

The importance of
context in
understanding place:
Tubac Nature Center Wetland

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aka "Nature Farmer"



TUCSON
AUDUBON
SOCIETY

conservation
education
recreation

Tucson Audubon

inspires people to enjoy and
protect birds through
recreation, education,
conservation, and restoration
of the environment upon
which we all depend.





Ecological restoration is the process of assisting the recovery of the primary *functions* of an ecosystem that has been degraded, damaged, or destroyed.

Habitat restoration seeks to repair degraded areas for the specific benefit of a particular species or suite of species.



DE ANZA

NANCY LN

DEAR VILL

CALLE ADELINA

CALLE CORONA

MARKET DR

POMPEI CT

MARKET DR

SUTTER PL

SAGEHOLM CIRCLE

DE ANZA

Santa Cruz River





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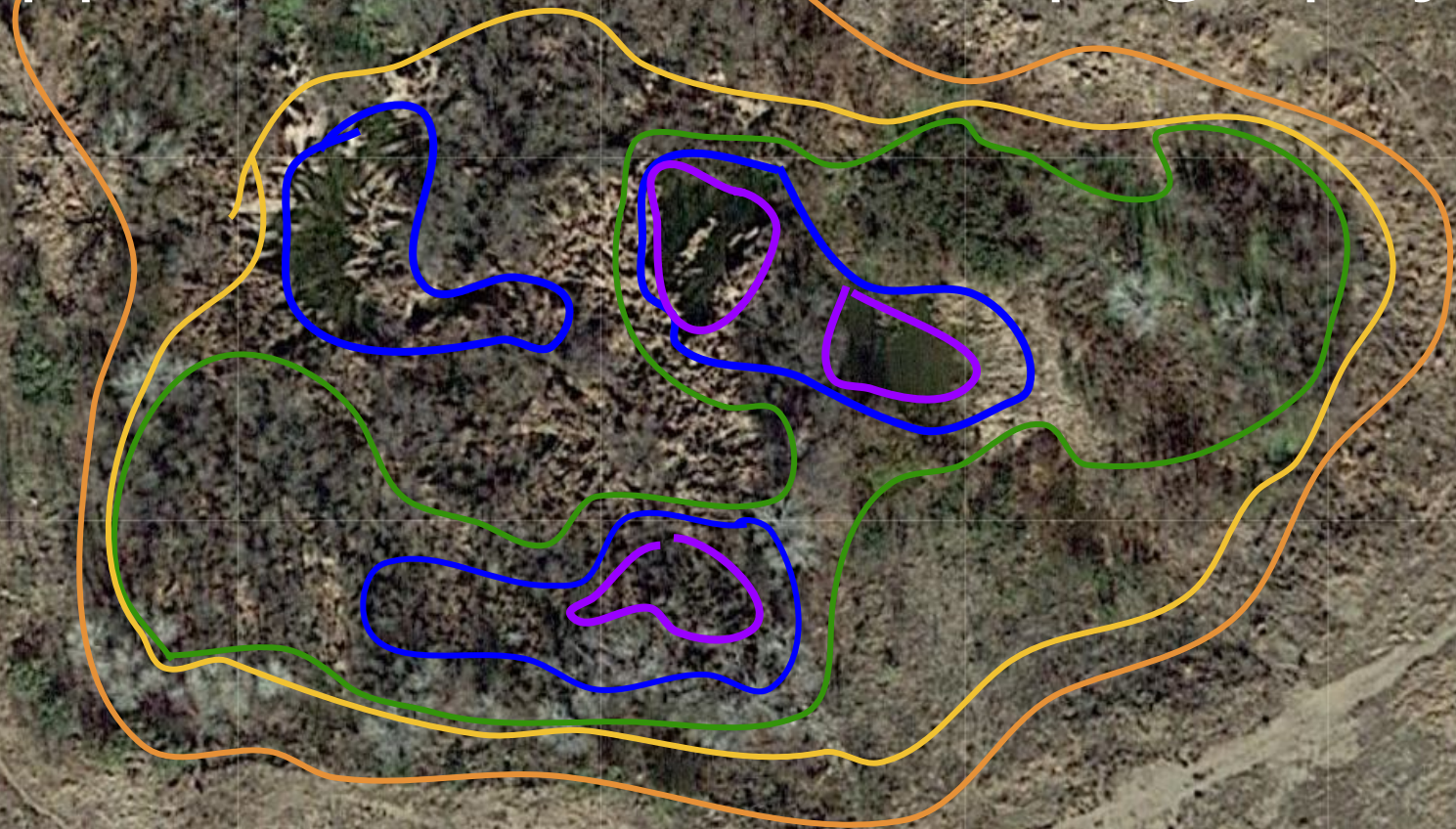
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Potential Importance to Birds:

**A unique habitat
patch within a larger
gallery riparian
corridor and
mesquite bosque
(and cattail forest)**

Approximate Wetland Topography



Phase 1: Treat invasives









Phase 1: Treat invasives

Salt cedar (cut stump treatment)
Johnsongrass (all of the above)
Russian thistle / Tumbleweed
and...?



Phase 2: Choose desired targets | Habitat Type(s) or Bird/Species



Cienega

Ephemeral wetland

Cattail Forest

Gallery-subgallery forest

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Waders

Wren/Sparrow/Warbler

DeAnza Suite

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Phase 3: Plant Appropriate Natives



Sacaton historically dominated semi-arid grasslands of the southwest

Important floodplain grass
Long (30') fibrous roots - excellent soil stabilization

Regionally, these grasslands occupy less than 5% of original distribution

Floodplain grasses are easy





Arizona black walnut (*Juglans major*)



Fruit-bearing trees: eg.
Elderberry / Chokecherry / Hackberry



Alan Schmierer



Overstory trees: eg. Cottonwood / Ash / Willow?

Maintain those that are in good spots

Use those that will drown with elevation modifications as sources for new plants in appropriate locations

Remove individuals that will be hazard to health and human safety



Ephemeral wetland + Cienega: eg. Arizona Eryngo / H. Water-umbel? High-value pollinator plants

USFWS permission for some of these -
attainable

Require conditions that minimize competition
from cattails / bullrush

Sedges / nutsedges / oxalis / milkweeds /
asters + umbels ... wide range of pollinator
plants





Wetland: eg.
Spike rush / sedges
High-value pollinator plants



Require some ongoing maintenance to
minimize competition from cattails / bullrush

Sedges /spike rush / monkeyflowers / catchfly
... wide range of pollinator plants

Jim Morefield

Threats and Opportunities

Threats

- Dropping water table decreases capacity for keeping zones wetted
 - Drought / Continued downcutting of Santa Cruz River
- Larger storms → too much water in the wetland drowning vegetation
- Sedimentation from adjacent wash

Opportunities

- Additional stormwater harvest from adjacent wash
- Raising water table through restoration for SCR channel itself
- Raising water table through wash and wash-plain restoration of adjacent bosque





Funding Opportunities

Probable Fits

Partners for Fish and Wildlife - \$25,000 per property - Species Habitat

wYBCU / monarch / pollinators / maybe a couple T&E plants

North American Wetlands Conservation Act (Small) - \$100,000 cap

5-Star + Urban Waters Restoration - \$40,000 cap

Arizona Water Protection Fund - \$400,000? cap

Bit of a Stretch

North American Wetlands Conservation Act (Standard) - \$\$Big\$\$

Use as a mitigation site



Questions?