



ANNUAL STATE OF THE BASIN

PALOUSE BASIN

AQUIFER

committee



WATER JOKE AHEAD!



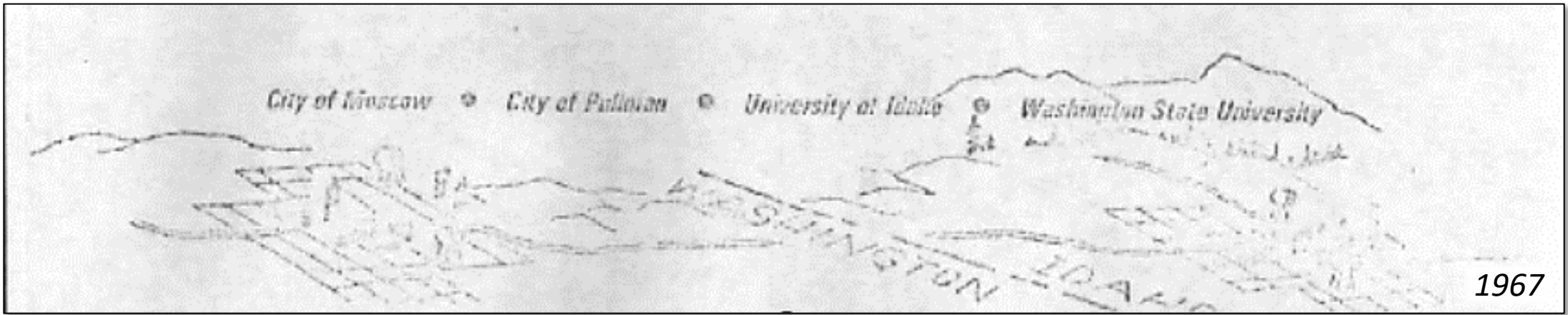
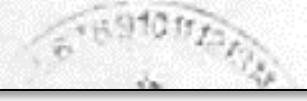
1890



1933

File
Pullman - Moscow Water Resource Committee

Janssen Engineering Building, University of Idaho, Moscow, Idaho 83843

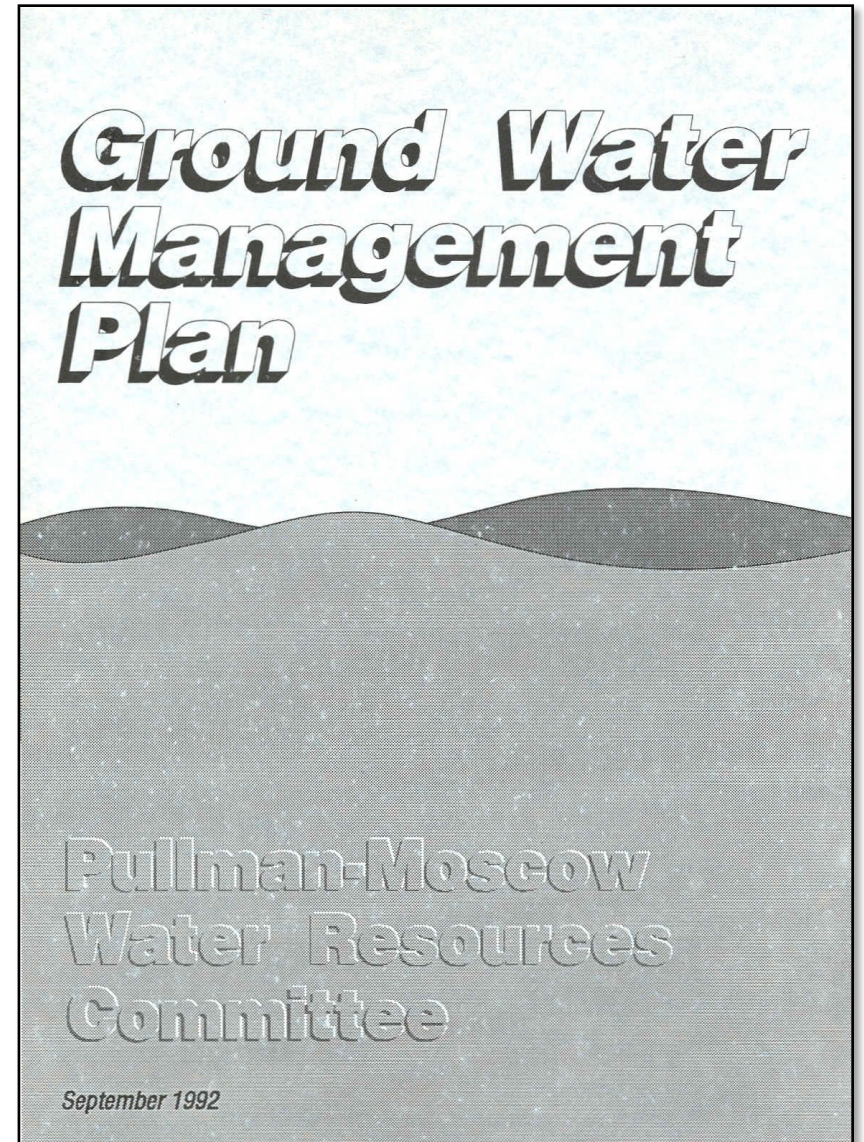


MISSION:

To ensure a long-term, quality water supply for the Palouse Basin region.

GOALS:

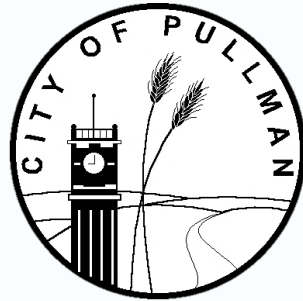
- Consistent with the Palouse Basin Groundwater Management Plan, develop and **implement a balanced basin wide water supply and use program by 2025.**
- Create and maintain an **action plan for aquifer system sustainability, enhancement and/or alternate water supply development.**
- Direct research and implement pilot projects necessary to **understand the basin hydrogeology** in a manner sufficient to support the Water Supply and Use Program and the affiliated supply projects.
- Encourage and facilitate **entities in meeting their specific pumping, conservation, efficient use, water recycling and other goals.**
- **Educate entities and the public on the state of the basin** water supply and the status of PBAC's mission and goals.
- Maintain harmonious and **effective working relationships across the state line** to fairly meet the needs of all entities.



PBAC Member Entities



Tom Handy
Mark Storey



Eileen Macoll
Shawn Kohtz
Cara Haley



Gina Taruscio
Tyler Palmer
Michael Parker



Tom Lamar
Paul Kimmell



Patrick Cabbage
Chris Beard



Jeff Lannigan
Jason Sampson



University
of Idaho

Tim Link
Rusty Vineyard




Michelle Richman
Daniel Sturgis

PBAC's Goals

- Collaborate
- Monitor
- Analyze
- Research
- Educate
- Implement

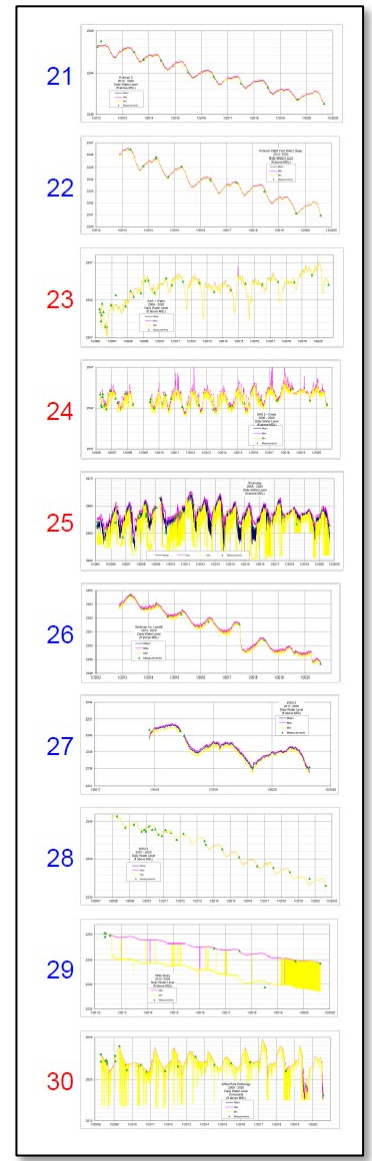
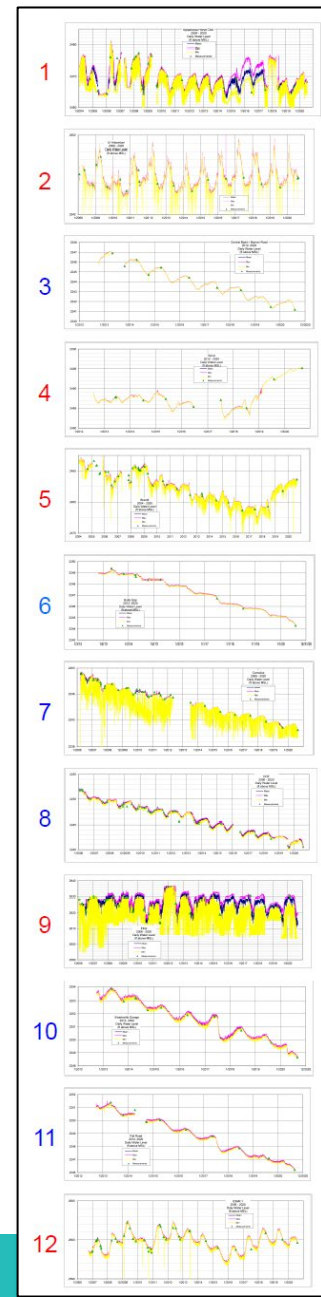
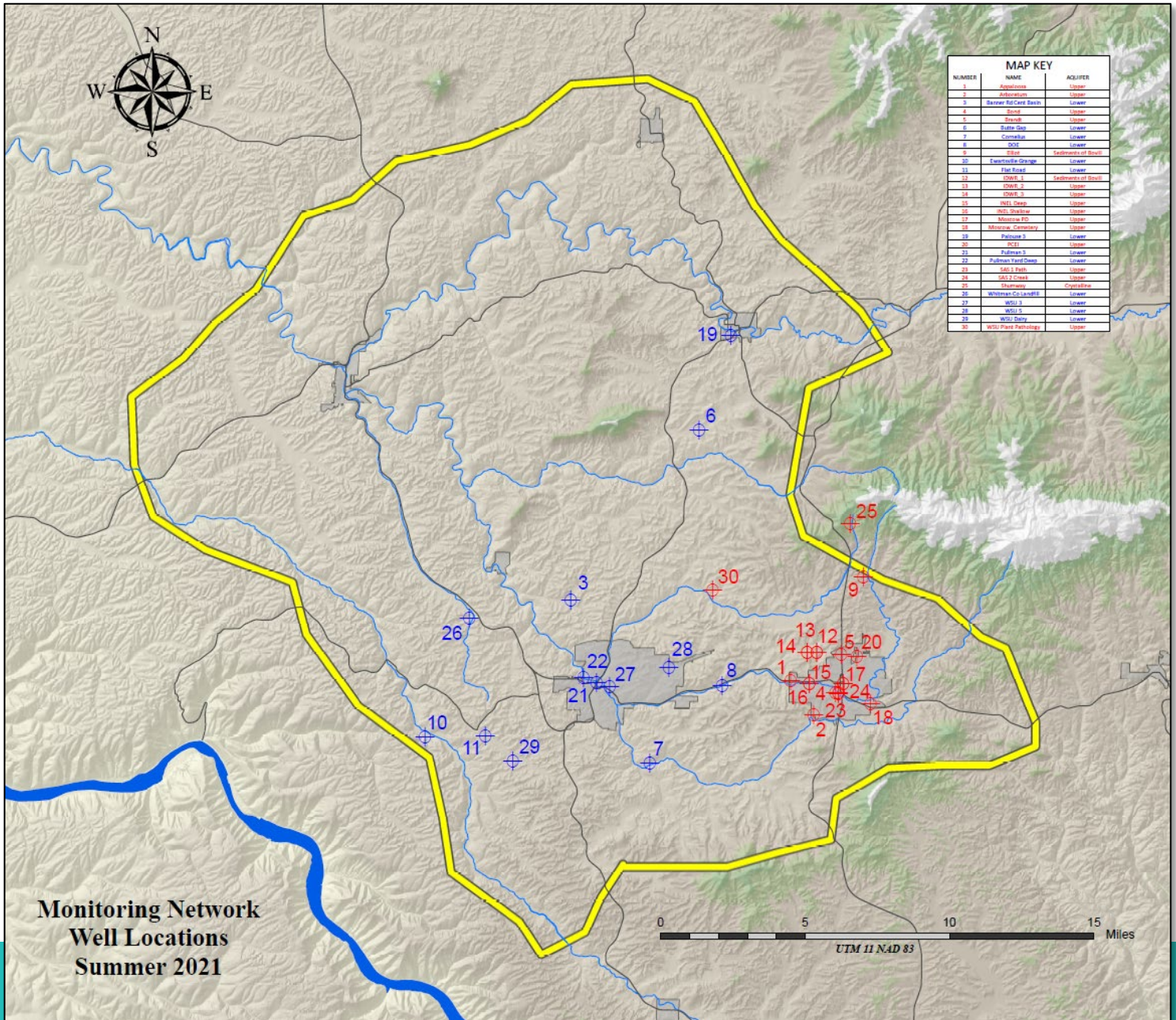
We are committed to working together



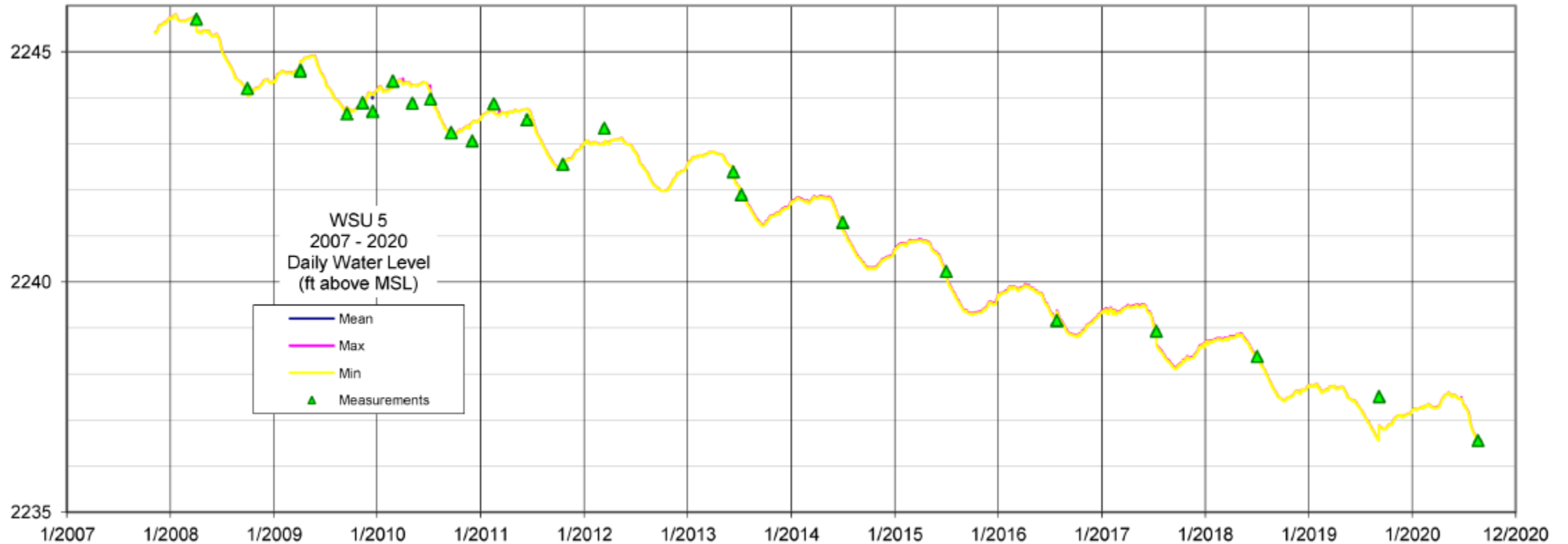
The primary role of PBAC is to encourage the member entities to implement the Palouse Basin Groundwater Management Plan, enacted in 1992 and updated in 2015. Additional roles involve education and information exchange, monitoring of pumping and groundwater levels, and funding of groundwater system research.

[ABOUT THE COMMITTEE](#) [MORE INFORMATION](#) [GET INVOLVED](#)

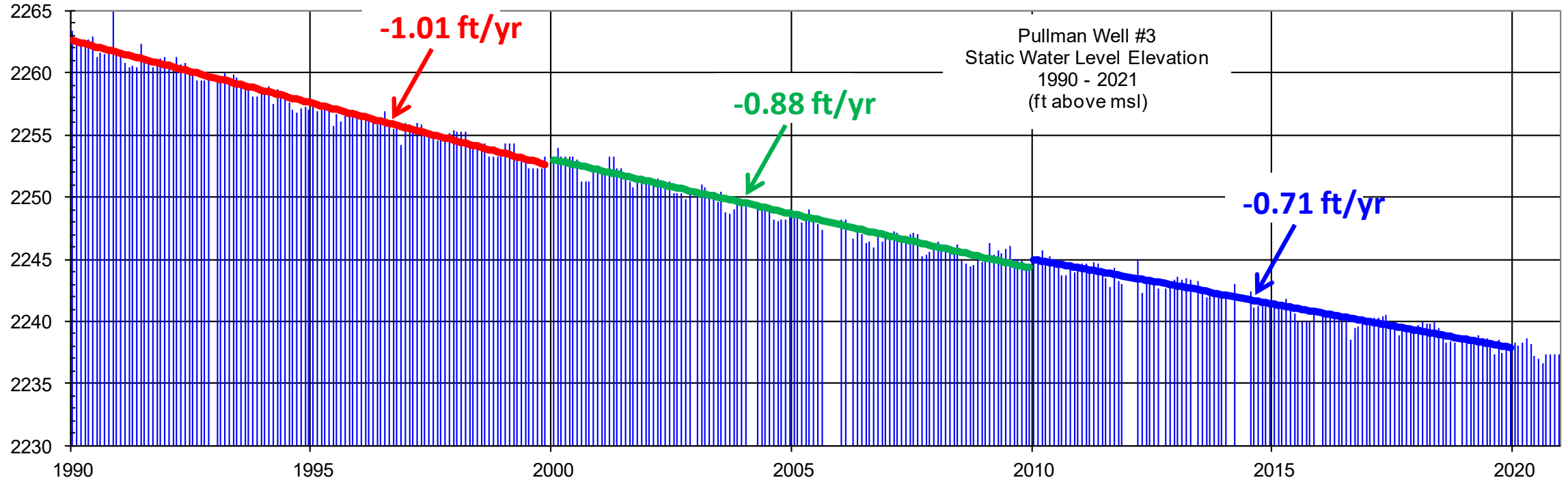
PalouseBasin.org

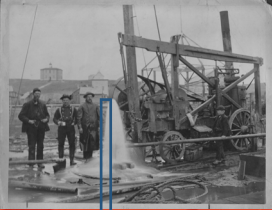


Declining Water Levels

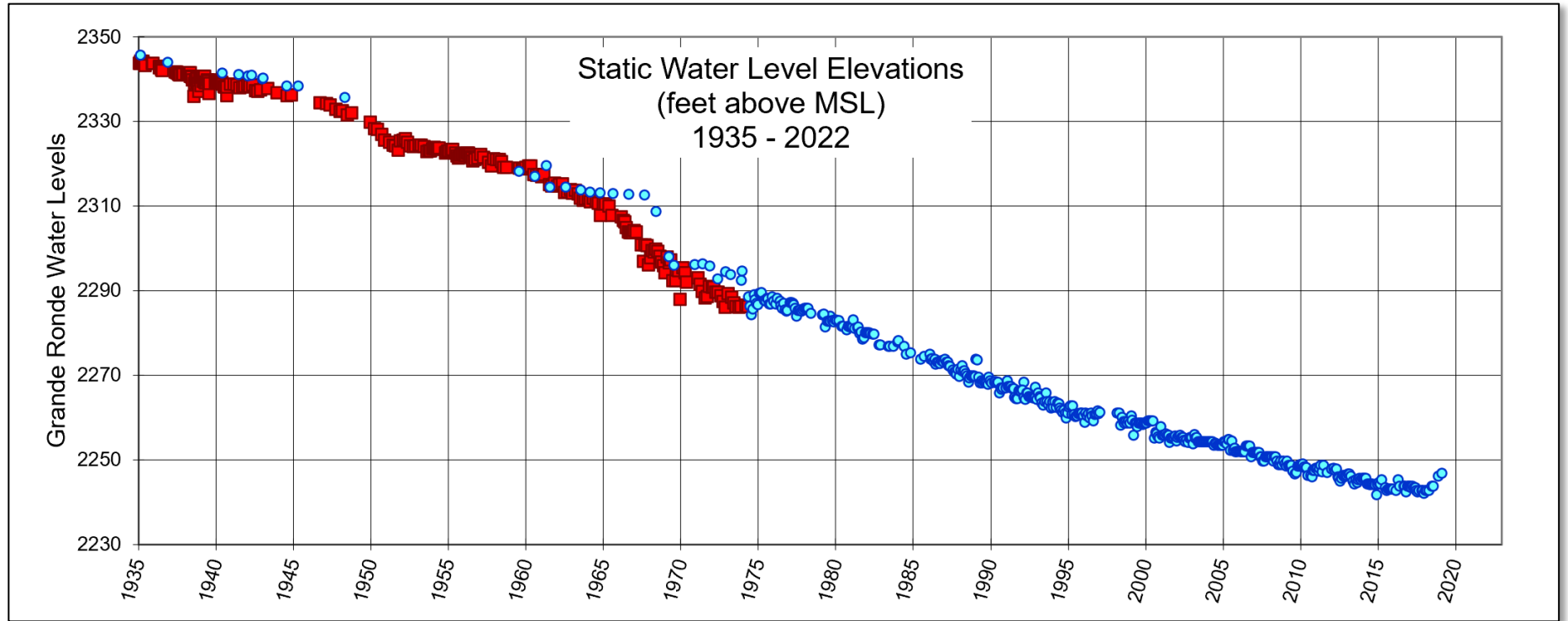


Declining Water Levels (Lower Aquifer)





2,352 ft above MSL



2,500 ft

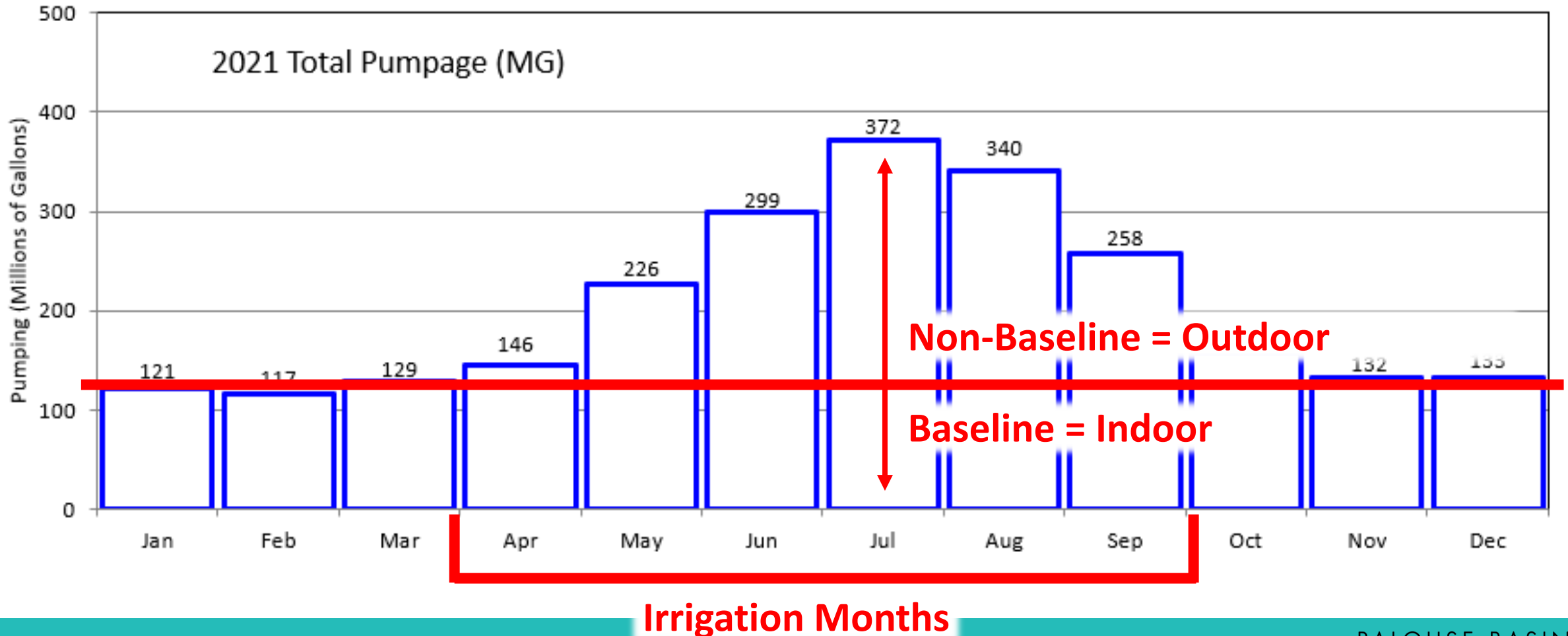
2,400 ft

2,300 ft

**Grande Ronde
Water Level:**

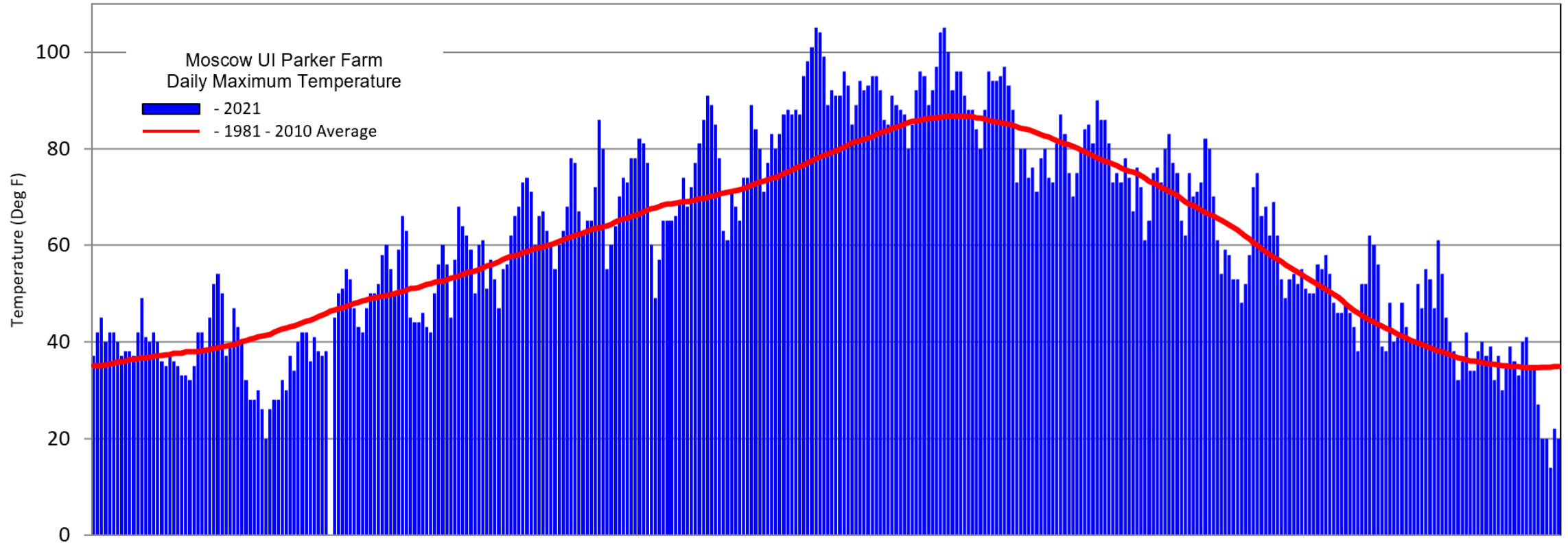
**2,235 ft
above MSL**

2021 Water Use – Baseline/Non-Baseline



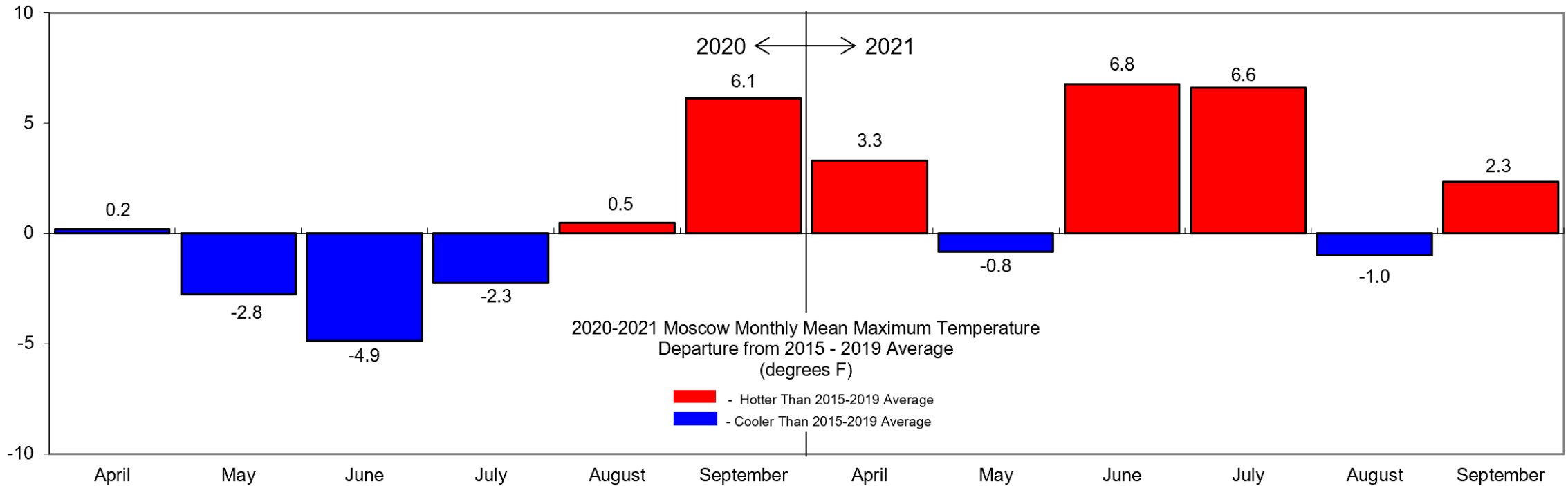
2021 WEATHER

2021 Daily Max Temperature



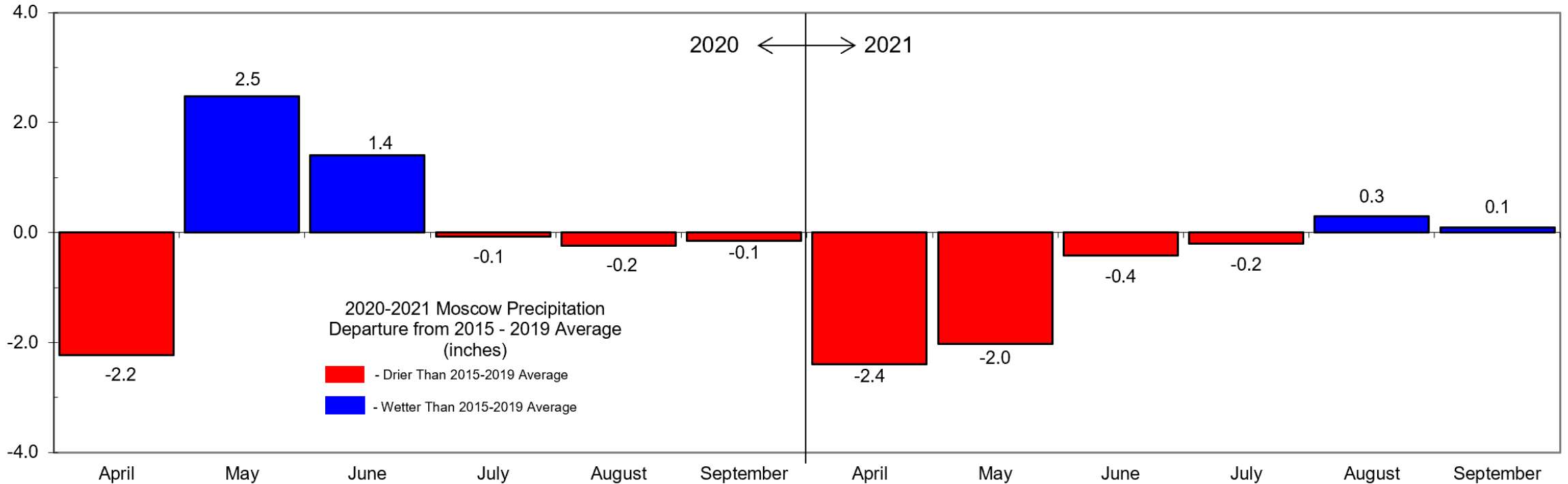
2020 vs 2021 Irrigation Season Weather

Monthly Mean Max Temp



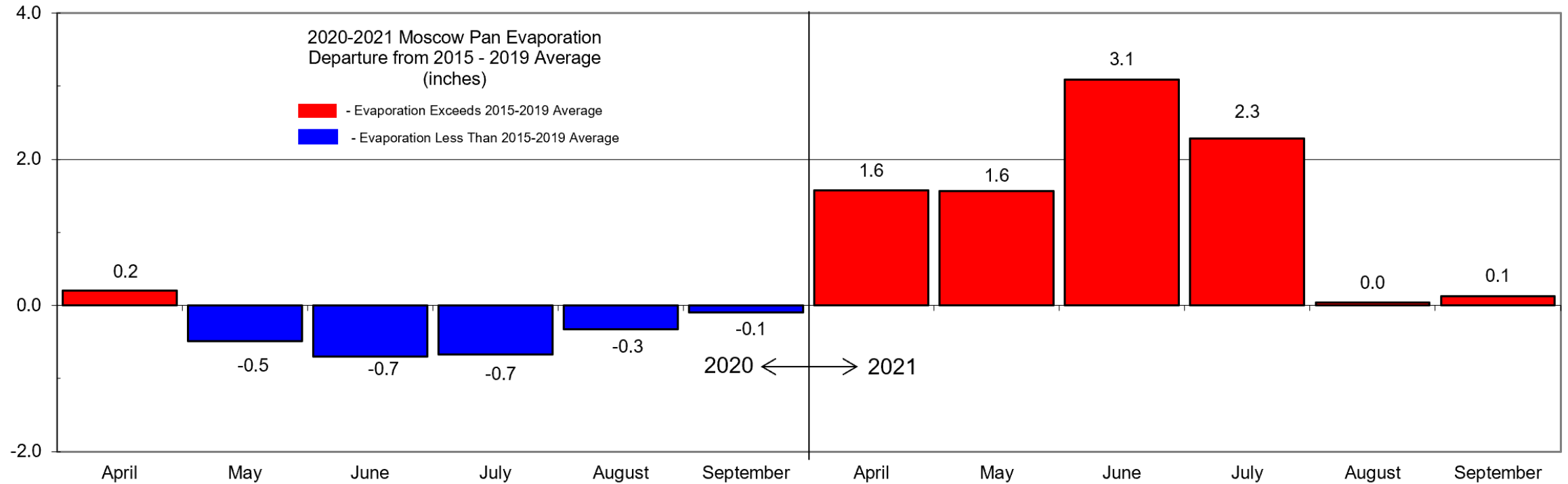
2020 vs 2021 Irrigation Season Weather

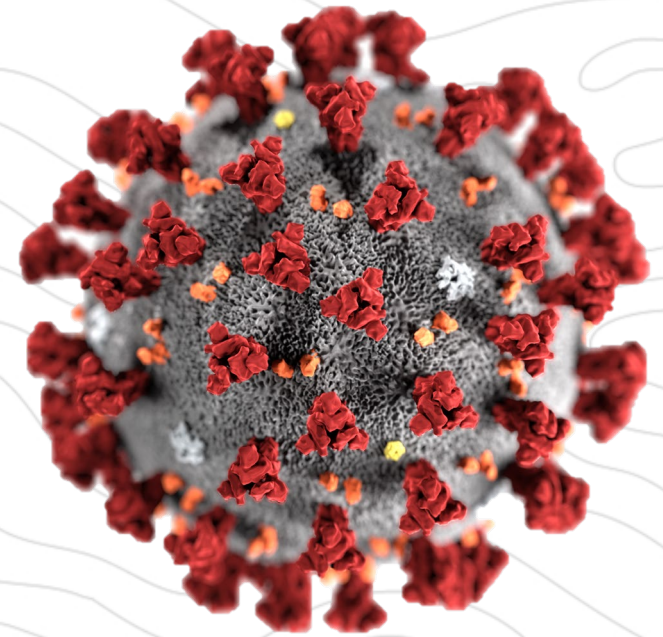
Precipitation



2020 vs 2021 Irrigation Season Weather

Pan Evaporation





2020 ANOMALY

MOSCOW-PULLMAN DAILY NEWS

WEEKEND, MARCH 14 & 15, 2020 • PRICE: \$1.50 • SINCE 1911 • WWW.DNEWS.COM

Idaho's first coronavirus case confirmed

Ada County woman diagnosed with COVID-19; Idaho Gov. Brad Little declares state of emergency

By William L. Spence
For the Daily News

BOISE — The first case of coronavirus in Idaho was confirmed in an Ada County woman Friday.

Public health official noted that the woman, who is in her 50s, contracted the virus while attending a conference in New York City at the end of February. She was subsequently notified by the conference organizers that three other attendees had tested positive for COVID-19. After she became ill, she informed her doctor, who then had her tested.

Officials did not identify the woman by name. Given that she contracted the virus while traveling out of state, they don't believe there's a significant threat to people in Idaho.

INSIDE

More coronavirus coverage

MOVING ONLINE



Children head home after the last day of school before spring break Friday outside

COVID-19 puts hurt on Pullman, Moscow businesses

Universities move online and cancel events, including WSU Mom's Weekend

By Garrett Cabeza
Daily News staff writer

The decision to temporarily move classes online and cancel large events at the two Palouse universities because of the novel coronavirus is hurting the schools



Washington State University freshman Leeza Garces leaves campus for spring break Friday in Pullman.

The university announced that all classes will be taught online starting March 23 in response to the coronavirus. Garces is planning to spend

Moscow mayor issues emergency proclamation

Staff report

Moscow Mayor Bill Lambert issued a local emergency proclamation for Moscow in light of the public health threat posed by COVID-19.

The city of Moscow has been working over many weeks monitoring the global coronavirus situation, according to a city of

Moscow schools to close

Coronavirus concerns prompt district's effort to learn online or with take-home assignments, while off school for two weeks

By Scott Jackson
Daily News staff writer

The Moscow School District announced Friday it will halt in-person instruction and close school facilities to students for two weeks following spring break in an effort to curb the potential effect and local spread of the new coronavirus.

The announcement came following a meeting between local health authorities and regional school districts. Moscow School District Superintendent Greg Bailey said the district will use a number of distance-learning strategies in order to continue the school year without interruption.

While nothing compares to in-person

instruction, according to Bailey, the goal is for distance-learning days to count toward the required instructional days so they won't have to be made up.

Spring break in Moscow runs for a week starting Monday. That would put a return to normal operations in the district Monday, April 6.

"We have a lot of students that have internet capabilities, but we have some that don't so we're looking at multiple

See **SCHOOLS**, Page 5A

Washington closures include schools

Pullman schools superintendent concerned about equitable distance learning if required; state's virus deaths reach 37

By Martha Bellisle
Associated Press

SEATTLE — Gov. Jay Inslee on Friday expanded school closures and prohibited large gatherings across all of Washington

while health officials reported at least six new deaths and more than 560 positive tests.

"I don't take these decisions lightly," Inslee said at a news conference. "We're doing this for the health of all

Inslee said the virus is spreading rapidly across the state so he issued an executive order to close all K-12 public and private schools from March 17 to April 24. He had previously closed schools in the three counties with the highest numbers of cases; King, Pierce and Snohomish. Online learning would

WASHINGTON, Page 5A

SE BASIN
AQUIFER
committee

WSU classes move online

Post-break change because of COVID-19 concerns; UI plans two-day test of online classes

By Scott Jackson
Daily News staff writer

Washington State University announced Wednesday it will transition all five campuses in its system to online instruction in an effort to curb the spread of COVID-19.

In a message sent to students, faculty and staff, university leadership said the move will begin March 23, following the university's weeklong spring break.

"Even though this is a WSU system decision, each campus or other location may have specific contexts that will determine some details of implementation," the message read. "Any campus- or college-specific differences in implementation will be communicated separately by Chancellors and Deans in consultation with local public health officials."

COVID-19 is caused by a new member of the coronavirus family that first appeared in the city of Wuhan in China's Hubei Province in late 2019. The new coronavirus is related to MERS and SARS viruses that have caused outbreaks in the past.

As of Wednesday, the number of cases in Washington climbed to more than 270 with 24 deaths, most of those located on the west side of the state.

In an email sent Wednesday morning, the University of Idaho instructed faculty to prepare to transition their

See ONLINE, Page 4A

Nez Perce County confirms first virus case

Public health official says person who has disease is younger than 60, but provides no other details

By Elaine Williams

Moscow businesses to close

Staff report

Gyms, tattoo parlors, barber shops and salons in Moscow must close and gatherings of more than 10 people within facilities that include educational institutions, churches and other religious organizations are prohibited because of COVID-19, according to a city news release.

The order does not apply to childcare and daycare services and facilities.

Mayor Bill Lambert

issued the Public Health Emergency Order on Tuesday, and it is in effect for seven days.

On Friday, the mayor issued a seven-day emergency order and then the council extended the order to May 5 that prohibited gatherings of more than 10 people and



Lambert



MORE ONLINE

For more stories on the coronavirus outbreak, visit dnews.com/coronavirus/. All stories there are free to read without subscription.

dining in bars and restaurants. The additional restrictions announced Tuesday, and to be in effect starting

today, were enacted given the inability for some businesses to follow the recommended Centers for Disease Control and Prevention's social distancing guidelines because of the nature of the business, and in light of the unique location of Moscow and close proximity to states and locations where there are larger number of confirmed COVID-19 cases, the release said.

See MOSCOW, Page 6A

Pullman officials: Stay home

Health official says county can handle influx in student population

By Anthony Kuipers
Daily News staff writer

A Whitman County health official and one Pullman City Council member said Tuesday they would prefer Washington State

University students not return to Pullman from spring break amid the COVID-19 crisis.

Whitman County Public Health Director Troy Henderson spoke in front of the Pullman City



Sorensen



Henderson

Council about the status of the county as it adjusts to the

threat of the coronavirus. As of Tuesday, there are no confirmed positive cases of COVID-19 in Whitman County and test results for 12 cases in the county have come back negative. Henderson believes there are 10 test results still pending.

Councilman Al Sorensen said he and

community members are worried about the effect an influx of WSU students coming back to Pullman would have on the health of the community.

Henderson said WSU has surveyed students to see how many are planning on returning

See PULLMAN, Page 10A

Pullman declares state of emergency

Decision allows Pullman to receive government assistance

By Anthony Kuipers
Daily News staff writer

Pullman declared a state of emergency Thursday in response to potential effects of COVID-19 on the city.

The emergency declaration allows the city to have access to financial assistance from federal and state resources, according to a news release.

The city has also opened an emergency operations center at the Pullman Police Department that "will manage emergency related information and resources as needed," according to the release.

Pullman also issued a statement Wednesday urging Pullman residents to continue supporting local businesses as the city and Washington State University prepare for COVID-19.

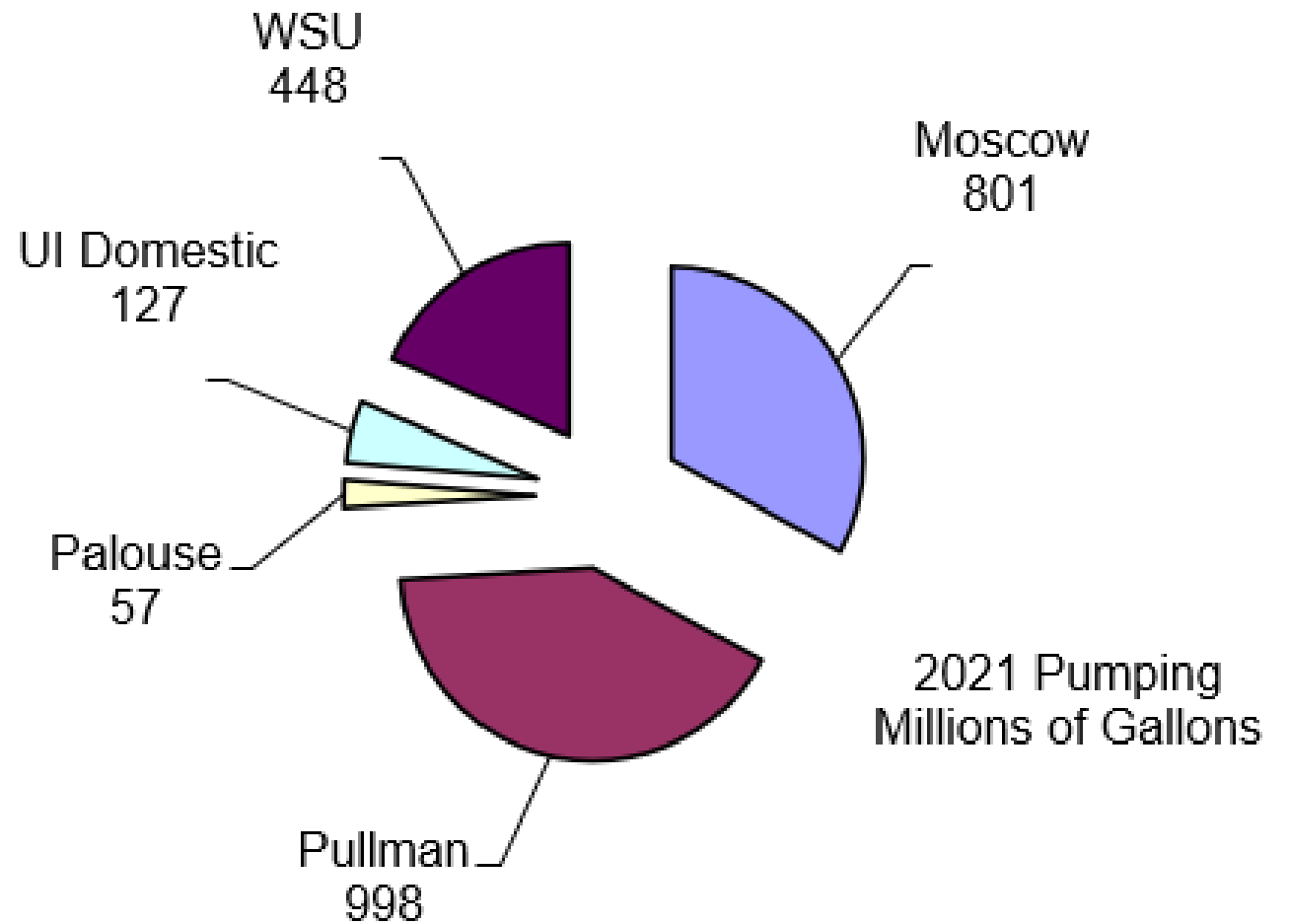
According to the



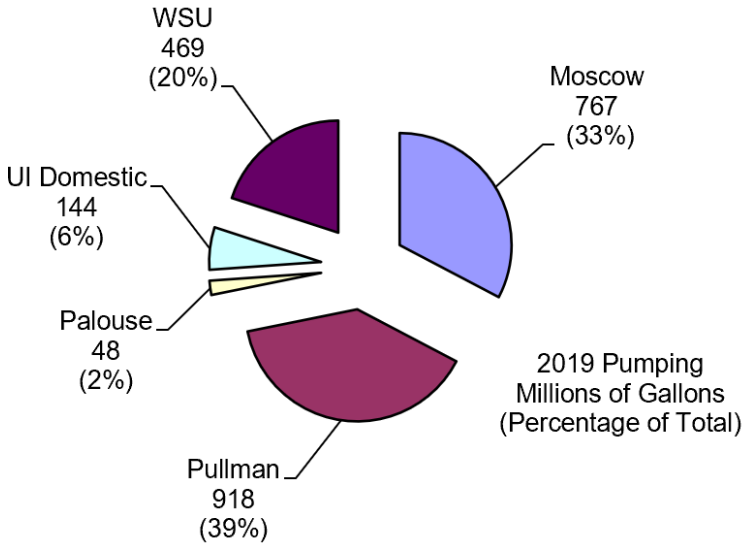
2021 WATER USE

2021 Water Use

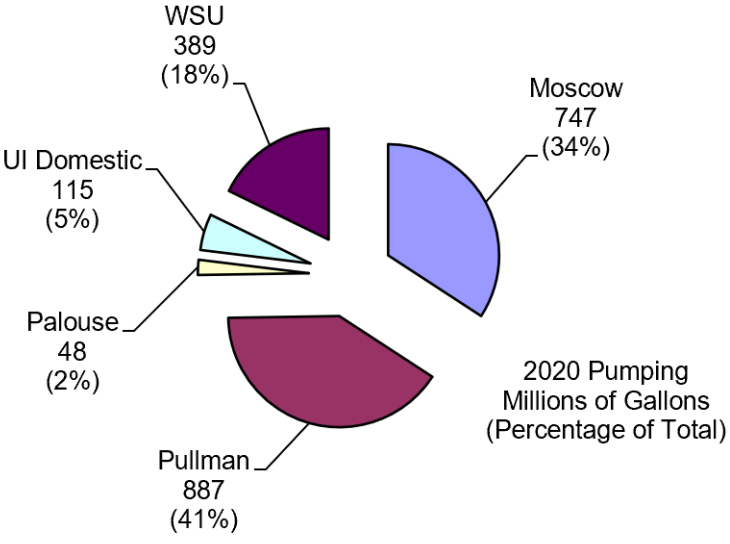
Total 2021 Pumping =
2.43 Billion Gallons



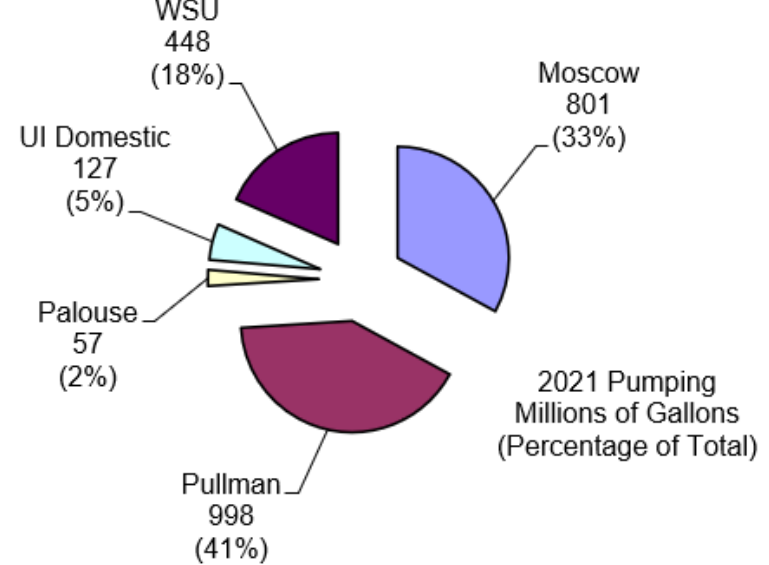
Total Water Use: 2019/2020/2021



2019 Pumping =
2.35 Billion Gallons



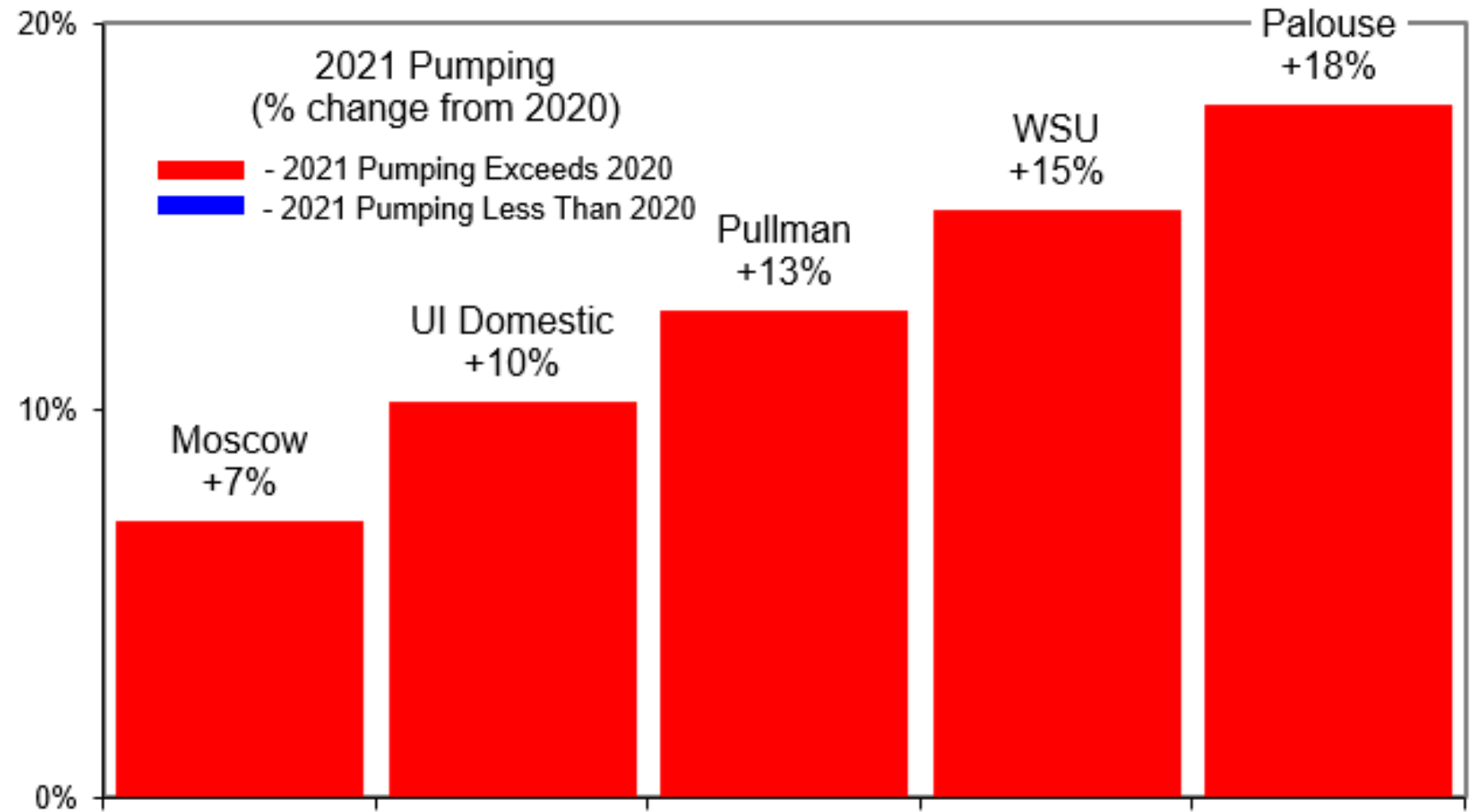
2020 Pumping =
2.19 Billion Gallons



2021 Pumping =
2.43 Billion Gallons

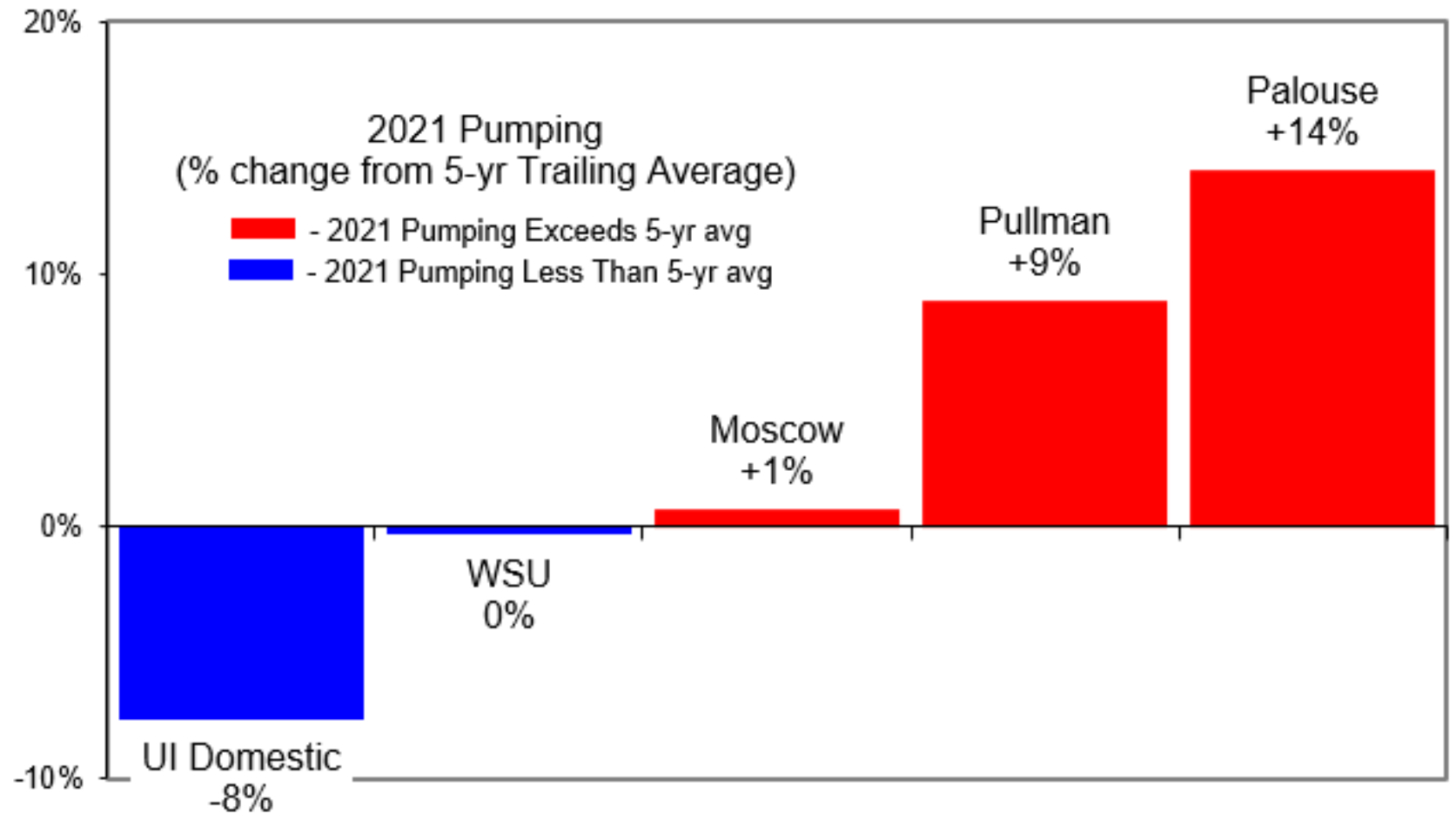
2021 Water Use – Change from 2020

- Aggregate Change from 2020 = 11.2%



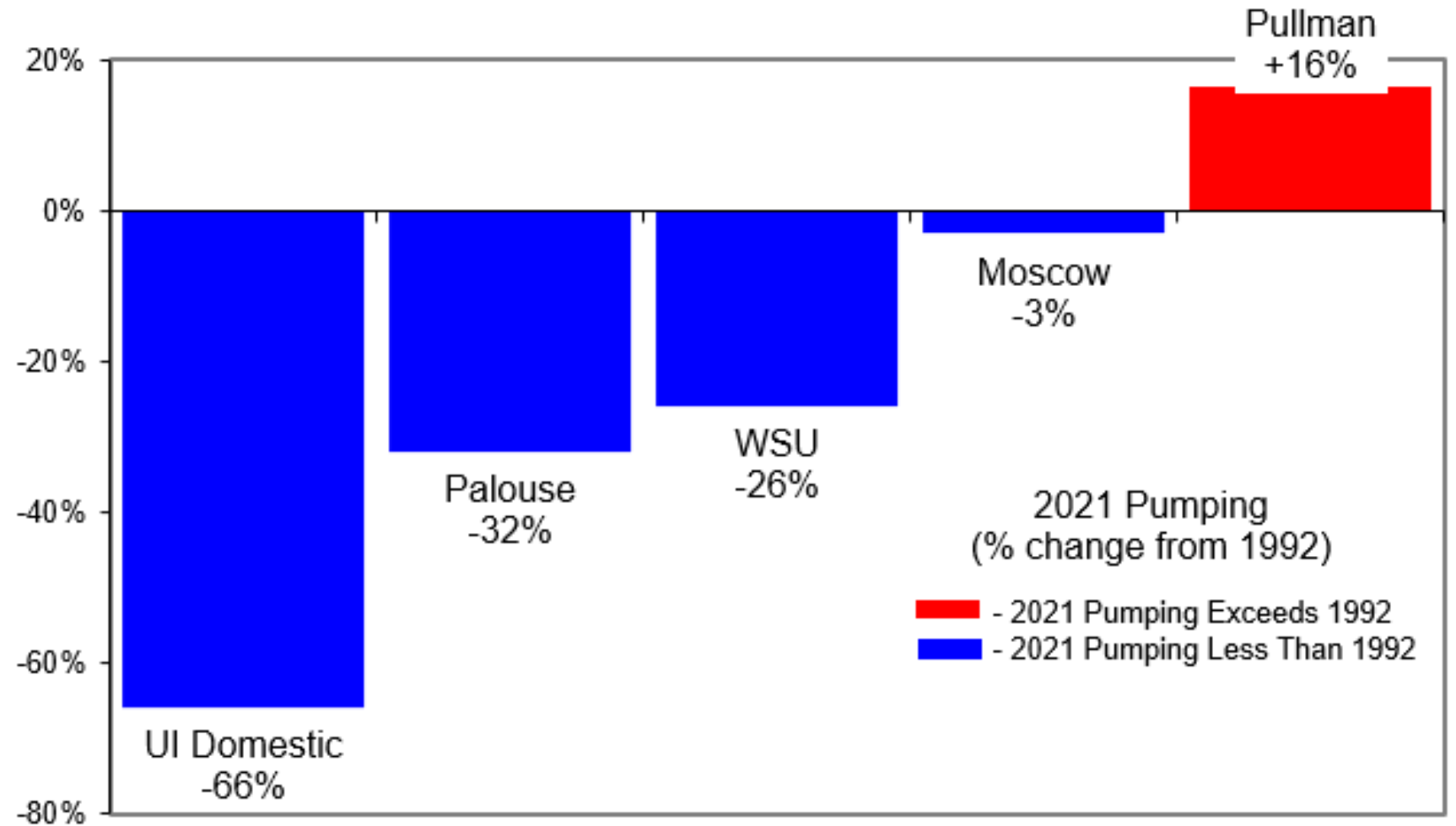
2021 Water Use – 5yr Trailing Average

- Aggregate Change from 5-year average (2015-2019) = 3.5%

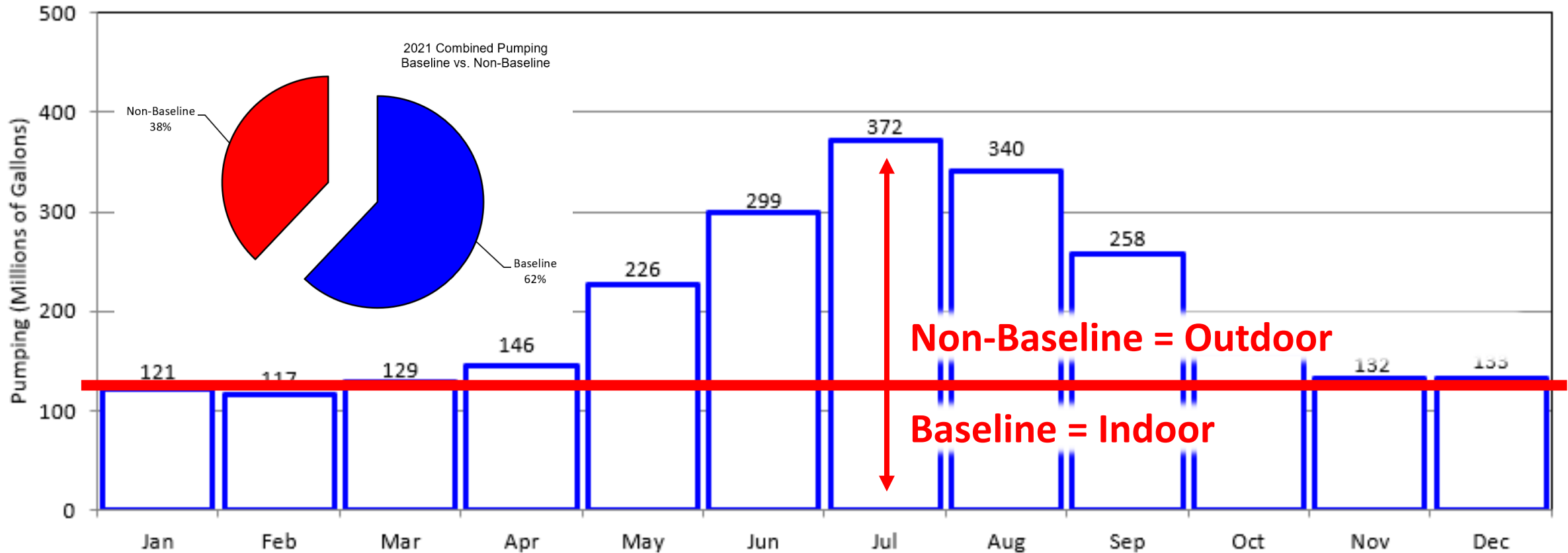


2021 Water Use – Change from 1992

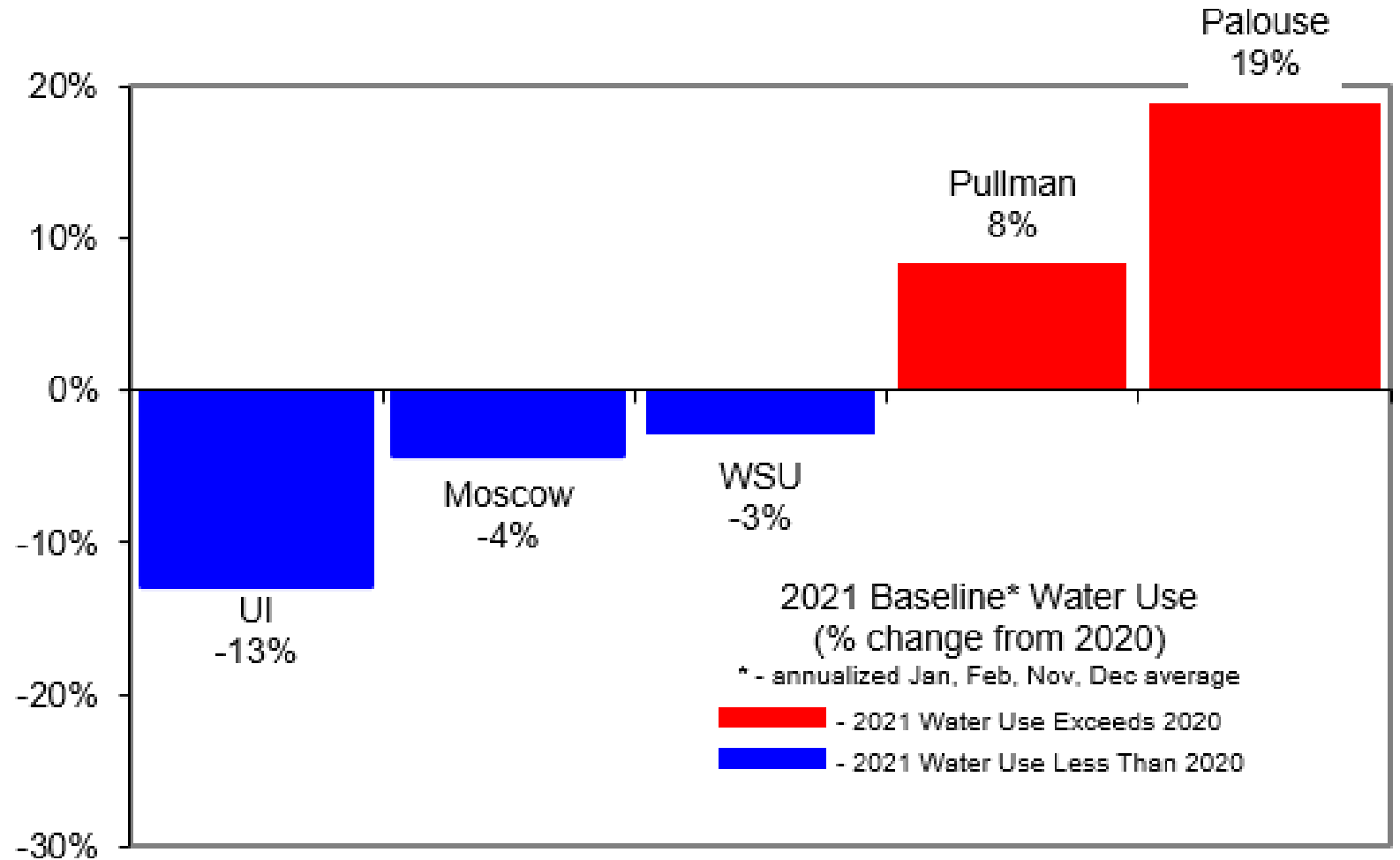
- Aggregate Change from 1992 = -11.4%



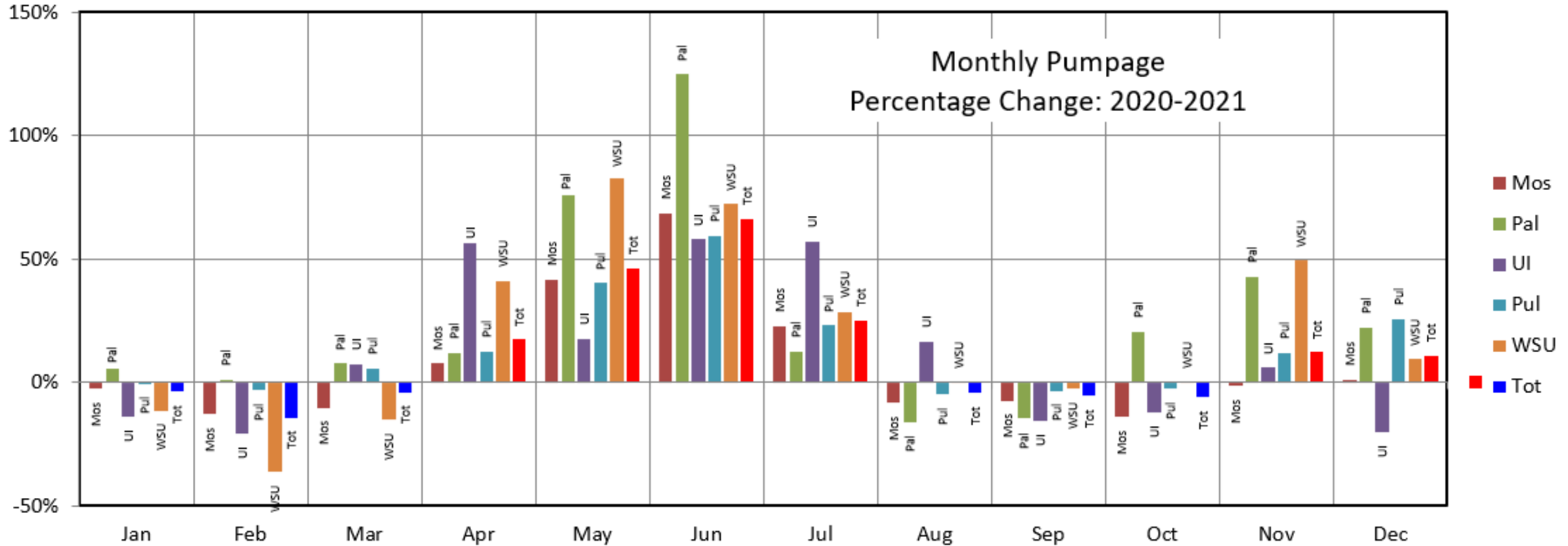
2021 Water Use – Baseline/Non-Baseline



2021 Baseline Water Use – Change from 2020



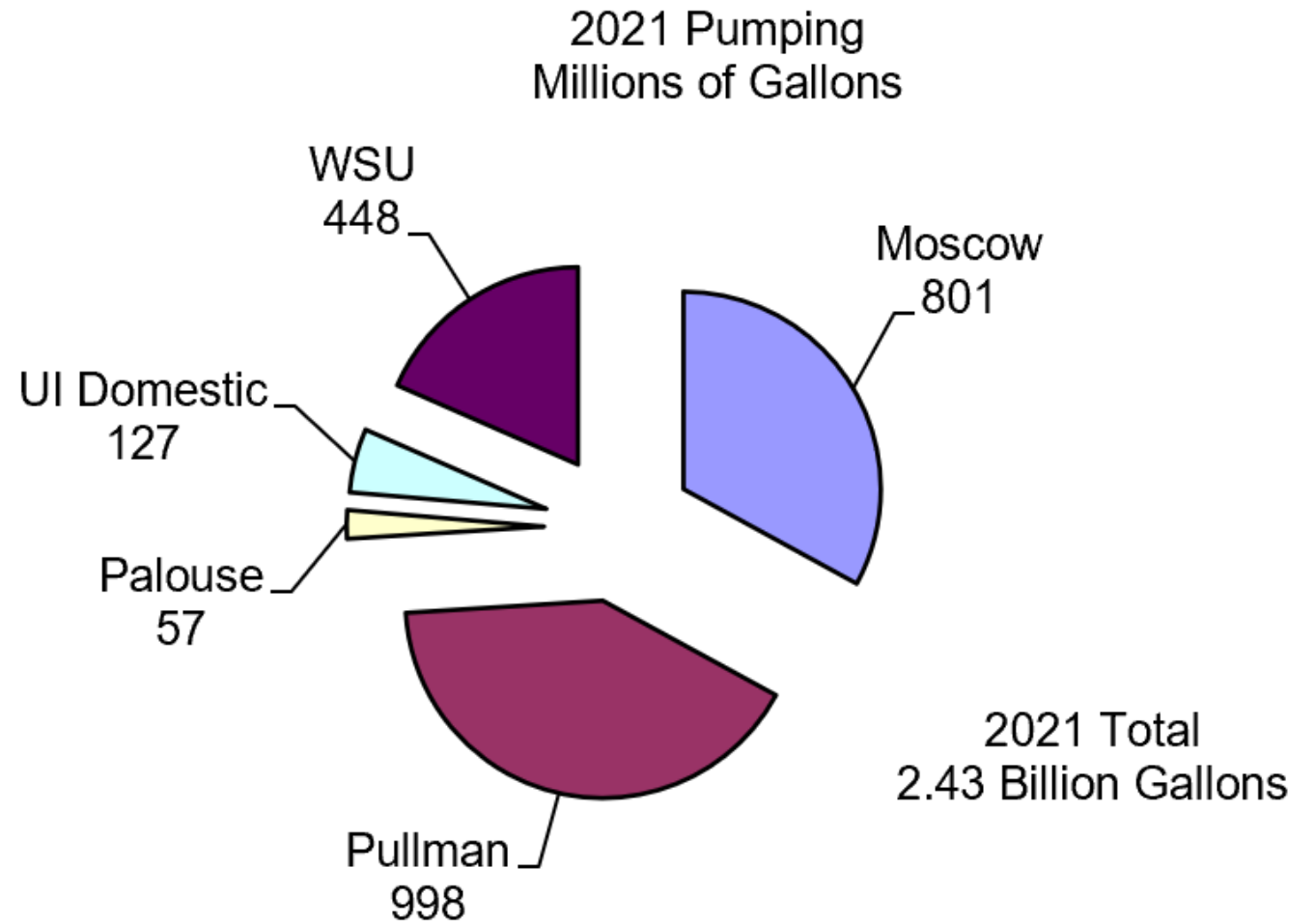
2021 Water Use – Monthly Change from 2020



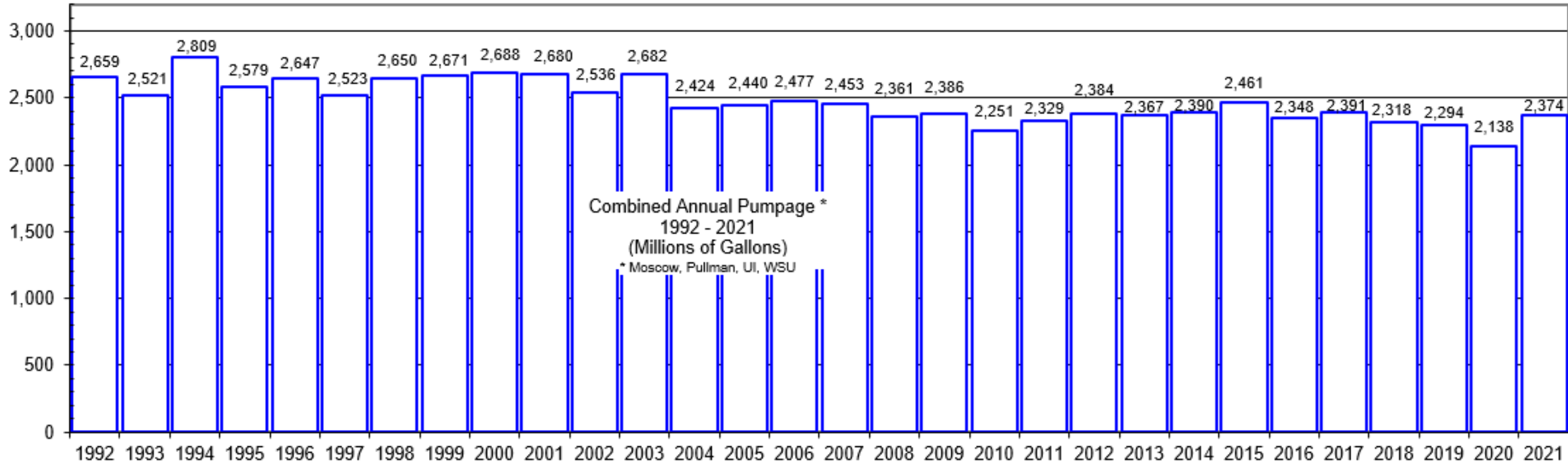
2021 PUMPING PER CAPITA

2021 Water Use

Total 2021 Pumping =
2.43 Billion Gallons

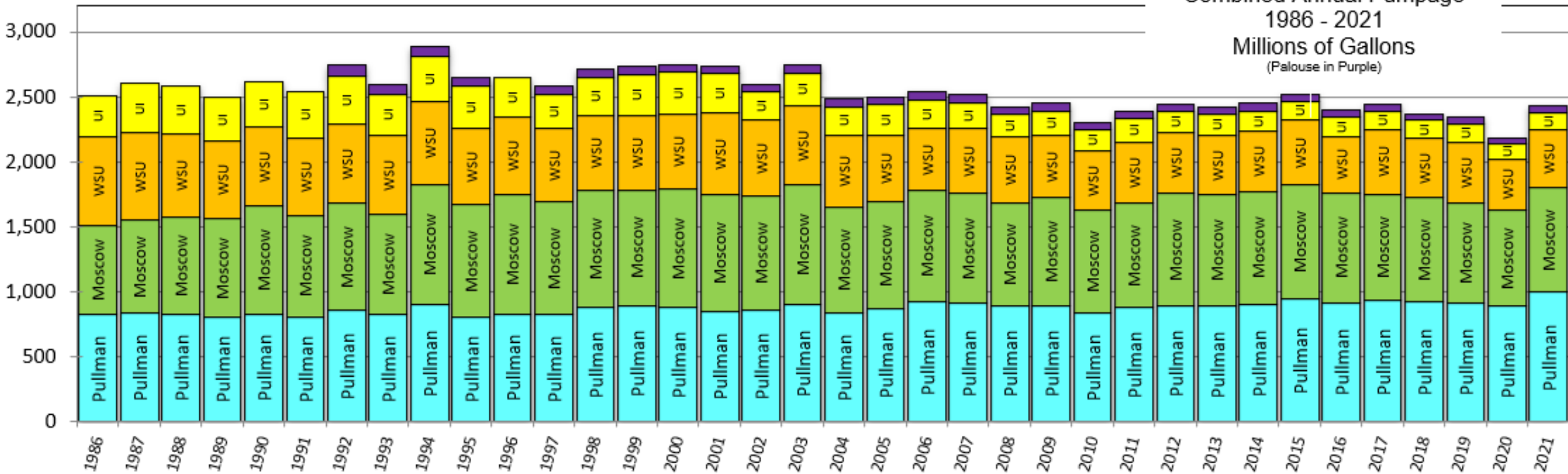


Combined Annual Pumping – 1992-2021

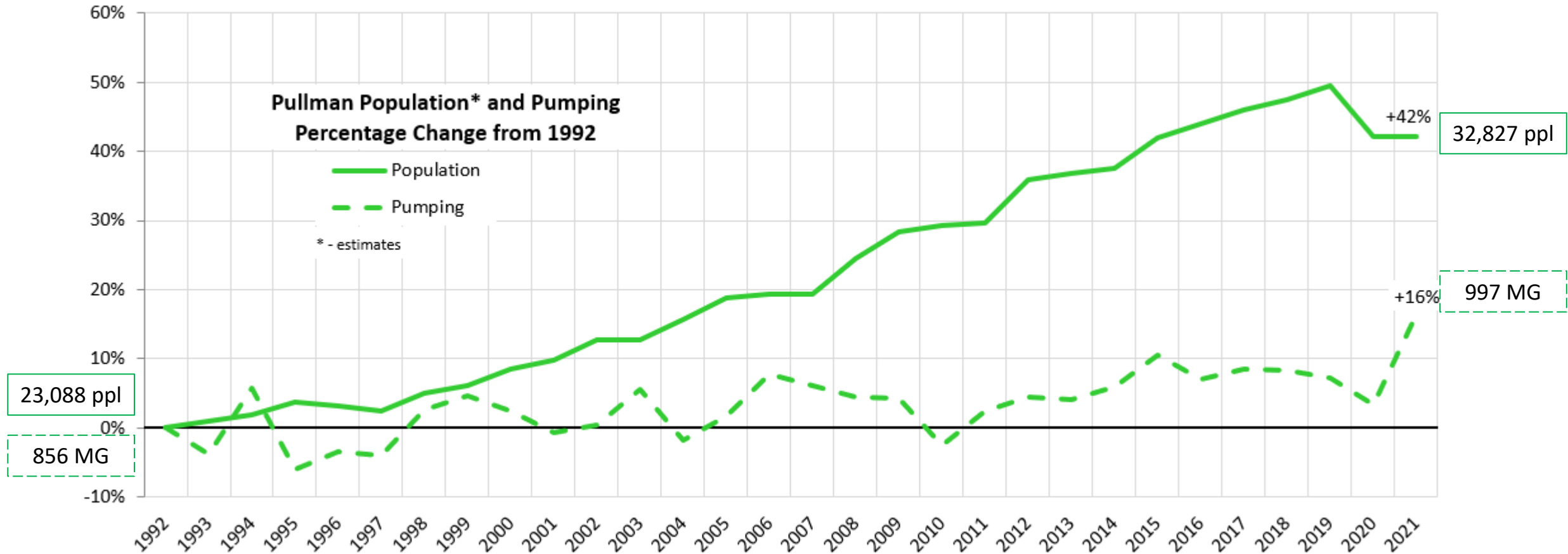


Combined Annual Pumping – 1992-2021

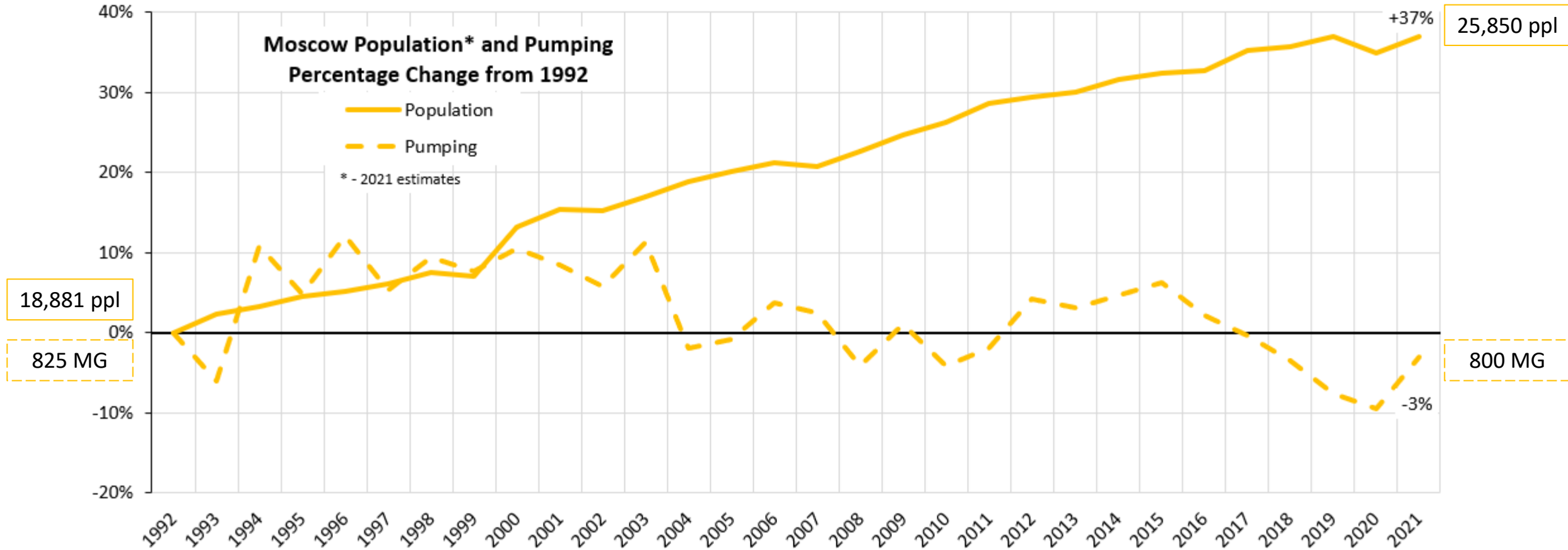
Combined Annual Pumpage
1986 - 2021
Millions of Gallons
(Palouse in Purple)



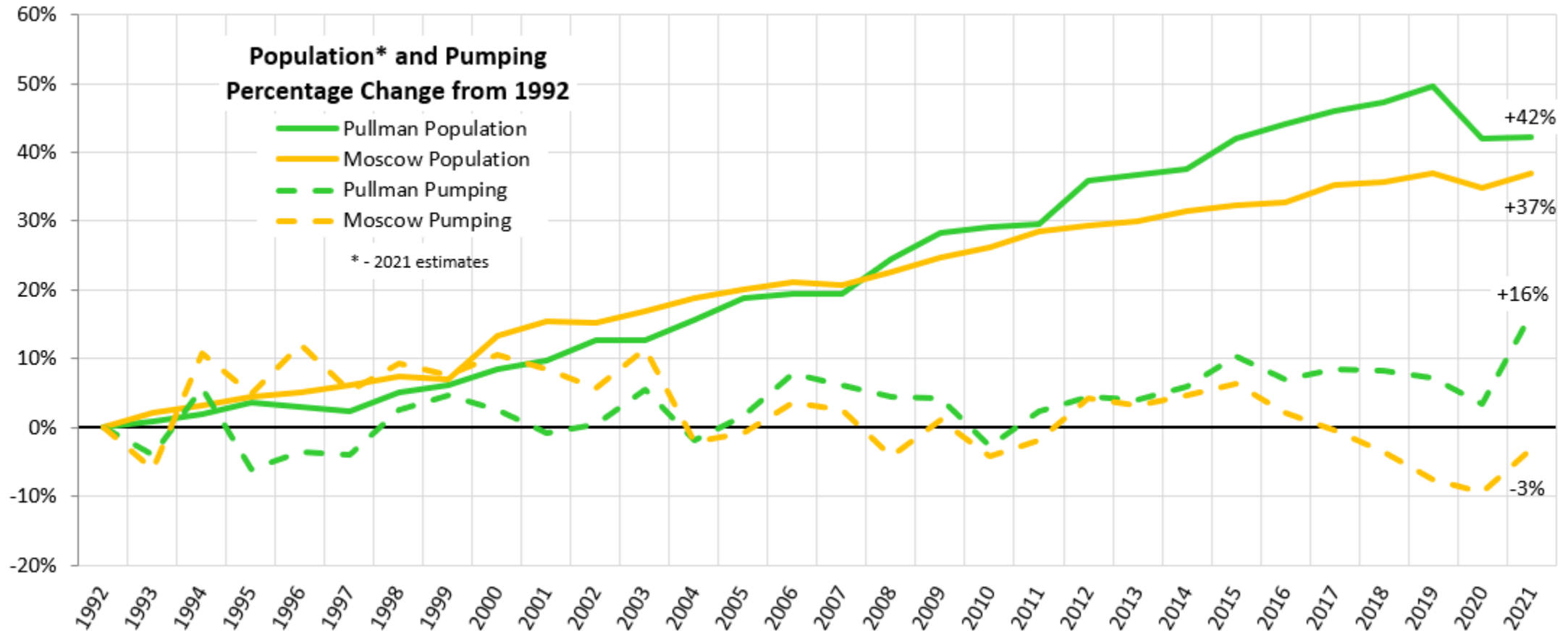
Pullman Pop & Pumping % Change from 1992



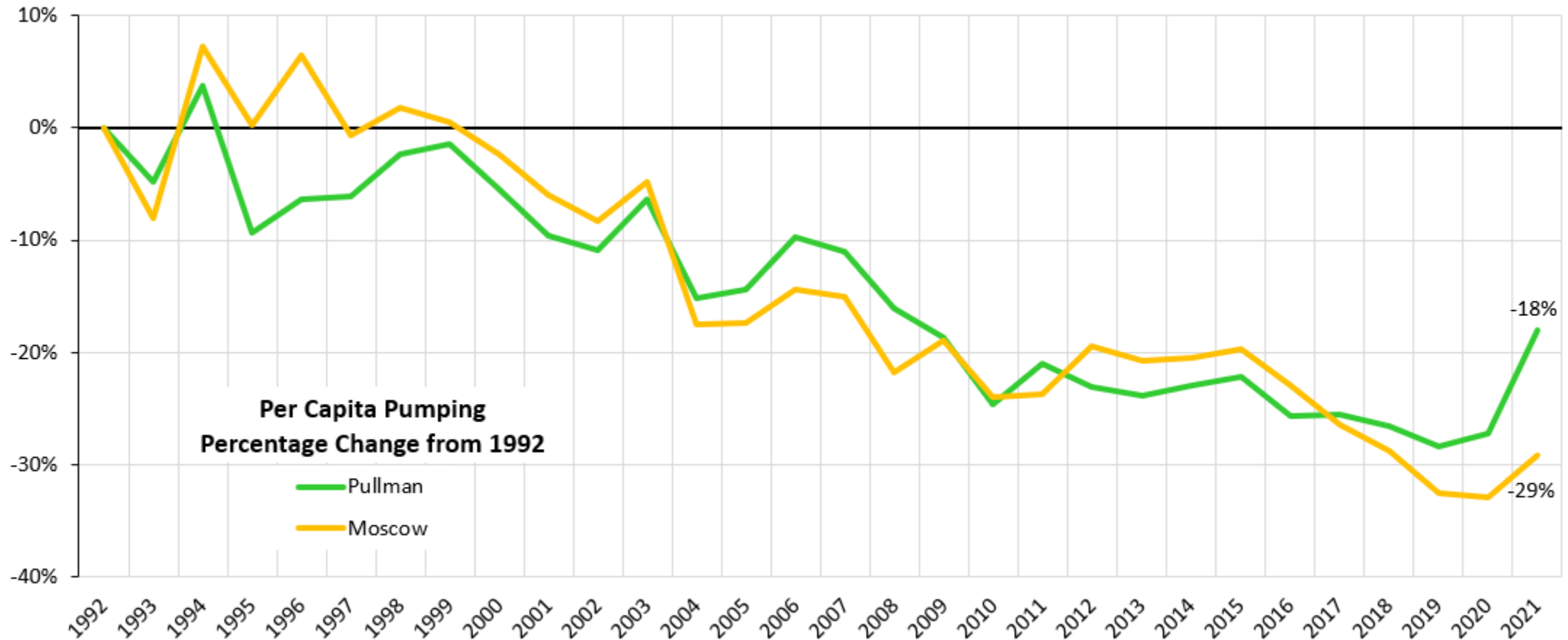
Moscow Pop & Pumping % Change from 1992



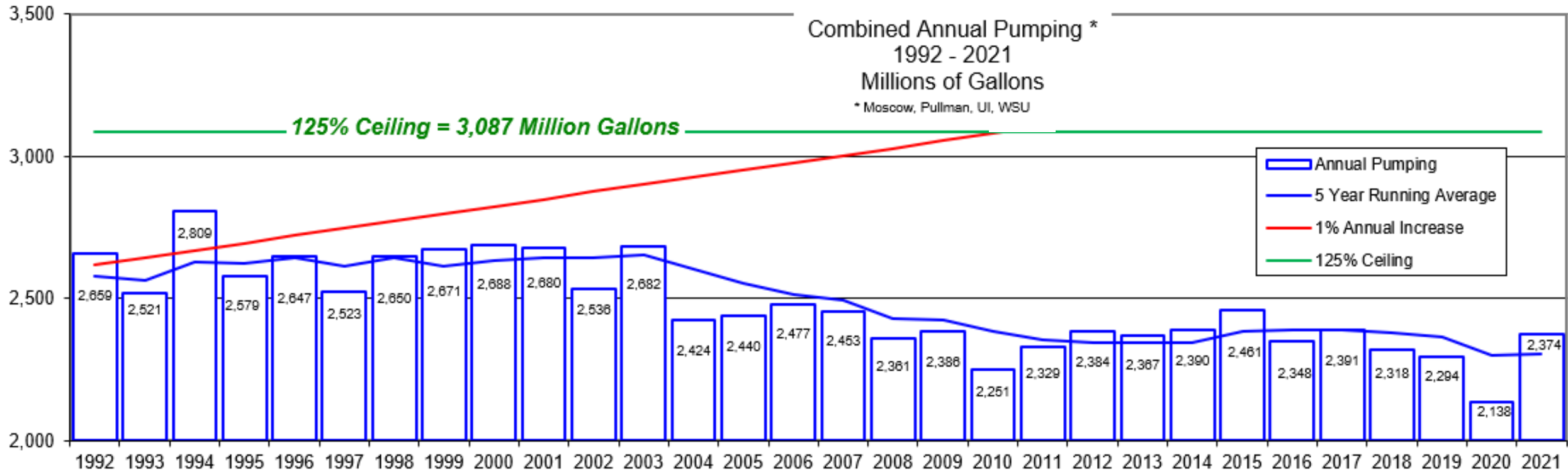
Pop & Pumping % Change from 1992



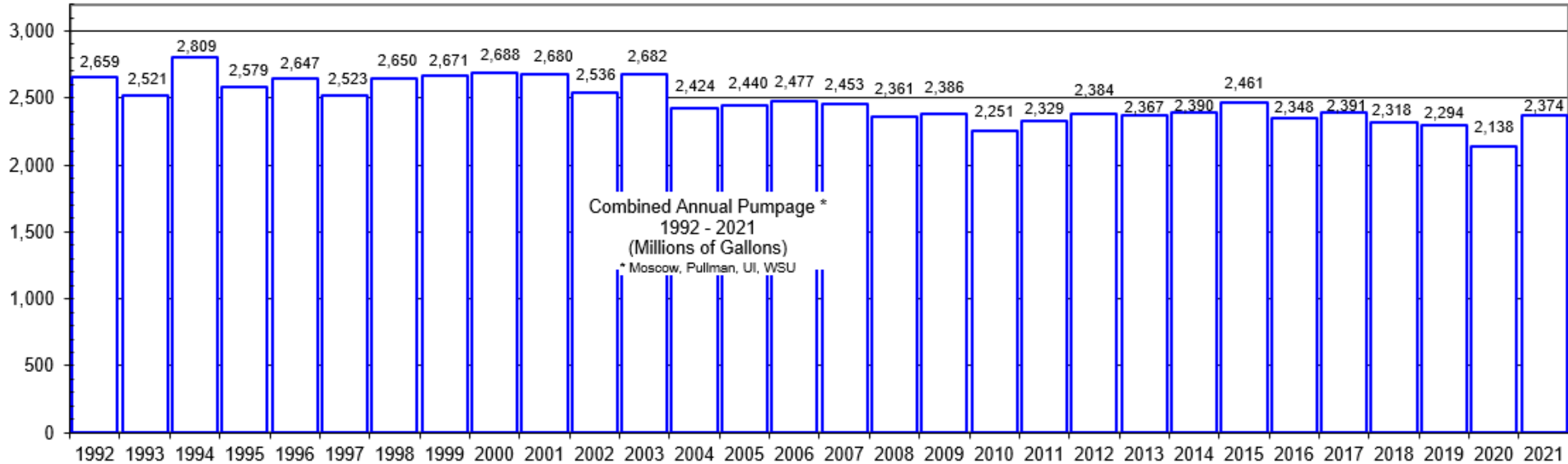
Per Capita Pumping % Change from 1992



Combined Annual Pumping – 1992-2021



Combined Annual Pumping – 1992-2021

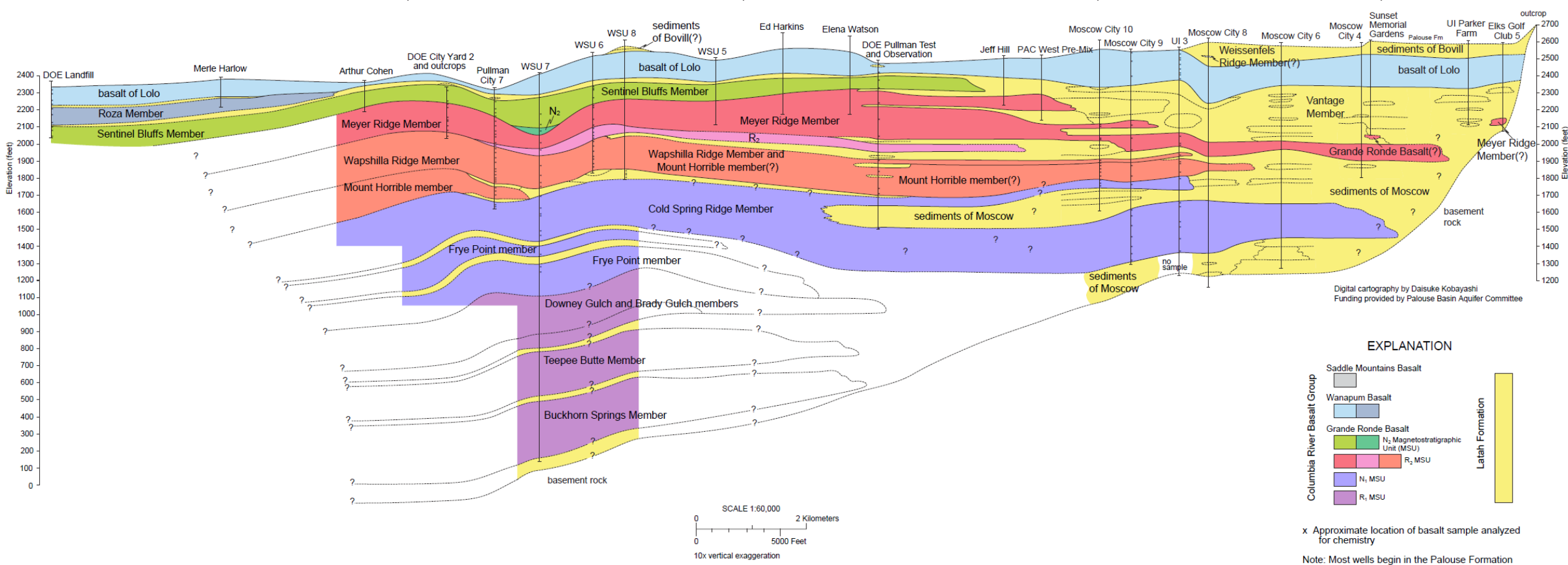


Pumped 285 MG less than we did as a region in 1992

2021 WATER LEVELS

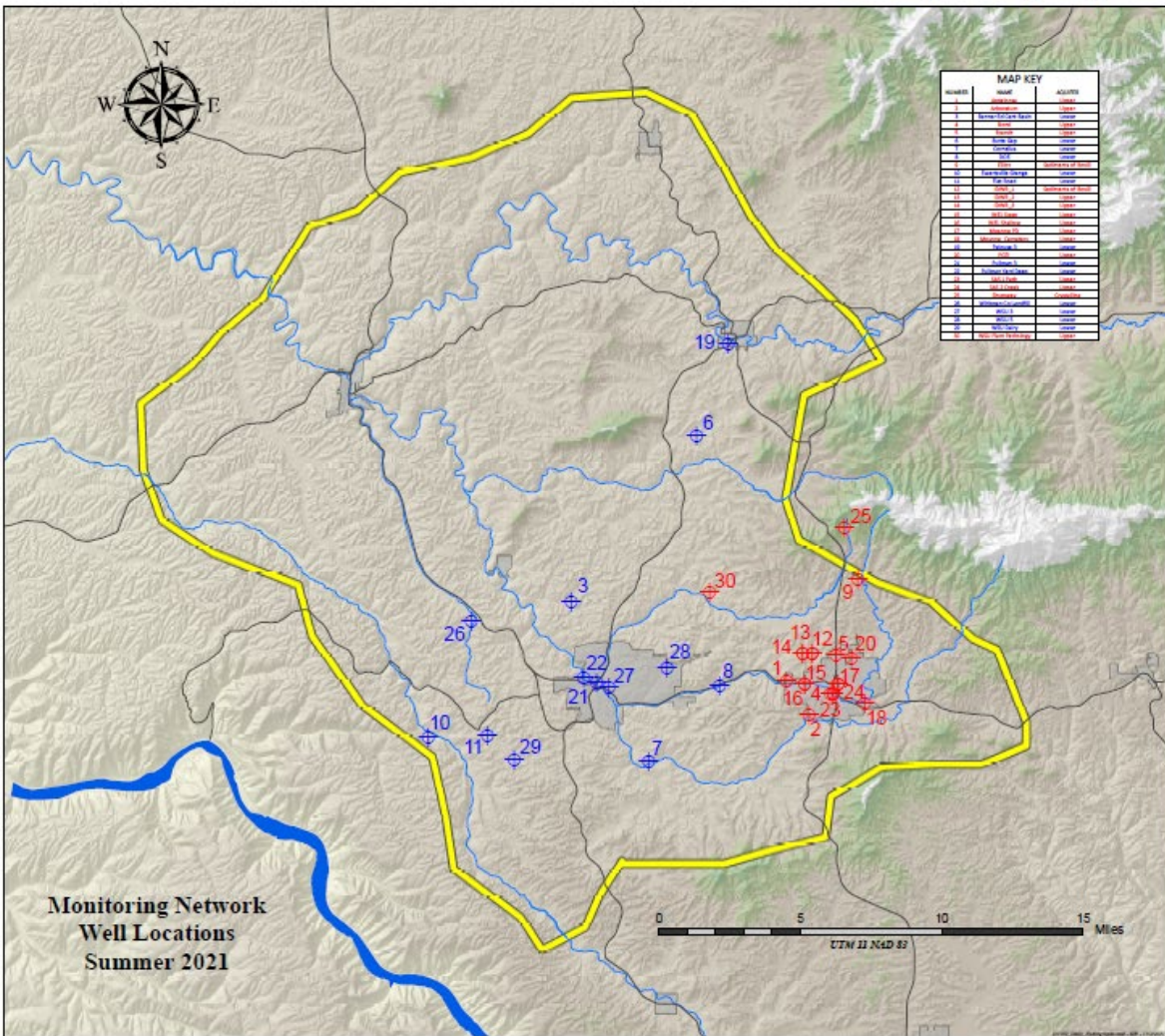
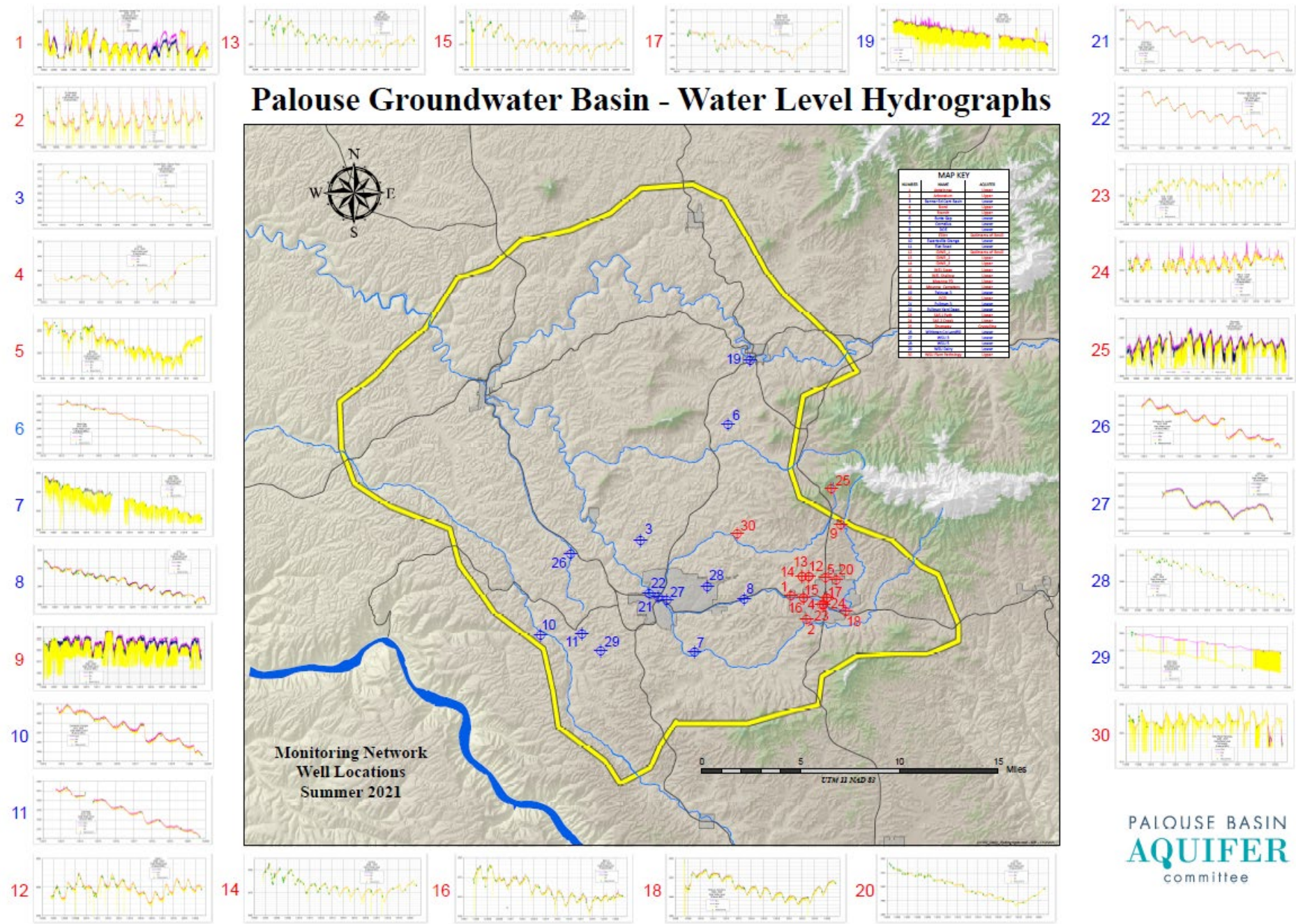
WEST

EAST



Generalized Geologic Cross Section Through Pullman and Moscow

Palouse Groundwater Basin - Water Level Hydrographs

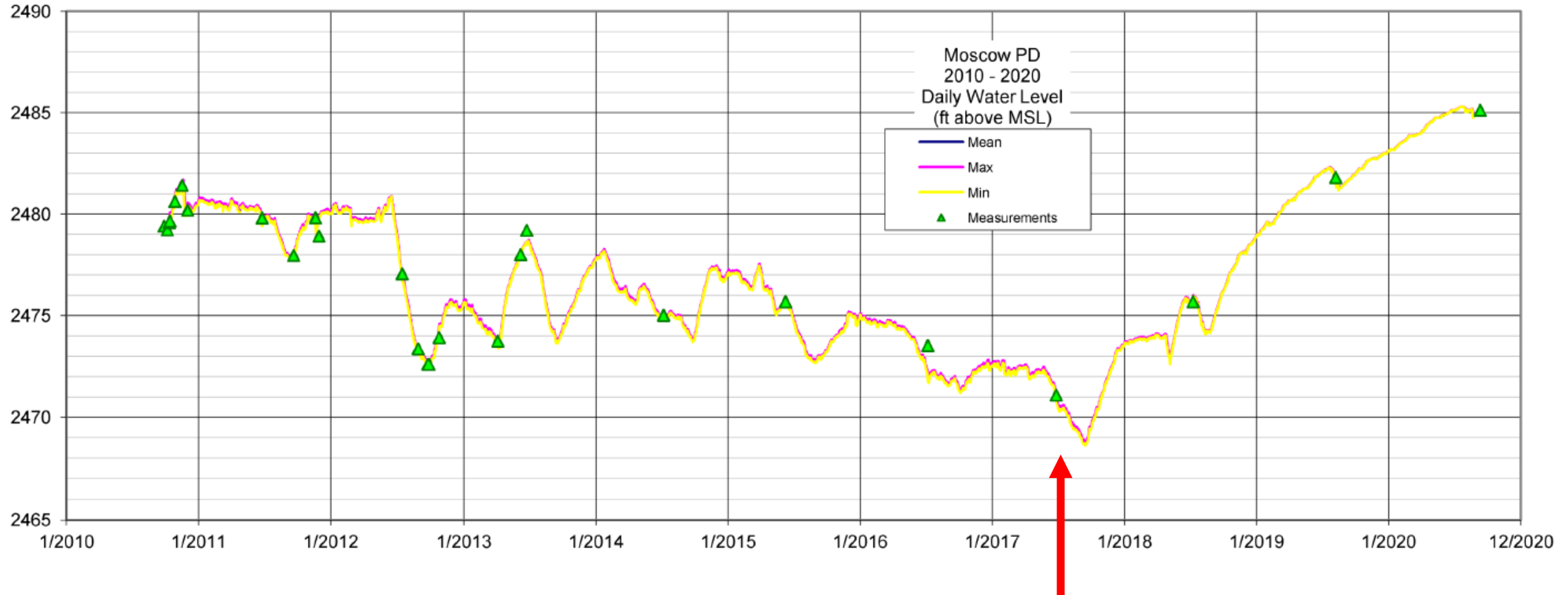


Monitoring Network
Well Locations
Summer 2021

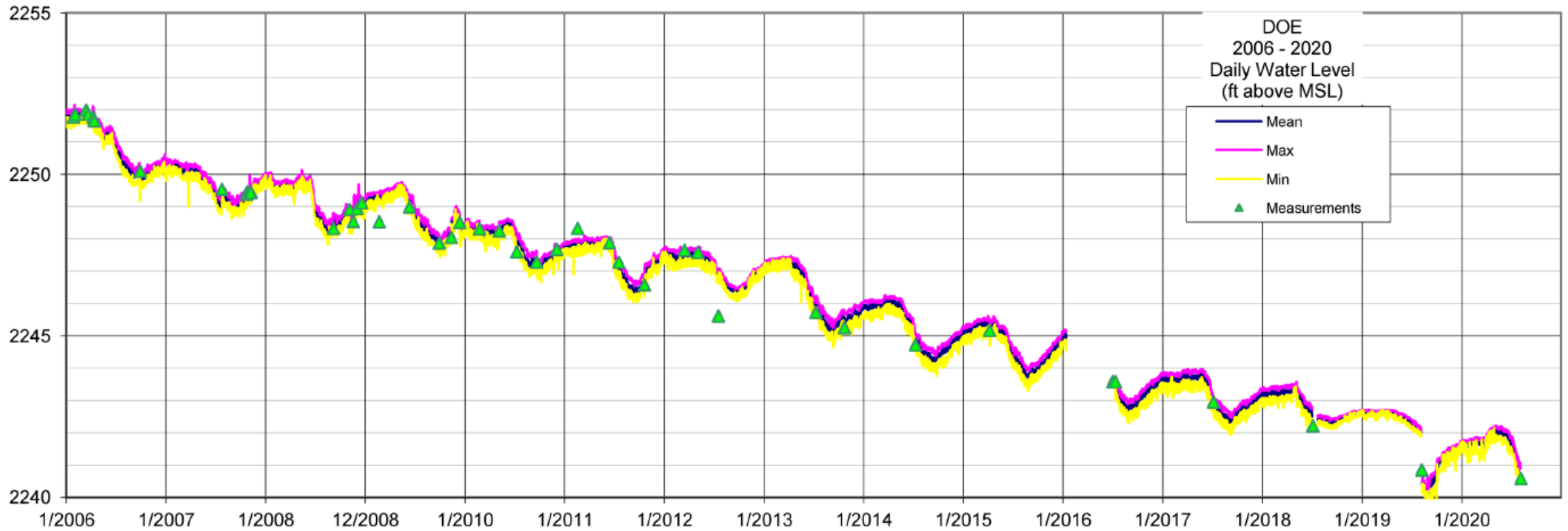
PALOUSE BASIN
AQUIFER
committee

PALOUSE BASIN
AQUIFER
committee

Upper Aquifer – Moscow PD Site



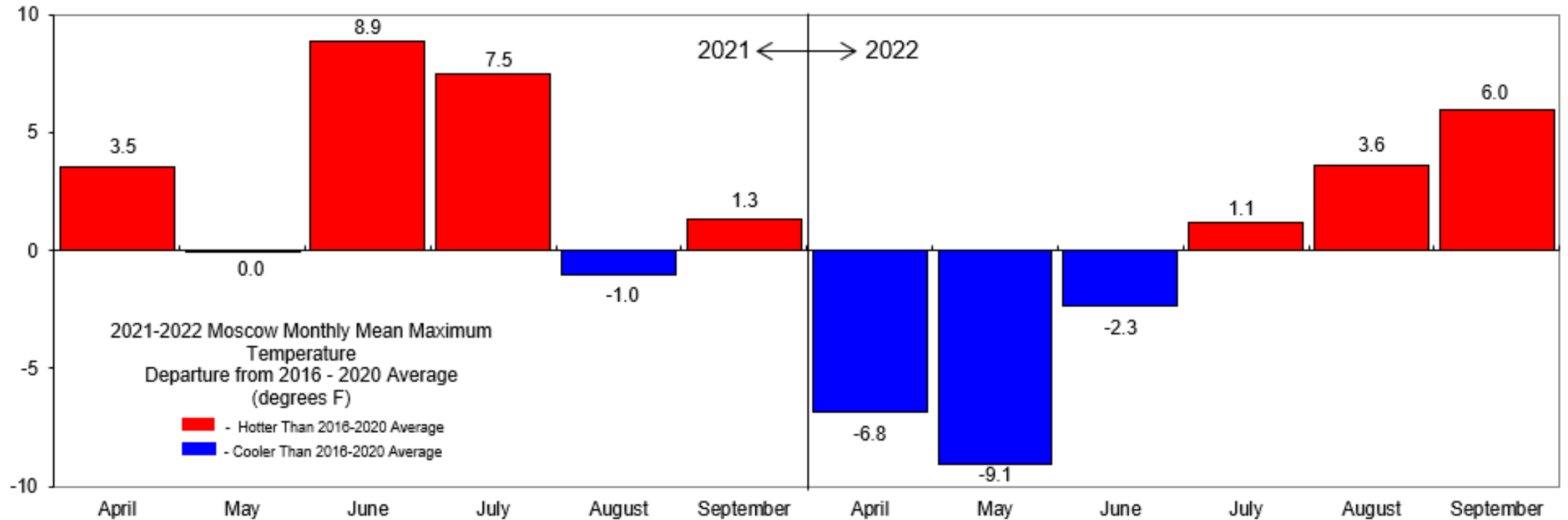
Lower Aquifer – WDOE Site



2022 WEATHER & WATER USE

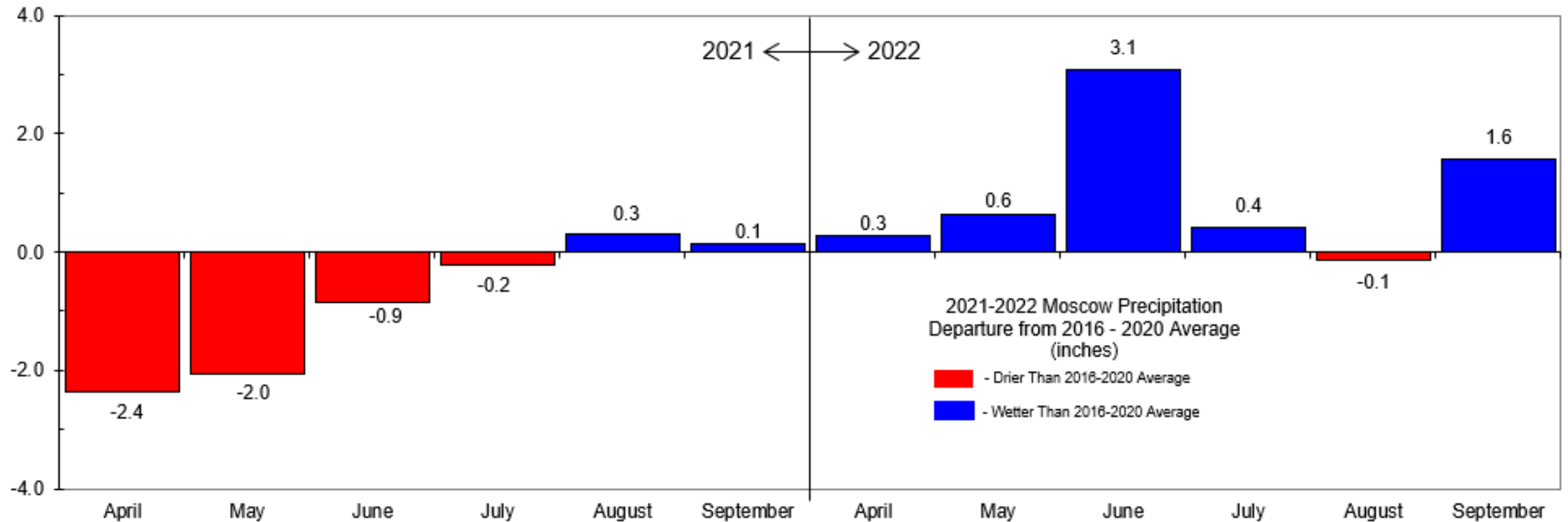
2021 vs 2022 Irrigation Season Weather

Monthly Mean Max Temp



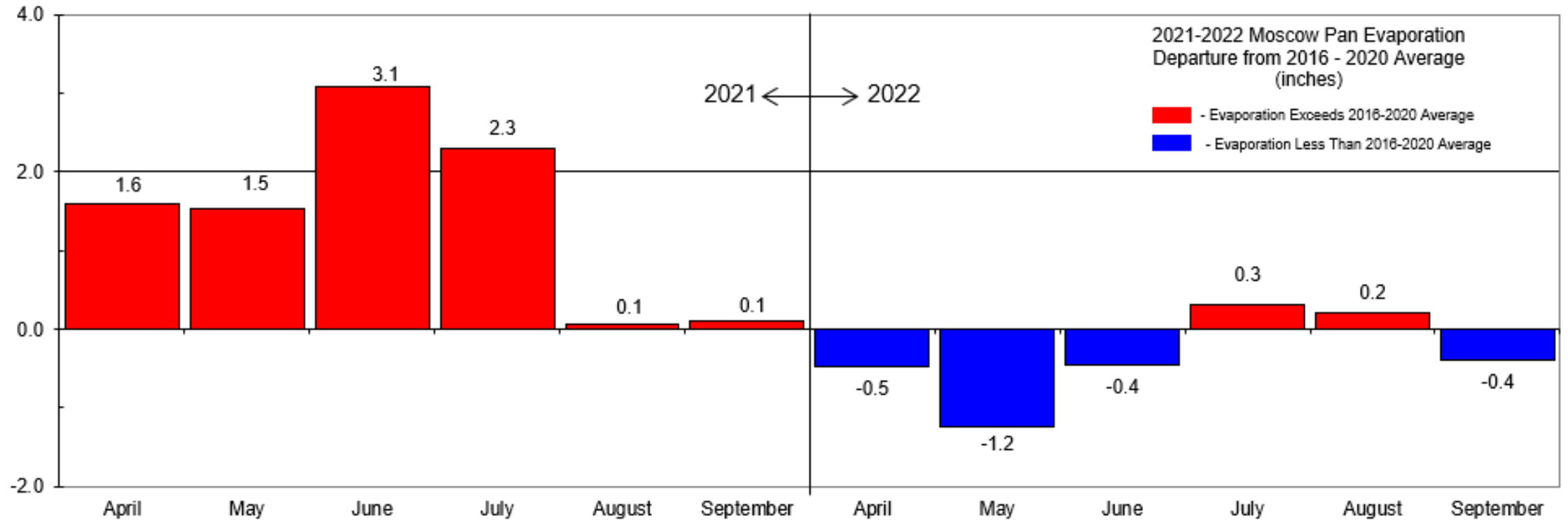
2021 vs 2022 Irrigation Season Weather

Precipitation

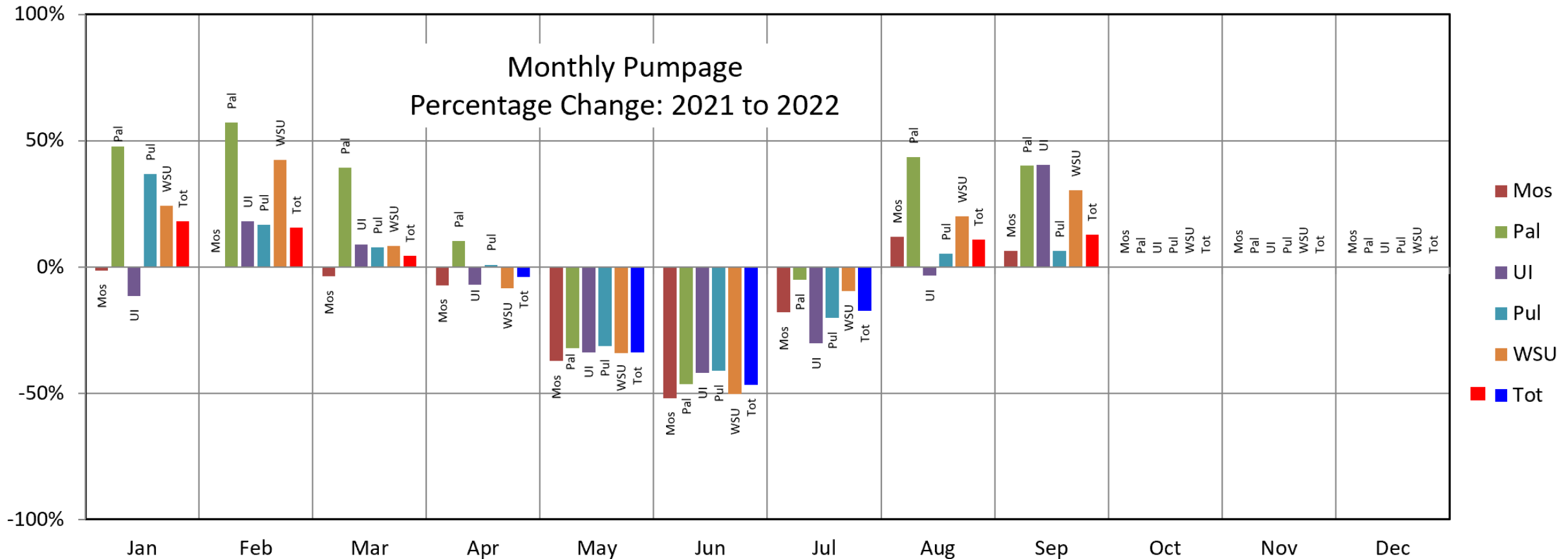


2021 vs 2022 Irrigation Season Weather

Pan Evaporation

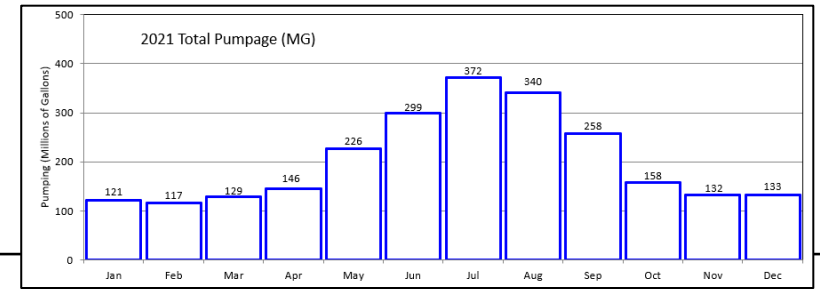
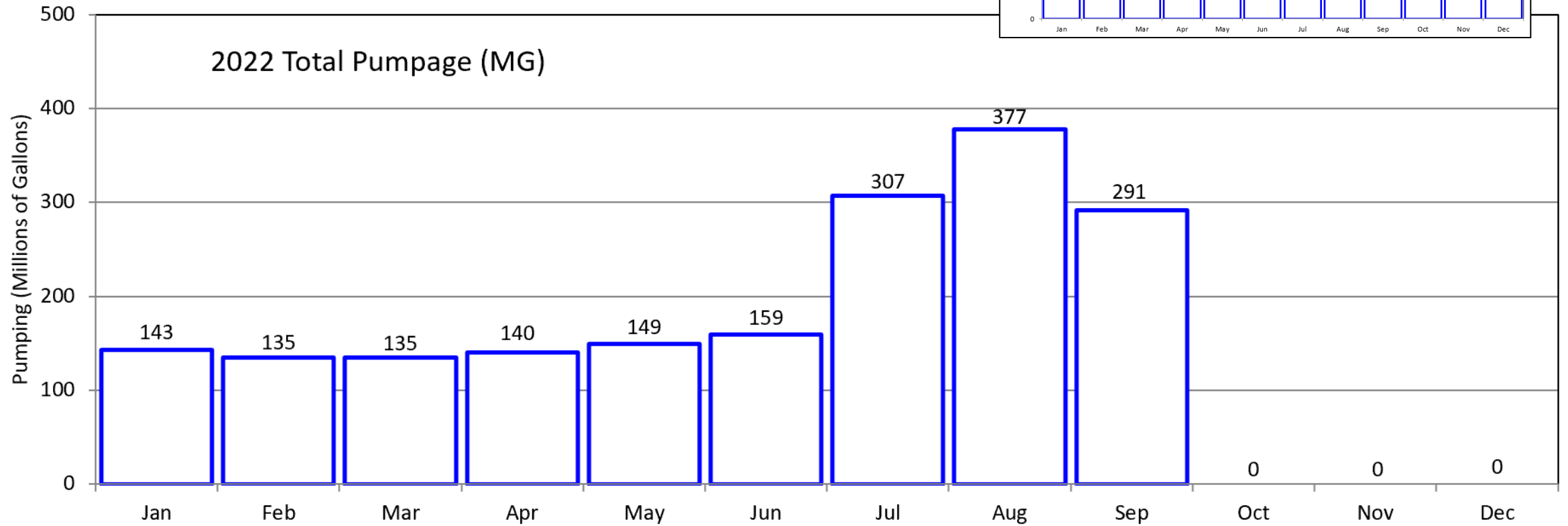


2022 Water Use – Monthly Change from 2021



2022 Water Use

2021 Water Use



WHAT'S NEXT

WHAT'S NEXT

- Continued Conservation
- Increased Conservation
- Alternative Water Supply Projects