

MINUTES
International Osoyoos Lake Board of Control
Public Meeting

The Oroville Depot
1210 Ironwood Street,
Oroville, Washington

Monday September 24, 2012
7:30 PM

Attendance

| | United States | Canada |
|-------------|--|--------------------------------|
| Chairs | Dr. Cynthia Barton (host) | Kirk Johnstone |
| Members | Col. Bruce Estok Kris Kauffman | Glen Davidson Brian Symonds |
| Secretaries | Larry Merkle - acting for Sue Kahle | Gwyn Graham |
| Guests | Commissioner Rich Moy (IJC), Dr. Mark Colosimo (US Section, IJC), Ted Yuzyk (Canadian Section, IJC), Al Josephy (WA Dept of Ecology), Bruno Tassone (Environment Canada), Lee Chapman (Oroville, WA), Brian Guy (Associated Engineering, Vernon), Anna Warwick Sears (Okanagan Basin Water Board, Kelowna), Bob Sherwood (Osoyoos, BC), Rick and Shelly Douglas (Champerly Shores Association, Oroville) | |

Minutes

1. Welcome and Introductions

Dr. Barton welcomed and led introductions of the Board members and guests.

2. Review of the Agenda

Added: Al Josephy (WA Dept Ecology) presentation on status of works and operations at Zosel Dam; paragraph, 7.0. Public comments will be paragraph 8.0.

3. Overview of the IJC and the Osoyoos Lake Orders

Dr. Barton provided a brief overview presentation (attached) on the roles of the IJC and Board of Control, including the lake levels prescribed by IJC Orders of Approval, proposed changes to the IJC Rule Curve for lake level management, and other considerations related to renewal of the Osoyoos Lake Order.

4. Hydrologic Conditions and Lake Levels in 2012

Board member Brian Symonds presented a graph of lake levels for 2011-12 and discussed hydrologic conditions over the past year. He also explained that high flows in the Similkameen River sometimes cause a backwater condition on Osoyoos Lake and in extreme cases flow reversal. He indicated that there was no drought declaration for 2012. He reviewed the information from three snow pillows (Brenda Mines, Mission Creek and Blackwall Creek) in the Okanagan and Similkameen basins to highlight that mid-elevations had melted by mid-May and higher elevations by mid July. The Blackwall Creek snow

pillow generally showed a more rapid snowmelt trend than the Okanogan basin snow pillows. Brian then showed the results from several stream hydrographs, including the Similkameen which showed peak flows in late April and mid May that were close to the typical flow rates that cause a backwater effect in the Okanogan River because of the Similkameen and additional sustained high flows from mid-May to mid-July due to additional snow melt and rain events. The Osoyoos Lake hydrograph showed an initial peak in May which declined with decreases in Similkameen flows and Okanogan Lake discharge (mid-elevation snow-melt effect) and then increased with higher Okanogan Lake discharges and Osoyoos Lake inflows from June to July due to high rainfall in the Okanogan watershed with the highest peak inflows occurring in the last week of June and first week of July. High inflows continued until the end of July after which both the inflow and level of Osoyoos Lake declined into the summer range. Zosel Dam was operated with gates fully open whenever the lake level exceeded 911.5 ft. Mr. Symonds' presentation is attached.

5. Outcomes of Public Hearings

Dr. Mark Colosimo (IJC) indicated that a number of comments on proposed recommendations for renewal of the Osoyoos Lake Order had been received during the July public hearings in Osoyoos and Oroville, as well as written submission. The IJC has provided some initial responses to individual submissions. In all, 14 comments were received directly at the hearings and 11 written submissions were received during the comment period. Dr. Colosimo's presentation (attached) summarized what the Commission has heard from these submissions.

6. Status of Orders Renewal

Following the report on recommendations for renewal of the IJC Order for Osoyoos Lake (June, 2012), public hearings were held by the IJC from July 24-25 in Oroville and Osoyoos and a public comment period to the IJC was extended through to August 31, 2012. The Commission is currently reviewing and considering the comments and potential changes to previous recommendations for Order renewal.

7. Presentation on status of Works and Operations at Zosel Dam

Al Josephy (WA Dept Ecology) provided a detailed presentation of the status of Zosel Dam and related maintenance activities, including a hydrograph of lake levels showing the effect of dam operations at different times of the year as well as stream flows in the Okanogan River and Similkameen River.

Key points included:

- WA Dept of Ecology announced a new Engineer of Record for Zosel Dam Jerald (Jerry) Lavassar.
- Chinook Salmon and Steelhead runs can now be maintained submerged with ~150 cfs discharge instead of >250 cfs flows during low-flow period due to Colville Tribes construction of boulder weir at cross-channel location downstream of Zosel Dam.
- The old forebay log boom was replaced with a new plastic design, arranged to deflect floating debris towards the East shore. It also saved a father and daughter who were caught drifting towards the dam after engine-failure on their jet-ski.
- Annual inspection of the dam revealed a need to correct loss of anti-corrosion coating on side-wall metal sheet-piling. Patchwork is also required to address localized concrete spalling. Painting will be required to address localized corrosion in some areas of gate structure.
- Channel capacity can accommodate 2500 cfs at 913 ft. Last 2 years have seen flows >2650 cfs with no adverse high water effects. A channel capacity survey may be conducted next spring.
- The Oroville-Tonasket Irrigation District (OTID) continues to work under contract to the State of Washington (Dept. of Ecology) to operate Zosel Dam (Tom Scott – manager, OTID). A new operations manual is being developed as part of a renewal of the operations agreement with OTID.

8. Public Comments

(Questions or comments from guests are in plain text. Responses follow in italics. Both are paraphrased.)

Anna Warwick Sears: Would the lake elevation experienced this year be similar to the upper range of the proposed rule curve? – *General agreement from Board. Brian Symonds commented that a certain high lake level is often required to drive flow out of the lake particularly during Similkameen backwater effect. Because Zosel Dam does not control maximum Osoyoos Lake elevation during very high runoff years, like this year, the spring/summer lake elevations would be similar with the proposed new rule curve.*

Shelly Douglas: Shelly asked when the lowest and highest water periods are expected and the approximate range of levels to assist with placement of boat docks on the lake. How can the public get this information? - *The IJC website shows the rule curve, which provides the target water levels at different times of the year. It's hard to predict what spring/summer run-off conditions will do to lake levels, particularly in May. 911 ft. would typically be the low summer level for the lake and peak conditions are hard to predict, but possible within a 1-2 week forecast period. There will need to be some follow-up discussion around the possibility of providing updates on a website and who will manage it.*

Brian Guy: Is the application from WA coming? *The State has indicated that it's currently working on the application and related issues and understands the deadline issue for Order renewal.*

Anna Warwick Sears: Anna issued a strong request that the Board schedule their annual meeting to avoid conflict with the annual union of BC municipalities (UBCM) meeting so elected officials have the option to attend the IJC Board meeting. – *Canadian Board secretary will attempt to get the UBCM schedule and give the UBCM meeting schedule consideration in scheduling the annual IJC Board of Control meetings.*

Several members of the public offered questions and comments relative to invasive species, especially milfoil as follows:

- Milfoil is a problem on both the U.S. and Canadian portions of Osoyoos Lake and is generally a problem in the region on both sides of the border. What can be done on a coordinated basis to improve efforts to control milfoil?
- There is a need to have more cross-border coordination and action to control milfoil. There is no international level agency to coordinate efforts. There is good cross-border communication and some joint efforts such as the milfoil weevil project, but no formal means to communicate/coordinate.
- Much data and information is being collected and there would be value in establishing a unified data repository on key issues such as invasive species and other issues relevant to the lake.
- There's a need to go beyond current local government efforts.
- Both chemical and physical means of control have met with concerns on both sides of the border.
- Physical control, such as harvesting, is expensive and has been implemented only a very limited basis and has not proven to be feasible. There has been strong resistance both officially and from the citizenry to using herbicides.

Board members made the point that both the present Order and the proposed renewed Order focus on lake elevation control and this has limited effect on milfoil control.

Additionally, Board members mentioned that the potential for formally adopting an International Watershed Initiative (IWI) is a consideration in the Order Renewal process.

Commissioner Moy reemphasized that IWI can serve to facilitate partnerships of governments and communities and citizens working together to collectively address issues. He mentioned the local and international cooperation in the 1980s to replace Zosel Dam as a successful example.

There may be value in a unified data repository on key issues such as invasive species of relevance to the lake – information to support management/eradication strategies, etc.

Commissioner Moy: The IWI is no different from many other western US commissions (etc.) with partnership efforts and government, communities and citizens working together to set it up, determining roles and priorities, etc.

Adjourn

Dr. Barton thanked the public for attending and participating and declared the meeting adjourned.

The International Joint Commission's Osoyoos Lake Board of Control

Public Meeting

September 24, 2012

7:30 PM

Oroville, Washington

Presented by

Dr. Cynthia Barton

Chair, United States Section

cbarton@usgs.gov

Agenda

Dr Cynthia Barton

- Welcome and Introductions
- Overview of the IJC
- Hydrologic Conditions and Lake Levels in 2012
- Review of Osoyoos Lake Orders 2011-2012
- Outcome of Public Hearings
- Status of Orders Renewal
- Public Comments

International Joint Commission



- To prevent and resolve issues, the Commission...
 - Undertakes investigations
 - Holds hearings
 - Issues Orders—For example, the IJC Orders for Osoyoos Lake
- The Commission appoints Boards of Control to monitor its Orders

International Joint Commission



Joseph Comuzzi
Chair



Lyall Knott



Vacant
position

Canada

United
States



Lana Pollack
Chair



Rich Moy



Dereth Glance

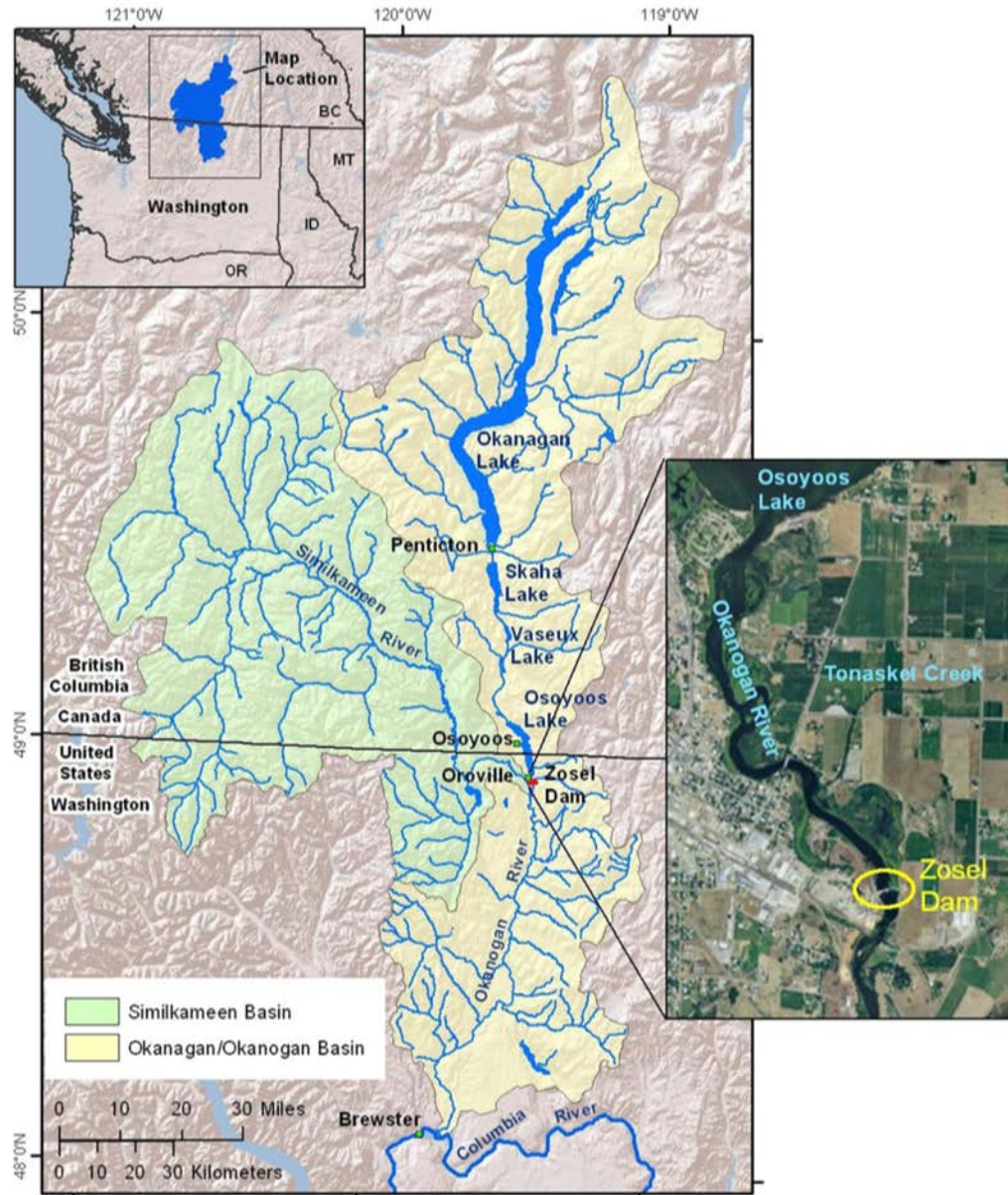
IJC and Osoyoos Lake

- Water levels generally controlled by Zosel Dam
- IJC issued Orders of Approval for managing lake levels (1946, 1982, 1985)
- Appointed Osoyoos Lake Board of Control to monitor provisions of the Orders



Current Zosel Dam,
constructed in 1987

Osoyoos Lake



Osoyoos Lake Board of Control

Canada:

- **Kirk Johnstone**
Environment Canada
- **Glen Davidson**
BC Ministry of FLNRO
- **Brian Symonds**
BC Ministry of FLNRO

United States:

- **Cynthia Barton**
US Geological Survey
- **Col. Bruce Estok**
US Army Corps of Engineers
- **Kris Kauffman**
Water Resources Engineer

Secretariat

Gwyn Graham
Environment Canada

Sue Kahle
US Geological Survey



Hydrologic Conditions and Lake Levels in 2012

Brian Symonds

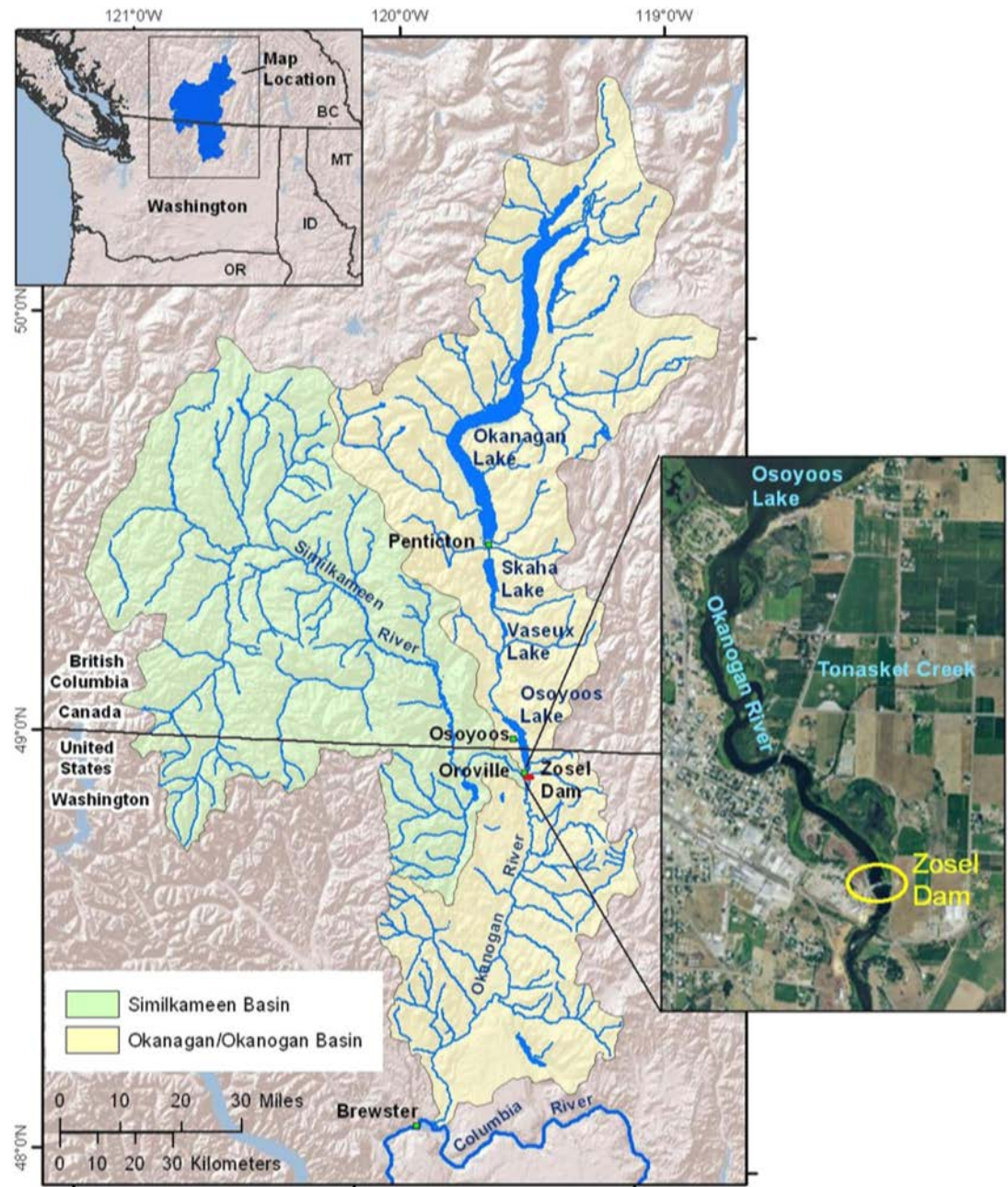
Review of Hydrologic Conditions in the Okanagan and Similkameen Watersheds Oct. 2011 – Sept. 2012

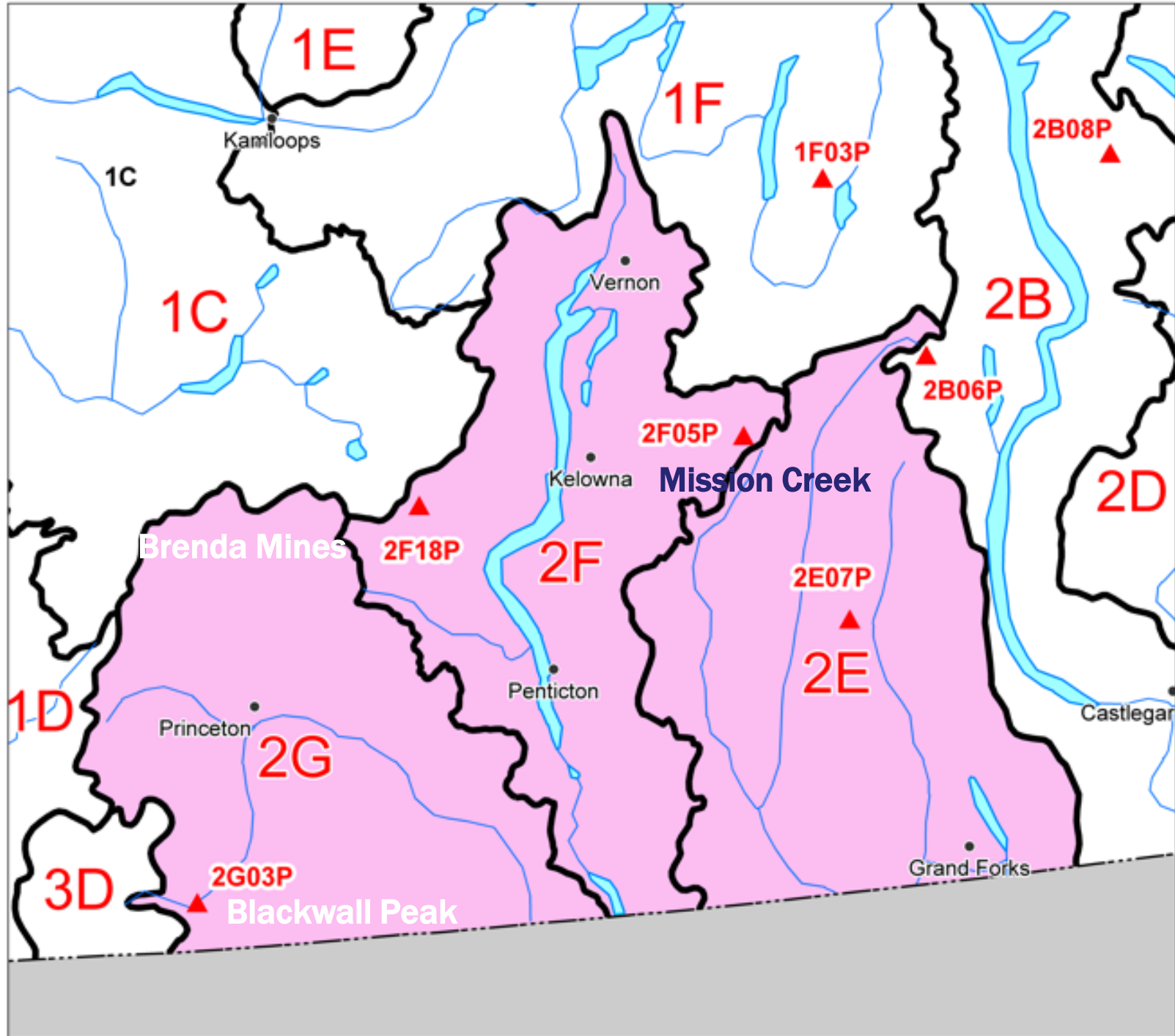
**Presentation to International Osoyoos Lake Board of
Control**

September 24, 2012

**Brian Symonds
BC Ministry of Forests, Lands &
Natural Resource Operations**

Osoyoos Lake



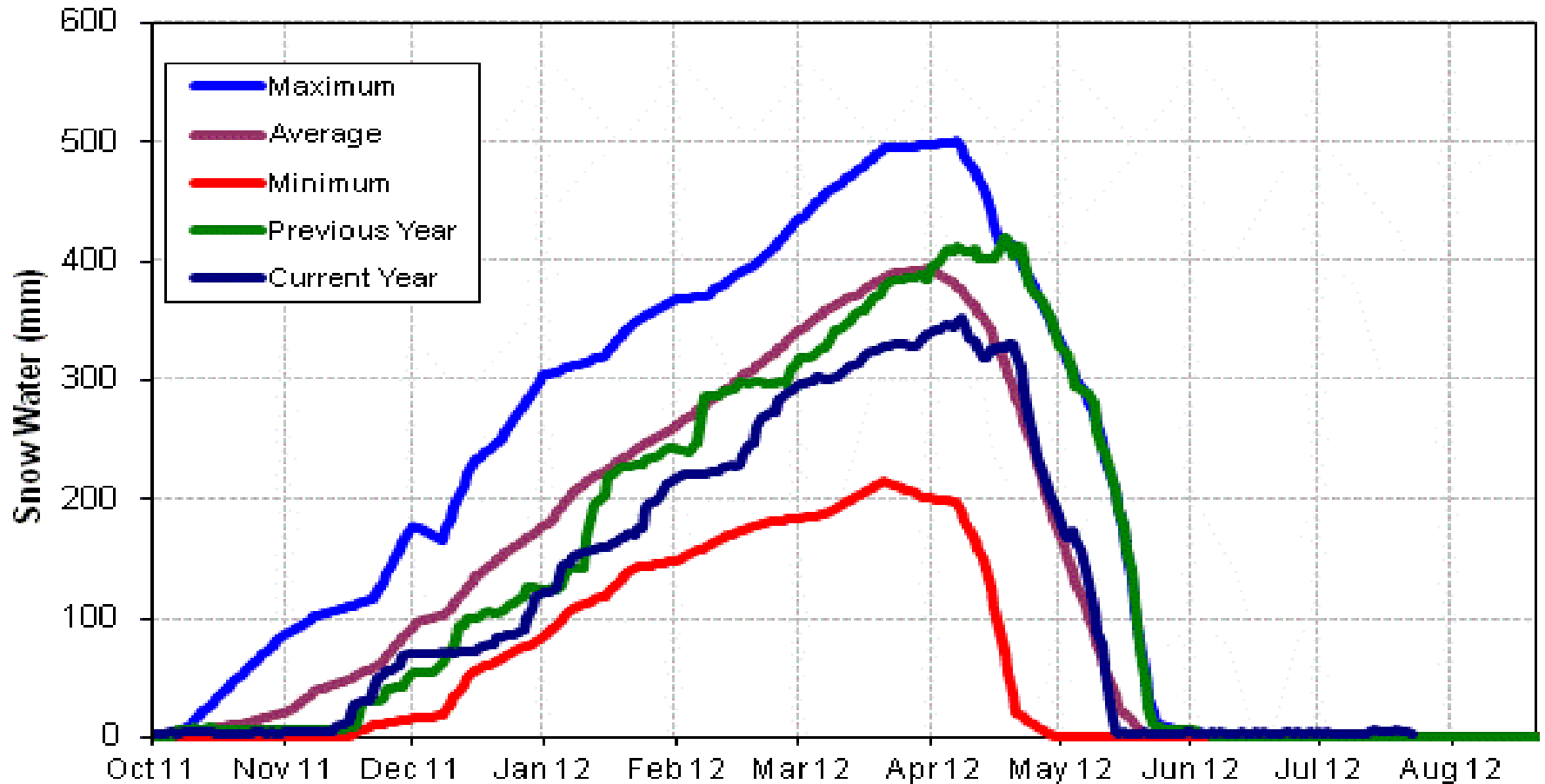


Brenda Mines Snow Pillow

Okanagan

15

1 460 m



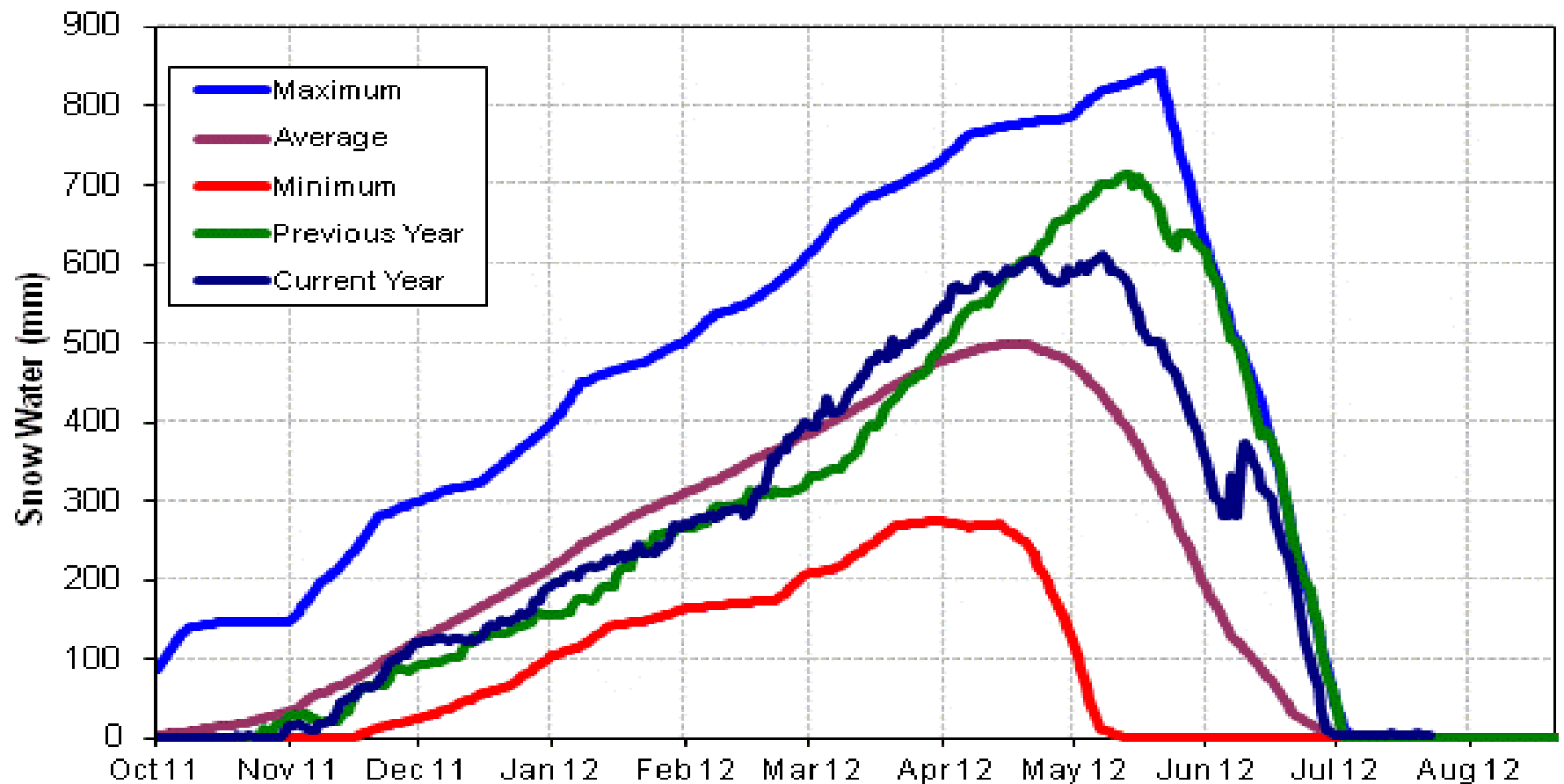
Current to noon 2012-07-22
Updated 2012-07-23 11:14:30 AM

Mission Creek Snow Pillow

Drainage: **Okanagan**

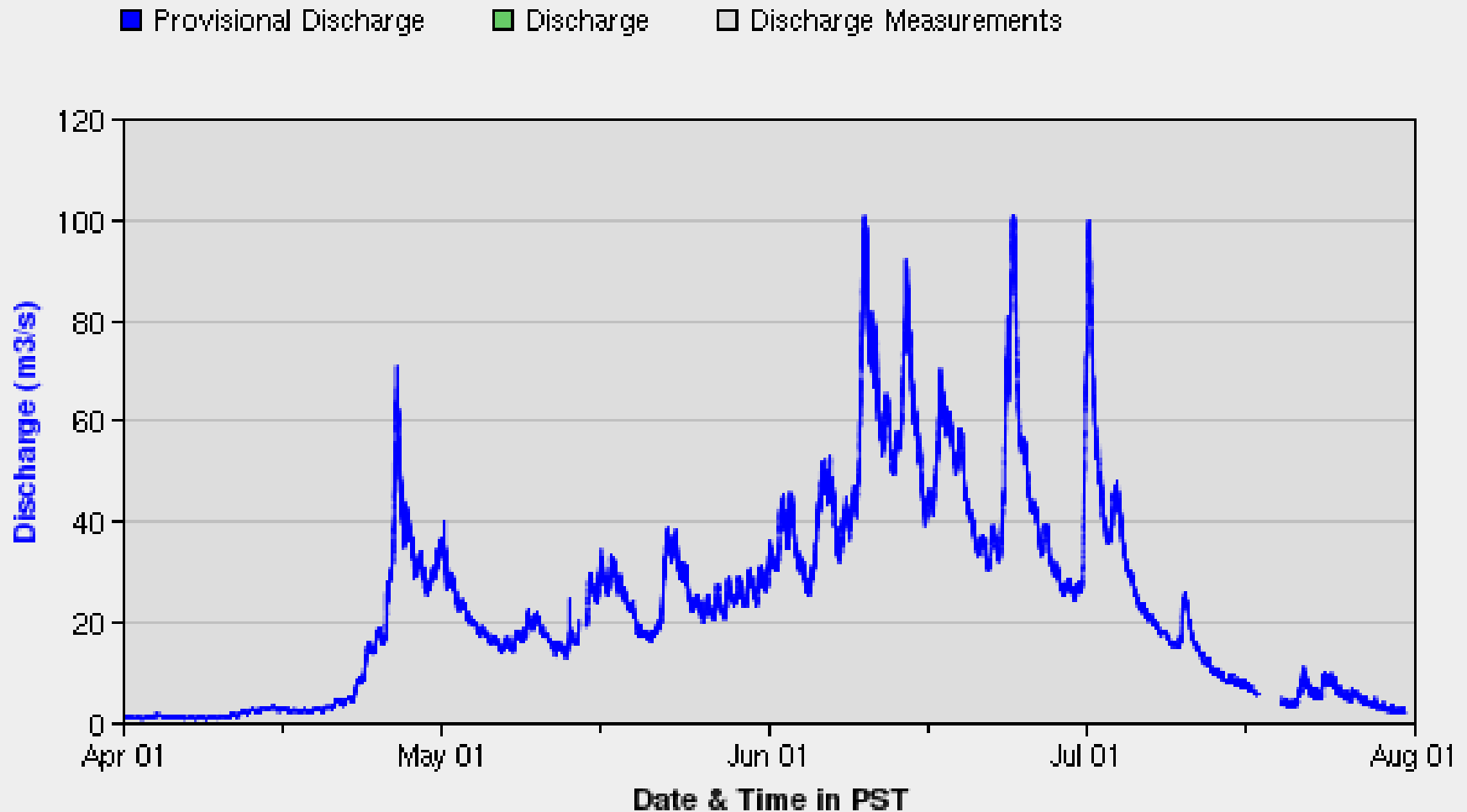
Yrs of Record: **37**

Elevation: **1 780 m**

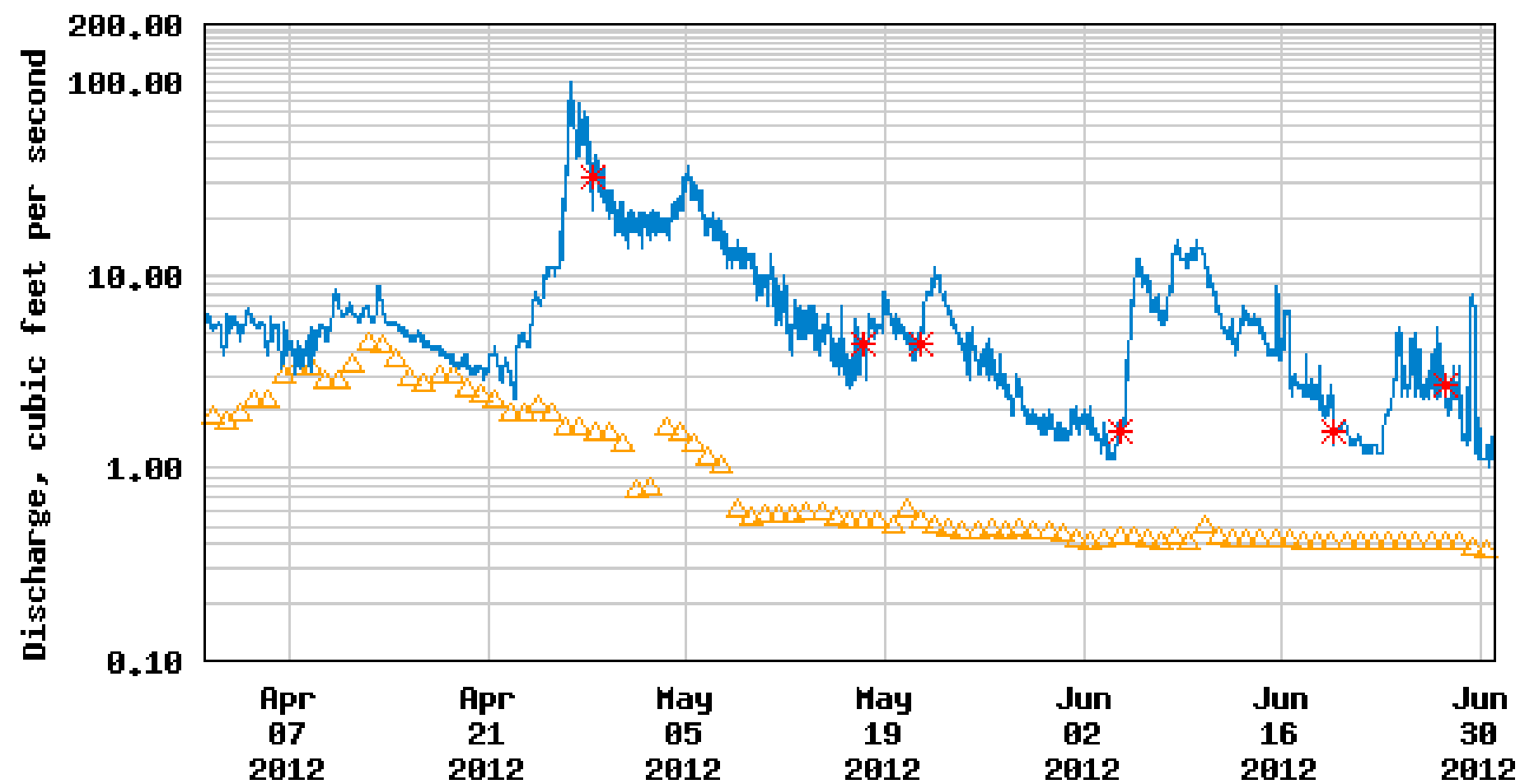


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Updated 2012-07-23 11:14:29 AM

Mission Creek near East Kelowna



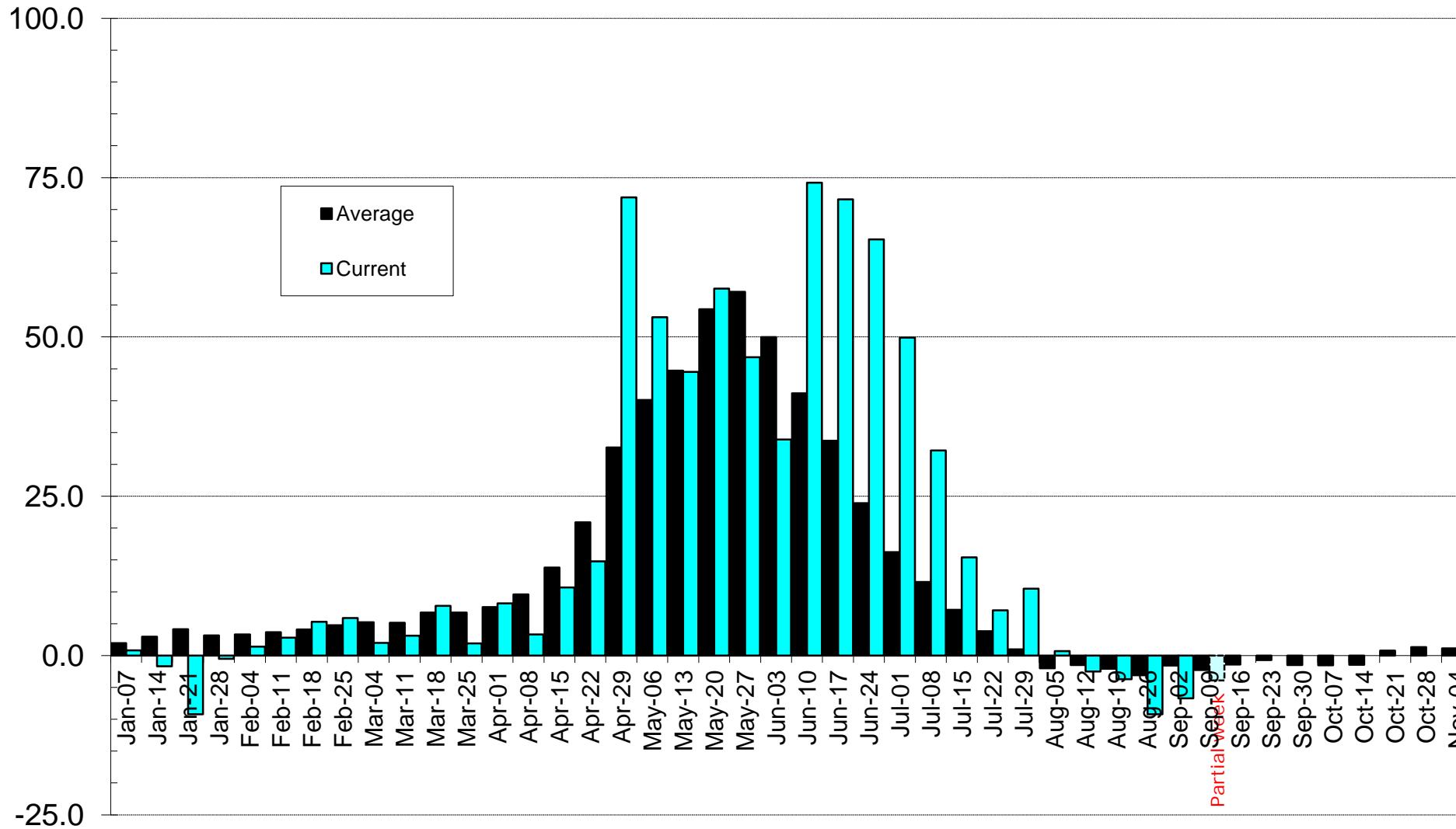
USGS 12438900 NINEMILE CREEK NEAR OROVILLE, WA



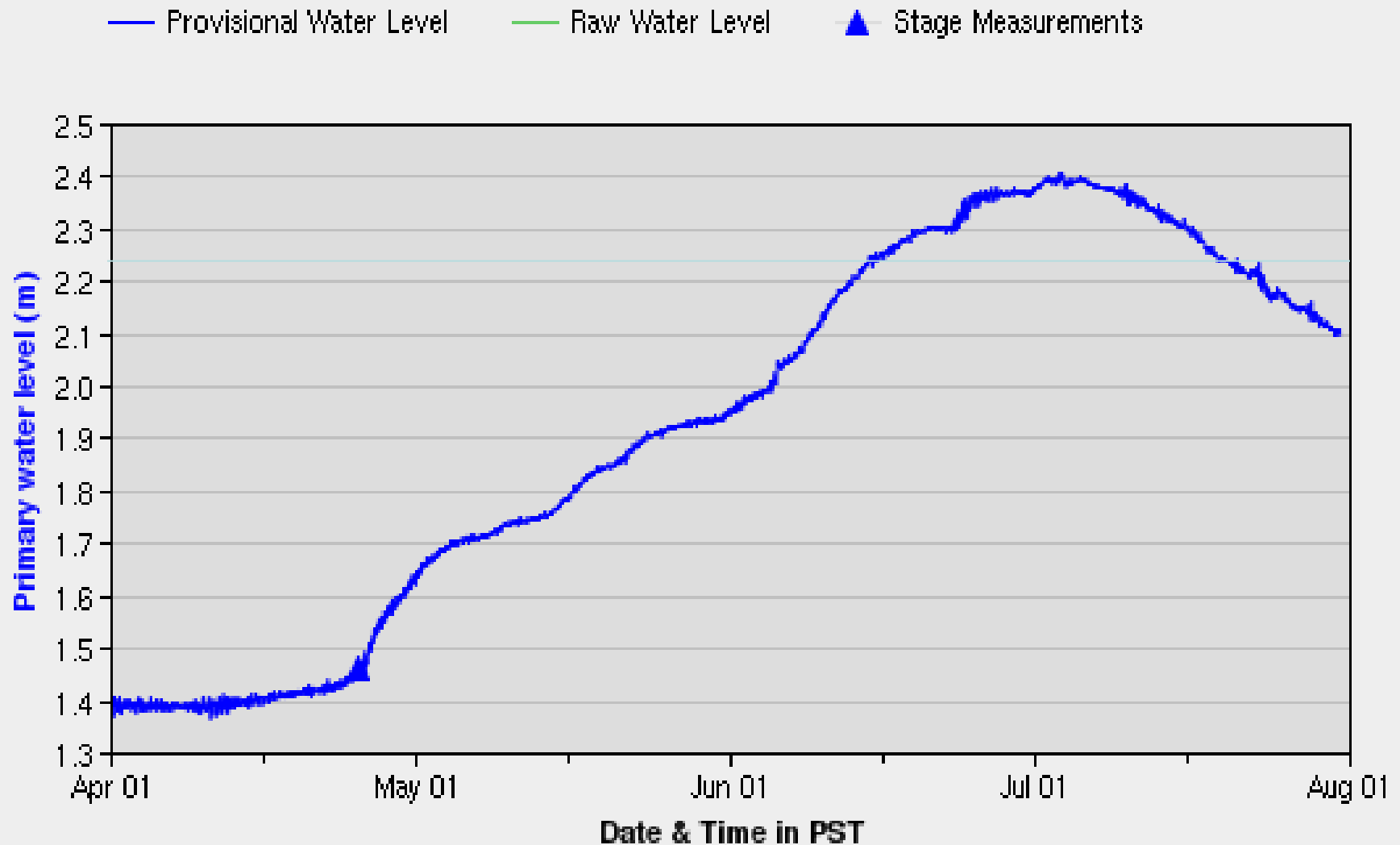
---- Provisional Data Subject to Revision ----

- △ Median daily statistic (5 years)
- * Measured discharge
- Discharge

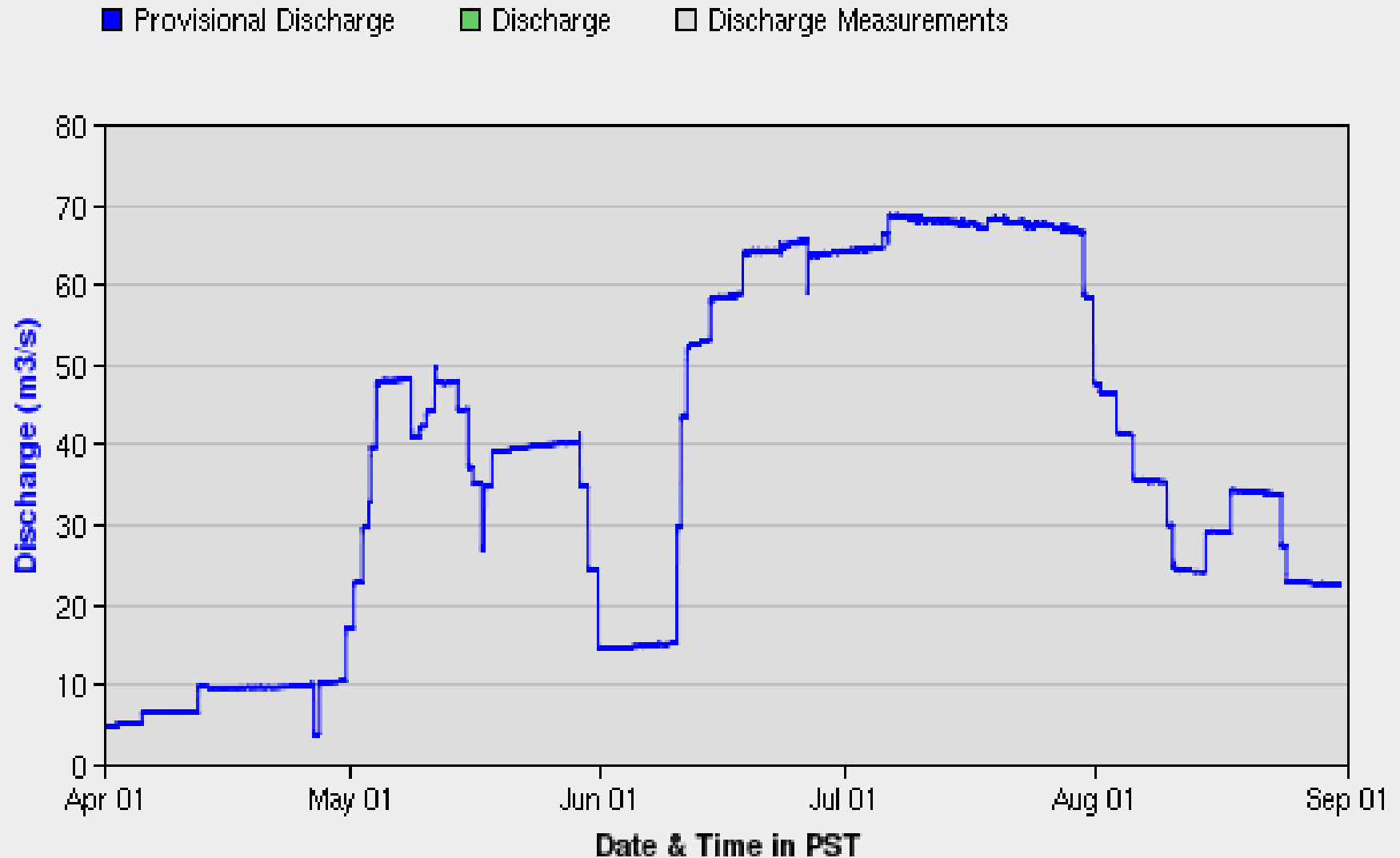
Net Weekly Inflow to Okanagan Lake



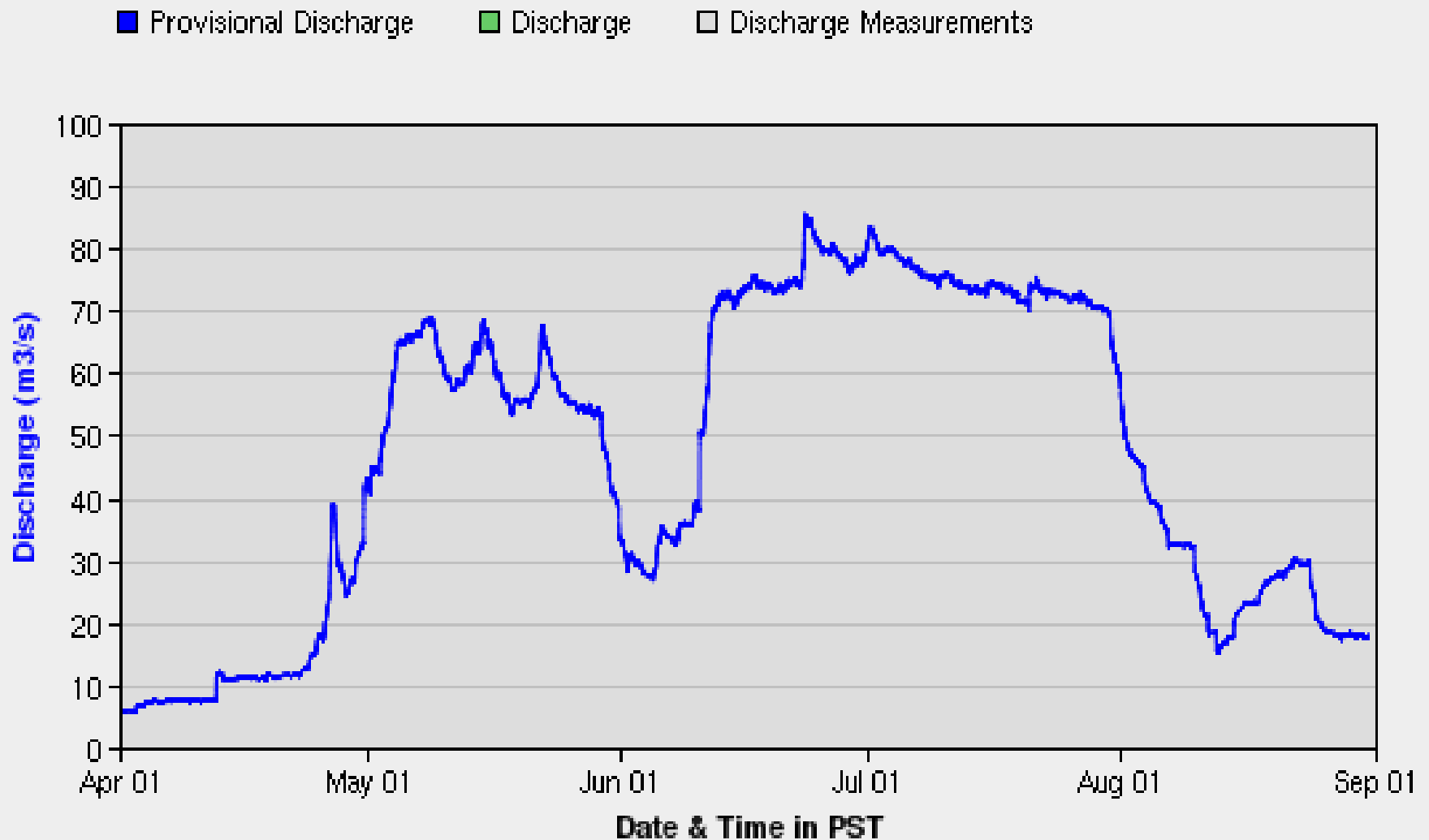
Okanagan Lake at Kelowna



• Okanagan River at Penticton



Okanagan River near Oliver

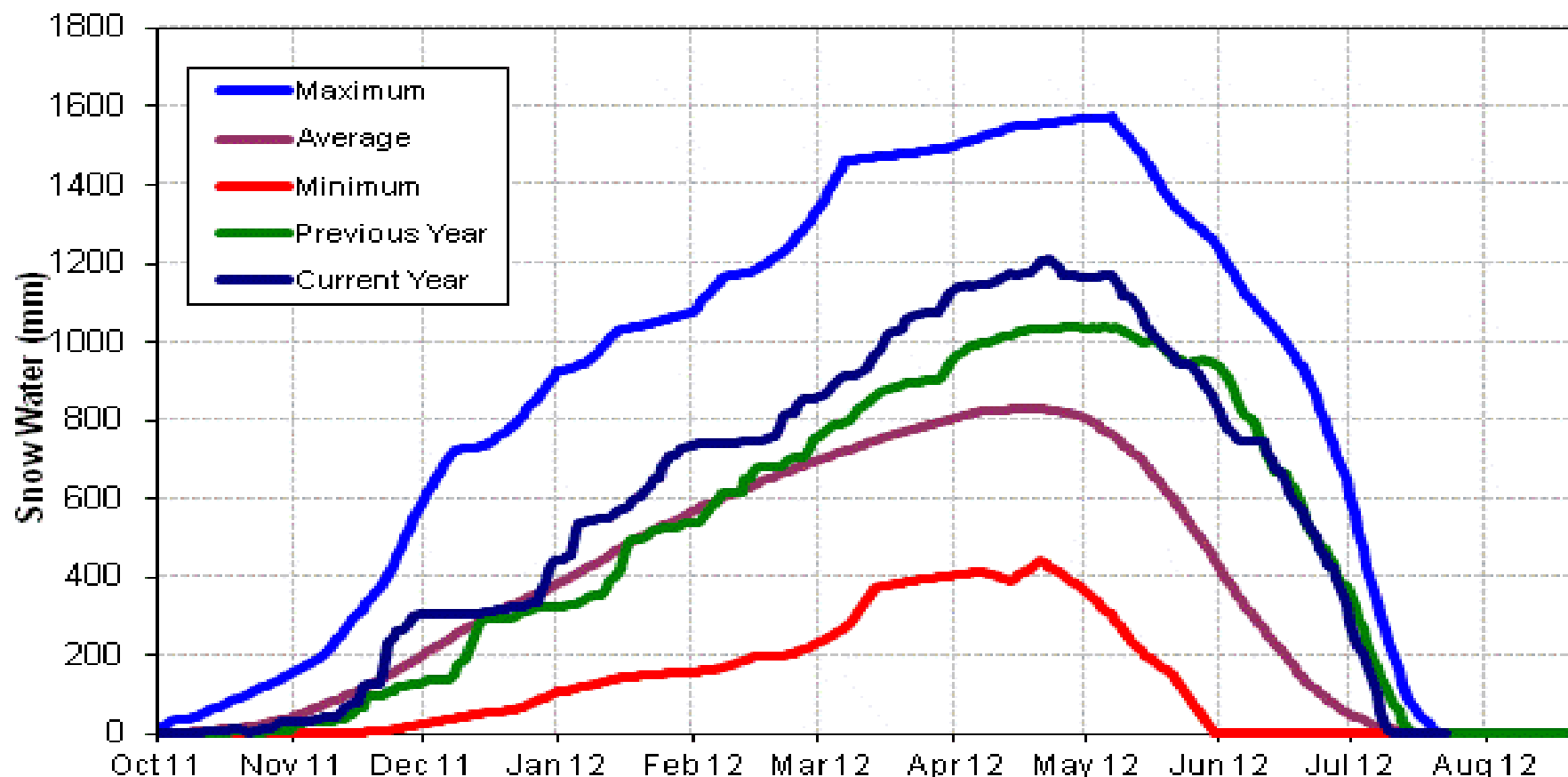


Blackwall Peak Snow Pillow

Similkameen

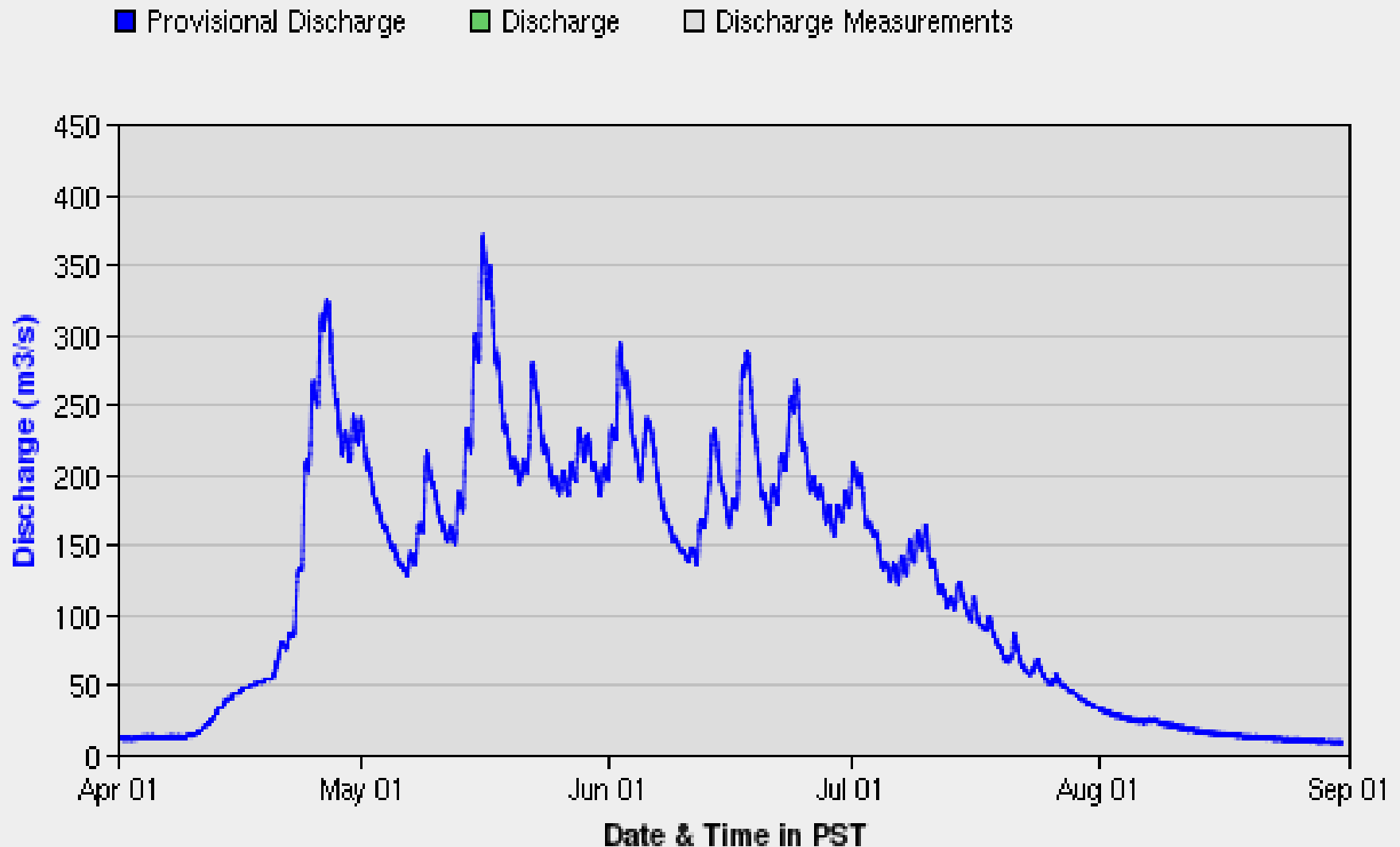
40

1 940 m



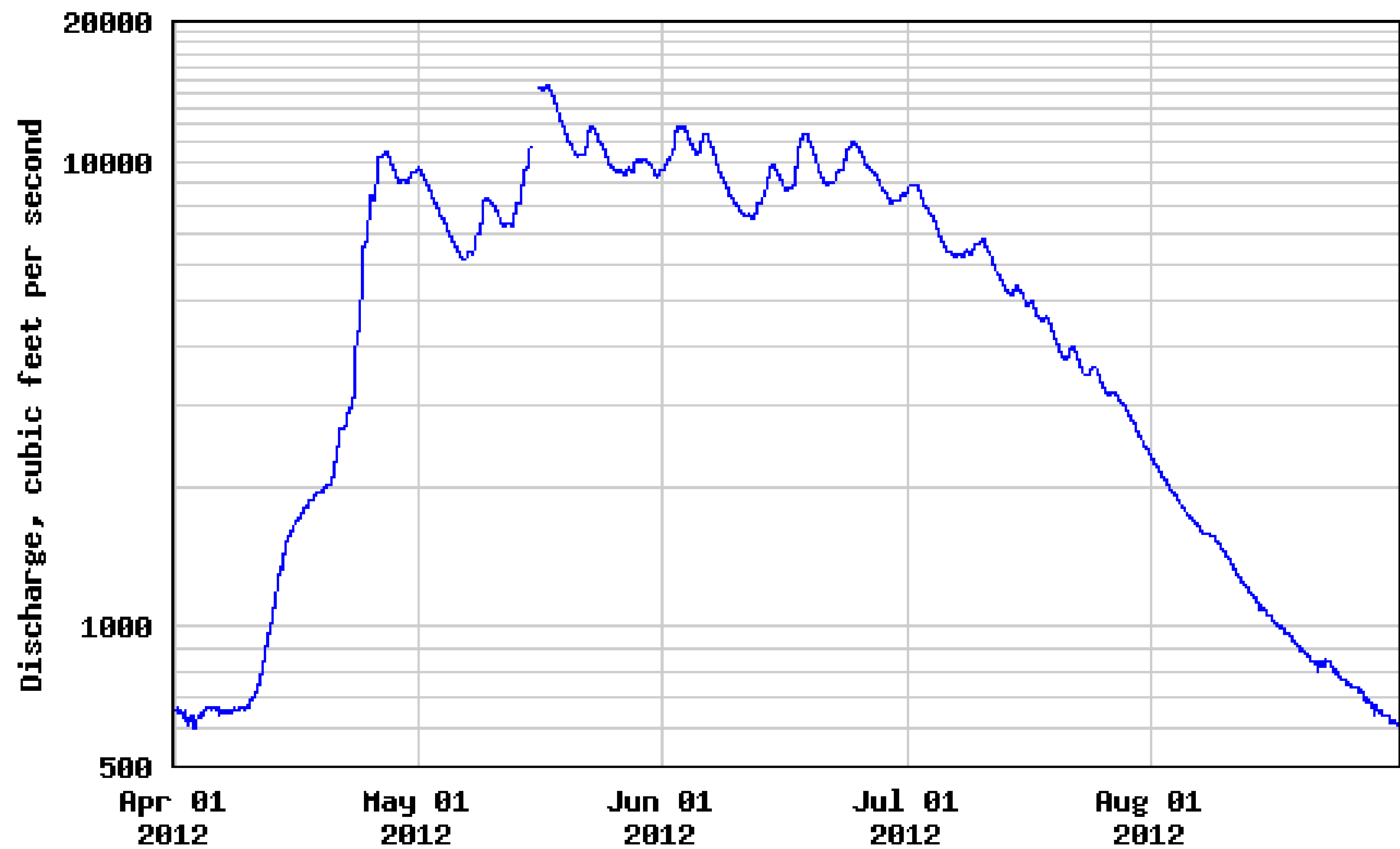
Current to noon 2012-07-22
Updated 2012-07-23 11:14:30 AM

Similkameen River near Hedley





USGS 12442500 SIMILKAMEEN RIVER NEAR NIGHTHAWK, WA



----- Provisional Data Subject to Revision -----

Osoyoos Lake Drought Criteria Compared to 2012 Actual

| Drought Criteria | Actual Value (Preliminary) |
|--|---------------------------------------|
| (a) Total flow in the Similkameen River during April – July is less than 1 million ac-ft | 1,658,000 ac-ft |
| (b) Net inflow to Okanagan Lake during April-July is less than 195,000 ac-ft | 537,300 ac-ft |
| (c) Maximum level of Okanagan Lake in June or July is less than 1,122.8 ft | 1,124.32 ft |

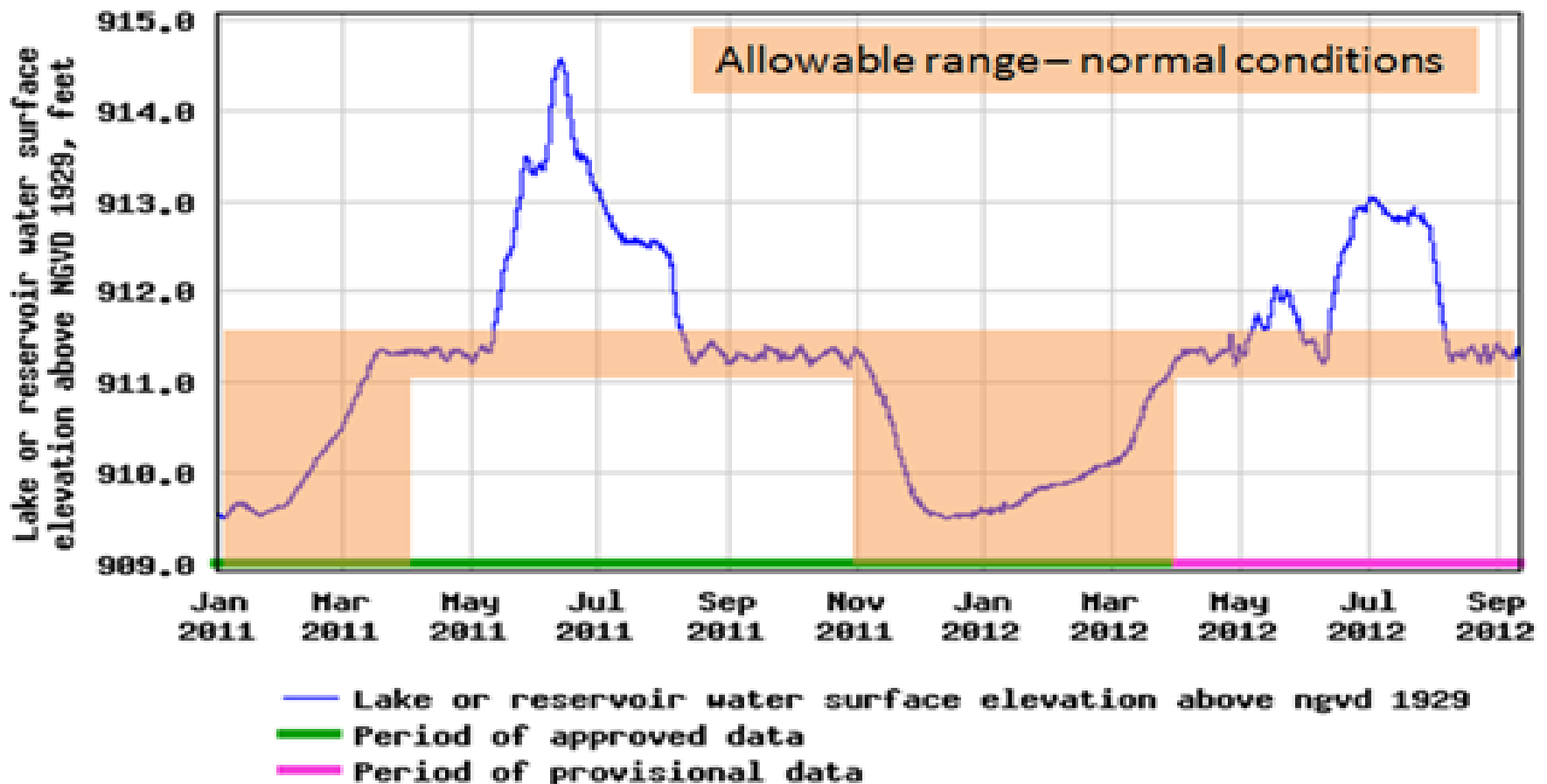
So what did all this mean for Osoyoos Lake?

- **No declaration of drought conditions for Summer 2012:**
- **Non-Drought operations for April – October, 2012**
- **Zosel Dam freeboarding anytime level of Osoyoos Lake above 911.5 ft**

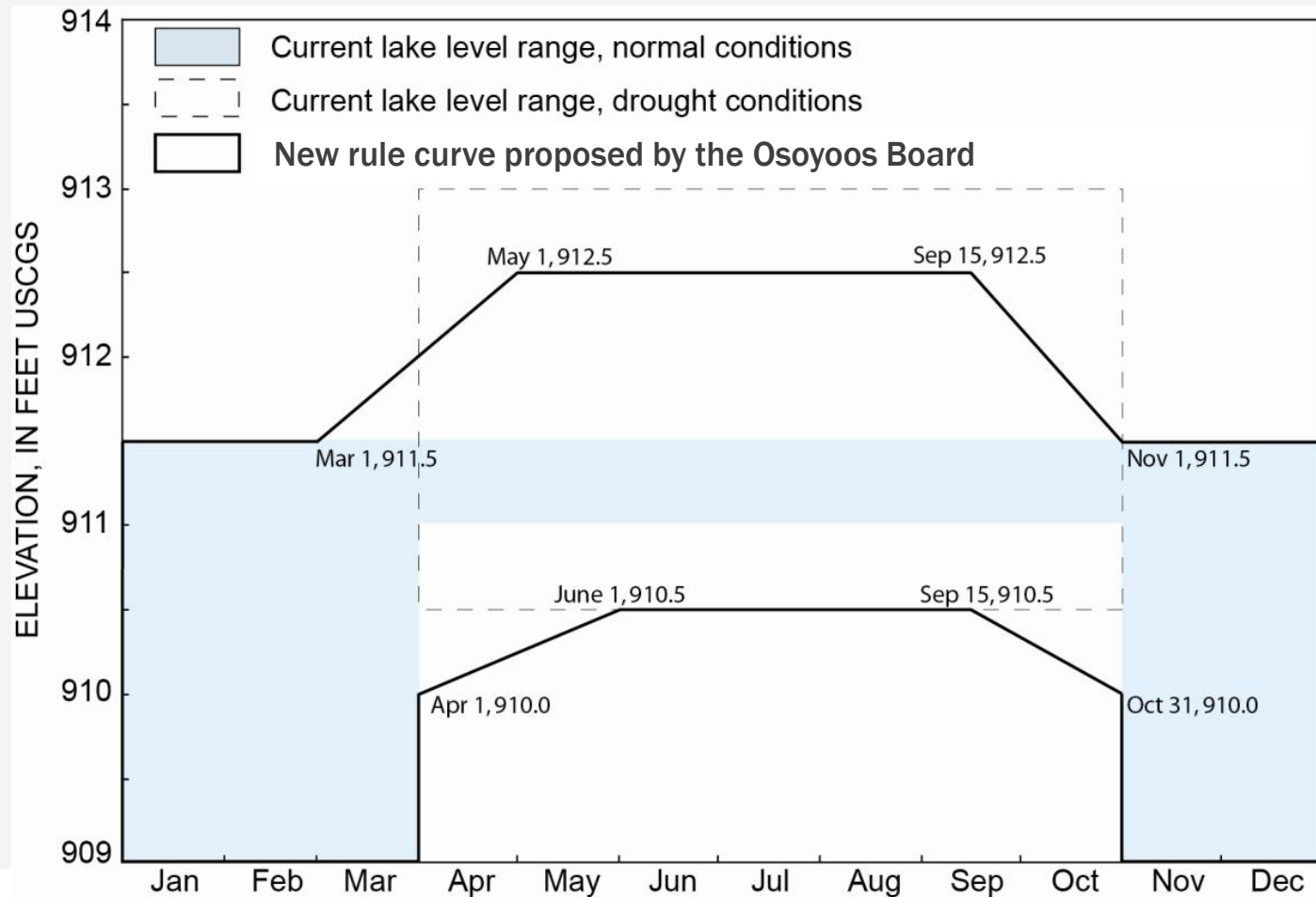
Osoyoos Lake 2011-2012



USGS 12439000 OSOYOOS LAKE NEAR OROVILLE, WA



Proposed Rule Curve for Osoyoos Lake



Status – Process

Dr Mark Colosimo

- **Public comment to IJC through August 31, 2012**
- **Hearings held Oroville July 24 (5 oral submissions) and Osoyoos July 25 (9 oral submissions).**
- **Eleven written comments received by 31 August.**
- **Board and Commission staff reviewing and considering commentary.**

Status – Some Points Heard (1) Dr Mark Colosimo

- Support for recommended seasonal transitions rather than fixed dates
- Clarify purpose/objectives of operation – including shared environmental and fisheries values
- 912.5 too high because of flood, erosion, riparian, endangered species, possibly navigation concerns
- Keep summer levels up for recreation
- Advance communication of predicted lake levels for dock placement
- Perception of proposals for changes to channel (e.g. 2500 cfs)
- Proposals for changes to Similkameen River channel/cross-channel

Status – Some Points Heard (2) Dr Mark Colosimo

- Some preference for prescriptive rules rather than de-regulation
- Board should actively manage operation rather than provide oversight
- Need for coordinated operation of works in Canada and US
- Some preference for a specified term of Orders (25 years)
- Local/First Nation/Tribe representation on Board
- International Watershed Initiative for local coordination of wider range of trans-boundary issues
- Consider a Treaty for the area, such as the Columbia River Treaty

Next Steps

Dr Mark Colosimo

- **Consideration of commentary received and possible revision of Orders and Rule Curve based on input received to date.**
- **Awaiting New Application from Washington State**
- **Issuance of Renewed Orders by February 22, 2013**

Public Comments

Open discussion