October 18, 2013

To: Interested Groups



Subject: Recertification Salmon Reservoir Town of Orwell and Redfield

Attached please find a petition that request the water elevation in the Salmon River be maintained between 940 and 933 during the time frame of April 1<sup>st</sup> through September 30<sup>th</sup>.

There are many individuals who have enjoyed the reservoir for recreational activities over multiple years and these individuals provide significant economic benefits to the Salmon River neighboring towns. The management of water elevation in the reservoir in 2013 was close to what is recommended in this petition. Previous years has seen much greater water fluctuations out of the reservoir that has impacted the recreational use of the reservoir and does have adverse environmental impacts to the area.

Thank you for considering this information in the development of the management goals for the Salmon reservoir.

Sincerely, Reservoir Users

# **Distribution List**

DEC Division of Lands and Forests Upper Salmon River Unit Management Plan Attn: Don Sawchuck 2133 County Route 22 Altmar, NY 13302

Dana Hall Deputy Director (LIHI) PO Box 194 Harrington Park, NJ 07640

Brookfield Power Eastern Region – Atlantic Operations Erie Boulevard Hydropower 33 West 1<sup>st</sup> Street South Fulton, NY 13069

Town of Orleans – Town Clerk Traci LaVeck Orwell Town Hall 1999 County Route 2 Orwell, NY 13426

Town of Redfield – Town Clerk Susan Hough County Route 17 Redfield, NY 13437

New York Regional Office Federal Energy Regulations Commission 19 West 34<sup>th</sup> Street Suite 400 New York, NY 10001 Petition to Control the Water Level of the NY Salmon River Reservoir (FERC No. 11408)

#### 1. Purpose:

The objective of this petition is to require the maintenance of a reasonable water surface level for the New York Salmon River Reservoir (FERC No. 11408) operated by Brookfield Power Corporation.

### 2. Background:

The Federal Energy Regulatory Commission license for this facility (74 FERC ¶62,087), issued Feb. 21, 1996, mandated that its operation "mitigate adverse impacts to, protect, or enhance fishery resources, water quality, vegetation, wetlands, wildlife, recreational resources, and cultural resources". The license agreement established target water surface levels for the reservoir throughout the year as well as minimum water release rates (which were to take precedence over the water level control). However, base flows could be less than the required amount "during extreme drought or emergency conditions".

History has shown that summertime water levels have been reduced significantly below the target levels in most years since the license was granted. The excessive draw downs resulted, not because <u>reasonable</u> base flows could not be sustained during this period, but because the operator continues to use the facility for peaking operations during periods of high energy demand and also because of the summertime whitewater releases specified in the flow agreement.

3. Impacts of a Low Water Level:

The low water levels and large fluctuations in level have a number of serious impacts that infringe on the mandates in the licensing agreement. Figure 1 is one illustration (in 2012) of the effect these reduced water levels on the reservoir.



Figure 1a. East end of Salmon River Reservoir at normal (full pool) level



Figure 1b. Low water level (Aug 24, 2012 looking northwest)



Figure 1c. Low water level (Aug 24, 2012 looking east)

**Environmental Impacts** 

- loss of Federally regulated wetlands
- impacts to fishing habitats
- impacts to wildlife habitat (loons, frogs, waterfowl, eagles, etc.)
- impacts to plants, ecosystems, and biological effects

Because of the relatively shallow depth and limited capacity of the reservoir, large draw downs result in significant reduction in its surface area. A 23 ft draw down [which has occurred multiple times in the past decade, i.e. 2002, 2007, and 2012] reduces the surface area of the reservoir by 1850 acres, i.e. to 52% of its normal maximum surface area (Source: 1996 FERC license)

Large summertime draw downs have seriously stressed the fish population in the reservoir. They expose egg sacks along the shoreline to the atmosphere and small fry are trapped in isolated pools of water in the shallow ends.

Nesting habitats for various waterfowl, particularly the loons, are also disrupted by these draw downs.

Low water levels expose much of the bottom of the reservoir to increased sunlight. This has resulted in the explosive growth of non-native invasive weeds, particularly Eurasian milfoil, in recent years throughout the reservoir, most noticeably on the east end.

#### Community impacts

- loss of recreational use (boating, fishing, etc.)
- reduction in economic development for the neighboring communities
- elimination of aesthetic viewshed
- reduction in tourism

As water levels continual decline throughout the summer months, one can observe an obvious decrease in recreational use of the reservoir for boating and fishing. This is a result of decreases in the fish population as well as reduced access to much of the shallower portions of the reservoir. Through the years, there appear to be fewer out-of-area visitors because of the low levels observed in previous years. This has resulted in reduced economic development in the surrounding communities.

3. Stakeholder interests:

Any reasonable water level control policy should take into account the interests of the various stakeholders. This includes the power company, the NYSDEC fish hatchery at Almar, sports fishermen, recreational boaters, commercial operations, and landowners/residents around the reservoir.

The volume of water flowing through the reservoir is the same regardless of the release policy. Therefore, the amount of energy generated from the reservoir facilities will be just as great if a high water level is maintained as opposed to allowing large draw downs, perhaps slightly greater because of the increased hydrostatic head (albeit not at higher energy rates during periods of high demand).

The successful operation of the salmon fish hatchery has been a significant benefit to the economy of the area. Therefore, minimum base flows during the fall spawning season should be maintained.

A study attached to the FERC license indicates that a "run of the river" water release policy would maintain the water level at or very near to the target levels. Minimizing level fluctuations would be particularly beneficial to the fish population in the reservoir and maximize fishing opportunities as well as provide better access to the reservoir. Down river flows would be the same as if there were no reservoir present (a policy advocated by many environmentalists). The higher water level would also maximize boating opportunities during the recreational season. More fishing and boating would obviously have a positive impact on the economy in the area.



Reservoir Empty (2012)

### Petition:

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We, the undersigned, petition those responsible for enforcing the operation of the New York Salmon River Reservoir (FERC No. 11408) to establish the following policy:

- 1. Consider all reasonable alternatives to avoid adverse impacts to the community and environment by controlling the water level of the reservoir. We recommend a modified run-of-the-river release policy which would maintain the water surface elevation between 933 and 940 feet for a period between April 1 and September 30.
- 2. Terminate all summertime whitewater releases.

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