

Powder River (220 River Miles)



Figure 27. Powder River Focus Area

The Powder River, a warm prairie river, originates along the eastern slopes of the Bighorn Mountains in Wyoming. Flowing 220 miles to reach the Yellowstone River, the Powder is aptly named, as it is rich in sediment load. A major spawning tributary for native fishes found in the Yellowstone system, the Powder River provides spawning and nursery habitat for sauger, shovelnose sturgeon, channel catfish, and many cyprinid minnow species. The flow regime of this river system can fluctuate from more than 2,000 cfs during the March spring snowmelt period to less than 5 cfs during the hot summer days of August. Fish in this prairie river system have evolved to utilize the Powder during periods of high flow. Sauger tagged in the Yellowstone River have been recaptured in Clear Creek, a headwater tributary to the Powder, equating to more than 220 miles of travel.

Associated Habitats

Habitat Type	Habitat Tier	Acres	Miles
Lowland Lakes	III	926	
Lowland Reservoirs	III	80	
Prairie Rivers	II		220
Prairie Streams	I		3,703

Associated Species of Greatest Conservation Need (Tier I Species)

There are a total of 38 aquatic species that are found within the Powder River Focus Area. Tier I species are listed below. All associations can be found in Table 31.

Fish: Sturgeon Chub, Burbot, and Sauger

Conservation Concerns & Strategies

Conservation Concerns	Conservation Strategies
Dewatering as a result of water diversion	Work with public and private land owners to improve efficiency of water use in order to maximize water return
	Protect instream flow reservations
Water chemistry problems due to irrigation return water and the discharge of wastewater from coal bed methane operations, and other sources	Support cooperative efforts to minimize impacts of return water due to sedimentation, increased salinity and temperature alteration
	Careful study waters entering the Powder River as a result of coal bed methane development in both Montana and Wyoming
Riprap and other streambank stabilization work	Work with new stabilization projects to reduce impacts and support efforts to restore existing rip-rap areas to natural condition
	Develop statewide riparian best management principles
Invasive non-native fish species	Programs to control invasive species and promote natural habitats that support native species
Entrainment of juvenile and adult fishes by irrigation diversions or other water intakes	Screening or modification of irrigation diversions or other water intakes in a manner that prevents entrainment of fishes
Riparian vegetation effected by range and forest management practices and streamside residential development (such activities destabilize streambanks, increase sediment inputs, reduced shading, and remove woody debris)	Support government and private conservation activities that encourage and support sustainable land management practices in riparian areas
Modification and degradation of stream channels caused by various construction or land management practices	Restoration of stream channels or streambanks to a condition that simulates their natural form and function
	Modification of riparian management practices such that riparian vegetation is allowed to recover

	Develop statewide riparian best management principles
Alterations of the quantity or timing of stream flows, causing dewatering or unnatural flow fluctuations that diminish the quantity or quality of essential habitats	Implementation of various water conservation or flow management practices that restore essential habitats, simulate the natural hydrograph and also protect instream flows
Culverts, dams, irrigation diversions, and other instream barriers that fully or partially impede fish movement and reduce connectivity of habitat	Removal or modification of barriers in a manner that restores fish passage