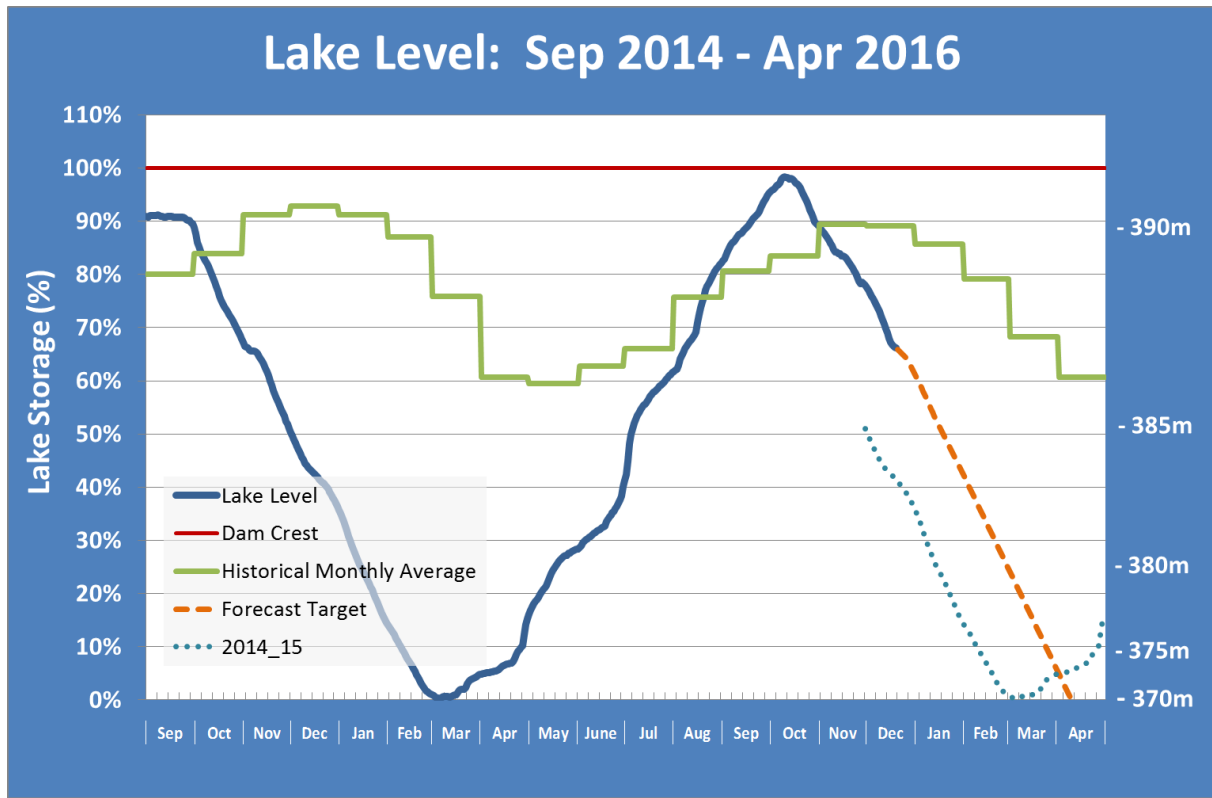


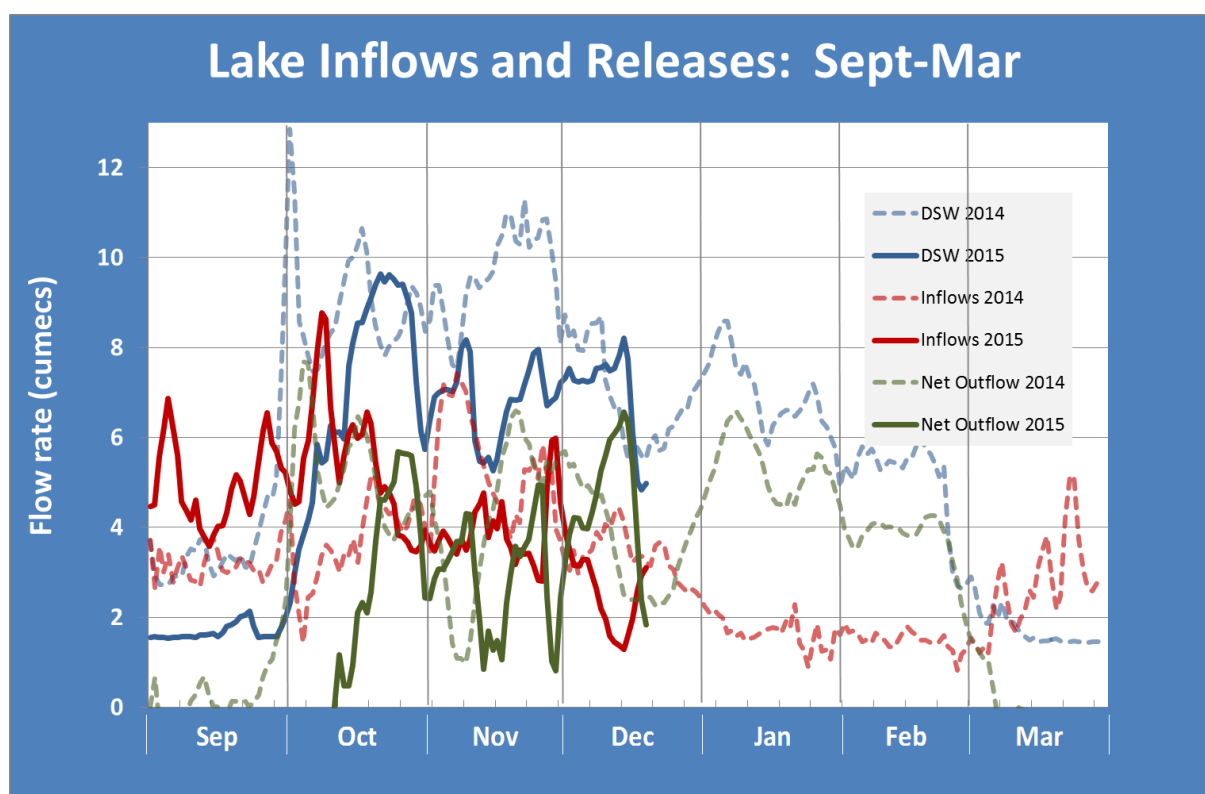
# OEFRAG UPDATE – 21<sup>st</sup> December 2015



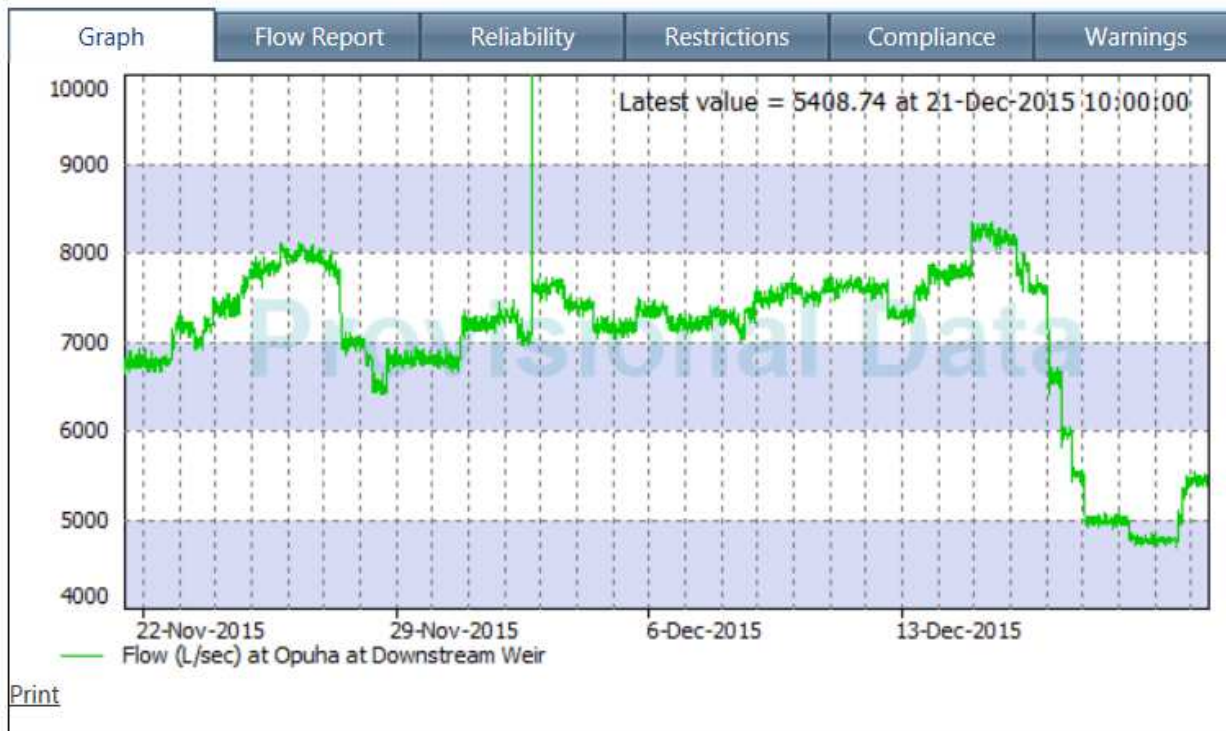
## Notes:

- All irrigators have been advised of 50% cap on use from December 23<sup>rd</sup>.
  - There has been ~25mm rainfall over the last week and this temporarily arrested the fall in tributary flows and saw the lake level almost hold steady for a few days.
  - Irrigation demand has dropped back as a result of the rain and will likely sit at a lower level now that the 50% regime is coming in on 23<sup>rd</sup> December.
  - Tengawai have been on restrictions intermittently; other Above Dam users have been able to remain on 100%.
  - Some potential for rain early this week but then an extended dry spell through to New Year.
- Lake inflows have picked up from the rain midweek but are now slowly declining again. They remain 20% below the inflows we experienced last December.
  - We had peaked our lake drawdown at close to 1% for the day on Tuesday 15<sup>th</sup> December. Over the last 5 days it has averaged 0.4% per day compared with 0.84% for the previous 5 days. Month-to-date average is 0.59% so we are still ahead of the final monthly average last Dec of 0.48%
  - We are operating at 4 cumec minimum river flow compared with 3.5 from 16<sup>th</sup> December last year.

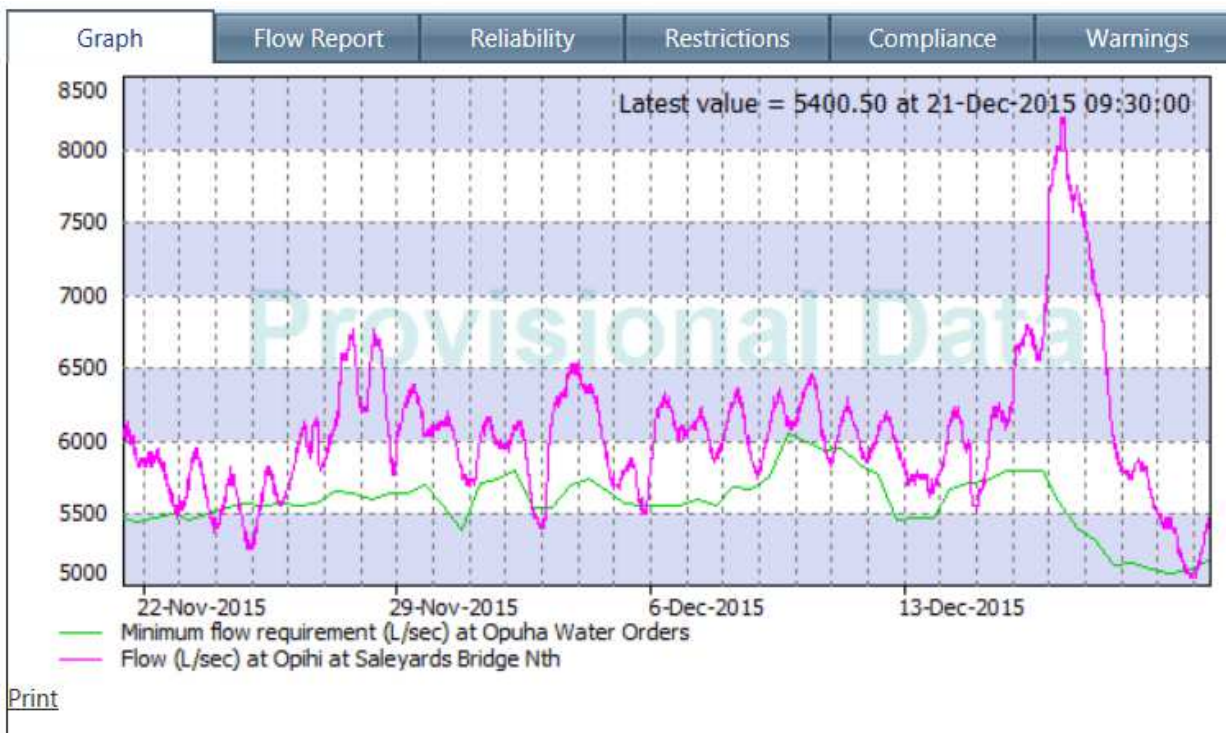
Statistical Summary	Units	Current Season	Previous Season
<b>Lake Level</b>			
Lake Storage Level		387.08m 66.1%	383.13m 25.0%
Monthly Historical Average- December		389.99m 89.1%	
Predicted date for zero storage level		9 April 2016	5 March 2016
<b>Lake Flows</b>			
Current Daily Inflow (5 days)	cumecs	2.86	3.21
Average Inflows for December	cumecs	2.56	3.36
Current Daily Release (5 days)	cumecs	5.73	5.66
Average Release for December	cumecs	7.03	6.93
Current Daily Decrease (5 days)		0.38% (~52mm)	0.32% (~58mm)
Average Daily Decrease for December		0.59%	0.47%
<b>River Flows</b>			
Saleyards Bridge Flow			
December	Min; Mean; Max	5.3; 6.1; 7.8	4.4; 6.1; 8.7
	ORRP; WSD (excl. irrigation)	6.0; 4.0	6.0; 3.5
<b>Irrigation</b>			
Irrigation Demand:	Current	4.92	4.37
	December [Min, Mean, Max]	4.9; 5.2; 5.5	3.4; 4.0; 4.7



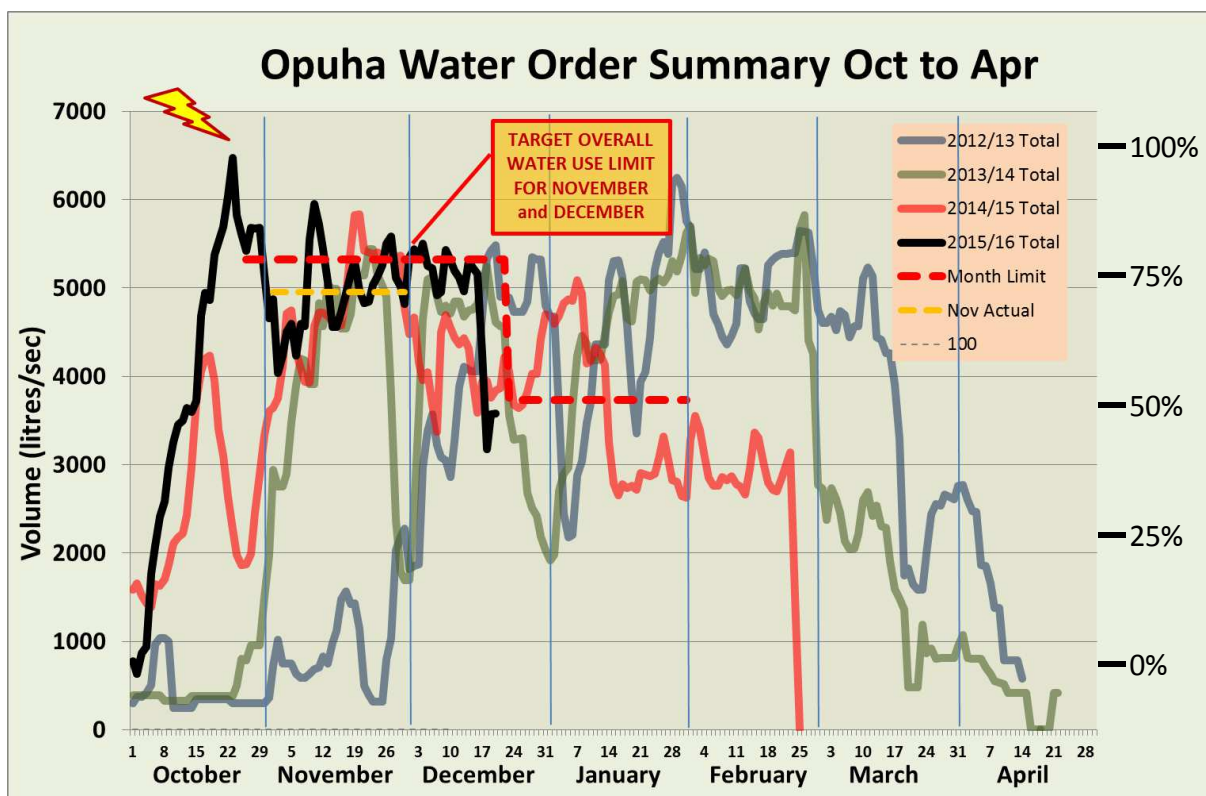
**Lake Inflows and Releases**



Releases from the Lake – recent three weeks



Flow at Saleyards Bridge – recent three weeks



### Summary of Irrigation Demand

#### Calculation of Irrigation % Use

- Total shares = 16,000.
- There are currently ~ 600 shares unutilised => 15,400 'active' shares @ 0.413 l/s = 6,365 l/s
- 75% irrigation usage = 75% x 6,365 l/s = 4,774 l/s
- Carriage water used within the schemes (not utilised for irrigation) ~ 550 l/s

**Total water use at 75% irrigation = 4,774 + 550 = 5,324 l/s**

Key Lake Parameters	
Total Storage	65.5 Mm <sup>3</sup>
1.0 cumec flow for one month	4% storage
1% lake storage	7.5 cumec days
1% lake storage	0.25 cumec months
Storage Levels	100% (Full)
	391.2m
	50%
	384.7m
	25%
	379.8m
	10%
	375.25
	0% (Empty)
	370m