

## COMPARISON OF MAINSTEM STRATEGIES WITH NMFS BO RPA ACTIONS

**STRATEGY:** Provide conditions in the hydrosystem for adult & juvenile fish that most closely approximate natural physical & biological conditions.

Elements	NMFS RPA Action No.	BiOP Section Reference
Protect Biological Diversity	45-53	9.6.1.3.3 - 9.6.1.3.4
Juvenile Fish Passage	40-53, 54, 58-59,100-106,	9.6.1.3, 9.6.1.4, 9.6.1.5
Adult Passage	107-129	9.6.1.6
Annual Report on Capital Improvements	4,13	9.4.2.3, 9.4.2.13
Implementation of These Principles	1-14, 54-59,144-148	9.4.1, 9.6.1.4.3, 9.6.1.8.2
Protect and Expand Mainstem Spawning and Rearing Habitat	15,16	9.6.1.2.1-9.6.2.2.7
In-river Migration and Transportation	40-53	9.6.1.3-9.6.1.3.4

**STRATEGY:** Manage the hydrosystem so that patterns of flow more closely approximate the natural hydrographic patterns, and assure any changes in water management are premised upon, and proportionate to, fish and wildlife benefits.

Elements	NMFS RPA Action No.	BiOP Section Reference
Balance Systemwide Water Management Among Different Species and Life Stages	14-39	9.6.1.2.1-9.6.1.2.7
Coordination	2-6, 10,17,18	9.1.9, 9.4.2.1-9.4.2.10, 9.4.2.2, 9.6.1.2.2

**STRATEGY:** Assure that flow and spill operations are optimized to produce the greatest benefits with the least adverse effects on resident fish while assuring an adequate, efficient, economical, and reliable power supply

Elements	NMFS RPA Action No.	BiOP Section Reference
In-Season Changes	2,3,4,5,6,17	9.4.2.1, 9.4.2.2, 9.6.1.2.2
Actual Hydrosystem Accountability Report	13, 179-199	9.4.2.13, 9.5.2.2, 9.6.5.1
Annual Report on Flow Augmentation	13	9.4.2.13, 9.5.2.2,
Fish Passage Center	3,6,58,144	9.4.2.2, 9.4.2.5, 9.6.1.4.4, 9.6.1.8.2
In-Season Management Coordination	1-6,17-18,	9.4.1, 9.4.2.9
Annual Operating Plan	3,18-39,	9.4.2
Emergency Actions	18	9.6.1.2.3

**STRATEGY:** Establish and maintain a plan to assure coordination of mainstem operations and improvements.

Elements	NMFS RPA Action No.	BiOP Section Reference
Mainstem Coordination Plan	2,3,6,11,58,144	9.4.2.1, 9.4.2.2, 9.4.2.5, 9.6.1.4.4, 9.6.1.8.2
Specific Biological Objectives and Measures Relevant to Hydrosystem Operations	13	9.1, 9.2, 9.3, 9.4.2.13
Key Uncertainties	9,10,11,82-96, 107-119, 179-199	9.4.2.8, 9.4.2.11, 9.6.5, Appendix G & H
Longer-term Planning Perspectives		3.2.10, 9.7, Appendix D & E,

**STRATEGY:** Assure that hydroelectric relicensing and future development provides protection for fish and wildlife.

Elements	NMFS RPA Action No.	BiOP Section Reference
Hydroelectric Development and Licensing	not addressed	Possibility of Breaching SR Dams is Discussed