five-year plan. Maybe that's how our prioritization should go is if the Board feels these could actually be put into effect. If we think we could do it in a year or a year and a half or three years, then let's push that toward the front. And, if it's something like trying to change the mindset of the public, then maybe we need to wait 15 years on that until after other things have already happened in that cultural type of acceptance. The way Devils Lake people operate is already beginning to change. So that's my take on it. For Nutrient Controls would be to look at septic tanks, lakescaping—trying to get that vegetation buffer around the lake and in the riparian zones, in the canals and in the wetlands.

<http://www.dlwid.org/PDFs/Minutes%202008%2007%2029%20Special%20Meeting.pdf>

2009 BOARD ACTIVITIES

The majority of discussion related to septic tanks occurred in 2009, with the discussion remaining in the Devils Lake Plan agenda item split between Septic Tank Revitalization Program, SolarBees, and the DEQ 319 Grant. Several public commenter mentioned septic tanks. There were 11 meeting that involved septic tanks in 2009

AGENDA AND MANAGERS REPORT JANUARY 8, 2009

Agenda Items

- V. Unfinished Business (Agenda Support Item A)
 - d. The Devils Lake Plan
 - i Native Revegetation
 - 1. Tetra Tech
 - 2. DSL Removal/Fill
 - 3. DSL Easement
 - 4. USACE Removal/Fill
 - ii. Model: DEQ 319 Grant
 - iii. SolarBees

Managers Report

Model: DEQ 319 Grant: I have heard that we will likely receive 60% funding of our application. This would mean scaling back the project to work mostly with data compilation and data entry in to DEQ's database along with the **septic** tank component.

<http://www.dlwid.org/PDFs/Manager%20Report%202009%2001%2008.pdf>

MINUTES JANUARY 8, 2009

Model DEQ 319 Grant

Robertson reported that this grant would be awarded; it was written model intensive. They might be willing to fund 60% of the amount requested. Eilers reminded Robertson that Jesse Ford from OSU is a researcher who has created a database for the forest service to assemble their lake data into a machine. He suggested taking the work that Kevin Erickson did and formulate it into a machine. Part of the grant of the **septic** tank evaluation would entail the District contributing a match.

<http://www.dlwid.org/PDFs/Minutes%202009%2001%2008.pdf>

AGENDA AND MANAGERS REPORT MARCH 5, 2009

Agenda Items

V. Unfinished Business

- a. Boat House/Docks
- b. Land-use Complaints
- c. Lake Level Discussion
- d. The Devils Lake Plan
 - i. Native Revegetation (Jack Strayer)
 1. Tetra Tech
 2. DSL Removal/Fill
 3. DSL Easement
 4. USACE Removal/Fill
 - ii. Model: DEQ 319 Grant
 - iii. SolarBees (Brian Green)
 1. Grant Submission Update
 2. DEQ Revolving Loan Program
 3. SolarBee Proposal

Managers Report

Model: DEQ 319 Grant: I have spoken with David Waltz of DEQ and Jesse Ford of OSU individually regarding the potential scope of the project. Simply stated we do not have anything concrete as to the workplan other than our own element of the **septic** tank review. DEQ was to be the lead of this, so I have tried to prepare ourselves and have brought forth suggestions of a project scope, but I am reliant on DEQ to reinstate the process. I do though have another phone conference with Jesse Tuesday at 4pm to further help develop a potential work plan.

DEQ Revolving Loan Program: DEQ contacted us regarding a previous conversation we had with them about their loan program and the funding potential for utilization of it for the funding of SolarBees. While exclusively, the project would not likely be eligible, accompanying the project with a septic tank revitalization program may enable the project to be approvable. Because DEQ recently has been charged with administering additional stimulus package money we were asked to submit an application. This is largely a challenge as the time restraint was a “couple of weeks” from our phone conversation a week ago. The program itself is a loan program, but there is potentially up to a 50% loan forgiveness clause in the program, so pursuit of the program as an alternative to grants is favorable. However it must be tied to non-point or point source pollution reduction plans to even be considered. This would basically require minimally a bare-bones proposal to be connected with our “shovel ready” SolarBee proposal.

As the District would not be obligated to accept any funds simply for applying, I have begun investigating the feasibility of even applying. Development of the a Septic Tank Revitalization Plan with a mechanism for land-owners to apply for low or no-interest loans from the District would be part of the proposal. We may be able to get support in administering such a program, but effectively we would apply for the larger DEQ loan and then make available small individual loans for septic tank revitalization. These loans might be 5 or 10 year loans, but would also be tied to the title on the property in case of default. The loan would then be paid off as part of closing a real estate transaction involving the property. These are just the basic ideas, much of which would be worked out specifically if and when we received the DEQ loan to begin with. The loan program could be a great subsidy to the District to fund the SolarBee project and thus I am committed to at least trying to apply for this program given the very limited time window and time requirements necessary.

<http://www.dlwid.org/PDFs/Manager%20Report%202009%2003%2005.pdf>

MINUTES MARCH 5, 2009

Model DEQ 319 Grant

Robertson spoke with David Waltz of DEQ and Jesse Ford of OSU regarding the potential scope of this project. Ford will have to contact DEQ to determine how best to create a user-friendly database model grant. Waltz was on vacation. The District does not have anything concrete on the work plan other than a large component of work to do to create a septic tank overlay. Robertson said he is relying on DEQ to initiate the process.

SolarBees

Grant Submission Update.

DEQ Revolving Loan Program.

Robertson submitted the EPA grant for \$595,000. EPA will make a decision in the spring of 2009 and applicants will be notified. The Compton Grant and NOAA grants are being developed for submission by April of 2009. These would help to augment the funds.

DEQ has developed a loan program from the stimulus money that has opened up their project funds. Robertson is attempting to create an application into the language of their DEQ revolving-loan program. The project scope would have to include non-point source reductions, such as the Septic Tank Revitalization

project. The City or the District would hold the funds and make smaller loans to home owners needing septic tank replacement, tied to the deeds of their houses.

<http://www.dlwid.org/PDFs/Minutes%202009%2003%2005.pdf>

AGENDA AND MANAGERS REPORT APRIL 2, 2009

Agenda Items

V. Unfinished Business (Agenda Support Item A)

d. The Devils Lake Plan

- i Agency Contacts
- ii. **Septic** Tank Revitalization
- iii. TMDL Process
- iv. Plan Outline
- ii. Model: DEQ 319 Grant
- iii. SolarBees
 - 1. Grant Submission Update
 - 2. DEQ Revolving Loan Program
 - 3. SolarBee Proposal

MINUTES APRIL 2, 2009

DEQ Revolving Loan Program

\$762,000 is the grant amount applied for on the application. \$100,000 will be allocated to septic tank revitalization to help people with their leaking septic tanks. Robertson has applied for a half-grant, half-loan opportunity.

<http://www.dlwid.org/PDFs/Minutes%202009%2004%2002.pdf>

AGENDA AND MANAGERS REPORT MAY 7, 2009

Agenda Items

V. Unfinished Business

d. The Devils Lake Plan

- i. DEQ 319 Grant
- ii. SolarBees
 - 1. SolarBee Informational Presentation
 - 2. Grant/Loan Updates

e. DLWID Internship

f. RARE Internship

Managers Report

d. The Devils Lake Plan

DEQ 319 Grant: I have spoken with David Waltz, DEQ and he has since sent me some sample documents about the QA/QC checks required to achieve high quality data suitable for admission to their database. Basically we need to submit to DEQ a formal Water Quality Sampling and Analysis Plan for all parameters. I have created most of such a document in the past, but it needs review, which will have to be afforded time. This is but one step. The key to getting a functioning database is the historic data. There are hundreds of bits of back data that also need to be qualified to the same rigidity that current sampling protocols call for. This will require a large part of the time dedicated to implementing this grant. I am going to ask DEQ to take the lead on just what QA/QC checks need to be met (in the form of a simple checklist), such that historic data can be graded and included in the DEQ LASAR database. The **septic** tank GIS layer although not recently discussed will assumingly still be part of the project, as it was in part the match we offered for the grant. This will involve data mining at the County Planning Department details about all the onsite waste treatment systems in the watershed, compiling them into a workable database and GIS layer for mapping. We have the support of Sandy Gruber, Lincoln City GIS specialist, Bill Zekman, County sanitarian and other staff in the county for this element of the project. David said he would set up a voice conference with myself and others at DEQ to further discuss the project.

2. Grant/Loan Updates: We have not heard back from any of the funding opportunities as of yet. Notification deadlines include May 1, 2009 for Devils Lake Water Improvement District NOAA, spring 2009 for EPA, and I believe summer 2009 is DEQ's most recent estimate. In preparing the budget for 2009-2010, I did uncover an error in the submission we made to DEQ. Likely through cutting and pasting, the line item for the cost of Delivery and installation of the devices was erased, and thus the sum of money (\$97,880) was not included in the submission. It was however included in the total project budget, but not as part of the requested amount. I apologize for not finding this earlier, and wish that we might have had more time to work on the submission than the week we were given. This proposal also had to include the **Septic** Tank Revitalization Program, which was really only an idea prior to this application. I have not spoken with DEQ about this yet, awaiting the chance to communicate with the board.

RARE Internship: I completed and submitted the pre-application for the RARE internship. I suggested a work program consisting of 50% development of the **Septic** Tank Revitalization Program, 20% landowner outreach, and 30% monitoring. The internship would run for 11 months, possibly beginning in September. The cost to the District would be \$19,000. As the internship would overlap in the summer of 2010 with what has been an internship the District has offered costing approximately \$10,000, the net cost might be more fairly considered \$9,000-14,000 depending on the extent of the overlap. To fund this internship I have proposed using surplus from the current fiscal year which will be transferred to the Improvement Fund. Given the 2009- 2010 budget prognosis, this seems to be the only mechanism to fund the RARE internship. Concurrence of this assessment is being sought from the board such that I know to either fully pursue the application or know to forego the next steps and not pursue the RARE internship. The following has been included in the FY 09-10 budget describing the potential funding and cause for such funding:

RARE: As a means of developing and implementing the **Septic** Tank Revitalization Program, the District has sought a partnership with the University of Oregon's Resource Assistance for Rural Environments program (RARE). This program provides a graduate student matched specifically to a community's needs. Cost sharing for the program is \$19,000 per participating entity. Partners gain the benefit of Master Degree students working full-time within the community for a period of 11 months. Should the District fund, and later be matched with a RARE intern, this individual would be tasked with creating the **Septic** Tank Revitalization

Program elucidated above. An estimate of 50% of the intern's time has been proposed for this project. Additionally the intern would dedicate approximately 20% of their time creating a "Shoreline Sharing" Campaign, educating lakefront property owners of the benefits of native vegetation, best management practices and general lake stewardship. Raising awareness through the development of a web-based resource for property owners, followed up with subsequent outreach, will lead to substantial improvements to the nearshore where development impacts tend to be the greatest. The last 30% of the work plan would be dedicated to participation in ongoing monitoring programs. As the funding of such a position is best identified as Consulting, \$19,000 has been allocated in the Improvement Fund to create this temporary position which will propel the District in its long-term goals and mission of enhancing water quality through watershed protection.

<http://www.dlwid.org/PDFs/Manager%20Report%202009%2005%2007.pdf>

MINUTES MAY 7, 2009

SolarBees Informational Presentation

Robertson presented a lengthy slide show with the history of the lake, challenges, problems, attempt at solutions (the carp to remove the weeds), the enormous level of nutrients now and increasing exponentially, creating the environment for cyanobacteria. He explained the various activities that have increased nutrients through the years, causing a deleterious effect on the health of the lake. Phosphorous, fertilizer, riparian walls, lawn in the riparian area, leaking **septic** tanks, construction. He described methods of preventing cyanoblooms and removing the exterior nutrients. He described the negative impact of some of the treatments that have been considered. He talked about methods of removing the weeds. He showed a cost/benefit analysis. He talked about external controls and presented the best management practices.

He said the Steilacoom homeowners have not yet come up with a solution and he feels that had they retained the SolarBees, the project would have been successful. Grants were discussed. **Septic** tank revitalization was discussed. Most of the public then departed and the Board took a recess.

RARE Internship

Robertson submitted an application for this internship. He suggested a work program to include half-time on development of the **Septic** Tank Revitalization Program, 20% landowner outreach and 30% monitoring. The internship will be for 11 months to begin in September. The District's cost would be \$19,000. The internship would overlap in the summer of 2010 with the District internship of \$10,000, the net cost might be \$9,000 to \$14,000 depending on the overlap.

<http://www.dlwid.org/PDFs/Minutes%202009%2005%2007.pdf>

BUDGET FISCAL YEAR 2009-2010

Budget Priorities for FY 2009-2010

- Create a Devils Lake Management Plan to include strategies and objectives for management of cyanobacteria, vegetation, and water quality, specifically addressing grass carp issues, warm-water fisheries issues, salmon fisheries, **septic** tank pollution, sewerage, and land-use.

- Investigate grants for **septic** tank revitalization within the watershed

Another opportunity for funding of a **Septic** Tank Revitalization program has also been made. This program ties well with a recent 319 Grant the District expects to receive at least partial funding for from Oregon DEQ. The project in part calls for a **septic** tank GIS layer to be created, but it will also stipulate the assortment, grading and data management of decade's worth of information collected about Devils Lake. With the promise of obtaining funding for the largest project undertaken by the District since the grass carp, the current priorities for the District are implementation of the SolarBee project, the creation of a **Septic** Tank Revitalization Program, and the implementation of the 319 Grant from DEQ.

Debt Service

The Devils Lake Water Improvement District has sufficient funding in its permanent tax levy to incur a level of indebtedness for the purpose of improvement projects. Should the Board of Directors choose to borrow money for such projects, the Debt Service line item would be needed to cover interest and payments. Currently the District has an application in with Oregon Department of Environmental Quality for a twenty year, \$762,000 loan. This loan would be jointly used towards Whole Lake Circulation (\$662,000) and **Septic** Tank Revitalization (\$100,000).

Funding Opportunities Recently Sought

Funding Opportunity	Purpose	Total Requested	Date Applied	Notification Timeline
DEQ 319	Data Management & Septic Tank GIS	\$24,699	Nov 2008	May 2009
EPA West Coast Estuaries Initiative	SolarBees	\$595,000	Feb 2009	Summer 2009
DEQ Revolving Loan	SolarBees	\$662,000	Mar 2009	Spring 2009
Program (50% Grant, 0% Interest)				
	Septic Tank Loan Program	\$100,000	Mar 2009	Spring 2009
NOAA-Fisheries	SolarBees with Installation	\$759,880	Apr 2009	May 2009

Septic Tank Revitalization Program:

Watershed Protection is a vital component to the health of Devils Lake. The Devils Lake Water Improvement District has and strives to continue to play a role in private and public property improvements that benefit the watershed. Projects these monies may fund include riparian plantings, **septic** tank upgrades, and other Best Management Practices to reduce nutrients, sediment or pollutants from entering the lake. Previously the District has provided some matching dollars for a grant for the removal of an agricultural dam on Rock Creek. Currently the District has an application in with Oregon DEQ's Revolving Loan Program for \$100,000 to

provided low or no interest loans for **septic** tank revitalization. Should the District receive such funding, smaller loans to private landowners would be made for the onsite improvements. The monies would be repaid to District enabling additional lending. The DEQ loan is part of the \$762,000 loan application which has a 50% principal forgiveness clause and an interest rate of zero percent. Direct repayment of this DEQ loan would be made from the General Fund's Debt Servicing line item. The loan monies however as previously mentioned would be redistributed in the form of smaller loans to qualifying parties in need of a **septic** tank renovation. The smaller loans would create a lien of the property which would be repaid over the course of 5-10 years, or in full at the time of a property ownership change. This new program constitutes a major improvement opportunity for watershed protection previously unaddressed, are thus it has been appropriated under the Watershed Protection heading, long established by the District.

RARE Intern:

As a means of developing and implementing the **Septic** Tank Revitalization Program, the District has sought a partnership with the University of Oregon's Resource Assistance for Rural Environments program (RARE). This program provides a graduate student matched specifically to a community's needs. Cost sharing for the program is \$19,000 per participating entity. Partners gain the benefit of Master Degree students working full-time within the community for a period of 11 months. Should the District fund, and later be matched with a RARE intern, this individual would be tasked with creating the **Septic** Tank Revitalization Program elucidated above. An estimate of 50% of the intern's time has been proposed for this project. Additionally the intern would dedicate approximately 20% of their time creating a "Shoreline Sharing" Campaign, educating lakefront property owners of the benefits of native vegetation, best management practices and general lake stewardship. Raising awareness through the development of a web-based resource for property owners, followed up with subsequent outreach, will lead to substantial improvements to the nearshore where development impacts tend to be the greatest. The last 30% of the work plan would be dedicated to participation in ongoing monitoring programs. As the funding of such a position is best identified as Consulting, \$19,000 has been allocated in the Improvement Fund to create this temporary position which will propel the District in its long-term goals and mission of enhancing water quality through watershed protection.

Data Management and **Septic** Tank GIS Layer:

The Devils Lake Water Improvement District was asked by Oregon Department of Environmental Quality to apply for funding under the 319 Grants they administer for US EPA. Our application included the creation of a mathematical model of the lake complete with nutrient data, temperature, dissolved oxygen and other parameters. Additionally we proposed creating a Geographic Information System (GIS) data layer categorizing **septic** systems in the watershed. Our \$24,699 proposal was recommended for funding at \$15,000, with modifications to the work plan. Formal details are being worked out, but shall entail the assemblage and grading of all available data on Devils Lake. Given data quality checks, this information would then be submitted to DEQ for inclusion in their online database that goes by the acronym LASAR. Additionally the scope of work may entail the inclusion of the GIS layer. Expenditures funded by the grant would be for contracting with data management specialist and for data entry to a total of \$15,000.

http://www.dlwid.org/PDFs/BUDGET_FY_2009-2010_Final_Version.pdf

AGENDA AND MANAGERS REPORT JUNE 4, 2009 BUDGET COMMITTEE

Agenda Items

V. Unfinished Business (Agenda Support Item A)

- d. The Devils Lake Plan
 - i. DEQ 319 Grant
 - ii. Native Vegetation
 - iii. Whole Lake Circulation: SolarBees

Managers Report

The Devils Lake Plan

DEQ 319 Grant: I have been in communication with Jesse Ford of OSU and she is sending a copy of the database they created for the US Forest Service. This will help us better understand what kind of end product we might seek to create. I have also been in touch with the county regarding the **Septic** Tank GIS layer development. I met with Matt Spangler again and Bill Zekan on this issue. I have also recently been in contact with David Hawker regarding a **Septic** Tank Revitalization Plan. It is my hope that we can work to develop this over the course of the next year given support of a RARE intern (See below).

IV. "Budget Priorities for FY 2008-2009

In February of 2008, the District's Board of Directors formulated six objectives for focus and completion. These specific objectives are listed below. In order to meet these objectives, the District's spending and staff time in FY 2008-2009 shall be appropriated and designated accordingly.

- Create a Devils Lake Management Plan to include strategies and objectives for management of cyanobacteria, vegetation, and water quality, specifically addressing grass carp issues, warm-water fisheries issues, salmon fisheries, **septic** tank pollution, sewerage, and land-use.
- Investigate funding opportunities for purchase of the SolarBees.
- Take steps to plan for and establish Devils Lake as a research center for aquatic and freshwater ecology (The CAFÉ), partnering with the Center for Lakes and Reservoirs at Portland State University and the Oregon Coast Community College's Aquarium Science Program.
- Investigate grants for **septic** tank revitalization within the watershed.

<http://www.dlwid.org/PDFs/Manager%20report%202009%2006%2005.pdf>

MINUTES JUNE 4, 2009 BUDGET COMMITTEE

SolarBee Public Comment

Avery Shipley: Has heard about the sewage problem for a long time. The board has spent two years working on the issues. What would it take for us to hook onto the sewer?

Strayer: Lila Bradley said the enclaves would have to come up with the money.

Lisa Voelker: Why not use the grant money for the areas that are incorporated and get these houses hooked up to the sewer system.

Jim AAsum: You would need 80 percent of the people to sign a petition and have Federal matching funds and form a LID, local improvement district.

Robertson said the district is looking at a septic tank revitalization and having people get their septic tanks inspected every year. There are issues that we can work on that will ensure that everyone has a functioning septic tank.

Devils Lake Plan

DEQ 319 Grant

Robertson spoke with Jesse Ford, who is the data base creator from OSU. There is no real mechanism of getting the data into a system. These are EPA DEQ dollars. Robertson met with Matt Spangler about the septic tank revitalization program and they are optimistic. A good database can be formulated with the septic tank information. Robertson has called DEQ a number of times. The database needs to be updated, the data qualified and then exported to DEQ. It will be difficult. Robertson plans to have the RARE intern work on this project.

RARE Program

If successful, the intern would work 50 percent on building a revitalization project for septic tanks, 30 percent on outreach to save our shoreline. If we really want to reduce the phosphorous, we need to get plants on the shoreline. Twenty percent of the time would be used for water quality sampling. Green moved that Paul be authorized to proceed with the RARE internship program and make the application for same. Winchester seconded.

Vote: Unanimous. Motion carried.

<http://www.dlwid.org/PDFs/Minutes%202009%2006%2004.pdf>

AGENDA AND MANAGERS REPORT JULY 2, 2009

Agenda Items

- V. Unfinished Business
 - a. Boat House/Docks
 - b. Land-use Complaints
 - c. Lake Level
 - d. The Devils Lake Plan
 - i. DEQ 319 Grant
 - ii. Native Vegetation
 - iii. Whole Lake Circulation: SolarBees
 - e. DLWID Internship
 - f. RARE Internship
 - iii. Whole Lake Circulation: SolarBees

Managers Report

DEQ 319 Grant: We were awarded \$15,000 grant from DEQ to complete the items listed in draft form in the post below. An agreement on this workplan is anticipated by DEQ to be signed by July 2009 with work to be completed by Nov 2010. I believe this all is doable from the District's stand point. We will have to ally with Dr. Jesse Ford of OSU for database management, and may have to hire some help with data entry and data mining which could be done in part with the grant money. I have yet to hear back again from Dr. Ford regarding what she might be able to create with the funds available, but I suggested to her that \$10,000 might be her portion with \$5,000 going to data mining and data entry. We would be required to provide In-Kind match equivalent to \$10,000. When we submitted previously, we had staff time valued at \$39.50/hr with \$13.80/hr overhead (rent, computers, software, etc.). Thus we would have to commit to 188 hours or approximately 5 weeks spread over the course of the project. If DEQ and Dr. Ford are on board I would like to have the District authorize this workplan as drafted below. Note that this workplan does not include the septic tank GIS layer, but I have included that project into the RARE internship. We can still obtain the expertise from the City of Lincoln City, specifically Sandy Gruber to construct this very useful tool. It was however not within DEQ's primary objectives for this 319 Grant, and has been excluded. That does not prohibit us from completing the project though, and with our new intern, and later with the RARE intern we should have the capacity to move both the data management project and the septic tank revitalization project forward.

RARE Internship: Submitted the RARE application via email and through US Postal Service. District has committed to the \$19,000 match, to be funded out of the improvement Fund. Projects to be conducted include creation of a septic tank revitalization program, Share our Shoreline education campaign and water quality testing. Intern will serve from Sept 09- Aug 2010. Interviews to be held July 27-31.

<http://www.dlwid.org/PDFs/Manager%20Report%202009%2007%2002.pdf>

MINUTES JULY 2, 2009

Public Comments

Mitchell Moore: The Board put a pause on the SolarBees decision. The funding mechanisms probably had a lot to do with this. Moore said comments that appeared in the newspaper lead one to believe that there are a few on the Board that feel the option is still open for SolarBees. The comments from the public seem to be a pretty resounding, "No." He feels that the Board needs to take that into consideration. If and when cyanobacteria become a problem, then we'll have to come up with some solutions. Put the issue of SolarBees to rest. The reality is that if no money comes along, they are pretty well dead. Let's move on to some more positive issues. Moore said he also wanted to discuss the septic tank issue. The concept of a required inspection program along with the cutting off of water seems punitive. We need to turn the program around, but it needs to be more positive. People should want to participate. Maybe there is something like the County being the police for the balance of the septic tanks on the lake. He doesn't feel the District should be the bad guy.

RARE Internship

Robertson submitted the RARE application via e-mail. Interviews will be July 27 through 31 and the District has approved these funds that are in the budget. This is a U of O program—Resource Assistance to Rural Environment. Candidates are either Bachelor or Grad students in rural Oregon who are tasked with helping small districts or cities or counties further their work. They will work for a stipend and get good work

experience. The intern will work on creating a **septic** tank revitalization program, sharing our shoreline education campaign and on water quality testing.

<http://www.dlwid.org/PDFs/Minutes%202009%2007%2002.pdf>

AGENDA AND MANAGERS REPORT AUGUST 6, 2009

Agenda Items

- V. Unfinished Business
 - a. Boat House/Docks
 - b. Land-use Complaints
 - c. Lake Level
 - d. The Devils Lake Plan
 - i. DEQ 319 Grant
 - ii. Native Vegetation
 - iii. Whole Lake Circulation: SolarBees
 - e. DLWID Internship
 - f. RARE Internship
 - iii. Whole Lake Circulation: SolarBees

Managers Report

There were no references in the management report to the **septic** program.

<http://www.dlwid.org/PDFs/Manager%20Report%202009%2008%2006.pdf>

MINUTES AUGUST 6, 2009

Board Appointee/Applicant Interviews

Two candidates were present who have applied to complete Aschenbrenner's term, who recently resigned. Tony McCaslin was interviewed.

McCaslin has owned a residence on Loop Drive in the District for six years and spends approximately half his time here. He said he would like to participate in solving the problem issues of the lake. Environmental issues are his primary concern—algae and **septic** tank failures. He has been monitoring the website and has been attending Board meetings this summer. He owns a ski boat, wave runners and canoes. He said he believes there is more than one solution to the problems of the lake. He has not served on any Boards previously; he has been in business for 45 years in a sole proprietorship. He is concerned about the SolarBees.

Non-Agenda Items

Strayer said he is concerned with the level of phosphates and nutrients in the lake and the means to deal with the inputs. He said someone needs to do research on studies that have been conducted so that the Board can assess the priorities of the issues. We need a Work plan—sewage, **septic** tanks, bioswales, vegetation, pesticides, herbicides, etc.

Strayer said he would like Robertson to make an assessment before the next meeting— should a contractor come in or can Robertson take a shot at it with all documents on file.

What does the rest of the Board feel?

Green asked if phosphates could be measured—how can you measure inputs? Strayer said he thinks they can be measured—he wants to find out. He thinks the work should be prioritized. Green asked if that had been done previously. Robertson said the first step will be compiling the data. Septic tanks in the watershed should be identified—how old are they and what type are they? Historically, there is a lot of information about nitrogen and phosphates. Somebody can create something more comprehensive. The District is being offered \$15,000 to compile data. This is a tool for both DEQ and the District.

Public Comment

Mitchell Moore said isn't it fair to say that the Board is working on prioritizing the issues and assessing alternative methods of affecting the weeds. Robertson described the primary issues as being shoreline vegetation and septic tanks. Roots hold the shorelines and also capture nutrients. These issues will set the framework for larger ideas that will be detailed in vegetation management strategies that were placed on-line. Depweg suggested piping septic tanks into the mountains similar to a pump station or pumping it into an LID drain field.

<http://www.dlwid.org/PDFs/Minutes%202009%2008%2006.pdf>

AGENDA AND MANAGERS REPORT SEPTEMBER 3, 2009

Agenda Items

- V. Unfinished Business
 - a. Boat House/Docks
 - b. Land-use Complaints
 - c. Lake Level
 - d. The Devils Lake Plan
 - i. DEQ 319 Grant
 - ii. Native Vegetation
 - iii. Whole Lake Circulation: SolarBees
 - e. DLWID Internship
 - f. RARE Internship
 - iii. Whole Lake Circulation: SolarBees

Managers Report

There were no references in the management report to the septic program.

<http://www.dlwid.org/PDFs/Manager%20Report%202009%2009%2003.pdf>

MINUTES SEPTEMBER 3, 2009

Public Comments

Paul Robertson: We have green information put out at the beginning of the season that people identify with and are making metal signs. Yellow signs, like the year before, when we see levels above a threshold that say: "caution cyanobacteria in Devils Lake." He said we could improve on that. He said you don't want to drink Devils Lake any time of the year; it has been dubbed the most polluted lake in Oregon dating back in the 1970's. We have cyanobacteria. It needs your help, needs **septics** repaired, needs vegetation at the bottom of it. We all need to be focusing our energy on those things to restore from within by our community because it is our community that has been destroying it.

Larry Brown: Things on the lake are getting better. He thinks a lot of things are better like sophisticated sand-fill **septics**. Things over time will help, but not over night.

Bill Pigott: In looking at what is going on, Thompson Creek keeps popping up, what is the problem? What can be done?

Paul Robertson: An intern will be starting soon to do a **septic** tank revitalization program which may include some money for people that can't afford repairs. DLWID has been seeking to work with Dr. Field from Oregon State who has developed the means of doing DNA based source tracking.

RARE Program

Paul Robertson: we will have a new intern for 11 months. We have been matched with Seth Lenaerts. He is a returning RARE participant and knows the program well and has worked in small communities (Vernonia, OR and Kitui, Kenya). He will start on a volunteer basis September 9, 2009. He worked in Kenya where he devised and implemented a **septic** system program.

Nutrient Budget RFP

Paul Robertson: A draft is available. 11/4/09 is the date to get information returned by. It may be completed by next Friday or Saturday for the Board to review.

Randy Weldon: We should study what percentage comes from lawns, etc.

Paul: There was a nutrient study done that didn't give percentages—a dairy on Rock Creek, **septic** tanks that were marginal; didn't get at shoreline development or nutrient cycling. Same criteria he expects to see. He is hopeful that the information he has will be helpful. It is more recent.

<http://www.dlwid.org/PDFs/Minutes%202009%2009%2003.pdf>

AGENDA AND MANAGERS REPORT OCTOBER 1, 2009

Agenda Items

VIII. New Business

- a. The Devils Lake Plan
 - i. Septic Tank Revitalization Program
 - ii. Save our Shoreline Campaign
- b. 25 years of lake management on Devils Lake, a silver lined anniversary

Managers Report

Introduction of Seth Lenaerts (RARE Participant):

Seth comes to us through the University of Oregon's RARE program an acronym for Resource Assistance for Rural Environments. He is a graduate of the University of Wisconsin, Stevens Point, and has a BS in Land Use Planning with a minor in Soil Science. He has already begun his 11 months with DLWID and will be project manager for the Septic Tank Revitalization Program and the Save our Shoreline Campaign. He will also participate in the water quality testing next summer, something he has had some introduction to in the close of the 2009 summer sampling season.

VIII. New Business (Agenda Support Item B)

j. The Devils Lake Plan (Con't)

i. Septic Tank Revitalization Program (Seth Lenaerts) I have asked Seth to provide an update as to the progress he has made in organizing the beginnings of this program.

The workplan laid out at this time is as follows:

1. Mapping

- Familiarize myself with Lincoln City GIS database
- Develop septic tank GIS database table
- Geo-reference tax lots

2. Research

- Look into similar projects related to septic tank monitoring.

3. Work on presentation to council

<http://www.dlwid.org/PDFs/Manager%20Report%202009%2010%2001.pdf>

MINUTES OCTOBER 1, 2009

Nutrient Budget RFP

Robertson said he released the RFP and has had one enquiry. There is a November 4 deadline so the Board can evaluate the responses. This is an effort to try to get a handle on where nutrients are coming from that are going into the lake and what they comprise. It will provide information for prioritizing issues in the attempt to mitigate issues that are impacting the lake negatively—logging practices, construction, fertilizer, septic tanks.

The Devils Lake Plan

Septic Tank Revitalization Program

Lenaerts reported he will be concentrating on two components during his year at the District. Some ideas are under consideration. He is setting up a mapping and data base for a better understanding of what is going on in the watershed. He is hopeful that they can come up with a monitoring program that will aid residents in knowing how best to manage their septic tanks. If those residents with failing tanks are offered a free loan program, it might be an enticement for replacement. Failing septic tanks are a large contributor to the nutrients and this project is very important. Strayer reminded that a home with a family of eight and a washer and dryer going constantly would impact much more than a vacation home where people rarely occupied. It might be good to take a look at the number of owners on Devils Lake who are not full-time residents. Seth said septic tanks contribute about 10% of nutrients in the lakes where they are located.

Pirie asked about the proposed method for how people can “manage” their septic tanks. Weldon said if the tank is functioning properly, just to keep an eye on it and make sure it is operating properly. Weldon reminded that Lenaerts is here to help educate people and work on helping residents replace inoperable tanks. Lenaerts said he feels that the District should have some role in everything that is happening on the lake.

Jim Covert asked what authority the District has to instruct residents to manage septic tanks. He said the information he has obtained is inconclusive—debatable on methods and times. Raylene Erickson suggested checking with Bill Zekan, who seems to be an authority on septic tank management. Weldon said he feels strongly that that offering some financial incentive will generate results for testing failing tanks. Green asked if there is a component to identify the tanks and how bad they are. Lenaerts said They will work on it.

<http://www.dlwid.org/PDFs/Minutes%202009%2010%2001.pdf>

AGENDA AND MANAGERS REPORT NOVEMBER 5, 2009

Agenda Items

- V. Unfinished Business (Agenda Support Item A)
 - d. The Devils Lake Plan
 - i. DEQ 319 Grant
 - ii. Native Vegetation
 - iii. Whole Lake Circulation: SolarBees
 - iv. Septic Tank Revitalization Program
 - v. Save our Shoreline Campaign

Managers Report

Septic Tank Revitalization Program, (no details specified)

<http://www.dlwid.org/PDFs/Manager%20Report%202009%2011%2005.pdf>

MINUTES NOVEMBER 5, 2009

Septic Tank Revitalization Program

Seth Lenaerts reported that he had spent the majority of the past month on the **septic** revitalization program. He feels he has some good results in the process of a public awareness program. He is working on the best management practices with stakeholders. On a public outreach program, he is creating some simple information to provide to homeowners. Other documents can be made available to people with **septic** systems. He is meeting with people from the County and the City to ensure that they are interested in the project. Strayer asked if there was a plan to identify problem **septic** systems; he asked if Seth has traveled around the lake to view the **septic** systems and Seth replied, "No." The District will play an important role; however, the City and County will lead the way. Next meeting, Seth will create a packet for home owners and will continue to meet and will discuss how to bring in the State agencies. December may be the first group meeting. He has worked with the County on compiling a data base on the **septic** system fields. In his discussions with the County and the City, it appears the best way is identifying a 500-foot buffer around the lake to assess. In response to a question, he said they will look at the creeks also. They might adjust the buffer zone. He is extrapolating information from the

County as-builts and the site plans. The County is interested in this information as well. Robertson reported that he met with a man from Minnesota who takes aerial photos. He said it is \$40 per parcel, plus the cost to fly a plane to this area. If there is a medium-covered day, the water temperature has to be 43 degrees. The photographer can determine where the warm water is coming from. He says a **septic** tank purges regardless of whether someone is currently in the home.

Robertson responded to a question about how many sites in the Thompson Creek area have been tested. He said there has not been a lot of testing there. In the past, letters were mailed to the property owners requesting access. Some agreed, some said no and some ignored the request. He continued that Thompson Creek is a fraction of the **septic** tanks of the homes that are causing problems. Everybody needs to be on board.

Robertson said they are still targeting OSU asking them if they could test the DNA to type the pollution. The City is willing to contribute \$1,500 for testing that costs \$75 to \$150 per sample. This might be enough for eight samples to determine if the microbes are coming from humans or horses. But, this would be only one day's sample. The private labs are charging \$400 per sample. There are only a few people who have performed this testing. Dr. Field at OSU is doing this testing, so Robertson is trying to get him to do it. Green asked Robertson to continue to contact her on this.

Save our Shoreline Campaign

Seth has spent most of his time last month on the **septic** systems. He would like to begin getting involved in the shoreline issue in the next month or so.

Joe Barnes Interview

Green asked him what he sees as the primary issues facing the lake. He said you have to balance all aspects of the issues. He said he believes that the **septic** issue needs to be addressed because he feels that the **septic** tanks are causing most of the problems. He said he wants to become part of the solution. Green responded that he is concerned with the new Board member being able to remain objective and not wanting to jump to conclusions. Barnes responded that this is his first meeting. The reason he became interested was because of his concern about SolarBees.

Public Comment

Green said sources of phosphorous and nutrients are more diverse than just one issue. He agreed we need to focus, but reminded the audience that the Board has been working on these issues for more than two years. The Board has already considered all aspects of lake issues. Robertson added that if everyone would plant their shoreline immediately, we wouldn't have these problems. Shoreline plantings are a good start. **Septic** tank revitalization is a good thing. Pigott suggested putting out a notice that people could come in and get a loan to revitalize their **septic** tanks. This would be better than taking an adversarial role.

<http://www.dlwid.org/PDFs/Minutes%202009%2011%2005.pdf>

AGENDA AND MANAGERS REPORT DECEMBER 3, 2009

Agenda Items

V. Unfinished Business (Agenda Support Item A)

d. The Devils Lake Plan

- i. DEQ 318 Grant
- ii. Native Vegetation
- iii. Whole Lake Circulation
- iv. **Septic** Tank Revitalization Program
- v. Save our Shoreline Campaign

Managers Report

Lake Level: The D River became clogged with sand and debris as a result of high storm surges Friday, 2009-11-06. The lake level was around 9.2 at the time with no imminent risk of flooding. We did receive calls during the weekend, and Steve and I were monitoring the lake level throughout that time. On Tuesday, 2009-11-10 near low tide the river was dredged by George Haft Excavating in accordance with our permit for a cost of \$460. We will bill the City for half of that cost. At this time the lake had risen to about 10.4' which is mean high water. There does begin to be some street flooding at this level in the Crystal Lagoon Area (SE 1st and 2nd). Above that level there is increasing risk of inundation of low lying areas, homes and **septic** tanks included. Since the dredging the D River has been running to sea, and the lake has since receded to around 9.2' again.

Septic Tank Revitalization Program

November Tasks:

- Create an informational packet for homeowners

- Continue to meet/talk to stakeholders individually
- Bring the stakeholders together for a joint meeting

DLWID co-hosted a meeting with the City of Lincoln City on Wednesday, November 25th. I will provide a verbal report on that meeting. The intent of that meeting was to determine justification for the program, determine the area/distance from waterways to be regulated, inspection requirements and roles and responsibilities of participating agencies. Work is also continuing on developing the GIS layer and gathering information about similar **septic** revitalization programs. In addition, contact was made with Shoreline Bank, which is a nonprofit bank that has an established **septic** rehabilitation loan program.

December Tasks:

- Continue to look for funding opportunities
- Continue work on GIS layer
- Outcome of meeting tasks
- Create a **septic** tank presentation

Staff Conclusion: The board needs to decide if it wants to spend this additional money, and if so direct staff to move forward on collaborating with all parties for joint completion of the Nutrient Budget and the Relational Database. Funding would likely have to come out of the Improvement Fund: M&S: Contracting. These funds were appropriated with the intent of spending them on costs associated with installation of SolarBees, and thus a review of Local Budget Law by our attorney or others to determine if we can, without a supplemental budget, reprioritize these items to allow for the expenditure of a Nutrient Budget needs to be made. If the board does not want to fund the Nutrient Budget, staff recommends considering our current direction of **Septic** Tank Revitalization and Shoreline Revegetation as acceptable Best Management Practices (BMPs) to continue moving forward on and further, plan on working towards a Storm water Management Program as recommended in the Draft Devils Lake Plan as a next best step to consider in the future.

<http://www.dlwid.org/PDFs/Manager%20Report%202009%2012%2003.pdf>