

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



Maricopa County
Vector Control
Conference

April 2011



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Advantages of Using a SHA:

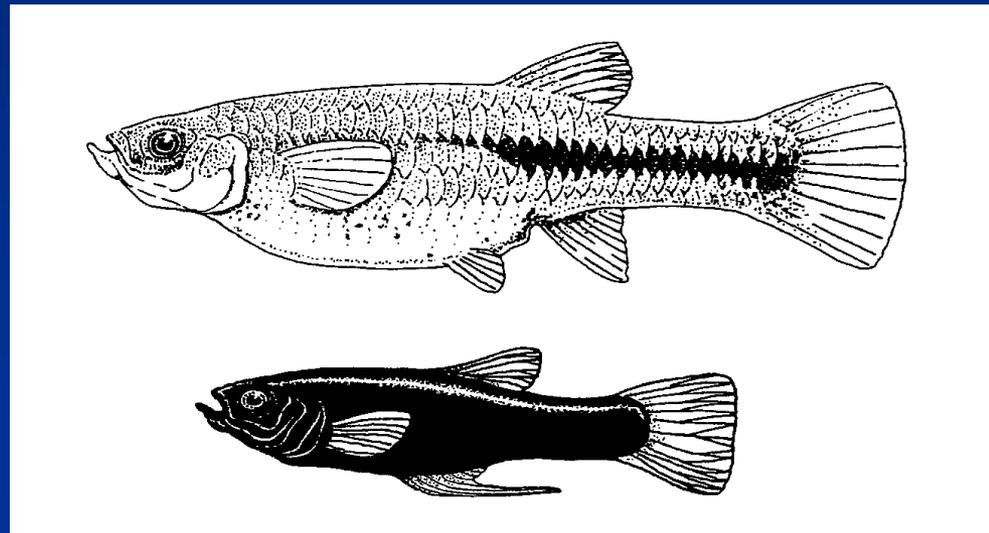
- ❖ Increase opportunities for private and non-federal landowners to participate in T&E recovery efforts
- ❖ Provides landowner assurances for routine land use activities and future alteration of enrolled properties back to baseline
- ❖ Increase public awareness and education about our native fishes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

Endangered Species

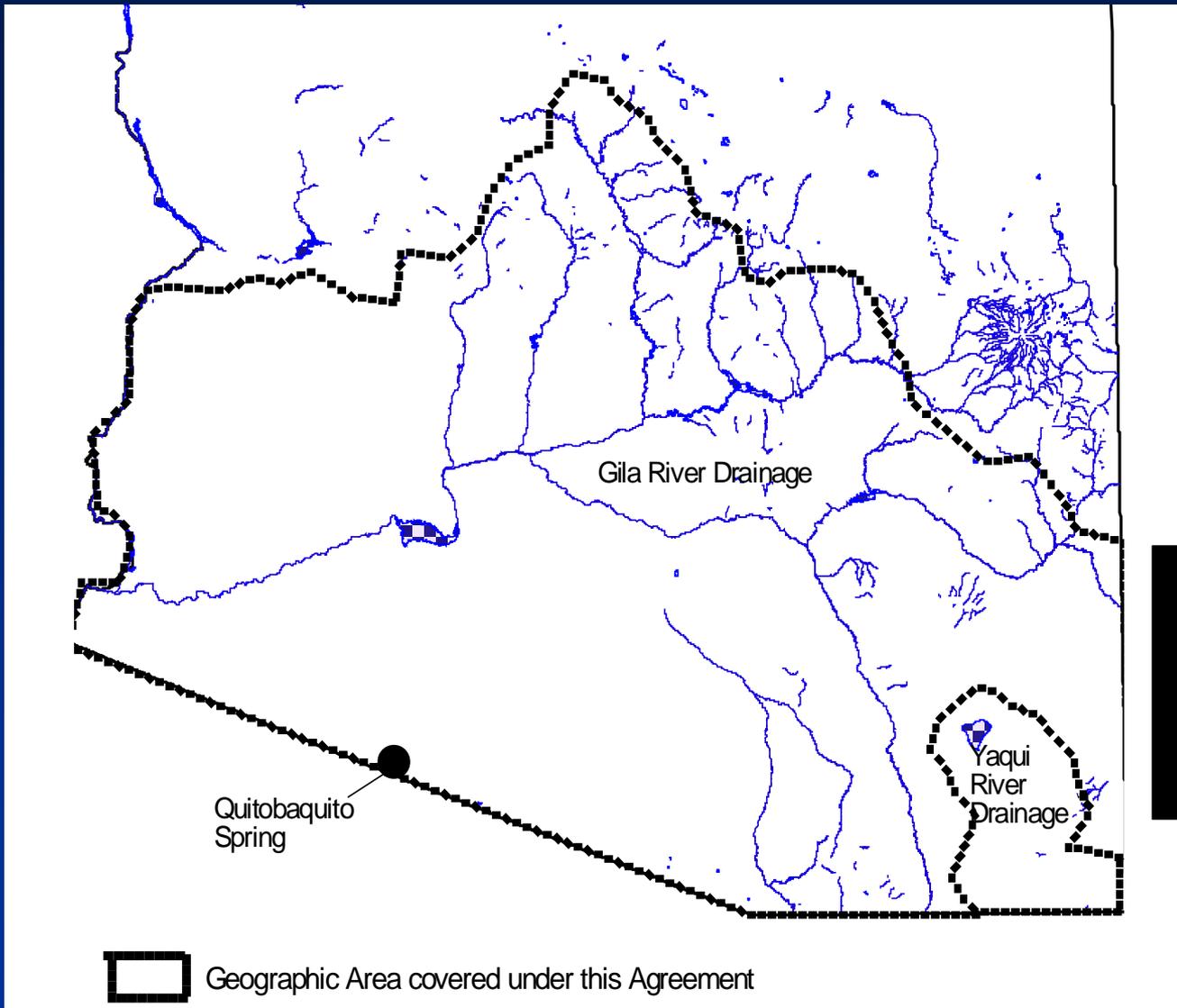
Gila Topminnow



Topminnow are as effective for mosquito control as mosquitofish (Childs 2006 study)



Historic Range and Expected Area to Implement:



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



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