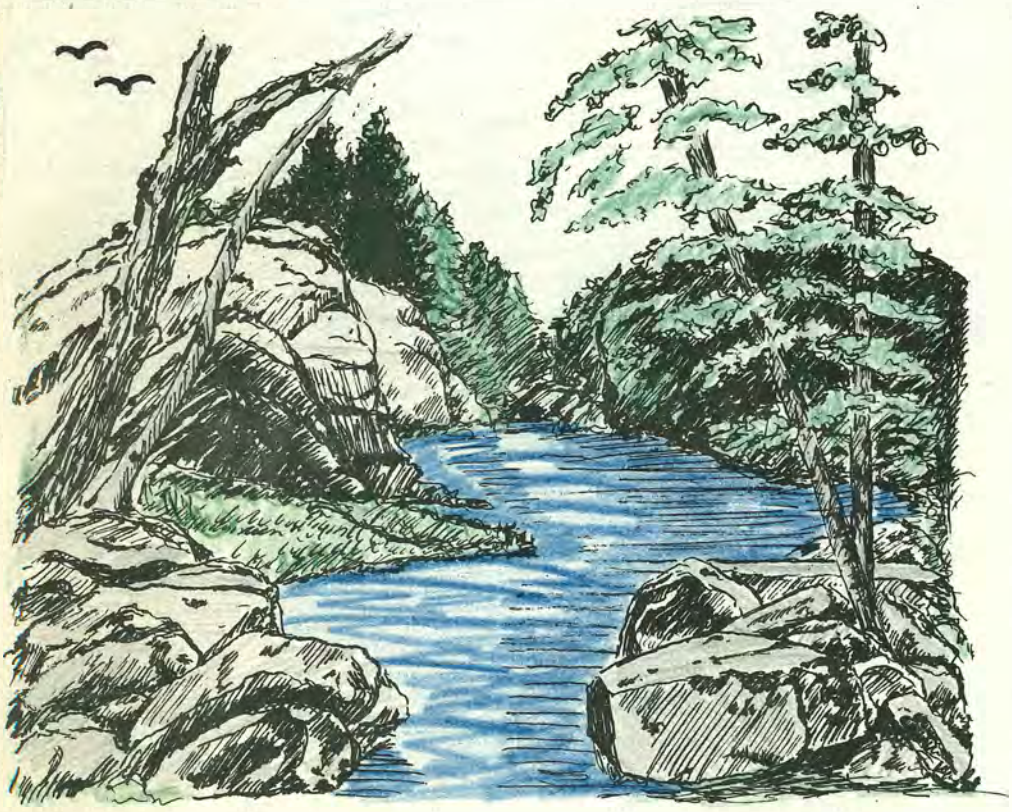
Report of the Connecticut Council on Water Company Lands



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REPORT OF THE

CONNECTICUT COUNCIL ON WATER COMPANY LANDS

FEBRUARY, 1977

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*Copies of the testimony and papers of the Yale Task Force and Council and subcommittee members are on file in the Legislative Research Office, Room 120, State Capitol Building.

SUMMARY

This report contains the specific studies and the results of the inventory which were mandated in the Moratorium Act, PA 75-405. Sections I through VI cover: State policy on the disposition of investor-owned water utility land; development and administrative implementation of criteria which classify utility land according to its contribution to water supply purity and adequacy; the federal and state requirements for filtration plant construction; possible financial assistance to the water utility industry and the public acquisition of utility lands. Section VII contains the results of inventory of investor-owned water utility lands in Connecticut. The principle concerns of each section is outlined below.

Serious concern over the health hazards of contaminated water supplies and the practically irreversible nature of increased watershed land use require the strict protection of Connecticut's water resources. Such a policy in turn requires that the water utilities continue to own certain lands and that the State increase both its regulation and acquisition of land sold by the utilities. Furthermore, if the governmental approval of proposed changes in use and sales of utility land is to protect the public health, it will have to separate public health issues from financial and social issues. Successful State involvement in the land sales process depends upon

the adequate funding of participating State agencies.

The land classification criteria reflect the dual role of protected water supply land; to deactivate certain contaminants and to prevent the introduction of certain contaminants into the water supply system. The criteria were derived from physiographic features which affect the purity and adequacy of water supplies and the transport of biological and chemical contaminants. Their administrative implementation occurs in the context of rigorous Health Department review of proposed changes in use or sales of water utility land. The criteria also affect the degree of monitoring and enforcement of permit conditions required of the Departments of Health and Environmental Protection.

Federal and State water quality legislation does not now require the filtration of all of Connecticut's water supplies. The precise identification of supplies needing filtration is precluded by a number of ambiguities in the law and by a lack of relevant data on Connecticut's supplies. State financial assistance to the water utility industry is considered a possibility. However, it must first be satisfactorily demonstrated that decreased revenue from limited land sales impedes the construction of statutorily mandated treatment facilities.

Assistance to, pricing and scheduling of public acquisition of utility land are discussed together. The price of public acquisition is to be fair market value and the scheduled release of land is to be negotiated with the utilities. A central office in the Department of Environmental Protection is recommended to coordinate technical and financial assistance to public purchasers. The inventory indicates that the majority of investor-owned water utility land is held by a few companies and is unevenly distributed across the State.

PREMISES

1. The Moratorium on water utility land sales by investor-owned water utilities will terminate on June 25, 1977; therefore, the State of Connecticut must be prepared to assume additional responsibilities for the utility land sales process.

2. Controlled land use and treatment of drinking water supplies are both essential to the purity and adequacy of present and future drinking water supplies; therefore, utility ownership of certain water supply lands is required to protect the purity and adequacy of present and future drinking water supplies.

3. State approval of water utility land sales and changes in land use must firmly protect the public health; therefore, it must separate public health issues from social and financial issues.

4. The criteria for the classification of investor-owned water utility lands and the corresponding performance guidelines have been developed to protect the public health; therefore, they apply equally to the disposition of land owned by municipal, regional and state water utilities.

5. The implementation of the recommendations of the Council on Water Company Lands will require additional administrative resources; therefore, the General Assembly must appropriate the funds necessary to successful state involvement in the utility land sales process.

RECOMMENDATIONS

Executive and Legislative Policy: PA 75-405 2(c)(3).

1. The policy of the State of Connecticut shall be to prevent the degradation of public drinking water supplies.

2. The General Assembly shall permit state agencies to approve proposed changes in use of land in Class I of the Land Classification Criteria following review and approval by the Commissioner of Health, but, it shall not permit any state agencies to approve proposed sales of land in Class I.

3. The General Assembly shall consider the prohibition of state agency approval of proposed sales of land in Class II, Category 1, of the Land Classification Criteria except to another water utility for the same purpose.

4. The General Assembly shall continually appropriate to cooperating state agencies the funds necessary to implement the recommendations of the Council on Water Company Lands.

5. The General Assembly shall review the mandates of the state agencies, in particular Department of Environmental Protection, Department of Health, and the Public Utilities Control Authority, which are currently involved in regulating water utilities and water utility lands and shall make the changes in their mandates to insure consistancy with the recommendations of the Council on Water Company Lands.

6. The General Assembly shall fund the appropriate state agencies to do the following and to report their results to the General Assembly or in the pertinent professional literature:

   A. Continue the study of and mapping of ground water recharge and discharge areas within the State.

   B. Study the distribution of dedicated open space within the State in relation to proposed land sales of the water utilities.

   C. Expand the study of the relationship of water quality and land use within the State in a joint program between the Departments of Health and Environmental Protection with particular emphasis on the identification of, the introduction of, the vertical and horizontal transport of and the treatment of existing and new

biological and chemical contaminants within water supply watersheds.

D. Analyze the short and long term economic impacts on the water consumers and water utilities of the sale of utility lands and of the construction requirements for conventional and advanced treatment facilities.

E. Examine the possible applications of the Land Classification Criteria to lands not held by the water utilities.

Approval of Utility Land Sales: PA 75-405 2(c)(1).

7. The Commissioner of Health, with the advice of the Public Health Council, shall carry out the recommendations of the Council on Water Company Lands with regard to the approval of proposed changes in use and sales of utility lands within Class I and Class II of the Land Classification Criteria.

8. The Commissioner of Health shall, adopt as regulations governing the approval of proposed sales and changes in use of investor-owned water utility lands, the Land Classification Criteria and the corresponding performance guidelines proposed by the Council on Water Company Lands.

9. The Commissioner of Health shall apply the Land Classification Criteria and the corresponding performance guidelines to include all applications for land sales and changes in use by all the municipal and regional water utilities and state water supply systems.

10. The Commissioner of Health shall promulgate administrative review procedures in accordance with the structure and the principles of administrative review outlined by the Council on Water Company Lands.

11. The General Assembly shall appropriate the funds necessary for the Commissioner of Health to carry out the recommendations numbered 7 through 10 above.

Statutory Requirements for the Construction of Filtration Plants: PA 75-405 2(c)(5).

12. The General Assembly shall consider, in accordance with the results of study described in recommendation numbered 6D above, some form of financial assistance to the water utilities for construction of treatment facilities, such as low-interest rate loans, state guaranteed bonds and tax exemptions.

Public Acquisition of Utility Land: PA 75-405 2(c)(2), (4), (6).

13. The Commissioner of Environmental Protection shall establish an office within his Department to coordinate and assist the public acquisition of water utility owned lands.

14. The Commissioner of Environmental Protection shall be granted the authority to require the water utilities to file with the aforementioned office within his Department a forecast of proposed sales of water utility land within the next 20 years to be revised biennially.

15. The General Assembly shall appropriate the funds necessary for the Commissioner of Environmental Protection to carry out the recommendations numbered 13 and 14 above.

16. State agencies should acquire water utility lands when such lands will contribute to recognized programs of the agencies and when such acquisition is less costly than the continued monitoring and enforcement of approved changes in use or sales of water utility lands.

17. Water utility lands acquired by state agencies shall be subject to Health Department review and these lands as restricted by the review process shall be put into dedicated ownership so that such lands cannot be sold except by a special act of the General Assembly.

I. INTRODUCTION: PA 75-405

Public Act 75-405[1] directs the Council to receive applications for sales of investor owned water utility land covered by the moratorium provisions, to supervise an inventory of utility lands in the state and to study the disposition of lands held by investor-owned water utilities. No applications for land sales have been received by the Council to date. The results of the inventory are summarized in section VII. Sections I-VI concern the Council's response to the studies specifically called for by the General Assembly in Section 2(c) of the Act:

1) criteria to determine surplus utility lands in [2(c)(1)];
2) strategies for municipal acquisitions of surplus lands in [2(c)(2)];
3) state policy on the disposition of water company lands in [2(c)(3)];
4) determination of the purchase price of surplus lands in [2(c)(4)];
5) federal and state requirements for filtration plant construction in [2(c)(5)];
6) scheduled release of surplus land for sale in [2(c)(6)].

While these questions are all interrelated, the Council initially separated them into two categories, technical, and legal and economic. The land classification criteria and the filtration plant requirements fell into the technical category. Provisions relating to the mechanics of public acquisition of utility land

fell into the legal and economic category. Each of these two broad areas became the province of one Council subcommittee. The Council, under the umbrella of section 2(c)(3), has sought to develop a comprehensive state policy on privately held water utility lands. It has done this upon the basis of the Act, the subcommittee reports and upon its own appraisal of the choices which now face Connecticut, concerning these key lands.

While the Council has concentrated its efforts upon the six areas summarized above, it has consistently recognized that they cannot be properly evaluated in a vacuum. They reflect the complicated concerns of the General Assembly for the public health of the citizens of the state, for the quality of life within the state and for the appropriate regulation of the water utility industry. Therefore, these specific questions must be placed in their historical context and in the context of debate over the management of public drinking water supplies. Only then can their true dimensions be grasped and their complex nature appreciated.

Because the Council feels that such a thorough understanding is an absolute prerequisite to informed state action, it has not confined this report to a summary of its findings and recommendations. Rather, it has also described the processes which led to those findings and the controversies met along the way. In this fashion, it hopes to provide the General Assembly not only with specific recommendations but also with a useful analytical

framework. There are controversies which are inherent in the future management of water supply lands. The choices and consequences they present must be understood and incorporated into an intelligent and responsible state policy.

This report does not follow the order of the statutory charges to the Council. The formulation of legislative and executive state policy is discussed first to introduce the fundamental choices concerning the management of Connecticut's water resources. These choices frame all the subsequent discussions and hence are emphasized from the beginning. The development and application of land classification criteria is considered next. These criteria and their relationship to land sales are regarded as the keystone of the legislative charge and of the Council's analysis; therefore, their explanation is given special attention. Thirdly, the statutory requirements for filtration plant construction are analyzed. This is an issue which has become popularly linked with the need for utility land sales although utility proposals for major land sales preceded the relevant federal and state legislation. Fourthly, the possible economic consequences of restricted utility land sales are discussed. While not explicitly required by the Act, this analysis is included because it is central to an understanding of the Council's recommendations. Lastly, the opportunity and rationale for public purchase of utility

lands are considered. Three specific areas of concern here are assistance to, price and scheduling of public acquisition.

II. THE COUNCIL'S APPROACH TO THE DEVELOPMENT OF STATE POLICY ON WATER COMPANY LAND DISPOSITION (PA 75-405, Sec. 2(c)(3)).

A. Introduction.

Section 2(c)(3) of PA 75-405 directs the Council to develop a comprehensive state policy on the disposition of water utility lands. The Council has examined the historic and current role of these lands in water supply management, the current status of state regulatory programs and the purpose of further state involvement. By analyzing these separate components of an eventually unified state policy, the Council hopes to make recommendations that are not only consistent with the degree of protection required for public drinking water supplies, but, that are also consistent with the state's ability for effective involvement in the protection of this vital resource.

The Council has attempted to match regulatory responsibilities with regulatory resources in examining the possible shift of responsibility for water supply control from the utilities to the state. Because it is fundamentally irresponsible to entrust water supply protection to programs which have little likelihood of adequate funds, staff and enforcement procedures, the Council has concluded that utility ownership of certain lands be retained.

B. Historical Context.

Water utilities, under their state charters and legislative mandate to provide pure and adequate water supplies,[2] acquired large tracts of land to protect their surface water supplies from contamination. These purchases occurred at times when remedial treatment practices, if available at all, were severely limited and when undeveloped water supply land was relatively available. Utility lands are unevenly distributed across the state and significant fractions are concentrated in the urban corridor running from Greenwich to Enfield.[3] The utilities have specifically managed these lands to protect water supplies and prevented land uses incompatible with water quality. As a result, although the utilities supervised some forest and agricultural practices, these lands remained in a single use category. In recent years, because of additional treatment and increased pressure for multiple use, limited access has been permitted for recreation.[4] The reservation of these lands for water supply has given Connecticut a tremendous advantage over other states which must rely upon treatment of unprotected sources for their drinking water.

While utility land sales have long been subject to state regulation, there is no easily available systematic record documenting such sales. However, it appears that only recently have the proposed sales of some utilities been of sufficient magnitude to excite widespread concern.

Certainly the state, the regional planning agencies and the towns have considered these lands permanently dedicated to water supply protection. They have planned accordingly for the conservation and development of the state's resources. It can be argued that this treatment of utility lands merely affirmed the status quo rather than stated a deliberate policy of protection. However, even before the proposals of major sales by one or two utilities, the state articulated a strong position on the conservation of its natural resources in statute and in the State Plan of Conservation and Development.(5)

Furthermore, as some of the utilities began to advocate extensive land sales, the state actively increased its participation in the sales approval process. State agencies, principally the Department of Environmental Protection (DEP),(6) the Public Utilities Control Authority (PUCA)(7) and the Department of Health,(8) assumed additional responsibility for and control over proposed sales. Both the state, through DEP, and the towns containing utility land proposed for sale were granted a purchase option and additional time to establish financing.(9) The most recent response of the state to the need for a comprehensive evaluation of the utility land sales issue is the Moratorium Act, PA 75-405. These statutes and the State Plan of Conservation and Development clearly establish the legislative and executive policy of Connecticut. Present and future public drinking water supply sources

are to be protected from contamination and degradation and open space uses compatible with that end encouraged. The contribution of the Council at this juncture is to elaborate upon the commitment of state, local, and private resources which such a policy entails if it is to be realized.

C. Connecticut's Commitment to Protected Water Supplies.

The nature of the commitment to protected water supplies cannot be dictated solely by professional opinions, whether those of engineers, doctors, economists, hydrologists or lawyers. While they are elements in any rational governmental policy, the policy as a whole must transcend its individual components and reach the essential values involved. Therefore, some of the values and some of the conflicts which have pervaded the Council's work are described here.

The essential tension is between the protection and conservation of drinking water sources as the primary principal of water supply management and the reliance upon treatment of drinking water. There are extreme applications of either principle. All public drinking water supply watersheds cannot be restricted from any other use. Conversely, raw water sources cannot be endlessly degraded in expectation of effective remedial treatment before consumption. The challenge to the state is to determine how strictly it will protect its water resources.

The time at which the state must respond to sales proposed by some utilities is not propitious. There is considerable controversy over many of the relevant issues. Dimensions of environmental health hazards are undetermined. All the chemical compounds present in air and water have not been identified and their individual and synergistic effects on human health have not been established.(10) Furthermore, they cannot be established without extensive and long term testing. Once harmful substances are introduced into the environment and into surface and ground water sources, their successful elimination is a matter of serious debate. Some authorities contend that most substances now known to be hazardous can be controlled by available treatment.(11) Other authorities dispute the ability of available treatment practices to combat the entire range of hazardous substances, particularly of chemical compounds.(12) The dual role, remedial and preventive, of land in preserving water quality is not fully understood. Natural purification processes have not been fully evaluated nor has the need to prohibit certain contaminants from entering water supply systems.

Exacerbating these uncertainties is the knowledge that once water resource lands have been converted to another use, their reclamation is rarely, if ever, possible. Therefore, factors such as acceptable margins of safety, duration of adverse impacts and the risks of acting with

incomplete information assume critical importance. These intangible components of any state policy dictate from the public health perspective that water supply lands be conserved wherever possible. Thus, substances known or suspected to be hazardous will be excluded from present and future drinking water supplies and the known and suspected benefits of natural purification processes will be maintained.

However, public health and water quality are not the sole concerns of the State of Connecticut. Some countervailing policy considerations are the economic viability of the utilities, the cost impact on the customer and the recreational, social and economic needs for undeveloped lands. In assessing the conflicting demands for water supply lands, the General Assembly must consciously weigh the need to protect Connecticut's natural resources and public health against other competing interests.

The Council has concluded that there is a direct and positive relationship between utility ownership of certain key water supply lands and the protection of drinking water supplies. It feels that the required maintenance of these lands is consistent with the statutory and corporate obligations of the utilities to provide pure and adequate water to their customers. However, it also concluded that, with appropriate resources allocated to administrative review and regulation, certain lands can be approved for specific changes in use and

ownership.

III. THE DEVELOPMENT AND IMPLEMENTATION OF THE CRITERIA FOR CLASSIFICATION OF LAND: PA 75-405 2(c)(1).

A. Introduction.

The legislative charge concerning criteria for land classification is to:

> Develop criteria for determining which, if any, water company lands may be surplus with regard to the purity and adequacy of both present and future water supply and which, of any lands determined to be surplus may be desirable for specified modes of recreation or open space use and which may be suitable for other uses. [PA 75-405 2(c)(1)].

This charge contains three separate elements: criteria for determining land that is surplus with regard to the purity of the water supply; criteria for determining land that is surplus to the adequacy of the water supply; criteria for determining surplus land that is suitable for recreation and open space. This apparently straightforward assignment becomes considerably more complicated when the character of utility lands is examined.[13]

The development of land classification criteria involved a study of the hydrological cycle, the relationship of land use to water quality and the types of contaminants expected to affect the public health. These factors were analyzed in an effort to segregate land according to its potential importance to the water supply. Their complexity necessitated additional categories of utility owned land. The application of the criteria

in the context of approving proposed land sales involved an analysis of the legal and economic restraints upon the regulatory system.

The complexity of the hydrologic cycle and consequent intricacy of the land use - water quality relationship make valid distinctions between the purity and adequacy of water supplies especially difficult. Land characteristics which are significant for water purity may also affect water supply.[14] Therefore, the criteria regarding adequacy and purity were combined together into one classification system. The same complexity which dictates that water supply systems be treated holistically makes the division of water supply lands problematical at best. Utility land cannot be labelled as either essential or surplus without denying their great variability and the diversity of their hydrologic functions. Consequently, the classification system presented in Table I divides utility lands into three classes. Class I identifies land which should not be sold by the utility although limited changes of use may be permitted if determined to be consistent with the maintenance of water quality. Class II identifies land which may be sold depending upon the results of stringent administrative review and continuing monitoring and enforcement of the land's use. Class III identifies land which is not significant from a water supply perspective and therefore

can be sold without special Health Department approval.

The Council did not develop a set of criteria for the use of Class III land. Because these lands are suitable for a wide variety of uses, their ultimate use is primarily determined by economic, political and social considerations rather than by the physical character of the land. If the state and the towns wish to establish a managed disposition program for Class III land with those utilities that propose land sales, they will have to do so on a basis other than of water quality. Therefore, the Council felt it beyond its expertise and resources to develop criteria for the eventual use of completely unrestricted land.

B. Hydrology and Public Health Considerations.

The geologic portion of the hydrologic cycle was examined to determine where water supplies are most vulnerable to degradation. Physiographic characteristics such as watercourses, soils types and slope were identified as significant influences upon water supplies in a developed watershed. Other characteristics, such as proximity to reservoirs and wells were selected as important to the protection of water collection and distribution systems from undesirable access. Finally, distances associated with known pollution vectors, such as lead aerosols,[15] were incorporated into the land

classification criteria.

Even though these features do affect water quality and abundance, they do not do so uniformly. Wetlands assume additional importance when proximate to reservoirs;[16] slope assumes additional importance when associated with certain soil types.[17] Therefore, these characteristics are divided into several categories to reflect the gradations inherent in any physiographic analysis of watershed behavior. The elements in each category are consistent, they are separated to indicate that under certain circumstances they signal fewer potential complications.

The classification system contains several features which relate to groundwater sources. The inclusion of aquifers was necessary to cover the preservation of ground as well as surface water supplies. The difficulty in regulating aquifers properly is that comparatively little is known of their precise location within the state. Furthermore, all the characteristics of their recharge, transportation and discharge functions are not known. However, since aquifers are an important water resource especially vulnerable to contamination, they are highlighted in Class I and Class II.

The classification system incorporates more than the physical characteristics which isolate vulnerable linkages in the land use - water quality relationship. It also considers the kinds of contaminants of concern to public health authorities. Specific classes of contaminants, biological, chemical, and physical, and their implications for watershed management were studied. Particular attention was paid to the ways such contaminants might be introduced into the watershed through point and non-point sources.[18] Public health and hydrologic concerns then are combined in the classification system. For instance, soil type and slope are important because they affect both erosion and also the successful installation of septic systems.[19]

C. Table I: Land Classification Criteria.

These three major classes of land are defined by specified physiographic characteristics, by specified water collection and distribution system characteristics and by pollution travel distances. They distinguish among types of land on the basis of their significance for the purity and adequacy of water supply. The three possible contributions of land to the water supply, as protrayed here, are: the preservation of the integrity of the hydrological cycle, the purification of some pollutants and the prevention of contamination through restricted use.

TABLE I

Class I

Land which is either:

a. Within 250' of high water of a reservoir or 100' of all watercourses as defined in Connecticut State Agency Regulation 19-13-B98*; or

b. Within the areas along watercourses which are covered by any of the following critical components of a stream belt**:

i) the watercourse of a defined stream including banks, bed, and water;

ii) lands subject to stream overflow;

iii) associated wetlands;

iv) shorelines of lakes and ponds associated with the stream;

v) areas in proximity of streams where certain developments or land uses probably would have adverse environmental effects, i.e., pollution and health hazards, erosion and sedimentation; or

c. With slopes 15% or greater without significant interception by wetlands, swales and natural depressions between the slopes and the watercourses; or

d. Within 200' of groundwater wells; or

e. An identified direct recharge area or outcrop of aquifer now in use or contemplated for future use; or

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*see Appendix item #7.
**see Appendix item #8.

f. An area with shallow depth to bedrock, twenty (20) inches or less, or poorly drained and very poorly drained soils as defined by the SCS that are contiguous to above categories b and c and that extend to the top of the slope above the receiving watercourse; or

g. On the watershed for future reservoirs and with any of the above characteristics.

Class II

Category 1. Land which is either:

a. Not classified in Class I with slopes 15% or greater with significant interception by wetlands, swales and natural depressions between the slopes and the watercourses; or

b. Land from which surface runoff directly enters an identified aquifer recharge or outcrop area supplying used or future wells; or

c. An area with shallow to bedrock, twenty (20) inches or less, poorly drained, and very poorly drained soils.

Category 2. Land which is either:

a. Not classified in Category 1 or with slopes less than 15% without significant interception by wetlands, swales, and natural depressions, between the slopes and the watercourses; or

b. On watersheds for future reservoirs which will fall into Category 2 when the watershed is used for water supply.

Category 3. Land which is either:

a. Not listed in Categories 1 or 2 with slopes less than 15% with significant interception by wetlands, swales, and natural depressions between the slopes and the watercourses; or

b. On watersheds for future reservoir which will fall into Category 3 when the watershed is used for water supply.

Category 4. Land which is:

a. Completely off public water supply watersheds and which is within 150' of a distribution reservoir or a first-order stream.

Class III

Land which is:

a. Unimproved land off public water supply watersheds and beyond 150 feet from a distribution reservoir or first-order stream.

D. Table II: Suggested Performance Guidelines.

Associated with the land classification criteria is a series of suggested performance guidelines for proposed uses. These guidelines are set forth as aids to the planning process in an effort to make future use of utility lands consistent with the protection of water supply purity and adequacy. They are not to be construed to end presently permitted recreational uses or to prevent the establishment of compatible recreational uses. There are no performance guidelines for Class III as lands so classified are not subject to restrictions to protect water supplies.

TABLE II

PLANNING SUGGESTIONS FOR CLASSIFICATION OF WATER UTILITY LAND USE FOR MAINTENANCE AND ADEQUACY OF PUBLIC WATER SUPPLY

Class I - Use Shall Not:

a. Create an intentional or unintentional point or non-point source of contamination.

b. Disturb ground vegetation on surface public drinking water supply watersheds except as required for watershed or forest maintenance.

c. Create subsurface sewage disposal systems.

d. Create wheeled, tracked or hoofed transport of any kind on surface public drinking water supply watersheds except as required to manage the watershed or that which is under water utility control.

Class II

Category 1 - Use Shall Not:

a. Create an intentional or unintentional point or non-point source of contamination without adequate manmade interception and control safeguards as approved by the Department of Health and DEP.

b. Disturb ground vegetation for more than one growing season on surface public drinking water supply watersheds except as required for watershed maintenance or that associated with access to or underlying a habitable structure whose use meets the requirements of a above.

c. Allow subsurface sewage disposal systems in areas with shallow to bedrock, soils, twenty (20) inches or less, poorly drained, and very poorly drained soils.*

Category 2 - Use Shall Not:

a. Create an intentional or unintentional point or non-point source of contamination without adequate manmade interception and control safeguards as approved by the Department of Health and DEP.

b. Permanently disturb ground vegetation in areas with present slopes greater than five percent except that required for watershed maintenance, or that associated with access to or underlying a habitable structure whose use meets the requirements of a above.

Category 3 - Use Shall Not:

a. Create an intentional or unintentional point or non-point source of contamination without adequate manmade interception and control safeguards approved by the Department of Health and DEP.

Category 4 - Use Shall Not;

a. Create interstate, state, or town roadways or mainline railroads except to provide access for allowable uses.

b. Encourage uncontrolled access by the general public.

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*Where subsurface sewage disposal systems are proposed, the design and installation of such systems shall be in accord with Department of Public Health regulations and shall use seepage rates that do not exceed that of the existing soils on the site, i.e., seepage rates in fill sections will not be used in the system design.

E. Factors Influencing the Implementation of the Land Classification Criteria.

In order to understand the need for administrative implementation of the classification system, the need for a site-specific analysis of utility land proposed for sale must be appreciated. The land classification criteria identify those characteristics which exacerbate the adverse impacts of any development, however, their exact relationship to water quality can only be determined by an exhaustive and specific analysis.

Initially, there is debate over the importance of any one parcel of land. While a water utility may frequently be the largest single owner of land within a public drinking water supply watershed, it may still own less than fifty percent of the total watershed acreage. On the other hand, some watersheds are almost entirely owned by a water utility. Utility watershed holdings range from two to ninety-seven percent of total watershed acreage. The variety of individual utility holdings reflects the variety in watershed size, size and distribution of utility holdings within the watershed and character of non-utility held land. Therefore, when land is proposed for sale or change in use, a detailed administrative review is required to assess the value of limited utility control within the total watershed's composition.

Granting the variability of watersheds and utility holdings, there remains debate over the effect of development upon the watershed itself and upon the quality and quantity of water produced. There are numerous difficulties in tracing the consequences of intense use for the watershed system and for the long term health of the consumers. The literature varies enormously over the specific increments of change; however, certain results of improper development can be isolated. Once they have been identified, then the ability of a particular treatment practice in diminishing their effect can be gauged.

At the grossest level of impact development so disturbs the physical community that the hydrological cycle is noticeably affected. Erosion and sedimentation occur, the severity of flooding increases, the quality and quantity of water shift markedly.[20] In short, the homeostatic function of a properly functioning watershed is disrupted. At a less obvious level, the biological character of the water may change through the introduction of protozoa, bacteria and viruses into the water supply. These pathogens or disease carrying agents may originate in human and animal wastes discharged directly into the water or onto surfaces draining into the water. They may also be introduced through improperly operating disposal systems such as malfunctioning septic and sewage systems.

More insidiously, chemical compounds associated with increased use become present in the watershed and water supply. Familiar examples of this process include the presence of road salt,[21] pesticides and herbicides, fertilizers, hydrocarbons,[22] and automotive exhaust which accompany land development. The fate of heavy metals, hydrocarbons and toxic organics in the surface watershed and ground water is only partially understood.[23] Moreover, the health effects of their accumulation in the water supply and of their consumption cannot be definitely stated.[24]

Given the diversity and number of water supply contaminants, concern arises over the efficacy of available and economically feasible treatment practices. Treatment facilities, the nature of the storage reservoir in terms of detention time and dilution and the travel of the water do affect water quality and should therefore be considered in evaluating the contribution of land associated with a given supply system.[25] However, treatment and storage cannot remove or deactivate all contaminants.[26] Therefore, in order to understand the role of treatment in permitting development of water supply lands, a specific treatment practice, such as chlorination, must be compared with a specific contaminant such as bacteria. Such an analysis of the relationship of given forms of treatment to a proposed land use

can only be conducted with reference to a particular land sale. Therefore, the administrative structure must be sufficiently detailed to accommodate this level of review.

F. Administrative Implementation of the Land Classification Criteria.

Given the Council's conclusion that utility ownership of certain water supply lands is an essential element in the protection of Connecticut's water supplies, the question immediately arises as to how all lands which fall into this essential class are determined. The Council has concluded that as a minimum land which falls within Class I should not be approved for sale, although it can be approved for change in use. It has concluded that land which falls into Class III can be approved for sale by the PUCA without additional Health Department review. Class II presents the most difficult area because it contains land which has little likelihood of approval for sale as well as land with a potential for increase use which is compatible with the purity and adequacy of Connecticut's water supplies. The Council has described the expansion of administrative review, monitoring and enforcement necessary to approve Class I lands for a change in use and Class II lands for sale and change in use. The General Assembly must evaluate these administrative changes and decide whether they

can be supported. If they cannot, the General Assembly will have to turn to increased prohibition of land sales or increased public acquisition of water supply lands to protect the public health of Connecticut's citizens. So that the General Assembly will realize the challenge of regulating limited use of utility lands, the pressures on the administrative structure are discussed at some length here.

Activities which contaminate water supplies are covered in preceding sections. They can be divided into two basic categories, point and non-point. Point sources of pollution are those which are confined to a single, identifiable and discrete point of entry. For instance, waste discharge pipes are point sources of pollutants. Non-point sources are diffuse, indefinite and general sources of pollution. Substances which can contaminate water supplies can also be divided into two broad categories, biological and chemical. Biological agents such as bacteria, viruses and protozoa are carriers of infectious diseases. Some chemical compounds may be toxic or carcinogenic to human beings.[27] The most intractable class of pollutants is non-point chemical contaminants. In this category fall many substances which inevitably accompany intense land use, such as pesticides, fertilizers, road salts, hydrocarbons, heavy metals.

These substances pose the most severe challenge to regulatory systems for two reasons, their relatively unknown physical consequences and their immunity from traditional legal deterrants.

G. Failure of Regulatory Schemes to Control Non-Point Sources of Pollution.

The failure of intensive regulatory efforts to eliminate non-point sources of pollution may reflect in part inadequate design and support of individual regulatory programs. Certainly, efforts can be made to remedy these deficiencies. However, there are inherent limitations to any regulatory program. These ought not be obscured by the debate over the particular deficiencies of existing programs. Fundamental limitations derive from essential charaacteristics of our legal system itself.

The legal system is designed to limit governmental intervention until a violation has occurred. Thus while regulations are promulgated which require preventive action, they are enforced by governmental response to their violation. This principle of limiting governmental intervention to specific instances of prohibited behavior is consistent with traditional Anglo-American ideals of civil liberty. However, in a society with increasing rates of technological change, delayed governmental response hampers control of technological hazards. Chemical

compounds are introduced into the environment in this country at the rate of 500 per year.[28] There is no possible way to determine which of these has toxic properties which must be regulated and to develop regulations at a commensurate rate. Thus, there is the initial regulatory lag created by the gap between the introduction of compounds and the knowledge of their behavior in the environment and their health consequences.

Even if the toxic properties of introduced compounds were known and subject to regulation, the fact remains that regulatory schemes respond to violations after they occur. Usually the actual retrieval of these compounds from the environment is technologically impossible or economically infeasible. Thus, there is a serious gap between the response of a regulatory agency and the elimination of the specific hazardous substance from natural systems. Contaminants cannot be reliably eliminated from natural systems, so they must be prevented from ever escaping into them.

Legal intervention responds to an identifiable event and an identifiable actor. Thus, the cumulative effects of individually insignificant and undetected actions escape regulatory control. Yet this is precisely the situation which occurs with most non-point sources of pollution. Agricultural and urban runoff contains substances which even in insignificant quantities can aggregate to degrade natural systems and affect human health.[29] Yet this pollution occurs through such a multitude of individually negligible events that regula-

tory controls are not triggered.

The nature of legal remedies also impedes effective control of non-point pollution. All remedies, criminal, civil, equitable, follow a determination of the parties rights. They therefore require a threshold level of inquiry to release the substantial resources such a determination requires. During the period in which the rights of the parties involved are determined, the alleged violation typically continues. Furthermore, there must be some reasonable balance between the offense and the remedy. It is difficult to imagine a jury sentencing a homeowner to imprisonment for violations of the sanitary code, yet this is typically the only sanction available to the local health district. Similarly, it is difficult to imagine a court enjoining the use of fertilizers in an agricultural community.

These characteristics of legal interventions are set forth to emphasize that no regulatory system can transcend the inherent limitations of our government system. Secondly they are set forth to emphasize that those limitations are especially severe in the control of non-point sources of pollutants. However, less abstract forces often cripple regulatory schemes long before their theoretical boundaries have been reached. The cost of monitoring environmental quality and enforcing environmental standards is frequently prohibitive. Equipment, legal and professional staff, administrative resources,

and political autonomy are all required by a properly operating regulatory agency. Yet in the vast majority of cases each and every one of these elements is flawed.(30)

H. The Role of Utility Ownership of Watershed Land.

The status of regulatory programs in the particular context of watershed protection is reviewed here to illustrate how the Council reached its conclusion that watershed protection in some instances requires utility ownership of water supply land. Land use control is necessary because some contaminants of significant concern to public health officials cannot be removed by any practical treatment from drinking water supplies once they are introduced. Furthermore, intense land-use may involve the introduction of many compounds whose properties are unknown now. Thus land use controls form an essential element in the protection of water supplies.

However, the Council also believes that responsible state policy must acknowledge the real limits of state regulatory abilities. The water utilities are legally obligated to provide water of a given quality and given quantity to their customers.(31) Connecticut is simply not able to shift the entire burden of watershed protection from the utilities to other land-owners because it is not able to insure the compliance of other private and public land-owners with desired levels of watershed

protection. The critical aspect of the proposed administrative structure is the resources it requires to transfer safely utility land to other owners.

I. Current State Agency Involvement in the Approval of Proposed Land Sales.

Two Connecticut agencies, PUCA and the Health Department, are involved with sales of watershed land. Each agency has a different perspective from which to evaluate a proposed sale. The PUCA can approve sales of land assets of investor-owned water utilities which are shown to be in the public interest,[32] presumably, a reflection of fiscal and other impacts upon the affected segment of the public. The Health Department approval of watershed land sales[33] is prerequisite to PUCA approval of the proposed sale.[34] The Health Department approval process which applies to all water utilities, is established in state regulation 13-19-B98. It is based on a determination of the effect of the proposed sale or change in use on the purity and adequacy of drinking water supplies. The Council's analysis of expanded involvement of state agencies in the approval of land sales and changes of use concentrates upon Health Department procedures. The participation of DEP is examined under the monitoring and enforcement requirements.

J. Proposed Changes in Health Department Administrative Review.

Proposed changes in Health Department administrative review are summarized here:

1. Structure of Review.

   a. Expansion of Health Department authority from its present jurisdiction which is limited to utility owned watershed land to include all utility land which falls within Class I and Class II of the land classification criteria.

   b. The adoption of the land classification criteria as the initial step in identifying the parcel.

   c. Adoption of the performance guidelines as a further definition of "affecting the purity and adequacy of the water supply."(35)

2. Application and Hearing Process.

   a. The inclusion of the prospective purchaser when identified as well as the seller in the application and approval process.

   b. The mandatory appearance of the DEP, the town in which the land is located, the town(s) in which the customers are located as parties in the hearing process.

   c. The permissive appearance of contiguous landowners and the Regional Planning Agency (RPA) in which the land is located as parties in the hearing process.

   d. The expansion of the application form to include whatever additional information may be deemed necessary. An initial guide to such information is provided in Table III.

e. Access to a professional review team which would contribute the combined expertise of planners, hydrologists, engineers to the hearing record.

3. Agency Determination.

a. The determination by the Commissioner of Health with the advice of Public Health Council and based on the hearing record, that the proposed land sale and change in use does not adversely affect the purity and adequacy of the water supply.

b. Specific principles of administrative review and evaluation of an application.

c. Specific written findings on the nature of the application to be submitted by the hearing examiner.

In order to understand fully the above described changes, it is necessary to understand also the principles of agency review which will guide the hearing examiner, Commissioner of Public Health and the Public Health Council in their evaluation of a proposed sale or change in use. The Council recognizes that administrative discretion plays a significant part in any agency determination. Decisions which are made now inevitably involve an element of judgment on the part of public health and water quality professionals. Therefore, absolutely predictable results from administrative review are neither possible nor appropriate. However, the Council feels that state involvement in the approval of proposed sales must respond to clearly defined principles of review in order to maintain the integrity of the review process and to further the state's ability to discriminate among types of water supply lands.

In deriving these principles, the Council emphasizes that one goal is to grant the utilities as much latitude in their land disposition policies as is consistent with the protection of public health.

The principles of administrative review and determination of particular concern to the Council are:

1. That the land classification criteria should be used as an initial indication of the importance of any specific parcel proposed for sale or change in use and that a rigorous and site-specific analysis be afforded each particular parcel.

2. That a portion of the review of a given application concern the role of the individual parcel in watershed management. The importance of an individual parcel results from a combination of many factors, including the physical characteristics of the parcel, its relationship to other utility holdings in the basin, and the amount of other utility holdings in the basin.

3. That the utility proposing the land sale or change in use specifically identify the change in use involved.

4. That the burden of proof required of the utility and the purchaser, when identified, is that they clearly show that the sale or change in use will not adversely affect water purity and adequacy.

5. That the purchaser, when identified, submit a detailed plan of use to be approved and formally agree to the conditions imposed by the administrative review of the utility's and of the purchaser's application.

6. That the permit to the utility lapse after two years unless a purchaser is identified who submits a detailed plan of use to the agency which is approved and who formally agrees to the conditions imposed by the administrative review.

7. That there be at least two different levels of review to promote the most effective use of the states' and the utilities' resources. Graduated levels of review should be developed for Class I and Class II so that the agency's and utility's resources are most effectively allocated.

K. Table III: Comprehensive Land Review for Proposed Watershed Land Sales.

The main areas of controversy encountered in the derivation of the land classification system can be summarized as follows: the proper role of limited control of watershed development, the proper evaluation of drinking water contaminants and the specific contribution of treatment facilities and water storage and travel. They must be resolved in the context of well defined changes in watershed management. Table III describes the data which may be required by the Health Department to evaluate properly proposed sales and changes in use. These are not to be construed as absolute requirements but as a guide to the reviewing agency. They attempt to remedy the varied and often seriously incomplete applications currently received by the Department of Health.

TABLE III

COMPREHENSIVE LAND REVIEW FOR PROPOSED WATERSHED LAND SALES REFERENCE LIST OF INFORMATION NEEDED

Watershed Topographic Base Map

1" = 2,000', or larger base map as required with a contour interval not greater than 10'. The outline of the watershed system should be shown on the base map and overlay maps should show classification designation.

Overlays

I. Physiographic Relief

A. Hydraulic channels leading to reservoir.

B. Drainage areas within the base map watershed outline.

C. Wetlands, classified or unclassified.

D. Steep slopes, fifteen (15) percent or greater.

E. Shallow to bedrock soils, generally less than 20 inches deep.

F. Bedrock geology, in particular sandstone, traprock, granite, schist.

G. Surficial geology, in particular glacial till, stratified drift, depth of stratified drift deposit, alluvial, swamp sediments.

H. Vegetation and forest type.

II. Land Use Constraints

A. Zoning - land use constraints for each zoning use.

B. Inland Wetlands - lands which consists of poorly drained, very poorly drained, alluvial, and flood plain soils, as designated by the Soil Conservaton Service (SCS).

C. Stream belts, Appendix item number 8.

D. Legally limited soils such as shallow to bedrock and areas covered by shallow

soils, less than 20 inches, with numerous rock outcrops, as defined by the Soil Conservation Service.

E. Hundred year flood plains.

III. Ownership and Surrounding Land Use Within A Specified Radius.

A. Location of Water Company owned land tracts.

B. Public lands such as State Forests and Highways.

C. Location of dedicated open space land: Land Trust, Nature Conservancy, dedicated town parks.

D. Agriculture lands such as farms and nurseries.

E. Residential ownership.

F. Recreational areas:

1) water-based

2) land-based.

G. Commercial areas.

H. Industrial areas.

IV. Water Company Reservoir System

Physical attributes of reservoir relative to watershed:

A. Watershed drainage area.

B. Capacity of reservoir.

C. Average daily draft.

D. Peak daily draft.

E. Detention time - average daily draft conditions.

F. Detention time - maximum daily draft conditions.

G. Average depth of reservoir or contours of reservoir bottom.

H. Location of distribution system intake.

I. Perimeter of reservoir.

J. Maximum effective length.

K. Maximum effective width.

V. Location of Proposed Land Use Change Relative To:

A. Distribution storage reservoir watershed.

B. Upstream storage reservoir watershed.

C. Stream or river diversion watershed.

D. Interception and detention zones of runoff before distribution reservoir.

VI. Details of Proposed Land Use Change

A. Site plan keyed to watershed system.

B. Horizontal and vertical extent of site disturbance, including access.

C. Permanent and temporary site changes.

D. Gradient changes expressed as percent of site.

E. Nature and horizontal extent of impervious materials used to cover the site.

F. Detailed estimate of use of site - number of vehicles, persons, purpose, frequency of use.

G. Detailed plan of sanitary sewage waste disposal system.

H. Detailed management of storm water runoff.

I. Detailed monitoring system.

VII. For Future Utility Use*

A. Wells.

B. Water storage tank sites.

C. Pumping station site.

D. Treatment plant site.

*Water utilities which own less than four acres may list response to VII.

E. Water transmission main or tunnel.

VIII. Climate

A. Average precipitation on watershed:

1. percentage as rainfall

2. percentage as snowfall

B. Distribution of precipitation by seasons.

C. Occurrence and frequence of intensive rainfall.

D. Snow melt.

IX. Hydrologic response of Watershed to Seasonal Climate

A. Fall low flows.

B. Winter precipitation.

C. Winter snow melt.

D. Spring rains, snow melt.

E. Summer precipitation - intensity of local storms.

X. Chemical, Physical and Biological Characteristics of Water Stored in Reservoir

A. Chemical:

1. dissolved solids.

2. metals.

3. pH.

4. alkalinity.

B. Physical:

1. suspended sediments and variations.

2. color and color variations.

3. temperature and temperature variations.

4. suspended colloids - organic and non-organic.

5. dissolved oxygen.

C. Biological:

1. plankton; zooplankton and phytoplankton.
2. bacteria; total coliform, fecal Streptoccus.
3. viruses.
4. protozoa, worms, snails, small crustaceans.

L. Additional Regulatory Responsibility for Transferred Land: Monitoring and Enforcement.

The modifications in the present structure of Health Department review described above concern only the application and hearing process. There are three additional phases of water supply protection connected with the approval process which must also be performed by state agencies; these are the monitoring of approved change in land use, the enforcement of conditions of the permit and the continuation of state control throughout subsequent sales. It must be emphasized again that the ability of state agencies to perform these additional functions effectively is central. If they cannot be reliably performed, then the entire purpose of the initial review, to provide as much latitude in utility sales and changes in use as is consistent with the public health, may have been thwarted. The General Assembly should consider the total administrative cost of land sales approval, monitoring and enforcement as it may then decide it would rather commit these resources directly to the acquisition of utility land.

The continued monitoring of the land use-water quality relationship as land use changes is of key importance to a progressive regulatory scheme as it constantly tests the validity of decisions on land sales. DEP and the Department of Health are the primary state agencies involved in water quality monitoring. The Health Department has the authority to enter land to investigate suspected sources of pollution.(36) This authority is not especially appropriate to the task at hand. The objective is the continuing collection of water quality-land use data not the isolated investigation of polluting activities. The DEP's statutory responsibilities to promote and coordinate water resource managment(37) are more suitable to this monitoring function. As part of its water resources management program, DEP ought to conduct the kind of long term monitoring which is sought here.

The approval of proposed land sales and changes in use may require that certain conditions be impose upon proposed land users. These conditions are designed to confine the impact of intensified use to acceptable limits and thus permit reduction of utility control. Clearly, when the state decides that utility ownership need not be retained to protect drinking water supplies if specified restrictions are obeyed, then it must insure that the purchaser meet his restricted land use commitments. The central task in evaluating enforcement procedures

is defining the degree of compliance required. The degree of compliance required to protect public health is directly correlated with the limits of original agency approval. The Health Department cannot approve land sales or changes in use in reliance upon rigorous restrictions if their enforcement is questionable. If enforcement is doubtful, then the premise of the original approval is destroyed and an alternative approach must be found. The land sale or change in land use must not be approved or the land must be publicly acquired and properly managed.

State agencies vary widely in their enforcement powers. The Commissioner of the Health Department is extremely limited in his enforcement abilities. Legal action must be taken through the Attorney General's Office[38] and penalties for violation of the Public Health Code are negligible.[39] In contrast to this cumbersome and ineffective system, the Commissioner of DEP has substantial and diverse enforcement powers. Given appropriate administrative resources, he can impose severe economic penalties,[40] both criminal and civil, and use other protective devices such as bonding.[41]

The contrast between agency enforcement powers indicates that DEP ought to enforce any final orders concerning the permissible use of transferred land.

If possible, this allows some greater certainty that orders will be obeyed and thus allows greater freedom to permit transfers from utility ownership. As in monitoring, the opportunity exists here to refine the state's land use control ability and thus diminish reliance upon utility ownership to maintain necessary levels of control.

Beyond the enforcement of permit conditions by the state agencies and through the state courts, private enforcement devices are also available. In the transfer of property, it is possible for the grantor (seller) to retain certain rights including the right to impose conditions of future use of the transferred land on subsequent grantees (purchasers). The area of deed restrictions is exceedingly complex. The common law of deed restrictions contains a perilous number of formal as well as substantive requirements for enforceable deed restrictions. Nonetheless, certain fundamental questions remain. How reliable are these private devices that depend upon the grantor for their enforcement? Are they the proper vehicle for the protection of vital public resources? The state's responsibilities here are perhaps not properly funneled into purely private agreements.

Another site of enforcement authority is the private citizen himself. The private attorney general concept enables the private citizen in certain circumstances to enforce state laws directly. This concept is used

in Connecticut's Environmental Policy Act[42] and supports citizen participation in the enforcement of land sale permit conditions. Because of the considerable expense of citizen involvement through private litigation, the possibility of citizen enforcement should not be relied upon except in unusual circumstances. However, it can be a significant avenue of relief when conventional administrative enforcement is thwarted. If the General Assembly feels this device is an important enforcement tool in this area, it may want to authorize the awarding of attorney's fees in these suits.

The focus until this moment has been upon the initial transfer of land from the utility to the private purchaser. However, the public health concerns which surround the strict state scrutiny of this sale remain through subsequent sales. If the state is to diminish its direct control over a specific parcel of land through approving sale, it must necessarily become concerned with the use of that land over the indefinite future.

The first purchaser's use is incorporated into the agency review procedure outlined above. The control of subsequent purchasers is achieved through land-use controls which apply to all land owners. While these controls are not satisfactory at present, there is hope that they may become more so in the future. In the interim, the state should have some means to continue its specific interest in a given parcel of land.

The conservation restriction is a statutorily created interest in land[43] which may be transferred to any state agencies that may hold interests in land.[44] The terms of the conservation restriction may be enforced against subsequent grantees by the courts. The Council suggests that this device be considered as a means of preserving the state's interest in key watershed lands once the initial transfer from the utility ownership is completed. At the time of utility sale, a conservation restriction could be created and transferred to the state. This would enable the state to enforce its interest, beyond general land use controls, in water supply lands through subsequent purchasers. If these surveying, monitoring, and enforcement costs cannot be sustained, then the administrative freedom to permit land sales must be concomitantly reduced.

M. PUCA and DEP Involvement in Land Sales

The development of an adequately detailed and precise administrative review of proposed land sales is the major area of state involvement in the utility land disposition process recommended by the Council. However, there are two other recommended areas of change. The first is an effort to harmonize the approaches of different state agencies to the sale of utility lands. It is recommended that the PUCA, which must find sale

of assets in the public interest, develop regulations which define the public interest, in the context of investor-owned water utility land sales, to be consistent with the review process and with the performance guidelines established by the Council. Secondly, the Council recommends that the water utilities file a specific forecast of land sales over the next twenty years with DEP. This forecast would enable the planning process to proceed more efficiently at the state and local levels.(45) In particular, it would facilitate the implementation of the Plan of Conservation and Development through appropriate public purchases.

The effective exercise by the DEP or relevant town of the statutory option to purchase utility land depends upon the ability of the state and towns to foresee the aggregate commitments they may have to make. Therefore, if the parcels proposed for sale are identified well in advance both as to their size and scheduled release, then the purchase option can be rationally incorporated into governmental planning. Furthermore, the need to involve the purchaser in utility land sales approval is an incentive to the utilities to involve the towns and state in long term planning in order to facilitate their own application procedures.

IV. FEDERAL AND STATE FILTRATION PLANT CONSTRUCTION REQUIREMENTS: PA 75-405 2(c)(5).

A. Introduction.

Water quality standards which may require the construction of filtration plants are derived from two laws: the Federal Safe Drinking Water Act,[46] and Connecticut PA 75-513.[47] The Safe Drinking Water Act (SDWA) directs the Environmental Protection Agency (EPA) to promulgate regulations which set maximum contaminant levels of finished water, water after treatment, or to establish treatment techniques and to set requirements for minimum quality of water which may be taken into the system. PA 75-513 directs the Health Department to meet the state's enforcement obligations under the federal law by adopting its own regulations pursuant to the Safe Drinking Water Act. State regulations may be more but not less stringent than the federal. The jurisdiction of the EPA and of the Health Department extends to the investor-owned water utilities in Connecticut covered by the Moratorium Act.

The EPA published its interim regulations[48] and the Health Department's proposed regulations became final in April 22, 1976.[49] The full impact of these regulations on Connecticut's water suppliers cannot be described because the final EPA regulations are not yet complete.

Furthermore, the characteristics of their supplies as they relate to the regulated parameters are not sufficiently well known. However, it is possible to describe the factors which bear upon the necessity of filtration plant construction under this regulatory scheme.

B. Factors Influencing Filtration Plant Construction

The specific standards which may require filtration are those for turbidity, color, odor, and visible objects. Turbidity is a measure of the amount of suspended particles in the water and is important in relation to the disinfection process. In order that the disinfection process may proceed effectively, the quantity of suspended particles in the water must be reduced. Chlorine, which is considered the best general disinfectant available, is a surface disinfectant which does not penetrate particles in the water. Pathogens, protozoa, bacteria and viruses, may not exist in the water alone but are likely to be associated with particles. Consequently, these particles must be removed if chlorination is to inactivate all pathogens. At this level the relationship between health and turbidity is known and supports the argument for filtration of drinking water. However, federal and state water quality standards allow precise numbers of turbidity units.[50] The debate arises as to which of these levels represents the maximum

compatible with public health. It is impossible at this time to prove or to disprove that a precise number of turbidity units (one, two, three, four or five) measured over whatever time interval, is, or is not, sufficient to protect public health.

This theoretical debate is compounded by a lack of empirical data on the water supplies of Connecticut. Connecticut has always been conservative in protecting its water resources and as a result has substantial protected utility holdings and generally high quality raw water. However, the turbidity characteristics of these water supply systems in relation to their biological quality are not known in detail. Thus, the specific relationship of these parameters to public health and exactly which portions of a supply system require filtration to meet any given turbidity standard are not known. Fortunately, additional data are being gathered and the Council strongly encourages such research.

Utilities may respond in a number of ways to statutory standards for water quality. A water supplier may choose not to implement treatment necessary to meet these standards and accept the consequences of non-compliance; although under the Public Health Code this is a criminal offense punishable by a prison term in addition to a monetary penalty.[51] He may seek to have a higher limit applied to him on the basis that no health hazard will

exist at the higher level or the supplier may decide how to meet the required standard.(52) The SDWA prescribes maximum contaminant levels even though it allows the prescription of particular treatment practices to produce water of acceptable quality. Therefore, the supplier may choose watershed management, or any other technique, over filtration to meet the turbidity standard until a particular treatment technique is prescribed.(53) All treatment plants must meet State Health Department approval.

This brief discussion shows that the major factor in determining acceptable turbidity levels is the judgment of the Health Department, EPA, and water suppliers. Neither the theories nor the data are complete enough to argue that there is a clear choice among EPA proposals which is best suited to Connecticut. Added to these factors is the more recent concern over the carcinogenicity of the chemical products of chlorination. This concern suggests that the chlorine needed to disinfect water should be reduced to an absolute minimum.(54)

Chloroform, a by-product of chlorination, occurs in the finished water and is now considered by the EPA to contribute to as much as forty percent of liver cancers in the United States.(55) Organic matter may exist in the raw water and may not be amenable to control at its source. The addition of chlorine to the water may form

chlorinated hydrocarbons which may have a chronic toxicity for humans.[56] It is possible to reduce the possibility of this consequence of chlorination if organic materials are removed by coagulation and filtration prior to chlorination.[57] Additionally, this treatment reduces the total amount of chlorine needed and increases treatment efficiency. Also, residual chlorine frequently combines with accumulated organic deposits and growths in the distribution piping in unfiltered systems. This process produces chloroform and allied chemicals within the distribution system, but, it is inhibited in filtered systems.

State Health Department tests have shown color to be an indicator of the presence of organic material which is the precursor to chloroform production. Rising color results in increasing amounts of chloroform. For many of Connecticut's surface waters, color may be the governing factor which necessitates a coagulation process in addition to filtration.

There are inherent limitations in the study of both biological and chemical hazards. The most conspicuous are the low incidence of reported diseases attributable to water quality and the extraordinary difficulty of establishing the specific causation between disease and specific contaminants. This is particularly true with respect to viruses, cysts and carcinogens because of non-existent standards and inadequate testing techniques. The cost constraint upon the utilities or the state impedes necessary research.

Water quality legislation and the associated state and federal regulations do not directly require filtration plant construction in Connecticut.[58] However, in some instances they may impose a standard which is most desirably met by filtration and other treatment practices. Given the general relationship of turbidity to health and the recently discovered relationship of chloroform to liver cancer, the Council suggests conservative turbidity standards to decrease the number of potential sites for viral and bacterial attachment.

A final uncertainty in evaluating the impact of filtration plant construction is its capital and operating costs. Costing is difficult because there is no reliable rule based on the amount of water treated to determine it. Rather, costs vary according to a variety of engineering factors and to the nature of a watershed and its use. The topography may allow gravity flow for collection of the water rather than pumping. The presence of substrates and sediments which contaminate the water so as to endanger health, such as nitrites, or clog normal plumbing facilities such as iron, or necessitate constant flushing of the system such as fine silts, or produce colors and odors which are difficult to eliminate such as natural organics in solution all influence filtration costs.

Multiple use of a watershed can contribute to the danger of erosion and sedimentation, pollution, eutrophication, and can increase the amount and number of toxic materials in the water.(59) Filtration can compensate for some effects of land use such as spring runoffs of silty materials from roads and flushing of organics and nutrients from wetlands. However, it cannot take care of a number of chemicals in solution. These compounds are introduced in pesticides, fertilizers, road salt, industrial and agricultural wastes, and automobile emissions, all of which commonly accompany development.(60) Therefore, any valid analysis of the relationship of filtration plant construction and operating costs to land sales or changes in watershed uses must constantly acknowledge the very specific role of these treatment plants and the very complex contribution of land use to water quality. Simultaneously, the economic benefits to the consumer of watershed protection which may prevent the need for bottled water, replacement of plumbing and the installation of treatment beyond filtration must be kept in the mind. Furthermore, an important fraction of the costs of filtration relates to energy, which is especially critical to any budget in the Northeast. Therefore, it is desirable to examine the relationship between treatment practices and various energy sources.

In summary, filtration plant construction is not the inevitable consequence of either the Safe Drinking Water Act and EPA's regulations or of PA 75-513 and the Department of Health regulations. But, the federal and state interest in water quality continues and their authority to set water quality standards increases. As additional data are developed, certain particular treatment techniques may be specified to deal as practically as possible with viruses and carcinogens. Therefore, a specific legal requirement of filtration plants may evolve, if federal or state agencies choose specific treatment practices. As the General Assembly pursues water quality, it must integrate the contribution of land use to water quality with the costs to the consumer of treatment facilities. In any case, methods of financing construction of treatment facilities which do not jeopardize water supply watershed land must be developed.

V. POTENTIAL ECONOMIC CONSEQUENCES OF THE ROLE OF UTILITY LAND OWNERSHIP IN WATERSHED PROTECTION.

A. Introduction.

As was emphasized in the introduction to this report, the utilities themselves vary enormously in their plans to sell or to retain land holdings. Moreover, the administrative decision on each individual parcel proposed for sale or change in use requires both a site-specific analysis and purchaser participation. Therefore, the exact results of agency review of proposed sales and changes in use cannot be predicted. This combination of diverse utility intentions[61] with extended agency reviews precludes precise identification of land which will be offered for sale or change in use. However, the General Assembly must anticipate that the Council's recommendations may interfere with the financial expectations of some water utilities by reducing the amount of land available for sale and by increasing the restrictions upon land which is available for sale. It may therefore, wish to consider some form of financial assistance to the water utilities.

B. State Assistance to Water Utilities.

The Council has become involved in the problem of assistance to the utilities solely because the issue of land sales has arisen in the context of the financial

needs of some utilities. However, the Council has consistently separated the evaluation of land sales and changes in use from a consideration of the utility's economic requirements. The state's obligation in analyzing land sales and changes in use is to protect the health of its citizens; its obligation in assisting the utilities financially is to enable them to meet the burdens of providing the necessary level of services. While these distinct concerns are consciously and unconsciously intermingled in the everyday world, effective state policy requires that these two issues be kept analytically separate. This is especially important if the prospect of short-term economic gains is not to overwhelm both long-term health and long-term economic consequences of land sales.

Before assistance is provided to the utilities, a number of economic studies must be performed to demonstrate satisfactorily that land sales will positively benefit the utilities and the consumer. These studies must involve both the Health Department and the PUCA as the consumer's interest is not limited to water rates. The quality of his water supply is of equal importance. Thus, long-term changes in water quality and water quality standards must be explicitly considered. The current debate over treatment of Connecticut's supply is almost exclusively focused upon filtration plant construction.

Conventional filtration plants, however, are not the ultimate in water treatment practices. Advanced treatment technologies such as granular activated carbon are available to remove dissolved organics not affected by filtration. Such treatment may be extremely expensive to install and to maintain.[62] The need for it is closely correlated with the quality of the raw water sources in question and hence with the quality of the watershed. Therefore useful economic analysis of the trade-off between land sales and treatment plant construction must consider cost of advanced treatment which may possibly be required.

In the event that the state is persuaded that those utilities that had expected essential financial returns from the sale of their land require state assistance, it may wish to revise present PUCA accounting practices and stimulate net utility income. The PUCA's own conclusions on the needs of the water utility industry are not to be overlooked. However, the multiple and potentially conflicting mandates to the state agencies involved with water utilities, land use, and water quality control suggest that a reorganization of agency priorities may be a prerequisite of a coherent state policy.

The Council agrees that a principle concern of a regulatory authority is to provide a rate of return on investment which is sufficient to attract necessary capital. If such a rate of return is not provided, the regulatory system becomes distorted, and artificial forces may motivate the management of utility assets. To avoid the possible subjugation of necessary water supply lands to short-term financial pressures, the Council suggests that the utility's rate base be reviewed. Several changes which might be specifically considered are the inclusion in the rate base of land held for future use and of construction work in progress.

This treatment of land held for future use might encourage the purchase of additional lands by the utilities to protect future sources of water. These acquisitions are part of a trading up scheme to achieve desired levels of water supply protection. The inclusion of construction in progress in the rate base represents an attempt to spread out the burden of substantial construction projects particularly those involving filtration plants over time and thus reduce their impact upon the utilities capital requirements.(63) Because of the drastic nature of this change, it might be limited to those construction projects specifically required to meet water quality standards imposed by statute.

C. Additional Sources of Utility Revenues.

Beyond the reorganization of PUCA accounting practices, there are substantive ways to alleviate financial pressures upon the utilities by increasing revenue or decreasing costs. The effect of both tacks is to augment the net revenue of the utilities.

Positive contributions which have been considered by the Council are: the sale of less than fee interests in land to the state or other parties; the sale of user fees for both scientific and recreational use of the land; and the transfer of development rights. The advantage of these arrangements to the utility is that they preserve the strict utility control deemed necessary to protect certain land while they permit increased return from the land. They are also advantageous to the grantee of less than fee simple interests who obtains only the desired use of the land but at a proportionately reduced cost.

To reduce utility costs the Council has considered public financing of treatment facilities and lease to water companies. Emphasis is generally placed upon the financing of public acquisition of land without ever addressing the ability of the acquiring public agency to afford the land the requisite degree of protection. This proposal directs public financing advantages to the alleviation of allegedly intolerable construction costs, leaving the necessary land in the demonstrably capable hands of the utilities. Public financing may

be accomplished by bonding and tax increment financing. Reductions in costs may also be generated by temporary tax credits to the utilities from the state or locality. This device removes one cost of utility operation without involving complicated substitution of governmental money.

It must be pointed out, that all of the above represent novel additions to utility revenues which will be channeled through PUCA accounting procedures. The Council emphasizes that the purpose of these extra monies is to amplify the financial resources of the utilities to enable them to meet treatment requirements without sacrificing necessary watershed lands. It is consequently of primary importance then that these funds remain available to meet capital requirements and not be automatically diverted to the rate-payer or stockholder. High quality water is a valuable commodity and its protection justifies the commitment of economic resources.

VI. PUBLIC ACQUISITION OF UTILITY LANDS: PA 75-405 2(c), (2), (4), (6).

A. Introduction.

The Moratorium Act contains three separate sections which refer to the municipal acquisitions of water utility lands:

1. Develop policies and procedures to assist municipalities in acquiring such lands [PA 75-405 2(c)(2)].

2. Study the legal questions relating to the price at which surplus land might be sold, including the legal basis for municipal and state purchase of water utility land at a price based on the initial purchase cost to the utility, and the legal basis for water utilities to sell land purchased under the power of eminent domain for profit [PA 75-405 2(c)(4)].

3. Develop provisions for the long term acquisition of surplus water company land over a period of fifteen to twenty years by the state or towns, and for restriction of the per cent of land within a given town which a water company may sell in a specified period without town approval [PA 75-405 2(c)(6)].

These sections pertain to three aspects of public acquisition, the purchase price of utility land, the scheduled release of utility land and mechanisms available to assist acquiring entities, particularly the town and state.

The term public acquisition is used throughout this report to avoid the cumbersome identification of federal, state and local governmental efforts. Municipal concerns are common to all public purchasers and so the more general term is appropriate here.

B. The Purpose of Public Acquisition.

A careful reading of these sections shows them to follow the original dichotomy between essential and surplus utility lands established in section 2(c)(1) of the Act. The consistency of the General Assembly's approach reveals its assumption that only surplus lands would become available for sale and hence for public acquisition. However, just as the development of adequate land classification criteria requires a more elaborate approach, so does the consideration of public acquistion take on additional complexity. The land classification criteria reflect the significant variability of water utility land both on and off the watershed. This variability warrants a distinction among classes of land all of which affect the purity and adequacy of public drinking water supplies. There is land which so affects water supplies that continued utility ownership is required. There is also land which affects the purity and adequacy of public drinking water supplies but to a degree that permits changes in ownership and controlled intensification of use. Finally, the utilities own land which is extraneous to the protection of water supplies.

The utilities differ widely among themselves as to plans for disposition of land. On the one hand, there are utilities which have proposed extensive land sales which in one case consist of well over half its present holdings. On the other hand, there are utilities that have not had any plans to, and do not intend to sell any land. Therefore, the individual towns across the state are not faced with a monolithic desire on the part of the water utility industry to dispose of its collective land holdings.(64) Furthermore, the process of sale may be subject to negotiation between public purchasers and the selling utility. As a result regardless of what specific sales finally occur, the Council anticipates that land whose future use is restricted and land whose future is unrestricted will become available for sale.

The effect of this complicated interplay between the land classification criteria, the state approval process and the utility's own incentive for sale or retention of land places potential public purchasers in an uncertain arena. Therefore, before the particular statutory charges relating to public purchase are considered, the purpose of and opportunity for public acquisition of utility lands are examined.

Beyond the requirement that all public acquisition be justified as a legitimate governmental activity, there are essentially three reasons why a public agency might purchase utility land. The first is to add an additional degree of protection to land especially involved with water supply. For instance, a particular town may not wish to rely upon or to fund the expanded enforcement of sanitation codes. It may prefer to purchase land and control its use directly rather than intervene in the conduct of a third party, the new owner. Secondly, the opportunity may exist to enhance the recreational, open space and wildlife resources of the town, region or state. For instance, some water company land is adjacent to public land already dedicated to open space. In these circumstances, the purchase of utility land is an attractive opportunity to augment their resources. Finally, a town may wish to purchase utility land in order to better control its own development.(65) For instance, towns with substantial utility holdings may choose to phase their development through the planned release of town-owned land rather than rely upon independent action by the utilities. These reasons for public acquisition may often be combined in any given situation. They are separated here to emphasize the diversity of public interest in the future of these lands. They are also separated because public planning for acquisition will proceed more efficiently if its goals are determined in advance.

C. Sale Price of Utility Land [PA 75-405 2(c)(4)].

The Council has uncovered no legal precedent in either statutory or case law for the proposition that fair market value need not be paid for utility land because of the eminent domain powers granted to these companies and therefore recommends that public acquisition be at fair market value. That is not to say that no legal argument could ever be constructed to reduce the price of land because of the exercise or threatened exercise of eminent domain powers. Nor is it to say that no legal argument could ever be constructed to reduce the purchase price of this land on the basis of other legal doctrines such as the public trust. However, it is not the Council's function to generate speculative arguments which may require judicial validation. Rather, its function is to review existing precedent and to report to the General Assembly. Should the General Assembly then wish to create and impose new legal doctrine concerning the price of land it is free to do so.

The Council's research uncovered extremely few cases on this subject. However, no American case was discovered which restricts the resale or the resale price of property on the basis of the eminent domain powers of the seller.(66) No case approached the complicated argument which must be made for Connecticut's utilities. Here, although condemnation authority was vested in the utilities, it

was only exercised in approximately four percent of total land acquisitions.[67] Therefore, it would be necessary to argue that the mere existence of condemnation authority affects the resale price of any property subsequently sold by the utility. Certainly new legal strategies are attempted every day and Connecticut is not prevented from attempting to develop new doctrine in this area. However, the Council cannot urge such an effort because of the extreme paucity of supporting precedent in American Law.

It should be added that the fair market value of land is not the price which may be paid for land whose use is completely unrestricted. Fair market value reflects any incumberances upon the use of land, whether privately or publicly imposed. Therefore, computations of fair market value for water utility land will differ according to any restrictions which might be placed upon the use of that land because of its importance to public water supply. The calculation of fair market value may be particularly difficult to predict when the land is acquired by a public agency. How restrictions on use affect negotiated prices and prices established in condemnation proceedings will vary.

D. Devices Available to Assist Public Purchase and the Centralization of Acquisition Programs [PA 75-405 2(c)(2), (6)].

The devices which may be available to the municipalities and the state for the purchase of water utility land do not vary according to the restricted or surplus nature of the land in question. However, there are a number of significant responsibilities that attend the acquisition of restricted land which ought to be mentioned here.

The central characteristic of land in Class I and II is that certain conditions accompany its approval for sale or change in use to prevent adverse impact upon the water supply. The public purchaser must realize that this land cannot sustain uncontrolled use, whether recreational, residential, commercial or industrial. Therefore, a commitment to the proper management of restricted land must accompany public acquisition. In contrast, the central characteristic of Class III land is that its use is unrestricted from the perspective of water supply management. It is, of course, still subject to all the general controls which apply to land use in Connecticut. Thus, the acquisition of Class III land entails no direct responsibility for the proper management of water resource lands.

All the specific ways to facilitate public acquisition of these lands share one characteristic, they reduce the burden upon the purchaser by reducing the direct cost to it. There is no magical way in which money can be produced from air but payments may be spread over time and over additional parties. Payments may also be limited to the purchase of certain interests or made in other than direct cost transfers. Particular devices which have been considered by the Council are:

1. Direct purchase by state or towns from land acquisition funds.
2. Bureau of Outdoor Recreation matching grants.
3. Bonding approval of specific parcels.
4. Land banking programs utilizing a specific portion of the mill rate.
5. Negotiated scheduling of the release of utility lands.
6. Purchase of less than fee interests in land, such as development rights, easements, conservation restrictions.
7. Trading or transfer of land or of less than fee simple interests in land.
8. Tax increment financing.
9. Donation of utility lands.
10. Private purchase and dedication.

This summary can serve as an initial and general guide for public acquisition efforts. Eventually, a specific analysis of proposed public purchases and of the available funds must be made in any given instance.

It may be added here that even without any financial assistance, the towns or the state may choose to purchase utility lands. They may reap net benefits either by maintaining the negligible costs of these lands to the town or by avoiding the costs of regulating use of these lands. Towns in Connecticut have calculated that residential developments often create net tax losses to the towns. If these conditions apply, a town may have sufficient economic incentive to purchase utility lands without additional assistance. As was emphasized in the section on administrative review, the state may allocate its resources more wisely if it purchases land rather than attempting to regulate its increased use.

The Council recommends that a central office be authorized to assume responsibility for assisting and coordinating public acquisition of utility land. The logical choice for such an office is the land acquisition bureau of DEP which is notified automatically of any proposed utility sale. Furthermore, this office is familiar with all state and federal programs to assist acquisition of recreation and resource land and so can avoid duplication of effort by individual purchasers. A central office also encourages private individuals and the utilities themselves to coordinate their assistance efforts in the most efficient manner. Coordination and assistance are particularly important if the towns and states are to make rational use of their purchase

option and to maximize their opportunities under this statutory provision. This office should also provide and supervise technical assistance in mapping and evaluating utility lands. This is an area where the professional review team concept may also be extremely useful.

E. Major Institution Reorganizations.

The question of public acquisition of utility lands has been examined here in the limited context of the acquisition of specific parcels by towns or the state. This process does not imply any dramatic shift in the management of land now held by the utilities. The anticipated redistribution will be marginal and well within established patterns of water supply land ownership. However, there have been several proposals which would entail a fundamental and radical reorganization of land ownership patterns.(68) The Council feels that the underlying challenge of proper resource management is not necessarily diminished with such changes in the ownership of a few utilities. However, for the sake of completeness, several of these proposals are mentioned here.

The first proposal is for the municipal acquisition of investor-owned utilities. The second is for the transformation of an investor-owned utility into a regional water district. The third is for the separation of investor-owned utilities into two entities, a publicly owned water

supply system which would reap the financial benefits of public ownership and a privately held land trust which would reap the benefits of immunity from development pressures. Each of these proposals involves basic philosophical considerations on the role of private enterprise in our society and in the provision of essential services. The Council feels that such basic questions are best resolved through the political process rather than from the narrow viewpoint of water utility management.

However, the Council can contribute to the debate over such substantial institutional changes as a result of experience with the complex and intractible issue of the land use-water quality relationship. The state and towns must prevent degradation of drinking water supplies through refined administrative procedures and enhanced administrative resources. These challenges persist regardless of major reorganization of one or more individual utilities. Finally, the Council's fundamental conclusions on the legal and economic aspects of a state policy on water supply lands remain. Utility ownership of certain water supply lands plays a central, albeit perhaps temporary, role in the protection of water supplies. Governmental approval of utility land sales must firmly protect the public health of Connecticut's citizens and must therefore be clearly separated from the financial obligations of the water utilities.

VII. INVENTORY OF UTILITY LANDS: PA 75-405 2(b)(1).

A. Introduction.

Section 2(b)(1) directs water companies to file with the Council an inventory of land as prescribed by the Council and to file with the towns an inventory of all unimproved real property within town boundaries. This section defines water companies according to Connecticut General Statute 16-1. This definition specifically excludes publicly-owned utilities. However, as the Health Department was simultaneously updating its own inventory of the investor and publicly held water utilities under its jurisdiction, both inventories were merged and questionnaires were sent to all water utilities. The Council, while not able to enforce this provision, also reminded the utilities of their obligation to report to the towns.

Aside from their obligations under PA 75-405, all water utilities must file with both the Health Department and the PUCA. The Health Department can require inventories from water utilities which serve two customers or more[69] and its files include many small companies operating one well or more for trailer parks or housing developments. The PUCA requires annual reports with fifty or more customers.[70]

PUCA classifies the utilities according to their

annual revenues:[71] Class A, greater than $50,000; Class B, betweeen $25,000 and $50,000; and Class C, less than $25,000. According to its records there are 131 investor-owned water utilities and 40 municipally owned water utilities in Connecticut. These utilities together own approximately 133,000 acres of watershed land; 61,000 acres are held by investor-owned utilities and 72,000 acres are held by municipally owned utilities.

There are also two regional water districts; the Hartford Metropolitan District Commission with 18,922 acres in Connecticut and the Southeastern Connecticut Water Authority with negligible land holdings as it is served predominantly by ground water wells. There are nine state owned water utilities. These are associated with the state hospitals, correctional institutions, and airports. Only three filed with the Health Department at this time with a total of 1396 acres.

B. Results of the Inventory of Investor-Owned Water Utility Lands.

Not all of the very small companies answered the inventory. Of those that replied, twenty indicated no land holdings and fifty-six indicated holdings ranging from 0.1 to 84 acres with the majority holding less than 10 acres. Within the B and C classes there are utilities which operate only from wells and others which have small holdings, such as Heritage Woods Water Company with 369

acres, and Thompson Water Company with 86 acres.[72] There are also companies which are subsidiaries of Class A investor-owned utilities. Their holdings have been included under the parent company in Table IV. Twenty investor-owned water utilities in Class A, hold the majority of the investor-owned utility lands.

The majority of the acreage is held by a few utilities, the Ansonia-Derby Water Company, The Connecticut Water Service Company and subsidiaries, The Hydraulic Company and subsidiaries, New Haven Water Company, and the Torrington Water Company. The remainder, scattered throughout the State, is held by utilities with less than 1000 acres each.

The greatest number of acres occur on the water supply watersheds and are included in the rate base. These five utilities own 94 percent of the acreage on the watershed. They also own 6212 unimproved acres off the water supply watersheds. Portions of off watershed lands which are filed with the PUCA as "surplus" to the water supply are not included in the rate base. These utilities' surplus holdings range from 4 to 20 percent of their total holdings. Some companies are planning to dispose of these lands. Only The Hydraulic Company, The Connecticut Water Service Company, New Haven and Torrington Water Companies have lands held for future use. These lands, filed in the Annual Reports to the PUCA, are not allowed in the rate base.[73]

The majority of the investor-owned water utilities' lands occur in the planning regions of Central Naugatuck, Connecticut River Estuary, Greater Bridgeport, Litchfield Hills, and South Central. The regional planning inventory should also include the land holdings of publicly-owned water utilities. Since they are excluded from the Council's jurisdiction, perhaps the Department of Health could continue the inventory and include publicly-owned utility holdings. That expanded inventory would be used also by the recommended office within DEP to analyze further total utility holdings. In the meantime, a summary of total holdings as of 1965 is given in the report of the Interagency Statewide Water Resources Planning Program[74] of the Departments of Planning and Energy Policy and Environmental Protection and the Department of Health.

C. Table IV: Class A Investor-Owned Water Utility Land Holdings.

Table IV lists the Class A utility responses to the Health Department. The acreage under each subheading is either taken directly from the filed inventories or measured with a polar planimeter from the accompanying maps. These acreage data include reservoir surface water area as well as the surrounding land. The four subheadings are unimproved lands on and off the watersheds, improved lands, and land held for future use for water supply.

TABLE IV

CLASS A INVESTOR-OWNED WATER UTILITY LAND HOLDINGS

Utility	Unimproved on watershed	Unimproved off watershed	Improved†	Future Water Supply Use	Total
Ansonia-Derby Water Co.	3626	172+	60	0	3858
Avon Water Co.	0	0	10	0	10
Connecticut Water Service Company*	4038	372	2148	303	6861
Crystal Water Co.	283	20	114	0	417
Farmington Water Co.	60	2	1	0	63
General Waterworks - N.E. Division*	490	20	120	0	630
Greenwich Water Co.t	906	0	16	0	922
Hazardville Water Co.	0	0	37	0	37
Jewett City Water Co.	193	135	40	0	368
Mystic Valley Water Co.	210	0	61	0	271
New Canaan Water Co.	182	20	30	0	232
New Haven Water Co.	18385	1710	3304	2453	25852
Noroton Water Co.	0	19	6	0	25
Plainville Water Co.	179	25	78	0	282
Ridgefield Water Supply	1	0	51	0	52
Stamford Water Co.	580	0	390	0	970
The Hydraulic Co.*	16474	2707	383	580	20144
Torrington Water Co.	3200	1010	365	560	5135
Unionville Water Co.	0	0	7	0	7
Village Water Co. of Simsbury	46	0	24	0	70
TOTALS	48853	6212	7245	3896	66206
% of the Total	74	9	11	6	

†Those lands with buildings, pumphouses, tunnels, aqueducts, wells and treatment plants.

+Ansonia-Derby Water Co. anticipates abandoning portions of their watershed for surface water supply in favor of ground water supplies. At that time their off watershed acreage will increase to 1366 acres - an increase of 1194 acres.

Table IV Continued

*The inventory for each subsidiary has been calculated and filed with the Department of Public Health in Hartford. The results are listed below.

Name	Total
Connecticut Water Service Company: 6 subsidiaries	
Broadbrook Water Co. (Class A)	17
Collinsville Water Co. (Class B)	13
Rockville Water & Aqueduct Co. (Class A)	1111
Terryville Water Co. (Class A)	185
Thomaston Water Co. (Class A)	306
Connecticut Water Co. (Class A)	5231
General Waterworks Co.: 3 subsidiaries	
New Milford Water Co. (Class A)	364
Newtown Water Co. (Class A)	3
Woodbury Water Co. (Class B)	264
The Hydraulic Co.: 6 subsidiaries	
Bridgeport Hydraulic Co. (Class A)	18479
Litchfield Water Co. (Class A)	26
North Canaan Water Co. (Class B)	31
Norfolk Water Co. (Class B)	1180
Cornwall Water Co. (Class C)	8
Lakeville Water Co. (Class B)	420

†Lands in New York State are not included.

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29. See notes 13, 18, 19, 23 supra.

30. Connecticut Enforcement Project. 1975.

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32. Conn. Gen. Stat. (rev. 1975) §16-22.

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55. H.R. Rep. No. 1185, 93d Cong. 2d Sess. 10 (1974).

56. See note 27 supra.

57. Baum. 1976.

58. 42 U.S.C. § 300g-4.

59. See notes 18, 20, 21, 22, 23 supra.

60. Woodhull. 1972.

61. See Section VII, Inventory of Utility Lands.

62. See note 26 supra.

63. Crawford. 1976.

64. See Bridgeport Hydraulic Co. 1976.

65. Guilford, Ad Hoc Committee. 1975.

66. Tripp, J.T.B., Memorandum to the Connecticut Council on Water Company Lands, October 22, 1976.

67. Analysis of Inventory filed with the Department of Health, 1976.

68. Commission to Study the Feasibility of Regionalization of the New Haven Water Company. 1976.

69. Conn. Gen. Stat. (rev. 1975) § 25-32a.

70. Conn. Gen. Stat. (rev. 1975) § 16-1.

71. Connecticut Public Utilities Control Authority, Uniform System of Accounts (1976).

72. The Thompson Water Company has permission from the PUCA and the Department of Health to sell 69 acres which are off its water supply watershed.

73. PUCA, 1975.

74. See note 3 supra.

Appendices

Substitute House Bill No. 5438

PUBLIC ACT NO. 75-405

AN ACT CONCERNING THE SALE OF WATER COMPANY LANDS.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

Section 1. (NEW) There is established a council on water company lands which shall be composed of the commissioner of environmental protection or his designee, the commissioner of health or his designee, the chairman of the public utilities commission or his designee, the director of planning, planning and budget division, department of finance and control or his designee, all of whom shall be ex-officio members with the power to vote and three representatives of the general public to be appointed by the governor of whom one member appointed by the governor shall be upon written recommendation of the south central regional planning agency and one member appointed by the governor shall be upon written recommendation of the greater Bridgeport regional planning agency. The council shall elect a chairman from among its members appointed by the governor and shall adopt such rules of procedure as are necessary to carry out its functions. Members of the council shall not be compensated for actual expenses. The departments of environmental protection, finance and control and health and the public utilities commission shall cooperate with the council and shall furnish such information, personnel and assistance as may be necessary to carry out the council's duties pursuant to section 2 of this act. Any such services or assistance required by the council shall be provided by said departments and shall be charged to the appropriations available to those agencies.

Sec. 2. (NEW) (a) Notwithstanding any other provision of the general statutes, no water company, as defined in section 16-1 of the general statutes and having the power of eminent domain, shall sell or otherwise transfer to other than a municipal or state agency any unimproved real property or any interest or right therein in excess of three acres or develop such property, for any use not directly related to a public service function other than for public recreational use as governed by section 25-43c of the general statutes for a period of two years from the effective date of this act without the written approval of the council and the chief

executive officer of the municipality in which the land is located.

(b) During the first year of said two year period each water company shall file (1) with the council an inventory with such form and content as are prescribed by the council of all unimproved real property owned by such company and (2) with each municipality an inventory of all unimproved real property owned by such company within the boundaries of the municipality.

(c) The council shall do the following and report its interim findings and legislative recommendations to the general assembly on or before February 15, 1976, and present its final report to the general assembly on or before February 15, 1977: (1) Develop criteria for determining which, if any, water company lands may be surplus with regard to the purity and adequacy of both present and future water supply and which, of any lands determined to be surplus may be desirable for specified modes of recreation or open space use and which may be suitable for other uses, (2) develop policies and procedures to assist municipalities in acquiring such lands, (3) study and make recommendations for executive and legislative action for a state policy regarding the disposition of water company lands, (4) study the legal questions relating to the price at which surplus land might be sold, including the legal basis for municipal and state purchase of water utility land at a price based on the initial purchase cost to the utility, and the legal basis for water utilities to sell land purchased under the power of eminent domain for profit, (5) study the requirements of the Federal Safe Drinking Water Act, P.L. 93-523 and of state laws for filtration plant construction, (6) develop provisions for the long term acquisition of surplus water company land over a period of fifteen to twenty years by the state or towns, and for restriction of the per cent of land within a given town which a water company may sell in a specified period without town approval.

Sec. 3. Subsection (a) of section 16-50d of the general statutes is repealed and the following is substituted in lieu thereof:

(a) Within ninety days after such [notice] APPROVAL BY THE PUBLIC UTILITIES COMMISSION has been so given, such chief executive officer or officers or the commissioner of environmental protection may give written notice to the

commission and to the public service company by certified mail, return receipt requested, of the municipality's or the state's desire to acquire such land and each shall have the right to acquire the interest in the land which the public service company has declared its intent to sell, lease or otherwise dispose of, provided the state's right to acquire the land shall be secondary to that of the municipality.

Sec. 4. Subsection (c) of section 16-50d of the general statutes is repealed and the following is substituted in lieu thereof:

(c) Within [ninety days] EIGHTEEN MONTHS after notice has been given by the municipality or the state, of its desire to acquire such land, as provided in subsection (a), [or within ninety days after the public utilities commission has approved the disposition of such property, whichever is later,] the public service company shall sell the land to the municipality or the state, as the case may be, written notice of which sale shall be given by the public service company and the municipality or the state to the public utilities commission or, if the parties cannot agree upon the amount to be paid therefor, the municipality or the state may proceed to acquire the land in accordance with the procedure prescribed in section 48-12 PROVIDED IF SUCH LAND IS SUBJECT TO THE PROVISIONS OF SUBSECTIONS (b) AND (c) OF SECTION 25-32, SUCH LAND SHALL NOT BE SOLD WITHOUT THE APPROVAL OF THE DEPARTMENT OF HEALTH.

Sec. 5. This act shall take effect from its passage except that this act shall not apply to applications for sales of land submitted under provisions of sections 16-43, 16-50c and 25-32 of

the general statutes which were submitted prior to the date of enactment of this act and which are pending at the time of the enactment of the act.

Certified as correct by

_____
Legislative Commissioner.

_____
Clerk of the Senate.

_____
Clerk of the House.

Approved June 25, 1975.

_____
Governor.

Substitute House Bill No. 5684

PUBLIC ACT NO. 76-123

AN ACT CONCERNING THE SALE OF WATER COMPANY LANDS.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

Section 1. Section 2 of public act 75-405 is repealed and the following is substituted in lieu thereof:

(a) Notwithstanding any other provision of the general statutes, no water company, as defined in section 16-1 of the general statutes and having the power of eminent domain, shall sell or otherwise transfer to other than a municipal or state agency any unimproved real property or any interest or right therein in excess of three acres or develop such property, for any use not directly related to a public service function other than for public recreational use as governed by section 25-43c of the general statutes for a period of two years from June 25, 1975 without the written approval of the council and the chief executive officer of the municipality in which the land is located. ANY MUNICIPALITY WHICH ACQUIRES, BY CONDEMNATION OR OTHERWISE, UNIMPROVED REAL PROPERTY OR ANY INTEREST OR RIGHT THEREIN IN EXCESS OF THREE ACRES FROM SUCH A WATER COMPANY ON OR AFTER THE EFFECTIVE DATE OF THIS ACT SHALL BE SUBJECT TO THE PROVISIONS OF THIS SECTION.

(b) During the first year of said two year period each water company shall file (1) with the council an inventory with such form and content as are prescribed by the council of all unimproved real property owned by such company and (2) with each municipality an inventory of all unimproved real property owned by such company within the boundaries of the municipality.

(c) The council shall do the following and report its interim findings and legislative recommendations to the general assembly on or before February 15, 1976, and present its final report to the general assembly on or before February 15, 1977: (1) Develop criteria for determining which, if any, water company lands may be surplus with regard to the purity and adequacy of both present and future water supply and which, of any lands determined to be surplus may be desirable for specified modes of recreation or open space use and which may be suitable for other uses, (2) develop policies and procedures to assist municipalities in acquiring such lands, (3) study and make recommendations for executive and

legislative action for a state policy regarding the disposition of water company lands, (4) study the legal questions relating to the price at which surplus land might be sold, including the legal basis for municipal and state purchase of water utility land at a price based on the initial purchase cost to the utility, and the legal basis for water utilities to sell land purchased under the power of eminent domain for profit, (5) study the requirements of the Federal Safe Drinking Water Act, P.L. 93-523 and of state laws for filtration plant construction, (6) develop provisions for the long term acquisition of surplus water company land over a period of fifteen to twenty years by the state or towns, and for restriction of the per cent of land within a given town which a water company may sell in a specified period without town approval.

Sec. 2. This act shall take effect from its passage.

Certified as correct by

_____
Legislative Commissioner.

_____
Clerk of the Senate.

_____
Clerk of the House.

Approved May 4, 1976.

_____
Governor.

2. Members of the Council on Water Company Lands and of the Technical and Legal-Economic Subcommittees.

Council:

From the Public:		
* Sarah W. Richards	Chairman	South Central Regional Planning Agency
* Ralph S. Loew	Chairman, Legal-Economic Subcommittee	Greater Bridgeport Regional Planning Agency
* Muriel Lightfoot		Governor's Appointee Westport, Ct.
State Agencies:		
Douglas S. Lloyd, M.D.	Commissioner	State Department of Health
(represented by)		
* Richard S. Woodhull	Chief Chairman, Technical Sub-committee	Water Supplies Section State Dept. of Health
Albert Kleban	Commissioner	Public Utilities Control Authority
(formerly Howard E. Hausman;	Commissioner	Public Utilities Commission)
represented by)		
* Gerald McCann	Commissioner	Public Utilities Control Authority
Peter Kosak		Engineering Division Public Utilities Control Authority
Joseph N. Gill	Commissioner	Department of Environmental Protection
(represented by)		
* Theodore B. Bampton	Deputy Commissioner	Department of Environmental Protection

Lynn Alan Brooks	Commissioner	Department of Planning and Energy Policy
(formerly: Jay O. Tepper	Commissioner	(Department of Finance and Control)
(alternate for Comm. Brooks)		
* Harold I. Ames	Director	Plans Development Divison Department of Planning and Energy Policy

* voting members

Technical Subcommittees:

Richard S. Woodhull	Chairman	Department of Health
Harold I. Ames		Department of Planning and Energy Policy
Peter Kosak		Public Utilities Control Authority
Joseph Hickey		Department of Environmental Protection
Otto Schaefer		Land Manager New Haven Water Company
Richard Calhoun		Vice President Torrington Water Company
William Guillaume		Vice President - Operations Connecticut Water Company
represented by:		
James McQueen		Engineer-Operations and Projects Connecticut Water Company
Sarah W. Richards	Ex-Officio	

Legal-Economic Subcommittee:

Ralph S. Loew	Chairman	
John Crawford		Vice-President New Haven Water Company
Larry Hall		Planner Greater Bridgeport Regional Planning Agency
Orville Tice		Assistant to the Dean Yale School of Forestry and Environmental Studies
Sarah M. Bates		Attorney Conservation Law Foundation of New England
James T.B. Tripp		Attorney Environmental Defense Fund
Haynes Johnson		Attorney Parmalee, Johnson & Bollinger Stamford, Ct.
Peter Cooper		Attorney Sosnoff, Cooper & Whitney New Haven, Ct.
Fred Hanssen		Financial Consultant Redding, Ct.
David Parish		Architect Bridgeport, Ct.
Ernest R. Steiner		Builder Fairfield, Ct.
Sarah W. Richards	Ex-officio	

3a. TESTIMONY PRESENTED AT THE PUBLIC HEARING ON NOVEMBER 29, 1976

Donald W. Loiselle	Vice-President, Bridgeport Hydraulic Company
E. Robert Baumann	Anson Marston Distinguished Professor of Engineering, Department of Civil Engineering, Iowa State University, Ames, Iowa for Bridgeport Hydraulic and New Haven Water Companies
Herbert E. Hudson	President of Water and Air Research, Inc., of Gainesville, Florida. for Bridgeport Hydraulic and New Haven Water Companies
Otis J. Sproul	Professor of Civil Engineering, University of Maine, Orono, Maine. for Bridgeport Hydraulic and New Haven Water Companies
Richard P. McHugh	Vice-President for Engineering, New Haven Water Company
Russell J. deLucia, Jochen Kühner, and Michael Schapiro	Meta Systems, Inc. Cambridge, Mass. for Bridgeport Hydraulic and New Haven Water Companies.
John Crawford	Vice-President & Secretary, New Haven Water Company
John B. Dearborn	President, Ansonia-Derby Water Company
Robert E. Johnstone	Regional Engineer, General Waterworks Company
J.L. Rogers	President, Greenwich Water Company, Mystic Valley Water Company and Noroton Water Company

3b. TESTIMONY SUBMITTED INTO THE HEARING RECORD.

Jacob Cooperman, Vice-Chairperson of IMPACT, 1 Winslow Drive, West Haven, Conn. 06516

Rita D. Kaunitz

Connecticut Association of Realtors, Inc.

Frederick R. Leavenworth, Connecticut Association of Conservation Commissions

R. Langenhan, Vice-President, Conservationists of Stamford, Inc.

Doris P. Anthony 6 Stewart Lane, Wilton, Conn. 06897

Selectmans' Office, Town of Weston, Conn.

4. TASK FORCE MEMBERS AND PANEL PARTICIPANTS YALE SCHOOL OF FORESTRY AND ENVIRONMENTAL STUDIES

I. Information Booklet -

Larry Schaefer	Editor	E - P Educational Services
Sally Hasted	Writer	E - P Educational Services

II. Legal and Economic Issues

Sarah M. Bates	Attorney, Conservation Law Foundation of New England
Clark S. Binkley	graduate student, Yale School of Forestry and Environmental Studies
Louis B. Cohen	3rd year student, University of Connecticut School of Law
Peter B. Cooper	Attorney, Sosnoff, Cooper & Whitney New Haven, Conn.
Ivan Hubbard	Associate Professor of Economics, Quinnipiac College Mt. Carmel, Conn.
Robert Mendelsohn	graduate student, Economics Department, Yale University New Haven, Conn.
William M. Snyder	City Planning Department New Haven, Conn.
Orville M. Tice	Project Director, Assistant to the Dean, Yale School of Forestry and Environmental Studies, Yale University, New Haven, Conn.
Susan R. Ackerman	Assistant Professor, Institution for Social and Policy Studies and Economics Department, Yale University, New Haven, Conn.

III. Public Health

Ellen K. Baum	graduate student, School of Epidemiology & Public Health, Yale University, New Haven, Conn.
Richard H. Matheny	Chief of Environmental Health, East Shore District Health Department, Branford, Conn.
Eric W. Mood	Asssociate Clinical Professor Public Health, Department of Epidemiology and Public Health, Yale University, New Haven, Conn.
Jan A. J. Stolwijk	Professor of Epidemiology, Department of Epidemiology and Public Health, & Institution for Social and Policy Studies, Yale University, New Haven, Conn.

IV. Hydrology and Watershed Protection

John F. Dowd	Hydrologist, McD Associates, Hamden, Conn.
Arthur P. O'Hayre	Assistant Professor of Hydrology, and Project Director, Yale School of Forestry and Environmental Studies, New Haven, Conn.
F. Herbert Bormann	Oastler Professor of Forest Ecology, Yale School of Forestry and Environmental Studies, Yale University, New Haven, Conn.

V. Hallie Black — Publicity Director, Yale School of Forestry & Environmental Studies

5. CONSULTANTS FOR THE GREATER BRIDGEPORT PLANNING AGENCY AND ENVIRONMENTAL DEFENSE FUND

James E. Lash	President, The Envirlind Co., Hadlyme, Conn.
Richard R. Nelson	Professor of Economics, Yale University, New Haven, Conn.

I understand that the legislative history of the Act may be helpful in interpreting its intent.

The final report of the Council must be delivered to the General Assembly on or before February 15, 1977 and the Council must obtain an inventory from every water company no later than one year after the effective date of the Act. We would therefore appreciate guidance from your office as soon as possible.

Please do not hesitate to contact me if you or any members of your staff have any questions.

Very truly yours,

Ralph S Loew

RALPH S. LOEW

RSL:dk

6.

PLOTKIN, MCLOUGHLIN & MILWE
ATTORNEYS AT LAW
285 GOLDEN HILL STREET
BRIDGEPORT, CONN. 06604
(203) 333-3151
(203) 333-7623

19 COMPO ROAD SOUTH
WESTPORT, CONN. 06880
(203) 226-6663

NATHANIEL W. PLOTKIN
JAMES P. McLOUGHLIN
JEFFREY M. MILWE
RALPH S. LOEW

January 9, 1976

Honorable Carl R. Ajello
Attorney General
90 Brainard Road
Hartford, Connecticut 06114

RE: Public Act No. 75-405
Council on Water Company Lands

Dear Mr. Ajello:

I am writing to you in my capacity as Chairman of the Legal and Economic Committee of the Council on Water Company Lands established pursuant to Public Act Number 75-405.

The Council would appreciate your advice and interpretation of two aspects of Section 2 of Public Act Number 75-405. They are as follows:

1. Does the term "water company" as used in Section 2 of the Act and defined in Section 16-1 of the General Statutes include in its scope and coverage a public service water company owned, leased, maintained, operated, managed or controlled by a town, city, borough or municipal corporation or department thereof, whether separately incorporated or not?

2. Does a water company which desires to sell or otherwise transfer to a municipal or state agency any unimproved real property or any interest therein in excess of three acres within a period of two years from the effective date of the Act for a use not directly related to a public service function or a public recreational use as governed by Section 25-43c of the General Statutes, have to obtain the prior written approval of the Council and the Chief Executive Officer of the municipality in which the land is located?

'76 JAN 13 PM 3:21

Received for filing

State of Connecticut

CARL R. AJELLO
ATTORNEY GENERAL

Office of The Attorney General
30 TRINITY STREET
HARTFORD 06115

February 5, 1976

Ralph S. Loew, Esq.
Chairman, Legal and Economic Committee
Council on Water Company Lands
c/o Plotkin, McLoughlin & Milwe
285 Golden Hill Street
Bridgeport, Connecticut 06604

Dear Mr. Loew:

Your letter of January 9, 1976, asks for the Attorney General's opinion concerning certain aspects of Section 2(a) of Public Act 75-405. The response to your questions is as follows:

1. The term "water company" as defined in Sec. 16-1 of the General Statutes

> "... includes every corporation, company, association, joint stock association, partnership or person, or lessee thereof, owning, maintaining, operating, managing or controlling any pond, lake, reservoir, stream, well or distributing plant or system employed for the purpose of supplying water to fifty or more customers; ..."

However, incorporated within that definition is the definition of "public service company" which expressly excludes "towns, cities, boroughs or any municipal corporation or department thereof, whether separately incorporated or not; ..."

Sec. 2(a) of P.A. 75-405 states that the definition of water company in that Act shall be the same as defined in Sec. 16-1 G.S. Therefore, the term "water company" as used in P.A. 75-405 does not include a public service water company owned, leased, maintained, managed or controlled by a town, city, borough or any municipal corporation or department thereof, whether separately incorporated or not.

2. In the second part of your request for advice, you ask whether a water company which desires to sell or otherwise transfer to a municipal or state agency any unimproved real property or any interest therein in excess of three acres, during the two-year Moratorium period, for a use not directly related to a public service function or a public recreational use as governed by Sec. 25-43c G.S., must obtain the prior written approval of the Council and the chief executive officer of the municipality in which the land is located. This is answered in the negative for the reasons that follow.

Sec. 2(a) of P.A. 75-405 specifically states that,

> "... [N]o water company, as defined in section 16-1 of the general statutes and having the power of eminent domain, shall sell or otherwise transfer to other than a municipal or state agency any unimproved real property or any interest or right therein in excess of three acres or develop such property, for any use not directly related to a public service function other than for public recreational use as governed by section 25-43c of the general statutes for a period of two years from the effective date of this act without the written approval of the council...." (Emphasis added)

It must be concluded that the plain language of P.A. 75-405 at Sec. 2(a) expressly excludes transfers of interest to municipal and state agencies from the classes of transactions requiring the prior written approval of the Council.

It is a primary rule of statutory construction that, if a statute is clear and the language unambiguous, there is no room for interpretation (Hartford Hospital v. Hartford, 160 Conn. 370, 375-376).

Very truly yours,

Carl R. Ajello
Attorney General

William B. Gundling

By: William B. Gundling
Assistant Attorney General

WBG:bjg

REQUEST FOR APPROVAL

Feb. 5, 1976
(Date)

Re: Request of Council on Water Company Lands (Agency) (Legal & Economic Committee) of 1/9/76 (Date)

To: Hon. Carl R. Ajello

The attached Opinion is submitted for approval.

It has been reviewed by F.D. Hausman (Signature) AAG

His approval of its conclusions is indicated by his signature above.

2/13/76

Should copies be sent to:

1. Connecticut Law Journal
2. Council of State Governments
3. State Library ✓
4. Newspapers CLT

William B. Harding (Signature) AAG

APPROVED: Carl Ajello

Date 2-23-76

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NATHANIEL W. PLOTKIN
JAMES P. McLOUGHLIN
JEFFREY M. MILWE
RALPH S. LOEW

March 12, 1976

Carl R. Ajello, Esq.
Office of the Attorney General
30 Trinity Street
Hartford, Connecticut 06115

RE: Council on Water Company Lands

Dear Mr. Ajello:

Thank you for your letter of February 5, 1976 relative to the above. The Council appreciates your advice.

Would you be kind enough to advise the Council whether the term "water company" as used in Sections 2(b) and 2(c) of the Act includes a public service water company. The statutory language after the words "water company" contained in Section 2(a) of the Act includes the words "as defined in Section 16-1 of the General Statutes and having the power of eminent domain." Comparable words of limitation are not included in Section 2(b) and 2(c) of the Act.

Your opinion is necessary for the Council to determine whether an inventory should be obtained from public service water companies and whether land owned by public service water companies are included in Section 2(c) of the Act.

Please do not hesitate to contact me if you have any questions.

Very truly yours,

Ralph S. Loew

RALPH S. LOEW

RSL:dk

'76 MAR 15 PM 3:51
Attorney General

State of Connecticut

CARL R. AJELLO
ATTORNEY GENERAL

Office of The Attorney General
30 TRINITY STREET
HARTFORD 06115

May 18, 1976

Ralph S. Loew, Esq.
Chairman, Council on Water
Company Lands
c/o Plotkin, McLoughlin & Milwe
285 Golden Hill Street
Bridgeport, Connecticut 06604

Dear Mr. Loew:

This will reply to your request for the opinion of the Attorney General dated March 12, 1976. You asked whether the term "water company" as used in Subsections 2(b) and 2(c) of P.A. 75-405 includes "a public service water company." You noted in your letter that Subsection 2(a) of the Act includes after the words "water company" the words "as defined in Section 16-1 of the General Statutes and having the power of eminent domain." You then noted that comparable words of apparent limitation were not included in Subsections 2(b) and 2(c) of the Act.

The phrase "public service water company" is not used in §16-1 or in any other part of Title 16 as a substitute for the concept of public service company.

The legislature defined a public service company very broadly. But it expressly excluded from that definition towns, cities, boroughs, or any municipal corporation or department thereof. In addition, the General Assembly defined a water company as including "every corporation, company, association, joint stock association, partnership or person, or lessee thereof, owning, maintaining, operating, managing or controlling any pond, lake, reservoir, stream, well or distributing plan or system employed for the purpose of supplying water to fifty or more consumers."

You ask whether any broadening of the meaning of the class of entities governed by Paragraph 2 occurred when the legislature

referred to "each water company" in Paragraph 2(b) and 2(c), having previously referred to the class in Paragraph 2(a) as "water company, as defined in section 16-1 of the general statutes and having the power of eminent domain."

It appears from your question that you want to know whether or not the omission of the above-indicated words of qualification is meant to add to the scope of the powers of the Council on Water Company Lands any authority over water service operations conducted by the municipal subdivision of the State described in §16-1 as excluded from the concept of a water company.

First, the reference to water company in the succeeding subparagraphs is obviously sufficient to place the reader on notice that a back reference to the class defined in Subparagraph 2(a) is intended without the need to encumber further references in the text of the statute with qualifying verbiage, much in the manner of the classic Homeric epithet.

Second, it should be obvious from the context of §2 that the General Assembly did not intend to encompass in Subparagraphs (b) and (c) a broader class of entities that was meant by Subparagraph (a).

The rules of statutory construction set forth the principle that the enumeration of powers impliedly excludes other powers (State ex rel Barnard v. Ambrogio, et al, 162 Conn. 491, 498, 1972). However, the maxim stating this, expressio unius est exclusio alterius, is applied only to aid statutory construction and may not be used to create ambiguity or to contradict the clear intent of the General Assembly (Marcolini v. Allstate Insurance Company, 160 Conn. 280, 284, 1971). In this instance, it is clear from a reading of both Subsections (b) and (c) that the concept of a water company is distinct from the entity encompassed by a municipally-owned water utility. In addition, all of the acts to be performed by the water companies in the statute, as written, are aimed at providing for the preservation or the acquisition by municipal and other political subdivisions of the state of lands owned by the class of water company so governed.

It is necessary to read the entire §2 as a single entity; and it is necessary to read §2 within the total context of P.A. 75-405 to conclude that the above interpretation permits us to reconcile all parts of the statute and all parts of §2 to the fullest extent possible (United Aircraft Corp. v. Fusari, 163 Conn. 401, 411, 1972). To interpret P.A. 75-405 in any other way would be inconsistent with

implementing the purpose of the Act, since any other reading would have the effect of dividing water utilities into two classes only one of which would be required to comply with §2(a). This would produce an uncalled for anomaly (City Savings Bank v. Lawler, 163 Conn. 149, 159, 1972).

To summarize the foregoing, you are advised that there is no such entity as a "public service water company" in P.A. 75-405 and that the class of municipally-operated water utilities is not presently included within the jurisdiction of the Council.

As you are probably aware, the General Assembly has now approved and sent to the Governor P.A. 76-123, which will add municipalities to the classes governed by the provisions of P.A. 75-405. It is respectfully recommended that you consult the text of that legislation for further indication of the legislature's intent concerning the powers of the Council.

Very truly yours,

Carl R. Ajello
Attorney General

By: F. D. Neusner
Assistant Attorney General

FDN:bjg

REQUEST FOR APPROVAL

May 18, 1976
(Date)

Re: Request of Council on Water Company (Agency) Lands of 3/12/76 (Date)

To: Hon. Carl R. Ajello

The attached opinion is submitted for approval.

It has been reviewed by F. D. Newman (Signature) AAG

His approval of its conclusions is indicated by his signature above.

Should copies be sent to:

1. Connecticut Law Journal
2. Council of State Governments
3. State Library
4. Newspapers CLJ

F. D. Newman (Signature) AAG

APPROVED: Carl R. Ajello

Date 5-25-76

7.

CONNECTICUT PUBLIC HEALTH CODE REGULATION:
Sec. 19-13-B98

Department of Health Approval for Sale of
Water Company Land

Water Company Land

Sec. 19-13-B98. Approval for sale

(a) **Definitions.** The following definitions shall apply for the purposes of sections 19-13-B98 (b) and 19-13-B98 (c), inclusive: "Watercourse" means any river, stream, brook, canal, reservoir, lake, pond, marsh, swamp, bog or other surface body of water. "Complete conventional treatment" means water supplies treated by complete conventional treatment including not less than coagulation, sedimentation, rapid granular filtration and disinfection unless approved otherwise by the commissioner of health.

(b) No water company as defined in Section 25-32a of the general statutes shall sell, lease or otherwise dispose of or change the use of any lands draining into a public water supply except as provided in Number 73-522 of the Public Acts of 1973 without prior approval from the commissioner of health. Approval shall be based upon conformance to the following standards:

(1) Water supplies without complete conventional treatment. (a) No watershed land shall be sold which lies within two hundred and fifty feet of the shore of a storage or distribution reservoir when filled to capacity. No such land shall be leased or its use changed without approval by the commissioner of health of the terms of the lease and of the proposed change in use.

---

* All new family campgrounds shall comply with these regulations prior to occupancy. All family campgrounds in operation prior to the adoption shall comply with these regulations within three years after the adoption of this regulation.

(b) No watershed land shall be sold including and lying within one hundred feet of a watercourse tributary to a storage or distribution reservoir. No such land shall be leased or its use changed without approval by the commissioner of health of the terms of the lease and of the proposed change in use.

(2) Water supplies treated by complete conventional treatment. (a) Watershed land which lies within one mile of the nearest distribution reservoir intake and within two hundred and fifty feet of the shore of a storage or distribution reservoir when filled to capacity shall not be sold, leased or otherwise disposed of.

(b) Watershed land which lies more than one mile from the nearest distribution reservoir intake but within one hundred feet of the shore of a storage or distribution reservoir when filled to capacity shall not be sold, leased or otherwise disposed of.

(c) Watershed land including and lying within one hundred feet of a watercourse tributary to a distribution reservoir and lying within one thousand feet of the point on the shore at which the watercourse discharges shall not be sold, leased or otherwise disposed of. Watershed land within one mile of the nearest distribution reservoir intake including and lying within one hundred feet of a watercourse tributary to a storage reservoir and lying within one thousand feet of the point on the shore at which the watercourse discharges shall not be sold, leased or otherwise disposed of.

(3) The commissioner of health may, on the recommendation of the Public Health Council, approve sales, leases, other disposal or change of use if in his judgment, and taking into account the nature and extent of water treatment facilities, dilution and detention time provided, such sale, lease, other disposal or change of use will have no adverse effect upon the purity and adequacy of applicant's water supply.

(c) Applications for permission to sell, lease, otherwise dispose of or change the use of watershed lands shall include the following information:

(1) Name and address of the owner of the property.

(2) Location and acreage of the property, including map showing principal watercourses on or within two hundred fifty feet of the property, all streets on or adjoining the property, and all buildings on the property.

(3) Present and proposed uses of the property.

(4) For lease of land, lease restrictions proposed.

(5) For sale of land, deed restrictions proposed.

(6) A report of the effect of the proposed disposition or change of use of the parcel anticipated by applicant on the purity and adequacy of applicant's water supply and on maintenance of ground water supplies under the most severe climatic conditions.

(7) Signature of a duly authorized official of the water company.

(Effective February 3, 1975)

8. THE CRITICAL COMPONENTS OF STREAMBELTS AS USED IN THE CRITERIA FOR THE CLASSIFICATION OF WATER UTILITY LANDS.

a. The watercourse of a defined stream including banks, bed and water.

b. Lands subject to stream overflow.

c. Associated wetlands.

d. Shorelines of lakes and ponds associated with the stream.

e. Areas in proximity of streams where certain developments or land uses probably would have adverse environmental effects, i.e., pollution and health hazards, erosion and sedimentation.

9. DEFINITIONS

1. Alluvium - Clay, silt, sand, gravel, or similar detrital material deposited by running water or by glaciers frequently as stratified drift.

2. Aquifer - A porous, water-bearing geologic formation which transmits water from one point to another. Highest water yield occurs in permeable deposits of sand and gravel such as glacial outwash plain, ice-contact deposits, and coarse alluvium.

3. Contamination - Any introduction into water of micro-organisms, chemicals, wastes, or wastewater in a concentration that makes the water unfit for its intended use. (Am. Pub. Health Assoc. et al, 1969. Glossary water and wastewater control engineering. p. 69.)

4. Conventional Complete Treatment - Treating water before distribution with coagulation, sedimentation, rapid sand filtration, and disinfection.

5. Critical Components of a Stream Belt - 1) the water-course of a defined stream including banks, beds, and water, 2) land subject to stream overflow, 3) associated wetlands, 4) shorelines of lakes and ponds associated with the stream, 5) areas in proximity of streams where certain developments or land uses probably would have adverse environmental effects, i.e. pollution and health hazards, erosion and sedimentation, destruction of ecological systems.

6. Depth to Bedrock - "Areas with surface outcrops where the depth of soil cover between the outcrops is less than 20 inches have very severe limitations for all construction activities, including foundations, sewage disposal systems and highway locations." (Soil Interpretations for Urban Uses: Special Soils Rep't. New Haven County, Ct., N.d., p. 12.)

7. Detention Time - The length of time that a particle of water remains in the reservoir, figured by the formula:

$$\frac{\text{Total volume of Reservoir}}{\text{Average daily draft from reservoir}}$$

8. Diversion - A man-made device to cause water in a stream to flow out of its natural channel to another stream or reservoir via conduits, tunnels, canals, etc.

9. Eutrophication - Excessive nutrient enrichment in aquatic communities; usually considered a man-induced process, although it is also a natural process.

10. Interception of Runoff - Any natural feature of land, or man-made change to a natural feature of land, which causes the volume and velocity of water to be detained or dispersed, i.e. water energy dissipation.

11. Point Source - A source of contaminating or eutrophying material that is concentrated and discharged from one point.

12. Storage - Where water is collected from the watershed and stored for future use. Distribution - The terminal reservoir from which water is distributed to the customers.

13. Runoff - The surface flow of water over an area.

14. Specifications of Land Use - A recommendation for a particular type of land use or a recommendation for constraints that limit the use of land or exclude the use of land for specific use.

15. Stratified Drift - A predominantly sorted sediment laid down by or in snowmelt water from a glacier; includes sand and gravel and minor amounts of silt and clay arranged in layers.

16. Streams - First-order - those which directly enter the reservoir. second-order - tributaries to first-order streams. third-order - tributaries to second-order streams.

17. Swale - A low lying stretch of land, usually seasonally wet without flowing water.

18. Tract of Land - A discrete, separate unit of land held by one owner or owners in common.

19. Watercourses - Any river, stream, brook, canal, reservoir, lake, pond, marsh, swamp, bog or other surface body of water. (Conn. Dept. Reg. § 19-13-B98a.)

20. Watershed - Land from which water drains from the highest elevation to a lower elevation by natural or man-made courses to a public drinking water supply intake.

21. Water Supply Source - A stream, lake, spring, or aquifer from which a supply of water is or can be obtained. (op cit. p. 376)

10. A GUIDE TO STATUTORY AND QUASI-STATUTORY MATERIAL PERTINANT TO THE WORK OF THE COUNCIL ON WATER COMPANY LANDS.

FEDERAL

1972 Federal Water Pollution Control Act Amendments, 33 U.S.C. §1251 et seq.

Safe Drinking Water Act, 42 U.S.C. §300 et seq. (1974).

Environmental Protection Agency, Drinking Water Standards.

Safe Drinking Water Act, H.R. Rep. No. 1185, 93d Cong. 2d Sess. (1974).

STATE

Statutory citations to titles, i.e., Air Pollution, are to the title as a whole and not to individual sections. Unless otherwise noted, statutory citations are to Conn. Gen. Stat. (Rev. 1975).

I) Department of Environmental Protection.

§16-50c, Notifications of intent to dispose of unimproved real property.

§16-50d, Action by municipality or environmental protection commissioner to acquire property.

§19-505 et seq., Air Pollution Control.

§19-524a et seq., Solid Waste Management.

§22a-1, Environmental Protection Department and State Policy.

§22a-2, et seq., Department. Commissioner. Definitions. Permitted Delegations of Powers. (General Provisions)

§22a-36, et seq., Inland Wetlands and Water Courses.

§22a-46, et seq., Pesticide Control.

§23-1, et seq., State Forests and Parks.

§25-1, et seq., Water Resources.

§25-54a, et seq., Water Pollution Control.

§25-126, et seq., Well Drilling.

§26-1, et seq., Fisheries and Game.

II. State Department of Health.

§19-3, Public Health Council.

§19-4, Powers and Duties of Commissioner.

§19-13, Public Health Code.

§19-13a, Regulation of Water Supply Wells and Springs.

§19-13b, Fluoridation of Public Water Supplies.

§19-13c, Protection of Wells.

§19-300u, Permits for use of pesticides in state waters.

§25-32, et seq., Water and Ice Supplies, Jurisdiction of State Health Department.

§25-137, Powers of Health Department, health directors and public health council unaffected.

Connecticut PA 75-513. Water Quality Standards.

III. Public Utilities Control Authority.

§16-1, Definitions.

§16-22, Rates, burden of proof.

§16-27, Returns from public service companies.

§16-43, Merger of sale of public service companies.

§16-50a, Local filing of maps on acquisition of property.

§16-50d, Action by municipality or environmental protection commissioner to acquire property.

§16-262a, Water Company to have area resident as director or advisory council of area residents.

IV. Miscellaneous.

§2-20a, Bills seeking incorporation and franchise for Water Companies.

§16-50b, Declaration of Policy (public trust in natural resources of the state).

§19-310, et seq., Nuisances.

§47-42a, Definitions, conservation restriction.

Conn. PA 75-405 (Amended, PA 76-123). Moratorium Act.

Conn. PA 76-130, State Plan of Conservation and Development.

Substitute House Bill no. 5691 (1976) - Commission to Study the Feasibility of Regionalization of the New Haven Water Company.

V. Regulations.

Regulations of State agencies are given citations parallel to the section of the enabling statute which gives the agency's commissioner the power to promulgate regulations. For example, DEP's Air Pollution Control regulations, promulgated pursuant to §19-508 are found under §19-508 of Regulations of Connecticut State Agencies. Health Department Regulations are found under §19-13 which relates back to the statutory power to promulgate a public health code.

LOCAL

I. State Statutes.

§8-1, et seq., Zoning.

§12-76, Taxation of land owned by a municipality for water supply purposes.

§12-107a, et seq., Declaration of Policy (property tax assessment of town, forest and open space).

§16-50d, Action by municipality or environmental protection commissioner to acquire property.

§19-74, et seq., Municipal Health Authorities.

§22a-42, Municipal regulation of wetlands and watercourses.

II. Local Ordinances.

Local ordinances are not compiled for the state as a whole and must be obtained directly from the local agencies.