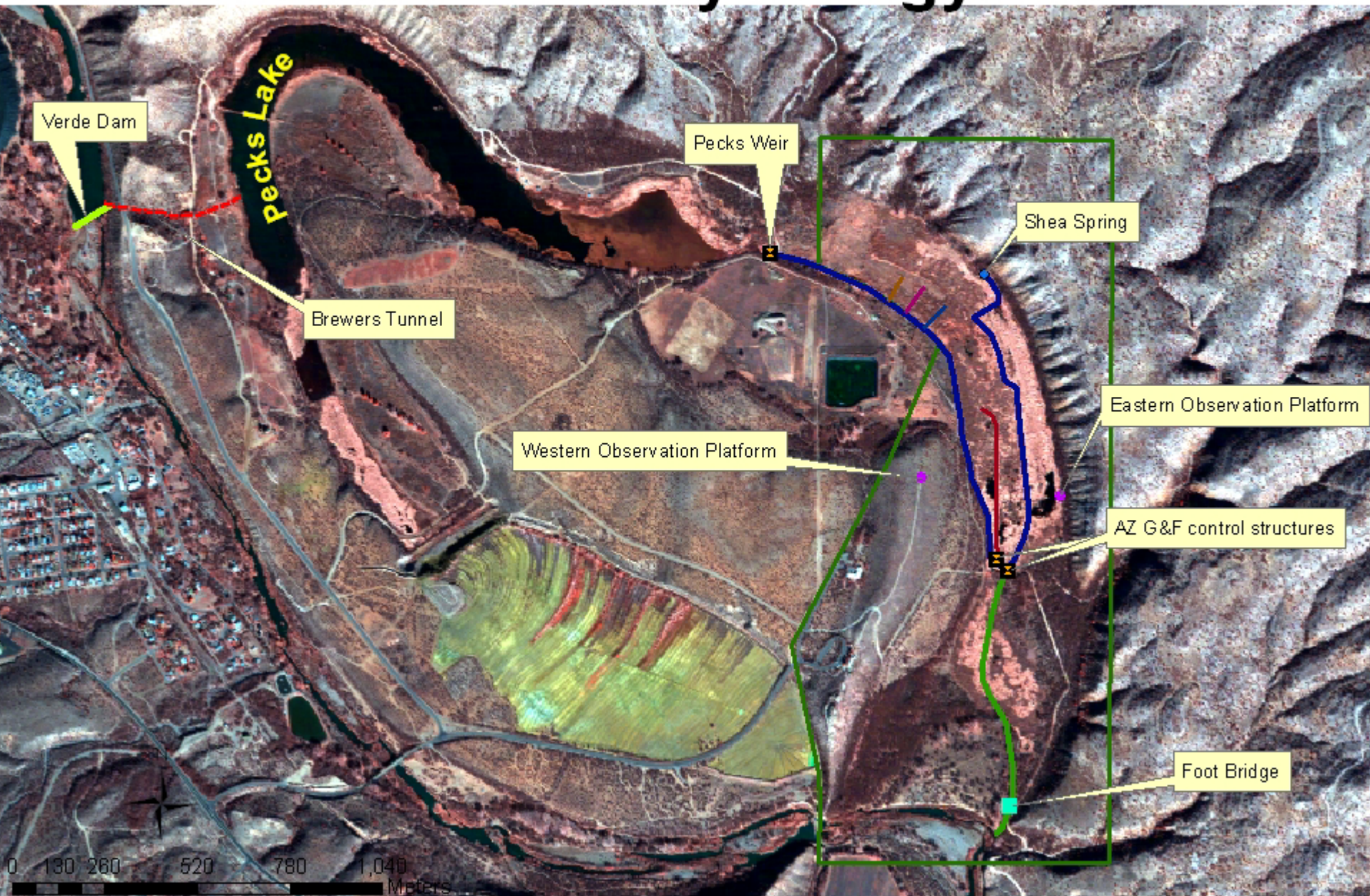


A landscape photograph showing a marsh in the foreground with tall green reeds. In the middle ground, there are several small, simple buildings on a hillside. The background features rolling hills and mountains under a blue sky with scattered white clouds.

Tavasci Marsh Scoping Meeting

August 13, 2008

Tavasci/Pecks Lake Hydrology



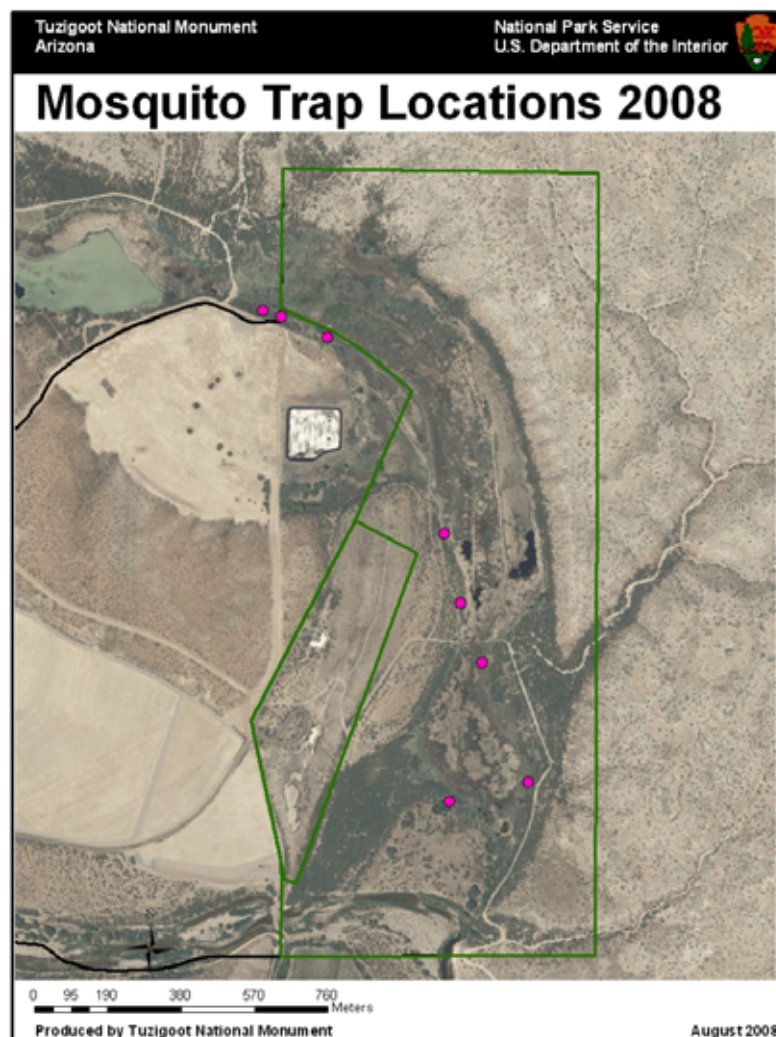
Management Actions To Date

- West Nile Virus Vector Mosquito Control
- Invasive Plant Treatments
- Water Budget Experiment
- Monitoring/Sampling: including Vegetation, Vertebrates, Birds, Water Quality, and Shea Spring



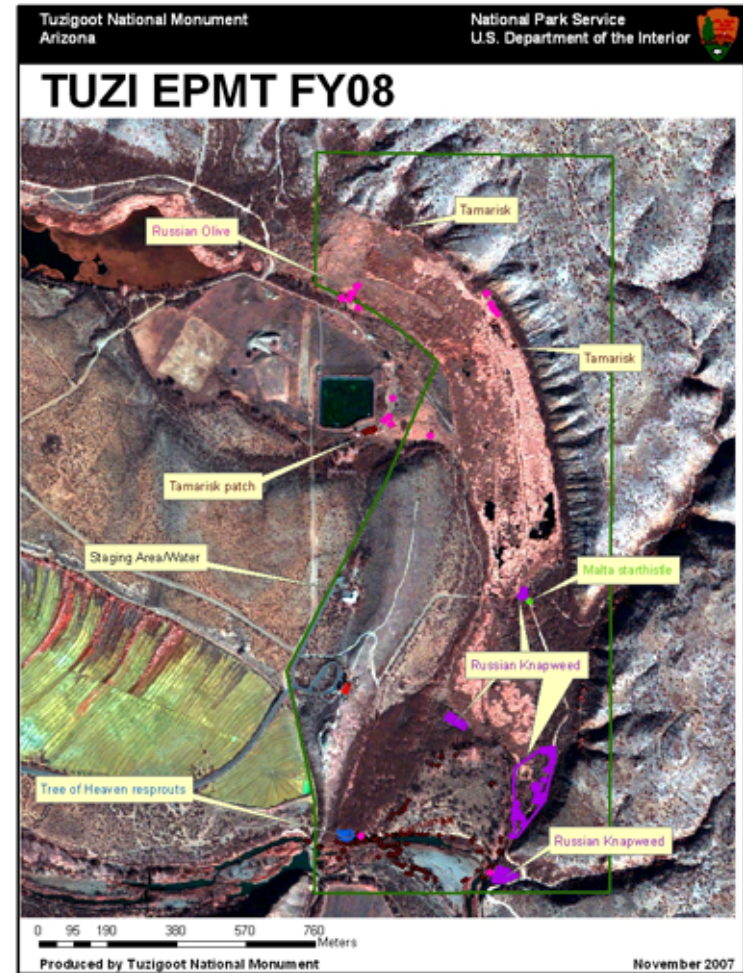
Mosquito Control Results

- Mosquito traps are deployed around the perimeter of the marsh
- The goals are to control the numbers of biting mosquitoes and intercept them before they leave the park area (toward Clarkdale and Cottonwood)
- Results to date:
 - 2006: Aug. 31-Nov. 2, 269,000 mosquitoes
 - 2007: Apr. 18-Nov. 13, 813,000 mosquitoes
 - 2008: Apr. 15-16-Jul. 29, 301,000
 - Over 1.3 million caught!



Invasive Plant Work

- Three treatments for Tavasci Marsh and Vicinity: March 2007, December 2007, and July 2008
- Focused on Invasive Trees
- Russian Knapweed also treated
- See Invasive Plant Management Plan and EA for more details



Water Budget Experiment



- Conducted in December 2007
- John Ward, contractor
- Goals were to better understand the hydrology of Tavasci Marsh and to indirectly determine discharge from Shea Spring
- Final Report is completed

Inventory/Monitoring/Sampling

- Sonoran Desert Network has produced reports for Vegetation and Vertebrates as well as birds
- Water Quality sampling has occurred at Pecks Weir and Tavasci Outlet Ditch
- Phase 2 assessment of Shea Spring was conducted in June 2007, the report is forthcoming



Planned Management Actions

- Continued Invasive Plant Work
- Pile Burn
- Possible Cattail Burn
- Detailed Plant Inventory for the Marsh
- Pilot Restoration Project



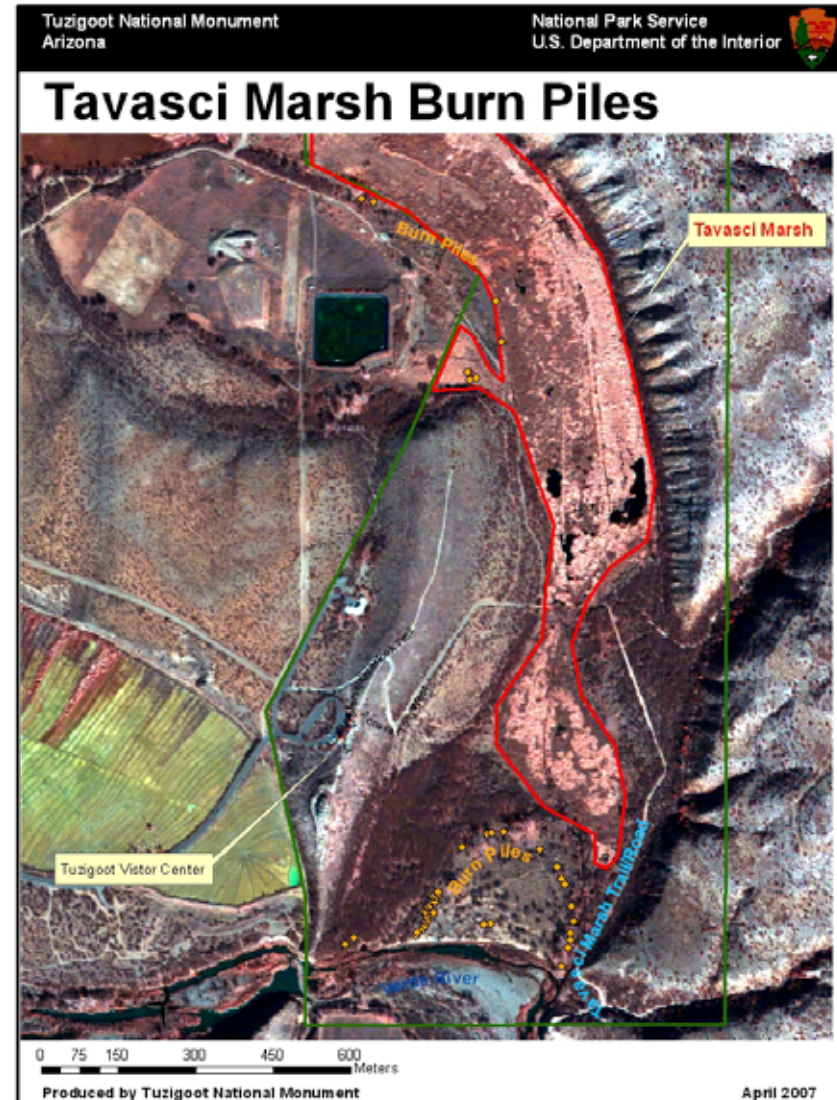
Planned Management Actions

- Continued Invasive Plant Treatments: Tamarisk, Tree of Heaven, Russian Olive and Russian Knapweed are a major concern



Planned Management Actions (cont.)

- Burn piles of invasive trees around perimeter of the marsh



Planned Management Actions (cont.)

- Cattail Burn to reduce thatch and open the marsh up for restoration work
- We plan to have a botanist do an exhaustive inventory of plants in Tavasci Marsh



Tavasci Marsh Wetland Restoration Project

- Natural Channel Design, Inc. has submitted a proposal to AWPf
- Project includes a pilot restoration of 9 acres near the existing viewing platform
- Also included is a conceptual design for the restoration of the entire marsh



Problem: Managing a Wetland while controlling only $\sim 1/6^{\text{th}}$ of the Water

- The discharge from Pecks Lake varies widely: from 0CFS to $\sim 25\text{CFS}$ typically $\sim 6.5\text{CFS}$
- Shea Spring output is $\sim 1.4\text{CFS}$



Variability of Pecks Lake Inflow

- Verde Dam was breached on Jan. 6, 2008
- Stage dropped >2 feet at Pecks Weir
- Discharge at Pecks Weir went down to zero
- Wetted area shrunk a bit but the marsh was very resilient and has since rebounded
- Phelps Dodge fixed the breach in May



Management Questions

- What are the Desired Conditions for the Marsh?
- Should we leave it pretty much as is or should we attempt a restoration?
- How intensive should the restoration be?



Management Questions (cont.)

- Should we separate the waters?
 - Ditch repair and maintenance
 - Restoration of the marsh using only Shea Spring water



Should We Aim for Historic Conditions or Design a Wetland with Enhanced Wildlife Habitat/Visitor Use Values?



- Nancy Dallet from ASU is working on the admin. history for Tuzigoot
- She will be gathering historic photos and information on the marsh

How Should the Marsh be Interpreted?

- Signs, trail guides, rack cards
- View shed and maintaining view of marsh, pueblo, and birding areas
- Connection with pueblo life
- Joint projects with Arizona State Parks



Maintenance Issues

- Should existing infrastructure (trails, bridge, viewing platforms) be improved?
- What about handicapped accessibility?
- Should water conveyances be improved?
- Fencing, gates, and signage
- Flood damage to infrastructure
- Costs and time associated with maintaining improvements



Visitor and Resource Protection



- Access-how to manage pedestrian traffic
- What about Equestrian and Bike access?
- Stopping motorized trespass
- Coordinating Visitor Access with AZ State Parks
- Operational access for safety and emergencies
- Environmental impacts of increase visitor use and maintenance of infrastructure
- Protecting cultural sites from damage

Resource Management

- TES species habitat
- Cattle Exclusion
 - Long-term—planned survey and fence
 - Short-term fix needed
- Habitat improvements
 - Wading birds
 - Aquatic species
- Invasive Animals—do we want to address this serious problem?



Administration

- Costs of operation associated with restoration and increased infrastructure
- Community Outreach—public meetings
- Partnerships with other land management entities
 - AZ State Parks
 - US Forest Service
 - Phelps Dodge
 - Towns of Clarkdale and Cottonwood



Lets put our heads together and figure this out!

