

### BACWA Annual Meeting: Group Annual Report & Recycled Water DRAFT Results

May 5, 2023







## **Group Annual Report: Submitted to the Water Board February 2023**

- History: data since July 2012
  (annual reports; first report submitted in 2015)
- Parameters of Interest: flow and nutrient species
- Averaging Period: May 1 Sept 30 (dry season) and year-round
- Locations: influent, discharge, and recycled water
- Discharge Flows and Loads:
  - 2021/2022 was wetter than the last couple years
  - Dry season flows lowest since sampling began in 2012
  - Loads had modest increases since prior year
- Optimization/Upgrades: several dischargers continued optimization efforts (e.g., San Jose) and upgrades are in process (e.g., San Mateo, Palo Alto, Central San, etc.)

Bay Area Clean Water Agencies Nutrient Reduction Study

#### Group Annual Report

Nutrient Watershed Permit Annual Report

2022

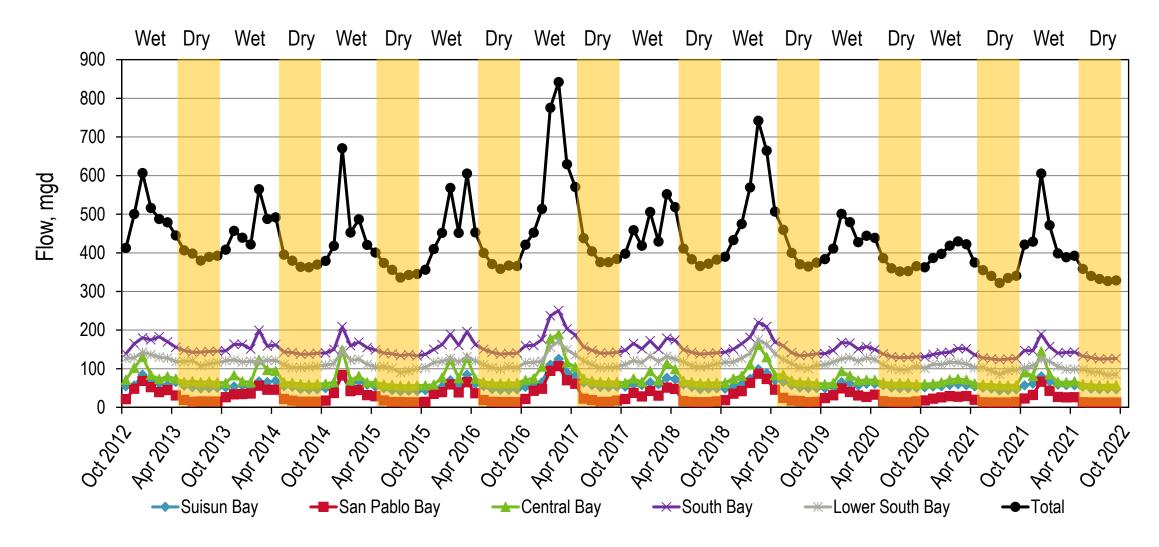
February 1, 2023



https://bacwa.org/wp-content/uploads/2023/02/2022\_BACWA\_GAR\_20230201\_wAppendices.pdf

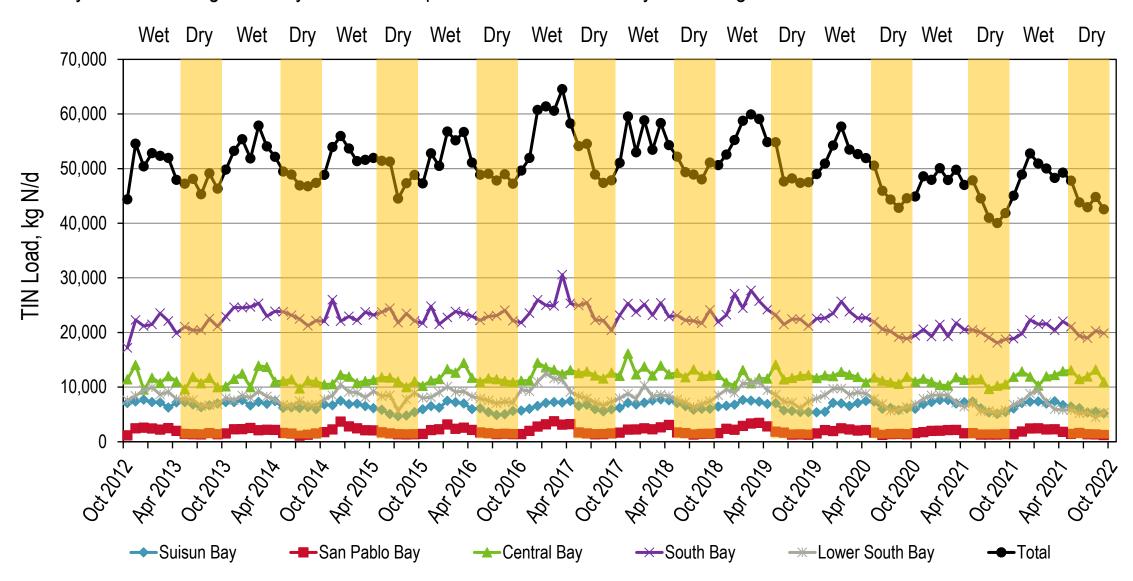
#### 2022 Group Annual Report (Submitted 11/2023): Flow

- This past wet season had nearly as much precipitation as the prior two wet seasons (18.6 inches versus 20.5 inches, respectively)
- Average Dry season (May 1 Sept 30) flows lowest since sampling began in 2012



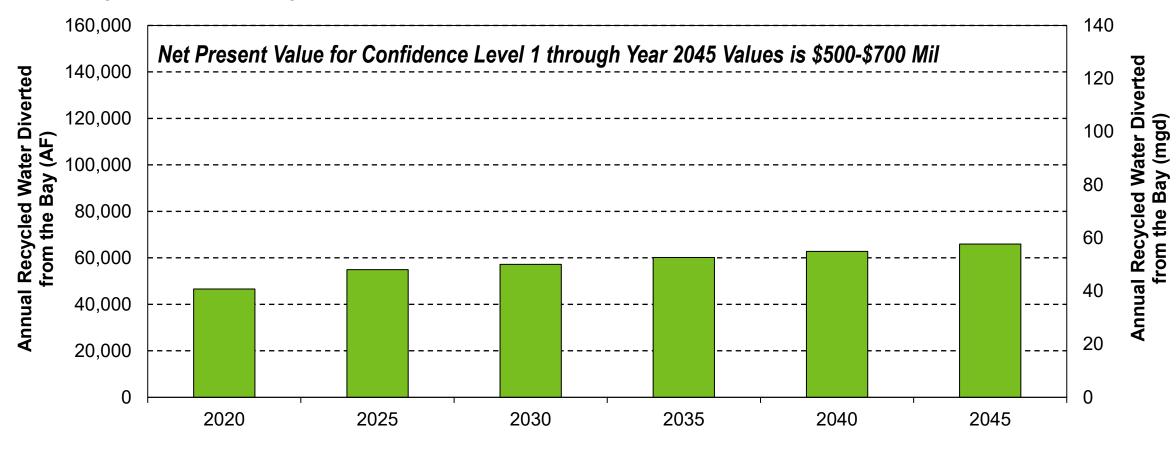
#### 2022 Group Annual Report (Submitted 11/2023): Total Inorganic Nitrogen (TIN)

The dry season average monthly loads are ~7 percent less than the 10-year average

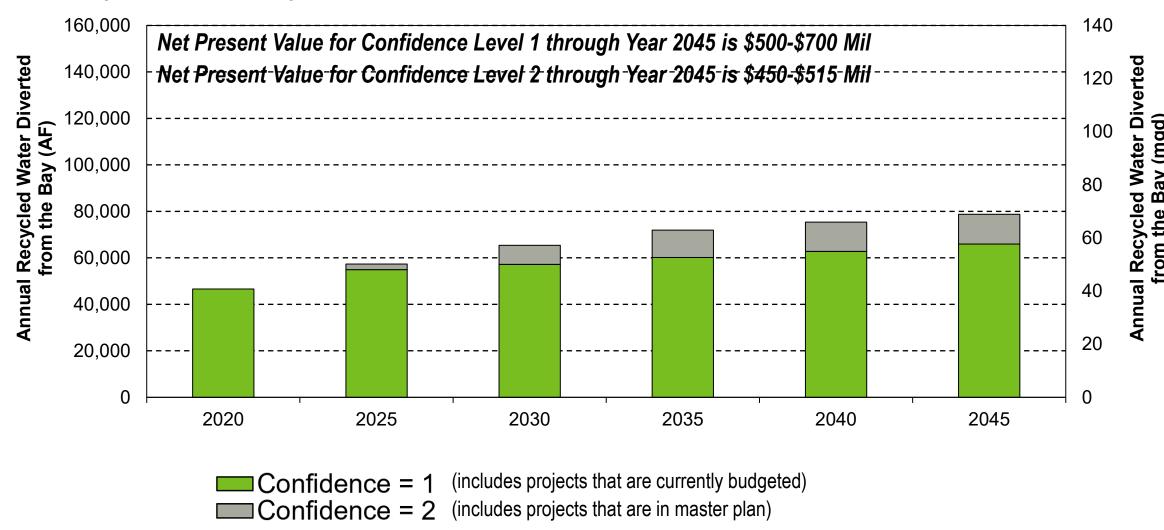


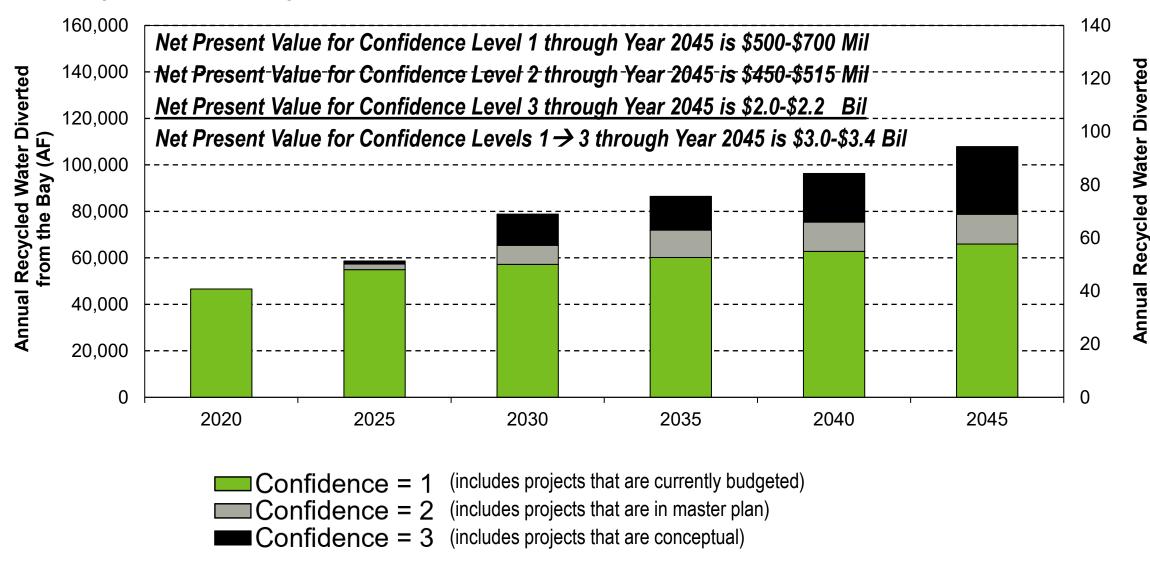


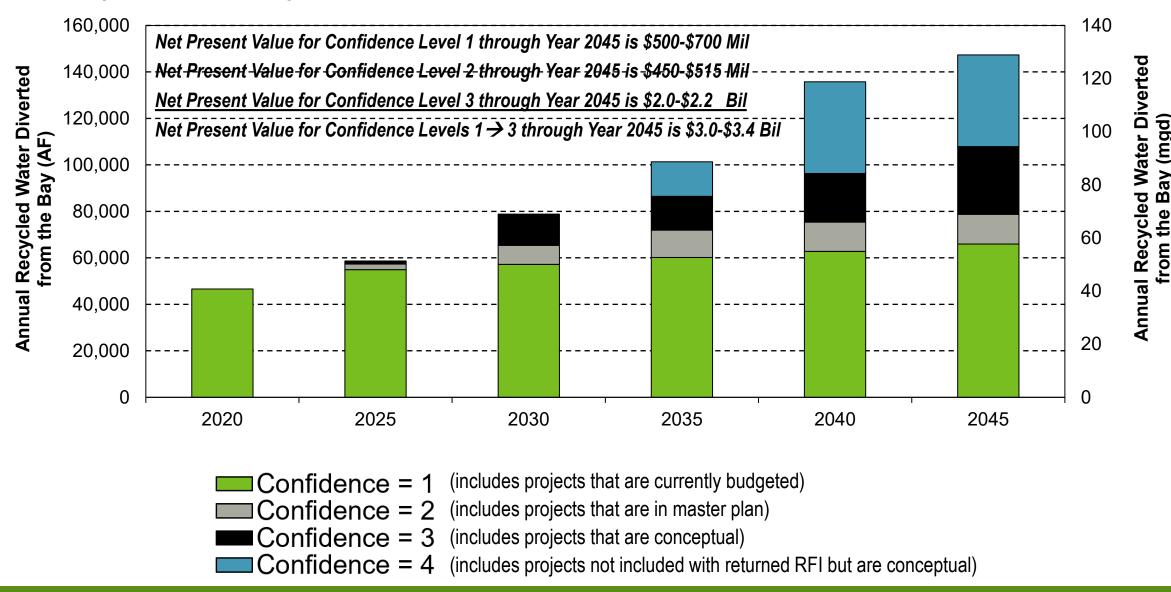
Draft 2<sup>nd</sup> Watershed Permit Findings (Recycled Water DRAFT Findings)

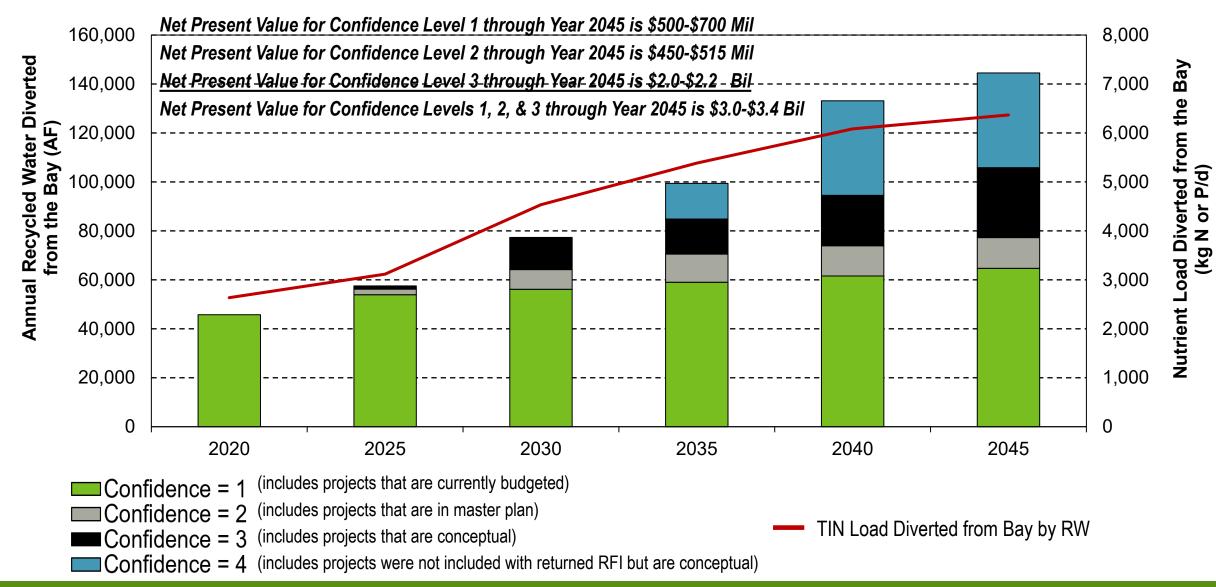


Confidence = 1 (includes projects that are currently budgeted)

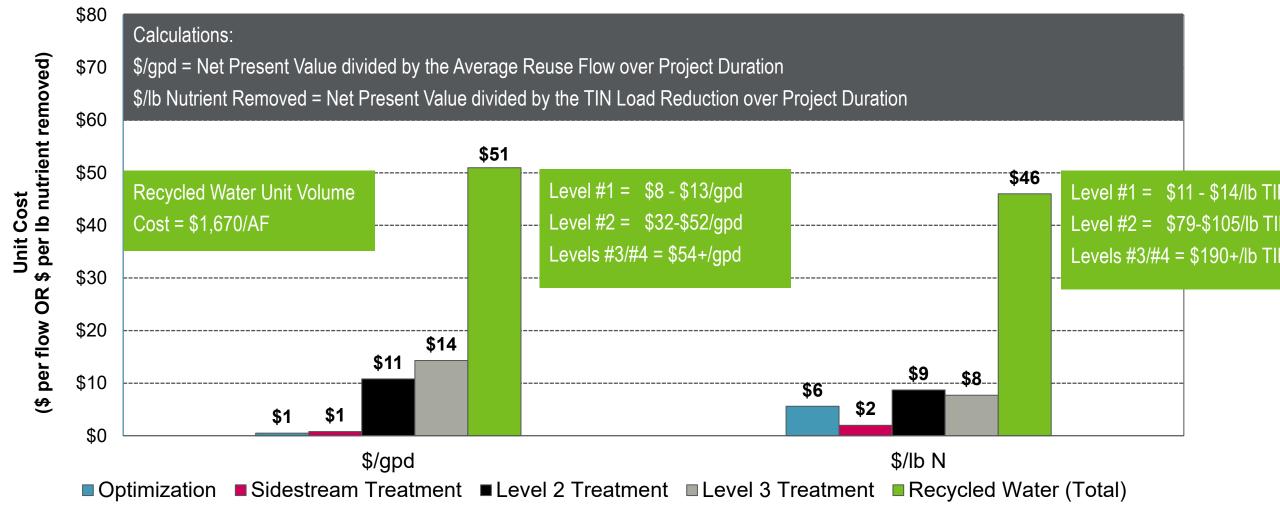








# DRAFT Recycled Water Costs against Nutrient Reduction Costs by Treatment Strategies (Year-Round)



Source on Non-RW Data: Bay Area Clean Water Agencies (2018) Bay Area Clean Water Agencies Nutrient Reduction Study: Potential Nutrient Reduction by Treatment Optimization, Sidestream Treatment, Treatment Upgrades, and Other Means. Prepared by HDR. Oakland, CA. https://bacwa.org/wp-content/uploads/2018/06/BACWA\_Final\_Nutrient\_Reduction\_Report.pdf

#### **Schedule**

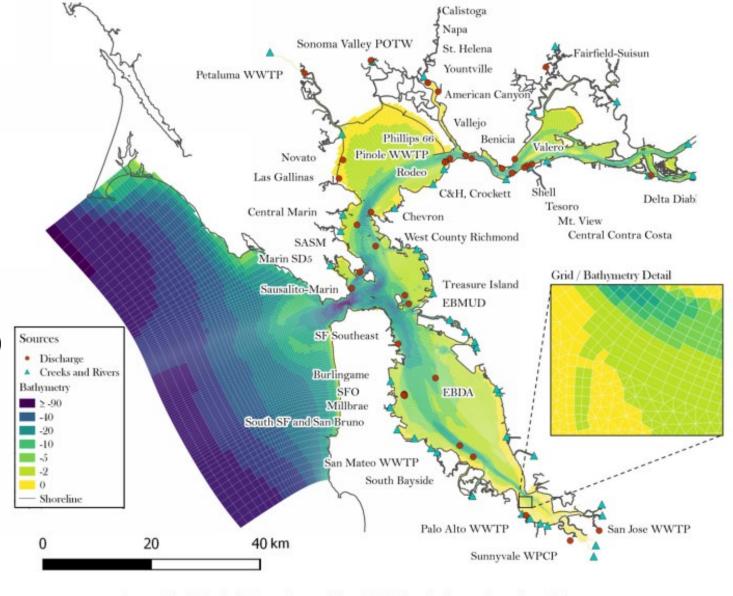
- Individual Plant Reports:
  Address Comments and Finalized by mid-May 2023
- Overall Report:
  - Distribute Week of 5/10
  - Receive Comments by 5/26
  - ∘ Finalize by 6/8
  - Send out Sign-Off Forms by 6/9 (2+ weeks to sign)

#### **Contact Info:**

Mike Falk

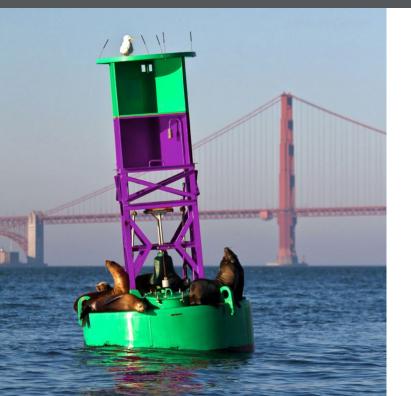
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Baywide Model Developed by SFEI for Advancing the Science





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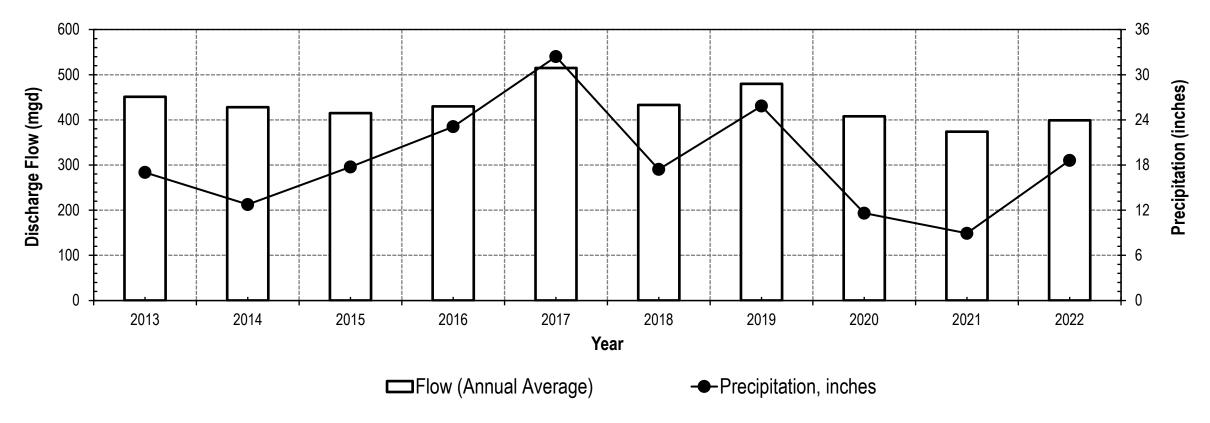
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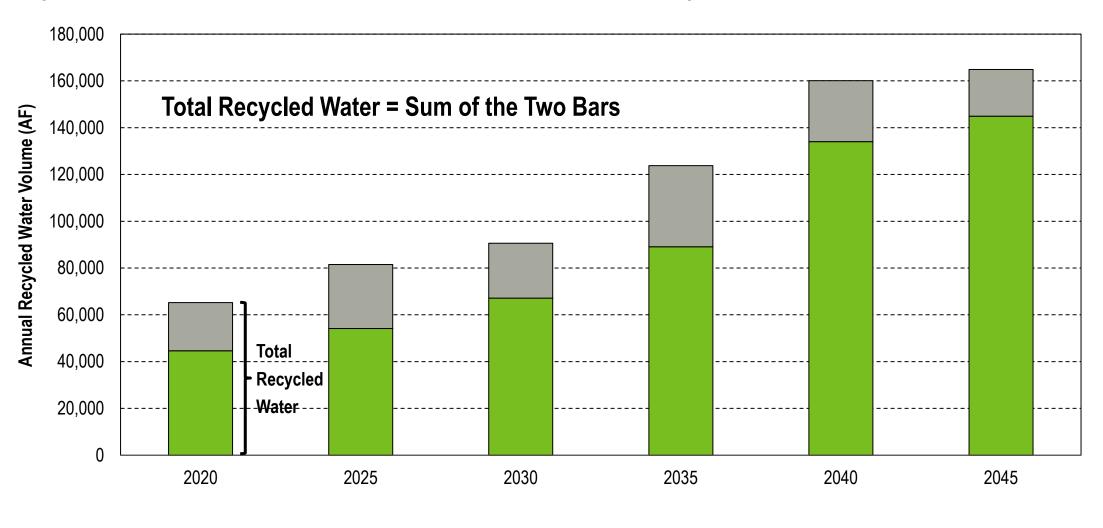
#### **Precipitation versus Discharge Flow**



#### Flows for 2021/2022:

- Precipitation Source: https://ggweather.com/sf/monthly.html
- 10/21-09/22 wet season was nearly as wet as previous two wet seasons (10/19-09/21)

### DRAFT Total Recycled Water Volumes Projected into the Future (Year-Round; Excludes Confidence Level 4)



■ Recycled Water that Ends up in the Bay

(e.g., Primarily Internal Uses and RO Concentrate)

■ Recycled Water Volume Diverted from the Bay