



Nonnative Fish Management Plan Review

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Approaches to Nonnative Control

- **Monitoring**
- **Control**
- **Research**
- **Other Measures**

Plan Assumptions

- **Nonnatives are a threat to natives**
- **Reduced nonnatives will benefit natives**
- **Sources of nonnatives include mainstem and tributaries in watershed**
- **Non-zero nonnative targets most realistic**
- **Nonnatives are not the sole threat; other factors also threaten**
- **Environment is not static, threats are not static**

Recommended Monitoring (* in 10-11 WP)

- **Expand, Diversify***
- **Early Detection***
- **Long-term Tributary Monitoring**

Suggested Control Measures (* in 10-11 WP)

- **Maintain RBT and other nonnatives in LCR reach at 10-20% of 2003 (USFWS Conserv. Meas.)***
- **RBT removal from Shinumo associated with translocations (NPS Lead)***
- **Catfish removal from LCR reach**
- **Chemical renovation and barriers in tributaries**

Recommended Research I (* in 10-11 WP)

- Energetics modeling*
- Source identification*
- Modeling to support monitoring*
 - Abundance
 - Distribution
- Improve small-bodied monitoring*
- Remote PIT tag reader for nonnatives*

Recommended Research II (* in 10-11 WP)

- Pheromones to increase captures
- **Sonic tag tracking***
- Artificial stream studies - mechanisms
- Targeted flow and temperature manipulations
- Williams carp cage in tributaries

Additional Suggested Actions (* in 10-11 WP)

- **Annual nonnative workshop***
 - **Associated with Jan. 2010 annual reporting meeting**
 - **Emphasis on observations from 2009 in a historical context**
 - **Wrap up with agency discussions of how priority actions will be addressed (GCDAMP or other)**
- **Public outreach**
- **Improve reporting of nonnative captures***
- **Cooperating agencies developing implementation plan (BOR Lead)**

Next Steps

- **GCMRC to receive comments from TWG by August 30, 2009**
- **TWG to vote on acceptance at next meeting**
- **AMWG to vote on adoption at next meeting contingent on TWG decision**
- **Implementation plan being developed by cooperating agencies**