

# LAKE WISE

June 1998

NEWSLETTER OF THE PSU LAKES AND RESERVOIRS PROGRAM AND THE OREGON LAKES ASSOCIATION



## Lake Watch News

by Jody Oliver

Summer is upon us at Citizen Lake Watch and the volunteers are gearing up for another season of lake watching. Some of the volunteers have already started working for the 1998 season and I'm sure the rest will resume data collection within the next week or two. The 1997 Annual Citizen Lake Watch Report is nearly finished and should be printed and mailed soon. Many trends and important observations were documented through the volunteer effort in 1997; this should inspire all volunteers to continue their valuable work in 1998.

The Lake Watch Program depends on volunteers around Oregon to collect information on the condition of the lakes near their homes. Most volunteers collect transparency and temperature data, though a few also collect turbidity and dissolved oxygen data. This information, along with information about activities in the watershed, is used to predict the condition of the lake.

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## Annual Conference Scheduled

The Oregon Lakes Association will hold its annual conference on 23-24 October 1998 at the beautiful Diamond Lake resort in the southern Oregon Cascades. Our theme this year will be "Problems AND Opportunities in Southern Oregon's Lakes". Preliminary meeting plans include panel discussions on Waldo, Diamond, and Klamath Lakes, as well as an update of OLA's Lake Report Card Project, a session on toxic algae in Oregon lakes, some tours, and a nice social hour Friday evening.

The southern Cascades are known for the diversity of their outdoor activities with excellent opportunities, even in October, for hiking, fishing, and birding, and there'll be time on Sunday for all of them. Mark your calendar and watch your mail or this space for further details of the conference as they develop. Contact Allan Vogel (503-390-4684, llvogel@teleport.com) and/or the Diamond Lake Resort (541-793-3333) for additional information. Hope to see you there.

## National Lakes Appreciation Week

by Bob Storer

The Oregon Lakes Association (OLA) and the North American Lake Management Society (NALMS) recently sent a letter to Oregon's Governor, John Kitzhaber, asking for his assistance in proclaiming Lakes Appreciation Week. To draw attention to the value and importance of lakes and reservoirs, NALMS is promoting Lakes Appreciation Week during June 28- July 4, 1998. This event is intended to be celebrated throughout the United States and Canada.

The celebration coincides with the Great American Secchi Dip-In 1998. The Dip-In, sponsored by NALMS and the U.S. Environmental Protection Agency, is now in its 5th year. This event organizes citizen volunteers in existing volunteer lake monitoring programs to measure water transparency with a simple device called a Secchi disk. Last year, nearly 2,000 lakes across America were sampled. Collected data are compiled and analyzed at Kent State University. Regional lake transparency trends are reported in a color map.

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**Oregon Lakes Association**  
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## Lake Watch Volunteers

Citizen Lake Watch depends on dedicated volunteers, who measure basic water quality characteristics in Oregon lakes and reservoirs. Lake Watch provides training to measure water temperature, Secchi transparency, and dissolved oxygen. Volunteers in the Corps of Engineers, Fern Ridge monitoring program perform additional measurements. Volunteers also assist in the early detection of *Hydrilla*. Prospective volunteers may contact Mark Sytsma (503)725-3833.

Blue Lake : Koren Marthaller

Clear Lake: Elmer Waite

Cullaby Lake: Janette Goolsby

Devils Lake: Barbara Hagerman, Al Rice, Bill and Lorretta Vaughan

Fern Ridge Lake: Natasha Okonoji, Richard Locke, James Bruvold, Randy Wilson, Todd Yokum, Lee Kincaid, Alycia McCord, Clover Wood, Ken Cluck

Fishhawk Lake: Jack Jenkins

Garrison Lake: Don Martin

H. Hagg Reservoir: Wally Otto

Hosmer Lake: Max Peel

Lake of the Woods: Catherine Hayes, Katherine Wallis

Loon Lake: Richard Kaufmann, Steve Kaufmann

Mercer Lake: Ron Boehi

Munsel Lake: Al Burhans, Roy Fisher

N. Tenmile Lake: Frank Gray, Dan Jordan, John Kelsey

Odell Lake: John Milandin and family

Penland Lake: Lee Bogle

Siltcoos Lake: Elizabeth and Dean Kelly, Dave and Linda Lauck, Paul Cornett, John and Julia Carlson

Sunset (Neacoxie) Lake: Lee Smith

Tenmile Lake: William Emblen

Thornton Lake: Henry Pollak, Jack White

Woahink Lake: Bob Anderson

### Lake Watch News continued from page 1

This year we have made a few changes to Citizen Lake Watch that we hope will increase the success of the program. For example, the state will be split into two regions, roughly North/South, with Portland State responsible for the northern region and Southern Oregon University responsible for the southern region. This will ensure more volunteer contact (we are aiming to visit each volunteer once a month during the summer) and will allow the coordinators more time to intensively study a few lakes in each region. These lakes will be chosen in consultation with DEQ.

Also, this summer we will be implementing a new QA/QC (quality assurance/data quality control) procedure. This means we will be asking the volunteers to conduct more duplicate measurements and that about once a month, I will calibrate their instruments and methods against mine (i.e. to make sure the thermometer is still working correctly). This

will allow us to give a confidence value to the data, thereby making it more useful. This new QA/QC protocol is in development and I will pass along the new guidelines as soon as possible.

We will also support the National Secchi Dip-In project. Please see the article on page 6 for additional information on the Dip-In.

If you would like to know more about what you can do to protect a lake that you enjoy, contact the Lake Watch Program Director, Dr. Mark Sytsma, or Volunteer Coordinator, Jody Oliver, at Portland State University (503-725-3833); or contact the Program Director at Southern Oregon University, Dr. Michael Parker (541-552-6796).



## New Rules for Dock Registration

The State Land Board has now adopted new rules governing the registration of non-commercial docks/floats and/or boat houses, floating recreational cabins, and water sport structures on state-owned submerged and submersible lands. Furthermore, the board has established a six month moratorium on registration of any new structure proposed by a person who is not the adjacent riparian upland owner. At its October 1998 meeting, the Land Board will then revisit how to best involve adjacent riparian upland owners in determining what structures can be placed on state-owned submerged and submersible land fronting their property.

If you would like copies of these rules, or for more information, please contact Shannon Relaford, Rules Coordinator, Division of State Lands: 775 Summer Street NE, Salem, OR 97310 (503-378-3805 extension 271).

# Crater and Waldo Lakes Outstanding Resource Waters?

by Avis Newell, ODEQ

The antidegradation policy of the federal Clean Water Act directs that where high quality waters constitute an outstanding resource, the quality of those waters should be maintained (no degradation of water quality is allowed). Oregon adopted a state rule regarding outstanding resource waters in 1991. This rule directs the Environmental Quality Commission (EQC) to identify high quality waters which are outstanding state or national resources, designate them as outstanding, and protect the water quality parameters that are vital to the unique character of these waterbodies.

**What is an Outstanding Resource Water?** In the state rule (OAR 340-41-026), an "outstanding resource water" is referred to as "extraordinary resource waters" or "critical habitat areas". The federal Clean Water Act adds that they must have "exceptional recreational or ecological significance". More than one outstanding value may be identified for an Outstanding Resource Water, but each value must be related to water quality. Other values may be outstanding, but they do not fall under the jurisdiction of this rule. State rule directs the Department of Environmental Quality to develop screening criteria for identifying Outstanding Resource Waters. The criteria are currently being developed.

**How are waters designated?** Outstanding Resource Waters are designated by a rulemaking process. State rule directs the Environmental

Quality Commission to consider designation of outstanding waters during each triennial review for water quality rules. Designation includes the identification of the waterbody, its outstanding value, and a process for determining what activities will be allowed proximal to the outstanding resource waters that will not degrade the water quality. Rulemaking requires extensive public review and comment, so the designation process may appear to be lengthy. However, this input is a crucial aspect in determining the management and protection measures for the outstanding resource.

**What does an Outstanding Resource Water Designation Imply for Management of a Waterbody?** The state rule specifies that the Commission will "provide a process for determining what activities are allowed that would not affect outstanding resource values." In Oregon, waterbodies designated as Outstanding Resource Waters will receive protection through existing pollution prevention mechanisms. New point source permits will allow increased pollutant loads only in situations where the increase will have no long-term impact on water quality, and is necessary to protect human health and welfare. For forest-related activities, should the existing practices fail to maintain existing water quality in the Outstanding Resource Water, the Department and EQC will work with the Board of Forestry to modify the Forest Practices Act with basin-specific rules. Simi-

larly, the EQC will work with appropriate federal agencies to protect the Outstanding Resource Waters from forest activities on federal lands.

**Does Oregon have waterbodies with this designation?** In Oregon, currently no waterbodies have this designation. In 1992, nine waterbodies were evaluated for this status. However, instead of nominating any waterbodies for the rulemaking process, the Policy Advisory Committee to the DEQ recommended that a process for designating waters be developed. Although this was developed, budget cutbacks precluded designations in the 1995-97 triennial review of water quality standards. Both state and federal rules suggest that national parks, wild and scenic rivers and wildlife refuges may be among ORW candidates. Crater and Waldo Lakes were recommended for serious consideration from the first list of potential sites, and will be seriously considered in the current triennial review.

If you believe that your lake or waterbody is an Outstanding Resource Water, and would like to nominate it as a candidate, or if you would like more information about this subject, please contact Avis Newell at (503) 229-6018.



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# OREGON LAKES ASSOCIATION NEWS

## Notes From The President

*by Andy Schaedel, OLA President*

OLA is evolving to a new way of doing business. While the change is happening slowly, hopefully the results will be good. I would like to take this time to give you an update on some of the changes and activities of the Board.

To start the year off, we have altered the Board and made modifications to the By-laws to reflect these changes (changes were approved by the membership at the Fall meeting). Directors are now appointed rather than elected and a greater emphasis will be given to representing the needs of lake homeowners, users and associations. Bob Anderson (Woahink Lake), Jim Carpenter (Klamath Lake) and John Kelsey (Tenmile Lake) are new directors who volunteered their time at the annual meeting. They have added much needed energy and new ideas to the Board.

OLA will be replacing other directors who have served their two year terms and is looking for interested volunteers. Please let me know if you are interested in being nominated for a director or officer (president elect, treasurer) position (I can be reached at 503-229-6121). We have monthly meetings that run for 1 to 1.5 hours which are held by phone (conference call ) or can be attended in person (in the Portland Area with occasional regional meetings). The Board is planning a special meeting on July 11 at Siltcoos Lake. We will meet at the City Hall in Dunes City at 10 AM. Everyone is invited to get to know the Board and help plan for the future of OLA.

OLA is trying out a new way of doing the newsletter with this issue.

The newsletter along with the annual conference have been some of the best products that OLA has produced in recent years. While the newsletter has been of high quality, it has reflected the efforts of primarily one person - Mark Sytsma. Mark is finding it difficult to find the time it takes given a growing family and increased duties at work. With this issue, OLA is looking at developing the newsletter through a contract with Susanna Breiling. We are interested in your thoughts and suggestions on this issue and for future issues. Please contact Mark (503-725-3833) or Susanna (503-525-0037).

### **OLA is Taking On Several New Initiatives in 1998**

OLA is currently putting together another great annual conference that will focus on Lakes in Southern Oregon and will be held at a beautiful location at the Diamond Lake Lodge at Diamond Lake. Mark your calendars now. There are campsites, rooms and cabins available - you may want to call Diamond Lake Lodge to reserve a room. If you are interested in helping out contact Allan Vogel (503-390-4684) or Jim Carpenter (541-885-5450).

We are developing a membership manual which should be available by the Fall of this year.

Plans have been developed for producing a "Report Card" on Oregon Lakes". The report card is intended to provide a brief report on the status of selected lakes in Oregon and should serve as useful communications tool with the public, legislators and others about Oregon lakes and lake issues.

Joe Eilers (541-758-5777) or Richard Petersen (503-725-4241) should be contacted if you have interest in helping out or ideas for the development.

We are currently exploring ways to update the website and make it more useful for the membership. Please contact Susanna Brieling if you have suggestions or would like to help out (503-525-0037, [brieling@worldnet.att.net](mailto:brieling@worldnet.att.net)).

In addition, OLA is more engaged with its national organization - North American Lake Management Society due to the efforts of Bob Storer who is the regional representative. Bob's latest work has been to develop a letter which was sent to Governor Kitzhaber encouraging him to declare June 28 - July 4, 1998 "Lakes Appreciation Week" (see page 1 for details). While notice was short this year, OLA is considering making this a bigger event in future years.

All in all, I believe that much is happening with OLA. However, I do want to encourage members and non-members to become more active in a number of ways:

### **How to Become More Active in OLA**

- Join OLA if you have not already (contact me or Mark Sytsma (503-725-3833) for a membership form);
- If you are a member, encourage a friend, neighbor, or colleague to join;

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President Notes continued from page 4

## If you are concerned with the state of your favorite lake

- Become a volunteer for Citizen Lake Watch (Contact Jody Oliver at 503-725-3833);
- Let your federal Senator or Representative know about your concerns. For example, Clean Lakes Funding has not been part of the federal Environmental Protection Agency's Budget for the past several years. These funds have been used to conduct protection and restoration lake studies and have funded lake restoration efforts but are not currently available.
- Let your State Senator or Representative know about your concerns. There is some interest in establishing a stronger aquatic weed management program in Oregon but it will need all the public support and awareness that it can get.
- Become more involved in OLA. We have a number of efforts that can use your time, energy and creative talents including: becoming an officer (nominations are now open, contact me at 503-229-6121 if you are interested), helping with the newsletter; helping with the "Lake Report Card"; or helping with the annual conference (see contacts listed above).

I hope everyone has a great summer and I look forward to seeing many of you either in July at Dunes City Hall or in October at Diamond Lake.

Andy Schaedel

## Klamath Falls Water Fest 98

by Jim Carpenter

The Water Fest (June 26-27) is an annual event at OIT in Klamath Falls, OR. It is hosted by the Klamath Basin Ecosystem Foundation, a not-for profit foundation formed by many of the members of Senator Hatfield's Upper Basin Working Group. Funds and awareness raised by the foundation address the Working Group's three main goals of reducing drought impacts, promoting local economic incentives, and ecosystem restoration projects.

Water is the underlying resource critical to all the activities in the Basin; it usually involves a lot of hard work to manage, and is often surrounded in controversy. Water Fest is billed as a counterpoint to the conflict and an occasion to celebrate.

Using the OIT Student Union Auditorium as a hub, activities begin with a Banquet Friday night for the Klamath River Fisheries Task Force and guests.

There will be movies in the theatre and displays in the foyer.

Saturday morning starts early for the Wood River Wetlands Dedication. A Birding Tour at 6:00 AM is followed by a 10:00 AM Dedication ceremony with Senator Wyden and other dignitaries active in the Project.

The Klamath Tribes will be catering lunch for all immediately after the dedication ceremony Saturday.

Tours of the wetlands will be leaving every hour from the dedication site until 3:00 PM.

If you would like to participate in Water Fest, a limited amount of display space is available at OIT. Please call (541) 885-5450 or (541) 883-3738.

Directors are: Terry Anthony, John Crawford, John Monfore, Glen Ardt, Dale Foresee, Joe Riker, Barron Bail, Steve Harper, Marshall Staunton, Glenn Barrett, Steve Kandra, Mark Stern, Craig Bienz, Alice Kilham, Tom Stewart, Jim Carpenter, Steve Lewis, Bob Turner, Bob Castaneda, Rich McIntyre, and Dr. Karl Wenner.

## Oregon Lakes Represented at National Conference

Lori Campbell represented Oregon and the Oregon Lakes Association at the annual "Enhancing the States' Lake Management Programs" conference in Chicago in April. The conference covered a broad range of topics from presentations on the latest technologies for planned developments and stormwater management to volunteer monitoring.

Lori reports that the conference was a great opportunity to see what was happening in lake management in other parts of the country, and that the post-conference workshop on Effective Outreach was especially useful.

OLA sends a representative to this conference every year. If you would like to attend next year watch for the meeting announcement in Lake Wise next winter.

Lakes Appreciation Week continued from page 1

In 1998, the Dip-In will include Canadian volunteers, a major milestone because it acknowledges that the value of volunteer monitoring transcends national borders (see below for more details).

The public uses lakes and reservoirs for a variety of purposes. There are more than 6,000 lakes in Oregon. Their quality, however, is deteriorating under the stresses of growth and development. Nonpoint pollutant loads and eutrophication degrade the beneficial uses of these lakes, and water quality, lake level, and aquatic plant problems are becoming more frequent and severe.

For more information on Lakes Appreciation Week please call Bob Storer, NALMS Region X Director, at (503) 636-1422 or email: locorp@cybcon.com

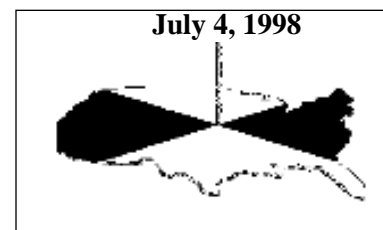
### Some Interesting Lake and Reservoir Facts

- There are 41 million acres of lakes and reservoirs in the U.S.
- There are approximately 100,000 lakes larger than 100 acres in the U.S., excluding Alaska, which has several million.
- Lakes in Oregon have a combined surface area of over 500,000 acres, more than five times the size of Oregon's State Park system.
- Each year, Americans take over 1.8 billion trips to go fishing, swimming, boating, or to just relax around favorite water destinations.
- On average, the value of real estate along desirable water areas is nearly 30 percent greater than similar properties located inland.
- Annual sales for just three activities - fishing, boating, and viewing/hunting ducks and other birds is estimated at nearly \$45 billion.

## The Great American Secchi Dip-In

*Adopted from the Dip-In Website by Susanna Breiling*

The Great American Secchi Dip-In, sponsored by the US EPA's Clean Lakes Program and the North American Lake Management Society is now in its fifth year and has grown because of support of the volunteer monitors such as you. The Dip-In's success depends entirely on the cooperation and enthusiasm of volunteer monitoring programs and their volunteers. **All volunteers that use a Secchi disk are welcome to participate. This includes the many volunteers on streams, rivers, and estuaries, as well as lakes and reservoirs.**



The Great American Secchi Dip-In is a demonstration of the potential of volunteer monitors to gather environmentally important information on our lakes, rivers and estuaries. The concept of the Dip-In is simple: individuals in volunteer monitoring programs take a Secchi disk measurement on one day in a period surrounding Canada Day and July Fourth. These Secchi transparency values are used to assess the transparency of volunteer-monitored lakes in the United States and Canada. Scientists and volunteers can then get a sense of how transparency varies according to water type, regional geology and land use. What is more important, these annual Dip-In snapshots can be put

### Celebrate!! Lakes Appreciation Week

- Organize a shoreline clean up to collect trash and other wastes.
- Contact OLA and become a volunteer.
- Participate in the Great American Secchi Dip-In.
- Contact your local newspaper and radio station to prepare an article about how valuable your lake is, and
- Become a Lake Steward and join the Lake Watch Program. Learn about lakes and their watersheds and how to care for and protect them.

Contact the PSU Lakes and Reservoirs Program for additional information (503-725-3833).

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# Secchi in Woahink

## Sinks

Secchi transparency Woahink Lake is used by Citizen Lake Watch volunteer, Bob Anderson, to document the effect of watershed activities on lake water quality.

Bob has been busy making Secchi Disk measurements in three arms of the lake throughout the winter. Watershed actions are impacting the first arm. Normal Secchi readings during the summer are 21-22 feet in the first arm. During the winter, however, when sediment-carrying runoff enters the first arm, the Secchi Disk depth drops. In the winter of 96-97 it was about 1 ft., which was the record low Secchi transparency measured by Lake Watch volunteers!

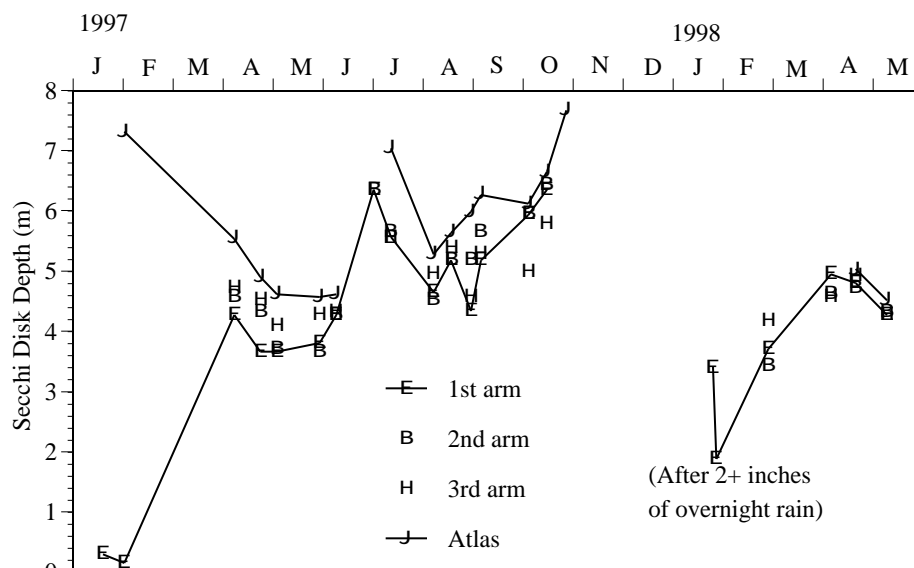
The problems in the first arm of Woahink have stimulated much hard work from Bob and Joyce Anderson. Their efforts to stop erosion in the lake's watershed and to prevent additional nutrient loading to the lake are needed to protect Woahink Lake from further degradation.

### Secchi Dip-In continued from page 6

together to form a changing picture of transparency over time and provide a national perspective of water quality.

Citizen Lake Watch volunteers are part of this national program, and should already have received the Dip-In questionnaires for the July fourth Secchi Reading. If you have not received this data entry form, please contact Jody Oliver at Portland State University (503-725-3833).

For more information on the 1998 Dip-In, or to get the 1997 results, go to: <http://humboldt.kent.edu/~dipin>. Or to enquire further, contact Bob Carlson at 206-672-3849 or email him at: [r Carlson@phoenix.kent.edu](mailto:r Carlson@phoenix.kent.edu)



Secchi Disk Depth Readings at the arms of Woahink Lake and at the mid-lake (Atlas) station. Low transparency in the first arm is caused by erosion in the watershed.

## DLWID Hires New Manager

The Devils Lake Water Improvement District recently hired Lori Campbell as Manager. Lori replaces Bob Storer, who has accepted a position as Lake Manager with the Lake Oswego Corporation, and Dave Wagner, who served as interim Manager of DLWID.

Lori comes to DLWID from eastern Washington. She attended Eastern Washington University where

she completed a graduate program in Limnology. Following her graduate study she was a research assistant at the Fordham University biological station and worked in flood restoration with the US Fish and Wildlife Service in central Washington. Lori reports that she has always enjoyed working on environmental problems and that she is looking forward to her new job at Devils Lake. Welcome to Oregon Lori!

## Breiling Named New Lake Wise Editor

Susanna Breiling has taken over as editor of Lake Wise from Mark Sytsma. Susanna graduated from Wellsley College and has a Master's degree from the University of Lund in Sweden. Her Master's research was on primary productivity in Mercer and Cear Lakes, north of Florence on the Oregon coast. Her research was conducted under the direction of Richard Peteresen at

Portland State University.

Susanna is very interested in communicating technical environmental information to lay people. OLA and PSU (especially Mark Sytsma) are happy to have her on board.

Please see page 8 for contact information.

## Did you know about... Secchi and the Pope?

*Adopted from <http://humboldt.kent.edu/~dipin>.*

Many of you probably already know the Secchi Disk pretty well- that 8-inch disk with alternating black and white quadrants that is lowered into the water of a lake to measure the transparency of the water. But did you know that the Secchi Disk was first lowered off a Papal Yacht???

Yes! Father Pietro Angelo Secchi, scientific advisor to the Pope, was asked by Commander Cialdi, head of the Papal Navy, to test a new transparency instrument. This instrument, now named the "Secchi" disk, was first lowered from the papal steam yacht, *l'Immacolata Concezione* (The Immaculate Conception), in the Mediterranean Sea on April 20, 1865.



Secchi (1818-1878) was actually a famous astronomer, one of the first astrophysicists. A pioneer in the application of photography to astronomy, he photographed an eclipse of the sun in 1851. He was probably lucky that he did not gain recognition for his color map of Mars on which he labeled faint tracings as canali, the Italian word for "channels." Another Italian, Giovanni Schiaparelli, expanded the number and legibility of the canali on his map. Later these canali, or channels, were misinterpreted to mean artificial canals, leading to speculation of life on Mars. In a sense, Secchi was the progenitor of some great (and not so great) science fiction.

**Do you have any funny anecdotes, poems or ruminations about lakes? Are there concerns about your lake that you would like to see printed in the newsletter? Maybe you would like your lake featured in Lake Wise.**

**If so, please contact Susanna Breiling at (503) 525-0037, or via email: [breiling@worldnet.att.net](mailto:breiling@worldnet.att.net). I would love to hear all your concerns, ideas, suggestions and lake stories! Contact me by mid-August for the next newsletter.**

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