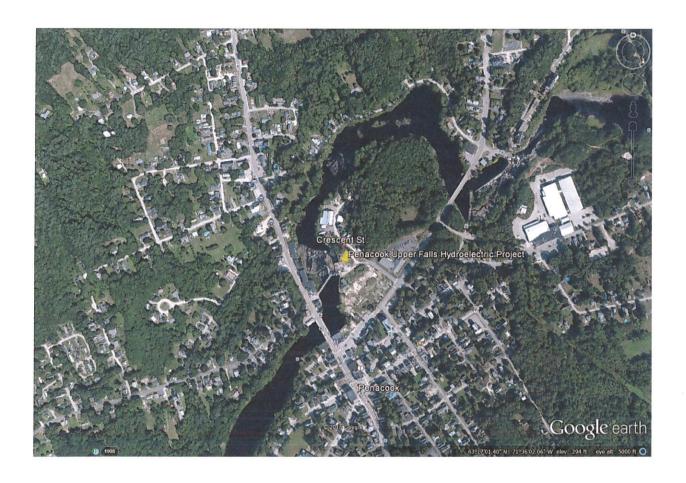
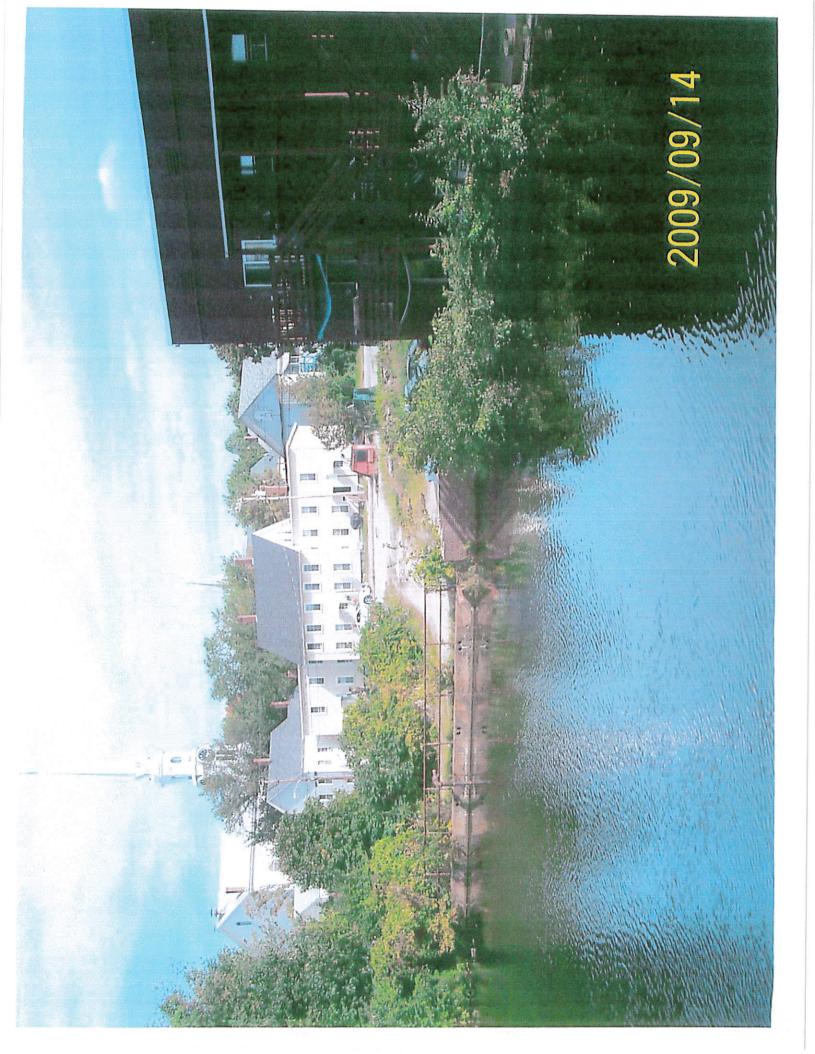
APPENDIX 8-1 PROJECT WATERSHED

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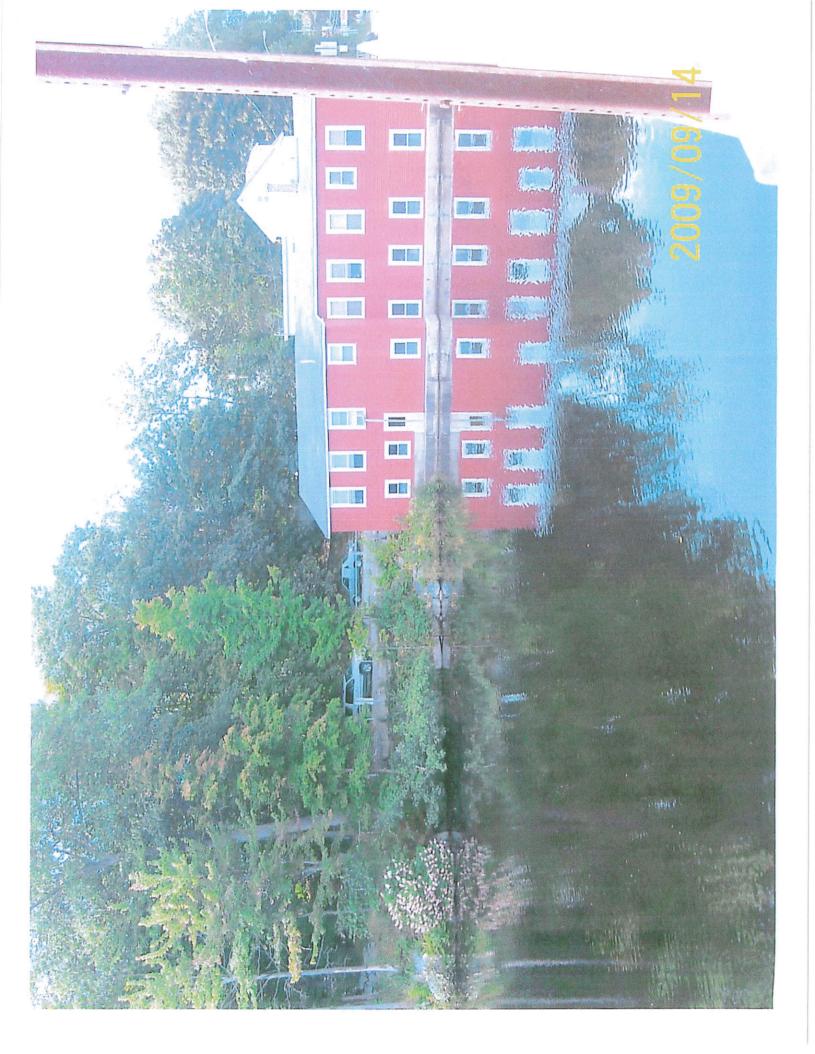


APPENDIX 8-2 PENACOOK UPPER FALLS WESTERN RIVERBANK



APPENDIX 8-3 PENACOOK UPPER FALLS EASTERN AND WESTERN RIVERBANKS ABOVE THE MAIN STREET BRIDGE



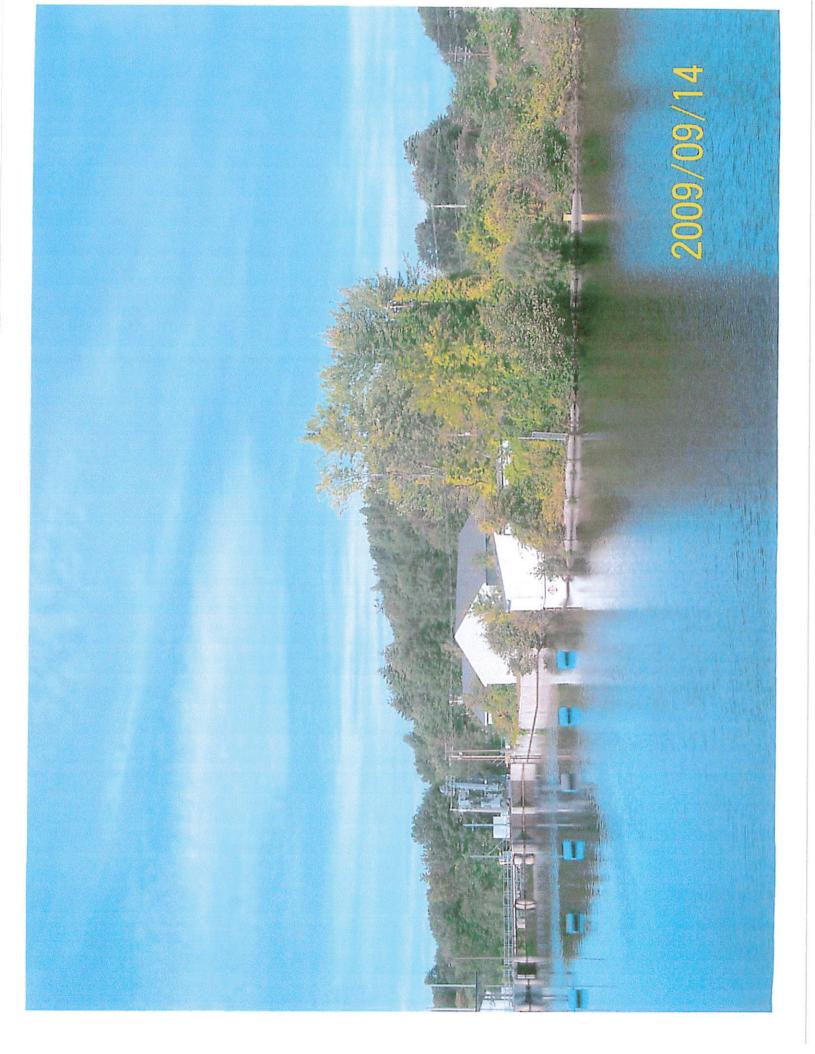


APPENDIX 8-4 PENACOOK DOWNTOWN RIVER PARK



APPENDIX 8-5 RIVERFRONT COMMERCIAL DEVELOPMENT AND VACANT LEATHER MILL PROPERTY





APPENDIX 9 DESCRIPTION OF THREATENED AND ENDANGERED SPECIES PROTECTION

Appendix 9

Description of Threatened and Endangered Species Protection

No species in the Contoocook River watershed are currently federally listed as endangered. Five species (four animal and one plant species) are currently listed by the state of New Hampshire as threatened, endangered or species of Special Concern. However, no federally or state listed threatened or endangered species are known to occur within the Penacook Upper project boundary area. (see Appendix 9-1)

As a condition of issuance, the Penacook Upper FERC license requires compliance with any terms and conditions that the Federal or State Fish and Wildlife agencies have determined appropriate to prevent loss of, or damage to, fish and wildlife resources. The New Hampshire Fish and Game Department did not request the FERC to require a cumulative impact study for this facility. The Penacook Upper facility ("the facility" operates within FERC and Federal or State Fish and Wildlife Agency guidelines. The project's license is subject to termination if the facility is found to be out of compliance. There have been no deficiencies noted by any agency with jurisdiction for the facility.

A request was submitted to the New Hampshire Natural Heritage Bureau (see appendix 9-1) for a comprehensive list of all threatened or endangered species in the vicinity of the project and the findings support our aforementioned conclusion regarding species impacted by the facility. The NHNHB response will be forwarded upon receipt.

APPENDIX 9-1 NEW HAMPSHIRE NATURAL HERITAGE BUREAU MEMO DATED SEPTEMBER 18, 2015

Memo



Sheila Burge, Briar Hydro Associates

55 Union Street 4th Floor Boston, MA 02108

Amy Lamb, NH Natural Heritage Bureau 9/18/2015 (valid for one year from this date) Date: Review by NH Natural Heritage Bureau

NHB File ID: NHB15-3051 Town: Boscawen, Concord

Location: Tax Maps: Map P1 Block 7 Lot 8 The project is an existing hydroelectric plant. No new construction.

Description: Kim Tuttle

As requested, I have searched our database for records of rare species and exemplary natural communities, with the following results.

Comments:

Plant species long-leaved pondweed (Potamogeton nodosus)*	State ¹ T	Federal 	Notes Threats to aquatic species include changes in water quality, e.g., due to pollution and stormwater runoff, and significant changes in water level.
Vertebrate species	State1	Federal	Notes
Bald Eagle (Haliaeetus leucocephalus)	T		Contact the NH Fish & Game Dept (see below).
Fowler's Toad (Bufo fowleri)	SC		Contact the NH Fish & Game Dept (see below).
Wood Turtle (Glyptemys insculpta)	SC	-	Contact the NH Fish & Game Dept (see below).

1 Codes: "E" = Endangered, "T" = Threatened, "SC" = Special Concern, "--" = an exemplary natural community, or a rare species tracked by NH Natural Heritage that has not yet been added to the official state list. An asterisk (*) indicates that the most recent report for that occurrence was more than 20 years ago.

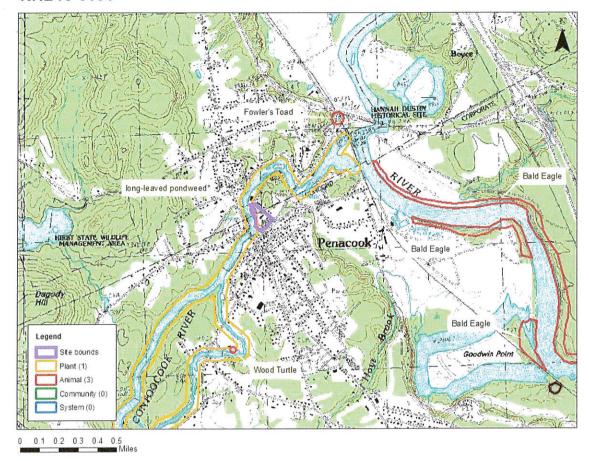
Contact for all animal reviews: Kim Tuttle, NH F&G, (603) 271-6544.

A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

Department of Resources and Economic Development Division of Forests and Lands (603) 271-2214 fax: 271-6488

DRED/NHB 172 Pembroke Rd. Concord, NH 03301

NHB15-3051



New Hampshire Natural Heritage Bureau - Plant Record

long-leaved pondweed (Potamogeton nodosus)

Legal Status

Conservation Status

Federal: Not listed

Global: Demonstrably widespread, abundant, and secure

State:

Listed Threatened

Imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank:

Historical records only - current condition unknown.

Comments on Rank:

Detailed Description: No Date: Philbrick specimen (S.N.) at NHA.

General Area:

River.

General Comments: Management

Comments:

Location

Survey Site Name: Contoocook River

Managed By:

Contoocook Island Park

County:

Merrimack

Town(s): Concord Size:

152.8 acres

Elevation:

320 feet

Precision:

Within 1.5 miles of the area indicated on the map (location information is vague or uncertain).

Directions:

Concord. Contoocook River in Penacook section of Concord.

Dates documented

First reported:

No Date

Last reported:

No Date

New Hampshire Natural Heritage Bureau - Animal Record

Bald Eagle (Haliaeetus leucocephalus)

Legal Status

Conservation Status

Federal: State:

Not listed

Listed Threatened

Global: Demonstrably widespread, abundant, and secure

Imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank:

Not ranked

Comments on Rank:

Detailed Description:

2002-2012: Wintering eagles regularly observed at locations along the Merrimack River, day perching and night roosts:2013: 1 eagle observed on 1/4. 1 eagle observed on 1/12. 3 eagles observed at a single location 1/29. 2 eagles observed at a single location on 2/1. 2 eagles observed at a single location on 2/15. 1 eagle observed on 2/23. 1 eagle observed on 3/4.2012: Solitary eagles observed at 3 separate locations on 1/7. 1 eagle observed on 1/12. 1 eagle observed on 1/17. 1 eagle observed on 1/19. Solitary eagles observed at 3 separate locations on 1/23. 1 eagle observed on 1/25. 1 eagle observed on 2/2. 1 eagle observed on 2/9. 1 eagle observed on 2/14. 2 eagles observed at a single location, and solitary eagles observed at 5 separate locations on 2/25. 2 eagles observed at a single location on 2/28. Solitary eagles observed at 2 separate locations on 3/6. 1 eagle observed on 12/11. 2011: 1 eagle observed on 1/5. 1 eagle observed on 1/6. 1 eagle observed on 1/8. Solitary eagles observed at 2 separate locations on 1/9. 1 eagle observed on 1/11. Solitary eagles observed at 2 separate locations on 1/13. 1 eagle observed on 1/20. 2 eagles observed at a single location on 1/31. Solitary eagles observed at 2 separate locations on 2/3. Solitary eagles observed at 2 separate locations on 2/7. 1 eagle observed on 2/9. 2 eagles observed at a single location and solitary eagles observed at 2 separate locations on 2/15. Solitary eagles observed at 2 separate locations on 2/17. 1 eagle observed on 2/22. 2 eagles observed at 2 separate locations and a solitary eagle at a separate location on 2/26. 1 eagle observed on 2/28. 1 eagle observed on 3/2. Solitary eagles observed at 2 separate locations on 3/8. 2 eagles observed at a single location, and a solitary eagle observed at a separate location on 3/15. 1 eagle observed on 12/27. 1 eagle observed on 12/29.2010: 3 eagles observed at a single location, 2 observed at a single location, and a solitary eagle observed at a separate location on 1/9. 1 eagle observed on 12/3. 1 eagle observed on 12/17. 1 eagle observed on 12/22. 2 eagles observed at a single location on 12/28. 2 eagles observed at a single location on 12/30.2009: 2 eagles observed at a single location, and a solitary eagle observed at a separate location on 1/10. 3 eagles observed at a single location on 2/28.2008: 2 eagles observed at a single location, and solitary eagles observed at 3 separate locations on 1/12. 2 eagles observed at a single location and a solitary eagle observed at a separate location on 2/23.2007: Solitary eagles observed at 2 separate locations on 1/13. 1 eagle observed on 2/24.2006: 1 eagle observed on 2/25.2005: 2 eagles observed at a single location on 1/8.2 eagles observed at a single location and a solitary eagle observed at a separate location on 2/24. 2 eagles observed at a single location on 2/26.2004: Solitary eagles observed at 5 separate locations on 1/10. 1 eagle observed on 1/27.2003: 1 eagle observed on 1/7. 1 eagle observed on 1/9. 1 eagle observed on 2/2. Solitary eagles observed at 2 separate locations on 2/5. 1 eagle observed on 3/4.2002: 1 eagle observed on 1/12. 1 eagle observed on 12/18.1993: Sightings near Hannah Dusting parking area, but no defined roost or perch site. Perching on east side of Sewall's Falls Dam area. Perching near Horseshoe Pond. Perching on both sides from Bridge Street to Manchester Street. Perching on east side of the river near Blue Seal Feeds. No perching in last few years near Garvins Falls Dam. Bow Power Plant: On River Road on west side of river, possible roosting just north of liquor store. Perching in Hooksett on both sides of river just north of Route 3 bridge.1991: The most active locations are Sewalls Falls, wetlands near I-393, Bow Power Plant and Hooksett boat ramp. Location of eagles depends on availability of open water and other factors.

General Area: General Comments:

EOCODE:

ABNKC10010*004*NH

Management

Comments:

Location

Survey Site Name:

Merrimack River at Concord

Managed By:

Merrimack River State Forest

County: Town(s): Concord

Merrimack

Size:

418.7 acres

Elevation:

190 feet

Precision:

Within (but not necessarily restricted to) the area indicated on the map.

Directions:

Various locations along both banks of the Merrimack River, from Franklin south to Hooksett.

Dates documented

First reported:

198?

Last reported:

2013-03-04

The New Hampshire Fish & Game Department has jurisdiction over rare wildlife in New Hampshire. Please contact them at 11 Hazen Drive, Concord, NH 03301 or at (603) 271-2461.

New Hampshire Natural Heritage Bureau - Animal Record

Fowler's Toad (Bufo fowleri)

Legal Status

Conservation Status

Federal: State:

Not listed Special Concern

Global: Demonstrably widespread, abundant, and secure

Rare or uncommon

Description at this Location

Conservation Rank:

Not ranked

Comments on Rank:

Detailed Description:

2012: Area 12924M: 3-5 adult males heard.2011: Area 12924M: 1 adult male observed.

Additional males heard calling from nearby wetland.

General Area:

2012: Area 12924M: Site is connected to both rivers [Merrimack and Contoocook] at high flows, but becomes more isolated in the summer. Lack of rain in spring of 2012 has reduced it to a grassy pool.2011: Area 12924M: Road adjacent to gravel pit near Merrimack River.

General Comments:

Management Comments:

Location

Survey Site Name:

Hannah Dustin Historic Site

Managed By:

Hannah Dustin Historic Site

County:

Merrimack Town(s): Boscawen

Size:

1.9 acres

Elevation:

Precision:

Within (but not necessarily restricted to) the area indicated on the map.

Directions:

2011: Area 12924M: River Road, Boscawen, near Route 4 overpass.

Dates documented

First reported:

2011-05-26

Last reported:

2012-04-21

The New Hampshire Fish & Game Department has jurisdiction over rare wildlife in New Hampshire. Please contact them at 11 Hazen Drive, Concord, NH 03301 or at (603) 271-2461.

New Hampshire Natural Heritage Bureau - Animal Record

Wood Turtle (Glyptemys insculpta)

Legal Status

Conservation Status

Federal: Not listed

Global: Apparently secure but with cause for concern

State:

Special Concern

State: Rare or uncommon

Description at this Location

Conservation Rank:

Fair quality, condition and/or landscape context ('C' on a scale of A-D).

Comments on Rank:

Detailed Description: 2006: Area 11662: 1 adult female seen.

General Area:

2006: Area 11662: On lawn behind old mill building.

General Comments:

Management Comments:

Location

Survey Site Name: Contoocook River, Penacook

Managed By:

County:

Merrimack

Town(s): Concord

Size:

.4 acres

Elevation:

Precision:

Within (but not necessarily restricted to) the area indicated on the map.

Directions:

Behind Briar Pipe Apts, Washington St, Penacook.

Dates documented

First reported:

2006-06-19

Last reported:

2006-06-19

The New Hampshire Fish & Game Department has jurisdiction over rare wildlife in New Hampshire. Please contact them at 11 Hazen Drive, Concord, NH 03301 or at (603) 271-2461.

APPENDIX 10 NEW HAMPSHIRE DEPARTMENT OF RESOURCES AND ECONOMIC DEVELOPMENT LETTER DATED SPETEMBER 29, 1982 REGARDING CULTURAL RESOURCE PROTECTION



COMMISSIONER

NEW HAMPSHIRE DEPARTMENT of RESOURCES and ECONOMIC DEVELOPMENT

TELEPHONE 603 271-2411

September 29, 1982

Mr. Thomas A. Tarpey New Hampshire Hydro Associates 99 North State Street Concord, N.H. 03301

Dear Mr. Tarpey:

The New Hampshire Department of Resources and Economic Development has no objection to the granting of a License for a Major Project (Less than five Megawatts) for the Penacook Upper Falls Hydroelectric Project (FREC # 3343) located on the Contoocook River in Penacook, a village in the town of Boscawan and the City of Concord, New Hampshire.

Based upon the environmental information provided in the license application dated September 9, 1982 and September 21, 1982 from New Hampshire Hydro Associates, it has been determined that the report has adequately addressed those areas of interest to this Department, as follows:

The proposed project will have no effect upon state park, state forest, or other properties that are the responsibility of the Department of Resources and Economic Development.

The proposed project will have no effect upon state or local parks or outdoor recreation projects or sites funded in part by the federal Land and Water Conservation Fund program.

The Contoocook River has been identified as a potential Recreational River in the June 1977 report Wild, Scenic and Recreational Rivers for New Hampshire prepared by the N.H. Office of State Planning.

The Historic Preservation Office has determined that the project will have no effect upon known architectural, historical, archeological or other cultural resources. Should such resources be discovered as a result of project planning or implementation, appropriate measures should be undertaken according to 36 CFR 800 and other appropriate federal laws and regulations that apply to historic and cultural resources.

Your incorporation of these comments into the license application will be appreciated.

Sincerely.

George Gilman, Commissioner

N.H. State Historic Preservation Officer

GG:gh

P.O. BOX 856 . . . CONCORD. N.H. 03301

cc: Recreation Services (Quinn)
Division of Forest & Lands (Heath)
Historic Preservation Office (Hume)

CHRISTIAN MUTUAL BUILDING

APPENDIX 11 RECREATION

Appendix 11

Recreation

In conjunction with the City of Concord, the Penacook Upper Falls Hydroelectric Project helped to develop a recreational facility known as the Penacook Downtown River Park. (See Appendix 11-1). The park borders and overlooks the project's impoundment area and has two focal points; the first, a stone structure on site which is used as a theater and stage, and the second, the Contoocook River itself, the major emphasis of the park being the benches and grassy areas which allow visitors to enjoy the visual and audio aspects of the river. The Penacook Downtown River Park was developed using grants provided by the Penacook Upper Falls Hydroelectric Project and numerous other donors and is maintained by the City of Concord. The park is open twelve months a year and is provided free of charge to visitors.

In 2008 the Project granted to the City of Concord certain easement rights that will permit the City of Concord to develop a river walk immediately downstream of the Main Street Bridge. This river walk will provide direct access to the eastern riverbank immediately upstream of the powerhouse fore bay.

APPENDIX 11-1 PENACOOK DOWNTOWN RIVER PARK

