

# **Tongue River Baseline Data Materials Summary**

## **1. Powder River and Tongue River Stream Corridor Assessment Montana Reaches Phase I – Rapid Aerial Assessment**

Tongue River information was collected from:

1. Upper Tongue River (Montana line to so. Rosebud County Line)
2. Lower Tongue River (Custer County Line to mouth at Yellowstone River)
3. Otter Creek (headwaters to mouth at Tongue River)
4. Hanging Woman Creek (Montana line to Stroud Creek)
5. Deer Creek (Montana line to the mouth at Tongue River)

*Information was not collected in Rosebud County.*

The purpose of the aerial assessment was:

- A. Characterize and document the general nature, attributes, and appearance of physical aspects of the watershed corridor.
- B. Inventory and map selected physical attributes of the stream corridor.
- C. Prioritize specific reaches of the mainstem and tributaries for further study at the field level.

Information was gathered in June 2001.

Geographic Positioning System (GPS) – synchronized digital video coverage was taken of the stream reaches listed above. The video product was completed to provide a visual record of the current stream corridor appearance, as well as to provide viewers with an opportunity to observe physical settings, channel forming processes, and the features mapped during the inventory process. A complete set of the five VHS tapes is available for the public to view. Rosebud CD is currently trying to obtain a set, but the other CDs involved in the study (Big Horn, Carter, Custer, Powder River, and Prairie) should have copies.

The rapid aerial assessment (RAA) was made over the same reaches and tributaries to quantify specific physical attributes of streams and riparian areas and to identify potential point and non-point sources (NPS) of pollution. The assessment created a baseline inventory for selected physical attributes as well as providing reconnaissance-level information about the amount and extent of current physical attributes along the stream corridor.

## **2. Tongue River Stream Corridor Assessment**

**Montana Reaches**  
**Phase II – Physical Habitat Assessment**

This part contains the results of a field assessment done in July 2002 to ground truth the aerial assessment and to determine at the reach level current stream corridor and riparian community characteristics such as vegetation community composition and health, and specific conductance of the water column.

Covers the same study areas as Phase I.

**3. Tongue River Tetra-Tech TMDL info, 2003 raw data**

Raw data used to compile the 2003 Tongue River TMDL report.

**4. Yellowstone – Tongue A.P.O.**  
**Water Quality Management Plan for Southeastern Montana**

Compiled March 1978.

Contains water quality data and identifies point and nonpoint sources of pollution. Also identifies problems and gives possible solutions for them.

**5. Total Maximum Daily Load (TMDL) Status Report**  
**Tongue River TMDL Planning Area**  
**March 14, 2003**

The TMDL process identifies the maximum load of a pollutant a waterbody is able to assimilate and still fully support its designated uses, allocates portions of the maximum load to all sources, identifies the necessary controls that may be implemented voluntarily or through regulatory means, and describes a monitoring plan and associated corrective feedback loop to insure that uses are fully supported.

The focus of this document is on the portion of the Tongue River watershed within the state of Montana, although the relevant physical, chemical, and biological characteristics within the entire watershed, including all tributaries, are considered. Specifically includes the main stem of the Tongue River, the Tongue River Reservoir, Hanging Woman Creek, Otter Creek, and Pumpkin Creek.

Divided into 3 main sections:

1. *Watershed Characterization*: describes the physical, chemical, and biological characteristics of the environment in which the subject waterbodies exist

2. *Water Quality Concerns and Status:* presents a summary and evaluation of all available water quality information; discusses identified data gaps
3. *Conceptual Monitoring Plan:* presents a monitoring plan to fill identified gaps

## **6. Sampling and Analysis Plan for the Tongue River Agronomic Monitoring and Protection Plan**

This report is the plan sponsored by Fidelity Exploration and Production Company to help irrigators better understand the potential effects of CBNG development on their irrigated crops and to measure baseline soil characteristics.

The soil and crop monitoring and assessment program consists of three levels of detail:  
*Tier 1:* basic soil sampling, crop inspection, and development of crop management recommendations

*Tier 2:* more detailed soil sampling program

*Tier 3:* crop and forage trials that use irrigation water consisting of various mixtures of Tongue River water and CBNG production water; purpose is to determine a minimum effects threshold at which discharged CBNG water might impair crop or forage yields or quality

## **7. Tongue River Basin Project Draft Environmental Impact Statement June 1995**

Identifies and analyzes probable impacts to the human environment that would result from the proposed Tongue River Basin Project, which includes the repair and enlargement of Tongue River Dam, the partial fulfillment of the northern Cheyenne Indian Reserved Water Rights Settlement Act of 1992. and the conservation, development, and enhancement of fish and wildlife resources and habitat in the Tongue River Basin.