

1978 STREAM EVALUATION MAP STATE OF NORTH DAKOTA

INTRODUCTION

Increasing demands for water throughout the West due to predicted development of energy and agricultural resources and attendant municipal industrial growth may significantly impact existing fishery resources of western streams. Additionally, already stressed fisheries may be further jeopardized by reduced or altered flows and changed water quality.

This stream evaluation map is provided to assist Federal and State agencies and water users in assessing the impact of proposed water development projects on existing fishery resources. The map displays an appraisal of the relative value of stream fishery resources within the State and is based on information and professional opinion available as of fall 1976. It is emphasized that fishery resources will be reevaluated as new information is acquired. Information depicted on the map is essential to identifying highly valued fishery resources, establishing priorities to fill data gaps, and establishing instream flow requirements to maintain existing fisheries or other instream water uses.

This map is one of several similar products of a cooperative effort whose participants included the U.S. Department of the Interior, Office of Biological Services, Division of Ecological Services, Fish and Wildlife Service; State Fish and Wildlife Departments of Colorado, Idaho, Montana, New Mexico, Nevada, North Dakota, Oklahoma, South Dakota, Texas, Utah, and Wyoming; and the U.S. Environmental Protection Agency. Funds for stream evaluation and production of these maps were provided by the Federal Interagency Energy/Environment Research and Development program, Office of Energy, Minerals, and Industry, U.S. Environmental Protection Agency.

METHOD

A standard rating system was used by the State Fish and Wildlife Departments conducting the evaluation. Fishery habitat evaluated by the rating system included permanent streams, their tributaries, and those streams protected by or proposed for protection under the Wild and Scenic Rivers Act. Stream reaches that were deemed necessary for sustenance of a highly valued fishery were also evaluated. Information on stream reaches was obtained from the State Fish and Wildlife Departments and is based on the following evaluation scheme with existing fishery habitat assigned one of four values:

VALUE CLASS	MAP CODE	CLASS DEFINITION
I	09020311	Highest-valued fishery resource
II	09020310	High-priority fishery resource
III	09020306	Substantial fishery resource
IV	09020300	Limited fishery resource

To determine the appropriate value class, each stream reach was judged on criteria provided below. The final value classification assigned to the habitat was determined by the highest rating given in Criteria 1 through 3. Criterion 4 was used only as a tie-breaker to upgrade or downgrade the overall habitat evaluations when the rating for criteria 1-3 was less than the highest possible.

CRITERIA

1. Occurrence of State or Federal endangered species.
2. Occurrence of State or Federal threatened species.
3. Species of high interest to the State.
4. Habitat restoration, reclamation, or mitigation potential.

A value class was determined for each criterion as follows:

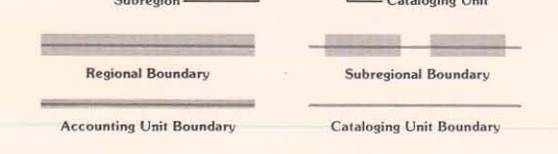
1. Status of State or Federal Endangered Species
 - Value Class I Documented occurrence (legally defined) of any State or Federally chartered endangered species.
 - Value Class II Probable occurrence of an endangered species based on professional judgment of personnel familiar with the stream reach. It is differentiated from Value Class I by the fact that undocumented reports of the occurrence of an endangered species may be available for the reach.
 - Value Class III Not applicable - only value classes I, II, and IV were used for Criterion 1.
 - Value Class IV Absence or no record of any endangered species.
2. Status of State or Federal Threatened Species
 - Value Class I Documented present occurrence of a State or Federally chartered threatened species.
 - Value Class II Documented past occurrence and probable continued existence of a threatened species.
 - Value Class III Possible occurrence of a threatened species (undocumented).
 - Value Class IV Absence or no record of any threatened species.
3. Species of High Interest
 - Value Class I Habitat maintaining outstanding populations of species of high interest as defined by the State. To include self-sustaining "wild" populations that maintain a high yield or represent a unique esthetic, scientific, economic, educational, or recreational value.
 - Value Class II Habitat that is intensively used in terms of the several requirements of a highly-valued population or required habitat for less highly-valued populations of high interest.
 - Value Class III Habitat that is occasionally used by a highly-valued population of high interest or an essential habitat for maintaining a relatively low-valued population of a species of high interest. Occasionally-used habitat implies that reduction of that habitat would not seriously impair the continued existence of the population.
 - Value Class IV Habitat that is not used or is sporadically or unpredictably used by species of high interest.

4. Habitat Restoration, Reclamation, or Mitigation Potential
 - Value Class I Very low or essentially no potential for restoration or reclamation of the habitat to its present species composition and population levels; no alternative resource could be introduced that would be as highly valued; no acceptable options are available to compensate for the loss of the habitat; at the present time (includes stream reaches that have been designated as habitat for reintroduction of an endangered species by a National Recovery Team or State Rehabilitation Plan).
 - Value Class II Low potential for restoration to present species composition and population levels; however, partial compensation options can be defined.
 - Value Class III Moderate potential exists for either restoration of the habitat or reclamation to an equal or higher-valued fishery, or total compensation options can be defined.
 - Value Class IV Current technology makes it probable that the area to be restored or reclaimed is at least an equally valued fishery as that existing prior to development. Acceptable compensation options are likely.

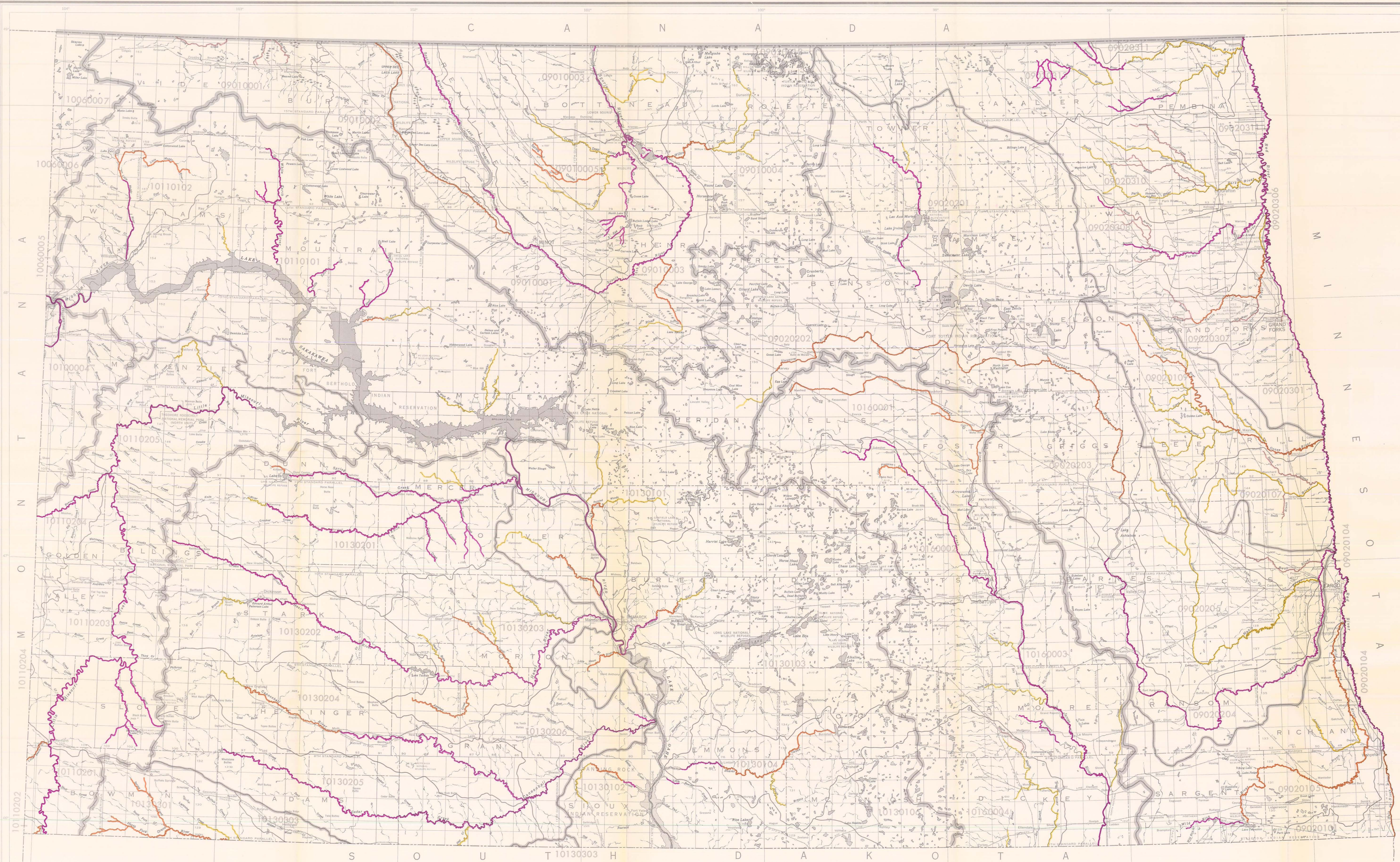
For the reader interested in detailed documentation of the assigned value classification for North Dakota streams, this information can be requested at the following locations:

U.S. Fish and Wildlife Service, North Dakota Game and Fish Dept., P.O. Box 1977, 215 Leavelle Avenue, Bismarck, North Dakota 58501

For the purposes of comprehensive planning and as a standard geographical framework for water and related land resources planning, the United States has been divided into hydrologic units by the U.S. Water Resources Council. These hydrologic units are outlined on the face of the map and are designated as follows:



The Regional and Subregional Boundaries serve as Accounting Unit Boundaries as well as Cataloging Unit Boundaries.



Hydrologic Unit Base Map compiled, edited and published by the Geological Survey in cooperation with the U.S. Water Resources Council. 1927 North American Datum. Datum is mean sea level.

SOURCE DATA: U.S. Dept. of the Interior Geological Survey topographic maps.

