COUNCIL SUBCOMMITTEE ON WATER ISSUES MEETING

REGULAR SUBCOMMITTEE MEETING AGENDA

TUESDAY, JANUARY 12, 2021, 9:30 AM

201 S Cortez Street
Prescott, AZ 86303
Council Chambers

Steve Blair, Councilman - Chairman
Billie Orr, Councilwoman - Member
Steve Sischka, Councilman - Member

The following Agenda will be considered by the Prescott Council Subcommittee on Water Issues at Regular Subcommittee Meeting pursuant to the Prescott City Charter, Article II, Section 13. Notice of the meeting is given pursuant to Arizona Revised Statutes, Section 38-431.02. One or more members of the Council may be attending the meeting through the use of a technological device.

Viewing & Participation

This meeting may be viewed on Channel 64, Facebook Live or on the City's website: Live City of Prescott Videos
Or via Zoom by registering in advance: Zoom Registration Link
Comments from the public may be submitted through the City website:
Speaker Request Form

1. **CALL TO ORDER**

2. **ROLL CALL**

   Chairman Steve Blair
   Member Billie Orr
   Member Steve Sischka

3. **PUBLIC COMMENT**

   Public Comment will be accepted following each agenda item and limited to three (3) minutes. Please complete a comment card and return it to the City Clerk, speakers will be called in the order received.

4. DISCUSSION & ACTION ITEMS

A. Approval of the November 3, 2020 Meeting Minutes.

Recommended Action: MOVE to approve the November 3, 2020 minutes as presented.

B. Infrastructure Topic - Pumping vs. Recharge Update, Calendar Year 2020

Recommended Action: This item is for discussion only. No formal action will be taken.

C. Focus Topic – ADWR 2019 GPCD Notification

Recommended Action: This item is for discussion only. No formal action will be taken.

D. Focus Topic - ADWR Drought Dashboard Overview and Forecast

Recommended Action: This item is for discussion only. No formal action will be taken.

E. Conservation Topic - Mid Fiscal Year Update on Water Rebate Program

Recommended Action: This item is for discussion only. No formal action will be taken.

5. ADJOURNMENT

EXECUTIVE SESSION

Upon a public majority vote of a quorum of the City Council, the Council may hold an executive session, which will not be open to the public, regarding any item listed on the agenda but only for the following purposes:

(1) Discussion or consideration of personnel matters (A.R.S. §38-431.03(A)(1));
(2) Discussion or consideration of records exempt by law (A.R.S. §38-431.03(A)(2));
(3) Discussion or consultation for legal advice with the city's attorneys (A.R.S. §38-431.03(A)(3));
(4) Discussion or consultation with the city's attorneys regarding the city's position regarding contracts that are the subject of negotiations, in pending or contemplated litigation, or in settlement discussions conducted in order to avoid litigation (A.R.S. § 38-431.03(A)(4));
(5) Discussion or consultation with designated representatives of the city to consider its position and instruct its representatives regarding negotiations with employee organizations (A.R.S. §38-431.03(A)(5));
(6) Discussion, consultation or consideration for negotiations by the city or its designated representatives with members of a tribal council, or its designated representatives, of an Indian reservation located within or adjacent to the city (A.R.S. §38-431.03(A)(6);
(7) Discussion or consultation with designated representatives of the city to consider its position and instruct its representatives regarding negotiations for the purchase, sale or lease of real property (A.R.S. §38-431.03(A)(7)).

THE CITY OF PRESCOTT ENDEAVORS TO MAKE ALL PUBLIC MEETINGS ACCESSIBLE TO PERSONS WITH DISABILITIES. With 72 hours advanced notice, special assistance can be provided for sight and/or hearing-impaired persons at this meeting. Reasonable accommodations will be made upon request for persons with disabilities or non-English speaking residents. Please call the City Clerk (928) 777-1272 to request an accommodation to participate in this public meeting. Prescott TDD number is (928) 445-6811. Additionally, free public relay service is available from Arizona Relay Service at 1-800-367-8939 and more information at www.azrelay.org

Confidentiality

Arizona statute precludes any person receiving executive session information from disclosing that information except as

allowed by law. A.R.S. §38-431.03(F). Each violation of this statute is subject to a civil penalty not to exceed $500, plus court costs and attorneys' fees. This penalty is assessed against the person who violates this statute or who knowingly aids, agrees to aid or attempts to aid another person in violating this article. The city is precluded from expending any public monies to employ or retain legal counsel to provide legal services or representation to the public body or any of its officers in any legal action commenced for violation of the statute unless City Council takes a legal action at a properly noticed open meeting to approve of such expenditures prior to incurring any such obligation or indebtedness. A.R.S. §38-431.07(A)(B).

CERTIFICATION OF POSTING OF NOTICE

The undersigned hereby certifies that a copy of the foregoing notice was duly posted at Prescott City Hall on _____ at _____m. in accordance with the statement filed by the Prescott City Council with the City Clerk

Sarah M. Siep
_____

Sarah M. Siep, City Clerk

CITY OF PRESCOTT

COUNCIL AGENDA MEMO

MEETING TYPE/DATE: REGULAR SUBCOMMITTEE MEETING 01-12-21

DEPARTMENT: City Clerk

AGENDA ITEM: **Approval of the November 3, 2020 Meeting Minutes.**

ITEM SUMMARY

Attached for approval are the Council Subcommittee on Water Issues minutes for the December 1, 2020 meeting.

BACKGROUND

None.

FINANCIAL IMPACT

None.

Recommended Action: **MOVE to approve the November 3, 2020 minutes as presented.**

ATTACHMENTS

1. December 1, 2020 Meeting Minutes.docx

CITY OF PRESCOTT COUNCIL SUBCOMMITTEE ON WATER ISSUES MEETING

REGULAR SUBCOMMITTEE MEETING MINUTES

TUESDAY, DECEMBER 1, 2020, 9:30 AM

201 S. Cortez Street
Prescott, AZ 86303
Council Chambers

Steve Blair, Councilman
Billie Orr, Councilwoman Steve Sischka, Councilman

MINUTES OF THE REGULAR SUBCOMMITTEE MEETING OF THE PRESCOTT COUNCIL SUBCOMMITTEE ON WATER ISSUES HELD ON DECEMBER 1, 2020, IN THE 201 S. CORTEZ STREET PRESCOTT, AZ 86303 COUNCIL CHAMBERS.

1. **CALL TO ORDER**
   Chairman Blair called the meeting to order at 9:45 a.m.

2. **ROLL CALL**
   Chairman Steve Blair
   Member Billie Orr
   Member Steve Sischka
   (Excused)

3. PUBLIC COMMENT

Public comment will be accepted following each agenda item and limited to three (3) minutes. Please complete a comment card and return it to the City Clerk, speakers will be called in the order received.

4. DISCUSSION & ACTION ITEMS

A. Approval of the November 3, 2020 Meeting Minutes.

MOTION BY MEMBER ORR TO APPROVE ITEM 4.A.; SECONDED BY CHAIRMAN BLAIR: PASSED [2-0]

B. Infrastructure Topic - Pumping vs. Recharge January to October 2020 Update

Water Resource Project Manager Leslie Graser provided a presentation to the Subcommittee with updates to the pumping vs recharge through October 2020. She noted that surface water moves in April through November, unless there are conditions outlined in a legal document for movement to begin in March, and that the recharge window closed yesterday.

Chairman Blair commented that it seems the numbers have been holding stable and added that it is beneficial to understand the restrictions related to pumping with SRP as well as the self imposed restrictions for recharging during particular months of the year.

Ms. Graser confirmed and added that it is important to continue to keep an eye on our long term records and goals.

Member Orr asked staff to confirm if water use is still at approximately only half of what is allotted.

Chairman Blair commented that a total of 16,500 acre feet is available and year to date the city has pumped 6,534.

Ms. Graser responded that this question has come up frequently, she added that the city has pumping and committed demands so it is important to compare correctly and we don't have all of that information for this meeting but will report back when the total numbers have been confirmed.

Member of the public Russel Pilcher commented that the difference between effluent recharge in the months of January, February and March is greater than remaining months and asked why that number

isn't more consistent.

Ms. Graser responded that when the summer months begin more water is sent out for existing contracts, such as golf courses, and therefore less is available for recharge.

Public Works Director Craig Dotseth added that water during those months effluent is being reused rather than recharged.

Chairman Blair reiterated that the city is following state guidelines for water use.

Staff confirmed.

This item was for discussion only, no formal action was taken.

C. Focus Topic – Subcommittee Year in Review and Discussion of Forecasted Topics for 2021

Water Resource Project Manager Leslie Graser provided a presentation to the Subcommittee with a review of the 2020 topics discussed. During 2020, roughly six Water Service Agreement Applications went through the Subcommittee to Council, and they reviewed topics being focused on by the Governors Water Group and others.

Chairman Blair thanked staff for the well done recap and added that things will be interesting for water resources in 2021 and moving forward. He added that recently he has heard a lot of clamor about giving away the city's water and he doesn't see it that way. Research shows back to the late 40s-early 50s many areas outside the core of Prescott received water prior to and following annexation through contracts. We are a regional water provider and need to be able to control areas surrounding us with water as a leverage and that is part of the purpose of this Subcommittee, doing so gives Prescott a unique opportunity and heightened responsibility in the AMA.

Member Orr echoed Chairman Blair's comments, the city has moved in all the right directions. It is easier to conserve if we can control and need to get people on our system.

Ms. Graser continued with a discussion on the forecasted topics for 2021 including, memberships, and ADWR workgroups which will be similar to how they have been reviewed topics in the past. She added that topics can be added in the future should the Subcommittee desire to do so.

Member Orr commented that she would like to see a regular update regarding the Mayor's Commission on Sewer & Water Issues and the topics they are looking into.

Chairman Blair concurred. He stated that the Commission is working on things and digesting a lot of information that staff has provided and things have come a long way from the past. Additionally, he

asked staff to provide the number of septic systems where the city serves potable water and how much water is used versus how much could be saved.

Public Works Director Craig Dotseth responded that approximately 3100 parcels are served potable water but still on septic and this would equate to approximately 356 acre feet of water that could be recharged but is being lost at this time.

Chairman Blair said this proves what a difference a centralized sewer and water system would make for the community and environment. It is an expensive endeavor, but should really be looked at.

Mr. Dotseth added that through the effort and focus put into conservation programs the city has seen an uptick for applications being submitted for toilet replacements particularly in the unsewered areas so it is clear that residents are participating.

Chairman Blair said that we must continue down that path.

Ms. Graser commented that staff will provide an update in January on this program, and advised that there will be some upcoming Water Service Agreement Applications and the Decision and Order (D&O) update in February. In March and April staff plans to provide the annual use report.

Chairman Blair thanked staff and Councilwoman Orr for their contributions and added that he would like to be able to discuss the ongoing drought and how that might be addressed because it is important to recognize that when we don't get the amount of water we anticipate it impacts our water.

Staff will look into this and return with updated numbers.

This item was for discussion only, no formal action was taken.

5. ADJOURNMENT

There being no further business to discuss, Chairman Blair adjourned the meeting at 10:20 a.m.

_____

STEVE BLAIR, Chairman

ATTEST:

_____

SARAH M. SIEP, City Clerk

CERTIFICATION

I hereby certify that the foregoing minutes are a true and correct copy of the minutes of the Regular Subcommittee Meeting of the Council Subcommittee on Water Issues of the City of Prescott, Arizona held on December 1, 2020. I further certify the meeting was duly called and held and that a quorum was present.

Dated this _____ day of _____, 2020.

AFFIX
CITY
SEAL

_____
Sarah M. Siep, City Clerk

CITY OF PRESCOTT

COUNCIL AGENDA MEMO

MEETING TYPE/DATE: **REGULAR SUBCOMMITTEE MEETING** **01-12-21**

DEPARTMENT: **Water Resources**

AGENDA ITEM: **Infrastructure Topic - Pumping vs. Recharge Update, Calendar Year 2020**

ITEM SUMMARY

This is a standing item for the Subcommittee agenda that compares pumping from wells to the recharge deliveries at the City's Underground Storage Facility (recharge facility).

BACKGROUND

Every year the City collects daily information on its water and wastewater systems. This data is compiled in various formats and subsequently used to meet Annual Water Withdrawal and Use reporting requirements to the Arizona Department of Water Resources (ADWR).

See attachment for the Calendar Year 2020 pumping vs. recharge graph.

The preliminary total pumped in Calendar Year 2020 is 7,486.29 AF
The preliminary total delivered to the recharge facility in Calendar Year 2020 is 5,371.58 AF

FINANCIAL IMPACT

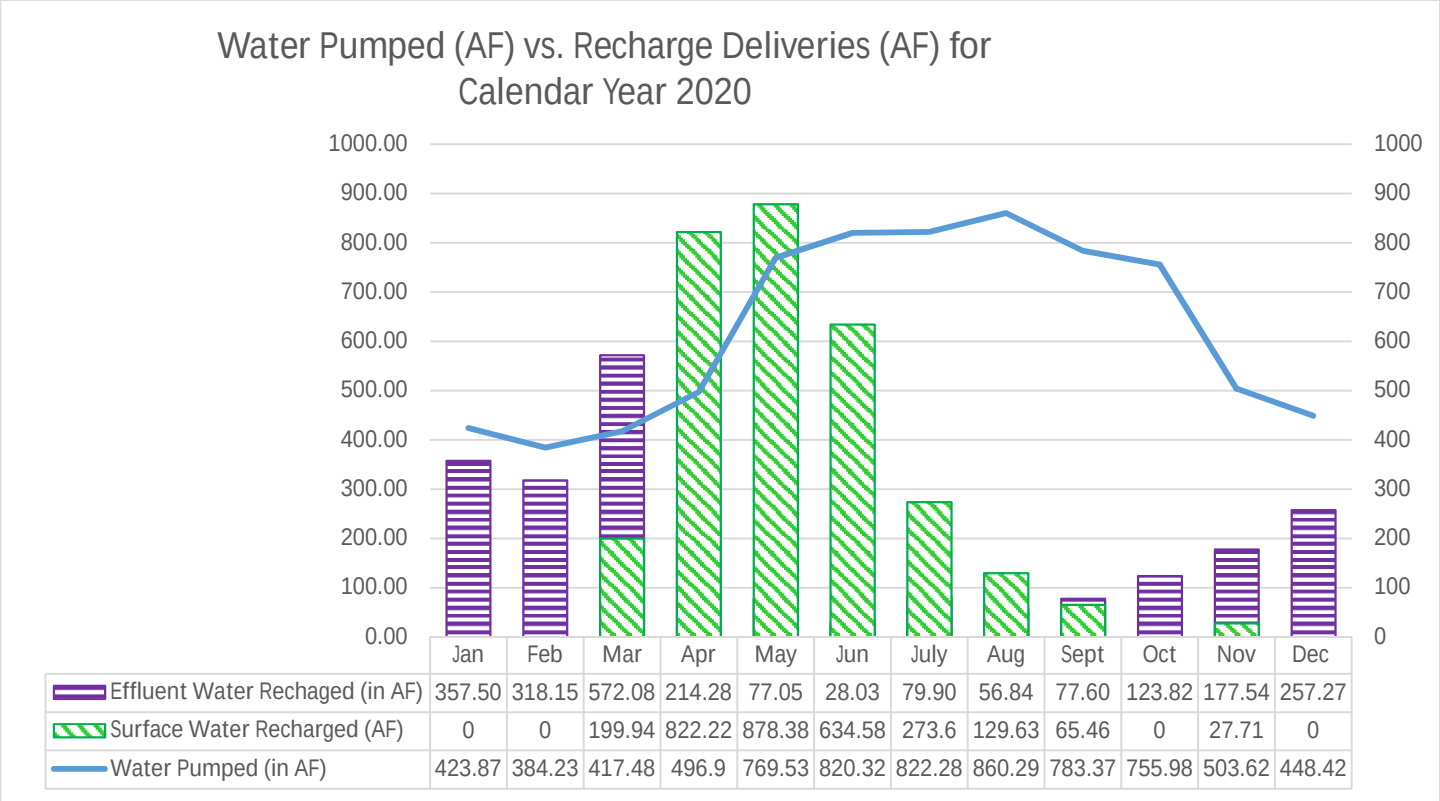
No financial impact is related to this item.

Recommended Action: **This item is for discussion only. No formal action will be taken.**

ATTACHMENTS

2. Calendar Year 2020 Pumping vs. Recharge.docx

Attachment 1



	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec
Effluent Water Rechaged (in AF)	357.50	318.15	572.08	214.28	77.05	28.03	79.90	56.84	77.60	123.82	177.54	257.27
Surface Water Recharged (AF)	0	0	199.94	822.22	878.38	634.58	273.6	129.63	65.46	0	27.71	0
Water Pumped (in AF)	423.87	384.23	417.48	496.9	769.53	820.32	822.28	860.29	783.37	755.98	503.62	448.42

2020 Total pumped: 7,486.29 AF

2020 Total delivered to recharge : 5,371.58 AF

Note 1: In accordance with A.R.S. §45-851.01(B), surface water supplies,

If water is stored pursuant to a water storage permit and its use is based on a decreed or appropriative water right, the approximate recoverable amount of water **stored in a month shall be recovered on or before the last day of the following month or within the same calendar year,** *whichever is earlier, unless the water is credited to a long-term storage account as prescribed by section 45-852.01*

Note 2: The City holds a non-recoverable long-term storage account for permanent recharge volumes (City Charter, Article I, Section IV).

CITY OF PRESCOTT

COUNCIL AGENDA MEMO

MEETING TYPE/DATE: **REGULAR SUBCOMMITTEE MEETING** **01-12-21**

DEPARTMENT: **Water Resources**

AGENDA ITEM: **Focus Topic – ADWR 2019 GPCD Notification**

ITEM SUMMARY

Each year the Arizona Department of Water Resources (ADWR) notifies regulated water providers of their Gallons Per Capita per Day (GPCD) based on their Annual Water Withdrawal and Use report filed early in the year (no later than March 31st). The City's 2019 GPCD was determined to be 107.

BACKGROUND

The ADWR 2019 notification is attached. Brief background information is sourced from the Prescott AMA Fourth Management Plan, 5.6.2.1 Total GPCD Program Description.

A large municipal provider regulated under the Total GPCD Program must limit the annual gallons per capita per day water usage within its service area to the amount allowed under the total GPCD requirement. For the fourth management plan period, the component method of calculating the annual total GPCD requirement previously employed by ADWR will not be used. Instead a large municipal provider regulated under the program will be required to meet its individual total GPCD requirement as represented in the attached ADWR notification . The City's calculated 2019 GPCD requirement is 157.

For each year in which the provider is regulated under the Total GPCD Program, the actual amount of water withdrawn, diverted, or received by the provider for non-irrigation use will be compared to the amount allowed by its total GPCD requirement to determine compliance during that year. Compliance is determined pursuant to a flexibility account, which allows providers to use more water than their total GPCD requirement in some years, subject to a maximum negative account balance. Reclaimed water used directly from a treatment plant or stored underground and recovered within the area of impact of storage is not counted when determining a provider's compliance with its total GPCD requirement.

FINANCIAL IMPACT

No financial impact related to this item.

Recommended Action: This item is for discussion only. No formal action will be taken.

ATTACHMENTS

1. ADWR 2019 GPCD Notification.pdf
2. 2008- 2019 GPCD Chart.docx

DOUGLAS A. DUCEY
Governor

THOMAS BUSCHATZKE
Director

ARIZONA DEPARTMENT of WATER RESOURCES
1110 West Washington Street, Suite 310
Phoenix, Arizona 85007
602.771.8500
azwater.gov

November 19, 2020

56-003017.0000
City of Prescott
ATTN: LESLIE GRASER
433 N. VIRGINIA STREET
PRESCOTT, AZ 86301

Re: Notification of 2019 GPCD and L&U

Dear Large Municipal Water Provider:

The Arizona Department of Water Resources (ADWR) has reviewed the 2019 Annual Water Withdrawal and Use Report (Report) for City of Prescott. Based on submitted data including water supplies, deliveries, use and estimated service area population, ADWR has calculated Lost and Unaccounted for water (L&U), Total Gallons Per Capita Per Day (GPCD), Total GPCD requirements and Flexibility Account Balances as applicable. Please see the back of this sheet for compliance data.

Each provider regulated under the Total GPCD Program is assigned a GPCD requirement as calculated pursuant to the current management plan for each Active Management Area (AMA). ADWR must determine if a provider is in compliance with its GPCD requirement through the maintenance of a flexibility account. This flexibility account is adjusted each year based on the difference of the annual GPCD allotment and annual GPCD volume.

If the difference of the annual GPCD allotment and the annual GPCD volume is positive, then the flexibility account is credited up to the maximum flex account credit balance. Otherwise, the flexibility account is debited up to the maximum negative account balance. **The provider is out of compliance if this Flexibility Account Balance is equal to or exceeds the maximum negative account balance allowed in the provider's Flexibility Account for the year.** Each provider's maximum debit/credit can be found in the Definitions section on the back of this sheet.

In addition, all large water providers within an AMA shall not have an L&U that exceeds ten percent (10%). **If both the annual and 3-year average L&U exceed 10%, you are non-compliant** and must contact the AMA Municipal Planner within 30 days of this notice to submit a remedial action plan to achieve compliance.

If upon review of this notification you have questions, or if you believe the calculations contain errors or omissions, please contact the Municipal Program in the AMA section at 602-771-8585 within 30 days of the date of this letter.

Sincerely,

Kyle Miller

Kyle Miller
Area Director, Statewide Active Management Areas

DOUGLAS A. DUCEY
Governor

THOMAS BUSCHATZKE
Director

GPCD, L&U, Flex Balance prepared for
City of Prescott, 56-003017.0000, for Report Year 2019

The information presented in the table below has been calculated using data submitted to ADWR in the 2019 Report and pursuant to requirements detailed in Chapter 5 of the current Management Plan for each AMA.

Lost & Unaccounted for Water (%)		**Service Area Population**	
3-yr Average	Annual	49,365	
7.85	8.57		
GPCD			**Flex Account (Acre-Feet)**
Requirement	Actual	Allotment (AF)	Volume (AF)	Balance	Excess Debit
157	107	8,659.93	5,913.35	3,317.78	0.00

DEFINITIONS

Flex Account Balance is the cumulative sum or difference of the GPCD allotment and the GPCD volume. This balance gets adjusted every year as applicable up to a maximum credit or minimum debit as laid out in chapter 5 of the Management Plan.

Flex Account Excess Debit is the total acre-feet per year over the maximum allowable debit.

GPCD Allotment is calculated by multiplying the provider's total GPCD requirement for the calendar year by the provider's calculated service area population as of December 31, and then multiplying the product by the number of days in the calendar year.

GPCD Requirement is an annual calculation based on the 2010 US Census base service area population, yearly housing additions reported, and management plan component rates.

GPCD Volume is the gallons per capita per day including those sources of water supply that count for regulatory purposes according to the Management Plan. Spill water, direct use effluent and effluent recovered within the area of hydrologic impact are excluded as sources for this purpose.

Lost and Unaccounted for Water (L&U) is defined as the total water from any source, withdrawn, diverted or received in a year minus the total amount of authorized deliveries made by the municipal provider in that year. Certain classifications of effluent are excluded as a water source for calculating L&U, including line leakage, meter under-registration, evaporation or leakage from storage ponds or tanks, system and hydrant leaks or breaks, and illegal connections.

Maximum Flex Account Credit is the maximum number of credits that can be accrued under the GPCD credit cap based on the yearly service area population. It is shown as a positive number in this notice.

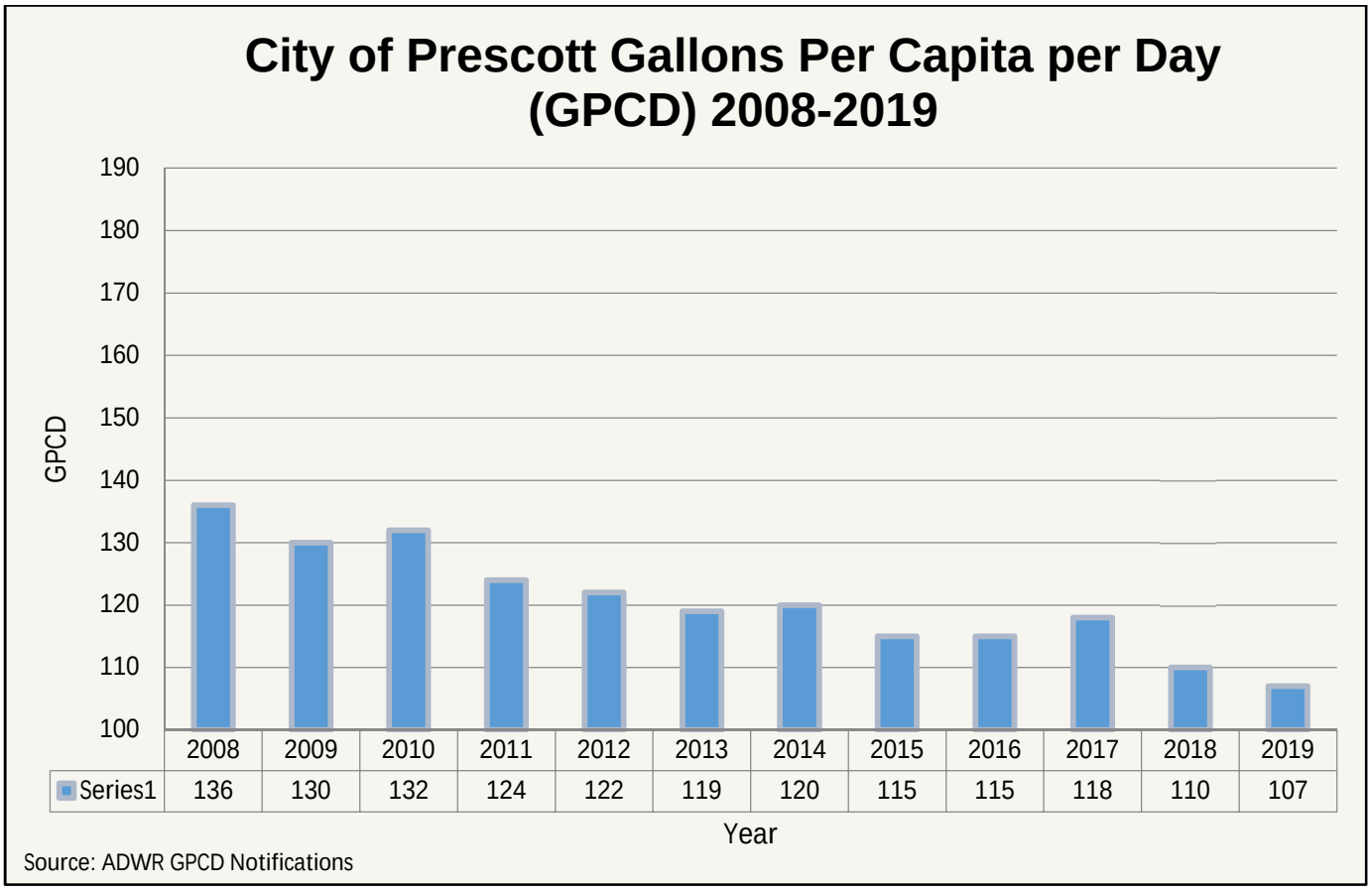
Credit limits by AMA in GPCD: Phoenix-60; Pinal-45; Prescott-30, Tucson-30, Santa Cruz-30

Maximum Flex Account Debit is the maximum number of debits that can be accrued under the GPCD debit cap based on the yearly service area population. It is shown as a negative number in this notice.

Debit limits by AMA in GPCD: Phoenix-20; Pinal-15; Prescott-10, Tucson-10, Santa Cruz-10

Note providers with a Designation of Assured Water Supply (DAWS): As part of the DAWS data verification process, the GPCD rates and L&U for water may change. If changed, ADWR will provide you with updated figures.

Attachment 1



CITY OF PRESCOTT

COUNCIL AGENDA MEMO

MEETING TYPE/DATE: REGULAR SUBCOMMITTEE MEETING 01-12-21

DEPARTMENT: Public Works

AGENDA ITEM: Focus Topic - ADWR Drought Dashboard Overview and Forecast

ITEM SUMMARY

Staff will provide an overview of ADWR's Drought Dashboard followed by a PowerPoint Presentation on the Drought Forecast, climate data review of Prescott for calendar year 2020 and the Drought Forecast for 2021.

BACKGROUND

At the December 2020 Mayor's Committee for Water Issues meeting, Councilman Blair requested information regarding the 20 year history of drought in the region. This presentation will provide an overview of ADWR's 20 year drought dashboard, drought forecasts and climate review.

The information provided in the presentation was prepared by ADWR's Nemesis Ortiz-Declat, with input by Mark O'Malley with the National Weather Service (NWS) in Phoenix and Nancy J. Selover, PhD, State Climatologist at ASU; the Flagstaff office of the National Weather Service; and by ADWR's Nemesis Ortiz-Declat, based on data provided by Mark O'Malley, Lead Meteorologist, National Weather Service, Phoenix, and Nancy J. Selover, PhD, State Climatologist at ASU.

FINANCIAL IMPACT

There is no financial impact related to this item.

Recommended Action: This item is for discussion only. No formal action will be taken.

ATTACHMENTS

1. WeatherClimateSummary_2020.pdf
2. 2020-2021 Outlook2.pdf

3.ADWR Interactive Drought Dashboard.pdf

Weather and Climate Review
for 2020 in Northern Arizona
Presented by
NATIONAL WEATHER SERVICE
FLAGSTAFF, AZ
NATIONAL WEATHER SERVICE

2020 – Year in Review

FLAGSTAFF, AZ
NATIONAL WEATHER SERVICE

January & February

Among the driest 25% of years for this period. Slightly above normal temperatures.

March

By far the wettest month of 2020 with most areas receiving 200-400% of normal precipitation. Heavy snow was recorded on the 18th and 19th.

April through December

The driest such period on record at nearly all locations, with temperatures in the top 3 warmest. Drought conditions developed with unprecedented speed. Most locations went from no drought or Moderate Drought in April to Exceptional Drought by November.

2020 Climate Summary

City	Avg Temp (F)	Departure from Normal	Temperature Ranking	Precipitation Total	Departure from Normal	Precipitation Ranking
Canyon de Chelly (Chinle)	53.6°	+0.4°	31st warmest	4.80”	-4.78”	4th driest
Flagstaff	48.2°	+2.0°	5th warmest	9.59”	-12.27”	Driest on Record
Grand Canyon Airport	47.4°	+2.0°	6th warmest	5.88”	-10.29”	Driest on Record
Page	62.3°	+3.1°	4th warmest	1.99”	-6.34”	Driest on Record
Payson	57.9°	+2.1°	5th warmest	12.03”	-9.30”	3rd driest
Prescott	57.7°	+1.9°	6th warmest	6.69”	-7.28”	3rd driest
Saint Johns	55.8°	+1.1°	7th warmest	5.40”	-6.59”	3rd driest
Show Low	55.3°	+2.2°	Warmest on Record	11.23”	-5.41”	5th driest
Window Rock	50.8°	+2.7°	2nd warmest	5.74”	-6.56”	Driest on Record
Winslow	57.8°	+1.9°	2nd warmest	4.30”	-2.71”	5th driest

FLAGSTAFF, AZ
NATIONAL WEATHER SERVICE

PRESCOTT

HIGHEST TEMPERATURE	102 ON 7/31
LOWEST TEMPERATURE	11 ON 12/13
DAYS MAX TEMP 90 OR ABOVE	52
DAYS MAX TEMP 32 OR LOWER	0
DAYS MIN TEMP 32 OR LOWER	117
DAYS MIN TEMP 0 OR LOWER	0
WETTEST DAY	0.95 INCHES ON 3/10
DAYS WITH MEASURABLE PRECIP	30
HIGHEST SUSTAINED WIND	37 MPH ON 11/7
HIGHEST WIND GUST	54 MPH ON 11/7
AVERAGE WIND SPEED	6.9 MPH

Photo Credit: Theresa Ditson

FLAGSTAFF, AZ
NATIONAL WEATHER SERVICE

Flagstaff, AZ

Monsoon 2020 Rainfall Summary

June 15 – September 30

Location	2020 Observed Precipitation (in)	Normal Precipitation (in)	Departure From Normal (in)	Percent of Normal	All-Time Ranking (Period of Record)
Bagdad	0.87”	5.36”	-4.49”	16%	Driest (1925-2020)
Bellemont	2.85”	7.86”	-5.01”	36%	Driest (1994-2020)
Blue Ridge Ranger Station	2.44”	8.32”	-5.88”	29%	Driest (1965-2020)
Bright Angel Ranger Station	1.28”	6.75”	-5.47”	19%	2nd Driest (1925-2020)
Canyon de Chelly (Chinle)	1.03”	3.75”	-2.72”	27%	3rd Driest (1909-2020)
Flagstaff Airport	1.78”	8.31”	-6.53”	21%	Driest (1898-2020)
Grand Canyon Airport	1.06”	5.93”	-4.87”	18%	Driest (1997-2020)
Heber (Ranger Station)	3.89”	8.48”	-4.59”	46%	3rd Driest (1950-2020)
Jerome	3.14”	7.33”	-4.19”	43%	4th Driest (1897-2020)
Page Airport	0.39”	2.18”	-1.79”	18%	3rd Driest (1957-2020)
Payson	3.61”	7.52”	-3.91”	48%	5th Driest (1940-2020)
Phantom Ranch	0.52”	3.54”	-3.02”	15%	2nd Driest (1935-2020)
Prescott (Sundog Water Plant)	2.27”	7.96”	-5.69”	29%	Driest (1898-2020)
Prescott Airport	1.32”	6.51”	-5.19”	20%	2nd Driest (1948-2020)
Saint Johns Airport	1.25”	5.99”	-4.74”	21%	2nd Driest (1999-2020)
Seligman	0.34”	5.57”	-5.23”	6%	Driest (1904-2020)
Show Low Airport	2.22”	7.59”	-5.37”	29%	Driest on Record (1984-2020)
Sunset Crater Natl Mon	4.28”	7.93”	-3.65”	54%	6th Driest (1969-2020)
Williams	2.52”	8.32”	-5.80”	30%	Driest (1897-2020)
Window Rock	0.73”	5.73”	-5.00”	13%	Driest (1998-2020)
Winslow	0.47”	3.23”	-2.76”	15%	2nd Driest (1915-2020)
Wupatki Natl Monument	0.42”	3.89”	-3.47”	33%	3rd Driest (1940-2020)

Summer 2020 Temperatures

Average temperatures were well above normal across northern Arizona during Summer 2020.
Many locations ranked in the top 5 warmest on record.

June – August Average Temperature Rankings

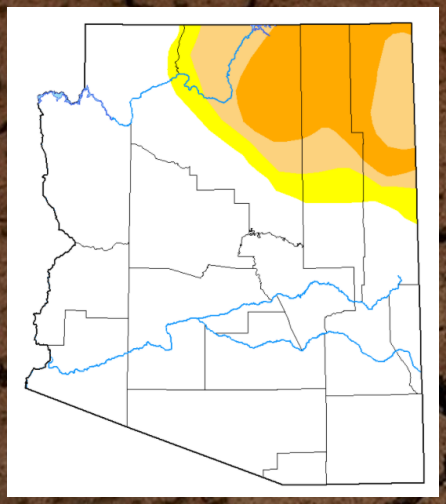
City	Temperature Ranking	Warmest Summer	Period of Record
Page	Warmest on Record	2020	1958-present
Clarkdale (Tuzigoot)	Warmest on Record	2020	1921-present
Winslow	2nd Warmest	2018	1915-present
Prescott	2nd Warmest	2002	1899-present
Flagstaff	3rd Warmest	1981	1899-present

Dry Fall 2020

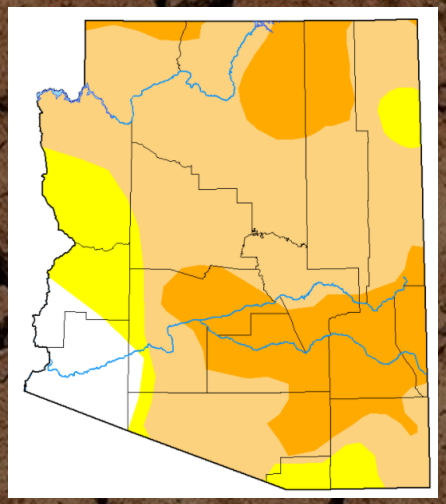
(Sep-Nov)

City	Fall 2020 Precipitation	Precipitation Ranking	Period of Record
Flagstaff	**0.77”**	3rd Driest	1899-present
Prescott Airport	**0.18”**	Driest on Record	1948-present
Prescott	**0.46”**	Driest on Record	1899-present
Payson	**2.18”**	12th Driest	1948-present
Winslow	**0.27”**	5th Driest	1915-present
Page	**0.13”**	Driest on Record	1957-present

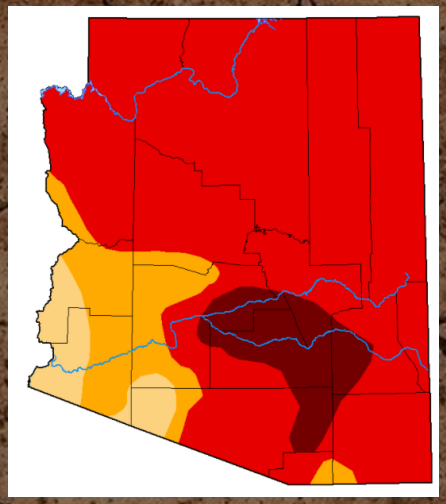
Rapid Drought Intensification



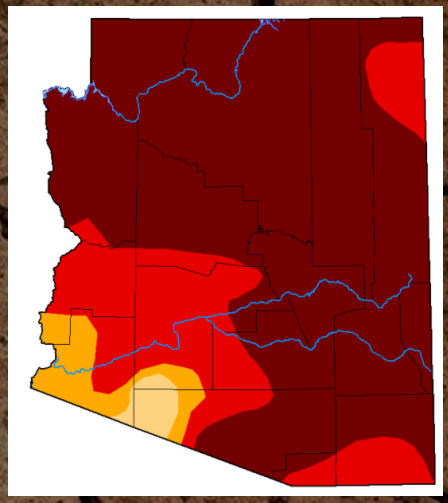
April 7, 2020



August 4, 2020



November 3, 2020



December 29, 2020

Intensity and Impacts

- None
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)

Data from *U.S. Drought Monitor*
droughtmonitor.unl.edu/

Drought Status & Winter 2020-2021 Weather Outlook

Némesis Ortiz-Declet

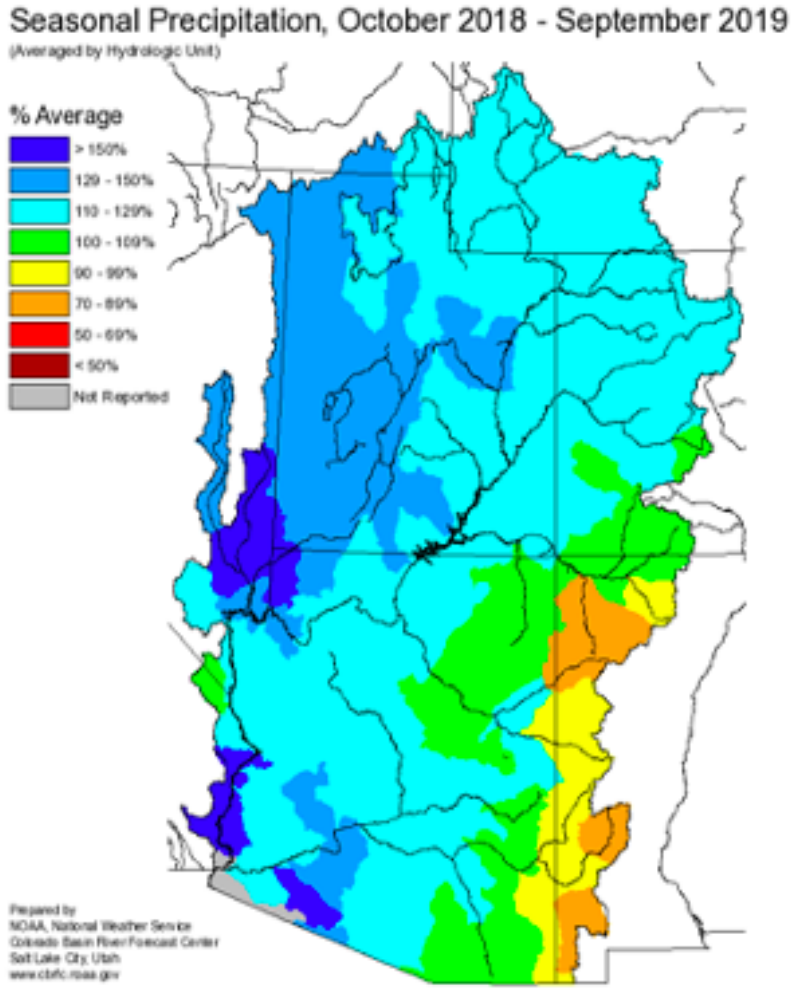
Drought & Conservation Coordinator

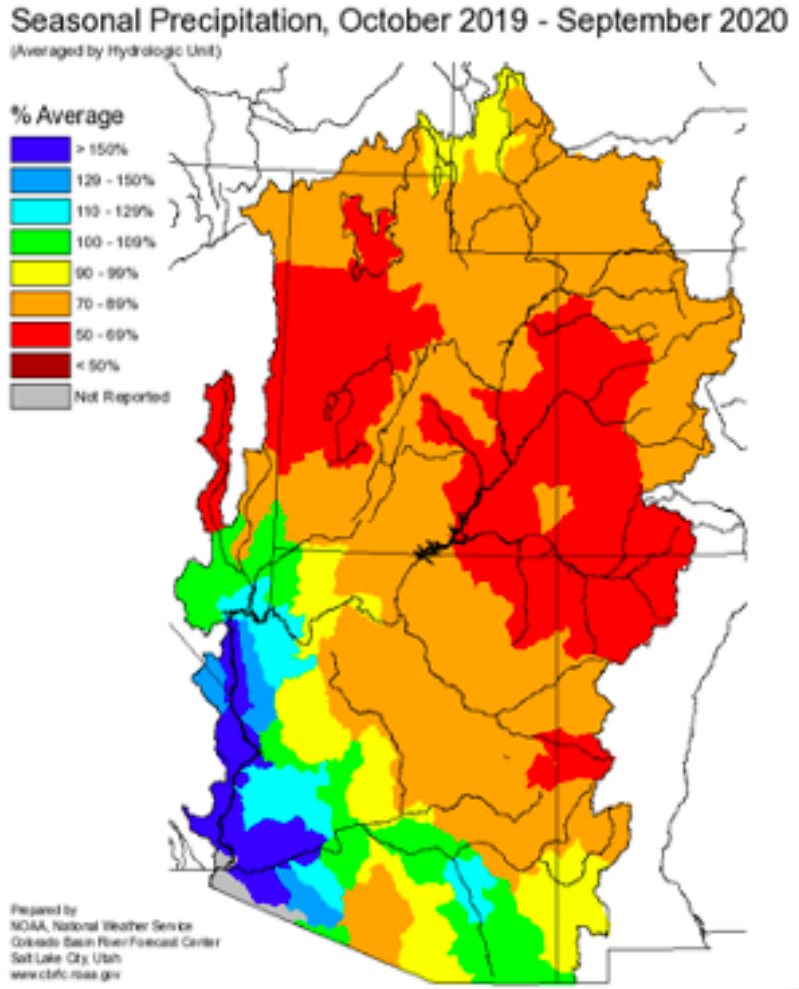
Arizona Department of Water Resources

Overview

- Water Year 2019
- Water Year 2020
- Winter 2020-2021 Outlook
- Water Year 2021
- Drought Interagency Coordinating Group
- 2020 Arizona Drought Preparedness Annual Report

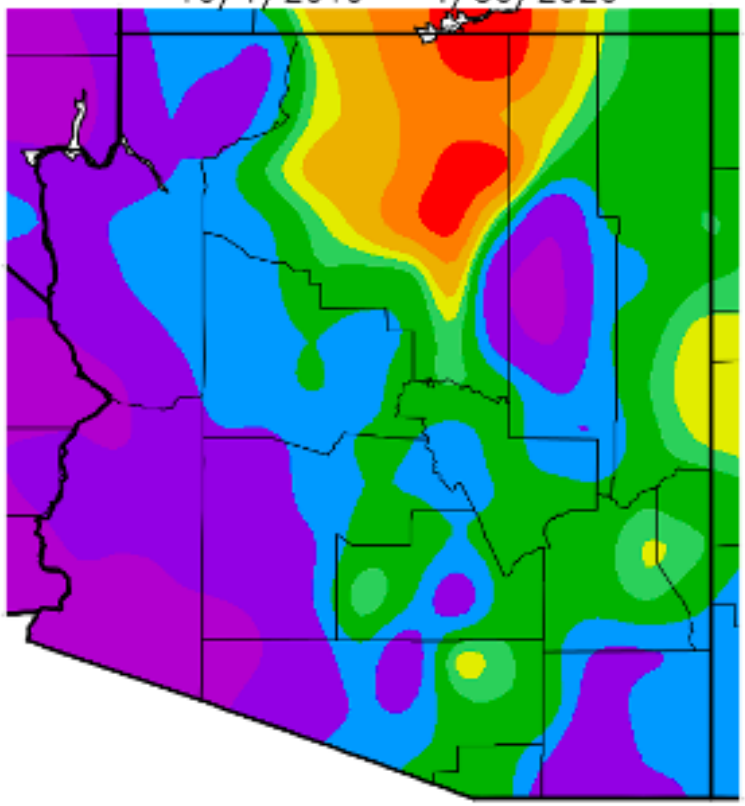
Water Year 2019 vs Water Year 2020





Water Year 2020 Precipitation

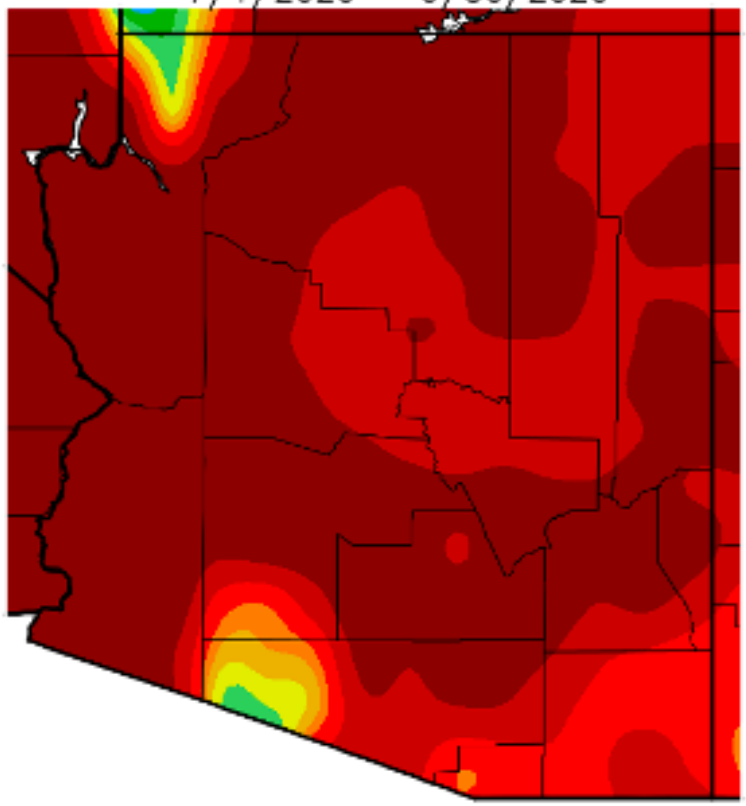
Percent of Average Precipitation (%)
10/1/2019 – 4/30/2020



5 25 50 70 90 100 110 130 150 200 300

Generated 5/ 1/2020 at WRCC using provisional data.
NOAA Regional Climate Centers

Percent of Average Precipitation (%)
7/1/2020 – 9/30/2020

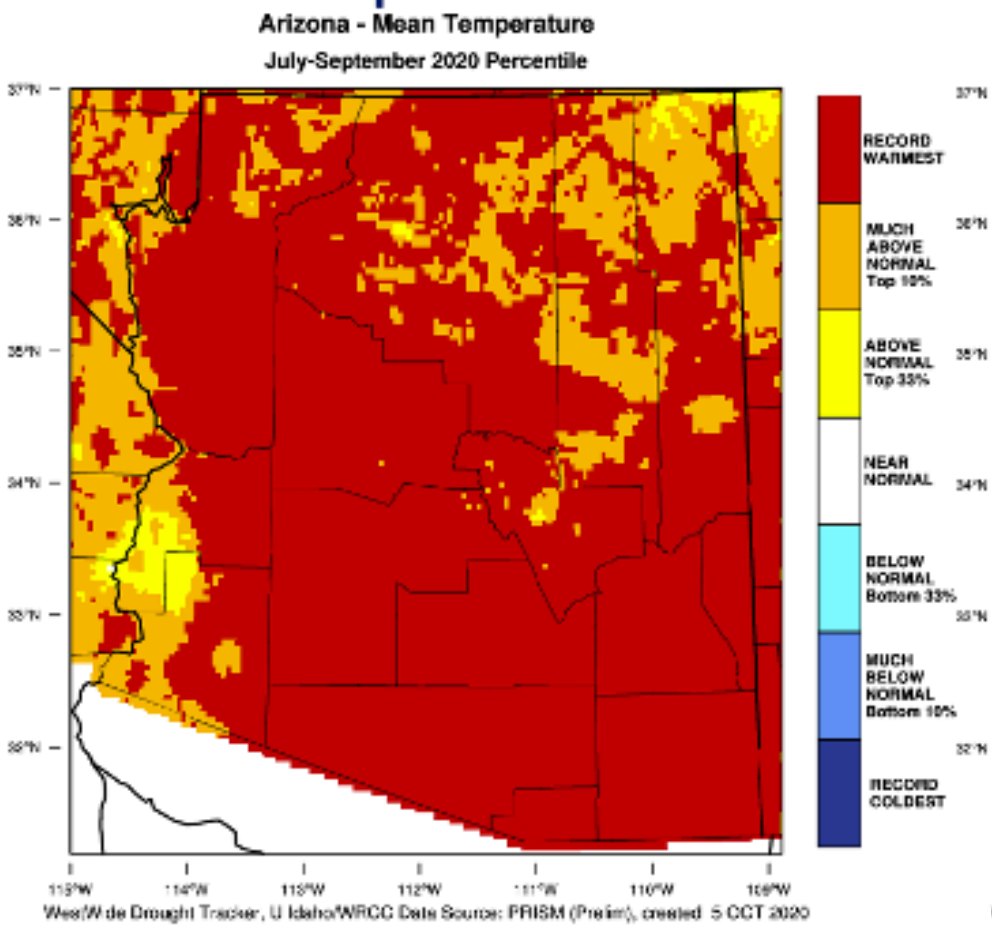


25 50 70 80 90 100 110 120 130 150 175

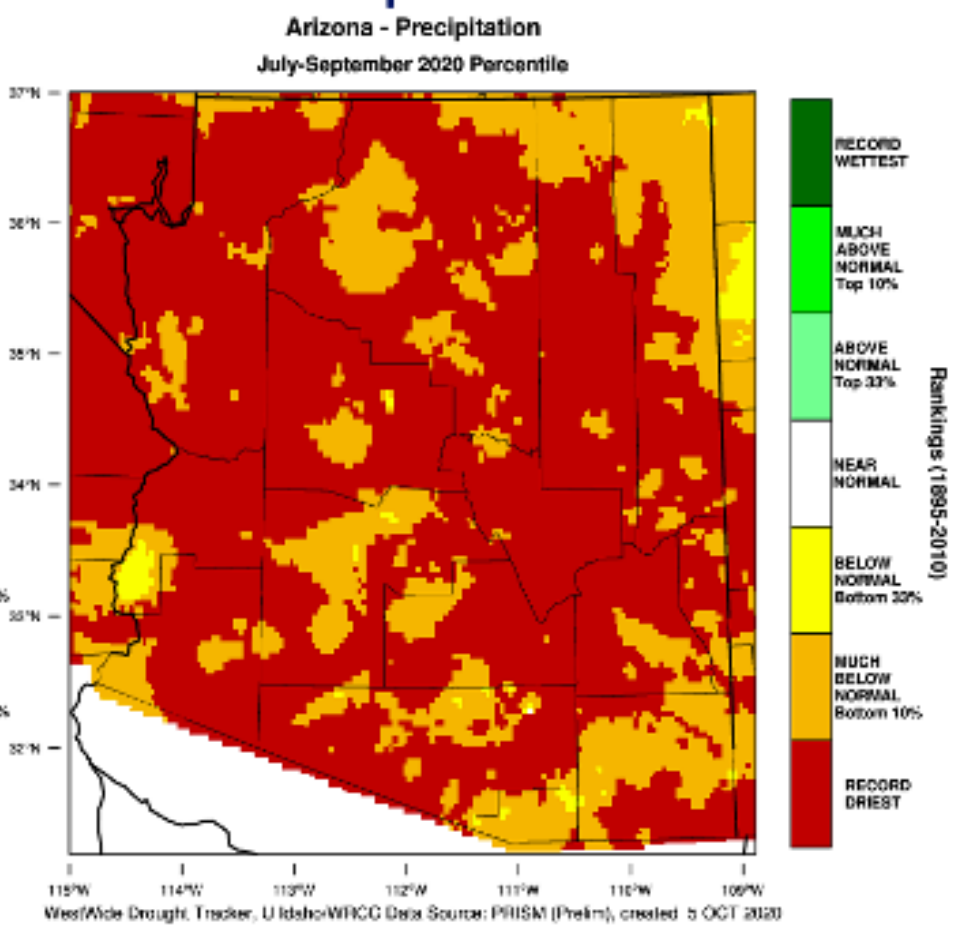
Generated 10/ 1/2020 at WRCC using provisional data.
NOAA Regional Climate Centers

Water Year 2020 - Summer

Temperature

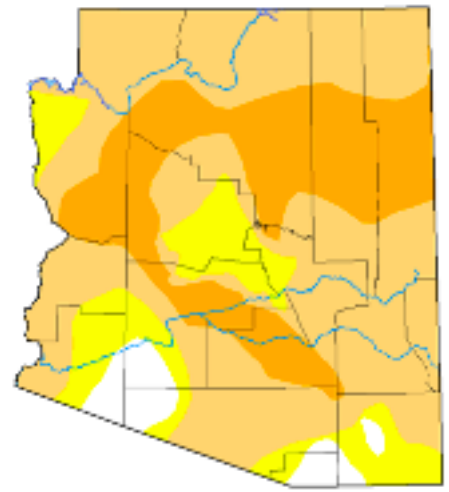


Precipitation

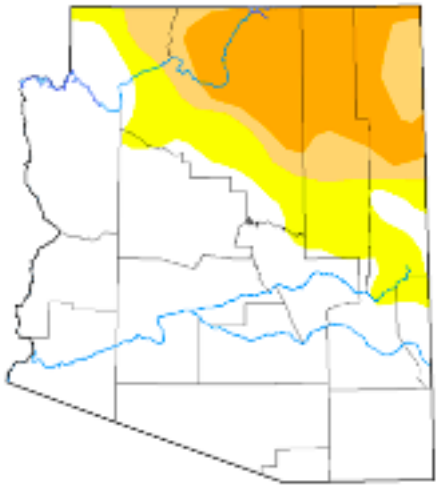


Source: Abatzoglou, J.T., D.J. McEvoy, and K.T. Redmond, in press, The West Wide Drought Tracker: Drought Monitoring at Fine Spatial Scales, Bulletin of the American Meteorological Society

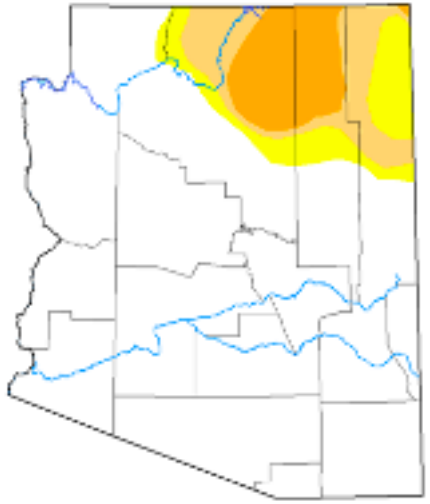
Water Year 2020
Short-Term
Drought Status Maps



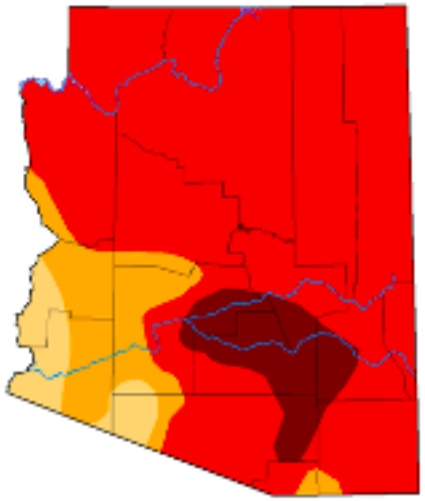
October 1, 2019



February 18, 2020



April 28, 2020



November 3, 2020

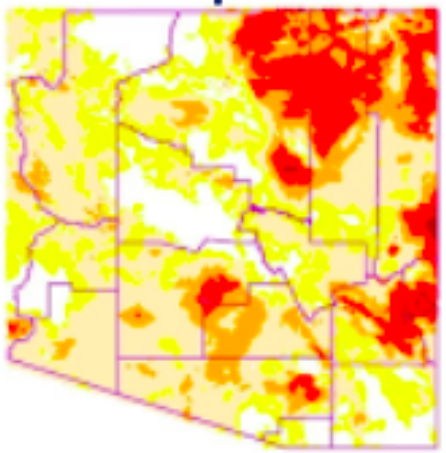
Drought Conditions

- None
- D0 - Abnormally Dry
- D1 - Moderate Drought
- D2 - Severe Drought
- D3 - Extreme Drought
- D4 - Exceptional Drought

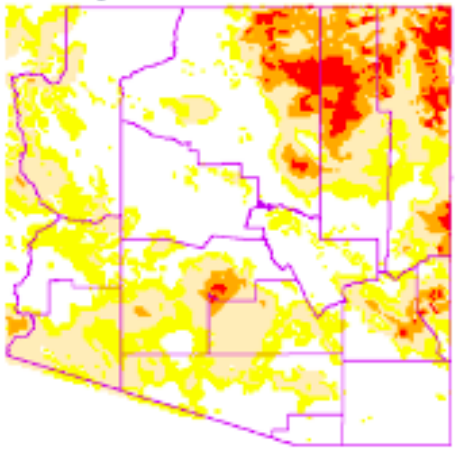
USDA NDMC

Water Year 2020
Long-Term
Drought Status Maps

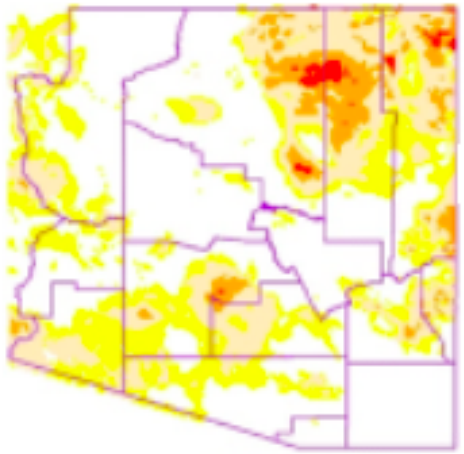
Jul – Sept 2020



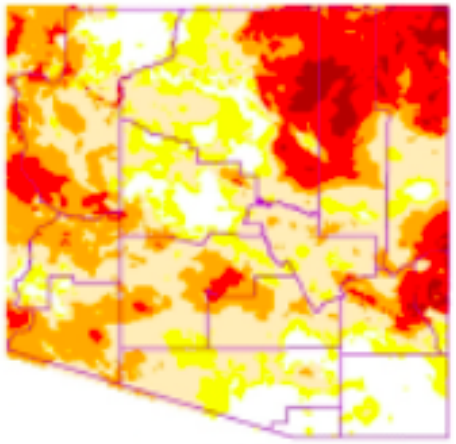
Apr – Jun 2020



Jan – Mar 2020



Oct – Dec 2019



Drought Conditions

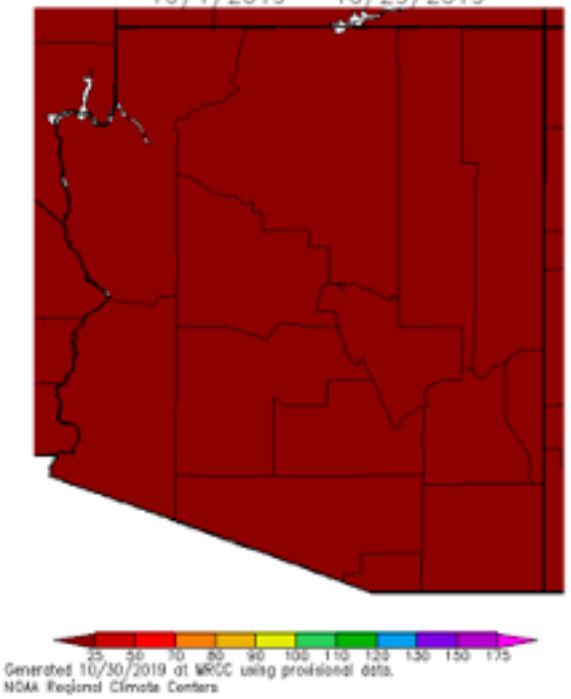
- None
- D0 - Abnormally Dry
- D1 - Moderate Drought
- D2 - Severe Drought
- D3 - Extreme Drought
- D4 - Exceptional Drought

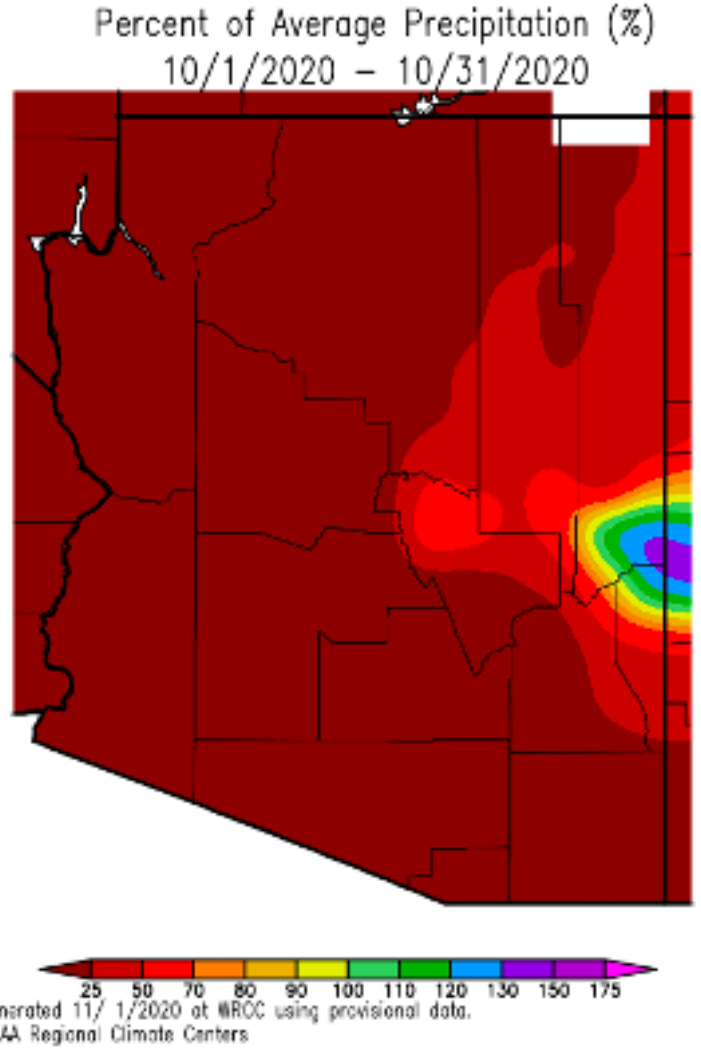
ARIZONA STATE CLIMATE OFFICE

Water Year 2021

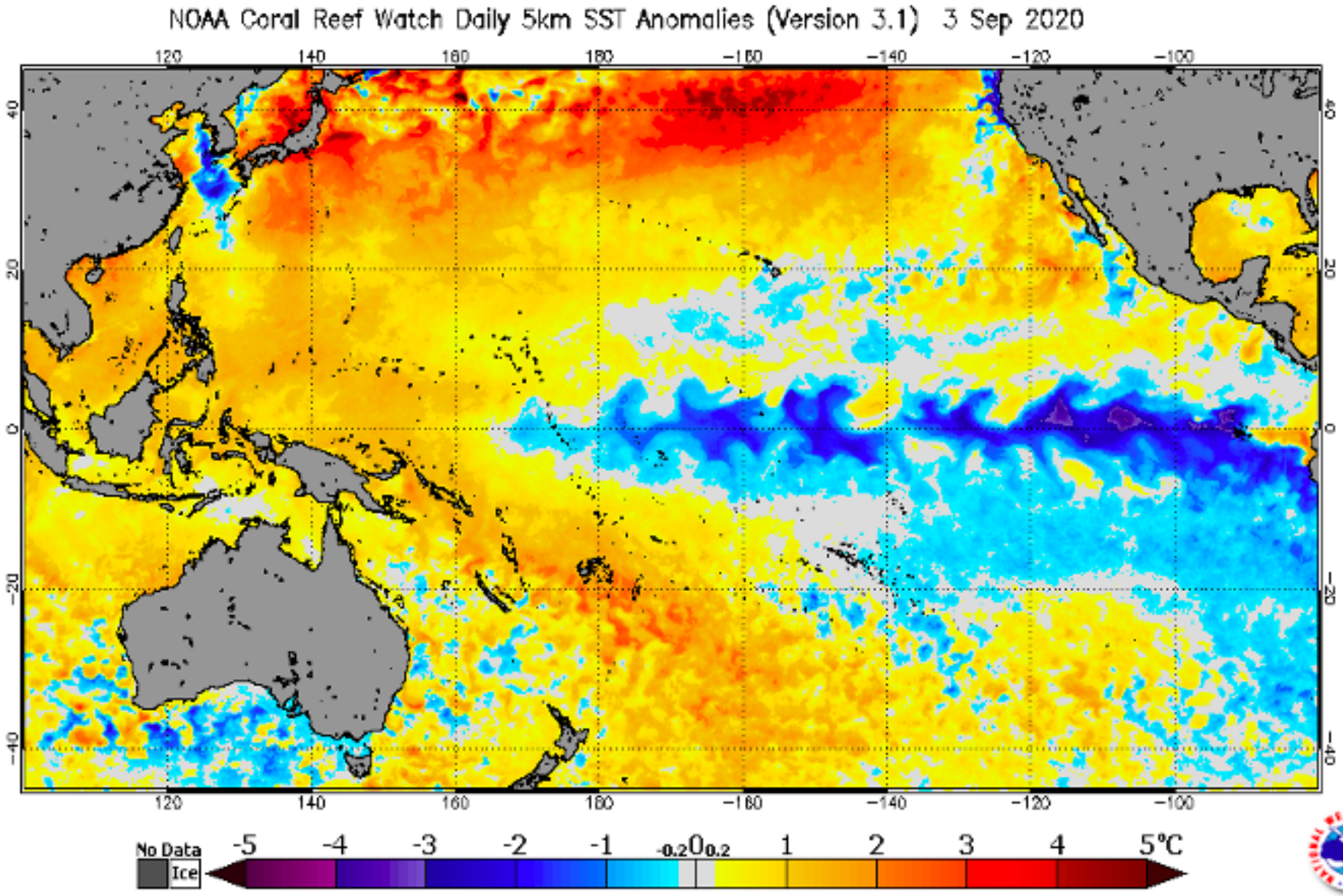
Precipitation Percent of Average so far…

A year ago…

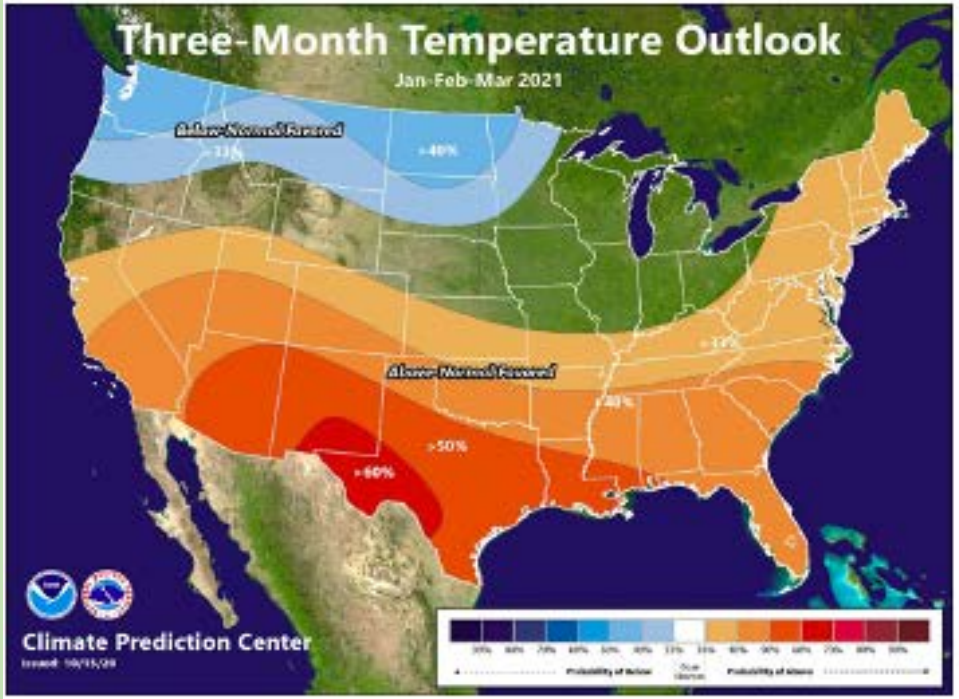


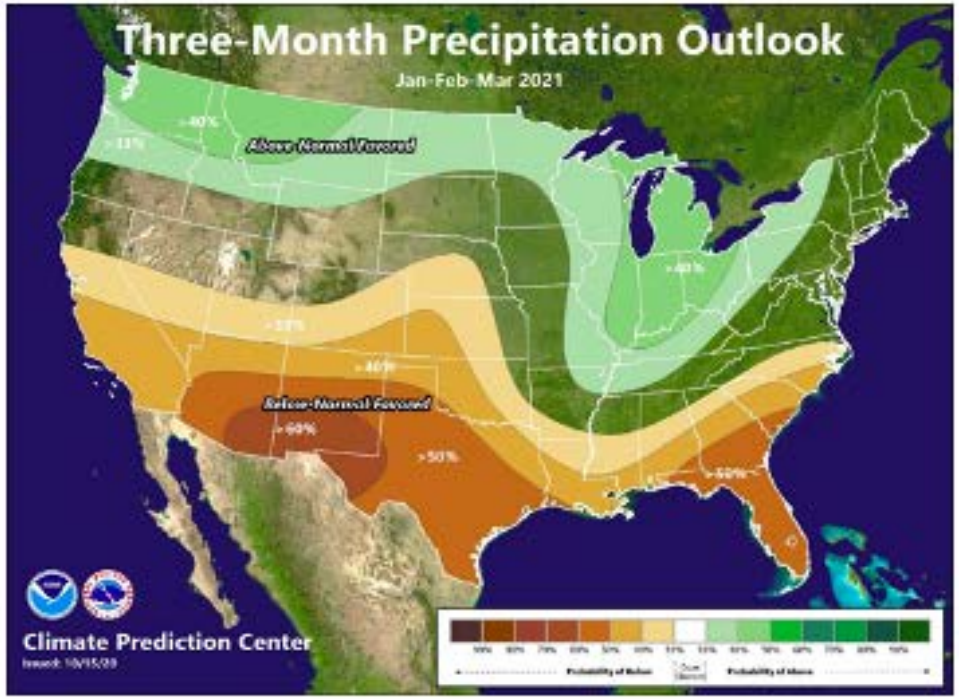


Winter 2020-2021 – La Niña



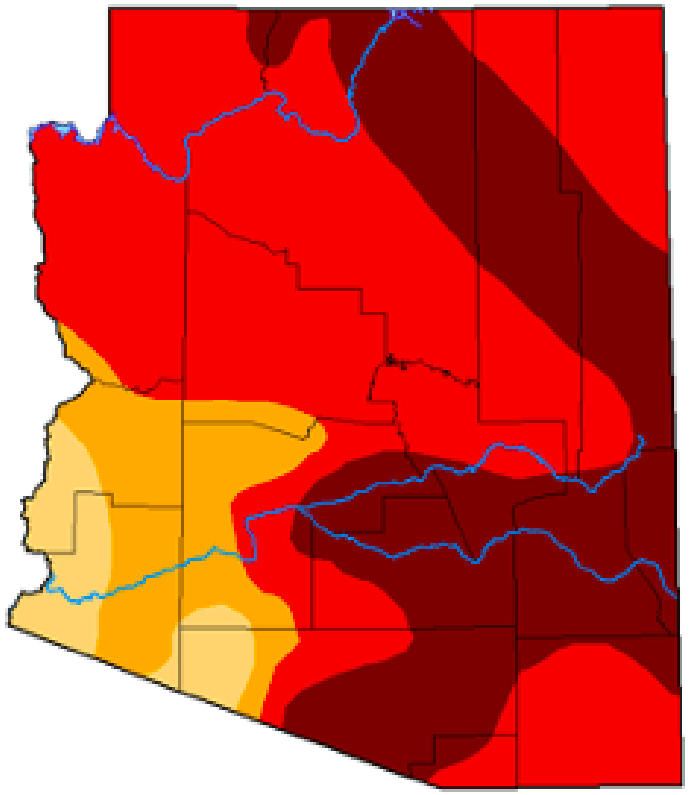
Winter 2020-2021 Weather Outlook





November 2020

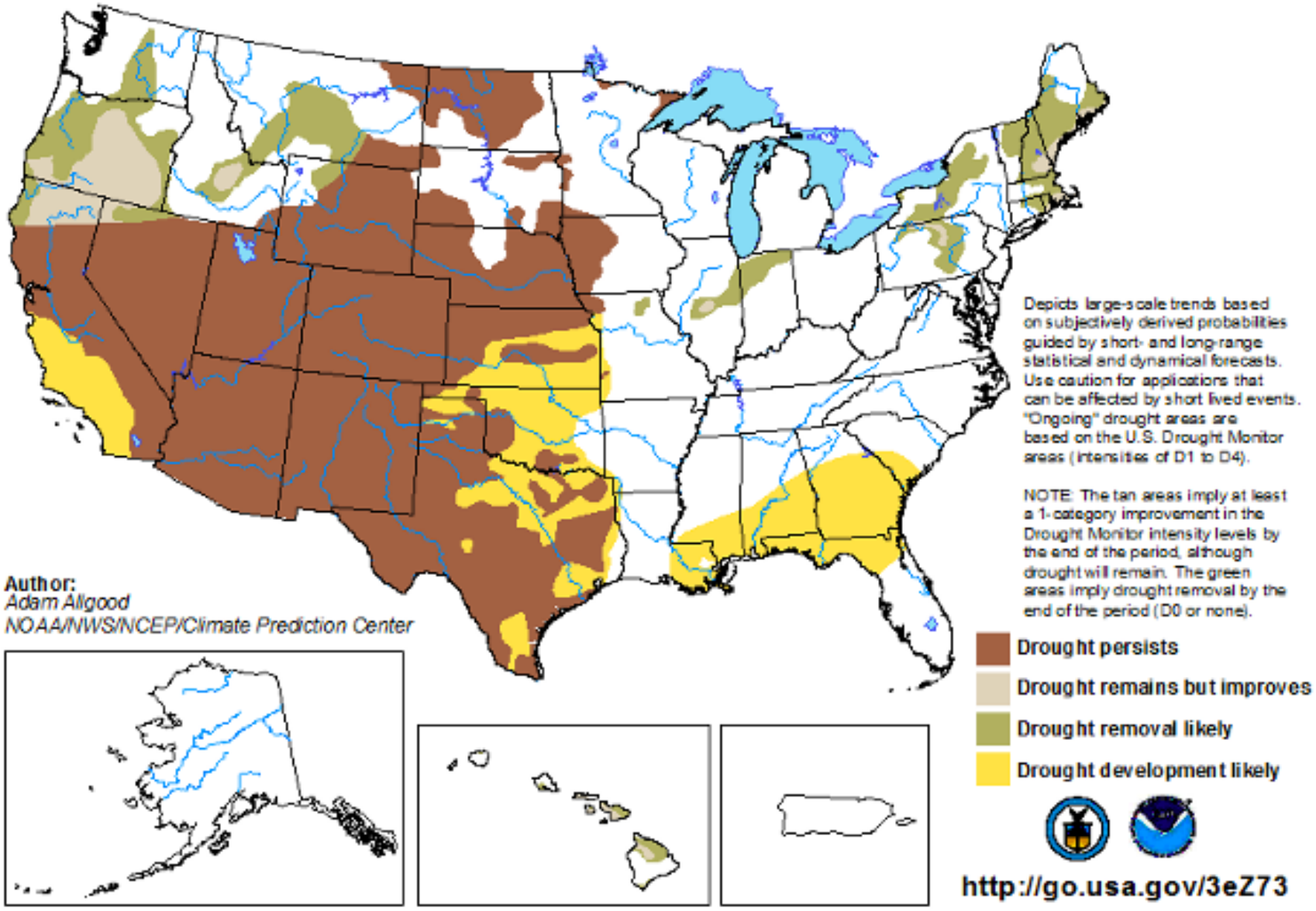
Short-Term Drought Status



U.S. Seasonal Drought Outlook

Valid for November 19, 2020 - February 28, 2021
Released November 19, 2020

Drought Tendency During the Valid Period



Author:
Adam Allgood
NOAA/NWS/NCEP/Climate Prediction Center

Drought Interagency Coordinating Group

Drought Emergency Declaration

PCA 990066

PCA 99006
June 23, 1999

IN ACCORDANCE WITH ESTABLISHED EMERGENCY PROCEDURES

WHEREAS, precipitation throughout the State of Arizona during the past several months has been significantly below normal; and

WHEREAS, the lack of precipitation has significantly reduced stream flows in the State's interior basins and reduced surface and groundwater supplies upon which citizens and commerce of the State are dependent; and

WHEREAS, the lack of precipitation has created drought conditions throughout rural areas of the State with no near-term relief; and

WHEREAS, the drought endangers the crops, property, and livestock of a considerable number of the citizens throughout the State of Arizona; and

NOW, THEREFORE I, Jane Dee Hull, Governor of the State of Arizona, by virtue of the authority vested in me by the Constitution and Laws of the State, do hereby determine that the lack of precipitation has and will continue to have an adverse impact on the citizens of the State and that a declaration of drought emergency is justified, and I hereby:

a. Activate the State of Arizona Emergency Response and Recovery Plan

b. Invoke A.R.S. § 26-309 to provide mutual aid assistance to stricken areas of the State

IN WITNESS WHEREOF, I have hereunto set my hand and caused to be affixed the Great Seal of the State of Arizona

Jane Dee Hull
GOVERNOR

DONE at the Capitol in Phoenix on this twenty-third day of June in the Year One Thousand Nine Hundred and Ninety-nine and of the Independence of the United States of America the Two Hundred and Twenty-third.

ATTEST:

Betsey Bayless
Secretary of State

Drought Declaration

Executive Order 2007-10

Executive Order 2007-10
Drought Declaration For The State of Arizona

WHEREAS, Arizona is entering its second decade of a statewide drought due to long-term precipitation deficits and increased demand for water; and

WHEREAS, on June 23, 1999, Governor Hull declared a drought emergency (PCA 99006), which remains in effect today; and

WHEREAS, drought conditions continue to strain Arizona's resources and have had significant impacts on the citizens and commerce of the state, including increases in wild land fires, water supply shortages, vegetation and wildlife mortality, and economic losses in the ranching, agriculture and tourism sectors; and

WHEREAS, climate research has shown that although droughts lasting multiple decades are common in Arizona, they may be intensified by the effects of global climate change;

NOW, THEREFORE I, Governor Janet Napolitano, Governor of the State of Arizona, by virtue of the authority vested in me by the Constitution and laws of the state, do hereby determine that a continued declaration of drought is justified, and I hereby:

A. Order continued implementation of the *Arizona Drought Preparedness Plan* and *State of Arizona Emergency Response and Recovery Plan*;

B. Order the continued invocation of A.R.S. § 26-309 to provide mutual aid assistance to stricken areas of the state;

C. Request assistance from the federal government for the appropriate federal disaster programs;

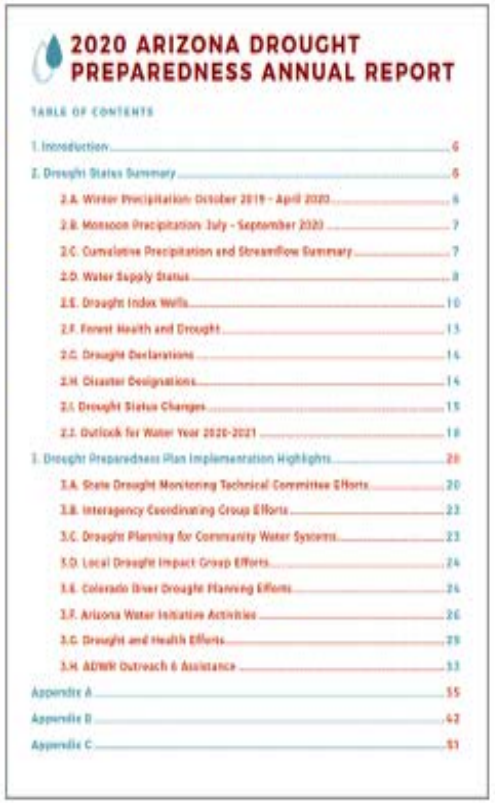
D. Order state agencies to implement their water use reduction plans and assist in drought planning efforts across the state;

E. Urge water facilities to develop and implement more aggressive drought and conservation plans and consider water rate; and

F. Call upon citizens, businesses, schools, institutions of higher learning, local governments and federal agencies to increase water conservation efforts.

THIS ORDER supplements the directives in PCA 99006, which remains in effect. This Executive Order shall take effect immediately and shall remain in effect until such time as the Governor rescinds it.

2020 Arizona Drought Preparedness Annual Report



2020 ARIZONA DROUGHT PREPAREDNESS ANNUAL REPORT

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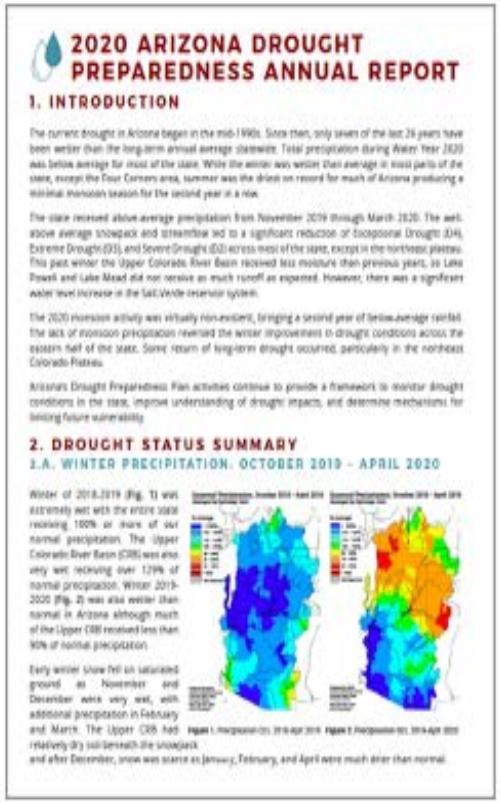


2020 ARIZONA DROUGHT PREPAREDNESS ANNUAL REPORT

1. INTRODUCTION

The current drought in Arizona began in the mid-1990s. Since then, only seven of the last 26 years have been wetter than the long-term annual average statewide. Total precipitation during Water Year 2020 was below average for most of the state. While the winter was wetter than average in most parts of the state, except the Four Corners area, summer was the driest on record for much of Arizona producing a minimal monsoon season for the second year in a row.

The state received above-average precipitation from November 2019 through March 2020. The wet, above average snowpack and streamflow led to a significant reduction of Exceptional Drought (D4), Extreme Drought (D3), and Severe Drought (D2) across most of the state, except in the northeast plateau. This past winter the Upper Colorado River Basin received less moisture than previous years, so Lake Powell and Lake Mead did not receive as much runoff as expected. However, there was a significant water level increase in the Salt/Verde reservoir system.

The 2020 monsoon activity was virtually non-existent, bringing a second year of below-average rainfall. The lack of monsoon precipitation reversed the winter improvement in drought conditions across the eastern half of the state. Some return of long-term drought occurred, particularly in the northeast Colorado Plateau.

Arizona's Drought Preparedness Plan activities continue to provide a framework to monitor drought conditions in the state, improve understanding of drought impacts, and determine mechanisms for limiting future vulnerability.

2. DROUGHT STATUS SUMMARY

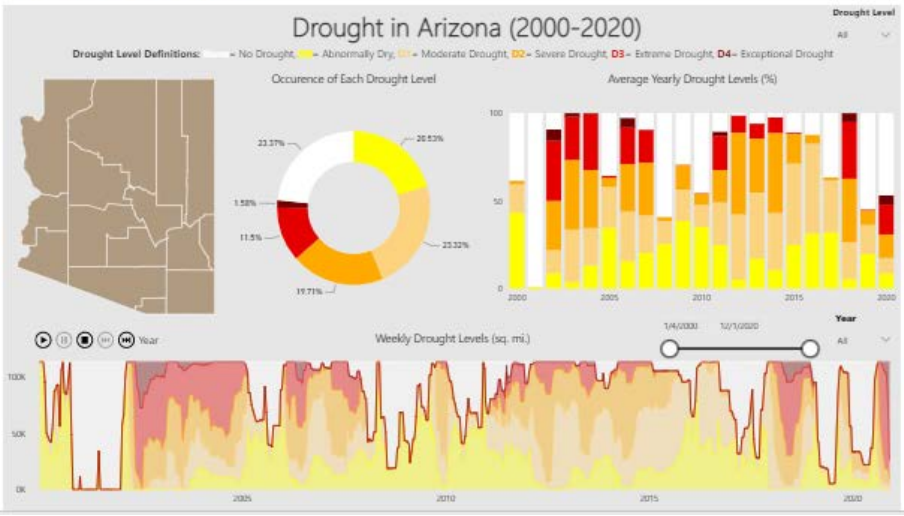
2.A. WINTER PRECIPITATION: OCTOBER 2019 – APRIL 2020

Winter of 2018-2019 (Fig. 1) was extremely wet with the entire state receiving 100% or more of our normal precipitation. The Upper Colorado River Basin (CRB) was also very wet, receiving over 129% of normal precipitation. Winter 2019-2020 (Fig. 2) was also wetter than normal in Arizona although much of the Upper CRB received less than 90% of normal precipitation.

Early winter snow fell on saturated ground as November and December were very wet, with additional precipitation in February and March. The Upper CRB had relatively dry soil beneath the snowpack and after December, snow was scarce as January, February, and April were much drier than normal.

The Arizona Drought Preparedness Annual Report covers drought conditions and preparedness activities for the water year (October 1 - September 30)

INTERACTIVE DROUGHT DASHBOARD



CITY OF PRESCOTT

COUNCIL AGENDA MEMO

MEETING TYPE/DATE: REGULAR SUBCOMMITTEE MEETING 01-12-21

DEPARTMENT: Public Works

AGENDA ITEM: Conservation Topic - Mid Fiscal Year Update on Water Rebate Program

ITEM SUMMARY

A mid-year Incentive Program overview will be provided, including water savings and rebate information.

BACKGROUND

Under Prescott City Code, Chapter 3-10-8, the City offers an on-going Incentive Program to encourage residents and businesses to conserve water. The program applies to the purchase and installation of devices to retrofit plumbing fixtures with high rates of flow, and to limit outdoor water use for landscaping purposes. Continuation of the program is subject to annual budget approval by Council.

Staff will provide a mid-year overview and estimated water savings for the first 6-months of FY21 as well as the response from the targeted septic user post card mailing that went out in September 2020.

FINANCIAL IMPACT

Funding in the amount of $40,000 was budgeted in FY21 and the City has provided $14,880 in rebates in the first 6-months.

Recommended Action: This item is for discussion only. No formal action will be taken.

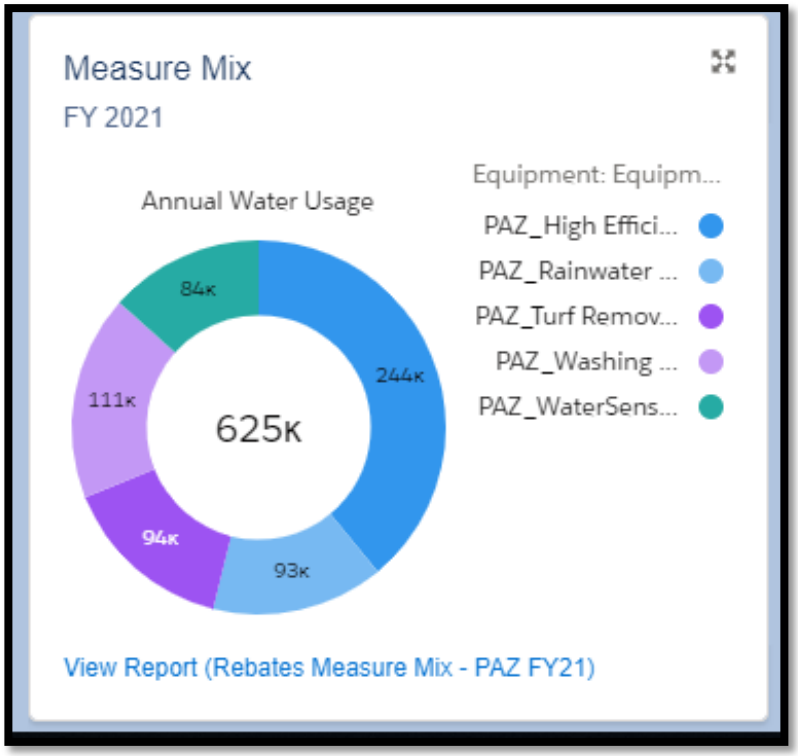
ATTACHMENTS

1. Fiscal Year 2021.pdf

Fiscal Year 2021
July – January 7

Almost $15,000
awarded
In rebates.

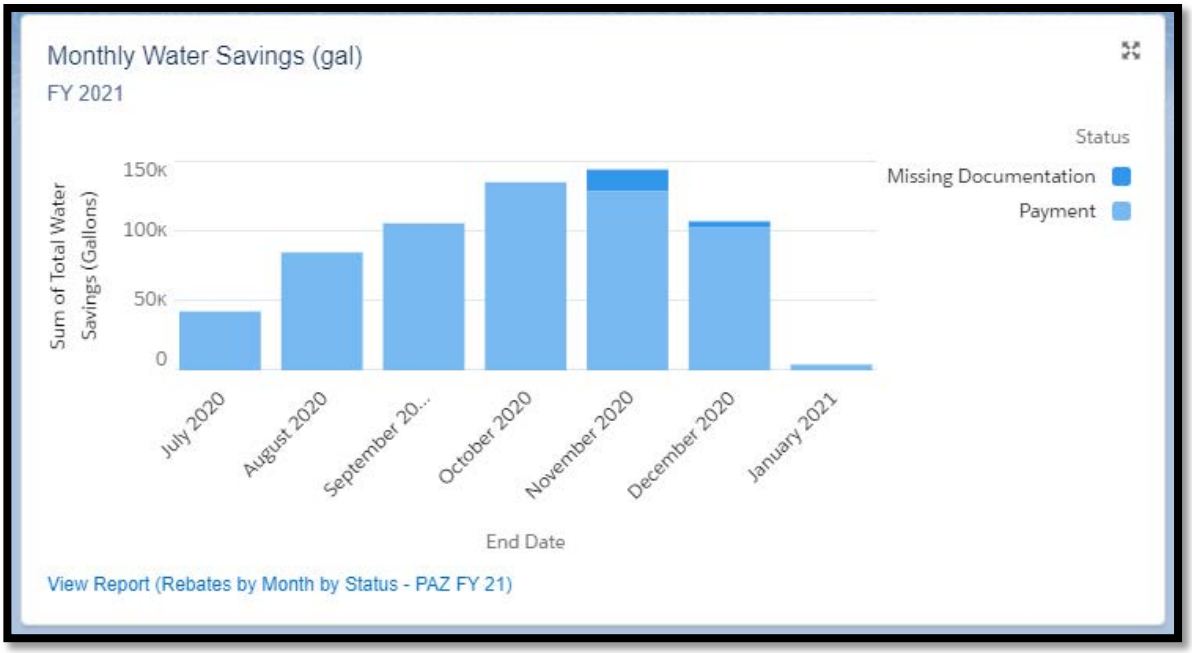
($14,880)



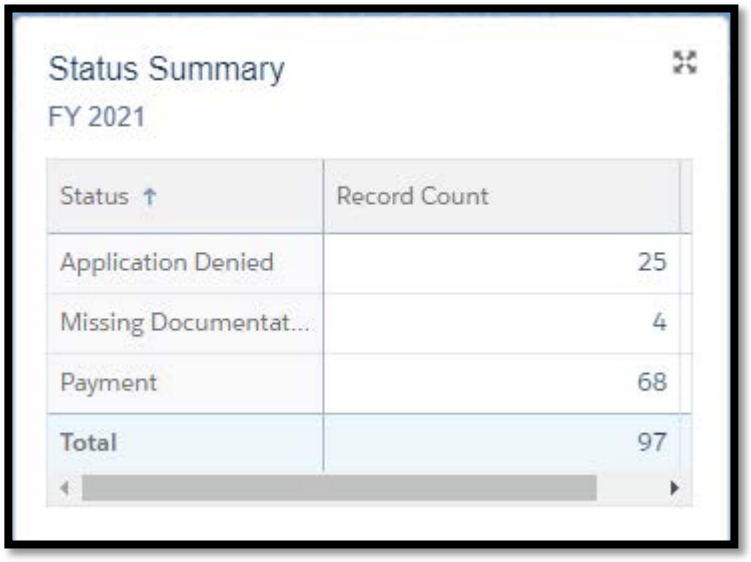
Fiscal Year 2021
July – January 7

Water Savings to Date
in gallons:

Toilets:	244,000
Wash Machines:	11,000
Turf Removal:	84,000
RW Harvesting:	94,000
Irrigation Dev:	84,000



FY 2021. Bar Graph of Water Savings (gallons) by Month



Status Summary

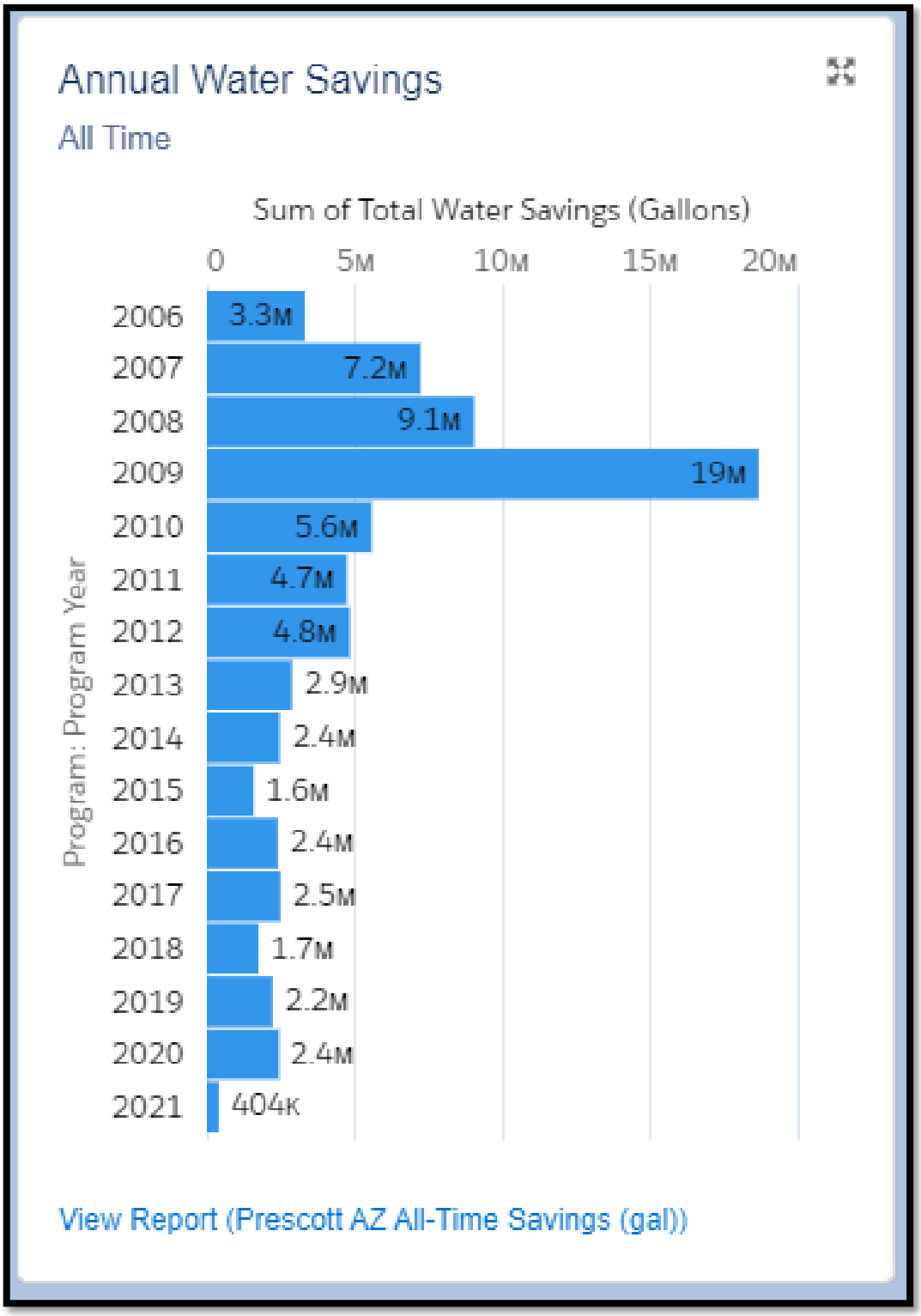
FY 2021

Status ↑	Record Count
Application Denied	25
Missing Documentat...	4
Payment	68
Total	97

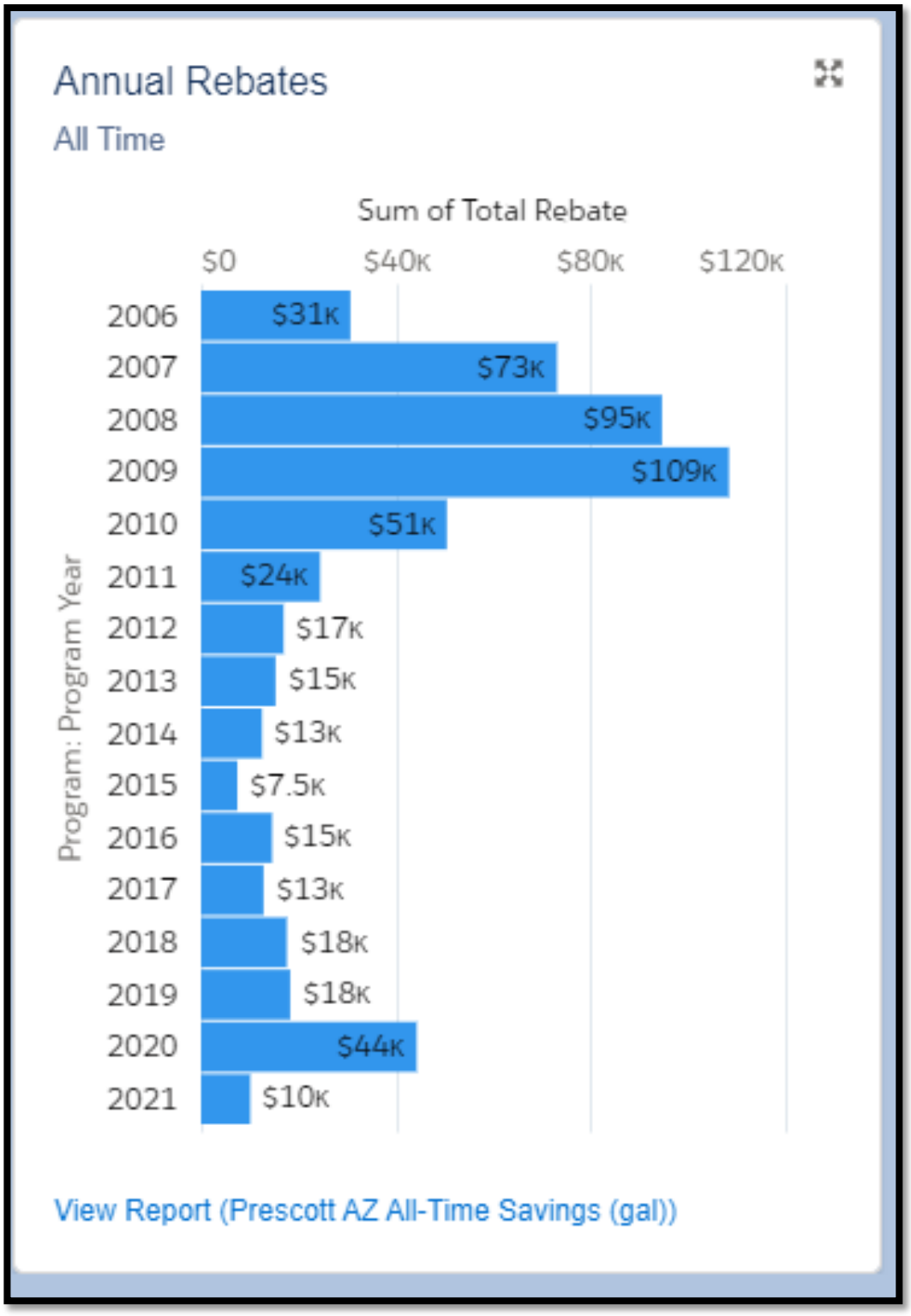
FY 2021

68 Successful Applications

29 Denied
- 12 Washing Machines
- 17 Toilets



Annual Water Savings by Calendar Year



Annual Rebates by Calendar Year