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DELAWARE RIVER BASIN STUDY  
SURVEY REPORT

MAIN REPORT

AUGUST 1984

DELAWARE RIVER BASIN STUDY  
MAIN REPORT

Table of Contents

<u>Subject</u>	<u>Page</u>
Introduction	1
Study Authority	2
Scope of Study	3
Study Area	3
National Objective	3
Study Objectives	3
Prior And On-going Investigations	4
Existing Projects & Programs	8
Existing Conditions	14
Physiography	15
Soils	15
Geology and Minerals	18
Climate	18
Groundwater	18
Surface Water	18
Flora and Fauna	19
Development and Economy	19
Nonstructural Profile	23
Residential	24
Commercial	24
Industrial	25
Other Land Uses	25
Problem Identification	26
Flood Plains	27
Hydrology and Hydraulics	29
History and Character of Flooding	29
Major Damage Centers	32
Flood Prone Units	37
Potential Damages	44
Average Annual Damages	44
Formulation Process	50
Planning Objectives	52
Planning Criteria	52
Measures Considered	53
Structural Measures	54
Nonstructural Measures	57
Evaluation of Structural Alternatives	60
Levees/Floodwalls	61
Impoundments	63
Evaluation of Nonstructural Alternatives	70
First Screening	72
Second Screening	72
Third Screening	72
Communities Remaining After Third Screening	73
Designation of National Economic Development Plan	79

Table of Contents (Continued)

<u>Subject</u>	<u>Page</u>
Further Studies Required	79
Coordination With Local Interests	80
Environmental Evaluation	80
Flood Warning	80
Other Nonstructural Measures	81
Conclusions	81
Recommendations	82

List of Tables

<u>Number</u>	<u>Title</u>	<u>Page</u>
1	Pertinent Studies	5,6
2	Major Projects-Flood Control Act 1962	10
3	Recorded Major Floods	31
4	Selected Precipitation Stations - 1955 Flood	33
5	Structures Damaged - 1955 Flood	36
6	Structures - 100 Year Floodplain	38,39
7	Structures - 1955 Floodplain	40,41
8	Structures - Standard Project Floodplain	42,43
9	Floodplain Structures - 1955, 1981	45
10	Flood Damages - Selected Events	46,47
11	Average Annual Damages/Community	48,49
12	Previous Flood Control Investigations	55,56
13	B/C Summary Levee/Floodwalls	64
14	HD 522 Impoundment Sites	66,67
15	Tams Impoundment Sites	69
16	Summary Nonstructural Screenings	74,75, 76
17	Nonstructural Analysis-Nonstructural Actions	77

List of Figures

<u>Number</u>	<u>Title</u>	<u>Page</u>
1	Recommended Flood Control Projects - F.C. Act 1962	9
2	Delaware River Basin - Location	16
3	Physiography	17
4	Vegetation	20
5	Schematic of Methodology	28
6	Location Precipitation Stations - 1955 Flood	34
7	Major Damage Centers - 1955 Flood	35
8	Formulation Process	51
9	Levee/Floodwall Measures	62
10	Major Dam Sites - HD522	65
11	Tams Dam Sites	68

Table of Contents (Continued)

List of Plates

<u>Number</u>	<u>Title</u>
1	Delaware River Basin Study Area

Exhibits

Exhibit A - Pertinent Correspondence

List of Appendices

Appendix A - Formulation

Appendix B - Benefit/Cost Analysis

Appendix C - Hydrology and Hydraulics

Appendix D - Flood Warning and Preparedness Planning

List of Supplemental Data

Supplement 1 - Existing Conditions

Supplement 2 - Floodplain and Damage Reach Delineation (Aerials)

Supplement 3 - Fish and Wildlife Service Planning Aid Letter and Aerials

## SYLLABUS

This survey report presents the results of the analysis of flooding along the main stem Delaware River. This analysis was authorized by Congress at the request of the Delaware River Basin Commission (DRBC) in response to the deferment of the Tocks Island Lake Project. This study examined flood damage reduction alternatives for the section of the Delaware River from Stroudsburg, Pennsylvania to Burlington, New Jersey, which would have received flood protection from the Tocks Island Lake Project.

The Madigan-Praeger Report, The Comprehensive Study of the Tocks Island Lake Project and Alternatives, served as a point of departure for the comprehensive analysis by this study of localized structural and nonstructural alternative measures for flood damage reduction along the main stem Delaware. The Madigan-Praeger Report determined that with a repetition of the flood of record in 1955, catastrophic losses would result despite the construction of some flood control facilities and some floodplain management programs established since 1955. It was concluded by the Madigan-Praeger Report that only a mix of nonstructural measures could be economically justified as an alternative to the Tocks Island Lake Project.

This survey investigation determined the potential for flood damage along the main stem Delaware River (Stroudsburg to Burlington) by first updating hydrologic and hydraulic data and conducting a comprehensive damage survey of all structures subject to flooding. All practicable localized structural and nonstructural flood damage reduction alternatives were then investigated.

This investigation concluded that local structural protective works could not be justified. This is because high zero damage elevations and the older, complex infrastructure that characterize the main stem result in high project costs relative to flood damages reduced.

Although 12 study area communities were identified as justified for nonstructural protection based on the survey-level analysis, only a small percentage (approximately 2%) of the total structures (approximately 12,000) subject to flooding along the main stem are justified for nonstructural application. In addition, these structures are widely distributed throughout those 12 communities. These could be pursued further under the Continuing Authorities Program if non-Federal sponsorship is available.

The investigation does confirm that there is the potential for a major disaster should there be an occurrence of an event equal to the 1955 flood. This should be addressed both directly and indirectly at the local level. In addition, direct action should be taken by all the main stem communities in strict enforcement of flood plain ordinances and codes and in the improvement and maintenance of flood warning and preparedness plans.

The Corps of Engineers could provide technical assistance, as requested, through the provision of data for floodplain management and aid in preparedness planning.

Indirect action should also be taken at the local level. This involves a flood consciousness in all decisions made in land use and urban planning. Individual communities can minimize potential flood problems by including the benefits of reducing or eliminating flood related problems in making long range decisions on growth, development, and associated public policy.