Mscp news

County of San Diego - Parks and Open Space Program

"Advancing Regional Conservation with Service, Integrity and Science for a Sustainable Future"

SUMMER 2003

TRAILS PROVIDE RECREATIONAL OPPORTUNITIES

By Maryanne Vancio, Trails Program Coordinator, County Department of Parks and Recreation

An essential element of the MSCP is that it accommodates public access and passive recreation within its preserves. Passive recreation includes riding and hiking trails within appropriate portions of the preserve when in accordance with approved management plans.

The County of San Diego Department of Parks and Recreation delicately balances the MSCP habitat preservation goals and the growing public's need and desire for outdoor experiences that trails provide. Trails are a facility that can control the level of human interaction with the environment while satisfying a need and elevating resource awareness, as well as enhancing the level of human experience.

An integral component in the development of a preserve's management plan is to identify target species and other sensitive or constrained areas so they can be surveyed, mapped, monitored and, if necessary, protected. Currently, a management plan on newly-acquired MSCP preserve land takes about three years to develop. This does not mean, however, that during this time these areas and existing trails are closed to the public. Existing trails located in the least sensitive areas that provide important community or regional trail connections can be identified and incorporated into the preserve's management and trail plans.

Bird Walk with Claude Edwards at Goodan Ranch.
Photo by Chris Yandall

Existing trails in close proximity to sensitive resources may be rerouted or include trail fencing. When a trail is determined to be duplicative or its continued use impacts critical resources, it may be closed and revegetated with native plant species. Any new trail development will seek to include varied and diverse experiences while minimizing impacts.

> ***MSCP and trails--the two are not mutually exclusive.***
>
> *Brian Albright, Assistant Director*
> *County of San Diego*
> *Department of Parks and Recreation*

It is the intent of the County, through the development of a County Trails Program, that trail planning, design and implementation should take advantage of the opportunities to strategically incorporate trails on public property. Most public land ownerships have public use or access policies allowing implementation of trail connections to their existing trails. The County will make a concerted effort to coordinate with other public agencies on future trail locations and to interconnect with planned trails and facilities.

Providing trail connections to these existing facilities would benefit any trail system. The inclusion of trails into the MSCP preserve areas should provide significant connections to cultural and natural resources thereby enhancing the public's need and desire for outdoor experiences accessible by a countywide trails system.

The County invites you to participate in the events scheduled for summer 2003. View the Events Calendar at www.mscp-sandiego.org.

CITY OF SAN DIEGO VERNAL POOL INVENTORY

By Betsy Miller, Melanie Johnson and Keith Greer

Vernal pool ecosystems of San Diego are islands of beauty and diversity. Generally found on the remaining undeveloped mesas, vernal pool plant and animal species persist throughout the dry, summer months as drought-resistant seeds and cysts. Following the winter rains, freshwater crustaceans such as fairy shrimp emerge, while wetland plants germinate as water evaporates from the pools. The endangered San Diego button celery grows at the pool's edge while San Diego mesa mint follows the water line towards the center of the pool until it covers the dry basin in a fragrant carpet. Small brownish tadpoles, representing the new generation of Pacific treefrogs, instinctively dart away from any shadows that cross the water surface. And later in the season, downingia encircles the pools with their famous blue and white faces.

The biota of vernal pools is a fascinating mix of species adapted to a highly dynamic ecosystem. To persist within the vernal pool environment, species must endure alternating seasons of winter inundation and summer desiccation. This amphibious existence has resulted in a high level of specialization and endemism in vernal pool plants and animals. Unfortunately, it is estimated that only 5% of historic vernal pools currently exist in San Diego County.

Because of their importance, the City of San Diego has undertaken a comprehensive inventory of vernal pools within its jurisdiction. In the fall of 2002, MSCP staff began researching and compiling information from existing vernal surveys. Information such as size and number of previously mapped pools at each site, as well as the presence of sensitive plants and animals, were used to assess the condition of vernal

pool complex – grouping of pools. With the onset of the winter rains, staff checked accessible sites at two-week intervals. At the maximum inundation level, the boundary of each vernal pool basin was recorded using a global positioning system (GPS) and added to a geographic information system (GIS), which links the spatially-defined pool basin with the specific biological information for each pool. In addition to this information, a biological consultant is compiling a comprehensive list of plant species at each vernal pool complex.

In conjunction with the current inventory, Drs. Andrew Bohonak of San Diego State University and Marie Simovich of the University of San Diego are examining the genetic variation of fairy shrimp throughout the City of San Diego. This study of genetic markers will be used to estimate current population parameters such as population size and breeding structure, improve understanding of species evolution, and calculate the genetic diversity within a population or genetic divergence between populations. Their research will also help us to develop and prioritize conservation strategies for these endangered invertebrates. In addition, the City is collaborating with the U. S. Geological Survey to research native amphibians and their use of vernal pool ecosystems.

Finally, the City is exploring remote sensing technology as a useful and cost-effective option for mapping and monitoring vernal pools. Through collaboration with the San Diego State University Department of Geography, digital imagery of key vernal pool preserves within the City has been obtained, and a graduate thesis is exploring the best techniques for mapping vernal pools from this data.

Vernal pools are important ecosystems; therefore, the City of San Diego will use the research that it has gathered to form the basis for an updated vernal pool management plan. For further information, please contact Holly Cheong at (619) 533-6301.

STUDENTS GET A LESSON IN URBAN PLANNING

Adopting an interdisciplinary, project-based approach, the goal of the County's Urban Planning Exercise is to educate high school students about how government, environmental science and private interests interact with respect to the preservation of biodiversity through the County's Parks and Open Space Program.

The Urban Planning Exercise was created with California Teaching Standards in mind incorporating life sciences, biology, English and history. Students are involved in a role-playing exercise representing different interests in a plot of land that is proposed for development. They are divided into five main groups: Developer, Local Government, Wildlife Agencies, Environmental and Community. Each group has its own motives and responsibilities and must carry out several activities in preparation for a mock Board of Supervisors meeting on the final day. Three class periods (approximately one hour each) are needed for this project.

The developers work hard to create a new development map.

The Developer group is responsible for drawing a new map that satisfies all of the other parties involved while maintaining a profit. The Local Government group puts together a set of County Ordinances that the public is required to follow when creating development plans. The Wildlife Agencies review and research the habitat requirements of the threatened and endangered species located on the property and use the information they find to define the "critical habitat" for these species. The Environmental group determines what laws protect these species and develop strategies, such as protests, rallies and letter-writing campaigns, to educate and develop awareness within the community. The Community group consists of concerned citizens that decide what developments they would like in their community as well as what problems need to be addressed by the local government.

Day One consists of introductions and an overview of the project. Each group is given a copy of an original development map, which the County has previously rejected. They must then work together to come up with an alternative map for approval by the Board of Supervisors. Students are given the opportunity to study the map and project, brainstorm changes and research their group's concerns.

Day Two involves all of the planning and negotiation. Groups must complete assigned tasks, and a new map must be ready for approval.

Brad Rubottom looks on as his students debate over the fate of the land.

A mock Board of Supervisors hearing is set up on the last day culminating all of the hard work that the students put into creating a new development plan. Each group is given the opportunity to present their position on the development as well as provide any evidence for either approval or denial of the project. The Board of Supervisors consists of teachers and County staff who vote on the plan and give their final decision. The project concludes with a discussion about the considerations that need to be taken when working on a large scale. They are also introduced to an alternative approach, the MSCP, in which all five groups work together to create large-scale conservation areas in the County while maintaining development.

The County held a pilot program at El Camino High School from May 27 - 29, 2003 with two of Brad Rubottom's Environmental Science classes. The students were given a challenge and stepped up to the plate working hard to accomplish their tasks. Both Rubottom and County staff were impressed by the students' creativity and investment in the project. There was plenty of healthy debate over the fate of the land, and each group put up a fight to have their voices heard.

Mr. Rubottom has invited the County back into his classroom next year. The County is currently looking for interested teachers in hopes of reaching more students. The Exercise will be tweaked to provide a more streamlined activity that will be simple for teachers to use and valuable for student learning. For more information about the County's NEW Urban Planning Exercise, please contact Jeremy Buegge at jeremy.buegge@sdcounty.ca.gov or (858) 694-3719.

ELEGANT TERN

The Elegant tern, *Sterna elegans*, is a medium-sized bird with several distinguishing features, including a spiky crest at the rear of its head and a fairly long, deeply-forked tail. In the summer, the bird can be seen with a black cap and a long crest that extends from the top of the bill to the back of the head. In the winter, the plumage on the head changes. Its forehead becomes white, its crown gray, and its black nape extends forward to the eyes.

The Elegant tern can be seen only on the coast frequenting estuaries and beaches in California during the summer and fall. They eat primarily small fish, which they catch by diving from the air.

Elegant terns breed on islands in the Gulf of California, along the west coast of Baja California, and near San Diego. Females only produce one egg at a time, which they place in sandy depressions on the beach. These eggs are vulnerable both to predators that eat them, such as gulls and coyotes, and to human impact on coastal habitat.

The Elegant tern has a remarkably restricted distribution. Only five recently active colonies are known: Isla Rasa in the Gulf of California, Isla Montague in the Colorado Delta, San Diego Bay, Bolsa Chica in Orange County and Los Angeles Harbor. The last is a new colony founded in 1998 probably by birds relocating from San Diego Bay and/or Bolsa Chica.

The Elegant tern provides character and aesthetic beauty to California's beaches and coasts. Therefore, every effort must be made to ensure that they continue to thrive. The County is doing its part to protect the species by incorporating the Elegant tern into its MSCP Plan.

WATERSHED PLANNING

A watershed is defined as an area of land that drains to a common receiving body or outlet. Whether we are located in the mountains or near the beaches, everyone lives and works in a watershed, and everything we do impacts it. As a result, natural resources found within watersheds, such as lakes and wetlands, are becoming more stressed due to increased and competing land uses and continued degradation from pollution.

In response to this, jurisdictions, community groups, environmental groups and other stakeholders are becoming more and more involved in the protection of these resources through watershed management efforts. Because issues such as water quality, ground water recharge, wetland conservation and habitat preservation do not necessarily follow jurisdictional boundaries, cities and counties are working together to develop plans to protect the beneficial uses found in our watersheds.

In an effort to lead the charge in watershed management, the Department of Planning and Land Use recently developed the Watershed Planning Program (WPP). The WPP currently has the responsibility of developing and implementing two major projects: the Watershed Urban Runoff Management Program (WURMP) and the Watershed Management Plan Program.

Watershed Urban Runoff Management Program

In 2001, the Regional Water Quality Control Board (RWQCB) issued the Municipal Stormwater Permit, which requires that the jurisdictions develop WURMPs to address plans and strategies to improve and protect surface water quality for their respective watersheds. The County of San Diego has land-use authority in eight of the nine watersheds that are

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MEXICAN FLANNEL BUSH -- *FREMONTODENDRON MEXICANUM*

Mexican flannel bush is an extremely rare species in the wild. It is only known to naturally occur in one large canyon on the north slope of Otay Mountain in southern San Diego County and in one or two canyons in northern Baja California. In the wild, a total of only a few dozen individuals may exist. For this reason, Mexican flannel bush has been designated by the U.S. Fish and Wildlife Service as an endangered species. This plant can grow to tree size, more than 20 feet tall. When in full flower, the large, two to three inch yellow flowers are quite distinctive considering that it grows in the midst of chaparral and oak woodland habitat. However, because of its showy flowers and attractive nature, cultivars or selected nursery material from this species, have been widely grown throughout California. In fact, there are many more individuals of this species planted in gardens than remain in nature.

Mexican flannel bush is another example of the unique and unusual flora that exists in San Diego County. At the time of adoption, there was not enough information to provide coverage under the MSCP, however, subsequent studies have shown that populations are limited to the Otay Ranch and Bureau of Land Management Preserves.

Photo credits: Charles Webber © California Academy of Sciences (left); Thomas A. Oberbauer (right)

MSCP GIVES STUDENTS VALUABLE WORK EXPERIENCE

Christine Chau has been an employee with the MSCP since her sophomore year in college. This June, she will graduate from the University of California, San Diego with a degree in Environmental Systems (Environmental Policy) with an emphasis in Conservation Biology. Her main responsibilities during the past two years have been public outreach and environmental education. She is the editor of and the driving force behind MSCP News. She is also a member of the MSCP Outreach Committee. Christine says her proudest accomplishment was providing high school students with the opportunity to make a difference in their communities by allowing them to beautify natural reserves in their local neighborhoods. After graduating from college, Christine plans to pursue a degree in law.

Cause Hanna began working for the County in January 2003. He says that working for the MSCP has both expanded and secured his career and life aspirations. Cause will also graduate this June from UCSD with a degree in Biology (Ecology, Behavior, and Evolution) and a minor in Education. After graduating he plans to spend an additional year at UCSD to earn both a Masters Degree in Education and a California Teaching Credential. The enhanced understanding of urban planning and environmental education that he has gained has also inspired him to further advance his education in either conservation biology or environmental studies. With the knowledge and skills that he acquires, Cause plans to continue pursuing projects promoting biodiversity.

identified in the permit. To date, the WPP has prepared and submitted WURMPs for the following watersheds: Santa Margarita, Carlsbad, San Luis Rey, San Dieguito, Penasquitos, San Diego River, San Diego Bay and Tijuana River. In addition, the WPP is in the process of working with other County departments, jurisdictions and individual stakeholders on the implementation of the activities listed in the WURMPs.

Watershed Management Plan Program

As part of efforts pursued under the Costa-Machado Water Act of 2000 (Proposition 13) for watershed planning and other water quality projects, the County of San Diego was given the responsibility of developing comprehensive watershed management plans for the Santa Margarita, San Diego River, Otay and Tijuana River watersheds. The plan components include developing a watershed management workgroup, stakeholder database, watershed resources inventory, watershed analysis and management goals, strategies and activities. Most of the plans have had their first kick-off meeting and are currently in the process of identifying and collecting data.

The WPP is also assisting other jurisdictions and stakeholders to develop and implement management plans in other watersheds.

For more information about watershed management efforts in the County, please contact Jeff Murphy at (858) 694-3691.

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