Bear River Climate Change Adaptation Workshop
Summary of Conservation Features

At the Bear River Climate Change Adaptation Workshop, we will apply an adaptation planning framework to develop strategic actions for two different types of conservation features (a species and an ecosystems). Bonneville cutthroat trout and wetlands will be the focus of the adaptation planning exercises conducted during breakout sessions.

These features were the subject of the Bear River Conservation Action Plan (CAP) that produced a snapshot of their ecological health but did not assess their vulnerability to climate change, although that was identified as a threat. This workshop provides the opportunity assess that potential threat. The CAP based its conservation targets on the Utah Comprehensive Wildlife Conservation Strategy where wetlands were identified as one of ten key habitats of greatest conservation need. Bonneville cutthroat trout is a Tier 1 at-risk species in the Conservation Strategy.

A short description of each features is below.

Bonneville Cuthroat Trout:

Bonneville cutthrout trout (BCT) occupy roughly 35% of their historic range. Much of the remaining BCT life history diversity occurs in the Bear River watershed in Utah, Idaho, and Wyoming, which supports the healthiest remaining migratory populations and comprises the last large river habitat still available to the subspecies. Bear River populations are unique in that they comprise resident and fluvial life forms. These alternative life history strategies have contributed to BCT resiliency in the face of non-native species invasions and marginal habitat quality. Unfortunately, irrigation diversions in the Bear River block upstream spawning migrations and kill downstream migrants in irrigation canals. Additionally, poor water quality and impaired riparian conditions have degraded aquatic habitats throughout the watershed. As a result, many historically important spawning tributaries and mainstem habitats are currently inaccessible or uninhabitable for BCT. BCT is subject of a Range-Wide Conservation Agreement and Strategy.

Wetlands:

A large proportion of the region's wetlands occur in the Bear River watershed. These include a variety of wetland types which can be generalized into three broad categories. The first includes the wetlands of the upper Bear, created by flooding of the adjacent floodplains by the Bear River through Rich County, Utah and Cokeville Meadows National Wildlife Refuge in Wyoming. The second category is wetlands created by abandoned Bear River oxbows, most of which retain a hydrologic connection with the Bear River, such as the Bear River Bottoms through Cache County, often dominated by emergent marsh-type vegetation and wet meadows. Thirdly, there are extensive wetlands associated with managed features such Cutler Reservoir (Cutler Marsh) and the Bear River Migratory Bird Refuge at the delta of the Bear River and the Great Salt Lake, also dominated by emergent marsh, shallow water wetlands, and extensive mudflats.

These wetlands support a large number and diversity of birds, including shorebirds, waterfowl and passerines. For example, five percent of the world’s population of white-faced ibis use these wetlands.

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