Management Recommendations For Piute Ponds Edwards Air Force Base, California

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Piute Ponds is the largest freshwater marsh in Los Angeles County. Located on Edwards Air Force Base, the ecosystem supports a diversity of flora and fauna and offers unique educational and recreational opportunities. Currently, there is no comprehensive management plan for Piute Ponds. As Edwards Air Force Base aims to improve the ecological, educational and recreational value of the ponds, the purpose of this project was to evaluate the current status of Piute Ponds and develop management recommendations to assist Edwards Air Force Base with future management and planning.

Background

Piute Ponds are a series of interconnected marshes constructed in 1961 to evaporate treated wastewater effluent from the Lancaster Water Reclamation Plant. Supporting diverse populations of wildlife and plant species, Piute Ponds is a unique wetland habitat that is an important stopover on the Pacific Flyway for migratory birds and is a considered a Significant Ecological Area by the County of Los Angeles.

Significance

Developing a formal management plan is essential to protecting and enhancing Piute Ponds. While Edwards Air Force Base strives to enhance the ecological area, any expansion must take into account future availability of water and financial resources. Future changes in the availability of these resources has the potential to impact the following four criteria: water quantity/quality, ecological health, education, and recreational opportunities.

Objectives

- Improve the ecological value of Piute Ponds
- Enhance educational and recreational opportunities at Piute Ponds
- Gather and incorporate stakeholder input
- Balance competing interests for treated water
- Efficiently allocate scarce water and human resources

Key Recommendations

Water Quality

- Install accurate flow gauges to monitor overflows to Rosamond Dry Lakebed
- Improve flow control structures to allow for better water movement between ponds
- Develop comprehensive water sampling and monitoring plan for the ponds
- Model flushing overflows to Rosamond Dry Lakebed

Ecological Health

- Remove non-native plant species to allow for greater diversity of native plant species
- Plant native trees and vegetation to promote a more natural habitat
- Install bird boxes and perches to increase breeding bird populations
- Implement comprehensive ecological monitoring program

Environmental Education

- Create theme-based tours to enhance educational experience
- Design website to provide access and educational information to the public
- Acquire geographic information systems (GIS) resources tailored for K-12 students
- Develop wetland curriculum packets for tours to enhance students knowledge

Recreation

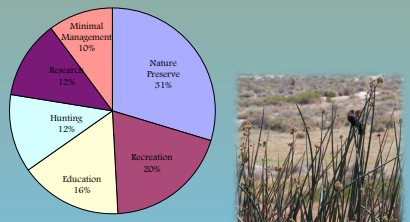
- Install viewing, seating and picnic structures to accommodate visitors
- Improve accessibility by installing directional signs
- Install additional informational/ interpretive signs around the ponds
- Improve roads and walking trails

Approach

- Assess the current status
- Incorporate lessons learned from other wetlands
- Gather stakeholder input
- Develop alternate scenarios
- Identify feasibility and costs of each scenario
- Outline recommendations

Poll Results

Which of the following options are of most interest to you?



Conclusions

- Focus on enhancing water quality an ecological health
- Assist in long-range planning
- Improve infrastructure to enhance educational and recreational opportunities
- Improve access to Piute Ponds

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