

What threat does this effort protect against?

This action addresses the Recovery Goal factor titled Other Natural or Manmade Factors. This project is a precursor to other actions in other tributaries. Similar actions taken in other tributaries will increase the distribution of HBC in Grand Canyon and thus diminish the risk of catastrophic spills in the LCR.

What are the risks and benefits of this action?

In addition to that above, this action will introduce HBC into presently unoccupied habitat in the LCR. It will provide an opportunity for growth of young fish to a size where they have a higher likelihood of surviving should they be carried or dispersed to the mainstream.

Risks include the probability that they will be carried by a flood to the mainstream before sufficient growth increases their likelihood of survivorship. There is some very small genetic risk that a reproducing founder population with limited genetic diversity will become established.

What is the likelihood of a genetic complication from this action?

We believe this probability is very small, but in the event that such might occur, remedial actions can be taken to remove the population from that reach of the river or to periodically augment it with from the lower LCR to enhance genetic diversity.

Will this action result in an exceeding of the LCR carrying capacity?

The reach of the LCR above Chute Falls is presently unoccupied. Fish removed from the lower LCR will utilize habitat and other resources in the reach above Chute Falls that would have otherwise have been used in the lower LCR. HBC that remain in the lower LCR will have reduced intraspecific competition from that fraction of the cohort that has been removed to above Chute Falls, taking advantage of the unused fraction of the carrying capacity.

Is this intended to be the 2nd spawning aggregation referred in the BO?

No, but it is an expansion of the current range of HBC.

What would we do if we the fish above Chute Falls became established and started reproducing?

Rejoice. The original intent of the project proposal was not to establish a population; however, if that were to occur, additional translocation to augment the population can be done.

What we would if they did not?

The goal of this project is to increase the growth and survival of YOY HBC.
Achieving this goal does not require the establishment of a spawning aggregation.

Will additional translocation alleviate the genetics risks?

If done correctly and with a sufficient number of individuals, much of the small genetics risk can be alleviated.