

IMPORTANT NOTICE

WATER RESTRICTIONS UPDATE #8

There have been hints of rain around the region over the last 5 days which lifted river flows slightly and gave us perhaps a couple of days relief in the lake as we were able to back off the releases for a while.

We have agreed on a revised operating regime which has reduced the minimum flow we are supporting in the river but we are still looking at the high likelihood of having to shut down irrigation around 23rd February. The current 50% restriction regime that we have been operating under for several weeks will continue until we have to turn off since we believe this will provide the most effective use of the remaining water. The new river regime will extend the period that the river can be augmented by around 12 days.

Note that some of you that operate under your own consents may need to revise your operating regime around 11th February when the lake is expected to reach a trigger level of 10% capacity – see details below**.

Our current predictions are that we may run out of irrigation supply completely around February 23rd.

WATER STORAGE SITUATION

The lake level is currently at 376.2m (12.5%) and falling at around 0.50% every day at the moment.

We are releasing 5 cumecs from the dam which is less than last week as a result of the new minimum flow of 2.5 cumecs agreed at the OEFRAG meeting on Thursday.

The reduction in the 'environmental flow' will extend out the life of the storage enabling irrigation to remain on for a couple of days extra and, importantly, enable the river to be supplemented for an additional 12 days - within which time we have to reduce the flow back to 'natural flows'.

PROPOSED RESTRICTIONS

At this stage, the 50% restriction regime will continue. We do not intend to try and implement a 75% restriction regime as we believe this will be inefficient both on-farm and on our supply/distribution side and will not yield the proportionate water savings or benefits.

Those of you that have been operating on our roster will stay on the roster. We will be providing updates to you (letter drop) to see us through to the end of the month (hoping we will get there!)

There is currently a Water Shortage Direction (WSD) in effect - this was required to allow us, and those with affiliated consents, to operate with the reduced environmental flow.

**At the moment, the 50% restriction is based on your shared entitlement but when the lake reaches the 10% trigger level of 375m, the restrictions will also apply to all water consents as well. There are a small number of irrigators with consents that are currently irrigating to 50% of their share entitlement but more than 50% of their consent. These irrigators will need to modify their take to be no more than 50% of their consented daily volume from Wednesday February 11th.

As I mentioned in the last newsletter, we need to start seriously anticipating a no supply situation. This is currently estimated to be around 23rd February. If we do have to shut down all irrigation, it is very likely to be some time before we build enough lake reserves to be able to start up again. We have yet to finalise some details of the 'return to service' criteria, but I am expecting that we may need to have reserves of at least 7-10

days before we can get underway. It is not beyond comprehension that we may not have any irrigation at all in March.

Just as I mentioned last time, the best advice I can give at this stage is that once we hit 0%, and supply ceases, we should anticipate it being some time before we can resume any supply to irrigators. February and March are both traditionally low rainfall months in our region so it may be beyond this period before we can recover any lake storage.

ZERO LAKE STORAGE

I thought I would try and explain just what happens operationally if the lake gets to 0% storage.

We don't actually drain the lake completely. At zero storage, the lake level is 370m. There is still around five million cubic metres (5Mm³) of water in the lake and the surface area is around 88 hectares. The water depth is 10m at our power station intake.

Under the Regional Plan, we are required to pull up at this lake level and maintain the level by only releasing the equivalent daily inflows (i.e. outflows equal inflows).

We will remain in this mode until the inflows build up sufficiently such that we have established an adequate environmental flow in the river and have 'banked' sufficient water to lift the lake level off 370m. As I mentioned earlier, I expect that we will be looking to have banked at least 7-10 days water before we start any releases for irrigation.

If we do get started again, I expect we will operate on our 50% restriction regime initially.

Note that last week, the 'inflows' to the lake and the whole downstream catchment were so low that we estimated that even if we were releasing what was coming in at Opuha, the Opihi River would be dry down at the State Highway bridge. A very grim outlook indeed. We are all very keen to try and avoid this scenario and this has been behind the agreement to reduce minimum flows now and bank that water to extend the river flow duration.

GENERATION FROM THE DAM

I have had several enquiries and feedback questioning whether the reason that the lake is so low is because we have used too much water for electricity generation. I would like to say categorically that we NEVER release water just for electricity generation. It NEVER drives our decision whether to release water or not. There are really only two operating modes for the lake – we are either releasing simply to provide for the minimum river flow plus the irrigation demand, or we are releasing to control the level of the lake. This lake control mode may be to maintain the lake at a certain level or to reduce the lake level if we think it is too full and want to avoid spill or risk the downstream facilities should we get a high rainfall or snow melt situation.

All water we release from the dam, goes through the power station, so electricity generation is simply a by-product/consequence of our water management operation.

With the arrangement of the regulating pond and downstream weir below the dam, we do choose what time of the day we generate (to get the best prices and revenue) but the prices do not influence how much we generate in any particular day – that is determined by the downstream river flow we need to achieve or the change in lake level we are targeting.

WATER ORDERING

(I don't need to change my message on this – it is cut-and-paste from last time!)

I cannot stress enough the importance at this time of ensuring your water order is accurate. Many of you will be operating on a roster that has been presented to you so you do need to stick with this regime. The key for us making the water from the lake go as far as possible is keep the flows as consistent as possible and avoid any unplanned or sudden changes in use. We feel we have the current 50% regime operating reasonably efficiently from a water release aspect so we require all our irrigators to be watching their own operation very carefully please.

Please continue to ensure that your water orders accurately reflect your intended water use so that we can deliver the right amount of water, limit wastage or shortages and preserve the lake storage as much as possible.

REGARDS



Tony McCormick
Ph 027 233 0412
tony@opuha.co.nz

