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LEGAL OBSTACLES AND INCENTIVES TO THE DEVELOPMENT OF SMALL SCALE HYDROELECTRIC PROJECTS IN MASSACHUSETTS

MASTER

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INTRODUCTION

This memorandum describes in detail the legal and institutional obstacles to the development of small scale hydroelectric energy at the state level. It is designed to aid the developer in the determination of which permits, licenses and laws of the state must be secured or complied with for the development of a project. However, the developer should be aware that the state regulatory system does not comprise the universe of hydroelectric regulation. The federal government also exercises extensive regulatory authority in the area.

This dual regulatory system is a function of the federalist nature of our government. Federalism permits both the federal government and the state government to regulate and license certain aspects of a developer's project. Principles of federalism often support a finding that the federal regulation in question will be superior to comparable state regulation. This superiority of federal law can divest the state of any regulatory authority in a given area. Typically, the developer, with this general principle in mind, is compelled to wonder why he must be concerned with the state system at all. The following discussion will examine the area of federal-state relationships with the aim of creating a more orderly understanding of the vagaries of the system.

Thus, the remainder of this introductory section will examine the dual regulatory system from the standpoint of the appropriate legal doctrine, the law of pre-emption, application of the law to the case of hydroelectric development and will conclude with an inquiry into the practical use of the doctrine by the Federal Energy Regulatory Commission. (Hereinafter the FERC).

A. The Law of Pre-emption[a]

As alluded to above, pre-emption is the term that describes, in a federalist system, the ability of the law of one sovereign to take precedence over the law of a lesser sovereign. Specifically, it is the supremacy of the federal law to the state law.

The doctrine of pre-emption is derived from the U.S. CONST. art. VI, cl. 2, which states: "...[t]his Constitution, and the Laws of the United States . . . and all Treaties . . . shall be the supreme Law of the Land; . . . any Thing in the Constitution or Laws of any State to the Contrary notwithstanding." This clause is the basis of federal supremacy. On its face, the supremacy clause purports to divest the states of authority. However, the principles of federalism do not support such a reading. The federal government is a government of delegated authority. Its laws can be supreme only within the scope of its delegation.[b]

Thus, before the doctrine of pre-emption can be invoked, the federal measure in question must be within an area of the authority delegated to the federal government. In other words, the federal action must have the capability to pre-empt the state action. It is implicit in the above statement that there are certain areas of regulation in which the federal government does not have a pre-emptive capability. Where pre-emptive capability

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a See generally Gunther, Constitutional Law ch. 5 § 2 (9th Ed. 1975); Tribe, American Constitutional Law § 6-23 et seq. (1978); and Engdahl, Constitutional Power ch. 12 (1974).

b See McCulloch v. Maryland, 17 U.S. (4 Wheat) 316, 405 (1819), "...government of the Union though limited in its power is supreme within its sphere of action."

is lacking, the state law will control.[c]

Once pre-emptive capability is determined to exist, further inquiry must be made to ascertain whether pre-emption exists. Whether a particular state measure is actually pre-empted by a federal measure depends upon the judicially-determined Congressional intent.[d] At this point, the difficulty becomes one of how to determine the intent of Congress.

The U.S. Supreme Court has, on a case by case basis, articulated factors which it declares to be indicative of the Congressional intent to pre-empt. At times the Court has examined the federal statutes to see if they deal with the matter exhaustively. From exhaustive federal regulation the Court infers an intent of no state regulation.[e] Where the Court can infer a need for national uniform standards, pre-emption will be appropriate.[f] The Court has also found pre-emption proper where there are contradictory federal and state

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c
See, e.g., Regents v. Carroll, 338 U.S. 586 (1950); where the Court held that the F.C.C. could, pursuant to the federal power of regulating interstate commerce, grant or deny or condition the grant of a radio broadcasting license. Here, the license condition required the unilateral disaffirmance of a contract with a third party. Such a condition violated state law which prohibited unilateral disaffirmance. The Court held that while the federal government has pre-emptive capability in the area of interstate commerce, it had no such privilege in the area of state contract law. Hence, state contract law was supreme.

d
See, e.g., City of Burbank v. Lockheed Air Terminal Inc., 411 U.S. 624 (1973).

e
E.g., Brotherhood of Railroad Trainmen v. Jacksonville Terminal Co., 394 U.S. 369 (1969).

f
E.g., Campbell v. Hussey, 368 U.S. 297, 301 (1961); stating "we do not have the question of whether [state] law conflicts with federal law. Rather we have the question of pre-emption . . . [Here] complementary state regulation is as fatal as state regulation which conflicts with the federal scheme." Cf. Florida Lime and Avocado Growers Inc. v. Paul, 373 U.S. 132 (1963) finding pre-emption inappropriate as federal law was concerned with minimum standard rather than uniform standard.

requirements making compliance with both impossible.[g]

Thus, given a finding of the pre-emptive capability of the federal law and a finding that an appropriate basis exists to infer that the Congressional intent was pre-emption, federal law will be superior to state law.

The following section will examine the application of these principles by the Court to the case of hydroelectric development.

B. Pre-emption and Hydroelectric Development

1. The Federal Power Act

In the area of hydroelectric development the Federal Power Act enjoys pre-emptive capability. This pre-emptive capability is based upon the Federal Commerce Clause.[h] That clause gives to the Congress the power "to regulate commerce . . . among the several states."[i] Federal jurisdiction to regulate commerce has been held to include the regulation of navigable waterways.[j] Thus, federal regulation of navigable waterways may preclude state regulation. However, the regulation of property rights is not a federal power and in that area the federal law does not have a pre-emptive capability. State property law will govern the rules pertaining to water rights.[k]

The U.S. Supreme Court has also addressed the issue of whether the Federal Power Act actually pre-empts state licensing authority. The Court held

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g
See Gibbons v. Ogden, 22 U.S. (9 Wheat) 1 (1824).

h
U.S. CONST. art. I, § 8, cl. 3.

i
Id.

j
Gibbons v. Odgen, 22 U.S. (9 Wheat) 1, 84 (1824), "...all America understands and has uniformly understood the word 'commerce' to comprehend navigation."

k
First Iowa Hydroelectric Coop. v. F.P.C., 328 U.S. 152, 171-176 (1946). Compare Regents v. Carroll, 338 U.S. 586 (1950).

that an applicant need not comply with state permit requirements to secure a federal license.[l] Further, the Court found that the intent of Congress was to secure enactment of a complete scheme of national regulation which would promote the comprehensive development of the water resources of the Nation.[m] Given that finding of intent, the section of the Federal Power Act which requires each applicant to submit satisfactory evidence of compliance with state law[n] was interpreted to only require the Federal Energy Regulatory Commission to consider state laws when granting a federal license, but not to require an applicant to comply with state law.[o] Thus, pre-emption of state licensing by federal licensing is appropriate, given the Congressional call for a "complete scheme" evidencing exhaustive and uniform regulation.

However, the FERC may by regulation require evidence of the applicant's compliance with any of the requirements of a state permit that the Commission considers necessary. Hence, the Commission has the discretionary authority to require compliance with state permit requirements.[p]

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l First Iowa Hydroelectric Coop. v. F.P.C., 328 U.S. 152 (1946).

m Id. at 180.

n 16 U.S.C. § 802(b) (1976).

o First Iowa Hydroelectric Coop. v. F.P.C., 328 U.S. 152, 177-178 (1946).

p Id. See F.P.C. v. Oregon, 349 U.S. 435, 445 (1955). The State challenged the adequacy of license provisions approved by the Commission for the conservation of anadromous fish. The Court held that the Commission acted within its power and discretion by granting the license and that the state could not impair the license by requiring the state's additional permission or more stringent requirements.

2. The Public Utility Regulatory Policies Act of 1978

Into the already complicated dual system of hydroelectric power regulation, Congress has injected a surprisingly progressive piece of legislation: The Public Utility Regulatory Policies Act of 1978 (hereinafter cited as PURPA), signed into law by President Carter on November 9, 1978, as part of the 5-bill National Energy Act.[q] The eventual impact of PURPA, whose implementing regulations are being drafted as of this writing, is far from certain.[r] However, a few broad conclusions regarding state and federal jurisdiction can be made based on the legislation, itself, and the Conference Managers Report which accompanied it.

The traditional regulatory scheme of things has been that a person selling electric energy for ultimate distribution to the public would be considered an electric utility and subject to federal jurisdiction if the electricity is sold for resale or in interstate commerce, and state jurisdiction if it is sold intrastate directly to the consumer.[s] As explained above, this system results from the Federal Power Act, the Commerce Clause[t] and the doctrine of pre-emption.

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[q]The other four pieces of legislation comprising the National Energy Act are: National Energy Conservation Policy Act; Energy Tax Act of 1978; Powerplant and Industrial Fuel Use Act of 1978; and Natural Gas Policy Act of 1978.

[r]Rules implementing the legislation herein under discussion are to be issued by FERC by November 8, 1979, to be implemented by state regulatory authorities and nonregulated utilities by November 8, 1980.

[s]16 U.S.C. § 824 (1975), Section 201 of the Federal Power Act.

[t]One of the bases for Commerce Clause invocation is the fact that a utility selling to another utility for eventual resale is interconnecting to an interstate transmission grid and will "affect" interstate commerce even if both the selling and purchasing utilities are located within the same state. See F.P.C. v. Union Electric Co., 381 U.S. 90, reh. denied, 381 U.S. 956 (1965).

PURPA seeks to turn this system upside down in order to further the Congressional intent to encourage the development of small power production facilities, such as small scale hydroelectric plants.[u]

One aspect of this reordering is that a hydroelectric plant which meets the qualifications set out in § 201 of PURPA, i.e., becomes a "qualifying facility" (hereinafter cited as QF), could have its rates determined by a state public utility commission, in spite of the fact that its sales enter the interstate grid and are intended for resale. Although FERC will retain some jurisdiction by setting out the rate-making standards which the state commissions will be required to follow, the day-to-day administration of the wholesale rate-making involved will fall to the states for the first time.

This contravention of traditional jurisdiction is further extended by a provision in PURPA which gives FERC the discretion to exempt QF's from substantial portions of now-existing state and federal law.[v] This exemption authority is premised on the Act's purpose of removing obstacles to the development of small power production facilities. The exemption from certain provisions of federal law, such as parts of the Federal Power Act and the Public Utility Holding Company Act, serves the Congressional goal of removing the extensive scrutiny of organizational and financial details which accompanies governmental regulation of power companies and acts as a substantial disincentive to alternative

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[u]The scope of PURPA encompasses much more than the principles discussed in this introduction. Even the Title II sections which provide the jurisdictional authorities discussed herein apply to facilities other than hydro; e.g., cogenerators. For a complete discussion of PURPA's effects on small scale hydroelectric development see FEDERAL LEGAL OBSTACLES AND INCENTIVES TO THE DEVELOPMENT OF THE SMALL SCALE HYDROELECTRIC POTENTIAL OF THE NINETEEN NORTHEASTERN UNITED STATES, Energy Law Institute (second draft) (1979).

[v]§ 210 (e)(1) of PURPA.

energy development.[w] The exemption from state law, however, meets an additional concern. Without it, the states might have an argument to the effect that the field of wholesale rate regulation has no longer been pre-empted and they are therefore free to step into the void created by the removal of exhaustive federal involvement. Because this would have the effect of subjecting QF's to precisely the kind of utility-type regulation Congress sought to avoid, this idea of pre-emption by exemption was utilized.

Although provisions exempting QF's from certain state and federal regulations will only be implemented if FERC "determines such exemption is necessary to encourage . . . small power production,"[x] a recent FERC Staff paper on this section states: "It is clear from the Conference Report that Congress intended the Commission to make liberal use of its exemption authority."[y]

3. Federal Clean Water Act

A current example of this type of coordination between federal pre-emptive authority and day-to-day administration by the states is found in the area of water quality. Under the Federal Clean Water Act, authority has been conferred upon appropriate state agencies to monitor and enforce various aspects of water quality. Certain state agencies have also been designated to issue § 401

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[w] "...the examinations of the level of rates which should apply to the purchase by the utility of the . . . small power producer's power should not be burdened by the same examination as are utility rate applications, but rather in a less burdensome manner. The establishment of utility type regulations over them would act as a significant disincentive to firms interested in . . . small power production." Conference Manager's Report, accompanying § 210 of PURPA.

[x] § 210 (d)(1) of PURPA.

[y] STAFF PAPER DISCUSSING COMMISSION RESPONSIBILITIES TO ESTABLISH RULES REGARDING RATES AND EXCHANGES FOR QUALIFYING COGENERATION AND SMALL POWER PRODUCTION FACILITIES PURSUANT TO SECTION 210 of THE PUBLIC UTILITY REGULATORY POLICIES ACT OF 1978, page 7; Docket No. RM79-55, Federal Energy Regulatory Commission, June 26, 1979.

water quality certificates and § 402 "point source" permits. As in what is expected to be the case with electric utility regulation under PURPA, in the area of water quality, there is no dispute as to which sovereign's law applies; the federal law applies and is administered by a state agency. The federal law establishes a minimum standard for the states to implement. Consistent with the law of pre-emption, a state may require a higher standard,[z] i.e., a standard which goes even further in carrying out the intent of Congress.

C. The Practical Use of Pre-emption

The above discussion has detailed the legal use of the pre-emption doctrine. The purpose of this section is to describe the doctrine in practice.

The FERC prefers that a developer comply with appropriate state permits before applying to it for a license. The preference is grounded in two rationales. First, the FERC is aware of the federal-state relationship and the possible political ramifications of totally ignoring state input. Second, the FERC must, in granting the license, make a determination that it is a project best suited to the comprehensive development of the waterway. The state has an interest in the use and development of its watercourses and its opinion of their development is important to the FERC. Hence, the FERC values state input where it is reasonable.[aa] Thus, the practical application of pre-emption dictates that the hydroelectric developer adhere to the state's legal and regulatory system.

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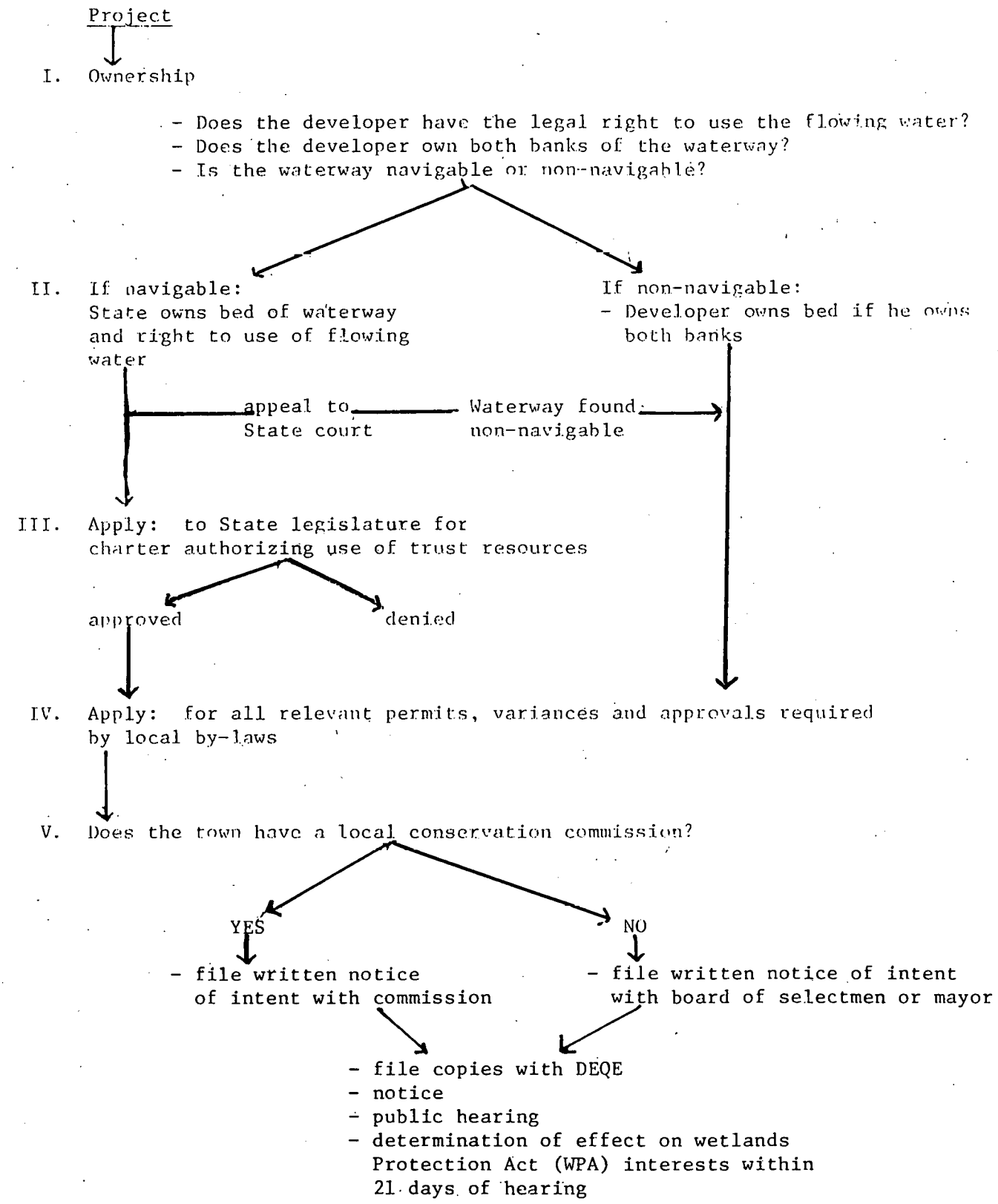
[z] See Florida Lime and Avocado Growers Inc. v. Paul, 373 U.S. 132 (1963).

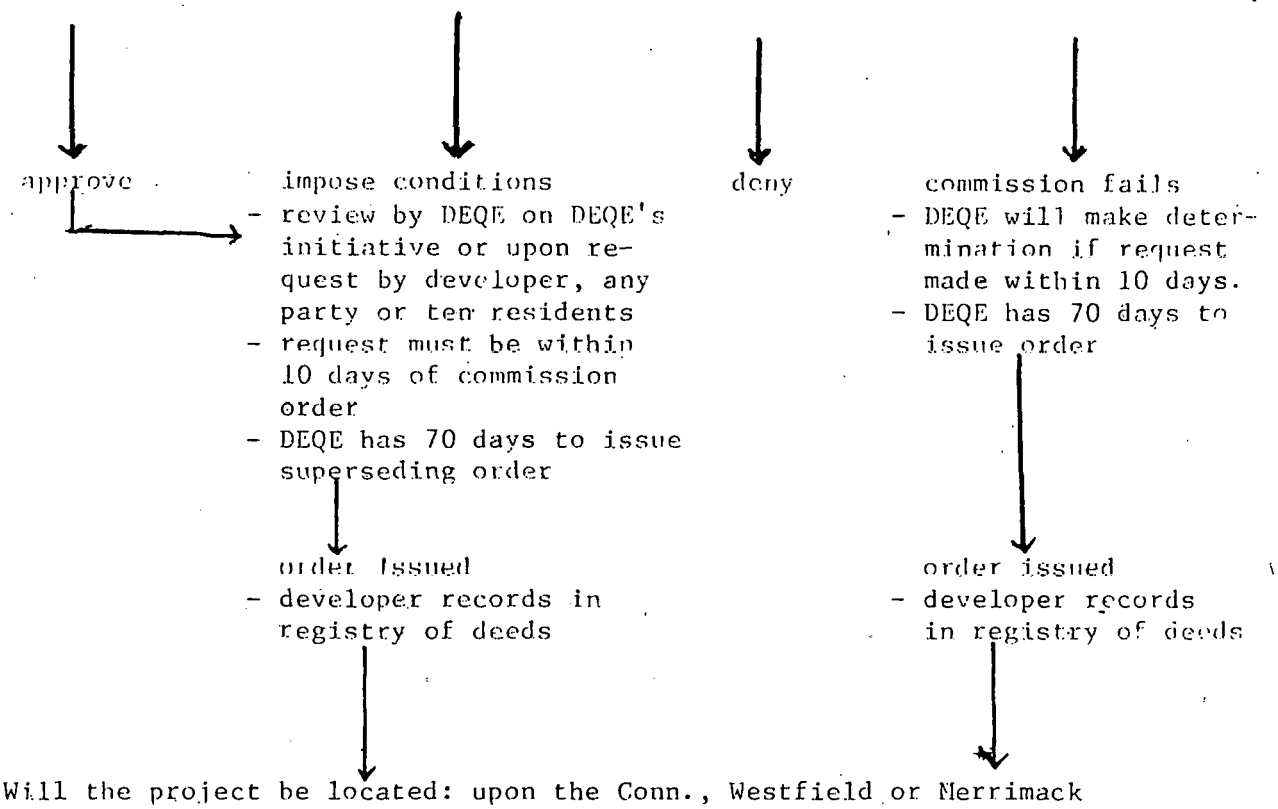
[aa] See F.P.C. v. Oregon, 349 U.S. 435 (1955).

With respect to PURPA, the federal agency, FERC, will establish the guidelines for rates for sales and exchanges of power between electric utilities and qualifying small hydroelectric projects and will prescribe rules for exemptions from state and federal regulation. These standards and rules will be administered by state agencies, i.e., state public utility commissions. Accordingly, the developer of a SSH project should be aware of the FERC standards on rates and rules on exemptions and should know that he/she will be dealing directly with state agencies.

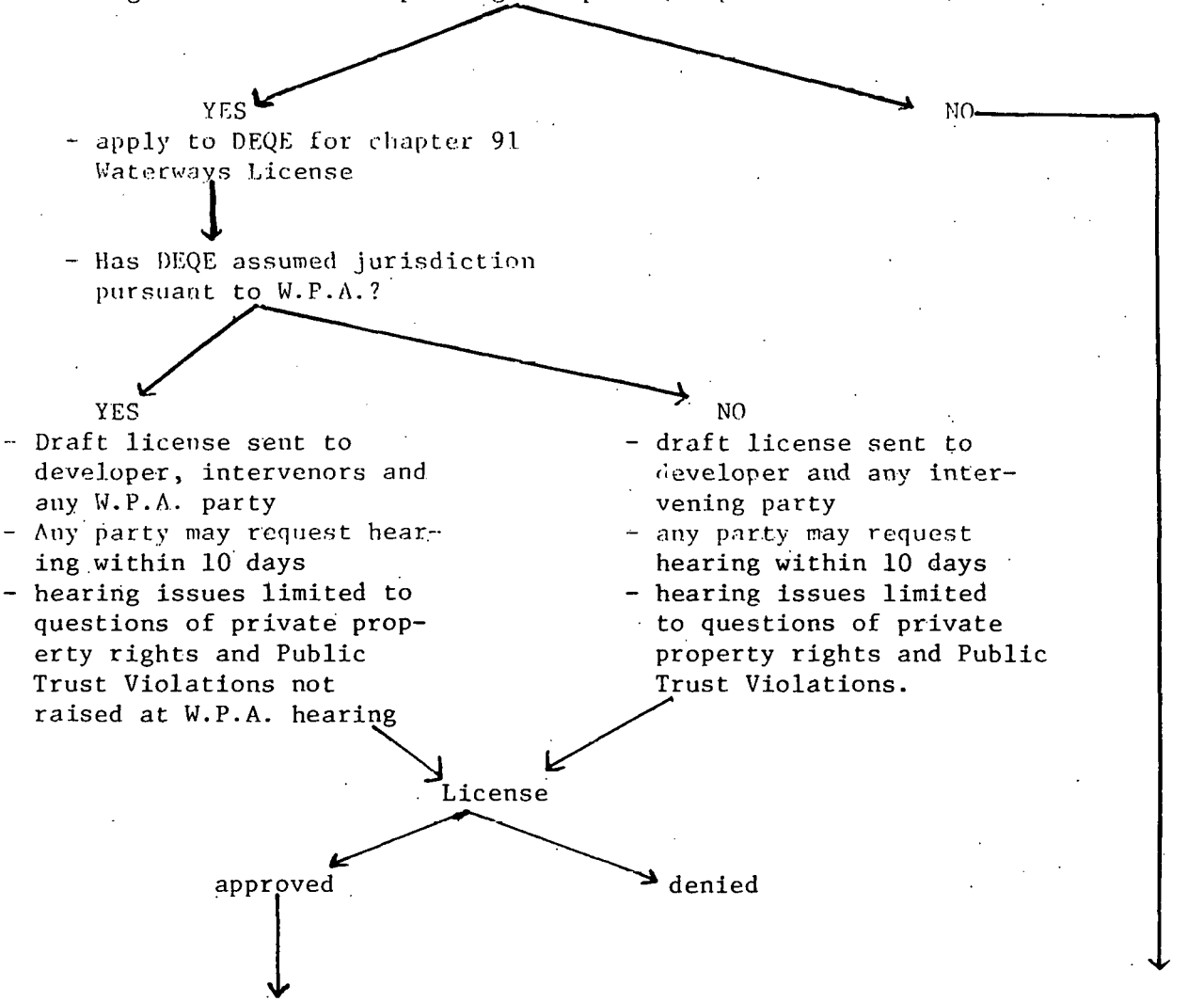
The regulatory system which is presently in place with regard to clean water will confront the developer at the state level. In most states, this federally-conferred authority will be administered by an agency such as the Department of Natural Resources. These agencies will require the developer to meet certain water quality standards, set by the state and federal government and will mandate that the SSH developer obtain the requisite certificate and permit, as required by the Federal Clean Water Act.

Flow Diagram of Regulation of
Small Dams in Massachusetts





VI. Will the project be located: upon the Conn., Westfield or Merrimack Rivers or be upon any stream for which expenditures have been made for clearance, improvement or flood control or in any tide waters below high water mark or upon a great pond (chapter 91 license)?



VII. Will the dam be located upon a non-navigable river and involve risk to life or property in the event of breach or exceed one square mile of drainage or exceed 10 feet in height or impound more than one million gallons of water (Mill Act)?

YES
- file plans and specifications with DEQE
- Mill Dam Permit

Approved

Denied

NO

VIII. Will the developer apply to a state agency for a license, permit or financial assistance (MEPA)?

YES
- file environmental notification form (ENF) with Sec. of Executive Office of Environmental Affairs (EOEA) no later than 10 days after filing first application
- check exemptions in Appendix C - MEPA — exempt
- file copies of ENF with other agencies
- notice
- agency review of ENF
- comments
- Environmental Impact Report (EIR)

required
- scoping by EOEA
- prepare draft EIR
- notice
- circulation
- comment
- prepare final EIR
- notice
- circulation
- comment
- EOEA decision on project within 7 days of end of comment period

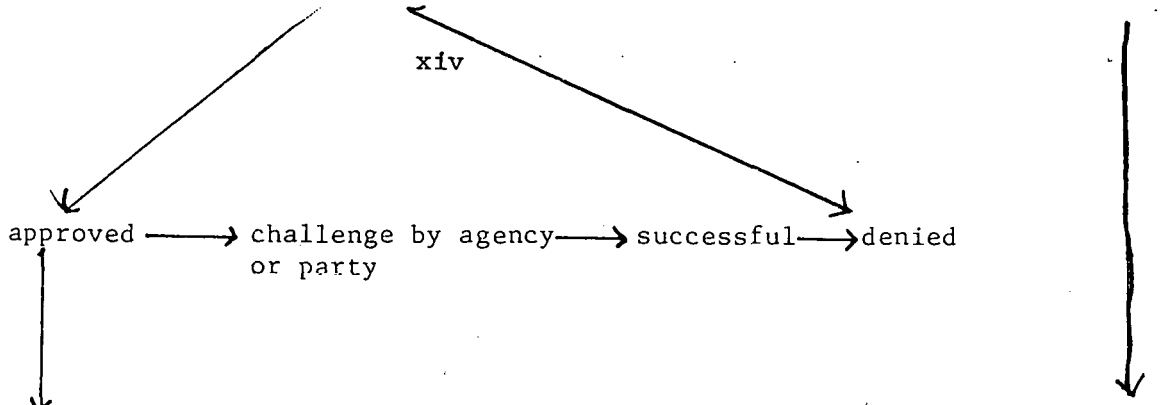
not required

challenge by public or other agency

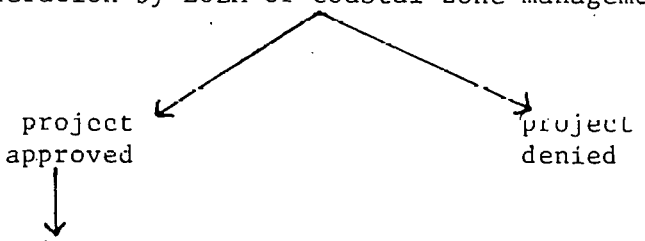
required

not required

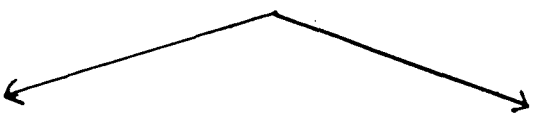
NO



IX. Determine effect on other state interests and apply for the appropriate permits
- fish ladder determination by DFWRV or DMF
- reclamation district approval
- permission of Mass. Historical Commission if dam will affect landmark or be located in an historic district
- comply with DEM orders relating to wild and senic rivers and inland or coastal wetlands
- consideration by EOEA of coastal zone management effects



X. Is the project a corporation organized for the purpose of selling electric energy?



YES
- Dam is a public utility
- comply with D.P.U. regulations
- rate regulation
- stock and bond issuance regulation
- regulation of form of books and accounts
- file rate schedules with D.P.U.
- assessment

NO
- dam is not a public utility

XI. Construction, Operation and Maintenance of Dam
- Comply with conditions of all permits and licenses
- fishways
- utilize Massachusetts Mill Act
- Obtain liability insurance for dam breach
  - Massachusetts will apply a strict liability theory for dam breach.
  - Is project feasible under prevailing rates?
  - If insurance unavailable, is project worth risk?

I. MASSACHUSETTS WATER LAW

A. Title to the Streambed and the Reasonable Use Doctrine

1. Use of the Streambed

The preliminary obstacle that any developer must confront is obtaining authority to utilize the bed and flowing water to a given river or stream. This necessarily involves a determination of: (1) ownership of the streambed and the procedure for obtaining either title or use; (2) existing constraints with regard to the use of the water.

Title to the bed of a given stream turns upon a determination of whether the stream is "navigable" or "non-navigable." If a stream is navigable, title to the bed is held by the State in trust for the public.[1] The "trust" is created by the public right to utilize these streams as public highways for purposes of pleasure, as well as commerce.[2] Navigable streams may not be imposed upon for other public uses, even by eminent domain authority, unless the alternative uses are specifically provided for by legislative authority.[3]

Navigable streams in Massachusetts are defined as those streams which are subject to the ebb and flow of the tide.[4] This

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[1] Arundel v. McCullock, 10 Mass. 70 (1813); Woodbury v. Municipal Council of Glouster, 318 Mass. 385, 61 N.E. 2d 647 (1945).

[2] Arundel v. McCullock, supra.

[3] Id.

[4] Ingraham v. Wilkinson, 21 Mass. (4 Pick.) 268 (1827); Attorney General v. Woods, 108 Mass. 436 (1871).

was the definition employed under English Common Law; it has subsequently been rejected by the great majority of states and replaced by the "navigable in fact" doctrine. That doctrine essentially provides that rivers are "navigable" when they are used, or susceptible to being used, as highways of commerce.[5] The Massachusetts Supreme Judicial Court has incorporated the "navigable in fact" doctrine into its common law by asserting that while a river or stream may be non-navigable in law, it may nevertheless be navigable in fact and consequently subject to a public easement of passage.[6] Use of the easement by the public extends to purposes for business, convenience or pleasure.[7]

The significance of a determination that a stream is navigable - distinctions of in law and in fact notwithstanding - is that any right a developer may have with respect to such stream is subordinate to a superior right of the public. A dam must not seriously interfere with the "public easement." These public rights give rise to extensive regulation of navigable waterways under both State and Federal law. Regulation by the Commonwealth of Massachusetts will be discussed extensively in Part II of this paper.

Since any right the developer may have in a navigable stream is inferior to the public easement of passage, the right is subject to any improvement the State or Federal government may make

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[5] The Daniel Ball, 77 U.S. (10 Wall.) 557 (1870).

[6] Ingraham v. Wilkinson, supra; Bosnan v. Gage, 240 Mass. 113, 183 N.E. 622 (1921).

[7] Id.

for purposes of navigation. The consequences of such action may indeed be harsh. Though an improvement might result in substantial injury to the developer's ability to generate power, he will be left without a remedy.[8]

Ownership of the bed of a non-navigable stream is held by the respective riparian owners.[9] The line of a riparian estate abutting a non-navigable stream extends to the middle of the stream.[10] The proprietor may convey his estate in the bed of the river separately from the upland or, conversely, may convey his upland estate separately from the bed.[11] A riparian proprietor on a non-navigable stream is presumed to hold title to the middle of the stream.[12]

As previously noted, the developer is confronted with the initial task of obtaining title or interest to a portion of a streambed or permission for its use. In cases involving navigable streams, the developer must look to the State for permission. Apparently, the appropriate agency to contact in Massachusetts is the Department of Environmental Quality Engineering.[13] As noted earlier, any right to use the bed is subordinate to the public easement of navigation.

In situations involving rivers or streams determined to be

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[8] See, Richard R. Powell, The Law of Real Property, § 723 et seq. (1977).

[9] Knight v. Wilder, 56 Mass. (2 Cush.) 199 (1848).

[10] Id.

[11] Id.

[12] Commonwealth v. Alger, 61 Mass. (7 Cush.) 53 (1851).

[13] Mass. Gen. Laws Ann. ch. 91 §§ 1; 2 (West 1969).

non-navigable under Massachusetts law, the developer must obtain right, title or interest to the bed from the proper riparian owners. Certain states provide assistance to the developer in this undertaking by providing him with the power of eminent domain in the event that he is unable to reach a purchase agreement with the riparian proprietors.[14] The power under Massachusetts law, with respect to privately owned hydroelectric companies, is granted only for the purpose of laying transmission lines.[15] The developer may however, receive the authority to take by eminent domain from the Federal Energy Regulatory Commission by showing a good faith, but unsuccessful effort to purchase.[16]

The advantage of locating a LHH site on a non-navigable stream is that the stream is not subject to the public easement of navigation. A disadvantage is that it may occasionally be difficult to locate the holder of the title to the bed. In some instances, the holder of the title to the bed may be an individual other than the owner of abutting land. A determination of where title is located involves time, effort and cost. This "search cost" is not a factor with respect to navigable streams.

When a dam site is located on a stream that is non-navigable

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[14] See, e.g., Ohio Rev. Code Ann. § 1723.01 (Page 1964).

[15] Mass. Gen. Laws Ann. ch. 164 § 72 (West 1972).

[16] 16 U.S.C. § 814 (1970).

in law, but navigable in fact, both search costs and the burden of the public easement of navigation affect the developer.

2. The Reasonable Use Theory

Massachusetts follows the reasonable use theory of riparian law. The theory constrains the extent to which a developer may utilize the waters of a given stream inasmuch as his use must not exceed a "reasonable use." The exercise of his right is measured against the like right of other riparian owners along the stream.

A reasonable use is determined according to the size and capacity of the stream.[17] Where an individual builds a dam across a river and the dam is of a magnitude that is adapted to the size and capacity of the stream and the quantity of the water flowing within it; the use constitutes a reasonable one.[18] Reasonable use is dependent upon the state of civilization, the development of mechanical and engineering technology, climatic conditions, the customs of a particular neighborhood and the other circumstances of each case.[19]

The developer must ascertain whether the operation of a dam at a given site will constitute a "reasonable use" in relation to other riparian owners along the stream. The vagueness

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[17] Wamesit Power Co. v. Stearling Mills, 158 Mass. 435, 33 N.E. 503 (1893).

[18] Gould v. Boston Duck Co., 79 Mass. (13 Gray) 442 (1859).

[19] Stratton v. Mount Herman Boy's School, 216 Mass. 83, 103 N.E. 87 (1913).

of the theory and the uncertainty that it engenders may understandably be a cause for concern to the developer. However, it must be recalled that "reasonable use" clearly incorporates the use of a stream for the generation of power.[20] In addition, in order for any action to be maintained, a plaintiff must show not only an unreasonable use, but also actual damages.[21] In other words, another riparian owner, in attempting to either obtain damages or prevent the developer's continued operation of his facility, must demonstrate to a court that the developer's use was unreasonable and that he, the riparian proprietor, was actually harmed by the use.

The developer is also provided some assistance in this gray area of law from the Mill Dam Act which is discussed below.

B. The Mill Dam Act - Modification of the Common Law

The common law permitted a riparian proprietor to erect a dam and create a pond for mill purposes if he owned both sides of a stream, or if he owned one side and obtained the consent of the proprietor on the other side. If, however, the riparian proprietor overflowed the lands of others or interfered with the operation of existing dams, his dam might be adjudged a nuisance and subject to damages and/or abatement.[22] Since the

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[20] Gould v. Boston Duck Co., supra.

[21] Elliot v. Fitchburg Railroad Co., 64 Mass (10 Cush.) 191 (1852).

[22] See e.g., Hodges v. Raymond 9 Mass. (9 Tyng) 316 (1813); Bigelow v. Newhall 27 Mass. (10 Pick.) 348 (1830).

operation of mills was essential to community life during the colonial period, a number of state legislatures passed acts to permit millers to overflow upstream lands. These laws become known as the "Mill Dam Acts." The Massachusetts version of the Act is still in effect today.[23]

Under the Mill Dam Act a person may erect and maintain a watermill and dam to raise water for working it across any non-navigable stream in the Commonwealth.[24] The Massachusetts courts have determined that the Act applies to dams which are used for the generation of electric power.[25]

An owner or occupier of land whose land is overflowed or substantially damaged as a result of the erection of a mill dam may, within three (3) years from the date of the damage, bring a civil action in the county superior court to obtain compensation.[26] The action is tried by a jury.[27] If the jury finds that the plaintiff has suffered injury, it must assess the amount of damages taking into account any damage caused by the dam to other land owned by the plaintiff as well as the damage caused to the overflowed land.[28] This amount must then be reduced

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[23] Mass. Gen. Laws Ann. ch. 253 § 1 et seq. (West) (1959)

[24] Id. § 1.

[25] Duncan v. Northeast Power Co., 225 Mass. 155, 113 N.E. 781 (1916).

[26] Mass. Gen. Laws Ann. ch. 253 § 4 (West Cum. Supp. 1978-1979).

[27] Id. § 7.

[28] Id. § 8.

by any benefit conferred on the plaintiff's land as a result of the flowage.[29] For example, the value of land may increase due to the fact that recreational uses are enhanced.

The damage provision under the Mill Dam Act provides the exclusive remedy available to an individual whose land is overflowed by a mill dam.[30] It replaces those remedies that were available at common law.[31]

Any amount paid to a landowner as compensation for overflow is payable either annually or in gross at the election of the owner.[32] Any owner entitled to receive compensation holds a lien on the mill owner's mill, dam, appurtenances and land.[33]

In addition to any action for damages, a plaintiff may allege that a given dam is raised to an unreasonable height or that it is unreasonably maintained. The jury, if finding for the plaintiff, must determine how much the dam should be lowered or whether it shall be left open.[34]

Under the Mill Act, a dam may not be erected to the injury of another mill lawfully existing above or below it on the same stream, nor to the injury of a mill site on the same stream on which a mill dam has been lawfully erected and used.[35] A mill dam

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[29] Id.

[30] Id. § 19 (1959).

[31] Fiske v. Framingham Manufacturing Co., 29 Mass. (12 Pick.) 70 (1831).

[32] Mass. Gen. Laws Ann. ch. 253 §§ 10-13 (West Cum. Supp. 1978-1979).

[33] Id. § 14.

[34] Id. § 9.

[35] Id. § 2 (1959).

must not injure a mill site which has been occupied by the owner only if the owner completes and puts into operation a mill within a reasonable time after occupation.[36] The effect of this provision is to significantly modify the common law.

As previously noted, under the common law a riparian proprietor could erect a dam for water power purposes. Such use had to be reasonable in relation to the other riparian proprietors who enjoyed a similar right. An enforcement by the other riparian proprietors of their common law right to erect a mill dam would often make it impossible for any of them to utilize the water for power purposes in an effective and profitable manner. The Mill Act was intended to alleviate this situation and provide a solution where the common law could not.

The Mill Act has replaced common law riparian doctrine with a rule that states priority of appropriation gives the better right.[37] The effect of this rule is to provide for the efficient utilization of a stream for power purposes. The rule prescribed by the statute calls for an actual appropriation of the site by an individual who intends to use it for the development of water power, followed by a completion of the work and the actual use of the water within a reasonable time.[38] The Act removed a

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[36] Id.

[37] Otis v. Ludlow Manufacturing Co., 95 Mass. (13 Allen) 10 (1866).

[38] Id.

significant disincentive to the development of water power. By appropriating land for a mill site, and erecting a dam within a reasonable time, a developer would know that he had acquired a right to use water power that would not be substantially diminished by the erection of other dams. This added security made the development of water power more economically attractive to entrepreneurs with the consequence that they were more willing to invest their time and energy into its utilization.

The Mill Dam Act, with respect to the use of mills, resembles a theory of water law utilized by a number of Western states. The theory is the prior appropriation doctrine. The doctrine stands in contrast to riparianism and "reasonable use." Prior appropriation essentially provides that the right to the use of water belongs to the individual who first appropriates it. This obtains regardless of the location of his land. The effect of the doctrine has been to bring about the efficient use of a precious commodity in many arid Western states - water. While water is readily available in the Commonwealth of Massachusetts, the Mill Dam Act has assisted in causing the most efficient use of another precious commodity - the power that can be derived from water. By so doing, it contributed significantly to the industrial development of the Commonwealth.

The state courts in Massachusetts have determined that the Mill Dam Act does not involve a taking of land under eminent domain authority.[39] This means that the owner of the mill dam gains no

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[39] Storm v. Manchaug Co., 95 Mass. (13 Allen) 10 (1866).

easement or title in or over upper land. He obtains rather, a mere right to flow.[40] The earlier cases were not consistent in characterizing the nature of the action under the Mill Dam Act. For example, one State Court Justice claimed that flowage under the Mill Act was a proper exercise of eminent domain authority in one case,[41] and then three (3) years later asserted that eminent domain was not at issue under the Act.[42] In another decision, the court utilized language alluding to a taking of land when the damages were paid in gross.[43] In any event, the later cases have consistently held that a taking of land is not involved.[44]

The constitutionality of the Mill Dam Act has not gone unchallenged. It has been alleged that the Act does indeed involve a taking of land and that the damages provided are inadequate. Therefore, the argument goes, the Act is violative of the fifth amendment to the United States Constitution. In Otis v. Ludlow Manufacturing Co.[45] the Massachusetts court held that the argument could not be sustained and found the Act valid as a proper exercise of the state police power to regulate for the public health, safety and welfare. It noted that the legislature acted in the best interest of both the public and the

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[40] Id.

[41] Chase v. Sutton Manufacturing Co., 58 Mass (4 Cush.) 152 (1848).

[42] Murdock v. Stickney, 62 Mass. (8 Cush.) 113 (1851).

[43] Lowell v. Boston, 111 Mass. 454 (1873).

[44] See, e.g., Dickinson v. New England Power Co., 257 Mass. 108, 153 N.E. 458 (1926).

[45] Supra, note 37.

affected property owners by attempting to resolve conflicting rights with regard to the use of streams.

The decision was appealed to the U.S. Supreme Court.[46] The Act was upheld in an opinion by Justice Holmes. The rationale of the Court in that case and its characterization of the action under the Mill Act is important in understanding the basis for that affirmance.

The Court initially noted that the liability of streams to the kind of appropriation and use under the Act had become so familiar in New England as to virtually constitute "an incident into the nature of property in streams as there understood."[47]

The Court went on to assert however, that the liability of upper land to be flowed was not a liability to be suffered without payment and proceeded to scrutinize the adequacy of the compensation under the Act.

The Court found it significant to first examine what the upper riparian had lost by the construction of a dam. It noted that under the State Court construction of the Act, no title or easement had been gained to the upper land by flowage. There existed no right to have the water remain on the land; an upper riparian could dike the water out. The right was one of flowage. The Court commented that when title is "taken" the whole value of the title must be paid for although a considerable use may

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[46] 201 U.S. 140, (1905).

[47] Id. 201 U.S. at 152.

remain with the aggrieved party. Justice Holmes asserted that the Mill Act seemed to present the converse case. Since no title is taken, a dam owner need only pay for the harm actually done from time to time. Under this characterization, the Court asserted that "less elaborate provisions might be justified than could be sustained when title is lost."[48] The Court was careful to indicate that the security for payment under the Act, i.e., the dam, appurtenances and the mill owner's land, seemed adequate. It also found persuasive the fact that the Massachusetts courts appeared willing to permit the utilization of equity proceedings to restrain the further use of the dam and, if necessary, order its removal in the event that legal remedies proved ineffectual.[49]

The Court discerned, in its words, "a graver doubt" raised by another argument.[50] It expressed concern regarding certain aspects of the particular facts of the case before it. The plaintiff in Otis acquired property on a stream, built a mill dam and had begun to operate it. The defendant built a dam below plaintiff's land at a later point in time. The backflow created by defendant's dam substantially diminished the ability of the plaintiff's dam to generate power. The State court determined that since the defendant had appropriated a part of the stream for the

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[48] Id. at 153.

[49] Id. at 153 citing to Breckett v. Haverhill Aqueduct Co., 142 Mass. 394, 8 N.E. 119 (1886).

[50] Id. at 155.

purpose of constructing a mill dam, and did in fact construct the dam within a reasonable time, the better right under the Mill Dam Act was with the defendant and the court refused to order abatement of the dam.[51]

The Supreme Court expressed concern with regard to the lack of notice involved and the fact that an upper riparian might be deprived of using the land as he desires. The Court went on to assert: "Because the plaintiff was too late to prohibit the defendant's dam, it does not follow that it may not be entitled to all the damages which it suffers when the flowing takes place."[52] (emphasis added).

In affirming the State Court decision, Justice Holmes noted that the "state court has confined itself to a general declaration that the act is valid and has not expressed itself definitely upon these points. Yet, our opinion on the constitutional question may depend upon its interpretation of the statute in a case which could not be brought here."[53]

The constitutionality of the Mill Act may still be open to question. It was significant to the Supreme Court in Otis that the state court maintained that no easement or title of any kind was gained over the upper land. Later Massachusetts cases contain dicta referring to the right to flow as in the "nature

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[51] 186 Mass. Gen.Laws 89, 93 (1904).

[52] Supra note 46, 201 U.S. at 155.

[53] Id.

of an easement."[54] It appears from the Otis rationale that the more the right under a Mill Act takes on the color of an easement, the more it begins to resemble a taking. Under Otis the Act appeared to be saved because of the following reasons:

1. No title or easement had been gained by the dam owner. His right extended merely to backflow and did not include a right that water should be kept on an upper riparian's land.
2. A provision for damages for the harm actually caused to a riparian was included in the Act. Adequate security for a damage claim was provided by lien on the dam, appurtenances and the miller's land.
3. A riparian proprietor had recourse in a court of equity in the event that his remedy at law proved inadequate.
4. State court construction of the Act had not indicated that a given riparian proprietor had been deprived of any damages to which he was entitled.

The contingent nature of this last element was emphasized by the Court. The continued validity of the Act depended upon state court construction that provided an injured riparian all the damages that he suffered.

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[54] See, e.g., Dickinson v. New England Power Co., supra note 44.

The constitutionality of the Mill Act was again affirmed by the State Court in Dickinson v. New England Power Co.[55] An appeal to the Supreme Court from that decision was denied.

If it is determined at some point in the future that the Mill Act does indeed involve a "taking" of private land, the cost to a developer for his project will significantly rise. The common law remedies will again apply with all the negative consequences that that implies. A private developer who intends to generate power for strictly private purposes will not be entitled to obtain eminent domain authority from the legislature since the extraordinary power may be invoked only for a public purpose. He is then faced with two alternatives: he may construct a run of the river dam or, if he wishes to impound water, he may purchase the necessary land from upper riparian owners. This second alternative may involve substantial "hold-out" problems. In other words, the upper riparian proprietor, in realizing the developer's intent, may "hold-out" for a price substantially above the true value of the land.

In the event that the eminent domain authority is conferred upon a developer (for example, a public utility), because it is invested with a sufficient public purpose, costs will still rise significantly. He will be required to pay compensation for the value of the land he overflows, rather than mere damages for the harm actually caused.

The continued constitutionality of the Mill Act will depend upon two factors:

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55 Id.

a. the continued viability of Otis;

b. State court construction of the Mill Act that carefully adheres to the rationale of Otis as laid out by Justice Holmes.

Another argument may prove somewhat supportive of the Mill Act. In Otis, the Court noted that the liability under the Mill Act had become so familiar in New England as to nearly constitute an "incident into the nature of property in streams as there understood."[56] It may be argued that seventy (70) years later this incidence of property ownership has become even more firmly established.

The right to flow which is obtained under the Mill Act, i.e. the "mill privilege" may be lost by abandonment.[57] It has been determined, however, that non-use of the mill privilege for a period as long as twenty (20) years does not constitute an abandonment unless accompanied by some decided and unequivocal acts by the owner which are inconsistent with the continued existence of the right and which show an intent to abandon.[58]

One state case found abandonment when the holder of the privilege expressly declared that it was no longer his intention to keep up his mill, did some corresponding acts, such as removing the mill and dam, and served notice of his intent to abandon

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[56] Otis v. Ludlow Manufacturing Co., supra, note 46, 201 U.S. at 152.

[57] Mass. Gen. Laws Ann. ch. 253 § 2 (West 1959).

[58] Eddy v. Chase, 140 Mass. 471, 5 N.E. 306 (1886).

upon those whose lands he had overflowed.[59]

C. Great Ponds

Under the Colonial Ordinance of 1641-47 all "great ponds" which were not appropriated to private persons before adoption of that Ordinance, were made public.[60] Great ponds are defined as those ponds which are more than ten (10) acres.[61] The Commonwealth holds the title to the soil underlying great ponds and has the right to regulate the uses to which such ponds may be put for the public good.[62]

The determination of whether a body of water is a great pond depends upon the natural formation of the land.[63] Once it is established that a pond is indeed a great pond, public rights obtain; and if the pond is subsequently enlarged by impoundment, these public rights extend to the entire pond as enlarged.[64] The public rights regarding great ponds include fishing, fowling, boating, bathing, skating or riding upon the ice.[65] In 1869 the Massachusetts legislature relinquished the public right of fishing in great ponds with less than twenty (20) acres, if the entire shoreline is in private ownership. The statute did not affect the other public rights in a great pond.[66]

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[59] French v. Braintree Manufacturing Company, 40 Mass. (23 Pick.) 216 (1839).

[60] Inhabitants of West Roxbury v. Stoddard, 89 Mass. (7 Allen) 158 (1863).

[61] Id.

[62] Wattupa Reservoir Co. v. City of Fall River, 147 Mass. 548, 18 N.E. 465 (1888).

[63] Commonwealth v. Tiffany, 119 Mass. 300 (1876).

[64] Id.

[65] Inhabitants of West Roxbury v. Stoddard, supra, note 60.

[66] Mass. Gen.Laws Ann. ch. 131 § 1 (West 1974).

The extensive authority of the State regarding the use of great ponds, may create considerable difficulty for the developer.

Wattupa Reservoir Co. v. City of Fall River is illustrative of the problem.[67] The plaintiff company in that case had erected dams on an outlet of a great pond for the purpose of generating power. The City of Fall River was subsequently authorized by the Massachusetts General Court to draw water from the pond in order to serve the domestic needs of its inhabitants. The company was injured by the loss of water and head that resulted and sought an injunction against the city. The court ruled that since the State held title to the great pond and could regulate its use, the legislature could properly allow the city to appropriate water for its inhabitants. The court denied the plaintiff's injunction and a claim for damages. Damages were inappropriate inasmuch as the company had no private right with respect to the waters of the pond.[68]

The plaintiff company later prevailed by alleging additional facts. In an opinion by Justice Holmes, the court held that the great pond in issue had been appropriated to the plaintiff's predecessor in title in his individual, private capacity prior to the incorporation of the Ordinance into the common law of the Commonwealth.[69] Consequently,

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[67] 147 Mass. 548, 18 N.E. 465 (1888).

[68] Id.

[69] See, Watuppa Reservoir Co. v. City of Fall River, 154 Mass. 305, 28 N.E. 257 (1891).

the plaintiff company did in fact have a private interest with respect to the pond in issue.

If an individual obtains a license from the State to erect a dam on an outlet of a great pond,[70] and the water of the pond is raised, he may not subsequently lower the water unless he obtains approval from the Department of Environmental Management.[71] The requirement does not apply if the body of water is used for one of the following purposes:

a. agriculture
b. manufacturing
c. mercantile
d. irrigation
e. insect control
f. public water supply[72]

It is not certain whether LHH would be generally exempt under the manufacturing category.

D. Massachusetts Public Trust and Citizen Participation

Article XCVII (97) of the Massachusetts Constitution provides that "the people shall have the right to clean air and water, freedom from excessive and unnecessary noise and the natural and scenic, historic and esthetic qualities of their environment."[73] This provision has been construed to apply to virtually all aspects of the natural environment and historic resources of the State.[74]

The General Court is authorized to enact legislation for

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[70] See, Mass. Gen.Laws Ann. ch. 91 § 13 (West Cum. Supp. 1978-1979).

[71] Id. § 19A (Supp. 1978).

[72] Id.

[73] MASS. CONST. art. 97.

[74] Mass. Att'y. Gen. Op. no. 72/73 - 45 (June 6, 1973).

protecting the rights provided for in the amendment.[75] From this provision it appears that the Amendment is not self-enacting.

Properties held in trust by the State for use by the public warrant significant consideration by the developer. These properties that would appear to be of particular concern include: parklands, historic sites, great ponds and navigable waters.

While there is no general prohibition in Massachusetts against the disposition of trust properties, lands devoted to one public use cannot be diverted to another inconsistent public use without plain and explicit legislation authorizing the diversion.[76]

The State Constitution requires a two-thirds (2/3) vote of each branch of the General Court when land held for one public purpose is to be used for another public purpose.[77] This restriction on the State's legislative arm should serve to illustrate the importance of the public rights involved with respect to such uses.[78]

The Massachusetts Citizen Suit statute provides that any ten (10) persons domiciled within the State may bring suit to enjoin any activity causing damage to the environment. The action is to be brought in the county superior court.[79] "Damage" must result from the violation

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[75] MASS. CONST. art. 97.

[76] Higginson v. Treasurer of Boston, 212 Mass. 583, 91 N.E. 523 (1912).

[77] MASS CONST. art. 97.

[78] See, generally Dawson and McGregor, Environmental Law, Mass. Continuing Legal Ed. - New England Law Institute, 1978.

[79] Mass. Gen.Laws Ann. ch. 214 § 7A (West Cum. Supp. 1978-1979).

of some statute, ordinance, by-law or regulation which has as its purpose the prevention or minimization of adverse effects to the environment.[80] The number of legislative enactments and administrative rules which satisfy this "restriction" is myriad. Part II of the present paper will provide some indication of the extensiveness of laws that have as their object the minimization of adverse effects upon the environment. While the statute serves an important social function in that an additional check on those activities which might damage the environment is provided, the developer may be subjected to additional delay as the result of such suits. The further consequence is that he suffers an additional cost. The developer is likely to have already experienced considerable delay under agency procedures which are designed to serve the same objectives as the Citizen Suit statute.[82]

In addition to the Citizen Suit statute, ten (10) persons may intervene in any adjudicatory proceeding in which damage to the environment is or may be in issue.[82] "Damage" is defined in the same manner as it is in the Citizen Suit statute.[83] It is significant to note that the authority to intervene is not limited to persons domiciled within the State, as in the case under the Citizen Suit statute, but extends merely to ten (10) persons.[84] It would appear that ten (10)

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[80] Id.

[81] See, e.g., Massachusetts Environmental Policy Act Regulations 108 Mass. Reg. 15.

[82] Mass. Gen. Laws Ann. ch. 30(A) § 10A (West Cum. Supp. 1978 - 1979).

[83] Mass. Gen. Laws Ann., supra note 79.

[84] Mass. Gen. Laws Ann. ch. 30(A) § 10A (West Cum. Supp. 1978 - 1979).

persons from a different state could legitimately intervene.

The right to intervene is limited to "adjudicatory proceedings." An adjudicatory proceeding is defined under the provisions in which the right to intervene is conferred, as "a proceeding before an agency in which the legal rights, duties or privileges of specifically named persons are . . . to be determined . . ."[85]

An example which is pertinent with respect to a developer is the agency hearing provided under the Waterways license procedure.[86] If a hearing is requested regarding the issuance of that license, ten (10) persons may intervene. Once again the developer may experience considerable delay.

E. Liability for Dam Breach

In Massachusetts, a defendant is strictly liable for the breach of his dam.[87] The plaintiff in that case sought recovery for property damage caused by the escape of water stored behind the defendant's upstream dam. The defendant claimed that Massachusetts did not recognize strict liability; the court disagreed and held that strict liability was a recognized cause of action in the commonwealth, where a dangerous instrumentality escapes from the land of the defendant onto the land of another, causing injury or damage. The elements of the plaintiff's case are:

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[85] Id. § 1.

[86] Mass. Gen. Laws Ann. ch 91 §1 et seq. (West 1969). See discussion Part II (A)(2) this paper.

[87] Clark-Aiken Co. v. Cromwell-Wright, 367 Mass. 70, 323 N.E. 2nd 876 (1975).

(1) that the defendant carried on an activity for its own benefit;

(2) that the activity was dangerous and created a risk of harm to the plaintiff;

(3) that the danger created, in fact, ensued; and,

(4) that the plaintiff was damaged by the danger.

Strict liability is not always as absolute as its title may imply. A defendant can avoid liability by showing that the escape was caused by an act of God,[88] or the intervening act of a third person.[89]

Under the theory of strict liability, the owner of a dam is liable for all foreseeable damages without regard to any fault on his part. This theory of liability constitutes a significant obstacle to the development of LHH since the risk of ownership is substantially increased. In addition, strict liability theory may make it considerably more difficult for the developer to obtain insurance coverage.

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88 See, Bratton v. Rudnick, 283 Mass. 556, 186 N.E. 669 (1933) (plaintiff not entitled to recover from dam owner, where break was caused in a storm with a rainfall twice as great as any available records disclosed; such a rainfall is vis major).

89 See, Kaufman v. Boston Dye House, Inc., 280 Mass. 161, 182 N.E. 297 (1932) (where a stranger ignites a flammable substance which has been allowed to escape from the defendant's premises).

II. LICENSING, PERMITTING AND REVIEW PROCEDURES

A. Relevant Licensing and Permitting Procedures

1. Wetlands Protection Act - Order of Conditions

The provisions of the Massachusetts Wetlands Protection Act extend to any activity that may "alter" any bank, estuary, creek, river, stream or pond.[90] The term "alter", as defined within regulations promulgated under the Act, includes virtually every effect of development.[91] Consequently, the Act clearly applies to LHH development.

The developer must file a written Notice of Intent with the local conservation commission of the city or town in which the proposed development is to occur.[92] Local conservation commissions may be created by a city or town for the purpose of promoting and developing its natural resources and protecting its watershed areas.[93] If a conservation commission has not been created within a given town or city, the developer must file his Notice of Intent with the board of selectmen or mayor, whichever is applicable.[94]

The Notice of Intent may not be filed until all relevant permits, variances and approvals required by local by-law have been applied for.[95] It is incumbent upon the developer to determine these. The requirement extends only to those permits, variances or approvals which are obtainable at the time of submitting the

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[90] Mass. Gen. Laws Ann. ch. 131 § 40 (West Cum. Supp. 1978 - 1979).

[91] 117 Mass. Reg. 10 § 2.3.

[92] Mass. Gen. Laws Ann. ch. 131 § 40 (West Cum. Supp. 1978 - 1979).

[93] Id. ch. 40 § 8C.

[94] Id. ch. 131 § 40.

[95] Id.

Notice of Intent.[96]

A complete filing for purposes of the Wetlands Protection Act includes the following:

a. a completed Notice of Intent including plans.[97] Plans are defined as any engineering drawings and data deemed necessary for regulating the proposed activity.[98] The following items are recommended:

   i. Locus map;
   ii. An 8 1/2 x 11 cut-out of a U.S. Geological Survey Quadrangle Sheet showing the location of the proposed activity;
   iii. All the names of the nearest roads and streets;
   iv. An outline of the watershed areas related to the activity;
   v. Water Quality Classifications.[99]

   The regulations also offer a significant number of suggestions regarding engineer drawings.[100]

b. A completed Environmental Data Form.[101] This form is to describe, among other things, the soil, surface water, ground cover and ground water of the area in addition to the impact of the proposed action and alternatives.[102]

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[96] Id.

[97] 177 Mass. Reg. 10 § 5.5.

[98] Id. § 2.32.

[99] Id. § 4.1 See also Massachusetts Clean Water Act, Mass. Gen. Law Ann. ch. 21 §§ 26-53 (West 1973).

[100] 177 Mass. Reg. 10 § 4.2.

[101] Id.

[102] Id. § 99.

c. A twenty-five dollar ($25.00) filing fee.[103]

The Notice of Intent must be sent by certified mail to the local conservation commission, board of selectmen, or mayor (hereinafter reference to commission is to be construed as referring to all three entities). In addition, copies of all filed material must be sent to the Department of Environmental Quality Engineering (hereinafter DEQE).

Within twenty-one (21) days of receipt of the Notice of Intent and accompanying materials, the commission is to hold a public hearing.[104] Notice of the time and place of the public hearing must be published in a newspaper of general circulation in the city or town where the activity is proposed.[105] The expense of this general notice is borne by the developer.[106]

The conservation commission must determine whether the area in which the proposed site is located is "significant" to one of the interests of the Wetlands Protection Act (hereinafter W.P.A.).[107] The interests of the W.P.A. include the following:

a. public or private water supply;

b. ground water supply;

c. flood control;

d. storm damage prevention;

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[103] Id. § 5.5.

[104] Mass. Gen. Laws Ann. ch. 131 § 40 (West Cum. Supp. 1978 - 1979).

[105] Id.

[106] Id.

[107] Id.

e. pollution prevention;

f. protection of lands containing shellfish;

g. protection of fisheries.[108]

The term "significant" is defined as the standard which the conservation commission is to use in determining whether an area subject to the provisions of the W.P.A. plays a role in the protection of one of the interests of the Act.[109] Certain areas are presumed to be significant. For example, anadromous/catadromous fish runs are presumed to be significant to the protection of marine fisheries.[110]

The commission is to make a determination within twenty-one (21) days after the public hearing.[111] If it finds that the LHH project is to occur in an area which is significant to one or more of the interests of the Act, it is to impose conditions that will provide for the protection of those interests.[112] The conditions are to be incorporated within a written order which is submitted to the developer.[113] If the commission determines that the proposed project does not require the imposition of conditions, it is to notify the developer within twenty-one (21) days after the public hearing.[114]

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[108] Id.

[109] 177 Mass. Reg. 10 § 2.42.

[110] Id. § 35.

[111] Mass. Gen. Laws Ann. ch. 131 § 40 (West Cum. Supp. 1978 - 1979).

[112] Id.

[113] Id.

[114] Id.

DEQE is authorized to make determinations and impose conditions in the event that a local conservation commission fails to act.[115] In addition, conditions imposed by order of a local commission are reviewable by DEQE.[116] Appeal may be taken by the developer, any person aggrieved, any owner of land abutting the proposed LHH site, or any ten (10) residents of the city or town in which the proposed site is located.[117] DEQE may also review orders upon its own initiative.[118] A request for or initiation of review must be made within ten (10) days after a commission's order.[119] In the event that the commission fails to act, a request or initiation must be made within ten (10) days after the prescribed time for action has elapsed, i.e., twenty-one (21) days for a public hearing and twenty-one (21) days for a determination.[120]

The DEQE must make a determination with respect to any request properly submitted to it. It has seventy (70) days in which to issue an order of conditions which will provide for the protection of the interests of the Act. An order issued by DEQE supersedes any order of the conservation commission.[121]

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[115] Id.

[116] Id.

[117] Id.

[118] Id.

[119] Id.

[120] Id.

[121] Id.

The developer may not begin work until he records the final order with the Registry of Deeds for the district in which the LBH site is located.[122]

2. Chapter Ninety-One Waterways License

The DEQE is authorized to license and prescribe the terms for the construction or extension of any dam within the following areas:

a. certain parts of the Connecticut, Westfield and Merrimack Rivers;[123]

b. any river or stream within the Commonwealth for which federal, state or municipal expenditures have been made for stream clearance, channel improvement, or flood control and prevention work;[124]

c. in or over tide waters below the high water mark. Any dam within this category may not extend beyond the line of riparian ownership unless approved by the Governor and Council;[125]

d. over or upon any great pond or one of its outlets. As in (c) above, any dam falling within this category may not extend beyond the line of riparian ownership unless approved by the Governor and Council.[126]

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[122] Id. (1974).

[123] Id. ch. 91 § 12 (1969).

[124] Id. § 12A.

[125] Id. § 14 (West Cum. Supp. 1978 - 1979).

[126] Id. § 13 (1968).

If the developer's proposed site falls within any of the above areas, he must apply to DEQE for a chapter ninety-one waterways license. The license request is processed only after receipt of the following:

a. An Order of Conditions (as issued under W.P.A.);

b. Plans drawn in accordance with DEQE Rules and Regulations. The plans must include, among other things, the following:

i. a general description of the proposed dam;

ii. the extent and method of construction;

iii. sufficient data to determine the amount of solid filling to be placed in tidewater;

c. The applicable petition form.[127]

Upon receipt of the application from a developer, DEQE conducts a preliminary evaluation to determine whether supplemental information is required.[128] The DEQE will notify the applicant regarding any information which is necessary to complete the application. If the developer submits a statement that the application is complete, DEQE will rule on the application as submitted.[129] Review of the application by DEQE takes into consideration all forms of damage or impairment to the environment and the measures taken by the developer to minimize adverse impacts. DEQE consideration includes, among other things, any effects upon the following:

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[127] See, The Commonwealth of Massachusetts, Department of Environmental Quality Engineering, Division of Land and Water Use (Waterways), License Application, Rules and Regulations. See also Mass. Gen. Laws Ann. ch. 131 § 40 (West Supp. 1978 - 1979) regarding DEQE superseding Order of Conditions.

[128] Mass. Reg. 98 § 6.2.

[129] Id. § 6.3.

a. bodies of water;

b. underground water;

c. plant life;

d. seashore; dunes;

e. marine resources;

f. wetlands;

g. park or historic districts.[130]

DEQE will give notice of the license application in the Environmental Monitor for any project not categorically excluded under Appendix C of the Massachusetts Environmental Protection Act.[131] Notice is also given to the aldermen, selectmen or city council of the municipality in which the proposed site is located.[132] The notice must contain at least the following information:

a. the name and address of the developer;

b. a brief description of the project;

c. an address where complete plans are available for public review;

d. a statement that any person may submit written comments to DEQE within thirty (30) days;

e. a statement that any aggrieved person or ten (10) citizen groups may petition to intervene within thirty (30) days.[133]

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[130] See Department of Environmental Quality Engineering, Internal Rules and Regulations no. 4-8, n.d.

[131] 115 Mass. Reg. 98 § 6.5. See discussion, this paper, Part II (B).

[132] 115 Mass. Reg. 98 § 6.5.

[133] Id.

If DEQE has not assumed jurisdiction over a project pursuant to the Wetlands Protection Act,[134] the following applies:

a. A draft waterways license is sent to the developer and any party who has petitioned to intervene.[135] The draft license is an unsigned copy of the requested license.

b. Within ten (10) days after the issuance of the draft license, any party may request a hearing by certified mail.

c. The issues that may be raised at the requested hearing are limited to those pertaining to the private property rights of the applicant and any alleged violations of the Public Trust.[136]

If DEQE has assumed jurisdiction over the project pursuant to the Wetlands Protection Act,[137] the following applies:

a. The draft license is sent to the developer, any intervening party and any party to the proceeding under the W.P.A.[138]

b. Within ten (10) days after the issuance of the draft license, any party may request a hearing by certified mail.

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[134] Mass. Gen. Laws Ann. ch. 131 § 40 (West Cum. Supp. 1978 - 1979).

[135] 115 Mass. Reg. 98 § 9 See discussion p. 22 supra.

[136] See, discussion p. 20 et seq., supra.

[137] Mass. Gen. Laws Ann. ch. 131 § 40 (West Cum. Supp. 1978 - 1979).

[138] See, Part II (A) supra.

c. The issues that may be raised at the requested hearings, are limited to those relating to the private property rights of the developer and alleged violations of the Public Trust.

The following limitations apply to this situation:

i. The issues may not have been raised at a W.P.A. hearing, and,

ii. If a superseding order by DEQE has become final or no adjudicatory hearing was requested pursuant to W.P.A., a hearing will not be provided.[139]

After a license has been obtained under this chapter, a developer must record it in the appropriate Registry of Deeds within one (1) year or it becomes null and void.[140] In addition, the work authorized by the license must be completed within a five (5) year period. If the project is not completed within this time frame, only that portion which has been completed is considered licensed.[141]

3. Chapter 253 Dam Construction Approval

Chapter 253 of the Massachusetts General Code mandates that no "mill dam" on a non-navigable river may be constructed or materially altered until the plans and specifications of the proposed work have been filed with DEQE.[142] The developer is affected because

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[139] 115 Mass. Reg. 98 § 9.

[140] Mass. Gen. Laws Ann. ch. 91 §§ 15, 18 (West 1969). See also The Commonwealth of Massachusetts, Department of Environmental Quality Engineering, Division of Land & Water Use (Waterways), License Application, Rules and Regulations.

[141] Id.

[142] Mass. Gen. Laws Ann. ch. 253 §§ 1, 44 (West 1969).

Massachusetts judicial interpretation has construed the term "mill dam" to include any dam used for the generating of electric power.[143]

Chapter 253 does not apply to the following:

a. small dams which would involve no risk to life or property in the event of breach;

b. any dam in which the area draining into the pond formed by such dam does not exceed one square mile UNLESS: the dam either exceeds ten (10) feet in height above the natural stream bed at any point on the stream, or the quantity of water impounded exceeds one million gallons.[144]

Information must be submitted to DEQE in order to enable it to determine whether or not Chapter 253 jurisdiction applies.[145] This initial information must include the following:

a. a topographic map indicating the location of the dam and the effective drainage area;

b. a sketch indicating the height of the dam;

c. calculations for the volume of water to be impounded;

d. a brief statement regarding downstream conditions taking into account any risk to life and property;

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[143] Duncan v. Northeast Power Co., supra note 25.

[144] Mass. Gen. Laws Ann. ch. 253 § 44 (West Cum. Supp. 1978 - 1979).

[145] See, Application for Authorization to Construct or Alter a Reservour, Reservoir Dam or Mill Dam, Executive Office of Environmental Affairs, DEQE (1978).

e. the signatures of the developer and engineer.[146]

If DEQE determines that it has jurisdiction under Chapter 253, the developer must submit the following:

a. general information regarding the location of the dam, name of the developer, name of the waterway, etc.;

b. a hazard evaluation;

c. hydrologic considerations;

d. design criteria;

e. a report on subsurface investigations;

f. construction drawings and specifications.

After plans and specifications have been approved by DEQE, it is authorized to inspect the construction or alteration of the dam during its progress.[147] DEQE may order an inspection of the project, at the expense of the developer, if it appears that the plans and specifications are not being adhered to.[148] In addition, DEQE may order discontinuance of the project in the event that a developer refuses to follow the approved plans.[149]

DEQE is mandated to inspect dams falling within Chapter 253 jurisdiction at least once every two years.[150] In addition,

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[146] Id.

[147] Mass. Gen. Laws Ann. ch. 253 § 44 (West Cum. Supp. 1978 - 1979).

[148] Id.

[149] Id.

[150] Id. § 45.

it must undertake an inspection upon the written application of a mayor, aldermen, city council, or board of selectmen.[151] A private party whose property is likely to be damaged in the event of breach may also request an inspection.[152]

In the event that a dam is found to be safe, the party requesting the inspection must bear the cost of inspection.[153] If the dam is deemed unsafe, DEQE is authorized to order repairs or alterations. The expense of any repairs or alterations so ordered must be paid by the developer.[154] DEQE may apply to the state courts for enforcement of its orders.[155]

4. Comment Regarding Massachusetts Licensing and Permitting Procedures

The licensing of a dam under Chapter 91 and approval under Chapter 253 appear to involve substantial overlap. There are, to be sure, certain situations in which the provisions of one chapter would apply, whereas those of the other would not.[156] For example, Chapter 91 jurisdiction extends to structures within tide waters while Chapter 253 applies only to dams on non-navigable waterways.[157] Nevertheless, there exist a number of instances in which the provisions of both Chapters are likely to apply. Jurisdiction

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[151] Id.

[152] Id.

[153] Id.

[154] Id. § 47.

[155] Id. § 50.

[156] Id. ch. 91 § 13 (1969).

[157] See Discussion on Navigable and Non-Navigable waterways, page 1 et seq. supra.

under Chapter 253 extends to mill dams, with a few limited exceptions, constructed or materially altered on the non-navigable waterways of the Commonwealth. This jurisdiction is quite extensive considering the broad definition of non-navigability employed in Massachusetts. Overlap with Chapter 91 is likely to occur when a dam is built in one of the following areas:

a. certain parts of the Connecticut, Westfield and Merrimack Rivers;

b. the outlet of great ponds;

c. any river or stream for which federal, state or municipal expenditures have been made for stream clearance, channel improvement, or flood control and protection work. (See discussion on Chapter 91, Part II(A)(2)).

The last category listed above may well prove to be somewhat problematical to the developer. For example, does the category include tributaries of any river or stream for which government funds were spent? The answer is not clear. In addition, how is the developer to determine which streams are included within the category? Must he consult with the federal government, state government and every municipality along the stream in which he proposes to build his dam? If this is so, the developer is faced with a considerable burden. DEQE may well have a listing, but again, the answer is not clear.

DEQE requires a jurisdictional determination form under Chapter 253.[158] There does not appear to be a similar form under Chapter 91.

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[158] See, Note 145, supra.

It would be beneficial to the developer if a jurisdictional determination form applied to both Chapters. The developer could submit the form to DEQE which would then determine which specific requirements apply to a given site. Additional forms or requests for supplemental information could then be sent to the developer. Any duplication under the Chapters could be eliminated. This would afford the developer a considerable saving of time and effort.

The procedure under the Wetlands Protection Act, which requires the developer to apply for an Order of Conditions also appears to present a number of practical difficulties to the developer in that it lacks uniformity at the initial hearing level.

The developer must file a Notice of Intent with a local conservation commission, board of selectmen or mayor, whichever is applicable. A public hearing must be held regarding the developer's Notice of Intent. In the event that a city or town has established a conservation commission, the hearing is held before at least three (3) individuals and may be held before as many as seven (7).[159] If the hearing is held before a board of selectmen, it may be before three (3), four (4) or five (5) persons.[160] If a city or town has neither a conservation commission nor a board of selectmen, the hearing is held before one individual - the mayor.

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[159] Mass. Gen.Laws Ann. ch. 40 § 8C (West Cum. Supp. 1978 - 1979).

[160] Id. ch. 41 § 1.

Whether the hearing is held before one individual or seven is largely fortuitous - depending upon the location which the developer determines to be the optimal site. On the one hand an order of conditions - or a determination that an order is not necessary - is the result of one individual's decision; on the other hand the determination results from the collective decision of seven. The disparity in the two processes is obvious.

There is another significant problem with regard to hearings held before local conservation commissions, boards of selectmen or mayors. While all three entities are charged with administering a state law - i.e., the Wetlands Protection Act, none is subject to the provisions of the state's Administrative Procedure Act (hereinafter A.P.A.).[161] While the Wetland's Protection Act itself provides for notice and a time framework with respect to a public hearing on the developer's Notice of Intent, the hearing itself is not subject to the more rigorous requirements of the A.P.A.[162]

A hearing before a local conservation commission arguably qualifies as an "adjudicatory proceeding" since the rights and duties of a specifically named individual, i,e,. the developer are determined.[163] A duty is imposed by the Order of Conditions. His right to operate a LHH project is affected inasmuch as his ability to obtain a permit for construction and operation is

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[161] Id. ch. 30 A § 1 et seq. (1966).

[162] Id. §§ 10, 11.

[163] See, e.g., Mass. Gen. Laws Ann. ch. 30(A) § 1(1) which defines adjudicatory proceeding before a state agency. (West. Cum. Supp. 1978 - 1979).

contingent upon compliance with the Order of Conditions.

The fact that an appeal to DEQE may be taken, in which case a formal hearing under the A.P.A. may be provided,[164] would appear to salvage the present system from constitutional due process infirmity. However, the lack of procedural uniformity at the initial hearing is confusing and consequently burdensome to the developer. As previously noted, the developer may in one instance be provided a hearing before an entity that utilizes procedures akin to those under the A.P.A. In another instance, the hearing may be an informal procedure before one individual with little opportunity for the presentation of documents and the examination of witnesses. While it appears that the State may not be constitutionally compelled to provide uniformity at the first level - as a result of the appeal procedure provided - it may wish to consider doing so for the sake of providing additional efficiency within the system through the minimization of confusion.

B. Review Procedure

1. Massachusetts Environmental Policy Act

The Massachusetts Environmental Policy Act (hereinafter MEPA) potentially exposes the developer to a morass of procedural requirements.[165] Regulations promulgated under the act consist of thirty-six (36) pages and a number of appendices.[166] The following provides only a brief overview of the procedures involved under

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[164] 115 Mass. Reg. 98 §§ 8.2, 8.3.

[165] Mass. Gen. Laws Ann. ch 30 § 61 et seq. (West Cum. Supp. 1978 - 1979).

[166] 108 Mass. Reg. 15.

MEPA and identifies the implications of those procedures with respect to the developer.

Any developer who applies to a state agency for a license, permit or financial assistance must file an Environmental Notification Form (hereinafter ENF) with the State Secretary of the Executive Office of Environmental Affairs (hereinafter EOEA) no later than ten (10) days after filing the first application.[167] The Secretary of EOEA is authorized to establish categorical exclusions to the ENF requirement, and consequently to the entire MEPA process. These exclusions are compiled under "Appendix C" of the MEPA regulations.[168] In addition to these categorical exclusions, state agencies are presently in the process of determining categorical inclusions for the MEPA review process.[169]

It appears that certain categorical exclusions with respect to DEQE, which administers the Chapter 91 Waterways lease[170] and approves dam construction under Chapter 253,[171] may extend to LHH development. Class three (3) of the categorical exemptions provides that the "construction and location of small new facilities or structures and the installation of minor new equipment" are excluded from the MEPA review procedure.[172] "Small" is defined, for a project not involving a building, as "having a cost of less than

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[167] Mass. Gen. Laws Ann. ch. 30 § 62 A (West Cum. Supp. 1978 - 1979).

[168] 108 Mass. Reg. 15 § 3.1.

[169] 177 Mass. Acts ch. 947 § 4.

[170] Mass. Gen. Laws Ann. ch. 91 § 1 et seq. (West 1969).

[171] Id. ch. 253 § 44 et seq.

[172] 108 Mass. Reg. 15, App. C, p. 41.

$500,000 or not involving a total land area of more than two (2) acres."[173] The exemption includes the replacement or reconstruction of existing facilities structures. If a given LHH project is indeed exempt from the MEPA Review procedure, the developer is provided a significant benefit. The requirements of MEPA constitute a substantial burden to the developer because of the financial costs involved and the delay that results. If doubt exists as to whether a particular project is excluded, the developer may request an opinion from EOEA on the question.[174]

While a number of LHH projects may be excluded from the requirements of MEPA under Appendix C, a number of projects will not fall within the exemption. A review of the process is provided in order to familiarize the developer with the substantial burden he must meet in the event that compliance with MEPA is required.

If it is determined that a developer must file an ENF with EOEA, he must also file copies with approximately fifteen (15) different agencies and local entities.[175] Failure to file a copy with one of the designated entities may result in repetition of the ENF process if EOEA determines that material impairment of the process has resulted.

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[173] Id.

[174] Id. § 3.1.

[175] Id. § 4.1.

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on an ENF.[179] Comments by both agencies and the public are accepted only within twenty (20) days following publication in the Environmental Monitor. EOEA has within thirty (30) days of the date of publication to determine whether or not an Environmental Impact Report (hereinafter EIR) is required.[180] Any determination is subject to challenge by any agency or person.[181]

If an EIR is required, it need only address those aspects of the project which are likely to cause damage to the environment.[182] The relevant agencies request information which they consider necessary for their determination on permit or financial assistance requests.[183] In this manner the EIR is "scoped" - i.e., the information required in it is limited to only relevant considerations.[184] The public and state agencies may comment on the appropriate scope of an EIR up until the twentieth (20th) day following publication that an ENF has been received.[185]

Generally, an EIR must contain the following:

a. a description of the project

b. alternatives

c. probable impact of the project on the environment and alternatives (this particular requirement would require analysis by someone with the

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[179] Id. § 4.9.

[180] Id.

[181] Id. § 15.1 et. seq.

[182] Id. § 5.1.

[183] Id. § 5.2.

[184] Id. § 5.1.

[185] Id. § 5.4.

requisite expertise)

d. measures utilized to minimize environmental damage

e. written comments by reviewing agencies and the public.[186]

A draft EIR is prepared and submitted to the EOEA, the State clearinghouse within the office of State Planning and Management, the appropriate regional planning commission and designated agencies.[187] The public may receive a draft EIR upon request.[188] Notice of its availability is published in the Environmental Monitor.[189]

Comments from those entities receiving a draft EIR and the general public may be submitted to the secretary of EOEA within thirty (30) days after notice of availability of the draft EIR.[190]

A final EIR is to contain all comments from federal, state and regional agencies.[191] In addition, a description of the extent and magnitude of comment from the general public, including representative comments, must be provided.

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[186] Id. § 5.7.

[187] Id. § 6.1.

[188] 108 Mass. Reg. 15 § 6.3.

[189] Id. §§ 6.2, 14.

[190] Id. § 6.3.

[191] Id. § 7.1.

[192] Id.

Notice, circulation and a comment period regarding the final EIR are provided for in the same manner as the draft EIR.[193] Within seven (7) days after the comment period has passed, EOEA must determine whether the final EIR complies with MEPA.[194] Any agency or person is permitted to challenge this determination in which case judicial review is provided.[195]

Any agency shall act on a permit application within ninety (90) days of one of the following actions, depending upon which is latest in time:

a. publication of notice that a final EIR is available

b. publication of notice that an EIR is not required

c. submission of the permit application[196]

The thrust of MEPA is to insure that any significant damage to the environment that might result from a given project is minimized or completely avoided.[197] The review procedure permits state agencies and the general public to participate in the process of determining how MEPA's purpose might best be accomplished.

While the MEPA procedure serves important societal concerns,

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[193] Id. §§ 7.2, 7.3.

[194] Id. § 7.4.

[195] Id. § 15.1 et seq.

[196] Id. § 8.1.

[197] Mass. Gen. Laws Ann. ch. 30 § 61 (West Cum. Supp. 1978 - 1979).

it presents a significant burden to the developer. The burden takes the form of substantial delay and cost. The review process itself constitutes delay. In meeting the requirements of the ENF and EIR, the developer will have to obtain assistance from individuals possessing the requisite expertise. This constitutes a significant cost. In addition, the developer will most likely have to comply with procedures under the National Environmental Protection Act (hereinafter NEPA). While the MEPA regulations provide that draft and final Federal environmental impact statements may be submitted for review as draft and final EIR,[198] compliance with NEPA will not relieve the developer from the procedural requirements of MEPA. This double burden is indeed a substantial one.

III. INDIRECT CONSIDERATIONS

In addition to the direct permit procedure and the requirements of MEPA, there exist a number of other factors that may delay, and in some circumstances completely block, the development of a given LHH project. These factors frequently involve environmental matters and are the particular concern of a state agency. While some of these agencies are authorized by their enabling legislation to directly impose conditions on a given project, the majority utilize the MEPA review process to insure that their particular concerns are met. The following is a description of the Massachusetts agencies that may significantly influence the course of a particular project. The prudent developer will attempt to anticipate the manner in which each agency is likely to affect his project.

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[198] 108 Mass. Reg. 15 § 12.1.

A. Department of Fisheries, Wildlife and Recreational Vehicles

1. Division of Fisheries and Wildlife[199]

A Department of Fisheries, Wildlife and Recreational Vehicles exists within the organizational structure of EOEA. The Department is headed by a commissioner and includes a Division of Fisheries and Wildlife. The Director of the Division is charged with the responsibility of protecting and ensuring the passage of anadromous fish in inland waterways. He is authorized to examine all dams to determine whether existing fishways, if any, are suitable for the passage of such fish or whether a new fishway is needed. The Director may prescribe, by written order, that certain changes or repairs be made on a dam. He may also prescribe the manner in which a new fishway is to be constructed and the times that it shall be kept open.

Apart from his authority to issue direct orders with respect to fishways and the passage of anadromous fish, the Director may utilize other means to insure that these interests are provided for. For example, he may request that the state Division of Water Pollution Control set minimum stream flow standards for the protection of certain fish runs. A dam on a particular stream might not be able to comply with these standards.

The Director may also raise objections with respect to a given project through the MEPA review process. Both of

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[199] Mass. Gen. Laws Ann. ch. 131 § 4 et seq. (West Cum. Supp. 1978 - 1979).

these alternate methods of insuring compliance with the Division's interests may effectively block or delay a LHH project.

2. Division of Marine Fisheries[200]

The Director of Marine Fisheries has general responsibility for the maintenance, preservation and protection of all marine fisheries resources. The Director of this Division has powers similar to those of the Director of Fisheries and Wildlife. He may examine all dams in those brooks, rivers and streams that flow in coastal waters and may determine if fishways are suitable for the passage of anadromous/catadromous fish. If any fishways are found not suitable, the Director may prescribe changes or repairs by written order.

The Division may effectively delay a given project through its participation in the MEPA review process.

B. Department of Environmental Management

The Department of Environmental Management (hereinafter DEM) is responsible for the general care and oversight of the environmental management of the state and its adjacent waters.[201]

DEM may particularly affect the development of LHH in Massachusetts in that it is authorized to issue orders that regulate, restrict or prohibit dredging, filling or otherwise altering coastal or inland wetlands.[202] Before any orders are issued,

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[200] Id. ch. 130 § 19 et seq. (West Cum. Supp. 1978 - 1979).

[201] Id. ch. 21 § 1.

[202] Id. ch. 130 § 5; ch. 131 § 40 A.

affected landowners are notified that their lands are under consideration for the imposition of restrictions and a public hearing is provided. An order becomes final when it is approved by the selectmen or city council of the town or city in which the wetlands are located. The order, which details the permissible and restricted or prohibited use of the affected wetlands is then filed with the Registry of Deeds. Any such order "runs with the land" and binds succeeding owners.[203]

Although any orders issued by DEM are most likely reviewed as part of the hearing procedure under the Wetlands Protection Act, the developer may wish to consult the appropriate Registry of Deeds prior to that hearing, in order to determine if a proposed site is affected.

C. State Reclamation Board

The State Reclamation Board is comprised of one (1) member each from the Department of Environmental Quality Engineering, the Department of Evnironmental Management and the Department of Food and Agriculture.[204]

If it is necessary or useful to drain or flow a low-land held by two or more proprietors or to remove obstructions in rivers or streams leading thereto or therefrom, or to eradicate mosquitoes in any infested area, such improvements may be made by the board as provided in its enabling legislation.

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[203] Id. ch. 131 § 40 A.

[204] Id. ch. 252 § 1 et seq. (1959).

The determination of the necessity or desirability of any work of improvement is determined through a procedure of petition, investigation and public hearing.[205] If a work of improvement is approved for a given area, the area is organized into a reclamation district. Commissioners are appointed to the district for the purpose of implementing the approved project.

The significance of reclamation districts to the developer is that the enabling legislation provides that no water power may be developed in a reclamation district except by vote of the district and approval of the Reclamation Board.[206] While one report has noted that this provision has not been utilized in years,[207] the authority to prevent the development of a LHH project within a reclamation district remains. The developer should not dismiss this authority simply on the basis of disuse. It would be in his interest to consult with the State Reclamation Board to determine whether or not his proposed site falls within a specified reclamation district. If it does, he should consult with the commissioners of the district in order to discern whether or nor any difficulties may be anticipated.

D. Massachusetts Historical Commission; Historical Districts

1. Massachusetts Historical Commission

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[205] Id. § 5. (West Cum. Supp. 1978 - 1979).

[206] Id. § 14 B.

[207] Massachusetts Energy Office Inter-agency memorandum on Construction of Hydroelectric Dams, August 11, 1978.

[208] Mass. Gen. Laws Ann. ch. 9 § 27 (West Supp. 1976).

The Massachusetts Historical Commission is responsible for the protection and preservation of all historical, cultural and archaeological resources of the Commonwealth. It is responsible for the assessment and certification of historic landworks and may establish standards for their care and management. If a developer's proposed project may alter an historic landmark in such a manner as would seriously impair its historic values, permission must be obtained from the Commission. Obtaining permission is a lengthy procedure involving a public hearing and a time period for consultation with civic groups, public agencies and interested citizens. This consultation period may extend for an entire year - a substantial delay for the developer.

The developer should consult with the Commission in order to determine whether his proposed site is likely to affect an historic landmark or whether his site is within or near an area which is under consideration as a possible landmark. This should be determined by the developer during the initial stages of planning. The Commisison would be notified regarding a given project through the MEPA review process and the developer could then discover whether his project would affect an historic landmark in this manner. However, the developer will have already spent considerable time and effort with respect to a particular project by the time of the review procedure under MEPA. Because of the costs involved, the developer should not wait until this late date to discover that his project falls within an historic landmark.

The Commission is also empowered, under Federal law, to review the effect of any proposed project on property included in or eligible for inclusion in the National Register of Historic Places.[209] The Commission is to measure any effects within such areas under criteria established by federal regulations.[210] A project may proceed only if it meets the requirements of these criteria. Again, the developer should determine whether his project is likely to affect an established or proposed national historic landmark by consultation with the Commission during the initial planning stage.

2. Historical Districts

Historic districts may be organized to promote the educational, cultural, economic and general welfare of the public through the preservation and protection of the distinctive characteristics of buildings and places significant in the history of the Commonwealth or their architecture.[211]

A city or town may establish historic districts subject to the following provisions:[212]

a. Prior to establishment an investigation and report on the historical and architectural

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[209] 16 U.S.C. §§ 470 - 470(t) (1976).

[210] 36 C.F.R. 800 (1977).

[211] Mass. Gen. Laws Ann. ch. 40 C § 2 (West Cum. Supp. 1978 - 1979).

[212] Id. §3.

significance of the site shall be made by an historic district study commission who shall transmit copies of the report to the planning board and to the Massachusetts Historical Commission.

b. Not less than 60 days after such transmittal the study committee shall hold a public hearing on the report after due notice has been given at least 14 days to the date thereof.

c. The committee shall submit a final report with its recommendations to the city council or town meeting.

No building or "structure" within an historic district may be constructed or altered in any way that affects the district's exterior features unless the Historical Commission first issues a certificate of appropriateness, a certificate of non-applicability or a certificate of hardship with respect to such construction or alteration.[213] The developer who desires a certificate must file an application with the commission. The application is to include plans, elevations, specifications and other material deemed necessary by the

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[213] Id. § 6.

commission.[214] The commission may make recommendations and impose requirements only for the purpose of preventing developments which are incongruous to the historical aspects or archaeological characteristics of the district.[215]

As was suggested above with respect to state or national historic landmarks, the developer should consult with the Massachusetts Historical Commission during the early planning stages in order to determine whether a proposed site falls within an historic district.

E. Underwater Archaeological Resources Board[216]

The Underwater Archaeological Resources Board within DEQE has primary responsibility for the protection and preservation of historical, scientific and archaeological information about underwater resources which are located within the inland and coastal waters of the Commonwealth. Once resources are determined to be of historical value by the Board, it must promulgate rules and regulations to ensure their protection and may issue permits accordingly. A developer may be required to obtain a permit if the location of his project is within an area designated for archaeological excavation and research. The developer should consult with the Board to determine whether a proposed site is affected.

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[214] Id.

[215] Id. § 7.

[216] Id. ch. 6 § 180 (1976).

F. Wild and Scenic Rivers[217]

The Commissioner of DEM, for the purpose of promoting the public health, safety and welfare and protecting public and private property, wildlife, fresh water fisheries and irreplaceable wild and scenic recreational river resources, may promulgate orders which restrict or prohibit dredging, filling or altering the scenic and recreational rivers of the Commonwealth. "Scenic and recreational rivers and streams" are defined as those rivers and streams of the state, including a portion of contiguous land along their boundaries, which the DEM reasonably deems necessary to protect in view of the interests outlined above.

DEM may provide for the restriction and classification of a river for scenic and recreational purposes. Any regulations, restrictions or classifications are incorporated into an order adopted by DEM. The order is filed and recorded in the Registry of Deeds for the county in which the scenic and recreational river is located. An affected landowner is provided the opportunity to petition the Superior Court in the event that he believes any order by DEM so unreasonably restricts the use of his land as to constitute a taking. If the Court finds an order unreasonable with respect to particular land, it is to enter a finding that the order is not to apply to that land.

Since inclusion of a river within the state's wild, scenic and recreational river system may operate as an effective bar to LHH

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[217] Id. ch. 21 § 17 B (West Cum. Supp. 1978 - 1979).

development, it warrants the developer's consideration. The developer should consult with DEM to determine the status of a river or stream.

G. Coastal Zone Management Program[218]

The various agencies within the Executive Office of Environmental Affairs are responsible for implementing the Coastal Zone Management (hereinafter CZM) program. The program extends to all inter-tidal areas, coastal wetlands and beaches, tidal rivers and adjacent uplands, and anadromous fishruns. Regulations promulgated under the program outline specific policies for the protection of resources within the program's purview. Agencies within EOEA are to consider these policies whenever making a determination regarding the issuance of a permit or license. In addition, the CZM policies are to be considered during the MEPA review procedure.

IV. DEPARTMENT OF PUBLIC UTILITIES REGULATION OF PRIVATELY OWNED ELECTRIC UTILITIES

A private corporation organized under the laws of Massachusetts for the purpose of selling, or selling and distributing electric energy is an "electric utility."[219] Such electric utilities are subject to the jurisdiction of the Department of Public Utilities (hereinafter DPU) and extensive regulation.[220]

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[218] Id. ch. 6 A §§ 2 - 7.

[219] Id. ch. 164 § (1)(7) (1976).

[220] Id. ch. 25 § 3; ch. 164 § 76 et seq.

The DPU is authorized to regulate the rates charged by an electric utility for its service.[221] The authority of the DPU to regulate rates is limited by a utility's right to a fair and reasonable return on its investment. A fair and reasonable return is one that covers a utility's operating expenses, debt service and dividends; compensates investors for their risk; and is sufficient to attract capital and assure confidence in the utility's financial integrity.[222] The DPU is authorized to regulate the issue of preferred stocks and bonds by a hydroelectric company[223] and may also prescribe the form of books and accounts that a public utility is to keep.[224] A public utility must file all its rate schedules with the DPU.[225] In addition, the DPU may inspect a utility's records, accounts and other materials relating to it's operation.[226]

Each year an assessment is made against a public utility which is to help provide the DPU with sufficient revenue to defray it's operating costs.

V. MASSACHUSETTS MUNICIPAL WHOLESALE ELECTRIC COMPANY[227]

This corporation is a political subdivision of the Commonwealth and the exercise of the powers of the corporation shall be deemed and held to the performance of an essential public function.

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221 Id. ch. 164 §§ 93, 94.

222 Fitchburg Gas and Electric Co. v. D.P.U., Mass., 359 N.E. 2d 1294 (1977).

223 Mass. Gen. Laws Ann. ch. 164 § 9 (West 1976).

224 Id. § 80.

225 Id. § 94.

226 Id. § 81.

227 Id. ch. 164 App. § 1 - 1 et seq. (1976).

Membership is by vote of each city or town which is entitled to nominate a director, or which has a municipal electric department, or by a town which has applied for membership.

The rights and powers of the corporation include, but are not limited to, the following:

a. to adopt by-laws for the regulation of the affairs and the conduct of its business and to prescribe rules and regulations and policies in connection with the performance of its functions and duties

b. to obtain by purchase, lease, gift or otherwise, any property, real or personal

c. to purchase electric power and energy including, but not limited to, all or a portion of the capacity and output of one or more specific electric power facilities (defined as any system for the generation and transmission of electric power and energy by any means whatsoever)

d. jointly or separately to plan, finance, acquire, construct, improve, purchase, operate, maintain, or otherwise participate in electric power facilities or portions thereof

e. to apply to the appropriate agencies of the Commonwealth, other states, or the United States and to any other proper agency for such permits, licenses, certificates or approvals as may be necessary, and to construct, maintain and operate electric power facilities in accordance with such

f. to do all things necessary, convenient or desirable to

carry out the purpose of this act or the powers expressly granted or necessarily implied in the statute

g. the corporation may utilize the power of eminent domain, but before a taking is made or injury inflicted by the corporation, it shall file with the Department of Public Utilities (DEP) security for the payment of all damages

The corporation may contract to sell, and member and non-member cities and towns having municipal electric departments and other utilities, public and private, may contract to purchase all or a portion of the capacity and output of one or more electric power facilities.

A city or town shall be obligated to fix, revise and collect fees and charges for electric power and energy and other services furnished or supplied through its electric department at least sufficient to provide revenues adequate to meet its obligations under any such output and capacity contract.

The corporation is authorized to fix, revise and collect fees and charges for electric power and energy and other services furnished by it. Such fees and charges shall not be subject to supervision or regulation by any commission, board, bureau or agency of the Commonwealth or any municipality or other political subdivision of the state. For as long as any bonds of the corporation are outstanding and unpaid, such fees and charges shall be fixed so as to produce revenues at least sufficient to pay all costs and expenses in connection with the operation and maintenance of the power facilities. Such rates shall also be capable of paying for all necessary repairs, the principal, premium and interest on all bonds, to create and maintain reserves as may be required by any trust agreements and to pay any and all amounts which the corporation may be obligated by law or

contract to pay.

Whenever the corporation has primary responsibility for the construction or operation of any electric power facility, no contract for construction, reconstruction, alteration, remodeling, repair or demolition shall be awarded unless proposals for the same have been invited by advertisement. Such advertisement shall state the time and place for opening the proposals and shall reserve the right to the corporation to reject any and all such proposals. All such proposals shall be opened in public.

The corporation shall not be required to pay any taxes upon its income, existence or franchise, bonds issued, their transfer and income therefrom including any profit made on the sale thereof. The real and personal property owned by the corporation shall be exempt from property taxation, provided that the corporation shall pay to any governmental body authorized to levy local property taxes the amount which would be assessable as a local property tax if the property were the property of a taxable electric company.

The corporation shall submit an annual report in writing concerning its operation to the member cities and towns, the Department of Public Utilities (DPU), the governor and the general court, within 90 days following the close of its fiscal year.

VI. MISCELLANEOUS LEGAL ISSUES RELATING TO L.H.H.

Attorney General's Opinion to the Division of Waterways (now within DEQE) regarding the reconstruction of privately owned dams:

> "The question propounded by your inquiry is whether or not your department has authority to reconstruct a privately owned dam which operates for profit and as an incident thereto furnishes water to one or more municipalities. The answer is negative."

"The provisions of (Chapter 91) § 11 and § 31 clearly indicate that one of the essential requirements of these sections is public ownership; and the language of both sections vests the department with the right of eminent domain to accomplish such ownership."[228]

VII. FINANCIAL CONSIDERATIONS

A. Tax Systems Affecting L.H.H. Dams

1. Assessment and Taxation Authority

The Constitution of the Commonwealth of Massachusetts authorizes the General Court of Massachusetts to enact laws for the assessment of property and levying of taxes.[229] Property which is subject to taxation in Massachusetts includes "all property, real and personal, situated within the commonwealth, and all personal property of the inhabitants of the Commonwealth wherever situated, unless expressly exempt, shall be subject to taxation..."[230] The Legislature of the Commonwealth of Massachusetts has been granted broad authority to tax virtually all property, personal and real, located within the commonwealth. Exemptions to the taxing authority are expressly spelled out by statute and dams would not appear to qualify for any exemptions currently listed.

2. Property Assesment

Property assessments in Massachusetts for tax purposes are to be based on the fair cash valuation of the property.[231] The assessors have a statutory and constitutional obligation to assess all real property at full and fair cash value.[232]

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228 Mass. Att'y. Gen. Op., January 20, 1960.

229 Mass. Const. art. 4.

230 Mass. Gen. Laws Ann. ch. 59 §2 (1973).

231 Mass. Gen Laws Ann. ch. 59 §38 (West Cumm. Supp. 1977).

232 Commey v. Board of Assessors of Sandwich, 367 Mass. 836, 329 N.E.2d 117 (1975).

In a 1930 case, the Massachusetts Supreme Court held that accessors must also seek "light from every available source bearing on fair cash value of property for purposes of taxation."[233] Since hydro-electric dams are unique in both design and capacity, the traditional methods of evaluation are generally inadequate in determining full and fair cash value. Dam owners who receive what may appear to be a high assessment may be justified in seeking an expert to offer an independent assessment of his facility.

3. Taxation of Water Power

In a 1946 case, the Massachusetts Supreme Court held that "rights and water power, used or usable in connection with a mill-site, which means joined with a millsite by necessity or use, are taxable with it, not as independent items of property, but as increasing the value of the millsite."[234] To a dam owner or developer, this means that land covered by water which will be used in the generation of power is to be taxable as property and taxed as part of the land itself and not as independent property.

4. Conclusion

Dam owners and dam developers who own dams in Massachusetts will be assessed and taxed based on the full and fair cash value of the dam, damsite and generating machinery. While assessors have wide discretion in the means they use in assessing property, dam owners may have an opportunity to challenge what appear to be high valuations with independent experts.

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233 Tremont & Suffold Mills v. City of Lowell, 271 Mass. 1, 170 N.E. 819 (1930).

234 Assessors of Lawrence v. Arlington Mills, 310 Mass. 272, 69 N.E. 2d 2 (1946).

B. Loan Programs Concerning Small Scale Dams

Financial assistance for industrial development is within the scope of the powers granted to the Department of Commerce and Development (hereinafter DCD). The DCD is divided into four divisions:

a) economic development

b) small business assistance

c) tourism

d) planning

DCD is the principal state agency for promoting, developing and expanding the commerce, industry, etc., advantages of the Commonwealth, and the full utilization of the skills and potential of all its citizens.[235]

The Division of Small Business Assistance lends technical expertise and provides information about federal programs. This division does not provide direct financial assistance.[236]

The economic development division is more complex. Within this division are several bureaus with the authority to provide financial assistance. Generally this division is involved with decadent or blighted open areas which retard the economic well-being of the state. Loans, bonds and technical assistance are provided for improvements of sites, but are limited to sites in high unemployment areas.[237]

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235 Mass. Gen. Laws Ann. ch. 23A § 1-3 (West Cum. Supp. 1978 - 1979).

236 Id. § 15 - 23.

237 Id. 121C § 1 - 18.

State and local industrial development authorities have been created to assist the development of industrial enterprises. But industrial enterprises are limited by definition to an enterprise other than commercial or retail enterprises which have created or will create substantial employment opportunities and require substantial capital.[238]

Loans may be insured through the Massachusetts Industrial Mortgage Insurance Agency which is also within the DCD. A qualifying industrial enterprise is defined once again in terms of manufacturing. It is doubtful that LHH would fit that meaning and the further concern for unemployment in the preamble.[239]

Special financial treatment has been granted to alternative energy facilities. Solar or wind-powered systems have been granted corporate tax deductions and tax exemptions. At present LHH would not fall within the meaning of those statutes.[240]

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238 See, Mass. Gen. Laws Ann. ch. 40 B § 9 et seq. (West Cum. Supp. 1978 - 1979). (Southeastern Regional Planning and Economic Development District); ch. 40 D § 1 et seq. (West Cum. Supp. 1978 - 1979). (Cities and towns); and ch. 40 E § 1 et seq. (West Cum. Supp. 1978 - 1979), (Massachusetts Industrial Development Authority).

239 Id. ch. 23 A § 29 - 35 (West Cum.Supp. 1978 - 1979).

240 See Id. ch. 63 § 38H and ch. 59 § 5.

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