

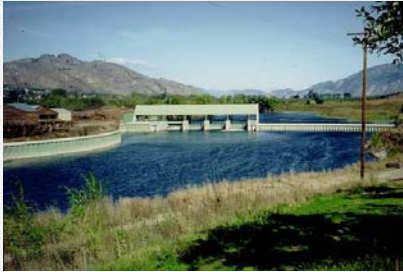
Osoyoos Lake Order



International Osoyoos Lake Board of Control
September 18, 2007

International Joint Commission—United States and Canada

Zosel Dam



International Osoyoos Lake Board of Control

International Joint Commission—United States and Canada

International Joint Commission

Canada


 Herb Gray
Chair


 Robert Gourd


 Jack Blaney

United States


 Vacant Chair


 Irene Brooks
Acting Chair

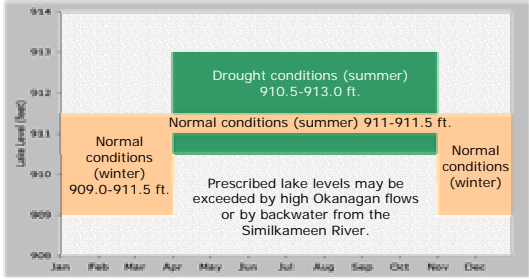

 Allen Olson

International Osoyoos Lake Board of Control

3

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Prescribed lake level range



Normal conditions (winter) 909.0-911.5 ft.

Normal conditions (summer) 911-911.5 ft.

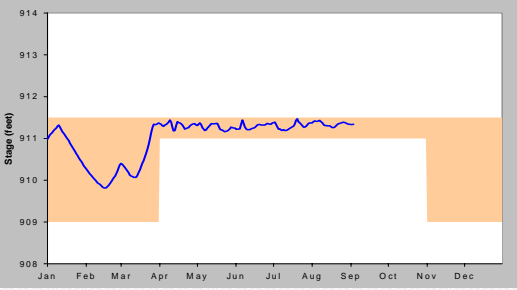
Drought conditions (summer) 910.5-913.0 ft.

Prescribed lake levels may be exceeded by high Okanagan flows or by backwater from the Similkameen River.

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2007 operations



Stage (feet)

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5

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Issues



- Concern about water quality
- Appropriate water levels
- Concern over water availability

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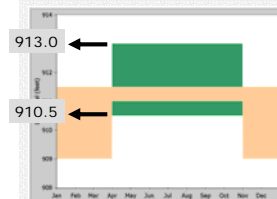
Plan of Study

The Plan prioritizes eight studies related to the issues

1. An assessment of the most suitable water levels for Osoyoos Lake during drought years
2. An evaluation of the criteria used to declare drought
3. A review of the dates for switching between summer and winter operation
4. An investigation of the effects, if any, of water regulation on water quality in Osoyoos Lake
5. An investigation of methods for including ecosystem requirements in Orders of Approval
6. An investigation of methods for including climate change information in Orders of Approval
7. A demonstration of the factors that govern lake levels during floods
8. An assessment of methods used to monitor flow capacity in the Okanogan river

7

Drought year lake levels



High Water Concerns

- Property encroachment
- Beaches, hayfields, campsites flood
- Mosquito problems

Low Water Problems

- Insufficient water reserve
- Boating areas too shallow
- Docks and marinas high and dry
- Intake pumps cavitate

8

Frequency of declaring drought

Current criteria

- Maximum level of Okanogan Lake
- Expected inflow to Okanogan Lake
- Expected run-off in Similkameen River

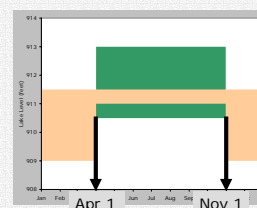
Concerns

- The individual criteria are applied all or nothing
- Frequency of drought is perceived to have increased in recent years

9

Time of changing lake levels

- Is there a more appropriate timing for the change between summer and winter levels?
- Consider freshet (flood), fish, etc.



10

The dam and water quality

- Perception that lake water quality has degraded over time and is now poor
- Effects of dam on water quality are not well understood



11

Lake levels and the ecosystem



- Shoreline plants at risk
- Fish movement through the lake
 - High temperatures near the surface
 - Low oxygen towards the bottom

12

Considering climate change

- Compile climate change data relevant to the basin
- Determine how best to use this information to guide new Orders



13

Floods mitigating capacity of Osoyoos Lake

- Investigate factors that affect flooding
- Determine lake's capacity to offset flooding
- Recommend methods for providing results to stakeholders



Osoyoos Lake outlet, May 1948

14

Looking forward

- Build study teams (2007-2010)
- Conduct studies (2008-2011)
- Hold hearings on Orders
- Approve new Orders
- Current approval terminates in 2013

More information? <http://www.ijc.org>

15

Osoyoos Water Science Forum

- Science and information for sustainability



16