REVISED

A REGULAR MEETING OF THE BOARD OF DIRECTORS
UPPER SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT
602 E. HUNTINGTON DRIVE, SUITE B, MONROVIA, CA 91016
9:00 A.M. – OCTOBER 28, 2020

SPECIAL NOTICE
Teleconference Accessibility

Pursuant to Executive Order N-29-20 issued by Governor Newsom in response to the COVID-19 pandemic, the Upper District will hold its board meeting via teleconference or the most rapid means of communication available at the time. Instructions to participate in the teleconference are below:

Attendee Join Zoom Meeting **Meeting ID: 863 5729 5892**
https://us02web.zoom.us/j/86357295892

Telephone Dial: **Meeting ID: 863 5729 5892**
1 (669) 900 - 6833

Public comments may be made through teleconference when prompted by the President during the public comment period. Public comments may also be provided by emailing christy@usgvmwd.org in advance of the meeting. Please indicate "PUBLIC COMMENT" in the subject line.

If you have difficulty connecting to the teleconference line, please call (626) 443-2297 or email ruben@usgvmwd.org. ***It may take a few minutes to join Zoom or connect via telephone so please join early.***

AGENDA

1. PLEDGE OF ALLEGIANCE

2. ROLL CALL OF BOARD OF DIRECTORS

3. ADOPTION OF AGENDA [1]

4. PUBLIC COMMENT
   Anyone wishing to discuss items should do so now. The Board of Directors may allow additional input during the meeting. A three-minute time limit on remarks is requested.

5. CONSENT CALENDAR [1]

   (a) Approve minutes of a regular meeting of the Board of Directors held on October 14, 2020 at 9:00 a.m.

6. ACTION/DISCUSSION ITEMS [1]

   (a) MWD Regional Recycled Water Program Update. *(A representative from MWD will provide a presentation at the meeting.*

   Recommendation

   This item is for information only. No action is anticipated.

(b) Nomination of Two Upper District Representatives to the Main San Gabriel Basin Watermaster for Calendar Year 2021. *(Staff memorandum enclosed.)*

Recommendation

Staff recommends that the Board of Directors nominate two board members to serve as Upper District's representatives to Watermaster for calendar year 2021.

(c) Appointment of a Representative and an Alternate to the San Gabriel Basin Water Quality Authority (WQA) for a Four-Year Term ending December 31, 2024. *(Staff memorandum enclosed.)*

Recommendation

Staff recommends that the Board of Directors:

1. Appoint a District representative and an alternate to the WQA Board for four-year terms ending December 31, 2024.
2. Adopt Resolution No. 10-20-612 ratifying those appointments.
3. Instruct the Secretary of the District to transmit a copy of Resolution No. 10-20-612 to the WQA.

(d) Upper District 60th Anniversary Review – Part 2 of 3 Series. *(Staff will provide a presentation at the meeting.)*

Recommendation

This item is for information only. No action is anticipated.

7. INFORMATION ITEMS (These items are for the information of the Board of Directors and require no action) [2]

(a) Press Releases.
(b) Newspaper Articles.

8. ATTORNEY'S REPORT [2]

9. GENERAL MANAGER'S REPORT [2]

10. DIRECTOR'S COMMENTS [2]

11. FUTURE AGENDA ITEMS [1]

12. ADJOURN TO CLOSED SESSION

(a) Conference with Legal Counsel (Government Code Section 54956.9); Potential Litigation: one case.
(b) Conference with Legal Counsel (Government Code Section 54957); Performance Evaluation – Executive and Administrative Staff.

13. RESUME REGULAR MEETING AND REPORT ON CLOSED SESSION

14. ADJOURNMENT - To a regular meeting of the Board of Directors to be held on November 18, 2020 at 9:00 a.m. via teleconference or the most rapid means of communication available at the time.

LEGEND: [1] INDICATES ACTION ANTICIPATED BY BOARD OF DIRECTORS ON THIS ITEM
[2] INDICATES INFORMATION ITEM - NO BOARD ACTION NECESSARY

PRESIDENT ED CHAVEZ, PRESIDING

American Disabilities Act Compliance *(Government Code Section 54954.2(a))*
To request special assistance to participate in this meeting, please contact the Upper District office at (626) 443-2297 or Valeria@usgvmwd.org at least 24 hours prior to meeting.

A REGULAR MEETING OF THE BOARD OF DIRECTORS OF THE UPPER SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT 602 E. HUNTINGTON DRIVE, SUITE B, MONROVIA, CALIFORNIA 91016 9:00 A.M. – October 14, 2020

Pursuant to Executive Order N-29-20 issued by Governor Newsom in response to the COVID-19 pandemic, the Upper District held a regular meeting of the Board of Directors via zoom teleconference on October 14, 2020 at the hour of 9:00 a.m.

ROLL CALL

DIRECTORS PRESENT: Chavez, Contreras, Fellow, Santana, and Treviño.

DIRECTORS ABSENT: None.

STAFF PRESENT: Tom Love, General Manager; Steve O'Neill, District Counsel; Jenny Savron, Consulting Engineer; Robert Tock, Assistant General Manager; Evelyn Rodriguez, Director of Finance and Administration; Patricia Cortez, Director of Government and Community Affairs; Christy Hawkins, Executive Assistant; Nichol Delgado, Government and Community Affairs Assistant; Ruben Gallegos, Project Assistant; and Elena Layugan, Conservation Coordinator.

OTHERS PRESENT

Benjamin Lewis, Dave Michalko, David Muse, Jared Macias, Javier Vargas, Jose Martinez, Lenet Pacheco, Stephanie Moreno, Tony Zampiello, Skylar Stephens, Jazmin Leos, Julian Lee, and Dan Arrighi.

ADOPTION OF AGENDA

On motion by Vice President Contreras, seconded by Secretary Fellow, the agenda was adopted as presented by the following roll call vote:

CONTRERAS: AYE
FELLOW: AYE
SANTANA: AYE
TREVIÑO: AYE
CHAVEZ: AYE

PUBLIC COMMENT

None.

COMMITTEE REPORTS

Next scheduled committee meeting dates are as follows:

(a) Administration and Finance – October 22, 2020 at 4:00 p.m.
(b) Water Resources and Facility Management – October 27, 2020 at 4:00 p.m.

CONSENT CALENDAR

On motion by Treasurer Treviño, seconded by Director Santana, the consent calendar was unanimously approved by the following roll call vote:

CONTRERAS: AYE
FELLOW: AYE
SANTANA: AYE
TREVIÑO: AYE
CHAVEZ: AYE

(a) Approve minutes of a regular meeting of the Board of Directors held on September 23, 2020 at 9:00 a.m.
(b) Approve List of Demands
(c) Financial Reports - August 2020
    1. Financial Statements
    2. Directors' Public Outreach

CONSERVATION PROGRAM FUNDING FY 2020/21 AND 2021/22

The Director of Government and Community Affairs clarified that the Member Agency Administered (MAA) funding allocation from Metropolitan Water District (Metropolitan) covers a 2-fiscal year cycle. She discussed current commitments for portions of the funding.

Vice President Contreras expressed hopes for securing increased amounts of funding in the future.

Director Santana and the General Manager discussed the impact of MWD's budget on the MAA funding allocation. The General Manager confirmed that there is no risk of cuts to the MAA funding allocation for the current 2-fiscal year cycle.

On motion by Vice President Contreras, seconded by Secretary Fellow, the Board approved Upper District's conservation program funding for FY 2020/21 and 2021/22, funded through MAA funds received though Metropolitan, by the following roll call vote:

CONTRERAS: AYE
FELLOW: AYE
SANTANA: AYE
TREVIÑO: AYE
CHAVEZ: AYE

BOARD AND COMMITTEE MEETING HOLIDAY SCHEDULE

The General Manager discussed the impact of holidays on regularly scheduled committee and board meetings in November and December. He discussed proposed changes to the November and December scheduled meetings.

President Chavez suggested that, moving forward, board and committee meeting schedule for November and December be considered at the beginning of each calendar year.

On motion by Vice President Contreras, seconded by Secretary Fellow, the Board approved rescheduling board and/or committee meetings impacted by the holidays by the following roll call vote:

CONTRERAS: AYE
FELLOW: AYE
SANTANA: AYE
TREVIÑO: AYE
CHAVEZ: AYE

INFORMATION ITEMS

The following items listed on the agenda for the information of the Board were read and ordered received and filed:

(a) Press Releases.
(b) Newspaper Articles.

President Chavez and the General Manager discussed Mr. Melvin Matthews winning the election for LAFCO Alternate Representative.

ATTORNEY'S REPORT

District Counsel reported on transactional matters and recent consultations with staff regarding AB 992, review of certain agreements, and work with the Director of Finance and Administration regarding administrative issues. He reported that the continuation of the General Manager's annual performance evaluation will be conducted during closed session.

ENGINEER'S REPORT

The District Engineer provided a report on hydrologic conditions, basin deliveries, reservoir storage and releases and rainfall averages. She stated that the Baldwin Park Key Well groundwater elevation was 201.2 feet as of October 9, 2020. She also reported that no notices of wells shutdown due to contamination were received during the month of September 2020.

The following is a summary of contamination ranges found in samples under Title 22 from 87 wells during August 2020.

Contaminant	Range (ppb)	MCL (ppb)
PCE	ND – 2.2	5*
TCE	ND – 2.2	5*

A detailed written engineer's report on hydrologic conditions was also provided to the Board.

Vice President Contreras and the General Manager discussed the negative impact of the recent fire on local habitat, the increased risk of flooding, and sediment buildup in the dams. The General Manager stated that an assessment would be the first step in addressing the impacts. He added that there will also need to be dialogue with key stakeholders for the restoration of the watershed.

Director Santana and the General Manager discussed the Army Corps of Engineers' contracting rules impeding their ability to contract out sluicing silt. They also discussed the necessity of rerouting trucks transporting silt off the area.

Director Santana and the Engineer discussed current water releases not being impacted by recent fires.

Mr. Tony Zampiello explained that the "Committee of 9" (currently down to 3 main entities) has the oldest water diversion rights on water. He added that the biggest concern right now is removing the sediments out of the canyon. He stated that while sluicing provides an inexpensive alternative, it also raises some habitat concerns.

GENERAL MANAGER'S REPORT

The General Manager reported that an architectural draft of the new office layout will be presented at the October 27th Water Resources and Facility Management Committee meeting. He also reported that the Long Range Finance Plan will be presented at the next Administration and Finance Committee meeting.

A detailed General Manager's report was also provided to the Board.

METROPOLITAN REPORT

Treasurer Treviño reported that Ms. Gloria Gray was unanimously reelected as chairwoman of the Board of Directors of Metropolitan. He also reported that big decisions regarding the Carson recycled water project will occur this year.

Secretary Fellow discussed Upper District and Metropolitan reaching out to key entities in an effort to build support for upcoming environmental actions that Metropolitan will initiate on the Carson Project.

Vice President Contreras and Treasurer Treviño discussed the process for involving the public in the selection of Metropolitan's next General Manager.

Metropolitan summary report was provided in the Board's agenda packet.

WATER QUALITY AUTHORITY REPORT

A Water Quality Authority summary report was provided in the Board's agenda packet.

WATERMASTER REPORT

A Watermaster summary report was provided in the Board's agenda packet.

AB 1234 COMPLIANCE REPORT

A summary report was provided in the Board's agenda packet.

DIRECTOR'S COMMENTS

Director Santana discussed an outdoor exhibit at the Long Beach Aquarium which featured a "Where Does Our Water Come From?" display.

Secretary Fellow stated that he and the General Manger spoke with the Mayor of Monrovia regarding the forest and recent fire.

FUTURE AGENDA ITEMS

None.

ADJOURN TO CLOSED SESSION

A closed session was held pursuant to Government Code Section 54957; Performance Review: General Manager.

REPORT ON CLOSED SESSION

The Board reconvened after closed session. District Counsel reported that following discussion, no formal action was taken by the Board. He then reported that the Board provided a very favorable evaluation of the General Manager's performance.

ADJOURNMENT

President Chavez asked if there were other business to come before the Board. There being none, the meeting was adjourned to a regular meeting of the Board of Directors to be held on October 28, 2020 at 9:00 a.m. via teleconference or the most rapid means of communication available at the time.

ATTEST

_____
PRESIDENT

_____
SECRETARY

SEAL

Attachment 1
Consent Item 6 (b)
October 14, 2020

Demands numbered 20879 through 20908 on the General Fund Account of the Upper District at Citizens Business Bank, in the amount of $453,438.02 and demands numbered 929 through 934 on the Water Fund Account at the same bank in the amount of $818,530.24.

20879	DTW Counseling, Inc.	Inv. 09/17/20UD, Tenant Security Deposit ***(Previously Paid 09/17/20)***		1,050.00
20880	Aaron Read & Associates, LLC	Inv. 211133, State Legislative Advocacy Services, August 2020		10,000.00
20881	Accent Computer Solutions, Inc.	Inv. 138187, IT Management Support, October 2020 ***(Board approved 10/06/15)***		3,057.88
20882	Active San Gabriel Valley	Inv. 10/20/20UD, Noches De Las Luminarias Sponsorship		500.00
20883	ACWA/JPIA	Inv. 00184A, Health Insurance Premium - October 2020		27,301.39
20884	Best Best & Krieger, LLP	Inv. 886501, Lobbying Services through August 31, 2020 ***(Board approved 2/3/15)***		7,500.00
20885	Civic Publications, Inc.	Inv. 1606, California Water 2020 Special Section, Delta Conveyance Ad		4,987.00
20886	Ecotech Services, Inc.	Inv. 1767, Water Bottle Filling Station - September 2020 ***(Board approved 08/07/18***		1,600.00
20887	Fieldman, Rolapp & Associates	Inv. 25549, Long Range Financial Plan, Payment No. 2		22,578.40
20888	Foothill Technology Center LLC	Inv. NOV 20LEA, Office Lease - November 2020 ***(Board approved 04/19/11)***		20,751.00
20889	Green Media Creations, Inc.	Inv. 1377, Educational Services- Edible Gardening Workshops ***(Board approved 09/06/16)***		2,500.00
20890	Kelly Services, Inc.	Temporary Staff		
		Inv. 35015326, W/E 08/30/20	276.90	
		Inv. 36013872, W/E 09/06/20	276.90	
		Inv. 37014457, W/E 09/13/20	255.60	
		Inv. 38017391, W/E 09/20/20	255.60	
		Inv. 39017022, W/E 09/27/20	266.25	1,331.25
		(Board approved 02/07/19)		
20891	La Opinion	Inv. 129490820, Water Conservation Ads - August 2020		1,250.00
20892	Moore Protection, Inc.	Inv. 36877, Security System Service Call	185.00	
		Inv. 37012, Security System Service Call	150.00	335.00
20893	Olivarez Madruga Lemieux & O'Neill, LLP	Professional Legal Services, August 2020		
		Inv. 325-001-11799, Transactional Fees	105.00	
		Inv. 325-996-11800, Transactional Fees	5,400.00	
		Inv. 325-999-11801, Retainer	3,675.00	9,180.00
		(Board approved 5/17/11)		
20894	Rogers, Anderson, Malody & Scott, LLP	Inv. 64169, FYE 06/30/20 Audit Payment No. 1		6,000.00
20895	San Gabriel Valley Newspaper	Inv. 0000492396, Water Conservation Ads - August 2020		6,000.00
20896	The Solis Group	Inv.6092, LPVCWD Labor Compliance,August 2020		678.75
20897	Stetson Engineers, Inc.	Inv. 2533-173, General Engineering Support Services, August 2020	15,484.35	
		Inv. 2728-014, Integrated Resources Plan Update, August 2020	881.25	16,365.60
20898	State Water Resource Control Board	Inv. 09805-20-8, Package 3 Revolving Loan Payment No. 8		86,782.45
20899	Upper District Revolving Payroll Fund	Inv. AUG 20, Reimbursement for Payroll and Payroll Taxes for Employees	163,459.62	
		Inv. AUG 20D, Reimbursement for Payroll Taxes for Directors	13,138.63	176,598.25
20900	Upper District Revolving Fund	Replenish Revolving Fund Account - September 2020		
		Office Supplies	581.77	
		Computer Systems/Office Equipment/Maintenance & Service	2,252.07	
		Telephone/Utilities	1,395.13	
		Water Conservation Program Expenses	1,194.00	
		Water Recycling Programs Expenses	21,437.39	
		Medical/ODA Reimbursement/Processing Fee	3,114.42	29,974.78

20901	Urban Water Institute, Inc.	Inv.10/21/20UD, Informative Discussion Sponsorship		500.00
20902	U. S. Bank Corporate Payment System	CalCard Charges through 09/22/20		
		Meeting, Travel, Conferences	490.24	
		Computer Systems/Office Equipment/Supplies/Maintenance & Service Utilites	985.23	
		Conservation Program Expenses, Education and Outreach	159.00	1,634.47
20903	WateReuse Association	Inv. D40784, 2021 Membership Dues		12,331.75
20904	Anthony Fellow	Director's Compensation, September 2020		
		10 Days District Business	2,550.00	
		Meeting/Travel Expenses/Allowance	516.87	
		Less Deferred Comp.	(500.00)	
		Less Taxes Withheld	(1,050.34)	1,516.53
20905	Edward L. Chavez	Director's Compensation, September 2020		
		10 Days District Business	2,550.00	
		Meeting/Travel Expenses/Allowance	516.87	
		Less Deferred Comp.	(1,667.00)	
		Less Taxes Withheld	(775.80)	624.07
20906	Charles M. Treviño	Director's Compensation, September 2020		
		10 Days District Business	2,550.00	
		10 Days MWD Business	2,550.00	
		Meeting/Travel Expenses/Allowance	516.87	
		Less Deferred Comp.	(1,500.00)	
		Less Taxes Withheld	(1,263.75)	2,853.12
20907	Alfonso Contreras	Director's Compensation, September 2020		
		10 Days District Business	2,550.00	
		Meeting/Travel Expenses/Allowance	516.87	
		Less Deferred Comp.	(500.00)	
		Less Taxes Withheld	(612.39)	1,954.48
20908	Jennifer Santana	Director's Compensation, August 2020		
		1 Days District Business	255.00	
		Director's Compensation, September 2020		
		8 Days District Business	2,040.00	
		Meeting/Travel Expenses/Allowance	516.87	
		Less Deferred Comp.	(500.00)	
		Less Taxes Withheld	(610.02)	1,701.85
		TOTAL		**$ 459,438.02**

929	Void	Printer Error	$ -
930	Central Basin MWD	Invoice No. USGV-AUG20, Purchase of 5.4 AF of Recycled Water in July 2020 ***(Previously Paid 09/30/20)***	3,772.71
931	City of Industry City Hall	Invoice No. AUG-20, Purchase of 99.80 AF of Recycled Water in August 2020	26,447.00
932	Metropolitan Water District	Invoice No. 10189, Purchase of 725.8 AF of Treated Water Delivered through Service Connections in August 2020	766,599.40
933	San Gabriel Valley MWD	Invoice No. 520, 100.87 AF of Water Delivered through the Alhambra/MWD Exchange Agreement in August 2020 @ $200 per AF	20,174.00
934	Suburban Water System	Invoice No. 6616, Phase IIB Normal Operating Charge, September 2020	1,537.13
		TOTAL	**$ 818,530.24**

MEMORANDUM

6. (b)
ACTION

DATE: October 21, 2020

TO: Board of Directors

FROM: General Manager

SUBJECT: Nominate Two Upper District Representatives to the Main San Gabriel Basin Watermaster for Calendar Year 2021.

Recommendation

The General Manager recommends that the Board of Directors nominate two board members to serve as Upper District's representatives to Watermaster for calendar year 2021.

Background

Per the Judgment, on or before the regular meeting of Watermaster in November, the Board must nominate two representatives to serve on the Board of the Main San Gabriel Basin Watermaster. Upper District's representatives serve one-year terms on the Watermaster Board commencing in January, subsequent to the Board's nomination and approval by the Superior Court.

Currently, board members Fellow and Treviño are serving as the Upper District's representatives to Watermaster for calendar year 2020.

602 E. Huntington Drive, Suite B | Monrovia, CA 91016 | (626) 443-2297 (phone) | (626) 443-0617 (fax) | www.upperdistrict.org

MEMORANDUM

6. (c)
ACTION

DATE: October 21, 2020

TO: Board of Directors

FROM: General Manager

SUBJECT: Adopt Resolution No. 10-20-612 Appointing a District Representative and an Alternate to the Board of the San Gabriel Basin Water Quality Authority (WQA) for four-year terms ending December 31, 2024.

Recommendation

Staff recommends that the Board of Directors:

1. Appoint a District representative and an alternate to the WQA Board for four-year terms ending December 31, 2024.
2. Adopt Resolution No.10-20-612 ratifying those appointments.
3. Instruct the Secretary of the District to transmit a copy of Resolution No. 10-20-612 to the WQA.

Attached with this memorandum is Resolution No. 10-20-612 appointing a representative and an alternate to the WQA Board for four-year terms ending December 31, 2024.

Background

Senate Bill No. 1679 provides for the Upper District to appoint one of its Board members to the governing board of the WQA to serve a four-year term of office. The bill also provides for the Upper District to appoint an alternate representative to the WQA Board for the same four-year term.

Currently, Director Chavez and Director Contreras are serving as the Upper District's representative and alternate, respectively, on the WQA Board. Their terms of office on the WQA Board expire on December 31, 2020.

Attachment

602 E. Huntington Drive, Suite B | Monrovia, CA 91016 | (626) 443-2297 (phone) | (626) 443-0617 (fax) | www.upperdistrict.org

RESOLUTION NO. 10-20-612

A RESOLUTION OF THE BOARD OF DIRECTORS OF UPPER SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT APPOINTING A REPRESENTATIVE AND ALTERNATE TO THE BOARD OF THE SAN GABRIEL BASIN WATER QUALITY AUTHORITY

WHEREAS, on September 22, 1992, Senate Bill 1679 was signed into law by Governor Pete Wilson authorizing the creation of the San Gabriel Basin Water Quality Authority (WQA); and

WHEREAS, the Board of the San Gabriel Basin Water Quality Authority is composed of seven members with three appointed members from each of the three municipal water districts, one elected city council person from cities in the San Gabriel Basin with prescriptive pumping rights, one elected city council person from cities in the San Gabriel Basin without prescriptive pumping rights, and two appointed members representing water producers in the San Gabriel Basin; and

WHEREAS, the Upper San Gabriel Valley Municipal Water District is one of the municipal water districts in the San Gabriel Basin; and

WHEREAS, it is now time to appoint the municipal water district's representative and alternate for the four-year term commencing January 1, 2021; and

WHEREAS, said appointments shall be made by Resolution adopted by the majority of the Board.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE UPPER SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT as follows:

Section 1. _____ is hereby appointed as the representative to the governing Board of the WQA.

Section 2. _____ is hereby appointed as the alternate representative to the governing Board of the WQA.

Section 3. The Secretary of this District shall transmit a certified copy of this Resolution to the WQA.

PASSED, APPROVED, AND ADOPTED this 28th day of October, 2020.

AYES:

NOES:

ABSTAIN:

ABSENT:

Ed Chavez, President

ATTEST:

Anthony R. Fellow, Secretary

(SEAL)

APPROVED AS TO FORM:

Steven P. O'Neill, District Counsel

The Metropolitan Water District of Southern California

NEWS RELEASE

P. O. Box 54153, Los Angeles, California 90054-0153 • (213) 217-6485 • www.mwdh2o.com

Contacts: Rebecca Kimitch, (213) 217-6450; (202) 821-5253, cell
Maritza Fairfield, (213) 217-6853; (909) 816-7722, cell

Oct. 16, 2020

METROPOLITAN TO OPTIMIZE SOLAR ENERGY WITH BATTERY STORAGE SYSTEMS

Four projects will save on energy costs, improve resilience

The Metropolitan Water District of Southern California is preparing to build four new battery energy storage systems that will boost the district's energy resilience and cut operational costs by optimizing solar power and reducing peak load at its facilities.

The agency's board of directors Tuesday voted to authorize $2.2 million to design the battery systems at water treatment plants in Granada Hills, La Verne and Riverside's Temecula Valley as well as a pump station in Lake Forest.

With completion expected in mid-2022, the projects will allow Metropolitan to store excess power to use during peak periods. The energy storage systems will be built with a microgrid configuration, meaning they can be connected to the larger electricity grid, or function independently to continue powering the facilities during a grid outage.

"As we saw with the rolling blackouts over the summer, it's more important than ever that we prioritize projects that protect critical facilities that help us deliver clean, reliable water to our vast service area," said Metropolitan General Manager Jeffrey Kightlinger.

The projects at Metropolitan's Jensen, Weymouth and Skinner plants, along with its OC-88 pump station, also are in line with Metropolitan's Energy Sustainability Plan, which identifies ways to contain energy costs, move toward energy independence and reduce price volatility through cost-effective alternative energy projects.

The projects are estimated to cost $11-12 million. However, through energy savings and incentives from the California Public Utilities Commission, Metropolitan is expected to recoup its costs within three years.

"Over the last decade, Metropolitan has invested about $28 million in solar power systems at the Jensen, Weymouth, Skinner plants and our Diamond Valley Lake Visitors Center to reduce our operational costs, protect against energy market price increases and cut our carbon footprint," said Metropolitan Chief Engineer John Bednarski. "These battery energy storage systems take our

commitment a step further – allowing us to store excess energy generated during peak solar hours for later use."

The four Metropolitan sites identified for the energy storage systems were selected because of their on-site solar power generation, their location within high-threat fire districts and/or their location in low-income/disadvantaged communities, conditions for approval for the CPUC incentives.

###

The Metropolitan Water District of Southern California is a state-established cooperative that, along with its 26 cities and retail suppliers, provide water for 19 million people in six counties. The district imports water from the Colorado River and Northern California to supplement local supplies, and helps its members to develop increased water conservation, recycling, storage and other resource-management programs.

The Metropolitan Water District of Southern California

NEWS RELEASE

P. O. Box 54153, Los Angeles, California 90054-0153 • (213) 217-6485 • www.mwdh2o.com

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Oct. 15, 2020

METROPOLITAN BOARD EXPANDS WATER CONSERVATION PROGRAMS
Rebates offered for flow-monitoring devices, toilets in older apartment buildings

Southern Californians will have more opportunities to save water under two new programs approved by the Metropolitan Water District Board of Directors.

Both programs provide rebates for the purchase of water-saving equipment – one for flow-monitoring devices that provide real-time data on water usage; the other for premium high-efficiency toilets to replace older models in apartment buildings and multi-family complexes.

"There's a lot of technology out there that can help people save water in their homes. The challenge is getting people to install it. Our rebate programs help Southern Californians overcome some of the financial hurdles," Metropolitan board Chairwoman Gloria D. Gray said.

Residential flow-monitoring devices allow people to see how much water they are using in real-time through their phone or tablet. As residents understand their water habits, the idea is that they'll reduce how much they use, and fix any leaks detected through the devices, explained Metropolitan Water Efficiency Manager Bill McDonnell.

"It's a relatively new technology. Early studies show users reduce their water use by 17 percent. That's significant. But we need more data to confirm this water savings," McDonnell said.

The new pilot program approved by Metropolitan's board Tuesday will help collect this data. Through the program, Metropolitan will offer a rebate for the devices of either $100 or $150, depending on whether the district wins a $1 million federal grant for the program. Even without the grant, Metropolitan will fund the rebate, though at the lower amount.

Under the toilet replacement program, approved by the board in a separate action, Metropolitan will offer a rebate of up to $250 to replace older, high water-using toilets with high-efficiency models in multi-family housing built before 1994. With this rebate – six times larger than the standard $40 toilet rebate – Metropolitan aims to incentivize third-party

more...

contractors to work with property owners to install toilets across entire buildings or complexes, particularly in areas with lower historical participation, such as disadvantaged communities. With an annual budget of $2.75 million, the goal is to replace 10,000 toilets annually.

The new on-going program comes after a similar pilot program, which was so popular when it launched in 2019 that the $2.5 million in available rebate funds were swept up in less than 30 minutes.

"Since the pilot ended, we've had a lot of requests from water agencies and contractors asking when we're going to start it again. There are still a lot of opportunities out there to save water," McDonnell said.

For more information about all of Metropolitan's rebate programs, visit bewaterwise.com.

###

The Metropolitan Water District of Southern California is a state-established cooperative that, along with its 26 cities and retail suppliers, provide water for 19 million people in six counties. The district imports water from the Colorado River and Northern California to supplement local supplies, and helps its members to develop increased water conservation, recycling, storage and other resource-management programs.

The Metropolitan Water District of Southern California

NEWS RELEASE

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Note to editors: A digital photo of Chairwoman Gray is available upon request.

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October 13, 2020

GLORIA GRAY REELECTED AS CHAIRWOMAN OF METROPOLITAN BOARD

Gloria D. Gray was unanimously reelected today as chairwoman of the board of directors of the Metropolitan Water District of Southern California. She will begin her second two-year term on Jan. 1, 2021.

Gray has represented West Basin Municipal Water District on Metropolitan's board since 2009 and was first elected by her colleagues as chairwoman in October 2018.

"I have worked hard over the past two years to bring a new voice and spirit of collaboration to our board," Gray said following her reelection. "We have some far-reaching decisions on the immediate horizon, decisions that will shape Metropolitan for years to come. I am grateful to have the opportunity to lead our board as we find our path forward."

Gray will head Metropolitan's 38-member board as it selects a replacement for longtime general manager Jeffrey Kightlinger, who announced his retirement earlier this year. The board also faces critical decisions on the agency's rate structure, long-term water strategy, and investment priorities, including whether to advance a major regional recycled water program and to continue supporting a conveyance tunnel in the Sacramento-San Joaquin Delta to improve supply reliability.

As the head of the agency's board, Gray represents district policies and programs at national, state and local levels and presides over monthly meetings of the board and its executive committee. She also appoints all members of the district's nine standing committees, as well as the leaders of any special committees or task forces.

Gray is the first African American to lead Metropolitan's board and only the second woman to do so in the district's 92-year history. Before becoming a leader in the water sector, Gray served on the Inglewood Unified School District Board of Education. She retired from the Los Angeles County Department of Health Services as a health care administrator.

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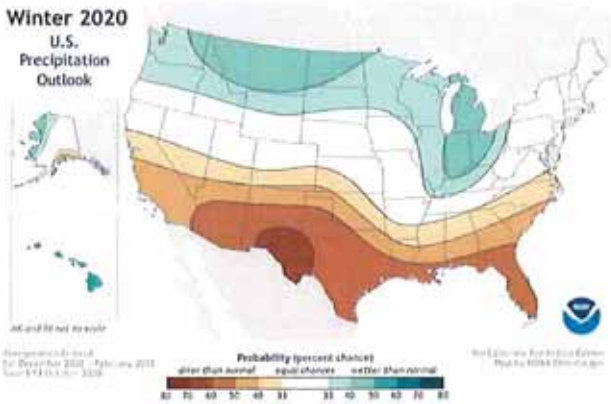
The Metropolitan Water District of Southern California is a state-established cooperative that, along with its 26 cities and retail suppliers, provide water for 19 million people in six counties. The district imports water from the Colorado River and Northern California to supplement local supplies, and helps its members to develop increased water conservation, recycling, storage and other resource-management programs.

The Mercury News -10-21-20

La Niña: Is California heading into another drought?

It is commonly thought that La Niña means dry winters, but history shows that's more likely for LA than the Bay Area



This 2020-2021 U.S. Winter Outlook map for precipitation shows wetter-than-average weather is most likely across the northern tier of the U.S. from December through February and drier-than-average weather is favored across the southern half, including parts of California. (NOAA)

By: Paul Rogers

Federal scientists say that La Niña — the phenomenon where Pacific Ocean waters off South America are cooler than normal — is underway this winter.

A commonly held assumption among many Californians is that La Niña means a dry winter is coming, and in years when the opposite occurs, El Niño, a wet winter is considered more likely.

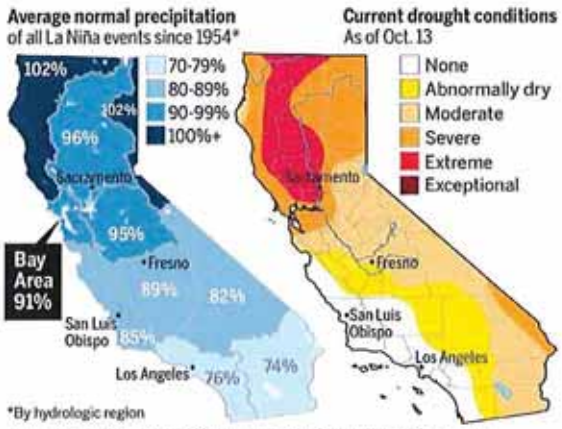
So brown lawns and water rationing are just around the corner, right?

"The reality is that's not always true," said Jan Null, a meteorologist with Golden Gate Weather Services in Half Moon Bay

Looking at historical records, there is not a clear pattern. In the Bay Area, La Niña years have been drier than normal only about half the time.

IS CALIFORNIA HEADING INTO A DROUGHT?

La Niña conditions have developed in the Pacific Ocean, after a dry winter last year. But historically, they have affected rain totals more in Southern California than the Bay Area.



Source: Golden Gate Weather Services, Western Region Climate Center and droughtmonitor.unl.edu
BAY AREA NEWS GROUP

Since 1954, there have been 22 years when La Niña conditions were present, according to statistics Null compiled.

In 10 of them, the Bay Area had a dry winter, receiving less than 80% of its average rainfall. In eight of those years, however, rainfall was normal — between 80% and 120% of average. And in four, it was a very wet winter, with rainfall above 120% of average.

But in Southern California, La Niña has meant dry winters much more often, with 15 out of 22 La Niña winters delivering less than 80% of normal rainfall.

To be sure, there have been famously dry winters when La Niña conditions were present. Like in 2011-2012, when California's most recent, and most devastating drought began. But five years later, the drought ended as relentless atmospheric river storms wrecked

the spillway at Oroville Dam and caused $100 million in damage during floods through downtown San Jose, and that also was during a La Niña winter.

Some La Niña events are considered stronger or weaker, depending upon how much colder Pacific waters are than normal at the equator off Peru and Ecuador. But regardless, the same general pattern has played out on average. Northern California has received 91% of its historic average rainfall during those 22 La Niña years since 1954, while Southern California has received 76%.

The issue is gaining a higher profile of late. California is on edge. The state has had a rough summer.

Rainfall in San Francisco and other Northern California cities was just half of normal last winter. The Sierra Nevada snowpack on April 1 was only 54% of its historic average. Temperatures in August and September were the hottest August and September ever recorded in California history since modern records began in 1895.

Combined with dry lightning storms, dead trees from the last drought, and decades of overgrown forests due to a century of fire suppression, 4.1 million acres have burned in wildfires statewide this year, more than double the previous record.

Another dry year would increase fire risk in 2021 and could lead to tighter water supplies.

Typically, in Northern California, rains begin in mid-November, and continue through April.

"This looks like the first year of a drought," said Jay Lund, director of the UC Davis Center for Watershed Sciences. "But we do not know if we are going to see a second year, or a third year or a fourth year. You basically must have at least two dry years in a row before there is a drought in California. By March or April, we'll have a pretty good sense."

The state's reservoirs are in OK shape.

On Monday, the massive Shasta Lake near Redding, which is California's largest reservoir and a key water source for millions of people, was 47% full, or 79% of its historic average for that date. Similarly, Lake Oroville, the state's second-largest reservoir, in Butte County, was 44% full, or 73% of normal. Closer to the Bay Area, San Luis Reservoir near Los Baños was 47% full or 93% of its historic average.

Much of California, including San Jose, Fresno, and Los Angeles, receives only about 15 inches of rain a year on average. That is the same as Casablanca, Morocco.

"It's good to be a little nervous," Lund said. "It's always good in California to be a little nervous about water."

Last week, NOAA, the parent agency of the National Weather Service, issued its annual winter weather outlook. The agency notes that a mild but strengthening La Niña is underway and that there is an 85% chance it will continue into the spring. NOAA researchers say that means odds of a hotter, drier winter are elevated in the southern half of the United States, including much of California, with northern states more likely to be wetter and cooler.

But they note the forecasts deal only in general probabilities.

"Other outcomes are always possible, just less likely," said Mike Halpert, deputy director of NOAA's Climate Prediction Center in Maryland.

The agency's long-range forecasts have had a spotty success record for California. Last year, for example, the winter outlook showed greater chances of dry winter weather for Southern California and normal rainfall for far Northern California.

The opposite happened.

"The NOAA long-term winter forecasts are nice efforts, but they have very little skill about the predictions being actually true," Lund said. "It's a little bit like forecasting the stock market."

Meanwhile, 67% of California is now classified as being in at least "moderate drought" by the U.S. Drought Monitor, a weekly report. That is the highest mid-October level since 2016.

"Given the impacts of climate change on California's extreme weather variability," said Michael Anderson, state climatologist with the Department of Water Resources in Sacramento, "Californians should always be prepared for dry conditions and should continue to make water conservation part of their everyday lives."

BBK -10-20-20

Public Officials' New Social Media Open Meeting Law

California's AB 992 Analyzed in *PublicCEO* by BB&K's HongDao Nguyen and Albert Maldonado

Clicking the "like" button has become second nature.

Whether it is a thumbs up, hug or sad face on Facebook, or a heart reaction on Instagram and Twitter, these simple online interactions are now ingrained in the way we communicate with one another. For California public officials, however, these seemingly mundane interactions could run afoul of state law.

Under the recently enacted Assembly Bill 992, public officials could violate the State's sunshine law if they communicate with legislative members of the same body on social media about matters under the body's jurisdiction. AB 992 is the first Brown Act amendment to address officials' social media use.

The Brown Act generally requires local governments to conduct business at open and public meetings.

This includes requiring agencies to give advance notice to the public, post the meeting's agenda ahead of time and provide the public with access to the meeting. For transparency's sake, the Act prohibits most of a legislative body's members from directly or indirectly engaging in a series of meetings to "discuss, deliberate or take action on an item" within the subject matter jurisdiction of the body.

Now, even liking another official's post on a topic before, or within the jurisdiction of, the governing body could violate the Brown Act. Amending Government Code section 54952.2, AB 992 clarifies the social media communications a public official may engage in as well as the actions that are prohibited.

AB 992 covers activity across a plethora of social media platforms — from Snapchat and Instagram to Facebook, Twitter, TikTok, Reddit, blogs and more. The law states that public officials may communicate on such platforms to answer questions and provide the public with information. They may also solicit information regarding matters being considered by the body, or that fall within the official's jurisdiction.

However, the law prohibits members of a legislative body from using social media to discuss official business "among themselves," which is defined as making posts, commenting and using digital icons that express reactions to communications made by other members of the legislative body.

The law goes further. While a single contact between one public official and another would not, under general circumstances, constitute a prohibited meeting, AB 992's social media prohibitions change this.

AB 992 prohibits public officials from responding "directly to any communication" that is made, posted, or shared on social media by another member of the same legislative body regarding matters in the body's jurisdiction. Now, any such communication could be a Brown Act violation.

As the law applies to all Internet-based social media platforms that are open and accessible to the public, elected officials need to keep these new prohibitions in mind when commenting on, reposting, liking, disliking or responding with the growing list of emojis to social media posts of another official.

Questions, Practical Concerns Remain

AB 992 directly amends the Brown Act but touches on other public transparency laws as well.

A few years ago, the California Supreme Court held that the public could have the right to access emails and text messages sent and received by public officials that pertain to public business. The court's ruling in *City of San Jose v. Superior Court* noted that electronic communications on both an official's personal and government email accounts and devices could be subject to the California Public Records Act.

Given the court's ruling, if a public official, in their official capacity, posts and communicates about public business through social media, those posts could also be subject to the CPRA.

Moreover, as we've discussed in a previous article, platforms like Facebook, Instagram, Twitter and the like are the modern-day public square where vital public information is disseminated and discussed.

If a public official is using social media to communicate with constituents and share critical public information, they may have turned their social media space into a public forum that is subject to the First Amendment. If this happens, officials should be wary of blocking individuals from their pages when they do not like or agree with the poster's viewpoint. Such a move could violate a poster's constitutional rights.

Finally, in regard to an official's digital communications, issues arise regarding document retention.

To resolve potential issues with the Brown Act, CPRA and even constitutional concerns, an official's posts may need to be reviewed and their agency may want to consider retaining social media posts.

Innovation Origins -10-19-20
Mineral sponge filters toxic PFAS out of water

PFAS are non-biodegradable chemical compounds that are bad for the environment and and are notorious in the Dutch construction industry. KU Leuven has developed a method that filters them out of water.

PFAS are a range of chemicals with a bad reputation. Evidence is growing that they cause cancer and are harmful to unborn children. Yet more and more of these types of *per- and poly-fluoroalkyl substances* (PFAS) are dumped into the environment because they are used in everyday goods, such as non-stick pans, fire extinguisher foams, food packaging, and waterproof clothing.

One of the leading research universities in Belgium and Europe, KU Leuven, has now figured out a new way to filter these out of the water using a kind of mineral sponge made of zeolite. The university has just published this on its website.

Dutch construction sector

There is still a lot that is unknown about how serious the problems with PFAS are. The European Union's policy is to slowly but surely reduce PFAS down to zero unless they are absolutely necessary.

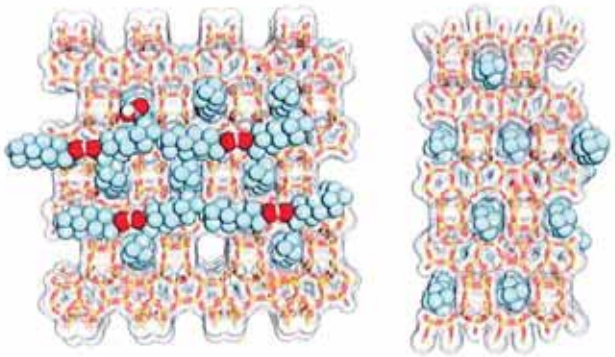
There are about 6000 different types of PFAS, some of which are not toxic at all. The big breakthrough came in 1938 when the American company DuPont more or less accidentally came up with the chemical compound polytetrafluoroethylene (PTFE), a type of PFAS that would later form the basis of Teflon, well-known for e.g. pans and rainwear. PFAS has been notorious in the Netherlands for being the reason why numerous construction projects have been suspended over the past few years.

Nevertheless, the substances remain popular in industry because of their advantageous characteristics: they are resistant to high temperatures, caustic products, and electricity, and they are water- and dirt-repellent.

Non-biogradable

The downside is that they are not biodegradable or are difficult to break down. That is why they are also called *forever chemicals* that spread through the air and water and end up in our food and drinking water.

"Production of some types of PFAS has been more strictly regulated in recent years, but has not yet been completely curtailed," explains researcher Matthias Van den Bergh. "Because of the strict regulations, the industry is looking for other molecules which have similar properties, although this is obviously not a solution for the pollution that has been piling up in nature over the past decades."



Visual representation of how the zeolite filter functions. The material's pores have the ideal shape for absorbing PFAS chemicals. Image: KU Leuven

That is why Van den Bergh, together with Professor Dirk De Vos, went looking for a way to filter PFAS out of water. The main challenge was that PFAS molecules only occur in very low concentrations in water. De Vos: "Even with high levels of pollution, we're talking about no more than one microgram per liter. So, it's like looking for a needle in a haystack."

Van den Bergh: "Nevertheless, we have succeeded in developing an efficient filter material. We use a *zeolite*, a porous substance with tiny cavities. This material in powder form attracts PFAS molecules and traps them in its pores. The great thing about this technology is that it works very selectively. Harmful PFAS substances are filtered, but the other innocuous components in the water are not."

Zeolites are minerals that exist in both natural and artificial forms. Natural zeolites are used as absorbent material in cat litter, amongst other things. Artificial zeolites are used in detergents and other products.

The researchers have patented the zeolite concept. Yet according to De Vos, there is still a long way to go before a functional application can be created. "We believe in the potential of this material. Nevertheless, the challenge is to produce it on a large scale at a reasonable price. We will also continue to research in what way and in what form the filters can best be used."

Check out our dossier on environmental pollution as well.

Maurits Kuypers graduated as a macroeconomist from the University of Amsterdam, specialising in international work. He has been active as a journalist since 1997, first for 10 years on the editorial staff of Het Financieele Dagblad in Amsterdam, then as a freelance correspondent in Berlin and Central Europe. When it comes to technological innovations, he always has an eye for the financial feasibility of a project.

The Washington Post -10-19-20
Drought in western U.S. is biggest in years and predicted to worsen during winter months

The drought is exacerbating wildfires and taxing water resources

By: Matthew Cappucci

The largest and most intense drought in years is engulfing the West and threatens to grow larger and more severe in the coming months.

The drought has already been a major contributor to record wildfire activity in California and Colorado. Its continuation could also deplete rivers, stifle crops, and eventually drain water supplies in some Western states.

Nationwide, drought has expanded to its greatest areal coverage since 2013; 72.5 million people are in areas affected by drought. More than one-third of the West is in "extreme" or "exceptional" drought, the two most severe categories, according to the federal government's U.S. Drought Monitor.

In its winter outlook issued last week, the National Oceanic and Atmospheric Administration (NOAA) cautioned drought conditions are expected to persist or worsen over large parts of the West during the December through February period, and expand farther east into the central United States.

Dry conditions have fed devastating fire season

Firefighters keep watch on the Bobcat Fire as it burns in Juniper Hills, Calif., on Sept. 20. (Gene Blevins/Reuters)
In recent months, drought has surged to extreme levels along parts of the West Coast, including Northern California, much of Oregon and the Cascades in Washington.

Soils have been sapped of moisture, with intense heat waves drying out vegetation even further. This has led to rampant and sometimes explosive wildfire growth.

Elevated temperatures have further helped to dry out the soil, exacerbating the drought and making fire weather conditions even more hazardous. California, for example, had its warmest August on record, and a severe heat wave in early September led to a deadly spate of wildfires.

In Colorado, wildfires continue to rage along the Front Range, with evacuations west of Fort Collins and northwest of Boulder. The Cameron Peak Fire, which has torched more than 200,000 acres, is now the largest wildfire in Colorado history, and the CalWood Fire became Boulder County's largest fire on record when it exploded in size over the weekend. That fire has burned at least 26 homes, though the toll is expected to increase.

There is no precedent for wildfires this severe igniting so late in the season in the Centennial State. It is no coincidence that the entirety of Colorado is experiencing a drought for the first time since 2013. Fifty-nine percent of the state is enduring an extreme drought or worse.

2020 has been a particularly bad year for wildfires, obliterating records in California with more than 4.1 million acres scorched. This is more than twice the acreage burned during the previous record wildfire season.

An environment already parched from a lackluster monsoon

Dry desert soil cracks due to the lack of monsoon rainfall in Maricopa, Ariz., on Sept. 30. (Ross D. Franklin/AP)

The Four Corners region is perhaps the one hit hardest, where prolonged, intense dryness has led to "exceptional drought."

In New Mexico, an area one and a half times the size of the state of Connecticut is listed by the U.S. Drought Monitor as being in extreme drought. This includes Los Alamos and Santa Fe. Officials have noticed a dramatic decline in river flow rate feeding many aquifers, though there are no immediate drinking water supply concerns. The Drought Monitor includes the observation that "vegetation and native trees are dying" in parts of the state.

An exceptionally weak monsoon has been a major contributor to the ongoing drought in the Southwest.

The term "monsoon" describes a seasonal wind shift, which transports moisture from the Gulf of Mexico, Gulf of California, and the eastern Pacific to the Desert Southwest beginning in June and continuing into the early fall.

But in 2020, the monsoon largely failed to deliver, leaving drought-stricken areas with even greater rainfall deficits.

In August, for example, Santa Fe picked up just one one-hundredth of an inch of rain. It averages 2.6 inches for the month. Since the start of the year, the city has had 5.44 inches of precipitation, less than half the 11.5 inches it would typically have by now.

Estimated rainfall anomalies in the past four months. A large swath of the Southwest and California has seen only 5 to 10 percent of its normal precipitation. (WeatherBell)

It is the second dud monsoon season in a row.

"Last year, the 2019 monsoon season, it wasn't that great. ... It was kind of a failure," said Royce Fontenot, senior service hydrologist at the National Weather Service in Albuquerque. "And this year, we had what we jokingly called the 'non-soon.'"

That is left a 34-mile stretch of the Rio Grande flowing discontinuously, Fontenon explained. He said that is not terribly rare but only happens during serious drought.

A large percentage of New Mexico's rainfall — in some places more than half — comes from the monsoon.

"We need that monsoonal precipitation for effective runoff just as much as we need the snowpack."

Fontenon said that the rangeland in eastern New Mexico is suffering heavily, bringing shades of a drought early in the decade that plagued area farmers between 2011 and 2013.

Nearby in Arizona, Tucson has not seen a drop of rain since August. Since the start of May, less than two inches has fallen. The year is 60 percent below average on rainfall.

Even farther north, the deficit has hit the Rockies and Intermountain West particularly hard. Grand Junction, Colo., has only seen 4.09 inches of rain this year; by now it should be in the double digits. Salt Lake City is at 7.86 inches. That is five inches below average.

Extreme drought has also snaked its way into Wyoming, while moderate drought blankets most of Idaho and Montana.

The drought will only worsen

Forecasters at NOAA say that with a developing La Niña event in the Pacific Ocean, drought is likely to prevail and potentially worsen through the winter over large areas of the West.

La Niña conditions feature cooler than average ocean temperatures in the central and eastern equatorial tropical Pacific Ocean, with associated changes in winds and rainfall that can affect weather patterns far from the tropics. Such events can help shunt the jet stream well northward toward the Aleutians and Pacific Northwest, carrying moisture-laden storm systems north of California and far from the Desert Southwest.

During a La Niña pattern, drier-than-average conditions are typical across much of the southern United States and Great Plains, which is reflected in NOAA's winter outlook, released Thursday.

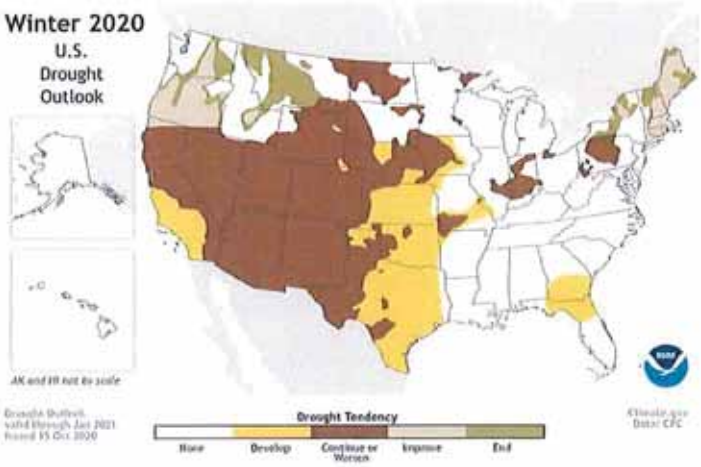
The National Weather Service in Albuquerque reviewed winter precipitation departures from average from the past seven La Niña events and found that winter precipitation in many areas was a quarter to a third below the long-term average.

Little relief in sight for most

There does appear to be some relief in sight for parts of the drought-stricken areas of the Pacific Northwest, although it will take many storm systems to bring the region out of its precipitation deficit.

The upcoming pattern favors some storminess and precipitation for portions of the Northern Tier, northern Rockies, and Pacific Northwest. The first waves of light to moderate rain may arrive in western regions late this weekend.

This pattern of storminess is characteristic of La Niña events and is the primary reason NOAA's latest drought outlook calls for improvement in the Pacific Northwest.



NOAA's winter drought outlook.
But looking ahead, little to no wet weather whatsoever is expected in the Southwest, southern California, or the Four Corners region. And the drought will probably continue, if not intensify.

Climate change's role

Human-caused climate change is increasing the likelihood of precipitation extremes on both ends of the scale, including droughts as well as heavy

rainfall events and resulting floods. Studies consistently show that as the Southwest warms, the odds of drought are increasing.

According to the Federal National Climate Assessment in 2018, climate change intensified the severe drought in California and is worsening drought in the Colorado River Basin. Part of the reasons for this is that climate change makes such droughts hotter than they might have been just a few decades ago, which draws more moisture out of soils and vegetation, thereby worsening the drought in a positive feedback loop.

"Higher temperatures sharply increase the risk of megadroughts — dry periods lasting 10 years or more," the report stated. Climate projections show large reductions in snowpack, a key source of water during the spring and summer months, in the Southwest.

A recent study published in the journal Science found that the Southwest may already be in the midst of the first human-caused megadrought in at least 1,200 years, which began in the year 2000.

Water & Finance Management -10-19-20
'Imagine a Day Without Water' advocacy day returns this week

Imagine a Day Without Water
October 21, 2020

The sixth annual *'Imagine a Day Without Water,'* advocacy day is returning this Wednesday, Oct. 21, with likely thousands of individuals, companies and organizations expected to take part in highlighting the importance of water and the need for investment.

Imagine a Day Without Water is a national education campaign that takes place one day a year and brings together diverse stakeholders to illustrate how water is essential, invaluable and in need of investment. This year, the day of action will include events, resolutions, student contests, social media engagement, and more, across the country. The campaign also aims to connect elected officials, drinking water and wastewater providers, community leaders, business and labor groups, policy experts, advocacy organizations and infrastructure experts to promote the value of water.

Since water infrastructure is largely invisible, it is out of sight, out of mind for most people. While nature provides water, it takes pipes, pumps, equipment, and people working 24/7 to deliver clean water to homes and businesses, and then remove and treat wastewater so it can safely be reused or returned to the environment.

Imagine a Day Without Water was created by the Value of Water Campaign, administered by the US Water Alliance. The campaign first launched in 2015 and has expanded its reach every year since. In 2019, social media activities throughout the day generated nearly 10 million impressions using #ValueWater and #ImagineADayWithoutWater. In addition, at least 35 proclamations and resolutions were issued from across the political spectrum, including participation from 27 mayors, several congressional representatives and the governors of Tennessee and West Virginia.

The campaign encourages creativity as participants share interesting statistics on social media highlighting the value of water, articles, original videos (see a great example from Garney Construction above!) and more to help spread the word. Visit imagineadaywithoutwater.org to lean how you can get involved and ideas for how you can participate.

The Value of Water Campaign on will also host on Oct. 21, a National Forum to commemorate the 6th annual Imagine A Day Without Water. The forum will feature several speakers including water leaders from across the country who will discuss critical water issues, innovative policies, and investments. Click here for more information on the National Forum and to register.

According to a recent study by the American Society of Civil Engineers (ASCE) and the Value of Water Campaign, the funding gap for water and water infrastructure is growing daily and is currently at $81 billion.

Bloomberg Law -10-16-20
Wildfire Smoke Can Spread Toxics to Water, Soil, and Elsewhere

- More than 4 million acres have burned in California this year
- Smoke can spread PAHs, which can cause cancer

Wildfires leave behind more than scorched earth and destroyed homes: Rising smoke plumes can contain chemicals that disperse not only into the air but in soil, water, indoor dust, and even wildlife.

Polycyclic aromatic hydrocarbons (PAHs), a class of more than 100 chemicals that can cause cancer and other ailments, is one of those ingredients. As the West continues to suffer more intense and destructive wildfires, the smoke from those fires needs to get a closer look, including how PAHs factor into the load, air experts said.

"It's a situation where our governments are going to have to get used to dealing with that reality," said Bill Magavern, policy director at the Coalition for Clean Air. "As we learn more about wildfire smoke, it's important that people know there are these constituents that cause cancer, that cause cardiovascular disease."

But research on wildfire-generated PAHs is relatively limited, with scientists instead focusing on calculating particulate matter and not the chemicals found in those tiny particles that are smaller than the width of a human hair. Analyzing for PAHs is more sophisticated and requires chemists, which increases costs. Exposure to many PAHs, rather than one, is also common.

"It is an absolute gap," said Kim Anderson, a professor of environmental and molecular toxicology at University of Oregon. "To me, it's just missing too big of a piece of the puzzle."

Anderson studied indoor air after wildfires in Oregon in 2018 and found concentrations of PAHs indoors were higher than in outside air, signifying that once the chemicals get inside, they recirculate and don't readily dissipate.

Regulations Rare

PAHs, the product of combustion, are everywhere. Grilling a burger, smoking a cigarette, or lighting a candle can produce them. So can diesel exhaust and burning coal in addition to wildfires.

Broad regulations for PAHs, as a class in air and water, are rare, according to the Agency for Toxic Substances and Disease Registry. The Occupational Safety and Health Administration has set a permissible exposure level of 0.2 milligram/cubic meter in workplace air.

The Environmental Protection Agency and state of California have a drinking water standard of 0.2 parts per billion for benzo(a)pyrene, the PAH that poses the most severe cancer risk. EPA has also set drinking water standards for five other carcinogenic PAHs.

In the 1970s, the agency named 16 PAHs—including naphthalene, fluorene, and pyrene—as high-priority pollutants, and those have primarily gotten the attention over the years.

One issue with calculating the risk of PAHs is that EPA and other governments tend to regulate and set a threshold for one compound, rather than several, said Susan Tilton, an associate professor in environmental and molecular toxicology at Oregon State University who studies the effects of carcinogenic PAHs on genes.

"That's not the reality of how individuals are exposed to them," Tilton said. "We certainly have an interest in looking at a mixture of PAHs in wildfire smoke in order to detect how toxic it may be to individuals."

The results of Tilton's work, published recently in the journal Toxicology in Vitro, could help model the effects of other PAHs that haven't been studied but are in the environment. It also could help regulators key in on the dangers in wildfire emissions. And using genes means scientists can assess how PAHs may affect people with asthma or other preexisting conditions to determine susceptibility.

EPA did not respond to questions about PAHs, if it planned to regulate the chemicals as a class or add more to the priority list.

Elsewhere around the world, the chemicals are under more scrutiny. In 2015, the European Commission amended regulations setting PAH maximum concentrations in food products to add supplements, herbs, and other edibles.

Some PAHs are carcinogenic and others can cause skin irritation, and renal and gastrointestinal damage, but more study is needed to determine the effects of chronic exposure, according to a case study from the federal Agency for Toxic Substances and Disease Registry.

So far this year, wildfires in California alone have burned more than 4 million acres, with the smoke spreading hundreds of miles.

Ubiquitous Contaminant

People are exposed to PAHs every day and it would be wise to reduce additional exposures from wildfires, said Gina Solomon, a clinical professor in the Division of Occupational and Environmental Medicine at the University of California, San Francisco.

"They damage our genes and thereby cause mutations, which can cause cancer," she said of PAHs. "The very young and the very old often lack the full capability to repair genetic damage. Wildfires are an additional burden."

Solomon sampled tap water in homes that didn't burn during 2018's Camp Fire, the state's most deadly and destructive fire. Many of the area's water pipes were depressurized, and the going theory is that smoke was sucked into plumbing pipes, contaminating service lines.

Preliminary screening at University of California, Davis, detected several PAHs in the tap water, but more work needs to be done to verify the constituents, said Solomon, who did her research with the Oakland-based Public Health Institute.

The State Water Resources Control Board plans to study the issue more and is talking with Oregon officials soon to discuss that and other topics, said Dan Newton, an assistant deputy director in the division of drinking water.

Ingredients of Smoke

The composition of smoke depends on where a wildfire burns, if just wooded areas are affected or homes, cars, and other structures.

The California Air Resources Board has studied particulate matter and PAH exposure in firefighters, but now is looking more deeply at smoke, said Bonnie Holmes-Gen, the board's health, and exposure assessment branch chief.

"The more fires that we have and the more acreage that's burned, the more we have these mixtures of urban and rural fires, so we're definitely concerned with looking at the mixtures of chemicals that can occur when we do have buildings, and cars, and this huge mix of urban sources," Holmes-Gen said.

The agency has commissioned a study with University of California researchers at the Berkeley and Riverside campuses to capture smoke and measure the composition of PM 2.5, the microscopic fine particles emitted by wildfire. The study method can detect more than 400 chemicals.

PAHs are among them but are not the only focus.

"Wildfire smoke from wood in a forest contains thousands of individual components," said Nehzat Motallebi, an air pollution specialist at the Air Board's Air Quality and Climate Science Section. "It's a very complex state of the science. PAHs is one of the players."

Anderson is also broadening her Oregon study examining indoor air after wildfires to include California, Idaho, and Washington state.

Water, Soils, Wildlife

But air is not the only place to look.

"If the concentration of PAHs in the air is really high, it will deposit into the soil," Anderson said. "They can actually revolatize into the air some weeks or months later or they can also be part of runoff."

Wildfires can destroy root systems when trees and shrubs burn and those soils can be washed out during later storms, spreading contamination.

Researchers from University of California, Northridge, sampled Malibu Creek and tributaries in late 2018 after the Woolsey Fire near Los Angeles. Water and soil samples collected during storm events showed an increase in PAHs in the watershed during and right after storm events. Those concentrations elevated again a year later, according to a 2020 paper.

"The post-fire increase in erosion mobilizes particle-bound contaminants, including PAHs, into the watershed, potentially affecting wildlife and human health," the paper said.

LA News -10-15-20

Four Los Angeles Stormwater Capture Projects Approved for Funding

The Los Angeles Bureau of Sanitation and Environment announced Thursday that all four of its proposed multi-benefit stormwater capture projects have been approved for funding through the county's Safe Clean Water Program.

The projects were approved during Tuesday's Board of Supervisors meeting.

"A resilient Los Angeles is a place where we source water locally today so Angelenos can turn to the tap with certainty tomorrow," Mayor Eric Garcetti said. "This first round of stormwater-capture projects is a down payment on a stronger, more sustainable future — a county with better water quality for our communities and a system that's less prone to shocks from natural disasters and less reliant on distant resources increasingly threatened by the climate crisis."

Funded by Measure W, the special parcel tax approved by county voters in 2018, the Safe Clean Water Program provides about $285 million annually to projects that increase local water supplies, improve water quality, provide community enhancements and protect public health.

With the Board of Supervisors' approval on Tuesday, LASAN will move forward to develop four regional projects, including the $20 million MacArthur Lake Rehabilitation Project to rehabilitate the lake at MacArthur Park by capturing, storing and treating stormwater to offset potable water use for the lake and irrigation, while also providing downstream water quality benefits in the Ballona Creek watershed.

The project incorporates nature-based solutions that will enhance the park and foster significant community benefits. Proposed nature-based technologies include biofiltration, bioswales, lake habitat restoration, and the incorporation of wetlands enhancements.

The Lankershim Boulevard Local Area Urban Flow Management Project is a $25.6 million project located in the Upper Los Angeles River watershed that will provide water quality improvements and flood mitigation with the installation of dry wells, parkway planters and vegetated medians along a portion of Lankershim Boulevard in Sun Valley.

The project has the potential to capture 36 million gallons of water annually, create a more walkable neighborhood and reduce the "heat-island" effect in the community, according to LASAN.

The $10.2 million Oro Vista Local Area Urban Flow Management Project located in the Upper Los Angeles River watershed will reduce flood hazards along a portion Oro Vista Avenue in Sunland. The project has the potential to capture 9.5 million gallons of stormwater runoff annually and will install more than 3,300 square feet of infiltration planters with California native species.

The $4.9 million Wilmington Q Street Local Urban Area Flow Management Project located in the South Santa Monica Bay watershed will modernize existing storm drain infrastructure and improve the aesthetic character of a portion of Q Street in Wilmington into a "green street" to capture, treat, retain and infiltrate stormwater flows, according to LASAN.

"These projects are important components of the city of Los Angeles' overall vision to create more sustainable and livable communities by increasing our local water supplies, improving water quality, and providing community investments, such as green streets and nature based solutions, to enhance the quality of life for Angelenos," LASAN Director and General Manager Enrique Zaldivar said.

In addition to the four infrastructure projects, the Board of Supervisors also approved $400,000 in operations and maintenance on the Echo Park Lake Rehabilitation Project, a Proposition O-funded project located in the Upper Los Angeles River watershed.

Another $410,000 was awarded for a study proposed by LASAN to evaluate zinc toxicity in the Los Angeles River and Ballona Creek watersheds.

Brown -10-15-20

Researchers step toward understanding how toxic PFAS chemicals spread from release sites

New lab studies are helping researchers to better understand how so called "forever chemicals" behave in soil and water, which can help in understanding how these contaminants spread.

PROVIDENCE, R.I. [Brown University] — A study led by Brown University researchers sheds new light on how pollutants found in firefighting foams are distributed in water and surface soil at release sites. The findings could help researchers to better predict how pollutants in these foams spread from the spill or release sites — fire training areas or airplane crash sites, for example — into drinking water supplies.

Firefighting foams, also known as aqueous film forming foams (AFFF), are often used to combat fires involving highly flammable liquids like jet fuel. The foams contain a wide range of per- and polyfluoroalkyl substances (PFAS) including PFOA, PFOS and FOSA. Many of these compounds have been linked to cancer, developmental problems and other conditions in adults and children. PFAS are sometimes referred to as "forever chemicals" because they are difficult to break down in the environment and can lead to long-term contamination of soil and water supplies.

"We're interested in what's referred to as the fate and transport of these chemicals," said Kurt Pennell, a professor in Brown's School of Engineering and co-author of the research. "When these foams get into the soil, we want to be able to predict how long it's going to take to reach a water body or a drinking water well, and how long the water will need to be treated to remove the contaminants."

It had been shown previously that PFAS compounds tend to accumulate at interfaces between water and other substances. Near the surface, for example, PFAS tend to collect at the air-water interface — the moist but unsaturated soil at the top of an aquifer. However, prior experiments showing this interface activity were conducted only with individual PFAS compounds, not with complex mixtures of compounds like firefighting foams.

"You can't assume that PFOS or PFOA alone are going to act the same way as a mixture with other compounds," said Pennell, who is also a fellow at the Institute at Brown for Environment and Society. "So, this was an effort to try to tease out the differences between the individual compounds, and to see how they behave in these more complex mixtures like firefighting foams."

Using a series of laboratory experiments described in the journal Environmental Science and Technology, Pennell and his colleagues showed that the firefighting foam mixture does indeed behave much differently than individual compounds. The research showed that the foams had a

far greater affinity for the air-water interface than individual compounds. The foams had more than twice the interface activity of PFOS alone, for example.

Pennell says that insights like these can help researchers to model how PFAS compounds migrate from contaminated sites.

"We want to come up with the basic equations that describe the behavior of these compounds in the lab, then incorporate those equations into models that can be applied in field," Pennell said. "This work is the beginning of that process, and we'll scale it up from here."

Ultimately, the hope is that a better understanding of the fate and transport of these compounds could help to identify wells and waterways at risk for contamination, and aid in cleaning those sites up.

Co-authors on the paper Jed Costanza and Linda Abriola. Funding for the research was provided by the Strategic Environmental Research and Development Program (W912HQ-18-C-0014).