

Attachment A

FERC Exemption; Amendments

and

FERC Application for Exemption

21 FERC 662,394

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

75965

25223

The City of Chicopee and the) Project Nos. 6522-000
Chicopee Municipal Lighting Plant) and 6522-001

ORDER GRANTING EXEMPTION FROM LICENSING OF A
SMALL HYDROELECTRIC PROJECT OF 5 MEGAWATTS OR LESS

(Issued December 8, 1982)

The Applicant 1/ filed an application for exemption from all or part of Part I of the Federal Power Act pursuant to 18 C.F.R. Part 4 Subpart K (1980) implementing in part Section 408 of the Energy Security Act (Act) of 1980 for a project as described in the attached public notice. 2/ 3/

Notice of the application was published in accordance with Section 408 of the Act and the Commission's regulations and comments were requested from interested Federal and State agencies including the U.S. Fish and Wildlife Service and the State Fish and Wildlife Agency. All comments, protests and petitions to intervene that were filed have been considered. No agency has any objection relevant to issuance of this exemption.

Standard Article 2, included in this exemption, requires compliance with any terms and conditions that Federal or State fish and wildlife agencies have determined appropriate to prevent loss of, or damage to, fish and wildlife resources. The terms and conditions referred to in Article 2 are contained in any letters of comment by these agencies which have been forwarded to the Applicant in conjunction with this exemption.

- 1/ The City of Chicopee and the Chicopee Municipal Lighting Plant, Project No. 6522-000, and 6522-001, filed July 15, 1982, and amended August 31, 1982.
- 2/ Pub. Law 96-294, 94 Stat. 611. Section 408 of the ESA amends inter alia, Sections 405 and 406 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. §§2705 and 2708).
- 3/ Authority to act on this matter is delegated to the Deputy Director, Office of Electric Power Regulation, under §375.308 of the Commission's regulations, 18 C.F.R. §375.308 (1981). This order may be appealed to the Commission by any party within 30 days of its issuance pursuant to Rule 1902, 18 C.F.R. 385.1902, 47 Fed. Reg. 19047 (1982). Filing an appeal and final Commission action on that appeal are prerequisites for filing an application for rehearing as provided in Section 313(a) of the Act. Filing an appeal does not operate as a stay of the effective date of this order or of any other date specified in this order, except as specifically directed by the Commission.

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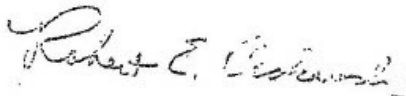
- 2 -

Should the Applicant contest any terms or conditions that were proposed by Federal or State agencies in their letters of comment as being outside the scope of Article 2, the Commission shall determine whether the disputed terms or conditions are outside the scope of Article 2.

Based on the terms and conditions required by Federal and State fish and wildlife agencies, the environmental information in the application for exemption, other public comments, and staff's independent analysis, issuance of this order is not a major Federal action affecting the quality of the human environment.

It is ordered that:

(A) Chicopee Project No. 6522 as described and designated in The City of Chicopee and the Chicopee Municipal Lighting Plant's application filed on July 15, 1982, and amended on August 31, 1982, is exempted from all of the requirements of Part I of the Federal Power Act, including licensing, subject to the standard articles in §4.106, of the Commission's regulations attached hereto as Form E-2, 18 C.F.R. §4.106 45 Fed. Reg. 76115 (November 18, 1980).



Robert E. Cackowski
Deputy Director, Office of
Electric Power Regulation

75967

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSIONThe City of Chicopee and the
Chicopee Municipal Lighting Plant

Project No. 6522-000

NOTICE OF APPLICATION FOR EXEMPTION FOR SMALL
HYDROELECTRIC POWER PROJECT OF 5 MW OR LESS CAPACITY

SEP 9 1982

Take notice that on July 15, 1982, and amended on August 31, 1982, The City of Chicopee and the Chicopee Municipal Lighting Plant (Applicant) filed an application, under Section 408 of the Energy Security Act of 1980 (Act) (16 U.S.C. §§2705, and 2708 as amended), for exemption of a proposed hydroelectric project from licensing under Part I of the Federal Power Act. The proposed small hydroelectric Project No. 6522 would be located on the Chicopee River in the City of Chicopee, Hampden County, Massachusetts. Correspondence with the Applicant should be directed to: Mr. Herve Plasse, Chicopee Municipal Lighting Plant, 725 Front Street, Chicopee, Massachusetts 01013.

Project Description - The proposed project would consist of: (1) an existing dam consisting of a 9.0-foot-high, 256-foot-long masonry spillway with an addition of 17-inch-high flashboards, a 10.4-foot-high, 58-foot-long concrete spillway structure and a gate structure with 3 gates; (2) a 120-acre reservoir with a usable storage capacity of 310 acre-feet at 3 feet of drawdown, at elevation 108.15 feet M.S.L. with flashboards in place; (3) a new powerhouse located near the south dam abutment containing two turbine-generators with a total rated capacity of 2.5 MW; (4) a 280-foot-long, 13.8-kV transmission line; and (5) appurtenant facilities. The dam is owned by the City of Chicopee. The project would generate up to 10,600,000 kWh annually for use of the municipal electric system.

Purpose of Exemption - An exemption, if issued, gives the Exemptee priority of control, development, and operation of the project under the terms of the exemption from licensing, and protects the Exemptee from permit or license applicants that would seek to take or develop the project.

Project No. 6522-000

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Agency Comments - The U.S. Fish and Wildlife Service, The National Marine Fisheries Service, and the Massachusetts Department of Fish and Wildlife are requested, for the purposes set forth in Section 408 of the Act, to submit within 60 days from the date of issuance of this notice appropriate terms and conditions to protect any fish and wildlife resources or to otherwise carry out the provisions of the Fish and Wildlife Coordination Act. General comments concerning the project and its resources are requested; however, specific terms and conditions to be included as a condition of exemption must be clearly identified in the agency letter. If an agency does not file terms and conditions within this time period, that agency will be presumed to have none. Other Federal, State, and local agencies are requested to provide any comments they may have in accordance with their duties and responsibilities. No other formal requests for comments will be made. Comments should be confined to substantive issues relevant to the granting of an exemption. If an agency does not file comments within 60 days from the date of issuance of this notice, it will be presumed to have no comments. One copy of an agency's comments must also be sent to the Applicant's representatives.

Competing Applications - Any qualified license applicant desiring to file a competing application must file with the Commission, on or before NOV 4 1982 either the competing license application that proposes to develop at least 7.5 megawatts in that project, or a notice of intent to file such a license application. Filing of a timely notice of intent allows an interested person to file the competing license application no later than 120 days from the date that comments, protests, etc. are due. Applications for preliminary permit will not be accepted.

A notice of intent must conform with the requirements of 18 C.F.R. §4.33(b) and (c) (1980). A competing license application must conform with the requirements of 18 C.F.R. §4.33(a) and (d) (1980).

Comments, Protests, or Motions to Intervene - Anyone may file comments, a protest, or a motion to intervene in accordance with the requirements of the Rules 211 or 214, 18 C.F.R. 385.211 or 385.214, 47 Fed. Reg. 19025-26 (1982). In determining the appropriate action to take, the Commission will consider all protests or other comments filed, but only those who file a motion to intervene in accordance with the Commission's Rules may become a party to the proceeding. Any comments, protests, or motions to intervene must be filed on or before NOV 4 1982.

Project No. 6522-000

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Filing and Service of Responsive Documents - Any filings must bear in all capital letters the title "COMMENTS", "NOTICE OF INTENT TO FILE COMPETING APPLICATION", "COMPETING APPLICATION", "PROTEST", or "MOTION TO INTERVENE", as applicable, and the Project Number of this notice. Any of the above named documents must be filed by providing the original and those copies required by the Commission's regulations to: Kenneth F. Plumb, Secretary, Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, D.C. 20426. An additional copy must be sent to: Fred E. Springer, Chief, Applications Branch, Division of Hydropower Licensing, Federal Energy Regulatory Commission, Room 208 RB at the above address. A copy of any notice of intent, competing application, or motion to intervene must also be served upon each representative of the Applicant specified in the first paragraph of this notice.

Secretary



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Attachment
E-2 Form 75971

§ 4.106 Standard terms and conditions of exemption from licensing.

Any exemption from licensing granted under this subpart for a small hydroelectric power project is subject to the following standard terms and conditions:

(a) Article 1. The Commission reserves the right to conduct investigations under sections 4(g), 306, 307, and 311 of the Federal Power Act with respect to any acts, complaints, facts, conditions, practices, or other matters related to the construction, operation, or maintenance of the exempt project. If any term or condition of the exemption is violated, the Commission may revoke the exemption, issue a suitable order under section 4(g) of the Federal Power Act, or take appropriate action for enforcement, forfeiture, or penalties under Part III of the Federal Power Act.

(b) Article 2. The construction, operation, and maintenance of the exempt project must comply with any terms and conditions that any Federal or state fish and wildlife agencies have determined are appropriate to prevent loss of, or damage to, fish or wildlife resources or otherwise to carry out the purposes of the Fish and Wildlife Coordination Act, as specified in Exhibit E of the application for exemption from licensing or in the comments submitted in response to the notice of the exemption application.

(c) Article 3. The Commission may accept a license application by any qualified license applicant and revoke this exemption if actual construction or development of any proposed generating facilities has not begun within 18 months, or been completed within four years, from the date on which this exemption was granted. If an exemption is revoked, the Commission will not accept a subsequent application for exemption within two years of the revocation.

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Attachment
E-2 Form

75972

(d) Article 4. This exemption is subject to the navigation servitude of the United States if the project is located on navigable waters of the United States.

(e) Article 5. This exemption does not confer any right to use or occupy any Federal lands that may be necessary for the development or operation of the project. Any right to use or occupy any Federal lands for these purposes must be obtained from the administering Federal land agencies. The Commission may accept a license application by any qualified license applicant and revoke this exemption, if any necessary right to use or occupy Federal lands for these purposes has not been obtained within one year from the date on which this exemption was granted.

LEVEL 1 - 2 OF 1000

: The City of Chicopee and the Chicopee Municipal Lighting Plant

Project Nos. 6522-000 and 6522-001

FEDERAL ENERGY REGULATORY COMMISSION Office Director

21 FERC P62,394

Order Granting Exemption from Licensing of a Small Hydroelectric Project of 5 Megawatts or Less

December 8, 1982

PANEL:

Robert E. Cackowski, Deputy Director, Office of Electric Power Regulation.

OPINION:

The Applicant n1 filed an application for exemption from all or part of Part I of the Federal Power Act pursuant to 18 C.F.R. Part 4 Subpart K (1980) implementing in part Section 408 of the Energy Security Act (Act) of 1980 for a project as described in the attached public notice. n2 n3

21 FERC P62,394

n1 The City of Chicopee and the Chicopee Municipal Lighting Plant, Project No. 6522-000, and 6522-001, filed July 15, 1982, and amended August 31, 1982.

n2 Pub. Law 96-294, 94 Stat. 611. Section 408 of the ESA amends inter alia, Sections 405 and 408 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. §§ 2705 and 2708).

n3 Authority to act on this matter is delegated to the Deputy Director, Office of Electric Power Regulation, under § 375.308 of the Commission's regulations, 18 C.F.R. § 375.308 (1981). This order may be appealed to the Commission by any party within 30 days of its issuance pursuant to Rule 1902, 18 C.F.R. 385.1902, 47 Fed. Reg. 19014 (1982). Filing an appeal and final Commission action on that appeal are prerequisites for filing an application for rehearing as provided in Section 313(a) of the Act. Filing an appeal does not operate as a stay of the effective date of this order or of any other date specified in this order, except as specifically directed by the Commission.

Notice of the application was published in accordance with Section 408 of the Act and the Commission's regulations and comments were requested from interested Federal and State agencies including the U.S. Fish and Wildlife Service and the State Fish and Wildlife Agency. All comments, protests and petitions to

21 FERC 647, 194

intervene that were filed have been considered. No agency has any objection relevant to issuance of this exemption.

Standard Article 2, included in this exemption, requires compliance with any terms and conditions that Federal or State fish and wildlife agencies have determined appropriate to prevent loss of, or damage to, fish and wildlife resources. The terms and conditions referred to in Article 2 are contained in any letters of comment by these agencies which have been forwarded to the Applicant in conjunction with this exemption.

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21 FERC P62,394

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APPENDIX:

Appendix A

Notice of Application for Exemption for Small Hydroelectric Power Project of 5 MW or Less Capacity

(Issued September 9, 1982)

Take notice that on July 15, 1982, and amended on August 31, 1982, The City of Chicopee and the Chicopee Municipal Lighting Plant (Applicant) filed an application, under Section 408 of the Energy Security Act of 1980 (Act) (16 U.S.C. §§ 2705 and 2708 as amended), for exemption of a proposed hydroelectric project from licensing under Part I of the Federal Power Act. The proposed small hydroelectric Project No. 6522 would be located on the Chicopee River in the City of Chicopee, Hampden County, Massachusetts. Correspondence with the

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Dept, 725 Front Street, Chicopee, Massachusetts 01013.

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(Note: Remainder of notice omitted in printing.)

Before the Federal Energy Regulatory Commission

APPLICATION FOR EXEMPTION

THIS DOCUMENT CONTAINS
POOR QUALITY PAGES

**CHICOPEE
HYDROELECTRIC PROJECT**

July 1982

8207210017

**Chicopee Municipal Lighting Plant
Chicopee, Massachusetts**

P. 6522-000

BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

APPLICATION FOR EXEMPTION OF
SMALL HYDROELECTRIC POWER PROJECT
FROM LICENSING

1. Chicopee Municipal Lighting Plant applies to the Federal Energy Regulatory Commission for an exemption for the Chicopee Hydroelectric Project, a small hydroelectric power project that is proposed to have an installed capacity of 5 megawatts or less, from licensing under the Federal Power Act.

2. The location of the project is:

State or Territory:	Commonwealth of Massachusetts
County:	Hampden County
Township or Nearby Town:	City of Chicopee
Stream or Body of Water:	Chicopee River

3. The exact name and business address of the applicant is:

Chicopee Municipal Lighting Plant
725 Front Street
Chicopee, MA 01013

4. The exact name and business address of each person authorized to act as agent for the applicant in this application is:

Mr. Herve Plasse
Chicopee Municipal Lighting Plant
725 Front Street
Chicopee, MA 01013
(413) 538-8411

5. Chicopee Municipal Lighting Plant is a municipal lighting plant under Chapter 164 of the laws of the Commonwealth of Massachusetts.

8207210017

EXHIBIT A

A.1 GENERAL OVERVIEW

The proposed 2.5 MW Chicopee Hydroelectric Project is located at the existing Chicopee Falls Dam on the Chicopee River, 2.9 miles upstream from its confluence with the Connecticut River. The dam was built to divert water into a canal providing nearby mills with water for processing and power. The site is located within the City of Chicopee, in southwestern Massachusetts, directly east of the Deady Memorial Bridge. Table A-1 summarizes the project statistics. Exhibits B and C provide site location maps and details of the proposed facilities.

A.1.1 Existing Dam and Impoundment

The existing impoundment structure has three sections: the sluice gate block, a concrete spillway abutting the sluice gates, and a masonry spillway tying into a masonry abutment on the north bank. The structures are founded on bedrock ledge. There is a concrete slab which protects the ledge at the toe of the dam. The impoundment structure is about 350 feet long, and has a maximum spillway height approximately 10 feet above the ledge.

A.1.2 Other Existing Facilities

Immediately adjacent to the sluice gate block on the south bank of the river, there is a one-story brick gatehouse consisting of a concrete substructure with seven intake bays. The superstructure is brick with bricked-in windows. In the past, the gate was used to control the flow of water into a canal which has since been filled in. The City now uses the gatehouse for storage purposes. The gatehouse and sluice gate block will be removed to make room for the proposed powerhouse. Two City sewer lines cross the river approximately 100 feet downstream of the dam. These lines will have to be relocated, as they cut perpendicularly across the proposed tailrace location.

Table A-1

SUMMARY OF PROJECT DATA

DAM (EXISTING)			
	Masonry Spillway		Concrete Spillway
Date Constructed	1954		1952
Condition	Good		Good
Construction	Masonry		Concrete
Foundation	On rock		On rock
Length (ft.)	256		58
Elevation (ft. above MSL)	106.7		100.3
Crest width (ft.)	1.5		5.03
Slope - upstream	1:1		3:12
Slope - downstream	vertical		5.7:12
Height (ft.)	3.0		3.4
Flashboards (in.)	17		None
SLUICE GATES AND BLOW			
Blow		Gate	
Condition	Good	Number	1
Material	Concrete	Size	2 # 70" x 24" 1 # 48" x 54"
IMPOUNDMENT			
	Without Flashboards	With Flashboards	
Surface El. (ft. above MSL)	106.7	108.15	
Surface Area (acres)	103	123	
Maximum Drawdown (ft.)	1.6	3.0	
Usable Storage (acre-ft.)	1.6	310	
Length (miles)	1.3	1.5	
DRAINAGE (EXISTING)			
Maximum Depth (ft.)	13		
Length	675		
Hydraulic Capacity (cfs)	1,550		
POWERPLANT (PROPOSED)			
Average Annual Energy Production (MWh)	11,400		
Total Rated Discharge (cfs)	1,550		
Rated Capacity (kW)	2,500		
Type of Turbines	Horizontal tube		
Type of Generators	Synchronous		
Number of Units	2		
	Unit No. 1	Unit No. 2	
Turbines			
Rated Head (ft.)	23	23	
Rated Output (kW)	1700	800	
Rated Discharge (cfs)	1050	500	
Runner Diameter (in.)	2250	1500	
Generators			
Rated Capacity (kW)	1700	800	
Rated Output (kVA)	1830	890	
Phase/Voltage/Frequency		3/4160/60	
Synchronous Speed (RPM)		900	
TRANSMISSION			
Distance to Substation (ft.)	200		
Voltage (kV)	13.8		
Type	Underground		
USE OF POWER			

USE OF POWER
The applicant is an existing public power company. The power generated by this facility will be used to supplement the applicant's existing load pattern. Use of this power will offset the applicant's required purchases of fossil-fuel generated electricity.

*All information on turbines and generators is based on feasibility studies. Final selection of turbines and generators will be made during the building phase of the project.

On the north bank, a long two-story building housing the Bay State Refinery Company is situated just above the dam. Downstream of the dam, the river bank is a mixture of open areas and woods with no structures near the bank. Further upstream, the north bank is densely wooded with a few houses set back a good distance from the bank.

A paved parking lot is located beside the gatehouse on the south side of the river and currently is used by patrons of a bar-restaurant on the corner of East Main Street and Broadway. Further upstream, the south bank of the river is a residential area. About one mile upstream, the river spreads out into a flood plain containing several small islands.

Immediately downstream of the dam, Deady Memorial Bridge crosses the river. The bridge is supported by concrete footings founded in the river bottom. The proposed tailrace will pass between two of these footings.

On the south bank of the river, downstream of the dam, there is a large flood control wall. The wall, built in the late 1960's, extends for approximately 200 yards along the river before joining an earth and rock flood control berm. A complex of abandoned mill buildings currently occupies the lowland behind the flood control structures.

A.2 PROPOSED INSTALLATION

The proposed project development is a 2,500 kW facility consisting of an intake cutoff wall which will replace the canal gatehouse, an intake structure, a powerhouse, and a tailrace channel. The proposed configuration utilizes two tube turbines with capacities of 1700 kW and 800 kW. The powerhouse incorporates a separate conventional intake structure for each unit. Each unit is equipped with removable trash racks as well as intake and draft tube gate slots for emergency shutdown and dewatering purposes. Each standard tube unit includes a butterfly control valve. The proposed project formulation is based on preliminary generating equipment quotations obtained during feasibility level studies. Actual installed capacity and turbine sizes will be selected on the basis of firm quotations prior to final design and construction of the project.

There are no existing generating facilities at the site.

No provisions will be made for future capacity increases at the site, as the proposed project formulation utilizes the full economic potential of the site.

A.3 TYPE OF TURBINES

The proposed installation consists of horizontal-shaft tube-type turbines with synchronous generators.

A.4 MODE OF OPERATION

The proposed facility will operate on a modified run-of-river mode. When the flow in the river is greater than 1550 cfs, the project will operate in a run-of-river mode. When less flow is available, operation will be modified to generate power during the peak demand periods of the system and pond water during the off-peak hours. The maximum drawdown of the pond will be 3 feet when flashboards are in place and 1.6 feet when the flashboards are down.

Flow into the pool is influenced to a great extent by the hydroelectric facility at Indian Orchard operated by Northeast Utilities, which is located five miles upstream of the proposed Chicopee Falls Hydroelectric Project.

The operation of the facility will be in compliance with the requirements of the U.S. Fish and Wildlife Service and the Massachusetts Department of Fisheries and Wildlife.

A.5 FLOW DURATION CURVE

The flow duration curve, based on data for the years 1939 to the present, is shown on Figure A-1. This data is based on a USGS gaging station located on the Chicopee River at Indian Orchard, approximately 4.5 miles upstream of the site. Flows at the project site were obtained by

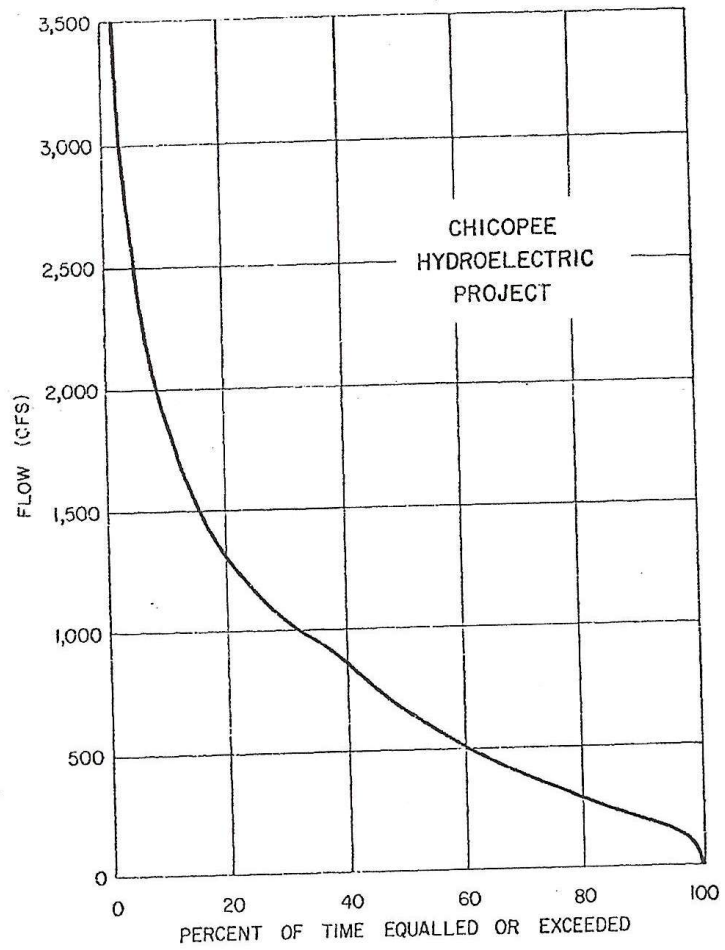


FIGURE A.1 FLOW DURATION CURVE

multiplying the recorded flows by the ratio of the drainage area at the site (714 square miles) to the drainage area at the gaging station (688 square miles). The average annual flow at the site is 934 cfs.

A.6 ENERGY ESTIMATES AND HYDRAULIC CHARACTERISTICS OF THE PLANT

The average annual energy production of the proposed facility is 10,600 megawatt-hours. The plant factor of the proposed facility is 48 percent. The design head of the proposed facility is 23 feet and the average head is 22 feet. The hydraulic capacity of the proposed facility is 15,450 cfs; the rated discharge of the individual turbines are 1,050 cfs for the 1,700 kW unit and 500 cfs for the 800 kW unit.

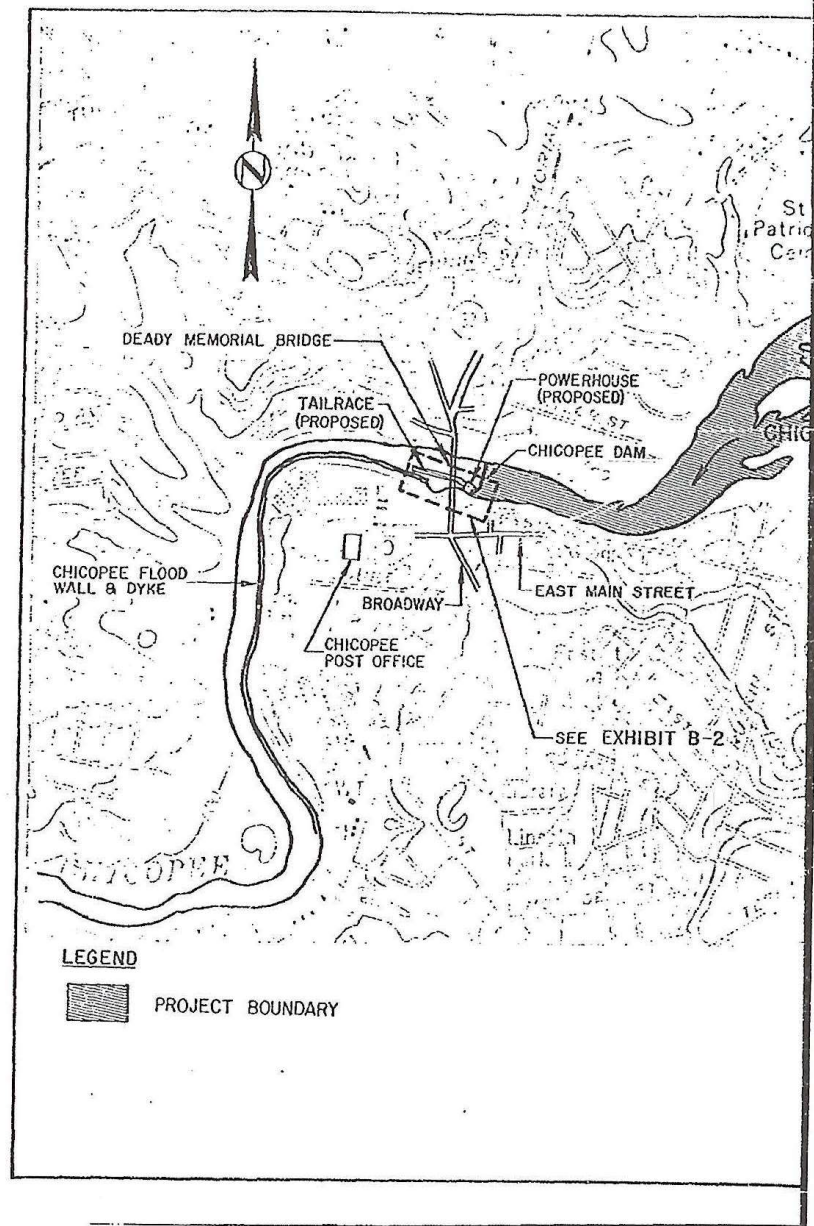
The existing impoundment has a normal maximum surface elevation of 106.7 feet MSL and a surface area of approximately 50 acres. The normal maximum surface elevation is 108.15 feet MSL with 17 inches of flashboards and has surface area of 55 acres. The maximum proposed drawdown is three feet with flashboards and 1.6 feet without flashboards. The usable storage is 370 acre-feet with flashboards, and 197 acre-feet without flashboards. The gross storage capacity of the impoundment is unknown.

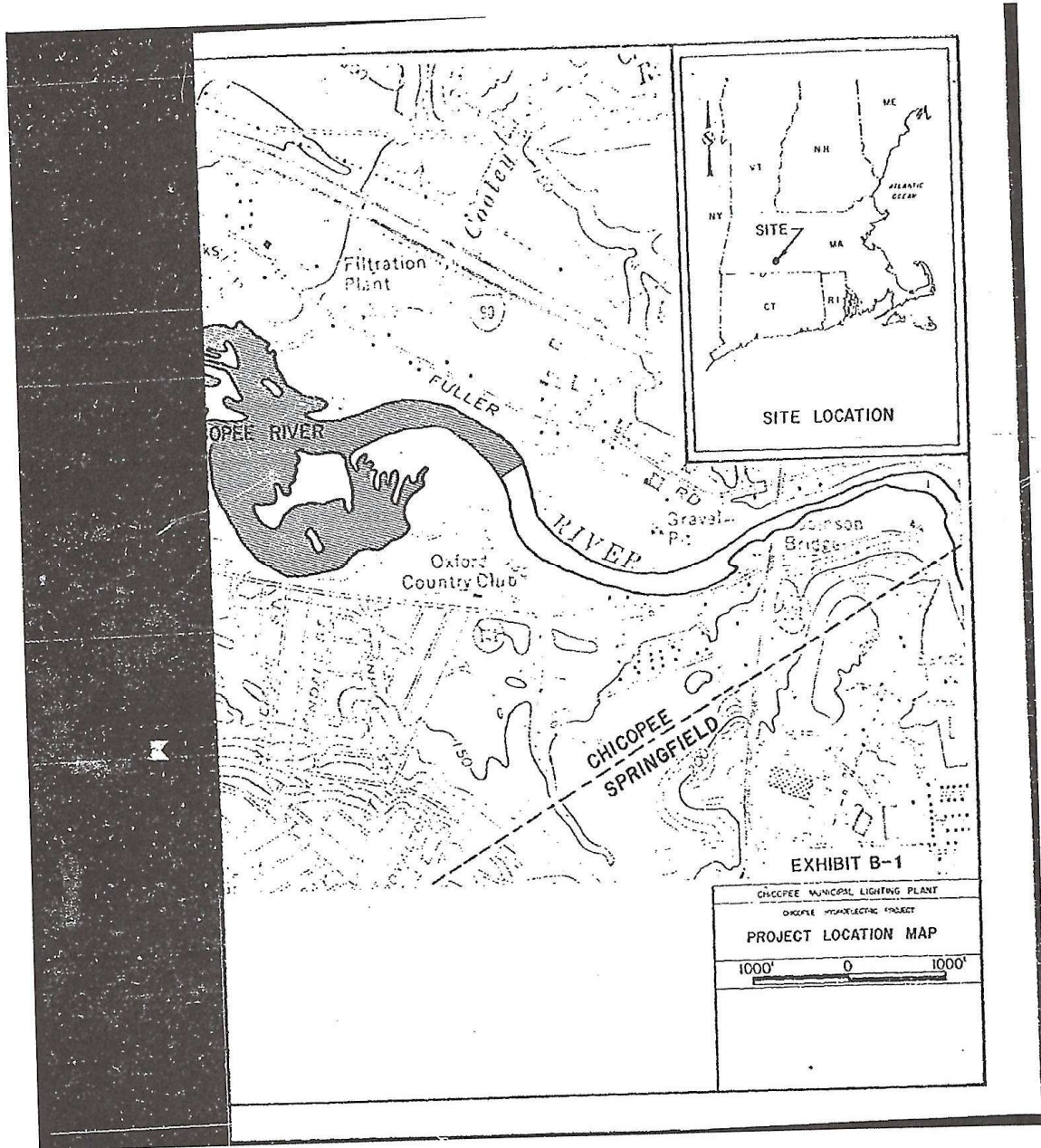
A.7 CONSTRUCTION SCHEDULE

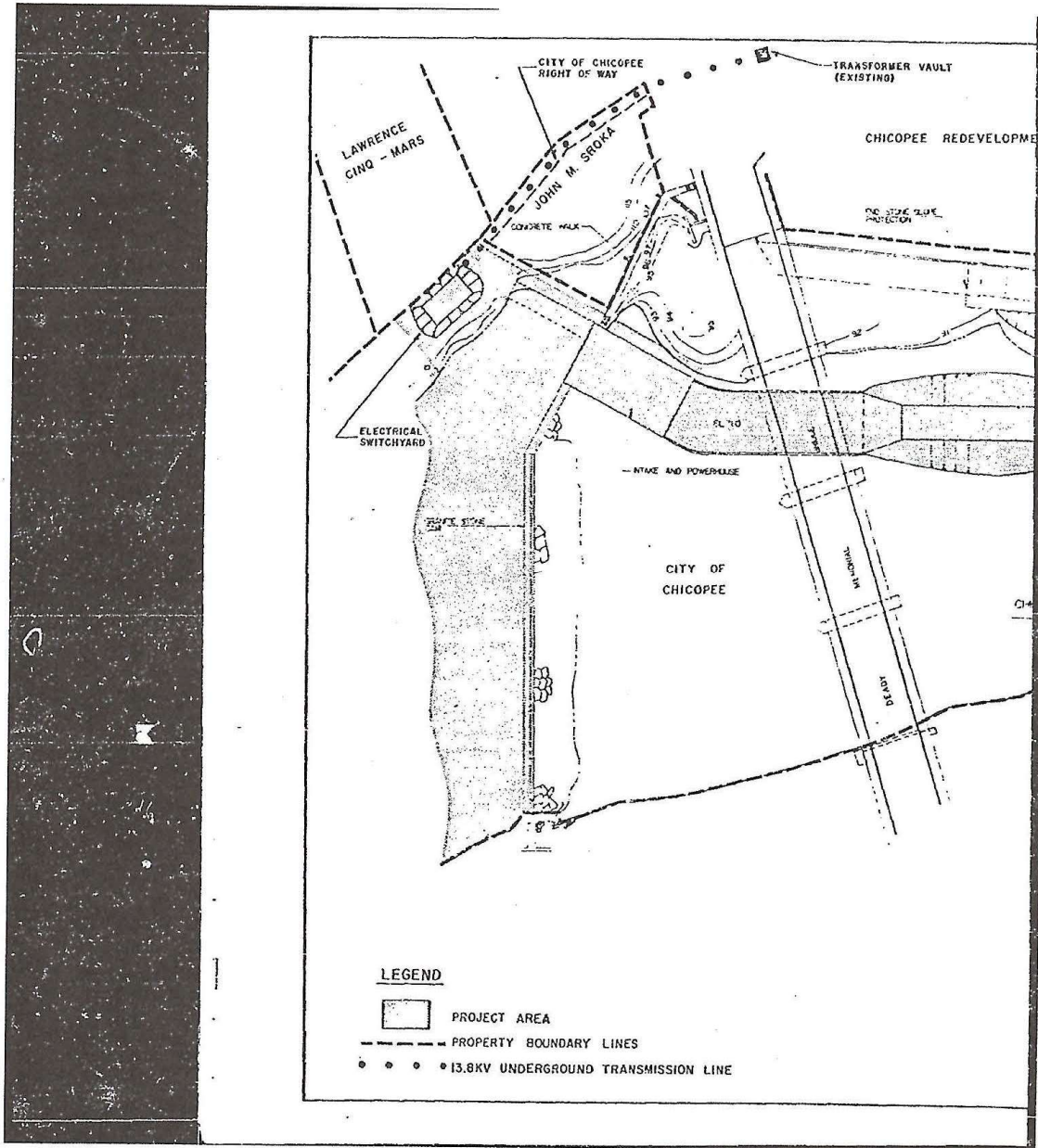
The anticipated construction period begins April 1983 and ends September 1984. The final construction schedule is contingent upon receipt of all necessary Federal, State, and local approvals, project financing, and the equipment delivery schedule.

A.8 DAM MODIFICATIONS AND REPAIRS

No modification or reconstruction of the dam is anticipated. Some minor restoration may be required if more detailed inspections of the dam so warrant.







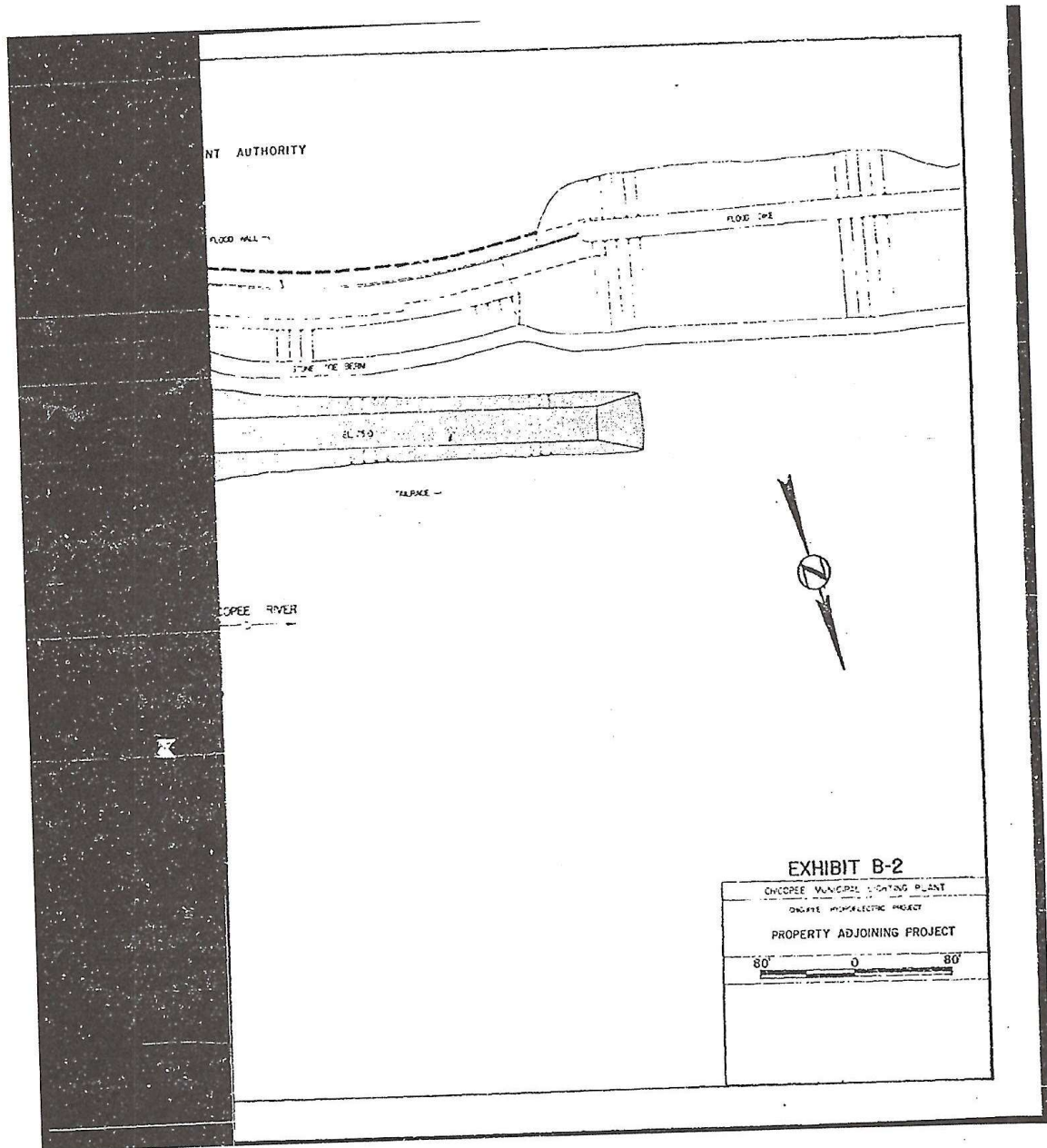


EXHIBIT E

E.1 ENVIRONMENTAL SETTING

The Chicopee River flows through urban and semi-rural areas. The dam and area where redevelopment will occur is part of the urban center of Chicopee. The impoundment extends into semi-rural areas.

E.1.1 Vegetation

The vegetation in the vicinity of the proposed project includes species typical of disturbed sites, flood plain areas, marshes, and more upland situations. The particular plant community is largely dependent upon the past land use and elevation or wetness. The general setting of the river below Chicopee Falls is one of mills on the south side and steep hardwood covered banks on the north. The area immediately adjacent to the dam is largely dominated by disturbed vegetation because of the presence of buildings, a parking lot, and other structures associated with high intensity public use. Upstream, the area along the river is more suburban with the river broadening out into a flood plain area about one-half mile above the dam. Included in this flood plain area are several small islands dominated by a mixture of mature hardwoods, shrubs, and old-field vegetation. A private golf course borders the south bank of the River just east of this area.

E.1.2 Fish and Waterfowl

Surveys conducted in the spring of 1981 found 13 species of warm water fish in the first section above the dam. All of these species were also reported in a 1971 survey of the Chicopee River by the Massachusetts Division of Fisheries and Wildlife. The fish capture statistics reveal that the site supports a warm water fishery dominated by centrarchids (sunfish, largemouth bass, black crappie). Forage species (shiners) and large predators (pickerel) are also present. Anadromous fish such as American shad and Atlantic salmon are prevented from reaching the Chicopee Dam by the downstream Dwight Station dam.

Mallards, black ducks, wood ducks, and blue-winged teals are breeding in the backwater area 2,450 to 4,900 feet upstream from the dam. About 15 to 30 birds per day use the area during the fall migration, with perhaps a seasonal total of 150 birds. This information is based on surveys performed by the Massachusetts Division of Fisheries and Wildlife (MDFW). In addition, personnel from the environmental consulting firm of Normandeau Associates, Inc. recently spent two days in the project area identifying, counting, and analyzing the existing fish and waterfowl. This survey was performed in conjunction with MDFW.

E.1.3 Waterfowl Habitat

The backwater area has many of the qualities of a shallow, closed marsh that make it highly attractive to waterfowl. However, the slowly moving water and the fluctuating water levels hold back plant succession and prevent the closing in of emergents and shrubs to which most isolated marshes are subject. Here, plant communities are maintained in early successional stages which are the most valuable to waterfowl. Furthermore, the presence of diverse cover types in close proximity to the water provides exceptional nesting habitat and high quality feeding grounds.

E.1.4 Fisheries Habitat

Fisheries habitat upriver of the Chicopee Falls dam can be more clearly understood by differentiating the impoundment into three sections: from the dam to where the river widens, a backwater section, and a river channel. The first section extends approximately 2,450 feet upstream from the dam, and has a steep sloping shoreline with little or no emergent aquatic vegetation. Water flow through this section is slow and the substrata is composed of a thick layer of silt and organic debris. Maximum depth is between 6.5 and 9.7 feet. Fishing access to this section appears primarily from shoreline sites on private property and secondarily by boat from up-river launching areas. One shoreline site which was regularly used by fishermen during the course of this study was located approximately 50 feet upriver from the dam on the south bank, and is accessed from a paved parking lot adjacent to the gatehouse.

Approximately 40.5 acres of backwater exist up-river from the impoundment pool, the majority of which is located 2,450 to 4,900 feet upriver around two islands. This region is shallow (less than 6.5 feet in depth) with emergent aquatic vegetation and sand-silt substrata. Fishing access to this region is from shoreline sites on private property and from a private boat-launching site off a dirt road at the end of Helen Street. The river channel upriver from the backwater is a lotic habitat with a sandy-cobble substrata and a faster flow rate than either the backwater area or the section behind the dam.

E.1.5 Water Quality

In the past, the water quality of the Chicopee River has been considered poor (Class C or less). However, extensive pollution control measures have been instituted to eliminate both industrial and municipal point sources of pollution. As a consequence, the State Division of Water Pollution Control has recently classified the river as a Class B or one which is suitable for recreational, agricultural, and certain industrial uses. A Class B water course also provides excellent fish and wildlife habitat and has a high aesthetic value.

E.1.6 Land and Water Use

Most of the project area's river banks are occupied by one- and two-family residential units. Some portions of the north bank consist of wooded areas owned by the City.

Immediately adjacent to the dam is a one-story, brick gatehouse. A paved parking lot is located beside this building and currently is used by patrons of a bar-restaurant on the corner of East Main Street and Broadway. A long, one-story building housing the Bay State Refinery Company is situated on the north side of the pool in the area immediately adjacent to the dam and is only about six feet above the water line.

Numerous dams, including the Chicopee Dam, were constructed along the river during the nineteenth century to provide both power and water to many

manufacturing mills. Few, if any, mills still use the river as a power source, but several are being rehabilitated to generate power for electric utility companies.

E.1.7 Recreational Uses

The Chicopee River is sometimes used for canoeing and fishing. Fishing access is from shoreline sites on private property, a golf course, and from a boating launching site near the Springfield Interchange overpass of the Massachusetts Turnpike.

E.1.8 Historical and Archeological Resources

Historically, the area of the Chicopee Falls was inhabited by Indians up to the founding of Chicopee in 1659. Indians frequently located along the Chicopee River utilizing it for fishing and its fertile flood plain land for farming. It is believed that early white settlers also erected a fort in the vicinity of the Falls. Extensive construction over the last century in the area has apparently obliterated all sites of historical interest as no artifacts or other evidence of the Indian or early colonial settlements have been located.

E.1.9 Scenic and Aesthetic Resources

This portion of the river flows through residential and semi-rural areas. Overall, it is a smooth flowing and pleasant stretch of river. However, at the dam, the existing land uses of a bricked-up gatehouse, bar-restaurant and coatings factory create an unappealing setting. At the uppermost reach of the project, the river includes wetlands.

E.1.10 Identification of Endangered or Threatened Species, Critical Habitat or Historical Places

The project area does not contain any endangered or threatened plant or animal species, any critical habitats, or any sites eligible for or

included on the National Register of Historic Places. This was determined through site visits and consultation with agencies.

E.2 EXPECTED ENVIRONMENTAL IMPACTS

The project will not result in any significant environmental impacts. Water quality is dependent on upstream discharges and sediment loading, neither of which are altered by the project. However, there is an infrequent odor problem at the foot of the dam and methods to eliminate this problem are being explored. The project will not alter the quality or quantity of fish habitat and therefore no impact on fish species or their population is expected. The project will not reduce the more than sufficient waterfowl breeding and nesting areas and food supply. Anadromous fish are currently blocked by a downstream dam. Water use, land use, scenic resources, and area aesthetics will probably not be affected.

E.2.1 Impacts on Water Quality

The proposed construction and operating of the facilities envisions the use of 17-inch flashboards historically installed at the dam and can include a 3.0 foot drawdown. This will have little impact on water quality, as changing water levels do not significantly affect B.O.D. loads. Due to river morphology and autochthonous nutrient loading from the project area itself, high productivity and algal abundance will continue regardless of impoundment management. Furthermore, some loading results from upstream discharges above the project area. Temporary increases in turbidity and decreases in dissolved oxygen level near the dam will occur during dredging. There will be only a slight impact because only a small amount of dredging will occur.

In the past, nutrient-rich, oxygen depleted water spilled over the dam intermittently and became trapped in the shallow depressions of the rock ledge at the foot of the dam. The dissolved oxygen depleted water facilitated anaerobic decomposition and hence, hydrogen sulfide gas release. By eliminating the River's high B.O.D. load, through state and federal actions, the threat of this problem has been mitigated. However,

the water is still nutrient rich and fosters high algal concentrations which, when trapped in the pools, will decompose and exert their own oxygen demand on the entrapped water. To eliminate any reoccurrence of this infrequent odor, the applicant will examine measures, such as cutting small channels into the bedrock to permit the water to drain naturally, and eliminate the pooling and possible stagnation during decomposition.

E.2.2 Impacts on Fish

The higher impoundment levels and a 3.0 foot drawdown should have little effect on warmwater fish populations. Higher water levels upstream of the impoundment may create additional spawning habitat for centrarchids (sunfish, largemouth bass, black crappie), chain pickerel, yellow perch, and shiners. Enhancement of spawning habitat would be most noticeable if the increase in water level is coupled with a stabilization or existing short period, high frequency water level fluctuations. However, upstream peaking facilities make such stabilization difficult. Because of their mobility, fish populations will not be affected by the proposed dredging and required construction. Fishing access to the area appears to be primarily from private, shoreline sites and this access will not be significantly altered by higher water levels.

E.2.3 Impacts on Waterfowl

A positive impact of the proposed redevelopment is the creation of a more permanent flood condition in the flood plain (impoundment) area. Presently, the approximately 41 acres of brood and feeding habitat can be ensured only during the spring high water periods because the river becomes more channelized as the summer progresses. The reinstallation of flashboards on the dam could result in a greater impoundment of water, increasing the likely existence of this critical habitat not only during the reproductive season but also through fall migration. However, the existence of this habitat depends upon the operation of the upstream peaking facility. Flow from this facility varies significantly. Exposure and subsequent drying and loss of food supply would impact this area as a potential brood and feeding habitat for ducks.

E.2.4 Impacts of Anadromous Fish

At present, anadromous fishes such as shad are blocked from entering the Chicopee Falls area by the downstream Dwight Station Dam which has no fish ladder. Plans for the redevelopment of the Chicopee Dam will include the option of adding a fish ladder at some future date if ultimately requested by the Massachusetts Division of Fisheries and Wildlife.

E.2.5 Impacts on Land Use, Water Use, Scenic Resources, and Area Aesthetics

The project will result in minimal impacts on land use, water use, scenic resources, and area aesthetics. The project design and operation will not affect water use or displace existing land uses. The dam will be modified only though there reinstallation of flashboards, and powerhouse location and design will be unobtrusive and aesthetically pleasing. Area aesthetics will improve with the planned removal of the unsightly, bricked-up gatehouse.

E.3 CONSULTATION WITH AGENCIES

Relevant local, state, and federal agencies were consulted in preparing this application for an exemption from licensing. Table E-1 lists the various agencies contacted. The general letter sent to local, regional, state, and federal agencies is shown on Figure E-1.

Formal consultation included a scoping session under Massachusetts environmental law in which all relevant local and state agencies identified potential impacts of concern to them. Issues raised in the scoping session were addressed in the environmental impact report which is currently under review by state agencies. Tours were conducted of the project area for agency personnel. A public meeting was conducted with the Chicopee Conservation Commission regarding the project design and its possible impacts. The Commission prepared an Order of Conditions which was accepted by the Applicant. Further, the environmental field work was reviewed during its planning stages with the Massachusetts Division of Fisheries and Wildlife (MDFW) and the agency found the Applicant's plan appropriate.

Table E-1

SUMMARY OF CONSULTATION WITH AGENCIES

Massachusetts Department of Environmental Quality Engineering Western Regional Division Public Health Center University of Massachusetts Amherst, Massachusetts 01003	Massachusetts Department of Environmental Quality Engineering Division of Water Pollution Control 1 Winter Street Boston, Massachusetts 02108
Contact Person: Mr. Thomas Orszak	Contact Person: Mr. Thomas McMahon Director
Massachusetts Department of Environmental Quality Engineering Division of Waterways, 7th Floor 1-11 Winter Street Boston, Massachusetts 02110	Massachusetts Division of Fisheries and Wildlife Field Headquarters Commonwealth of Massachusetts Westboro, Massachusetts 01581
Contact Person: Mr. John Zajak	Contact Persons: Mr. Peter Oatis Mr. Stephen Hanny
Massachusetts Department of Environmental Quality Engineering State Sans Engineer 100 Cambridge Street Boston, Massachusetts 02110	Massachusetts Historical Commission 294 Washington Street Boston, Massachusetts 02108
Contact Person: Mr. Joseph Lagello	Contact Persons: Mr. Joe Orfant Patricia Meslovich
Massachusetts Department of Environmental Management Division of Forests and Parks Commonwealth of Massachusetts 100 Cambridge Street Boston, Massachusetts 02202	New England River Basins Commission 141 Milk Street Boston, Massachusetts 02109
Contact Person: Mr. Robert Yaro	Contact Person: Mr. Jim McCrea
U.S. Department of the Interior Environmental Officer 15 State Street Boston, Massachusetts 02109	U.S. Army Corps of Engineers Regulatory Branch 424 Trapelo Road Waltham, Massachusetts 02254
Contact Person: Mr. William Patterson	Contact Persons: Mr. Collis Adams Mr. Robert Desista
U.S. Environmental Protection Agency Region I J. F. Kennedy Building Boston, Massachusetts 02203	U.S. Department of the Interior Ecological Services Fish and Wildlife Service P.O. Box 1519 Concord, New Hampshire 03301
Contact Person: Wallace Stickney	Contact Person: Mr. Gordon Beckett
U.S. Heritage Conservation and Recreation Service Federal Office Building Room 9310 600 Arch Street Philadelphia, Pennsylvania 19106	Massachusetts Department of Environmental Quality Engineering Western Regional Office Public Health Center University of Massachusetts Amherst, Massachusetts 01003
Chicopee Conservation Commission City of Chicopee Chicopee, Massachusetts	Contact Person: Mr. Thomas Orszak
Contact Person: Mr. Ray Marcil	Lower Pioneer Valley Regional Planning Commission 26 Central Street West Springfield, Massachusetts
The Commonwealth of Massachusetts Executive Office of Environmental Affairs 100 Cambridge Street Boston, Massachusetts 02202	Contact Person: Mr. Timothy Brennan
Contact Person: Mr. John A. Dawick Secretary	State Clearing House 1 Ashburton Place Boston, Massachusetts 02108



Clark-McGlennon Associates, Inc.
143 State Street
Savoy MA 01909
(413) 862-1500

May 15, 1981

The Chicopee Municipal Lighting Plant is applying to the Federal Energy Regulatory Commission (FERC) for an exemption from licensing for their proposed hydroelectric project on the Chicopee River in Chicopee, Massachusetts. International Engineering Company and Clark-McGlennon Associates, Inc. are preparing this exemption along with the state-required Environmental Impact Report. Enclosed you will find a project description, a site description, and plan of the proposed project.

Please inform either myself or Brian Mellea immediately by telephone if any aspect of the project concerns your agency. If your agency considers the project acceptable as described, please call us immediately and let us know. We would very much appreciate also a letter to that effect as soon as possible so we can complete our FERC exemption application.

To facilitate your review of the project, we have set aside Thursday, 21 May 1981, to tour the site. Please call us to arrange a mutually agreeable time for meeting on that date. Of course, we can arrange a meeting at a later date if you cannot come on the 21st.

Thank you for your prompt attention and cooperation in this matter. If you have further questions, do not hesitate to call myself or Brian Mellea.

Very truly yours,

PETER E. GARDINER
Project Manager

PEG:kh

Enc.

Figure E-1 General letter to concerned local, regional, state, and federal agencies.

The U.S. Fish and Wildlife Service has requested an aquatic base flow of 357 cfs below the project (the aquatic base flow equals 0.5 cfs per square mile of the drainage area of 714 square miles). The U.S. EPA has recommended a similar flow at the tailrace along with a 7Q10 stream flow release over the dam. Further, U.S. Fish and Wildlife requested that "...whenever inflows to the project area fall below 357 cfs, outflows shall be no less than inflows." Also, additional flow near the end of the tailrace must be provided to protect aquatic habitat if required by the MDFW. The Applicant is continuing to negotiate these stipulations but will comply with all final requirements.

Provisions for a future fish passage facilities was also requested by USFWS. The MDFW stated that the agency is not planning to restore anadromous fish runs for at least 25 years. However, both MDFW and the U.S. Fish and Wildlife requested that the potential for a fish ladder be considered during the design. USFWS will be consulted as project design progresses. U.S. Fish and Wildlife has required that a ladder be installed if the MDFW initiates a plan to restore anadromous fish runs.

Other agencies commented on fishermen access, tailrace construction, flashboard design, spoils discharge and the state Wetlands Act. Both the U.S. Fish and Wildlife and the Massachusetts Division of Forests and Parks requested public access for fishermen to protect waters except where such access would threaten the fishermen's safety. The Massachusetts Division of Waterways stated that a Chapter 91 license is required before constructing the tailrace. Further, they requested that the flashboards be designed to fail under sudden changes in head. The U.S. Army Corps of Engineers stated that a 404 permit is necessary for spoils discharge or construction. The State Department of Environmental Quality Engineering noted that the state's Wetlands Act applies to the project. As per the Act, the Chicopee Conservation Commission has commented on the project.



EDWARD J. KING
Governor
JOHN A. BEWICK
Secretary

The Commonwealth of Massachusetts

Executive Office of Environmental Affairs

100 Cambridge Street

Boston, Massachusetts 02202

CHC

CERTIFICATE OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS

ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME: Chicopee Falls Hydro Redevelopment Project
LOEA NUMBER: 03965
PROJECT PROPOSER: City of Chicopee - Mayor's Office
DATE NOTICED IN MONITOR: December 22, 1980

Pursuant to M.G.L., Chapter 90, Section 6A, and Section 10.04(9) of the Regulations Governing the Implementation of the Massachusetts Environmental Policy Act, I hereby determine that the above referenced project does require an Environmental Impact Report.

DATE

1/21/81

Samuel C. Myall, Jr.
JOHN A. BEWICK, SECRETARY

FORM A



EDWARD J. KING
Governor
JOHN A. BEWICK
Secretary

The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02202

DETERMINATION OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS
OF
SCOPE AND ALTERNATIVES
FOR
ENVIRONMENTAL IMPACT REPORT

PROJECT NAME: Chicopee Falls Hydro Redevelopment Project
EOEA NUMBER: 03965
PROJECT PROPONENT: City of Chicopee - Mayor's Office
DATE NOTICED IN MONITOR: December 22, 1980

Pursuant to Massachusetts General Laws, Chapter 30, Section 62A, and Section 10.05(1) of the Regulations Governing the Implementation of the Massachusetts Environmental Policy Act, I hereby issue the attached determination of scope and alternatives for the Environmental Impact Report on the above-referenced project.

The MEPA staff has discussed this project extensively with the Division of Water Pollution Control, Division of Fisheries & Wildlife, and DEQE - Wetlands Division, and has held an on-site inspection and consultation session. An EIR is being required, to examine complicated issues of water quality, flooding/hydraulics, potential future fisheries restoration, and project operation. It is anticipated that the EIR will also serve as a federal Environmental Assessment, and will settle issues left open by the February, 1979 feasibility report.

FORM C.

Chicopee Falls Hydro Redevelopment Project
EOEA Number 03965
Page 2

In form, the EIR should comply with MEPA regulation 10.04 (a-h), and should contain a copy of this Scope. Issues to be addressed include the following:

I. Alternative Layouts:

- a. Power house at Dam with short tailrace to discharge just below Deady Memorial Bridge.
- b. Power house at Dam with a long tailrace to discharge at end of flood wall approximately 580' downstream.
- c. Penstock along flood wall with power house near end of flood wall approximately 580' below dam.

II. Alternative Operating Modes:

- a. Operating on run of river mode.
- b. Operating with ponding.

The EIR shall:

1. Evaluate minimum flows and their impact on water quality downstream and the odor problem at the base of the dam.
2. Evaluate resident fish species, their populations, and habitat, and access to sportsmen.
3. Evaluate the impact on the duck breeding area in the dam pool.
4. Evaluate the necessity for fish passage for anadromous fish (in consultation with State Fish & Wildlife personnel).
5. Evaluate the impact of power house location and training wall on flood elevations to the 100 year flood. Will this or the flash boards increase flooding of any structures?
6. Evaluate the quality of the Dredge Spoils by completing Part I of the standard application for Water Quality Certification.

The EIR should identify possible mitigation for identified impacts.

Copies of the Draft and Final EIRs shall be circulated to the MEPA office (3 copies), the State Clearinghouse (1 copy), LPVRPC, DEQE-Wetlands - Western Office - Amherst, MA, Division of Water Pollution Control - Westboro Office (Attention: K. Simpson), Division of Fisheries & Wildlife - Peter Otis - Westboro, and Chicopee Conservation Commission.

DATE

1/21/81

JOHN A. BERICK, SECRETARY

NERBC

New England
River Basins Commission

MAY 27 1981

May 19, 1981

Peter Gardiner
Clark-McGlennon Associates, Inc.
148 State Street
Boston, MA 02109

Dear Peter:

I have received your materials on the Chicopee Falls project. They have been reviewed by several members of the staff of the Hydropower Program at NERBC. We have no comments to make on the project as proposed.

Sincerely,

Jim
James C. McCrea
Assistant Manager
Hydro Program

JMC:ng



United States Department of the Interior

OFFICE OF THE SECRETARY
Northeast Region
15 State Street
Boston, Massachusetts 02109

May 26, 1981

MAY 26 1981

Peter Gardiner
Project Manager
Clark-McGlennon Associates, Inc.
148 State Street
Boston, Massachusetts 02109

Dear Mr. Gardiner:

This is in response to your letter regarding the proposed hydroelectric project on the Chicopee River in Chicopee, Massachusetts.

The material provided for review is not adequate to determine if the interests of this Department are involved in the proposal. To make such a determination, I suggest that you contact the following interior offices.

Regional Director
Heritage Conservation & Recreation Service
600 Arch Street
Philadelphia, PA 19106

Field Supervisor
Ecological Services
U.S. Fish & Wildlife Service
P.O. Box 1518
Concord, N.H. 03301

In addition it would be desirable to assure that there are no conflicts with historic resources by contacting the State Historic Preservation Officer.

Mrs. Patricia L. Weslowski
Executive Director
Massachusetts Historical Commission
294 Washington Street
Boston, Massachusetts 02108

I hope that this information is of some assistance to you.

Sincerely,

William Patterson
William Patterson
Regional Environmental Officer



DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION
424 TRAIL STREET
BOSTON, MA 02109

REPLY TO
ATTENTION

NEDOD-R-24

27 May 1981

Clark-McGlennon Associates, Inc.
Attn: Mr. Peter E. Gardiner
148 State Street
Boston, MA 02109

MAY 27 1981

Dear Mr. Gardiner:

This is in response to your recent request for a determination of the need for a Department of the Army permit for a hydroelectric project on the Chicopee River at Chicopee, Massachusetts.

A Department of the Army permit is required for all work within the navigable water of the United States beyond the mean high water line under Section 10 of the River and Harbor Act of 1899: and for those activities involving the discharge of dredged or fill material into all waters of the United States, which include inland lakes, rivers, streams and their adjacent wetlands under the Authority of Section 404 of the Clean Water Act.

Therefore, please apply to this office for a permit to perform this work. The application must be submitted on ENG form 4345, the form and samples of the necessary drawings are inclosed.

State/Local approval and Water Quality Certification must also be obtained. Please contact the State of Massachusetts.

No work may be started until a duly executed permit signed by the Division Engineer, or his authorized representative, has been received.

If you have any questions, please contact Mr. James Morocco at 617-894-2400, extension 332.

Sincerely,

incl
as stated

JAMES MOROCCO
Project Manager
Regulatory Branch
Operations Division



ANTHONY D. CORTESE, Sc.D.
Commissioner

The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
Department of Environmental Quality Engineering
Division of Waterways
1 - 11 Winter Street, Boston 02110

May 28, 1981

JUN 2 1981

Mr. Peter E. Gardiner
Clark-McGlennon Associates, Inc.
148 State Street
Boston, MA 02110

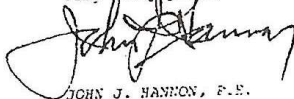
Dear Mr. Gardiner:

Please be advised that based on information discussed during your recent conversation with Mr. John Zajac of this Division, it would appear that Chapter 91 authorization will be necessary for the tailrace channel included in the proposed hydroelectric project in the Chicopee River, in Chicopee, Massachusetts.

A final determination will not be made until a Notice of Intent is submitted. At that time you will be informed as to what requirements are necessary to obtain a Chapter 91 authorization, should licensing be required.

Questions concerning this matter should be directed to the License and Permit Section of this Division at 426-3770.

Very truly yours,


JOHN J. HANNON, P.E.
Chief Engineer

JZ:C



(413) 549-1917

(413) 549-6442

The Commonwealth of Massachusetts
Department of Environmental Quality Engineering

WESTERN REGION

WESTERN MASSACHUSETTS PUBLIC HEALTH CENTER
UNIVERSITY OF MASSACHUSETTS, AMHERST BRANCH

June 1, 1981

Mr. Peter E. Gardiner, Project Manager
Clark-McGlennon Associates, Inc.
148 State St.
Boston, MA 02109

Re: EOE - 03965/Chicopee Falls Hydroelectric Project

Dear Sir:

In response to your letter of May 15, 1981, you are advised that the above-referenced project is subject to Massachusetts General Laws Chapter 131, Section 40, the Wetlands Protection Act. The provisions of the Act require that the Chicopee Conservation Commission shall issue a permit, (Order of Conditions), which protects the statutory interests of the Act. The Wetlands Section of the Department of Environmental Quality Engineering will monitor this permitting process in order to provide assistance to the Conservation Commission and the applicant as may be requested.

The Department recommends that the information outlined in the Massachusetts Environmental Policy Act (NEPA) "determination" Form C be submitted as part of the applicant's Notice of Intent. The NEPA office issued this "determination" following the January 16, 1981, consultation session which was attended by a representative of this office and extensive discussion with other State agencies.

If you should have any questions concerning this matter, please feel free to contact this office.

Very truly yours,
For the Commissioner,

Angelo Santoschi
Regional Environmental Engineer

AL:TO:bs

cc: Chicopee Conservation Commission
cc: Executive Office of Environmental Affairs
NEPA - 100 Cambridge St.
Boston, MA

Attn: David Shephardson



UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
ECOLOGICAL SERVICES
P.O. Box 1518
Concord, New Hampshire 03301

JUN 4 1981

JUN 5 1981

Mr. Peter E. Gardiner
Clark-McGlennon Associates, Inc.
143 State Street
Boston, Massachusetts 02109

Dear Mr. Gardiner:

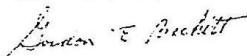
We have reviewed your proposal for an exemption from licensing of a hydroelectric project on the Chicopee River at Chicopee Falls, Massachusetts. Based on our knowledge of the project area and on our consultation with biologists from the Massachusetts Division of Fisheries and Wildlife (MA DFW) about your proposal, we do not object to the proposed project.

We request, however, that you state in your Exhibit E of the application for exemption that the U.S. Fish and Wildlife Service has specified the following terms and conditions, pursuant to Article 4.105 of the Energy Security Act of 1980:

1. The Exemptee shall provide fish-passage facilities at the project when the MA DFW initiates a plan to restore runs of anadromous fish through the project area. There currently are no plans to restore such runs in the near future (next 25 years).
2. The Exemptee shall provide an aquatic base flow of 357 cubic feet per second (cfs) below the project. Whenever inflows to the project area fall below 357 cfs, outflows shall be no less than inflows. The Exemptee shall also provide additional flow at the dam to protect aquatic habitat adjacent to the 600-foot tailrace channel if so specified by the MA DFW.
3. The Exemptee shall provide access for fishermen to project waters except where such access would risk personal safety.

We hope these comments will assist you in planning for this project. If you need further help, please let us know.

Sincerely yours,


Gordon E. Beckett
Supervisor

New England
River Basins Commission

June 8, 1981

JUN 9 1981

Peter Gardiner
Clark - McGlennon Associates, Inc.
148 State Street
Boston, MA 02109

Dear Peter,

I have reviewed the draft environmental impact report for the Chicopee Falls Hydroelectric project. We have no comments to make on the material contained in this draft report.

If you have any questions, please feel free to contact me.

Sincerely,



James C. McCrea
Assistant Manager
Hydropower Program

:pg



**MASSACHUSETTS
HISTORICAL
COMMISSION**

**COMMONWEALTH OF MASSACHUSETTS
Office of the Secretary of State**

294 Washington Street
Boston, Massachusetts
02108
617-727-8470

MICHAEL JOSEPH CONNOLLY
Secretary of State

June 10, 1981

JUN 15 1981

Peter Gardiner
Clark-McGlennon Associates, Inc.
148 State Street
Boston, MA 02109

RE: Chicopee Falls Hydroelectric Project, Chicopee

Dear Mr. Gardiner:

Thank you for supplying the Massachusetts Historical Commission with a copy of the DEIR for the Chicopee Falls Hydroelectric project with your letter of June 8, 1981.

MHC staff have reviewed the proposed project and feel that this project is unlikely to affect significant historic or archaeological resources. No further review in compliance with Section 106 of the National Historic Preservation Act of 1966 is required.

If you have any further questions, please contact Valerie Tawage, Deputy State Historic Preservation Officer.

Sincerely,

Patricia L. Weslowski
Patricia L. Weslowski
Executive Director
Massachusetts Historical Commission
State Historic Preservation Officer

PLW/VT/pb



JOHN D. CORRIESE, S.C.D.
Commissioner

The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
Department of Environmental Quality Engineering
Division of Waterways
1-11 Winter Street, Boston 02140

June 15, 1981

Clark-McGlennon Associate, Inc.
148 State Street
Boston, MA 02109
Attention: Brian Mellea

Dear Sir:

re: Chicopee Falls Hydroelectric Project

I reviewed your environmental impact report as it pertains to Chapter 253 of the Massachusetts General Laws. It seems from the description of the proposed work that a permit is not required. The additional flashboards to be installed must be designed to go out with any sudden buildup of head.

Please supply this office with a short narrative form of all work to be done and plans depicting such work. This information is necessary for our files. In the event of any substantive changes to the dam structure, plan of such changes shall be sent to this office and no work shall start on the dam until a review and approval is granted by the Division of Waterways.

Very truly yours,

JOHN J. HANNON, P.E.
Chief Engineer

JCI:c



United States Department of the Interior

OFFICE OF THE SECRETARY
Northeast Region
15 State Street
Boston, Massachusetts 02109

June 15, 1981

JUN - 7 1981

Peter Gardiner
Clark-McGlennon Associates, Inc.
148 State Street
Boston, Massachusetts 02109

Dear Mr. Gardiner:

This is in reply to your letter and environmental impact report of June 8 regarding the Chicopee Falls Hydroelectric project.

Since the report deals largely with fish and wildlife resources, I have forwarded it to the U.S. Fish and Wildlife Service in Concord, N.H. They will provide you with direct technical assistance comments on the report.

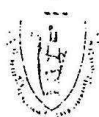
Though it would appear that there is little chance of historical or archeological resource involvement, it would be helpful if this could be verified by the State Historic Preservation Officer.

The report notes little about current recreation uses of the area and what, if any, effects the project would have on them. The report would benefit from some attention to this subject.

When you submit your application for a licensing exemption, FERC will refer it to this Department for comment. It would be helpful if at that time the report contained copies of correspondence presenting a record of your coordination efforts.

Sincerely,

William Patterson
Regional Environmental Officer

*The Commonwealth of Massachusetts**Executive Office of Environmental Affairs**Department of Environmental Management**Lowell Follenball Building, Government Center**100 Cambridge Street, Boston 02142*

June 17, 1981

JUN 22 1981

Mr. Brian Mellen
Clark - McGlennen Associates, Inc.
148 State Street
Boston, Mass. 02109

Dear Mr. Mellen:

I am responding on behalf of Robert D. Tark to your draft environmental impact report on the Chicopee Falls Hydroelectric Project. After reviewing the EIR, I see no potential conflicts or conflicts with DEM operations or interests, provided that the fish and wildlife resources of the site are not degraded by project development or operations. While the project may qualify for exemption from FERC licensing requirements, I strongly recommend that you examine the possibility of providing some public access to the impoundment for fishing, as would otherwise likely be required under the FERC Exhibit R process.

I hope that these concerns do not present a significant problem, because the project in general seems to be an excellent use of a valuable resource. Please feel free to contact me if I can be of assistance.

Sincerely,

Philip D. McElroy
Executive Planner

PDM:phb

CC: Bob Yaro

LOWER PIONEER VALLEY
REGIONAL PLANNING COMMISSIONOFFICE OF THE SECRETARY
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS

June 16, 1981

Mr. Brian Mellea
Clark-McGlennan Associates, Inc.
148 State Street
Boston, MA 02109

Dear Mr. Mellea:

As the designated areawide clearinghouse and regional planning agency for Hampden and Hampshire Counties we have received for review the Draft Environmental Impact Report (EIR) for the Chicopee Hydroelectric Project dated May 29, 1981. We understand this document has been submitted to the Secretary of the Executive Office of Environmental Affairs (EOEA #03965) pursuant to the requirements of the Massachusetts Environmental Policy Act (MEPA). We will be reviewing this Draft EIR under the requirements of the NEPA review process and submitting any detailed comments to EOEA at the appropriate time.

It is our understanding that Clark-McGlennan Associates, Inc. on behalf of the proponent, the City of Chicopee is intending to submit an application for a licensing exemption from the Federal Energy Regulatory Commission in Washington, D.C. We have made a note of your intention and have no specific comments to submit at this time. If you have any questions, please feel free to call either myself or Elizabeth Kidder, Senior Planner on our staff.

Sincerely,

TIMOTHY W. BROWN
Executive DirectorTWB/EAR/es
cc: Marc Webb-Planning Director, Chicopee
MEPA-Boston



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J. F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02108

June 18, 1981

Mr. Peter A. Gardiner
Clark-McGlennon Associates
148 State Street
Boston, MA 02109

Dear Mr. Gardiner:

We have reviewed your Draft Exemption Application for the proposed Chicopee Falls Hydroelectric project located on the Chicopee River in Chicopee, Massachusetts. According to the information provided, the proposed project would utilize an existing dam and would consist of a 600' stream flow diversion through a penstock, a new powerhouse, and appurtenant works. The project would operate in a run-of-the-river mode.

In general, EPA has no objections to hydroelectric projects that operate in a run-of-the-river mode with provision for a minimum stream flow release of at least 7Q10 (the 7 consecutive day mean low flow with a 10 year recurrence).

The Draft document does not contain specific provisions for a minimum flow release, although Mr. Mellea of your staff has informed us that the U.S. Fish and Wildlife Service's Aquatic Base Flow of 357 cfs would be applied at the tailrace of the project. We are concerned about the absence of a minimum stream flow release immediately below the dam. The Chicopee River (from Ludlow Dam to the Connecticut River) has been designated by EPA as a Critical Water Quality Problem Area. Your report has noted that an odor problem exists immediately below the dam and that there are intermittent discharges in the bypassed reach. Because of these factors we will most likely suggest to FERC that the exemption be conditioned with a minimum stream flow release of 7Q10 at the dam. We are in agreement with the Aquatic Base Flow of 357 cfs at the tailrace.

Some other concerns noted after reviewing the document are the following:

- The adjacent land uses in the bypass stream area were not inventoried.
- Discharges, such as bearing cooling water, trash rack debris, sanitary wastes, oil or chemical wastes, or any other pollutants would require National Pollutant Discharge Elimination System (NPDES) permits under Section 402 of the Clean Water Act. Any discharges should be identified. If any discharges are identified, please contact Ted Landry, EPA permits Branch, at 617/413-5061.

JUN 21 1981

-2-

The application did not specify if the project would need an Army Corps of Engineer's 404 Permit. A permit issued by the U.S. Army Corps of Engineers under Section 404 may be required for the project, depending on whether placement of material in the river or adjacent wetlands is involved. We recommend that you use EPA's Guidelines issued under Section 404(b)(1) of the Clean Water Act to determine the information needed to assess the project's impacts on wetlands, water quality, fisheries, wildlife, and other aquatic resources.

If you have any questions, please feel free to contact Kathleen Castagna of my staff at 223-4635.

Sincerely,

Wallace E. Stickney
Wallace E. Stickney, P.E.
Director
Environmental Impact Office



EDWARD J. KING
GOVERNOR
JOHN A. BEWICK
SECRETARY

The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02202

CERTIFICATE OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS

ON

DRAFT ENVIRONMENTAL IMPACT REPORT

AUG 07 1981

PROJECT NAME: Chicopee Hydroelectric
PROJECT LOCATION: Chicopee
COEA NUMBER: 03965
PROJECT PROPONENT: City of Chicopee
DATE NOTICED IN MONITOR: June 22, 1981

The Secretary of Environmental Affairs herein issues a statement that the Draft Environmental Impact Report submitted on the above referenced project does adequately and properly comply with Massachusetts General Laws, Chapter 30, Section 62-62H inclusive, and the regulations implementing MGLA.

While the EIR submitted for review June 10, 1981 is adequate as a draft, several areas need expansion or clarification to be acceptable as a final report. These areas include (a) mode of operation, and its impact on fisheries and waterfowl habitat, (b) fish ladder feasibility, (c) minimum continuous flow, (d) the odor problem, (e) flooding, (f) dewatering methodology, and (g) additional testing for dredge spoils disposal.

MODE OF OPERATION

The draft report identifies both run of river and pooling options as being currently considered. While parameters for run of river may be obvious, they are not for the pooling option. What are the elevation limits of the pooling option? What are the frequencies of pooling? How does pooling to this extent effect the fishery and waterfowl habitats?

FORM D

Chicopee Hydroelectric
EOEA No. 03965
Page 2

FISH LADDER

The draft indicates that construction plans will include the capability of adding a fish ladder at some future date. The proposed location for the ladder should be identified. Ben Rizze of the US Fish and Wildlife Service should be consulted to evaluate the site prior to its being identified in the Final EIR.

MINIMUM CONTINUOUS FLOW

The draft calls for agreements if continuous flows are desirable (page 10) and says they should be considered (page 45). The water pollution control office is allocating waste loads to segments of streams and rivers on the assumption that the lowest flow at any time is the seven day 10 year low flow. As lesser flows could temporarily compromise water standards, WPC always asks for the release of such a quantity of water if the river delivers it to the impoundment. The final report should indicate what minimal flow (in cfs) will be released and the point where the release will occur. WPC should be consulted on this facet prior to publication of the final report.

ODOR PROBLEM

The draft casually mentions several possible ways to mitigate the odor problem (page 9). These include continuous flow releases, reaeration or artificial aeration and elimination of pooling. Each of the possible mitigation efforts should be explained and its impact evaluated; a commitment to the recommended solution should be included in the Final EIR. The EIR should develop solutions to potential problems rather than simply identify them. Specific questions are: How would the pooling be eliminated? Would alterations of the river bed be contemplated which could affect fisheries? Will a Waterway license be required?

FLOODING

The flooding discussion should be based on the 100 year storm of the FEMA study which gives current 10, 50 and 100 year flood elevations for the Chicopee River, as well as the 500 year elevation. The draft indicates that a 3 inch rise is not significant although by analysis of various other statements in the draft, at least one business may be flooded under existing conditions. Not enough data is presented to fully evaluate the draft conclusion. The existing and proposed 100 year storm elevations are needed. Any structures which are currently flooded should be clearly identified. Are there any structures which would be flooded only under future conditions? What component of this project causes the rise? Can this be altered to minimize any rise? Do the flash boards effect the flood elevations? Does a change in placement of the turbine and generator from the dam intake to the out-fall end change the flooding impact?

Chicopee Hydroelectric
EOEA No. 03965
Page 3

It is the general policy of the DEQE not to approve projects which will result in a measurable increase in flood stage during the 100-year flood event when this increase is likely to contribute incrementally to flood damage of the neighboring properties. Where such an increase in flood stage is likely to occur from a constriction in flood flows, the Department will typically require the use of an alternative to at least reduce it so as to produce a de minimis effect on flood levels.

DEWATERING

In order to move the dredge spoils from within the dam to a disposal site in trucks, they may have to be dewatered. Will this be required? Where and how would it be accomplished?

Additionally the construction areas at and below the dam may need temporary isolation from the river waters. Will this be required? How would this be accomplished? For what time period? Will licenses or permits be required for this work? Are there any impacts specifically due to this work? It is likely that any blasting will assure the safety of the flood wall and bridge. Will there be any effect on fish?

DREDGE SPOILS TESTING

The bulk analysis data and pollution history of the site have been considered by WPC and the Western Region Division of Hazardous Waste.

Additional testing will be required for the impoundment dredge spoils before they can be disposed of at a sanitary landfill. The Division of Hazardous Waste in Springfield should be consulted to determine the tests required.

The following page by page points should be clarified in the Final EIR.

Page 3 The water quality discussion does not agree with the statement of non-attainment on page 9.

Page 4 It is our understanding that the area above the Chicopee Dam is currently a waterfowl breeding area.

Page 6 An odor problem for which the gates of the dam had to be partially opened for control should be acknowledged as more than the "reported odors."

Page 9 The "more plausible" explanation deserves more discussion. Also the levels of nitrogen and phosphorus referred to here but not referenced to in Appendix C should be identified.

Page 31 Is it possible to allow large draw-downs in the vicinity of the dam without severely impacting the duck brood and feeding habitat?

Chicopee Hydroelectric
EOEA No. 03965
Page 4

Page 31 Will the Flash-boards be in place in the spring such that the undesirable higher (10 to 12 inch) water levels could be prevent?

Page 38 Exhibit G1 is not clear and readable.

Page 46 Does this mean that no structures are flooded now or in the future?

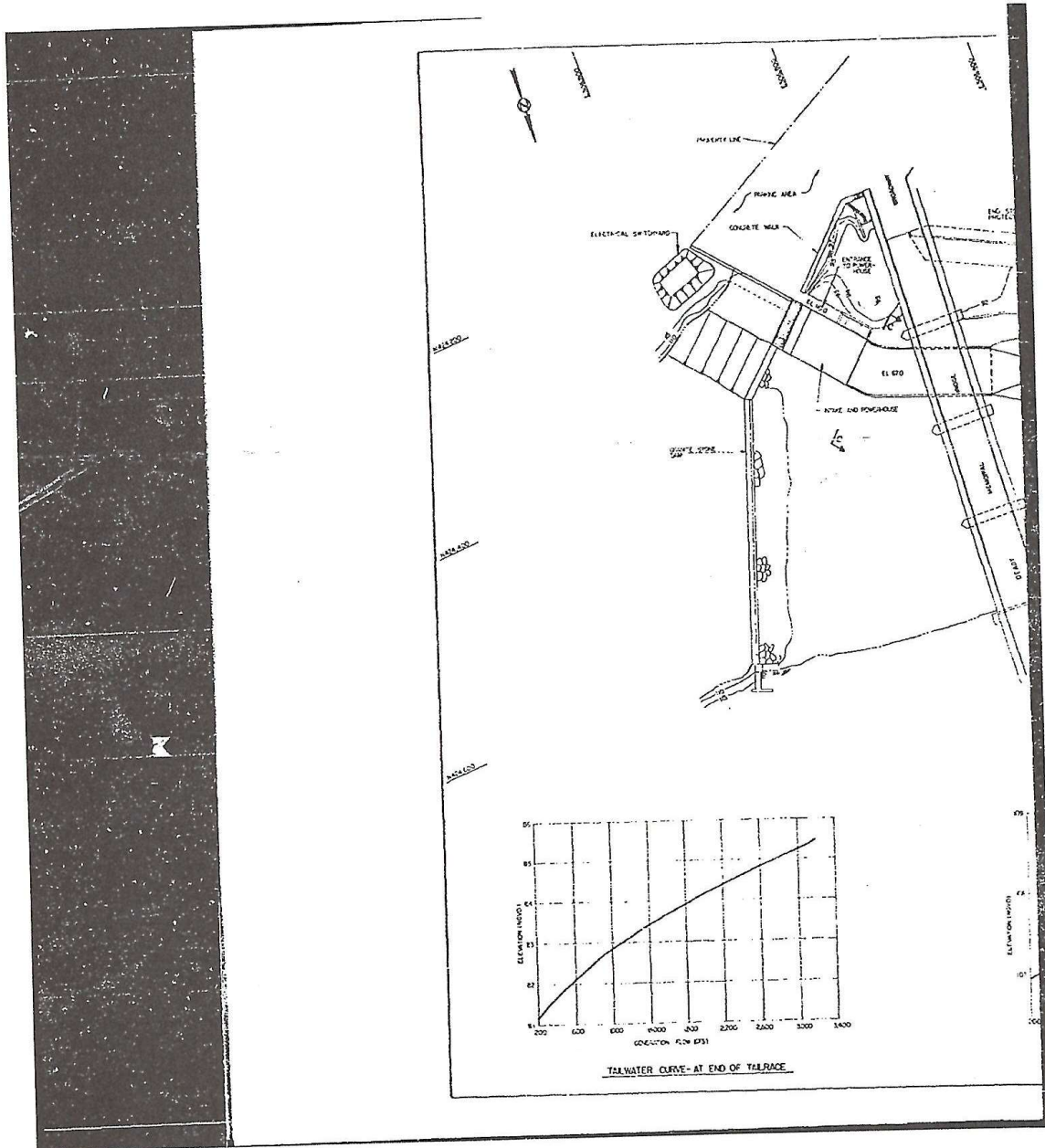
The enclosed comments must also be addressed in the Final EIR.

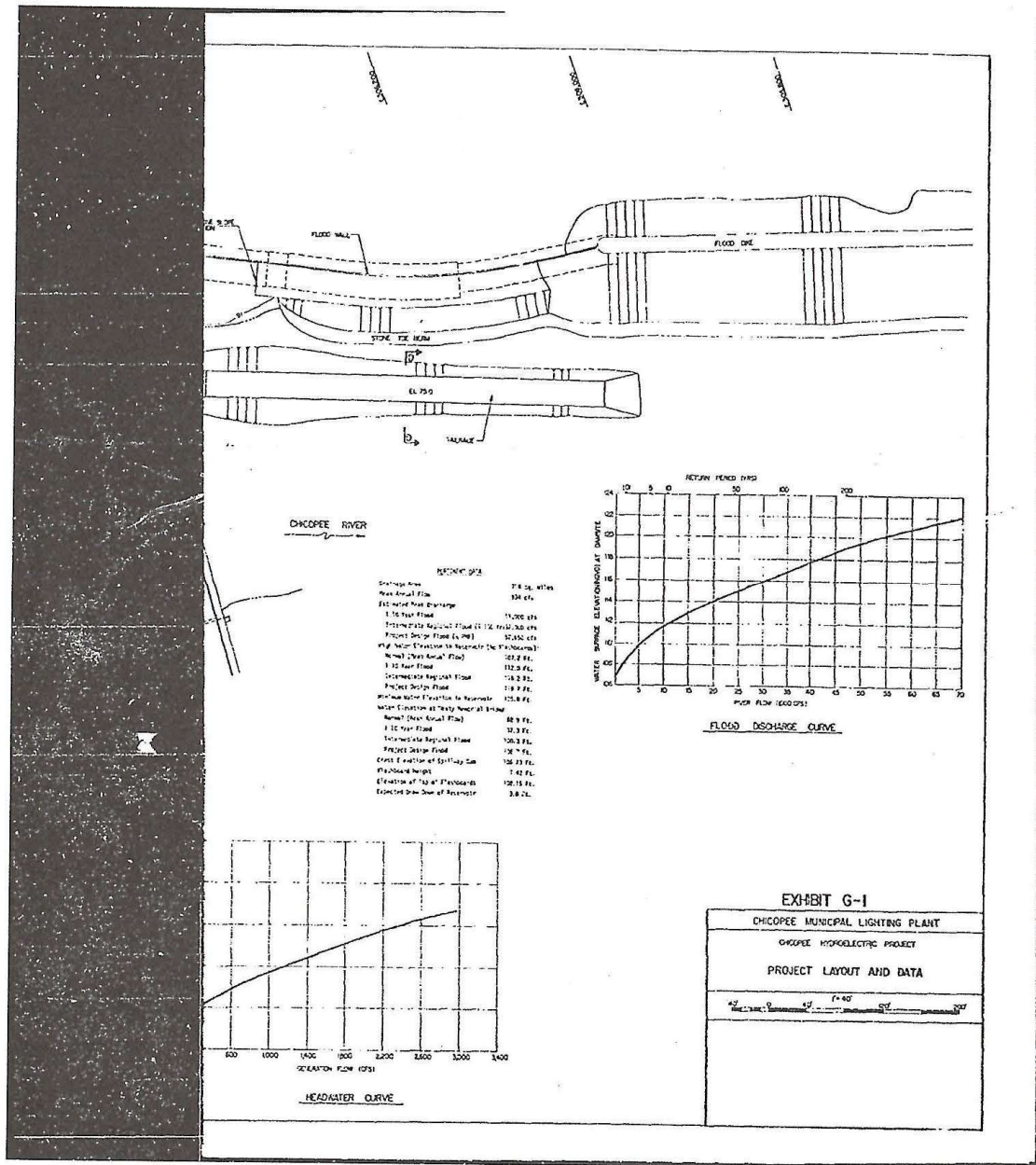
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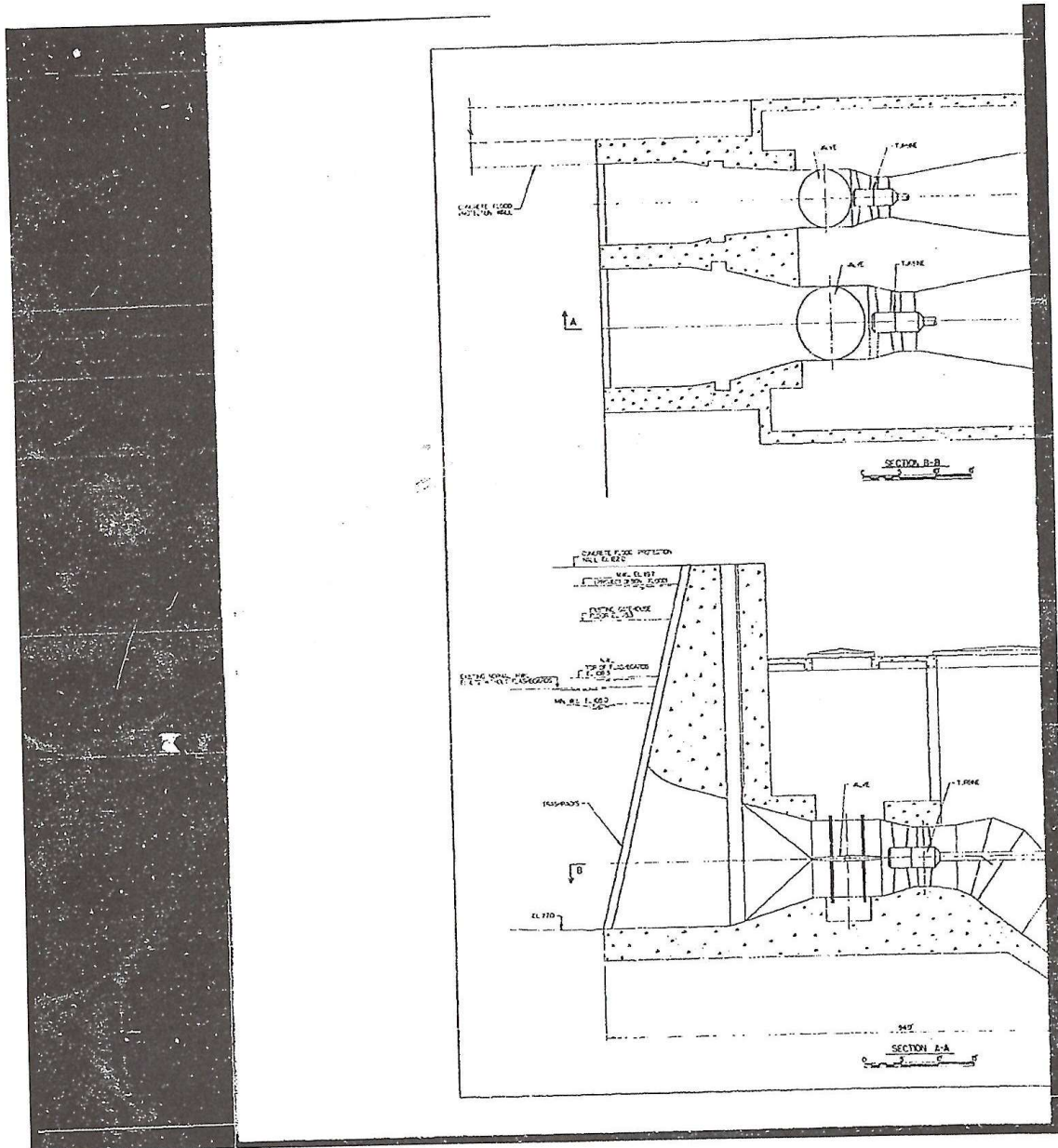
Enclosure

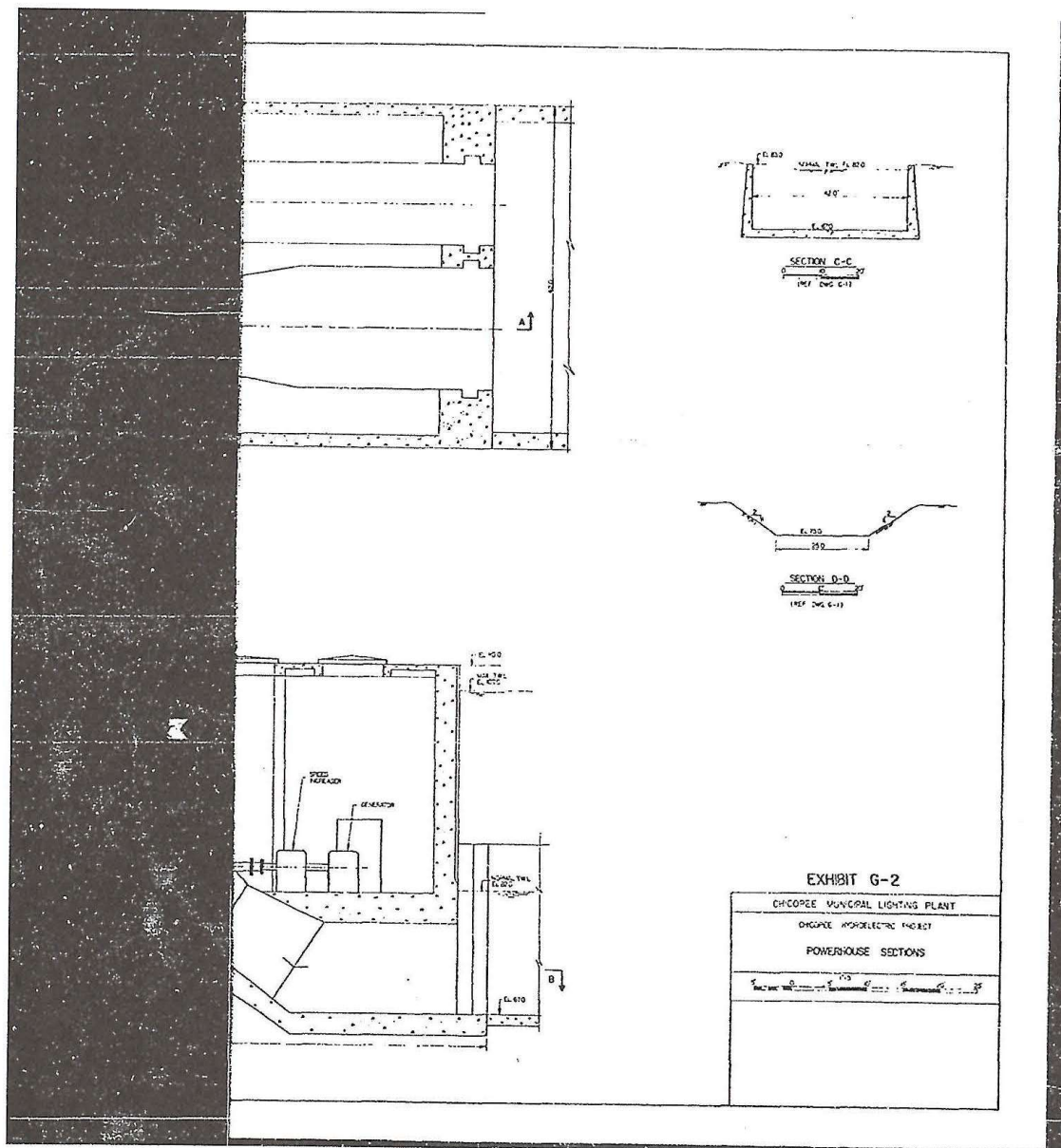
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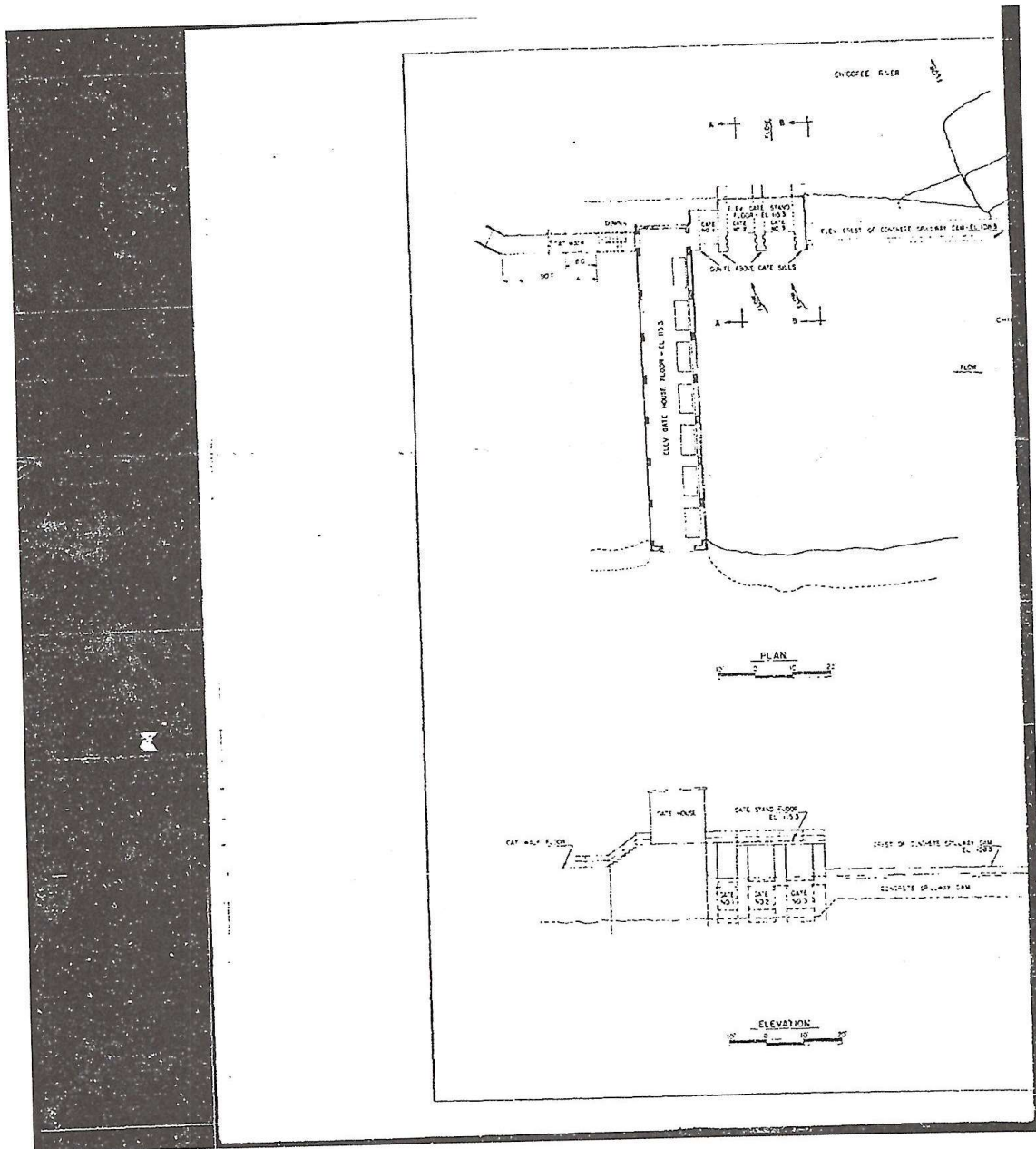
John R. Bewick, Jr.
JOHN R. BEWICK, SECRETARY

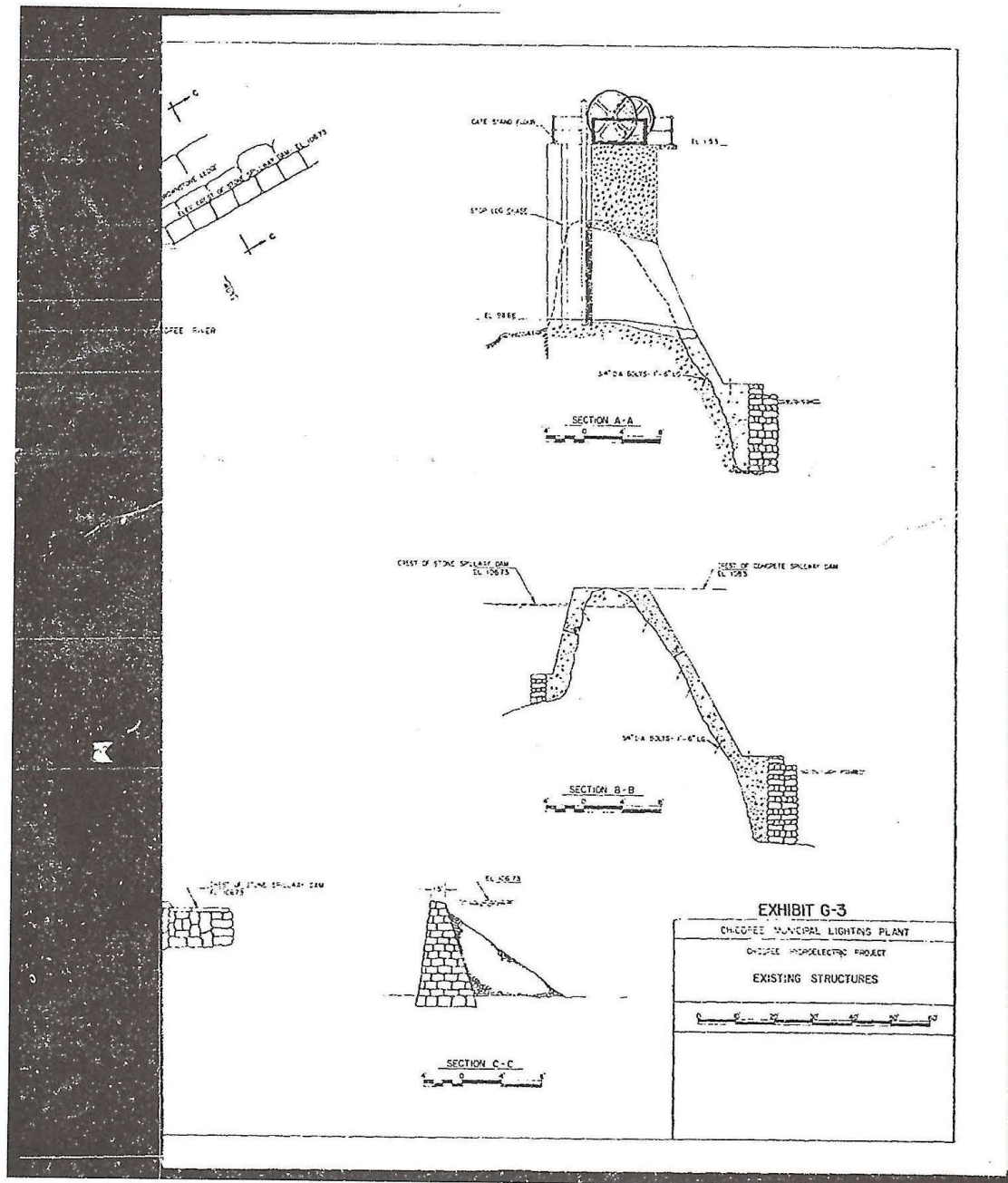












DOCUMENTARY EVIDENCE

The City of Chicopee owns with quitclaim covenants the Chicopee Falls Dam and appurtenances and all water, riparian, and flowage rights associated with the dam. The City of Chicopee has also obtained three (3) easements to use, operate, maintain, replace, and repair the main drains and common sewers as described in the copy of the quitclaim deed (pages 3 and 4).

Attached as evidence is a copy of the quitclaim deed conveying the necessary land and water rights and sewer easements for development of the site to the City.

DEED

Chicopee Mfg. Co.
to
City of Chicopee
Hampden County Registry of Deeds
Book 23, Page 27 PLAN 1

CITY OF CHICOPEE
DEC. 24, 1944
PLAN 23 PAGE 27
1792-382

Chicopee Manufacturing Corporation, a corporation duly established under the laws of the Commonwealth of Massachusetts and having its usual place of business at Chicopee, Hampden County, Massachusetts, for consideration paid, grants to the City of Chicopee, a municipality in the County of Hampden, in said Commonwealth, with QUITCLAIM COVENANTS the land in said CHICOPEE, with the existing stone dam of said grantor and the gatehouse and abutments thereon, bounded and described as follows:

Parcel 1. Beginning at a point in the easterly line of Broadway as it existed in 1928 distant ninety-seven and 38/100 (97.38) feet northerly of the intersection of said easterly line of Broadway with the northerly line of Main Street, and running thence Easterly making an interior angle with the easterly line of Broadway of $59^{\circ} 29'$ along land now or formerly of Tabakman, one hundred twelve and 95/100 (112.95) feet to the northwesterly corner of land formerly of George Paine; thence Easterly by an interior angle of $172^{\circ} 19'$ along said land now or formerly of Paine, ninety-two and 18/100 (92.18) feet to an iron pin at the northwesterly corner of land now or formerly of Wilson Paine Estate; thence Easterly by an interior angle of $190^{\circ} 42'$ along said land now or formerly of Wilson Paine Estate, one hundred twenty-five and 8/100 (125.08) feet to an iron pin at the northwesterly corner of land formerly of the Canterbury Estate; thence Easterly by an interior angle of $188^{\circ} 13'$ along said land formerly of the Canterbury Estate, and land now or formerly of one Walczyk, two hundred thirty-two and 8/10 (232.8) feet to an iron pin on the bank of the Chicopee River; thence to the center of said Chicopee River; thence Westerly by the center of said Chicopee River to the easterly line of said Broadway; thence Southerly along the said easterly line of Broadway to the point of beginning. Excepting from the above described parcel, the premises heretofore conveyed to the City of Chicopee by this grantor by deed dated May 23, 1938 and recorded in Hampden County Registry of Deeds, Book 1669, Page 223, and certain premises acquired by the City of Chicopee under a taking by said City, dated February 17, 1939 and recorded in said Registry of Deeds, Book 1671, Page 88, and any land acquired by said City of Chicopee through the establishment of a new easterly street line of said Broadway and Montgomery Street as described in a taking under date of February 17, 1939 recorded in said Registry of Deeds, Book 1671, Page 87. Said Premises are shown on a plan entitled "Land in Chicopee, Mass. owned by Chicopee Manufacturing Company, made by Cobb, Beesley & Miles, Engineers, dated November 1944" to be recorded herewith. Reserving however, to the said grantor, its successors and assigns, the right, easement and privilege to fill solid so much of the canal of said grantor as shown on said Plan as lies easterly of the westerly line of Broadway as shown on said Plan and westerly of the Gatehouse as shown on said Plan, together with the right to enter upon the granted

(2)

premises for the purpose of making such solid fill and constructing a bulkhead across said canal adjacent to said Gatehouse for the purpose of excluding the waters of said river from said gates and canal, and the said grantor covenants to make such solid fill and bulkhead at its own cost and expense. Said grantee, by the acceptance hereof, covenants and agrees that said solid fill may be made by said grantor as aforesaid between the easterly and westerly line of said Broadway.

Parcel II. Beginning at a point on the easterly line of Montgomery Street at the southwesterly corner of land conveyed by this grantor to the Bay State Refining Co., Inc. by deed dated January 26, 1940 and recorded in Hampden County Registry of Deeds, Book 1702 Page 386 said point being distant southerly along the easterly line of Montgomery Street, twelve and 79/100 (12.79) feet from a stone bound at an angle in said easterly line; thence Easterly along said land so conveyed to the Bay State Refining Co. Inc., it also being the northerly line of a right of way fifty (50) feet wide, three hundred eighty-two and 55/100 (382.55) feet to the southwesterly corner of land previously conveyed to Tarbell & Leete, Inc. as parcel one in deed dated April 29, 1929 and recorded in said Registry of Deeds, Book 1428, Page 257; thence Easterly by an exterior angle of $177^{\circ} 03' 30''$ along said land conveyed to Tarbell & Leete, Inc., continuing in the northerly line of said right of way, two hundred seven and 7/10 (207.7) feet; thence Northerly along said last mentioned land by an exterior angle of $94^{\circ} 48' 30''$ one hundred seventy-two and 44/100 (172.44) feet to land now or formerly of Jan Szott, et al; thence Continuing Northerly by an exterior angle of $180^{\circ} 05'$ along said last mentioned land, one hundred sixty-one (161) feet to an iron pin in the southerly line of Taylor Street; thence Easterly by an interior angle of $80^{\circ} 16'$ along said southerly line of Taylor Street; thence Easterly by an interior angle of $80^{\circ} 16'$ along said southerly line of Taylor Street, forty-eight and 7/100 (48.07) feet to land now or formerly of Katherine T. Sullivan heirs; thence Southerly by an interior angle of $97^{\circ} 37'$ along said last mentioned land, one hundred sixty-eight and 75/100 (168.75) feet; thence Southeasterly by an exterior angle of $104^{\circ} 19'$ along said land of Katherine T. Sullivan heirs, and along lands now or formerly of John H. Sullivan, Michael F. Fitzgerald, Margaret E. Featherstone, Sarah Sullivan, Charles Deslauriers, Pierre Lachapelle, Micie Galica and Martin Mruk, six hundred fifty-four and 52/100 (654.52) feet to an iron pin at the southwesterly corner of land now or formerly of John C. Dupuis, thence continuing Southeasterly by an interior angle of $186^{\circ} 08'$ along said land now or formerly of John C. Dupuis, land now or formerly of Samuel LaFountain, and land now or formerly of Annie Blanchard, two hundred forty-seven and 5/10 (247.5) feet to land now or formerly of Boleslaw Zalewski; thence Southwesterly by an interior angle of $90^{\circ} 11'$ along said last mentioned land, two hundred sixty-one and 14/100 (261.14) feet to an iron pipe near the bank of the Chicopee River; thence continuing Southwesterly to the center of said River; thence Westerly by the center of said River to the easterly line of Broadway or Montgomery Street; thence Northerly along the said easterly line to the point of beginning. Excepting from the above

(3)

described premises a parcel of land previously conveyed to Tarbell & Leete, Inc., being the second parcel in deed dated April 29, 1929 and recorded in said Registry of Deeds, Book 1428, Page 257 and situated on the southerly side of the above mentioned fifty (50) foot right of way, and described as follows: Beginning at a point in the southerly side of said right of way at the northwesterly corner of the parcel herein described; and running thence Easterly along the southerly line of said right of way, two hundred fifty-six and 93/100 (256.93) feet; thence Southerly making an interior angle of $85^{\circ} 12'$ along other land of the grantor eighty-one and 29/100 (81.29) feet; thence Westerly by an interior angle of $91^{\circ} 05'$ along other land of the grantor, two hundred fifty-five and 1/100 (255.01) feet; thence Northerly at right angles to the last course, along other land of the grantor, sixty-four and 71/100 (64.71) feet to the point of beginning. Also excepting from the herein granted premises, any land acquired by the City of Chicopee through the establishment of a new easterly street line of Broadway and Montgomery Street, as described in a taking under date of February 17, 1939 recorded in said Registry of Deeds, Book 1671, Page 87. The above described premises are conveyed subject to the rights of Tarbell & Leete, Inc., their successors, and assigns, and Bay State Refining Co., Inc., their successors and assigns, in the above mentioned fifty (50) feet right of way. Said Parcel II is also shown on said above mentioned Plan.

Both Parcel I and Parcel II are conveyed, together with all rights of flowage and water power rights of any nature, appurtenant to said parcels, including any such rights it may have easterly of the dam hereby conveyed. Said above-described premises are hereby conveyed subject to the existing tenancy of Bay State Refining Co., Inc. in a portion of the second parcel above-described and subject to the right, if any, of one Wernick to maintain a projection from his building on land shown on said Plan as "now or formerly of Tabakman" into and over a portion of the first parcel above-described.

Also all the right, title and interest of said grantor in and to any land lying easterly of the westerly line of said Broadway and Montgomery Street as shown on said Plan. And for the consideration aforesaid, the said grantor grants to the said grantee the following easements.

Easement No. 1: The right, privilege and easement to use, operate, maintain, replace and repair a main drain and common sewer within that portion of the land of said grantor described as follows: Beginning at a point on the westerly line of Broadway, one hundred and thirty-four (134) feet northerly of the northerly line of Main Street, said point intended to be three (3) feet northerly of the northerly face of the southerly canal wall, thence westerly by an angle of 72° more or less on the southwesterly side and three (3) feet northerly of and parallel to said canal wall, a distance of fifteen (15) feet to a point. Said easement to be six (6) feet wide, three (3) feet either side of the above-described center line. Said easement to include the right for the City of Chicopee to construct and maintain a manhole at the westerly end of the above-described center line.

Easement No. 2: The right, privilege and easement to use, operate,

(4)

maintain, replace and repair a main drain and common sewer within that portion of the land of said grantor described as follows: Beginning at a point on the westerly line of Broadway, one hundred and eighty-one (181) feet northerly of the northerly line of Main Street, said point intended to be three (3) feet southerly of the southerly face of the northerly canal wall, thence westerly by an angle of 72° more or less on the southwesterly side and three (3) feet southerly and parallel to said canal wall a distance of seventy-two (72) feet to a point. Said easement to be six (6) feet, wide, three (3) feet either side of the above-described center line. Said easement to include the right for the City of Chicopee to construct and maintain manhole at the westerly end of the above-described center line.

The catch basin outlet from the ramp to be connected to this manhole. Easement No. 3: The right, privilege and easement to use, operate, maintain, replace and repair the existing main drain and common sewer running westerly from Montgomery Street on the northerly side of said Chicopee River within a strip of land eight (8) feet in width, the center line of which is co-incident with the center of said existing sewer pipe and is in part shown on said plan, said strip being bounded easterly by land now or formerly of Lieberman and westerly by land of said grantor by a line coincident with the westerly end of said existing sewer pipe, which line is approximately two hundred seventy-five (275) feet westerly from said land now or formerly of Lieberman. The consideration for this deed is the sum of One Dollar (\$1.00).

In Witness Whereof the said Chicopee Manufacturing Corporation has caused its corporate seal to be hereto affixed and these presents to be signed, acknowledged and delivered in its name and behalf by John F. Shaw, its Vice-President, hereto duly authorized, this 27th day of December in the year one thousand nine hundred forty-four.

Signed and sealed in the presence of: } Chicopee Manufacturing
Dudley B. Wallace } Corporation (Corporate seal)
By John F. Shaw V.P.

Commonwealth of Massachusetts Hampden, as December 24, 1944. Then personally appeared the above-named John F. Shaw and acknowledged the foregoing instrument to be his free act and deed and the free act and deed of the said Chicopee Manufacturing Corporation, before me
Joseph N. Patnode, Notary Public (Notarial Seal) My commission expires July 26, 1946.

I, John J. Gibson, Jr., Secretary of the Chicopee Manufacturing Corporation a corporation duly organized under the laws of the State of Massachusetts, hereby certify that a meeting of the Board of Directors of the said corporation was duly called and held on December 12, 1944, and that at said meeting, at which a quorum was present and voting through out, the following resolutions, upon motions duly made and seconded were duly and unanimously adopted: Resolved: that John F. Shaw is Vice President of this corporation be authorized and directed to execute and deliver in the name of the Corporation proposed Deed, a copy of which is ordered affixed to the minutes of this meeting, conveying to the City of Chicopee, for a consideration of one (1) dollar, all of the Corporation's properties on both sides of the Chicopee River east of the westerly line of the Montgomery Street bridge, including

(5)

the land, dam, water rights, head gates, appurtenances, and easements, together with certain other easements more particularly described therein and affecting other lands of the Corporation; and Further Resolved: that \$3,364 be appropriated for the installation of a concrete wall at the bulkhead and fill of the canal east of the Montgomery Street bridge, which work Mr. Shaw is authorized and directed to undertake immediately. As said Secretary I further certify that the foregoing resolutions have not been repealed, annulled, altered or amended in any respect but remain in full force and effect.

In Witness Whereof I have hereunto set my hand and affixed the seal of the said corporation this fifteenth day of December 1944.

John J. Gibson, Jr. (Corporate Seal)
Secretary

Chicopee Manufacturing Corporation.

Rec'd Dec. 27, 1944 at 2H. 29M. P.M. and Reg'd from the original