



Quick Look:

- Erosion Study Bids
- Devils Lake Plan Updates
- Septic Update

Devils Lake Water Improvement District
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AGENDA 2010 October 7
Regular Meeting: 6 pm, DLWID Office

- I. Minutes of the Previous Meetings** 6:00 pm
- II. Financial Report**
- III. Public Comment** (Agenda Items, Please limit comments to 5 minutes per person)
- IV. Unfinished Business** (Agenda Support Item A)
- a. Lake Level
 - b. The Devils Lake Plan
 - i. DEQ 319 Grant
 - ii. Native Vegetation
 - iii. Septic Tank Revitalization Program (Seth Lenaerts)
 - iv. Save our Shoreline Campaign (Seth Lenaerts)
 - v. Vegetation Management
 - vi. Sewer (Brian Green)
 - c. Communications Report
 - d. Safety Report
 - e. Thompson Creek
 - f. Water Quality Update
 - g. Erosion Study RFP
- V. New Business** (Agenda Support Item B)
- a. NALMS
 - b. District Truck
- VI. Non-agenda Items**
- VII. Public Comment** (Non-agenda Items, Please limit comments to 5 minutes per person)
- VIII. Board Comments & Announcements**
- IX. Adjournment**

Staff Reports 2010-10-07

Robertson and Lenaerts

I. Unfinished Business

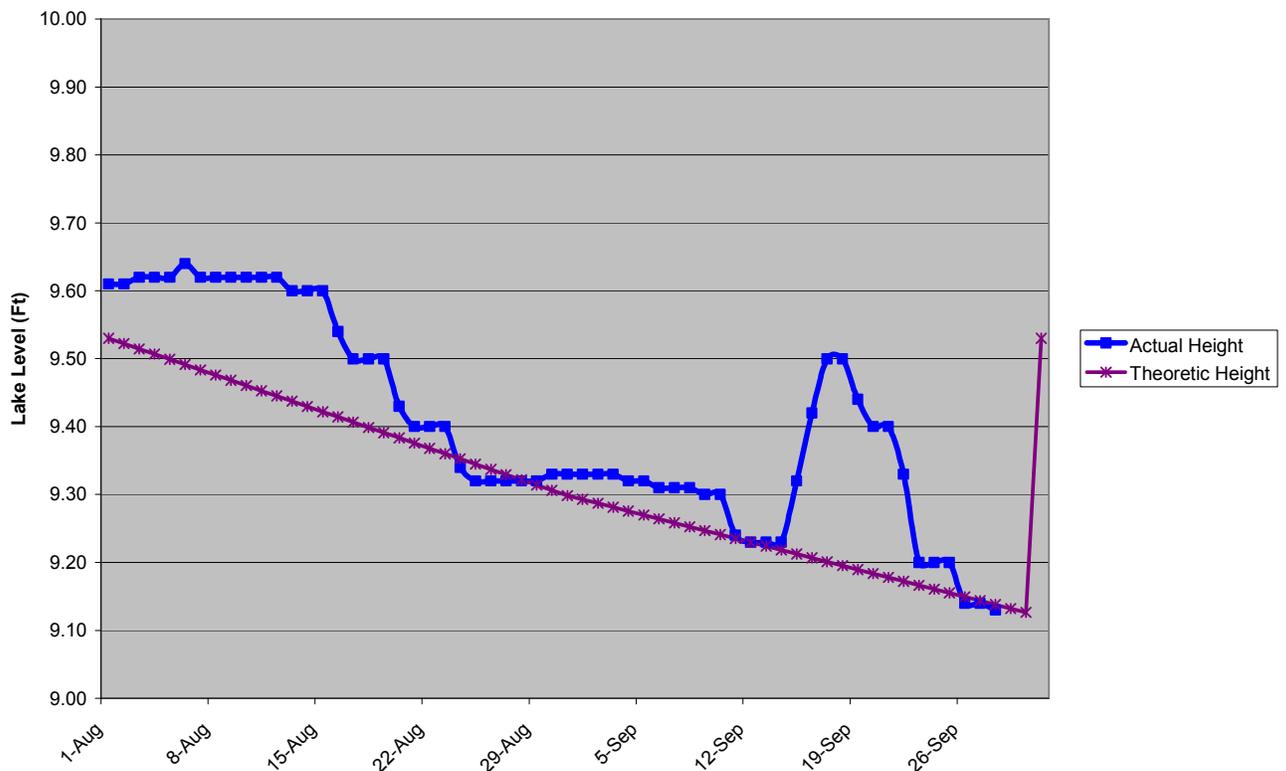
(Agenda Support Item A)

- a. **Lake Level:** We have had significant rains this month and as a result managing the lake level has increased in complexity. This is the first year that we have had to account for the evaporation, and thus our methodology is a bit experimental. Obviously we are widely impacted by large rain events such as we had in mid September. In the five days starting on the 15th, we had nearly 4" of rain, with a full 1.7" recorded the first day. In response the Lake Contractor pulled 2 north boards on 9-17-10 and pulled 4 boards north to south on 9-19-10. Overtime this appears to have compensated for the heavy rains as the most recent value sits very near the theoretic value.

As we approach the end of the month we are finishing the period where inflow must equal the outflow and impoundment can again occur. However it has generally been the practice of the District to remove the dam in mid October, so there are only a few weeks left in which the lake will be artificially controlled. This is done to protect the dam structure from impact from waves and storm debris in the winter months. The removal of the full dam then is forth coming, and will be done by the Lake Contractor in the upcoming weeks.

Lake level in summer quickly turns to readiness for emergency dredging in the winter months. Currently we have most of the permits in hand, the DSL removal fill being the most important. We though also annually have to get a motor vehicle access permit for the beach for the excavator. In past years we have been able to develop a pool of contractors all whom were listed on this OPRD permit. As it has been a few years since we opened up that pool of contractors, it is my intent over the next month to solicit bid prices from area contractors and incorporate them into this pool of available excavators. We will then draw upon this pool based on the criteria of cost and availability as the need may arise for emergency dredging.

Evaporation Calculation



b. The Devils Lake Plan

- i. **DEQ 319 Grant:** We have received a database framework from E&S ahead of the the2010-09-30 deadline. I have forwarded this on to DEQ for their input. Next steps include the data grading and the database population which E&S are also under contract to do. They have asked that we make available a meeting time in the next months in which they can get answers to any of the questions that may arise from evaluating these data. This would be best done in Corvallis at their office, as the digitization process of the paper files and reviewing the many additional PDF reports is proceeding from their office. The next deadline is 2010-12-31 at which time the fully developed database is due.

As to the administration of the grant, we received a bill from E&S Environmental Chemistry for August. I have completed the requisite paperwork (Exhibit B), and sent it on to DEQ for payment. Exhibit B tracks the invoice requests for the federal monies as well as the non-federal match expenditures. These include the in-kind match we have pledged in the amount of \$10,061. We have now met that minimum obligation. For every invoice though we will have to update this form to request payment from DEQ. As we are the grant recipients, and E&S are a subcontractor, we will be paying E&S directly and DEQ will be paying us. We also had a requirement to fill out additional paperwork (Exhibit C) which has been completed. This is a requirement that tracks contracts.

- ii. **Native Vegetation:** I created a color mailer for the Shoreline Planting Guide which was sent out to 500 property owners around the lake. The cost of the printing and mailing was \$633.00. We have gotten a few back as undeliverable, but less than a 2% at this time. It is difficult to gage the success of this mailer, although we have seen a few copies of the guide being picked up at our office, and we have had a few direct inquiries. This is a major reformative change we are pressing for, and this will take time to take root. However, the benefits of a naturally vegetated shoreline are immeasurable, and thus we should continue to focus on this as a primary objective for the watershed. This is largely being done through our SOS project, but this too will take many years to be fully actualized.
- iii. **Septic Tank Revitalization Program** (Seth Lenaerts) With the board's approval, Brian Green recently sent a letter to members of City Council and City staff regarding the septic inspection ordinance. The letter thanked the City Council for their efforts on the septic tank inspection ordinance, requested that we continue to move forward and reiterated the need and benefits of such an ordinance. I followed this letter up with a visit to City Council, in which, I publicly presented the letter. Afterwards, Council held a brief conversation regarding septic systems. The discussion echoed much of what we have heard thus far. City staff is concerned about:
- Unknown staffing needs.
 - Prioritization of inspections
 - Other priorities and more pressing priorities since inspections will probably not take place until summer 2011.
 - What will DLWID's role be in an administrating the ordinance.

With the exception of Gary Ellingson who would like to see a draft of the ordinance as soon as possible, City Councilors all seemed comfortable waiting a couple of months before a draft of the ordinance comes out. City staff said that they been working on a draft but there are still details to work out. The council requested staff to have a draft ordinance in a month or two.

City staff stated that it should be possible to have a draft within that amount of time but at the same time stressed they still have concerns.

Brian and Paul have also agreed to attend the Candidates Fair which is Sunday Oct 9, 2010 to ask questions of the candidates for mayor and for council about their position on the septic ordinance. The question to be asked follows:

“Do you support the council’s goal to “*Examine means to reduce pollution in Devils Lake due to faulty septic systems*”, and if so, do you support a mandatory septic inspection program of all properties in the watershed receiving municipal water?”

iv. **Save our Shoreline Campaign** (Seth Lenaerts)

Plantings: On Saturday, September 25, we hosted a shoreline planting in conjunction with the SOLV Beach and Riverside Cleanup. It was a beautiful day for the event. We had a few volunteers turn up, but not as many as our last volunteer day. The planting took place on the 10th street canal, on 10th and Chetlo.

East Devils Lake State Park: I contacted Oregon Parks and Recreation Department last month to see about the possibility of doing a demonstrative shoreline planting at East Devils Lake State Park. Since, I have been working with Katie Arhangelosky, who is one of their Natural Resource Specialists. She is in favor of the project and has requested that we submit a site design. I will be working with Spiro Landscapes in the next week or two to develop a design that we can submit to OPRD.

This would be a great site due to its public, recognizable location and site attributes. This site would also be a good place for an interpretive sign. At this point my intention is to use this site for one of the information/educational short movies that we discussed at the previous meeting. This video will focus on how to plant a native garden. I will continue to pursue these public locations for demonstrative sites. Specifically, I am trying to work with the City of Lincoln City Parks Department.

On the private ownership side of things. We are currently working with two property owners. The mailer that we sent out has thus far lead to three property owners contacting the district and I have scheduled meetings with all of them.

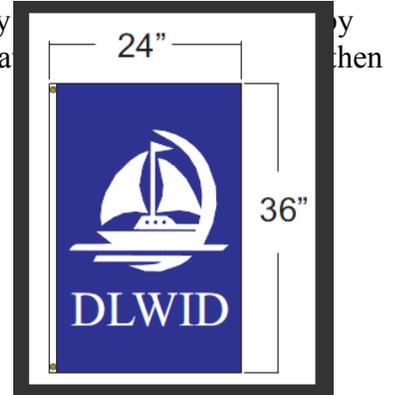
Medallions: We received the SOS medallions from Jim Kingston and will be posting those soon. Cost for the medallions calculates to \$15 a piece.

- v. **Vegetation Management:** I have completed another version of the Devils Lake Plan which was sent to the board previously. Included is an Executive Summary, a chapter on current goals, a number of changes and additions to the previously existing text, and updates to all of the action plans to include anticipated outcomes and goals of the project. I am seeking feedback on this most recent draft, and direction as to how the board would like to proceed with involving the public and agencies to this process. We have discussed the possibility of holding another summit similar to what we did in August of 2008. We have also heard the idea of simply asking for comments in writing.

- vi. **Sewer:** (Brian Green) Opportunity to hear about any updates to the neighborhood proposal.

c. **Communications Report:**

Flag: (Paul) I have spoken with Station 3 promotional Graphics, and they will be ready for us next week. We will then need to get a pole mounted to the boat and some other things should be good. Cost of flag is \$130.00.



Public outreach and education: (Seth) I had a meeting with Robin Koeller, the water quality assistant and public outreach coordinator for Lincoln Soil and Water Conservation District. She is planning on writing an Education and Public Outreach grant through Oregon Water Enhancement Board. Although these grants primarily relate to Salmon habitat they do have room for education and programs relating to general water quality.

Robin is currently developing the tasks for the grant. In our discussions we searched for possibilities of expanding programs that she may include in the grant to Lincoln City and Devils Lake. We also saw an opportunity to incorporate SOS demonstration projects into a native planting training or to create an interactive educational site or something similar. Our logic is since the District has already appropriated funds to do these projects we may be able to use that staff time and project costs as a match to somehow garner more attention for the projects or give them a more educational component. As Robin works out the details of her grant proposal idea over the next week, more information will be coming and I can update the board as to where we might be able to benefit and what we could offer to make this grant successful.

Facebook and Twitter: (Seth & Paul) In an attempt to increase communication and disperse information easily and quickly we recently created a Facebook fan page. People can become fans by searching for Devils Lake Water Improvement District directly on Facebook, and eventually through our website and from links on our listserv emails as we fully develop this. We are working on the connectivity to our webpage and to Twitter, so eventually we hope to have an expanded and integrated way of additional outreach. Please become a fan of Devils Lake Water Improvement District and suggest us to your network of friends.

Clearwater E-newsletter: (Seth & Paul) Look for the fall edition soon.

- d. **Safety Report:** Brakes on the truck required immediate replacement. Les Schwab installed new brakes on the front with a 3 year/25,000 mile warranty. Cost of \$371.40.
- e. **Thompson Creek:** I have spoken with Dr. Field and she will likely be able to discern fecal sources from the samples that we have based on the concentration of E. coli present. That being said the dirtier the sample the better, which as you'll remember we haven't had the truly high numbers we expected initially. For analysis we will have to send the samples overnight. I have tried to arrange a Fed Ex shipment, but have yet to hear back on Dr. Field's or her grad student's availability to receive the samples. However as we are currently working with a firm out of Corvallis on the database project, I could simply arrange for a trip over that coincided with an upcoming meeting with E&S. Regardless though the samples are under the appropriate holding conditions in our lab for now.

Next steps in this process are to first go ahead and have the existing samples analyzed. This can be followed by some storm event sampling over the course of the winter months. This is another and important arena to assess, that of landscape flushing. This is a timing issue though, and we have to coordinate with the E. coli analyst, as well as have the time available for the sample prep. While there

has been one rain event already, many more are on the horizon, so it is my goal to have a storm sampling done in the next month or so, weather dependent. Analyzing these samples though for DNA may likely exceed the current budget though, so this is something we will have to revisit. I am hesitant to put a number on it at this time as we have yet to go through with the first three sample days from the dry weather period.

- f. **Water Quality Update:** We have completed our seasonal summer monitoring. Included is a summary of the 2010 *E. coli* results. As you will remained in the Low Risk category thr second year in a row that Regatta Grou such high quality recreational water.

However as noted from our own data and reflected in the State of Oregon's Beach Water Quality Monitoring Program, the D River has had some samples which have not met the standards. The State of Oregon is continuing to sample the ocean waters at the D River. A link has been provided from our website.

Lastly, while Rock Creek, and to a greater extent, Thompson Creek have not met the recreational use standards for much of the season, this has not translated fortunately into water quality issues at the nearest next public access. The District is continuing to focus though on these streams and has developed a DNA based fecal source tracking program for that is ongoing at this time.



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E. coli: 2010 Summary

DLWID has finished the 2010 Monitoring Season for *E. coli*. Below is a summary of the 14 week long season. Results are presented as the number of weeks the site Met or Achieved Oregon's recreational water quality standards for *E. coli* per the number of weeks sampled.



Cyanobacteria Monitoring

Protect Your Pets!



What are cyanobacteria and how do they affect animals?

Cyanobacteria are simple, photosynthetic organisms that live in water, which can produce toxins.

If animals ingest the toxins they can be quickly sickened and even die.

Signs of poisoning are excessive salivation, vomiting, and difficulty breathing.

How to protect your pet

Don't let pets swim or drink from areas where the water is scummy or where toxins are known to exist.

If pets swim in scummy water, rinse them off immediately. Do not let them lick the cyanobacteria off their fur.

If you think your pet might have been poisoned by cyanobacteria toxins seek medical treatment right away.



The 2010 water quality sampling season has been completed without the occurrence of a significant cyanobacteria bloom. As a result, the District does not intend to do any cyanotoxin analysis until the next monitoring season. However blooms can occur in the fall and winter months, so please use proper judgment whenever recreating on Devils Lake being sure to avoid any scummy water you or your pets may come across. Notably a large scum area has been recently observed in one of the canals on the east side. The existence of this scum ridden area when the rest of the shoreline sites and the broad lake site have remained largely clear echoes the need to look before you leap. As a follow up Thursday 2010-09-30, I got a report from a former board member of the District, Dave Juenke, that scum has formed and can be seen on the west side of the lake now too. His property is on the lake itself as opposed to being stuck back in a canal suggesting the effects may be more widespread.

- g. **Erosion Study RFP:** The Board was previously sent copies of all the applicants, plus a matrix comparing the proposals. The Board will discuss these proposals and potentially award a contract for the project. It is staff's recommendation that based on cost and experience that Tetra Tech had the best

offering. Staff does though also recommend retaining them to conduct the image library search to create the historic profile. This may be funded up to say \$2,000.00 and still be under all the other bids. While not a specifically budgeted priority, the District can make available funds for this project through the Improvement Fund: Material & Services: Watershed Protection, but would require a resolution moving monies within the Improvement Fund from Material and Services: Vegetation Management. This would be simpler than doing a supplemental budget which would be another method of re-appropriating the District's funds if desired.

II. New Business

(Agenda Support Item B)

- a. **NALMS:** The North American Lake Management Society which we are a member of meets in Oklahoma this year. This is one of the most widely attended conferences and provides expert resources and networking to the District. Of particular interest this year is the workshop on Invasive Aquatic Plant Management which includes grass carp as part of the discussion. Michael Smart of the US Army Corp of Engineers is the lead presenter. Through Tetra Tech, we have recently consulted with him on the Shoreline Planting Guide. Additionally the regular symposium offers sessions of interest on numerous topics, of which I have bolded and underlined throughout, see below:

Tuesday, November 2 Pre-Symposium Workshops (8:00 am - 5:00 pm)

- Collection, Identification, Ecology & Control of Freshwater Algae (Full-Day)
- **Ecological Approach to Invasive Aquatic Plant Management (Full-Day)**
- Lake Phosphorus Inactivation & Interception (Full-Day)
- Tools for Lake and Watershed Assessment -- Part 2 (Full-Day)
- Understanding Dissolved Oxygen (Half-Day, AM)

Ecological Approach to Invasive Aquatic Plant Management: *Sponsored by the US Army Corps of Engineers*

The value of native aquatic plants to water quality, habitat, and as a deterrent to invasive species has only been appreciated within the past 20 years. Prior to this time, aquatic plant management projects had been more concerned with removal or eradication of the offending species than with ensuring the continuance of a diverse and stable aquatic plant community. In fact, the goal of management was often the complete elimination of submersed vegetation. Unfortunately, this is not only flawed from a weed management perspective, it is also fraught with other dangers including degradation of water quality, loss of fish habitat, increased shoreline erosion, and an increased likelihood of supporting excessive growth of filamentous algae.

The objective of this workshop is to provide lake managers with a framework for managing problematic growth of invasive aquatic plants within an ecological context. The workshop will encompass not only the control of invasive aquatic plant species using the latest advances in chemical and biological control technologies, but also the factors that contribute to the development of the problem.

The workshop will provide basic information on the ecology of shallow, freshwater systems with particular emphasis on man-made systems and will cover chemical and biological control technologies. Chemical control technologies will be discussed in relation to the problem plants' susceptibilities, water uses, flow patterns, and impact on desirable native plants. Information on biological control technologies will include identification of suitable agents, their associated damage, release and establishment strategies, and appropriate monitoring techniques. The use of triploid grass carp will also be discussed. Information will also be provided on other technologies such as harvesting, benthic barriers, and drawdowns. In addition, simple methods of assessing aquatic plant communities will be provided. Restoration of native aquatic plants will also be discussed.

Instructors: Michael Smart, Michael Grodowitz, and Michael Netherland are senior researchers with the US Army Engineer Research and Development Center's (ERDC) Aquatic Plant Control Research Program (APCRP) and have been working on aquatic plant ecology, biological control, and chemical control, respectively for over 20 years.

Wednesday, November 3

Opening Plenary Session (8:00 am - 10:00 am)

Session A (10:30 am - 12:00 pm)

- Session A-1: Lake of the Woods - Managing a Large Resource
- **Session A-2: Nutrient Criteria 1 – The Foundation and Affected Participants**
- Session A-3: Water Plan/Policy – Planning for the Future of Our Lakes
- Session A-4: Aquatic Plant Communities

Session B (1:30 pm - 3:00 pm)

- **Session B-1: Nutrient Criteria 2 – Approaches and Contentious Arguments**
- Session B-2: Hydrilla Management
- Session B-3: Alum Treatment 1
- Session B-4: National Lakes Assessment

Session C (3:30 pm - 5:00 pm)

- **Session C-1: Nutrient Criteria 3 – Bringing It All Home**
- Session C-2: Oxbow Monitoring
- Session C-3: Alum Treatment 2

Thursday, November 4

Session D (8:30 am - 10:00 am)

- Session D-1: Reservoir Fisheries Habitat Partnership 1
- **Session D-2: Watershed Management 1**
- **Session D-3: Shoreline Management and Restoration**
- **Session D-4: Bio Control of Invasive Plants**

Session E (10:30 am - 12:00 pm)

- Session E-1: Reservoir Fisheries Habitat Partnership 2
- **Session E-2: Watershed Management 2**
- Session E-3: Invasive, Toxicogenic, and On the Move – Golden Algae in Oklahoma
- Session E-4: Tenkiller Reservoir

Session F (1:30 pm - 3:00 pm)

- Session F-1: Protection of Lakes and Reservoirs as Drinking Water Sources – Are There a Boat and a Duck Floating in My Drinking Water? 1
- Session F-2: Mercury 1
- **Session F-3: In-Lake Nutrient Monitoring**
- Session F-4: Aeration Treatment as a Means to Improve Water Quality

Session G (3:30 pm - 5:00 pm)

- Session G-1: Mercury 2
- Session G-2: WWTP & Nutrients
- Session G-3: Protection of Lakes and Reservoirs as Drinking Water Sources – Are There a Boat and a Duck Floating in My Drinking Water? 2
- Session G-4: Multipurpose Reservoirs and Their Challenges

Friday, November 5

Session H (8:30 am - 10:00 am)

- Session H-1: The Cheney Lake Watershed Project – 16 Years of Rural and Urban Partnerships to Preserve & Protect Water Quality 1
- Session H-2: Volunteer Monitoring 1
- Session H-3: Fish
- **Session H-4: HAB – Cyanobacteria 1**

Session I (10:30 am - 12:00 pm)

- Session I-1: The Cheney Lake Watershed Project – 16 Years of Rural and Urban Partnerships to Preserve & Protect Water Quality 2
- Session I-2: Volunteer Monitoring 2
- **Session I-3: HAB – Cyanobacteria 2**
- Session I-4: Invasive Plant Management

Session J (1:30 pm - 3:00 pm)

- **Session J-1: Sediment Nutrients**
- Session J-2: In-Lake Modeling 1
- **Session J-3: In Lake Monitoring**
- **Session J-4: Algal Food Sources**

Session K (3:30 pm - 5:00 pm)

- Session K-1: In-Lake Modeling 2
- Session K-2: Remote Sensing
- **Session K-3: Nutrients Too**

The cost of attending the conference is something the District budgets for, and is estimated below. Flights to and from Oklahoma would be Monday returning Saturday Nov 1-6.

Registration	\$450
Workshop	170
Hotel 5 nights @129 + tax	735
Per diem @ 40	300
Airfare (can vary)	309
Baggage (varies)	60
Airport Parking @ 8	40
Ground Transportation @10	20
Fuel to airport RT	<u>33</u>
Total (estimate)	\$2,117

- b. **District Truck:** In May of 2006 DLWID bought the 2003 Toyota Tacoma for \$18,264. Since then the only maintenance it has received until very recently has been routine oil changes, air filter changes and cleaning. Given the inherent needs of maintenance, in Budget year 2009-2010 the Transportation Budget was increased to either fix the truck or provide for a savings account for eventual replacement. Unspent monies in the General Fund M&S: Transportation would then be put into reserve. This has continued in 2010-2011 budget, and there is currently a General Fund line item of \$4,857 for transportation (including gas, oil, insurance), but also \$8,000 in the Improvement Fund for large repairs or replacement. Fortunately there has not been much of a need for either yet. Lately however there had been a grinding sound that increasingly had gotten worse until when depressing the brakes, the whole truck would shimmy and pull to the right. I had Les Schwab inspect, and they concluded that the front brakes were basically shot, and could be replaced for \$371.40, which I had them do that day for safety reasons. Additionally at the last oil change it was identified that the transmission oil and the two transfer cases oils were due for a change. This has not yet been performed, but should be done in conjunction with what I might image would be a major tune up, including the changing of belts, coolant, spark plugs, wires, and other items as would be recommend by Toyota:
http://smg.toyotapartsandservice.com/guides.php?xv=0&xy=0&xint_id=0&v=22&y=2003&int_id=64 .

While I haven't gone to the effort of getting a cost estimate on such a tune up, I think we can safely say it could cost upwards to a thousand dollars if not two. I would like to with the board's approval get the vehicle serviced professionally making use of the dollars already budgeted. The truck is otherwise in very good shape, and it should be serviceable for many years to come.