

Core Monitoring:

In my opinion, Core Monitoring is consistent, standardized resource tracking that occurs year in and year out using set protocols designed to establish status and detect trends in resources of concern. Core Monitoring is implemented regardless of variable factors or circumstances affecting target resources (water year, experimental flow, temperature control, stocking strategy, nonnative control, etc.). Unique conditions to be studied would require specifically designed monitoring within a specific timeframe, in addition to Core Monitoring, to evaluate condition specific impacts.

Core Monitoring results (trends) must have a baseline against which to measure trend changes. This baseline should be measured under the ROD prescribed operations and flow conditions. This baseline should be: 1) established prior to implementation of the Core Monitoring Plan and any proposed experiments, 2) listed as the first MO and associated IN under each resource Goal, or 3) developed as a separate and distinct Goal with its own attendant MOs and Ins and then ranked as a first level priority.

Comments on Draft August 17, 2001, MOs and Ins

- MOs and INs need punctuation and grammar proofing.
- Goal 1, MOs 1.3, 1.4, and 1.5 have language added to include “tributaries.” It is beyond the ability of the AMP to influence, let alone “maintain or attain,” these target communities in tributary streams. Dam operations in particular cannot have influence on primary producers, benthic invertebrates, or drift in tributaries such as the Paria. The associated INs are determinable, but do not contribute to “maintain or attain” in the MO. Suggested fix: remove “and tributaries” from the MOs or replace “maintain or attain” with “evaluate” or some other phrase that does not set an MO that cannot be accomplished.
- Goal 1, INs 1.1.1, 1.1.3, 1.2.1, 1.3.1, 1.4.1, and 1.5.1, have language added “integrated with flow, nutrient, temperature, and light regime.” The meaning of the word “integrated” is not clear. Suggested fix: replace “integrated” with “as a function of” or similar phrasing that reflects the intent of the IN.
- Goal 2, last line: correct “its critical habitat” to read “associated critical habitat.”
- Goal 2: It is confusing to have INs listed under the goal that are not associated with an MO. Does this indicate the need for additional MOs?
- Goal 2, MO 2.1, 2.2, and 2.3: There is no good reason to separate size-classes among these three MOs. The CMINs and RINs function equally well under a combined MO 2.1 that replaces “humpback chub (>150 mm) abundance...” with “appropriate age-size-class structure....” INs can be made size-class specific if necessary.
- Goal 2, CMINs are given as statements rather than questions. RINs are questions rather than statements. This is a good format to differentiate these two types of statements and should be adhered to throughout (e.g. “CMIN 2.1.1 Establish and track the status and trends of HBC....”).
- Goal 2, MO 2.6: Nonnative predation does not affect native fish viability; it affects recruitment. Suggested fix: replace “affect native fish viability” with “increase native fish recruitment.”
 - Insert a new RIN: “Under what circumstances and to what degree do native fish prey on native fish (i.e. is cannibalism a significant problem in HBC?)?”
- Goal 2, MO 2.7, RINs: This is a logical sequence of RINs and should be used as a format that works for other similar MOs (e.g. MO 3.1, RIN 3.1.1).
 - In RIN 2.7.3: insert “to attain a viable population” between “sucker” and “including.”
- Goal 4, MO 4.1: We do not wish to “maintain or attain” “whirling disease and other

parasitic infections." Suggested fix: rephrase "...condition, spawning habitat, natural recruitment and prevent or control whirling disease and other parasitic infections."

- Goal 4, CMIN 4.1.1-7: as with Goal 1 MOs and Ins, add "as a function of flows, nutrients, temperature, and light regime."
- Goal 4, MO 4.2, New RIN: "What is the target individual size, growth rate, and population size appropriate for the Lees Ferry reach?"
 - For CRE below Lees Ferry?
 - For Brown Trout in CRE below Lees Ferry?
- Goal 4, MO 4.2, New RIN: "Determine effective control strategies and methods to limit RBT and BT to target population levels commensurate with protection of native and endangered fish."