How a Topminnow Safe Harbor Agreement May Work for County Vector Control Agencies

Maricopa County Vector Control Conference
April 2011

Presentation by Jeff A. Sorensen, AZGFD
Advantages of Using a SHA:

- Increase opportunities for private and non-federal landowners to participate in T&E recovery efforts
- Provides landowner assurances for routine land use activities and future alteration of enrolled properties back to baseline
- Increase public awareness and education about our native fishes
- Provide a “native” solution to vector control (= reduced use of mosquitofish)
Endangered Species

Gila Topminnow

Topminnow are as effective for mosquito control as mosquitofish (Childs 2006 study)
Historic Range and Expected Area to Implement:

Geographic Area covered under this Agreement

- Yaqui River Drainage
- Gila River Drainage
- Quitobaquito Spring

Generally below 5200 ft elevation

Shallow, slow-moving waters
A topminnow SHA for county vector control agencies would focus on properties in urban and exurban areas.

---

Examples of contained waters for stocking: backyard ponds and water features, city and county parks, schoolyard ponds, stock tanks, and residential “green pools”
SHA Participants (Cooperators):

- Private landowners
- Schools
- NGOs
- Private corporations
- Non-federal agencies
- County and city govts (vector control & parks)
Cooperators participate in the SHA with a “Certificate of Inclusion” [covered under a 10(a)(1)(A) permit]

---

This certificate covers incidental take of stocked fish on their property due to lawful, day-to-day or normal activities

Enrolled properties under AZGFD’s topminnow-pupfish SHA have a minimum 10-year commitment, but longer timeframes are encouraged
Baseline condition of a Cooperator’s property will be agreed upon by all parties

Most enrolled sites are not likely to have existing topminnow populations, so their baseline condition will be zero

At the end of a Cooperator’s commitment, the population at their site would be removed (returned to zero baseline)
A separate SHA between CVC agencies and the USFWS would be needed, similar to AZGFD’s topminnow-pupfish SHA

---

A **mixed lineage** of Gila topminnow would be used for county vector control SHA stocking needs…it would reduce genetic concerns on the fate of stocked fish
Cooperator Obligations:

- Notify CVC 30 days prior to planned activities that may result in complete loss of the population, or change in property ownership
- Allow CVC access to the site to conduct biological and compliance monitoring, and stock or salvage fish
- Prevent, minimize, and control the introduction of non-native fish or frogs, or disease vectors at the site
- Agree not to move stocked fish to other locations
- Assume responsibility in securing State Wildlife Holding Permit and providing annual reports to AZGFD
CVC Obligations:

- Coordinate with Cooperators to determine site suitability and baseline condition for a Certificate of Inclusion
- Provide technical advice and assistance in obtaining State Wildlife Holding Permit
- Coordinate with USFWS and AZGFD on acquiring source of mixed lineage topminnow to use and stocking fish
- Coordinate with Cooperators and USFWS on the monitoring and reporting schedule
- Conduct biological and compliance monitoring
- Notify USFWS when a change in an enrolled site will result in the complete loss of a site’s population
USFWS Obligations:

- Issue an Enhancement of Survival Permit to CVC agencies authorizing take of topminnow under the signed SHA (permit term is 50 years and is renewable)
- Coordinate with AZGFD and other entities to provide source topminnow (mixed lineage stock)
- Ensure CVC agencies are implementing the SHA
- Assist CVC with biological and compliance monitoring

USFWS assumes no jurisdiction over enrolled sites, no liability for damage, and no liability to restore sites to baseline conditions
Monitoring Needs:

Compliance Monitoring
- At least one visit every 2 years, but no more than 4 visits per year

Biological Monitoring (AZGFD’s SHA as example)
- 1 month post-stocking visit
- 6 months post-stocking visit
- 1 year post-stocking visit
- Thereafter, at least one visit every 3 years

For smaller sites (<1600 sq ft in area), AZGFD and the Cooperator can adjust the monitoring schedule as appropriate, with at least one visit every 3 years
Annual Reporting:

Cooperators:
- State Wildlife Holding Permit report due Jan 30 of each year to AZGFD

AZGFD’s topminnow-pupfish SHA (example):
- Summary report of SHA-enrolled Cooperators, copies of new Certificates of Inclusions, number and status of top-pup populations, related management actions, funding used, tally of monitoring visits, and incidental take counts with explanations; due March 15 of each year to USFWS
Annual Reporting:

CVC agencies:

- Summary report of SHA-enrolled Cooperators with copies of new Certificates of Inclusions,
- Dates and addresses of all locations where fish were stocked (including foreclosed and vacant properties; where no Cooperators were available),
- Numbers of fish stocked at each site, and identify the type of water stocked
- Any changes in status of waters stocked
Net Conservation Benefits:

• Provide refuge populations of topminnow as source for future stocking needs
• Reduce the need to stock non-native, invasive mosquitofish for vector control
• Increase public awareness and education on native fishes and endangered species recovery efforts

“Managing Today for Wildlife Tomorrow”

www.azgfd.gov