



## PARTNERSHIP AGREEMENT BETWEEN NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES and PAWTUCKAWAY LAKE IMPROVEMENT ASSOCIATION

The New Hampshire Department of Environmental Services (DES) and the Pawtuckaway Lake Improvement Association (PLIA) share the common goals of protecting and improving the water quality and habitats of Pawtuckaway Lake, its tributaries and downstream areas, and ensuring the enjoyment of the lake by residents and the public.

DES was established in January 1987 under the provisions of Chapter 202, Laws of 1986 and brought together programs from four previously separate state agencies that had responsibility for such matters as water and air pollution control, water supply protection, dams and flood control, and waste disposal. Today DES implements these and other programs through a variety of regulatory, compliance, assistance, and educational efforts.

The Pawtuckaway Lake Improvement Association (PLIA) is a private, non-profit organization formed in (YEAR) to monitor and act upon environmental and safety issues in the Pawtuckaway Lake Watershed area. The PLIA also provides education, information, recreational opportunities and other services to its members.

In August 2013, DES issued the Notice of Decision on the Determination of Lake Level for Pawtuckaway Lake and Lamprey River Water Management Plan, which will change the water level management of the lake. DES concluded that this change will benefit both the lake and downstream river habitat. This agreement will set forth the ways in which DES and PLIA will monitor and evaluate the effects of this change over time.

In recognition of the many areas in which the two agencies collaborate on environmental issues and on accelerating conservation implementation, DES and PLIA hereby enter into this Partnership Agreement. It is anticipated that this Partnership Agreement will result in enhanced communication between DES and PLIA and improved environmental and natural resource protection. The specific areas of cooperation are detailed in the attached work plan, which is the result of discussions between representatives of DES and PLIA.

Thomas S. Burack, Commissioner, DES

Date: 9/25/2013

Thomas Duffy, President, PLIA

Date:

## PARTNERSHIP WORK PLAN

- I. Timeframe: This Work Plan shall be for the period from September 30, 2013 to September 30, 2017 and may be amended from time to time by mutual written agreement of the parties.
- II. Evaluation of Instream Flow Program and Water Quality:
  - A. Phosphorus Monitoring: Through DES staff resources and PLIA volunteer time, the modified water levels on the lake will be evaluated for their impact on phosphorus flushing. PLIA will continue to support DES VLAP monitoring during the months of May through September. DES WMB staff will continue monitoring throughout the winter. The monitoring will conducted on a monthly basis.
  - B. Test Releases: During the 4-year implementation period of the modified winter drawdown of the lake, DES will conduct at least 2 winter test relief pulses at lake levels between 4.8' and 5.4' below full lake at the Drowns Dam and Dolloff Dam spillways. DES will evaluate if these levels are capable of producing flows as required by the Lamprey River Water Management Plan. DES will report the findings of these test pulse releases to PLIA. Test releases may come from either or both dams.
  - C. Aquatic Plants: DES will conduct baseline monitoring of aquatic plants in 2013 and 2014 which can be used for future assessment of the effects of changing lake levels on existing aquatic plants and exotic species. DES will report the findings of the aquatic plant monitoring to PLIA.

## III. Communications:

- A. Notification for Test Pulse Releases and Intended Pulse Releases: DES will provide written notice to the PLIA no less than 48 hours prior to a test pulse release and an intended release relief pulse of water from Pawtuckaway Lake, indicating that the threshold conditions have been met per the Protected Instream Flow for the Lamprey Designated River.
- B. Meetings: DES and PLIA will meet at a minimum of two times each year to review reports, share information, evaluate progress in accomplishing the provisions of this agreement and to determine if changes are need to this agreement. These meetings will be open to the public and held in Nottingham.
- C. Providing Information to the Public: Annually, DES and PLIA will co-author an article pertaining to the implementation of the Lake Level Investigation, the Lamprey River Water Management Plan, and the elements and status of this Partnership Agreement for inclusion in the Nottingham Community Newsletter and the PLIA "Pawprints" publication. Said article will be written in advance of the PLIA annual meeting each June.

## IV. Operations:

DES, with input from PLIA, will create a detailed set of procedures by October 15, 2013 which will guide the fall drawdown and winter operations of Drowns Dam and Dolloff Dam, including the following elements:

- a. Maximizing the use of Drowns Dam for the Winter drawdown in such a way as to enhance the removal of phosphorus laden water from the north end of Pawtuckaway Lake;
- b. Winter operations, including relief pulses; and,
- c. Refilling the lake to maximize continued flows from the north end of the lake while achieving nominal full pool elevation for summer recreation.

The effectiveness of this plan will be evaluated through periodic testing of phosphorous levels as outlined in this Agreement.

V. Adaptive Management:

Throughout the timeframe of this Agreement, DES and PLIA will jointly explore potential mechanisms for adaptive management of the Lamprey River Water Management Plan if necessary to respond to any potentially negative issues identified pertaining to items II.A, B and C, above.

- VI. Resources to Implement Partnership Agreement:
  - A. DES will provide staff support to meet the goals of this partnership, as time and budgets permit.
  - B. PLIA will provide volunteer support to meet the goals of this partnership, as time and budgets permit.