

USATODAY WILD SWINGS IN STOCK MARKET BEFUDDLE ANALYSTS ON WALL STREET PAGE 1B

OCEANS RETREAT AT SUNNYLANDS



GETTY IMAGES Monaco's Prince Albert II and Princess Charlene, seen in this 2012 photo, will be in Rancho Mirage for a retreat that starts Friday.

Prince Albert-led gathering to focus on rising seas

By lan James The Desert Sun

Prince Albert II of Monaco on Friday will open a three-day retreat at Sunnylands that focuses on how the world can adapt as sea levels rise and oceans grow more acidic.

Those expected to attend include President Anote Tong of the Pacific island nation of Kiribati, who predicts that most of his country's people will need to

SOUTHERN CALIFORNIA ENERGY SUMMIT

Diverse forum warns of Salton Sea's decline



Scientist makes case for revitalizing lake to fend off disaster

By lan James | The Desert Sun

Michael Cohen has studied the problems of the shrinking Salton Sea for years, and he says one of the biggest challenges is that it's hard for many people to envision the serious and costly environmental disaster that could be unleashed by the lake's decline.

"The Salton Sea is going to drop about 20 feet. Salinity is going to triple," said Cohen, a senior research associate with the Pacific Institute. "What we're going to see is massive die-offs."

Cohen's warnings came during a Thursday forum at the Southern California Energy Summit, a twoday event being held in Palm Springs.

Government officials and other speakers at the forum didn't offer new ideas for solving the Salton Sea's dilemmas, but rather focused on initial steps that can be taken to

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lying atolls vanish underwater in the coming decades.

The retreat, which begins with a dinner Friday night at the famed Rancho Mirage estate, also will bring together scientists, leaders of nonprofits, and others in considering options as the world's oceans are increasingly altered by melting polar icecaps and rising levels of carbon dioxide in the atmosphere.

"The focus is on solutions," said Margaret Leinen, director of the Scripps Institution of Oceanography at UC San Diego, which is organizing the event along with the Prince Albert II of Monaco Foundation and the Annenberg Retreat at Sunnylands.

"We already see acidification taking place. We already

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JAY CALDERON/THE DESERT SUN

The Salton Sea has been shrinking for years, and that decline is expected to accelerate after 2017, when flows of water will diminish under the 2003 deal known as Quantification Settlement.

may provide energy source

By Sammy Roth | The Desert Sun

The shrinking of the Salton Sea might pose a serious public health hazard, but it could also boost renewable energy development in the region, officials said Thursday at the Southern California Energy Summit.

As the sea recedes, the exposed lakebed is expected to spew enormous amounts of dust into the air, contributing to increased lung cancer and asthma rates and potentially causing tens of billions of dollars in damage. But some of the land that opens up as the sea recedes is likely to contain

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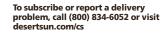


Obama in California

President Barack Obama visited a hub for entrepreneurs in Santa Monica, using the town hall-style forum to discuss the economy, immigration and other issues with younger voters in the run-up to next month's mid-term elections. California, A15 President Barack Obama smiles during a town hall-style meeting held at Cross Campus, a hub for start-up companies and entrepreneurs, Thursday in Santa Monica.



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Summit

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lessen the impacts as the water recedes.

Cohen offered an assessment of the potential costs if no action is taken to revitalize California's largest lake.

As the salinity rises at the Salton Sea, the tilapia that still survive in the saltwater lake are expected to hit their limits and die.

As inflows of agricultural runoff shrink in the coming years, Cohen said as much as 150 square miles of lakebed is likely to be exposed, giving off dust and posing a major health hazards for more than 600,000 people in surrounding areas.

His warnings were outlined in a report released last month by the Oakland-based Pacific Institute. It projected that, without action to address the Salton Sea's deterioration, the long-term social and economic costs in higher health care costs and lower property values, among other costs could range between \$29 billion and \$70 billion over the next 30 years.

"It's hard to envision how bad the Salton Sea is going to be," Cohen told the audience at the Coachella Valley iHub Health Medical Innovation Center in Palm Springs.



CRYSTAL CHATHAM/THE DESERT SUN

Keali'i Bright, deputy secretary for legislation at the California Natural Resources Agency, said the state has been focusing on projects that are realistic and achievable, such as a \$25 million project to build wetlands along portions of the dry Salton Sea shoreline using water from the New River. The two-day Southern California Energy Summit concludes on Friday.

front and start managing ton Sea with less water. these impacts in ad-

vance.' Cohen said he is optimistic about recent progress in efforts to begin addressing the Salton Sea's dilemmas. Various agencies, for instance, are teaming up for projects to construct wetlands to sustain habitat for fish and birds along portions of the shoreline.

"We still have a lot of water to work with," Cohen said. "How do we manage that water?"

Valerie Simon, a representative of the U.S. Bureau of Reclamation, said that one key objective is to maintain the vitality of "We need to get out in the ecosystem at the Sal-

"There is no doubt that the current form of the Salton Sea is going to change in the future," Simon said, noting that a federal budget amendment would direct an additional \$700,000 to Salton Sea projects.

"We're very hopeful that we'll be able to do some meaningful work with our partners should that pass.

The Salton Sea was created in its current form starting in 1905, when an irrigation channel off the Colorado River was breached and water flooded into the basin.

The water kept flowing in until 1907, when engi-

Geothermal

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prime geothermal hotspots.

Up to 2,000 megawatts of new geothermal potential could become available, according to Andy Horne, who works on natural resources development for Imperial County.

Officials have long seen geothermal development as critical to funding the restoration of the Salton Sea, which has been receding as agricultural runoff declines.

Moreover, companies that develop newly exposed geothermal hotspots could be required to pay for environmental mitigation projects. Ideally, Horne said, those projects would address the health and environmental problems caused by wafting dust from the exposed lake-bed surrounding the new geothermal plants.

"An environmental activist told me never to use the turn of phrase, 'Kill two Dirus with one stone, "Horne said. But we'll do that."

ton Sea by itself, IID environmental manager Bruce Wilcox said, but the short-term revenue it generates is critical to keeping restoration efforts afloat until a full funding plan is developed.

"We're all struggling with how best to pay for full-scale restoration," he said. "We also realize we have to do something now.'

Officials also highlighted the larger role renewable energy can play in revitalizing the Imperial Valley's economy. Imperial County is one of the poorest counties in the state — its unemployment rates hovers around 25 percent but its solar and geothermal resources are among the best in the world.

According to Horne, 18 geothermal plants are operational in Imperial County, along with seven solar photovoltaic projects. Meanwhile, a host of solar, biomass and biofuel plants are under construction or going through the permitting process.

In Imperial County, we are very rich in resources — but that's about the only thing we're rich in," Horne said.

The next big thing on the county's renewable energy horizon could be batteries for electric vehicles. In Calipatria, Simbol Materials has developed an innovative process for extracting lithium — a key ingredient in most electric car batteries — from geothermal brine. If that process proves commercially viable, it could bring a flood of battery manufacturers to the area, including Tesla which plans to build several battery factories in addition to the one it has planned for Nevada. Tesla co-founder J.B. Straubel is scheduled to speak Friday at the second day of the energy summit, which will take place at the Palm Springs Convention Center.

neers put a stop to it.

The lake has for more than a century been sustained largely by agricultural runoff. But it has been gradually shrinking in recent years.

The decline is set to accelerate after 2017, when flows of water will diminish under the 2003 deal known as Quantification Settlement Agreement, the nation's largest agricultural-to-urban water transfer.

As the sea shrinks, decaying material in the water has also periodically been giving off odor, including during a 2012 event that sent gases smelling like rotten eggs wafting across much of Southern California.

Some of the speakers at Thursday's forum touted ideas for generating money to help cover up exposed lakebed, such as more geothermal energy

plants and other renewable projects.

Keali'i Bright, deputy secretary for legislation at the California Natural Resources Agency, said the state has been focusing on projects that are realistic and achievable, such as a \$25 million project to build wetlands along portions of the dry shoreline using water from the New River.

"We're investing in different pilots to test different strategies," Bright said.

He said agencies at various levels of government have also been increasing cooperation.

"There is a wide body of interested parties that in the past few years have seemingly come together," Bright said.

Silvia Paz, of the or-Building ganization Communities Healthy Eastern Coachella Valley,

said that in communities near the Salton Sea, many residents have unanswered questions about what the lake's decline will mean for their health.

"When the wind picks up, it is very dusty," Paz said.

She said it's a problem that there aren't enough monitors for particulate dust known as PM10 around the Salton Sea. She added that residents also are concerned about the potential risks of pesticides and other toxins that may be in the dust blowing from the shore.

"There is really no data that with any specificity," Paz said. "That worries the community.'

The energy summit concludes Friday.

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Restoration of the Salton Sea is likely to cost between \$3 billion and \$9 billion, and the Imperial Irrigation District has estimated that geothermal development could generate \$2 billion in royalty payments over the next 30 years. But while the Salton Sea is home to one of the world's most potent geothermal reservoirs, only one new plant has been built since 2000 — the EnergySource's Featherstone plant, which Horne said cost about \$400 million to build.

Even though the high up-front costs of geothermal have brought development by the Salton Sea to a standstill, officials are hopeful that state and federal policy changes will jump-start the industry. Horne noted that the recently released Desert Renewable Energy Conservation Plan — a massive document that rewrites the ground rules for renewable energy development across the desert designates the land surrounding the Salton Sea for geothermal development.

Renewable energy won't save the Sal-

The day's discussion topics will include rooftop solar, the state's renewable energy mandate and the Desert Renewable Energy Conservation Plan.

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