MARIN WATER

Water Supply Update

Board of Directors

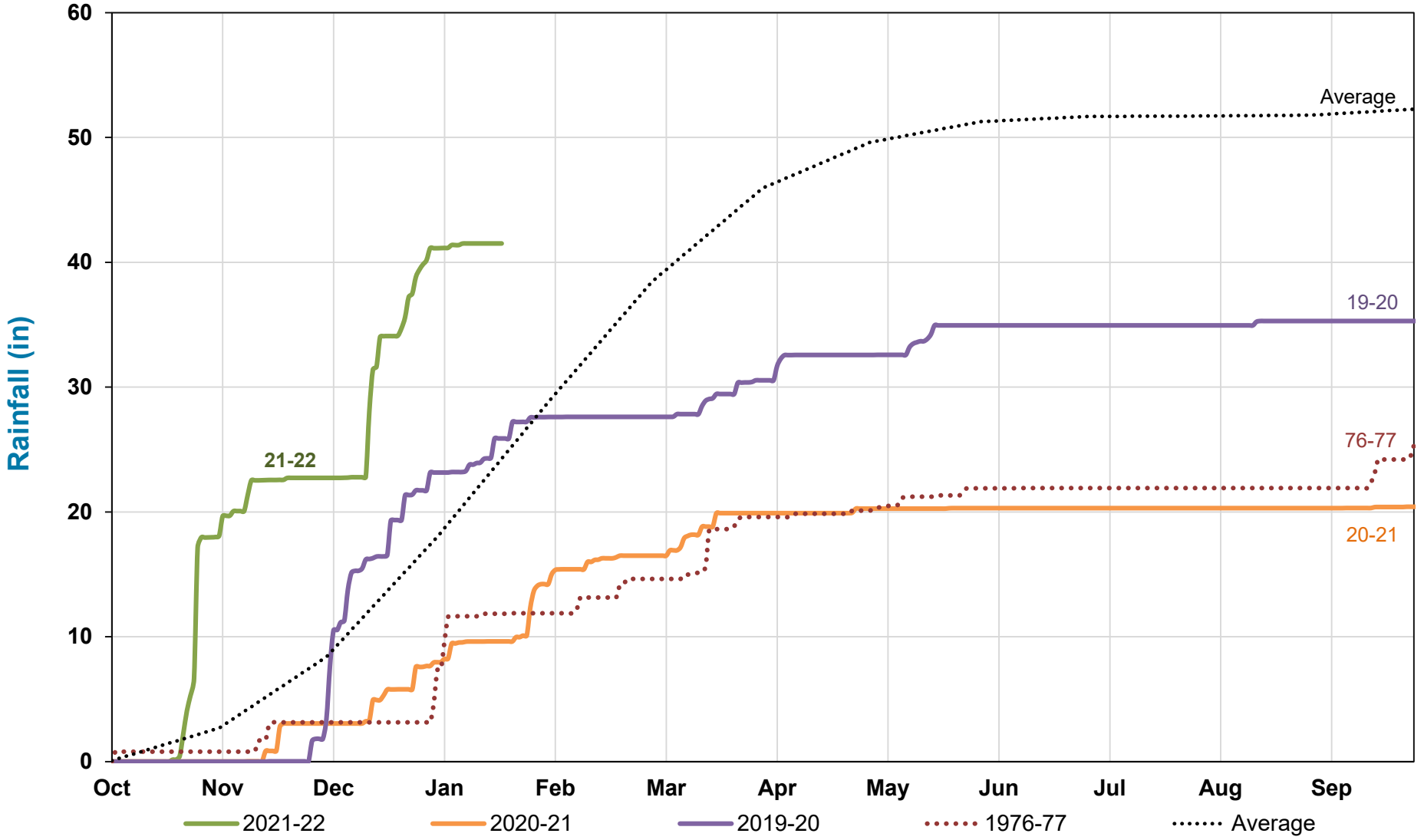
January 18, 2022

Overview

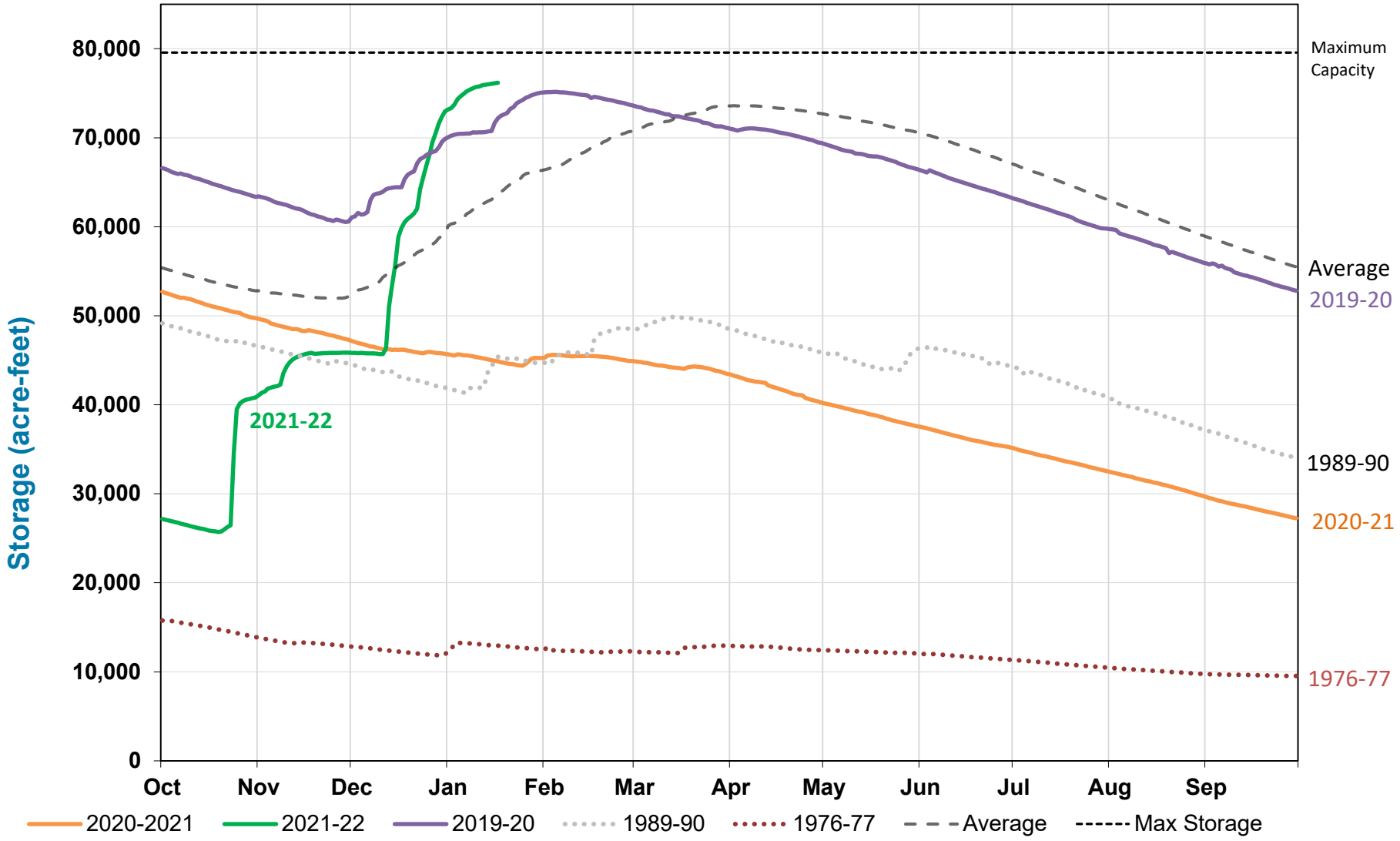
- Current Water Supply
- Water Supply Projection
- Water Supply Resiliency Roadmap
- Next Steps

Cumulative Precipitation

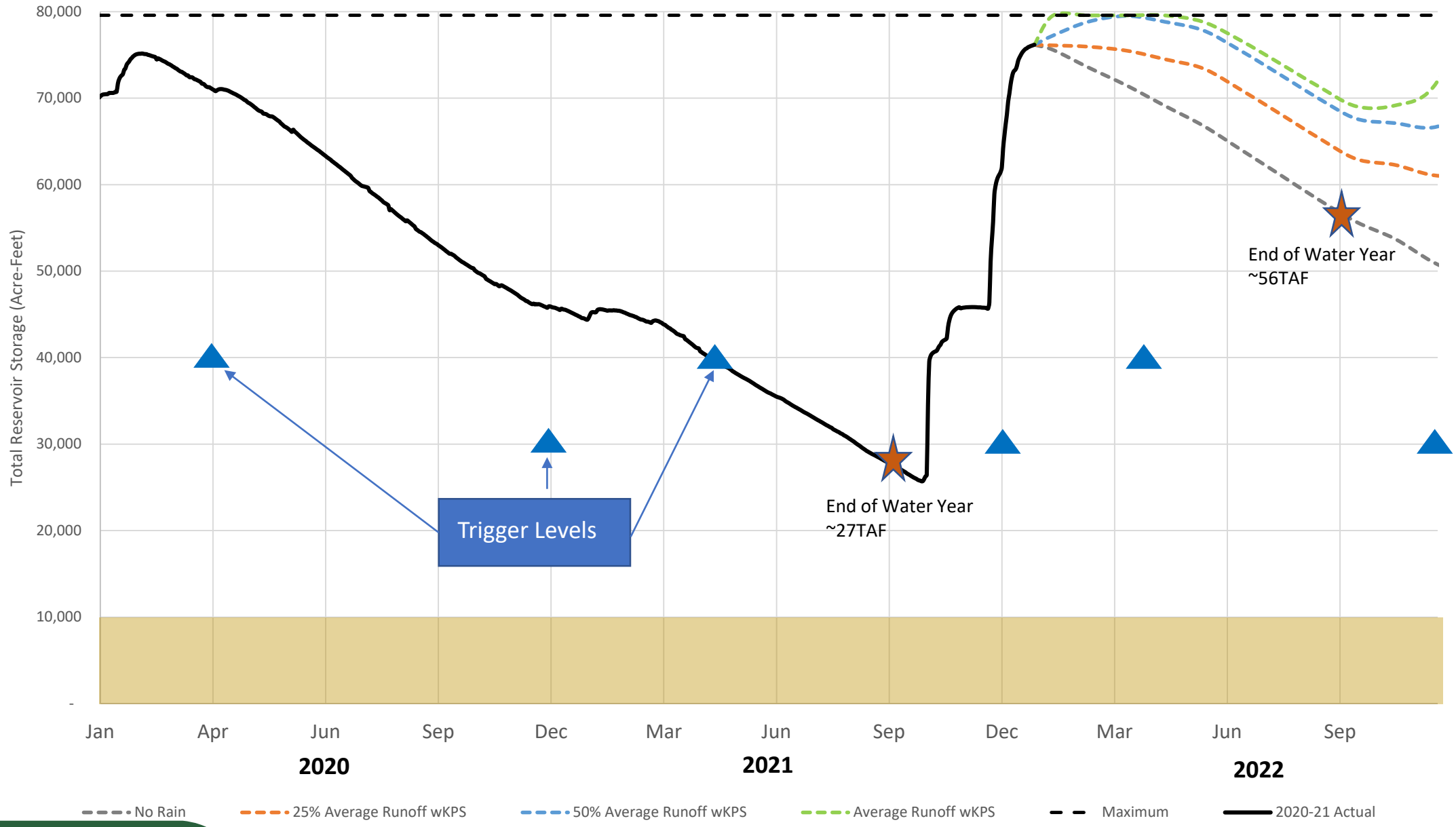
Lake Lagunitas Rain Gauge



Total Reservoir Storage



Projected Reservoir Storage

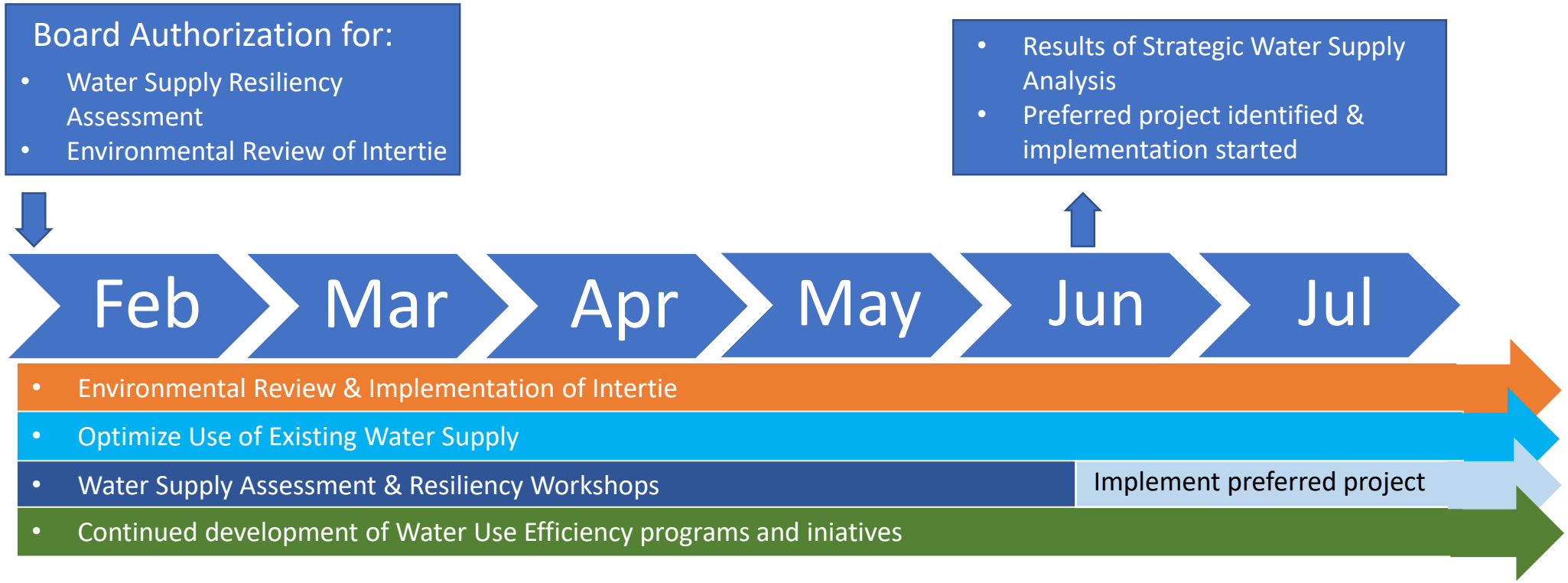


Water Supply Resiliency Roadmap

Water Supply Resiliency

- Commitment of District on increasing water supply resiliency:
  - Increasing supply to address impacts of climate change and to ensure the District can, as we have for the past 112 years, continue to meet our mission to deliver clean, safe drinking water to our customers.
  - Continue to develop long term water use efficiency programs and strategies to ensure that water is not wasted and is used wisely.

Strategic Water Supply Resiliency Timeline

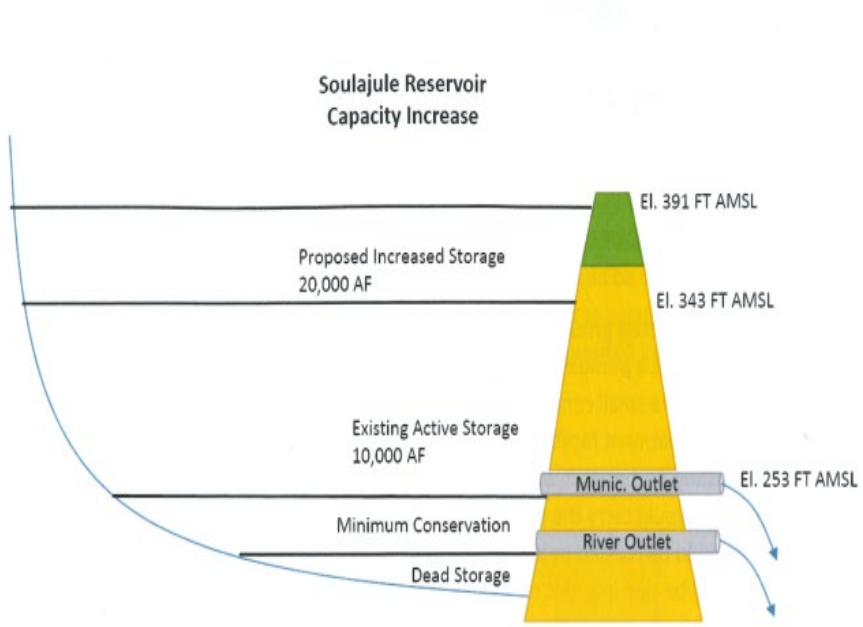


Strategic Water Supply Assessment Elements

- Expansion of local storage
- Winter Water
- Desalination
- Intertie to East Bay
- Water Reuse
- Other

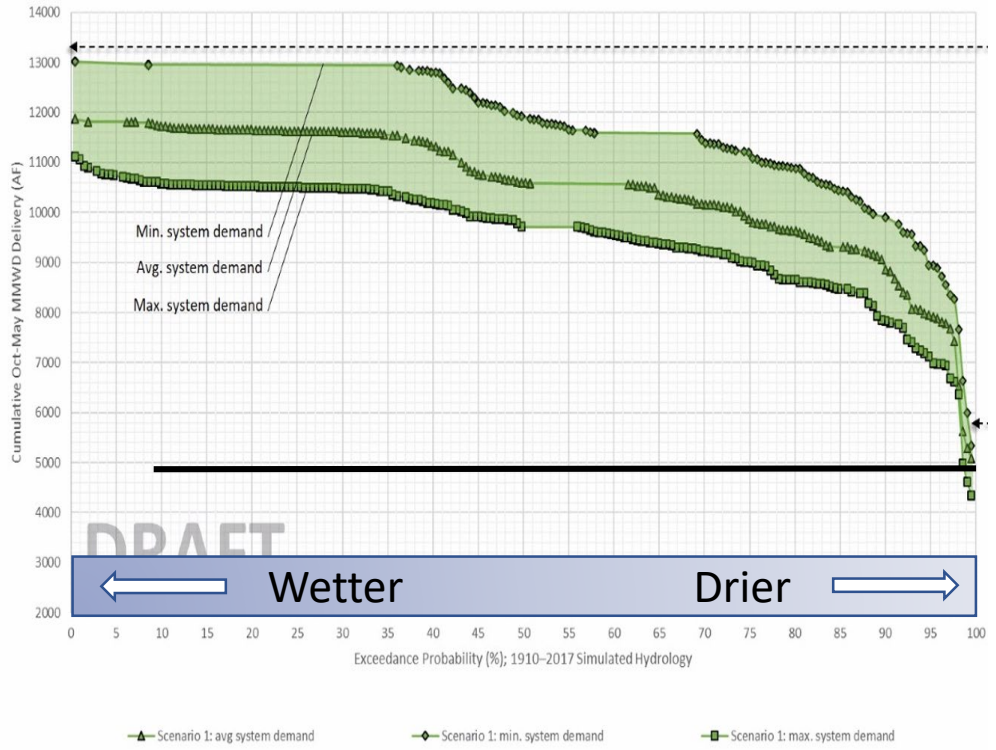
Water Supply Assessment: Expand Local Storage

- Raise Soulajule Dam – Reviewed in Water Resources 2040 Plan
- Phoenix Lake – limited capacity for additional storage, looking into increased pumping capacity to capture spill water
- Peters Dam (Kent Reservoir) – Last raised in 1983, concern over potential impacts to fishery below dam



Water Supply Assessment: Sonoma Water

- Considering all opportunities for water supply resiliency:
  - Winter Water – stream flow above requirements as a result of precipitation events in the Russian river watershed. Evaluate dedicated conveyance to reservoir for storage.
  - Groundwater well rehabilitation – increases available water in dry years
  - Aquifer storage and recovery – utilizing wet year water supply to store underground and retrieve at during droughts



Water Supply Assessment: Desalination

- Regional East Bay Location – requires intertie, plant costs shared
- Regional North Bay Location – explore options for partnership with North bay water agencies
- Local desalination – Marin Water owned and operated
  - Timeline – 4+ years
  - Operational constraints – Continuous operation vs “Pickling” of membranes
- Ballot measure blocking financing – consider removing

Intertie To East Bay

- Construction of pipeline and pumping facilities to move water from East Bay to Marin.
- Capacity 8-MGD (9,000 AFY)
- Multiple complex agreements and regulations
- Wide array of stakeholders

Water Supply Assessment: Water Reuse Options

- Purple Pipe – expansion of existing system (Peacock Gap in design)
- Indirect Potable Reuse (IPR) – highly treated water through reservoir
- Direct Potable reuse (DPR) – highly treated water directly to customers
- Environmental releases – highly treated water to watershed

Water Supply Assessment: Other

- Identify and evaluate alternate water supply technologies & innovative concepts:
  - Fog Capture
  - Reservoir dredging
  - Cloud Seeding
  - Watershed Management – selective removal of certain types of vegetation to increase runoff

Demand Management

- Continue our long term efforts in water use efficiency
- Enhanced programs and initiatives:
  - Non functional turf
  - Develop Net Zero Water
- Leak Detection – Evaluate new technologies

Next Steps

- At the February 1 Board Meeting:
  - Authorize the General Manager to Engage Jacobs Engineering to develop a Strategic Assessment of Water Supply Options.
  - Authorize the General Manager to Engage ESA & Associates to develop the Environmental Review of the Intertie.
- At February 16 Communications and Water Use Efficiency Meeting:
  - Update on Water Use Efficiency program
  - Overview of Long term Conservation Efforts and Initiatives
- February - Establish Resiliency Committee and Water Supply Policy
- March – June Water Supply Resiliency workshops
- June/July – Report on Strategic Assessment of Water Supply Options