The Colorado-Big Thompson Project

The Colorado-Big Thompson Project is an irrigation water supply project in eastern Colorado that transfers water from the headwaters of the Poudre, Grand, and Big Thompson Rivers from the northern Colorado Water Conservancy District's land to the southwestern Colorado irrigation districts. The project is the largest water development and control project in the United States and is designed to irrigate 165,000 acres of land and provide water for other beneficial uses.

The project includes three diversion dams: Carter Lake, Lake Granby, and Shadow Mountain Lake. Carter Lake is an intercepted reservoir on the Poudre River, Lake Granby is an intercepted reservoir on the Colorado River, and Shadow Mountain Lake is an intercepted reservoir on the Big Thompson River. Carter Lake has a storage capacity of 257,700 acre-feet, Lake Granby has a storage capacity of 177,000 acre-feet, and Shadow Mountain Lake has a storage capacity of 120,000 acre-feet.

Water Supply and Distribution

The Western Slope Collection System gathers runoff from the Western Slope and delivers it to the Central Division. The collection system includes the Cache la Poudre, South Platte, and Colorado Rivers, which are tributaries to the Poudre River. The collection system conveys water to Carter Lake, the principal reservoir on the Poudre River, which provides water for the North Poudre Supply Canal, the South Platte Power Plant, and the Big Thompson Project. Carter Lake has a storage capacity of 257,700 acre-feet, which is sufficient to provide water for the project during dry years.

The Eastern Slope Collection System gathers runoff from the Eastern Slope and delivers it to Lake Granby, the principal reservoir on the Colorado River, which provides water for the South Platte Power Plant. Lake Granby has a storage capacity of 177,000 acre-feet, which is sufficient to provide water for the project during dry years.

The Central Division provides water to the Colorado-Big Thompson Project's beneficiaries. The Central Division includes the North Poudre Supply Canal, the South Platte Power Plant, and the Big Thompson Project. The North Poudre Supply Canal conveys water from Carter Lake to the South Platte Power Plant, which produces electrical power. The South Platte Power Plant generates electricity by converting the water from Carter Lake to electrical energy. The electrical energy is used to operate the project's irrigation system.

Revenues from the sale of electricity produced by the South Platte Power Plant are used to pay for the costs of constructing and operating the project. The project also generates revenues from the sale of water to irrigation districts, which helps to repay the costs of constructing and operating the project. The project is financed through a combination of federal, state, and local funds. The project is managed by the Bureau of Reclamation, which is a federal agency responsible for managing the nation's water resources.

The Colorado-Big Thompson Project is a significant water development and control project that provides water for irrigation, power generation, and other beneficial uses. The project is an example of how federal, state, and local agencies can work together to address the needs of a region's water resources.