NEWS OF THE DESERT FROM SIERRA CLUB CALIFORNIA & NEVADA DESERT COMMITTEE JUNE 2018

DESERT REPORT

BY ALAN O'NEILL

CRESCENT PEAK WIND PROJECT

Potential Disaster to a Protected Landscape

The Crescent Peak Wind Project has been proposed in Nevada just east of the Colorado River. This is one of the worst possible locations imaginable. At full development this project would include up to 248 industrial-scale wind turbines (each the height of the Planet Hollywood Resort in Las Vegas, over 400' tall and potentially up to 700') on 32,500 acres and would extend nearly to twenty-two miles running north/south along the ridgelines adjacent to the California border.

I have spent over fifty-two years in conservation and public lands work, mostly with the Department of the Interior. Before retiring to start the Outside Las Vegas Foundation (now rebranded as Get Outdoors Nevada), I served as Superintendent of the Lake Mead National Recreation Area for thirteen years. While in this role, I was appointed the National Park Service Coordinator to oversee the implementation of the California Desert Protection Act which gave me a unique opportunity to get to know the Mohave Desert landscape and issues.

The Castle Peak area connects the Mojave National Preserve, Castle Mountains National Monument, and Lake Mead National Recreation Area, three units of our National Park System and enjoyed by millions of visitors annually. In addition, this region includes a number of other critically important ecological areas, among which are the Wee Thump and South McCullough Wilderness Areas, the Spirit Mountain Traditional Cultural Property, the Paiute/Eldorado Valley Area of Critical Environmental Concern (ACEC), and the Walking Box Ranch conservation easements.

The area contains important habitat for the desert tortoise, is the eastern terminus of the world's largest Joshua Tree forest, serves as migratory corridor for desert bighorn sheep, and is important for migratory birds as well as Bald and Golden Eagles. The area has a unique desert grasslands community with many species of native grasses found only in a small region of the East Mojave in Nevada and California, and there are other species related to similar grasslands in southern Arizona and Mexico.

Beyond habitat, this view-scape along the Colorado River is central to the cultural heritage of at least eight Native American tribes. It has been designated

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Crescent Peak Project Area adjacent to Walking Box Ranch Road

ALAN O'NEILL

BY JOHN HIATT

MILITARY BASE EXPANSION IN THE DESERT WEST

Where Are We Headed?

Currently, the Air Force is proposing to expand the Nellis Test and Training Range (NTTR), in Southern Nevada, by some 300,000 acres, and the Navy wants to expand the Fallon Naval Air Station, in north central Nevada, by 769,724 acres, for a combined total of nearly 1.1 million acres. These proposed expansions come on top of the training facility expansions at Fort Irwin (Army), Twenty Nine Palms (Marines), and China Lake (Navy). It seems time to ask questions about need versus desire and what is the end game for military training facilities.

The Air Force and Navy both state that due to new aircraft that fly faster and higher than ever before and weapons systems (missiles) that are typically launched miles from the target, ever bigger buffer zones are necessary to protect the public from errant or accidental drops. At the same time military personnel admit that modern computer guided missiles are both very dependable and so expensive that they don't usually use real missiles during training but rely on dummy missiles to give pilots the sense of how their planes fly with the added weight of armaments!

Both the Air Force and Navy also say they need more space for training of commando type units involving drop off and pick up by aircraft. Each branch of the military wants their own exclusive training facilities and is jealously protective of their space. Ironically, during an actual war all branches of the military are expected to cooperate and work seamlessly in a common battle-space. If working together in wartime is a necessity, then it seems like a sharing of training facilities at home not only makes sense but would enhance preparedness.

During World War II, there was an enormous expansion of military training facilities in many parts of the country, particularly in the West. The emphasis on the West was due to the fact that much of the nation's federally owned public lands are in the West, and also due to the number of clear weather days available for aircraft operations. At the time of World War II, the human population in the Western US, particularly in the desert regions of California, Nevada, and Utah was dramatically smaller than it is today. In 1940 the population of Nevada was about 110,000, as opposed to some 3 million today, an almost 30-fold increase. While much of Nevada is still very sparsely populated, the growing populations of Las Vegas and Reno exert pressure on the rest of the State for resources and recreation and thus there is a conflict between proposed military base expansion and the civilian population.

Since the end of the draft following the Vietnam War, the proportion of the U.S. citizenry that has experience with military service, either directly or via family members, has declined to a low of some 3% currently. This means that most of the people in this country have no relevant experience to enable them to judge whether the needs of the armed forces are in sync with the desires of those agencies. This leads to a dangerous situation in which the civilian population is paying the costs of our military but doesn't really know what they are paying for or whether it is actually needed. This is the situation President Eisenhower referred to when he warned us to "beware of the military-industrial complex."

For at least the last 150 years, military planners have been behind

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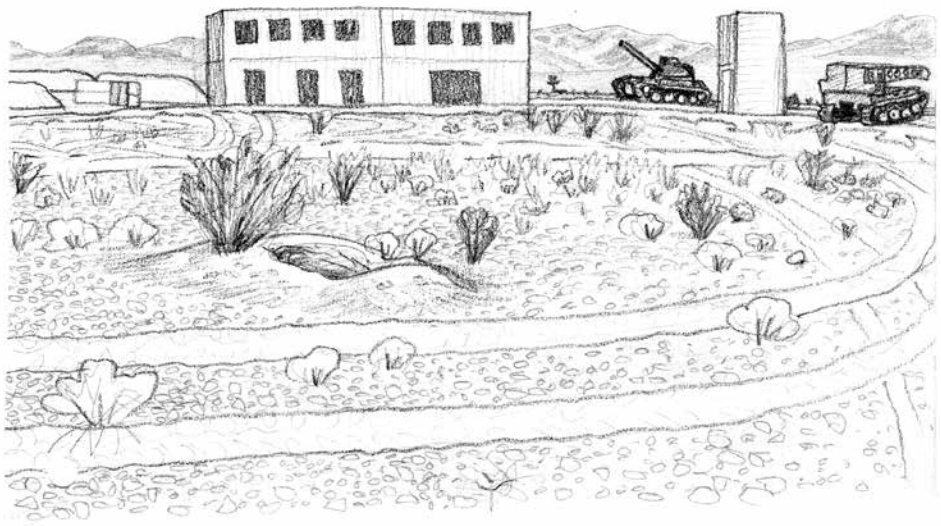
BY LAURA CUNNINGHAM



UNINTENDED CONSEQUENCES

Impacts of Military Base Expansions on Wildlife

In 2004, I worked as a biological monitor on the Nevada Test and Training Range (NTTR) from the Creech Air Force Base. I had previously worked on university herpetological research projects at other military bases, including China Lake Naval Air Weapons Station (US Navy) and Fort Irwin National Training Center (US Army). Each military base is different with unique training uses and resource impacts. China Lake was beautifully pristine desert, as very little ground operations were undertaken there, mostly fly-overs. Fort Irwin, on the other hand, was extremely impacted with large areas run over by tanks, and I found crushed lizards, collapsed burrows, and vegetation removed. Each base has a resource management plan and biologist(s) who try to minimize or mitigate impacts, but nevertheless the impacts can be large.

The giant Nevada Test and Training Range takes up much of southern Nevada, including low Mojave Desert basins, sagebrush flats in the Great Basin, and forested arid mountain ranges. Covering 2.9 million acres, it is the largest contiguous air and ground space for peacetime military operations in the free world.[1] This equates to more than 15,000 square miles of airspace and 4,700 square miles of restricted land. More than seventy-five percent of all live munitions used by the Air Force for training are dropped on the Nevada Test and Training Range.[2] The area is used heavily for air training with various aircraft, including Unmanned Aerial Systems (drones), for live-fire exercises, for bombing tests, and also for ground troop training operations.

I worked as a contractor on the South Range of the NTTR, after being cleared in a federal government background check and authorized by the US Fish and Wildlife Service. I drove up to the gate, checked in with the guard, and hitched a ride with one of the civilian contractors (many of whom were veterans) out to the site on the Range where I would be monitoring the Federally Threatened desert tortoise *(Gopherus agassizii).* No cameras were allowed.

The site was a bombing range where live-fire tests were carried out and an urban warfare center was being constructed out of old metal shipping containers. These were stacked on top of each other and welded together to form various types of buildings. These would be used for training operations including ground special operations and air attacks.

Because most of this Range is managed as *de facto* Wilderness with no ground disturbance or bombing except for certain delineated "targets," I found the desert amazing: I felt like I was going back in time with scattered Joshua trees, undisturbed natural rock desert pavements, sand washes full of big galleta grass *(Hilaria rigida)*, and tortoises—a lot of tortoises. I saw tracks everywhere, every day. Around the "target," burrows were present and my job was to make sure they were not occupied. Tortoises were nesting and laying eggs. I had never seen so many tortoises.

Part of the reason for this tortoise abundance—which contrasted with most of the range of the desert tortoise across California, Nevada, and Utah— is that people were not picking up tortois-

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Above: My sketch of a target area in the South Range, surrounded pristine habitat for desert tortoise where the domed reptiles walked and nested. Old tanks and other equipment were parked around container buildings. Graders and trucks had driven over the delicate desert soils, next to a tortoise burrow that has been partially excavated by a badger.

BY JESSICA DACEY

Bonanza Spring

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NEW SCIENCE IN AN OLD DISPUTE

The Cadiz Inc Project Threatens a Major Mojave Spring

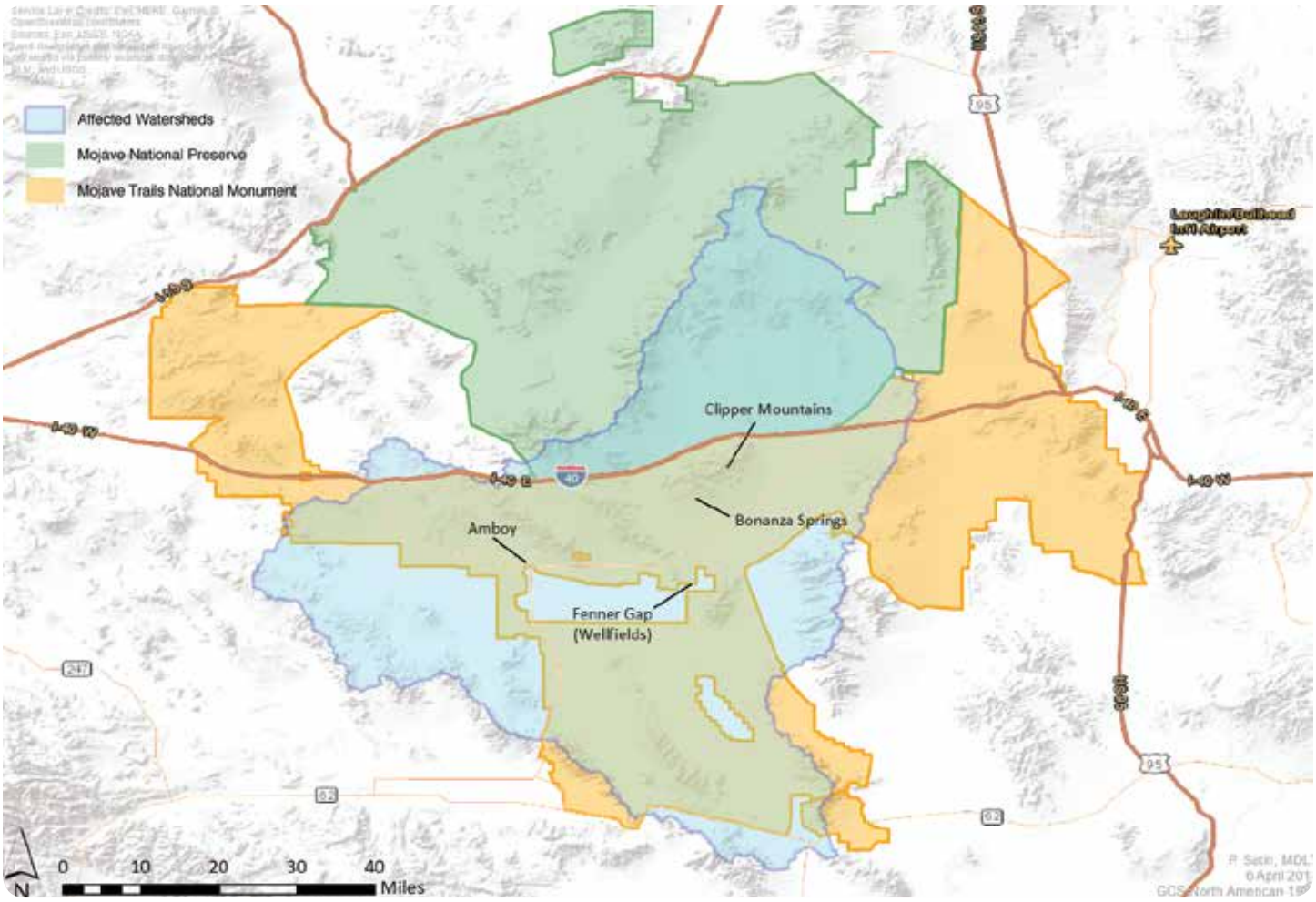
Within the Mojave Trails National Monument and just a few miles from historic Route 66, Bonanza Spring is a vibrant symbol of the desert's intact ecosystem. Clustered among reeds and swarming with bees, the spring waters an extensive riparian area. It is the biggest wetland for 1,000 square miles, and it is central to a long-running dispute. Cadiz Inc proposes to extract 16.3 billion gallons of water every year from a deep aquifer underlying the Fenner Basin for export to suburban Orange County. Cadiz contends that the pumping will not affect nearby springs, saying that these are not connected to the deeper aquifer they plan to tap. New data offers a direct rebuttal to this claim.

An Update in the September 2017 *Desert Report* (http://www.desertreport.org/?p=1959) reviewed the long and convoluted background for the project. There have been issues regarding the rate of ground water recharge, effects on wildlife, possible contamination of the water, and conveyance of the water from its source in the Mojave Desert to its ultimate destination. Political maneuvering and money have been part of the scenario as well. To this, now comes a peer reviewed paper in the journal *Environmental Forensics*, which definitively identifies the water source for Bonanza Spring and the hazard that would be incurred by the Cadiz Inc proposal to pump desert groundwater.

Many springs in the Mojave Desert are local springs that are primarily fed by local precipitation. In contrast, regional springs are fed primarily by deeper groundwater and have identifying characteristics that include temperature, geochemical makeup, and other physical attributes.

The recent, multiple-methodology study reported in *Environmental Forensics* was originally conducted for the Mojave Desert Land Trust (MDLT) by Andy Zdon of Partner Engineering and Science Inc and was subsequently updated for publication. Published geologic maps, measured groundwater levels, water quality chemistry, and isotope data from several sources were employed. It concluded that other nearby springs (Hummingbird, Chuckwalla, and Teresa Springs) were sourced locally, but that Bonanza Spring was different.

"Water within Bonanza Spring is from a basin-fill water source, deriving its water from recharge north of the Clipper Mountains, and could be impacted if groundwater levels decrease at, or near, the spring" states the study, titled 'Understanding the source of water for



MOJAVE DESERT LAND TRUST

Cadiz project boundaries

selected springs within Mojave Trails National Monument, California.'

Frazier Haney, Director of Land Conservation, MDLT: "This peer-reviewed report draws a line under the various arguments about the environmental impact of this project. It clearly shows that Bonanza Spring is fed by the same groundwater that the Cadiz Inc project proposes to extract from the area. This confirms a threat to one of the most intact ecosystems in the US."

In the desert, the depletion of any water source can be fatal for plant and wildlife. Bonanza Spring is a green, half-mile oasis lined with cottonwoods, reeds, and mesquite. It is an important stopover for bighorn sheep, migrating birds, and insects. Biodiversity was one of the main factors contributing to the designation of the Mojave Trails National Monument in 2016. Cadiz Inc's 34,000-acre property sits at the heart of the monument.

Geologists recently hired by Cadiz Inc concluded that Bonanza Spring was NOT hydraulically connected to the aquifer, based on an assumption that fractured rock separated the aquifer from the spring. These findings are not supported by this new groundwater analysis. The new data confirms the spring's hydraulic connection to the aquifer. Additionally, data from the project's 2012 Environmental Impact Report indicates that Cadiz Inc's groundwater pumping would create a "cone of depression" in the aquifer extending far beyond the described fault line, reducing groundwater levels north of the Clipper Mountains where groundwater flows feed Bonanza Spring.

Partner Engineering and Science Inc's study is supported by data gathered by the Lawrence Livermore National Laboratory, which provides further evidence that Bonanza Spring is connected to the aquifer. This data was made available in 2000 as part of the Cadiz Inc project and made public in August 2017.

Frazier Haney, Director of Land Conservation, MDLT: "Not only would the Cadiz Inc project cause irreparable damage to the environment and remove the only wetland of its kind within the southeastern Mojave, it would also be a blow to the local community in the Cadiz Valley."

Local landowners and businesses have expressed concern about the environmental impact of the proposed Cadiz Inc project. Simultaneous with the publication of this new research statements of opposition were issued by three Indigenous groups.

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BY KATHERINE BURNWORTH

DUST CONTROL AT THE SALTON SEA

Where Water is Not Available, Other Methods Are Needed

Although the Salton Sea Management Plan was signed early in 2018, problems of fugitive dust from exposed lakebed were recognized long before that. As a part of the Quantification Settlement Agreement (2003), which transferred approximately 300,000 acre-feet per year of conserved water to San Diego, the Imperial Irrigation District (IID), was obliged to confront these air quality issues. The resulting Salton Sea Air Quality Mitigation Program (SS AQMP) which the IID developed in 2016 uses a science-based, adaptive management model for dust control. In this work, the IID is taking a proactive approach and implementing pilot projects on areas that have a high emission potential before they become a significant source of dust emissions. These projects and the knowledge gained from them are part of the larger Salton Sea Management Plan that the State of California has formally adopted.

Proactive dust control begins with IID's Air Quality Monitoring Program: The program includes mapping actual playa exposure, monitoring surface conditions, measuring emissions potential, mapping dust source areas and plumes during high wind events, and, finally, monitoring air quality near the shoreline. The end result is a map depicting the areas around the shoreline with the highest emission potential. Next, analysis is done on the surface using a Portable In-Situ Wind Erosion Lab (PI-SWERL). The PI-SWERL measures emissions potential on a specific surface under different conditions. During the PI-SWERL sampling event, surface surveys are completed to characterize and evaluate crust type and hardness, surface texture, features of wind erosion, and loose sand percentage. This data is used to identify priority playa and determine where a pilot project needs to be implemented.

Once an area is identified as priority playa, the next step is to determine what type of dust control measure is best suited for that specific area and soil condition. Not all playa is to be treated equally, so IID is implementing a mosaic of different dust control measures based on soil and surface suitability as well as dust control measure effectiveness. A soil coring program informs this process by extracting 1.5m soil cores to evaluate soil suitability by determining soil texture, moisture, and salinity. Soil cores are cut down the length of the core, and high resolution images as well as spectral readings are taken every 5 cm. Finally, all of the data is evaluated and a pilot project can be designed.

The two main dust control measures that have been implemented are surface roughening and vegetation enhancement. Surface roughening is best suited for finer textured soils that have greater than 35% fines, allowing for the soils to produce clods that are more erosion resistant (Figure 1). While a combination of surface roughening and vegetation enhancement is best suited for coarse textured soils with less than 35% fines which allows better drainage into the soil (Figure 2).

Surface roughening is an effective waterless dust control measure that can

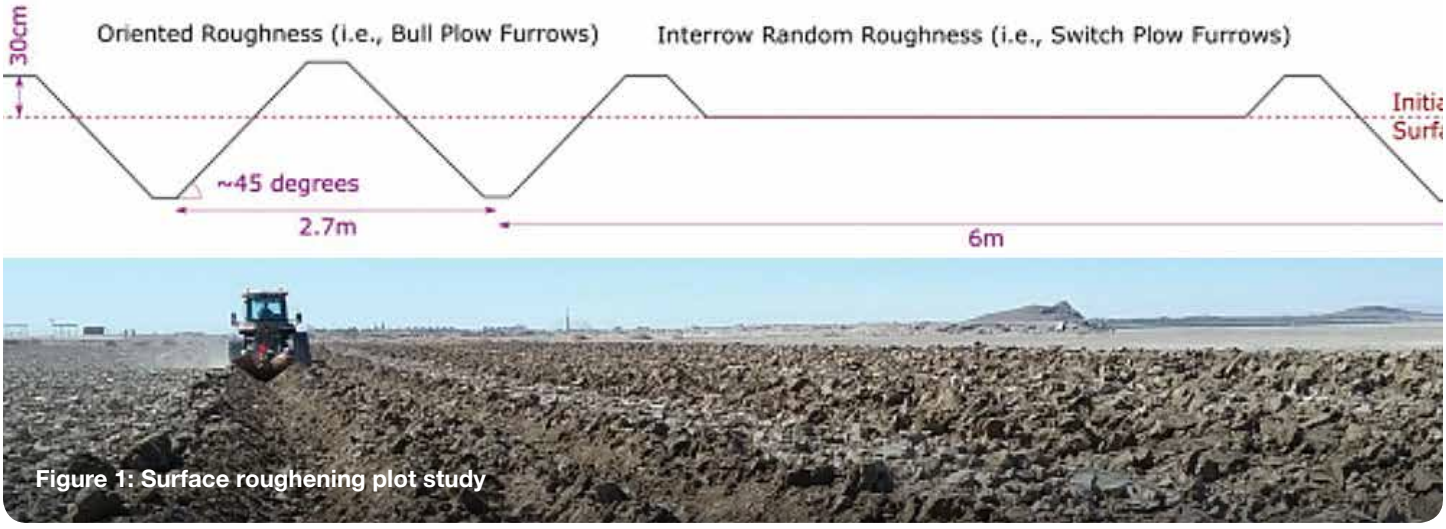

Figure 1: Surface roughening plot study

IMPERIAL IRRIGATION DISTRICT

Figure 2: Combined surface roughness and vegetation enhancement

IMPERIAL IRRIGATION DISTRICT

be quickly implemented on exposed surfaces. Surface roughening consists of roughening the land surface with a tractor-drawn tillage implement. The most common implements used on IID's pilot projects are a bull plow and switch plow. The bull plow is used to produce oriented roughness; while the switch plow is used to produce interrow random roughness. Furrows are drawn perpendicular to the dominant wind direction. Oriented roughness paired with interrow random roughness creates a surface protected from high winds in all directions. The surface roughening provides dust control by reducing wind speeds at the surface and physically trapping windblown particles within the furrows. Wind speeds within the furrows are reduced near the surface by 50% on average during high wind events when compared to adjacent non-roughened surfaces.

Vegetation on the exposed playa of the Salton Sea provides dust control by physically capturing dust particles and decreasing wind speed at the surface. Therefore, IID has implemented vegetation enhancement pilot projects around the Salton Sea to determine and understand the best practices for establishing vegetation (Figure 3). Along the shoreline of the Salton Sea, you will observe existing plant communities naturally expanding onto the exposed playa. The goal for the vegetation enhancement projects is to replicate this natural process and establish vegetation in areas where the suitability for surface roughening is not ideal. Vegetation enhancement involves the planting of salt- and drought-tolerant species that are native to the surrounding areas of the Salton Sea. The seeds of these plants are collected locally to ensure that they can survive in the extreme conditions found on the playa. The dominant species are iodine bush (*Allenrolfea occidentalis*) and big saltbush (*Atriplex lentiformis*). Vegetation enhancement and surface roughening are used in combination where the seeds are planted within the furrows to give them a head start reaching groundwater. The furrow also protects the plants from sand motion which can cause juvenile plants to die.

After each pilot project is implemented, it is monitored for effectiveness and efficiency. One type of monitoring is conducted by using a LiDAR sensor on an unmanned aerial vehicle. Using laser light reflected off the ground surface, LiDAR measures surface roughening for ridge height, ridge spacing, furrow depth, inter-row spacing, and inter-row random roughness. The LiDAR also measures vegetation for height and continuity. Another method of monitoring is conducted using sand motion monitoring equipment, specifically Sensits and Cox Sand Catchers. These monitors quantify the amount of dust within pilot project area. Meteorological stations and video cameras are also placed within the pilot project. Monitoring results are tracked over time to determine performance. The monitoring data shows when a pilot project needs maintenance.

To date IID has implemented 1,000 acres of proactive dust control projects around the Salton Sea. Another 1,000 acres of projects are currently being designed and are planned to be implemented before 2020. Future projects may include surface surfactants, the use of groundwater for vegetation enhancement, or other products to proactively control dust. More information regarding IID's SS AQMP can be found at www.iid.com/airquality.

Katherine Burnworth is a native of Imperial Valley, and serves now as Salton Sea Air Quality Environmental Coordinator for the Imperial Irrigation District. Prior to this she worked as an Environmental Specialist for CalEnergy Operation Corp, one of the companies operating geothermal energy plants near the Salton Sea.

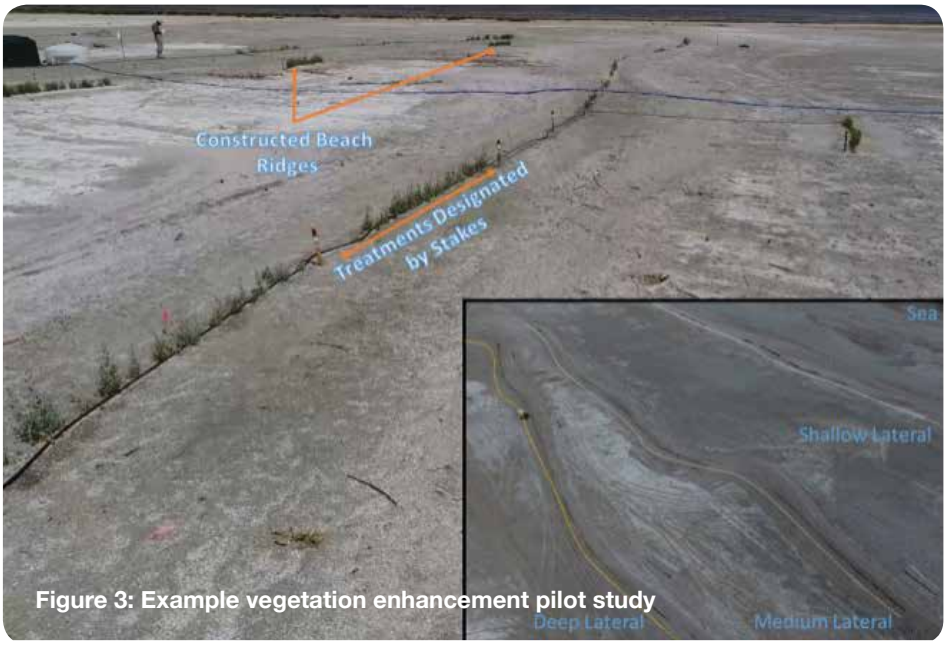

Figure 3: Example vegetation enhancement pilot study

IMPERIAL IRRIGATION DISTRICT

BY BIRGITTA JANSEN

THE RACETRACK

A Place Where the Magic is Threatened

In the early morning on January 2, 2014, the temperature was still below freezing. A thin layer of ice covered a few inches of water which transformed the normally dry Racetrack Playa into a shallow lake. I had arrived with my husband, Neal Nurmi, to photograph these unusual conditions.

I was walking along the dry shore line when I suddenly I heard a sound that absolutely mystified me. It was as if the tinkling of a thousand tiny silver bells filled the silence. Then I heard a sound that reminded me of a small mountain creek traversing mossy cobbles and pebbles. Running water? Here? Tinkling bells? Where could this be coming from? I looked around. Then I realized what must be happening.

The sun had started to warm the thin sheet of ice that had formed during the night, and now it was starting to break up. The breeze, mild as it was, had started to pile piece after piece of thin ice against the side of a rock snuggled in mud. I never quite figured out how the sound effects were created, but I knew they had to be associated with what I was seeing. Alas, the sounds proved to be ephemeral. As soon as I understood where it was coming from, it had already stopped. When I walked a little further I saw more rocks of many different sizes ensconced in furrows of fresh mud. These rocks had recently moved! What a magical moment. I cherish it still.

The remote and high-desert Racetrack Valley is in the northwest section of Death Valley National Park and nestled between the Last Chance mountain range on the west and the Cottonwoods on the east. It is a closed basin – 3,708 feet above sea level, 2.8 miles north to south, and approximately 1.2 miles wide.

The desolate and barren yet stunningly beautiful valley floor is world famous for an interesting phenomenon, i.e. "moving rocks." This phenomenon occurs on a number of other playas (dry lakebeds) as well, but this particular site is unique because of the abundance of rocks coming from an adjacent mountain that functions as a "nursery." Many visitors brave the unrelentingly washboarded road, famous for stranding vehicles with multiple flat tires, in order to see the "moving rocks." Unfortunately the rocks only move when very specific environmental conditions all occur at the same time involving wind, water, ice, and perhaps a few additional factors we don't know about yet. Most visitors are respectful of the place and appreciate seeing the rocks and the trails they have left. Unfortunately there are a few people who have found another way of amusing themselves.

Over the past two years and on different occasions, three drivers were caught as they brazenly took their vehicles onto the playa and proceeded to "have fun." One driver, who had read on a message board in Austria that The Racetrack was a great place to go fast, entered the playa at the north end and exited at the south, but not before he had left many miles of tracks. Two others opted for spinning some doughnuts just to the west of the Grandstand. All three were charged, and two of the cases are still pending. All three were foreign nationals and explained that they realized they shouldn't drive on the playa – they had seen the signs – but they saw others do it or noticed other vehicle tracks. That seemed to make it okay for them. They were quite surprised to learn that the desert environment, including this playa, is fragile. They thought the tracks would go away in a few days. Instead their tracks will remain for years to come.

Something has gradually been changing over the last few years. Josh Vann, a Supervisory Law Enforcement Ranger for the Park, explained: "Visitation is up year around, and we have no shoulder season anymore when visitation slows down. This means we have more people coming into the backcountry than there used to be, and they are driving more capable vehicles."

I (the author) have seen joggers on The Racetrack and people flying drones. I have found written messages on the

Traveling rocks with fresh trails - January 2, 2014.

NEAL NURMI

Friends of the Inyo volunteers and NPS staff working on the treatment area.

NEAL NURMI

rocks on the playa. Some rocks have traveled home with visitors. We have had reports of airplanes landing, and one staff member actually witnessed and photographed a small plane doing exactly that. Some people view the playa as a great place to run their dogs off leash after the long drive.

Josh Hoines, Death Valley's Chief of Resources Management, started researching playa rehabilitation in the fall of 2016. He quickly realized that there was very little literature on how remediate vehicle tracks on a hard-surface playa. The Racetrack surface, a mixture of sand, clay, and silt, is characterized by small polygons looking like pieces of pale beige cookie dough and assembled into a meticulously laid and perfectly fitting mosaic approximately one inch deep. Off-road vehicle tires break that surface. Wind frequently scours the place, and any loose sand and soil particles are quickly carried away leaving indentations where the tires have gone. Even when the playa is not wet or damp, tracks are left. The Racetrack now has over thirty miles of vehicle tracks.

Of most immediate concern were the vehicle tracks that had created the doughnuts and were clearly visible from the road. To some people this signals an invitation to follow. A rehabilitation effort was organized for February 18, 2018. On that day eighteen people made their way to The Racetrack: eight "Friends of the Inyo" volunteers, seven National Park Service staff, and two NPS volunteers.

Then a nineteenth person joined the group: a young man who had driven his motorcycle to the Racetrack and camped overnight. He'd come from El Mirage where he was accustomed to riding his motorcycle on a dry lakebed near his home. When he was looking at a map and found a place called "The Racetrack," he thought "Ah, this could be really fun, a different place to ride." So he came to check it out. He was surprised to realize that this was not at all what he expected, but when he learned more about the situation he decided that he might as well stay for a little while and help. He made one more comment which I've heard from others too: "Can't you change the name of the place?"

Armed with garden weasels, Fresno trowels (concrete floats), brooms, and rakes, the group went to work. Josh Hoines and Richard Friese, Death Valley's hydrologist, had already created two test plots a month earlier. They had broken up the playa surface in and around the vehicle tracks, and then after carefully tamping the soil down and smoothing it out, they gently soaked it with water. The intention was to reduce and spread the depth of the indentations to make the vehicle tracks less visible. Water was critical to the success of this venture, and Josh had arranged for a 4000 gallon water truck to make its way to The Racetrack – no small feat on the rough, back-country road.

It was time consuming and tiring work but many hands and the right tools treated 512 feet of tracks. The surface was soaked, and after a few hours in a drying wind, polygons already started to form. Now only rain, flooding, and time can finish this restoration effort. But one important goal was accomplished. The circular tracks were less visible from the road.

I asked Josh Hoines "What other options do we have?" Josh sighed and a shadow briefly crossed his face as he replied: "We've tried everything. We've put in a ditch along the playa from the north end to the south end. It did not stop vehicle incursions, but it did change the hydrology of the place. That was not what we wanted. We had a volunteer out there for weekends. We've put signs up, we put carsonites [flexible fiberglass signs] in and low-profile posts, all to no avail. As a last resort, we are now considering a low-profile, cable fence. It will have a visible impact. There is no doubt about that. But there are no other options."

Neal and I returned to The Racetrack in April 2018 to photograph the playa again and to evaluate the results of our efforts. Although the treatment area can be easily be spotted by an observant visitor, the vehicle tracks there are no longer clearly identifiable.

But there is one thing that neither Neal nor I can comprehend: the use of The Racetrack Playa as a human playground. To us this feels like a violation of the Spirit of this place, this unique and beautiful valley. Why do some people feel the need to do this? Why?

Birgitta Jansen has volunteered in Death Valley National Park since 2008. Currently she and her husband, photographer Neal Nurmi, are working together documenting Death Valley's backcountry cabins and other structures. Birgitta is also the coordinator, together with Kate Allen, of the Desert Committee Service Trips in Death Valley.

BY MIKE MATZKE

Agent sits on the New River just north of the US/Mexico international border.

MIKE MATZKE

POLLUTION AFFECTS US ALL

Duty on the Mexican Border that is Not Recognized

Imperial County is not as affluent as Palm Springs or a tourist destination like San Diego, but it is filled with hard working people who care about their families. When a Border Patrol agent is assigned to a station in Imperial County (the El Centro Sector), they find harsh working conditions with 115 plus temperatures in the summer. They also find a highly contaminated work environment, including polluted rivers, pesticides, and poor air quality.

Agents from the El Centro stations find themselves working along one of the most polluted rivers in the United States. [1, 2] The New River is approximately 15 to 20 feet wide, and ranges in depth from approximately 18 to 60 inches. The river is heavily polluted with agricultural and industrial runoff, sewage, and all manner of dangerous chemicals and bacteria. River water samples have revealed pathogenic microorganisms capable of producing polio, typhoid, cholera, and tuberculosis. Additional findings reveal the presence of fecal coliforms and fecal streptococci from both human and animal contamination.

Because of the pollution, recreational activities such as swimming, fishing, or any other waterway activities in or near the New River are non-existent. The heavy contamination in the water creates a health hazard for the community and for the Border Patrol agents working there. Border Patrol agents frequently have to open the gates in the New River to clear the dead fish and trash from blocking water flow.

Agents who work on and around the New River frequently report headaches, rashes, and flu-like symptoms. One agent reported blurred vision that lasted for hours after his shift. Many agents report that every time they get assigned to the New River, they have to call in sick the next day. Interestingly, agents who have served in the military seem to have less problems, perhaps due to the shots they received prior to deployments.

Most Border Patrol agents working in the El Centro Sector have been directly exposed to New River water, either by being splashed by smugglers or when they must enter the river to make apprehensions. Many agents have been exposed simply by helping illegal aliens exit the polluted river. When a Border Patrol agent makes an apprehension of an illegal alien in the New River, they contaminate themselves, their government vehicle, their station, and their homes. Many Agents have small children that crawl across the same carpet they walk on with boots contaminated by New River dirt.

There are many good people in Imperial County who have spent their lives testing and trying to fix the New River. Jose Angel is one of those people. He is the Executive Officer of the California Regional Water Board, and he has dedicated his life to improving the water quality of the New River. But the river flows north from Mexico, so without help from their government, the problem is never completely solved. In 2007 millions of dollars were invested in Mexicali's sewer system, and the amount of sewage dumped into the New River decreased. Now, due to failing infrastructure, Mexico is having system breakdowns which cause one to thirteen million gallons of raw sewage to be dumped into the New River each month.

The New River is not just a polluted river--it's a problem that's killing a community. When a majority of households on the New River mesa have someone who has cancer, is a cancer survivor,

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BY WENDY VAN NORDEN AND KIMBERLEY HIEATT

GET YOUR KICKS ON ROUTE 66

Across the California Desert: Part I

Route 66 was America's first national highway. Initiated in 1926, it patched together existing wagon roads, trails, and unpaved roads to ultimately create a 2,000-mile paved road that made long distance travel by automobile a reality. As the main road across America, stretching from Chicago to Santa Monica, CA, it sported cafes, gas stations, car camps, and eventually added mom and pop owned motels. Today, Route 66 has been bypassed by the Interstate Highway System, and it has become a legacy from our past.

During the Depression, hundreds of thousands of migrants got into their Model-T's and took Route 66 to escape the Dust Bowl and find employment in California. The tale of their flight was immortalized in John Steinbeck's 1939 novel *The Grapes of Wrath*. Ever since, the "Mother Road" of his story has been a symbol of hope, opportunity, and adventure. This was recognized when much of the California portion was included in the Mojave Trails National Monument. To explore the Monument and to follow this history, the two authors of this piece set out on a four-day road trip along the Mother Road.

The route through the California desert has much nostalgia and kitsch. We (the authors) began our journey at the Cajon Pass, where we found the first of many Route 66 shields painted on Cajon Drive. (Figure 1) Before airplanes, everyone who traveled west to Los Angeles, by train or by car, passed here. We planned to stop at the classic Summit Inn diner, only to find that it had been destroyed by the 2016 Blue Cut fire. Only its sign remains. Old structures, and even entire desert towns, burn down and may or may not be replaced. However, some of the historic buildings are in the process of being restored to their former glory, thanks to a resurgence of interest in Route 66.

Interest is not just limited to Americans. Europeans fly to Chicago, rent a bright red or yellow convertible Chevy Camaro, and drive it all the way to Santa Monica, getting a unique view of Americana. At Victorville's Emma Jean's Holland Burger Café, we met an Australian family. They had landed at LAX that morning and made E.J.'s their very first stop on their road trip.

In the Mojave, Desert Route 66 is in good repair and is very straight. You move easily past expansive vistas that have changed very little over the last millennia. Driving Route 66, you have the road to yourself and can enjoy the scenery of the true American West. The mountain ranges and valleys that you pass are vast, arid, and uninhabited, giving them an austere beauty.

There are wonderful Route 66 Museums in Victorville and Barstow. Open only on the weekends, each is staffed by affable and very knowledgeable volunteers.

In Victorville we were regaled with stories of past locations such as Hulaville. We enjoyed seeing an old diner booth and a refurbished jukebox. We even got to sit in a 1917 Model T Ford.

In Barstow, we sat astride a vintage motorcycle, and enjoyed viewing an extensive collection of memorabilia such as road signs, gas pumps, postcards, and car parts. Families speaking French, German, and Korean were taking selfies next to Model T's, old Studebakers, Ford Mustangs, and a Scooby-Doo style VW bus.

Between Victorville and Barstow is Elmer's Bottle Tree Ranch, a unique grove of pipe metal trees, adorned with old bottles and topped with unique treasures such as typewriters, lanterns,

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WENDY VAN NORDEN

CRESCENT PEAK WIND PROJECT

CONTINUED FROM PAGE 1

a Traditional Cultural Property and is listed on the National Register of Historic Places. Spirit mountain, lying within this area, plays a prominent role in the religion and mythology of the people. They believe the mountain (called Avikwame by the Mohave people and Wikame by the Hualapai) is the "Center of Creation" and spiritual birthplace of the tribes. It is also a Sacred Site to the Hopi and Chemehuevi.

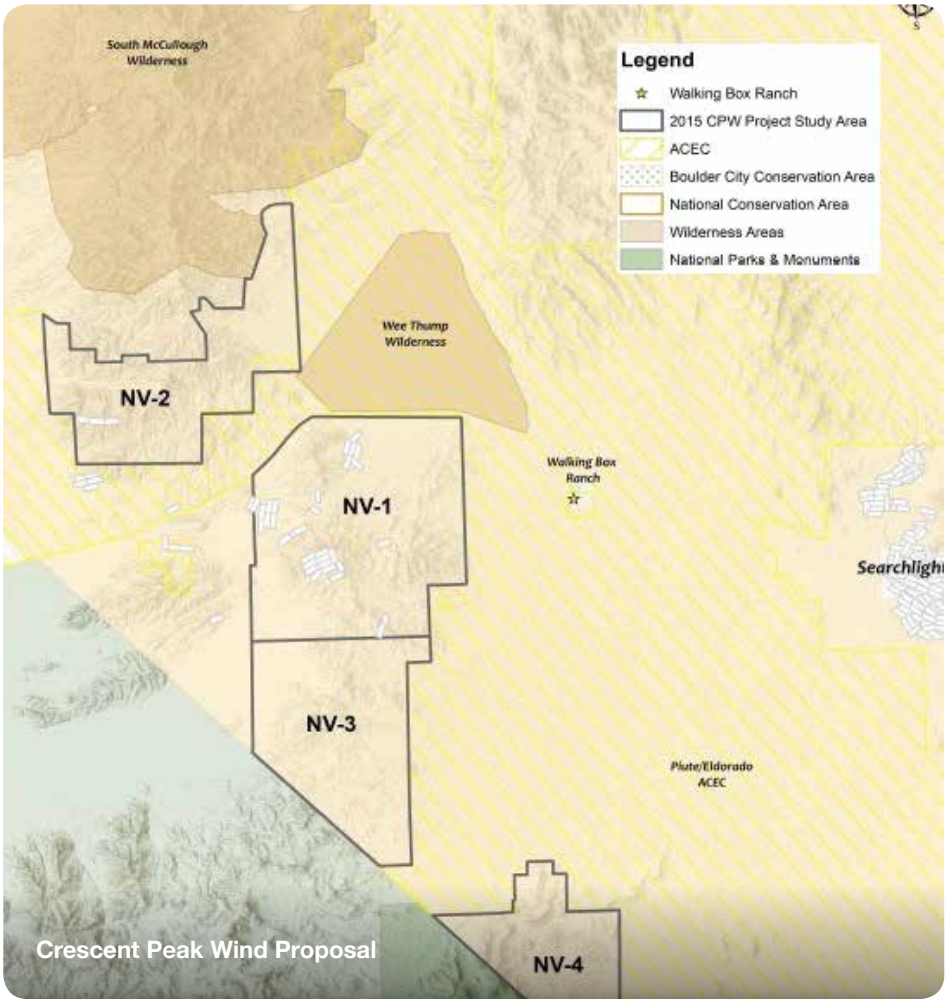
A large wind project would seriously compromise the visual resources and threaten sensitive biological resources. The project would create ninety-three miles of new roads and upgrade 16 miles of existing roads. Roads would need to be thirty-six feet wide to accommodate large construction equipment. Close to twenty miles of new transmission lines would be constructed to transmit energy from turbines to substations. Up to twenty permanent meteorological towers would be installed. New lay-down areas and construction sites would be cleared. Turbines would need to be illuminated at night, with red flashing lights to comply with regulations of the Federal Aviation Administration. It is a huge project that would create an industrial island surrounded by a protected landscape. It is our concern that any large-scale wind project built in the location will create non-mitigable impacts to adjacent conservation areas, wildlife, visual resources, and cultural resources.

The Bureau of Land Management (BLM) is treating this project as if it were grandfathered and that they were obligated to proceed with processing the application. A coalition of conservation organizations jointly prepared a letter to the BLM on April 7, 2017, expressing our collective concerns and opposition to the potential Crescent Peak Wind Project.

Currently a revision of the existing Resource Management Plan (RMP) is being prepared for the BLM's Southern Nevada District. Our request was that this revision include at least one alternative that does not authorize Wind Development in the Crescent Peak Region. Additionally, we asked the BLM to exercise its broad discretion, as they have done in several other areas, to defer a decision on the wind energy project until the completion of this Supplemental Management Plan. Consistent with the BLM Handbook, we argued that during a revision to an RMP, an implementation decision, such as the decision to approve a right-of-way grant for the proposed Crescent Peak Wind Project, may be deferred if the proposed action would *"limit the choice of reasonable alternative actions relative to the land use planning decisions being reexamined."*

The BLM had already put the revision to the 2014 Draft RMP on hold to allow them more time to further assess issues that were raised from public and cooperating agency comments. One of the key issues to be addressed in the Supplemental RMP was renewable energy issues, both solar and wind. Deciding on the proposed Crescent Peak Wind Project prior to completion of the RMP Revision, in our opinion, would prevent BLM from fully addressing issues raised during the comment period, including the consideration of a wind-free alternative in the region.

A coalition of nineteen conservation organizations in Nevada and California, along with four former National Park Service Superintendents, jointly submitted a petition to the BLM on February 1, 2018 and again on March 23, 2018 to establish a new 38,000-acre Castle Mountains ACEC on lands proposed for the wind project. The petition also asked that this be the preferred alternative in the final RMP and that Southern Clark County be designated as a wind-free area. The joint submission provides detailed rationale as to why the area qualifies for designation as an ACEC. This alternative to wind development



Crescent Peak Wind Proposal

Crescent Peak Project Area with Spirit Mountain in the background.

ALAN O'NEILL

in this location is in alignment with the concept of managing portions of the Piute/Eldorado Valley as an integrated ecological unit.

Despite our comments and joint petition, BLM proceeded to issue a Notice of Intent to prepare an Environmental Impact Statement (EIS) for the Crescent Peak Wind Project on March 15, 2018. There is a 90-day public comment period. Public meetings were held in four locations in the week of April 9th. The project is being marketed by the Department of the Interior as a project that aligns with the Trump Administration's America First Energy Plan despite the fact that the applicant is the Swedish-based Eolus Company.

The conservation community is asking that in the range of alternatives to be considered for the Crescent Peak Wind Project, the BLM develop an alternative that combines a no-wind option with designation of the area as a new Castle Mountains ACEC. This would be in addition to the required "no action" alternative. We do not want an alternative that combines a smaller wind project and an ACEC. This area is totally inappropriate for a wind project of any size.

According to the new DOI Secretarial Order # 3355, the BLM is required to have a final EIS for the Crescent Peak Wind Project completed within one year from the issuance of the Notice of Intent. This is a ridiculously short time-frame for a project of this magnitude.

For those of us that want to see a renewable energy economy grow in Nevada and California, the Crescent Peak project is not a productive avenue. Any promise of short-term construction jobs for this single project and its modest contribution to renewable energy doesn't outweigh the significant, lasting damage this project will have on public and political support for a green economy that supports many projects. The irony of this is that this is not even a good area for wind power due to the sporadic wind conditions.

Development of the Crescent Peak Wind Project, in my opinion and that of many others, would give renewable energy a huge black eye and become a poster child of irresponsible renewable energy development, certainly something clean energy opponents may seize upon. The public comment period for the Crescent Peak EIS is open until June 13, 2018.

Alan O'Neill is former superintendent of Lake Mead National Recreation Area and founder of the Outside Las Vegas Foundation.

TAKE ACTION

Written comments on the Crescent Peak Wind Project may be mailed to the BLM, Southern Nevada District, Field Manager, 4701 N. Torrey Pines Drive, Las Vegas, NV, 89130, or emailed to blm_nv_sndo_crescentpeak@blm.gov or faxed to 702-515-5023.

GET YOUR KICKS ON ROUTE 66

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gas cans, and car parts found by Elmer and his father in the desert. You can find out more about this bizarre work of art at https://youtu.be/IQwexRokZ6s. Do stop, walk through the "trees," and if you are lucky, you might even get to talk to Elmer.

The city of Barstow has just completed the restoration of the Harvey House Railroad Depot, a California Historical Landmark. Harvey Houses were the first restaurant chain servicing the passengers of the Atchison, Topeka, and Santa Fe Railroad. Beautifully restored, the Barstow Harvey House, once a restaurant and hotel called Casa del Desierto, now contains the Barstow Visitors Bureau, the Western America Railroad Museum, the Route 66 Mother Road Museum, and two ball rooms which can be reserved. It is worth walking around the Harvey House and looking at the pictures, which include a poster of "The Harvey Girls," a 1946 movie starring Judy Garland. Upstairs is the NASA Goldstone Visitor Center with an astronomy exhibit highlighting the NASA Deep Space Network.

If you want to spend the night in a less elegant location, you can get your kicks at the Route 66 Motel in Barstow. The grounds are festooned with vintage cars, many of which are in working order. The hotel dates back to 1922, and the price is right, as long as you don't require chocolates on your pillow or soap that actually lathers.

After Barstow, we bypassed Interstate 40 and started east to enjoy one of the most picturesque and remote sections of Route 66, the Mojave Desert. More about that in the next issue of the *Desert Report.*

Wendy Van Norden was a high school teacher for over 35 years. The subjects were biology, AP Environmental Science, and Geology. She has led national Sierra Club trips in Alaska and in Europe and has lectured on a number of cruises. Retired now, she devotes her time to travel, research, and family.

NEW SCIENCE IN AN OLD DISPUTE

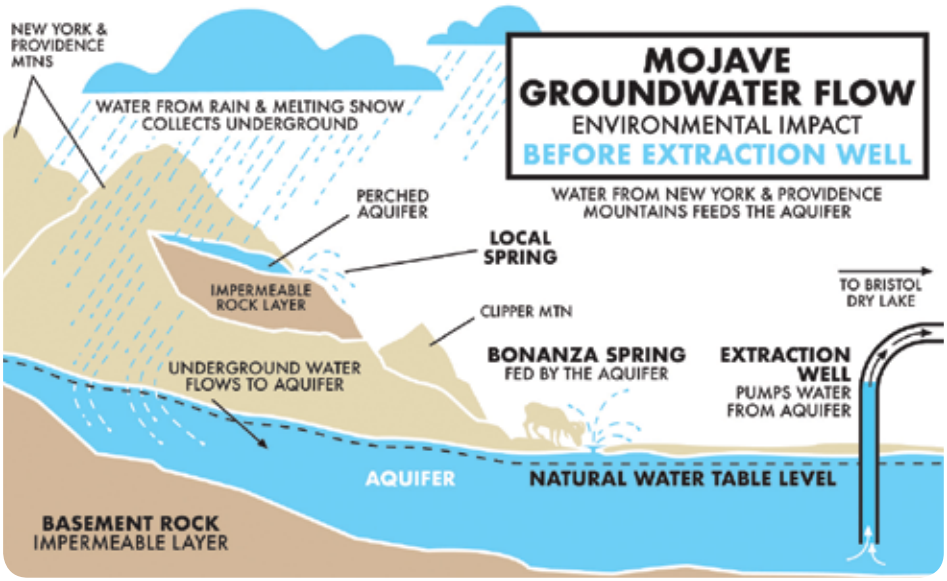
CONTINUED FROM PAGE 5

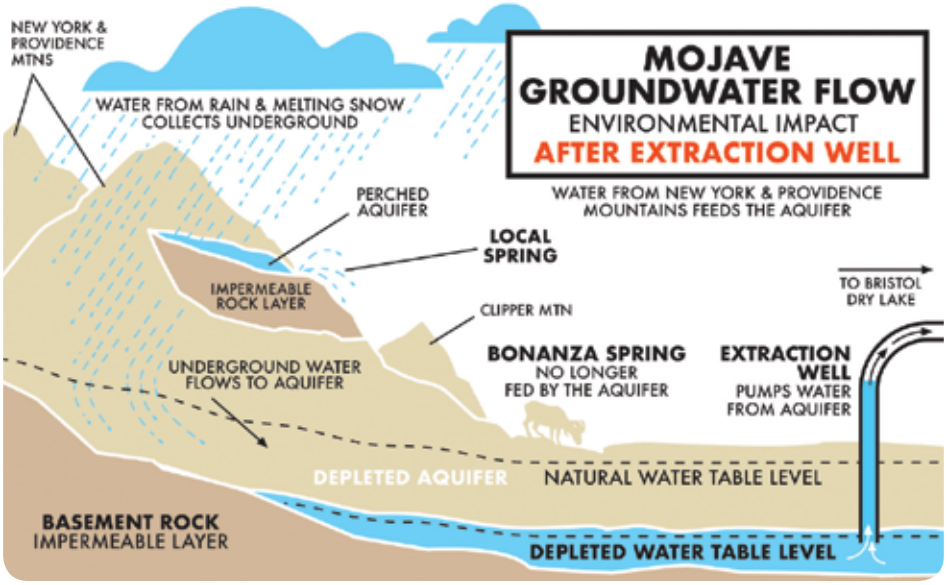
Michael J Madrigal, President, Native American Land Conservancy (NALC): "For our organization and area tribes, the Cadiz Inc project is not about water conservation. Cadiz Inc's aggressive pumping would remove an average of 50,000-acre feet per year over a 50-year period. The NALC expresses its full opposition to the Cadiz project and commits its full effort to protecting tribal culture and preserving sacred lands. We welcome the new scientific and peer-reviewed study published in *Environmental Forensics* as it highlights the true nature of the springs in the Cadiz area, and supports what our organization has known all along, that this project will cause irreversible harm. Today, just as they did hundreds of years ago, tribal people depend on the resources of the area - its wildlife, plants and water for their cultural survival."

In 2015, the Nature Conservancy helped commission the first modern, comprehensive Mojave Desert spring survey, working with the Bureau of Land Management and the Transition Habitat Conservancy, to better understand the distribution, sources, and wildlife importance of springs on public lands across California's Mojave Desert.

A DROP IN WATER LEVELS OF EVEN A FOOT CAN IMPERIL ENTIRE WATER DEPENDENT ECOSYSTEMS.

SOPHIE PARKER, SENIOR SCIENTIST, THE NATURE CONSERVANCY





MDLT.ORG

The new science also supports concerns raised by the National Park Service and the United States Geological Survey. It definitively refutes critical aspects of the Environmental Impact Review (EIR) under which initial permit approval was given. The California Environmental Quality Act, the law that mandates environmental review, allows an EIR to be reopened if substantial new information on a project comes to light.

State agencies have the legal authority to require further environmental review of Cadiz Inc based on new information. We support Senator Dianne Feinstein's subsequent call for Cadiz Inc's EIR to be reopened.

Jessica Dacey is the Director of Communications at the Mojave Desert Land Trust. MDLT acquires and conserves land across the Mojave Desert, including national parks, wilderness corridors, and areas of environmental concern. It is one of the local landowners in the Mojave Trails National Monument.

POLLUTION AFFECTS US ALL

CONTINUED FROM PAGE 10

Agents frequently have to open the gates in the New River to clear the dead fish and trash from blocking water flow.

MIKE MATZKE

or has had family members die from cancer, there's a problem.

Another issue that agents find when they move to Imperial County is the air quality.[3] Many agents, who have never before had problems breathing, are diagnosed with asthma, and any children or spouses who have had problems with asthma or allergies find their symptoms unbearable in Imperial County.

According to the American Lung Association, Imperial County has the sixth worst air quality in California. The particles in the air can be attributed to dust raised by the desert winds, unpaved roads, and controlled burns on the agricultural fields in the area. The poor air quality can also be attributed to the fact that Imperial County is bordered by Mexicali to the south. Mexicali has a population of approximately 850,000 and is not subject to the standards of the Environmental Protection Agency.

Bad air quality is especially detrimental to school-aged children.[4] Imperial County holds the state record for asthma hospitalizations, with children under five years of age being the most frequently admitted.[5] Children in many families that move to Imperial County are diagnosed with asthma and require treatment from a specialist in San Diego even though they did not have asthma prior to the move. In addition to the obvious health issue, children diagnosed with asthma are not able to serve in the United States Military, thus cutting off the youth of this community from the benefits of serving in the Armed Forces.

Because Imperial County is a large farming community, another hazard agents encounter is the pesticides that are used on the agricultural fields. According to the State of California, in 2016 Imperial County applied 5,124,263 pounds of pesticides to the area's agricultural fields. Agents tracking groups or checking sensors have been sprayed by crop dusters. Some agents have been adversely affected simply by walking through the fields after they are sprayed. One agent became unable to open his eyes and had to be led out of a field by other agents.

When individuals sign on to be a U.S. Border Patrol Agent, they agree to horrible odds in the most desolate places, with little or no back up. They understand they may be shot, stabbed, or be hit in the head with large rocks. But agents don't count on levels of pollution in the areas they work, which may be silently killing them on a day-to-day basis.

Regardless of these circumstances, the agents in El Centro Sector have a high level of camaraderie. They are used to working long hours in extreme heat and desolate places. It doesn't matter whether you are an illegal alien or an American citizen: if you get into a tight spot in the middle of nowhere, these Border Patrol agents are your first responders. Our agents not only save people from heat stroke and drowning, they also save animals. Often their pets are animals rescued on the border.

These agents are dedicated professionals who have families and are a part of the communities they live in. You might not notice them because, like every other person in the community, they mostly work, sleep, and attend their children's school functions. These agents deserve a better environment to work in, and the people of Imperial County deserve a better environment for their children to live in.

Mike Matzke is President of the National Border Patrol Council, Local 2554. He has been a Border Patrol agent for eleven 11 years working in Calexico in the El Centro Sector. While serving as an MP in Afghanistan, he received a letter from the Army reporting the air pollution levels at the burn pits near where he worked. These levels in Afghanistan were half of those found in his present work environment in Imperial County.

(1) "Introduction to the New River/Mexicali Sanitation Program". State Water Resources Control Board (SWRCB). March 6, 2006. Archived from the original on September 30, 2006. Retrieved February 16, 2007.
(2) "New River Water Quality Data". Colorado River Basin Regional Water Quality Control Board. June 2005. Archived from the original on September 30, 2006. Retrieved February 16, 2007.
(3) http://scorecard.goodguide.com/env-releases/cap/county.tcl?fips_county_code=06025
(4) LA Times: http://articles.latimes.com/2012/jul/16/local/la-me-imperial-county-asthma-20120716
(5) Washington Post 2012: https://www.washingtonpost.com/national/health-science/in-californias-imperial-county-asthma-takes-severe-toll-on-children/2012/07/22/gJQABymx2W_story.html?noredirect=on&utm_term=.244b32ae46e0

MILITARY BASE EXPANSION IN THE DESERT WEST

CONTINUED FROM PAGE 2

the curve, and offense has always been ahead of defense. In the Civil War defensive tactics largely failed to account for the improved accuracy and firing rate of rifles, as opposed to muskets, which resulted in the death of tens of thousands of troops on both sides. In World War I, tanks and aircraft changed the nature of warfare. In World War II air power, either land or sea based, completely changed the balance of power. The human tendency is to make plans based on past experience rather than to think ahead. That is the type of thinking that the French relied on when building the Maginot Line in the 1930's. During the last thirty years we have seen asymmetric warfare (insurgencies) stymie both Soviet and U.S. militaries. One of the most important threats to our troops in the Middle East today is the improvised explosive device (IED). These inexpensive, versatile bombs are easy to make and use with only minimal training and supplies. We are currently engaged in this nation's longest running war, Afghanistan, in which our hi-tech weapons have not proven very helpful. Better aircraft and smarter bombs don't generally win the hearts and minds of people.

While the Air Force and Navy are pushing for expansion of conventional air warfare training facilities, the fastest growing part of the air arsenal is in the area of unmanned aircraft, which are cheaper to manufacture and fly. Admittedly, unmanned aircraft are more vulnerable to anti-aircraft weapons than conventional piloted aircraft, but they are serving an increasing role in wars of insurgency. Since unmanned aircraft are remotely piloted, pilots can train on electronic simulators just as easily as with actual planes. The F-35, the newest fighter aircraft in the arsenal is essentially flown by the onboard computer system. Thus, it makes sense for most pilot training to take place in a computer operated simulator, which is not only dramatically cheaper but also allows for a much greater breadth of pilot experience than would occur during routine flight time. Ironically, the future of pilot training is on the ground, in a simulator, rather than in the air.

The Air Force uses more fossil fuel than any other branch of the military, including the Navy which has its own fleet of tanker ships just to haul fuel for the rest of the conventionally powered ships. If the military is going to shoulder its share of the burden of reducing fossil fuel usage in order to help meet the requirements of the Paris Climate Accord, then we will have to have fewer planes in the air rather than more.

IRONICALLY, THE FUTURE OF PILOT TRAINING IS ON THE GROUND, IN A SIMULATOR, RATHER THAN IN THE AIR.

Since both decisions will involve transfer of the assets of one government Department (Interior) to another (Defense), decisions about the two big Nevada base expansions will be made by members of Congress. The lead decision makers will presumably be the individuals chairing the Armed Services Committees of the House and Senate. It is imperative that these individuals have all the pertinent information available to help them make the appropriate decision. In addition to the military perspective, they will need a complete understanding of how warfare is changing and the long term ecological and social needs of our country as well. It is up to us to educate our respective members of Congress so that they can communicate the long-term consequences of military base expansion to their colleagues.

John Hiatt, a desert activist living in Las Vegas, Nevada, is a member of the CNRCC Desert Committee, and is a board member of Friends of Nevada Wilderness. His particular concerns have been water usage and protection of Wilderness Areas.

FALLON/NAVY PROPOSED LAND WITHDRAWAL

The Department of the Navy has recently requested that an additional 93,483 acres of land be added to their original request for expansion of the Fallon Naval Air Station in Northern Nevada. It is this request that has brought their total application to 769,724 acres. The official announcement appears in the Federal Register.

https://tinyurl.com/yc9t3ufy

Because this is a new application, opportunities for public involvement are required. Comments on this most recent request, including its environmental consequences, should be received on or before August 2, 2018. In addition, a public meeting will be held to help the public understand the withdrawal and the associated decision-making process. The meeting will be held on Tuesday, June 19, 2018, from 5 p.m. to 7 p.m. at the Fallon Convention Center in Fallon, NV.

UNINTENDED CONSEQUENCES

CONTINUED FROM PAGE 3

es or introducing diseases by releasing pet tortoises. Furthermore, ravens were not subsidized by garbage from human communities, transmission lines were not present to provide nest sites for tortoise-predating ravens and hawks, feral dogs were not roaming the desert, and very little development or ground disturbance was occurring here. The Range was relatively pristine except in the bombing target zones.

But the Air Force wants to change this, by removing the *de facto* Wilderness management over the South Range, expanding the Range across 227,000 acres of the Desert Wildlife Refuge (home to one of the largest desert bighorn sheep (*Ovis canadensis nelsoni*) populations in the world), and expanding over more desert near Beatty that is home to pronghorn antelope (*Antilocapra americana*).

Modern warfare training is seeking ever larger landscapes for advanced technology application. Wildlife may be in the way.

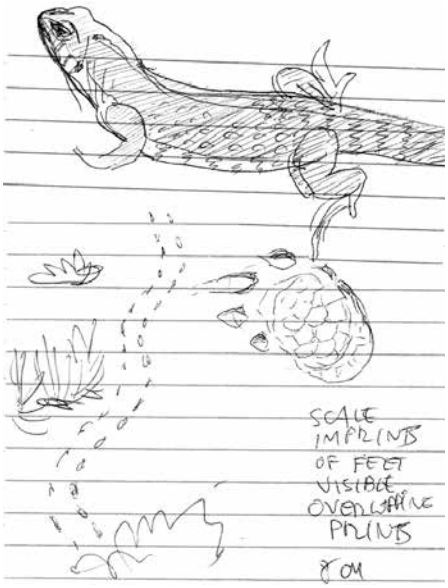
The Air Force describes the Range on its website: "The Nevada Test and Training Range (NTTR), formerly the 98th Range Wing, provides the warfighter a flexible, realistic, and multidimensional battle-space to conduct testing, tactics development, and advanced training in support of U.S. national interests."[3]

To increase security and reduce trespass into the Range, the Air Force is proposing to build fences across the desert and mountains to better delineate the boundary, including the Sheep Range. But this may hinder bighorn sheep movements.

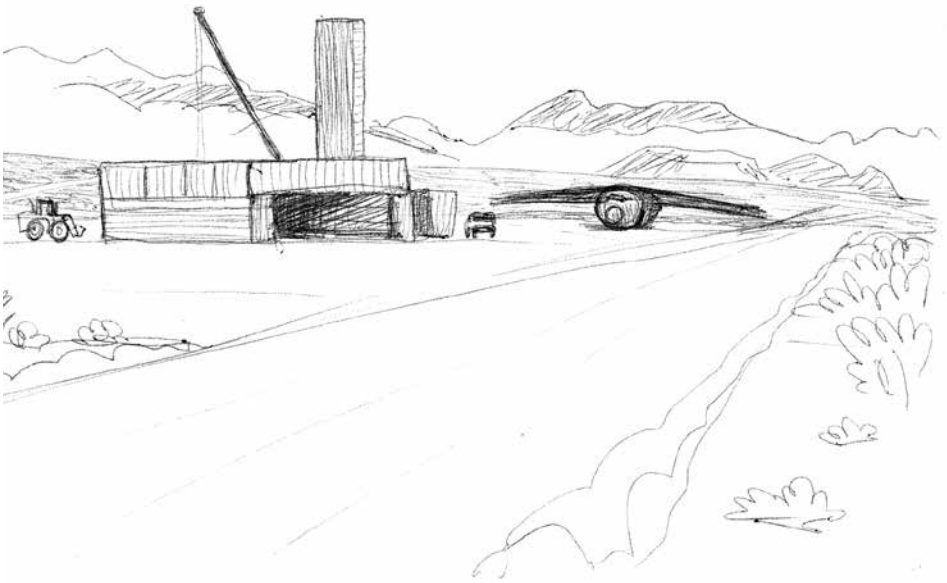
Proposed Irregular Warfare across the Desert National Wildlife Refuge and the newly-opened lands within the South Range would include expanded ground training supported by air and vehicle operations, using blank ammunition with small arms, hand flares, smoke grenades, and paint balls. Helicopters and fixed wing-aircraft would be used for troop insertion, as well as increased drone support. Ground vehicle travel would not be restricted to existing roads: all-terrain vehicles (dune buggies) would be used overland in mountains and basins. Wildlife could also be affected by threat emitter operations—electronic warfare emitters constructed on mountain ridges. How will these new ground and air training programs impact bighorn sheep and desert tortoise?

I am concerned that biological monitors would not be able to follow all-terrain vehicles across these relatively undisturbed deserts to prevent direct tortoise mortality and burrow collapse.

Taking over management of a large part of the Desert National Wildlife Refuge will not only have impacts on wildlife. It will also compromise public transparency of how wildlife are managed on these public lands. We might only discover these impacts years later and to our regret.



My field sketches of desert iguanas (Dipsosaurus dorsalis) and tortoise tracks. Desert life was abundant in the South Range, but impacts include vehicle traffic, road construction, and possible toxic material hazards.



Caption: Airstrip with an old junked C-130. New airstrips like this are proposed for basins in the Desert National Wildlife Area expansion lands.

Laura Cunningham is the new California Director at Western Watersheds Project, and co-founded Basin and Range watch. She has worked in the field of wildlife and fishery biology and is author of A State of Change: Forgotten Landscapes of California (Heyday, 2010).

(1) http://www.nellis.af.mil/Units/NTTR/
(2) http://www.nellis.af.mil/Home/Flying-Operations/
(3) http://www.nellis.af.mil/Units/NTTR/

DESERT UPDATES

Guzzlers (Artificial Water Sources) in the Mojave National Preserve

When the California Desert Protection Act of 1994 established the Mojave National Preserve, the new law expressly permitted hunting within the Preserve's boundaries. In the almost quarter century since, the National Park Service's management of the Preserve's 140-odd artificial wildlife water sources (guzzlers) has been a near-constant source of controversy. Hunters claim that any restrictions on guzzlers harm wildlife and impede hunting, while conservationists counter that maintaining guzzlers in Wilderness is inconsistent with the Wilderness Act.

A draft management plan for the Preserve's guzzlers, in the works for years as mandated by the Preserve's General Management Plan, has now been released for public comment, and reaction from some in the hook and bullet crowd has been swift and severe. Posts flooded social media claiming that Preserve management is planning a wholesale eradication of guzzlers.

In fact, the draft plan's preferred alternative would have increased the number of big game guzzlers (mainly for bighorn sheep) in the Preserve, while removing just two of the Preserve's 133 small-game guzzlers (mostly intended for quail), and allowing the rest to remain. Maintenance on many of the small guzzlers will be halted, which has hunters upset -- though many of those guzzlers have not been maintained since being installed half a century ago.

The draft plan can be viewed at https://parkplanning.nps.gov/document.cfm?documentID=86685

A Clark County Nevada Public Lands Bill

The Clark County Department of Air Quality is putting forward a proposal for a new Clark County public lands bill, which would dramatically expand the boundary of urban sprawl in southern Nevada beyond the limits of the Las Vegas Valley, while providing only nominal benefits to conservation. The "Nevada model" of public lands bills pioneered by retired Senator Harry Reid (D) has long paired public lands disposal (privatization) with Wilderness designation, and has resulted in millions of acres of protected lands across Nevada, along with tens of thousands of acres of sprawling urbanization. Due to the original of these bills, the Southern Nevada Public Lands Management Act of 1998 (SNPLMA), most of the potential Wilderness within Clark County has already been designated. As a result, the County is pursuing a more unorthodox conservation component in the proposed legislation—asking Congress to designate Areas of Critical Environmental Concern (ACECs), a task traditionally reserved for BLM. Because the ACEC designation has no specific management provisions associated with it, it is unclear what if any protections this would actually provide for habitat and species. Meanwhile, the County wants to pair such designations with a 38,000 acre expansion of the Las Vegas Valley disposal boundary, allowing urbanization to spill outward from the Las Vegas Valley into the adjacent Jean Valley, Hidden Valley, and Eldorado Valley, virtually encircling Sloan Canyon National Conservation Area with sprawl, and converting thousands of acres of high-quality desert tortoise habitat into subdivisions and golf courses. This would also entail building new pipelines to transmit Colorado River from the Southern Nevada Water Authority water to adjacent valleys. The central feature of SNPLMA was a disposal boundary which encircled the Las Vegas Valley, setting a limit on how far sprawl would go. Now, twenty years later, Clark County wants another bite at the apple, which begs the question – what are the limits to growth?
Patrick Donnelly, Center for Biological Diversity

Saline Valley (Death Valley National Park) Draft EIS and Management Plan

The National Park Service has prepared a draft plan to guide its management of Saline Valley Warm Springs, a remote area of the Park. It is seeking public input on the plan.

Saline Valley is known by most for its natural warm springs enjoyed by clothing-optional enthusiasts, and its extensive counter-culture art installations. Among members of the Timbisha Shoshone, the Saline Valley Warm Springs are of enduring cultural, religious, historic, and ecological significance.

Five alternatives are being considered which differ in the amount of development versus environmental restoration, and in the level of stakeholder involvement. The preferred alternative (alternative 5) combines elements from each of the other four alternatives.

The preferred alternative includes the following proposed management actions:

- Fencing would be installed around the developed area to exclude burros;
- The Chicken Strip would be officially designated a landing airstrip through an associated rulemaking process.
- Camping permits would be required. Permits would be free at first, but a fee might be implemented later. Camping would continue to be limited to 30 days per calendar year. Dispersed camping would be allowed in designated areas.
- Non-native vegetation (including palms) would be removed

from the Upper Springs. No replacement palms will be placed at Lower and Palm Springs when existing ones die naturally.
- Art that is found to be 50 years or older is considered eligible for the National Register. Art installations determined to be eligible will be managed in accordance with the National Historic Preservation Act. Non-historic art would be removed regularly to preserve the natural beauty of the area.

Details of the Plan, including the various alternatives, are available at: https://parkplanning.nps.gov/SalineValleyWarmSprings

The Park is seeking public feedback on the draft plan and EIS. **Comments may be submitted through July 2, 2018, at the website above**, or at the public meetings listed on the webpage, or by mail to Death Valley National Park, P.O. Box 579, Death Valley, CA 92328.

Perdito Exploration Project: Conglomerate Mesa

The Bureau of Land Management has issued a Finding of No Significant Impact (DOI-BLM-CA-D050-2017-0037-EA) authorizing Silver Standard Resources to drill and sample unpatented lode claims on public land at Conglomerate Mesa in southern Inyo County. The area, its resources, and its mining history have been described in a previous article (*Desert Report*, December 2017).

The document cited above outlines the four alternative considered:
- A no-action permit which would permit no mining activity. This possibility is almost certainly excluded by the 1872 Mining Law.
- An alternative which approaches the area on an existing public road (S2978) and then utilizes a previously used (and closed) road onto the Mesa. At the end of the exploration, this access road would, once again, be closed and reclaimed.
- An alternative similar to the one above except that a new route from S2978 onto the Mesa would be created and then reclaimed.
- The preferred alternative *which has been adopted*, requires that a single drilling rig with the required supporting materials will be delivered by helicopter. Each of seven drill holes will be completed and then filled before the rig is moved to the next drill site. Compliance with all State mining regulations is required, and restoration of the site upon termination of the project is mandated, including re-contouring of the surface and re-seeding with native species. Specific requirements for weed management are included in the plan.

While many environmentalists oppose any mining efforts on Conglomerate Mesa, the finding is probably a realistic attempt to balance the requirement that actions not cause *unnecessary or undue degradation* with the requirement that access be *provided for mineral development* under the 1872 Mining Law. The stipulation that this access must be accomplished by helicopter may set a precedent for future planning.

THANK YOU

There have been many significant contributions for the printing expenses of the Desert Report in the past year.

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Many others have also contributed to the Desert Report in the last six months, and their support is both essential and appreciated. A sponsor is a donor of $100+. A contributor is a donor of less than $100.

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ABBY KIHANO

Trailwork Thursdays at Convict Lake

ASTRA LINCOLN

TRAIL AMBASSADORS

Giving the Eastern Sierra the Care It Deserves

As the snow thaws and creeks swell this time of year, many turn their eyes and thoughts upward, not to the heavens but to the Sierra High Country. The Sierra in the summertime provides much to us humans. A respite from the heat, clean mountain air and water, and immeasurable beauty in the form of blooming wildflowers against a backdrop of towering granite peaks. Human travel to the upper reaches of the Sierra is nothing new; indigenous peoples living in the Mono Basin and Owens Valley have been traveling to the High Sierra to gather food and access trans-Sierra trade routes for thousands of years. However, the population within a day's drive from the trailheads of the Eastern Sierra now numbers in the tens of millions.

As a result, the Inyo National Forest alone sees four million visitors a year. These are public lands, part of the public trust that we share as American citizens. They are managed by the United States Forest Service (USFS). The trails we enjoy today were built in a very different era of the USFS, when managing multiple uses (recreation included) was the focus of the agency. Today, however, the majority the agency's budget goes toward fighting fires. Virtually anyone across the West will agree that this is a justified use of funds, as our fire seasons get longer and more intense. But an increase in visitation does not mesh particularly well with a decrease in recreation funds. Gone are the days of encountering numerous rangers wearing the iconic green and yellow Forest Service badge, out on the land, working on trails, and interacting with the public.

Friends of the Inyo seeks to fill that void with their Trail Ambassador program. In the summer of 2017, Astra Lincoln and I were lucky enough to travel the Inyo National Forest, doing trail maintenance, leading interpretive hikes, and acting as points of contact for the public. It was a thrilling four months. The winter of 2016-17 saw snow fall in record amounts in the Sierra, and so the summer of 2017 was heavy with work. Downed trees, flooded trails, and choked water bars were many. Most of the work to clear the trails of the Eastern Sierra took place in designated Wilderness, so power tools were a no-no. We worked long, hard days to crosscut 72 logs and remove 238 pounds of trash from 217 miles of surveyed trail between Big Pine Creek and June Lake. And when we were not working with tools in hand, we made contact with 968 visitors and locals alike, telling stories about the natural and human histories of the area or sharing the latest Leave No Trace best practices.

Personally, working as a Trail Ambassador was a thoroughly enjoyable experience. I loved interacting with human, floral, and animal beings to create a delightful work experience. The natural splendor I experienced day-to-day in my position was amazing, and caring for it provided me with purpose. But without the context of my fellow humans, that purpose would have remained nebulous, and my work a mere self-centered esoteric exercise. We got to experience the benevolence of our fellow humans firsthand, as we had 84 volunteers join us in weekly "Trailwork Thursdays." Without their help, we never would have been able to accomplish such Herculean tasks as clearing hundreds of pounds of flood debris from the boardwalk on the west side of Convict Lake. While we may forever ponder whether a tree falling in a human-less forest makes a sound, I know for certain that my summer would not have been as rich without humans there to make sure the work I did existed outside of a vacuum.

At the season's wrap in October,

CONTINUED ON PAGE 22

OUTINGS

California & Nevada Regional Conservation Committee
Desert Committee

Sierra Club outings are open to non-members, unless otherwise noted. Participants are required to sign a standard liability waiver at the beginning of each trip. To read the Liability Waiver before you choose to participate, go to http://www.sierraclub.org/outings/chapter/forms/, or call 415-977-5528 to request a printed version.

For any questions concerning an outing, contact the leader. For questions about Desert Committee outings in general, or to receive the outings list by e-mail, please contact Kate Allen at kj.allen96@gmail.com or 661-944-4056. For the most current listing, visit the Desert Report website at www.desertreport.org and click on outings.

The Sierra Club California Seller of Travel number is CST 2087766-40. (Registration as a seller of travel does not constitute approval by the State of California.)

ESCALANTE BACKPACK
June 17-23
Sunday-Saturday

There are two possible trips. Which one will be determined by water conditions and weather. Both trips are mostly moderate, but will be strenuous at times. Limit 12.
Trip 1 would be 14 miles down 25-mile wash to the Escalante River. There would be several side trips to ruins and slots. First day hiking would start early to get to water and trees 4 miles up the wash. Will hike to Ringtail Slots and Neon Canyon.
Trip 2 is on the Upper Escalante. Hike 3½ miles from town in afternoon to camp. Next day 3½ miles to Mamie Ck, option of backpacking a couple of miles up creek to Death Hollow. The following day is a long hike up to where the Mail Trail meets the canyon. The day after that is along the river to just below where Sand Ck. meets the river. Short day hike to arch and ruins. Last day to cars at bridge on Hwy 12. This possibility would require protecting anything you don't want wet. Leader: David Hardy hardyhikers@embarqmail.com, 702 875-4826, email preferred.

BLACK ROCK DESERT "2ND FOURTH OF JULY"
July 6-8
Friday-Sunday

Another fun trip to the Black Rock Desert about 100 miles north of Reno. This will be a smaller group but expect several dozen people camped on the edge of the Playa. This is a busy weekend on the Playa as many Burning Man attendees use this weekend as a "shakedown cruise" for Burning Man. This may be a "second 4th of July" with big fireworks and bright lights. There's usually a potluck or Dutch oven cookoff on Saturday. We'll also visit hot springs and the Emigrant Trail! Bring food and water but we'll have portapotties! LNT. Leader is very familiar with the area. Sign up after 6/24 with David, 775/843-6443 Great Basin Group

CENTRAL NEVADA BACKPACK: TWIN RIVERS LOOP, ARC DOME,
August 8-12
Wednesday-Sunday

This area has been described as one of "deep, rugged canyons, high bald peaks, elk and wet feet." The trip begins on the North Twin River, near Carver, about an hour's drive northeast of Tonopah, at an elevation around 6300 ft. After arriving at the trailhead, we will hike in 2 or 3 miles to our first camp. The next day we will hike around another 5 miles and camp. On day 3 we do a day hike (bring a day-pack) to the top of 11773 ft. Arc Dome, 12 miles r/t with 4100 ft. elevation gain. Day 4 sees the start down South Twin, with a camp after several miles. The last day is the hike out. 16 miles, 3000 ft. elevation gain with backpacks. Limit 12. David Hardy 702-875-4826 hardyhikers@embarqmail.com email preferred.

PERSEID METEOR SHOWER IN THE BLACK ROCK DESERT
August 11 & 12
Saturday-Sunday

Perseid Meteor Shower Campout. Another fun trip to the Black Rock Desert about 100 miles north of Reno. This should be a good weekend for the Meteor shower since it's the dark of the moon and the Black Rock is a really remote area. We'll be camped mid-playa and will probably visit nearby hot springs plus have a potluck Saturday but expect a pretty large group. Bring food and water but we'll have portapotties. No campfires! LNT. Leader is very familiar with the area. Sign up after 8/1 with David, 775/843-6443 Great Basin Group

JOIN US ON THE DESERT FORUM

If you find Desert Report interesting, sign up for the CNRCC Desert Committee's e-mail Listserv, Desert Forum. Here you'll find open discussions of items interesting to desert lovers. Many articles in this issue of Desert Report were developed through Forum discussions. Electronic subscribers will continue to receive current news on these issues — plus the opportunity to join in the discussions and contribute their own insights. Desert Forum runs on a Sierra Club Listserv system.

SIGNING UP IS EASY

Just send this e-mail:
To: Listserv@lists.sierraclub.org
From: Your real e-mail address [very important!]
Subject: [this line is ignored and may be left blank]
Message: SUBSCRIBE CONS-CNRCC-DESERT-FORUM YOURFIRSTNAME YOURLASTNAME
[this must fit on one line.]

By return e-mail, you will get a welcome message and some tips on using the system. Questions? Contact Cal French, cal.french@gmail.com (805) 239-7338

TRAIL AMBASSADORS

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it was clear that the work Astra and I did was invaluable to the Inyo. Wendy Schneider, Executive Director of Friends of the Inyo, proposed doubling the program for the summer of 2018. She envisioned a powerful cadre of skilled and dedicated stewards for the vast landscape that is the Inyo National Forest. She and Julia Runcie, Stewardship Program Director, got to the hard work of raising the funds necessary to have four staff working throughout the Eastern Sierra, leading interpretive hikes, coordinating volunteer projects for visiting youth, and completing critical trail work all summer long. They reached out to local and national businesses and applied for grants from across the nonprofit world. Thanks to Julia's and Wendy's tireless efforts, and our Trail Ambassador donors, we met our fundraising goal, and will be able to staff the Inyo National Forest appropriately. Our sincerest thanks go to Patagonia, Eastside Sports, the Westin Monache Resort, the Town of Mammoth Lakes, Mammoth Lakes Recreation, the National Forest Foundation, Southern California Edison, the Mt. Williamson Motel, Rock Creek Lakes Resort, and the over 70 individuals who helped ensure the Inyo National Forest will be staffed with enthusiastic, knowledgeable, caring Trail Ambassadors from Horseshoe Meadows to Lundy Canyon.

This summer will be a bittersweet one for me. I have now transitioned to an indoor role with Friends of the Inyo, engaging with people all around the state and spreading the good word of the stellar work we do as an organization. So I will not be out there this summer as a Trail Ambassador. I am sad to miss out on all that good fun of leading hikes, organizing volunteer days, and sawing out logs. But I am warmed by the fact that those activities will be in capable hands, and that there will be twice as many! I am sure I will sneak away from time to time to get out with our Trail Ambassadors—if they will have me, of course—at a Trailwork Thursday or to learn something new on an interpretive hike. And if anyone asks why I am out there, I will simply reply with a line from Astra: "The least we can give these mountains is all we've got".

If you would like to support the Trail Ambassadors or join them at a Trailwork Thursday, contact Friends of the Inyo.

A lifelong Californian, Alex Ertaud is thrilled to be able to call the Eastern Sierra home. In his work as the Communications and Outreach Manager for Friends of the Inyo, he gets to share stories about the great work the organization does, and hear from others about what makes the Eastern Sierra so special to them.

Alex inspects the work

BEN WICKHAM

DESERT REPORT IS PUBLISHED BY SIERRA CLUB CALIFORNIA/NEVADA DESERT COMMITTEE

NEXT DESERT COMMITTEE MEETINGS

SUMMER MEETING AUG. 11 & 12 2018

This meeting will be held at the Nelson group camp in the White Mountains. The chair will be Terry Frewin

FALL MEETING NOV. 3 & 4 2018

This meeting will be held at the Mission Creek Reserve. The chair is to be determined.

To receive *Desert Report* please see details on the back cover. Articles, photos, and original art are welcome. Please contact Craig Deutsche (craig.deutsche@gmail.com, 310-477-6670) about contributions well in advance of deadline dates: February 1, May 1, August 1, and November 1.

OUR MISSION

The Sierra Club California/Nevada Desert Committee works for the protection and conservation of the deserts of California, Nevada, and other areas in the Southwest; monitors and works with public, private, and non-profit agencies to promote preservation of our arid lands; sponsors education and service trips; encourages and supports others to work for similar objectives; and maintains, shares and publishes information about the desert.

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www.sierraclub.org/membership

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