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EXECUTIVE SUMMARY

# LEGAL OBSTACLES AND INCENTIVES TO THE DEVELOPMENT OF SMALL SCALE HYDROELECTRIC POTENTIAL IN THE SEVEN MID-WESTERN STATES



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# EXECUTIVE SUMMARY

## LEGAL OBSTACLES AND INCENTIVES IN THE SEVEN MID-WESTERN STATES TO SMALL SCALE HYDROELECTRIC DEVELOPMENT

### Introduction

This executive summary describes the relationship of federal law and regulation to state law and regulation of small scale hydroelectric facilities. The executive summary also highlights important features of the constitutional law, statutory law, case law and regulations of each of the seven Mid-Western States. (For purposes of this report and the reports that are summarized herein, the "Mid-Western" region refers to a seven-state area, east of the Mississippi River, and consists of Illinois, Indiana, Kentucky, Michigan, Ohio, West Virginia and Wisconsin.) In addition, this summary should serve as a concise overview of and introduction to the detailed reports prepared by the Energy Law Institute on the legal and regulatory systems of each of the seven Mid-Western States.

The summary, and the underlying reports it describes, have been prepared by the Energy Law Institute of the Franklin Pierce Law Center for the Department of Energy pursuant to a contract between the Department and Law Center. This contract requires examination of legal and institutional obstacles and incentives to the development of small scale hydroelectric power in 19 northeastern states and in federal regulatory

systems, and development of rational and appropriate recommendations for change in these legal and regulatory systems. The contract also requires that economic research be performed so that the economic issues concerning small scale hydroelectric power are fully understood and new policy initiatives may properly reflect the economics of small scale hydroelectric power. These economic analyses are contained in a continuing series of economic papers. Three such papers are presently available from the Institute. These papers describe: (1) the basic economic issues involved in small scale hydroelectric development; (2) the problem of the monopsony power of integrated electric utility systems and sales of power by small scale hydroelectric facilities to these systems; and (3) the potential contribution of small scale facilities to grid reliability.

In addition to the economic papers, the Energy Law Institute is engaged in an ongoing research and writing workplan which has as its aim the publication of several in-depth position papers on special policy issues that have a signifigant impact on small scale hydroelectric power. This program has produced: (1) a set of comments to the Federal Energy Regulatory Commission (FERC) regarding the Staff Discussion Paper on Section 210 and the Proposed Regulations Implementing Section 201 of the Public Utility Regulatory Policies Act of 1978 (PURPA); and (2) a Proposal for Changes in the Taxation of Hydroelectricity, submitted to the Senate Finance Committee and used by the Committee as a basis for

legislation. Future papers in this series include federal lands management conflicts, wheeling and interconnection standards, public and private financing strategies and the issue of public power preferences in FERC relicensing proceedings. As the federal and state regulatory environments continue to undergo significant change, the Energy Law Institute, under its contract with the Department of Energy, will set forth and analyze these changes in its reports.

Each of the reports that are summarized herein attempts to describe in detail, for its particular state, 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 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 dis-

cussion will examine the area of federal-state relationships with the aim of creating a more orderly understanding of the vagaries of the system.

The relationships of state regulatory systems to federal systems are perhaps no more complex than in the areas of regulation of water resources and energy. To place the subsequent analysis of the regulatory systems of the seven Mid-Western States in proper context, it is necessary to discuss this series of unique federal-state relationships. Fortunately in some areas "bright-line" allocations of functions have been delineated by the courts and Congress or long standing administrative practices have made relationships well understood. The remainder of this introductory section will examine the dual regulatory system from the standpoint of the appropriate legal doctrine, i.e., the law of pre-emption, and the application of this law to the case of hydroelectric development.

A. The Law of Pre-emption

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.

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 those areas of regulation to which the federal government has not been delegated authority, i.e., the federal government has no pre-emptive capability, the state law will control. The Tenth Amendment to the U.S. Constitution states: "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people."

Once pre-emptive capability is determined to exist, further inquiry must be made to ascertain whether pre-emption exists. Whether a state measure is actually pre-empted by a particular federal measure depends upon the judicially-determined Congressional intent. The difficulty is 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. Where the Court can infer a need for national uniform standards, pre-emption will be appropriate. The Court has also found pre-emption proper where there are contradictory federal and state requirements making compliance with both impossible.

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 Congress intended to pre-empt, 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 Regulation of Electric Power

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. That clause gives to the Congress the power "to regulate commerce . . . among the several states." Federal jurisdiction to regulate commerce has been held to include the regulation of navigable waterways. 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.

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 that an applicant need not comply with state permit requirements to secure a federal license. 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. 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 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. 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.

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. The eventual impact of PURPA, whose implementing regulations are being proposed as of this writing, is not yet certain. However, a few conclusions regarding state and federal jurisdiction can be made based on the legislation, the Conference Managers Report which accompanied it, and the Proposed Regulations which FERC issued on October 18, 1979.

The traditional regulatory scheme of things has been that a person selling electric energy for ultimate distribution to the public, and considered, therefore, to be an electric utility, would be 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. As explained above, this system results from the Federal Power Act, the Commerce Clause and the doctrine of pre-emption.

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 hydro-electric plants.

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 referred to as QF), could have its rates determined by a state public utility commission, in spite of the fact that its sales enter the inter-state 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. 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 energy development. 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," 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."

The federal-state relationship becomes uncertain in situations involving interconnection and wheeling. Interconnection involves the physical linkage of one electric system to another system, customer or user. It can have important advantages in planning for system capacity and avoiding construction costs for new capacity. Wheeling is the transmission of electric energy from one point on a system over that system's transmission of distribution lines to another point on that system. Wheeling services, if available, can be important to persons who desire to purchase energy from a remote generating facility. Prior to the enactment of PURPA, it was the position of the FERC, supported in some measure by the courts, that the FERC did not have the power to compel wheeling by an electric utility. The FERC, prior to enactment of PURPA, did have the power to order interconnection upon proper application by an electric utility or state commission and subject to a series of conditions as prescribed by § 202(b) of the Federal Power Act.

What remains largely untested is the power of state regulatory commissions to order large scale interconnection between electric utilities selling at wholesale, and potential retail customers of those utilities. Similarly, it is not clear what authority state commissions have to order wheeling intrastate over transmission lines which also transmit energy to interstate markets. Should state regulatory commissions have the power, free from any federal preemption, to order interconnection and wheeling under the circumstances described above, such authority

could be fashioned and employed to provide greater access of small scale hydroelectric facilities to markets for their power.

To some extent the relationships described previously will be changed by the new act (PURPA). Specifically, Title II of PURPA grants authority to the FERC to delineate the relationship of small power producers which utilize renewable resources to integrated electric utility systems. Under the new act utility systems will be required to interconnect with small power producers, including small scale hydroelectric projects, and under certain circumstances will be required to wheel power from small scale producers to customers at wholesale. Much of the implementation of the act is left to rulemaking by the FERC. At this writing, it is not known precisely how the FERC will exercise these powers under PURPA or how it will adjust its relationship with state regulatory commissions. Drafts of regulations concerning the wheeling and interconnection sections of PURPA have not been issued by FERC, as of this writing.

2. Regulation of Water Resources

A current example of a similar 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. Under these provisions, appropriate state agencies are the issuing authorities for § 401 water

quality certificates and § 402 "Point Source" permits if required for the retrofitting or construction of a dam. A related example of a different administrative system, resulting from a clear delegation of authority to federal agencies, the Corps of Engineers is the issuing authority for § 404 "Dredge and Fill" permits under the Clean Water Act when such permits are required.

The relationship is less clearly delineated when the Federal Energy Regulatory Commission issues a license under Part I of the Federal Power Act. In this regard, it is clear that the issuing authority is the FERC, but as noted in the Energy Law Institute report on the Federal Regulatory Systems, FERC regulations require consultation with and clearance from certain state agencies prior to the issuance of the license.

While state agencies have the "right" to consult with the developer and the FERC, and even to formally intervene in a licensing proceeding, they cannot, independently of the FERC, halt construction or operation of a project otherwise approved by the FERC. A possible exception to this last statement would be the unusual situation where the developer was refused, for valid reasons, a § 401 permit by the appropriate state agency and the FERC proceeded to issue the license. Under these circumstances a strong argument could be made that the later enacted Federal Clean Water Act superceded the authority of the FERC to issue a license under the earlier

enacted provisions of the Federal Power Act. On the other hand, in the situation where a state fish and game agency seeks to require the developer, who is applying for a FERC license, to construct expensive fish passages and the FERC does not require such devices as a condition of the license, it is clear that the state agency has no powers or rights other than those of formal intervenors in the federal licensing proceedings, or those of persons involved in the impact statement process.

The other salient point of confusion in federal-state relationships on the regulation of water resources is the use of the ambiguous, and seemingly infinitely malleable term "navigability". If a project is located on navigable waterways, and affects navigability, or generates electricity which would be transmitted in the interstate commerce, the FERC has jurisdiction. Section 210 of the Federal Power Act provides a mechanism, apparently largely unused, whereby a determination can be obtained from the FERC as to whether it will take "jurisdiction" of a project. Section 210 permits the filing of a declaration of intent with the FERC. If the FERC declines to exercise jurisdiction, then "permission" is deemed to have been granted to construct and operate the project in compliance with state law. The declaration of intent is of little benefit to the states in view of the fact few developers involved in projects which raise close questions of FERC jurisdiction file such declarations, and that regulatory lag which may ensue upon filing the declaration creates uncertainty and delay. Some comfort may be taken in the fact that of the some fifty thousand dams in the United States,

only some three thousand have ever been subjected to FERC (or predecessor FPC) licensing processes. However, it should be noted that many of these dams were constructed prior to 1920 or at a time when it was thought the Federal Power Act did not apply. Some additional assurance to state agencies seeking to exercise what they perceive to be their regulatory responsibilities under state law may also be found in the fact that the FERC with its present docket of approximately 180 hydro licensing matters and an average regulatory lag of three (3) years cannot possibly undertake to license all of the potential projects under construction.

On October 22, 1979, FERC issued its new regulations on water power project preliminary permit and license applications, including rules governing applications for, amendments to and cancellation of preliminary permits. These rules are designed to complement the substantive revisions pertaining to license application for minor vs. major/existing vs. major/new facilities. The revisions concern such technical and procedural matters as form, subscription and verification, service, number of copies, correction of deficiencies, and evaluation of competing applications. Of particular note is the section on the filing and disposition of conflicts between preliminary permit applications and license applications. Whether the new rules will increase the efficiency of the process, as planned, remains to be seen.

## C. Summaries of Important Provisions of State Law in the Seven Mid-Western States

The following material is a state-by-state synopsis of those important provisions of the laws of the seven Mid-Western states, that have a bearing on small scale hydroelectric development.

# EXECUTIVE SUMMARY OF THE REGULATION OF SMALL DAMS IN ILLINOIS

## I. WATER LAW

Illinois follows the riparian theory of water law. Under this theory, private rights in the flowing water of a watercourse are vested in those landowners bordering the watercourse. The right to utilize the flowing water at a proposed site is dependent upon the acquisition of property interests in the abutting land on both sides of the waterway.

The developer must also be able to use the streambed of a river or stream. In Illinois, a riparian owner takes title to the middle of both navigable and nonnavigable watercourses. However, the ownership rights of riparians are subject to a public easement of navigation on navigable waters. These public rights give rise to extensive regulation of navigable streams under both state and federal law.

To be navigable, a stream must, in its ordinary and natural condition, furnish a common passage capable of carrying commerce of practical utility to the public in the customary mode in which such commerce is conducted by water. Also, the water must be of a sufficient depth, and commonly used, for the carriage of boats and transportation of property.

With regard to ownership of lake beds, the State of Illinois owns title to the beds of all navigable lakes and

bodies of water. Here, navigability is determined at the time Illinois was admitted to the Union. Also, the beds of all lakes, whether actually navigable or not, which are meandered on the U.S. Government survey maps, are owned by the State of Illinois.

With regard to ownership and use of flowing water, Illinois follows a theory of reasonable use. Natural uses, such as household and domestic uses, have a priority over artificial uses, such as industrial or agricultural uses. Where proprietors are using a stream solely for artificial uses, they must share the stream flow; no one proprietor has the right to use all the water. Reasonable use is determined by considering all the circumstances on a case by case basis. For example, an upper riparian may divert the whole stream for his artificial use if he returns the water to its natural channel for use by lower riparians. Also, an upper riparian may impound water for an artificial use, substantially reducing the flow to a lower riparian, if the benefits to the upper riparian outweigh the burdens to the lower riparian.

Another area of interest to dam builders is the measure of liability for dam breach or backflooding. Unless the damage is caused by a reasonably unforeseeable act of God, a dam owner will be held liable under a negligence standard.

## II. DIRECT REGULATION

It is unlawful for anyone to construct a new dam without

making application to, and receiving a permit from the Illinois Department of Transportation (DOT). In addition, DOT has supervisory power over all existing dams.

The DOT Division of Water Resources (DWR) has issued comprehensive interim regulations controlling dam operation and construction in Illinois. Under the interim regulations, two permits are required:

(1) a construction permit (includes reconstruction); and

(2) an operation permit.

These permit requirements apply only to dams which:

(1) are twenty-five feet or more in height; or

(2) have an impounding capacity of fifty acre - feet or more.

The owner of a dam or proposed dam which is larger than the above minimum size requirements must apply to the DOT/DWR for a construction permit to construct or reconstruct each dam and appurtenant work which impounds or diverts water.

Effective January 1, 1980, the owner of a new or existing dam meeting the size requirements must apply to DWR for an operating permit. Persons proposing to construct new dams must obtain operating permits prior to filing applications. All operating permits expire 5 years after the date of issue, and must be renewed by the dam owner.

Once licensed and operating, a dam owner must pay for an annual safety inspection by an Illinois registered professional engineer. The inspection report must be sub-

mitted to DWR, who may rescind the standard operating permit if there are serious deficiencies. A provisional permit may be issued while the deficiencies are corrected. Failure to remedy the problems within a designated time schedule may result in loss of the provisional permit and possible breach of the dam.

DOT has the authority to compel the installation of fishways in dams, upon recommendation by the Illinois Department of Conservation. Should one be required, the dam owner must pay the costs.

DOT also requires a work-in-water permit to fill, deposit material or build any structure in any public bodies of water. The developer constructing on any of the applicable waters must submit plans, specifications and profiles to the DOT. If the proposed use will not interfere with navigation, DOT will issue a permit.

The other major group of regulations which may have a significant impact on the development of small scale hydroelectric (SSH) power are those regulations governing public utilities. In Illinois, the entity which has regulatory authority over public utilities is the Illinois Commerce Commission (ICC). The ICC has broad supervision over the public utilities, including: the manner and method in which the business is conducted; the franchises, capitalization, rates, and other charges of the utility; the manner in which the plants and equipment are managed and operated; and

the setting of service areas in which an electric utility may sell its power. Compliance with this extensive regulation could be expensive. However, one advantage to being a public utility is that under certain circumstances a public utility may utilize the power of eminent domain.

Cities may obtain regulatory power over public utilities that in most matters, supersedes the ICC's powers. A public utility must file copies of all reports made to the ICC with such a municipality. Under the Public Utilities Act, a public utility may request the ICC to review the city's actions.

By statute, municipalities are allowed to form and operate municipal utility companies. Municipalities have been granted the right to acquire (by purchase or condemnation), construct, own and operate within their corporate limits any public utility the product or service of which is to be supplied to the municipality or its inhabitants. Because municipal utilities may utilize the power of eminent domain, they are in an excellent position to develop SSH facilities within their municipal limits. Once they have acquired a site, they may either develop it themselves or lease it to a private Illinois corporation to develop and operate for them.

Municipalities have many other general powers, such as to inspect machinery and impose zoning regulations, that could impact on the development of SSH.

The developer should be aware that the water management districts of Illinois may create obstacles to the development of SSH because they all have regulations and permit requirements which the developer must comply with. The Illinois statute provides for three types of water management districts:

(1) river conservancy;

(2) surface water protection districts; and,

(3) regional port districts.

Each district has jurisdiction over the use of certain watercourses within its boundaries.

Local zoning has a significant direct impact on SSH development. A developer should check for local plans and regulations which may restrict the use of his land.

INDIRECT REGULATION

There are many agencies and regulations which may in certain circumstances affect, or be of interest to, SSH developers. The DOT is empowered to regulate many other aspects of water resources in addition to its powers over dam construction. Other agencies to be aware of are: The Natural Resources Development Board, the Water Resources Commission, and the Illinois Institute of Natural Resources.

There are three other indirect considerations for SSH development. First, the developer should be aware of state agencies which implement programs dealing with aspects of environmental protection. Second, interstate compacts

may affect development of water resources. Third, the dam developer should be aware that historic sites will be protected from being destroyed by SSH development.

## IV. FINANCIAL CONSIDERATIONS

SSH developers will be subject to many types of taxation. All real property located in Illinois will be subject to a property tax, along with many types of personal property, such as bonds and specific types of stock. Illinois has a real estate transfer tax which is imposed on the transfer of title of real estate. The Public Utilities Revenue Act imposes a tax upon any person who sells electricity for consumption and not for resale. This tax applies to municipal and cooperative utilities as well as to private ones.

In addition to the above taxes, Illinois imposes taxes upon state corporations. A corporate franchise tax is imposed on every corporation subject to the Business Corporation Act. A tax is imposed on the net income of corporations, which includes associations, joint-stock companies, and cooperatives. These taxes will apply to a dam developer whose business is incorporated.

Any machinery which a developer purchases will be subject either to a sales tax or a use tax. The sales tax must be paid to Illinois retailers for purchases of machinery. The use tax is imposed on the privilege of using, in Illinois, tangible personal property which was purchased in another state.

There are two financial assistance programs which may be of help to the SSH developer. The Illinois Industrial Development Authority has the power to provide financial aid for the development and construction or acquisition of certain industrial projects. Another program which might assist hydroelectric development is the new Illinois Coal Development Bond Act, which authorizes assistance to promote the development of coal and other energy resources.

FLOW DIAGRAM OF
ILLINOIS DAM REGULATION

I. OWNERSHIP
-Does developer own or have rights to both banks and bed of waterway?
-Does developer own property, have easements or permission to backflood?
-Does developer have legal right to use of flowing water?

If yes:

If no, developer must obtain before developing

II. Is stream a public body of water, i.e., is title in the state or is the stream subject to easement of navigation?

If yes, developer must apply to DOT for Work-In-Water Permit

If no, permit is not required

III. Will dam be either: (1) 25' or more in height and impound more than 15 acre-feet of water, or (2) an impoundment of more than 50 acre-feet of water and more than 6' in height?

If yes to either (1) or (2) above, developer must apply to DOT for construction and operation permits.

If no, DOT permits are not required.

IV. Is dam site within a municipality?

If yes then developer must comply with any Levee Improvement Commission, Municipal Planning Commission, and zoning and building requirements. These may or may not involve permits.

If no

V. Is dam within a River Conservancy District, Surface Water Protection District, or Sanitary District?

If yes, then developer must comply with any of their requirements. This may or may not require permits.

If no

VI. Is project within a Regional Port District?

If yes, comply with their requirements. Developer must obtain permit for any construction within 40' of any navigable waters within district

If no

VII. Will electricity from dam be sold to consumers for "public use".

If yes, dam is a public utility subject to ICC regulations. Developer must obtain and follow all ICC regulations.

If no, then not subject to ICC regulation.

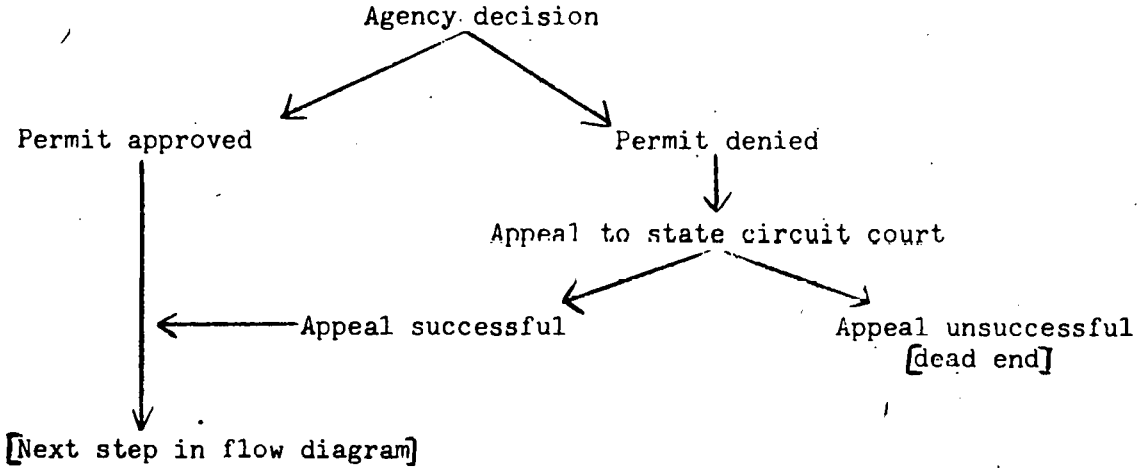
VIII. Is dam located within a municipality which has adopted Article VI of the Public Utilities Act?

If yes, dam is subject to municipal regulation of utilities rather than ICC regulation. Utility may appeal municipal decisions to ICC.

If no, dam is subject to ICC regulation.

IX. Once operating dam owner must obtain Operating Permit from DOT every five years.

X. Appeal procedure. All final decisions of the DOT, the ICC or any of the Regional Port Districts (steps II, III, VI, VII and IX above) may be appealed to the state circuit court. The procedure is as follows:



# EXECUTIVE SUMMARY OF THE REGULATION OF SMALL DAMS IN INDIANA

## I. WATER LAW

In Indiana, the title of abutting land owners on non-navigable watercourses extends to the center of the watercourse. On navigable waters, a riparian holds title to the high water mark of the stream; title to the bed is vested in the state.

If a watercourse is capable of being used for purposes of navigation, such as trade and travel, the title bed of the watercourse will vest in the state and the waterway will be a public highway. The fact that the watercourse is at times unfit for transportation does not destroy its actual capacity and susceptibility for navigation. Additionally, Boards of County Commissioners are authorized to declare any stream or watercourse within their respective counties as navigable.

All riparians have co-equal rights to use the streamflow and no riparian may use the water to such an extent as to cause material injury to those below him on the stream. Domestic uses of water, e.g., water for household purposes and drinking water for livestock, have priority over uses of water for power purposes.

Indiana's Mill Dam Act grants Mill Dam owners the power to backflood private property and pay damages for this easement. A public utility is entitled to acquire private property for

the production of electricity after the Public Service Commission has issued a certificate of convenience and necessity to the utility. In addition, if a dam owner backfloods neighboring lands for twenty continuous years, without objection by owners whose lands are flooded, the dam owner may acquire an easement, or the right to backflood those lands.

Liability for dam breach is uncertain in Indiana. However, a SSH developer has a good argument that he should only be liable for negligence if his dam breaches since the Division of Water only requires a developer to exercise prudence, due care, and sound and accepted engineering principles in constructing his dam.

II. DIRECT REGULATION

Most dams may not be constructed in a watercourse unless the developer has obtained a construction permit from the Division of Water within the Department of Natural Resources. Permits will be sent to applicable divisions within the Department of Natural Resources. The Division of Fish and Wildlife has the authority to require a permit if explosives are to be used in or under the water; require fishladders; set minimum flow requirements; and require small boat passages to be constructed. The Divisions of Lakes and Streams has authority to establish lake levels on new impoundments of water if the impoundment is open to public access. Dams which endanger the water level of lakes with an area of ten acres or more, require the written approval of the Division. Small scale hydroelectric

(SSH) dams, owned by private utilities, are regulated for safety by the Public Service Commission. The Natural Resources Commission oversees the administration of the Department of Natural Resources and officially approves all permits. All permits granted must be approved by the Governor.

If a SSH project, as a retail seller of electrical energy, is defined as a public utility, then it will be subject to the jurisdiction of the Public Service Commission. The Commission fixes rates, issues public convenience and necessity certificates and is empowered to inspect dams. Municipally owned utilities and utilities selling power at the wholesale level are not subject to the Commissioner's jurisdiction.

II. INDIRECT REGULATION

Indirect regulations may significantly affect the development of SSH. The Stream Pollution Control Board may set effluent standards for SSH if the Federal Environmental Protection Agency deems SSH a point source of pollution. The Environmental Management Board may require an environmental impact statement from the Department of Natural Resources as a condition upon a permit to develop SSH. At present, however, SSH is not considered a point source of pollution, and it is unlikely that SSH would be subject to an environmental impact statement.

Land dedicated as a nature preserve may not be disturbed or developed except in the interest of its preservation. No dam may be constructed that impounds more than 5% of a natural

and scenic river. No dam may adversely affect a registered historic site if it is economically feasible to preserve the historic site.

Soil and Water Conservation Districts may charge a SSH developer for benefits received as a result of the District making improvements of a watercourse. A developer's reservoir or water supply may be appropriated by a Conservancy District as well.

Municipal regulation, such as zoning, flood plain management and regulation of waters and watercourses may significantly affect SSH. For example, cities have the power to regulate activities which change the condition of heat or cold in the water. Because SSH may affect downstream water temperatures, a city's power to regulate activities which change water temperature is significant. The developer of SSH should investigate the extent to which local ordinances affect his project.

## IV. TAXATION

In Indiana, public utilities are not taxed much differently than regular business enterprises. Distributable property of public utilities is assessed by the State Board of Tax Commissioners; the County Auditor assesses fixed property of public utilities. Property of municipally owned utilities is exempt from taxation and all property of private businesses is assessed by the County Auditor.

A gross income tax is imposed on both utilities and regular business entities. Income derived from sales to the United

States Government, interstate commerce and public utilities are exempt. Non-profit corporations are exempt from this tax. Proprietary activities carried on by municipal utilities are not exempt from this tax.

Other taxes imposed upon both public utilities and regular businesses are an adjusted gross income tax, a supplemental net income tax, a personal income tax, and a intangible tax.

Indiana has a retail sales and use tax, however, sales of electricity are exempt from this tax. A fee based on a corporation's capital stock is imposed upon the incorporation of a domestic corporation. Also, in addition to paying general taxes, public utilities, subject to the Public Service Commission's jurisdiction, must pay a fee based upon their gross income.

V. LOANS

Little incentive exists for hydroelectric development through state loans and funding. The Indiana Economic Development Authority has a guaranteed loan fund to encourage small business enterprises. A SSH developer should apply to the Authority for a loan.

The Department of Natural Resources has flood control dams that may be leased to a developer for hydroelectric retrofitting. However, such an arrangement must be approved by the Natural Resources Council. In addition, the Department cannot enter into a joint venture with a private developer and use joint funds to construct a multi-purpose dam.

FLOW DIAGRAM OF REGULATION OF SMALL DAMS IN INDIANA

PROJECT

I. Ownership

- Does the developer have the legal right to use the flowing water?
- Does the developer own both banks of the waterway?
- Is the waterway navigable or non-navigable?

II. Navigable ← → Non-navigable

Navigable: State owns bed of waterway — appeal to state court — waterway found non-navigable → Developer owns bed if he owns both banks. Exercise powers of eminent domain if public utility does not own both banks and there is a "hold-out" problem.

- PSCI certificate of convenience and necessity needed before Public Utitlity may appropriate property

III. Apply: to State legislature for charter authorizing use of "public way."

approved / denied

IV. Apply: for all relevant permits, variances and approvals required by local by-laws. E.g., zoning and watercourse regulations.

V. Does SSH project adversely affect Registered Historic Site?

Yes / No

- must protect if economically feasible

VI. Does SSH project impound more than 5% of a Wild and Scenic River?

Yes / No

- need Legislative enactment to develop

unsuccessful / successful

VII. Does SSH project disrupt a Nature Preserve?

Yes

-apply DNR for permit to develop

unsuccessful

successful

No

VIII. Does the SSH project possess any of these characteristics?

1. Drainage area greater than one square mile.
2. Height of dam greater than twenty feet.
3. Volume of water impounded greater than one hundred acre feet.
4. Possible impact on other landowners.

Yes

- Apply to Division of Water in DNR
- Flood Control (local recommendations)
- Dam Safety Regulations
- Fish and Wildlife
  - permit for use of explosives
  - fishladders may be required
  - minimum flow requirements
  - small boat passages may be required
- Lakes and streams
  - lake level requirements
- Engineering
  - dam safety requirements
- Soil and Water Conservation (local recommendations)
- Stream Pollution Control Board (may set effluent standards)
- Environmental Management Board (may require EIS from DNR)
- Natural Resource Commission Approves all permits

Permit Granted

Permit Denied

Appeal to Superior Court

overruled

sustained

Approved by Governor

No

IX. Is the SSH project a public utility?

Yes

- Subject to PSCI jurisdiction
  - selling power at retail level
  - Rural Electric Membership Corporation
    - fixes rates
    - issues public convenience and necessity certificates
  - Municipalities
    - PSCI jurisdiction over rates
  - Non-profit electric cooperatives serving the general public
- Power of Eminent Domain
  - Requires certificate of public convenience and necessity
- PSCI power to inspect dams

No

- selling power at wholesale level
  - subject to FERC jurisdiction
- municipality

X. Taxation of SSH as a Public Utility or Private Enterprise.

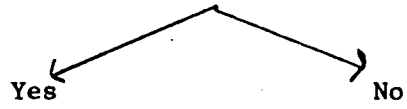
- Distributable Property of Public Utilities assessed by State Board of Tax Commissioners
- Fixed Property of Public Utilities assessed by County Auditor
  - Municipal Utilities Exempt
  - Property of Private Business assessed by County Auditor
- Gross Income Tax
  - Income derived from sales to U.S. government, interstate commerce, and public utilities exempt
  - Non-profit corporation exempt
  - Proprietary activities of municipal utilities not exempt
- Adjusted Gross Income Tax
  - Non-profit corporations exempt
- Supplemental Net Income Tax
- Personal Income Tax
- Intangible Tax
- Sales and Use Tax
  - Public utility sales to manufacturers and other utilities exempt
  - Sales to municipal utilities and non-profit corporations exempt
  - Non-profit corporations exempt from sales and use tax
- PSCI fee for Public Utilities
- Fee for incorporation

XI. Loans for SSH

- Indiana Economic Development Authority
- Department of Natural Resources

XII. Construction, Operation and Maintenance of SSH Dam

- Comply with conditions of all permits and licenses
- Fishways/boat passages
- Utilize power to appropriate
- Liability for dam breach unclear
  - Obtain liability insurance for dam breach
- Is project feasible under prevailing rates?
- In terms of insurance, costs, is project worth risks?



# EXECUTIVE SUMMARY OF THE REGULATION OF SMALL DAMS IN KENTUCKY

## I. ACQUISITION

The first step for a potential SSH developer is to obtain all necessary land and water rights. This includes not only the rights to the dam structure itself and the land it is on, but also the right to receive and impound water. Depending on the type of SSH operation, additional rights to raise and lower the water level in the reservoir may be necessary. The developer may also need to obtain the right to run transmission lines across neighboring land.

A title search will have to be conducted to ensure free and clear title. This research process will not be complete unless further investigation is made to determine if there are any prescriptive rights relating to the use of the land or water. A prescriptive user in Kentucky may acquire legal rights in another's land if he uses it in an open and notorious manner for seven years.

After obtaining all necessary property rights, the developer should record a deed in the county clerk's office in the county where the greatest portion of the property is located. At that time the seller of the deed will be responsible to pay a transfer tax of one cent per $10 value.

## II. WATER LAW

### A. Riparian Rights

Kentucky is a riparian state. This means that the right to have the water of a watercourse flow to the riparian's land in its natural course shall not be unreasonably diminished, in quantity or quality. A body of water becomes a watercourse when it forms a distinct channel with beds, banks and current.

On a navigable watercourse the riparian's rights become subordinate to the public right to navigate. The public right is determined by federal, state and local governments. A watercourse is considered navigable if it can float logs downstream during spring high waters, unassisted by man.

The two theories of riparian flowage rights (natural flow and reasonable use) have been synthesized in Kentucky. A riparian owner may not unreasonably change the natural flow of water so as to cause substantial damage to a lower riparian owner. Because the riparian right is considered property, the right may be purchased or condemned. One affective tool is the power of eminent domain.

B. Liability

A potential SSH developer will often need to make preliminary examinations on neighboring land to determine feasibility. Kentucky allows such a survey upon posting a bond with the county clerk, so that the developer may proceed without fear of a trespass claim. This does not absolve the surveyor of his liability for actual damage, sustained because of his trespass.

In addition to trespass, the developer must also be wary of suits in negligence and nuisance, and claims for taking

land and/or property without compensation. The negligence standard applied in Kentucky creates an obligation for the dam owner to properly construct and maintain his dam. For example, if a dam owner used flashboards during high waters and those flashboards were reasonably expected to break, then any damage resulting from the breaking of the flashboards would have to be compensated by the dam owner. The key is the relationship between the negligent act and the ensuing damage. When an act of God is the sole cause of a dam breach, injury to lower riparians is noncompensable.

The SSH operator must also be wary of actions for trespass and public or private nuisance. Such actions not only apply to when a dam breaches, but also where impoundment is fluctuated to the detriment of upper riparians. Continuous operation of a dam will not create a prescriptive right for the operator where a public nuisance is involved.

A final liability for SSH development in Kentucky is taking without compensation. There are limited situations where a police power related taking will be non-compensable. However, SSH developers with the power of eminent domain must compensate property owners.

C. Statutory Law

Kentucky laws which restrict dam development near the head of navigable streams do not apply to facilities constructed for the purpose of generating electricity. SSH dams are also exempted from prohibitions related to already existing water-works.

SSH dams are not specifically exempted from several other statutes created to protect the environment. These include water pollution standards enforced by the Bureau of Environmental Protection (BEP) within the Department for Natural Resources and Environmental Protection (NREP). NREP also has the authority to make repairs to the dam for safety purposes.

## III. DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION (NREP)

### A. Water Pollution

NREP is responsible for controlling water pollution in Kentucky. Water polluters in violation of NREP standards face criminal and civil sanctions and may be required to restock fish. In addition, NREP issues state water quality certificates pursuant to the Federal Water Pollution Control Act.

Persons aggrieved by a NREP decision may appeal in the first instance to the agency. This process is also open to intervenors. Redress does not end here. Appeals to the Circuit Court may begin a process through the state court system.

### B. Permit Requirement and Inspections

Dams, which are more than 25 feet in height or which have a maximum impoundment capacity of 50 acre feet or more, must obtain a permit from NREP. Permits are issued in terms of quantity, time, place and rate of diversion. Such permits will be denied or approved within 20 days. Unlike most other administrative decisions, there is no judicial review if the permit is denied.

NREP also inspects existing dams to ensure the public safety. Within 60 days after completion of an on-site inspection, NREP will grant or deny a certificate of inspection. Through this inspection process NREP may impose conditions on the operation and maintenance of dams.

The Water Resource Division of NREP has designated three hazard categories. A high hazard categorization indicates a potential for loss of life or loss of critical public utilities. Moderate and low categorizations cover degrees of potential property damage and less critical public utilities. Despite the promulgation of these standards there is no evidence of current implementation.

A certificate of inspection will be valid for up to five years and may contain various conditions. Except in an emergency situation a dam owner has 90 days to comply. If an owner fails to comply and NREP determines that an emergency exists, the agency may attempt to mitigate the danger by taking necessary steps to safeguard the site, lower water level or even remove the dam, all at the owner's cost.

C. Wild Rivers System, Forestry and Natural Preserves System

A state wild rivers system is administered by the Secretary of NREP. Streams designated by the Governor and General Assembly, which are essentially free-flowing and scenic, constitute

the Wild Rivers System. Protection by NREP generally occurs through condemnation and subsequent government ownership of up to 2,000 foot corridors on either side of the stream's center.

Only construction which will further the purpose of the wild river system is allowed. Dredging and strip mining are specifically prohibited; however, utility lines may be constructed with the written permission of the Secretary. Prior uses are also allowed.

In addition to administration of the Wild Rivers System, NREP also supervises all forestry property and, in conjunction with the Nature Preserves Commission, the Natural Preserves System. The Natural Preserves System consists of natural areas, which are useful for scientific research; are useful for the teaching of biology, natural history and ecology; are habitats for natural species; and are places of natural interest and beauty. Both of these state controlled land areas are unlikely SSH sites.

## IV. ENERGY UTILITIES

### A. The Energy Commission

An energy utility is any person or corporation, except a municipality, who owns, operates or manages a facility for generation, production, transmission or distribution of electricity to the public for compensation. Thus, a wholesale SSH developer is not subject to the Energy Commission's jurisdiction, at least not until the recent Public Utility Regulatory Policies Act of 1978 is effectuated. Private hydroelectric generation for internal use is also currently exempt from the Energy Commission's

jurisdiction. All energy utilities within the Commission's jurisdiction will have rates and service regulated.

To encourage orderly developemnt, Kentucky is divided into geographical service areas, which grant the retailer utility exclusive territorial rights. This exclusivity is waived in situations where a utility may need to connect to a supplier outside its service area, or where a contract with another utility, approved by the Commission, alters service commitments.

Every project meeting the definition of an energy utility must first obtain a certificate of public convenience and necessity from the Commission, showing the service need for the construction. This does not include expansion of service connections. After a public hearing of all interested parties, the Commission may issue or refuse the certificate. Construction authorized by the certificate must begin within one year.

In addition to the certificate of convenience of necessity, SSH facilities must also obtain a certificate of environmental compatability from the Commission. This triggers the involvement of any local pollution control district and NREP.

Rates are also determined by the Commission. These rates must be uniform. There is an exception to this uniform rate allowed for utility officers, utility employees, charitable institutions, the United States government and disaster relief victims. The Commission also regulates service and an energy utility's administration.

B. Tennessee Valley Authority

The Tennessee Valley Authority (TVA) is intended to be the complete law for municipal acquisition and operation of electric plants acquired after 1942. Any municipality proceeding under TVA is exempt from all state regulation, except that the municipality will have to obtain a certificate of environmental compatability prior to construction. In addition, before a municipality acquires an electric plant, the proposal must be endorsed by a majority vote of the municipality.

TVA includes the power of condemnation. Rates are generally set by municipalities. However, there is confusion about implementation of rate changes. Currently, muncipalities make the determination independent of the Energy Commission, however, an opinion of the Attorney General and a statute indicate that hearings must be held similar to those conducted by the Commission.

C. Rural Electric Cooperative Corporations

Rural Electric Cooperative Corporations (RECC) may be formed to conduct electric generation and distribution on a nonprofit basis. RECCs are subject to the jurisdiction of the Energy Commission. No more than 25% of the cooperative's total business may be derived from non-members. A further restriction limits the ability of RECCs to sell electricity to municipally owned electric utilities unless there was a connection before June 1974.

RECCs are exempt from all taxes except the franchise,

property and utilities gross receipts tax for schools. In lieu of sales tax, income tax, etc., RECCs pay an annual tax of $10.

## V. LOCAL REGULATIONS

A proposal affecting land use by any instrumentality of state government or by an electric utility under the jurisdiction of the Kentucky Energy Commission or Federal Energy Regulatory Commission, does not have to be approved by a local planning unit. In such cases, the local planning commission may only request information related to the effect on service facilities. All other projects must be approved by the local zoning board.

Local commissions may also form an area planning commission with the authority to develop a master plan and review construction projects. Soil and water conservation is overviewed by a state commission but specifically implemented by local districts. A local soil and water conservation district may acquire property rights, develop a comprehensive plan and adopt regulations to control erosion and prevent flooding. For the regulation to be effective it must be approved by 90% of the votes in a referendum.

## VI. INCIDENTAL IMPACTS

Kentucky is signatory to various compacts and agreements. These include, among others, several Interstate Park Compacts, the Ohio River Valley Water Sanitation Compact, the Tennessee River Basin Water Pollution Control Compact and the Tennessee-Tombigbee Waterway Development Compact. Several of these compacts and the Kentucky Department of Parks may have complete

ownership or other control over various waterways. Other compacts provide water pollution control data and comprehensive waterway planning.

## VII. FINANCIAL CONSIDERATIONS

### A. Loans and Grants

Several development agencies may be available to the SSH developer for financial assistance. However, the developer will probably have to exhaust normal financial routes such as banks or loan companies.

The Kentucky Development Finance Authority has the power to assist industrial development through loans from a finance fund. These loans may not exceed 50% of the estimated cost of the project.

A SSH facility has never applied for a loan from the Authority and may have difficulty in meeting manufacturing and labor intensive eligibility requirements.

Another possibility for the developer is a loan from a business development corporation. Any 25 Kentucky residents may form a business development corporation and make loans for no more than 2% above the prevailing prime rate. As with the Finance Authority, most development corporations are interested in labor intensive industry.

A final possibility is the Kentucky Port and River Development Commission or other local port authorities. Such agencies can supply assistance to river related industries.

### B. Taxes

A SSH developer will be subject to numerous state and local

taxes. Real estate transfer taxes have already been mentioned in the Acquisition section infra.

Corporations are liable for several taxes. Organization tax must be pay based upon capital stock. A corporation license tax of 70¢/$1,000 of capital is assessed annually. Corporations and individuals also pay state income tax.

Owners of property also pay local property taxes. This tax may include easements and flowage rights. The tax is assessed by and payable to the state, which then transfers the money to localities.

A 5% sales tax is assessed on retail sales of electricity. Property brought into Kentucky from other states will be subject to a 5% use tax. Neither of these taxes applies to residential use. Sales to any governmental organization are also exempt, although sales by the government, such as a municipality, must pay the tax.

Energy utilities regulated by the Energy Commission must pay an administrative tax to defray the cost incurred by the Commission in regulating utilities. Energy Utilities are also liable for a tax for schools at a rate of 3% of the gross receipts derived from furnishing electricity within a county. The school tax is payable monthly and does not include wholesale sales.

Special procedures and exemptions are available for municipal utilities and rural electric cooperative corporations.

## FLOW DIAGRAM OF REGULATION OF SMALL DAMS IN KENTUCKY

I. ACQUISITION

A. Title Search.

B. Acquisition of Ownership Rights.

(1) Acquire right to use flowing water.

(2) Acquire right to impound water on private land.

C. Record Deed of Transfer.

(1) Pay recording fee.

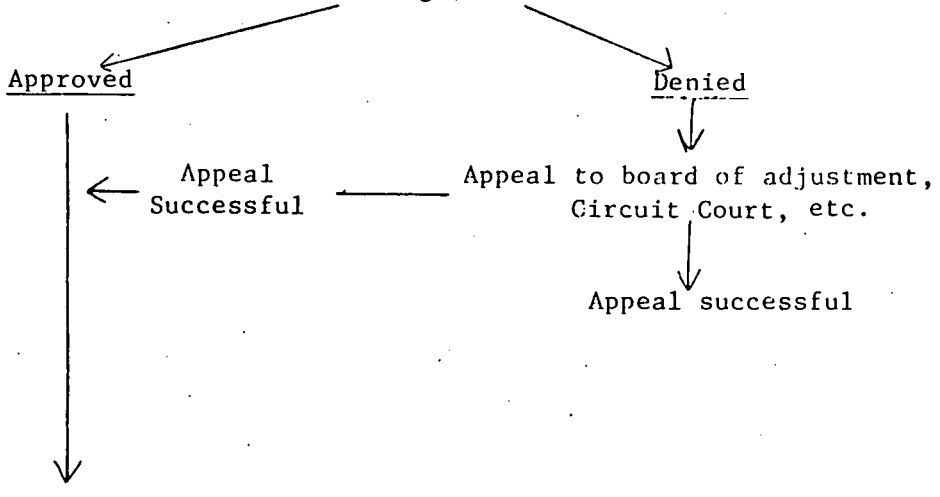
(2) Pay transfer fee.

II. SURVEY of land to be impounded upon or otherwise utilized.

A. Submit Bond to County Clerk.

B. Submit Map of Land to be Overflowed to County Clerk.

III. DETERMINE effect of local, area, and special district zoning laws and ordinances which regulate the height and size of structures and the location and use of buildings, structures and land.



IV. IS DAM SUBJECT TO NREP JURISDICTION?

Yes

Obtain:
- A. Permit to divert water.
- B. Permit to impound water behind a dam.
- C. Certificate of inspection.

No

judicial review is not available

May Need:
- A. Approval of utility lines in Wild Rivers System.
- B. Approval of land/water use in Wild Rivers System.
- C. Approval from local flood control district established by NREP.

(All orders of NREP may be appealed. Hearings are accessable to intervenors upon filing of a petition to NREP by the intervenor.)

V. IS THE ENTITY AN ENERGY UTILITY?

Yes

Subject to the jurisdiction of the Kentucky Energy Commission

Must:
- A. File for Certificate of Public Convenience and Necessity.
- B. File an Environmental Compatability Statement (ECS) to NREP.
- B. File for Certificate of Environmental Compatability (an ECS must be submitted before this certificate will be approved).

No

- Municipal electric utilities are exempt from Energy Commission jurisdiction and requirements except for Certificate of Environmental Compatability.
- Before a municipality may acquire an electric utility, it must submit the proposal to a vote of the city's residents.
- Sale of public utility franchise to city is via sealed bid.
- If accepted, the SSII developer must give to the city, within 30 days, a bond equal to 1/4 of the fair estimate of the cost of the facility.

VI. PERMIT TO CONSTRUCT TRANSMISSION LINES ON PUBLIC THROUGHWAYS MUST BE OBTAINED FROM DEPT. OF HIGHWAYS.

VII. CONTINUING OBLIGATIONS.

A. Dams and energy utilities are subjec to periodic safety inspection by the NREP and EC.

B. Taxes

(1) Corporate taxes.

(2) Special utility taxes

# EXECUTIVE SUMMARY OF THE REGULATION OF SMALL DAMS IN MICHIGAN

## I. WATER LAW

Michigan follows the riparian theory of law. A landowner abutting a watercourse is a riparian. All riparians have an equal right to reasonably use the waters of a stream. Absent a grant, prescription or license, no riparian may materially diminish a stream's quality or quanity of water so as to injure a lower riparian. Note, no landowner bordering an artificially created lake may maintain a certain water level by prescription.

Riparians hold title to the center of the bed of both nonnavigable and navigable watercourses. However, if a watercourse is navigable, the riparian's title will be subject to a public right of navigation, fishing and fowling.

A stream is navigable if it is of sufficient capacity for the floatage of rafts and logs, notwithstanding that at times the stream becomes too dry and shallow for that purpose. It is likely that every stream with the potential to produce hydroelectric power will be considered navigable; hence, subject to the public easement of navigation.

A dam owner is liable for negligence for the breach of his dam. However, if water seeps or percolates onto adjoining land, then the dam owner shall be held strictly liable under a trespass theory.

If a dam owner lacks the authority to backflood a neighbor's

property, then the dam owner may be enjoined from maintaining such a continuing nuisance.

II. DIRECT REGULATION

If a small scale hydroelectric (SSH) project is to be built upon a navigable watercourse, then the developer will have to petition the county board of supervisors for a county construction permit. The developer must also obtain a soil erosion and sedimentation permit from the county or local enforcing agency for the soil erosion district if construction or improvements of a dam are made within 500 feet of a stream or lake.

Whether a dam is constructed or improved upon a navigable or nonnavigable watercourse, a developer must obtain a dam construction permit from the Department of Natural Resources if such construction is being made below the high water mark. The developer must also contact the Environmental Enforcement Division, within the Department, to coordinate studies, permits and approvals. If the SSH project is considered a major state action, then the Environmental Enforcement Division will prepare an environmental impact statement and submit it to the Michigan Environmental Review Board for its review. The developer must gather and pay for the necessary studies to produce an environmental impact statement.

Construction permit applications are reviewed by divisions within the Department and by local governmental entities where the SSH project is proposed. Public hearings

will be held if any interested party so requests.

The Public Service Commission has jurisdiction over public utilities. SSH will be classified as a public utility if it sells hydroelectricity at the retail level; a SSH project will not be subject to the Commission's jurisdiction if it sells its power at the wholesale level.

The Commission regulates all rates and charges for power and services; issues certificates of convenience and necessity; authorizes the issuance of stocks and bonds; and regulates the siting of SSH facilities. A developer of SSH, under the Commission's jurisdiction is authorized to exercise the power of eminent domain. Note, that municipally owned utilities also have the power to appropriate private property, however, they are not regulated by the Commission.

## III. INDIRECT REGULATION

A developer's SSH project must comply with the Michigan Environmental Protection Act, which grants any person the right to declaratory or equitable relief against entities which pollute, impair or destroy the environment. Hence, a private individual may bring an action against a SSH project if its operation pollutes, impairs or destroys the environment.

A local watershed council, through the Department of Natural Resources and through a local river management district, may set minimum levels of stream flow and may acquire dams and reservoirs to maintain stream flows; hence, restricting the use of SSH for peaking purposes.

A developer may not alter the impoundment levels of lakes set by the Inland Lake Levels Act of 1961.

A river designated as a natural river area may not be disturbed by a SSH project without first obtaining a permit from local zoning authorities and the Department of Natural Resources.

The Natural Resources Commission has authority to require the installation of fishladders over SSH dams. The developers would bear the cost for such fishladders.

A SSH project may not adversely affect a historical site without a permit from a local historic preservation district. Note, that a developer's dam or dam site itself may be a historical site and restricted from alteration.

A SSH project planned within the vicinity of the Great Lakes may be subject to the Shorelands Protection and Management Act of 1970. A developer must obtain a permit from the Department of Natural Resources to build in environmental, high risk erosion or flood plain areas.

No SSH project can be built in a State Wilderness Area, except for emergency purposes, and no dams may be built in federally designated wild and scenic river areas.

## IV. TAXATION

Property of SSH, including all easements and water power rights, is assessed and taxed where located. Property of municipally owned utilities is exempt from property taxes. A tax credit exists for hydroelectric projects that generate

power for personal use.

The Single Business Tax may apply to retailers and wholesalers of electricity. The tax is based on adjusted business income and is imposed in lieu of the general income tax.

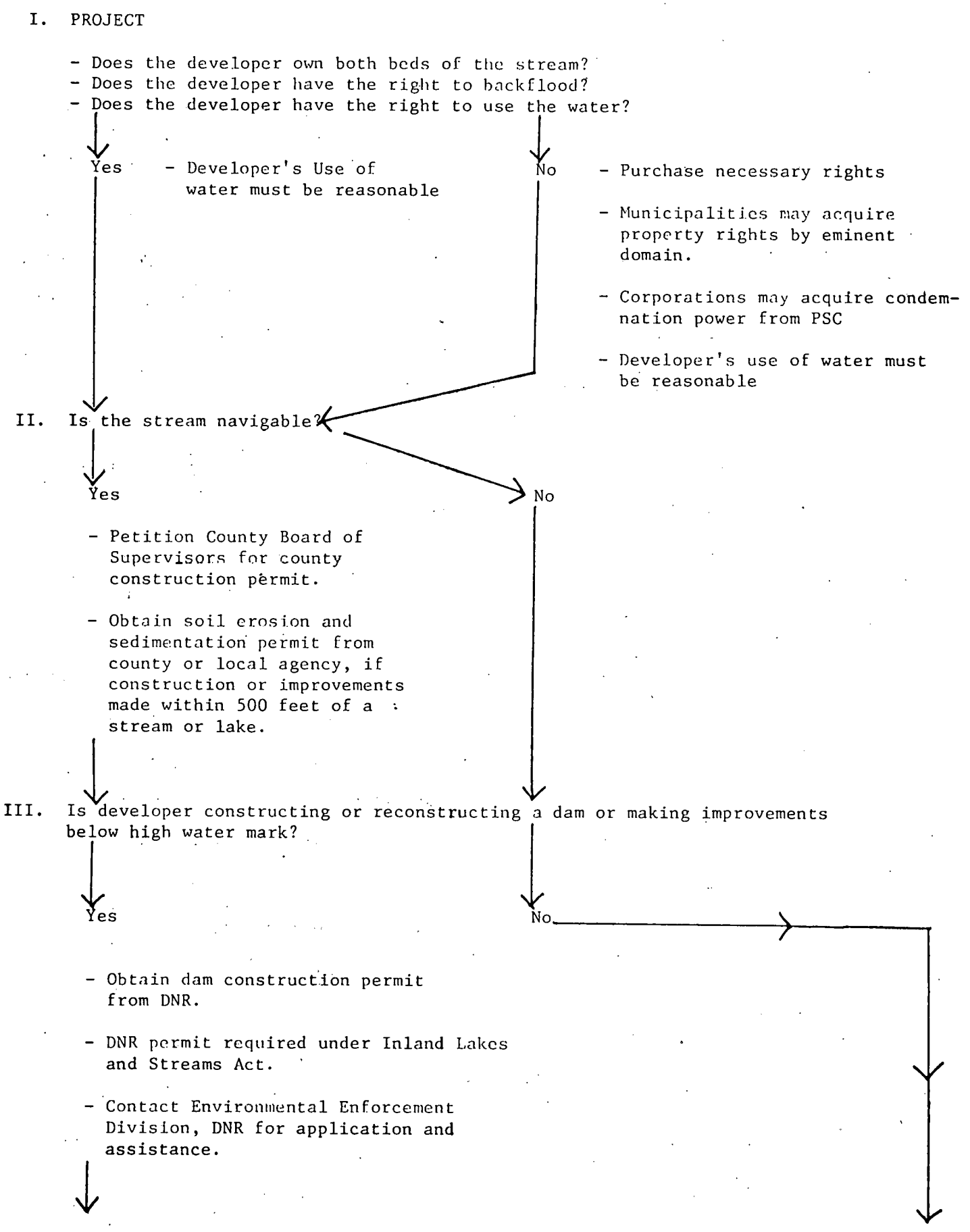
Cooperative associations and corporations pay a corporate license fee and a privilege fee based on their paid-up capital and surplus. Corporations must pay a corporate organization tax upon their authorized capital stock. Utilities are taxed an annual privilege or franchise fee as well.

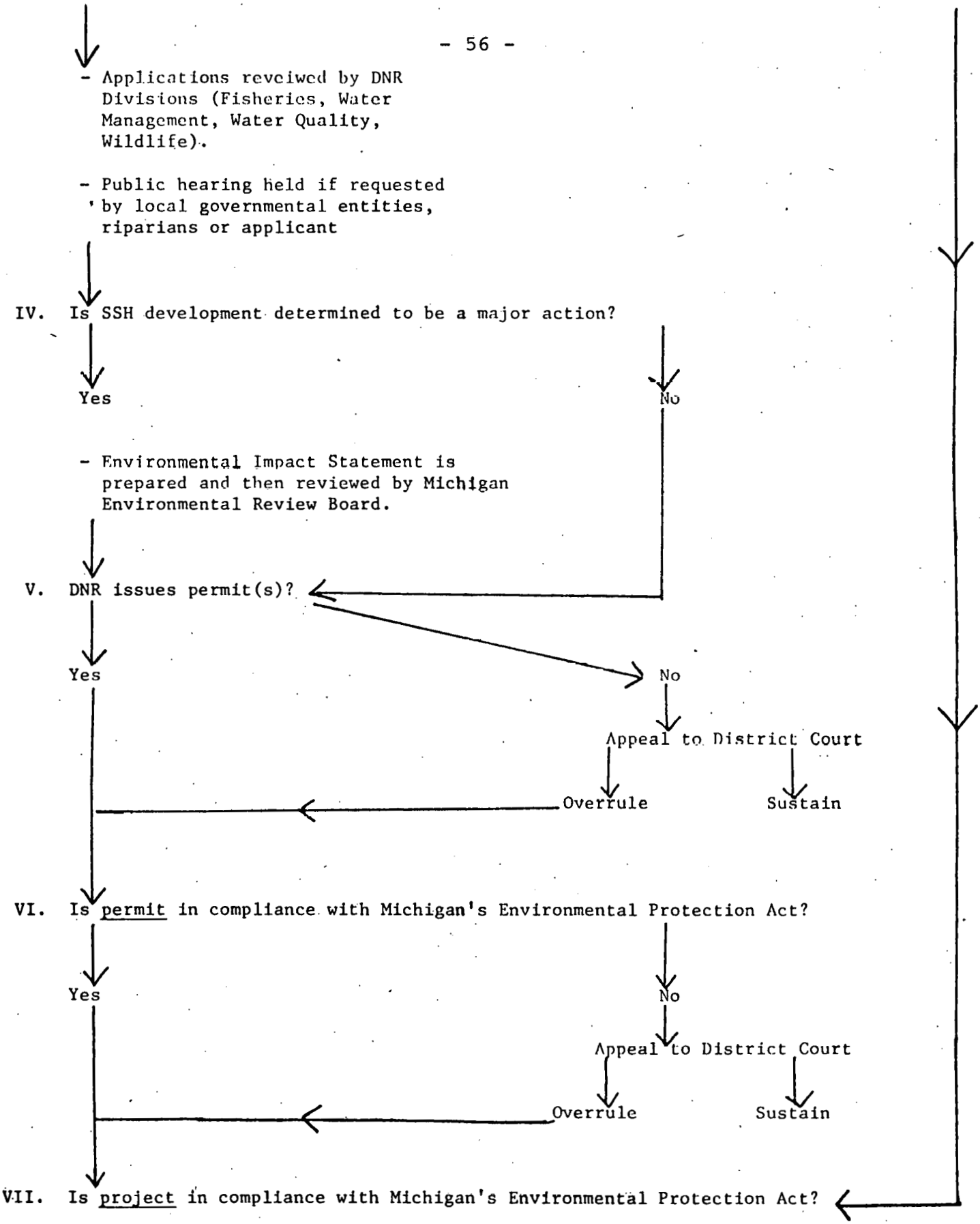
Sales of electricity at the retail level are subject to a state sales or use tax. A developer who purchases real estate is subject to a real estate transfer tax. In addition, every public utility regulated by the Public Service Commission is subject to an administrative cost tax.

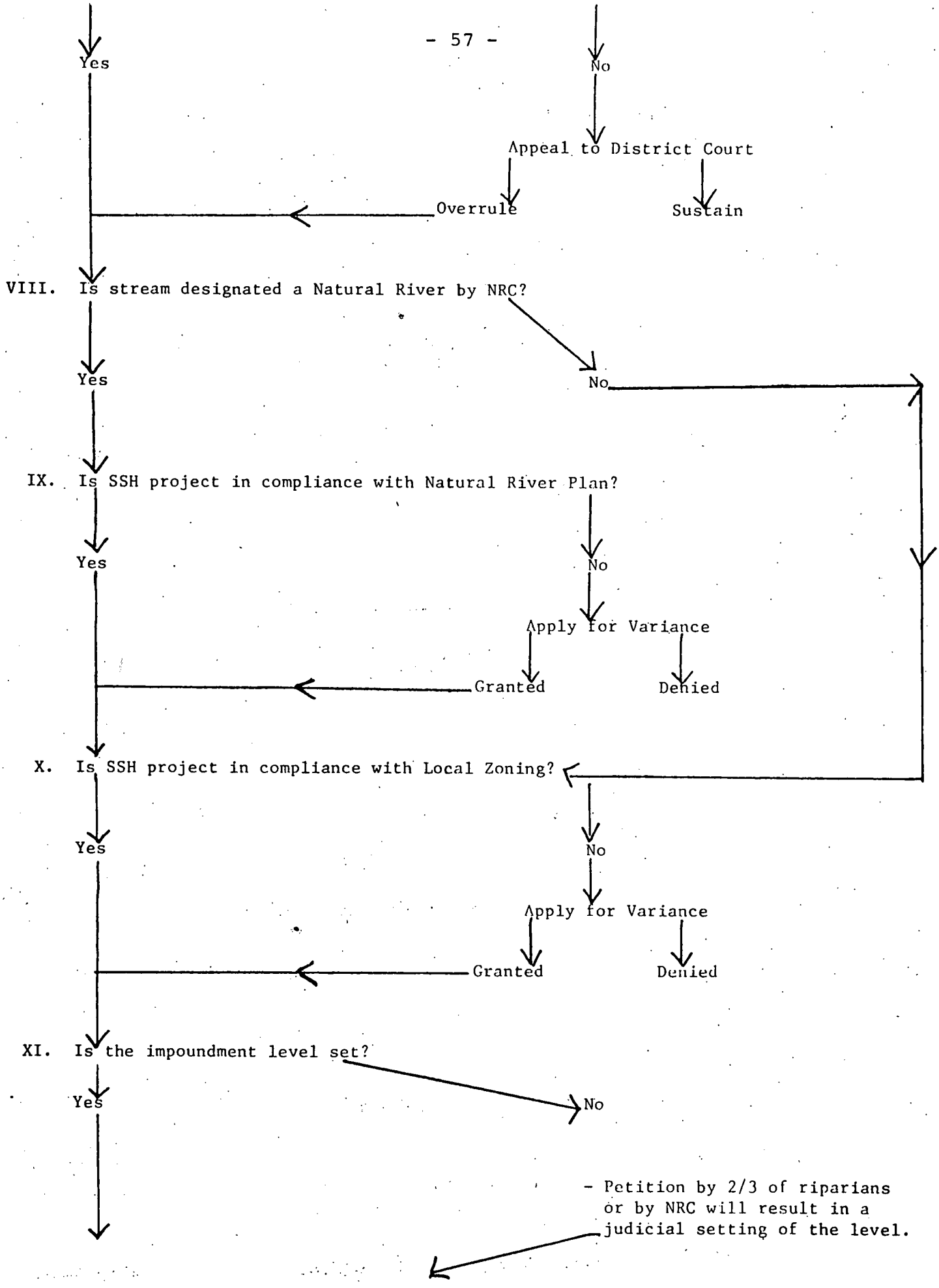
## V. LOANS

Michigan does not provide loans, loan guarantees or grants specifically for hydroelectric development. However, developers may be able to obtain financing through tax free bonds issued by governmental agencies under the Economic Development Corporation Act, the Job Development Authority Act, the Energy Employment Act, or through Municipal Financing. The developer should investigate each of these resources and ascertain whether financial assistance is available.

FLOW DIAGRAM OF REGULATION OF SMALL DAMS IN MICHIGAN




- Applications reveiwed by DNR Divisions (Fisheries, Water Management, Water Quality, Wildlife).
- Public hearing held if requested by local governmental entities, riparians or applicant
IV. Is SSH development determined to be a major action?
Yes
No
- Environmental Impact Statement is prepared and then reviewed by Michigan Environmental Review Board.
V. DNR issues permit(s)?
Yes
No
Appeal to District Court
Overrule
Sustain
VI. Is permit in compliance with Michigan's Environmental Protection Act?
Yes
No
Appeal to District Court
Overrule
Sustain
VII. Is project in compliance with Michigan's Environmental Protection Act?


Yes
No
Appeal to District Court
Overrule
Sustain
VIII. Is stream designated a Natural River by NRC?
Yes
No
IX. Is SSH project in compliance with Natural River Plan?
Yes
No
Apply for Variance
Granted
Denied
X. Is SSH project in compliance with Local Zoning?
Yes
No
Apply for Variance
Granted
Denied
XI. Is the impoundment level set?
Yes
No
- Petition by 2/3 of riparians or by NRC will result in a judicial setting of the level.

XII. Are minimum flows set?

Yes

No

DNR may establish minimum flows.

XIII. Is fish passage provided at the dam?

Yes

No

- NRC may require fish passage at dam owner's expense.

XIV. Is the SSH facility in compliance with water quality standards?

Yes

No

- Water Resources Commission establishes Water Quality Standards.

XV. Will construction, rehabilitation or operation of the facility interfere with an historic site?

Yes

No

- Apply for permit from local historic preservation district.

granted

denied

XVI. Is development in compliance with zoning enacted pursuant to Shorelands Protection and Management Act?

Yes

No

Apply for Variance

granted

denied

XVII. Is project within a State Wilderness Area?

Yes

- Only construction of structures for emergency purposes is permissible.
- Rights vested before 7/1/72 not affected.

No

XVIII. Is the project within a federally designated Wild and Scenic River Area?

Yes

- Dams may not be constructed.

No

XIX. Is the developer a municipality?

Yes

- not subject to PSC regulation

No

- obtain a certificate of convenience and necessity from PSC

XX. Construction, Operation and Maintenance of SSH dam

- Comply with conditions of all permits and licenses.
- Obtain insurance for dam breach.
- In terms of insurance, costs, is project worth risk?

# EXECUTIVE SUMMARY OF THE REGULATION OF SMALL DAMS IN OHIO

## I. WATER LAW

In Ohio, the title of abutting land owners on both navigable and nonnavigable watercourses extends to the middle of the watercourse and includes the subaqueous soil. If the watercourse is classified as navigable, title and ownership is subject to the public right of navigation. In like manner, if a riparian owner has property on opposite sides of a navigable stream, such owner has title to land from bank to bank under the watercourse, subject to the public right of navigation.

All waters are held navigable in law, and subject to public use, which are by their character capable of use as highways for purposes useful to trade or agriculture. A river is classified as navigable based upon its capacity for use in transportation and commerce, including its use for recreational purposes.

Ownership and use of flowing water is a complex matter. Apparently, Ohio courts have adopted a standard of reasonable use. Ohioans may use the waters of navigable watercourses for all legitimate purposes, be they commercial, transportational or recreational. Riparian owners are allowed to reasonably use the waters of navigable and nonnavigable watercourses so long as they do not interfere with the public

right to navigation or unreasonably interfere with rights of other riparians. Note, that water used to satisfy domestic needs is given priority over waters used for power purposes.

Ohio gives the power to appropriate property to any public utility organized for the purpose of erecting dams across watercourses for the purpose of generating electricity. This power of eminent domain greatly reduces the common law barriers to developing small scale hydroelectricity (SSH).

A SSH developer should note that a dam owner is liable for negligence for the breach of his dam. However, if a dam's water seeps or percolates onto adjoining lands, then such seepage constitutes a trespass and the dam owner will be held strictly liable for injuries caused thereby.

II. DIRECT REGULATION

Most dams may not be constructed in a watercourse unless the developer has secured a construction permit from the Division of Water within the Department of Natural Resources. Certain dams are exempt from this requirement. Notwithstanding, all "major utilities" must obtain a certificate for construction from the Ohio Power Siting Commission. Utilities which operate at less than 50 megawatts or whose electric transmission line has a design capacity of less than 125 kilowatts, need not apply for such a certificate but must comply with local laws or regulations.

In addition, all major utility facilities must comply

with pollution control requirements of the Ohio Environmental Protection Agency. Noncompliance with pollution control standards promulgated by the Ohio Environmental Protection Agency will result in a denial of a construction certificate from the Power Siting Commission.

If the SSH project, as a retail seller of electrical energy, is defined as a public utility, then it will have to comply with regulations promulgated by the Ohio Public Utilities Commission. The Public Utilities Commission regulates utilities' rates, stocks, bonds and accounts; assesses utilities' property; and restricts utilities to selling electricity within certified territories. Note, nonprofit electric companies and municipally-owned utilities are exempt from the Commission's purview. However, nonprofit electric companies are restricted to selling its products within a certified territory.

III. INDIRECT REGULATION

Compliance with indirect regulations may pose a significant obstacle to the development of SSH. For example, if a SSH project is to be located within a Conservancy District, the developer will have to supply a copy of construction plans to the Board of Directors of that District. If the District has made an improvement of the waterway in which the project is located, the developer must apply to the Board for lease, purchase or permission to use the water.

Watershed Districts and Local Planning Commissions are

other examples of indirect regulators which may affect the development of SSH. If a project is located on a restricted channel or floodway of a Watershed District, then the developer must apply for consent to build from the Watershed District's Board of Directors. Any adverse ruling by the Board may be appealed to the Court of Common Pleas.

A SSH developer must obtain approval to build from a local Planning Commission if the SSH site is located within a municipality. In case of disapproval, the developer may appeal to the legislative authority of the municipality.

Other indirect considerations are: whether the SSH project adversely affects any endangered species; whether the SSH project adversely affects a historic site; whether the SSH project disturbs a nature preserve; whether the SSH project is located in a designated wild and scenic river; whether the SSH project prevents the natural transit of fish so as to require a fish ladder; and, whether a SSH project interferes with the purposes of a Sanitary District.

Not all indirect regulations will affect SSH, but it is necessary for a developer to take precautions early in the development stage to comply with those regulations which do affect his SSH project.

## IV. TAXATION

Real and personal property of public utilities is assessed by the State Tax Commission. Property of municipally-owned utilities and incidental power producers is exempt

from taxation; property of an unincorporated public utility that is incidental to its operation is exempt; and, there is a fifty percent (50%) exemption for property owned by a rural electric corporation.

Public utilities are liable for a gross receipts tax. Municipal corporations and incidental power producers are exempt from this tax. Interstate and federal sales, and sales to other utilities, are exempt from this tax.

Another excise tax imposed upon utilities is the "poor relief tax." Other taxes which may affect SSH are the real estate transfer tax, the corporate organization tax and the personal income tax.

If a SSH project is taxed as a regular business, and not as a public utility, then the real and personal property of the SSH project will be assessed by the auditor of each county (municipalities exempt). Other taxes which may affect regular businesses are: the real estate transfer tax, the corporate franchise tax, the corporate income tax, the unincorporated business tax and the retail sales, use and storage tax. All residents of Ohio must pay a personal income tax.

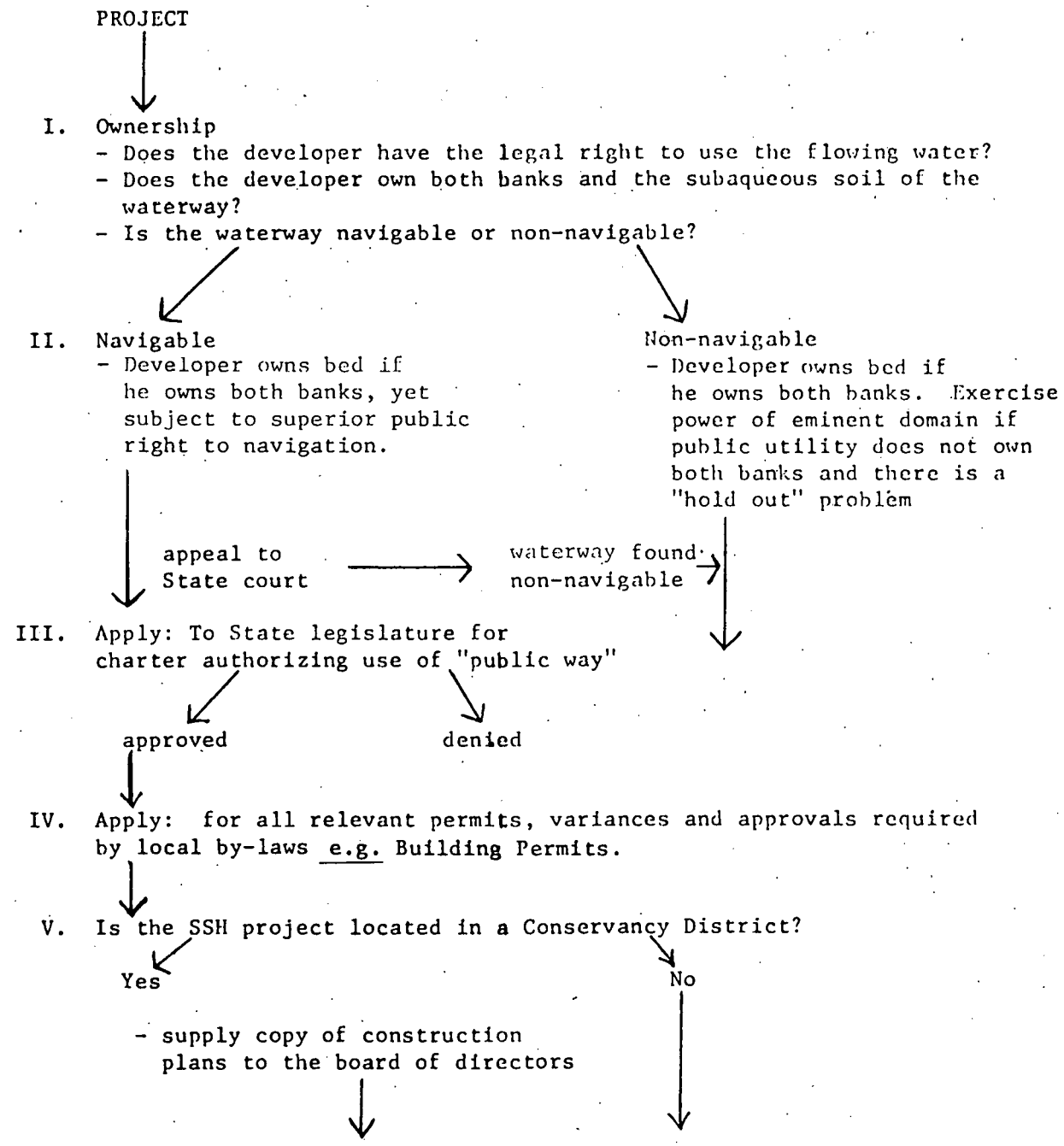
V. FINANCIAL INCENTIVES

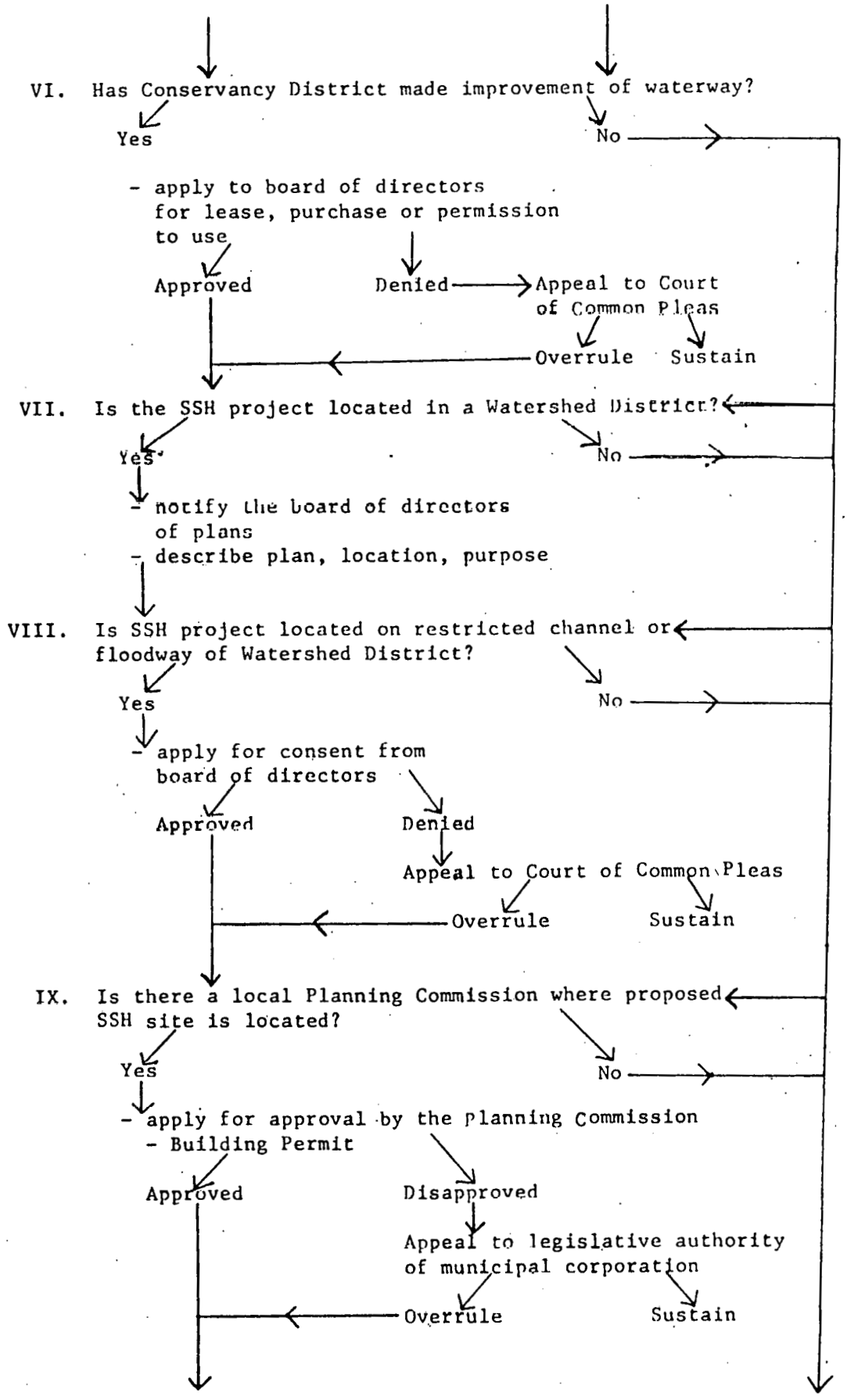
If a SSH project is deemed an energy conversion facility by the Tax Commissioner, then the conversion facility will be exempt from a sales and use tax, a franchise tax and a property tax.

A SSH project may be qualified for a loan from the Department of Energy if the facility is classified as an experimental energy development project. Other loans may be gotten through the Ohio Development Financing Commission if the SSH project provides employment and improves the economic welfare of the state.

The Ohio Water Development Authority may lease a water development project, e.g., dam, to a SSH developer, with a provision to buy. This may bypass the developer's headache of acquiring, building and financing a SSH facility from the start. However, there is no guarantee that the Water Development Authority would be willing to construct a hydroelectric dam for rent. In any event, it is worth a developer's time to inquire about such a possiblity.

FLOW DIAGRAM OF REGULATION OF
SMALL DAMS IN OHIO




VI. Has Conservancy District made improvement of waterway?
Yes
No
- apply to board of directors for lease, purchase or permission to use
Approved
Denied
Appeal to Court of Common Pleas
Overrule
Sustain
VII. Is the SSH project located in a Watershed District?
Yes
No
- notify the board of directors of plans
- describe plan, location, purpose
VIII. Is SSH project located on restricted channel or floodway of Watershed District?
Yes
No
- apply for consent from board of directors
Approved
Denied
Appeal to Court of Common Pleas
Overrule
Sustain
IX. Is there a local Planning Commission where proposed SSH site is located?
Yes
No
- apply for approval by the Planning Commission
- Building Permit
Approved
Disapproved
Appeal to legislative authority of municipal corporation
Overrule
Sustain

X. Apply for a dam construction permit from the Division of Water in the Department of Natural Resources

Exempt from Construction Permit

Not exempt

- file two copies of preliminary report of plans and specifications of project

approved

denied

file application
- fee of one hundred dollars
- surety bond at 50% of cost of project
- final design report
- drawings/boundry portfolio
- map/plans

Permit Approved

Permit Denied

Appeal to Court of Common Pleas

Overrule

Sustain

- chief has power to inspect
- chief empowered to prescribe rules and regulations
- chief empowered to order repairs

XI. All "Major Utilities" must obtain a certificate for construction from the Power Siting Commission

A "major utility"

- apply for certificate from the Commission

granted

denied

Appeal to Court of Common Pleas

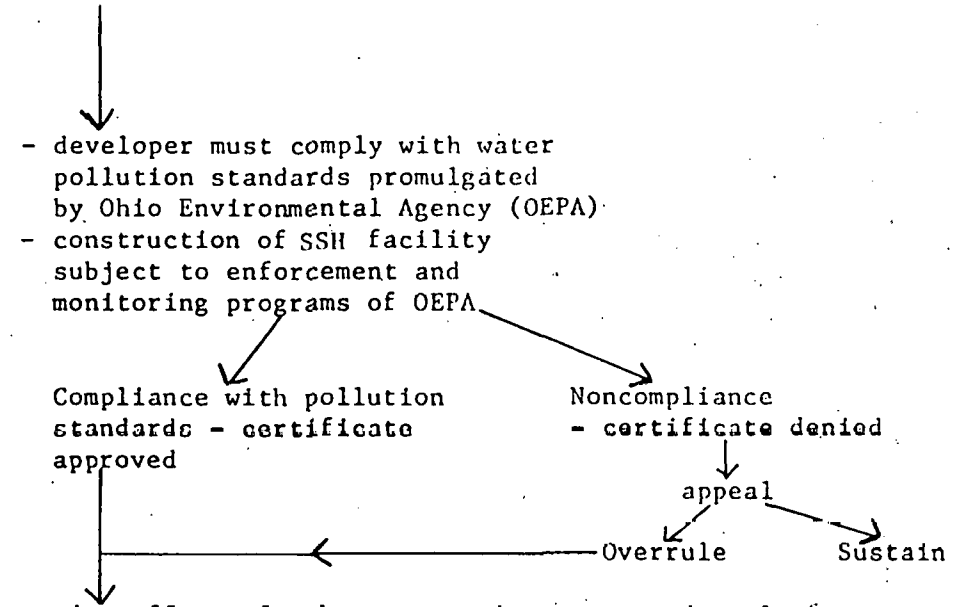
Overrule

Sustain

Not a "major utility"

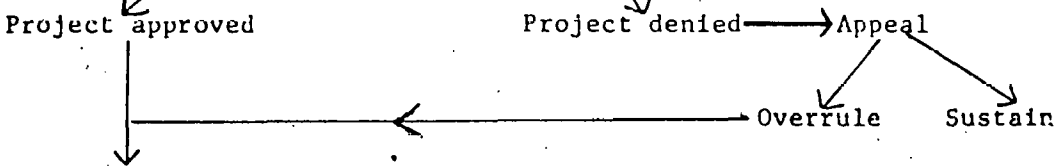
- operate at less than 50 megawatts
- electric transmission line has a design capacity of less than 125 kilowatts

Must still comply with local laws or regulations




XII. Determine effect of other states interests and apply for appropriate permits.

- Fish ladder requirements by Division of Wildlife in Department of Natural Resources
- Permission of Historic preservation companies if dam construction will affect them.
- Comply with regulations of Director of Natural Resources regarding wild and scenic rivers.
- Comply with regulation of Division of Natural Areas and Preserves regarding endangered species and donated nature preserves.




XIII. Is the SSH project, as a seller of electric energy, defined as a public utility?

Yes

- comply with PUC regulations
- rate regulation
- stock and bond regulation
- regulation of accounts
- file rate schedules with PUC
- assessment
- certified territories
- file demand reports to Department of Energy
- major utility must file energy forecast report to division of planning and forecasts with Department of Energy

No

- Non-profit companies
- Municipal corporations

XIV. Is SSH project taxable as a public utility?

**Yes**

- Real and Personal Property assessed by Tax Commissioner
  - 50% exemption for Rural Electric Company
  - Municipal Corporation exempt
  - Incidental Power Producer exempt
  - Unincorporated Public Utility incidental to operation
- Real Estate Transfer Tax
- Easements Taxable
- Utility Gross Receipts Tax
  - Municipalities Exempt
  - Interstate, federal sales and sales to other Public Utilities exempt
  - Incidental Power Producer exempt

**No**

- Real and Personal Property assessed by County Auditor
  - Municipalities exempt
- Real Estate Transfer Tax
- Retail Sales Tax - 4%
- Use and Storage Tax
- Easement Taxable
- Corporate Franchise Tax
- Unincorporated Business Tax - 4%
- Corporate Income Tax
- Personal Income Tax

XV. Tax Exemption for being a Conversion facility?

**Yes**

- No tax on sale/use of conversion facility
- No franchise tax on conversion facility
- No property tax on conversion facility

**No**

XVI. Loan/Grant from Department of Energy?

**Yes** - experimental energy development project

**No**

XVII. Loan from Ohio Development Financing Commission?

**Yes**
- provides employment
- improves economic welfare of state

**No**

XVIII. Lease of Water Development Project for Water Development Authority?

**Yes**
- may lease/provision to buy
- may provide tax exemption

**No**

XIX. Construction, Operation and Maintenance of SSH Dam
- Comply with conditions of all permits and licenses
- Fishways
- Utilize power to appropriate
- Ohio utilizes negligence theory for dam breach/ Trespass theory for water seepage or percolation
  - Obtain liability insurance for dam breach
- Is project feasible under prevailing rates?
- In terms of insurance, costs, is project worth risk?

Yes

No

# REGULATION OF SMALL SCALE HYDROELECTRIC DAMS IN WEST VIRGINIA

## I. WATER LAW

West Virginia follows the doctrine of riparian rights. The riparian rights doctrine vests, in owners of land appurtenant to a watercourse, specific ownership and use rights. To determine what rights attach to the riparian land, one must first find out whether the watercourse is navigable or nonnavigable. A stream is navigable if it is subject to the ebb and flow of the tide or is capable of being navigated by boats and lighters and valuable for use as a public highway. "Floatable" streams are also deemed navigable. "Floatable" streams are ones which are capable of use in bearing logs or mine products to mills and markets. All other streams are nonnavigable under West Virginia law.

Ownership rights on waterways subject to the ebb and flow of the tide extend to the high water mark. Ownership rights on watercourses which are capable of being navigated by boats and lighters extend to the high water mark with a limited right in the bed to the low water mark. Ownership in the bed of "floatable" streams is in the riparian owner subject to the public's right of navigation. On nonnavigable streams the riparian owns to the middle thread of the stream.

West Virginia follows the reasonable use doctrine of riparian law. Reasonable use includes using water for a

riparian owner's manufacturing purposes, however, a riparian may not materially diminish the quanity or alter a stream from its usual course.

In order for a developer to be deemed a riparian owner, he must own land appurtenant to a watercourse. West Virginia never passed a mill dam act, however, a Hydro-Electric Act was passed in 1913. Under the Act, a dam developer could obtain needed lands through the exercise of eminent domain powers if he sold all the power produced to the public. In a 1931 case, the West Virginia Supreme Court held the Act unconstitutional as a delegation of legislative powers to the executive and judiciary. Therefore, a developer may no longer exercise eminent domain powers under the Act. Public utilities, under public utilities jurisdiction, may exercise powers of eminent domain and it would appear that hydroelectric dam developers would be able to exercise such powers under this authority.

## II. DIRECT REGULATION

The Department of Natural Resources (DNR) enforces the Dam Control Act. This Act extends to dams on all watercourses in the state. A developer must obtain DNR approval for dam construction on any watercourse. Existing dams as of June 30, 1973, received notice from DNR to file an application for a certificate. Applicants must provide DNR with any information DNR deems necessary. Specific information con-

cerning plans and specifications are required. Specific exemptions are listed under the Act, but would not be available to private SSH development. Dams are periodically inspected by DNR for dam safety.

The DNR is responsible for the protection and propogation of fish. Fishladders may be required for the free and easy passage of fish upon specific findings by DNR. However, DNR may waive fishladder requirements.

One of the most significant state regulatory agencies is the Public Service Commission (PSC). Any person engaged in any business held to be a public service is a public utility and subject to PSC jurisdiction. PSC jurisdiction is limited to retail sales of electricity by hydroelectric developers. Developers subject to PSC jurisdiction must, prior to construction of any plant, equipment, property or facility for furnishing electrical energy, obtain from the PSC a certificate of public convenience and necessity. Specific information must be submitted to the PSC with an application for the certificate. As mentioned earlier, public utilities may be granted powers of eminent domain. The PSC is also responsible for approving and/or fixing retail rates of public utilities.

The West Virginia Legislature has enacted a Natural Streams Preservation Act which is a state counterpart to the Federal Wild and Scenic Rivers Act. Anyone desiring to

erect a dam on a river designated under the Act is required to obtain a permit from the Division of Water Resources within the DNR.

The DNR is also responsible for the issuance of §401 permits under the Federal Water Pollution Control Act. The Act is designed to regulate point source pollutors. Since dams are not considered a point source in West Virginia at the present time, this permit should not be a significant obstacle to SSH developers.

III. INDIRECT REGULATION

West Virginia has adopted a number of special districts which are established at the local level. The Soil Conservation District provides for the preservation of farm and grazing lands through adoption of various land use controls. SSH developers would be required to comply with the local land use controls or acquire a variance therefrom. Soil Conservation Districts may create Watershed Improvement Districts. Watershed Improvement Districts may exercise only those powers delegated to it by the Soil Conservation District. Watershed Improvement Districts may exercise land use controls if delegated by the Soil Conservation District. There are several other local agencies, such as Drainage Districts, which have no significant powers of regulation over SSH development but may provide developers with useful information.

IV. CONTINUING OBLIGATIONS

As mentioned previously, the DNR has a continuing dam safety inspection function. Under the Dam Safety Act,

the developer may be required to make periodic repairs and other maintenance functions as required by DNR.

A dam developer should also be aware of his possible liability resulting from a breach of his dam. In West Virginia, the standard applied is one of negligence. A developer should, however, follow the case law on the subject as there appears to be a trend in other states toward adoption of a strict liability theory for dam breach.

## V. FINANCIAL CONSIDERATIONS

### A. Taxation

If the developer's operation is considered a public utility, the developer will be taxed on the true and actual value of all the utility property. The State Board of Assessors will apply a rate of tax to the value of the utility property. There exists an appeal process for tax abatement. Local units of government may tax only real property held by the utility which is used for purposes unrelated to the public services function.

If a SSH project is found not to be a public utility, it will be taxed by the local units of government. This taxation will include both real and personal property. This method of taxation will be similar to that of the state taxation system.

The SSH developer will also be liable for business corporation taxes. These taxes include the business and occupation tax, the business franchise regiatration tax, a license tax, if more than 10,000 acres of lands are held by

the corporation, and an annual fee for the Secretary of State serving as an attorney-in-fact for the corporation.

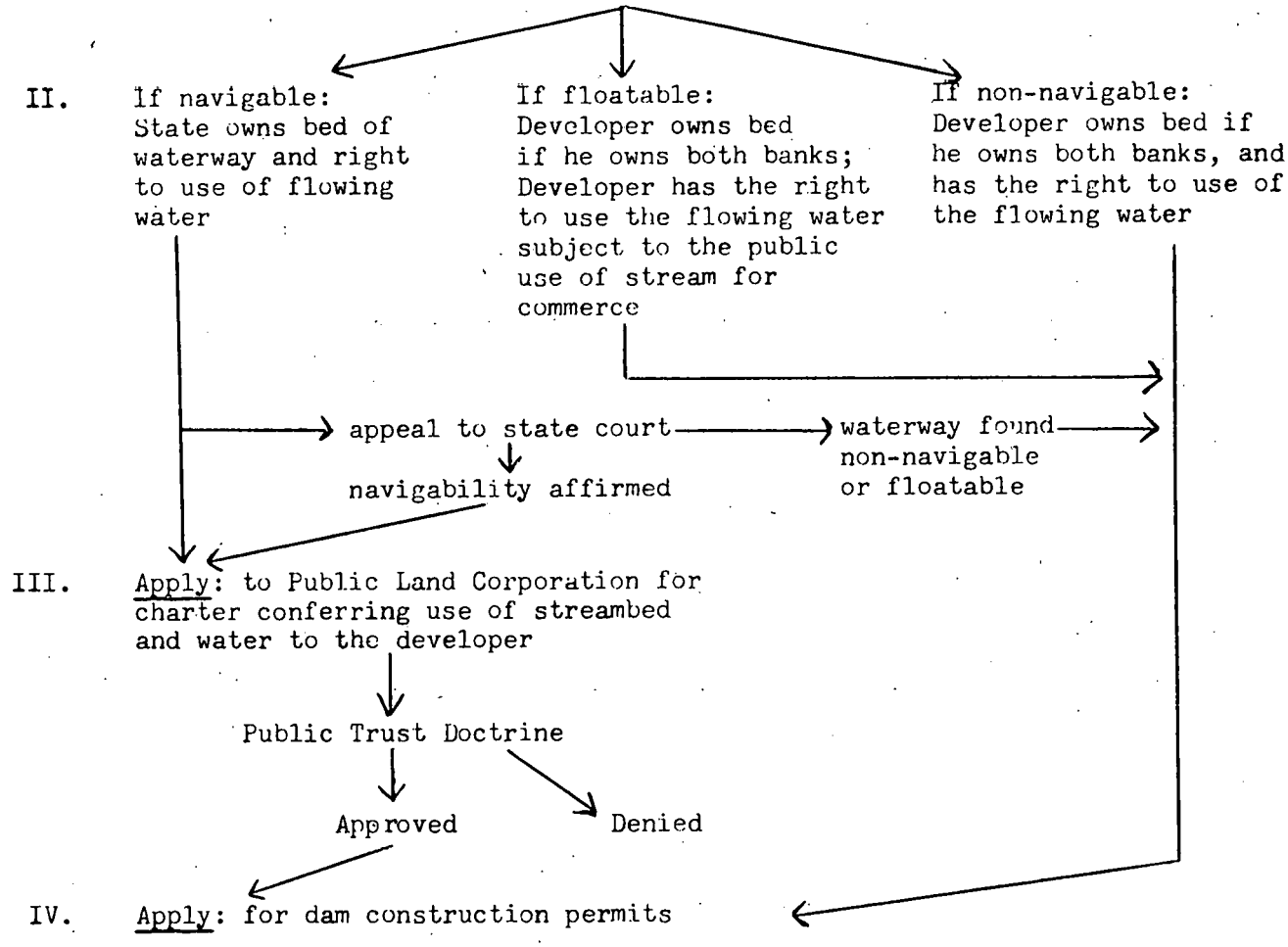
B. Loan Programs

There are four possible sources of funding in West Virginia for SSH developers. First, counties and municipalities are empowered under the Industrial Development and Community Development Bond Act to finance projects. The project must be located within the financing county. Second, developers may be able to obtain loans from industrial banks or industrial loan companies. Third, business development corporations may have been created to promote and assist business and industrial development. Finally, the West Virginia Industrial Development Authority (IDA) is empowered to make loans to industrial development agencies for industrial development projects in critical economic areas. The IDA cannot fund industrial projects but must work through the industrial development agencies.

## FLOW DIAGRAM OF REGULATION OF SMALL DAMS IN WEST VIRGINIA

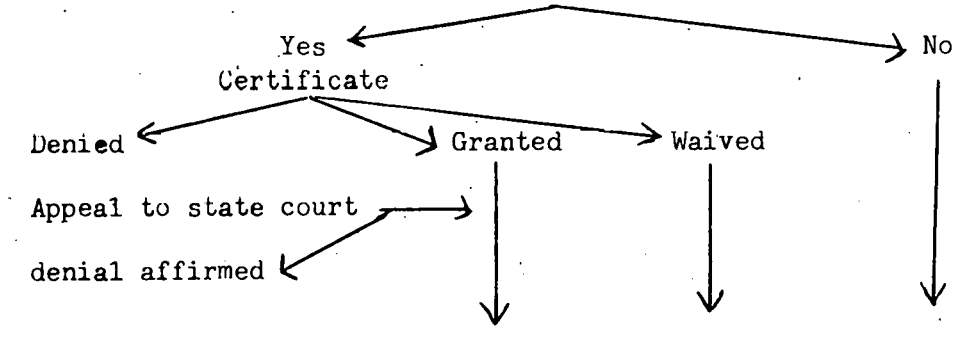
PROJECT

I. OWNERSHIP - does the developer have the legal right to use the flowing water?
- does the developer own both banks?
- is the stream navigable, floatable or non-navigable?

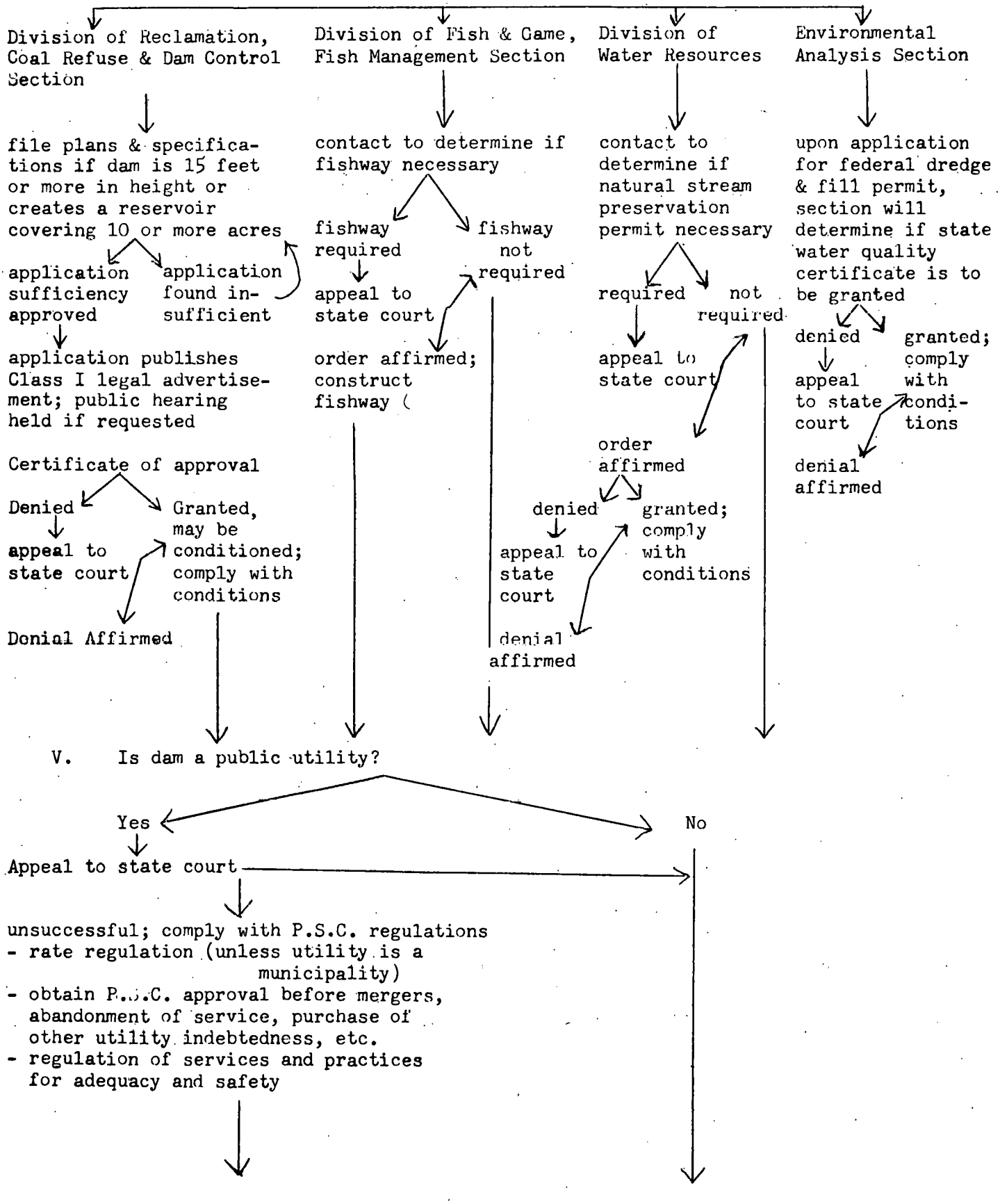



A. Apply: Public Service Commission for certificate of public convenience and necessity

- is dam a public utility?

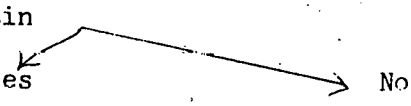


B. Apply: Department of Natural Resources



VI. Comply with local regulations:
- zoning ordinances
- building codes
- historical preservation
- flood control regulations

VII. Is dam located in special watershed?
- Wheeling Creek
- Potomac River Basin
- Ohio River Basin




comply with orders and regulations

VIII. Construction, Operation and Maintenance
- comply with all continuing obligations and permit conditions
- utilize any loan programs available

# EXECUTIVE SUMMARY OF THE REGULATION OF SMALL DAMS IN WISCONSIN

## I. WATER LAW

Wisconsin follows the riparian theory of law. Private rights in the flowing water of a watercourse are vested in the landowners whose lands border the watercourse. A riparian's right to use water flowing by his land is restricted to a reasonable use; a riparian may not unreasonably interfere with like rights of other riparians.

Riparians have title to the middle of the bed of both navigable and nonnavigable watercourses, and a riparian who owns both beds of a stream owns the entire bed. However, on navigable watercourses, a riparian's title to a streambed is subject to the public right of navigation. If natural or artificial conditions make it possible for commercial or noncommercial craft to be transported upon the watercourse, then the watercourse will be considered navigable. Probably every watercourse capable of producing hydroelectric power will be classified as navigable; hence, subject to the public easement of navigation.

A dam owner will be held strictly liable if his dam water backfloods, seeps or escapes onto property of others and causes damage. However, where damages are caused by dam breach, then the dam owner will be liable for negligence.

## II. DIRECT REGULATION

The Department of Natural Resources regulates the con-

struction of dam sites. A developer must obtain a permit for construction, maintenance and operation of a newly constructed dam from the Department. A developer planning to construct at an existing dam site need only obtain approval of the plans from the Department in the form of an amendment to an existing permit or license.

Application and plans are processed by the Water Regulation Division within the Department, with comments solicited from various divisions within the Department. During processing, water levels and flow requirements are set. Fishways or fish stocking may be required, however, it is not the Department's present policy to require such things.

A small scale hydro (SSH) project that is a public utility must obtain a certificate of public convenience and necessity from the Public Service Commission and file engineering plans to the Commission before commencing construction. A SSH project that has obtained a certificate of public convenience and necessity from the Commission may exercise the power of eminent domain to acquire property rights to construct a new or existing dam for the production of hydroelectricity.

A preliminary environmental assessment will be conducted by the Department of Natural Resources. If the proposed SSH project is deemed a major action affecting the human environment, then an environmental impact statement will be required. The statement shall be prepared by the Department, with the

developer paying a fee for its cost.

SSH may be defined as a public utility and subject to the Public Service Commission's jurisdiction. The Commission has the power and jurisdiction to supervise and regulate every public utility in the state. As part of this power, the Commission may set tolls, rates and charges for utilities and inquire into their ownership and business management. Electric utilities are required to file advance plans of any new construction within the next ten (10) years. Note that wholesalers of electricity are not subject to the Commission's jurisdiction.

SSH facilities not deemed a public utility but having a generating capacity greater than 12 MW or which have 100 KW transmission lines greater than one mile in length must submit a ten-year advance plan to the Commission and must also apply for a certificate of public convenience and necessity from the Commission. Note, that rural electric co-ops are not considered public utilities; small power producers may not be deemed public utilities.

III. INDIRECT REGULATION

A developer of SSH may face regulation by municipalities and counties. Local zoning regulations may regulate the location, use or size of a project; regulate the use to which shorelands and navigable waterways will be put; plan soil and water conservation within a district; and prevent construction within a designated flood plain. A developer should

contact, at an early stage, local officials of a municipality or county to determine the extent to which his SSH project will be affected by local regulations.

Environmental regulation may create obstacles for the development of SSH. Dams are prohibited from being built in designated wild and scenic rivers. The Department of Natural Resources will not grant permits for dam construction which adversely affects designated wetlands. Also, the construction of a dam must not harm any endangered species existing in the area of the dam site.

In addition, the State Historical Society is empowered to protect historical sites. The Society's objectives in preserving historical property may hamper the development of SSH as well.

IV. TAXATION

If a SSH project is taxable as a public utility, then all its franchises and real and personal property will be assessed by the State Department of Revenue. Municipally-owned public utility property is exempt. Public utilities are subject to special assessment for local improvements in cities and villages as well.

Sales of electricity are subject to a sales, use and storage tax. Note, that these taxes imposed on utilities are in lieu of all other taxes.

Rural electric cooperatives must pay an annual license fee on their gross revenue in lieu of all general property and income taxes.

If SSH is not taxed as a public utility, then its real and personal property will be taxed where it is located. If the SSH business is incorporated, then the project will be subject to the corporate organization tax and the corporate franchise tax. In addition, the project will be subject to a real estate transfer tax if such property is transferred.

Tax exemptions from property taxes may exist for projects located within a conservation area, property owned by an individual development agency and for property owned by a municipality.

V. LOANS

A SSH project may qualify for financial assistance from an Industrial Development Agency or per the Promotion of Industry Act, if the SSH Project can be shown to promote employment and enhance the public welfare of the state. The problem which a SSH developer might face is proving his SSH project will promote employment and preserve and enhance the tax base of a county more effectively than another enterprise competing for the same financial assistance.

FLOW DIAGRAM OF REGULATION OF

SMALL DAMS IN WISCONSIN

PROJECT

↓

I. OWNERSHIP

- Does the developer have the legal right to use the flowing water?
- Does the developer own both banks and bed of waterway?
- Does the developer own property, have easements or permission to backflood?
- Is the waterway navigable or non-navigable?

↙ NAVIGABLE — ↘ NON NAVIGABLE

II. NAVIGABLE

- Developer owns to the middle of the bed of waterway (owns entire bed if he owns both banks), title subject to the public right of navigation

↓ appeal to state court → waterway found non-navigable →

NON NAVIGABLE

- Developer owns to the middle of the bed of waterway (owns entire bed if he owns both banks). Purchase rights or institute condemnation proceedings if public utility faces "hold out" problems.

↓

III. OBTAIN ANY NECESSARY PERMITS, LICENSES OR APPROVALS FROM DNR

↓

IV. IS THE DEVELOPER CONSTRUCTING AT A SITE WITH: (A) NO EXISTING DAM OR IMPOUNDMENT, OR (B) AN EXISTING DAM AND IMPOUNDMENT?

↙ (A) — ↘ (B)

(A)

- Obtain permit for construction maintenance and operation from DNR District Office

(B)

- Obtain approval of plans from DNR

↓

- Apply for CPCN from the PSC
- Submit engineering plans to the PSC
- Applications and plans processed by Water Regulation Division, DNR
- Comments solicited from Environmental Assessment, Water Quality, Fish and Game, Planning, County Boards, and other interested parties
- Water levels set
- Flow requirements set
- CPCN application coordinated with DNR applications by WEPA and SPERCA coordinators at PSC
- Public hearing held if necessary

↓

V. IS PROPOSED SSH PROJECT A MAJOR ACTION AFFECTING THE HUMAN ENVIRONMENT?

- Preliminary environmental assesment by DNR (and PSC if a public utility)

YES

- EIS required
- Prepared by DNR (and PSC)
- Pay appropriate fees

NO

- Simply file preliminary forms

VI. DNR DECIDES WHETHER TO ISSUE A PERMIT TO DEVELOP SSH PROJECT.

GRANTED

DENIED

Appeal to County Circuit Court

Overrule

Sustain

VII. APPLY: FOR ALL RELEVANT PERMITS, VARIANCES AND APPROVALS REQUIRED BY LOCAL BY-LAWS. E.G., BUILDING PERMITS

GRANTED

DENIED

Apply for variance

Granted

Denied

VIII. IS THE SSH PROJECT, AS A SELLER OF ELECTRIC ENERGY, DEFINED AS A PUBLIC UTILITY?

YES

- Obtain CPCN from PSC

Granted

Denied

Appeal to County Circuit Court

Overrule

Sustain

- Comply with PSC regulations
- PSC sets tolls, rates and charges
- File accounts with PSC
- Submit 10-year advance plans to PSC
- Public Utilities and Rural Electric Coops have power of Eminent Domain
- Need CPCN from PSC
- Wholesalers of electricity not subject to PSC regulation

NO

- Generating facilities greater than 12 MW or which have 100 Kw transmission lines greater than 1 mile in length must submit 10-year advance plans to PSC; must also apply for CPCN
- Rural electric coops not considered public utilities
- Small power producers may not be considered public utilities

IX. APPLY FOR A FEDERAL LICENSE IF SSH PROJECT IS LOCATED ON NAVIGABLE STREAM AND/OR AFFECTS INTERSTATE COMMERCE

↓

- FERC prohibited from building or authroizing the construction of dams within wild, scenic or recreational rivers

↓

X. IS THE SSH PROJECT TAXABLE AS A PUBLIC UTILITY?

YES

- All franchises and all real and personal property assessed by Department of Revenue
  - municipally owned property exempt
- Property subject to special assessment for local improvements
- Sales of electricity subject to 4% sales, use and storage tax.

NO

- Real and personal property assessed and taxed where located
- Personal income tax
- Corporate franchise tax
  - municipalities and non-profit coops exempt from income tax
- Corporate organization tax
- Real estate transfer tax
- Rural electric coops pay fee of 3% of their gross revenue in lieu of all property and income taxes

↓

XI. DOES THE SHH PROJECT QUALIFY FOR ANY POSSIBLE TAX INCENTIVES?

- Exemption from property taxes for property located in conservation area
- Exemption from property taxes for property owned by an individual development agency
- Exemption from property taxes for property owned by a municipality, e.g., municipal utilities organized under the Municipal Electric Company Act of 1977

↓

XII. DOES THE SSH PROJECT QUALIFY FOR ANY POSSIBLE FINANCIAL ASSISTANCE?

- Financial assistance from and Industrial Development Agency
  - promote employment and enhance public welfare
- Financial assistance from municipalities per the Promotion of Industry Act
  - promote employment and enhance public welfare

↓

XIII. CONSTRUCTION, OPERATION AND MAINTENANCE OF SSH DAMS

- Comply with all conditions of all permits and licenses
- Comply with indirect regulation of SSH
- Utilize power to approriate

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- Wisconsin utilizes negligence theory for dam breach/stric liability for water seepage
  - Obtain liability insurance for dam breach
- Is project feasible under prevailing rates?
- In terms of insurance and costs, is project worth risk?


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