

Staff Report

for the Water & Hydroelectric Operations Committee Meeting of February 19, 2020

TO: Water & Hydroelectric Operations Committee

FROM: Chip Close, Water Operations Manager

DATE: February 11, 2019

SUBJECT: Surplus Water Declaration

OPERATIONS

RECOMMENDATION:

Make a determination of surplus water availability within the District for the 2020 irrigation season and report to the Board under consent in accordance with District Policy #8200.

BACKGROUND:

Prior to the start of irrigation season, the District reviews forecasted water availability for the coming summer months. The forecast includes current storage as well as anticipated snowpack run off based on snow survey data. The data analysis determines whether the District anticipates enough supply for full deliveries or whether the drought contingency plan will be enacted. Additionally, the data is utilized to determine if surplus water supply is expected.

In years where a surplus of water exists, the District, per CA Water Code section 383, can sell the surplus supply to customers outside the District's boundary. Historically, the District has provided surplus water service to roughly 35 local outside District customers in an annual contract. In addition, the City of Grass Valley and the City of Nevada City are outside District customers supplied via long-term surplus water supply agreements. (Per Board direction in 2005, the District will no longer accept new outside District customers, but will honor these existing accounts.)

District staff is continuously reviewing current and forecasted water supply conditions and makes an effort to make the declaration of surplus water as early as possible. This allows customer service and operations to begin water availability communications, calculate billing amounts, and begin set up of irrigation deliveries prior to irrigation season. Additionally, the early communication allows our agricultural water customers time to plan seed purchases for the coming growing season.

The current and forecasted water supply portfolio is as follows:

District reservoir storage as of February 5th is 204,300 AF, which is 102% of average for this time of year. The forecasted April – July runoff from the Department of Water Resources for the Yuba River basin currently sits at 74% of average, which correlates to approximately 117,800 AF in expected District watershed runoff. PG&E anticipates having water available to purchase per the Coordinated Operating Agreement, but does not have an estimated amount at this time. Given the lack of specific PG&E numbers, Staff has performed the water availability analysis without it.

The totalization of the information above indicates that the total of current and forecasted available water supply is equal to 322,100 AF. Based on these factors, the District is above the 235,700 AF threshold for normal operations as established in the Drought Contingency Plan and has water that is surplus to the needs of customers within the District boundaries. Therefore, staff is recommending the declaration of surplus water availability for the 2020 irrigation season with an emphasis on efficient water use.

The declaration of surplus water is in line with District Strategic Plan Goal number three: “Developing and managing our resources in a self-determining manner protects and provides for local control of our community’s most valuable assets – a fairly priced and available water supply.”

BUDGETARY IMPACT:

A declaration of available surplus will provide an increase in water sales revenue. The fee for outside District customer sales includes a 25% increase to offset the lack of tax revenue contributions from out of District parcels. The estimated revenue in water sales from surplus customers for the 2020 season is depicted below:

35 Customers Fixed Fee	(35 X \$675.12)	= \$23,629.20
133 Miners Inches	(133 X \$397.85)	= \$52,914.05
	Total	= \$76,543.25

City of Grass Valley Usage (Based on 2019 demand)
Base Rate + Per Acre Feet (\$675.12 + (\$350.92 X 842.25 AF) = \$296,237.49

City of Nevada City Usage (Based on 2019 demand)
Base Rate + Per Acre Feet (\$675.12 + (\$350.92 X 113.64 AF) = \$40,553.67

Grand Total of Estimated Surplus Water Sales = \$413,334.41

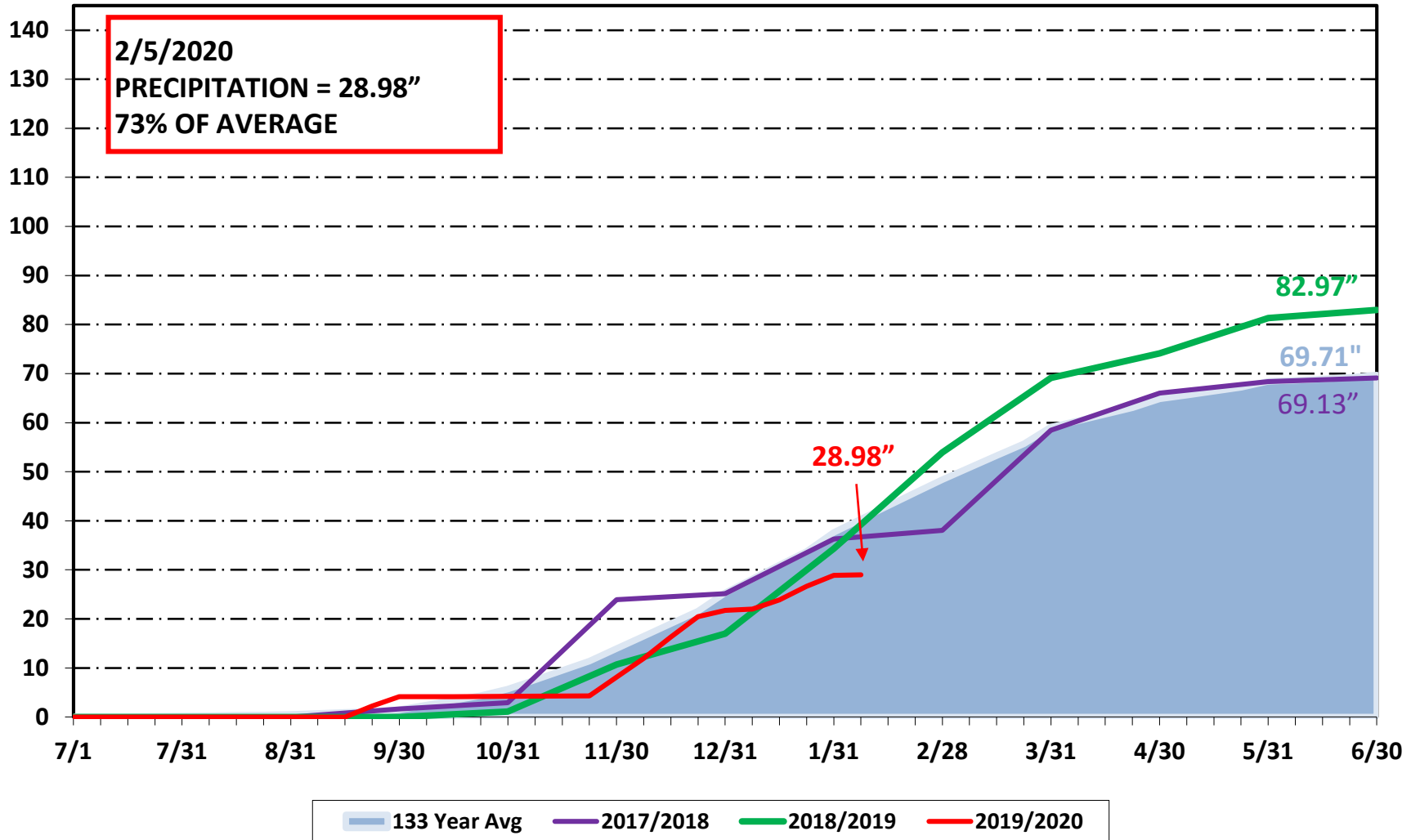
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Attachment (2):

- Water Supply PowerPoint
- Drought Contingency Plan Water Availability Guidance Chart

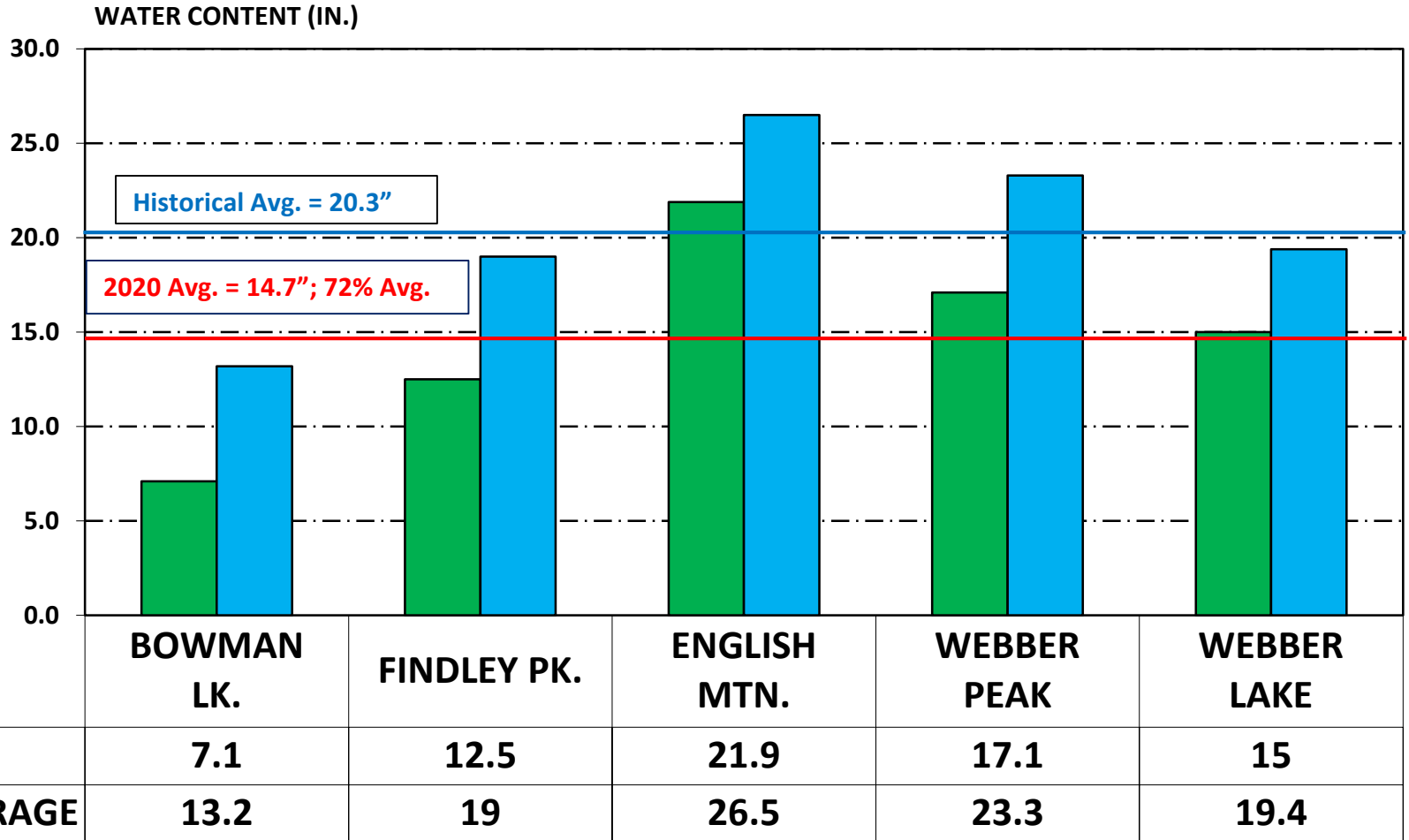
BOWMAN LAKE PRECIPITATION

INCHES

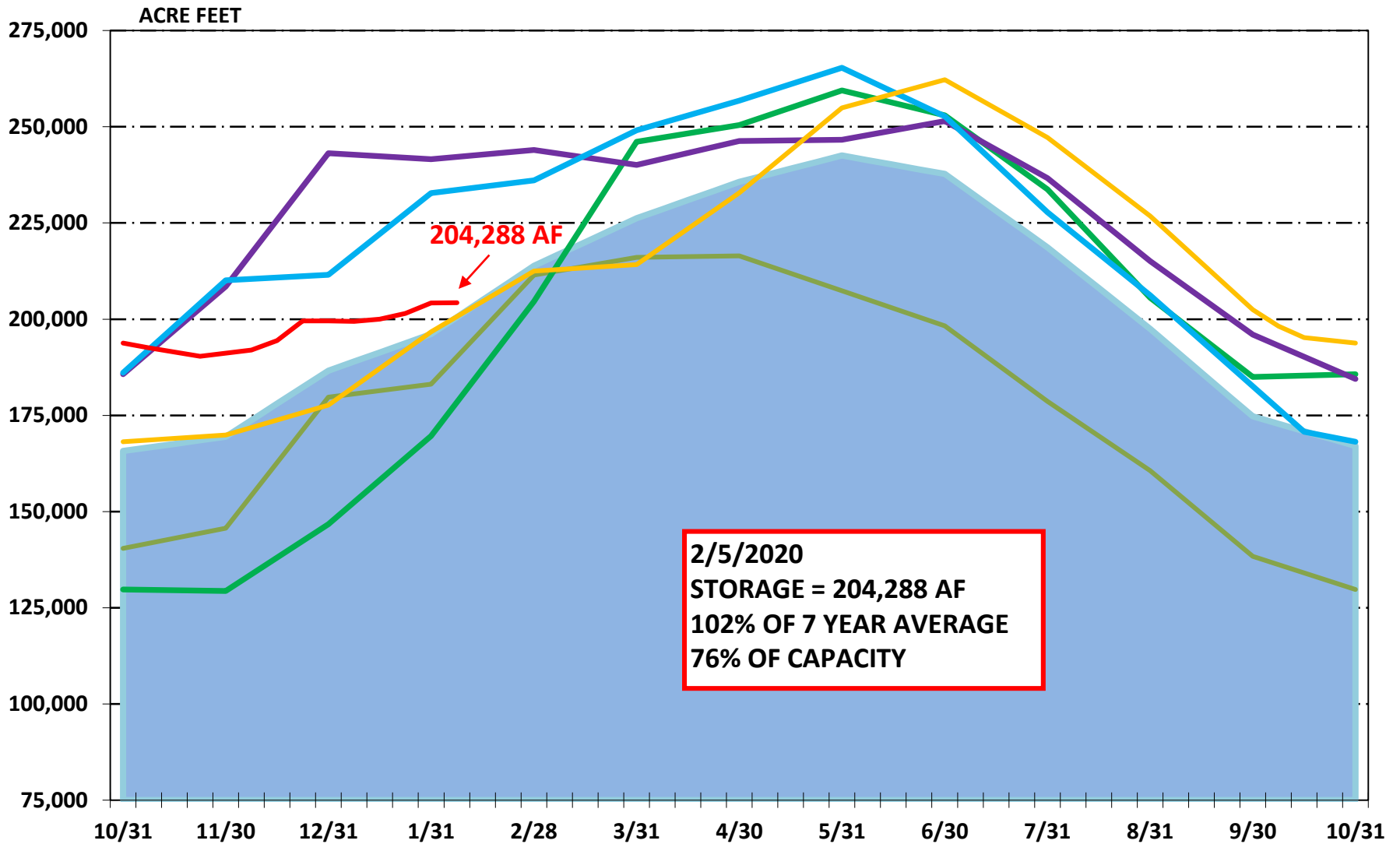


NID SNOW SURVEY

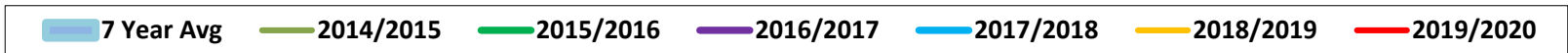
FEBRUARY 1, 2020



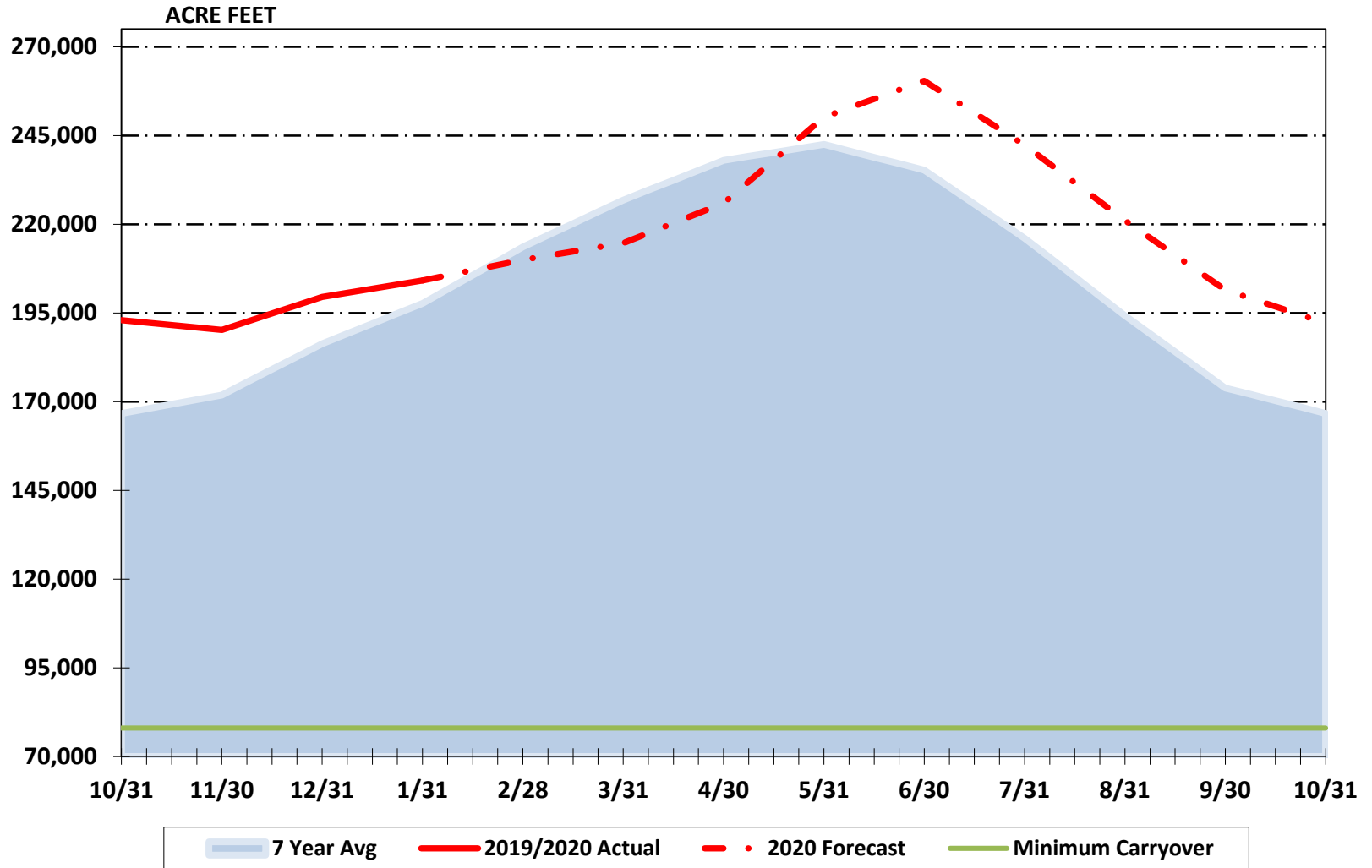
NID RESERVOIR STORAGE



2/5/2020
STORAGE = 204,288 AF
102% OF 7 YEAR AVERAGE
76% OF CAPACITY



2020 STORAGE FORECAST



Water Availability Guidance

	Forecasted Available Supply April 1st	Demand Reduction Targets	Operational Changes	Rate Changes
Normal Operations	> 235,700	Encourage Conservation	Normal Operation	Standard Rates
Stage 1	235,700 to 205,700	10 – 20% Voluntary Usage Reduction	<ul style="list-style-type: none"> Leak repair receives higher priority Increase public outreach and drought awareness Target 75% of end of month October storage for carryover. 	Standard Rates
Stage 2	205,700 to 198,200	10 – 25% Mandatory Usage Reduction	<ul style="list-style-type: none"> Communicate mandatory reduction targets to retail customers Purchase of available Contract water to achieve a target carryover of 90,000 acre feet Distribution system flushing only for public health & safety Organize Drought Hardship Committee 	<ul style="list-style-type: none"> Implement Contract water purchase rates to reimburse the District for the costs associated with purchase of water above the 7,500 acre feet for normal operational needs. Charges to be reimbursed through the appropriate funding mechanisms. Water purchased will be utilized to meet carryover target.
Stage 3	198,200 to 175,700	25 - 40% Mandatory Usage Reduction	<ul style="list-style-type: none"> Purchase of available Contract water to achieve a target carryover of 80,000 acre feet 	<ul style="list-style-type: none"> Implement Contract water purchase rates Implement Conservation Rates as established in the Districts Rate Schedule
Stage 4	<175,700	> 40% Mandatory - Reductions based on available allotment and target carryover.	<ul style="list-style-type: none"> Purchase full allotment of Contract water to achieve target carryover of 78,000 acre feet 	<ul style="list-style-type: none"> Implement Contract water purchase rates Implement Conservation Rates as established in the Districts Rate Schedule