

Greetings!

This is the third in a series of updates from the U.S. Fish and Wildlife Service (Service) to keep you informed about planning efforts for the Antioch Dunes National Wildlife Refuge. We will be sending these planning updates regularly to landowners near the study area, government agencies, private organizations, and others who express interest.

This update describes the work we've been doing on the plan and the planning process we are undertaking.

Where we started

In 1997, Congress passed the Refuge System Improvement Act. In addition to identifying a mission for the National Wildlife Refuge System, the Act directs that all wildlife refuges have a comprehensive conservation plan (plan) in place by the year 2013. These plans will provide a 15-year guide, using the best available scientific knowledge, to help managers achieve the purposes for which each refuge was established, and to work toward the mission of the Refuge System. The Act lays out directives for managing refuges in a way that ensures the long-term conservation of fish, wildlife, plants and their habitats. Maintenance of biological integrity and diversity is one of the directives laid out in the Act.

What we've been doing

Since the last planning update, sent out in May 1999, the planning team has been working to develop the plan for the Antioch Refuge. The team has been meeting monthly to discuss various issues about the plan. In November, the planning team convened a second panel of scientific experts. We describe the findings from the panel later in this planning update.

In addition to reviewing and analyzing comments from agencies, the public, and the technical panel, we have been gathering information on the existing conditions at Antioch. We have started writing the introduction, refuge descriptions, and analysis of resources sections of the plan. We have almost completed data collection on existing Federal lands within the Antioch Refuge. Currently, we are refining the goals, objectives, and strategies that will guide management of the refuge.

Second Panel of experts

On November 16, 1999, the Antioch Refuge planning team hosted a technical panel of scientific experts at the Ramada Inn in Antioch. Refuge staff discussed changes on the refuge since the previous

experts panel, convened on 2 February 1999. Then, the group discussed the planning team's draft goals, objectives, and strategies. Lastly, a portion of the group took a field trip out to the refuge. Wildlife Biologist Ivette Loredó led a tour of the refuge, pointing out areas that the refuge has been actively managing.

The panel was generally in agreement with the approach that the CCP was taking. In particular, the experts agreed that the refuge required disturbance and that disturbance should occur in a mosaic pattern so that not all of the refuge is disturbed at one time. One of the experts emphasized that additional be accomplished as a series of experiments and that monitoring should only be conducted to determine the reaction of the plants and animals to different management actions. Another of the experts strongly emphasized the need to conduct further research of the effect of prescribed fire on insects. The scientists also agreed that restoration efforts should focus on other locally significant plants, regardless of whether they are endangered.

If you would like to learn more about the technical panel meeting, please contact Leslie Lew, whose address is near the end of this planning update.

Draft Goals and Objectives

The Antioch Planning Team has developed draft goals and objectives and strategies for the refuge, as follows:

Goal 1: *To protect, restore, and manage the Antioch Dunes ecosystem for a diversity of native plant and animal species.*

Objective 1: Restore the physical structure of the refuge dunes.

Objective 2: Increase the amount of native vegetation to 50% of the plant cover.

Objective 3: The canopy cover provided by invasive nonnative vegetation will be reduced to less than 50% overall in the next 10 years.

Objective 4: Continue monitoring various components of native plants and animals to learn more about their biological needs.

Objective 5: Protect as much of the remnant dune and riverine ecosystem outside the refuge boundary as possible through a program of lands acquisition, cooperative agreement, and easement.

Objective 6: Restore riverine habitat along 5,000 feet of refuge shoreline along the San Joaquin River within the next 10 years.

Objective 7: Create and foster relationships with universities and other entities that are mutually beneficial and further the goals of the refuge.

Objective 8: Manage firebreaks to facilitate natural ecosystem processes at the refuge.

Goal 2: *To protect, enhance, and maintain habitat for threatened and endangered species, emphasizing species known to use the refuge, including Lange's metalmark butterfly, Contra Costa wallflower, and Antioch Dunes evening primrose.*

Objective 1: Manage the refuge so that endangered plants at the refuge require only 20% of their populations to be maintained by outplanting.

Objective 2: Conduct additional research on the endangered plants to determine the factors that affect their seed production, viability, and germination, seedling survival, vigor, and reproductive success.

Objective 3: Within five years, invasive plants will account for less than 50% of the canopy cover.

Objective 4: Increase pollinator populations for both the primrose and wallflower by 25% by the year 2010.

Objective 5: The Lange's population size will not fall below a sustainable population size.

Objective 6: Promote the disturbance of 5% of the refuge every year.

Objective 7: In the next five years, the refuge will develop a management plan for other sensitive plant species that are state or federally listed, proposed, or candidates for listing.

Objective 8: Eliminate trespassing.

Goal 3: *To sustain an ongoing program of public use in order to foster an appreciation of natural habitats and endangered species by the public. Provide opportunities for the public to understand and enjoy endangered species and the native riverine dune habitat of the refuge.*

Objective 1: Develop a program to recruit at least 10 new volunteers to be docents, help with data collection, and/or help with refuge management per year.

Objective 2: Develop a public outreach program to let the public know that the refuge exists and to inform the public of the refuge's role in threatened and endangered species protection and ecosystem management.

Objective 3: Encourage schools to use the refuge to teach students about the natural world. Develop a cadre of teachers who use the refuge for environmental education within the next five years and thereafter, recruit at least one new teacher per year.

Objective 4: Establish a series of interpretive programs and publications for a variety of audiences that reveal the natural and cultural history of the refuge, endangered species and the riverine dune ecosystem. Participants in interpretive programs will be able to name at least two threats that face endangered species at the refuge after participating in any interpretive activity.

What's Next

Using comments we received during the scoping period, in addition to the data we've collected, we will refine our goals, objectives, strategies, and alternatives for Antioch Dunes Refuge. Then, we'll document what effects the plan would have on the environment and circulate drafts of the CCCP and environmental documentation to the public.

To date, there has been little interest in having the Service hold a public workshop to discuss management activities at the refuge. Therefore, we have not scheduled a public workshop. However, if you would like to meet with the Service or have Service staff hold a workshop, please let us know by contacting Leslie Lew, whose address, phone number and e-mail address is below.

For More Information

We are available to provide any information that you may need regarding the refuge and this planning process. Also, the Fish and Wildlife Service staff can attend a meeting of your organization to discuss the development of the Antioch Dunes Refuge conservation plan. Please notify us at least 3 weeks in advance to avoid scheduling conflicts.

If you have questions, comments, concerns, or would like information about the Refuge, or would

like to be removed from the Refuge mailing list,
please feel free to call, e-mail, or write us:

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Please pass this planning update along to
anyone you think might be interested in the planning
process.

*Please call or write to us to be placed on our mailing
list or to report a change in your mailing address.*