

ANNUAL SUMMARY 2011

RECORD OF FLOWS BELOW 2.2CMS

DATE	TIME	DURATION	REASON	REMEDY
09-Jan-11	6:14pm	80 min	Frazil Ice - level dropped below minimum 6 times for around 3 minutes each time.	Frazil ice preventing adequate supply of water from entering through racks. System trying to pull more and more water in to compensate. System adjusted and shut units back.
11-Jan-11	9:15pm	2hr 45min	Frazil Ice - level was up and down dropping just below minimum several times.	Racks were cleaned and system was able to react properly.
12-Jan-10	7:51am	1hr	Frazil Ice - level was up and down dropping just below minimum several times.	Racks were cleaned and system was able to react properly. Settings changed to react quicker.
14-Jan-11	2:05pm	45 min.	System error - the lead machine was not on Pond Control	Issue recognized and units reversed for proper operation.
17-Jan-11	10:22pm	~2 min.	Frazil Ice - lots of water, which triggered second machine to start. Frazil was pulled in and dropped level too low... shut down.	System shut both units down.
18-Jan-11	1:20am	~2 min.	Frazil Ice - lots of water, which triggered second machine to start.	System shut both units down.

			Frazil was pulled in and dropped level too low... shut down.	
20-Jan-11	4:56am	4hr.	ENERDU shutdown - level dropped just below minimum 5 times, after repeated ENERDU shutdowns.	System responded by shutting units down as soon as possible.
23-Jan-11	5:00am	3.5hr	Frazil Ice + ENERDU shutdowns	Auto shutdown and wait for water to come back up after ENERDU restart.
27-Jan-11	11:51am	~3 min.	Frazil Ice	Auto adjustment of units.
28-Jan-11	9:18am	14 hr.	ENERDU maintenance	ENERDU were working on turbines which are below water level and asked us to lower water level.
31-Jan-11	1:47pm	~5 min.	Frazil Ice + ENERDU shutdowns	Auto shutdown and wait for water to come back up after ENERDU restart.
2-Feb-11	6:34am	~2 min.	Frazil Ice	Level was lowered slightly below minimum for about 2 minutes to assist in clearing frazil ice.
15-Feb-11	4:35am	~5 min.	ENERDU shutdown	Auto shutdown and wait for water
28-Feb-11	6:06am	75 min.	ENERDU shutdown	Auto shutdown and wait for water
6-Jun-11	11:34pm	12 hr.	Improper automation system setting, caused level to go up and	Setting fixed.

			down over a 12 hour period... dropping just below the minimum several times for less than 1 min.	
10-Jun-11	10:30am	2 hr.	Automation system. Just enough water that 2nd unit kept starting, but not enough water to keep it online. As a result, level dropped below minimum 4 times for less than 1 min.	Unit kept shutting down when water level dropped below minimum.
11-Jun-11	10:22am	4 hr.	Automation system. Just enough water that 2nd unit kept starting, but not enough water to keep it online. As a result, level dropped below minimum 4 times for less than 1 min.	Unit kept shutting down when water level dropped below minimum.
12-Jun-11	11:50am	1 hr	ENERDU shutdown - twice in one hour, level dropped below minimum for ~ min. each.	Our unit shut down automatically restarted once ENERDU restarted.
14-Jun-11	3:04am	5 hr	ENERDU up and down, our units were trying to keep up, by stopping and restarting as necessary. Level dropped below minimum several times for ~1 min	Our unit shut down automatically restarted once ENERDU restarted.
24-Aug-11	12:25pm	15 min.	Lowered water for Fire Dept.	Unit shut back once resuce was

			rescue of boy who fell from adjacent cliff.	completed.
23-Sep-11	8:26am	30 min.	We were not generating. ENERDU shutdown caused level to drop.	N/A
16-Oct-11	6:07pm	15 min.	We were not generating. ENERDU shutdown caused level to drop.	N/A
25-Oct-11	6:35pm	6h56m	We were not generating. ENERDU shutdown caused level to drop.	N/A
11-Nov-11	8:22am	11hr	Level was dropped for surveyors in the riverbed at Millfall Dam down North Channel.	Level brought back to normal once all clear was given by surveyors.
12-Nov-11	5:00pm	13hr	Equipment malfunction. Our air compressor was damaged by moisture build-up. Level was up and down, dropping just below minimum for seconds at a time over 13 hr period.	We installed an auto moisture discharge on the air compressor.
30-Nov-11	8:39am	2hr 10min	ENERDU was testing their turbines. They were constantly raising and lowering our headpond, which caused our units to try to keep up, overcompensating at times.	ENERDU's testing was completed and normal operations resumed.
26-Oct-10	4:43PM	2m	System taking too much water for a very short period of time.	Our system reduced water intake but was unable to do so quickly

				enough. The flow over the weir dropped slightly below 2.2cms for roughly 2 minutes.
25-Dec-10	6:59AM	3m	Frazil ice problems	Frazil ice preventing adequate supply of water from entering through racks. System trying to pull more and more water in to compensate. System adjusted and shut units back.
25-Dec-10	11:49PM	1h1m	Severe frazil ice problems	Frazil ice blocking racks and causing backups at other dams upstream, resulting in lower river levels. Racks were cleaned and units shut down multiple times while attempting to remedy the situation.
26-Dec-10	10:31PM	2h16m	Severe frazil ice problems	same as above
27-Dec-10	7:02AM	1h49m	Severe frazil ice problems	same as above