Middle Rio Grande Endangered Species Act Collaborative Program
Science Work Group Meeting (Long Term Plan)

5 February 2010 Meeting – 9:30-12:00 PM

Reclamation, Albuquerque, NM

Actions

- Determine which fiscal year to start new projects; prioritize future projects list by near-term and long-term
- Ask SWFL workgroup members to rank the SWFL future projects list (below) by high, medium, and low priority and provide a summary of where the SWFL population stands
- SWG members need to further refine and prioritize the brainstormed list; the next workgroup meeting is scheduled for 2/16/10

Meeting Summary

- The meeting was called to order and introductions were made
- The main goal of the meeting was to brainstorm ideas for future projects to cover recovery activities; the workgroup brainstormed and an extensive list of ideas for both SWFL and RGSM future projects was created; the list will be further refined and prioritized at the next scheduled SWG meeting on 2/16/10

Program Manager Update

- The Program is receiving Tom Pitt's guidance documents for outlining past and future projects/activities to be incorporated into the LTP;
- A website is being created to house all LTP related documents including guidance documents, the draft recovery plan for RGSM, the final draft recovery plan for the SWFL; the website will also include a link to the Lower Colorado River Multi-species Conservation Program and the San Juan Recovery Implementation documents
- The purpose of this meeting is to brainstorm ideas for future projects to cover recovery activities; the future projects will be put into a spreadsheet for organization into LTP sections and workgroup prioritization; the timeline for future projects is 5-7 years; need to make an additional sub-category under Research for "Unspecified Research/Monitoring"

General Discussion (prior to brainstorming)

- All workgroup members are invited to the next CC/PMT working meeting scheduled for 2/17/10; the meeting will focus on continued refinement of future projects; present list to CC by 2/10 for framework to present to CC during first working meeting
- Another major topic for discussion is an adaptive management framework; this topic is too big for one workgroup, therefore it will be addressed separately
- Workgroup members were concerned that there is a lot of already existing data that is being overlooked; K. Dickinson informed that group that a concurrent activity includes looking at projects already funded by the Project; what activity, goal helps benefit, accomplishments, and citations to be posted on CP website; other effort as part of PVA group is collecting all available data; build on what is already been done
- The group decided to begin by spending 30 minutes brainstorming future SWFL projects due to the lack of SWFL experts at the meeting, then use the rest of the meeting for brainstorming of RGSM future projects
- SWCA provided an informational presentation on recovery criteria to the EC at their last meeting; The EC requested that the science workgroup look at the presentation and provide

recommendations; i.e. additional work, success for reaching de-listing and avoiding jeopardy; the workgroup decided to have SWCA give a 20-30 minute presentation at the beginning of the next regularly scheduled SWG meeting on 2/16/10

- It was stated that the objectives should describe how each project contributes to recovery of a species

SWFL Studies

- Use existing data
- Summary of ongoing projects
    - Work through data (results)
    - ID gaps
- Provide overbank flows (study optimum timing and duration)
- Continue monitoring
- Consider where to expand monitoring
- Use LFCC to provide water
- Any genetic issues?
- Anything needed to control cowbirds?
- Do we need to continue to monitor for parasitism and predation
- Recurring HR projects
- Encourage habitat projects that maintain suitable habitat
- Investigate where we need more habitat
- Study dispersal/colonization to new habitats
- Study more definitively water needs for SWFL
- Study trade-off b/t pumping from LFCC for minnow vs. flycatcher needs
- Study if there are any population specific water needs we need to meet
- Include SWFL water needs in URGWOM
- What are the opportunities for restoring SWFL habitat to the optimum (ID limitations and constraints)
- What are the maintenance requirements for SWFL habitats? succession?
- What restoration planning is needed to accommodate habitat successional dynamics and population behaviors (colonization)
- Benefits of maintenance of existing habitat vs. developing new habitat
- Long-term management plan for SWFL habitat
- How best to integrate HR work so it benefits both SWFL and RGSM
- Develop criteria for better multi-species HR projects and determining the effectiveness of the projects for both species
- Feasibility studies; compile list from SWFL recovery action plan
- Study grazing effects and develop management plans
- Look into using grazing management to regenerate habitat
- Look into whether fire has benefits in long term habitat maintenance (also vegetation thinning)
- Food supply studies
- Study recreational impacts on SWFL/evaluate impact of public use on riparian habitat

RGSM Studies

- Pop monitoring
- Pop estimation

- Spawning monitoring
- Rescue/augmentation
- Captive rearing/breeding (O&M)
- Genetics (management, monitoring studies)
- Pop reintroduction (10j)
- Provide recruitment/overbank flows
- What do we need to do with water quality?
    - Is there a "smoking gun"?
    - Temperature issues at low flows
    - Habitat quality at low flows
    - Review NPDES permit renewals
- Review previous water quality studies to see what they tell us and evaluate recommendations
- Insert WQ elements into URGWOM
- Review past toxicity studies
    - Use minnow not able to put back into river for research; i.e. temperature tolerance, toxicity, etc.
    - Low cost toxicity pilot studies to accomplish this, locally rather than high-cost lab
- Monitor toxicity in drain/canal upstream of minnow sanctuary
- Figure out which chemical elements need to be monitored for
- Do NM State WQ standards need to be updated to reflect RGSM criteria
- Floodplain habitat studies to determine important aspects for HR projects
- Learn more about relationship b/t aquatic habitat and long term survival
- What are the suites of habitats the RGSM occupy in different life stages if available
- Determine relationship b/t river drying and population dynamics
- Habitat relationship curves by life stage
- Consider meso-habitat scale vs. reach-wide scale
- Which studies are feasible?
    - In river
    - In captive propagation facilities
- Relationship b/t intermittency and survivorship
- Determine need for fish passage
- Provide fish passage at all permanent barriers
- Better understand fish movement (i.e. longitudinal)
- Study benefits of in-channel refugia
- Study sensitivity of population to recruitment flows vs. river drying
- Strategize population management options to meet population goals (water, habitat, passage)
- Continue development of PVA models – when does this end
- How do outcomes from the PVA model interface with the Program and inform management decisions
- Develop Adaptive Management Strategy and Plan
- Figure out how to link HR effectiveness monitoring results to science results
- Develop well thought out long term HR development plan by reach
- Develop reach-wide monitoring plan – link it to long term HR development plan
- Hold workshop focused on what we have learned from current HR projects/efforts
- Prioritize future HR projects
- Develop scientific studies to determine benefits of HR projects
- Continue efforts to develop/integrate water management strategies

- Identify supplemental supplies of water
- Acquire supplemental supplies of water
- Based on existing data, determine on reach basis, is that reach a reasonable area to try to recover/sustain RGSM population?
- Determine best place to establish populations
- Determine how to test feasibility of establishing a population in a certain location
- Ensure FWS reintroduction biologist efforts are coordinating with Program efforts
- Identify hurdles for successful reintroduction by reach
- Conduct studies to fill data gaps uncovered when looking at reaches in detail for suitability
- Develop vision for how we are going to benefit the species in the MRG over the next 5 years
- Develop interim Program goals/objectives for recovering the species in the MRG (SWFL and RGSM)
- Decide how we are going to deal with future hydrological reality (climate change, less SJC water available) and make sure we are avoiding jeopardy
- Determine what kind of RGSM health monitoring is needed
- Develop a "rule book"/guide for how we are going to manage the system based on expected water supply and last year's population numbers/ habitat availability etc. (status of the species)
- Design studies that can be ready to implement when we have a particular type of water year (decision tree on water management side based on status of species)
- Continue development of new BA's and new BO's
- Continue PHVA efforts
- Continue funding URGWOM development and water management scenario testing
- How do we get to the point where we are no longer augmenting the MRG/ what does it take to achieve a "self-sustaining" population?

Long Term Plan Sections

Water Management (SWFL)

- ID flow needs
- ID water sources
- Provide water for SWFL
- Monitor flows
- Adaptive Management
- Other

Research, Monitoring and Adaptive Management

- RGSM
    - Research
    - Monitoring
    - Adaptive Management
- SWFL
    - Research
    - Monitoring
    - Adaptive Management

Water Management (RGSM)

- ID RGSM flow needs
- ID water sources

- Provide water for RGSM
- Monitor flows
- Adaptive Management
- Other

Population Augmentation/ Propagation (RGSM)

- Genetics Management
- Propagation/Research Studies
- Construct Propagation facilities (O&M)
- Propagation Planning
- Stock RGSM

Predator/Non-native Control

- RGSM
- SWFL

Water Quality Management

- RGSM
    - ID WQ criteria
    - WQ monitoring
- SWFL
    - ID contaminant criteria
    - Monitor habitat for contaminants

Physical Habitat Restoration & Management

- Habitat Monitoring
- Fish Passages
- Entrainment Management
- Adaptive Management
- Other
- ID RGSM habitat needs
- ID SWFL habitat needs
- Habitat Planning
- Habitat Development/Restoration
- Habitat O&M

Next Meeting: February 16th, 2010

Science Work Group
5 February 2010 Meeting Attendees

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