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## Lake Level Management

PLRS actively manages lake level each year through the use of accurate level measuring devices at the outlet weir. The withdrawal system is normally run from spring run off through to the end of summer. During excessive run off events upper sections of the weir can be removed to allow water from the top of the lake to spill over into the outlet creek. This is only done by exception as our goal is to keep the water near the surface in the lake as it is lower in nutrients.

Well established lake level targets have been established for Spring to winter freeze up water elevations. All of this information plus actual data on historical lake levels will be available soon on our web site.



*Pine Lake is a special place. Please help us work to improve the water quality!*

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## Pine Lake Restoration Society



[www.pinelakeablerta.com](http://www.pinelakeablerta.com)



## Pine Lake Restoration Society

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Spring 2009 Newsletter



*“Promote and undertake the restoration of clean water that supports healthy fish and wildlife within Pine Lake and it’s watershed”*

For additional information go to our web site at:

[www.pinelakeablerta.com](http://www.pinelakeablerta.com)

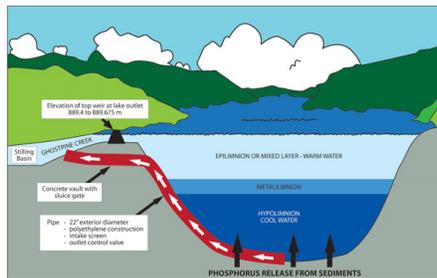
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## What does PLRS do?

PLRS is committed to returning Pine Lake to its original clean state. Our goals are to slow down or stop the deterioration of the water quality.

Through education, science and commitment, Pine Lake will be restored back to normal. Members of PLRS have been working hard with landowners and businesses to make sure Pine Lake remains beautiful for all.

The largest role of the PLRS is to operate the Hypolimnetic Withdrawal system. This is a large pipe 5000 feet long and 24 inches in diameter that withdraws cool, phosphorus-rich water from the bottom of the south basin of the lake.



Note: not to scale  
Figure 2b Conceptual cross-section of hypolimnetic withdrawal system installed in Pine Lake

Higher spring water levels are managed by withdrawal of the nutrient-rich water from the bottom of the lake through the PLRS withdrawal system. The water is released downstream to wetlands along Ghostpine Creek. Removal of the high nutrient water reduces the production of algae and weeds in the lake.

## Pine Lake Algae Blooms

Spring run off and rain brings the bloom of filamentous algae to our lake and shores in June and July.

Nitrogen contained in the run off catalyzes the algae blooms. PLRS would like to work on long term upstream projects to reduce N<sub>2</sub> loading that comes into the lake with the run off.

Project opportunities need to be fully identified and then engineered. These projects will involve significant fund raising.

**While we wait for the projects, how can you help improve Pine Lake water quality?**

1. As a property owner it can seem like a lot of work to manage the algae or 'sea weed', but your work helps the water quality long-term.

Remove the algae/sea weed from your water area and beach. Get it out of the lake whenever possible!

Do not simply re-deposit the weeds in another location in the lake away from your beach area - this will promote considerable more algae/weed growth!

Work with a farmer to compost the weeds? Do not deposit these weeds off of your own land without permission though.

Dry the weeds and take them to the Hornhill Waste Station.

If you have the land - compost them yourself.

2. Don't add to the high nitrogen loading in the lake that comes with run off. Green grass = Green Lake! Avoid use of fertilizers in areas where run off is directed to the lake or a stream feeding the lake. Go to our website for fertilizer alternatives that can be used.

## Fundraising is important to us!

Annual Operation of the Hypolimnetic Withdrawal System, associated weir and all downstream systems costs approximately \$25,000.00.

Long-term projects are expected to cost between \$.5 MM and \$1MM.

Our major annual fund raising event is **Pine Lake Clean Days**. Please join us this year on **August 15<sup>th</sup>** at the Hub Center for this fun event!



## Pine Lake Restoration Society

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