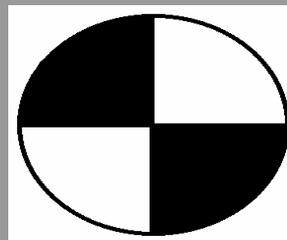


November 2002

LAKE WISE

A Voice for Quiet Waters



The Oregon Lakes Association Newsletter

President's Perspective

Lori Campbell, Lincoln City: The Oregon Lakes Association addressed the future and goals of the organization at the annual board meeting in September. OLA has a membership and board with strong technical expertise and diverse watershed experiences. As President, I'd like to see OLA emphasize several areas in the next year.

OLA has played an integral part in the start of the Center for Lakes and Reservoirs, therefore it makes sense that OLA should form a closer relationship with the CLR (see note on CLR in this issue)..

OLA should continue to be involved in the Lake Wise newsletter.

We should take advantage of our opportunity to further educate others through the OLA website (www.oregonlakes.org).

Finally, I'd like to see OLA develop a stronger identity with lake homeowners, and concerned laypeople.

Here on the coast, Devils Lake continues to support a population of sterile Chinese grass carp. Once overgrown with both native and invasive aquatic plants, the lake is currently dominated by algae. As with many lakes, Devils Lake faces increasing urbanization and changes in land use. Water quality is degraded, as evidenced by high nitrogen, phosphorus and chlorophyll concentrations. The Devils Lake Water Improvement District, charged with managing for improved water quality, is currently taking a multi-task approach to improving lake conditions: community newsletter, school awareness program, watershed group coordination, integrated aquatic vegetation management plan.

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OLA BOARD OFFICERS

Lori Campbell, President
Roger Edwards, Secretary
Jim Graybill, Treasurer
Jim Carpenter, Past President
John Salinas
Michael Parker
Stan Geiger
Steve Kirk

(see OLA web site for Board member profiles and contact information)

Fairview Lake Plan Nears Completion

Jim Graybill, Fairview: Fairview Lake lies in the headwaters of the Columbia Slough in northeast Portland, Gresham and Fairview. The Columbia Slough runs parallel to the Columbia River and carries storm water of the Gresham and North Portland area to the Willamette River. Fairview Lake was increased in size and holding capacity in the

late 1940's by the Multnomah Drainage District, which is responsible for all flood control within the Columbia Slough. The Columbia Slough watershed includes many businesses and the Portland International Airport.

Fairview Creek, which carries the storm water

Fairview Lake Plan (continued)

for Gresham and Fairview, drains into Fairview Lake. For the last fifty years the lake was drained in the winter by the drainage district to collect winter storms and raised in the summer for recreation, aesthetics and wildlife. Holding water in an impoundment requires a water rights permit. In 1991 the district said they would apply for and hold the water rights permits. The permits are necessary only for the summer storage of water. The district decided a year ago it was not in their best interest to hold the summer water rights permits. The City of Fairview which has jurisdiction over the southern half of the lake agreed to hold the water rights permits, but would share the management of Fairview Lake with the littoral land owners around the lake. Thus, a management plan for Fairview Lake is necessary for the transfer of permits and must be agreed upon by the Multnomah Drainage District, the City of Fairview and the Fairview Lake Property Owners.

Fairview Lake is a 106 acre, flat bottom lake with a water depth of one foot in the winter and four feet in the summer. Bottom materials are easily suspended. The lake is almost always brown, but the turbidity limits the amount of sunlight

reaching the bottom so we have no weeds and boating is excellent, but limited to “no wake” speeds. Up until the present time, lake management was limited to raising and lowering the water level in the spring and fall, respectively.

The new plan includes: time tables for raising and lowering the lake elevations while maintaining flood control, monitoring of lake sedimentation, monitoring of water quality, monitoring of aquatic plants, fish and wildlife; floating logs and debris will be removed or anchored on shore, and residents will be educated about these and other lake friendly activities. This plan will be improved as time goes on, but we think this will be acceptable to all parties.

“There is an increasing tendency, particularly in the United States, to capitulate to the masses of information on any subject and accept, even promote, superficial understanding of ecological subjects. That level of inquiry may be acceptable for the lay public but is not acceptable for professional limnologists, aquatic ecologists, and water resource managers.” Robert Wetzel, Limnology 3rd Edition 2001

Neuston News

Roger Edwards, Gresham: A chronology of pertinent news from area lakes:

April 2002 – Headwaters, Inc. vs. Talent Irrigation District lawsuit settled by EPA decision, which cautiously ruled that NPDES permits are not required for application of herbicides in irrigation canals.

May 2002 – Water districts drawing from the Clackamas R. conduct feasibility study for increased storage in Timothy L. (See article in this issue)

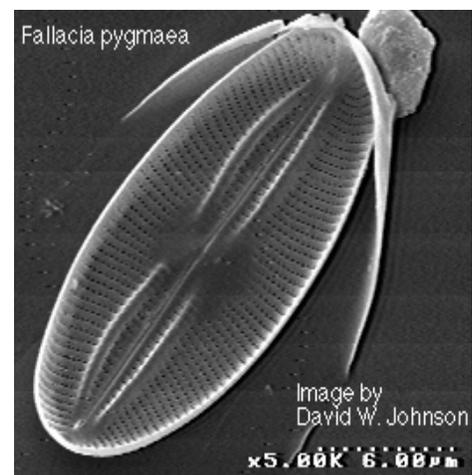
-Crater L. marks its hundredth anniversary as a national park. Gala celebration held in August.

August 2002 – Blue green algae bloom causes brief closure of Diamond L. to water contact recreation. In on-going battle with tui chub population, 23,500 half-pound spring chinook are stocked in Diamond L.

September 2002 – Objections raised to International Paper request for certified water rights to Siltcoos and Tahkenitch L. after their area mill is closed. International Paper needs the water to keep the idled mill in working condition should they want to restart work there. International Paper built dams on the two lakes in 1963 when operation of the Gardiner Mill first started, and has always been responsible for them.

- Fairview L. Property Owners Association agrees to pay \$75 fees for dam and lake level maintenance. (See article in this issue)
Undated – State agrees to accept a joint easement for Woahinck L. Association holders of water rights. The original request would have required each holder to pay \$750 for their easement.
October 2002 – The 30th Anniversary of the Clean Water Act was observed on October 18th.

- PGE agrees to dismantle the two dams



Why Monitor?

Roger Edwards, Gresham: The decision to start monitoring a lake must be deliberate. The investment of time and money for even modest monitoring programs makes it necessary to plan ahead so that this investment yields a maximum return. Lake Watch monitors know what I mean. Their monitoring reports on the Center for Lakes and Reservoirs web site (www.clr.pdx.edu/, then to Publications, then Oregon Lake Watch Reports) suggest the effort involved.

While it is easy not to monitor, it is useful to monitor because of the greater understanding it generates about lake processes. Local schools can often do the initial surveys as part of a special curriculum. These first results will be instructive in determining what further monitoring should be done. As samples from different seasons are analyzed, the pattern of lake cycles becomes clearer. Comparing cycles from year to year will define the limits of these cycles as they respond to the conditions affecting their pattern.

When results begin to show a seasonal similarity, then the accumulated data will serve as a database, against which future results can be compared. The accumulation of this baseline data is invaluable for lake management programs. It will show you what needs to be improved and by how much. Deviations from expected ranges will alert the lake manager that there may be some unusual activity that warrants investigation. Comparison of current data to the baseline data allows the effectiveness of remedial actions to be judged. The accumulated data will often permit an immediate assessment of a lake's suitability for new uses.

While the following list is short, it does outnumber the excuses for not monitoring.

Six Reasons To Monitor

1. It defines the conditions in the lake. In your first look at any lake, what you know about the lake is limited to what you can see. Many questions come immediately to mind and monitoring can provide the answers. It is likely that some of these investigations have

been performed, and finding existing documents may satisfy immediate needs. Where there are information gaps, programs can be designed to gather the missing data.

2. It establishes baseline points for comparisons. Monitoring data are cumulative. The more you monitor, the more you will learn about your lake. Initial results may allow placing the lake in one of several general categories. As more information is gathered over several seasons, the picture of lake conditions becomes clearer. Cycles are identified and their ranges can be delineated. Each new set of data points are compared to past results to determine if present conditions match those observed previously. This comparison will then allow an informed prediction to be made about future conditions.

3. It can save you money. For example, as you become more knowledgeable about your lake, you may want to forego extensive landscaping in favor of establishing a riparian zone on the lake side of your property. Similar decisions made now can provide future savings. If a lake defines your property, then the condition of the lake will be reflected in your property values.

4. It provides a quantified means to judge the effectiveness of remedial efforts. Where lake problems have been identified and remedial projects have been prescribed, monitoring must be done to show whether the assigned tasks are producing the desired results.

5. It provides the best chance to keep the lake the way you want it. If there are no problems with a lake, monitoring will document these ideal conditions. Investigations of a problem will be needed before plans to fix the problem can be developed, and better information will increase the likelihood that the fix will work.

6. It is an enjoyable activity. Any excuse to go for a boat ride has some merit.

Feature Links: Go to <http://www.epa.gov/> and search on "volunteer monitoring"; excellent

"Unfortunately, I think lake managers have been caught flat-footed. I think we have been laboring under the presumption that providing for multiple uses serves the greatest needs. However, as lakes become more crowded and lake toys become bigger, faster, and more powerful, we may actually be creating more conflicts and detracting from the peace and enjoyment of more people."
 Dick Osgood, **Lake Line**, Winter 2001/02
 (7)

*Douglas W. Larson
received the
Centennial Award
for Excellence from
the Crater Lake
Institute in this
Anniversary Year
for Crater Lake.
Congratulations
Doug!*



City of Vancouver, Washington

UKL Model Predicts Reduced P Load for Compliance

Steve Kirk, Bend: On August 7, 2002, US Environmental Protection Agency approved the Upper Klamath Lake Drainage (UKLD) Total Maximum Daily Load. This was done under the Department of Environmental Quality's responsibility to implement the Federal Clean Water Act. In addition, it satisfies the requirement of a court ordered consent decree and an agreement between the Department and the Environmental Protection Agency. The approved TMDLs include six TMDLs for pH, dissolved oxygen, and chlorophyll-a for Upper Klamath Lake and Agency Lake.

Violations of water quality standards in Upper Klamath and Agency Lakes are related to algal productivity which in turn is a function of phosphorus loading. The response to pH levels at various phosphorus loading levels for Upper Klamath and Agency Lakes was developed using a dynamic mass-balance model that simulates phosphorus, chlorophyll-a and pH. Modeling results indicate that a 40% reduction in external loading of total phosphorus to the

Upper Klamath and Agency Lakes will result in attainment of the water quality standard for pH.

The UKL Total Maximum Daily Load and Water Quality Management Plan offers avenues and tools to build on existing efforts to improve water quality and to protect valuable natural resources in the Upper Klamath and Agency Lakes. The science and data used in developing the Total Maximum Daily Load is well-established and includes the best available information upon which to base water quality management decisions. The UKLD Total Maximum Daily Load represent several years of data collection, multidisciplinary data analysis and research, and public participation. DEQ is providing an opportunity to improve its TMDL estimates and water quality management plan through a Science Review Team that will meet for its second time November 15, 2002.

Feature Links: Go to DEQ web site (<http://>

Wetland Loss: You Lose

Stan Geiger, Portland: Filling or degrading wetlands associated with lakes is not likely to happen given the level of understanding among agency reviewers. But, bad things continue to happen.

The comprehensive wetland classification system of the U. S. Fish and Wildlife Service defines lakes, as lacustrine wetlands (one of five wetland systems), as having two components: a littoral and a limnetic area. As a suggestive rule, the lower limit of the shallow littoral area is two meters in depth. "Jurisdictional" wetland will be found in the littoral element of this classification scheme of the USFWS.

So how do you find out where the wetlands are in and around your lake? For all the information you need on locating wetlands at your lake go to the DSL web site (<http://statelands.dsl.state.or.us/>), the USFWS National Wetland Inventory web site (<http://www.nwi.fws.gov/>),

and the U. S. Army Corps of Engineers web site (<https://www.nwp.usace.army.mil/op/g/#>).

Even if you can't go out and define the edges of wetlands, you probably have some notion of what a wetland is. And you know how these wetlands around lakes get changed. For example, you may have had an interest in having water access to your property, so you wanted to install a dock. That, of course requires a permit from the Oregon Division of State Lands (DSL) because most lake bottoms on state land or surrounded by private lands are owned by the DSL and they require their permission. But once you got a dock, you might have wanted better fishing access or more likely swimming access. But there were those plants in the water that interfered with your sport. Then wetland alteration begins; cutting or removing plants that are interfering with your options at the water front. This is the way wetlands of lakes die of a thousand small alterations.

Wetland Loss: You Lose (continued)

Devils Lake in Lincoln City used to have an extensive emergent and submergent vegetated littoral zone. I remember traveling slowly by boat over acres of *Elodea* in the late 1970's and knowing why water skiers didn't like this but still marveling over the diversity and beauty of the lake. Slightly less than one-half of the 678 ac (274.4 ha) lake is less than 3 meters deep (Atlas of Oregon Lakes 1985). Transparency of the lake water was excellent. Years later with the introduction and development of grass carp at Devils Lake, all of this luxurious wetland vegetation has been removed by the fishy lawnmowers. Recently scientists at the PSU Center for Lakes and Reservoirs have been testing what plants would grow there with the use of "exclosures" if grass carp were unable to devour the plants. Ironic. The loss of the submerged, rooted plants has made it possible to optimize and maximize water sports like water skiing, but the change in the appearance of the lake has been dramatic. Instead of rooted plants, there are immense populations of drifting algae. Now the algae rule. There was no wetland alteration permit issued by DSL or the USACOE for this extensive wetland alteration, which was the *submergent* wetland plant community. How much littoral emergent wetland was filled at lake edge to accommodate lakeside homeowners ambitions? A wetland loss analysis is not known to the author. The loss of *emergent* wetland may have been appreciable.

The largest freshwater lake in Oregon at 77,593 ac (Upper Klamath Lake (combination of Agency and Upper Klamath Lake) has been getting a lot of attention in the press over the past few years because of its water quality problems. Two species of sucker fish are at risk because of the degraded water quality. Populations of these species were in such bad condition in the late 1980's that the USFWS listed them as endangered. Most people blame agriculture for what happened to the suckers. But it is a lot more complicated than that. Imagine this. The area of Upper Klamath Lake at maximum average pool used to be 111,510 ac. Of this area, 46.2% was wetland (Geiger 2002, Snyder and Morace 1997). This percentage does not include what is likely to have been a very extensive submergent wetland component. Following diking and draining of in-lake wetlands, a process which extended from the late 1800's to 1968, wetlands in direct contact with fluctuating lake water levels had shrunk to 22.4% of the total lake area. The limnetic area of the lake remained similar to what it had been, but the littoral area (primarily emergent wetland) was reduced by about 69% (see Figure 1). This significant reduction to increase the area of agricultural production occurred over 70 years as the Figure shows. There was no impact assessment performed for any of the diking and draining and there has been no

mitigation/compensation for any of that wetland loss which last occurred just before the NEPA. About 17,000 acres of former wetland area behind dikes has been acquired for restoration by two federal agencies and The Nature Conservancy since 1995. Only minor reassociation of these areas with UKL has occurred to date. It is mind-boggling to think of an accumulating wetland loss of 34,000 acres and how this would have changed lake water quality (e.g. no seasonal uptake of nitrogen and phosphorus by all of that lost wetland; no export of decomposition products back to the lake), and, how this loss would have impacted associated wetland biota from waterfowl to fish to microflora and microfauna.

We'd like to feel the relief of knowing this kind of extensive wetland alteration and elimination can't happen again. Having this feeling shouldn't happen. Better than blind trust in wetland regulations would be a feeling of gritty irritation about remedying past unmitigated impacts to lake systems and the feeling of curiosity about effects of insidious incremental removal of littoral wetland function. It is fortunate for our lakes that we humans have to think harder now about whether we want to apply herbicides and use grass carp to remove those noxious water weeds. What are these "weeds" (translated "wetland vegetation") doing for the water quality of our lakes? And, what and where are the wetlands associated with our lakes? You can only approximate this from bathymetric maps.

- Geiger, S. 2002. Reassociating wetlands with Upper Klamath Lake to improve water quality. Paper presented at the Klamath Basin Fish and Water Management Symposium, Arcata, May 2001.
- Johnson, D. M., R. R. Petersen, D. R. Lycan, J. W. Sweet, M. E. Neuhaus and A. L. Schaedel. Atlas of Oregon Lakes. OSU Press, Corvallis, OR
- Snyder, Daniel T. and Jennifer L. Morace. 1997. Nitrogen and phosphorus loading from drained wetlands adjacent to Upper Klamath and Agency Lakes, Oregon. USGS, Water-Resources Investigations Report 97-4059.

Figure 1. In-Lake Wetland Loss from Upper Klamath Lake through Isolation from Diking (originally 51,510 acres of wetlands within UKL; Snyder and Morace 1997)



PSU Center for Lakes and Reservoirs: Strong Ally for Oregon Lakes

Mark Sytsma, PSU/CLR, Portland:

Folks at the Center for Lakes and Reservoirs have been busy. It's a perfect time for OLA to pick up the work of issuing *Lake Wise* while we try to manage the burgeoning work of the Center. There are probably a few other ways OLA can assist us, and we look forward to future collaboration.

Ongoing projects at the Center include development of nutrient criteria for lakes in EPA Region 10, volunteer monitoring for zebra mussels and other aquatic invaders, management planning for coastal lakes, and surveying the lower Columbia River for aquatic invasive species. Take a look at the CLR web site to put faces to the following names. The web site is accessible directly at www.clr.pdx.edu or through the OLA web site (www.oregonlakes.org/resources).

The nutrient criteria development project is in its third year. This year, we focused on reservoirs in Region 10. **Rich Miller**, a research assistant at the CLR, travelled throughout Idaho,

Oregon, and Washington this past summer collecting water quality information on 48 reservoirs to use in forming an approach to criteria development. Rich will be presenting his work at the NALMS conference in Faribanks.

Toni Pennington coordinates our zebra mussel and invasive species monitoring program. We have distributed nearly 200 zebra mussel substrates to volunteers throughout the western U.S. Volunteers check their substrates periodically for zebra mussels or other critters. This summer our volunteer at Garrison Lake, Alice Pfand, reported finding some small snails on her substrate. As a good volunteer should, she notified Toni of her discovery. The snails turned out to be New Zealand mudsnails, which are in the Columbia and Snake Rivers, but were not previously known to be present in lakes in Oregon.

Robyn Draheim leads the Columbia River survey effort. Sampling this summer demonstrated a much wider distribution of New Zealand mudsnails in the lower river than was previously known, and also detected some newly introduced

zooplankton. The zooplankton are likely ballast water introductions from ships. The CLR is in the beginning stages of a new study that focuses the role of shipping in introducing aquatic invasive species into Oregon.

We are also working on developing management plans for four Clatsop Plains lakes - Cullaby, Sunset, Smith, and Coffenbury. These lakes are infested with nonnative aquatic weeds that degrade water quality and beneficial uses. This project is in its initial stages and will be completed by the end of 2003.

If you have any questions about these

*Kayla Charlton, a 7th
Grade student at
Lake Oswego Jr. High
in Lake Oswego, OR
developed the
winning poster for
2002 Lakes
Appreciation Week .
Congratulations
Kayla!*

*NALMS **LakeLine** Winter
2001/02 (64)*

NALMS Knows Lakes

Roger Edwards, Gresham: The North American Lake Management Society will have had its 22 Annual International Symposium in Anchorage, Alaska October 29-November 2, 2002 when *Lake Wise* reaches you. At least two of OLA members will be in attendance (Lori Campbell and Mark Rosenkrantz). In addition to such Symposia and its lobbying for lakes at the national level, NALMS, drawing on its experience with lakes throughout the continent, publishes four issues of *LakeLine* each year. This magazine is an excellent source of information on lakes and lake

management. The theme for the Fall 2002 issue is dam safety. Pertinent articles discuss "The Need for Dam Safety Standards and Regulations, Options for Repair for Deteriorated CMPS through Dams, Inspection of Embankment Dams and Structures, Flood Passage for Earth Dams, and Minimizing the Risks of a Dam Failure". Other articles address "Watersheds and TV Weather Reporting", and "Aquatic Invasive Species and the Role of ANS Task Force". Regular features include news briefs, news from the local chapters,

and a list of current research published in the limnology literature. NALMS also publishes the journal *Lake and Reservoir Management* providing an opportunity for getting peer reviewed papers into print. By the way, you are not automatically a member of NALMS just because you belong to OLA. For NALMS membership information, visit www.nalms.org on the web. Our representative to NALMS for this region used to be Joe Eilers. It is now Jonathan

OLA Web Site Footnotes

Stan Geiger, Portland: One of the excellent accomplishments of OLA (in collaboration with the PSU CLR) has been to create a web site (www.oregonlakes.org) for the organization that has the same format as that of CLR. Thanks to Mark Rosenkrantz and his wife. There are many very useful things that can be added to the web site, but it is already working for OLA.

I am a member of the Oregon Bass and Panfish Club. They have an interesting web site for their 600 club members (<http://obpc0.tripod.com/>). I asked their Vice-President Marcia

Hartman and her husband Bud to review the OLA web site. This is Marcia's response.

"Bud and I reviewed the Web site this morning. Our first impression is favorable. The site is easy to maneuver. (Two sites came up when we searched the Web. The first one was more current than the second one (in fact the second one referenced items from early 2002--February meeting). The first site gave the date for the upcoming November board meeting.) We were not able to access the current OAL newsletter on either site.

I did notice a couple of typographical errors (but then I know first hand how those things slip by proofreading efforts!). Also, keeping the site current with dates of meetings is very important. We don't want a site to look outdated and/or unattended.

Interesting information on Blue Lake and Fairview Lake. The pictures of lakes are an added bonus.

Has your board thought about allowing other sites to link to your site? OBPC may want to pursue this, as OLA's site features lakes of interest to our Club members."

Change Considered for Timothy Lake

Roger Edwards, Gresham: Timothy Lake is really a reservoir. Located south of Mt. Hood at an elevation of 3217', it was first filled in 1956, drowning a meadow that had been used principally for grazing livestock. The 110' earthen dam that PGE constructed there allows them to generate hydroelectric power as the water is directed down the Oak Grove Fork of the Clackamas River. Because there are several water districts downstream that draw their water supplies from the Clackamas, there is interest in augmenting the flows that are available for drafting as a water source. Increasing the dam height at Timothy L. was identified as a reasonable option that could increase the water supply, allowing the water districts to increase their water rights from the Clackamas R.

The study performed to consider this option found that raising the dam height by two feet would flood an additional 100 acres around the lake. Parts of existing campgrounds and trails would be affected. Some of the newly inundated area would be shallow and so would be susceptible to heating, which could change the temperature profile of the lake. The present surface area of the lake is listed as 1282 acres, so the projected increase in dam height would boost lake volume by $1282 \times 2 = 2564 + 100 = 2664$ acre-feet, or 867 million gallons.

Whether the cost of addressing the changes brought about by this option are worthwhile or not has yet to be decided. The water suppliers most interested in pursuing the idea are Sunrise Water Authority and Oak Lodge Water District. The interest of other area suppliers has waned, and PGE

sees little benefit from the proposal. Sunrise has no current rights to Clackamas R. water and faces the possibility of increasing population if Portland's urban growth boundary is expanded in the Damascus area. The decision is due soon in order for PGE to prepare its pre-application for renewal of their licenses for their several hydroelectric dams on the Clackamas. The Federal Energy Regulating Commission expects the renewals in August 2003.

HOTLINE	OREGON INVASIVE SPECIES
	1-866-INVADER
	Call Toll Free (1-866-2337) To report sightings of invasive species

Forms in the Fog: Coming Attractions

*Oregon Lake Condition Index Matures
Lakes comprised by Oregon's Watershed Councils: Are they being ignored for streams or better understood?
The List of One Hundred: Has 303(d) Listing Led to Restored Lakes?
Why Is It So Difficult to Protect the Highest Quality Oregon Lakes?
Oregon's Lakes through the Eyes of Fishermen
Summary Review of Research Underway on Oregon's Lakes
Plans to revise the Atlas of Oregon Lakes
Death Warrant for Roslyn Lake.
Index of Lake Wise Feature Articles: 1997-2001
Classifying Management Responsibility for Oregon's Lakes*



The Oregon Lakes Association Newsletter

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Email: events@oregonlakes.org

The Oregon Lakes Association, a nonprofit organization founded in 1988, promotes understanding, protection, and thoughtful management of lake and watershed ecosystems in Oregon.

For additional information on OLA, to get involved, or to obtain a membership application write to: OLA, PO Box 345, Portland, OR 97207

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Lake Wise Editorial Policy and Notes on Authors

Opinions of those who contributed to articles in this Newsletter are judged by the Oregon Lakes Association Board Editorial Committee (S. Geiger-Chair, R. Edwards and S. Kirk) to be typical of the diversity of opinions of those who have a scientific, economic and political interest in the lakes of Oregon. Comments praising or disparaging articles in this Newsletter are welcome and representative comments will be considered for presentation in the next issue of *Lake Wise*.

Roger Edwards (*Why Monitor?, Change Considered for Timothy Lake*) Roger, current Secretary of OLA, monitored the water quality of the City of Portland Bull Run Reservoir for the past 27 years.

Steve Kirk (*Model Predicts 40% Phosphorus Load Reduction will Produce Compliance for UKL Waters*) Steve, a board member of OLA, works out of the Bend ODEQ office and has been the Department's project manager of the UKL TMDL.

Jim Graybill (*Fairview Lake Management Plan Nears Completion*) Jim, past President of OLA, has overseen the Fisheries Management program at Mount Hood Community College. He and his wife Jane have lived many years on the north shore of Fairview Lake.

Stan Geiger (*Wetland Loss: You Lose*) Stan has worked as limnologist and phycologist for Beak Consultants, Inc., Scientific Resources, Inc. and as wetland ecologist for Shapiro and Associates, Inc. Since 1997 he has been restoring wetlands and assessing wetland restoration at UKL

Mark Sytsma (*PSU CLR: Strong Ally for Oregon Lakes*). Mark directs the Center for Lakes and Reservoirs at PSU. His successful efforts to attract funding for various projects at CLR has meant a marked increase in grad students working on lakes in Oregon.

Lori Campbell (*President's Perspective*). Lori is Manager of the Devils Lake Water Improvement District, Lincoln City, Oregon. She is beginning her stint as President of

