

# INSTREAM FLOW AGREEMENT FOR HYDROELECTRIC PROJECTS ON THE SACO RIVER

April 30, 1997

## BACKGROUND AND PARTIES

This is a settlement agreement ("Agreement") regarding instream flows at hydroelectric generating projects on the Saco River that are currently undergoing licensing proceedings before the Federal Energy Regulatory Commission (FERC), including the Skelton (FERC No. 2527), and Bonny Eagle (FERC No. 2529) projects, as well as the proceedings to exempt Swans Falls (FERC No. 11365) from licensing. This Agreement also applies to Central Maine Power Company's (CMP), Cataract (FERC No. 2528), Bar Mills (FERC No. 2194), West Buxton (FERC No. 2531), and Hiram (FERC No. 2530) projects. Figure 1 is a map of the Saco River region showing the locations of the projects.

Following the signing of the *Saco River Fish Passage Agreement* (dated May 24, 1994) and its addendum entitled *Annex 1: Assessment Process and Criteria* (dated January 20, 1995), Central Maine Power Company invited the parties to the Saco River Fish Passage Agreement to enter into negotiations to decide instream flow requirements for hydroelectric generating projects owned by CMP on the Saco River. Swans Falls Corporation, owner of the Swans Falls project, also elected to participate in the negotiations. In May 1995, the parties met for the first time, and began a series of meetings that has resulted in this Agreement.

The parties to this agreement are listed below:

Central Maine Power Company (CMP)  
U.S. Department of Interior, Fish and Wildlife Service (USFWS)  
Maine Department of Inland Fisheries and Wildlife (MDIFW)  
Maine Department of Marine Resources (MDMR)  
Saco River Salmon Club (SRSC)  
Atlantic Salmon Federation (ASF)  
Maine Council, Atlantic Salmon Federation (MCASF)  
Maine Department of Environmental Protection (MDEP)  
Swans Falls Corporation (Swans Falls)  
Maine Atlantic Salmon Authority (MASA)  
Maine State Planning Office (SPO)  
Trout Unlimited (TU)  
Maine Council, Trout Unlimited (MCoTU)  
American Rivers, Inc.  
New Hampshire Department of Fish & Game  
City of Saco  
City of Biddeford

While not parties to this Agreement, other interested organizations were informed in writing of each negotiation session, were sent copies of minutes of each negotiation session and were sent copies of working drafts of the Agreement. These organizations were the following:

Maine Department of Conservation (MDOC)  
U.S. Department of Commerce, National Marine Fisheries Service  
U.S. Forest Service, White Mountain National Forest  
U.S. Environmental Protection Agency  
Saco River Corridor Commission

The parties met periodically from May 1995 through February 1997. During this period, CMP and other parties collected and presented field data, economic data, and conducted various computer simulations of flow regimes within the Saco River. The parties themselves conducted several field visits. The terms of this Agreement are based on facts, findings and other considerations specific to the Saco River projects.

## **PRINCIPAL OBJECTIVES AND CONSIDERATIONS**

1. At several points during the settlement discussions that led to this Agreement, the parties established and revised a list of objectives that they were seeking to balance. The parties acknowledge that this Agreement balances the following objectives and considerations to their satisfaction:
  - a. Improve the habitat for Atlantic salmon, American shad and river herring sufficiently to allow self-sustaining populations, and improve habitat for resident fish and aquatic communities, focusing on the Hiram to Bonny Eagle reach which provides the most valuable spawning and rearing habitat for Atlantic salmon in the Saco River downstream of Swans Falls;
  - b. Provide for and improve a zone of passage for anadromous fish and spawning habitat below the Skelton dam;
  - c. Provide for spawning and rearing of clupeids (American shad and river herring) below the Skelton dam;
  - d. Contribute to restoration of the natural hydrology and riverine ecosystems by reducing the difference between the minimum and maximum flows;
  - e. Maintain and improve the habitat for resident aquatic life in the West Buxton to Bar Mills reach;
  - f. Meet the State of Maine's minimum water quality standards below the Bonny

Eagle and Skelton projects;

- g. Ensure continued hydro power generation in the Saco River basin in a cost-effective manner for the project owners, and in a manner which provides for flexibility in hydro power operations to meet changing peak and off-peak demands.
2. The parties acknowledge that the instream flows at the various projects are interdependent, and that flows established at an upstream project may have an effect on the operations of projects downstream, and on the downstream aquatic communities.
3. The parties recognize that the FERC has completed a Final Environmental Impact Statement (FEIS) for the Saco River Projects (FERC-FEIS 0077, August 1996) which recommends that the Commission should relicense the Bonny Eagle and Skelton projects with certain conditions that, when considered in the context of the entire Saco River basin, are not entirely satisfactory to any of the parties. The parties recognize further that certain resource values may be enhanced by altering the current licensed instream flow requirements at the Hiram Project.

## TERMS AND CONDITIONS

Therefore, the undersigned parties agree to the following terms and conditions:

### Swans Falls Project

4. The parties agree that instream flow and pond level requirements for the Swans Falls project shall be run-of-river<sup>1</sup> operation year-round with head pond levels maintained within one foot of normal pond elevation of 395.9 feet (normal pond level is approximately six inches below the top of the spillway flashboards) during normal operations.

### Hiram Project

5. The parties agree that the instream flow and pond level requirements for the Hiram project shall be:
  - a. A minimum flow of 300 cubic feet per second (cfs), or inflow, whichever is less, from November 16 through September 30, with pond drawdown limited to

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<sup>1</sup> Run-of-river operation is defined as outflow equal to inflow, with pond level variation limited to one foot or less during normal operation.

two (2) feet or less from full pond elevation during normal operation or from spillway crest when the flashboards are down;

- b. Run-of-river operation from October 1 through November 15, with pond drawdown limited to one (1) foot or less from full pond elevation or from the spillway crest when the flashboards are down. The timing of this six week fall flow period may be varied as described in paragraph 11 below.

### **Bonny Eagle Project**

- 6. The parties agree that the instream flow and pond level requirements for the Bonny Eagle project shall be:
  - a. Run-of-river operation from April 1 through June 30, with head pond drawdown limited to one (1) foot or less from full pond elevation or from the spillway crest when the flashboards are down;
  - b. A minimum flow of 400 cfs, or inflow, whichever is less, from July 1 through September 30, with head pond drawdown limited to four and one-half (4.5) feet or less from full pond elevation, or one foot or less from the spillway crest when the flashboards are down;
  - c. A minimum flow of 600 cfs, or inflow, whichever is less, from October 1 through November 15, with head pond drawdown limited to four and one-half (4.5) feet or less from full pond elevation, or one foot or less from the spillway crest when the flashboards are down. The timing of this six week fall flow period may be varied as described in paragraph 11 below;
  - d. A minimum flow of 250 cfs, or inflow, whichever is less, from November 16 through March 31, with head pond drawdown limited to four and one-half (4.5) feet or less from full pond elevation, or one foot or less from the spillway crest when the flashboards are down;
  - e. A minimum flow of 25 cfs year-round in the New River Channel. The minimum flow in the New River Channel is inclusive in the total minimum flows listed in 6a through 6d above for this project (*not in addition to* those flows).

### **West Buxton Project**

- 7. The parties agree that the FERC and MDEP current license and water quality certification conditions at West Buxton will not change, and that the instream flows

from the West Buxton project will be determined by the instream flows required at the Bonny Eagle project as described in paragraph 6 above.

### **Bar Mills Project**

8. The parties agree that the FERC current license conditions at Bar Mills will not change, and that the instream flows from the Bar Mills project will be determined by the instream flows required at the Bonny Eagle project described in paragraph 6 above.

### **Skelton Project**

9. The parties agree that the instream flow and pond level requirements for the Skelton project shall be as follows:
  - a. Run-of-river operation from April 1 through June 30, with head pond drawdown limited to one (1) foot or less from full pond elevation during normal operations;
  - b. A minimum flow of 400 cfs "guaranteed" from July 1 through September 30, with head pond drawdown limited to four (4) feet or less from full pond elevation.

"Guaranteed" means that at times when inflow to the Skelton headpond drops below 400 cfs, CMP will continue to provide 400 cfs below the Skelton project by drawing from the Skelton headpond. This use of the headpond storage to supplement outflow will be discontinued if the headpond elevation drops four feet below full pond elevation, such as may occur when extended natural low flow conditions are experienced. Under these circumstances, the outflow from the Skelton Project will be equal to the inflow. When inflow to the headpond is greater than 400 cfs, a minimum flow of 400 cfs will be provided.
  - c. A minimum flow of 600 cfs, or inflow, whichever is less, from October 1 through November 15, with head pond drawdown limited to four (4) feet or less from full pond elevation. The timing of this six week flow period may be varied as described in paragraph 11 below.
  - d. A minimum flow of 400 cfs "guaranteed" (defined as in 9b above) from November 16 through March 31, with head pond drawdown limited to four (4) feet or less from full pond.
  - e. CMP agrees to complete instream habitat improvements to provide boulder clusters in the area below the Skelton dam as previously proposed by CMP in

the application for new license submitted to FERC, December 1991, at page E.3.1-118 and 119.

- f. CMP and MDEP agree to discuss the timing and extent of scheduled maintenance draw downs of the Skelton headpond in the Skelton 401 water quality certification process.

### **Cataract Project**

- 10. The parties agree that the current FERC and MDEP license and water quality certification conditions at Cataract will not change, and that the instream flows at Cataract will be determined by the instream flows required at the Skelton Project as described in paragraph 9 above.

### **ADDITIONAL TERMS**

- 11. The start of the fall period for required instream flows (see 5b, 6c and 9c above) may be changed in any year by mutual agreement among CMP and the U.S. Fish and Wildlife Service, Maine Department of Inland Fisheries and Wildlife, Maine Department of Marine Resources, and Maine Atlantic Salmon Authority based on:
  - a) expected flow and weather conditions,
  - b) biological factors such as fish migration or spawning periods, and/or
  - c) anticipated electrical need for or value of CMP's generation (e.g. plant outages).

The fall flow period shall be no less and no more than six weeks except upon mutual agreement among the parties listed in this section, and shall start no sooner than September 1 and no later than October 1. Any changes in the timing of the fall flow period will accordingly change the ending date of the summer period and the beginning date of the winter period. If the parties do not reach an agreement in a given year, then the start of the fall period for that year shall be October 1 as established in paragraphs 5b, 6c, and 9c herein.

- 12. The MDEP has determined that the flows in this Agreement are expected to meet water quality standards for flowing/riverine aquatic habitat below the Bonny Eagle (specifically the reach below West Buxton) and Skelton projects, and for dissolved oxygen below the Skelton Project. CMP agrees to conduct follow-up studies of aquatic communities and dissolved oxygen as required by the MDEP in the Bonny Eagle and Skelton Section 401 water quality certifications (PL. 92-500, as amended). CMP

acknowledges that, if instream flows required by this Agreement do not allow State water quality standards to be met in the reaches below the Bonny Eagle (or West Buxton) or Skelton dams, then the MDEP may require CMP to increase minimum instream flows from the Bonny Eagle and/or Skelton projects as MDEP deems necessary, based on the results of the follow-up studies, to meet applicable water quality standards below these projects. The parties to this Agreement hereby agree that, should increased minimum flows at Bonny Eagle or Skelton be required by the MDEP, the parties will meet and in good faith attempt to renegotiate the terms of this Agreement using a consensus process. If the parties are unable to come to mutual agreement on new or altered terms and conditions for minimum flows within the scope of this Agreement, then CMP may give notice to the other parties that it no longer intends to be bound by the terms of this Agreement. If CMP gives such notice pursuant to this paragraph only, then the parties agree that such notice makes this Agreement null and void as it pertains to CMP projects. The parties will then be free to petition the FERC, pursuant to the regulations of the FERC as appropriate, to amend the licenses.

MDEP agrees to incorporate the pertinent terms and conditions of this Agreement, as they pertain to the Bonny Eagle and Skelton Projects, into the water quality certifications for those projects. The MDEP reserves the right to require the appropriate studies and to increase minimum flows as it deems necessary to meet applicable water quality standards for aquatic habitat below the Hiram project and in the bypass reach at the Bar Mills project at the time of relicensing for these projects.

13. The parties acknowledge that the Assessment process described in Annex 1 to the Saco River Fish Passage Agreement (dated January 20, 1995) provides a forum (i.e. the Saco River Coordinating Committee, or SRCC) and an opportunity to evaluate the overall success of the anadromous fish restoration effort for American shad, river herring, and Atlantic salmon in the Saco River, and to determine what the limiting factors are in that restoration program. While this Instream Flow Agreement prescribes no specific studies related to flows, the SRCC may include evaluation of minimum flows in its Assessment studies. The parties agree that if, after thoroughly evaluating and addressing all other limiting factors, the Assessment process yields substantial evidence that the minimum flows established in this Agreement are a significant limiting factor to the restoration program for American shad, river herring or Atlantic Salmon, then the parties will meet and in good faith attempt to renegotiate the terms of this Agreement using a consensus process. If the parties are unable to come to mutual agreement on new or altered minimum flows within the scope of this Agreement, then the current terms and conditions of this Agreement shall continue to apply. Similarly, if a project owner develops substantial evidence that the minimum flows established in this Agreement are in excess of those flows that are necessary to support the restoration of American shad, river herring or Atlantic salmon, then the parties

agree to meet and in good faith attempt to renegotiate the terms of this Agreement using a consensus process. If the parties are unable to come to mutual agreement on new or altered minimum flow terms and conditions within the scope of this Agreement, then the current terms and conditions of this Agreement shall continue to apply.

Implementation of any renegotiated terms is contingent upon approval of those terms by the FERC and MDEP as necessary.

14. The instream flows and pond level requirements in this Agreement may be temporarily modified by operating emergencies beyond the Licensee's or Exemptee's control, as defined herein; by maintenance activities approved by the Maine Department of Environmental Protection and/or FERC; by inflows to the project area; by flashboard release or maintenance; or by agreement among Licensee or Exemptee and, as appropriate, the Maine Department of Environmental Protection, U.S. Fish and Wildlife Service, Maine Department of Inland Fisheries and Wildlife, Maine Atlantic Salmon Authority and Maine Department of Marine Resources.

Operating emergencies beyond the Licensee's or Exemptee's control include, but may not be limited to, equipment failure or other temporary abnormal operating condition, generating unit operation or interruption under power supply emergencies, and orders from local, state or federal law enforcement or public safety authorities.

15. The parties agree that in low water or drought periods, or in the event of equipment failure, the project owner may not be able to maintain the flows or pond levels in this Agreement at all times. The project owner will notify the agencies listed in paragraph 14 whenever it anticipates or experiences drought or hydrologic conditions that may prohibit its ability to meet the instream flows or pond levels agreed upon herein.

16. This Agreement shall be effective upon execution by the appropriate authorities representing the following parties:

Central Maine Power Company, the Maine Department of Inland Fisheries and Wildlife, the Maine Department of Marine Resources, the Maine Atlantic Salmon Authority, the Maine State Planning Office, the U.S. Fish and Wildlife Service, Saco River Salmon Club, Trout Unlimited, Maine Council of Trout Unlimited, Atlantic Salmon Federation, Maine Council of the Atlantic Salmon Federation, American Rivers, Inc., the City of Saco, the City of the Biddeford, Swans Falls Corporation, the New Hampshire Department of Fish and Game, and the Maine Department of Environmental Protection.

17. The participants agree to provide written comments to FERC recommending inclusion of the applicable terms of this Agreement into the Hiram, Bonny Eagle and Skelton



FERC licenses, and into the Swans Falls exemption from license, and to revoke all prior recommendations and/or terms and conditions with regard to instream flows and pond level requirements for the Bonny Eagle, Skelton and Swans Falls projects.

18. The implementation of the provisions of this Agreement that pertain to CMP projects is contingent upon the incorporation by FERC of all of the applicable instream flow and pond level conditions of this Agreement into the Bonny Eagle and Skelton project licenses. Implementation of these provisions will take place according to the schedule established in the new FERC licenses.

The implementation of the provisions of this Agreement that pertain to Swans Falls is contingent upon the incorporation by FERC of all of the applicable instream flow and pond level conditions of this Agreement into the Swans Falls project license exemption. Implementation of these provisions will take place according to the schedule established in the FERC license exemption.

19. CMP will petition the FERC, within six (6) months of the issuance of new FERC licenses for the Bonny Eagle and Skelton projects which include the applicable terms and conditions of this Agreement, to amend the existing license for the Hiram Project to incorporate the applicable terms of this Agreement. Implementation of the provisions of this Agreement that apply to Hiram will take place according to the schedule established in the amended FERC license. The parties agree that the licenses for Cataract, Bar Mills, and West Buxton do not need to be amended, as these projects are expected to meet the agreed instream flows due to the flows required herein from the Bonny Eagle and Skelton projects. The applicable state and federal fish and wildlife agencies will incorporate the terms and conditions of this Agreement into the license exemption for the Swans Falls Project. Implementation of the provisions of this Agreement that apply to Swans Falls will take place according to the schedule established in the license exemption.
20. This Agreement supersedes all prior agreements and recommendations, whether written or oral, made by parties with regard to instream flows and pond levels in the Saco River. However, this Agreement shall not supersede nor amend the October 25, 1991 Water Release Agreement among CMP and the cities of Saco and Biddeford.
21. This Agreement applies only to the facts and circumstances regarding specific projects on the Saco River, and shall have no precedential effect in other regulatory cases under the jurisdiction of the Maine DEP or FERC. This Agreement shall not establish any legally binding principles for other cases regarding determination of instream or minimum flows; project operation to protect or restore aquatic habitat or fish populations; water quality standards for aquatic habitat; the legal jurisdiction of any regulatory agency affected by this agreement; the type of proceedings or format chosen

for regulatory approvals or settlement negotiations; or, the support or non-objections by any party to any other federal or state regulatory approvals.

22. This Agreement shall terminate, unless extended by the parties, upon the expiration of the new licenses, or subsequent annual licenses, of the Skelton and Bonny Eagle projects.
23. This Agreement shall bind and inure to the benefit of the successors and assigns of the signing parties.
24. The parties will endeavor to resolve in good faith any dispute that may arise in carrying out this Agreement, using a consensus process which shall include meetings between the parties with a facilitator if appropriate. The intent of the parties is to maintain the spirit of cooperation and understanding that led to this Agreement.
25. Nothing in this Agreement shall be construed as obligating the U.S. government or the State of Maine, their officers, agents or employees, to expend any funds in excess of appropriations or other amounts authorized by law.

## SIGNATURES

We, the undersigned, having the authority to bind our respective parties, agree to the terms of this Agreement, and will represent and support this Agreement in applicable proceedings before the Federal Energy Regulatory Commission and other regulatory bodies:

Central Maine Power Company

David H. Gager June 20, 1997  
Its President & CEO Date

Maine Department of Environmental Protection

Eric Salomon 6/20/97  
Its COMMISSIONER Date

Maine Atlantic Salmon Authority

William H. Nichols 6/25/97  
Its Chairman Date

Maine Department of Inland Fisheries and Wildlife

Robert Dwyer 6/20/97  
Its Commissioner Date

Maine Department of Marine Resources

Robin Alden 6/20/97  
Its Commissioner Date

U.S. Fish and Wildlife Service

[Signature] 6/15/97  
Its Date

Saco River Salmon Club

Edward J. Gray 6/20/97  
Its Director Date

Maine Council, Trout Unlimited

[Signature] 6/20/97  
Its Council Chairman Date

Swans Falls Corporation

Lawrence J. Keady  
Its Date

Maine Council, Atlantic Salmon Federation

Louis Bonnet 6/26/97  
Its Date

City of Saco

Mark D. Johnston 6/26/97  
Its Mayor Date

City of Biddeford

[Signature] 6/26/97  
Its City Manager Date

Atlantic Salmon Federation

Wah Hui 6/25/97  
Its REGIONAL DIRECTOR Date

Maine State Planning Office

[Signature] 6/20/97  
Its Director Date

American Rivers, Inc.

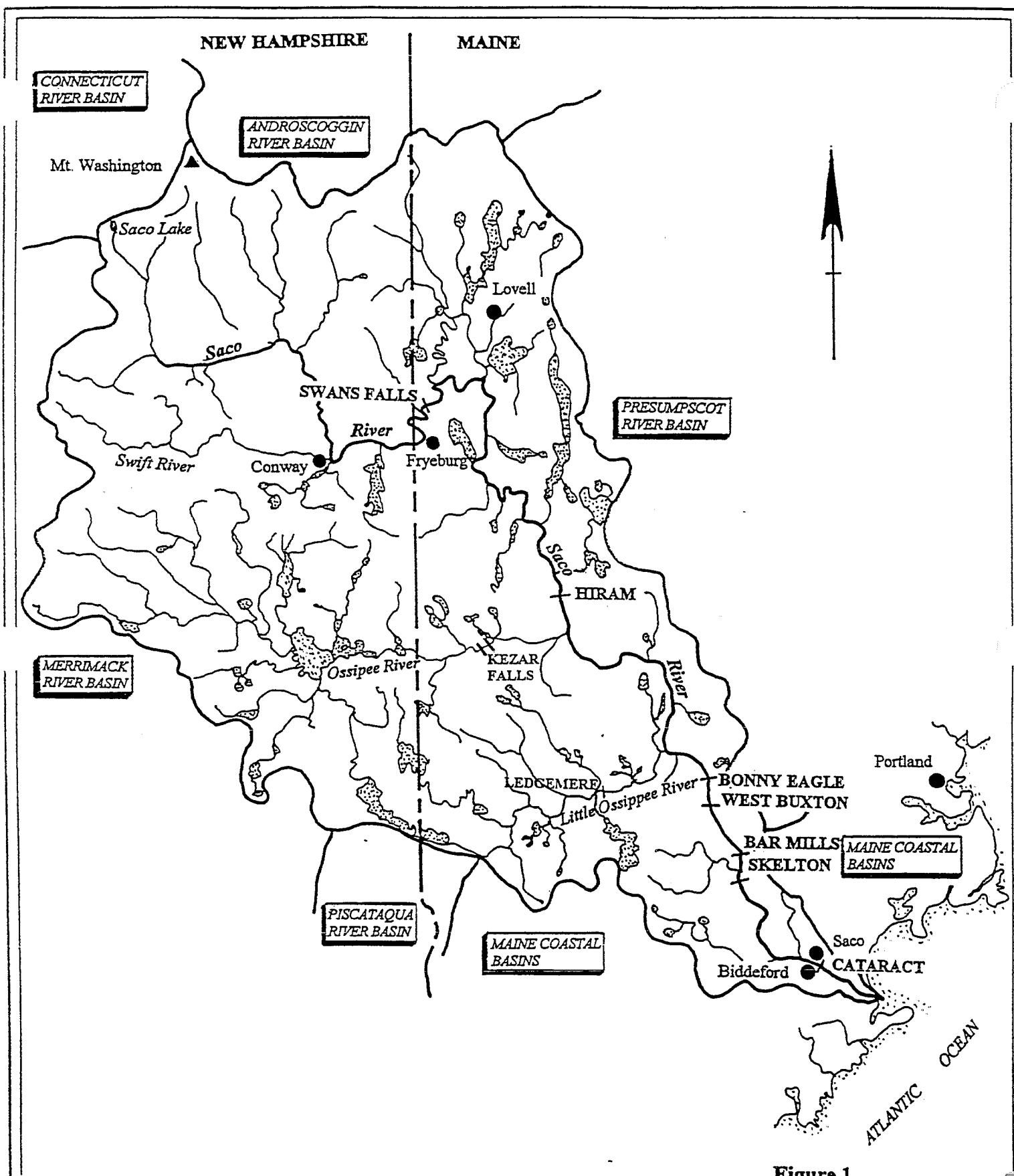
Rebecca Wadden 7/8/97  
Its President Date

Trout Unlimited

[Signature] 6/20/97  
Its For Charles E. Harkin Date  
CEO

New Hampshire Department of Fish and Game

Wayne E. Vella 7/9/97  
Its Director Date



**Figure 1**  
**Saco River Basin**  
with  
**Hydroelectric Generating Facilities**