

HBC comprehensive plan meeting  
Phoenix, AZ  
Feb 12, 2003

**Steve Gloss – HBC data/trends (Powerpoint presentation)**

Discussion about importance of data from 1980's. Question from AGFD on low population estimates in 1980's – are these reliable?

Recruitment graph – some desire to use existing HBC specimens to back calculate ages of HBC (Persons, Valdez)

Graph of projected population estimates using assumed 1998 recruitment rate (showing decline to 500 >age 4 HBC)

Question about poster displayed at last AMWG meeting that displayed population estimates dating from dam closure in 1963, showing sharp decline in HBC immediately following dam closure. Steve had not seen this poster prior to the AMWG meeting so could not comment. (Need to bring this poster to the next TWG meeting.)

General sense of the group that the data displayed by Steve should be expanded – some felt the data was insufficient on which to base a decision.

Paul Marsh – need to exercise care in using speculative models, concerned that Walters/Coggins weren't at meeting to explain their work.

Coggins' synthesis report in preparation would only address stock assessment model. Group felt a need for an overall synthesis, addressing all the HBC data sources. Steve felt that it might be possible for a fisheries meeting to be held in conjunction with the February TWG meeting.

Valdez – recommend the stock synthesis report address issue raised today

Simmons – advised eliminating population estimate other than Kaeding & Zimmerman (1983) and recent estimates due to unreliability of other estimates. A 200% change in population would have to occur before change could be detected with old sampling approaches.

Marsh – recognized that these types of data quality discussions have been occurring for 20 years, and that the conclusion of those discussions have never changed.

Simmons – explained changing confidence intervals of historic population estimate. In mid-1980's intervals were very large since sampling was not designed to produce population estimates. Changing sampling techniques produced catch-rate information that isn't comparable throughout time.

Marsh – historic large magnitude population changes are still unknown as to cause.

Talbert – convinced that overabundance of trout and cold water are the primary causes of HBC mortality

Group needs to consider whether it will be important to determine cause and effect relationships as a result of experimentation.

Valdez – what hypotheses have been developed by GCMRC? Gloss -> overabundance of salmonids have impacted HBC recruitment. Valdez -> predation model of 12 years ago indicated that HBC coming into mainstem were being eaten and that recruitment came really only in LCR.

Valdez – questioned the relationship between high LCR flows and strong year class. Recruitment model has the problem of waiting for 3 years to determine if there is a recruitment failure, intervening period of time could significantly affect recruitment sampling results. Gloss -> agree

Sponholtz – noted last year's high fall flow in the LCR (20,000 cfs), so future data could show if there is a relationship between recruitment and high LCR flows.

Marsh – in early 1990's, there was a strong channel catfish population at the mouth of the LCR that does not currently exist in those numbers.

Valdez – are there other hypotheses to explain the decline? Gloss -> referenced all the potential threats listed in the outline.

Johnson/Marsh -> need to take action now, even though we are not as sure what has caused the HBC decline

### **Randy Peterson – GCD Operations (Powerpoint presentation)**

Discussed current experimental program (2003-2004), resulting in high fluctuating winter releases in 2003 and 2004, steady releases during the fall of the autumn sediment inflow scenario (possibly 2003), and HMF/ROD flows during fall of next year thereafter that a Paria River sediment input occurs.

Discussion about current and expected dam releases (5-yr outlook). Most probable annual releases for next 5 years are between 8.23 and 9 million acre-feet. Minimum probable annual releases are 8.23 maf. Expected to take over 10 years of normal inflows to refill Lake Powell due to drawn down conditions of both Lakes Powell and Mead.

Questions about potential for Lake Powell releases to increase in temperature since Lake Powell is drawn down, but last year's data did not indicate such.

Discussion about current status of TCD, including need for operational scenarios, risk/benefits, timing of warm releases to trigger mainstem spawning. Davis -> concerned that Powell releases with TCD wouldn't warm fast enough to be of benefit to non-LCR aggregations. Gloss -> release temps wouldn't be up to 16C until July. Peterson -> while that may be true, water of 12C could be released in May which would warm to 16C by the time the water got to the LCR. Marsh/Clarkson -> confident that if releases were warmed, that mainstem spawning would occur

Discussion about tribal concerns. Yeatts -> Need to have Navajo approval of any proposal that may affect tribal land. Questioned Hualapai beneficial use of removed trout as a long-term solution.

Discussion about NPS issues. Peterson -> some indication that Jeff Cross is receptive to the idea of expanding non-native removal to other tributaries. Concern expressed by Mark Steffan that we move too quickly to rid the Canyon of trout when we haven't shown the cause/effect proof of predation of Bright Angel trout on LCR HBC. Grand Canyon trout fishing is a high priority public use.

### **Discussion about Potential Threats to HBC document**

Palmer – Suggested the use of FWS recovery goals as the guiding document for actions recommended by this group. Also suggested the creation of a recovery implementation program to achieve the recovery goals prepared by FWS.

Valdez – cited the previous recommendation that a plan be developed that addresses the potential for some type of toxic spill in the LCR drainage, both from the Cameron bridge, Holbrook sewage plant, and other watershed issues.

Spiller -> led a discussion on the various threats (see Excel spreadsheet for list of action items and assignments)

Next mtg is March 12, assignments due March 1