THE ROLE OF IMPACT ASSESSMENT IN ENVIRONMENTAL DECISION MAKING IN NEW ENGLAND: A TEN YEAR RETROSPECTIVE

by

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Impact assessment was introduced with the National Environmental Policy Act (NEPA) in 1969. Following the federal lead, many states adopted similarly modelled environmental policy acts (SEPA). The discussion of SEPA focuses on the New England states. Connecticut, Massachusetts, and Vermont have laws that require a comprehensive review of environmental impacts. New Hampshire, Maine, and Rhode Island, instead, rely on fragmented permit processes and NEPA for environmental review.

Seven case studies were prepared to illustrate the implementation of SEPA in each of the New England states. Four issues emerged from the analysis of the case studies: projects are defined prior, and not during, impact assessment; technical information is secondary when the project definition is controversial; public participation plays a small role in impact assessment; and although participants learn within a particular case, this experience and knowledge does not extend to other cases.

A proposal is made to institutionalize a non-partisan convenor in the impact assessment process. The convenor will structure public participation, act as a liaison between the public and the lead agency, and document the process.

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I. INTRODUCTION

The Research Question

A discussion of impact assessment must necessarily begin by introducing the National Environmental Policy Act (NEPA). Passed in 1969, NEPA declared a national commitment to the protection of the environment. Adding muscle to this commitment NEPA established a national environmental policy, translated the commitment into agency action with the Environmental Impact Statement (EIS) requirement, and created the Council on Environmental Quality (CEQ) to interpret and enforce this national commitment.

As a procedural reform to federal decision making NEPA directs federal agencies to consider the impacts of their actions on the environment during the planning stages. Due to the emphasis on evaluation before action, the adage, "look before you leap," is frequently linked to impact assessment. In the form of an EIS, agencies assess and document the environmental impacts that can reasonably be expected to follow the implementation of a particular policy, program or project. Therefore, implicitly and explicitly, NEPA guides federal agencies to: (1) forecast and assess impacts from a proposed action; (2) apply this information to the planning and decision making process; and (3) protect and enhance the quality of the environment.

Impact assessment has become an integral part of decision making in federal and state governments. Ideally,
impact assessment at both the federal and state level should be used in the early stages to influence the project definition and consideration of alternatives. Relevant and credible technical information should be used to eliminate infeasible alternatives and continue to refine the project definition. Both the project definition and use of technical information should be topics for a genuine public dialogue. Not only does this ideal model lead to sound and wise environmental decision making, but the parties learn to be effective within the impact assessment process. The government and the public learn that through impact assessment they can meet their objectives, work cooperatively and protect the quality of the environment.

The purpose of this thesis is to look at federal and state impact assessment requirements, generally, and then through case studies drawn from the New England region to ask whether these ideals are being met.

Defining Key Terms

Impact assessment is an ad-hoc process for systematically forecasting and evaluating changes to the natural and social environment that can be reasonably expected to follow from the implementation of a proposal. It is an ad-hoc process because a total methodology must be designed to suit the unique attributes of the proposal. Although many proposals are similar in character (e.g. housing developments, highway projects) or rely on professional conventions to forecast impacts (e.g.
measuring dissolved oxygen or traffic counts) a methodology must address the particular social and natural environment of the proposal. Two shopping malls can have the same dimensions and appearance but may suggest qualitatively different changes to the ecosystem and nearby residents. Studies that focus too much on convention and not enough on the unique attributes of the site can be problematic.

Impact assessment is systematic because as a matter of legislative mandate, specific topics must be addressed e.g. unavoidable adverse impacts and alternatives to the proposal. Impact assessment is a vehicle to forecast changes to the natural and social environment. Evaluation of those changes are informed by technical analysis. In the end, human values translate the scientific studies into a socially relevant context.

Impact assessment typically takes the form of a written document. The document is known by different names at the federal and state level; the National Environmental Policy Act requires agencies to write an Environmental Impact Statement, the Massachusetts Environmental Policy Act requires an Environmental Impact Report, and the Connecticut Environmental Protection Act requires an Environmental Impact Evaluation.

Requirements for impact assessment are a response to the collective recognition that large-scale projects initiated by both the public and private sectors do not simply begin with construction and end with the completion
of a structure. Impact assessment commences at the initial planning stages of a project (e.g. program definition and consideration of alternatives), and includes an inter-agency and public review. Therefore, impact assessment is both a document and a process.

Environmental decision making is the end to which impact assessment is the means. The process of impact assessment stops short of making the actual decision of whether or not to proceed with the proposal. In general, impact assessment has been designed to organize analysis and evaluation in order to inform decision making. The written document reports the project definition, potential environmental impacts, methodologies used to forecast impacts, evaluations about the significance of impacts, and public comments; all of which provide the substance from which a wise decision can be made.

Environmental decision making requires both scientific analysis and value judgements. Ideally, environmental decision making should be shaped, by technical studies, the views of the public, and explicit and subjective evaluations by the decision making body regarding social costs and benefits of the forecasted impacts.

Bounding the Analysis

Soon after NEPA was passed, state governments started adopting similarly modelled environmental policy acts. Therefore, to explore the role that impact assessment plays
in environmental decision making it is conceivable to look at the entire country at both the federal and state level.

Given the time constraints of this study, the universe of impact assessment was bounded to provide an interesting and focused sample. Limiting the study geographically would permit a more intensive analysis and foster interesting comparisons. Additionally, a reasonably bounded study would allow the analysis to extend beyond the initial question of what role impact assessment plays in environmental decision making to ask whether the ideal model of impact assessment has been achieved in practice.

The physical unit of analysis for this study is New England, which includes Connecticut, Rhode Island, Massachusetts, Vermont, New Hampshire, and Maine. These states are distinguishable by their diverse natural and social environments, and for the purposes of this study, by the presence or absence of formal impact assessment requirements. Of these states, Connecticut, Massachusetts, and Vermont have impact assessment requirements or the equivalent. Rhode Island, New Hampshire, and Maine do not have comprehensive environmental laws. Alternatively, they rely on NEPA and state licensing procedures to assess the environmental impacts of proposals.

New England provides a rich laboratory of natural resources and political communities to study impact assessment. This analysis will use a series of case studies to look comparatively at a variety of projects and impact assessment processes in this region. The cases will be used
as a means to explore federal and state examples of impact assessment in New England over the past ten years. Specifically, I will use the case studies to ask four questions; (1) Does impact assessment shape the project definition, i.e. is it used during the planning phase? (2) Is technical information used to improve the project definition and to inform the public? (3) Does the public have a meaningful role in this process? (4) Do lead agencies and public participants learn to use impact assessment more effectively as a result of their experience?

**Approach**

My approach is described more fully in Appendix A. Because this analysis addresses a fairly large geographical area and time frame, a series of case studies is used to capture the diversity embodied by the New England states with respect to impact assessment. Case studies were prepared from each state, collectively spanning 1975-1985. The cases provide a fresh source of information to explore impact assessment and its role in environmental decision making in New England at both the federal and state level. The concluding analysis will look across the cases and over time to ask how impact assessment shapes the project, uses technical information to inform the assessment, responds to public concerns, and, generally, if impact assessment is a learning process.
The case studies were identified through a questionnaire that was sent to approximately 100 environmental professionals in New England. These individuals were asked to, "... list a few of the projects, policies or programs, that stand out in your mind as having the greatest impact (either positive or negative) on environmental quality in New England over the past 10 years." Contrary to my expectations, the responses to the questionnaire were quite diverse. Anticipating approximately ten modal responses, it was quite a surprise to receive 130 different answers to this question. Most respondents named projects with which they had personal experience. I had incorrectly assumed that people would focus on cases of national or regional recognition. These findings suggest that people are most concerned about and aware of the quality of the environment with which they have direct contact.

Underlying the diversity of responses were several general categories. These categories may be indicative of the environmental issues that are most important in New England. The ten categories into which all of the responses were grouped (with the frequency of response noted in parenthesis) are: waste management (46), water quality (50), energy (40), land use (31), transportation (14), wetlands (17), coastal zone (13), acid rain (8), air quality (9), and miscellaneous (17).

Within these categories, seven projects that were mentioned in the survey were selected to serve as the focal
point for case studies. The case studies, which are summarized in Chapter IV are:

2. Big River Reservoir, Rhode Island.
3. Wastewater Treatment Facility Siting, Boston Harbor, Massachusetts.
5. Pyramid Mall, Chittendon County, Vermont.

**Structure of Study**

The section that follows will provide an historical overview of NEPA and the context in which the landmark legislation was passed. Recounting the political climate of the late 1960s and some of the forces, namely the environmental movement and dissatisfaction with existing legislation, that ultimately lead to NEPA will be discussed.

The next section will look at some of the early commentary on NEPA. Largely as a result of the comprehensive nature of this law and the demands it put on the federal bureaucracy, NEPA earned a reputation as both the bete noire and the magna carta of the environmental movement. The early years of this federal decision making reform were a time of agency adjustment and heavy court involvement.

NEPA has served as a model for state environmental
policy acts (SEPA's). Looking first at SEPA's, in general, and then at specific cases, I will attempt to determine the extent to which impact assessment in the New England states serve the four functions regarding project definition, technical information, public participation and learning.
II. IMPACT ASSESSMENT: HISTORICAL AND INSTITUTIONAL CONTEXT

Historical Overview

The vanguard of impact assessment legislation, the National Environmental Policy Act, was passed in 1969 under the Nixon administration. NEPA, an important gesture by the federal government, was a formal recognition of a widespread environmental ethos in this country. NEPA can be understood as a discrete response by the federal government to the intensifying public demand for government accountability regarding environmental protection. Because NEPA is landmark legislation in the field of environmental protection, a brief historical overview of the era in which it was passed is appropriate.

Rachel Carson's classic, Silent Spring is considered to have been an important agent for raising Americans' consciousness about the severity and magnitude of the pollution in the country. The recognition of severe water quality problems of both the Mississippi River and Lake Erie, concentration of DDT in the foodchain, and the environmental destruction that accompanied the Vietnam War, contributed to the political climate of the 1960's.

The political climate was in transition. The issue of environmental quality had, irrevocably, become a political issue. In addition to concern about the current implications of a polluted environment, the public began to accept and defend having an ethical obligation to protect the environment for future generations.
Since the federal government is largely responsible for planning and implementing projects on a grand scale, the mounting public concern for environmental quality was focused at that level. By the mid 1960's the public was demanding a formal, participatory role in these government-sponsored projects which, ultimately, affected their lives and communities. Caldwell says,

"By the late nineteen-sixties there was widespread belief among environmentally concerned and politically active citizens that federal agencies and programs were themselves leading factors in environmental degradation. Environmental issues had pitted organized citizen groups against governmental agencies responding primarily to what their critics perceived as relatively short-term and narrowly-defined economic interests. Massive environment-shaping programs of the federal government seemed unresponsive to aesthetic, cultural or ecological values, and their decision processes inaccessible to questioning by the general public."

When government agencies did consider the environmental impacts of a proposal the effort tended to be defined by boundaries of the bureaucracy, and not by the natural resources which would be affected by the proposal. Federal legislation "...has for the most part been formulated as an array of single-purpose legislative instruments, each directed toward some specific pollution problem."

One piece of legislation that began to move away from this narrowly defined project evaluation and is considered to be an important precursor to NEPA was the Department of Transportation (DOT) Act of 1966 as amended by the Federal-Aid Highway Act of 1968. This Act, as amended, discouraged proposals that required the use of,

"land from a public park, recreation area, or wildlife or waterfowl refuge of national, state, or local significance
... or any land from an historic site of national, state, or local significance ... unless (1) there is no feasible and prudent alternative to the use of such land, and (2) such program includes all possible planning to minimize harm to such park, recreation area, wildlife and waterfowl refuge, or historic site resulting from such use."

Therefore, the seeds of NEPA were present in existing federal legislation. NEPA went beyond the DOT Act and required federal agencies to undertake and document a comprehensive review, of their activities, consult relevant agencies, and employ an interdisciplinary approach in planning and decision making. In 1969, NEPA was passed and, symbolically, was the first piece of legislation signed into law in what would later be known as the environmental decade.

The National Environmental Policy Act

The purpose of NEPA was, "To declare a national policy which will encourage the productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish the Council on Environmental Quality."

Title 1 Section 101(b) establishes that, "In order to carry out the policy set forth in this Act, it is the continuing responsibility of the Federal Government to use all practicable means, consistent with other considerations of national policy, to improve and coordinate Federal plans, functions, programs and resources ..."
Although NEPA retained much of its substance as it came through the House and the Senate as a bill, "the ultimate act represented a compromise of a variety of pressures and points of view." The bill that was introduced in the House, "focused primarily on the creation of the Council on Environmental Quality, omitting the part of the bill which in day to day operations has become one of the most important aspects. The House bill did not contain the Section 102 requirements that environmental impact statements be filed before federal projects with major impacts on the environment could be undertaken."\textsuperscript{14}

Both bills defined a strong and self-directed Council on Environmental Quality (CEQ). Through the course of Congressional debate and revision the powers of the advisory office were considerably abridged. CEQ's level of influence has certainly fluctuated since it was first created. The presence of CEQ was felt during the Nixon and Carter administration, but it has been noticeably absent under the current Reagan administration.

As an executive level advisory council the CEQ sits in a somewhat precarious position in terms of how effectively it can carry out its role as, "the keeper of the conscience" of NEPA because ". . . its function of advising the president necessarily recedes when a president is disinclined to hear advice from those charged with environmental protection."\textsuperscript{19} Recent critics have recommended strengthening CEQ's charter with veto power over a project and have emphasized its still important role of executive-level oversight.

When NEPA was first passed, in addition to its advisory role to the president and research responsibilities, CEQ was empowered to issue guidelines to federal agencies to aid
their preparation of Environmental Impact Statements. In 1977, Carter strengthened their authority with Executive Order 11991 which authorized the CEO to "issue regulations to Federal agencies for the implementation of the procedural provisions of NEPA." The way in which CEO exercised this new power is generally considered to be an improvement that "stream-lined" the implementation of NEPA. Adopted in 1979, the regulations established uniform procedures for agency compliance with NEPA. The purpose of the regulations was to reduce paperwork and delays, and facilitate better decision making.

Again looking back to NEPA as a bill, the original language addressed only the statement of policy and the creation of the CEO. As the bill was getting close to being passed into law, its authors noted that there was no procedural requirement to insure that agencies complied with the policy statement. In what some critics have considered to be an afterthought, the Environmental Impact Statement (EIS) requirement was added to NEPA. Section 102(c) requires that all agencies of the Federal Government shall include "... in every recommendation or report or proposal for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on --

(i) The environmental impact of the proposed action
(ii) Any adverse environmental effects which cannot be avoided should the proposal be implemented
(iii) Alternatives to the proposed action
(iv) The relationship between local short-term uses of man's environment and the enhancement and maintenance of long-term productivity, and
(v) Any irreversible and irretreviable commitments of resources which would be involved in the proposed action should it be implemented."

The threshold for NEPA applicability to project review has been the subject of a great deal of judicial interpretation.

Generally, the NEPA process begins with a "scoping" session which was one of the innovations of the CEQ's new regulations. Scoping serves to identify the significant and dismiss irrelevant issues presented by a federal proposal in the early planning stages. The next phase is the preparation of the Draft EIS (DEIS). Upon completion, the DEIS is made available for review by other government agencies and the public. The lead agency, i.e. the agency proposing the action and preparing the EIS, receives written comments during the review period. Typically, one public hearing is held to receive oral testimony. The lead agency responds in writing to comments and makes necessary revisions based on the issues or deficiencies raised during the review. With these changes incorporated into the DEIS and comments attached in an appendix, the DEIS is now referred to as a Final EIS (FEIS).

If a lead agency is found to be in violation of NEPA, the court-ordered remedy is to require an agency to prepare a Supplemental EIS to remedy the deficiency. Hoffinger criticizes this remedy because, "an agency runs little risk by violating NEPA, while the public may assume substantial
"risk," and therefore advocates giving CEQ stronger review powers.

**Agency Adjustment**

The period of agency adjustment, in the early 1970's, was characterized by much litigation and the involvement of the federal courts. During this phase, the courts were actively interpreting the substantive requirements of NEPA and deciding when those requirements had been satisfied. In a series of landmark decisions, the federal court defined threshold requirements for EISs, standing for plaintiffs, and general standards for compliance with NEPA.

Around the mid 1970's, the attitude and responsiveness of the federal courts regarding NEPA litigation shifted. At this time, the courts began to take a more conservative approach to the interpretation of NEPA. Uncomfortable with this level of involvement in the substantive interpretation of NEPA, the federal courts accepted fewer NEPA cases and its reputation for being sympathetic to plaintiffs (typically environmental and citizen organizations) in these cases waned. An indicator of this change in attitude is reflected in statistics showing a peak of NEPA litigation in the early 1970's and then a sudden and continued drop in the mid and late 1970's.

NEPA has been called both the "bete noire" and the "magna carta" of the environmental movement. The image of the bete noire became popular during the early days of NEPA which were characterized by a profusion of unanticipated
litigation and the broad opportunities for public intervention into government activities. The negative connotation grew out of the frustration of government agencies whose every action was publicly scrutinized and often delayed in litigation.

In these early days, when the courts were busy interpreting NEPA and many government actions were being challenged, NEPA was called a full employment act for lawyers and consultants. NEPA was praised as a magna carta because it is comprehensive and served as a great equalizer of rights with respect to environmental protection.

While most of the dust has settled from the earlier litigation, NEPA seems to have lived down of its reputation as the bete noire. However, NEPA is not quite deserving of the honorable title of magna carta. NEPA is a powerful piece of legislation and when agencies meet the spirit of the Act it is clear that the national environmental policy is being followed. It falls short of being the magna carta because agencies can meet the letter of the law, and be in procedural compliance without having met the spirit, or substance of NEPA.

In the late 70's, several retrospective analyses of NEPA were prepared. The conclusions that have been drawn from these studies are: (1) the EIS requirement has caused federal agency personnel to be more attentive to environmental considerations; (2) because of the public and inter-agency review required by NEPA truly environmentally
damaging projects are not proposed; (3) time and cost requirements for EIS preparation are not as great as popularly held; and (4) similarly, there are fewer court actions than might be suspected.

Environmental Resources Limited conducted a comprehensive review of impact assessment using 55 case studies. Based on these case studies and other retrospective analyses, I find the following to be true about NEPA and impact assessment:

(1) impact assessment could be used more fully to shape project definition;

(2) adequate technical procedures exist to forecast and evaluate environmental impacts;

(3) in general, the public wants a meaningful role in the impact assessment process; and

(4) impact assessment would be improved if people learned during the process, and brought that experience to the next process.

The purpose of this thesis is to take a close look at the case studies that were prepared on impact assessment processes in New England and ask how these four issues apply to them.
III. NEPA as a model for SEPA

**State Environmental Policy Acts**

Following right on the heels of NEPA, states began to pass similarly modelled environmental policy acts, collectively known as state environmental policy acts, or SEPA. Environmentalists at the state level introduced bills for NEPA-like acts before their potency had been established.

"In the instance of the National Environmental Policy Act of 1969 ... the federal government has served as an experimental laboratory for the various states." Described as in "reverse of traditional notions of federalism" and a "spillover effect" states have gone from adopting NEPA practically verbatim (Puerto Rico, Montana, and New Mexico) to making substantive changes (Connecticut, Massachusetts, California, Washington) that added explicit requirements that are only implicitly contained in the federal law. The changes that states have made beyond NEPA are most apparent in their EIS requirements; Connecticut requires a discussion of primary and secondary impacts, California and New York include "growth inducing impact" of development, and Massachusetts requires mitigation measures to minimize environmental impacts.

Several listings of states with environmental policy acts, their equivalents, or environmental laws that provide limited review can be found. These lists vary, perhaps according to the author's judgement regarding legislation,
executive or administrative orders, and environmental reviews that qualify as a SEPA. Renz lists 24 SEPA and SEPA-like requirements.

**States with EIS requirements**
- California
- Connecticut
- Hawaii
- Indiana
- Maryland
- Massachusetts
- Minnesota
- Montana
- New York
- North Carolina
- Puerto Rico
- South Dakota
- Virginia
- Washington
- Wisconsin

**States with substantive application of environmental laws**
- Michigan
- Minnesota

**States with limited environmental review**
- Arizona
- Delaware
- Georgia
- Kentucky
- Mississippi
- Nevada
- New Jersey
- Rhode Island

Generally, SEPA require the preparation of a document that describes the environmental impact of a proposal, alternatives to the proposal, and unavoidable adverse environmental effects. Renz notes that SEPA tend to follow a common scheme,

"First a proposal surfaces which calls for action by a governmental body. Under the requirements of a SEPA, the governmental body determines if the action falls within the
purview of the SEPA. It then determines if the environmental effects of the proposal, if any, are significant. If so, the agency prepares a draft and a final EIS, and finally reaches a decision on the proposal."

"The specific subjects which the agency must discuss are set out in the statute. Generally these track the requirements of NEPA." State environmental policy acts model NEPA, but most are written to avoid redundant action by both federal and state agencies. Typically, the state defers to the federal authority. SEPA's, and the review that they necessarily entail also supplement NEPA's provisions for public access at the federal level with greater public access to the decision making process at the state level.

The Role of the State Courts

Similar to the federal courts, the state courts' early role in SEPA interpretation was one of heavy and substantive involvement. However, unlike the federal courts withdrawal from NEPA interpretation, state courts have maintained their initial level and nature of involvement,

".... state environmental policy acts are now construed more broadly and applied more stringently than NEPA. State courts tend to require environmental impact statements in situations where federal courts would not and scrutinize the contents of those statements more closely."13

The federal and state courts' treatment of NEPA and SEPA's, respectively, have diverged from their initially parallel paths. Lately, federal court decisions have served to limit the scope of NEPA and its affects on federal decision making. Comparatively, Renz finds two reasons for the state courts' broader application of SEPA's.
"First, early cases interpreting SEPA looked to existing federal cases. This pre-Vermont Yankee body of federal law tended to enforce NEPA more strictly than do federal courts today. Later state courts looked to these state cases for precedent, preserving a stricter state rule in that state’s jurisprudence.

But by far, the most important factor has been the state courts’ treatment of the policies of their own state acts. While federal courts were holding that the policies of NEPA provided only national goals, state courts were finding precedent in SEPA policies for prima facie compliance with the SEPA in all cases, consideration of environmental factors in all cases, and broad substantive application of the SEPA’s requirements. 14

As a result of the state courts taking the lead in interpreting and upholding SEPAs, Pearlman predicts, "[s]hould NEPA be amended in the future, the federal government may well look to the states for new statutory language." 15

The Relationship Between Impact Assessment and Planning

Impact assessment and planning serve different, but complementary functions. Impact assessment is a process for forecasting and evaluating environmental impacts that are directly related to a proposal. Impact assessment is an effective tool to mitigate the negative environmental effects of a single proposal, but it lacks any means to coordinate the review of several proposals. Although impact assessment was envisioned to be thorough, it was never meant to substitute for comprehensive planning.

Compared to impact assessment, planning embodies normative ideas about the future. Planning addresses both long and short term goals and ways in which those goals can be achieved. In effect, planning trades prospective guidance
for detailed review.

Hagman suggests that impact assessment could serve as a "one-stop" permit process that would obviate other permits and general plans. This approach would put planning bodies in a defensive role and limit their ability to guide the cumulative effects of several proposals. The detailed review that is required by impact assessment supplements planning and policy making. Since they do not serve interchangeable functions, their respective strengths should be combined to create a process that is capable of precision and overview.

Focus on New England

Now that the historical context and procedural requirements of NEPA have been explained, and the nation-wide phenomenon of SEPs have been introduced, let us focus on how the New England states have responded to the federal model.

The New England states are commonly referred to as a region, as if they comprised a homogenous unit. However, the way in which they each have addressed impact assessment and environmental protection underscore the uniqueness of each state. The six states can be divided into two camps on this issue; one with formal impact assessment requirements and the other, without.

Connecticut, Massachusetts, and Vermont have requirements for impact assessment and review. The next
level of analysis shows that this grouping is based on generalizations. The details of their laws and the manner in which they are implemented set them apart. Connecticut and Massachusetts both have, at first glance, the stereotypical SEPA, but on closer inspection their differences become clear.

Connecticut. The Connecticut Environmental Policy Act (CEPA) is actually the agglomeration of two laws. The first law, passed in 1971 is known as the Connecticut Environmental Protection Act. This Act was modelled after Michigan’s Environmental Protection Act of 1970 which gave individual citizens standing to sue to protect the environment. It follows that these acts have been called "citizen action" or "private action" Acts.

The second law in Connecticut is the Connecticut Environmental Policy Act, commonly referred to as CEPA. In general, CEPA states that Connecticut has an environmental policy, and establishes the requirement that impact assessment be incorporated into the state planning process.

Under CEPA, state agencies are required to produce a document, known as the Environmental Classification Document, that lists (1) typical agency actions which may have significant impacts on the state’s land, water, air or other environmental resources, or which could serve short-term to the disadvantage of long-term environmental goals, thereby requiring the preparation of an environmental impact
statement; (2) typical agency actions whose degree of impact is indeterminant, in the absence of information of the proposed location and scope of a specific action, but which could have significant environmental impacts; and (3) typical federal/state actions for which environmental impact statements are prepared pursuant to the National Environmental Policy Act.

The Environmental Classification Document is approved by the Office of Policy and Management (OPM). The Document guides an agency's decision to prepare either an Environmental Impact Evaluation (EIE) or a Finding of No Significant Impact (FONSI).

The topics that an EIE is required to consider go beyond those required by NEPA. The EIE must address (1) a description of the proposed action; (2) the environmental consequences of the proposed action, including direct and indirect effects which might result during and subsequent to the proposed action; (3) any adverse environmental effects which cannot be avoided and irreversible and irrevocable commitments of resources should the proposal be implemented; (4) alternatives to the proposed action; (5) mitigation measures proposed to minimize environmental impacts; (6) an analysis of the short term and long term economic, social, and environmental costs and benefits of the proposed action, and (7) the effects of the proposed action on the use and conservation of energy resources. When an agency submits a FONSI, OPM reviews it to verify that no significant impact is expected that would otherwise require an EIE. When
an EIE is required the scope of the assessment is determined in a meeting between OPM, other relevant state agencies, and the consultant that will prepare the EIE. This is typically an internal meeting and process. The purpose of this meeting is to determine the most important issues and interested parties of the proposal. It is intended to guide and facilitate the preparation of the document.

CEPA explicitly states that the EIE should be prepared early enough so it can contribute to the decision making process and not be used to rationalize or justify decisions that have already been made. A completed EIE is followed by a review period where the state accepts comments from state and local agencies and the general public. A public hearing is held at the request of 25 or more individuals, or the sponsoring agency, realizing that the project is controversial, can initiate the public hearing process in advance of the threshold number of requests. Public hearings are formal events. Testimony is given and although the project proponent is present, no response is made to comments during this forum.

When the EIE and the review period have been completed, the document, testimony, written comments, and proof of procedural compliance (e.g. that notices were placed in the newspaper) are given to OPM. In a "record of decision" OPM states whether the issues have been adequately addressed in the EIE.

CEPA has a fairly detailed section on liability for
failing to meet the requirements of the Act. A schedule of payments is presented in the law. Also, based on the Environmental Protection Act of 1970, individuals have standing to sue to protect the environment.

Massachusetts. The Massachusetts Environmental Policy Act (MEPA), passed in 1972, closely follows the model of NEPA. MEPA applies to activities undertaken by state agencies or individuals that require a permit or financial assistance from the state. The Environmental Impact Review Office within the Executive Office of Environmental Affairs (EDEA) oversees the implementation of MEPA.

When an agency or individual intends to apply for a permit or financial assistance they must first notify the Impact Review Office. After meeting with the proponent, the Impact Review Office determines whether an Environmental Impact Report (EIR) will be required or whether the proposal is categorically exempt. Following this consultation the Impact Review Office issues a notice of the action and the potential impacts in EDEA's newsletter, The Environmental Monitor.

Under MEPA, all EIRs are required to address: The nature and extent of the proposed project and its environmental impact; all measures being utilized to minimize environmental damage; any adverse short-term and long-term environmental consequences which cannot be avoided should the project be undertaken; and reasonable alternatives to the proposed project and their environmental consequences.
For each project requiring an EIR, the scope of the EIR is determined in consultation between the proponent and the Impact Review Office. When a private individual applies to a state agency for a permit, but not for funding, the scope of the Report and alternatives that must be considered are limited to the "subject matter jurisdiction" of the permit-issuing agency.

The review of an EIR follows much of the same process as the federal EIS requirement. When the Report is written, it is referred to as a Draft EIR (DEIR). The DEIR is made available to appropriate state agencies and the public. A review period is held where written comments are received and oral testimony is taken during a public hearing. Testimony is recorded at the hearing, and again, there is no dialogue. Comments that are received during the review period are incorporated into the body of the DEIS or responded to in an appendix. The inclusion of comments and any revisions the proponent makes as a result of the public review transform the DEIR into the Final EIR (FEIR). The Impact Review Office determines whether the FEIR has adequately met the requirements of MEPA.

If a court determines that information in the DEIR has been knowingly falsified or omitted by the proponent, the Impact Review Office will require the proponent to take any additional measures to correct the problem. MEPA models NEPA with respect to remedying deficiencies of an EIR with supplemental information as compared to CEPAs liability
provision.

Therefore, CEPA and MEPA are alike in that they both institutionalize impact assessment in the planning stages and have established overseeing agencies; CEPA’s Office of Policy Management and MEPA’s Environmental Impact Review Office. Both laws establish a procedure for determining the threshold of applicability; CEPA has the Environmental Classification Document and MEPA has categorical exemptions. The topics that are required to be discussed in the EIE and the EIR are similar that they both go beyond the mandates of NEPA. CEPA requires a cost benefit analysis and MEPA requires a discussion of mitigation measures. In the case of an inadequate impact report CEPA relies on a liability clause and litigation while MEPA requires the deficiencies to be remedied with supplemental information.

Vermont. Vermont has a unique process for assessing the environmental impacts of a proposal, although it is not a SEPA, per se. Vermont’s Land Use and Development Act, was passed in 1970 in response to accelerated development of recreational homes. Commonly referred to as Act 250, this law not only established a review process, but created a state-regional hierarchical structure to implement and adjudicate it. Act 250 created a state-wide Environmental Board, a policy making and appellate body; and nine District Environmental Commissions to implement the law on a day-to-day basis.
Act 250 is a permit process. Unlike CEPA and MEPA that culminate in a decision that the EIE or EIR adequately represents the important issues and includes a sound analysis, Act 250 concludes with a decision to issue or deny a permit. Vermont’s law also differs from Connecticut’s and Massachusetts’ by its threshold of applicability. Act 250 applies to all developments involving at least 10 acres of land, compared to CEPA’s and MEPA’s preliminary project review and references to their respective Environmental Classification Document and categorical exemptions.

The sequence of review stages in the Act 250 process begins, for the more complex applications, with a pre-hearing conference. Like scoping requirements, the pre-hearing serves to alert the Commission and the project proponent to issues that will require proportionately more attention. The next phase is the public hearing. For the typical project, this phase is completed in one session. However, for politically controversial or technically complex projects, this phase will continue until all relevant information and analyses have been presented.

Act 250 identifies statutory parties to each permit process. Statutory parties include the applicant, state, local, and regional agencies, and adjoining landowners. The Commission can also use its discretion to admit other parties that may be affected by the proposal or whose expertise may facilitate the review. The statutory parties are represented by lawyers during the hearings. Unlike the hearings in the CEPA and MEPA process, the Act 250 hearings, although
conducted in a courtroom setting, are characterized by dialogue between statutory parties, expert witnesses and the Commissioners. The hearing process for Act 250 is noticeably richer than CEPA or MEPA processes.

Act 250 requires all permit applications to demonstrate that ten criteria have been met. These criteria address: (1) water and air pollution, (2) water supply, (3) water availability, (4) soil erosion, (5) highway congestion, (6) provision of educational services, (7) provision of municipal services, (8) natural beauty and natural areas, (9) conformance with the state Capability and Development Plan, and (10) conformance with regional and local plans. The Commission is not empowered to work with the applicant to make the permit acceptable however they may issue a conditional permit, i.e. conditional upon meeting certain standards that are specified by the Commission.

The Environmental Board, a quasi-judicial body sits as a board of appeals to the Commissions' decisions. The Act 250 process has a built-in alternative to litigation. While CEPA and MEPA are readily distinguishable they stand together when compared to Vermont's Act 250 permit process. Although some classifications of SEPAs may omit mentioning the Land Use and Development Act because of its title, it is certainly as much of an impact assessment process as CEPA and MEPA.

Turning to the states without formal comprehensive mandates for impact assessment, again we see important differences in the way impact assessment and environmental
protection are handled.

Rhode Island. In Rhode Island, most of the major projects are federally sponsored. Therefore, impact assessment is conducted, but under the auspices of NEPA. The adoption of a SEPA is not a priority in this state.

The only comprehensive review of state actions are the State Planning Review Project Notification and Review System and the State Guide Plan that provide a check that a project is consistent with an agency’s charter. Although they provide a project review, they do not qualify as impact assessment processes. A formal state environmental review is conducted by the Port Authority and Economic Development Corporation prior to development at Qwonset Point-Davisville, an environmentally sensitive area. This is the extent of state-sponsored impact assessment in Rhode Island.

Maine. Maine’s Environmental Bureaus; Land, Air, Water, Oil and Hazardous Material Control, each have their own permit processes and requirements. The exact process is not evident without a proposal for which to seek specific permits. When a developer applies to any one of the Bureaus for a permit, the proposal is reviewed and permits from that Bureau are identified. The "first-stop" Bureau will refer the developer to all other relevant Bureaus. It is of no consequence which Bureau’s door the developer walks through first.
New Hampshire. Similar to Maine, New Hampshire’s environmental laws are fragmented according to the resources that they seek to protect. The entire network of laws is spelled out in *The State Regulatory Handbook* that is produced by the Office of State Planning.

The manual presents in a clear, straightforward manner activities that may require a license, permit, or certificate. The manual also discusses the standards used by state agencies in reviewing applications, and indicates where a developer can find more information about a specific regulated activity. The permits, licenses, and certificates that are listed address activities which have a direct impact on the environment. The manual notes that although objectives vary among agencies, they generally seek to minimize negative impacts to the natural environment and protect public health.

**Conclusion**

Just among the six New England states there is a diversity of impact assessment legislation and environmental review. They can easily be divided into two groups; with and without a state environmental policy act (or its equivalent). However, on closer inspection the scope of the review, invitation to the public, and flexibility set them apart. The states without SEPAs find that the fragmented regulatory approach is adequate because (1) although permits and review processes appear fragmented, they are linked. New Hampshire,
in particular, has made an effort to make these connections explicit; and (2) most of the very large projects that are likely to have an impact on the environment are federally sponsored, and therefore, impact assessment is comprehensively addressed under NEPA.

The diversity of the environmental review processes in each state was reflected in the findings of the case studies. The case studies are an illustrative device for exploring the diversity of environmental review procedures, how they address project definition, use of technical information, public participation, and learning, in New England under a variety of circumstances.
IV. ANALYSIS

Introduction

A questionnaire was sent to more than 100 individuals in New England with professional experience in impact assessment. The primary purpose of the questionnaire was to identify case studies to illustrate the various impact assessment processes that are used in New England. As discussed above, Connecticut, Massachusetts, and Vermont have state-wide laws; CEPA, MEPA, and Act 250, that require impact assessment. Maine, New Hampshire, and Rhode Island do not have formal procedures for conducting a comprehensive assessments of proposals. In lieu of state environmental policy acts, the latter three states rely primarily on fragmented permit processes and NEPA for impact assessment.

The specific case studies were chosen in order to provide a rich sampling of environmental issues that collectively span a ten year period. The cases on which this analysis is based constitute a medley of impact assessment legislation, types of projects, key environmental issues, and outcomes. Each case study was chosen because it contributed to the richness of the sample. They were not chosen to represent the most important or controversial instance of impact assessment, nor were they intended to, individually, symbolize the most pressing environmental issues of each state; in fact, the cases probably are relevant to all of the states.
Although each of the cases have unique qualities, together, they contribute to the body of literature on impact assessment. The particular attributes of each case at first suggests that they are qualitatively different and provide no basis for comparison. For example, some of the cases are located in urban environments while others are in rural, suburban, or wilderness areas. Some cases pivot on the role of the environmental impact document while other were relatively unaffected by one.

However, the real instruction comes from highlighting the differences and underscoring the similarities that surface when they are considered as a group. The purpose of the case studies is to use actual and contemporary examples to focus the analysis and ask how impact assessment affects environmental decision making. Before proceeding with this analysis, an overview of each case is appropriate.

Case Study Summaries

Criminal Court Facility, Hartford, Connecticut. The State Judicial Department has been intending to build a new Court Facility to provide much-needed office and courtroom space for criminal cases since 1964. Although it predates Connecticut’s Environmental Policy Act (CEPA), the Court Facility was still in the planning stages when CEPA was passed. The proposal, therefore, was subject to the impact assessment requirements of CEPA. The impact assessment process was completed in 1982 and construction began in 1983.
At this writing, construction of the new Criminal Court Facility is nearly complete.

While the facility was continually redesigned, and the availability of funds fluctuated only the site remained constant. The site, most of which is owned by the Judicial Department is located just across the street from the existing state court building. A desirable feature of this close proximity is that the two buildings could be physically connected with a pedestrian bridge.

The site for the new Criminal Court Facility is located at the southwestern edge of Hartford’s Capitol Center District. The Capitol Center District, in downtown Hartford, is a planning unit in which most of Connecticut’s state government buildings are located. The building and grounds within its borders are clearly legible as a civic center.

Walk one block west of the Capitol Center District and you will have entered, what appears to be, a residential district. Look at the multi-family houses more closely, you will see that many of these buildings are occupied by law firms. Continue walking westward and within the next block you will be in a lively residential area.

The residents that live within a block of the Capitol Center District are disturbed about the increasing state presence in the neighborhood. Their interests, articulated by Hartford Area Rally Together (HART) and the Hungerford Block Association, are to maintain the integrity of the neighborhood despite the Judicial Department’s history of property acquisition in the area. The residents are most
concerned about the growing trend of law firms, desiring to be close to the state courts, that buy inexpensive residential buildings for their offices. The conversion of residential to office use is a secondary impact of the state’s presence.

It was common knowledge that the project was essentially predetermined prior to any formal impact assessment. However, Department of Administrative Services (DAS) and Bureau of Public Works (BPW) responded to a suggestion by the Hartford Architectural Conservancy (HAC) and conducted a public workshop. The workshop provided a forum to present and discuss plans for the new Court Facility. Public comments on the siting and design influenced the final plan for the new Court Facility.

Realizing that the project was clearly defined prior to the workshop the neighborhood organizations eventually sought other means to protect their interests. HART and the Hungerford Block Association have been working with the City Planning Department to downzone the residential-office designation to an exclusively residential district.

HAC was concerned about this project because the site is within the Frog Hollow Historic District. In the seventeenth century some of Connecticut’s first mills had located in this area along the, now defunct, Park River. The River produced the marshy conditions that gave the District its, once descriptive, name. HAC wanted to preserve several buildings of historical significance that were originally marked for demolition.
Although the project definition was essentially sealed prior to the impact assessment the final design did respond to public comments. Considering the long and complex history, public participation came very late in the process.

The formal impact assessment process contributed to learning for both the public and the lead agency. The public learned that they can initiate and participate in a constructive dialogue with a lead agency, in this case, the state government. They also learned that the impact assessment process is just one forum for influencing government action. The state government, particularly the DAS and BPW learned that by working with the public the definition of a project can be shaped to meet the interests of all parties.

Big River Reservoir, Rhode Island. In 1966, the Rhode Island Water Resources Board (WRB), a quasi-public agency, purchased 13,000 acres of land along the Big and Wood Rivers in north central Rhode Island to build a reservoir. The reservoir was intended to meet the state’s projected water supply needs through the year 2030.

The $7.5 million used to buy the land and the additional $500,000 for design and feasibility studies for the reservoir came from bonds that were passed by voters state-wide. During the mid-70’s additional bonds were rejected by the state’s voters.

In 1978, Governor Garrahy was becoming concerned about the uncertainty of future funding for the reservoir. He
contacted the COE and asked them to consider taking over the design and construction of the reservoir.

COE accepted this invitation although they were more interested in building a flood control project than a reservoir. Also in 1978, Congress authorized the Pawcatuck River and Naragansett Bay Study (PNB) to examine the feasibility of flood control improvements along the Pawcatuck and Pawtuxet Rivers. The WRB’s proposed Big River Reservoir is located in the Pawtuxet River Basin. In an attempt to meld their interests in flood control and the WRB’s in water supply, the COE began to study and design a multi-use reservoir for flood control, water supply, and recreation.

The study area for the Big River Reservoir includes approximately 450 square miles. The reservoir, itself, would occupy 3,400 acres and would inundate 3,154 acres of terrestrial habitat. The area that would be flooded includes 2,305 acres of forest, 524 acres of wetlands, and 325 acres of open land, 45 acres of streams (19.7 miles) and 10 small ponds.

In 1978, faculty members at the University of Rhode Island (URI) Community Planning and Area Development program proposed to manage the public participation component of the COE’s feasibility study of the Big River Reservoir. URI’s objectives were to provide information and to facilitate public input during the process rather than rely solely on the traditional public hearings.

The consensus of the workshops was that the public had
not been convinced that the state's needs warranted this monumental water supply project. People were concerned that outdated population projections had been used to justify the reservoir. They claimed that the state's population had been showing a reduced growth rate since the initial feasibility studies were done. Although participants felt that the workshops had been informative they criticized the WRB and COE for not adequately addressing their main concern that the project had not been justified.

Despite the public's objections to the project, the COE completed the EIS (which appeared as an addendum to the feasibility study) and sent it to their federal review arm in Washington, the Board of Rivers and Harbors. The Board approved the project. At this writing, COE is waiting for Congress to authorize the funding for the multi-use reservoir. Negotiations between the WRB and other state agencies are in progress to determine who will finance the remainder of the project, and manage it upon completion.

The case of the Big River Reservoir shows how the public's attention turns away from technical issues when they strongly disagree with the project definition. The public also learned that although workshops are informative, the lead agency is not obligated to formally acknowledge their concerns.
Bay View Towers, Hull, Massachusetts. For over twenty years the town of Hull has been trying to attract development to revitalize its depressed economy. A smaller prototype of Cape Cod, Hull is located on a 7 1/2 mile barrier beach jutting out from the southern shoreline of Massachusetts Bay.

In 1979, the Hull Redevelopment Authority (HRA) signed a contract with Consultants, Inc. to develop a 33 acre parcel along Nantasket Beach to meet local housing needs. The first phase of this project included an 11-story apartment building for the elderly and handicapped. The profitability of the development hinged on Consultants, Inc.'s ability to win financial assistance from the U.S. Department of Housing and Urban Development (HUD).

One year prior to this proposal, a major blizzard had hit Massachusetts. In the wake of the blizzard, the state spent $180 million to ameliorate coastal damage, particularly along barrier beaches. In 1980, Governor King issued Executive Order 181 directing all state agencies to adopt specific policies to reduce the potential for future storm damage on Massachusetts' barrier beaches. The Massachusetts Coastal Zone Management Agency (CZM) was named the coordinating agency of this executive order.

CZM also has the authority to deny any federally funded project which is "inconsistent" with its goals. Therefore, before HUD could finance this project CZM had to issue a certificate of federal consistency. In addition, since development of this site required coastal wetlands to be filled Consultants, Inc. needed a license from the Corps of
Engineers (COE). The issuance of this license was also dependent on CZM's finding of federal consistency.

In 1980, with a Superceding Order of Conditions, the Massachusetts Department of Environmental Quality Engineering (DEQE) froze local approvals and ordered all work to be stopped until the project was reviewed under the Wetlands Protection Act. The Wetlands Protection Act prevents the destruction of salt marshes and clamflats.

In response to the Superceding Order of Conditions Consultants, Inc. filed an Environmental Notification Form (ENF) with the Executive Office of Environmental Affairs (EDEA) describing the project and its impacts to the salt marsh and clamflats. Upon review of the ENF, EDEA ordered that the salt marsh could not be filled unless Consultants, Inc. provided long-term off-site compensation, i.e. moving and establishing the salt marsh at another location. As a prerequisite to the implementation of the compensation plan, Consultants, Inc. had to receive a variance from the Wetlands Protection Act.

The decision to grant a variance from the Wetlands Protection Act was determined in an adjudicatory hearing. Prior to the hearing, Consultants, Inc. prepared a mitigation plan to relocate 7,500 square feet of salt marsh and 57 bushels of clams. Additionally, the building design included features to ensure the safety of the tenants. During this time, public opposition was expressed through a letter writing campaign. Organized by the Massachusetts Association of Conservation Commissions (MACC) letters were written to
Senator Kennedy, Governor King, HUD and COE impressing upon them the long term costs of barrier beach development and the risks to the prospective elderly and handicapped tenants.

The hearing officer ultimately decided that the salt marsh and clam flats could be relocated and by leaving the first floor of the building unoccupied the tenants' safety was insured. In 1981, a variance to the Wetlands Protection Act was granted. The variance was contingent, however, on a grading and drainage plan that would prevent the proposed building from aggravating flood conditions for adjacent buildings. One year later, a Supplementary final decision approved this plan.

For more than a year Consultants Inc. worked with DEQE, CZM, HUD, and the Federal Emergency Management Agency (FEMA) on the details of the flood prevention element. During the course of this work attention turned to the absence of a plan to evacuate tenants in the event of a 100 year storm. At this point, MACC threatened to sue HUD if mortgage insurance was granted to a project that would endanger the elderly and handicapped tenants. The Conservation Law Foundation of New England, Inc. (CLF) actually filed suit against HUD for failing to abide by a Presidential Executive Order mandating limited federal involvement in the development of wetlands. Consequently, HUD denied the mortgage insurance, which was fundamental to the viability of this project.

When Consultants, Inc. sought state funding as an alternative to federal funding EDEA informed Consultants Inc. that the receipt of state money would subject this project to
the Massachusetts Environmental Policy Act (MEPA). If the project were to fall under MEPA, an Environmental Impact Report would be required and, in effect, initiate a second, and independent review process.

At about the same time, the controversy of this project was having a major affect on local politics. At a town meeting, the Selectmen fired the entire HRA. The site was later rezoned to permit nothing higher than forty feet. In response, Consultant, Inc. sued the town of Hull. At this writing, the lawsuit is pending.

The Bay View Towers proposal illustrates the problems that can ensue when a project is defined without considering the environmental attributes of the site and regulatory requirements. Although the public did not directly participate in the review of this project, the letter writing campaigns and the actual and threatened lawsuits informed the decision making process.

Siting of Wastewater Treatment Facilities in Boston Harbor, Massachusetts. Boston Harbor, dotted with islands formed during the last ice age is the largest seaport in New England. Encompassing a total of 50 square miles with 180 miles of shoreline, the Harbor supports commercial and recreational activities. Its periphery is densely settled with residential and industrial uses.

Sanitary and storm sewage from the entire Greater Boston Area is discharged after, and sometimes before, primary treatment at the Deer and Nut Island Treatment Facilities.
Like many older cities, Boston has combined sanitary and storm sewers. During heavy rains peak storm water flow extends the system beyond capacity and raw sewage is dumped into the Harbor. Untreated sewage is also discharged due to ordinary equipment failures. The discharge of treated and untreated sewage from these facilities is directly linked to the progressive degradation of water quality in the Harbor.

The Nut Island facility was built in 1952 on a 12 acre site that extends from the town of Quincy into Boston Harbor. The Deer Island facility was built in 1968 and abuts the town of Winthrop on a 210 acre site. Deer Island, also houses a regional correctional facility and is in close proximity to Logan International Airport. Both Deer and Nut Island facilities were technologically obsolete and sized under capacity from the outset. The need to improve sewage treatment facilities in Boston is a longstanding problem that is yet to be resolved.

In 1977, the Environmental Protection Agency (EPA) began preparation of a DEIS for improved waste water management. This work was postponed following the 1978 Amendments to the Clean Water Act requiring all municipal sewage treatment facilities to be upgraded in order to provide secondary treatment.

The Metropolitan District Commission (MDC) is responsible for water and sewage management in the Greater Boston Area. In 1979, the MDC applied for a waiver from the Clean Water Act Amendments. After a four year review
process, EPA denied the waiver, and in effect, mandated the MDC to meet the secondary treatment requirement.

During the review of MDC's application three lawsuits were filed. The city of Quincy sued the MDC for polluting its waters and beaches with raw or partially treated sewage from the malfunctioning Nut Island treatment plant. EPA filed suit against the MDC for violating the Clean Water Act because of its failure to properly monitor sewage discharge. The Conservation Law Foundation (CLF) sued the EPA for its failure to insist that the Clean Water Act be observed and the Harbor be cleaned up.

With these lawsuits pending, the EPA and the MDC began joint preparation of a Draft EIS/EIR. Since this document was considered to be an extension of the 1977 DEIS, it is called a Supplemental DEIS/DEIR (SDEIS/DEIR).

The SDEIS/DEIR addresses one issue: the siting of a new wastewater treatment facility. The sites under active consideration are Deer Island, Nut Island, and Long Island. The state and federal agencies involved in the preparation of the document decided that the siting decision should be independent of other considerations such as sludge management and mitigation measures. Apparently, they thought this segmentation would expedite the process and allow them to proceed with efforts to clean up the Harbor. Instead, they have been criticized by the public for irrationally segmenting the assessment of impacts and refusing to address issues that are fundamental to a siting decision.

The scoping phase of this process included the creation
of a Technical Advisory Group (TAG) which includes state and federal agencies and a Citizens Advisory Group (CAC) that is made up of a broad spectrum of interested citizens from the area. The two groups met separately and together to review work on the SDEIS/DEIR. TAG and CAC have met with EPA and its consultants to discuss issues of concern to them. Workshops were also held to further inform the public.

The public comment period for the SDEIS/DEIR ended in March, 1985. A siting decision for a secondary treatment facility will be made by the newly created Massachusetts Water Resources Authority (MWRA) in July of 1985. It is expected that a final EIS will be issued shortly thereafter.

Siting a new wastewater treatment facility in Boston Harbor is an example of a project that has been narrowly defined to hasten the amelioration of a severe water quality and waste management problem. Even with the formally recognized CAC, the public is unable to affect the segmentation of the impact assessment process. In response to the public's demands for technical information, the lead agencies say that those issues are irrelevant to the siting decision.

Extension of Interstate 93 through Franconia Notch, New Hampshire. Since 1958 the New Hampshire Department of Public Works and Highways (DPWH) has planned to extend Interstate 93 (I-93) through the White Mountains. The long history of this project is characterized by considerable
public debate, a U.S. Court injunction enjoining construction, and ultimately, a negotiated agreement among DPWH and private organizations that opposed the extension of I-93 as defined by the DPWH.

Franconia Notch State Park is located in the White Mountain National Forest in New Hampshire. Natural wonders, such as the gorge-cutting streams of the "Flume" and the granite ledge face of the "Old Man of the Mountain" contribute to the uniqueness of the area. The Forest is the largest area of public land in New England, attracting hikers, skiers, campers, and sightseers year-round. The regional economy is heavily dependent on spinoff from visitation to the Park. Prior to the proposal to extend I-93 through Franconia Notch, U.S. Route 3 provided the only access to this picturesque environment. It was generally accepted that the winding, undivided 2-lane rural highway with deteriorated, or non-existent shoulders, was inadequate to serve the Park's 3 million annual visitors.

Connecting Massachusetts and Vermont, the section of I-93 through New Hampshire was designed as three distinct segments. From north to south the segments are; Campton to Lincoln, through Franconia Notch and the White Mountains, and Littelton to Waterford, Vermont. DPWH's plans were developed in near seclusion from other agencies and the public. Even the state Forestry and Recreation Commission first became aware of the proposal when DPWH began to take bids for construction.

As early as 1958, the Appalachian Mountain Club (AMC)
and other environmental and citizen groups expressed concern about the impact of the proposed highway on the unique and publicly valued qualities of the area. Although U.S. Route 3 already existed through the Notch, it was a narrow, unobtrusive road and qualitatively different than the four-lane highspeed highway that typifies the Interstate system.

In 1959, the New Hampshire legislature authorized DPWH to proceed with construction through Franconia Notch. Starting with the southern segment I-93 began to approach Franconia Notch in 1966. The DPWH also constructed portions of the northern segment around this time. Concerned environmental and citizen groups protested this fragmented approach. They claimed that the construction of the northern and southern parts of I-93 was an inappropriate means to secure construction of the segment through Franconia Notch.

Since DPWH received funding from the U. S. Federal Highway Administration (FHA) the extension of I-93 was subject to NEPA. In 1974, DPWH prepared a draft EIS for the Franconia Notch section. A separate EIS was prepared for the northern segment, while the southern segment had already been constructed.

In 1975, AMC and the Society for the Preservation of New Hampshire Forests (SPNHF) won a court-ordered injunction halting further action on the northern segment until the exact location and design of the Franconia Notch segment was resolved.

The DEIS on Franconia Notch took nearly two years to complete. While the DPWH insisted on focusing the analysis
on the location of the transportation corridor, the public wanted to discuss the specific road design, i.e. two or four lanes, and interstate or parkway. After the public comment period DPWH chose the interstate design through Franconia Notch. The public adamantly opposed this particular design and suggested an alternative proposal. They proposed a two-lane, low speed parkway with enhanced visitor access, traffic management, and park facility improvements. Environmental groups, state and federal agencies supported this proposal.

The conflict was heightening when a state representative of New Hampshire suggested that the parties come together to negotiate an agreement. The AMC was willing to join this effort because they thought they could use it as a forum to win general improvements for the Park. State and federal agencies realized that without an agreement imminent litigation could postpone the project indefinitely.

After several months of negotiation the parties agreed to a two lane parkway through Franconia Notch with improvements to the Park. The outcome of the negotiation substantially informed the preparation of the FEIS. The parties agreed to link the construction of the northern segment to the approval of the FEIS. Construction through Franconia Notch began in 1984. The AMC and other parties to this legally-binding agreement are actively monitoring construction to ensure environmental impacts are minimized.

Despite the fact that the project was narrowly defined, a negotiation helped to reshape the definition until the interests of all parties had been met. This case illustrates
a novel approach to resolving disputes that emerge through the impact assessment process. Government agencies and environmental organizations learned that even when needs may seem mutually exclusive creative solutions can be identified.

Pyramid Mall, Chittendon County, Vermont. In 1977, the Pyramid Company of Burlington applied for a permit under Vermont's Land use and Development Act to build an enclosed regional shopping mall in Chittendon County. The site is located in the town of Williston which is characterized as a "quiet, rural community" and is just six miles from downtown Burlington.

The Land Use and Development Act, also known as Act 250, applies to all development proposals that involve at least ten acres of land. The Pyramid Mall, which was envisioned to occupy more than 90 acres of a 200 acre site clearly fell within the purview of this law. The District Commission took more than a year to review the Pyramid Company's application and supporting evidence. The applicant, state and local planning bodies, citizen groups, and adjoining landowners were statutory parties to this process. Represented by their lawyers, they gave testimony and were cross examined during the course of 43 public hearings.

In 1978, District Commission #4 stood up to the politically charged debate and denied the Company's application for a permit. The application was rejected because it failed to meet several of the criteria that are
established in Act 250. The District Commission found that the Pyramid Mall would cause undue highway congestion, burden the local government's ability to provide services, burden private utility's delivery of services, and result in undue public costs from scattered development. Additionally, the proposal lacked conformance with the local, regional and state Capability and Development Plans.

The Commission justified its decision to deny the permit with a general set of concerns regarding negative economic impacts on Burlington's central business district and the city's tax structure, negative impacts to the rural character of the region, and the burden on Chittendon County's municipal services. The importance of these issues to the residents and local officials heated the public debate surrounding the review of Pyramid's application.

The Pyramid application was denied by the District Commission in October of 1978. Since permits are usually granted by the Commission, the decision to deny the Pyramid Company's application represented an exception to the typical review. (From 1970 to 1980, of the 3,740 permits that were acted upon only 95 were denied.) Since then, the Pyramid Company has been unsuccessful in several appeals and has not exhibited any recent interest in reviving the proposal.

In the aftermath of the District Commission's decision to deny the Pyramid Company's application for a permit, Burlington's Revitalization Program, although initiated almost 20 years ago, has been noticeably more active. The City has made an effort to enhance the attractiveness of the
commercial center through the Church Street Market Place. This outdoor shopping mall is an example of the recent urban phenomenon of the "festival market place." The City has also secured federal funding to build a 500-space garage and to provide additional rooms and meeting space at the centrally-located Radisson Hotel.

Today, seven years after the denial of the Pyramid Company’s request for an Act 250 permit, that decision and review process is still fresh in the minds of many Vermon ters. The denial of this application is a landmark in Act 250’s 15-year history.

Because Act 250 is based in a permit process, projects will necessarily be clearly defined by the time the proponent submits an application. The long review process for this permit showed that Act 250 is flexible enough to accommodate an application that is supported by a wealth of technical information. The public had access to this process, both as statutory parties and observers. Participants in this process learned that Act 250 is capable of giving a thorough review to complex and controversial proposals.

Dickey-Lincoln School Lakes Project, Aroostook County, Maine. The Dickey-Lincoln School Lakes project evolved from studies on the potential development of tidal power facilities at Passamaquoddy Bays dating back to the early 1900s.

In 1963, the Department of the Interior (DOI) determined
that the Passamaquoddy project could be justified if it were designed to provide peak, rather than base load power for the area encompassing New England, Upstate New York, New Brunswick and Nova Scotia. One site that was studied for hydropower development was at Rankin Rapids on the Allagash River. This proposal was eventually rejected because of the adverse environmental impacts to the Allagash River. Two alternative sites on the nearby St. John River, at Dickey and Lincoln Schools, became prime candidates for a large scale hydropower project. In the mid 1960's the Passamaquoddy element was dropped. The Dickey-Lincoln School Lakes Project was sited and planned on the upper St. John River in a remote, thinly populated corner of Aroostook County in northern Maine.

As proposed, this project consisted of two interdependent dams. The Dickey Dam is located immediately above the confluence of the St. John and Allagash Rivers, near the village of Dickey. The dam would impound a reservoir with a gross storage capacity of 7.7 million acre-feet for power and flood control. About 260 miles of streams, including 55 miles of the St. John River would be flooded to create the reservoir. Electric power generating facilities would provide a total installed capacity of 760 Megawatts (Mw) per year.

The site for the Lincoln School Dam is in the town of St. Francis. It would impound 67,150 acre-feet. The Lincoln-School Dam was proposed to counter the problem of extreme fluctuations in river flow caused by the intermittent
peak power operations of Dickey’s power plant. It would serve as a reservoir to regulate releases from the Dickey Dam and for use as power pondage. The Lincoln-School power facility would have a total installed capacity of 70 Mw/year.

The Dickey Dam would provide electricity to all of New England. The reservoir would require almost 130,000 acres. The Lincoln Dam would generate power exclusively for Maine, and would require 3000 acres. The proposed project was massive. It was planned as the largest public works project ever undertaken in New England.

Although the Dickey-Lincoln School project was going to be built by the COE, the main proponents of the project were Senators Muskie and Mitchell. They viewed the project as necessary to meet the energy needs of the region.

Opponents of the project included the Maine Natural Resource Council (NRC), summer residents, environmentalists, hunters and fishers. They criticized the Senators for being insensitive to the environmental impacts suggested by this proposal. The Senators, based in Washington, D.C., did not display any direct knowledge of the beauty of the area or why it is valued by so many people.

In 1978, a DEIS was produced by the COE. They sent the DEIS to the Chief Engineers in Washington for review. The review found that the DEIS had not adequately addressed several issues, including electricity rates, benefits to the state, and impacts to wildlife. In order to remedy these inadequacies COE contracted with other agencies and firms to
prepare the assessment on specific topics. This effort substantially improved the information and as a result, pointed out fundamental problems with the proposal.

The outcome of these studies appeared in the form of revised and supplemental revised DEISs. These documents made new information available and spurred public outcry against this project. The new information convinced EPA, DOI, and NRC that the project was unsound. As a result, Congress deauthorized the funding for the Dickey Dam. Although the Lincoln Dam was not deauthorized, it is unlikely that it would be constructed without the Dickey Dam.

The impact assessment for the Dickey-Lincoln School Dam proposal illustrates how technical information is used to inform decision makers about an environmentally damaging project. COE learned that a superficial analysis that appears to minimize impacts does not guarantee that the proposal will be approved.

Themes from Case Studies

The purpose of impact assessment is to guide decision making. As an informational process impact assessment is supposed to contribute to project definition. As a process, it brings together fragmented analyses into a coherent framework that is supplemented with public comments. Technical analysis and public criticism are intended to serve as resources to decision makers and direct them to make wise and sound decisions. A decision made after such a synthetic
and public oriented process, the theory goes, will protect environmental quality and promote the public interest.

Now, if all decisions that succeeded impact assessment processes were made in this public-spirited and future oriented manner we would, in effect, have NEPA and SEPAs, functioning precisely the way they were intended. In other words, the practice would be consistent with the theory. But from this small sample, alone, it is obvious that the connection between theory and practice, or impact assessment and decision making is not always made.

After a careful review of the case studies four dominant themes emerged. The themes that are continually illustrated by the case studies are:

(1) Project Definition. Impact assessment does not always play as much of a role in the early planning stages as was originally intended. Lead agencies tend to narrowly define their objectives and then, from their perspective, a narrowly defined project follows. By the time this information reaches the public’s ears the project is beyond the planning stages.

(2) Technical Information. Technical information should inform the impact assessment of a proposal. Instead, it either supports the proposal, because it is prepared by the proponent (who is understandably biased), or is secondary to the process because the public (and sometimes other agencies) have more fundamental questions regarding the project definition.
(3) Public Participation. One of the founding ideas of impact assessment is that it institutionalize a process whereby the public can have informational access to the assessment of a proposal, and have a formal opportunity to comment on the proposal and the impact assessment. The role that the public plays depends on legal mandates, the agency's attitude, and the public's resources. The standard formal hearing can be a frustrating experience for the public. Workshops are useful, but the agency is not obligated to abide by them. Few agencies will initiate the workshops themselves, but they do respond when they are suggested by an interested party.

(4) Learning. There is the potential for both the public and the lead agency to learn from impact assessment. Although parties may learn to act effectively within the process, it is doubtful whether learning carries over to the next impact assessment process.

The cases will be referred to by abbreviated titles:

- Criminal Court Facility, CT - Court Facility
- Big River Reservoir, RI - Big River
- Bay View Towers, Hull, MA - Bay View
- Siting Wastewater Facilities, MA - Boston Harbor
- Pyramid Mall, VT - Pyramid Mall
- I-93 through Franconia Notch, NH - Franconia Notch
- Dickey-Lincoln School Dam, ME - Dickey-Lincoln
Project Definition. Typically, impact assessment is required to be conducted early enough in the planning process so the project definition can respond to the findings. The objective is to contribute to the design of a proposal that will minimize environmental impact. Impact assessment was institutionalized to force agencies to "look before they leap". Contrary to this desired sequence of events, the cases show that most agencies are still making the decision to leap first and then do various degrees of "looking" after the decision has been made. This conclusion suggests that impact assessment is not fulfilling the visions of its creators.

Collectively, the cases show that lead agencies define their objectives so narrowly that only a similarly narrow project definition can meet them. In the case of the Big River Reservoir, the Water Resource Board (WRB) defined their objective as developing a major water supply system to meet projected water demands based on a constant upward growth in population. The project that met this objective, was defined as a new reservoir. Environmental and citizen groups contested both the objective, claiming that population growth trends had been considerably below the projections, and the project definition saying that conservation and groundwater supplies were reasonable alternatives to meet the same objective.

The Court Facility was also characterized by a rigidly defined objective and project definition. The State Judicial Department maintained an intractable position that new court
facilities were needed because the existing facilities were overcrowded and could not provide adequate security. The project was defined, primarily, by the fact that the Judicial Department owned a large parcel of land, contiguous on one side with the existing court house. The public objected to this project definition because the site also bordered on residential and historic districts. Because the objectives and project definition were so narrowly construed, the Judicial Department was only willing to discuss minor design modifications to the project. In fact, the only alternative that was given any mention in the Environmental Impact Evaluation (EIE) was the "no-build" option. As an alternative, "no-build" was quickly dismissed because it did not meet the objectives.

Rigidly defined projects also tend to inhibit the lead agency's consideration of creative solutions that could meet their objectives. Two cases illustrate this point; Boston Harbor and Franconia Notch.

Since the objectives in Boston Harbor have been construed in terms of the need for one treatment facility to manage sanitary and storm wastewater for the region the consideration of creative and potentially less objectionable alternatives have been precluded. The communities of Quincy and Winthrop, one of which will serve as host to the new facility, are vehemently opposed to bearing the health, economic and aesthetic burdens for the entire region.

The project proponents, the EPA and MDC, under the
pressure of several law suits are convinced that adhering to the centralized regional facility is the most expeditious way to bring the pollution of the Harbor under control. In this race, they refuse to consider decentralized or "satellite" treatment facilities, ways to reduce peak storm water flows (which are frequently the cause of overflows and the discharge of untreated sewage into the Harbor) or creating a new island on which to locate the facility. The proponents may concede that there is merit to the alternatives, however, having spent years trying to remedy the abhorrent water quality problem it is too late to reconsider some of the alternatives that were ruled out at a much earlier date.

Franconia Notch provides a refreshing example of a case that was initially characterized by narrowly defined objectives (extension of I-93 through Franconia Notch) and project definition (a 4-lane highway). Through the process of a negotiation that brought the disputing parties together a creative solution was reached through consensus.

The outcome of the negotiation profoundly influenced the project definition, while still meeting the interests of all parties. From DPWH's perspective the extension of I-93 through Franconia Notch was a key part of the larger segment of I-93 that runs through New Hampshire. Because AMC and their supporters had so adamantly argued that the unique qualities of the Park should be protected, they won an injunction halting construction on the northern third of the Interstate. Therefore, DPWH not only wanted to improve the existing road through Franconia Notch, but they also wanted
to insure that I-93 ran continuously through New Hampshire. AMC, on the other hand wanted to protect the unique qualities of the Park and improve visitor amenities.

The project definition that was reached through the negotiation and which met the interests of all parties was a 4-lane divided interstate to the north and south of Franconia Notch. The road progressively narrows to 2-lanes through more sensitive portions of the Notch. The agreement also gave the AMC a formal role to monitor construction activities through the Notch in order to insure that environmental impacts are minimized.

Another case that illustrates a narrowly defined objective and project is the Pyramid Mall case. This case differs from Big River, Boston Harbor, and Franconia Notch because the project proponent was a private developer and the proposal received a thorough review from the outset. Although the application for the Act 250 permit was denied, the project definition did respond to the evaluation of forecasted impacts.

It is the Act 250 permit process, itself, that sets the Pyramid Mall case apart from the others. Act 250 defines "statutory" parties to each permit review which include; the applicant, regional, state, and local agencies, adjoining land owners and other parties that may be admitted at the discretion of the District Commission.

In part because of the nature of private development companies, and in part due to the structure of a permit
process, the Pyramid Company presented a completed project for review under Act 250. Following a judicial model, the District Commission heard testimony and evidence from all statutory parties and their expert witnesses. The Commission then had to synthesize and balance the arguments of all statutory parties. In the process of this review, the Pyramid Company modified the project definition although the permit was ultimately denied. The unique review process of Act 250 allowed the Commission to look before they allowed the Pyramid Company to leap.

Reflecting on the cases of the Court Facility, Big River, Boston Harbor, Franconia Notch, and Pyramid Mall in terms of project definition several conclusions emerge. First, agencies perceive their objectives within a very narrow context and project are defined accordingly. Second, agencies are apprehensive to consider alternatives and creative solutions because they anticipate that it will slow the process or diminish their control of the project. Third, a review process that invites discordant analyses and balances them is more likely to result in a thorough analysis even when the project has been very narrowly defined.

Technical Information. The role and degree to which technical information affected the impact assessment process in the cases varied. The case studies show that the debate concerning the quality of technical information and analysis was subordinate to the public's acceptance of the project definition. Most of the projects that form the basis of the
case studies involved large-scale development proposals. As a result of the size and complexity of these projects, their respective proponents tended to produce a wealth of technical information. Although in most cases this information was circulated, when the project definition was controversial little attention was given to the analysis.

In the case of Big River, the public was primarily concerned with how the WRB had defined the project, i.e. building a massive reservoir to provide water for Rhode Island through 2030. Members of the URI’s Community Planning and Area Development program conducted a series of public workshops. The purpose of the workshops was to inform the public and identify their concerns. The issues raised and their order of importance illustrates that technical information was secondary since the merits of the project were publicly suspect. Of the five areas of concern that were raised, the first and most important was “needs assessment.” The public wanted a justification for this seemingly unnecessary project. Second on the list of concerns was that other alternatives should be more fully explored. Environmental, social, and economic impacts, which are typically addressed with technical analytical tools were fifth on the list.

The COE was primarily responsible for the planning and design of the Big River Reservoir. Since the viability of this project was dependent on Congressional appropriation of funds there was little incentive to be accountable to public
concerns.

The Court Facility also illustrates the minor role that technical information plays when the project is essentially predetermined prior to the impact assessment. Although the Judicial Department responded to community concerns regarding traffic and parking, noise, and air quality impacts (which necessarily lend themselves to technical analyses), their efforts to mitigate these impacts resulted in only minor changes to the project definition. The technical analysis was, in fact, used to demonstrate that impacts would be minor. The public was skeptical of the credibility of the analysis and remained concerned about the project definition.

An interesting reversal of roles in terms of technical analysis is seen in the Boston Harbor case. As opposed to the proponent making a protracted effort to demonstrate the project's feasibility with technical information, in this case, the public is requesting technical analysis and the proponent has refused to produce it.

The lead agencies (EPA and MDC) made the decision to conduct the impact assessment process for the wastewater treatment facility as a series of smaller, clearly defined steps. The SDEIS/EIR that is being prepared by the lead agencies exclusively address the siting of the facility, as distinct from the social and environmental impacts of the facility once it is sited and constructed.

In the case of Boston Harbor, the segmentation of the impact assessment process has produced an atypical situation where the public wants more technical analysis than the
The role of technical analysis played an interesting role in the Dickey-Lincoln case. Public opposition to this case was initially framed in terms of questioning the objectives and the justification for this colossal hydropower project. Regardless of this public sentiment, the COE proceeded with the design of the dual dam system and produced a DEIS. The COE submitted the DEIS for review to the Office of Chief Engineers. The review concluded that the DEIS failed to adequately address several issues such as electricity rates, benefits to the state (for providing a regional service) and impacts to fish and wildlife. In order to remedy these deficiencies, COE contracted with agencies who had expertise in these topics. The revised DEIS was so thorough that it enabled the public to use the technical analysis as a sound basis for opposition.

The Dickey-Lincoln Dam was initially opposed because of the general imbalance of state versus regional impacts and benefits. The revised and improved technical analysis ultimately convinced Congress of this imbalance. Congress deauthorized the proposal based on the forecasted impacts.

Technical issues were important in the Bay View case. Since the site for the highrise was located on a barrier beach, the developer had to, first, receive a variance from the Gubernatorial Executive Order protecting barrier beaches. Technical analysis played a very important role in the decision to grant the variance. Issues that were addressed
included whether the salt marsh and clam flats could be successfully relocated and whether the prospective tenants (elderly and handicapped) would be endangered during storm and flood conditions. However, it was not technical issues that brought this proposal to a halt. General lack of confidence in an evacuation plan for the tenants eventually caused HUD to withdraw funding for the project. The feasibility of the project became increasingly uncertain from that point.

Perhaps the common theme among the cases in terms of a diminished role for technical analysis follows from the fact that these materials are prepared by the project proponent. The public, perceiving this information as biased in favor of the proposal has learned not to depend on this information as a scientific or critical assessment of the project.

Additionally, the cases show that the public tends to be the only advocate for including the assessment of qualitative or non-technical issues in the process. In the early stages of Franconia Notch, environmentalists were trying to convince DPWH that Franconia Notch is a unique and publicly valued area. The DPWH barely heard this as they continued to restate their objective of completing the interstate system through New Hampshire. Through the course of the negotiation environmental values were eventually incorporated into the project definition.

Dickey-Lincoln Dam also highlights the conflict between quantitative and qualitative concerns. The St. John River, where the dams would be located, is valued by local and
summer residents, recreationists, and sport hunters and fishers. As a group, they were annoyed that the Washington-based proponents, "wouldn't know the front end of a trout from the back".

As the lead agencies of impact assessment strive to improve the technical aspects of their analysis, the non-technical aspects are systematically underemphasized. Perhaps because these issues do not easily fit into the traditional language and format of an EIS, project proponents choose to ignore them. However, as illustrated by Franconia Notch and Dickey-Lincoln, these are often the most important issues to the public.

Both technical and non-technical analysis have the potential to play a more important role in impact assessment. This role remains limited as long as the public perceives the analysis as biased or blind to the issues which they consider to be key.

The preparation of an impact assessment for a project should include dialogue between the public and the lead agency in the early planning stages. Lead agencies need to acknowledge competing value systems when evaluating impacts. They may find that not only is their project definition flexible enough to respond, but by addressing non-technical issues as thoroughly as they do the technical, the public may be willing to play a cooperative role in the impact assessment process.
Public Participation. Impact assessment is not only a device to study a proposed project and forecast the impacts of a proposal. It also provides an important source of information to the public regarding impacts which are of concern to them. The federal and state mandates typically require a scoping process (to which the public may or may not be invited) and a public hearing after the DEIS is written. The role that the public actually plays in impact assessment depends in part on the requirements of the impact assessment legislation, the degree to which the lead agency welcomes the public, and the public's access to financial resources.

The proposal for Bay View Towers was not reviewed under an impact assessment process per se. Because the development of Bay View required filling a salt marsh and relocating clamflats, DEQE required the developer, to get a variance from the Gubernatorial Executive Order protecting these ecosystems. The forum for this variance was an adjudicatory hearing attended by the developer, CZM, and DEQE. The public was not involved in this phase of the impact assessment.

The most active public participation was seen after the developer had managed to jump through the whole complex of regulatory hoops and financing was the only issue to be resolved. Lead by the MACC, a letter writing campaign to HUD impressed on them the ecological damage and public hazard of this project. Funding was eventually withdrawn. Therefore, even without a public forum, the public influences the impact assessment process.

Boston Harbor and the Pyramid Mall are cases where the
lead agency invited the public into the impact assessment process. In the Boston Harbor case, the EPA, realizing that siting a wastewater treatment facility was a regionally controversial issue hired Barry Lawson Associates (BLA) to coordinate the public participation program. The program included the creation and facilitation of a Citizens Advisory Committee (CAC). The CAC was composed of representatives from Quincy and Winthrop, environmental groups, industry and individual citizens. In addition to their own meetings, CAC has met with the EPA and the Technical Advisory Group (TAG) which is made up of state and federal agencies.

BLA also coordinated public workshops to facilitate a focused discussion of the issues posed by this project. A series of community meetings were held to present work-in-progress and to explain options under consideration by the lead agencies.

In this case, EPA took the initiative to provide a forum for public participation. Information was made available and interested parties could get direct answers to their questions. Officials have been impressed with the level of sophistication and the constructive attitude with which the public has brought to this impact assessment process.

Similarly, the Pyramid Mall case, as a result of Act 250's automatic inclusion of statutory parties, provided direct access to elected and appointed officials, private organizations, and citizens. In this case, all parties presented information and gave testimony, all of which became
part of the formal record. Through the hearings, the parties had access to the same information and could publicly and formally contest each others’ findings. Additionally, the hearings were always open to the general public.

The generous invitation to the public that was seen in the Pyramid Mall case is an institution of Act 250. Although the Boston Harbor case has a public participation component, it was a created at the discretion of EPA. True, CAC has access to information and key actors, the degree to which they will actually influence the siting decision remains to be seen.

The Court Facility, Big River, and Franconia Notch are cases where the lead agency was not particularly interested in involving the public but they (eventually) responded to external suggestions that they should provide a forum for public debate.

Connecticut’s Judicial Department was approaching the final design phase of the Court Facility after a twenty-year history. The Hartford Architectural Conservancy (HAC), concerned about the imminent demolition of several buildings within the Frog Hollow Historic District, voiced their concerns and the concerns of the abutting residents to the state. HAC suggested that the state sponsor a public workshop. In the workshop, the public recommended design modifications that would leave certain buildings in tact and respect the residential character of the area. The public knew the role they could play was limited since the project had already been very narrowly defined. However, the
mitigative measures that were identified through the workshop were incorporated into the project definition.

In Big River, the graduate program in Community Planning and Development at URI submitted a proposal to the COE to design and conduct the public participation component of the feasibility study. The first phase of this program included three workshops to identify major issues and to facilitate the discussion of these concerns. The second phase reviewed the preliminary plans and the DEIS. Despite URI's good intentions, there are no indications that the public workshops had any bearing on the proposal or decision to proceed with the project.

DPWH, the proponent of the Franconia Notch case, was not responsive to the public's request for access to the process until a court-ordered injunction had stopped construction on part of the project and New Hampshire Representative Cleveland appointed Administrative Aide Joslin to facilitate a negotiated agreement to this mounting dispute. In the end, the negotiation was successful and a consensual agreement was reached. The agreement became the basis for a legally binding and enforceable memorandum of understanding.

The Court Facility, Big River, and Franconia Notch illustrate public participation components that became part of the process despite the proponent's reluctance. The Court Facility and Franconia Notch are two cases where these efforts were successful; the Court Facility within limited bounds, and Franconia Notch through a far-reaching and
enforceable agreement.

The public's access to resources can affect the degree to which they can influence an impact assessment process. In the case of Franconia Notch, the AMC and SPNHF, each with a large membership pool from which to draw both support and funds were able to bring suit against the DPWH. Similarly in Boston Harbor, the city of Quincy was able to mobilize and raise funds that were necessary to sue the MDC for polluting the Harbor. In the Court Facility case, the residents did not have access to the kind of resources that would be required to either bring suit or hire their own consultants. Instead, through Hartford Area Rally Together (HART) an umbrella block club organization, they began to work with the city to protect their neighborhood by downzoning the residential-office zone to exclusively residential.

Time and money are important resources when the public is trying to get involved in a process for which they have received no invitation. When the public has the resources they tend to turn to litigation although there are other channels that may be more efficient in terms of resources and meeting their interests.

The majority of cases illustrate that when the public is able to make substantive comments about a proposal they command the respect and attention of the lead agency. Slowly, lead agencies are finding that substantive comments by the public can help to improve the project definition and produce a stable outcome. The traditional view has been to
keep public participation to a minimum lest the agency lose control of the project. Lately, they have been more willing to give the public a real role when the process is managed and facilitated by professionals. This phenomenon is seen in Boston Harbor (BLA), Franconia Notch (Administrative Aid Joslin), and Big River (URI).

All of the cases, with the exception of Bay View and Pyramid Mall (and their particular review processes) were characterized by public workshops. In general, these workshops were used to present and discuss the project definition, and to discuss the views and interests of the public and proponent. Across the cases people found workshops to be useful and an important source of information. Comparatively, formal public hearings were considered to be frustrating and intimidating.

Since the public is affected by the proposals reviewed under impact assessment process they should have a voice in the design and outcome of the proposal. Government has a history of being uncomfortable with public participation. They seem to fear that opening the process to the public will challenge their role as the lead agency.

Lately, lead agencies have been becoming more responsive to suggestions from outside their office to conduct informational public workshops. Based on the review of these cases, lead agencies are repeatedly impressed with the serious attitudes and constructive comments that characterize the public's participation.
When people are given a genuine role in the impact assessment process they are more likely to perceive the process as legitimate. Lead agencies should view the public as an informational resource. They can provide important information based on their interests, values, and familiarity with the area. Their participation can lend legitimacy to the process, i.e. that it was conducted in a fair and open manner. Finally, public participation is important to a long-term stable outcome of the impact assessment process.

**Learning.** In a retrospective analysis of impact assessment it is important to ask whether government, at the state and federal level, private organizations, and individual citizens are "learning" from their experiences with impact assessment. This question needs to address whether the experience of having been involved in an impact assessment process leads to better impact assessment in the future. This experience should enhance effective public action and produce decisions which are perceived as wise, legitimate and sound. Ideally, learning should occur within a particular impact assessment process, and this new knowledge should extend to the next process.

Reflecting on the array of cases considered here the majority of them have been characterized by learning. There is no apparent correlation between the year in which the impact assessment was conducted or whether it was a state or federal mandate that required the impact assessment. The cases which provide the most illustrative examples of
learning are; Franconia Notch, Court Facility, Dickey-Lincoln and Pyramid Mall.

The environmental groups that were involved in Franconia Notch learned, through their dedication to preserving the environmental qualities of Franconia Notch, that they were able to shape the outcome of the process. They organized public support and refused to be excluded from the impact assessment process. They learned that litigation was an effective means to bring the project to a halt and, as a result, force the DPWH to be accountable. Although their lawsuit was considered to be a victory, a longer lasting and perhaps more meaningful experience was gained through their participation in the negotiation. As a result of the negotiation they learned that they can work cooperatively with the lead agency yet still have their interests met. Also, through the negotiation they were given a formally recognized role as an enforcer of the agreement.

The DPWH also learned but perhaps more reluctantly. It was not until after the injunction that DPWH was ready to listen and respond to the environmental groups' concerns. Ultimately, their decision to proceed with the extension of I-93 responded to the impact assessment process. The changes that were made to the DEIS as a result of the negotiation are evidenced in the FEIS.

The Court Facility case can also be discussed in terms of the learning that it fostered. The residents learned to work with government officials. Even though the range of
alternatives were limited to design modifications, they worked to make the project acceptable given these limitations. Additionally, they learned that they can go outside of the impact assessment process, i.e. the rezoning effort, to effectively mitigate the impacts of the project.

The state, particularly the DAS and the BPW (that oversaw the preparation of the EIE) considered themselves to be "learning clients" as they made their way through the requirements of CEPA for the first time. They made an effort to accommodate the public’s concerns, and have since used this case as a model for other impact assessment processes.

Dickey-Lincoln is an example where Congress’ decision to finally deauthorize the project responded to the impact assessment process. In general, the public was against the project and were pleased when Congress decided that it would no longer receive active consideration. They learned that technical information can be used to reach a wise decision.

The COE, on the other hand, learned that a superficial analysis, or one that omits important issues, will not necessarily lead to the approval of a project simply because the impacts "appear" to be minor. In this case, it was the COE’s own review arm that pointed out the deficiencies.

The Pyramid Mall case showed the strength of Act 250 and how communities can use the permit process to provide a rational basis for protecting economic stability, community character, and the natural environment. Everyone involved in this case learned that the Act 250 permit process is flexible enough to handle complex applications even when they are
controversial and accompanied by a wealth of evidence.

Of the cases that are the basis of this analysis, several can be discussed in terms of learning on the parts of the public and the lead agency. Based on the information that was available during the research phase of this study there is no evidence that these instances of impact assessment learned from previous impact assessment processes. The Court Facility seems to be the only case where these experiences were applied to other processes. Learning does not seem to extend beyond the individual case. There is a lot of room for experiences and knowledge that have been gained to be applied to future impact assessment processes, and thus, allow the processes to "learn" from each other.

Conclusions

The value of a retrospective analysis is in the lessons that can be extracted from it and applied to future actions. With respect to the analysis of the role of impact assessment in environmental decision making in New England these lessons come from the comparison of the ideal model to the real model as illustrated by the case studies. Returning to the four themes of project definition, technical information, public participation, and learning, the case studies show there is a gap between the ideal and real models.

Ideally, project definition should respond to the impact assessment process. In practice, however, the project is usually defined well before impact assessment commences.
Additionally, since projects are essentially defined before the process begins little attention is given to the consideration of alternatives. A public workshop held prior to the scoping process could help to identify other projects that could meet the lead agency's objectives. A pre-scoping workshop would, therefore, identify a realistic set of alternatives and provide a forum for public input in the early planning stages of the project.

Technical information is important to forecast impacts and identify mitigation measures, both of which should affect the project definition. However, when the public has not been convinced that the project definition is wise they tend to disregard the technical information. An ongoing dialogue between the lead agency and the public is necessary to ensure that the technical analysis adequately addresses the relevant issues and responds to the public's concerns.

The importance of meaningful public participation in the impact assessment process cannot be overemphasized. One of the founding ideas of impact assessment is that it should provide access and information to the public. However, the conventional public hearing that is held between the Draft and Final EIS does not give the public an opportunity to ask questions and have them answered while there is still time to influence the project. Public workshops serve this function quite well. Participants in workshops tend to come with constructive attitudes and they are anxious to express their interests and concerns. Lead agencies should make full use of this forum to ensure that the project definition and
technical analysis reflects both their needs and the publics'.

Finally, if we are to be optimistic about the future of impact assessment, learning must be built into the process. The opportunities and obstacles that characterize a single impact assessment process should be recognized as important lessons that can be applied to improve the next process. Lead agencies can learn to meet their needs in ways that are least objectionable to the public. Similarly, the public can learn to work with the lead agency rather than resort to litigation. Impact assessment should be a learning process and not merely the documentation of a decision that was already made.

I would like to make a proposal that could conceivably close the gap between the ideal and real models of impact assessment. This recommendation involves a non-partisan convenor who would facilitate public workshops, serve as a liaison between the lead agency and all other interested parties, document the process, and monitor and enforce the findings of the EIS. The convenor is also the agent that brings the lessons from one process to the next.

Offices staffed with trained facilitators who possess substantive knowledge in impact assessment will be established at the federal and state level. The office is notified when a proposal is subject to NEPA or a SEPA. At this earliest stage, the convenor meets with the lead agency to discuss this proposal and other impact assessment
processes that are instructive.

Next, the convenor organizes and facilitates public workshops to generate alternatives, discuss important issues, and identify interested parties. The convenor facilitates the collaborative production of a single text that records the conclusions of the meeting. As with all of the documents that are produced during the impact assessment process, the lead agency will receive a copy.

Although the lead agency is encouraged to attend the meetings, the success of the process does not depend on it. Throughout the impact assessment process the convenor acts as a liaison between the lead agency and the workshop participants.

When the preferred alternative is identified, a similarly structured scoping workshop is held. The public identifies issues and parties, and can request additional information. Again, the convenor facilitates the production and circulation of a single text, that is given to the lead agency.

The convenor conducts other informational workshops commensurate with the complex or controversial nature of the proposal. At least one workshop will address the adequacy of the Draft EIS. The lead agency will receive the documentation and analysis of the workshops early enough so the findings can be incorporated into the Final EIS.

After the Final EIS has been written, the public will review it and comment on whether their concerns were
adequately addressed. The convenor will include these comments in a final report to the lead agency that documents the process and the lessons that have been learned. The final document provides the key to better impact assessment processes in the future. The convenor also has the responsibility to monitor forecasted impacts, insure that mitigation measures are carried out, and enforce any agreements that have been made in the process.

The lead agency signs the final document and can make written comments on the adequacy of the convenor’s report and analysis. This document is then filed in the convenor’s library which is open to the public.

In conclusion, a non-partisan convenor who documents the impact assessment process and serves as a liaison between the lead agency and the public would help to close the gap between the ideal and real models of impact assessment. The role and duties of the convenor would ensure that the project definition is shaped by the impact assessment process. Technical information informs the project definition and responds to public concerns, a forum for dialogue is created between the public and the lead agency, and finally, that the knowledge gained from one impact assessment process is applied to the next.
APPENDIX A: APPROACH

Given the time constraints of this study, it was necessary to bound the scope geographically and chronologically. The six states comprising New England limited the study area because they offer diversity in terms of their natural environments and legal mandates for impact assessment, yet are still recognized as a region. The decision to conduct a retrospective analysis over the past decade was made to keep the sample diverse yet allow trends to emerge. Case studies were chosen as the most useful illustrative device for the multi-party and multi-issue examples of impact assessment.

Rather than unilaterally and randomly choosing a group of impact assessment processes that fell within the boundaries, I decided that it would be more interesting to use examples that environmental professionals in New England considered to be the most interesting.

Since time was limited, a focused sampling procedure was undertaken. Every year, the Lincoln-Filene Center for Citizenship and Public Affairs at Tufts University sponsors the New England Environmental Conference. The Conference is widely attended by environmental professionals that practice in New England. Many of the agencies and organizations that attend the Conference act as co-sponsors with the Lincoln-Filene Center. The Lincoln-Filene Center publishes a list of co-sponsors which, in 1984, included approximately 150 regional, state and local government agencies, private organizations, and academic institutions. This publication
was obtained and all listings were contacted with the exception of several organizations whose charter included a single issue, or whose goals bore no apparent relation to impact assessment. The remaining entries were contacted by telephone. I explained that I was preparing to mail a questionnaire about impact assessment and environmental decision making in New England, and asked whether there was someone in the office that could respond. A questionnaire and cover letter was addressed and mailed to these individuals in January of 1985.

Questionnaires were sent to 106 individuals. These individuals were asked to, "...list projects, programs, or policies that stand out in your mind as having the greatest impact (either positive or negative) on environmental quality in New England." They were also asked to answer a few general questions regarding impact assessment. The instructions that accompanied the questionnaire explained that I would call them within a week to get their response.

The intention behind this strategy was to make responding to the questionnaire effortless for the recipient and ensure that I received a response. By the time I called, the respondent had either written her answers to the questions; read and thought about the questions; or just read them. Sometimes the individual that was initially contacted was not available to respond. In this situation, I asked if someone else in the office could answer the questions, and accepted their answers. Several respondants filled out the
questionnaire and mailed it back to me. Overall, responses to the questionnaire varied from having been preceded by a considerable amount of thought to off-the-cuff answers.

The wide range of responses to the (first) question was unexpected. It was anticipated that ten to fifteen specific projects would clearly be established as the modal responses. Instead, 130 different answers were received. This range is, in large part, attributed to the phenomenon that respondents tended to answer this question from their own experiences.

Despite the variety of answers, ten generic categories emerged. The categories and frequency of response are:

1. waste management (46)
2. water quality (50)
3. energy (40)
4. land use (31)
5. transportation (14)
6. wetlands (17)
7. coastal zone (13)
8. acid rain (8)
9. air quality (9)
10. miscellaneous (17)

Acid rain, air quality, and miscellaneous were later eliminated from further consideration. Although acid rain is a particularly important issue in New England, since the technical analysis is still in a formative stage and there is a general lack of agreement regarding cause and effect linkages, it was not considered to be suitable for a case study.

Similarly, air quality is an important issue, but the survey identified very few specific examples that could be used for a case study. However, air quality is addressed in several of the case studies that were selected.
After the elimination of these three categories criteria were identified to select the case studies from the remaining seven categories. The criteria that were used to determine the case studies are:

1. There should be at least one case from each of the six New England states.
2. Collectively, the cases should span the ten-year time period.
3. Since Connecticut, Massachusetts, and Vermont have state environmental policy acts, cases from each of these states should be projects that were reviewed under these laws.
4. The specific project was mentioned in the survey.

The projects that met these criteria became the basis for the case studies. The cases are:

1. The Criminal Court Facility
   Hartford, Connecticut
   Connecticut Environmental Policy Act
   Approved 1982 - Construction

2. Big River Reservoir, Rhode Island
   National Environmental Policy Act
   Approved 1979 - Awaiting Congressional Authorization

3. Wastewater Treatment Facility Siting
   Boston Harbor, Massachusetts
   Massachusetts Environmental Policy Act
   National Environmental Policy Act
   In Progress 1985

4. Bay View Towers
   Hull, Massachusetts
   Massachusetts Coastal and Wetlands Regulations
   Withdrawn 1980 - Lawsuit Pending

5. Pyramid Mall
   Chittendon County, Vermont
   Land Use and Development Act (Act 250)
   Permit Denied 1980
6. Extension of Interstate 93 through Franconia Notch
Franconia Notch State Park, New Hampshire
National Environmental Policy Act
Approved 1979 - Construction

7. Dickey-Lincoln School Lakes Dam
Aroostook County, Maine
National Environmental Policy Act
Rejected 1978

The selection of the specific case studies was intended to provide an interesting array, through time and space, of impact assessment processes. Yin is instructive when he says, "...case studies, like experiments are generalizable to theoretical propositions and not to populations or universes. In this sense, the case study, like the experiment does not represent a "sample," and the investigator’s goal is to expand and generalize theories (analytic generalization) and not to enumerate frequencies (statistical generalization)."4

The selection of cases was not intended to represent the most important projects in each state, nor were they intended to represent the most important examples of impact assessment in New England. First of all, "most important" is a subjective judgement, and secondly, an attempt to address the most important examples would require the number of cases to be increased several times over which was not possible given the time constraints of the study.
Environmental Impact Assessment Review is a quarterly journal designed to bridge the gap between theory and practice in the field of impact assessment. Readers of Environmental Impact Assessment Review generally include planners, engineers, scientists, and administrators involved in the practice of impact assessment.

In addition to the three regular issues per year we also produce an annual thematic issue. The theme of this year's special issue is, "The Role of Impact Assessment in Environmental Decision Making in New England: A Ten Year Retrospective." In this issue we will explore how state and national regulatory requirements have affected environmental decision making and what role these requirements have played in minimizing adverse environmental impacts in New England.

Since you are knowledgeable of key environmental decisions which have been made in New England over the past decade we are interested in your views on the subject. Please take a few moments to complete the attached questionnaire. We are sending this questionnaire to a carefully selected group of individuals, agencies, and organizations throughout New England. We will use your completed questionnaire to identify New England's most important environmental decisions. These decisions will become the basis for several case studies which will appear in the special issue.

I will call you within the week to discuss your responses to the questionnaire. Please do not hesitate to call me if you have any questions.

Thank you for your help.

Sincerely,

Lisa Berzok
Special Editor
THE ROLE OF IMPACT ASSESSMENT IN ENVIRONMENTAL DECISION MAKING IN NEW ENGLAND

This is a survey conducted by Environmental Impact Assessment Review. We will call you between 1/21/85 and 2/1/85 to discuss your responses to this questionnaire. For further information contact: Lisa Berzok, Special Editor (617) 253-1367.

The purpose of this questionnaire is to help us identify the most important environmental decisions that have been made in New England over the past decade. We are interested both in decisions that resulted in new projects, policies, or programs as well as decisions that prevented change from occurring.

I. Please list a few of the projects, policies, or programs that stand out in your mind as having the greatest impact (either positive or negative) on environmental quality in New England over the past 10 years.

—please note the state, proponent, and year if you are familiar with the details.

1.
2.
3.
4.
5.

II. Do you think that the decision to proceed or not with these projects, policies, or programs listed above were based on (a) the best technical/scientific analysis and (b) adequate public participation/attention to public concern? (answer in space provided below)

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APPENDIX B: CASE STUDY
Criminal Court Facility, Hartford, Connecticut

Background

Like many states, Connecticut passed its environmental protection act in the early 70's. During these years, the beginning of the environmental decade, there was a state-wide interest in protecting the quality of the environment.

The legislative mandate for environmental protection in Connecticut comes from two pieces of legislation, the Connecticut Environmental Protection Act of 1970 and the Connecticut Environmental Policy Act of 1978. The latter is commonly referred to as, "CEPA".

The Environmental Protection Act gave individual citizens standing to sue to protect the environment. This Act has been called the "private action" or "citizen action" Act. Michigan passed the first citizen action act and was the model for Connecticut's Act.

The second piece of legislation, the Connecticut Environmental Policy Act (CEPA) of 1978, follows the example of the National Environmental Policy Act. CEPA was intended to supplement the Environmental Protection Act with a formal review of the impacts associated with the state-sponsored projects. The policy statement for CEPA announces, "It is now understood that human activity must be guided by and in harmony with the system of relationships among the elements of nature. Therefore the general assembly hereby declares that the policy of the state of Connecticut is to conserve, improve and protect its natural resources and environment and to control air, land and water pollution in order to enhance the health, safety and welfare of the people
CEPA requires all state agencies initiating actions that may "significantly affect the environment" to produce a written evaluation of its environmental impact before deciding to proceed with the proposed action. The written statement takes the form of an Environmental Impact Evaluation (EIE). While several state agencies play a role in reviewing the EIE, the Office of Policy and Management (OPM) has the ultimate responsibility of reviewing the EIE for procedural compliance and determining whether the EIE has responded to the issues that have been raised during the comment period. The OPM documents this review in a "record of decision".

The Project

As early as 1964, the State Judicial Department has been planning to site and construct a new Criminal Court Facility in Hartford’s Capitol Center District. The site for the facility comprises most of the block bounded by Russ, Lafayette, Grand and Oak Streets. Prior to construction, much of the site was used as a parking lot. The history of this project is punctuated by master plans for the Capitol Center District, state acquisition of properties in this block, several site plans, and a state-sponsored community workshop (see attached chronology).

At this writing, construction of the new Criminal Court Facility is nearly complete. Designed as a 5-story 120,000 square foot building, it will be connected to the existing
state courthouse by an overhead pedestrian bridge. Parking space will be provided for 520 cars. The landscape element for the site includes shade trees and raised planting beds.

The Judicial Department's need for a new Criminal Court Facility was not a point of contention. The Hartford-New Britain Judicial District handles the heaviest case load in the state judiciary, a case load which continues to increase. Between 1978 and 1981, Type A criminal cases increased by 24%. The existing facilities simply were not designed to handle this volume of cases and are described as, "...overcrowded, security provisions are deficient, cell block design is obsolete, and basic amenities for the public, attorneys, witnesses, jurors, litigants and court personnel fail to meet minimum and and/or acceptable standards."11

Currently, the functions of the Hartford-New Britain Judicial District are carried out at two locations; one at Washington Street and the other at a city-owned building at Morgan Street. These buildings are separated by approximately one mile.

Siting the new building just on the other side of Lafayette Street from the existing court house would allow the buildings to be physically, as well as visually, connected. The EIE emphasized three key benefits to the skywalk: (1) an economy of staff and jury pool could be achieved; (2) the economy of staff and jurors would serve to mitigate traffic and parking impacts; and (3) during inclimate weather people could avoid going outside in order to travel between the two buildings.

The Judicial Department plans to vacate the city-owned
Morgan Street building upon completion of the new facility. Since the state is exempt from local taxation, the city is anxious to regain control of the building and return it to the Grand List.

CEPA requires an EIE to evaluate the costs and benefits of a proposed state action. The cost benefit analysis in this EIE relies on the abovementioned improved security and convenience of the new facility and the return of the Morgan Street building to the city in demonstration of the project’s feasibility.

Alternatives

Under CEPA, state agencies are required to consider alternatives to the proposed action. However, prior to this impact assessment process the project had already been fundamentally determined by three factors; (1) the Department had clearly demonstrated a need for the new facility; (2) the state already owned most of the property in the block bounded by Russ, Lafayette, Grand and Oak Street; and (3) the consideration of alternative sites was equated with the no-build alternative.

The no-build scenario assumed the Judicial Department would vacate the Morgan Street building without another building in Hartford to replace it. Therefore, this scenario included the loss of courtrooms and staff offices, and would require prisoners to be transported to outlying areas with available court facilities. This scenario would aggravate
the court's backlog and security problems and was, "... not considered a viable solution to the critical need for judicial facilities in the Hartford area."

The alternatives that were considered (identified as schemes A-L) in this impact assessment process were basically siting and design variations of the facility at the Lafayette Street site. The alternatives are distinguished by whether the building would be square or rectangular, the respective placement of the building, parking and security yard, and whether Lafayette Street would be closed to traffic.

Goodkind and O'Dea, Inc. updated their 1979 traffic study to determine the impacts from closing Lafayette Street. They did not recommend any alternative that included closing Lafayette Street because of the traffic and parking problems it would create.

In 1981 scheme J was chosen because it best satisfied the requirements regarding:

1. Viable traffic flow.
2. Adequate parking for the new court and replacement of existing parking.
3. Minimum disruption of adjoining neighborhoods to the West and South.
4. Design compatibility to adjoining residential-office-commercial neighborhoods to the West and South in the Historical District,
5. Design compatibility to adjoining civic-commercial-institutional neighborhoods to the East and North.
6. Visual strengthening of the civic plaza to the North of the existing courthouse extending to the Capital Building and providing an appropriate visual transition from public and large scale to small scale areas which interface at Layfayette between Russ and Grand Streets.
Scheme J included a square building at the northern part of the site with a pedestrian bridge connection to the Washington Street facility. Decked parking would be provided on the north and south sides of the building with surface parking at Grand Street. The security yard was located at the northern part of the site.

A minor revision to scheme J connected the two upper level parking lots. The purpose of this change was to allow for better traffic flow. Renamed as scheme L, this alternative was reviewed and approved by the Judicial Department and was adopted by the Capitol Center Commission on March 11, 1981.

Land Use and Conflicts

The area immediately surrounding the site can be described by the juxtaposition of four districts and the interaction of their users. The districts are: the Capitol Center District; a residential neighborhood; an office zone; and an historic district. The conflicts among these land uses are common in urban areas where development pressures and competition for space are keen.

The Capitol Center District is the location of many of Connecticut's state government offices. The District is characterized by office buildings, the ornamental State Capitol Building, and manicured lawns. The area is clearly legible as a civic center. As noted above, the site of the new Criminal Court Facility is located at the southwestern corner of the Capitol Center District across the street, on
one side from the state court house, and on the other, abuts a Residential-Office zone. Throughout the history of the project, the state has acquired the larger portion of land on this block.

A largely hispanic residential area borders the Capitol Center District to the west. The quality of the housing stock in this neighborhood is mixed; some is well maintained or recently improved, while some is abandoned and in serious disrepair.

The voice of the community was, for the most part, articulated by the Hungerford Block Association and Hartford Area Rally Together (HART). In recent years, the residents have been actively defending their identity as a neighborhood against the growing trend of residential conversions to law offices. Many law firms, in order to be close to the court house have bought inexpensive housing units in this area for their offices. With only a 1-2% housing vacancy in Hartford the conversions continue to remove well needed housing stock from the market and encourage speculation pressures on the existing residents.

An important victory for the neighborhood was won in 1979 through their work with the City Planning Department to down-zone parts of the neighborhood from Residential-Office (R-O) to Residential (R) zones. Peter Spitzner explained that the R-O designation was intended to encourage office development on vacant parcels. Contrary to the desired result of the zoning, law firms have been converting
residential buildings into office buildings.

The current residents were apprehensive about the new court facility because of the additional number of law firms it would attract to the neighborhood. This reasonably anticipated trend was perceived as a threat to the integrity of their community. Peter Spitzner explained that the neighborhood, which used to be characterized by residents socializing in the street and on their porches, is being increasingly transformed into a 9-to-5 district.

Between the Capitol Center District and the residential area is an expanding office zone. This zone has evolved out of law firms' needs to be close to the existing state courthouse. Although the conversions are unwelcomed by the residents, the office buildings do serve as a buffer between the courthouse and the neighborhood. Additionally, they have populated the area because the zoning designation permitted it and the market rates encouraged it.

The other important district in this area is known as "Frog Hollow," which is listed in the National Register of Historic Places. The organization that focused on historic preservation was the Hartford Architectural Conservancy (HAC). In a past era, Frog Hollow was descriptive of the marshy conditions that were caused by the Park River. Long since routed underground, the Park River was the site of some of Connecticut's first mills. Today, some of the remaining mills along Capitol Avenue have converted into office buildings.

Many of the residential buildings in the immediate
vicinity of the new Court Facility were once company housing for the mill workers. The housing has a distinctive style commonly referred to as "perfect sixes". The double bowfront brick buildings housed six families, many of which were recent immigrants. Collectively, these buildings stand as a record of the history of this area. Toni Gold, the former Executive Director of HAC explained that the industrial history of the state is embodied in this district, as a whole, not in any single building.

HAC’s main concerns in this impact assessment process was the preservation of five of the perfect sixes on the western edge of the site, and a Greek-Revival building that was built in the 1850’s. Ultimately, all of these buildings were preserved.

Public Involvement

The Bureau of Public Works (BPW), within the Department of Administrative Services (DAS), was largely responsible for opening the decision making process to the public. From within the government bureaucracy they were encouraged to take advantage of the state’s sovereign immunity to local laws and issues. Instead, the DAS and the BPW tried to introduce a new mentality to the state planning process. They worked to establish credibility with the community and have since used this experience with public involvement as a model for other EIEs in which they have been involved.
Eugene Puhopek from BPW said that in 1979 a proposal was made by the court architect which required the state to acquire all the properties on the block, clear it, site the Court Facility, and pave the rest for parking. He explained that this plan was entirely unacceptable to the neighborhood organizations and HAC, and served as a catalyst for public involvement.

In response to a suggestion by HAC, BPW held a public workshop in July of 1980 to discuss the plans for the new Criminal Court Facility. Approximately fifty people attended this meeting including residents and neighborhood organizations, church leaders, lawyers, politicians, state officials, and HAC. Eugene Puhopek explained that the workshop was an open forum to discuss the Criminal Court Facility and although it could have turned into a haranguing and finger-pointing session, participants used the opportunity to make constructive comments.

Bob Pawlowski of the Southside News said, "Through the public workshop the courthouse was redesigned. HAC helped the community to make substantive comments on the plan. The original design included paving a lot of the site and was ugly. The state responded by hiring a new architect who was more sympathetic with the surrounding, older buildings. The result was they did not knock down as many buildings and they put some of the parking underground. The final plan was much better than the first." 22

Other smaller meetings were held between DAS, BPW, HAC and the City Planning Department to understand the needs of each of the four districts and to try to make the project as acceptable as possible. It was generally acknowledged that the fundamental attributes of the project were predetermined.
Given that the project would be built on the site, the state responded to the public's concerns and took measures to mitigate impacts.

Responding to the neighborhood's concern regarding parking impacts the new facility was designed to meet the new demand it would generate. However, by providing parking exclusively for the Judicial Department, Executive Branch parkers (currently parking on the site) would be displaced. The EIE acknowledged the parking shortage in the area, but stressed that the new court facility is not intended to be a solution to this (larger) problem.

The state determined that increased traffic flows would be experienced primarily along Interstate 84 and Lafayette Circle. A very small portion of this traffic would affect the neighborhood. The amount of traffic through this area would be proportionately low and easily accommodated by intersection capacities.

The residents were also concerned about air quality impacts. The EIE noted that there would be construction impacts of dust and emissions from construction equipment, but they would be short term in nature. Additionally, the amount of traffic that would be generated and emissions from fuel burning equipment were well below the Department of Environmental Protection's (DEP) permit threshold. Since emissions would not exceed DEP's air quality standards, impacts were not considered to be significant.

Through modifications to the siting and design of the new facility, HAC's interests were also incorporated into the
planning process. As a result of the decked parking, space was more efficiently used and gave the Judicial Department the flexibility to leave the row of perfect sixes on the western boundary of the site untouched.

During the impact assessment process for the Criminal Court Facility the state noticeably departed from its normal decision making procedures. Working with the community to make the project acceptable, Kathryn Vernon said, "The state took a step back, in order to work with the community, which was not necessarily to its own benefit." Eugene Puhopek said that the state really made an effort to be good neighbors, and in the end, everyone's interests were served.

The Role of the EIE

In 1982, DAS commissioned PRC HARRIS, Inc. to prepare the EIE for the new Criminal Court Facility. Eugene Puhopek said that PRC acted as an extension of the state planning process and did not lead the state in the assessment of the project.

The EIE came relatively late in the project history. By the time it was written, the public workshop and several informal meetings had served to successfully manage the conflict of the proposal. The EIE does not include a discussion of the land use conflicts or their resolution. Of course, CEPA does not require a discussion of issues that have been resolved prior to the preparation of the EIE. However, the EIE makes no mention of the conflicts and that
they had been successfully resolved, and at times, the assessment of impacts appears superficial. No major impacts were forecasted, therefore, because all of the potential problems had been ironed out in advance of the release of the document.

The state was very pleased with the EIE and considered it to be a high quality document. This was one of the first EIEs prepared under the DAS. Kathryn Vernon says they were a "learning client" and took the process very seriously.

Ron Cretaro, the spokesperson for the Hungerford Block Association said that some of the analyses in which the community was particularly interested, e.g. traffic and noise, were very technical and difficult to understand. Ron Cretaro was also one of a few citizens who spoke at the public hearing, testifying on his concerns about community impacts of the project. The state points to the lack of testimony from the public as an indication of how successful the process had been in working out any problems. Ron Cretaro explained this phenomenon from a different perspective. He said that few residents spoke at the hearing because many people were intimidated by the formality of the occasion.

Conclusion

The state clearly made an effort in the impact assessment process to address community concerns even when it meant backing down from what they would have considered to have been the optimal plan. The neighborhood considers the
Court Facility to be a catalyst for speculation and conversion but they also admit these pressures already existed. Michael Allison of HART explains that there is a city-wide problem of public institutions expanding into residential areas that cumulatively contribute to Hartford’s low-income housing crisis. Nobody claims that the Criminal Court Facility turned the tide on these trends, rather than it is just one more factor that makes life hard for low income families in Hartford.

Ron Cretaro explained that the neighborhood organizations did not have the resources that would be required to bring a suit against the state to stop the project. Instead, the Hungerford Block Association and HART defended the neighborhood against this project through an ongoing effort with the City Planning Department to down-zone more areas in the neighborhood. In this case, the citizen’s defense was completely outside the impact assessment process, but did not revert to litigation.

The neighborhood organizations, particularly HART, have recently been involved with a city-ordered 6 month moratorium on conversions from residential to office uses. The purpose of the moratorium is to provide protection for the neighborhoods while the city develops a Housing Preservation and Replacement Ordinance. The Ordinance will require as a prerequisite to a residential-to-office conversion that the new owner replace the lost housing units or contribute to a Housing Trust Fund. The Fund will be administered by the
city to meet Hartford' housing needs.

Impact assessment was designed to evaluate projects on a case by case basis. The Criminal Court Facility illustrates how impact assessment is not the proper tool for dealing with larger, systematic problems, namely institutional expansion and housing shortages for low-income families. The fragmented approach of impact assessment is exacerbated when the sponsoring agency can demonstrate that the need for the project is non-negotiable.
Chronology of Events

1964-5 Courthouse Study Committee chaired by Chief Justice House recommended acquisition of the block to be used for judicial purposes.

1966 The Hartford Superior Court Building: A Feasibility Report. This report concluded that expansion of the Washington Street facility would be appropriate considering future use of the area. This study included a plan to close Lafayette Street between Russ and Grand Streets.

1967 1) Special Act 276 Sec 2 par(Y)(1) authorized $6 million for an addition to the existing courthouse.

2) Public Act 589 established the Connecticut Capitol Center Commission to create a master plan for the development of the Connecticut Capitol Center to be known as the "Capitol District".

3) Initial master plan for the new court house was prepared by Rogers, Taliafero, Kostritsky, and Lamb.

1968 New expansion plans for the court were prepared due to the City's concern about closing Lafayette Street. The plans were approved by the Capitol Center Commission.

1969 1) Special Act 281 Sec 2 par (Y)(5) authorized $4 million for courthouse facilities in Hartford.

2) Sec 12 limited property acquisition by condemnation for construction of courthouse facilities to certain parcels.

3) Master Plan for the Capitol Center District: Final Technical Report was prepared by Raymond, May, Parish & Pine and passed by the Commission. This plan proposed a new route to serve the Capitol Center (Buckingham Loop) and a new court building.

1970-1 1) Basic plans for new courthouse were completed.

2) Several properties were acquired by condemnation.

3) After a re-evaluation of the Capitol Center Plan which was ordered by the Governor work on project was halted.

1972-6 1) Court Reorganization Bill rendered earlier plans obsolete.

2) Capitol Commission removes Buckingham Loop.
3) Decision to design a new Criminal Courthouse and renovate the existing Superior Court.

1976 Other parcels were considered.

1978 Plans drawn up for the original site.

1979 1) At the request of the State Properties Review Board, a Traffic and Parking Study was prepared by Goodkind & O'Dea, Inc.

2) EIE for proposed Criminal Court Facility was prepared by Anderson-Nichols & Co.

1980 1) A public workshop was held at the suggestion of the Hartford Architectural Conservancy.

2) In response to issues raised Carlin & Pozzi, Architects were hired by the Department of Administrative Services to document alternatives that have been considered and the advantages of a combined facility.

1981 1) Goodkind & O'Dea updated 1979 Traffic Study

2) A formal presentation was made to the Judicial Facilities Committee. Scheme J was chosen.

2) Minor revisions were made to produce Scheme L. This scheme was adopted by the Capitol Center Commission.

3) Special Act 81-71.2 (0)(1) authorized $7,040,000 for the project. (Bringing the total up to $17,040,000).

4) The Department of Administrative Services hired PRC HARRIS to prepare the EIE based on Scheme L.

1982 EIE completed by PRC HARRIS (March).

1982 EIE approved by Office of Policy and Management (August).

1983 Construction begins (August).
APPENDIX C: CASE STUDY

Pyramid Mall, Chittendon County, Vermont

Background

In 1970, the state of Vermont passed the Land Use and Development Act, generally referred to as Act 250. Act 250 requires that any proposed development involving more than ten acres of land receive a land use permit prior to construction. To implement the mandates of Act 250, a state-wide hierarchical structure consisting of one Environmental Board and nine District Environmental Commissions was created. The permit process is primarily the responsibility of the 3-person District Commission. The District Commissions review permit applications, hear testimony, and make final decisions. The Environmental Board is a policy making body and sits as a board of appeals for decisions rendered by the District Commissions.

In 1976, the Pyramid Company of Burlington signed a tentative agreement to buy an 80-acre site at Tafts Corner in Chittendon County, for the location of a regional shopping mall. Based simply on the approximate scale of this development there was no question that it would require an Act 250 permit. An unusually long review culminated in the denial of the permit in 1978. This process simultaneously contributed to the political unification of Burlington and the political division of Williston. At the time, the review of the Pyramid proposal was considered to be the biggest and
the most expensive in the eight year history of the state's development control law.

The Proposal

In July 1977, the Pyramid Company applied for an Act 250 permit to build an enclosed regional shopping mall in the town of Williston. Williston is characterized as a "quiet, rural community." The site is largely open space with a few scattered farms and residences. Located at the intersection of "two lightly travelled two-lane roads, Routes 2 and 2A," and a quarter of a mile from Interstate 89, the site is just 6 miles from Burlington's central business district. Although the mall would be located in the Town of Williston, the impacts were predicted to fall most heavily upon the City of Burlington.

As proposed, the Pyramid Mall would include two department stores, 80 smaller shops, 20 restaurants and other food serving facilities, public areas, parking lots for more than 2,000 cars, driveways, facilities for treating surface runoff and sewage, and landscaped grounds. The development would occupy more than 90 acres of the 200 acre site which was formerly used as a hayfield. The building, itself, would be big enough to enclose 10 football fields and would be unequalled in size by any previous development in the region.

Act 250 Requirements and Decision

All developments that fall within the purview of Act 250 must comply with 10 criteria that are explicitly stated in
section 6086 of the law. These criteria are concerned with (1) water and air pollution, (2) water supply, (3) water availability, (4) soil erosion, (5) highway congestion, (6) provision of educational services, (7) provision of municipal services, (8) natural beauty and natural areas, (9) conformance with the state Capability and Development Plan, and (10) conformance with the local or regional plans. The goal, of course, is to minimize the adverse impacts of new developments.

After more than a year of reviewing the Pyramid Company’s application, supporting evidence, and testimony received at 43 public hearings, District Commission #4 denied the Company’s application for an Act 250 permit. The application was rejected because it failed to meet several of the relevant criteria; (5) highway congestion, (7) burden on the ability of local governments to provide services, (9) conformance with the Capability and Development Plan, specifically in terms of the burden to private utility services, costs of public services and facilities (relative to the public benefits of scattered development), demands on public facilities and services, jeopardizing or interfering with the efficiency of existing services, and (10) conformance with the local and regional plan. In general, the Commission’s decision to deny the permit was tied to a larger set of concerns regarding negative economic impacts to Burlington’s central business district and the city’s tax structure, the rural character of the region, traffic
patterns, and the burden on Chittendon County’s municipal services. The importance of these issues to the residents and planning bodies in the district contributed to the controversial nature of the review process.

Since permits are usually granted by the Commission, the decision to deny the Pyramid Company’s application represented an exception to the typical review. From 1970 to 1980, of the 3,740 Act 250 permits that were acted upon only 95, or 2.5% were denied.

The Commission is not empowered to work with the developer to identify ways of mitigating potential impacts of a proposal. However, the decision to deny a permit may contain guidelines for the necessary modifications that would make the application acceptable. In the decision to deny the Pyramid application, the Commission clearly explained how the application had failed to meet specific criteria of Act 250.

When a permit is denied, the applicant may reapply or appeal the decision. The applicant has the choice of appealing the case to the Environmental Board or the State Superior (appellate) Court. In the case of the Pyramid application, after the District Commission denied the permit the Pyramid Company appealed to the Superior Court. In an attempt to expedite the appeal they made a motion to have the court accept a majority of the record established during the Act 250 process. This motion was denied. The Pyramid Company also filed an interlocutory appeal to the State Superior Court which, too, was denied.
Preliminary Local Review

Before applying for an Act 250 permit, the Pyramid Company had to first, obtain the Williston Planning Commission's approval. A heated debate concerning individual property rights characterized the local review process. Some residents felt that government should not interfere with property rights. This camp argued that the decision to use one's property, even to build a regional shopping mall, is an exercise of a fundamental liberty which is beyond the legitimate reach of government. The other side of this debate was voiced by residents who felt that the proposal, if effected, would adversely affect the quality of life in Williston. This group argued that government's proper role is to restrict property rights when the general welfare of the community is threatened.

The controversy over property rights and the role of government, coupled with the environmental and economic implications of this proposal, was a weighty issue in the town of Williston. It was such an important debate that candidates for local offices ran on clearly pro- or anti-mall platforms, and were elected on that basis. At the time, the local newspaper announced that, "Anti-Mall interests hold a majority on the town Board of Selectmen; pro-Mall advocates control the Planning Commission."

After fiery public hearings and an approval process that lasted from May to December of 1977, the town of Williston finally gave the Pyramid Company the go ahead. Later, the District Commissioners in their decision to deny the Act 250
permit, stated,

"We cannot say that Williston Planning Commission’s decision was manifestly wrong on the basis of the evidence available to it, but if the planning commission had been able to consider all the evidence that was before us, they might have well decided otherwise."14

The Commission was referring to the reams of testimony and technical studies they had considered and which had substantially informed its decision during the Act 250 review process.

Pre-Hearing Conferences Under Act 250

Two pre-hearing conferences were held in August of 1977. The purpose of the pre-hearing conference is to determine who will be a statutory party (i.e. a formally recognized participant) in the application review and to identify the important issues embodied by a proposed project. These conferences are not required for every permit review under Act 250. The District Commission convenes pre-hearing conferences when it anticipates that an application will be controversial or accompanied with a wealth of technical evidence. They are frequently used prior to the review of very large developments.

Participants in a pre-hearing conference include the District Coordinator, a member of the District Commission, the applicant, and the statutory parties that are enumerated in Act 250 (e.g. the local municipality, state agencies, and adjoining landowners). During the pre-hearings the District Commission can use its discretion to admit other parties that
may be affected by the proposal or whose participation will assist the Commission. Arthur Hogan of the Chittendon County Regional Planning Commission said,

"... the beauty of the Act 250 process is that it is accessible to all citizens... People are involved in permit review as statutory parties, and through the public hearings which are open to everyone. The public hearing process relies on participation to question the proposal. The District Commission is capable of investigating the application on its own, but it really depends on public participation."15

Statutory parties to the Pyramid Company's application were

The Pyramid Company
Town of Williston Planning Commission
Chittendon County Regional Planning Commission
State of Vermont Agencies
City of Burlington
City of Winooski
Richmond Planning Commission
City of South Burlington
Central Vermont Regional Planning Commission
Village of Essex Junction
Advison County Regional Planning and Development Commission
Williston Committee for Responsible Growth
Williston Landowner's Association
Adjoining Landowners

As stated above, Act 250 establishes the criteria that a proposal must meet. However, the pre-hearing helps to identify the most important issues and the sequence in which these issues will be heard. This stage appears to be for the applicant's benefit, to aid their preparation of a proposal. Basically, the pre-hearings lay the groundwork for the formal hearing and review process.

No testimony is taken during the pre-hearing conferences and they are considered to be fairly informal meetings. Pre-hearing conferences are analogous to the "scoping" process.
required by the National Environmental Policy Act (NEPA) and the Massachusetts Environmental Policy Act (MEPA). The important difference between Act 250's pre-hearing conference and the NEPA and MEPA scoping process is that the former is a discretionary feature while the latter is mandatory.

Public Awareness and Participation

If the Pyramid Company's purchase of a site to build the Mall went unnoticed there was no lack of public awareness once Williston's local review process was underway. Additional public notice was provided with the commencement of the Act 250 review. At the earliest stages of a District Commission's review, notice is put in the local newspapers and sent to adjoining landowners, town clerks, and the statutory parties that have been identified during the pre-hearing conferences.

Unlike the discretionary pre-hearings, Act 250 requires formal public hearings. The District Commission conducts the quasi-judicial hearing in a courtroom atmosphere. The statutory parties are represented by their lawyers throughout this phase. Public hearings provide a forum for the presentation of technical studies, testimony by expert witnesses and statutory parties, and cross examination for each criterion. In the case of the Pyramid Mall application, 43 hearings were held.

Attendance at the hearings varied according to the issue, but in general, they were considered to be enlightening and accessible. Initially, many citizens came
to the hearings but over the span of a year attendance gradually decreased. The meeting that was held on the day that the final decision was rendered, however, was well attended.

Analysis and Assessment

The Commission's assessment of the Pyramid Company's application was fundamentally determined by the ten criteria specified by Act 250. The pre-hearing conferences helped to identify which criteria were most relevant. Within these bounds, the District Commission broadly interpreted the statute to address off-site impacts despite the objections of the Pyramid Company. For example, the Commission devoted a considerable portion of its decision to the discussion and evaluation of economic impacts, particularly as they would affect Burlington; despite the fact that economic impact is not an explicit criterion and that the development was sited in Williston. Using criteria (6), (7), and (9). The Commission explained that economic impact from a reduced tax base is an implicit part of an "unreasonable burden" to provide municipal services. Peter Meyer from the Environmental Board said that a District Commission's decision to look at off-site impacts is considered to be an acceptable scope of inquiry.

A particularly persuasive study concerning economic impact that was predicted to fall on Burlington was made by Thomas Muller in his report, "The Economic and Fiscal Effects
of a Proposed Shopping Mall on the State of Vermont."

Muller described how a predicted transfer of sales from Burlington’s central business district to the Pyramid Mall would lead to severe adverse economic impacts on Burlington, (which the Commission later interpreted to be an "unreasonable burden"). The transfer of sales was predicted to "... result in a 10 to 14 percent reduction in current property tax base between 1978 and 1983."

The question of whether the development would, "...cause unreasonable congestion with respect to the use of highways," presented a particularly complex and technical problem. The Commission found, "The traffic that would be generated added to the otherwise expected traffic increase, would cause below level of service "C" ... at 7 specific locations." These locations were identified through a computer model referred to as the "Adler Analysis." The model illustrated the choices drivers make when the quickest routes are slowed by traffic. Provisions for improvements necessary to maintain an acceptable level of service were made for just three of those locations.

The Commission noted the variability in the assumptions behind the research on traffic impacts. Questioning the validity of the assumptions in the Adler Analysis, the Commission stated,

"The distribution of customers among the surrounding communities is speculative. There appears to be no way of determining the extent to which congestion might be partially mitigated by shoppers choosing to avoid peak hours in view of known congestion, instead of taking - and overloading - alternative routes as forecasted by Adler."23
The Commission also addressed assumptions embodied in the trip generation rate. The trip generation rate was used to predict the volume of traffic entering or leaving the mall at the peak hour.

"For the average weekday, Adler used a rate of 5.7 per 1,000 square feet of gross leaseable area. The applicant’s own expert maintained that the appropriate rate was 3.12. The [Highway] Department chose a rate of 4.7. A re-run of the Adler computations using the applicant’s rate showed minor, if any adjustments for some links and substantial adjustments for others."24

The Commission also extended the criterion regarding air pollution to apply not merely to the operation of the mall buildings, but to the exhaust from traffic that would be generated by shoppers and employees. Although the permit was decided on other grounds, the Commission made this distinction, "... in the event that this conclusion should be reversed on appeal."25

The Act 250 process does not exempt an applicant from other state permit processes. Concurrent with the Act 250 hearings, the Pyramid Company had applied for an air quality certificate of compliance from the state. The Pyramid Company had already filed two applications, both of which had been rejected. Even with the District Commission’s approval construction could not proceed without this certificate.26

The Pyramid Company redesigned several features of the Mall in order to mitigate negative impacts. Some of these measures were identified through the public hearings while others were identified through the state permit processes. "Following a state denial of Pyramid’s plan to discharge sanitary sewage effluent into the Winooski River, Pyramid proposed a system that would dispose the effluent through a
network of subsurface leach pipes on a site several miles from the mall. The state and Williston have approved the plan, and the revision received little opposition at Act 250 hearings.27

The applicant was prepared to build, operate, and maintain a tertiary sewage treatment plant that would remove 98% of the impurities from the effluent generated by the mall. Effluent above the design capacity would be held in a storage lagoon until it could be treated. A flow-net analysis was used to determine that the soils in the proposed leach field were adequate for subsurface disposal.

The surface runoff system was very elaborate and it was capable of handling runoff from a "100 year storm". The system involved the collection of runoff, removal of flotable and settleable material, chemical treatment, and on-site dispersion through crushed stone berms. However, there was some question as to whether the runoff might contain substances that could contaminate the soil. The Commission noted that there was no expert testimony to dispel this suspicion and if runoff had been a pivotal issue, monitoring for toxicity would become important to their decision. Since they were going to deny the permit on other grounds it was only briefly mentioned.

In evaluating the costs of scattered development the Commission tied their findings to earlier conclusions they had made concerning the economic impact to Burlington. The Commission found that a decrease in Burlington’s tax revenue would ultimately place "an unreasonable burden on the ability of the City of Burlington to provide municipal and government
services..." The District Commission stated,

"In the instant case we feel that a test of whether or not a burden is unreasonable is whether a municipality may expect to receive back benefits from the development, either immediate or deferred, which approach its costs ..." They ultimately found that the burden of local government would weigh less heavily on Williston’s taxpayers ... we do not see ... that benefits will accrue to the City of Burlington and its taxpayers from the proposed development."

Noticeably absent from the language of the decision were the typical impact assessment categories of unavoidable adverse, short term versus long term, and cumulative impacts. Implicit, however, in the discussion of the criteria which the applicant failed to satisfy was that the forecasted impacts were unacceptable and prohibitive of project approval.

In general, the analysis that was done for the Pyramid Mall was considered "...to be of very high quality and professionally done," Many consultant teams were called in to conduct studies, give testimony at the public hearings, and be cross examined by the Commissioners and attorneys representing the statutory parties. Bruce Hyde from Burlington’s Planning Department said,

"The arguments that were made by the consultants supported the position of their client. Then, it became the District Commission’s responsibility to consider and weigh these arguments."

The Town of Williston has found some of the studies, particularly the traffic and water pollution analyses, to be of continuing use. Frank Murray, the attorney for Burlington during the review said, "Although the proposal was an emotional issue, the decision was based on the facts and evidence that were presented during the hearings."
Documentation of Analysis

Unlike other federal or state impact assessment procedures, review under Act 250 does not produce an environmental impact assessment document. The "document" that is produced is a formal decision to issue or deny a permit. Arthur Hogan explained that, "... the analysis in the consultants' reports and the testimony taken during the 43 hearings constituted the impact assessment, this impact assessment, in turn, provided the District Commission with the necessary information to make their decision."

Initially, the evidence and technical analysis for each criterion is fragmented. This information is presented within the structure of the public hearings. It is the District Commission's responsibility to synthesize and evaluate this material, and based on the assessment of impacts, render a decision. Since testimony was taken at each of these hearings, the documentation of the analysis for the Pyramid Mall proposal is voluminous. The decision, therefore, represents a succinct statement of the findings and discussion of the important issues.

The decision on the Pyramid Company's application is contained in a 66 page document. Typically, a decision for a permit is stated in 7-8 pages and follows a fairly standard format. The length and level of detail in this case is indicative of the serious review which the District Commission took more than a year to render.
Conclusion

The Pyramid application was denied by the District Commission in October of 1978. Since then, the Pyramid Company has been unsuccessful in several appeals to the state courts and has not exhibited any recent interest in reviving the proposal.

In the aftermath of the District Commission’s decision to deny the Pyramid Company’s application for a land use permit, Burlington’s Revitalization Program, although initiated almost 20 years ago, has been noticeably more active. The City has made an effort to enhance the attractiveness of the commercial center through the Church Street Market Place. This outdoor shopping mall is an example of the recent urban phenomenon of the "festival market place." The city has also secured federal funding to build a 500-space parking garage and to provide additional rooms and meeting space at the centrally-located Radisson Hotel.

The case of the proposed Pyramid Mall illustrates the importance of the public hearing process in the implementation of Act 250. In this particularly complex application, the number of hearings were determined by the significance or controversial nature of each criterion. Hearings for a particular criterion continued until all testimony was given and technical studies presented. Although the technical nature of the hearings were too tedious to keep the continued attention of most citizens it still provided an open and accessible public forum. Unlike
other impact assessment processes where the proponent, alone, produces and presents technical evidence, all statutory parties which represent a wide range of constituents (and funding sources) can present evidence. The Commissioners, themselves, are citizens of the district and have an interest in a sound review process. The review of the Pyramid Company’s application fully exercised the public hearing component of the Act 250 permit process.

Today, seven years after the District Commission’s decision to deny the Pyramid Company’s request for an Act 250 permit, that decision and review process is still fresh in the minds of many Vermonters. The denial of this application is a landmark in Act 250’s 15-year history.
APPENDIX D: LIST OF ABBREVIATIONS

Act 250 ........ Vermont's Land Use and Development Act
AMC ........ Appalachian Mountain Club
BLA ........ Barry Lawson Associates
BPW ........ Bureau of Public Works, CT
CAC ........ Citizen Advisory Committee
CEPA ........ Connecticut Environmental Policy Act
CEO ........ Council on Environmental Quality
CLF ........ Conservation Law Foundation of New England, Inc.
COE ........ U.S. Army Corps of Engineers
CZM ........ Office of Coastal Zone Management, MA
DAS ........ Department of Administrative Services, CT
DEIS ........ Draft Environmental Impact Statement
DEQE ........ Department Environmental Quality Engineering, MA
DOI ........ U.S. Department of Interior
DOT ........ U.S. Department of Transportation
DPWH ........ Department of Public Works and Highways, NH
EIE ........ Environmental Impact Evaluation, CT
EIR ........ Environmental Impact Report, MA
EIS ........ Environmental Impact Statement, US
EOEA ........ Executive Office of Environmental Quality Engineering, MA
EPA ........ U.S. Environmental Protection Agency
FHWA ........ U.S. Federal Highway Administration
FEIS ........ Final Environmental Impact Statement
FEMA ........ U.S. Federal Emergency Management Agency
HAC ........ Hartford Architectural Conservancy
HART ........ Hartford Area Rally Together
HRA ........ Hull Redevelopment Authority
HUD ........ U.S. Department of Housing and Urban Development
I-93 ........ Interstate 93
MACC ........ Massachusetts Association of Conservation Commissions
MDC ........ Metropolitan District Commission, MA
MEPA ........ Massachusetts Environmental Policy Act
MWRA ........ Massachusetts Water Resources Authority
NEPA ........ National Environmental Policy Act
NRC ........ Natural Resources Commission, ME
SEPA ........ State Environmental Policy Act
SDEIS/DEIR ........ Supplemental Draft EIS/Draft EIR
SPNHF ........ Society for the Preservation of New Hampshire Forests
TAG ........ Technical Advisory Group, MA
URI ........ University of Rhode Island
WRB ........ Water Resource Board, RI
NOTES

I. Introduction
1. 42 U.S.C. 4321 et seq.
5. 439 C.G.S.A. 22a-1 to -7.
   30 M.A.L. Section 62-62H.
6. 10 V.S.A. Chapter 151A.
8. The complete text of the cases can be found in Environmental Impact Assessment Review Special Issue, "The Role of Impact Assessment in Environmental Decision Making in New England: A Ten Year Retrospective," Volume 6 Number 2.
9. See Appendix A.

II. Historical and Institutional Context
2. Quarles, 1976, p. 11.
(Chapter II, continued)

42. Environmental Resources Limited, 1981.

III. NEPA as a Model for SEPAs

18. 439 C.G.S.A. 22a-14 to -27.
20. 439 C.G.S.A 22a-1 to -1f.
22. 439 C.G.S.A. 22a-1b.
23. 439 C.G.S.A. 22a-1a-7(b).
24. 30 M.A.L. 62-62H.
25. 30 M.A.L. 62B.
26. 10 V.S.A. 151A.
IV. Analysis and Conclusions

1. The complete text of the cases can be found in
Environmental Impact Assessment Review Special Issue, "The
Role of Impact Assessment in Environmental Decision Making in
2. See Appendix B for full text of case study.
3. This case study was prepared by Phyllis Robinson, 1985.
4. This case study was prepared by Phyllis Robinson, 1985.
5. This case study was prepared by Wendy Rundle, 1985.

(Chapter 4, continued)
6. This case study was prepared by Wendy Rundle, 1985.
7. See Appendix C for full text of case study.
8. This case study was prepared by Phyllis Robinson and

Appendix A: Approach

1. Phyllis Robinson's assistance in this effort is greatly appreciated.
2. See attachments.
3. The only exception to the criteria is the case from
Connecticut. After the survey was completed I decided that
one case should focus on social impact assessment. This case
was identified through a series of phone calls to
Connecticut's Office of Policy and Management that oversees
the implementation of the Connecticut Environmental Policy
Act.

Appendix B: Case Study—Criminal Court Facility

1. 439 C.G.S.A. 22a-14 to -7.
2. 439 C.G.S.A. 22a-1 to 1f.
5. 439 C.G.S.A. 22a-1.
6. 439 C.G.S.A. 22a-1b(b).
7. A planning unit in which many of Connecticut's state
government buildings are located.
9. Cases are ranked A-E, A being the most severe.
19. HART does block club organizing in Hartford.
20. Spitzner, personal communication.
22. Pawlowsk i, personal communication.

(Appendix C, Case Study--Pyramid Mall

1. 10 V.S.A. 151A.
2. Act 250 was passed in response to a high growth rate and general concern for the future of Vermont if unchecked development were allowed to continue. See Healy, 1979, p. 40.
9. A plan that is intended to promote coordinated, efficient and economic development of the state. 10 V.S.A. 151A Section 6042.
12. The District Commission does not have the authority to negotiate a compromise with the developer regarding the design of the proposed project.
17. Peter Meyer, personal communication.
20. A reasonably steady flow at about 80% capacity according to guidelines of the American Association of State Highway Transportation Officials.
31. Bruce Hyde, personal communication.
32. Frank Murray, personal communication.
33. Arthur Hogan, personal communication.
34. Bruce Hyde, personal communication.
BIBLIOGRAPHY


10 Vermont Statutes Annotated Chapter 151A. Land Use and Development Act (Act 250).


Case Study: Criminal Court Facility, Connecticut


439 Connecticut General Statutes Annotated Title 22a.


Personal Communications

Toni Gold, former Executive Director, Hartford Architectural Conservancy, March 1985.

E. Peter Spitzner, Hartford City Planning Department, April 1985.

Kathryn Vernon, Department of Administrative Services, March 1985.

Case Study: Pyramid Mall, Vermont


10 Vermont Statutes Annotated Chapter 151A.

Personal Communications


Katherine Vose, District Coordinator, District #4, March 1985.