

Glen Canyon Dam Adaptive Management Work Group
Agenda Item Information
August 24-25, 2016

Agenda Item

Aquatic Foodbase of the Little Colorado River

Purpose of Agenda Item

This will be a scientific presentation about an ongoing research project on the food resources available to the largest population of endangered humpback chub in the Colorado River Basin.

Action Requested

Information item only; we will answer questions but no action is requested.

Presenter

Jeff Muehlbauer, USGS Research Ecologist

Previous Action Taken

N/A

Relevant Science

N/A

Summary of Presentation and Background Information

The Little Colorado River (LCR) provides critical spawning and juvenile rearing habitat for the largest remaining population of endangered humpback chub in the Colorado River Basin. Yet surprisingly little is known about the condition of the aquatic foodbase of invertebrates in the LCR that provide food for chub and other fish species. For the past three years, our group has been sampling the aquatic invertebrate community of the LCR, four times per year, throughout its entire 21-km, perennial reach. This presentation will focus on the results of this effort, especially the pronounced seasonal and spatial patterns in aquatic invertebrate density and availability throughout the LCR. Specifically, we found that invertebrate availability peaked in spring and was otherwise low throughout the remainder of the year. We also found that light availability, as influenced both by canyon shading and turbidity, exerted a strong spatial control on invertebrate densities. These results may provide insight into chub behaviors and distributions throughout the LCR in both time and space.