



STATE OF CONNECTICUT



# WATER QUALITY STANDARDS SUMMARY

JOINT PUBLICATION BY

UNITED STATES  
ENVIRONMENTAL PROTECTION AGENCY

CONNECTICUT DEPARTMENT OF  
ENVIRONMENTAL PROTECTION

## PREFACE

The information contained herein has been condensed from the Water Quality Standards, State of Connecticut, prepared by the Connecticut Department of Environmental Protection<sup>1</sup> and approved by the Federal Government. This summary is intended for all who have an interest in the quality of water in the State.

A summary of this type, by design, omits many pertinent details. For more detailed information, consult the Connecticut Department of Environmental Protection or the complete text of Water Quality Standards, State of Connecticut.

MARCH 1971

<sup>1</sup>Prior to October 1, 1971 the Connecticut Water Resources Commission

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SUMMARY OF WATER QUALITY  
STANDARDS FOR THE  
INTERSTATE WATERS OF  
CONNECTICUT

SUMMARY OF WATER QUALITY STANDARDS  
FOR  
THE INTERSTATE WATERS OF CONNECTICUT

Introduction

In the Water Quality Act of 1965, Congress authorized the establishment of water quality standards for interstate (including coastal) waters. The purpose of these standards is to protect and enhance the quality and productivity of the Nation's interstate waters to serve a variety of beneficial uses, such as public water supply, recreation and protection of aquatic life, and industrial and agricultural uses. This publication summarizes the standards for the general information of the American public and Federal, State and local officials as to the uses and associated requirements for interstate waterways.

The Act, which amended the Federal Water Pollution Control Act, provided for the States to have the first opportunity to establish standards for their interstate waters, which were then subject to review and approval by the Administrator of the Environmental Protection Agency.<sup>2</sup> All of the States, the District of Columbia and the Territories of Guam, Puerto Rico and Virgin Islands participated in this landmark effort to set standards. In the course of establishing the standards, public hearings were held by the States and other jurisdictions noted above to give the public an opportunity to participate in setting water quality objectives and standards.

<sup>2</sup>Prior to December 2, 1970, The Secretary of the Interior

The State of Connecticut adopted water quality standards on June 19, 1967, and submitted them to the Department of the Interior for approval. The Secretary of the Interior approved the standards on February 15, 1968, with certain exceptions and recommendations. At the request of the Secretary of the Interior, Connecticut adopted a policy to protect its high quality interstate waters, revised the excepted criteria and included additional modifications pertaining to the recommendations. These revisions were approved by the Secretary on April 21, 1970. The standards, as finally approved, are those applicable under the Federal Water Pollution Control Act to the interstate waters of Connecticut.

The approved standards are thus both State and Federal standards, enforceable under the State water pollution control statutes and the Federal Water Pollution Control Act, as amended (Section 10). The interstate waters for which standards were adopted are shown on the maps in Figures 1 through 10 accompanying this summary.

The standards consist of three major components: designation of the uses which interstate waters are to serve, specification of narrative and numerical criteria to protect and enhance water quality, and specification of a plan of implementation and enforcement, which includes treatment and control requirements for municipal, industrial and other waste discharged to or affecting interstate waters. These components are discussed in the following sections; all three are essential to a complete standards program.

The standards are now being implemented. However, there will be continuing research on water quality requirements for various beneficial uses and improved collection and evaluation of water quality data. As more information becomes available and experience with implementing the standards is gained, the standards will be refined and improved to reflect this new knowledge.

Should more information be required on any aspect of the standards, it may be obtained from the Connecticut Department of Environmental Protection or the office of the Environmental Protection Agency in Boston, Massachusetts. Connecticut also has established water quality standards for its intrastate waters, and information on these standards may be obtained from the Connecticut Department of Environmental Protection. The State of Connecticut has representatives on the New England Interstate Water Pollution Control Commission which assists the States of the New England Compact area, the New England States and New York, in the administration of their water pollution control programs.

The New England Interstate Water Pollution Control Compact, which was approved by Congress and ratified by the legislatures of the seven States, is the legal instrument for cooperation between the States in interstate water pollution control matters.

Also, Connecticut is a member of the Interstate Sanitation Commission which was created in 1936 for the purpose of enforcing the provisions of the Tri-State Compact (Connecticut, New Jersey and New York) for water pollution control work in the Interstate Sanitation District.

The addresses of these agencies are given in Appendix VI.



## Water Uses

The State of Connecticut designates the following uses to be protected in various interstate waters:

### Inland Waters

Water supply  
Bathing and other recreational uses  
Agricultural uses  
Industrial processes such as cooling  
Fish and wildlife habitat  
Aesthetics  
Boating  
Navigation  
Power

### Coastal and Marine Waters

Shellfish harvesting  
Bathing and other water contact sports  
Industrial cooling  
Fish and wildlife habitat  
Aesthetics  
Boating  
Navigation  
Power

The general aim in designating uses for particular Connecticut interstate waters is to recognize present uses and practicable future uses to provide, where possible, for a variety of uses, and to assure compatibility of standards with Federal, State and local resource planning. In order to satisfy the intent of the Federal Water Pollution Control Act to enhance water quality, the standards specifically provide that no interstate waters may be used solely or primarily for waste assimilation. All interstate waters must be pleasing to the senses and the quality is usually protected by narrative criteria preventing unsightly or obnoxious conditions, such as floating debris, oil slicks, unpleasant odors, and colors.

Specific use designations for all interstate waters covered by the standards are provided in the following table (Table 1).

Table I		WATER USES								
Interstate Waters		Adopted Classification *	Public Water Supply	Recreation	Fish & Wildlife Propagation	Industrial Processing	Power	Shellfish	Agriculture	Aesthetics
<u>Connecticut River Basin</u>										
Connecticut River (inland portion)	C,C <sub>C</sub>		X	X	X	X			X	X
Connecticut River (tidal portion)	SB, SC <sub>C</sub>			XX X	X X	X X	X X	X X		X X
Scantic River	B	X	XX	X	X	X			X	X
<u>Farmington River Basin</u>										
Farmington River	B	X	XX	X	X	X			X	X
East Branch, Farmington R.	A,B	X	XX	X	X	X			X	X
West Branch, Farmington R.	A,B	X	XX	X	X	X			X	X
Sandy Brook	B	X	XX	X	X	X			X	X
Still River	B	X	XX	X	X	X			X	X
<u>Housatonic River Basin</u>										
Housatonic River	B,SB	X	XX	X	X	X		X	X	X
Beardsley Pond Brook	C		X	X	X	X				X
Indian Lake	B	X	XX	X	X	X			X	X
Indian Lake Creek	B	X	XX	X	X	X			X	X
Mill Brook	B	X	XX	X	X	X			X	X
Ten Mile River	B	X	XX	X	X	X			X	X
Webatuck Creek	C		X	X	X	X			X	X
<u>Pawcatuck River Basin</u>										
Pawcatuck River (inland portion)	B,C <sub>C</sub>	X	XX	X	X	X			X	X
Pawcatuck River (tidal portion)	SB SC <sub>C</sub>		XX X	X X	X X	X X		X		X X
<u>Quinebaug River Basin</u>										
Quinebaug River	B,C <sub>C</sub>	X	XX	X	X	X			X	X
Five Mile River	B	X	XX	X	X	X			X	X
French River	C		X	X	X	X			X	X
Moosup River	A,B	X	XX	X	X	X			X	X
Pachaug River (Beach Pond)	B	X	XX	X	X	X			X	X
Whetstone Brook	B	X	XX	X	X	X			X	X
<u>Quinnipiac River Basin</u>										
Quinnipiac River (tidal portion)	SC		X	X	X	X				X
<u>Thames River Basin</u>										
Thames River (tidal portion)	SB		XX	X	X	X		X		X
Shetucket River	B,SB	X	XX	X	X	X		X	X	X
Under Recreation										
Note: X - Indicates other than water contact recreation.										
XX - Indicates primary water contact recreation.										
*See page 13 for explanation of this classification.										

Table 1 WATER USES		Adopted Classification	Public Water Supply	Recreation	Fish & Wildlife Propagation	Industrial Processing	Power	Shellfish	Agriculture	Aesthetics
Interstate Waters										
<u>Eastern Coastal Streams</u>										
Baker Cove (inside shellfish closure line)	SB		XX	X	X	X	X			X
Bramford River (tidal waters)	SC		X	X	X	X				X
Bride Brook (tidal portion)	SB		XX	X	X	X	X			X
Clinton Harbor (inside shellfish closure line)	SB		XX	X	X	X	X			X
Four Mile River (tidal portion)	SB		XX	X	X	X	X			X
Mumford Cove (inside shellfish closure line)	SB		XX	X	X	X	X			X
Mystic River (tidal portion, inside shellfish closure line)	SB		XX	X	X	X	X			X
Stonington Harbor (inside shellfish closure line)	SA, SB		XX	X		X	X			X
Thimble Islands (tidal waters), inside Islands shellfish closure line	SB		XX	X	X	X	X			X
<u>Western Coastal Streams</u>										
Ash Creek	SC		X	X	X	X				X
Black Rock Harbor	SC		X	X	X	X				X
Bridgeport Harbor	SC		X	X	X	X				X
Tidal waters outside Ash Creek, Black Brook and Bridgeport Harbor	SB		XX	X	X	X	X			X
Byram River (inland portion)	B,C	X	XX	X	X	X		X		X
Byram River (tidal portion)	SC		X	X	X	X				X
Five Mile River (inland portion)	A,B, C	X	XX	X	X	X		X		X
Five Mile River (tidal portion)	SB		XX	X	X	X	X			X
Long Island Sound (outside shellfish closure line)	SA		XX	X		X	X			X
Lyman River - East Branch	B	X	XX	X	X	X		X		X
Mianus River - East Branch	A,B	X	XX	X	X	X		X		X
Mill River - N.Y. to Laurel Res.	A	X	X	X	X	X		X		X
Mill River - Ridgefield to N.Y.	A	X	X	X	X	X		X		X
Mill River - Ridgefield (tidal portion)	SB		XX	X	X	X	X			X
Mill River - New Haven (tidal portion)	SC		X	X	X	X				X

Table I		WATER USES								
Interstate Waters		Adopted Classification	Public Water Supply	Recreation	Fish & Wildlife Propagation	Industrial Processing	Power	Shellfish	Agriculture	Aesthetics
<u>Western Coastal Streams</u> (Continued)										
Milford Harbor	SB		XX	X	X	X	X	X		X
New Haven Harbor & East Haven River (tidal portion)	SB, SC		XX	X	X	X	X	X		X
Norwalk River	C		X	X	X	X	X		X	X
Norwalk Harbor	SB,SC		XX	X	X	X	X	X		X
Quinnipiac River (tidal portion)	SC		X	X	X	X	X			X
Rippowam River	A,B	X	XX	X	X	X	X		X	X
Saugatuck River	SB		XX	X	X	X	X	X		X
Sherwood Mill Pond	SB		XX	X	X	X	X	X		X
Silvermine River, East and West Branches	A,B	X	XX	X	X	X	X		X	X
Stamford Harbor (inside hurricane barrier)	SC		X	X	X	X	X			X
Stamford Harbor	SB		XX	X	X	X	X	X		X
Stamford Harbor - West Branch	SC		X	X	X	X	X			X

## Water Quality Criteria

The protection of water quality requires the establishment of numerical and narrative limits on pollutants which degrade it. The water quality criteria in this section reflect the best scientific judgment available as to the water quality requirements for the assigned uses. Numerical criteria are used wherever it is reasonable to do so. However, narrative criteria are also necessary in some cases, particularly with respect to aesthetic considerations.

Some interstate waters have a higher quality than the minimum levels assigned for protection of water uses, and the standards seek to protect this higher quality as much as possible in the face of increasing social and economic development. Scientific knowledge about the exact water quality requirements for uses is limited, and by preventing degradation of high quality waters, the standards seek to assure optimum, not marginal, conditions to protect the uses associated with clean waters.

To the extent possible, the Connecticut standards tailor water quality criteria to present quality or that quality anticipated to result from installation of stringent treatment requirements. These criteria are given in Table 2. The standards also contain statements of general policy applicable to all waters of Connecticut, including a statement on controlling degradation of high quality waters. These statements follow.



# STATE OF CONNECTICUT

## WATER RESOURCES COMMISSION

STATE OFFICE BUILDING



HARTFORD, CONNECTICUT 06115

### WATER QUALITY STANDARDS

Pursuant to the provisions of Section 25-54e of the 1967 Supplement to the General Statutes of Connecticut, notice was published in the Connecticut Law Journal on May 26, 1970 that the Water Resources Commission adopted on November 17, 1969 Water Quality Standards for all interstate and intrastate waters in the State of Connecticut and that, under the Federal Water Pollution Control Act, the Secretary of Interior approved said standards in their entirety on April 21, 1970 insofar as the said standards apply to interstate waters.



# STATE OF CONNECTICUT

## WATER RESOURCES COMMISSION

STATE OFFICE BUILDING • HARTFORD, CONNECTICUT 06115

### WATER QUALITY CRITERIA

#### GENERAL POLICY

1. Water quality standards adopted on the basis of these criteria are in accord with all the requirements of Section 25-54e of the 1957 Supplement to the General Statutes.
2. In the discharge of waste treatment plant effluent and cooling waters to the receiving waters, cognizance shall be given both in time and distance to allow for mixing of effluent and stream. Such distances required for complete mixing shall not affect the water usage Class adopted but shall be defined and controlled by the Commission
3. Recommendations on other waste parameters will constitute a portion of the continuing effort of the Commission in further defining interstate and intrastate water quality standards. The Commission reserves the right to amend or extend the following criteria as improved standard methods are developed or revisions consistent with the enhancement of water quality are justified.
4. Coastal and marine waters are those generally subject to the rise and fall of the tide.
5. Interstate waters whose existing quality is better than the established standards as of the date which such standards become effective will be maintained at their existing high quality. These and other interstate waters of the State will not be lowered in quality unless and until it has been affirmatively demonstrated to the Commission and the Department of the Interior that such change is justifiable as a result of necessary economic or social development and will not interfere with or become injurious to any assigned uses made of, or presently possible in, such waters. This will require that any industrial, public or private project or development which would constitute a new source of pollution or an increased source of pollution to high quality waters will be required, if provided a permit, as part of the initial project design, to provide the highest and best degree of waste treatment available under existing technology, and, since for interstate waters these are also Federal standards, these waste treatment requirements will be developed cooperatively.



TABLE 2

WATER QUALITY CRITERIA FOR CONNECTICUT  
INLAND AND COASTAL WATERS AS  
APPROVED BY THE SECRETARY OF THE INTERIOR  
ON APRIL 21, 1970

## I N L A N D   W A T E R S

### CLASS A

Suitable for water supply and all other water uses; character uniformly excellent. (See note 9)

- |  |   |
|--|---|
| 1. Dissolved oxygen  | 75% saturation, 16 hours/day; 5 mg/l at any time                                      |
| 2. Sludge deposits - solid refuse - floating solids, oils, and grease - scum | None allowable  |
| 3. Color and turbidity   | None other than of natural origin   |
| 4. Coliform bacteria per 100 ml  | Not to exceed a median of 100 nor more than 500 in more than 10% of samples collected |
| 5. Taste and odor  | None other than of natural origin   |
| 6. pH  | As naturally occurs   |
| 7. Allowable temperature increase  | None other than of natural origin   |
| 8. Chemical constituents   | (See Note 4)  |

### CLASS B

Suitable for bathing, other recreational purposes, agricultural uses, certain industrial processes and cooling; excellent fish and wild life habitat; good aesthetic value; acceptable for public water supply with appropriate treatment.

- |  |  |
|--|--|
| 1. Dissolved oxygen  | 75% saturation, 16 hours/day; 5 mg/l at any time   |
| 2. Sludge deposits - solid refuse - floating solids, oils, and grease - scum | None (See Note 6)  |
| 3. Color and turbidity   | None in such concentrations that would impair any usages specifically assigned to this Class   |
| 4. Coliform bacteria per 100 ml  | Not to exceed a median of 1000 nor more than 2400 in more than 20% of samples collected  |
| 5. Taste and odor  | None in such concentrations that would impair any usages specifically assigned to this Class nor cause taste and odor in edible fish |

CLASS B - continued

- |                                   |   |
|-----------------------------------|---|
| 6. pH                             | 6.5 - 8.0   |
| 7. Allowable temperature increase | None except where the increase will not exceed the recommended limit on the most sensitive receiving water use and in no case exceed 85° F, or in any case raise the normal temperature of the receiving water more than 4° F |
| 8. Chemical constituents          | (See Note 4)  |

CLASS C

Suitable for fish and wildlife habitat, recreational boating, and certain industrial processes and cooling; under some conditions acceptable for public water supply with appropriate treatment; good aesthetic value.

- |  |  |
|--|--|
| 1. Dissolved oxygen  | Not less than 5 mg/l for more than 6 hours during any 24-hour period, • at no time less than 4 mg/l. For cold water fishery, Cc, not less than 5 mg/l at any time.   |
| 2. Sludge deposits - solid refuse - floating solids, oils, and grease - scum | None (See Note 6)  |
| 3. Color and turbidity   | None in such concentrations that would impair any usages specifically assigned to this Class.  |
| 4. Coliform bacteria per 100 ml  | Not to exceed an average in any 30-day period of 5000 nor exceed this value in more than 20% of the samples collected during the period.   |
| 5. Taste and odor  | None in such concentrations that would impair any usages specifically assigned to this Class nor cause taste and odor in edible fish   |
| 6. pH  | 6.0 - 8.5  |
| 7. Allowable temperature increase  | None except where the increase will not exceed the recommended limit on the most sensitive receiving water use and in no case exceed 85° F or in any case raise the normal temperature of the receiving water more than 4° F |
| 8. Chemical constituents   | (See Note 4)   |

### CLASS D

Suitable for navigation, power, certain industrial processes and cooling, and migration of fish; good aesthetic value.

- |  |  |
|--|--|
| 1. Dissolved oxygen  | A minimum of 2 mg/l at any time  |
| 2. Sludge deposits - solid refuse -<br>floating solids, oils, and grease -<br>scum | None (See Note 6)  |
| 3. Color and turbidity   | None in such concentrations that<br>would impair any usages specifically<br>assigned to this Class   |
| 4. Coliform bacteria per 100 ml  | None in such concentrations that<br>would impair any usages specifically<br>assigned to this Class   |
| 5. Taste and odor  | None in such concentrations that<br>would impair any usages specifically<br>assigned to this Class   |
| 6. pH  | 6.0 - 9.0  |
| 7. Allowable temperature increase  | None except where the increase will<br>not exceed the recommended limit<br>on the most sensitive receiving<br>water use and in no case exceed<br>85° F or in any case raise the<br>normal temperature of the receiving<br>water more than 4° F |
| 8. Chemical constituents   | (See Note 4)   |

## NOTES

1. These criteria do not apply to conditions brought about by natural causes.
2. Class D waters will be assigned only where a higher water use Class cannot be attained after all appropriate waste treatment methods are utilized.
3. All sewage treatment plant effluents shall receive disinfection before discharge to the watercourse. The degree of treatment and disinfection shall be as required by the State.
4. Waters shall be free from chemical constituents in concentrations or combinations which would be harmful to human, animal, or aquatic life for the appropriate, most sensitive and governing water class use. In areas where fisheries are the governing considerations and approved limits have not been established, bioassays shall be performed as required by the appropriate agencies. For public drinking water supplies the raw water sources must be of such a quality that United States Public Health Service limits, or State limits if more stringent, for finished water can be met after conventional water treatment.
5. Radioactivity limits to be approved by the appropriate State agency with consideration of possible adverse effects in downstream waters from discharge of radioactive wastes; limits in a particular watershed to be resolved when necessary after consultation between appropriate State and Federal agencies. In no case shall the Alpha emitters exceed a concentration of 3 picocuries per liter or the Gross Beta emitters exceed a concentration of 1000 picocuries per liter.
6. Sludge deposits, floating solids, oils, grease and scum shall not be allowed except for such small amounts that may result from the discharge of appropriately treated sewage or industrial waste effluents.
7. The minimum average daily flow for seven consecutive days that can be expected to occur once in ten years shall be the minimum flow to which the standards apply.
8. Class B and C waters shall be substantially free of pollutants that:  
a) unduly affect the composition of bottom fauna; b) unduly affect the physical or chemical nature of the bottom; c) interfere with the propagation of fish.
9. Class A waters reserved for water supply may be subject to restricted use by State and Local regulation.
10. All interstate Class A waters and all interstate Class B waters, except Shetucket River from confluence of Willimantic and Natchaug Rivers to Greenville Dam, Norwich, are considered to be suitable for cold water fish spawning and growth.
11. The criteria for dissolved oxygen and allowable temperature increase for interstate Class B and Cc waters are applicable to waters used only for fish passage. When such class waters are suitable for cold water fish spawning and growth, these criteria shall be the same as those specified for Class A waters.
12. In the case of interstate Class B and Cc waters where parts of such waters are not suitable for spawning and growth, the requirements for fish passage shall be considered with other sensitive uses in defining allowable temperature increases.

## COASTAL AND MARINE WATERS

### CLASS SA

Suitable for all sea water uses including shellfish harvesting for direct human consumption (approved shellfish areas), bathing, and other water contact sports.

- |  |  |
|--|--|
| 1. Dissolved oxygen  | Not less than 6.0 mg/l at any time   |
| 2. Sludge deposits - solid refuse -<br>floating solids, oils, and grease -<br>scum | None allowable   |
| 3. Color and turbidity   | None in such concentrations that will<br>impair any usages specifically<br>assigned to this Class  |
| 4. Coliform bacteria per 100 ml  | Not to exceed a median MPN of 70 and<br>not more than 10% of the samples<br>shall ordinarily exceed an MPN of<br>230 for a 5-tube decimal dilution or<br>330 for a 3-tube decimal dilution<br>(See Note S.5)   |
| 5. Odor  | None allowable   |
| 6. pH  | 6.8 - 8.5  |
| 7. Allowable temperature increase  | None except where the increase will<br>not exceed the recommended limit on<br>the most sensitive receiving water<br>use and in no case exceed 85° F or in<br>any case raise the normal temperature<br>of the receiving water more than<br>4° F   |
| 8. Chemical constituents   | None in concentrations or combina-<br>tions which would be harmful to<br>human, animal, or aquatic life or<br>which would make the waters unsafe<br>or unsuitable for fish or shellfish<br>or their propagation, impair the<br>palatability of same, or impair the<br>waters for any other uses. |
| 9. Radioactivity   | (See Note S.6)   |

CLASS SB

Suitable for bathing, other recreational purposes, industrial cooling and shellfish harvesting for human consumption after depuration; excellent fish and wildlife habitat; good aesthetic value.

- |   |  |
|---|--|
| 1. Dissolved oxygen   | Not less than 5.0 mg/l at any time   |
| 2. Sludge deposits - solid refuse - floating solids, oils and grease - scum | None except that amount that may result from the discharge from a waste treatment facility providing appropriate treatment   |
| 3. Color and turbidity  | None in such concentrations that would impair any usages specifically assigned to this Class   |
| 4. Coliform bacteria per 100 ml   | Not to exceed a median value of 700 and not more than 2300 in more than 10% of the samples (See Note S.5)  |
| 5. Taste and odor   | None in such concentrations that would impair any usages specifically assigned to this Class and none that would cause taste and odor in edible fish or shellfish  |
| 6. pH   | 6.8 - 8.5  |
| 7. Allowable temperature increase   | None except where the increase will not exceed the recommended limit on the most sensitive receiving water use and in no case exceed 85° F or in any case raise the normal temperature of the receiving water more than 4° F.                                  |
| 8. Chemical constituents  | None in concentrations or combinations which would be harmful to human, animal, or aquatic life or which would make the waters unsafe or unsuitable for fish or shellfish or their propagation, or impair the water for any other usage assigned to this Class |
| 9. Radioactivity  | (See Note S.6)   |

CLASS SC

Suitable fish, shellfish and wildlife habitat; suitable for recreational boating and industrial cooling, good aesthetic value.

- |   |  |
|---|--|
| 1. Dissolved oxygen   | Not less than 5 mg/l for more than 6 hours during any 24-hour period and at no time less than 4 mg/l. For cold water fishery, SCc, not less than 5 mg/l at any time  |
| 2. Sludge deposits - solid refuse - floating solids, oils and grease - scum | None except that amount that may result from the discharge from a waste treatment facility providing appropriate treatment   |
| 3. Color and turbidity  | None in such concentrations that would impair any usages specifically assigned to this Class   |
| 4. Coliform bacteria per 100 ml   | Not to exceed an average in any 30-day period of 5000 nor exceed this value in more than 20% of the samples collected during the period.   |
| 5. Taste and odor   | None in such concentrations that would impair any usages specifically assigned to this Class and none that would cause taste and odor in edible fish or shellfish  |
| 6. pH   | 6.5 - 8.5  |
| 7. Allowable temperature increase   | None except where the increase will not exceed the recommended limit on the most sensitive receiving water use and in no case exceed 85° F or in any case raise the normal temperature of the receiving water more than 4° F                                   |
| 8. Chemical constituents  | None in concentrations or combinations which would be harmful to human, animal, or aquatic life or which would make the waters unsafe or unsuitable for fish or shellfish or their propagation, or impair the water for any other usage assigned to this Class |
| 9. Radioactivity  | (See Note S.6)   |



CLASS SD

Suitable for navigation, power, and certain industrial cooling water; migration of fish; good aesthetic value.

- |   |  |
|---|--|
| 1. Dissolved oxygen   | Not less than 2 mg/l at any time   |
| 2. Sludge deposits - solid refuse - floating solids, oils and grease - scum | None except that amount that may result from the discharge from a waste treatment facility providing appropriate treatment   |
| 3. Color and turbidity  | None in such concentrations that would impair any usages specifically assigned to this Class   |
| 4. Coliform bacteria  | None in such concentrations that would impair any usages specifically assigned to this Class   |
| 5. Taste and odor   | None in such concentrations that would impair any usages specifically assigned to this Class and none that would cause taste and odor in edible fish or shellfish  |
| 6. pH   | 6.5 - 8.5  |
| 7. Allowable temperature increase   | None except where the increase will not exceed the recommended limit on the most sensitive receiving water use and in no case exceed 85° F or in any case raise the normal temperature of the receiving water more than 4° F   |
| 8. Chemical constituents  | None in concentrations or combinations which would be harmful to human, animal, or aquatic life or which would make the waters unsafe or unsuitable for fish or shellfish or their propagation, impair the palatability of same, or impair the water for any other usage |
| 9. Radioactivity  | (See Note S.6)   |

## NOTES

- S.1 All sewage treatment plant effluents shall receive disinfection before discharge to coastal and marine waters. The degree of treatment and disinfection shall be as required by the State.
- S.2 These criteria do not apply to conditions brought about by natural causes.
- S.3 The waters shall be substantially free of pollutants that will: a) unduly affect the composition of bottom fauna; b) unduly affect the physical or chemical nature of the bottom; c) interfere with the propagation of fish.
- S.4 These criteria shall apply at all times in coastal and marine waters.
- S.5 Surveys to determine coliform concentrations shall include those areas most probably exposed to fecal contamination during the most unfavorable hydrographic and pollution conditions.
- S.6 The discharge of radioactive materials in concentrations or combinations which would be harmful to human, animal or aquatic life shall not be allowed. In no case shall the Alpha emitters exceed a concentration of 3 picocuries per liter or the Gross Beta emitters exceed a concentration of 1000 picocuries per liter.
- S.7 All interstate Class SA waters and all interstate Class SB waters, except Housatonic River from Derby Dam to mouth, Connecticut River from Hurd State Park in East Hampton to mouth, and Shetucket and Thames Rivers from Greenville Dam, Norwich, to mouth, are considered to be suitable for cold water fish spawning and growth.
- S.8 The criteria for dissolved oxygen and allowable temperature increase for interstate Class SB and SCc waters are applicable to waters used only for fish passage. When such waters are suitable for cold water fish spawning and growth, these criteria shall be the same as those specified for Class SA waters.
- S.9 In the case of interstate Class SB and SCc waters where parts of such waters are not suitable for spawning and growth, the requirements for fish passage shall be considered with other sensitive uses in defining allowable temperature increases.

TABLE 3

STATE OF CONNECTICUT  
WATER RESOURCES COMMISSION  
INLAND WATER QUALITY CRITERIA

	CLASS A	CLASS B	CLASS C	CLASS D
Dissolved Oxygen	75% saturation, 16 hours per day; 5 mg/l at any time.	75% saturation, 16 hours per day; 5 mg/l at any time.	Not less than 5 mg/l for more than 6 hrs. during any 24-hour period, at no time less than 4 mg/l.	A minimum of 2 mg/l at any time.
Sludge Deposits- Solid Refuse- Floating Solids, Oils, and Grease- Scum	None Allowable	None (see note 6)* page 17	None (see note 6) page 17	None (see note 6) page 17
Color and Turbidity	None other than of natural origin.	None in such concentrations that would impair any usages specifically assigned to this class.	None in such concentrations that would impair any usages specifically assigned to this class.	None in such concentrations that would impair any usages specifically assigned to this class.
Coliform Bacteria per 100 ml	Not to exceed a median of 100 nor more than 500 in more than 10% of samples collected.	Not to exceed a median of 1000 nor more than 2400 in more than 20% of samples collected.	Not to exceed an average in any 30-day period of 5000 nor exceed this value in more than 20% of the samples collected during the period.	None in such concentrations that would impair any usages specifically assigned to this class.

TABLE 3 (Continued)

	CLASS A	CLASS B	CLASS C	CLASS D
Taste and Odor	None other than of natural origin.	None in such concentrations that would impair any usages specifically assigned to this class nor cause taste and odor in edible fish.	None in such concentrations that would impair any usages specifically assigned to this class nor cause taste and odor in edible fish.	None in such concentrations that would impair any usages specifically assigned to this class.
pH	As naturally occurs.	6.5 - 8.0	6.0 - 8.5	6.0 - 9.0
Allowable Temperature Increase	None other than of natural origin.	None except where the increase will not exceed the recommended limit on the most sensitive receiving water use and in no case exceed 85°F, or in any case raise the normal temperature of the receiving water more than 4°F.	None except where the increase will not exceed the recommended limit on the most sensitive receiving water use and in no case exceed 85°F, or in any case raise the normal temperature of the receiving water more than 4°F.	None except where the increase will not exceed the recommended limit on the most sensitive receiving water use and in no case exceed 85°F, or in any case raise the normal temperature of the receiving water more than 4°F.
Chemical Constituents	(see note 4) page 17	(see note 4) page 17	(see note 4) page 17	(see note 4) page 17

\*Notes are those given in Water Quality Criteria

TABLE 3

STATE OF CONNECTICUT  
WATER RESOURCES COMMISSION  
COASTAL AND MARINE WATERS QUALITY CRITERIA

	CLASS SA	CLASS SB	CLASS SC	CLASS SD
Dissolved Oxygen	Not less than 6.0 mg/l at any time.	Not less than 5.0 mg/l at any time.	Not less than 5 mg/l for more than 6 hrs. during any 24-hour period and at no time less than 4 mg/l. For cold water fishing SC, not less than 5 mg/l at any time.	Not less than 2 mg/l at any time.
Sludge Deposits- Solid Refuse- Floating Solids, Oils, and Grease- Scum	None Allowable	None except that amount that may result from the discharge from a waste treatment facility providing appropriate treatment.	None except that amount that may result from the discharge from a waste treatment facility providing appropriate treatment.	None except that amount that may result from the discharge from a waste treatment facility providing appropriate treatment.
Color and Turbidity	None in such concentrations that will impair any usages specifically assigned to this class.	None in such concentrations that would impair any usages specifically assigned to this class.	None in such concentrations that would impair any usages specifically assigned to this class.	None in such concentrations that would impair any usages specifically assigned to this class.
Coliform Bacteria per 100 ml	Not to exceed a median MPN of 70 and not more than 10% of the samples shall ordinarily exceed an MPN of 230 for a 5-tube decimal dilution or 330 for a 3-tube decimal dilution (see Note S.5)	Not to exceed a median value of 700 and not more than 2300 in more than 10% of the samples (see note S.5)	Not to exceed an average in any 30-day period of 5000 nor exceed this value in more than 20% of the samples collected during the period.	None in such concentration that would impair any usages specifically assigned to this class.

TABLE 3 (Continued)

	CLASS SA	CLASS SB	CLASS SC	CLASS SD
Taste and Odor	None Allowable	None in such concentrations that would impair any usages specifically assigned to this class and none that would cause taste and odor in edible fish or shellfish.	None in such concentrations that would impair any usages specifically assigned to this class and none that would cause taste and odor in edible fish or shellfish.	None in such concentrations that would impair any usages specifically assigned to this class and none that would cause taste and odor in edible fish and shellfish.
pH	6.8 - 8.5	6.8 - 8.5	6.5 - 8.5	6.5 - 8.5
Allowable Temperature Increase	None except where the increase will not exceed the recommended limit on the most sensitive receiving water use and in no case exceed 85°F or in any case raise the normal temperature of the receiving water more than 4°F.	None except where the increase will not exceed the recommended limit on the most sensitive receiving water use and in no case exceed 85°F or in any case raise the normal temperature of the receiving water more than 4°F.	None except where the increase will not exceed the recommended limit on the most sensitive receiving water use and in no case exceed 85°F or in any case raise the normal temperature of the receiving water more than 4°F.	None except where the increase will not exceed the recommended limit on the most sensitive receiving water use and in no case exceed 85°F or in any case raise the normal temperature of the receiving water more than 4°F.
Chemical Constituents	None in concentrations or combinations which would be harmful to human, animal, or aquatic life or which would make the waters unsafe or unsuitable for fish or shellfish or their propagation, impair the palatability of same, or impair the water for any other usage assigned to this class.	None in concentrations or combinations which would be harmful to human, animal or aquatic life or which would make the waters unsafe or unsuitable for fish or shellfish or their propagation, impair the palatability of same, or impair the water for any other usage assigned to this class.	None in concentrations or combinations which would be harmful to human, animal or aquatic life or which would make the waters unsafe or unsuitable for fish or shellfish or their propagation, impair the palatability of same, or impair the water for any other usage assigned to this class	None in concentrations or combinations which would be harmful to human, animal or aquatic life or which would make the waters unsafe or unsuitable for fish or shellfish or their propagation, impair the palatability of same, or impair the water for any other usage assigned to this class.

TABLE 3 (Continued)

	CLASS SA	CLASS SB	CLASS SC	CLASS SD
Radioactivity	(see note S.6)* page 23	(see note S.6) page 23	(see note S.6) page 23	(see note S.6) page 23

\*Notes are those given in Water Quality Criteria

## Shellfish Closure Areas

The Connecticut State Department of Health prohibits shellfishing in certain coastal waters because of poor water quality existing in those waters. Shellfishing is prohibited in shellfish closure areas which are demarcated on the water quality standards figures by shellfish closure lines.

The shellfish closure lines also indicate where the coastal water quality classifications change. The Connecticut Department of Environmental Protection has classified the closure areas as SB waters while the coastal waters where shellfishing is allowed are classified as SA waters. Due to changes in the quality of coastal waters, the Department of Health is required by law and the National Shellfish Sanitation Program to declare additional closure areas, thus changing the shellfish closure lines. This, however, does not alter the change of water quality classification line, coincident with the shellfish closure lines, as adopted on June 19, 1967, by the Department of Environmental Protection.

This summary, in Appendix I, describes the limits of the shellfish closure areas, which are also the change of classification lines for the water quality standards as submitted by the Department of Environmental Protection to the Federal Government for approval, and as finally approved on April 21, 1970.

Realizing that the locations of some navigational aids used as closure line boundaries are shifted from time to time, a more permanent type description of the location of the change of classification lines is given in Appendix II.



## IMPLEMENTATION PLAN

### General

The action plan of the standards is the plan of implementation and enforcement. This plan sets forth the requirements for treatment and/or control of all conventional municipal and industrial waste discharges in the State which affect interstate waters, specifies the time within which this is to be accomplished, and contains programs for dealing with other water pollution control problems. In general, the standards call for installation of secondary treatment or the equivalent, or higher, for all municipal and industrial wastes by December 1972. Information on the requirements for any particular discharger may be obtained from the Connecticut Department of Environmental Protection, Water Compliance Unit.

### Special Problems

#### Combined Sewer Overflows and Stormwater

Along the Connecticut coastline the municipalities of Norwalk, Bridgeport, and New Haven have been identified by the Department of Environmental Protection as having significant combined sewer problems. Stormwater overflows through these systems can carry large quantities of untreated sanitary and industrial wastewater to the receiving waters, contributing organic material, introducing floating, suspended and settleable solids which reduce the aesthetic and recreational values of the water and increase bacterial densities. These communities are

carrying out a study to determine methods of elimination or treatment of combined sewer overflows and have eliminated several sewer problems in their ongoing program under the requirements of the Connecticut Department of Environmental Protection.

#### Eutrophication

Studies on nutrients are being carried out under contracts to private organizations and in cooperation with the Connecticut Agricultural Experiment Station. Continuing investigations on algae and aquatic weed control are being conducted in the State's operating program which assists municipalities to combat these effects where the values warrant it.

#### Oil and Hazardous Material Spills

Connecticut borders on Long Island Sound, a major transportation route for large oil tankers and barges carrying both crude and refined petroleum. A large number of oil unloading and storage facilities are located on the Connecticut coastline. The frequency of oil transfer operations poses a continuous threat to the coastal waters and estuaries.

The State handles the problem of oil and hazardous materials spills under a comprehensive State law which includes control over terminals by licensing. This law became effective on October 1, 1969 with licensing commencing on January 1, 1970. Also, these operations are coordinated with the Environmental Protection Agency and the Coast Guard as required by National and Regional Contingency Plans for Coastal and Inland Waters. Connecticut anticipates as many as 100 spills during this year utilizing present control procedures within the new department. The State is also

requesting changes in laws relative to terminal licensing and planning procedural changes in operations to minimize such an occurrence or to be capable of limiting the extent of a spill in order to most effectively accomplish its removal

#### Thermal Pollution

By 1974 there may be as many as 13 fossil fueled and nuclear fueled steam generating plants above 50 megawatts capacity in Connecticut. The effect heated water discharges can have upon the ecology of their receiving waters will depend upon many variables including: the temperature and volume of the heated effluent; the depth and dispersion pattern of the rejected thermal waste at the outfall; the circulation pattern and the depth of the receiving water; and the nearness to other discharges. Researchers are currently investigating the possible benefits from thermal discharges under controlled conditions, but there is general agreement that the overall effect of indiscriminately adding heated effluents to streams and estuaries would be detrimental. The Connecticut water pollution control statute contains provisions for control of heated discharges which affect any use of the State waters and defines harmful heated discharges as pollution, subject to abatement.

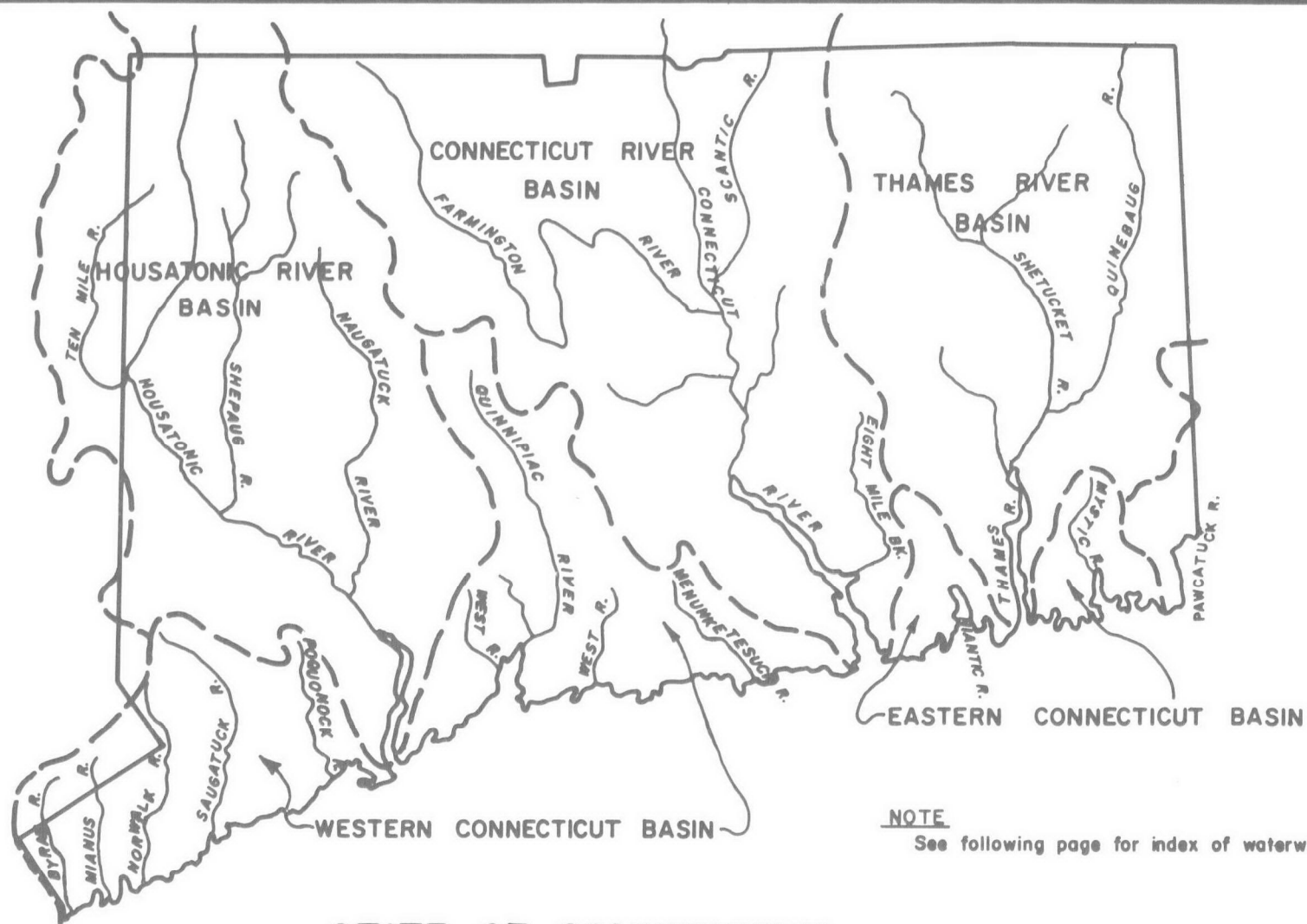
RIVER BASIN MAPS OF WATER QUALITY STANDARDS

ADOPTED BY

CONNECTICUT WATER RESOURCES COMMISSION

**Note:** All tidal estuaries not listed by name have an adopted standard the same as the adjacent Long Island Sound standard.

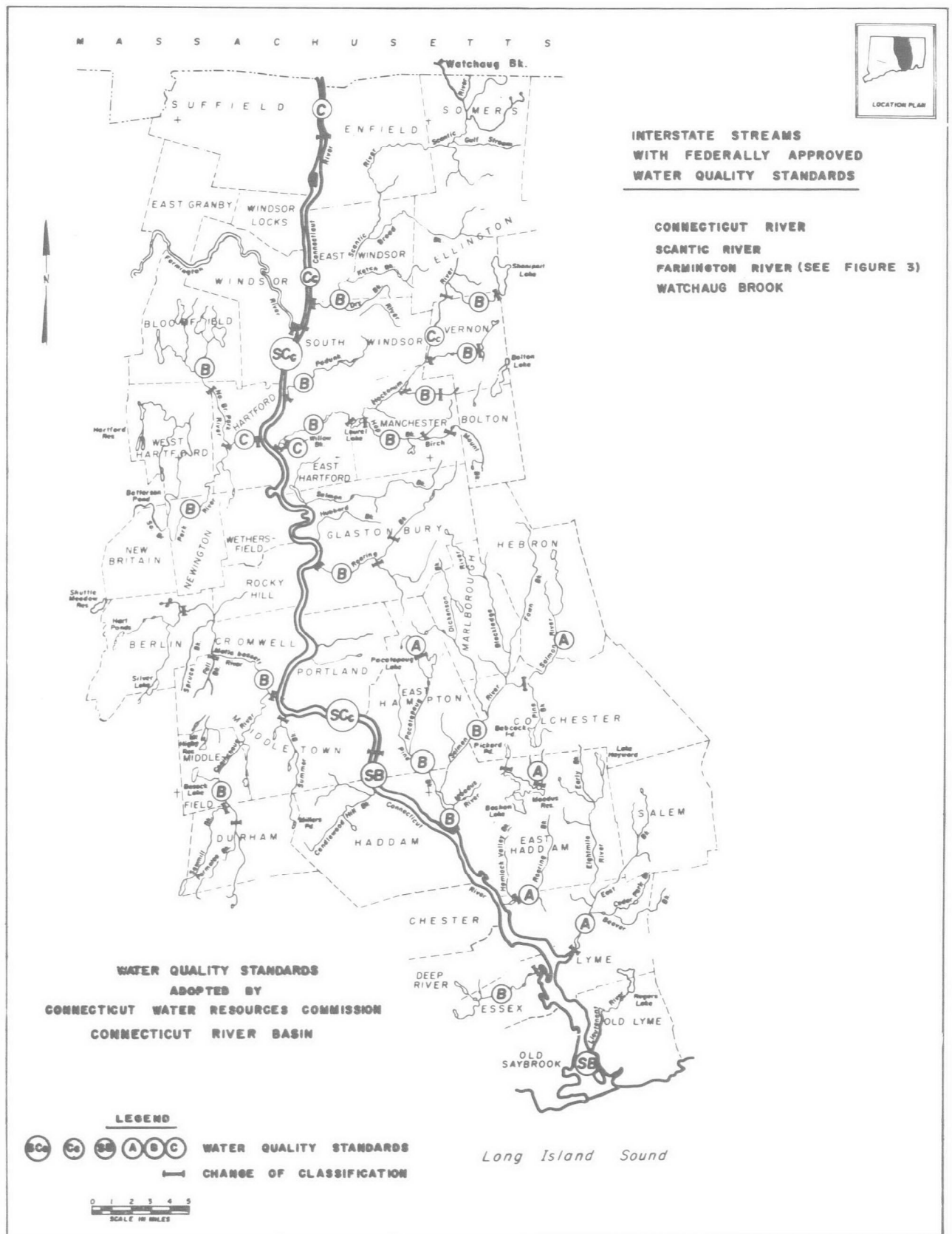
FIGURE 1



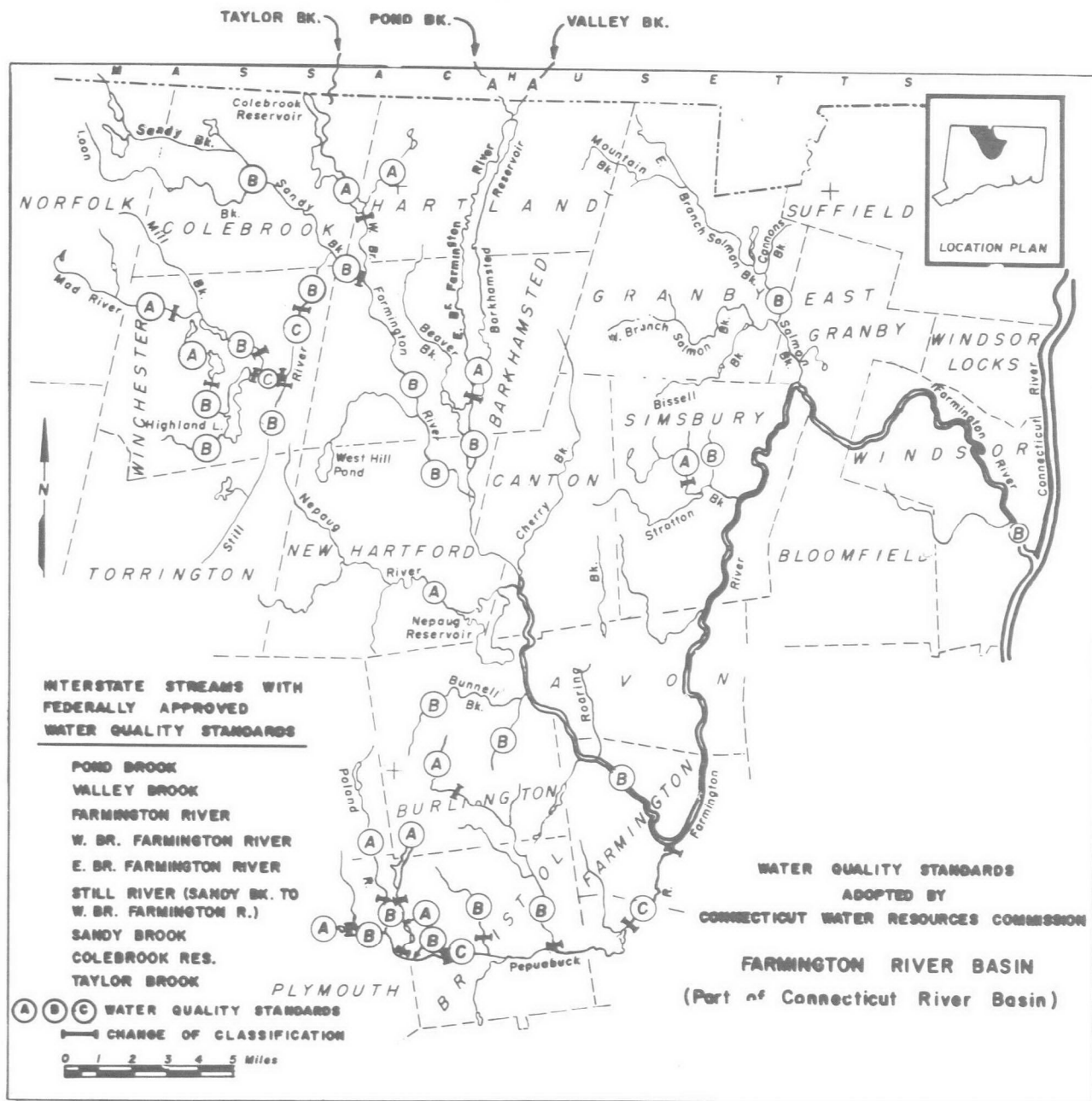
STATE OF CONNECTICUT  
MAJOR INTERSTATE WATERS

## INDEX OF MAJOR INTERSTATE WATERWAYS

Connecticut River Basin	Figure 2
Eastern Connecticut Coastal Basin	Figure 9
Housatonic River Basin	Figure 4
Pawcatuck River	Figure 5
Quinnipiac River Basin	Figure 7
Thames River Basin	Figure 8
Western Connecticut Coastal Basin	Figure 10

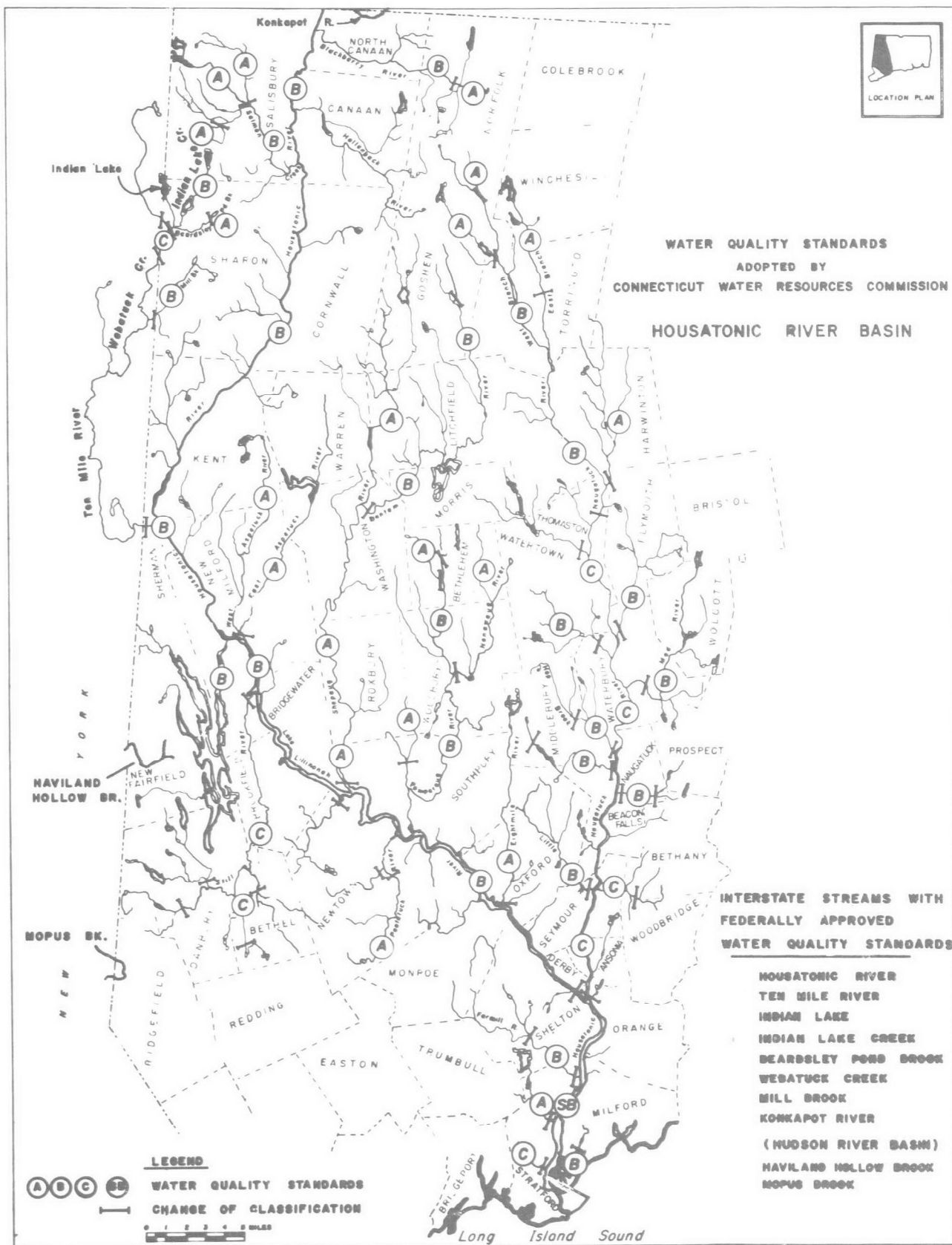


**FIGURE 2**

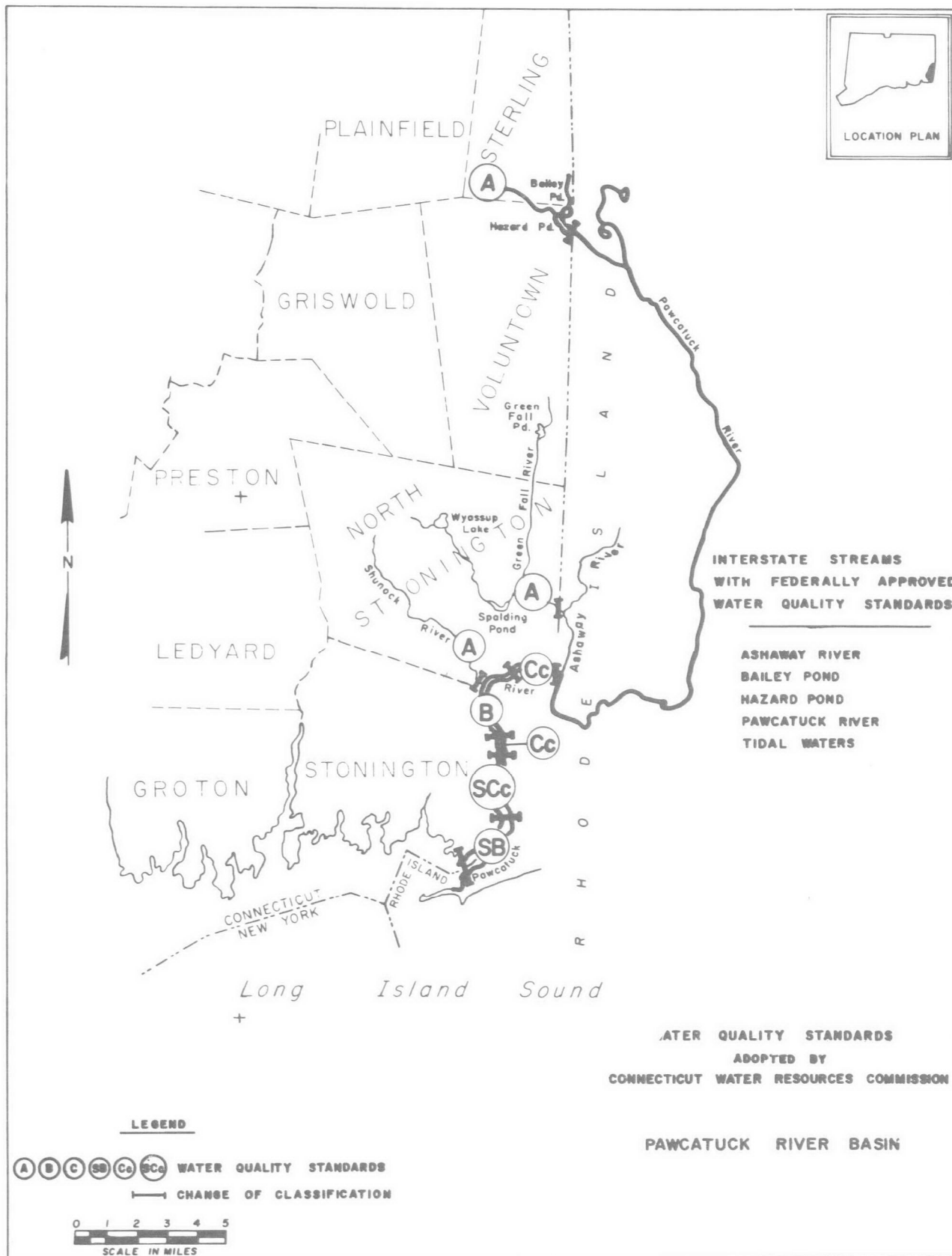


**FIGURE 3**

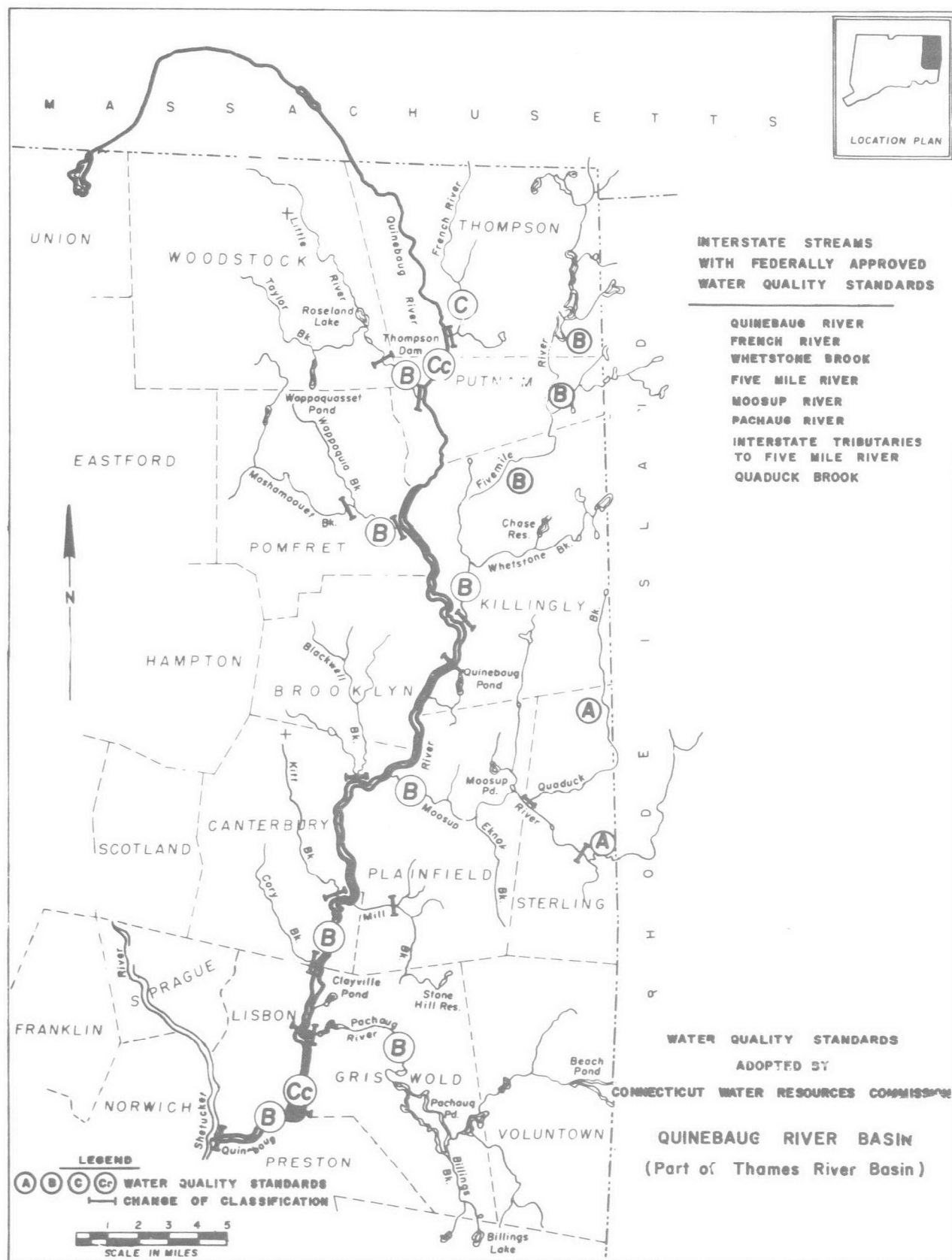




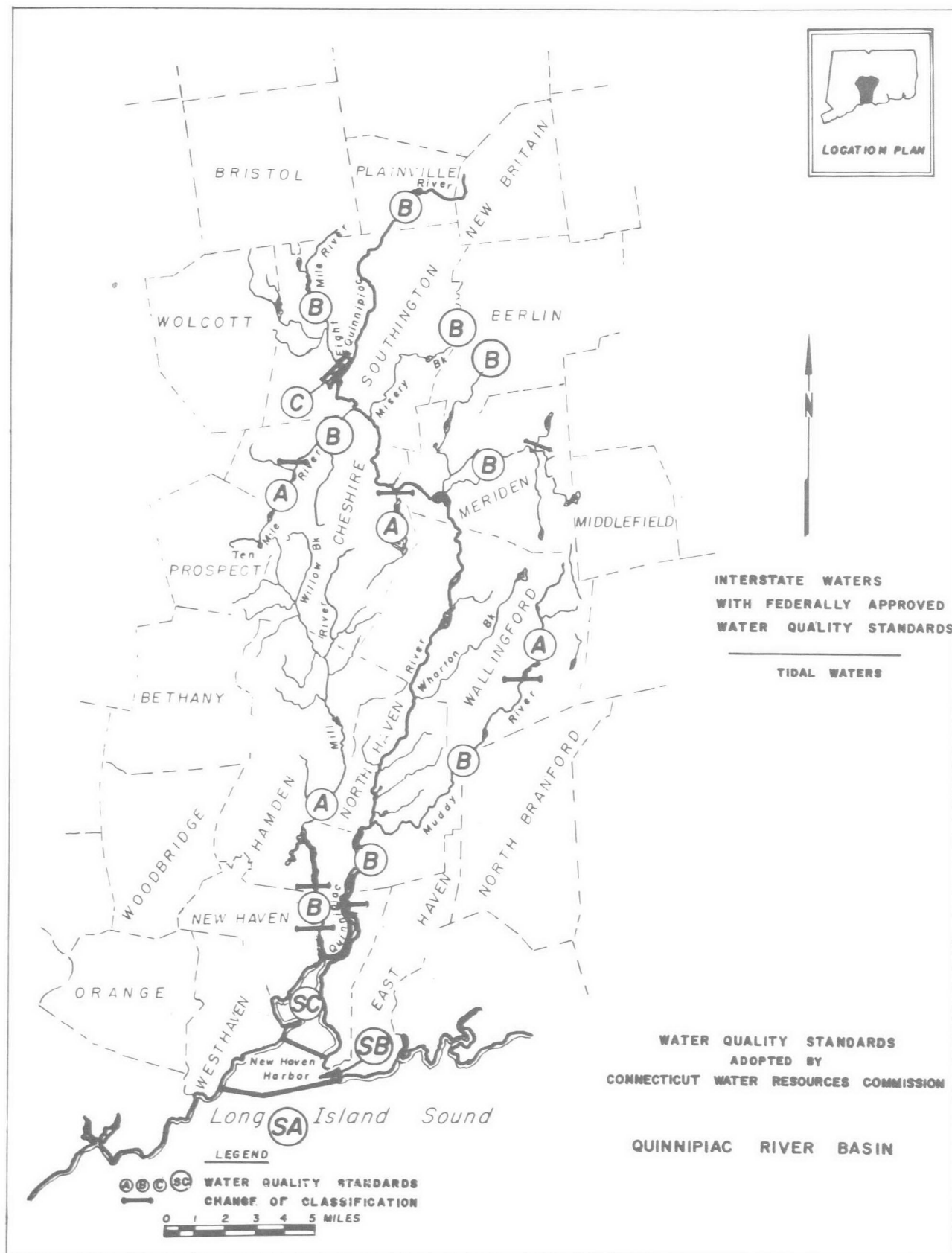
**FIGURE 4**



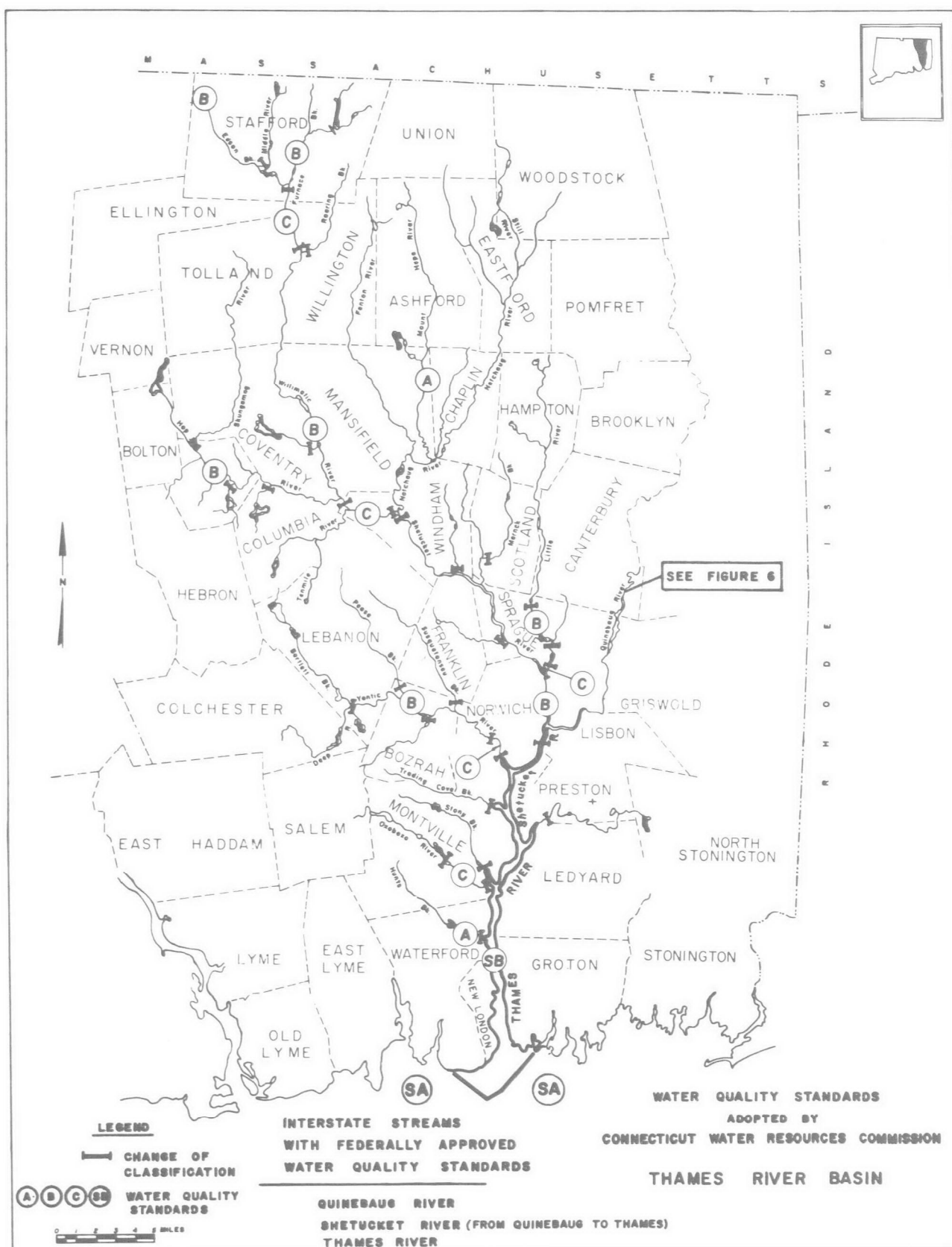
**FIGURE 5**



**FIGURE 6**

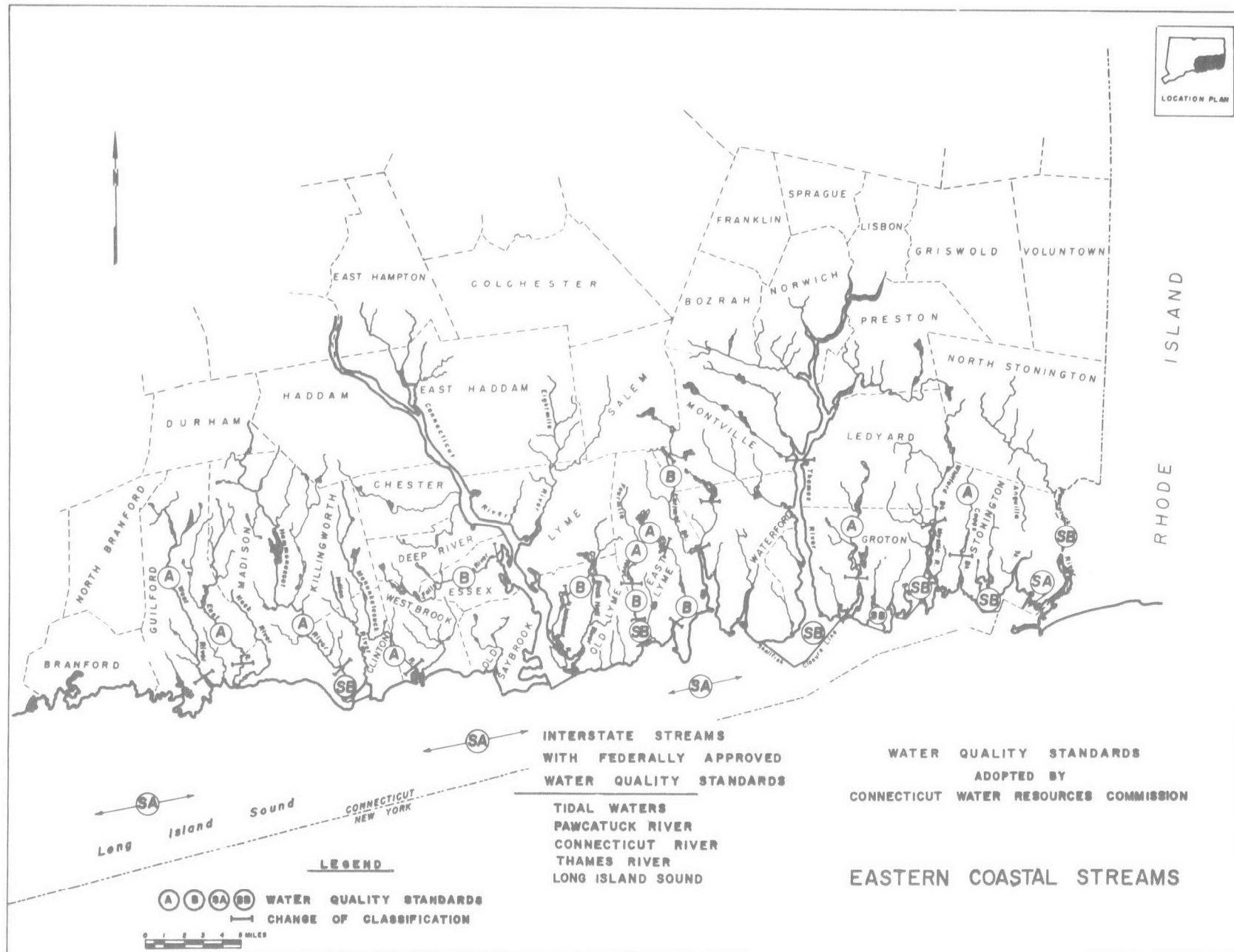


**FIGURE 7**



**FIGURE 8**

FIGURE 9



LOCATION PLAN



## FIGURE 10

APPENDIX I

DESCRIPTIONS OF  
CONNECTICUT STATE DEPARTMENT OF HEALTH  
SHELLFISH CLOSURE LINES

AS SUBMITTED WITH  
THE WATER QUALITY STANDARDS  
AND AS  
ESTABLISHED BY THE DEPARTMENT OF HEALTH  
IN SEPTEMBER 1966  
AND ADOPTED BY THE DEPARTMENT OF  
ENVIRONMENTAL PROTECTION ON  
JULY 19, 1967



## APPENDIX I

### DESCRIPTIONS OF CONNECTICUT STATE DEPARTMENT OF HEALTH SHELLFISH CLOSURE LINES AS SUBMITTED WITH THE WATER QUALITY STANDARDS

1. GREENWICH - That area enclosed by a straight line from Flat Neck Point in a southwesterly direction through the west extremity of Great Captain Island to the Connecticut-New York state boundary line, thence by a line in a general northwesterly direction along the state boundary line to the mainland at Byram Point.
2. DARIEN-STAMFORD - That area enclosed by a straight line from Greenwich Point extending in a northeasterly direction to Stamford Light, thence by a straight line extending in a southeasterly direction to the bell buoy immediately south of "The Cows," thence by a straight line extending in a northeasterly direction to the number 1 flashing buoy located southeast of the east breakwater light on Shippan Point, thence by a straight line extending in a northeasterly direction to the southern extremity of Long Neck Point.
3. DARIEN-NORWALK Five Mile River - The tidal waters and flats of the Five Mile River north of a line from the southerly extremity of Butler Island extending easterly to the southern extremity of Roton Point.
4. NORWALK - (1) That area inside the Norwalk Islands enclosed by a straight line extending from a point on the mainland known as The Knob (located about 1600 feet northeast of the outer tip of Wilson Point and designated on the U. S. Coast and Geodetic Survey Chart) to the northeasterly extremity of Little Tavern Island thence by a straight line to the northerly extremity of Ram Island, thence by a straight line to the northwesterly extremity of Chimons Island, thence by a straight line to the westerly extremity of Grassy or Hay Island, thence by a straight line to the westerly extremity of Sprite Island, and thence by a line due north to the mainland, provided that permits may be granted for the taking of market shellfish from the Norwalk town beds in this area during such periods as the water temperatures are below 41°F, and, the Norwalk sewage treatment plant is in satisfactory operation; and  
  
(2) That area enclosed by a straight line beginning at Noroton Point, extending to the pier at Wilson Point, provided that permits may be granted for the taking of market shellfish from that portion of this area outside of a straight line from the northeast extremity of Bell Island to the pier at Wilson Point after October 1 and before May 1.
5. WESTPORT - The tidal waters of the Saugatuck River north and west of a straight line extending in a northeasterly direction from Bluff Point to the western extremity of Hall Island.

- A. SHERWOOD MILL POND (WESTPORT) - The tidal waters and flats of Sherwood Mill Pond north of foot bridges at outlet to Long Island Sound and at Mill Creek above outlet to Long Island Sound.
- B. MILL RIVER (FAIRFIELD) - The tidal waters and flats of the Mill River north of a straight line extending easterly from the town dock to the northern end of the east breakwater, seasonally between May 1 and September 30.
6. BRIDGEPORT - That area enclosed by a straight line extending from Pine Creek Point to the buoy located approximately 1,000 yards south of Pine Creek Point and thence by a straight line extending in a northeasterly direction to Penfield Reef Light, thence by a straight line extending in a northeasterly direction to Stratford Point Light.
7. STRATFORD-MILFORD Housatonic River - The tidal waters and flats of the Housatonic River north and west of a line from Stratford Point Light extending northeasterly to the bell buoy at the mouth of the river, thence in a straight line to the Outer Breakwater Light, thence along the breakwater to its northern termination at Milford Point.
8. MILFORD - That area enclosed by a straight line extending from Welch's Point approximately 19 degrees north of west through No. 4 buoy at the south end of the channel in Milford Harbor, to the mainland east of Great Creek.
9. NEW HAVEN - That area inside of line extending from Oyster River Point along the west breakwaters to New Haven Light, thence along the Luddington breakwaters to their easterly extremity, thence in a straight line to Southwest Ledge Light, thence along the east breakwaters to their easterly extremity, and thence in a straight line to Morgan Point.
10. EAST HAVEN AND BRANFORD - The tidal waters and flats of the East Haven River north of an east-west line through the northern extremity of Kelsey (or Darrow) Island.
11. BRANFORD - The tidal waters and flats of the Branford River east and north of a straight line extending due south from Branford Point to the mainland on the south side of Branford River, including the waters and flats of Sybil Creek.
- C. THIMBLES ISLANDS - STONY CREEK area (BRANFORD) - That area enclosed by a line extending from the Brown Point Light in a southeasterly direction to the southern extremity of Outer Island, thence in a northeasterly direction to the western extremity of Narrows Island, thence due north to the mainland at Leete's Island, seasonally between May 1 and September 30.

- D. HAMMONASSETT RIVER (MADISON and CLINTON) - Tidal waters and flats of the Hammonasset River north and west of a line extending from the northern extremity of Cedar Island to the mouth of the Hammock River, including the Hammock River and the Indian River, seasonally between May 1 and September 30.
12. OLD SAYBROOK-OLD LYME - The tidal waters of the Connecticut River enclosed by a straight line extending from the light at the southern end of the breakwater at Lynde Point Old Saybrook in a northeasterly direction to the shore end of the peninsula ending in Griswold Point, Old Lyme.
- E. ROCKY NECK (EAST LYME) - The tidal waters and flats within 500 feet of the shoreline between the mouth of the Four Mile River and the southern extremity of Rocky Neck, seasonally between May 1 and September 30.
- F. BRIDE BROOK (EAST LYME) - The tidal waters and flats of Bride Brook above the mouth to Long Island Sound.
13. GROTON-NEW LONDON - New London Harbor and the tidal waters of the Thames River and Baker Cove, Groton, enclosed by a line extending due south from the extremity of land south of Trumbull Airport to Bushy Point Beach, thence along the north shore of Bushy Point Beach to the western extremity of Bushy Point, thence in a straight line to the eastern extremity of Pine Island, thence along the north shore of Pine Island to its western extremity, thence in a straight line to the bell buoy at Sarah's Ledge, thence in a straight line to the buoy at Rapid Rock, thence in a straight line to the mainland at Seaside Point.
14. GROTON (Mumford Cove) - The tidal waters and flats of Mumford Cove north of a straight line extending easterly from Mumford Point to Groton Long Point just south of the mouth of Venetian Harbor.
15. GROTON - That area enclosed by a straight line extending in a southwesterly direction from Ram Point on Mason Island to the light east of Morgan Point, thence by a straight line extending to the southern extremity of Morgan Point, thence along a straight line running in a northwesterly direction to the point at Westview including West Cove, the shore in the vicinity of Noank Six-Penny Island and nearby shore line, and the tidal waters of the Mystic River.
16. STONINGTON A. - That area enclosed by a line from Wamphassuck Point extending in a southeasterly direction along the breakwater to its easterly extremity, thence in a straight line to the Conn.-Rhode Island state boundary, and thence along the state boundary through Little Narragansett Bay and the Pawcatuck River, including Stonington Harbor, the shore between Stonington Harbor and Wequetequock Cove, Wequetequock Cove, the tidal waters of Pawcatuck River, & Little Narragansett Bay.  
B. - The waters of the Mystic River north of Ram Point and including the westerly and northerly shores of Mason Island west of Mason Island Bridge and the shore of the mainland north of Mason Island Bridge.

September 1966

APPENDIX II

DESCRIPTION OF  
CONNECTICUT STATE DEPARTMENT OF HEALTH  
SHELLFISH CLOSURE LINES  
AS SUBMITTED WITH  
THE WATER QUALITY STANDARDS

(These are the same lines as in Appendix I,  
but are referenced to geographical features  
rather than to navigational aids.)

**Note:** These descriptions referenced to U. S. Geological Survey Maps

## APPENDIX II

### CONNECTICUT DEPARTMENT OF HEALTH SHELLFISH CLOSURE LINES

1. STONINGTON - The tidal waters and flats shoreward of a line from the most western extremity of Napatree Point, R. I., due north to Sandy Point, thence along the Conn.-R. I. state boundary until intersection with a straight line from the easterly extremity of the western Stonington Harbor breakwater, thence along the breakwater to Wamphassuc Point. (MYSTIC QUADRANGLE)
2. MYSTIC - The tidal waters and flats of the Mystic River north of Ram Point, including the westerly and northerly shores of Mason Island west of Mason Island Bridge, and the shore of the mainland north of Mason Island Bridge. (MYSTIC QUADRANGLE)
3. GROTON - The tidal waters and flats shoreward of a line extending in a southwesterly direction from Ram Point on Mason Island to the Morgan Point Light, thence of a straight line extending to the southern extremity of Morgan Point, thence along a straight line running in a northwesterly direction to the point at Westview. (MYSTIC QUADRANGLE)
4. GROTON (Mumford Cove) - The tidal waters and flats of Mumford Cove north of a straight line extending westerly from Groton Long Point, just south of the mouth of Lower Lagoon to the southern extremity of Mumford Point. (NEW LONDON QUADRANGLE)
5. NEW LONDON-GROTON - The tidal waters and flats shoreward of a line extending due south from Trumbull Airport, Groton, at the mouth of the Poquonock River, to Bushy Point Beach, thence along the north shore of Bushy Point Beach to the western extremity of Bushy Point, thence in a straight line to the eastern extremity of Pine Island, thence along the north shore of Pine Island to its western extremity, thence in a straight line to Sarah Ledge, marked by a bell buoy, thence in a straight line to Rapid Rock, marked by a signal buoy, thence in a straight line to Seaside Point, New London. (NEW LONDON AND NIANITIC QUADRANGLES)
6. EAST LYME (Bride Brook) - The tidal waters and flats of Bride Brook shoreward of the mouth to Long Island Sound. (NIANTIC QUADRANGLE)
7. EAST LYME (Rocky Neck) - The tidal waters and flats shoreward of a line 500 feet offshore between the southern extremity of Rocky Neck and the mouth of the Four Mile River seasonally between May 1 and September 30. (NIANTIC QUADRANGLE)

8. OLD SAYBROOK-OLD LYME - The tidal waters and flats shoreward of a line extending from the shore end of the peninsula ending in Griswold Point, Old Lyme in a southwesterly direction to the light at the outer end of the Lynde Point breakwater, Old Saybrook. (OLD LYME QUADRANGLE)
9. CLINTON (Hammonasset River) - The tidal waters and flats shoreward of a line extending from the mouth of the Hammock River in a southwesterly direction to the northern extremity of Cedar Island, including the Hammock River, seasonally between May 1 and September 30. (CLINTON QUADRANGLE)
10. BRANFORD (Thimble Islands-Stony Creek) - The tidal waters and flats shoreward of a line from the mainland at Leete's Island, due south to the western extremity of Narrows Island, thence in a southwesterly direction to the southern extremity of Outer Island, thence in a northwesterly direction to Brown Point Light, seasonally between May 1 and September 30. (GUILFORD & BRANFORD QUADRANGLES)
11. BRANFORD - The tidal waters and flats of the Branford River shoreward of a line extending from Indian Neck, due south of Branford Point, to Branford Point. (BRANFORD QUADRANGLE)
12. EAST HAVEN-BRANFORD - The tidal waters and flats of the East Haven River shoreward of a line extending due west from Paynes Point to the western bank of the East Haven River. (BRANFORD QUADRANGLE)
13. NEW HAVEN - The tidal waters and flats shoreward of a line extending from Morgan Point, East Haven to the eastern extremity of the New Haven east breakwater, thence along the breakwater to Southwest Ledge Light, thence in a straight line to the eastern extremity of the Luddington breakwater, thence along the breakwater to its western extremity, thence in a straight line to the New Haven Light, thence along the West New Haven breakwater to its western extremity, thence in a straight line to Oyster River Point, New Haven. (WOODMONT QUADRANGLE)
14. MILFORD - The tidal waters and flats shoreward of a straight line from Welch's Point at a bearing of  $286.5^{\circ}$  true north through the present No. 4 buoy at the south end of the channel in Milford Harbor, to the mainland east of Great Creek. (MILFORD QUADRANGLE)
15. MILFORD-STRATFORD (Housatonic River) - The tidal waters and flats shoreward of a line from Milford Point along the Milford breakwater, thence in a straight line from the outer breakwater light at a bearing of  $139.5^{\circ}$  true north and 1100 yards distance, thence in a straight line extending westerly to the Stratford Point Light. (MILFORD QUADRANGLE)

16. BRIDGEPORT - The tidal waters and flats shoreward of a straight line from Stratford Point Light, Stratford in a southwesterly direction to Penfield Reef Light, thence to a point marked by the red bell buoy located approximately 1,000 yards south of Pine Creek Point, at a bearing of 100.5° true north and 4,030 yards distance from Frost Point, Southport, thence in a straight line to Pine Creek Point. (BRIDGEPORT QUADRANGLE)
17. FAIRFIELD (Mill River) - The tidal waters and flats of Mill River shoreward of a line from the northern end of the east breakwater extending westerly in a straight line to the Southport town dock, seasonally between May 1 and September 30. (WESTPORT QUADRANGLE)
18. WESTPORT (Sherwood Mill Pond) - The tidal waters and flats of Sherwood Mill Pond shoreward of footbridges extending from the most western extremity of Sherwood Island in a westerly direction to Compo in Westport. (WESTPORT QUADRANGLE)
19. WESTPORT (Mill Creek) - The tidal waters and flats shoreward of the mouth of Mill Creek to Long Island Sound. (WESTPORT QUADRANGLE)
20. WESTPORT (Saugatuck River) - The tidal waters and flats shoreward of a line extending from the western extremity of Owenoke Peninsula in a southwesterly direction to Bluff Point, Westport. (WESTPORT QUADRANGLE)
21. NORWALK - The tidal waters and flats shoreward of a straight line extending due south from the mainland at Canfield Island, Saugatuck to the western extremity of Sprite Island, thence in a straight line to the western extremity of Grassy Island, thence in a straight line to the northwestern extremity of Chimon Island, thence in a straight line to the northern extremity of Ram Island, thence in a straight line to the northeastern extremity of Little Tavern Island, thence in a straight line to a point on the mainland known as The Knob (located about 1,600 feet northeast of the outer tip of Wilson Point), provided that permits may be granted for the taking of market shellfish from the Norwalk town beds in this area during such periods as the water temperatures are below 41°F and the Norwalk sewage treatment plant is in satisfactory operation. (NORWALK SOUTH QUADRANGLE)
22. NORWALK - The tidal waters and flats of Wilson Cove shoreward of a line extending from the pier on Wilson Point to Noroton Point, provided that permits may be granted for the taking of market shellfish from that portion of this area shoreward of a straight line extending from the pier on Wilson Point to the northeast extremity of Bell Island after October 1 and before May 1. (NORWALK SOUTH QUADRANGLE)
23. NORWALK-DARIEN (Five Mile River) - The tidal waters and flats shoreward of a line extending westerly from the southern extremity of Roton Point to the southern extremity of Butlers Island. (NORWALK SOUTH QUADRANGLE)

24. DARIEN-STAMFORD-GREENWICH - The tidal waters and flats shoreward of a straight line extending in a southwesterly direction from Long Neck Point, Darien to a point marked by the flashing green buoy at the entrance to Westcott Cove at a location  $142^{\circ}$  true north and 1,575 yards from the eastern Westcott Cove jetty light, thence in a straight line in a southwesterly direction to the Cows marked by a bell buoy immediately to the south, thence in a straight line extending in a northwesterly direction to Stamford Light, thence in a straight line extending in a southwesterly direction to Greenwich Point, Greenwich.  
(STAMFORD QUADRANGLE)
25. GREENWICH - The tidal waters and flats shoreward of a line extending from Flat Neck Point in Greenwich in a southwesterly direction through the western extremity of Great Captain Island to the Connecticut-New York state boundary line, thence in a straight line in a general northwesterly direction along the state boundary line to the mainland at Byram Point. (GLENVILLE-OYSTER BAY QUADRANGLES)



APPENDIX III  
CONNECTICUT LAWS FOR THE PROMULGATION  
AND ENFORCEMENT OF  
WATER QUALITY STANDARDS  
(AS OF JUNE 25, 1971)

PUBLIC ACT NO. 872

AN ACT CREATING A DEPARTMENT OF ENVIRONMENTAL PROTECTION.

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

Section 1. The general assembly finds that the growing population and expanding economy of the state have had a profound impact on the life-sustaining natural environment. The air, water, land and other natural resources, taken for granted since the settlement of the state, are now recognized as finite and precious. It is now understood that human activity must be guided by and in harmony with the system of relationships among the elements of nature. Therefore the general assembly hereby declares that the policy of the state of Connecticut is to conserve, improve and protect its natural resources and environment and to control air, land and water pollution in order to enhance the health, safety and welfare of the people of the state. It shall further be the policy of the state to improve and coordinate the environmental plans, functions, powers and programs of the state, in cooperation with the federal government, regions, local governments, other public and private organizations and concerned individuals, and to manage the basic resources of air, land and water to the end that the state may fulfill its responsibility as trustee of the environment for the present and future generations.

Sec. 2. There shall be a department of environmental protection which shall have jurisdiction over all matters relating to the preservation and protection of the air, water and other natural resources of the state. Said department shall be under the direction of a commissioner of environmental protection who shall be appointed in accordance with the provisions of sections 4-5 to 4-8, inclusive, of the general statutes, as amended.

Sec. 3. Section 4-5 of the 1969 supplement to the general statutes is repealed and the following is substituted in lieu thereof: As used in sections 4-6 to 4-8, inclusive, the term "department head" means commissioner of finance and control, commissioner of motor vehicles, banking commissioner, welfare commissioner,

insurance commissioner, commissioner of health, public works commissioner, commissioner of agriculture [and natural resources], tax commissioner, commissioner of transportation, commissioner of consumer protection, labor commissioner, commissioner of mental health, commissioner of community affairs, commissioner of correction, personnel commissioner, commissioner of children and youth services, [and] commissioner on aging AND COMMISSIONER OF ENVIRONMENTAL PROTECTION.

Sec. 4. The commissioner shall organize the department into a division of environmental quality and a division of conservation and preservation of the environment, each of which shall be under the direction and control of a deputy commissioner who shall be responsible to the commissioner for the operation of his division. Each such deputy commissioner shall be appointed by the commissioner and shall be qualified and experienced in the functions performed by the division under his charge. The position of each such deputy commissioner shall be exempt from the classified service.

Sec. 5. The commissioner may, subject to the provisions of chapter 67 of the 1969 supplement to the general statutes, employ such agents, assistants and employees as he deems necessary to carry out his duties and responsibilities. He may retain and employ other consultants and assistants on a contract or other basis for rendering legal, financial, technical or other assistance and advice.

Sec. 6. The commissioner shall carry out the environmental policies of the state and shall have all powers necessary and convenient to faithfully discharge this duty. In addition to, and consistent with the environment policy of the state, the commissioner shall (a) promote and coordinate management of water, land and air resources to assure their protection, enhancement and proper allocation and utilization; (b) provide for the protection and management of plants, trees, fish, shellfish, wildlife and other animal life of all types, including the preservation of endangered species; (c) provide for the protection, enhancement and management of the public forests, parks, open spaces and natural area preserves; (d) provide for the protection, enhancement and management of inland, marine and coastal water resources, including, but not

limited to, wetlands, rivers, estuaries and shorelines; (e) provide for the prevention and abatement of all water, land and air pollution including, but not limited to, that related to particulates, gases, dust, vapors, noise, radiation, odors, nutrients and cooled or heated liquids, gases and solids; (f) provide for control of pests and regulate the use, storage and disposal of pesticides and other chemicals which may be harmful to man, sea life, animals, plant life or natural resources; (g) regulate the disposal of solid waste and liquid waste, including but not limited to, domestic and industrial refuse, junk motor vehicles, litter and debris, which methods shall be consistent with sound health, scenic environmental quality and land use practices; (h) regulate the storage, handling and transportation of solids, liquids and gases which may cause or contribute to pollution; and (i) provide for minimum state-wide standards for the mining, extraction, excavation or removal of earth materials of all types.

Sec. 7. The commissioner may (a) adopt, amend or repeal environmental standards, criteria and regulations to carry out the purposes and provisions of this act. No adoption, amendment or repeal of any standard, criteria or regulation shall take effect except after a public hearing, thirty days prior notice of the date, time, place and subject matter of which shall be published in the Connecticut Law Journal, or earlier than thirty days after the publication thereof in said law journal; (b) enter into contracts with any person, firm, corporation or association to do all things necessary or convenient to carry out the functions, powers and duties of the department; (c) by himself or his designated agent, initiate and receive complaints as to any actual or suspected source of pollution or for the purpose of ascertaining compliance or noncompliance with any provision of the general statutes or regulation which may be promulgated pursuant to this act. The commissioner or his designated agent shall have the power to hold hearings, administer oaths, take testimony and subpoena witnesses and evidence, enter orders and institute legal proceedings including, but not limited to, suits for injunctions, for the enforcement of his orders and regulations in accordance with this act; (d) by himself or his designated agent, enter at all reasonable times upon any public or private

property, except a private residence, for the purpose of inspection and investigation to ascertain possible violations of this act or of regulations made hereunder, in accordance with constitutional limitations, and the owner, managing agent or occupant of any such property shall permit such entry, provided any information relating to secret processes or methods of manufacture or production ascertained by the commissioner or his agents during, or as a result of any inspection, investigation, hearing or otherwise shall be kept confidential and shall not be disclosed; (e) undertake any studies, inquiries, surveys or analyses he may deem relevant, through the personnel of the department or in cooperation with any public or private agency, to accomplish the purposes of this act. In all cases wherein the commissioner of environmental protection is required to hold hearings, public or otherwise, on any matter within his jurisdiction, he may hold such hearings or may designate a member of his staff to act as a hearing examiner, such hearing examiner to hold such hearing at a time and place designated by the commissioner. The commissioner or the hearing examiner may issue subpoenas, administer oaths and cause the attendance of witnesses and the production of evidence and testimony in any proceeding pending before him. The hearing examiner shall, after each hearing, file with the commissioner a report including a finding of fact and recommendations. After considering the report of the hearing examiner and the testimony of the hearing, the commissioner shall issue such order or permit as is applicable to the particular proceeding.

Sec. 79. Section 25-54b of said supplement is repealed and the following is substituted in lieu thereof: As used in this chapter: "COMMISSIONER" MEANS THE COMMISSIONER OF ENVIRONMENTAL PROTECTION; ["Commission" means the water resources commission;] "waters" means all tidal waters, harbors, estuaries, rivers, brooks, watercourses, waterways, wells, springs, lakes, ponds, marshes, drainage systems, and all other surface or underground streams, bodies or accumulations of water, natural or artificial, public or private, which are contained within, flow through or border upon this state or any portion thereof; "wastes" means sewage or any substance, liquid, gaseous, solid or radioactive, which may pollute or tend to pollute any of the waters of the state; "pollution" means harmful thermal effect or the contamination or rendering unclean or impure OR PREJUDICIAL TO PUBLIC HEALTH of any waters of the state by reason of any wastes or other material discharged or deposited therein by any public or private sewer or otherwise so as directly or indirectly to come in contact with any waters; "rendering unclean or impure" means any alteration of the physical, chemical or biological properties of any of the waters of the state, including, but not limited to, change in odor, color, turbidity or taste; "harmful thermal effect" means any significant change in the temperature of any waters resulting from a discharge therein, the magnitude of which temperature change does or is likely to render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life; "person" means any individual,

partnership, association, firm, corporation or other entity, except a municipality, and includes any officer or governing or managing body of any partnership, association, firm or corporation; "community pollution problem" means the existence of pollution which, in the sole discretion of the [commission] COMMISSIONER, can best be abated by the action of a municipality; "municipality" means any metropolitan district, town, consolidated town and city, consolidated town and borough, city, borough, village, fire and sewer district, sewer district and each municipal organization having authority to levy and collect taxes or make charges for its authorized function; "discharge" means the emission of any water, substance or material into the waters of the state, whether or not such substance causes pollution; "pollution abatement facility" means treatment works which are used in the treatment of waters, including the necessary intercepting sewers, outfall sewers, pumping, power and other equipment, and their appurtenances, and includes any extensions, improvements, remodeling, additions and alterations thereof; "disposal system" means a system for disposing of or eliminating wastes, either by surface or underground methods, and includes sewage systems, pollution abatement facilities, disposal wells and other systems; "federal water pollution control act" means the Federal Water Pollution Control Act, 33 U.S.C. section 466 et seq., including amendments thereto and regulations thereunder; "order to abate pollution" includes an order to abate existing pollution or to prevent reasonably anticipated sources of pollution.

Sec. 80. Section 25-54c of said supplement is repealed and the following is substituted in lieu thereof: The [commission] COMMISSIONER shall have the following powers and duties: (a) To exercise general supervision of the administration and enforcement of this chapter; (b) to develop comprehensive programs for the prevention, control and abatement of new or existing pollution of the waters of the state; (c) to advise, consult and cooperate with other agencies of the state, the federal government, other states and interstate agencies and with affected groups, political subdivisions and industries in furtherance of the purposes of this chapter; (d) to submit plans for the prevention and control of water pollution and to render reports and accounts to the United

States secretary of the interior, the federal water pollution control administration and to any other federal officer or agency on such forms containing such information as the said secretary and the federal water pollution control administration, or any other federal officer or agency, may reasonably require, in order to qualify the state and its municipalities for grants from the United States government; (e) to encourage, participate in or conduct studies, investigations, research and demonstrations, and collect and disseminate information, relating to water pollution and the causes, prevention, control and abatement thereof; (f) to issue, modify or revoke orders prohibiting or abating pollution of the waters of the state, or requiring the construction, modification, extension or alteration of pollution abatement facilities or any parts thereof, or adopting such other remedial measures as are necessary to prevent, control or abate pollution; (g) to hold such hearings as may be required under the provisions of this chapter, for which [it] HE shall have the power to issue notices by certified mail, administer oaths, take testimony and subpoena witnesses and evidence; (h) to require the submission of plans, specifications and other necessary data for, and inspect the construction of, pollution abatement facilities and disposal systems in connection with the issuance of such permits or approvals as may be required by this chapter; (i) to issue, continue in effect, revoke, modify or deny permits, under such conditions as [it] HE may prescribe, for the discharge of any water, substance or material into the waters of the state, or orders for or approval of the installation, modification or operation of pollution abatement facilities; (j) to require proper maintenance and operation of disposal systems; (k) to exercise all incidental powers necessary to carry out the purposes of this chapter.

Sec. 81. Section 25-54d of said supplement is repealed and the following is substituted in lieu thereof: The [commission] COMMISSIONER may require any person or municipality to maintain such records relating to pollution, possible pollution or the operation of pollution abatement facilities as [it] HE deems necessary to carry out the provisions of this chapter. The [commission] COMMISSIONER or [any] HIS authorized representative [thereof] shall have access to such



records, and may examine and copy any such records or memoranda pertaining thereto, or shall be furnished copies of such records on request. [Such representative shall have the power to enter upon any public or private property, at reasonable times, to secure such information and the owner, managing agent or occupant of any such property shall permit such entry; provided any information relating to secret processes or methods of manufacture or production ascertained or discovered by the commission or its agents during, or as a result of, any inspection, investigation, hearing or otherwise, shall not be disclosed and shall be kept confidential.]

Sec. 82. Section 25-54e of said supplement is repealed and the following is substituted in lieu thereof: (a) The [commission] COMMISSIONER OF ENVIRONMENTAL PROTECTION shall adopt, and may thereafter amend, standards of water quality applicable to the various waters of the state or portions thereof AS PROVIDED IN SUBDIVISION (a) OF SECTION 7 OF THIS ACT. Such standards shall be consistent with the federal water pollution control act and shall be for the purpose of qualifying the state and its municipalities for available federal grants and for the purpose of providing clear and objective public policy statements of a general program to improve the water resources of the state; provided no standard of water quality adopted shall plan for, encourage or permit any wastes to be discharged into any of the waters of the state without having first received the treatment available and necessary for the elimination of pollution. Such standards of quality shall: (1) Apply to interstate waters or portions thereof within the state; (2) apply to such other waters within the state as the [commission] COMMISSIONER may determine is necessary; (3) protect the public health and welfare and promote the economic development of the state; (4) preserve and enhance the quality of state waters for present and prospective future use for public water supplies, propagation of fish and aquatic life and wildlife, recreational purposes and agricultural, industrial and other legitimate uses; (5) be consistent with health standards as established by the state department of health. (b) Prior to adopting, amending or repealing standards of water quality, the [commission] COMMISSIONER shall conduct a public hearing. Notice of such hearing specifying the

waters for which standards are sought to be adopted, amended or repealed and the time, date and place of such hearing shall be published AS PROVIDED IN SAID SUBDIVISION (a) OF SECTION 7 AND ALSO at least twice during the thirty-day period preceding the date of the hearing in a newspaper having a general circulation in the area affected and shall be given by certified mail to the chief executive officer of each municipality in such area. Prior to the hearing the [commission] COMMISSIONER shall make available to any interested person any information [it] HE has as to the water which is the subject of the hearing and the standards under consideration, and shall afford to any interested person the opportunity to submit to [the commission] HIM any written material. At the hearing, any person shall have the right to make a written or oral presentation. A full transcript or recording of each hearing shall be made and kept available in the [commission's] files OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION. (c) The [commission] COMMISSIONER shall establish the effective date of the adoption, amendment or repeal of standards of water quality, - SUBJECT TO THE PROVISIONS OF SUBDIVISION (a) OF SECTION 7 OF THIS ACT. Notice of such adoption, amendment or repeal shall be published in [the Connecticut] SAID law journal upon acceptance thereof by the federal government. (d) The [commission] COMMISSIONER shall monitor the quality of the subject waters to demonstrate the results of [its] HIS program to abate pollution.

Sec. 83. Section 25-54g of said supplement is repealed and the following is substituted in lieu thereof: If the [commission] COMMISSIONER finds that any municipality is causing pollution of the waters of the state, or that a community pollution problem exists, or that pollution by a municipality or a community pollution problem can reasonably be anticipated in the future, [the commission] HE shall issue to the municipality an order to abate pollution. If the [commission] COMMISSIONER, after giving due regard to regional factors, determines that such pollution can best be abated by the action of two or more adjacent municipalities, [the commission] HE may issue [its] HIS order jointly or severally to such municipalities. If a community pollution problem exists in, or if pollution is caused by, a municipality geographically located all or partly

within the territorial limits of another municipality, the [commission] COMMISSIONER shall, after giving due regard to regional factors, determine which municipality shall be ordered to abate the pollution or shall, after giving due regard to regional factors, issue an order to both of such municipalities jointly to provide the facilities necessary to abate the pollution. Any order issued pursuant to this section shall include a time schedule for action by the municipality or municipalities, as the case may be, which may require, but is not limited to, the following steps to be taken by such municipality or municipalities: (a) Submission of an engineering report outlining the problem and recommended solution therefor for approval by the [commission] COMMISSIONER; (b) submission of contract plans and specifications for approval by the [commission] COMMISSIONER; (c) arrangement of financing; (d) acceptance of state and federal construction grants; (e) advertisement for construction bids; (f) start of construction; (g) placing in operation.

Sec. 84. Section 25-54h of said supplement is repealed and the following is substituted in lieu thereof: If the [commission] COMMISSIONER finds that any person prior to May 1, 1967, has caused pollution of any of the waters of the state, which pollution recurs or continues after said date, [the commission] HE shall issue an order to abate pollution to such person. The order shall include a time schedule for the accomplishment of the necessary steps leading to the abatement of the pollution. This section shall not apply to any person who is subject to the provisions of section 85 of this act.

Sec. 85. Section 25-54i of said supplement, as amended by section 1 of number 346 of the public acts of the current session, is repealed and the following is substituted in lieu thereof: (a) No person shall, after May 1, 1967, initiate, create or originate any new discharge of water, substance or material into the waters of the state without first obtaining a permit for such discharge from the [commission] COMMISSIONER. Application for such permit shall be on a form prescribed by the [commission] COMMISSIONER and shall include such information as the [commission] COMMISSIONER may therein require.

(b) No sooner than thirty days and not later than sixty days after the receipt of an

application for a permit as required in subsection (a), the [commission] COMMISSIONER shall hold a public hearing on such application. Notice of the hearing shall be given by publication, at least twice during the twenty days immediately preceding the hearing in a newspaper having a substantial circulation in the area affected. If, after such hearing, the [commission] COMMISSIONER finds that such discharge would not cause pollution of any of the waters of the state, [it] HE shall issue a permit for such discharge. If the [commission] COMMISSIONER finds that such discharge would cause pollution of any of the waters of the state, [it] HE shall require the applicant to submit plans and specifications of a proposed system to treat such discharge. If the [commission] COMMISSIONER finds that the proposed system to treat such discharge will protect the waters of the state from pollution, [it] HE shall notify the applicant of [its] HIS approval and, when such applicant has installed such system, in full compliance with the approval thereof, the [commission] COMMISSIONER shall issue a permit for such discharge. If the [commission] COMMISSIONER finds that the proposed system to treat such discharge does not protect the waters of the state from pollution, [it] HE shall promptly notify the applicant that its application is denied and the reasons therefor. If any applicant, after having submitted plans and specifications pursuant to the provisions of this section for a proposed system to treat such discharge, is denied a permit by the [commission] COMMISSIONER, such applicant shall have the right to a hearing and an appeal therefrom in the same manner as provided for in sections 91 and 92 of this act.

(c) The permits issued pursuant to this section shall be for a period of five years, except that any such permit shall be subject to the provisions of section 86 of this act. Such permit: (1) Shall specify the manner, nature and volume of discharge; (2) shall require proper operation and maintenance of any pollution abatement facility required by such permit; (3) may be renewable for like periods in accordance with procedures and requirements established by the [commission] COMMISSIONER; and (4) shall be subject to such other requirements and restrictions as the [commission] COMMISSIONER deems necessary to comply fully with the purposes of this chapter.

(d) If the [commission] COMMISSIONER finds that any person has, after May 1, 1967, initiated, created or originated any discharge into the waters of the state without a permit as required in subsection (a) hereof, or in violation of such a permit, [it] HE shall, notwithstanding any request for a hearing pursuant to section 91 of this act or the pendency of an appeal therefrom, request the attorney general to bring an action in the superior court for Hartford county to enjoin such discharge by such person until he has received a permit from the [commission] COMMISSIONER or has complied with a permit which the [commission] COMMISSIONER has issued pursuant to this section. Any such action brought by the attorney general shall have precedence in the order of trial as provided in section 52-191.

Sec. 86. Section 25-54j of said supplement is repealed and the following is substituted in lieu thereof: The [commission] COMMISSIONER shall periodically investigate and review those sources of discharge which are operating pursuant to any order, permit, directive or decision [of the commission] issued BY THE WATER RESOURCES COMMISSION OR THE COMMISSIONER before or after May 1, 1967, and, if [it] HE determines that there has been any substantial change in the manner, nature or volume of such discharge which will cause or threaten pollution to any of the waters of the state, or if [it] HE finds that the system treating such discharge, or the operation thereof, no longer insures or adequately protects against pollution of the waters of the state, the [commission] COMMISSIONER shall issue an order to abate such pollution to such person or municipality. Such order shall include a time schedule for the accomplishment of the necessary steps leading to the abatement of the pollution.

## APPENDIX IV

### INTERSTATE WATERS TO WHICH WATER QUALITY STANDARDS APPLY

#### UNDER

### WATER POLLUTION CONTROL ACT

as amended by the Federal Water Pollution Control Act Amendments of 1961—(Public Law 87-88), the Water Quality Act of 1965—(Public Law 89-234), the Clean Water Restoration Act of 1966—(Public Law 89-753), and the Water Quality Improvement Act of 1970—(Public Law 91-224).  
Appendices:

Water quality standards, under Section 10 (c) (1) of the Act are to be established for, and made applicable to, interstate waters or portions thereof within the State.

1. The term "interstate waters," as defined in Section 23 (e) of the Act, means all rivers, lakes, and other waters that flow across or form a part of State boundaries, including coastal waters.

2. Within this definition, waters that flow across or form a part of State boundaries are subject to the provisions of Section 10 (c) (1) of the Act.

3. Waters that flow across or form a part of the international boundary between a State and foreign country are interstate waters within the meaning of the definition provided in Section 23 (e) of the Act and similarly subject to the provisions of Section 10 (c) (1) of the Act.

4. Coastal waters subject to the provisions of Section 10 (c) (1) of the Act are the ocean waters along straight coasts, the waters along indented coasts which are subject to the ebb and flow of the tides, and the waters of the Great Lakes.

5. As noted above, the definition of "interstate waters" is in terms of water bodies--"rivers," "lakes" and "other waters"--and is not limited to only those portions of these water bodies at the point at which they flow across or form a part of State boundaries. In effect, therefore, water quality standards are to be established for and made applicable to the entire stretch of the interstate waters within a State.

6. Tributaries of interstate waters, which are not in themselves interstate waters, are not subject to the requirements of subsection 10 (c) (1) of the Act. However, it is important to note that the discharge of any matter into such tributaries which reaches interstate waters and reduces the quality of such interstate waters below the established water quality standards is subject to abatement under Section 10 (c) (5) of the Act.

## APPENDIX V

### Glossary of Terms

Coliform Bacteria - For many years the best indicator of the sanitary quality of water has been an estimate of the density of coliform bacteria. More recently, tests have been developed for the determination of fecal coliform and fecal streptococci, which give a better indication of the concentration of bacteria in waters which may be harmful to human health. Bacterial concentrations originate primarily from municipal waste treatment plants, sanitary sewers, storm drains, vessels and agricultural wastes.

Biochemical Oxygen Demand (BOD) - The quantity of oxygen utilized in the biochemical oxidation of organic matter in a specified time and at a specified temperature. Waste discharges containing high levels of BOD will deplete oxygen supplies in receiving waters.

Disinfection - The killing of the larger portion (but not necessarily all) of the harmful and objectionable microorganisms in, or on, a medium by means of chemicals heat, ultraviolet light, etc. Chlorination is the method commonly employed in sewage treatment processes.

Dissolved Oxygen (DO) - The oxygen dissolved as a gas in sewage, water or other liquid usually expressed in milligrams per liter (mg/l), parts per million (ppm) or percent saturation. Adequate dissolved oxygen levels are necessary in waters to protect fish and other aquatic life and to prevent offensive odors. Low dissolved oxygen concentrations are generally due to excessive organic solids discharged as a result of inadequately treated waste (having high BOD); excessive algal growths may cause vastly fluctuating dissolved oxygen levels, and other factors such as temperature and water movement have an impact on dissolved oxygen levels.

Interstate Waters - Under the Federal Water Pollution Control Act, interstate waters are defined as:

1. Rivers, lakes and other waters which flow across or form a part of State or international boundaries.
2. Waters of the Great Lakes.
3. Coastal waters whose scope has been defined to include ocean waters seaward to the territorial limits and waters along the coastline (including inland streams) that are influenced by the rise and fall of the tide.

pH - The index of hydrogen ion activity, used as an indication of acidity or alkalinity in water. The pH of most waters ranges from 6.5 to 8.5, and most uses of water, such as aquatic life propagation, prosper at these levels. In most cases, a pH outside this range is due to discharge of industrial wastes or decaying organic vegetation.

Pollution - The addition of sewage, industrial wastes or other harmful or objectionable material to water at a concentration or in sufficient quantity to result in measurable degradation of water quality.

Primary and Secondary Contact Recreation - Also called Whole-body Contact Recreation. Primary Contact Recreation includes uses of water such as swimming, water skiing and skin diving. Secondary Contact Recreation, also called Partial-body Contact Recreation, includes such recreational uses as boating and fishing.

Primary Treatment - May be defined as that process or group of processes capable of removing a high percentage of floating and settleable solids. This is the first major treatment in a sewage treatment works and generally removes from 30 to 65 percent of the suspended solids and 30 to 40 percent of the 5-day biochemical oxygen demand.

Secondary Treatment - May be defined as that process or group of processes capable of removing virtually all floating and settleable solids, generally from 85 to 95 percent of the 5-day biochemical oxygen demand, and a similar level of removal of suspended solids in untreated waste. The equivalent treatment may generally be defined as that process or group of processes achieving maximum practicable removal of solids, oils, grease, acids, alkalis, toxic materials, bacteria, taste and odor causing materials, color and any other objectionable constituents contained in untreated waste to produce an effluent equivalent to that obtained from secondary treatment of sewage or the effluent from the most efficient treatment facilities in current use for any specific category of industrial waste.

Sewage - (1) The water supply of a community after it has been used and discharged into a sewer; (2) Wastewater from the sanitary conveniences of dwellings, business buildings, factories and other institutions.

Sewage, Combined - A sewer which carries both sanitary sewage and surface or storm water with or without industrial wastes.

Sewer, Combined - A sewer which carries both sanitary sewage and storm drainage. At times of heavy rainfall, the capacity of combined sewers may be exceeded and sewers will overflow. The overflow will bypass the sewage treatment plant and the combined wastewaters will be discharged directly into stream without treatment of any kind. This is a problem in many older cities in the United States, and there are various programs to deal with it.



Solids, Settleable - Suspended solids which will subside in quiescent water, sewage or other liquid in a reasonable period.

Solids, Suspended - Solids that either float on the surface of, or are in suspension in, water, sewage or other liquids and which are largely removable by laboratory filtering.

Temperature - Extreme temperatures primarily affect the aquatic life use of waters. While temperature is affected by natural conditions, man has a significant effect by the construction and operation of dams and the discharge of cooling waters from industrial processes, particularly power generation.

Toxic Materials - These may include hundreds of compounds present in waters due to industrial wastes, runoff from farm lands where pesticides have been applied and other causes which are harmful to human, plant, animal and aquatic life.

Warm- and Cold-Water Fish - Warm-water fish include black bass, sunfish, catfish, gar and others; cold-water fish include salmon and trout, whitefish, miller's thumb and blackfish. The temperature factor determining distribution is set by adaptation of the eggs to warm or cold water.

## APPENDIX VI

### ADDRESSES OF WATER POLLUTION CONTROL AGENCIES

Connecticut Department of Environmental Protection  
State Office Building, Room 225  
165 Capitol Avenue  
Hartford, Connecticut 06115

U. S. Environmental Protection Agency  
Region I, Room 2303  
John F. Kennedy Federal Building  
Boston, Massachusetts 02203

New England Interstate Water  
Pollution Control Commission  
607 Boylston Street  
Boston, Massachusetts 02116

Interstate Sanitation Commission  
10 Columbus Circle  
New York, New York 10019