

Introduction

This Regional Analysis Document presents the methods used by EPA for its section 316(b) Phase II benefits analysis and study results. Part A of the document provides details of the methods used. Parts B-H present reports for each of seven regions evaluated. Finally, Part I presents national level estimates. The following sections provide an overview of the study design and a summary of the contents of each part of the document.

EPA defined seven regions for its analysis based on similarities among the affected aquatic species and characteristics of commercial and recreational fishing activities in the area. These regions and the water body types within each region are described below. Maps showing the facilities in each region that are in scope of the Phase II rule are provided in the introductory chapter of each regional report (Parts B-H of this document).

CONTENTS

1-1	Regional Study Design	1-1
1-1.1	Coastal Regions	1-1
1-1.2	Great Lakes Region	1-2
1-1.3	Inland Region	1-2
1-2	Part A: Study Methods	1-2
1-2.1	Evaluation of I&E	1-2
1-2.2	Economic Benefits	1-2
1-3	Parts B-H: Regional Reports	1-2

1-1 REGIONAL STUDY DESIGN

1-1.1 Coastal Regions

Coastal regions are fisheries regions defined by National Atmospheric and Oceanic Administration (NOAA) Fisheries. Table 1-1 presents these geographic areas and the number of facilities included in each region. The North Atlantic region includes all estuary/tidal river and ocean facilities in Maine, New Hampshire, Massachusetts, Connecticut, and Rhode Island. The Mid-Atlantic region includes all estuary/tidal river and ocean facilities in New York, New Jersey, Pennsylvania, Maryland, the District of Columbia, Delaware, and Virginia. The South Atlantic region includes all estuary/tidal river and ocean facilities in North Carolina, South Carolina, Georgia, and the east coast of Florida. The Gulf of Mexico region includes all estuary/tidal river and ocean facilities in Texas, Louisiana, Mississippi, and Alabama and the west coast of Florida. The California region includes all estuary/tidal river and ocean facilities in California.

Table 1-1: Definition of Coastal Regions

Region	Geographic Area	Number of Estuarine Facilities	Number of Ocean Facilities	Total Number of Facilities
North Atlantic	Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut	20	2	22
Mid-Atlantic	New York, New Jersey, Delaware, Maryland and Virginia	43	1	44
South Atlantic	North Carolina, South Carolina, Georgia, East Florida	15	1	16
Gulf of Mexico	West Florida, Alabama, Missouri, Louisiana, Texas	21	3	24
California	All California Counties	8	12	20
Total number of estuarine and ocean facilities ^a		107	19	126

^a In addition, there are 3 ocean facilities in Hawaii that are not included in the NOAA Fisheries regions.

1-1.2 Great Lakes Region

The Great Lakes region includes all facilities located on the shoreline of a Great Lake or on a waterway with open passage to a Great Lake and within 30 miles of a lake in Minnesota, Wisconsin, Illinois, Michigan, Indiana, Ohio, Pennsylvania, and New York. This definition is based on EPA's estimate of the extent of the spawning habitat of Great Lakes fish species, including spawning habitat in rivers and tributaries of the Great Lakes. The distance each species may travel upstream to spawn varies depending on both the species and the waterway, and is influenced by obstacles such as dams. However, after consultation with local fisheries experts, EPA determined that inclusion of waters within 30 miles of the Great Lakes is likely to encompass spawning areas of Great Lakes fishes. EPA used GIS to determine which facilities are on a water body that has unobstructed passage to the Great Lakes and is within 30 miles of a Great Lake. Data from the Lake Huron Project were used for areas encompassed by that project. For areas not covered by the Lake Huron Project, this was done using the ERF1 streams coverage (available at <http://water.usgs.gov/lookup/getspatial?erf1>), the national dams coverage (available at <http://data.geocomm.com/catalog/US/group7.html>), and a basic US states coverage. No facilities drawing from other lakes or reservoirs were included among the Great Lake facilities unless the water bodies were connected to the Great Lakes.

1-1.3 Inland Region

The Inland region includes all facilities located on freshwater rivers or streams and lakes or reservoirs, in all states, with the exception of facilities located in the Great Lakes region (defined above in section 1-1.2).

1-2 PART A: STUDY METHODS

1-2.1 Evaluation of I&E

Chapter A5 of Part A of this Regional Analysis Document describes the methods used to evaluate facility I&E data. Chapter A6 discusses uncertainties in the analysis. Data from a total of 46 facilities were evaluated. To obtain regional I&E estimates, EPA extrapolated loss rates from these facilities to all other in-scope facilities within the same region. These results were then summed to develop national estimates.

1-2.2 Economic Benefits

Chapters A9-A14 of Part A of this document describe the methods that EPA used for its analysis of the economic benefits of the Phase II rule. As discussed in Chapter A9, EPA considered the following benefit categories: recreational fishing benefits, commercial fishing benefits, and non-use benefits. The analysis of use benefits included benefits from improved commercial fishery yields and benefits to recreational anglers from improved fishing opportunities. Chapters A10 and A11 provide details on the methods used for these analyses. Chapter A14 discusses discounting of recreational and commercial benefits. Non-use benefits included benefits from reduced I&E of forage species, threatened and endangered species, and the non-landed portion of commercial and recreational species. Non-use methods are described in Chapters A12 and A13.

1-3 PARTS B-H: REGIONAL REPORTS

Parts B-H of this Regional Analysis Document are reports of results for each study region. Chapter 1 of each report provides background information on the facilities in the region and a map showing facility locations. Chapter 2 provides I&E estimates. Benefits estimates are presented in Chapters 3, 4, and 5. Chapter 3 presents estimates of commercial fishing benefits, Chapter 4 presents recreational fishing benefits, and Chapter 5 presents non-use benefits. In addition, Chapter B6 presents an analysis of benefits to threatened and endangered species from reducing I&E at California facilities, and Chapter 6 in Parts C, D, and G summarizes results of a habitat-based valuation of baseline I&E losses and the benefits of reducing these losses under the final option. An appendix to each regional report indicates the life history data and data sources used for the species evaluated in the region.