2008/2010 FCRPS Biop Development and Harvest RM&E

As a result of the FCRPS 2004 Biop Remand process, the federal Action Agencies produced a Biological Assessment (BA) and Proposed Action (PA) in late 2007. These documents were developed in consultation with NOAA and were informed by work products generated from a collaborative process that included technical and policy representatives from state, federal, and tribal sovereigns. The collaborative process included several work groups:

1. Recovery Goals and Gaps
2. Human Impacts framework
3. Habitat
4. Hatchery and Harvest
5. Hydro Actions
6. Passage Model
7. Performance Standards and RM & E.

Included in the BA is an assessment of population status for each ESU, a description of the key limiting factors for survival, and the estimated population response to the Proposed Action. This Comprehensive Analysis includes the recent status of each population, expected population survival improvements associated with current and future hydro, harvest, hatchery, and habitat actions contemplated in the 2007 Proposed Action. These expectations link the FCRPS Biop, the Harvest Biop, and the upper Snake River Biop.

The Proposed Action represents The Action Agencies approach to address each limiting factor, including strategies for Hydro, Habitat, Hatcheries, Harvest, and Predation. The Harvest Action includes three strategies:

**B.2.4.2. Harvest Strategies**

“The Action Agencies have identified three specific harvest strategies that are either ongoing or will be implemented for the Harvest Action”

* **Harvest Strategy 1- Fishery Conservation Effectiveness Program**
* Harvest Strategy 2- Potential Alternative/ Terminal Fishing Locations
* Harvest Strategy 3- Develop Fishing Techniques to Enable Fisheries to Target Non-Listed Fish While Reducing Harvest-Related Mortality on ESA- Listed Species

**B.2.4.2.1 Harvest Strategy 1: Fishery Conservation Effectiveness Program**

“ Harvest reductions produce immediate increases in spawning escapement, thereby reducing the near-term risk of extinction. Under Harvest Strategy 1, **the Action Agencies will pursue opportunities to ensure harvest is effective in meeting conservation objectives for reducing impacts on listed species,** consistent with the 2,000 Biop (National Marine Fisheries Service 2000a). These opportunities may include advances in stock identification, monitoring, run-size forecasts, and in-season management to reduce uncertainty in harvest impacts to listed fish and **ensure the intended increased abundance to the spawning grounds and biological benefits are achieved**

**The Action Agencies support increased in-season monitoring of catch, encounters, and escapement of fish within the Columbia River Basin because even low levels of mortality can affect the prospects for survival and recovery.** Therefore, accurate and precise estimates of incidental mortalities are essential for determining the extent to which selective fisheries can accomplish their intended purposes.

The Action Agencies support the deployment of passive integrated transponder (PIT)-tag detectors for fisheries sampling and the expanded deployment of PIT-tag detectors in terminal areas. In addition**, the Action Agencies will assist in the development of a plan to add PIT-tag detections in mainstem Columbia River fisheries.** The potential benefit of this monitoring is providing an independent assessment of harvest impacts and stock composition in the fisheries.

**The information obtained from the PIT-tag program will be helpful in decreasing the uncertainty in measurement of adult survival through the FCRPS.** The Action Agencies are working with fisheries managers to determine the specific quantity of detectors and modification of sampling protocols to incorporate this additional data collection.

Other opportunities may include the use of conservation easements or catch agreements that reimburse commercial harvesters for reducing their catch with appropriate pass-through measures that provide additional quantifiable adult life-stage improvements for listed ESUs.”

The 2008 FCRPS Biop produced a jeopardy opinion on the federal Hydro system, but relied upon the suite of actions in the Action Agencies 2007 proposed action, and the associated Biological Assessment, to develop Reasonable and Prudent Alternatives (RPAs). RM&E Strategy 5 and RPA 62 reflect Action Agency supported harvest actions:

**RM&E Strategy 5- Harvest Research, Monitoring, and Evaluation**

***“The Action Agencies strategy is to support performance monitoring and adaptive management related to harvest actions.”***

**RPA 62 Fund Selected Harvest Investigations**

“The Action Agencies will fund selected harvest investigations linked to FCRPS interests:”

* Evaluate the feasibility of obtaining PIT-tag recoveries between Bonneville and McNary dams (Zone 6) to determine whether recoveries can help refine estimates of in-river harvest rates and stray rates used to assess adult survival rates. For FY 2009, focus on a pilot to test the feasibility of PIT-tag recoveries of harvested fish in this reach (spring, summer, and fall Chinook salmon and summer steelhead). ( Initiate in FY 2007-09 Projects
* Evaluate methods to develop or expand use of selective fishing methods and gear. (Initiate in FY 2007-2009 Projects)
* Evaluate post-release mortality rates for selected fisheries. ( Initiate in FY 2007-2009 Projects)
* **Support coded-wire tagging and coded-wire-tag recovery operations that inform survival, straying, and harvest rates of hatchery fish by stock, rearing facility, release treatment, and location ( Initiate in FY 2007-2009 Projects)**
* Investigate the feasibility of genetic stock identification monitoring techniques (Initiate in FY 2007-2009 Projects)

*RPA 62 indicates that information from these actions will be included in the 2013 and 2016 Comprehensive RPA Evaluation Reports.*