

HHIA - Utility Report for Meeting on 2018.09.17

Main San Gabriel Key Water Well Level updates:

Historic Low: 172.20 ft. (on 2016.10.07)

Historic High: 295.30 ft. on 1983.07.20 (Since entry of judgment in 1973)

Current: (As of 2018.09.07), **172.70** ft., (58.48% vs High; 1.54% less than Aug. 2018); **closing to Historic Low @ 172.20 ft.**

Related link:

<http://www.watermaster.org/>

Local Groundwater Level: **20%** of Capacity

CA Snowpack Level: **0%** of Normal to Date

Related link:

<http://sgvmwd.org/>

California Natural Resources Agency **California's Fourth Climate Change Assessment**

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Aug. 27, 2018

California Releases New Climate Science, Planning Tools to Prepare for Climate Change Impacts

SACRAMENTO – Warning that two-thirds of Southern California's beaches could completely disappear and the average area burned by wildfires could nearly double by 2100, the State of California today released California's Fourth Climate Change Assessment, which details new science on the devastating impacts of climate change and provides planning tools to support the state's response.

"In California, facts and science still matter," said Governor Edmund G. Brown Jr. "These findings are profoundly serious and will continue to guide us as we confront the apocalyptic threat of irreversible climate change."

The compilation of original climate research includes 44 technical reports and 13 summary reports on climate change impacts to help ready the state for a future punctuated by severe wildfires, more frequent and longer droughts, rising sea levels, increased flooding, coastal erosion and extreme heat events. The peer-reviewed research translates global models into scaled-down, regionally relevant reports to fill information gaps and support decisions at the local, regional and state levels.

California has completed three prior Climate Change Assessments. Since the release of California's Third Climate Change Assessment in 2012, the state has experienced several of the most extreme natural events in its recorded history, including a severe five-year drought, an unprecedented tree mortality crisis, damaging floods driven by atmospheric rivers, and increasingly large and destructive wildfires.

The Fourth Assessment suggests these events will worsen in the future. Among the key findings:

- **Wildfire:** Climate change will make forests more susceptible to extreme wildfires. By the year 2100, if greenhouse gas emissions continue to rise, one study found that the average area burned by wildfires would increase 77 percent and the frequency of extreme wildfires burning more than 25,000 acres would increase by nearly 50 percent. In the areas that have the highest fire risk, the cost of wildfire insurance is estimated to rise by 18 percent by 2055. Additionally, the percentage of property insured in California would decrease.
- **Sea-Level Rise:** Under mid to high sea-level rise scenarios, up to 67 percent of Southern California beaches may completely erode by 2100 without large-scale human interventions. Statewide damages could reach nearly \$17.9 billion from inundation of residential and commercial buildings if sea-level rise reaches 20 inches, which is within range of mid-century projections. A 100-year coastal flood, on top of this level of sea-level rise, would almost double the cost of damages. Updated modeling can help local planners analyze vulnerabilities in their area.
- **Energy:** Higher temperatures will increase annual electricity demand for homes, primarily for use of air conditioning units. High demand is projected in inland regions and Southern California. More moderate increases are projected in cooler coastal areas. Increases in peak hourly demand during the hot months of the year could be more pronounced. This is a critical finding for California's electric system, because generating capacity must match peak electricity demand.
- **Extreme Heat Events and Impacts on Public Health:** Heat-related illnesses and deaths are projected to worsen drastically throughout the state. By mid-century, the Central Valley is projected to experience heat waves that average two weeks longer than those today, and the hot spells could occur four to 10 times more often in the Northern Sierra region. A new California Heat Assessment Tool (CHAT) could support public health departments as they work to reduce heat-related deaths and illnesses.

The latest reports also detail the unique and disproportionate climate threats to vulnerable communities and tribal communities, with a focus on working collaboratively with these communities on research and solutions for resilience.

In addition, a report set for release in early September will highlight how California can better integrate climate impacts in design processes for critical infrastructure. The report by a **working group established by AB 2800 (Quirk) of 2016** reflects the expertise of multiple scientific and engineering disciplines to help design and construct infrastructure to withstand higher temperatures, more frequent and intense storms, drought, wildfires and sea-level rise.

To access Fourth Assessment technical reports, summary reports, online tools, climate projects and data, and other resources and information developed as part of California's Fourth Climate Change Assessment, please visit www.ClimateAssessment.ca.gov.

California is a global leader in using, investing in, and advancing research to set proactive climate change policy. Its climate change assessments provide the scientific foundation for understanding climate-related vulnerability and how Californians may respond. The Climate Change Assessments directly inform State policies, plans, programs, and guidance to promote effective and integrated action to safeguard California from climate change.

California – which is playing a world-leading role in building strong coalitions of partners committed to curbing carbon pollution in both the United States and around the globe – will convene the Global

Climate Action Summit in San Francisco next month. At the Summit, representatives from subnational governments, businesses and civil society will showcase the surge of climate action around the world, and make the case that even more must be done.

Related link:

<http://resources.ca.gov/climate/safeguarding/research/>

CA State Water Boards Press Releases

Public Hearing on Proposed Water Rate Adjustments

The District's Board of Directors will hold a public hearing on proposed water rate adjustments at 5:30 p.m. on October 15, 2018 at 112 N. 1st Street, La Puente, CA 91744 in the La Puente Valley County Water District Board Room.

As part of an ongoing commitment to responsible planning, the District completed a study of its rates and fees to ensure they are adequate to support the cost of providing service. This independent cost-of-service study determined that rate adjustments are necessary to generate additional revenue needed to offset increases in the cost of producing groundwater and the costs for operations, maintenance and improvements to the District's water system. As a result, the District's Board of Directors will be considering adopting a plan to adjust water rates over a five-year period. On August 25, 2018 a notice of proposed adjustment to water rates and charges was mailed to all property owners within the District's service area. The notice provides information on the Public Hearing on the proposed water rate adjustments. The main cost factors that necessitate an adjustment in water rates are provided below:

COST OF WATER – The District is fortunate to have rights to a local groundwater source in the Main San Gabriel Basin. Anything we pump over our allotment must be replaced to maintain healthy water levels in the basin – either by leasing rights or purchasing imported water. The cost for this water has increased by over 23 percent in the last four years.

GROUNDWATER MANAGEMENT – In addition to cost of water increases, a new groundwater pumping assessment has been put into effect by the Main San Gabriel Watermaster in order to secure additional water resources to maintain water levels in the Basin. Although necessary, this assessment will have a large cost impact on all water providers that pump groundwater in the San Gabriel Valley.

CAPITAL INVESTMENTS – The District continuously invests in capital improvement projects that improve the performance of the water system or extend the life of existing facilities and equipment to avoid more expensive emergency repairs. Recommended improvements have been identified in the District's recently updated 10-year Water Master Plan, which prioritizes projects based on their benefit.

Related link:

https://www.lapuentewater.com/#Current_News

CA State Water Boards

State Water Board Reminds the Public to be Aware of Harmful Algal Blooms this Holiday Weekend

Various Popular Waterbodies Assessed Prior to Labor Day

August 31, 2018
Marisa Van Dyke (916) 322-8431

SACRAMENTO -- With many swimmers and boaters expected at the state's lakes, streams and reservoirs this Labor Day weekend, the State Water Board is reminding the public to be mindful of harmful algal blooms (HABs) and to practice **Healthy Water Habits**, such as keeping pets away, if they see one.

Last week, the California State and Regional Water Boards conducted targeted sampling at some of the state's most visited lakes and streams that have a history of HABs. This sampling was part of a collaborative effort with other state and local agencies to gather data and share it with the public. Those agencies included the California Department of Water Resources, Klamath Basin Monitoring Program, East Bay Regional Parks, Elem Indian Colony, Big Valley Band of Pomo Indians, and others.

The results of the targeted sampling for approximately 40 waterbodies are summarized in an interactive map. You can see which locations were sampled at each waterbody and recommended advisory levels. Recommended advisory levels are based on cyanotoxin testing results and/or visual indicators confirming the presence of a HAB. Red and orange dots indicate waterbodies with limited water recreation (i.e., no swimming) due to elevated levels of cyanotoxins. Please be aware that HAB location, extent and toxicity can change quickly. The data in this map is subject to change as new information is received. The interactive map will be made available August 31, 2018 and can be viewed at: https://mywaterquality.ca.gov/habs/data_viewer/

Algae and cyanobacteria, the organisms that cause HABs, have existed for billions of years as essential components of freshwater ecosystems. But when certain conditions favor their growth – such as warm temperatures, stagnant water flows and excessive nutrient inputs – they can multiply very rapidly creating “blooms.” These blooms can produce toxins, and taste and odor compounds, that pose health risks to humans and animals. When blooms pose a risk, they are referred to as harmful algal blooms (HABs).

Cyanotoxins and algal toxins pose risks to the health and safety of people and pets, drinking water, and recreating in water bodies affected by blooms. They can also accumulate in fish and shellfish to levels posing threats to people and wildlife. **Symptoms of HAB-related illness** in people and animals are available from the Centers for Disease Control and Prevention (CDC), and by contacting the California Poison Control Center (1-800-222-1222).

This year marks the start of a multi-agency effort to track and record data on human and animal illnesses potentially related to exposure to HABs in California. The Water Boards, California Department of Fish and Wildlife, Office of Environmental Health Hazard Assessment, and California Department of Public Health, together with water managers, and county and state health officials have worked to investigate reported cases of health impacts potentially associated with freshwater blooms. Through August 27, 2018, the Water Board's data collection system has received 6 reports of human illnesses and 12 reports of animal illness or death. The inter-agency illness workgroup will continue to monitor, evaluate, and report throughout the year, and will provide an update on the types and nature of problems seen at close of 2018.

Pets, especially dogs, are susceptible to HABs because they swallow more water while swimming and playing in the water. They are also less deterred by green, smelly water that may contain HABs. Animals can experience symptoms within minutes of exposure to the toxins. In the worst cases,

animals have died. If your pet experiences these symptoms after exposure, contact your veterinarian immediately.

It is important to distinguish cyanobacteria/HABs from green algae and other non-toxic water plants that are not thought to pose potential hazards to health (Figure 2). HABs can be a variety of colors such as green, white, red or brown and may look like thick paint floating on the water. Cyanobacteria blooms have a grainy, sawdust-like appearance of individual colonies.

For help identifying a HAB, check out this visual guide fact sheet available on the CA HABs Portal here: https://mywaterquality.ca.gov/habs/what/visualguide_fs.pdf

For more information, please visit: California Harmful Algal Blooms Portal at <http://www.mywaterquality.ca.gov/habs/>

Southern California Gas

New Study Shows Natural Gas Engine Can Dramatically Reduce Smog from Heavy-Duty Trucks

Simulated on-road testing shows the new Cummins Westport engine maintains near-zero emissions during all duty cycles

Aug 30, 2018

RIVERSIDE, Calif., Aug. 30, 2018 /PRNewswire/ -- The University of California, Riverside College of Engineering Center for Environmental Research and Technology (CE-CERT) and Southern California Gas Co. (SoCalGas) today announced the results of a new study on ultra-low emission natural gas heavy-duty engines, showing a new 11.9-liter engine achieved California's lowest smog-forming emissions standard, and maintained those emission during all types of driving. The study results underscore the ability of the near-zero truck engines to clean the air: most heavy-duty vehicles on roads today are predominantly diesel-powered and represent one of the largest sources of nitrogen oxide (NOx), or smog-forming, emissions and fuel consumption in North America. By contrast, the new near-zero emissions 12-liter engine, made by Cummins Westport, is the only heavy-duty engine in the category to not only meet, but exceed, the California Air Resources Board's cleanest optional low-NOx standard of 0.02 g/bhp-hr.

Kent Johnson, assistant research engineer at CE-CERT, led the tests on the near-zero emissions natural gas engine. The evaluation included regulated and non-regulated emissions, ultrafine particles, global warming potential, and fuel economy. The testing was performed during in-use testing on a dynamometer that simulated various types of driving conditions, from pulling into a loading dock to regional hauling. Johnson performed similar testing on an 8.9-liter near-zero natural gas engine last year. Those results found the smaller engine had even lower emissions than California standards will require in the near future—in some driving conditions, almost zero.

"The first study was a smaller engine intended for use in school buses and trash trucks, which are only about 30 percent of the heavy-duty inventory. The new engine is for drayage and movement of goods, or 70 percent of the inventory. This engine technology is good not only for the smaller work-force applications of transit and refuse, but also for hauling loads around Southern California," Johnson said.

"The transportation sector accounts for more than 80 percent of smog-forming emissions in California," said Sharon Tomkins, vice president of customer solutions and strategy for SoCalGas. "The test results from UC Riverside once again shows the latest natural gas engine technology, which is available and on the road today, will play a vital role in achieving California's clean air goals."

"The Energy Commission is pleased to support, along with South Coast Air Quality Management District and SoCalGas, the initial testing of this cleaner low NOx Cummins engine and glad to see it has been certified by the California Air Resources Board," said California Energy Commission Commissioner Janea A. Scott. "This type of near-zero pollution engine adds to the growing number of clean energy technologies being developed to reduce pollution in efforts to meet California's clean air standards and is particularly important in Southern California where air quality continues to be a challenge and freight movement represents a third of the region's economy."

"Large scale and accelerated deployment of near zero-emissions engine technology is vital for achieving the necessary emission reductions to achieve federal air quality standards in 2023 and 2031," said Wayne Natri, executive officer of the South Coast Air Quality Management District. "To meet our air quality goals, we must continue to see improvements in the transportation sector, which contributes the most air pollution in our region."

About 41 percent of the state's greenhouse gas (GHG) emissions come from transportation. When near-zero emission natural gas trucks are fueled by renewable natural gas, GHG emissions can be reduced by at least 80 percent. Already, close to 70 percent of natural gas fleets in California are fueled with renewable natural gas and is expected to continue to climb this year.

The full study, funded by the South Coast Air Quality Management District, the California Energy Commission and SoCalGas, can be found here.

Related link:

<https://sempra.mediaroom.com/2018-08-30-New-Study-Shows-Natural-Gas-Engine-Can-Dramatically-Reduce-Smog-from-Heavy-Duty-Trucks>

Southern California Edison

SCE Proposes Grid Safety and Resiliency Program to Address the Growing Risk of Wildfires

September 10, 2018

Media Contact: Brian Leventhal, (626) 302-2255

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ROSEMEAD, Calif., Sept. 10, 2018 — As part of its ongoing efforts to protect customers and communities from the growing risk of wildfires, Southern California Edison proposed additional wildfire safety measures in a filing today with the California Public Utilities Commission (CPUC).

The proposed \$582 million **Grid Safety and Resiliency Program (GS&RP)** aligns with the wildfire mitigation plans required by Senate Bill 901, one of the wildfire bills passed by the legislature last month and currently awaiting the Governor's signature.

“The devastation caused by the 2017 and 2018 wildfires leaves no doubt that wildfire risk has increased to the point where California needs to reassess the way we collectively prepare for and prevent wildfires,” said Phil Herrington, SCE senior vice president of Transmission & Distribution. “This includes a role for utilities in going beyond existing state standards and traditional utility practices to incorporate leading mitigation measures from around the world, selected based on their effectiveness.

“We are taking a holistic approach and proposing to implement measures between now and the end of 2020 that will further harden our infrastructure, bolster our situational awareness capabilities and enhance our operational practices,” Herrington said. “We also will continue to work with state leaders on policies to reduce the risk of catastrophic wildfire damages while ensuring equitable distribution of costs.”

Initiatives to Further Harden Infrastructure

Insulated Wires: SCE will replace nearly 600 miles of overhead power lines in high fire risk areas with insulated wire by the end of 2020. This will be the first large-scale deployment of insulated wire in the U.S. designed to reduce wildfire risk.

While up to 10 percent of wildfire ignitions in California are from power lines, in SCE’s service area more than half of ignitions associated with distribution lines are caused when objects such as metallic balloons, tree limbs and palm fronds come into contact with power lines. While bare, uninsulated wire meets California state standards and is widely used by utilities across the country, insulated wires can significantly reduce the potential for ignitions resulting from contact with foreign objects. In addition, insulated wires provide the greatest overall value compared to other mitigation measures such as undergrounding lines.

Where appropriate, fire-resistant composite poles will be used when poles need to be replaced to support the increased weight and diameter of the insulated wire.

SCE plans to replace about 3,400 miles of overhead line with insulated wire between 2021 and 2025; funding for that work would be included in future General Rate Case requests.

Current Limiting Fuses: SCE is installing 15,700 of these devices, which interrupt current more quickly and avoid the potential creation of their own heat source during fuse operation when compared to traditional, industry standard fuses. In addition to reducing the risk of wildfires, installation of the current limiting fuses is expected to boost reliability by segmenting circuits to isolate problems, thereby limiting the number of customers affected by an outage.

Remote-Controlled Automatic Reclosers (RARs): Under normal conditions, the grid automatically tests any circuit experiencing a temporary interruption or “fault”; if the fault condition no longer exists, the circuit is quickly re-energized. During Red Flag conditions (low humidity and high wind), SCE uses RARs to stop affected circuits from automatically re-energizing so SCE crews can physically inspect the lines before they are re-energized. SCE currently has 930 RARs and is installing another 98, in addition to updating the RAR settings to increase both the speed and sensitivity of the RARs to react to line faults.

Projects Increasing Situational Awareness

High-Definition Cameras: SCE will deploy up to 160 high-definition cameras which will enable emergency management personnel, including fire agencies, to more quickly respond to emerging and spreading wildfires and save critical time in assessing fire severity.

Weather Stations and Modeling Tools: SCE will install up to 850 weather stations, beginning with 125 weather stations in 2018. Data from the weather stations will be used by a new advanced weather modeling tool that can forecast weather conditions within a third of a mile. This information can be used to inform operational decisions and optimize resource allocation during emergency situations.

Enhancing Operational Practices

Vegetation Management: While the CPUC last year issued aggressive new rules on tree pruning in high fire risk areas, SCE is proposing to do even more: SCE will inspect all trees within 200 feet of its electric facilities and remove or prune trees that could strike the equipment. “These trees are far enough away from electrical equipment that they are not covered by existing clearance requirements, but close enough to present a possible threat during high winds,” Herrington said.

Public Safety Power Shutoffs (PSPS): As a measure of last resort, the company proactively de-energizes portions of its system under extreme fire conditions to keep customers and communities safe. The company will implement a number of measures designed to minimize the inconvenience to customers, including:

- A new Emergency Outage Notification System to send customized messages before, during and after a PSPS.
- Portable Community Power Trailers so customers can charge their personal devices (mobile phones, tablets, laptops, etc.) and continue to receive outage updates and public safety information while staying connected with friends and family.
- A pilot project deploying drones operating Beyond Visual Line of Sight to quickly survey power lines after a PSPS so power can be restored more quickly.

Infrared Inspections: SCE is expanding the use of infrared inspection for overhead distribution lines to help identify equipment at risk of failure. Visual inspections, while valuable, cannot identify potential issues inside sealed components or covered objects that may lead to component failure.

“With both safety and consumer cost in mind, we believe that the portfolio of projects we are proposing will work together to provide a comprehensive approach to further minimize the risk of wildfires and increase the resiliency and reliability of our grid,” Herrington said.

If the GS&RP is approved, the average monthly bill for a residential customer would increase by about \$1.20; income-qualified CARE customers would see an increase of about 81 cents per month. The total costs include \$175 million in Operations & Maintenance expenses and \$407 million in capital spending.

Related link:

<https://newsroom.edison.com/releases/sce-proposes-grid-safety-and-resiliency-program-to-address-the-growing-risk-of-wildfires>

Report by *Ted Chang*
HHIA Board Director, Utility