KEEP NEVADA WILD!

Fallon Range and Training Complex LEIS Available
This September

This September 2018, the Navy will release their long-awaited Draft Legislative Environmental Impact Statement (LEIS) for public comment. At stake are 604,789 acres of public lands – federally protected wildlife refuges, wilderness study areas, segments of a historic trail, and an entire mountain range – to be added to the Fallon Range and Training Complex, an hour east of Carson City. The base currently operates on 202,859 acres. Expect a 60-day public comment period.

In May, the Navy previously requested a 92,000 acres, and that was the subject of a separate LEIS public comment period ending August 2. That acreage will expand the restricted Bravo-17 bombing range from the Pony Express National Historic Trail along Hwy. 50, south forty miles to Gabbs Valley, then east to the quiet rural ranching community of Gabbs, Nevada. Together the two requests total 696,789 acres that may be withdrawn from public access.

The Great Basin’s mountains and valleys provide habitat to many species, including bighorn sheep and the wide-ranging pronghorn antelope. The Stillwater and Fallon National Wildlife Refuges are major stops along the Pacific Flyway for migrating birds.

This summer, several anti-environment and wildlife riders were embedded in the National Defense Authorization Act (NDAA). The Sierra Club (the Toiyabe Chapter and our legislative group in Washington, D.C.) and other groups, representing millions of Americans, worked very hard to keep these riders out of the final (NDAA) legislation. There is no reason for the endangered species and marine mammals to ride on the backs of our military men and women. EarthJustice via the Combined Defense Project succinctly itemized the riders:

- **Endangered Species Act Rider:** This would have blocked or removed Endangered Species Act (ESA) protections for the greater sage-grouse, lesser prairie-chicken, and American burying beetle.

- **Marine Mammal Protection Act (MMPA) Rider:** This would have weakened a core safeguard of the MMPA by extending authorized take permits and reducing necessary environmental review for military activities, like Navy sonar and explosive testing, which harm whales, dolphins, and other marine mammals.

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Images of the huge Coachella Music Festival Ferris wheel burned brightly against the Coachella Valley's ring of craggy desert mountains this past April—both in real-time and across social media outlets such as Instagram and Twitter—garnishing millions of “likes” and retweets. Coachella Fest, an annual multi-day event now reputed to be America’s biggest music event, drew 250,000+ people, mostly from out of town, over a span of two weeks. This was a 50,000 person increase from the previous year.

Those figures do not include the Stagecoach Country Music Festival, also taking place in April at the polo grounds, which drew another 100,000 attendees, nor does it include the inaugural Desert X, a monolithic large-scale art installation which advertises “If the desert is indeed God without man, then Desert X is art without constraint.”

Each year, more arts and cultural events are also cropping up in the desert areas adjacent to the Coachella Valley. The Morongo Basin, in particular, has been impacted by several new weekend-long music festivals, a biker weekend, and even a half-marathon in the past few years. It’s also been impacted by an unprecedented uptick in tourists visiting Joshua National Park which last year reported a staggering, all-time high number of 3 million visitors.

Described as “the world’s newest, must-see art fair” by Architectural Digest, Desert X ran consecutively from February through April last year. Its reach stretched 45 miles from the Whitewater Preserve to the city of Coachella, and from the Santa Rosa-San Jacinto National Monument in the south to the base of the little San Bernardino Mountains in the north. Featuring 16 large installations, Desert X gained international media attention and drew an estimated 100,000+ art lovers from around the world.

Increasingly in the past few years, residents in the Coachella Valley have registered many concerns about the impacts of these events. As reported by the Desert Sun and in a recent investigative project conducted by a team of environmental studies students from Cal State University Long Beach, these impacts include massive amounts of trash generated at Coachella/Stagecoach; compromised air quality; noise pollution; illegal camping in residential areas and in the immediately-adjacent desert wilderness areas; and extreme traffic congestion, especially along Highway 111 and Interstate 10— the area’s only in and out traffic corridors before, during and after festival weekends. Festival-goers and adjacent residents are all affected.

According to the Desert Sun, “The festivals (Stagecoach and Coachella) generate 107 tons of solid waste each day, of which only approximately 20% gets recycled. From April to June of 2009, the cities of the Coachella Valley sent 112,734,000 pounds of waste into landfills.” The CSULB students, who attended the festival this year, shared picture after picture of the site filled with a virtual plastic water bottle “trash tornado” spread across the polo grounds. Even many green-conscious festival attendees shared pictures and their concerns across social media about the trash, especially the overwhelming number of water bottles. Some have suggested an urgent need for “environmental review” under the California Environmental Quality Act.

Concerns have also been registered about the environmental impacts of...
When I worked as a park ranger in Death Valley National Park, a common question from visitors was “What is the most scenic way to Las Vegas?” I would always recommend the southern route. I would tell them, “Take the Badwater Road to the scenic Amargosa River near Shoshone and Tecopa, see the historic China Ranch Date Farm, and take the Old Spanish Trail Highway to route 160 that heads into Las Vegas.” People love this route because it is the least developed and has features that are just as interesting as what can be found in Death Valley National Park. At the time, I had no idea that in 20 years, the Bureau of Land Management (BLM) would consider permitting the Yellow Pine Solar Project – a 4.6 square mile large-scale solar project at the junction of the Old Spanish Trail Highway and Highway 160.

The BLM has released a Notice of Intent to prepare an Environmental Impact Statement for this 3,000 acre project. Yellow Pine Solar, LLC, (NextEra) has requested a right-of-way authorization for the construction, operation, maintenance, and decommissioning of a 250 megawatt photovoltaic power plant with lithium ion battery storage. The solar panels would have single axis tracking and would move to follow the sun. There would be an on-site lithium-ion battery storage facility so the project could provide backup power to the grid during peak use times. The batteries would need to be cooled, and one option is to house them in an air conditioned building on site which would need to use the power off the grid. The transmission in the area is set up to deliver power to both Nevada and California. The proposed project would be developed on a diverse and undisturbed Mojave Desert habitat. The vegetation is characterized by creosote and white bursage mixed with mid-elevation Mojave Desert plants. The site supports a host of species such as burrowing owls, kit foxes, kangaroo rats, California kingsnakes, and western banded geckos in addition to big galletta grass, fluff grass, California buckwheat, Pahrump Valley buckwheat, Joshua trees, and beavertail cactus, to name just a few. The region also has very well established biological soil crusts which can take a century to grow a half inch.

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NEW OIL DRILLING IN THE CARRIZO PLAIN NATIONAL MONUMENT

Nothing is Ever Safe

For the first time since the establishment of the Carrizo Plain National Monument in 2001, a new oil well has been approved inside the boundary of this protected landscape known for its vibrant springtime super-blooms and native wildlife.

The well’s approval comes just months after the Trump Administration considered shrinking the monument boundary or eliminating its protections entirely. While the Carrizo Plain’s protected status seems to be safe for now, the approval of a new oil well is reigniting a decades-long fight to protect these iconic lands – often called “California’s Serengeti” – from industrial exploitation.

Earlier this year, two environmental groups – Los Padres ForestWatch (LPFW) and the Center for Biological Diversity (CBD) – appealed the approval of the new well, and a final decision from the Bureau of Land Management is expected at any time.

The agency’s ultimate decision – and any potential legal challenges – will determine the fate of this remote portion of the monument. Will oil and gas drilling be gradually phased out over time – as envisioned in the Monument’s management plan – or will it be promoted and increased to satisfy this administration’s unrelenting thirst for oil? It is a story steeped in history and a continuation of a decades-long struggle to protect the Carrizo Plain and its two mountain ranges from oil development.

The Russell Ranch Oil Field: Ground Zero

The Carrizo Plain lies next to the largest oil field in California, and old drilling sites are scattered throughout the national monument. Most of the wells drilled here were not successful, and have been plugged and abandoned over time.

However, two oil fields remain active inside the monument. The small Morales Canyon Oil Field is located entirely within the monument, and none of its five wells are currently producing. The neighboring Russell Ranch Oil Field – where the new drilling site is located – is much larger, but most of its acreage is located outside of the monument boundary, with just a small portion of it extending inside the monument. The Russell Ranch field contains thirty-six wells inside the monument, one-third of which are actively producing. In 2016 the field produced only 125 barrels of oil per day – 0.02 percent of the state’s total...
oil production and one of the lowest-producing oilfields in the state. The field is reportedly nearing the end of its useful life.

Seven federal oil leases authorize drilling in the Morales Canyon and Russell Ranch fields. These leases were pre-existing when the Carrizo Plain National Monument was established in 2001 and were “grandfathered” in under the monument proclamation. Under this new regimen, new leases would not be issued, but oil companies could continue to drill in the seven pre-existing lease areas, so long as the drilling would comply with stricter standards set forth in the monument’s management plan.

Early Attempts to Drill in the Monument

Just four years after the monument was established, an oil tycoon submitted plans to explore for oil across 3,500 acres of federal leases inside the monument boundary. The site was located outside of the Russell Ranch oil field but in the same general area at the base of the Caliente Mountains in the Cuyama Valley. Conservation groups demanded that the Bureau of Land Management (BLM) prepare an Environmental Impact Statement prior to approving the exploration plan, and the leases expired before the approvals were issued.

In 2008, another oil company announced plans to explore for oil along five miles of the valley floor inside the Carrizo Plain National Monument. Approximately half of the mineral rights underneath the Carrizo Plain are privately owned. Those plans fell silent after conservation groups again demanded rigorous environmental review. The Carrizo Plain National Monument deserved nothing less.

A New Drilling Proposal

In 2011, the oil company – E&B Natural Resources based in Bakersfield – submitted an Application for Permit to Drill its new well, which it dubbed Schlaudeman 354-23. The proposed well site is located at the base of the Caliente Mountains inside the western boundary of Carrizo Plain National Monument, within the Russell Ranch Oil Field. The oil well would be drilled on an existing oil pad with an existing well that hasn’t produced oil since the 1950s.

The BLM solicited an early round of public comments that same year, but failed to notify key stakeholders like ForestWatch, a nonprofit organization that has closely participated in the agency’s drafting and approval of the monument management plan and which has tracked previous unsuccessful attempts to explore and drill for oil in the Carrizo Plain National Monument.

The following year, the BLM released a draft Environmental Assessment. ForestWatch and CBD submitted a letter to BLM pointing out several key deficiencies in the agency’s analysis of impacts to wildlife and scenic views. Conservation groups asked the BLM to substantially revise its environmental assessment and consult with the U.S. Fish and Wildlife Service, but the BLM disregarded most of the concerns and refused to consult with the wildlife agency.

A New Restoration Plan

That 2012 draft environmental assessment was followed by four years of silence. Then, in 2016, the oil company applied for permission to plug and abandon the existing idle well at the site, and to re-contour and re-seed the pad and access road, restoring the land to its natural condition. Conservationists celebrated this move, as it seemed to be more closely aligned with the direction of the management plan to gradually phase out oil drilling inside the monument. It would also help restore a long-degraded area by re-vegetating the half-acre pad and the half-mile access road leading to it, and it would ensure the removal of several abandoned pipelines and other infrastructure at the site.

The abandonment plan was prompted by a 2014 letter from BLM to E&B Natural Resources, identifying twelve wells in the national monument that had been idle for more than twenty-five years (many had not produced any oil since the 1960s). Since the wells had been idle for so long, the agency ordered the company to either plug and abandon the wells, or return them to production within six months.

An About-Face

After initially appealing the BLM’s order, E&B Natural Resources and BLM agreed to move forward with a plan on how to proceed with these long-term idle wells in the monument. The company proposed to test and convert many of them to horizontal wells or water-flood wells, but even though most of the work has taken place to convert them, none of the twelve idle wells are currently producing, according to the most recent state data. The company proposed...
WHICH WAY THE WIND BLOWS – SO GOES THE DUST

In the Mojave River Valley

Disquiet follows planning for Utility-Scale Solar (USS) development in rural San Bernardino County. Anxiety preoccupies wary residents in the unincorporated communities of Lucerne Valley, Daggett, and Newberry Springs, each targeted with thousands of acres of 15- to 20-foot-high, rotating solar panels with visible glare from all directions for many miles. This article is not directed at the Desert Renewable Energy Conservation Project (DRECP) or the Bureau of Land Management (BLM). This article is asking all agencies, county, state, and federal, to step back and look at location, location, location...and seriously evaluate the social justice and environmental consequences before approving solar projects sited on stabilized sand transport paths covered with carbon sequestering plants.

The county has under review three USS projects located on 2,700-acres (4.2 mi²) of private land on either side of San Bernardino County Scenic Highway 247 in Lucerne Valley. There are another two projects on 5,500-acres (8.6 mi²) within the Mojave River Valley to the north and east of Barstow. This list doesn’t include the 2,850-acre (4.5 mi²) Aurora Sorrel Solar project on state lands just east of Hvy 247, or the 112 miles of new transmission lines through both BLM and private lands connecting the substations in Barstow and Daggett with the planned Calcite substation in Lucerne Valley. The project locations are in favored low slope windy corridors with soils susceptible to eolian (wind) dust and sand transport, especially when disturbed.2

The communities receive no benefit from these solar projects and much will be taken from them should these projects be constructed, beginning with their air quality and the health impacts from fugitive dust (PM₁₀). Wind-blown dust events are particularly hazardous to human health during the spring months, or any time the wind exceeds 15 mph. Traditional watering trucks and work stoppage are not the answer to this scale of disturbance. Based on their Owens Lake experience, the Great Basin Unified Control District would require four inches of 3/8 inch gravel over the entire area of a solar development to control dust.3

I first reported on sand transport paths and PM₁₀ emissions (particulate matter less than 10 microns in diameter) in the March 2017 Desert Report. Sand transport paths, or sand sheets, are wind-driven, low-relief accumulations of eolian sand deposits found in the basins between mountain ranges. Source areas for the sand are dry lakes, or in the case of the Daggett/Newberry Springs area, the Mojave River. Vegetation (usually creosote and big galleta grass) and saltbush scrub are the stabilizing plant communities for these particular soils. The root systems in the low-fertility soil “form symbiotic associations with microorganisms that improve nutrient availability and uptake. The two root symbioses that are most significant in deserts are the mycorrhizal fungi and rhizobial bacteria.”4 All goes well unless the stabilizing root systems are destroyed by activities such as unauthorized off highway vehicle riding, grading for agriculture, and now USS developments. The destruction of the vegetation, both above and below ground, is catastrophic, especially when grading is done on a massive scale. Restoration, natural and intentional, can take from decades to hundreds of years before ecosystem function is restored. The cost can be very high.

In 2012 the Nature Conservancy produced a report identifying areas with least environmental conflict for solar energy siting in the West Mojave Desert. Their identified avoidance areas included dunes and sand transport areas.5 Supporting this finding was the work of United States Geological Survey (USGS) scientists Bedford and Miller. Using topography and surficial geology, they assembled a poster to inform decision...
makers that data sets are available from the USGS that can help evaluate the best low-gradient smooth topography locations for large-footprint energy installations. “These installations impact areas of 400 to 2000 hectares each, requiring land-use assessments that are novel compared to past decisions for relatively small installations such as mine sites and roadways.” The data cover an area of 40,400 km² stretching from Lancaster and Mojave on the west to Jean, NV, and Goffs CA, on the east.

The analyses demonstrated that “About 48% of the entire area has less than 5% slope, and 8.3% has less than 1% slope, the favored slope category. For this lowest-slope category, deposits underlying about 98% of the area are either mixed eolian-alluvial origin or are fine-grained alluvial deposits, and thus are susceptible to eolian dust and sand transport, especially after disturbance.” Ownership of the land with the favored 0-1% slope is 34% BLM and 42% Private.

Conclusions: If you plan to build utility-scale solar on 0-1% slope, dust will be a big problem. Steeper (1-3%) slopes characterize more of the desert and have less susceptibility to floods and eolian hazards.

National Resource Conservation Service (NRCS) Soils Analysis

The place to go for soils information is the US Dept. of Agriculture NRCS office in Victorville, also home to the Mojave Desert Resource Conservation District (RCD).1 Not being a farmer, it is surprising I found my way there. Here you can find descriptive information to understand the scope of the air quality problems if even one of the solar projects under review is approved and built. The document is the Soil Survey of San Bernardino County California Mojave River Area. The field work was completed in 1978 by the Soil Conservation Service (now NRCS) and published as a boxed set with a report and paper maps. The files were digitized in 2003, and they are now publicly available. Community members are working to enlighten county planners, decision makers, and the Mojave Desert Air Quality Management District (MDAQMD) with GIS maps showing the proposed solar projects on soils hazardous for dust within the Soil Survey Boundary.

Dust and Water

USS projects are at a scale of impact requiring the preparation of an Environmental Impact Report (EIR) under the California Environmental Quality Act (CEQA). The EIR covers seventeen environmental factors including air quality, hydrology/water quality, and geology/soils. Soil units and their hazard for blowing dust affect air-quality and water use, yet their consequences are rarely identified and described. Till now, the San Bernardino County has not required that soil units and their dust potential be provided. The County relies on the AQMD to determine the air quality impacts. The AQMD does not require soil information, and the Environmental Protection Agency approved monitors are in urban locations and are thus unable to provide strategic baseline data or predict the air quality impacts for projects in the eastern desert planning area. The AQMD has purchased Purple Air monitors10 designed for individual use and begun locating them in critical areas. The monitors measure PM₁₀ and PM₂.₅ for the Air Quality Index (AQI) value and report in real time to the Purple Air Map.11 This is a positive step forward.

The county requires an AQMD approved Dust Control Plan before construction.12 Water is the default dust suppressant, and the location and size of the water source must be provided. Lucerne Valley, Daggett, and Newberry Springs rely on groundwater and supplies are restricted and expensive. In Lucerne Valley the cost is now $.01/gallon. Just a penny? Yes, but in 2013 the amount considered necessary to adequately suppress the dust on 230 acres during the construction of two solar projects on Camp Rock Road was 70 acre-feet. The soil unit descriptions noted only a slight hazard of eolian dust. An acre foot of water is 326,000 gallons. At today’s price that water would have cost $228,200. The Sienna Solar proposal on Lucerne Dry Lake (highly dusty when disturbed) is 1,625 acres, seven times the size of the Camp Rock Road projects and, conservatively, could need 560 acre-feet of water. If you do the math, remember that when you add in the acreage of the other proposed projects, the collective total will jump to 5,666 acres. The cumulative demand, cost, and supply of water becomes prohibitive.

The linked soil, water, and dust problem in the Daggett/Newberry Springs area (the Mojave River Valley) exceeds that in Lucerne Valley. Julie Lainty’s (2003) research traces the history of this arid valley and how the connection between an aquifer fed by infrequent recharge events from the surrounding mountains and the growth of agriculture eventually led to a complete dependence on groundwater. Over time the lowering of the groundwater table caused the death of stabilizing vegetation, and today the volume of active sand poses threats to human habitation. The dust has been blamed for fatal highway accidents. She concludes that “Destabilization of the aeolian environment is not a consequence of drought or climatic fluctuations but is related solely to anthropogenic [human] influences.”12 Could there be a worse place to industrialize by grading thousands more acres for a CONTINUED ON PAGE 20
Deserts are extreme places, and they draw people who fall outside our usual norms: artists, soldiers, hermits, and lost souls. These unfamiliar surroundings challenge us to look farther and explore our limits. *Darwoon Dyreez* (Darwin Diaries) presents this challenge in a collection of sketches from a tiny desert “town” in Eastern California. The character of the town is reinforced by the idiosyncratic phonetic spelling which the author has chosen to use. The two words which come to mind in describing the book are quirky and charming.

The initial story is of a guard dog chained in a yard across the street from the narrator’s home. Sparky barks day and night to the disgust of neighbors on all sides. His owners live off in the town of Long Tree, but they keep the dog to guard this second property. He shares the yard with a burro; both are fed and watered by two little girls living farther up the street. Eventually Rodney the Psycho determines to rescue Sparky, feeds him a steak, and then turns him loose. Sparky roams the town all night, barking and fighting viciously with two other dogs that have tormented him for years. The next morning the narrator finds Sparky back home on his chain and apparently content to have gotten revenge. Sparky is never bothered by the other dogs again.

This story is typical of the adventures and incidents that follow. Alcohol seems to be the drink of choice in Darwin, and several sketches recount the adventures and misadventures that this creates. More than one resident must be carried home after an evening of unruly celebration. More potent drugs of various kinds are available and may be manufactured locally, but the users seem to be mild, seldom cause problems, and are tolerated – except for their noisy trucks as they occasionally race through the streets at night. Town gossip is shared by Dolly and her friends as they meet nearly every afternoon drinking beer in her backyard. They offer opinions concerning visiting tourists, relatives, girlfriends, and occasional visits by the county Sheriff. When a newcomer in town, Desert Pete, buys the building at Crosson’s Corner, this requires particular comment, especially when he renames it “The Darwoon Dance Hall,” without consulting other residents. The situation is satisfactorily resolved when the neighbors learn that Pete is a generous host, offering beer and wine in his kitchen every evening.

In spite of the external oddities, these people are really us. The town pulls together to sponsor dances, potluck meals, music events, and a major springtime festival called The Spring-a-ma-jig. The events are recounted in a matter-of-fact voice with both humor and respect. Where truly foolish events occur, no judgment is made, and unless some real danger is imminent, the narrator stands outside the conflicts that
author at her home. She first took me to the post office, such as it was, where half a dozen people were waiting for the mail delivery from Lone Pine. These included some of the same people who had appeared in the book, although names had been changed in the printing. We/they discussed who had been drinking at last night’s pot luck, who might be able to help with errands in town, who had been negotiating with his insurance company for repairs on his car (which might still be under warranty), and whether I would like to visit the massive stone circle and sculpture garden recently constructed by one of the residents. Much of this could have taken place at a block party in Pasadena, except that the dress code in Darwin featured long beards, worn blue jeans, old work shoes, and colorful scarves. After the mail was distributed, I was taken to one of the underground houses, to Kathy’s dome which houses the local radio station, to the community center, and to the town cemetery. Just inside the gate was a monument for Nancy Williams, a notable madam who lived in Darwin at the end of the nineteenth century. A farther corner of the cemetery was occupied by those who had died recently, and still another corner was special to members of a local Indian tribe.

There are two proper conclusions. The first is that *Darwoon Dyreez* by Kathy Goss is well worth reading. The stories and the people are engaging: you like them and are glad to have made their acquaintance. The second conclusion is that deserts, their isolated rural communities, and their stories are valuable. They can remind us that friends, neighbors, and people are important. Indeed, life is possible without a constant television feed, and celebrity worship is entirely pointless. The book widens our perspective. It can make us more insightful and accepting of our neighbors and of the small events of our daily lives.

*Darwoon Dyreez* is available in paperback and Kindle editions from amazon.com.

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When several residents die under various circumstances, the town gathers for final ceremonies and burial in the dusty cemetery at the edge of town. Darwin may seem to be the product of an overactive imagination, but it is really the story of a tiny community, located between the southern end of the Owens Valley and the Panamint Valley farther to the east. This town, Darwin, was a booming mining center between 1870 and 1890. When the golden days ended, several large commercial mines continued to struggle, but then the town faded. Arriving there today, you will find buildings signed as “Darwin Station” and “Darwin Dance Hall.” You will also find an astonishing collection of trailer homes, underground residences, and shacks on the verge of collapse. The population hovers around thirty-five, depending upon who has left recently, who is visiting a friend or family, and who has simply drifted in.

The author of these stories, Kathy Goss, is one of these residents and explains that she came to Darwin when a poet friend told her of a house that was available for sale. San Francisco, where she had been living, had become too expensive. After settling into a renovated miner’s shack, she purchased a small fiberglass dome and a cargo container to use for storage and for various of her projects: painting, writing, editing, and music.

The first line of the Prologue reads: “I hav fergot jest abowt evry sivalized thyng Eye evur noo utter livvin fer twenny yeerz in Darwoon.” [I have forgotten just about every civilized thing I ever knew after living for twenty years in Darwin.] This is your introduction to Darwoonish. This more or less phonetic spelling is used throughout, and punctuation is entirely lacking except for periods. When I met Kathy Goss, I had to ask, why in God’s name did she do such an outlandish thing. In part this was to mirror some of the misspellings committed by neighbors in the local signage and on their Facebook pages. Kathy also said that this was to screen (i.e. select) for readers who were ready to step outside their normal expectations. After four or five pages, the strange spelling is no problem, and you have become a Darwooner yourself . . . although you will still find an occasional sentence that needs a second reading. Ultimately the language helps define the narrator and the town. If the stories were told in standard English, the world of Darwoon would be lamentably diminished.

After reading the book, I made some inquiries and arranged to meet the
GET YOUR KICKS ON ROUTE 66

Across the California Desert: Part II
Barstow to Needles

Traveling Route 66 from Barstow to Needles instead of taking Interstate 40, gave us time to enjoy the scenery and visit classic old town sites that once welcomed Americans as they got into their Model-T Fords and traveled from Chicago to Santa Monica. Known as the National Trails Highway in the Mojave Desert, Route 66 follows the route pioneered by the Santa Fe Railroad. The steam engines needed to stop for water every 10 miles, so the railroad established water stops all along the route. When Route 66 brought travelers in cars, many of the water stops became small towns with gas stations, cafés, and motels. Some were named by the railroad in alphabetical order. West to East these towns are: Baghdad, Amboy (only one out of order), Chambless, Danby, Essex, Fenner, Goffs, Homer, Ibis, Klinefelter, and Needles.

Taking a side trip north out of Barstow to Calico Ghost Town, we expected nothing more authentic than a standard tourist trap. We were delighted to find that it contains some original buildings and lots of artifacts from the 1881 silver mining town. Ignoring the candle shops and other touristy commercial establishments, we discovered The Lane House and Museum along with Lane’s General Store to be worth a visit in order to see the 1880s merchandise, furniture, and pictures. We particularly enjoyed chatting with Oakie, an ex-marine and retiree who wanders the streets of Calico in western garb, keeping the peace as the local sheriff.

Back on Route 66 heading East, we stopped at the Bagdad Café. The café is a mecca for Europeans who loved the German 1987 film by the same name; the café is festooned with flags from around the world. Prior to filming, it was called the Sidewinder Café. After the movie, the owner decided that the movie name would bring more tourists. There is no longer any town of Bagdad. The last derelict buildings were razed in 1991.

A worthwhile side trip is to Pisgah Crater. Mined for cinders that were used as railway ballast for the Santa Fe Railroad, the young volcanic cinder cone is well-known by geologists for its lava tubes. One of the tubes large enough to enter may be found at 11 S 0537416 E, 3845056 N. The rest are for you to discover on your own. Bring a helmet and gloves.

Further west is an even prettier cinder cone, Amboy Crater. It may be viewed from the day-use parking lot and picnic area or it can be climbed by a hiking trail. The hike should take between 2-3 hours, so water and sun protection are needed.

We spent the night at the Ludlow Motel. Ludlow began as a railroad water stop. When ore was found in the nearby hills, it became a mining town and railroad for the Tonopah and Tidewater RR and for the Ludlow and Southern RR. The entire town and its businesses are owned by the Knoll Family who live in the original, renovated school house behind the café. Their employees live in a housing development at the end of the road. They are a tight knit population of 19 who enjoy the camaraderie of their small isolated community. Ruins of the original town can be found behind the Ludlow Café towards the railroad track. The café was built down the road a bit, as it was not allowed in town. It was once a local bordello.

Another classic sight on Route 66 is Roy’s Motel and Café in Amboy. After a period of decay, it was recently bought by Albert Okura, who is now in the process of restoring it.

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Desert Refuge/Military Lands Rider: This would have circumvented longstanding protections for National Wildlife Refuge System lands and other public lands by overriding National Environmental Policy Act (NEPA) protections for land withdrawals.

Just because you can’t see it, doesn’t mean it’s not there.

The Fallon bombing ranges are expanding to accommodate Air-to-Ground-Missiles such as high-altitude computer guided warheads and air to ground tactical missiles, as well as Cluster Bomb Units (CBUs). These latter include the CBU 52-B which shreds and dismembers; the CBU-87, a freefall cluster composed of depleted radioactive uranium that penetrates seven inches of armor and dispenses 200+ bomblets over an area of roughly 800x400-ft; and the CBU-107, a guided bomb containing metal penetrator rods that can spread over fifteen acres.

Munitions deployment and combat operations don’t go hand in hand with land use and wildlife. The warfare impacts upon the biological communities and land include electromagnetic radiation, fuel spills, unexploded ordinances (UXOs), high-intensity live-fire targets, low-level radioactive uranium armor piercing munitions, new roads, new runways, insertion of ground troops and equipment, as well as rotary and fixed winged aircraft.

Other environmental impacts include subsonic and supersonic noise, large caliber weapon noise, construction noise, ground disturbance, threat emitter operations, increased illumination of nighttime skies, community annoyance from sonic booms, firing of heavy weaponry, and other impulsive noise. Expect bird kills in the wildlife refuges from low flying aircraft, large mammal kills from unexploded ordinance, and visual impacts to scenic quality.

Today, signs posted along the public shores of Nevada’s Honey Lake and Walker Lake (the last remnants of ancient Pleistocene era Lake Lahontan) warn visitors to walk at their own risk because of unexploded ordinance, primarily from WWII submarine testing. What are the lands like inside restricted military bases, where environmental concern and stewardship are not a priority?

There must be continued oversight of the biological communities

Our Congressional representatives are giving away public and federally protected lands (free real estate) to multi-billion dollar companies that manufacture cluster bombs and fighter jets – Lockheed Martin, Raytheon, General Dynamics. The Fallon Range and Training Complex land withdrawal will close portions of the Stillwater and Fallon National Wildlife Refuges; the Clan Alpine, Jobs Peak, and Stillwater Range Wilderness Study Areas; and the Pony Express National Historic Trail between Fallon and Middlegate along Hwy. 50.

The Monte Cristo Mountains (highpoint Mt. Annie) and the desert area between the Monte Cristos and Gabbs, Nevada will be permanently closed to the public, absorbed into the base. That desert area is covered with Apache tears and fine desert pavement. Bighorn sheep herds thrive within the range. The community of Gabbs installed and currently maintains water guzzlers for wildlife within the Monte Cristos, so there is a concern, that there will be a sheep die-off once access is terminated to the guzzlers. It is critical that the US Fish and Wildlife Service maintain oversight of the biological communities within the base.

Past Chairperson of the Angeles Chapter Rivers Conservation Subcommittee and Los Angeles River Task Force, Wynne Benti currently works with the Toiyabe Chapter’s Public Lands Committee on military expansions and DOE projects. If you have questions please contact her at 760-920-6616.

TAKE ACTION

Track and comment on the upcoming Navy LEIS for the Fallon Range and Training Complex. It will be posted online at: https://frtcmodernization.com
Among the primary issues of concern raised by members of the public at Salton Sea community meetings are the quantities of windblown dust being generated by exposed playa and the toxic constituents of this dust. A recent report released by the Imperial Irrigation District (IID) sheds significant light on these issues and raises a new, previously unknown, concern.

The Salton Sea Air Quality Mitigation Program: 2016/2017 Annual Report and Emissions Estimates reports the methodologies and results of several lines of investigation undertaken by IID’s air quality consultants in evaluating windblown dust emissions and pilot control project effectiveness. The report covers a one-year research period from July 1, 2016 to June 30, 2017, and includes databases for use by other analysts in evaluating other dust-related questions.

Relevant to pertinent public concerns, the report contains an inventory of windblown dust emissions as well as a tabulation of the toxic element concentrations measured in playa dust samples collected by a portable wind tunnel. The area covered by the emission inventory includes all of the currently exposed playa along the Sea’s shoreline. The inventory also includes the desert lands bounded by the Riverside County line to the north, the Salton Trough watershed boundary to the west, the international border to the south, and the edge of Imperial Valley cultivated lands to the east. Within the desert lands portion lie the Anza Borrego Desert State Park, all or portions of several Wilderness Areas, three Off-Highway Vehicle recreation areas, and three military bombing and parachute practice ranges. Independent analysis of wind directions recorded during dust storms between 2010 and 2015 in the Imperial Valley indicated that these areas may be sources of windblown dust contributing to high concentrations of particulate matter smaller than 10 micrometers (PM$_{10}$) in the communities of Westmorland, Brawley, and El Centro.

The windblown dust inventory suggests that during the 2016/2017 dust season, PM$_{10}$ emissions from disturbed desert lands along the western edge of the Imperial Valley were over 130 times greater than those from exposed Salton Sea playa. The playa PM$_{10}$ emissions were estimated to be 306.3 tons per year, and desert emissions were estimated to be 40,205.7 tons per year. For a variety of reasons, exposed playa windblown dust emissions are expected to increase...
as the width of exposed playa increases with increasingly declining water levels, but at the present time, PM$_{10}$ emissions from the playa do not significantly contribute to area-wide windblown dust emissions. Also, this emission inventory does not include windblown dust emission estimates from disturbed agricultural lands and disturbed vacant parcels within urban boundaries, two potential sources that may also contribute to high PM$_{10}$ concentrations recorded at community monitoring stations during high wind events.

To measure the relationship between wind speed and PM$_{10}$ emissions on exposed playa and desert soils, IID’s consultants used a portable wind tunnel (PI-SWERL) developed by the Desert Research Institute (DRI).\(^3\) To capture samples of entrained playa dust, a special filter holder was mounted on the exhaust of the PI-SWERL. Dust captured by filters during emissivity testing of playa and desert soils were analyzed by DRI using X-ray fluorescence (XRF) to quantify concentrations of most of the metallic elements from sodium through uranium. The results of these analyses are within the ranges of elemental concentrations reported in a literature review for similar analyses of bulk sediment samples collected over the 30 years and reported in peer reviewed literature.\(^4\) A screening health risk assessment that accompanied the literature review in the Programmatic Environmental Impact Review for the Salton Sea Ecosystem Restoration Program reported that hexavalent chromium estimated concentrations would pose a health risk, and recommended further study of the fraction of hexavalent chromium in concentrations of total chromium measured by XRF. The screening health risk assessment had assumed that the hexavalent isomer – which is significantly toxic - may account for as much as 50% of total chromium. More recent research strongly suggests that total chromium found in nature contains about 5% to 10% of hexavalent chromium, and about 90% to 95% trivalent chromium, which is nontoxic. If scheduled testing of total chromium concentrations in collected dust samples supports this latter finding, the screening risk assessment conducted in 2005 will show no significant human health risk from exposure to metallic elements in the dust.

Over the same 30 year period, five studies of pesticide concentrations in sediment samples were published.\(^5\) One of these studies included a screening health risk analysis that, in summary, reported that “(S)ediment concentrations of most pesticides were found to be 100 to 1,000 times lower than the low-effects levels determined in human health risk assessment studies.” New tests of windblown playa dust samples to quantify pesticide concentrations are planned over the 2018/2019 dust season.

During the analyses of measured PM$_{10}$ concentrations at shoreline research and community regulatory air quality monitoring stations, the California Air Resources Board (CARB) found that wind directions during dust storms in the Imperial Valley blew from narrow compass arcs centered almost due west.\(^6\) Using these data to plot the downwind impact zones of exposed playa emissions, CARB concluded that if playa emissions rise significantly, the communities most affected will be those near the southeast corner of the Salton Sea, including Bombay Beach, Niland, and Calipatria. Based on current high wind patterns, the communities in the southern Coachella Valley and central Imperial Valley, will not be affected. Communities along the western shore of the Salton Sea and in the central Imperial Valley are currently being im-
SALTON SEA AIR QUALITY

CONTINUED FROM PAGE 13

Impacted by windblown PM$_{10}$ originating from sources to the west of these communities. In investigating possible sources in these areas, CARB found that sand being transported from the Peninsular Range during flash floods is primarily responsible for sandblasting desert soils during high events and producing very high PM$_{10}$ concentrations in Salton City and neighboring communities. Efforts are now underway to identify funding sources to support research into sand transport mechanisms and cost-effective controls to capture transported sand in the future before it reaches the western coastal plain and to stabilize the existing sand sheets now resident on the plain. If this sand migrates onto exposed playa, it will significantly increase windblown playa dust emissions and eviscerate any dust control structures on the playa.

To reduce high PM$_{10}$ concentrations during dust storms in the central Imperial Valley, investigations into emissions from sources within and upwind of affected communities are now underway. More, and detailed data, will be needed before the problems can be solved.

Earl Withycombe has worked for the past 12 years as a windblown dust control expert for the California Air Resources Board and as an air quality consulting engineer for the past 43 years. He has consulted on numerous dust control strategies in California and Nevada, and he serves currently on the boards of several public health and environmental nonprofits in the Sacramento area.

Footnotes can be found at desertreport.org under the Notes section.
GET YOUR KICKS ON ROUTE 66

CONTINUED FROM PAGE 10

cess of restoring it. At present, the gas station pumps expensive gas, and the lack of water is hampering his attempt to open the kitchen. You may still buy a Route 66 Root Beer or other snacks. Amboy has a U.S. Post Office, some strange artwork, and some even stranger local residents. ‘Mad’ Mike Hughes has been planning to launch his home-made steam-powered rocket from Amboy, in order to show the world that the Earth is flat although how a flight above Amboy will show a flat earth is not clear. We saw his launch pad: an adapted motorhome in the parking lot of Roy’s Motel.

As we left Amboy on the way to Essex, we encountered not one, but two marble statues of Chinese Foo Dogs. No one seems to know why the statues are there, or how they got there, proving once more that there is no place quite like the Mojave Desert.

Our next stop, Fenner, had been destroyed by a fire years ago. However the Najah family from Redondo Beach bought the town in 1996 and built the Hi Sahara Oasis with a gas station and a store. It was a daunting task, since there is no electricity or water. Diesel generators run the store and water is pumped in to run fountains complete with mermaid statues, pink flamingos, and real koi fish shaded under palm trees. The prices are astonishing, but if you need gas, something to eat, or a pink flamingo, you have come to the right place.

Our last stop before Needles was Goffs. Little remains of the town, but the schoolhouse was lovingly restored by tireless volunteers from the Friends of the Mojave Road and the Mojave Desert Heritage and Cultural Association. On the weekends you can visit the mission style schoolhouse and wander the grounds that have become a huge outdoor museum with hundreds of mining artifacts. Not only did they have stamp mills for crushing the ore, but they periodically invite the public to watch one in action. Bring ear plugs: stamp mills are really loud. For information about their events, go to https://www.mdhca.org/
The other buildings on the grounds, one being the restored Goffs Depot, contain archives with thousands of published works, photographs, oral histories, and news clips gathered lovingly from all over the Mojave Desert. It is no wonder that the schoolhouse has been placed on the National Register of Historic Places.

We chose to finish our trip in Needles, but Route 66 beckons onward. A road trip on Route 66 deserves time; time to chat with locals and tourists; time to take side trips. If you are in a hurry, take the Interstate, but be sure to add this wonderful stretch of Americana to your future travels.

As a teenager, Kimberley Hieatt traveled with her family for a full year in Mexico. Since then she has been a high school teacher and an avid camper in the California deserts and elsewhere.
the large-scale Desert X installations. Permitting and siting of some of the installations has been problematical. One particularly popular installation, sited near a small, rural neighborhood on the edges of Palm Springs, drew residents’ ire due to the crush of visitors, many who parked illegally due to lack of safe parking, and who over-ran their neighborhood and left trash.

At one installation in the Coachella Valley, the artist dug 290 holes in the ground in an area spread over 100,000 square feet – the size of two American football fields – and installed lights, to create an evening light show. Yet another installation, a huge facsimile of a wall, the size of the side of a small house, cropped up overnight in Thrush Park in south Palm Desert, right next to the trailhead leading into the Santa Rosa-San Jacinto National Monument, bringing huge numbers of art-lovers to an area with inadequate parking and no facilities.

Why site these rapidly-growing, huge, monopolizing arts events in the lesser-populated and remote desert regions of Inland Southern California? Why not host them in Los Angeles, for example? Because for now, they can. Huge events such as Coachella Fest or Desert X would not be possible in neighboring Southern California cities, which not only have less physical space but also have developed tighter regulations on such events in recent decades.

And the impacts are likely to increase. Goldenvoice has optioned a permit with the City of Indio to host up to six large music events per year, should it choose, on the scale of Coachella and Stagecoach. Desert X plans to return in 2019 to the Coachella Valley as a biannual event. And social media users continue to fuel international allure to these events in images beamed around the world.

Given the rising concerns over the environmental impacts of Coachella, Stagecoach, Desert X and other large-scale events on this and neighboring desert areas, as well as huge surges in all-around tourism, it seems imperative that these concerns must be addressed sooner rather later.

Ruth Nolan is professor of English at College of the Desert and a California desert scholar. She is the editor of No Place for a Puritan: The Literature of California’s Deserts; co-editor of Fire and Rain: Eco-poetry of California; and author Ruby Mountain. She writes for KCET Artbound, Los Angeles and Desert Magazine, and is working on a multi-media project, Fire on the Mojave: Stories from the Deserts and Mountains of Inland Southern California.

Sources
“Joshua Tree was once a sleepy high desert community. Now it’s a vacation rental destination” June 4, 2018. Los Angeles Times.
“Coachella generates 107 tons of solid waste each day. About 20% of it gets recycled.” April 21, 2017. Desert Sun.

**WHY SITE THESE HUGE EVENTS IN THE LESSER-POPULATED AND REMOTE DESERT REGIONS OF INLAND SOUTHERN CALIFORNIA? WHY NOT HOST THEM IN LOS ANGELES, FOR EXAMPLE? BECAUSE FOR NOW, THEY CAN.**

Solar panels also have the potential to create a lake effect which is capable of deceiving and killing birds. Data gathered from seven solar projects in the southern California desert and arid grassland habitats from 2012 through April 2016 show that 183 bird species and 3,545 individual birds were reported dead at solar projects. The Yellow Pine Solar Project will be located about two miles from the Stump Spring Area of Critical Environmental Concern wetlands.

**Good Desert Tortoise Habitat**

The proposed Yellow Pine Project is located in the Eastern Mojave Recovery Unit for the federally threatened desert tortoise. The development will likely kill, injure, and displace individual desert tortoises. The entire region was impacted by a drought beginning in 2012. This drought caused a population decline, but in the last 2 years, the area has received much more rainfall and desert tortoises are present and active on the project site.

All tortoises would be evacuated from their burrows and relocated out of the way of development or “translocated” to locations up to five miles away. Not all desert tortoise translocation projects go well. Problems that can result from translocation of desert tortoises include:

**Predation** - Savvy predators like coyotes will often keep track of recently moved, disoriented desert tortoises, and they have reduced tortoise numbers on certain translocation projects.

**Overheating (Hyperthermia)** - Translocated tortoises often become disoriented and will seek out their former homes. In many cases, tortoises overheat doing this. They have been observed pacing along recently built fences searching for former burrows and water sources. Tortoises are ectothermic (cold-blooded) and do not internally regulate their body temperature that well.

**Lack of Reproductive Success** - Recent observations have found that many resident females are rejecting males in translocation areas.
Ironically, the Bureau of Land Management recently approved the Stump Spring Desert Tortoise Translocation Area on 85,000 acres of public lands in the Southern Pahrump Valley. BLM approved this plan with five large-scale solar applications overlapping the translocation area. The translocation area was established by Federal agencies to offset the development pressures in the nearby Las Vegas Valley in Clark County, Nevada. Close to half of the Yellow Pine Solar Project application overlaps this translocation area. Significantly, Clark County has even proposed that a good portion of the region be established as an Area of Critical Environmental Concern (ACEC) to protect the desert tortoise, burrowing owl, and the Pahrump Valley buckwheat. The developer has indicated they may try to avoid the ACEC and translocation area by developing 4.6 square miles north of Tecopa Road, but we have found the most sign of desert tortoise in this side. The habitat is equal on all sides.

According to the Fish and Wildlife Service, ten years of data from 2004 to 2014 has shown a steady decline in the populations of 15 out of 22 recovery units for the desert tortoise. Clark County has even proposed that a good portion of the region be established as an Area of Critical Environmental Concern (ACEC) to protect the desert tortoise, burrowing owl, and the Pahrump Valley buckwheat. The developer has indicated they may try to avoid the ACEC and translocation area by developing 4.6 square miles north of Tecopa Road, but we have found the most sign of desert tortoise in this side. The habitat is equal on all sides.

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What happens to the Joshua trees and Mojave yuccas?

According to the Bureau of Land Management, there are far too many Joshua trees and Mojave yuccas on the site to salvage and transplant them all. Cacti and yuccas are considered “forest products” by the BLM and are required to be salvaged by developers. In the cases of a large-scale solar projects that will need to clear over 4 square miles of land, the developer is only required to pay a fee to compensate for the destruction of these plants.

All of the Joshua trees and Mojave yuccas on the site will be shredded and mulched. Over 9,000 Mojave yuccas were shredded for the construction of the Silver State South Solar Project located near Primm, Nevada.

Cultural and Visual Resources

Congress designated the area as part of the Old Spanish Trail in 2002. Several segments in Nevada are listed in the National Register of Historic Places. The Old Spanish Trail was in use between 1829 and 1848. Stump Springs was a rare watering stop in the desert trek of early travelers.

The Trail was based on a prior Native American route. The Southern Paiute people are Numic speakers who have lived in the area for thousands of years. The Pahrump and Moapa Tribes are the Southern Paiute residing in the western extent of Southern Paiute territory. Traditional ecological knowledge encompassed hunting of bighorn sheep, deer, antelope, and small game such as rabbits and chuckwallas. Mesquite bean collection and processing was important in Pahrump Valley and other areas with mesquite bosques.

The project would be built within two miles from the Old Spanish Trail. This particular area is visually unbroken with the exception of two roads and a couple of small transmission lines. The site has seen very little disturbance or vandalism. There is simply no way to avoid the major visual impacts that would be inflicted by the project. The construction phase will result in unsightly disruptive clearing and fugitive dust plumes while the completed project will create a sterile landscape of reflective solar panels with a tangle of new transmission lines.

The Simple Solution of Location:

Rooftops

There are unlimited alternatives for solar energy in the built environment of Nevada. Las Vegas is experiencing a new growth boom and is bursting at the seams. New developments surrounding the city are popping up on a weekly basis. These developments are thousands of acres in size. Net metering credits solar energy system owners for the electricity they add to the grid. For example, if residential customers have solar panels in their rooftop, it may generate more electricity than the home uses during daylight hours, and the energy can be sold back to the grid. Net metering was doing well in Nevada but received much pushback from utilities. Nevada also has several old mine sites that are disturbed, and they would be suitable for some kind of development. Why destroy habitat for threatened species? Why make a visual eyesore on our last undeveloped spaces when smarter alternatives are out there?

Comments can be sent by August 30th to: blm_nv_sndo_yellowpine@blm.gov, faxed to (702) 515-5073, or mailed to: BLM, Southern Nevada District, Field Manager, 4701 N. Torrey Pines Drive, Las Vegas, NV, 89130.

Kevin Emmerich is a former park ranger and field biologist. He has lived in the Mojave Desert for thirty years. Together with his wife, they founded the non-profit conservation organization Basin & Range Watch. They now live on an old ranch surrounded by a nature preserve in Nevada near Death Valley National Park.
Crescent Peak Again

April 10, 2018, a BLM scoping meeting held at Palo Verde College, met with opposition from Needle’s residents. Important information withheld by both the BLM and Crescent Peak Renewables included a 2013 geology study, led by Professor Brenda Buck, which analyzed 43 soil samples around the McCullough Range where the plan is to build 248 industrial wind turbines and 100+ miles of 36-foot wide service roads on lands containing significant amounts of asbestos.

Natural asbestos fibers found there are similar to those from Libby, Montana, site of EPA’s first declared public health disaster. If Crescent Peak Renewables (AKA Eolus) initiates construction during the Fall-Winter period as planned, the Laughlin/Ft. Mohave/Needles area could be the next Libby, where nearly 10% of the population died from asbestos poisoning. If built in Spring-Summer, when winds blow from the south, Las Vegas Valley could be the next Libby, which was a debacle that cost the government $555 million dollars in cleanup. Compared to Libby, Crescent Peak Wind Project could devastate a population twenty-eight times larger.

This July, representatives from Crescent Peak Renewables/BLM will visit Needle’s tribes attempting to persuade them not to oppose the project in sight of Spirit Mountain, coming with promises of “clean, green, pollution-free electricity.” What isn’t mentioned is that wind turbines run on subsidies, not wind. The Eolus chief engineer even admitted, “It’s not the windiest place.” In reliable wind regions like Iowa, wind turbines produce power 1/3 the time but not all power is used. Wind turbines are unable to store electricity. If maximum output is achieved at 3:00 a.m., when there is less need for electricity, much power goes unused.

Supporters of “wind farms” are silent on wind energy’s dirty truth: Wind towers don’t spring up naturally like wild mushrooms. Their materials are mined, manufactured in coal-fired furnaces, transported and assembled by combustion engine machines. The process requires 150,000 tons of coal for steel and concrete to build one 2.2 MW turbine/tower/base. Moreover, the radioactive byproduct of making supermagnets for U.S. turbines each year exceeds the waste of all spent nuclear fuel in American reactors annually.

Pat Flanagan represents her Desert Heights community on the Morongo Basin Municipal Advisory Council and is a board member of the Morongo Basin Conservation Association.

Feral Cattle to Be Removed

Those familiar with the LA Times article published in early March of 2018 detailing the presence of feral cattle in Sand to Snow National Monument will be glad to know that the Bureau of Land Management and U.S. Forest Service are securing funds to remove the feral cattle and hope to see their strategy implemented by summer of 2019.

When the LA Times article was published, reliable estimates put the feral cattle numbers at approximately 150. These cattle can regularly be seen in the Sand to Snow National Monument from the Pacific Crest Trail, a short walk from The Wildlands Conservancy’s Whitewater Preserve. It is critical that these animals be removed as soon as possible as the damage they are doing to the landscape is profound. Not only do the cattle pose a threat to hikers, they pose a grave risk to riparian habitats in an adjacent to Whitewater Canyon and Mission Creek. These riparian habitats have been known to host the federally endangered southwest willow flycatcher, the least Bell’s vireo, and three State Species of Special Concern: the summer tanager, yellow warbler and yellow-breasted chat. There is also the alarming possibility that diseases will spread from the feral cattle to a local population of big horn sheep.

It is important to note that movement on this issue by federal lands managers is a direct result of grassroots advocacy and the collaboration between a diverse group of stakeholders. Supporters of Sand to Snow National Monument should expect to see land managers conducting field studies by October. Stay tuned.

Jack Thompson, Desert Regional Director/Staff Photographer The Wildlands Conservancy.

LADWP Reveals Plan for Giant Pumped Storage Project at Hoover Dam

The Los Angeles Department of Water and Power recently revealed a long term plan to build a pumped storage project with Lakes Mead and Mojave for the upper and lower reservoirs, respectively, and utilizing the generators at Hoover Dam. The project, estimated to cost some $3 billion, is still in the conceptual stage, so no detailed plans are available. The basis for the proposal is that currently, at certain times of the day, there is a surplus of renewable energy in California, mostly solar power, and no good way to use it. At times, utilities in Southern California are paying utilities in Arizona to take their energy to the national grid and pay a huge premium to do it.
excess power so that the grid is not overloaded. This situation is expected to increase dramatically in future as much more solar power comes on line. Saying that Hoover Dam could act like a “giant battery,” LADWPs’ plan is to balance the grid by using excess power to pump water from Lake Mojave back up to Lake Mead and use it to generate electricity at peak times of demand or when renewable energy is not available.

Preliminary plans call for a lower intake on Lake Mojave about twenty miles downstream from Hoover Dam and a pipeline to carry the water back to Lake Mead. The engineering challenges are significant due to the very rugged nature of the country downstream of Hoover Dam and the fact that the area is part of the Lake Mead National Recreation Area, operated by the National Park Service, and some of it is designated Wilderness. There is not yet any publicly available estimate of how efficient this system would be at recovering the power expended in pumping water uphill from Lake Mojave to Lake Mead. The advantages of this plan are that the water reservoirs and the generating facilities are already in place and operating well below capacity.

Nevada State Engineer Declines to Approve Coyote Springs Development Plans

In Nevada all water is the property of the State, and its allocation and use are regulated by the State Engineer. In an unprecedented action, the State Engineer recently declined to approve subdivision plans for Coyote Springs Investments, a company that owns some 42,000 acres in Coyote Springs Valley north of Las Vegas. The State Engineer stated that the decision was based on tests showing there is not enough groundwater available to support the subdivision plans. In 2001 the company applied for 100,000 acre-feet of groundwater rights needed for its plans to develop a master planned community of about 160,000 homes and multiple golf courses. In response, the State Engineer issued ruling 1169 which ordered a two year pump test of the aquifer to determine its capacity. As part of the order seventy-nine monitoring wells were installed along with monitoring equipment at eleven springs. The most important of these is Muddy Spring, a complex of nearby springs a few miles away in the Moapa Valley, the outflow of which becomes the Muddy River. The spring complex is also the home of the Moapa Dace, a federally designated endangered fish species. The pump test was completed in 2012 and aquifer monitoring is still ongoing. Shortly after pumping started the outflow at the highest level spring in the complex started to decline and continued to decline for the duration of pumping. After the cessation of pumping there was some recovery of flow but not to the rate prior to the pump test. The water levels in the monitoring wells have also fallen and not recovered.

Based on Nevada water laws’ “first in time, first in right” principle and the very senior water rights on the Muddy River plus the potential harm to an endangered fish, the State Engineer has determined that all water rights in Coyote Springs Valley and connected groundwater basins, issued or applied for after about 1973, may need to be declared invalid. This would include the water rights Coyote Springs Investments was planning on for their project. Coyote Springs Investments has now filed suit against the State Engineer in a move to protect its interests. In view of the long established “first in time, first in right” precedent in Nevada water law, it appears that the State Engineer is on firm ground and Coyote Springs Investments has an uphill battle.

Public Records Reveal Trump Administration Plans to Lease 54,000 Acres in Nevada’s Ruby Mountains

ELKO, NV. – The Trump administration plans to lease 54,000 acres of Nevada’s Ruby Mountains for oil and gas development, according to public records released this week. The records, obtained by the Center for Biological Diversity through a Freedom of Information Act request, show the U.S. Forest Service plans to auction public land for drilling and fracking that includes crucial winter habitat for mule deer, priority habitat for greater sage grouse, and creeks harboring the threatened Lahontan cutthroat trout. Although the drilling and fracking would be done on public and private lands adjacent to national forest lands, these stipulations simply shift harm to Bureau of Land Management lands next to the national forest, where drilling rigs, roads, well pads and other infrastructure could be constructed.

Earlier this year, 10 environmental groups submitted detailed comments to the Forest Service about the potential harm from oil and gas development in the Ruby Mountains and surrounding valleys. These comments included a memorandum from Nevada hydrologist Tom Myers, who found that absence of surface occupancy does not protect surface water and groundwater. “It is not possible to drill for oil or gas under the south Ruby Mountains without putting surface water and groundwater resources at risk,” Myers wrote.

The stipulations also fail to protect wildlife and their habitat, such as mule deer migration corridors and sage grouse mating grounds. Data from the Nevada Department of Wildlife, included in the department’s comment letter to the Forest Service, shows that Nevada’s largest mule deer herd spends as much time in the valleys adjacent to the Ruby Mountains, where drilling and fracking would take place, as in the protected Forest Service parcels on top of the mountains. The same is true for sage grouse, whose mating grounds are primarily in the valleys.

The Ruby Mountains are among the most iconic landscapes in the Great Basin and have widespread public support. The Forest Service received more than 10,000 comments about the leasing proposal, nearly all of them opposed to it. Conservation and sportsmen’s groups and outdoor retailer Patagonia took out a full-page ad in the Elko Daily Free-Press opposing the leasing. Nevada Sen. Catherine Cortez-Masto also has spoken out about the Rubies, saying she’s concerned that “expansive oil and gas drilling will threaten this pristine and sensitive area.” CONTINUED ON PAGE 20
field of solar panels?

If the County of San Bernardino approves all projects under review, 3200 residents in the Mojave River Valley and 5800 residents in Lucerne Valley could be forced to either abandon their homes and flee or suffer the lung and heart damage associated with fugitive dust.13 Why should anyone have to sacrifice their well-being and homes, especially when California has slashed emissions and is meeting its greenhouse gas goal years early.14 As for location, location, location...solar belongs on rooftops and near point of use, not in favored low-slope, windy corridors covered with plants sequestering carbon into soils susceptible to eolian dust and sand transport.

San Bernardino County Vision Statement includes the following promise

From our valleys, across our mountains, and into our deserts, we envision a county that is a destination for visitors and a hope for anyone seeking a sense of community and the best life has to offer.

Footnotes can be found at desertreport.org under the Notes section.

Pat Flanagan has been a resident in the Mojave Desert since 2002. She represents her Desert Heights community on the Morongo Basin Municipal Advisory Council, is a board member of the Morongo Basin Conservation Association and is on the Technical Advisory Committee for the MDAQMD.

FOR MORE INFO

See what PG&E is doing on just 22 acres in the Mojave River Valley: https://tinyurl.com/ybo4vewn

Visit YouTube to watch the Sand Transport Paths and Sand Rivers flow across the Mojave River Valley on April 29, 2018: https://tinyurl.com/ybo4vewn

DEATH VALLEY, CA – The U.S. Attorney’s Office is making progress prosecuting men accused of harming an endangered species and vandalism of government equipment at Devils Hole, a unit of Death Valley National Park.

Edgar Reyes of North Las Vegas and Steven Schwinkendorf of Pahrump pleaded guilty to destruction of government property for their actions at Devils Hole on April 30, 2016. They discharged a firearm and damaged government equipment, including locks, the security system, scientific monitoring equipment, and several signs. They men agreed to pay $5,622.83 in restitution and face a potential maximum penalty of up to one year in prison and/or a fine of $100,000 for this charge.

Devils Hole is the only natural habitat of the critically endangered Devils Hole pupfish (Cyprinodon diabolis). There were only 115 pupfish in Devils Hole in the most recent survey. A six-foot by eighteen-foot shallow sunlit shelf provides most of the fish’s food and is the only place they lay eggs. This is considered the smallest natural habitat of any vertebrate species on the planet.

Both men went down to the water surface. Reyes put his hand in the water and Schwinkendorf vomited near the pool. Both men pleaded guilty to violating the Endangered Species Act, which carries a potential maximum penalty of up to one year in prison and/or a fine of up to $50,000.

Reyes and Schwinkendorf are scheduled for sentencing on February 14 and 15. A third man, Trenton Sargent of Indian Springs, is charged with destruction of government property, violating the Endangered Species Act, a felony in possession of ammunition, and a felon in possession of a firearm. He allegedly waded through the shallow shelf.

California Red Rock Canyon State Park

As part of the Red Rock Canyon State Park General Plan Revision, California State Parks will issue a Notice of Preparation (NOP) for an Environmental Impact Report (EIR) to comply with the California Environmental Quality Act (CEQA) no later than September 30, 2018. The EIR will be prepared concurrently with the General Plan.

The General Plan process was originally started in 2008. A NOP to initiate the CEQA review process was also issued at that time. The planning team held a scoping meeting and received extensive input from the public, agencies and stakeholders. This input informed and guided additional resource studies that have been conducted at the park since 2008 and was also used to develop some initial planning concepts for potential park uses.

Much has changed in the vicinity of Red Rock Canyon State Park since 2008, including land use designations, regional planning, and additional land acquisitions to name a few. California State Parks has initiated planning for Onyx Ranch State Vehicular Recreation Area immediately adjacent to Red Rock Canyon State Park. There have also been several changes to the CEQA process. Therefore, California State Parks has decided to issue a new NOP. The input received before has been considered in the prior planning process, and the park concepts developed to date based on this input will be carried forward as the proposed project concepts. The final proposed concepts (the proposed General Plan) will be refined through the re-initiated planning process and through input received during additional scoping. This approach will make the planning process more streamlined and accurate in reflecting current conditions.

The planning team is seeking public participation. If you would like to meet with the planning team to discuss the general plan project, please contact Katie Metraux at 916-708-3485 and at Katie.Metraux@parks.ca.gov.
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.)

DEATH VALLEY NATIONAL PARK SERVICE TRIP
December 7-9, 2018
Friday-Sunday
Legalization of Marijuana has not stopped illegal growers from using spring-fed canyons in Death Valley National Park for grow sites. We will be cleaning up the trash and tubing at a recently discovered site. (Sorry, all the plants are all ready taken out.) On Friday we will drive into the canyon as far as we are able and camp. Saturday morning we will hike in approximately 2¼ miles to gather up and haul out trash and tubing. If we can’t get it all out in one trip, we will go back Sunday and get the rest. Leader: Kate Allen, kj.allen96@gmail.com, 661-944-4056 (leave message). CNRCC Desert Committee.

CAMPING AND HIKING IN DEATH VALLEY NATIONAL PARK
February 25-28, 2019
Monday-Thursday
On Monday we will meet at noon at the Panamint Springs Campground ($10. per car) on Hwy. 190 just off Panamint Valley Road. In the afternoon we will hike to Darwin Falls. Tues. we will move to Mesquite Springs Campground and hike the rim of Ubehebe Crater. Weds. we will hike Titus Canyon and return to camp. Thurs. we will pack up and go to the Mesquite Dunes for a morning hike on the dunes before heading home. All hikes will be at a leisurely pace. For reservations contact Carol Wiley at earthlingwiley2000@yahoo.com or call 760-245-8734. Mojave Group/ CNRCC Desert Committee

AFTON CANYON OUTING
March 12-14, 2019
Tuesday-Thursday
Afton Canyon is in the new Mojave Trails National Monument and we will camp both nights in the campground near the Mojave River. We will meet on Tues. at noon and hike up one of the side canyons in the afternoon. Wednesday we will hike the Afton Canyon to some interesting sites and Thurs. morning hike to an area of hoodoos. Hike will be at a leisurely pace. For reservations contact Carol Wiley at earthlingwiley2000@yahoo.com or 760-245-8734. Mojave Group/ CNRCC Desert Committee

The following activity is not sponsored nor administered by the Sierra Club. The Sierra Club has no information about the planning of these activities and makes no representations or warranties about the quality, safety, supervision or management of such activities. They are published only as a reader service because they may be of interest to the readers of this publication

SALT TRAM PROTECTION PROJECT
October 19-24, 2018
Friday-Wednesday
Come help Marty Dickes, Wilderness Coordinator for the Ridgecrest BLM with a project to protect the historic Salt Tram in the Inyo Mountains from fire damage. Work will be thinning brush near supports. Primitive camping. Contact Marty Dickes: mdickes@blm.gov, 760-384-5444.
OIL DRILLING IN THE CARRIZO

CONTINUED FROM PAGE 5

to abandon one well – the Schlaudeman well – but four years later has not taken steps to do so.

Instead – in a move that still leaves the conservation groups puzzled – the BLM earlier this year approved the oil company's original plan to drill a new well on the Schlaudeman pad. It was a bold move, given the oil company's previous plans to abandon the site and its failure to comply with BLM's order to properly abandon the twelve other idle wells in the monument.

Appeals & State Director Review

Shortly after BLM's approval, the groups filed appeals with the Interior Board of Land Appeals in Virginia and the Bureau of Land Management's California Director. The appeals provided facts and evidence showing that the oil well – and an associated pipeline – would harm threatened and endangered wildlife in the area.

The area is home to several protected species, including the threatened San Joaquin antelope squirrel, the endangered San Joaquin kit fox, and a threatened flowering plant called the Kern mallow. Endangered California condors also visit this area with increasing frequency as the birds continue to expand into their historic range. Despite the presence of these species in the area, the BLM declined to consult with federal wildlife biologists at U.S. Fish & Wildlife Service before approving the new well.

The appeal also alleges that the well would mar scenic views. The new well would be visible from key vantage points within Carrizo Plain National Monument, including the Caliente Wilderness Study Area on Caliente Mountain (the highest point in San Luis Obispo County), and from Highway 166, a scenic route in the Cuyama Valley.

Due to these issues, the appeal concludes that the fossil fuel development would violate several laws, including the Endangered Species Act and National Environmental Policy Act, as well as the monument's resource-management plan.

What's Next?

The fate of this corner of the Carrizo Plain National Monument remains uncertain. The State Director's response to the appeal is due any day now. The conservation groups hope that the State Director upholds the intent of the BLM's 2014 letter, the agreement with E&B, and its approval of the company's restoration plan in 2016. The groups remained poised to take the matter to court to uphold the gradual phase-out of oil drilling envisioned in the Carrizo Plain management plan.

Jeff Kuyper is founder and Executive Director of Los Padres ForestWatch, a non-profit organization based in Santa Barbara that works to protect the Los Padres National Forest and other public lands throughout California's central coast region. For fourteen years, ForestWatch has been at the forefront of defending these public lands from oil development and fracking. For more information about their work, visit www.LPFW.org

THANK YOU

Our Institutional Sponsors have made many significant contributions for the printing expenses of the Desert Report in the past year.

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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:
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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
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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From community issues and action to lobbying on a national level, membership helps you take action on many issues. As a member, you’ll have opportunities to get involved with local chapters, as well as be part of a large national network of environmental advocates. Your voice will be heard through congressional lobbying and grassroots action. www.sierraclub.org/membership

FALL MEETING
NOV. 3 & 4 2018
This meeting will be held at the Mission Creek Preserve. The chair will be Terry Frewin

WINTER MEETING
Feb. 16 & 17 2019
This will be in the Shoshone Flower Building. The co-chairs will be Terry Frewin & Anne Henny

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