the Owens Valley Committee

the RAINSHADOW

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w e w a t c h t h e w a t e r

The Rainshadow is the newsletter of the Owens Valley Committee. OVC is a 501(c)(3) non-profit citizen's action group dedicated to the protection, restoration and sustainable management of water and land resources affecting the Owens Valley.

In this issue

Please Check the Date on Your Mailing Label

The Owens Valley Committee needs your help!

The date on your mailing label is when you last made a donation to the OVC. If this date is less recent than Sept. 2008, please use the enclosed envelope to renew your membership now. If you haven't joined the OVC (no mailing label or no date), now would be a good time!

No envelope? Our address appears on the back of the newsletter along with suggested levels of donation.

Donations are fully tax-deductible.

When Green Power Turns Brown

Coso Geothermal's Rose Valley Water Grab

Daniel Pritchett and Sally Manning, Ph.D.

Photo: Chuck Brill

WHO CARES? These agencies don't seem to matter. If Coso Geothermal is allowed to carry out its plan at Little Lake and surrounding Rose Valley, a good thing will have gone bad.

GEOTHERMAL ENERGY PRODUCES NO GREENHOUSE GASES. Expanding geothermal energy production will allow older, CO_2-emitting power plants to be phased out. So why are both the Bristlecone Chapter of the California Native Plant Society and the Owens Valley Committee opposing a project that will help energy production at the Coso Geothermal Plant?

The Project

Coso has applied for a permit to pump and export about 4800 acre feet/year of water for 30 years from a ranch it bought in Rose Valley. The water will be exported to Coso's existing geothermal plant in the Coso Mountains. Coso has claimed at different times that the water will 1) stabilize production currently declining because of Coso's depletion of its existing water supply and 2) restore production to original levels. According to the project's Environmental Impact Report (EIR) the 4800 acre feet of proposed pumping is roughly equal to Rose Valley's entire annual groundwater recharge. This makes Coso's proposed pumping proportionally far greater than the groundwater pumping by the Los Angeles Department of Water and Power (LADWP) in the Owens Valley watershed.

The Public Policy Question

A great deal of the water currently used at the Coso power plant is lost through evaporative cooling. There is evidence, however, that it may be technically and financially possible for Coso to redesign its cooling system to prevent water loss

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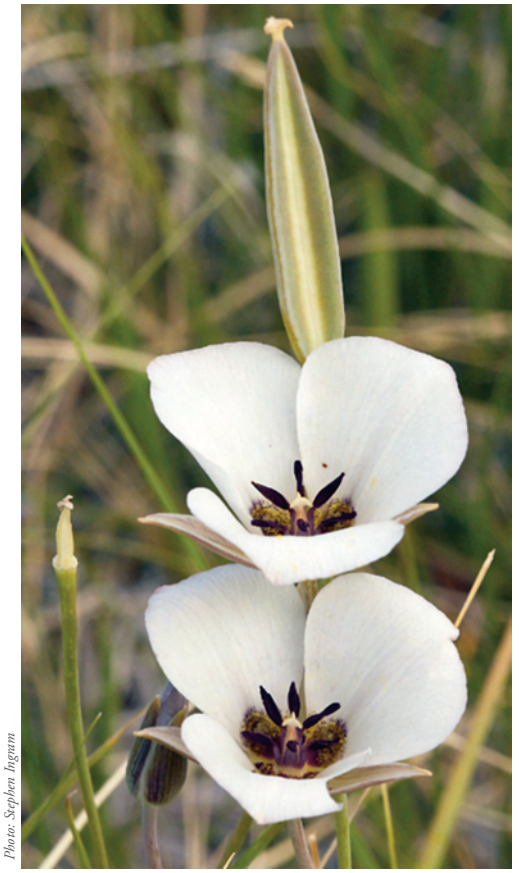

Photo: Stephen Ingram

Inyo Star Tulip (*calochortus excavatus*). Small remnants of former populations are threatened by groundwater pumping.

the RAIN*SHADOW*

BIANNUAL REPORT OF THE
OWENS VALLEY COMMITTEE

The Biannual report edition of *The Rainshadow* is produced in the Spring and Fall of each year. Send suggestions and corrections to the editor.

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President's Message

In 2008 the OVC celebrated 25 years of activity in the Owens Valley. We are proud of our accomplishments achieved through our mission of "watching the water" and as an *amicus curiae* for the Courts. Our unique position as a grass-roots organization with legal standing at the State level has allowed us to use Court action to assure implementation of legal responsibilities for the environment. The OVC continues this season with a combination of collaboration and litigation, which is the way that we have successfully made a lot of gains in Owens Valley water issues over the past several years.

The OVC is actively involved in several legal issues in pursuit of seeing Los Angeles Department of Water and Power (LADWP) comply with commitments they made in a 1997 Memorandum of Understanding (MOU) with Inyo County, OVC, Sierra Club, State Lands Commission, and the California Department of Fish and Game. These issues are the development of Yellow-billed Cuckoo habitat enhancement plans at Baker Creek and Hogback Creek, development of mitigation projects to use 1600 acre-feet of water per year for mitigation of groundwater pumping impacts to Owens Valley springs, and the lack of compliance with the MOU in the development of the required Lower Owens River Project (LORP) Ecosystem Management Plan.

First, the good news. Since the spring of 2006 the MOU parties and the affected ranchers have been working together to revise the Baker Creek Yellow-billed Cuckoo habitat enhancement plan to make it acceptable to all. These plans should provide significant improvements to the riparian forest habitats at both locations. We continue to meet and have made significant progress since our last newsletter. We hope to complete the plan in the next few months.

The last legal issue, however, remains contentious and difficult. OVC and Sierra Club originally filed a lawsuit in January 2005 over the failure of the draft LORP Ecosystem Management Plan to comply with the MOU. As there was no agreement on the issues, OVC and Sierra Club found it necessary to file a new law suit in Inyo County Superior Court in September 2008 to require compliance with the terms of the LORP as regards the development of acceptable management plans.

Finally, the OVC has been attending monthly meetings of a diverse group that is establishing an Inyo-Mono regional entity that would develop an Integrated Regional Water Management Plan (IRWMP) to meet the water needs of the people and watersheds of the Inyo and Mono County region now and into the future. This process provides a great opportunity for OVC to participate with a wide variety of other stakeholders in developing plans to protect our water resources.

The OVC is also pursuing its concerns about the effects of groundwater pumping. The provisions that have guided the management of groundwater pumping on LADWP lands in the Owens Valley for about 20 years are being revised. The new terms under which groundwater pumping will be conducted are of great concern to us all, as the data collected by Inyo County Water Department indicate that substantial vegetation damage has occurred under the previous provisions.

The OVC finds that its historic method of relying principally on litigation to achieve its goals may be only partially successful in responding to the challenges of the future. We have been very satisfied and encouraged with the successes of our facilitation role in the *ad hoc* process and in the development of the IRWMP, and see our future role regarding groundwater management and water storage to be primarily facilitators and collaborators. The LORP issues and concerns about implementation of the groundwater pumping agreements may require ongoing litigation. We are committed to both methods, as appropriate to the specific issue and its history.

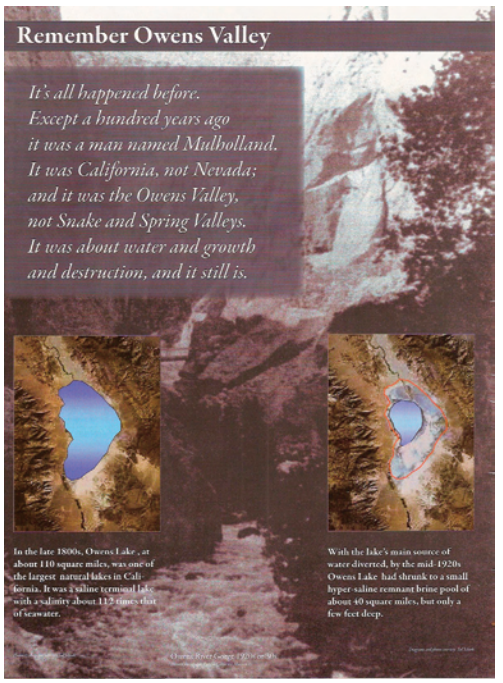
Finally, an OVC workshop attended by Board members and OVC activists discussed seeking funding for an Executive Director position. We believe that having paid staff will assist us in meeting our goals more effectively. Stay tuned for further progress on this important initiative.

Carla Scheidlinger
President
Owens Valley Committee

Another Owens Valley

John Walton, Ph.D.

"This will be another Owens Valley!" The outcry recurs whenever communities in the Western United States are threatened by metropolitan water grabs. As warning and rallying call, "Remember the Owens Valley!" evokes the now-famous environmental struggle and strategy of resistance to the expropriation of local water resources and the destruction of water-dependent ecosystems in the interests of far-flung designs for urban expansion.



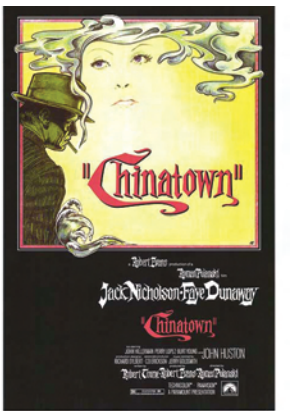
A 2006 publication of the Progressive Leadership Alliance of Nevada warns that Las Vegas's plans to export water from rural counties of Eastern Nevada promise another Owens Valley by destroying local ranching communities and the natural habitat.

In 1905, as the City of Los Angeles began acquiring water rights in the Owens Valley under the cover of a U.S. Reclamation Service project, local townspeople and farmers protested in rallies and petition drives. Defeated when Teddy Roosevelt sanctioned building the city's aqueduct, citizens mounted a spirited rebellion in the 1920's as drought and groundwater pumping for export dried up the sources of local livelihood. In the unfolding water war Owens Valley residents pursued a two-fold strategy: negotiate with the city for a share of the water and, when rebuffed, resist in forceful action. Citizens formed their own irrigation district as a public body to confront the city. When all else failed, in November 1924 they attacked pipelines with bombs and famously occupied the aqueduct's Alabama Gates, dumping its water on the dry valley floor. This history was turned to legend in a series of muckraking exposés, novels, and films, including the celebrated Chinatown, which transformed political events into a tale of mystery, incest, conspiracy, and futility.

Real progress, however, came only in the 1970's when Inyo County and the Owens Valley Committee began a series of legal actions. Lawsuits under the new National Environmental Protection Act (NEPA) and California Environmental Quality Act (CEQA) finally provided the leverage to hold the Los Angeles Department of Water and Power (LADWP) accountable for environmental depredations and to compel LADWP to begin mitigation. Those efforts continue today with important victories that restore stream flows to sixty-two miles of the lower Owens River and the delta ecosystem at Owens Lake. These days, "Remember the Owens Valley" can refer to both the environmental dangers of exporting the water supply of small rural communities for urban development and the strategies developed in one community to resist their own ruin.

Initially, the political fallout of the Owens Valley water war was registered statewide in the 1931 County of Origin law, which prohibited inter-basin water transfers that desiccate one region for the development of another. The legend has continued to spread. In the western Sierra foothills a Committee to Save the Mokelumne [River] organized in opposition to the East Bay Municipal Utility District: "This county can't let itself be turned into a 21st-century Owens Valley so residents of the East Bay can wash their cars in pure mountain water." (*Sacramento Bee*, May 29, 1990)

Honey Lake Valley in northeastern California is threatened by the sprawling development of Reno. A battle began in the 1990's to prevent pumping the aquifer that runs from Honey Lake twenty miles east to Fish Springs Ranch on the Nevada side of the state line. At the outset



By far the most influential account of the Los Angeles-Owens Valley conflict is the 1974 Roman Polanski film *Chinatown*. Although fictionalized in many ways, *Chinatown* nevertheless told a resonant story of powerful city interests that crushed any opposition.

the press reported "natives, fearing that history may repeat, have begun to fight…We all know what happened in the Owens Valley. The fear is here." (*Sacramento Bee*, January 22, 1990) Fish Springs Ranch was purchased by the Vilder Water Company of San Francisco, which maintained that their groundwater pumping would not affect the aquifer in California. Lassen County (CA) disagreed but lost the argument when the Bureau of Land Management produced an Environmental Impact Statement supporting the ranch-to-Reno pipeline and sale of water for development. (*Lassen County News*, July 29, 2008)

Sometimes local and environmental groups prevail. The San Luis Valley in south-central Colorado and portions of northern New Mexico is a vast area (8,193 square miles, the size of New Jersey) with a rich history of Indian and Hispanic settlement. The Homestead Act of 1862 brought an immigrant population of European-ancestry farmers and ranchers, many of them Mormons. Canal companies modeled on the Hispanic *acequias*

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NPS photo

Great Sand Dunes National Park in the San Luis Valley of southern Colorado was established through the efforts of a citizens' environmental movement founded on the protection of regional water resources and inspired by the Owens Valley experience.

When Green Power Turns Brown

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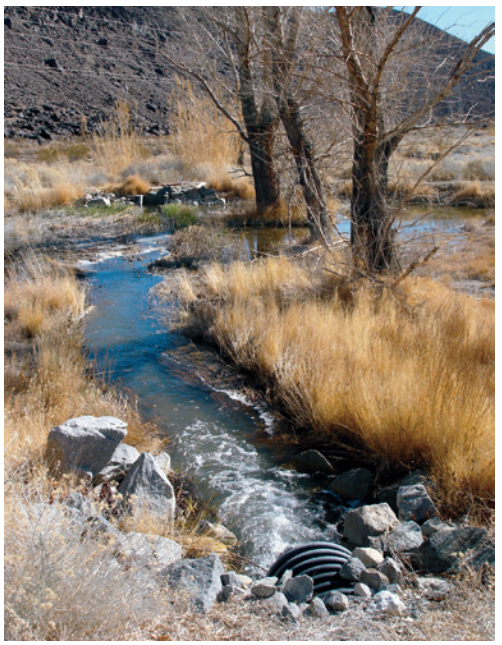

Photo: Chuck Brill

Little Lake ponds in January

and preclude the need for a new water supply. Coso asserts it is infeasible to do this because of the expense and the fact that alternative cooling systems would consume some of the power produced by the plant, leaving less available to sell for profit.

Feasibility is a relative term. So long as Coso can acquire new water supplies for nothing more than the price of the pipeline, investing in a new cooling system will appear infeasible. By allowing acquisition of Rose Valley water, Inyo County gives Coso a disincentive to invest in the long-term sustainability that would be provided by a new, closed cooling system. Coso's proposal is thus a classic example of externalizing costs to the environment. Coso avoids the cost of redesigning its cooling system at the expense of Rose Valley surface and groundwater-dependent ecosystems such as Little Lake.

By granting permission to acquire yet another water source, Inyo County becomes an enabler of Coso's addiction to water. Project opponents, in effect, argue for "tough love." We suggest both Coso's and Inyo County's true interests are in sustainability. The single most effective incentive for Coso to invest in sustainability would be for Inyo to deny the requested permit.

Photo: Steven McLaughlin

Portion of Little Lake and adjacent wetland vegetation

Problems with the EIR

The analysis of potential impacts to biological resources at Little Lake fails all tests for adequacy. This is because project proponents made no serious attempt to actually inventory the species and characterize the habitats and ecosystems. Without such data, predictions of no significant impacts are wishful thinking. The EIR's entire biological assessment is based on data from a two-day "reconnaissance" conducted in December 2007. Reconnaissance, by definition, represents a preliminary, superficial survey. The reconnaissance data fail to identify many plants to species, and the vegetation maps are too crude to be useful. As for wildlife surveys at Little Lake, none were conducted.

The EIR's determination that a 10% flow reduction would not create a significant impact to Little Lake ecosystems raises an obvious question: Why 10%? The only explanation offered for the 10% threshold is the assertion "This groundwater flow rate reduction… of 10% has been set such that the observed variation in flow rates at Little Lake would remain largely within the natural envelope already experienced on the property." A 9% reduction or an 11% reduction or virtually any reduction up to 50% would also meet this criterion; so it is hard to see the choice of 10% as anything other than an arbitrary, political decision. Given the superficiality of the survey of Little Lake, the 10% threshold certainly wasn't based on biological data.

The arbitrariness of the 10% threshold is only part of the problem. Far more serious is the unstated assumption of proportionality. That is, the assumption that because input flows would "remain largely within the natural envelope already experienced," significant impacts to ecosystems will not occur. The EIR presents no data to support this assumption, and the ecological naiveté behind it is breathtaking. This is an assumption that ecosystem responses to changes in inputs are predictably linear and that a 10% ("hydrologically insignificant") flow reduction must have a proportionately "insignificant" effect on ecosystems.

Unfortunately, there are plenty of data in the literature of biology and ecology documenting non-linear, disproportionate responses to "insignificant" changes in ecosystem inputs. A timely example is ongoing global warming. On any given day most temperatures in most parts of the world remain "largely within the natural envelope already experienced," and the increase in average temperature is less than 10%. Nonetheless, polar icecaps are melting rapidly, islands are disappearing as sea level rises, and plant and animal distributions are changing. Project proponents based their entire impact analysis regarding Little Lake on a simplistic assumption of proportionate response to flow reductions. They should at least state this assumption explicitly and provide data showing why it is justified for the particular ecosystems at Little Lake.

Photo: Chuck Brill

Apricot Mallow and a section of Little Lake

Even the assertion that water flows (given a 10% flow reduction) would remain "largely within the natural envelope already experienced" is premature. This is because project proponents cite only seven depth-to-water measurements at Little Lake taken during a short 15-month period to try to define the "natural envelope." These data show a typical within-year cycle of seasonal water table decline and recovery. They do not, however, show between-year measurements of variation. A few measurements during a single annual cycle are not adequate to derive relevant statistics for defining a "natural envelope of variation."

LADWP, the Bristlecone Chapter of CNPS, the Owens Valley Committee, and owners of Little Lake Ranch all agree on the inadequacy of the EIR. There could hardly be a better indication of the seriousness of its deficiencies.

Problems with the Hydrologic Monitoring and Mitigation Plan (HMMP)

The EIR states that the project could cause significant impacts to Little Lake and its adjoining groundwater-dependent ecosystems. A hydrologic monitoring and mitigation plan (HMMP) is, therefore, included, which will supposedly prevent impacts from crossing the threshold of significance, which is set at a 10% reduction in flow to Little Lake. The HMMP calls for water table drawdown "triggers." When drawdowns in at least two monitoring wells reach the trigger points, it will indicate that pumping should cease in order to prevent Little Lake flow decreases from exceeding 10%.

The mitigation plan, however, is fatally flawed for a variety of reasons. One is that the plan doesn't actually require pumping to cease when drawdown triggers are reached. It explicitly states that exceeding drawdown triggers is a potential "cause for action" by Inyo County, but nothing in the plan actually states that Inyo will, in fact, take the

action and turn off the pumps. Instead, the decision to turn off pumps is left to the discretion of the Inyo County Water Department (ICWD). ICWD's acquiescence to violations by LADWP of its own 2008-2009 annual pumping program as well as ICWD's failure to act when drawdown triggers were reached in tests of wells 380 and 381 in Owens Valley are a few of many examples that call into question ICWD's power or ability to turn off pumps when necessary.

The HMMP doesn't unambiguously require that pumping cease when triggers are reached because the HMMP is, in fact, more research proposal than mitigation plan. The stated HMMP goals say nothing about ensuring predicted impacts are mitigated to be less than significant. Instead, the four goals all pertain to hydrologic research. Indeed, because this research is designed to answer questions necessary to design an actual mitigation program, this research should have been conducted before the EIR was written. The HMMP is thus complicated, confusing, long on conditionals ("would" and "should"), and short on the imperatives ("will" and "must") necessary for an effective mitigation plan.

The underlying problem in both the HMMP and EIR is the failure to acquire adequate baseline data. Because data adequate to characterize Little Lake ecosystems were not obtained, the impact analysis hangs on an unstated, unsupported assumption of proportionate ecosystem response to an arbitrary reduction in flows. Because data adequate to build a credible hydrologic model were not obtained, the HMMP was hijacked and turned into a hydrologic research proposal. By seeking a permit with an EIR lacking essential data, Coso undermines the process of environmental review.

The permitting process

Because the project involves exporting water from one basin (Rose Valley) to another, it falls under Inyo County's groundwater ordinance, which requires project proponents to obtain a Conditional Use Permit. Although the Inyo County Water Commission voted 3-2 against the proposal, this vote was non-binding. The Inyo County Planning Commission heard nine hours of testimony and then voted, without deliberation, 5-0 to issue the permit. Opponents appealed to Inyo County Supervisors, who held a 15-hour hearing and finally voted 4-1 to grant the permit. The only recourse for project opponents now appears to be litigation.

Photo: Steven McLaughlin

Portion of the rare, large alkali meadow below the south end of Little Lake. Inyo County consultants showed an aerial photo of this meadow and erroneously called it "upland sagebrush or bitterbrush scrub vegetation."

Photo: Chuck Brill

Work party at Little Lake

A noteworthy aspect of the permitting process was project proponents' attempts to circumvent CEQA by having consultants give oral testimony introducing data not included in the EIR. This was a tacit admission of the serious deficiencies of the EIR and served to prevent public scrutiny of data and analyses. It effectively rendered the EIR itself pointless. Project proponents introduced new data at both the Planning Commission and County Supervisors' hearings.

One example captures the "kangaroo court" spirit of the permit hearings particularly well. After we had publicized the failure of the EIR to include adequate data to characterize the biologic resources at Little Lake, project proponents hired a "certified professional wetlands scientist" who went to the site in late winter 2009. He stood outside the property line and looked in over the fence and subsequently testified before both the Planning Commission and County Supervisors. His testimony included speculation on what species and biotic communities might occur on the property. In presenting photos, he pointed to patches of vegetation and misidentified them. He noted species and communities that not only don't occur, but also wouldn't even be expected to occur on the property by anyone familiar with regional vegetation. The "certified scientist" also showed slides with cartoon diagrams, based on imaginary data, purporting to show why flow reductions will cause no significant impacts. Apparently, some people think this passes for data collection and analysis in Inyo County.

"Standing outside the fence in winter looking in" describes not only the research protocol of Coso's "certified professional wetlands scientist" but also, unfortunately, the feelings of some of us who advocate for rational water management in Inyo County. We've attempted to explain some of the most serious issues and problems posed by the Coso project, but even if we devoted this entire issue of the OVC newsletter to this one topic, the number and diversity of the problems would exceed what could be covered.

For more information please visit www.ovcweb.org/issues/coso.html. To help Little Lake Ranch continue to fight this project contact Gary Arnold, garnold@atozlaw.com or (805) 988-9886.

Another Owens Valley

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supported irrigated agriculture while simultaneously creating a social infrastructure of cooperating groups—very much like the Owens Valley ditch companies. San Luis Valley also contains the Great Sand Dunes, a unique natural formation that became a national monument and later a national park. The sand dunes are stabilized by the valley's aquifer, and geologists believe excessive pumping would destroy the dunes held in place by underlying groundwater.

In the mid-1980's, American Water Development, Inc. (AWDI) bought a large ranch in the valley and laid claim to 200,000 acre-feet of groundwater. Their plan was to send San Luis Valley water to the rapidly developing Front Range cities of Denver, Pueblo, and Colorado Springs. Citizens for San Luis Valley Water (CSLVW) organized at the grassroots and pursued an energetic campaign of publicity, legislative lobbying, lawsuits, and environmental awareness. Owens Valley provided them a model. As one observer reported, "CSLVW took full advantage of the parallel, arranging for current residents of the Owens Valley to come to the San Luis Valley and recount their valley's fate." CSLVW successfully challenged the water-rights claim of AWDI, which in turn sold out to a San Francisco investment firm that adopted the name Stockman's Water Co. for the Colorado operation. The fundamental purpose remained water export and sale to Front Range cities, but the new company presented itself as an environmentally friendly promoter of a "preserve" and wildlife reservation. In response, the opposition reorganized as Citizens for Colorado's Water with statewide support. The citizens' movement won a permanent victory when The Nature Conservancy purchased the ranch and water rights and, with the help of Colorado senators and Interior Secretary Bruce Babbitt, donated the property to the newly designated Great Sand Dunes National Park.

Strictly speaking, there is no other Owens Valley. Each region and water export scheme has its own time, place, and conditions. The parallels are not perfect and any credit for recent efforts to defend local water resources belongs more to citizen initiatives than to historical models. Yet the Owens Valley experience remains a powerful symbol and practical guide to environmental action—a model for those needing encouragement. The legend grows because it teaches and inspires.

[*This is the first of a two-part article. The next installment in our December issue will pursue the theme "Another Owens Valley" by drawing on contemporary cases in Northern California and Eastern Nevada.*]

John Walton, Ph.D., is a research professor in sociology at UC Davis and the author of Western Times and Water Wars (University of California Press), the definitive story of Owens Valley and the struggle with the City of Los Angeles.

Do We Take the Owens Valley Vegetation for Granted?

Alkali Meadows – Part 1

Sally Manning, Ph.D. (Dr. Manning recently retired from a long tenure as Inyo County Water Department Research Scientist – Vegetation.)

Photo: Stephen Ingram

An alkali meadow in Owens Valley

One of the best parts of my job as Inyo County's Vegetation Scientist was rare plant monitoring. Each spring I visited unpumped alkali meadow sites in search of two species in particular. Discovering the flowers among the dense grasses, listening to the birds singing and the insects buzzing, watching the cattle loitering nearby, smelling the earth and air, looking up at the magnificent mountains as an occasional white cloud drifted past… I chuckled at the thought of getting paid to do this! Within days, however, I'd be out surveying the pumped wellfields. There, we stomped through thickets of dead and decadent shrubs, while plumes of dust ascended our pant legs. We dodged tumbleweeds as branches ripped our clothes and skin, the soles of our feet burned as heat from the bare soil penetrated our boots, and it typically was deathly quiet. No chuckling here; seeing the devastation overpumping had wrought upon these former meadows and knowing the data we collected could not adequately communicate the appalling sights left me on the verge of tears.

Alkali meadow is a major vegetation type in Owens Valley. The first white visitors to Owens Valley commented on vast alkali meadows, spanning the valley floor as far as the eye could see (Wilke and Lawton 1976). Federal surveyors led by A. W. von Schmidt, 1855-56, noted the prevalence of grass across the valley floor. Even 75 years after completion of the LA Aqueduct, meadows were common throughout Owens Valley. In the 1980's Los Angeles Department of Water and Power (LADWP) biologists mapped at least 70,000 acres of valley floor as dominated by California native grasses, supported by Owens Valley's naturally shallow groundwater.

LADWP used a plant community classification scheme devised by Dr. R.F. Holland in conjunction with the California Department of Fish and Game (Holland 1986). Dr. Holland used plant species as well as other features of the landscape, such as soils or geographic location, to categorize California's diverse vegetation. Recently, there has been a trend toward plant community classifications that are purely floristic; that is, they are grouped only according to dominant species. Because the Inyo-LA Water Agreement's vegetation classification was not purely floristic, I typically refer to alkali meadow as a "habitat," for the reasons elaborated on in this article.

Figure 1. **Dark shading shows extent of alkali meadow in California according to data assembled during the Gap Analysis Project by Davis, et al. (1998).**

Alkali meadow is a biodiverse habitat that sustains common as well as rare species. Owens Valley alkali meadow is dominated by one or both native perennial grass species: saltgrass (*Distichlis spicata*) and alkali sacaton (*Sporobolus airoides*; nomenclature follows Hickman 1993). Both are hardy species, with roots growing to approximately 2 meters. Other common graminoids in alkali meadow include *Leymus triticoides*, *Juncus balticus*, *Muhlenbergia asperifolia*, *Leymus cinereus*, and, to a lesser extent, *Spartina gracilis*. In healthy meadow, irises, lilies, and broad-leaved herbaceous plants intermingle with the grasses. Frequently encountered species include: *Anemopsis californica*, *Glychyrrhiza lepidota*, *Cordylanthus maritimus* ssp. *canescens*, *Malvella leprosa*, *Astragalus lentiginosus*, *Sisyrinchium halophilum*, *Crepis runcinata* ssp. *hallii*, *Sidalcea covillei*, *Calochortus excavatus*, and several species in the genus *Cleomella*. (See Table 1 for a partial list of California sensitive species.) Native shrubs may occur in alkali meadow, including rabbitbrush (*Chrysothammus nauseosus*), Nevada saltbush (*Atriplex lentiformis* ssp. *torreyi*), greasewood (*Sarcobatus vermiculatus*), and sometimes sagebrush (*Artemisia tridentata*). Western Meadowlark (*Sturnella neglecta*), our endemic vole (*Microtus californicus* ssp. *vallicola*), a myriad of insects and spiders, and many other animals occupy and use meadows. Northern Harrier (*Circus cyaneus*) and Red-shouldered Hawk (*Buteo lineatus*) are year-round residents, breeding in Owens Valley and foraging in meadows. Cattle thrive on meadow grass, and ranching has long been a significant part of the regional economy.

Characteristics of Owens Valley alkali meadows were broadly summarized based on LADWP's vegetation data from the 1980's (Manning 1997). Total green-plant ground cover in alkali meadow averaged 38%, but ranged from 5% to 85%, depending on site characteristics and site history. Soils are typically fine-grained, as opposed to rocky or gravelly. Soils vary in alkalinity (content of certain salts and pH), depending on the location, and some are very dark with organic matter. In unpumped meadow, groundwater is within approximately 2 m of the surface. Shrub species account for a higher proportion of cover in meadows with lower water table. In the 1997 analysis, rabbitbrush more commonly co-occurred with saltgrass, while Nevada saltbush co-occurred with alkali sacaton. The summary results suggested that more fine-scale delineations of floristic "associations" in alkali meadow could be identified with further analysis.

PLANTS	STATUS
Owens Valley Checkerbloom (*Sidalcea covillei*)	CNPS List 1B.1, State endangered
Inyo Star Tulip (*Calochortus excavatus*)	CNPS List 1B.1
Hall's Meadow Hawksbeard (*Crepis runcinata* ssp. *hallii*)	CNPS List 2.1
Alkali Cordgrass (*Spartina gracilis*)	CNPS List 4.2
Inyo Phacelia (*Phacelia inyoensis*)	CNPS List 1B.2
Alkali Ivesia (*Ivesia kingii* var. *kingii*)	CNPS List 2.2
ANIMALS	
Northern Harrier (*Circus cyaneus*)	Calif. species of special concern
Owens Valley Vole (*Microtus californicus* ssp. *vallicola*)	Calif. species of special concern

Table 1. **A partial list of sensitive species that occur in association with Owens Valley alkali meadow. For more information, see** http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi **and** www.dfg.ca.gov/biogeodata/cnddb/pdfs/TEPlants.pdf **for plants and** www.dfg.ca.gov/biogeodata/cnddb/pdfs/SPAnimals.pdf **for animals.**

Photo: Larry Blakely

Owens Valley Checkerbloom (*Sidalcea covillei*): endangered.

In contrast to its abundance in Owens Valley, in the rest of California alkali meadow is rare (Sawyer and Keeler-Wolf 1995). Some of the species or close relatives of species that occur in alkali meadows, such as saltgrass, occur in coastal areas where their adaptations to high salinity allow them to grow. Alkali meadow similar to Owens Valley probably was more common in poorly-drained, low-rainfall areas of the state, such as the southern Central Valley. Drainage, water diversions, pumping, and other aspects of conversion to agriculture almost certainly reduced meadows in the Central Valley. Currently, alkali meadow is mostly relegated to internally-draining basins in the state, including the Eastern Sierra and northeastern California. A fairly comprehensive mapping of California's vegetation performed during the Gap Analysis Project (GAP) shows two-thirds of the state's alkali meadow occurring in Owens Valley (Davis, et al. 1998, Figure 1). The GAP map presents one view based on those researchers' goals, objectives and procedures for vegetation mapping. We know, for example, that habitat that would be classified as alkali meadow also occurs in Death Valley, even though it isn't represented on the GAP map. Regionally, within the Great Basin of the western United States, meadows are relatively uncommon in basins and valleys, and they are frequently disturbed by activities ranging from grazing to water diversions (West and Young 2000; Brussard, et al. 1999). Though small in areal extent, these occasional meadows are important biologically because they harbor rare plant species and provide habitat for numerous local and migratory animal species (Deacon, et al. 2007).

Because alkali meadow is so widespread in Owens Valley, we tend to take it for granted. Unfortunately, these and other native habitats, which sustain our biotic heritage and provide largely unquantified ecosystem services, are threatened by groundwater pumping and other water diversions intended to export water to Los Angeles. In a future article, I'll discuss the hydrology of Owens Valley alkali meadow and how dewatering changes the habitat. Understanding how these groundwater-dependent systems work is vital to long-term management of alkali meadow in California. As we struggle to resolve conflicts over the state's limited water supply, it's important that we learn to appropriately manage places we value. Then, our descendants can count the flowers, while the birds sing and the cattle graze.

For the 12 references cited in this article, see www.ovcweb.org/OwensValley/Flora.html.

Hurry Up and Wait

An Update on Legal & Environmental Issues

Mark Bagley, OVC Legal and Policy Liaison

OVC is actively involved in several legal and environmental issues related to local water use and export and to a 1997 MOU. [See President's Message (*PM*) for acronyms & agencies involved.]

Additional Mitigation and Yellow-billed Cuckoo Habitat Enhancement Plans

These plans should provide new riparian and wetland habitats and improved habitat conditions at several sites in the valley. (See *PM*.)

The plans, submitted late by the MOU consultants even after deadline extensions, were unsatisfactory, prompting the MOU parties to work together to develop new plans themselves. Unfortunately, the legal process to get these new plans substituted for what was called for in the MOU is dragging on. We have recently complained to LADWP management about how slow their attorneys are to respond. The plans should have been completed nine years ago.

Once legal issues are resolved, the plans can undergo environmental review and be submitted to the LADWP Board of Commissioners for approval.

LORP MOU-Compliance Lawsuit

Our lawsuit primarily concerns the Lower Owens River Project Ecosystem Management Plan (LORP Plan) and its compliance with the provisions of the 1997 MOU. The monitoring and adaptive management part of the LORP Plan is critical to the success of the project. Management needs to monitor conditions on the ground and adapt accordingly—for example, by adjusting the timing, duration, and volume of seasonal habitat flows—to achieve a healthy riparian environment along the Lower Owens River.

Final court briefs in the case were filed in early June, and a hearing is scheduled for Inyo County Superior Court in Independence on July 29th at 9:30 am. If you are interested in attending, check our website for any changes in this schedule. Court briefs will also be posted.

In the meantime, the LORP is being implemented based on the plan approved in the 2004 LORP EIR and on a 2008 revision of the LORP Plan. However, the County and LADWP have not changed the project description from the 2004 EIR to reflect the revised LORP Plan, even though they are implementing portions of the new Plan. Additionally, the County and LADWP have never finalized the LORP Post-implementation Agreement needed to define cost-sharing and management duties for this joint project. We are very concerned that after ostensibly working on this since 2002, they still do not have an agreement.

Owens Valley Land Management Plan (LMP) & Habitat Conservation Plan (HCP)

The 1997 MOU calls for LADWP to develop an LMP for Los Angeles-owned, non-urban lands in the Owens River watershed in Inyo County (excluding the LORP planning area, which has its own management plan) and an HCP for the LORP. With the agreement of the MOU Parties, the HCP was postponed, and LADWP promised a larger HCP covering all LADWP lands in the Eastern Sierra.

LADWP has been working with U.S. Fish and Wildlife Service and California Fish and Game on the HCP for a couple of years. At a January 2009 meeting LADWP and the two agencies outlined the main points in the plan. We hope they keep to their promised schedule to release this plan in 2009.

The 1997 MOU required that the LMP be completed by June 2007. We are still waiting for their final draft plan, which LADWP said would be released to the public early in 2009. The Plan appears to be stuck in the LADWP environmental affairs group in Los Angeles.

This plan is essential to improve and maintain ecological conditions on City-owned lands, because LADWP's water and land use management is the dominant influence on local ecosystems. We are doing our best to push this process along and get the final draft plan out to the public. We will post an OVC website notice when the plan is released.

Coso Hay Ranch Groundwater Export Project

In May the Inyo County Board of Supervisors approved this project by granting a 30-year lease to the Coso Operating Company, which operates the Coso geothermal electrical power plants, located in the Coso Mountains southwest of Owens Lake and due east of the Coso highway rest stop on Highway 395 in Rose Valley. The County permit would potentially allow Coso to pump 4800 acre-feet of water per year (97% of the estimated annual groundwater recharge) and export it from Rose Valley to the geothermal area in a different groundwater basin. At the approved rate, the County's monitoring and mitigation plan would theoretically shut down the pumps in less than two years.

Unfortunately, there are serious flaws in the monitoring and mitigation plan and in other portions of the project EIR. We attended the Supervisors hearing and submitted comments in support of comments filed by the owners of Little Lake. The potential for serious pumping impacts is at Little Lake. The County's EIR set a threshold for significant impact to Little Lake at 10% reduction in inflow to the lake. This threshold did not take into account many factors at Little Lake and thus sets a very bad precedent.

Little Lake owners are now suing the County for approving a flawed project EIR. The OVC Board has directed our attorney to look into filing a Friend of the Court brief in support of the Little Lake owners.

OVC Mission

OVC is a non-profit citizen action group dedicated to the protection, restoration and sustainable management of water and land resources affecting the Owens Valley. The Committee oversees compliance with the implementation of appropriate water management policy, educates the public, encourages participation in local government, and advocates an inclusive and open decision-making process.

Peter Knapp

OVC Goals

1. "Watchdog" the 1991 LTWA between Inyo County and L.A.
2. Oversee the implementation and management of the Lower Owens River Project (LORP).
3. Educate the public and promote its involvement with water issues.
4. Seek a dual use designation for dust control water at Owens Lake for wildlife as well as dust.

OWENS VALLEY COMMITTEE
PO Box 77
Bishop, CA 93515

YES!

I would love to join the Owens Valley Committee and help with protection, restoration and sustainable management of water and land resources in the Owens Valley.

___ $25	Speckled Dace
___ $50	Tui Chub
___ $100	Owens Pupfish
___ $250	Brook
___ $500	Spring
___ $1000	Aquifer
___ Other	

Name_____

Address_____

_____

Phone_____

E-mail_____

Volunteer Skills_____

_____

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Eastern Sierra Birding Trail Maps & our OVC Membership brochures are available. Email ***outreach@ovcweb.org*** *or call* ***760.876.5807***