Performance Measures Takeaways

• Set measurable targets for Delta Plan objectives
• Use science and monitoring data
• Evaluate outcomes of management actions
• Inform adaptive management
• Required by the Delta Reform Act
# Performance Measures in Numbers

**By the numbers:**

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<tr>
<th>Number</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>154</td>
<td>Delta Plan performance measures to track environmental and administrative changes</td>
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<tr>
<td>32</td>
<td>Quantitative performance measures with numeric targets and timelines to achieve these targets</td>
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<tr>
<td>122</td>
<td>Administrative measures for implementation status of Delta Plan strategies, polices and recommendations</td>
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<tr>
<td>18</td>
<td>Agencies coordinating under the DPIIC to achieve the coequal goals</td>
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Delta Ecosystem and Water Quality
Delta Salinity Performance Measure

Increased salinity negatively impacts beneficial uses of Delta water

• Water quality standard exceedances for beneficial uses in the Delta:
  • Western Delta: D-22 (TMS) and D-15 during the 2021 summer months
  • South Delta: P-12 station on multiple occurrences throughout the year
  • Northwest Suisun Marsh: S-42 station

• Drought affects the amount of freshwater flowing into the Delta and intrusion of salinity deeper into the Delta.

• Exceedances of salinity indicate how difficult it is to maintain salinity standards during severe drought conditions.
Harmful Algal Blooms (HABs) Performance Measure

Toxic algae pose risks to human and aquatic health

- HABs incident reports observed in Delta waterways:
  - 2021: 46 HABs incidents
    - Danger Advisories: 4
    - Caution Advisories: 38
  - 2020: 28 HABs incidents
  - 2019: 27 HABs incidents

- Freshwater and Estuarine Harmful Algal Bloom Program (AB-834)
  - Establish comprehensive monitoring program
  - Coordinate immediate and long-term response
  - Authorize to call HABs emergencies
Invasive Species Performance Measure

Invasive species disrupt native ecosystem processes

- **Ribbon weed: submerged aquatic vegetation**
  - Newly observed in the northwest central Delta arc near Rio Vista, Liberty Island, and Sherman Lake
  - Establishment may further exacerbate the already stressed Delta ecosystem by disrupting flows and native species

- **Nutria: wildlife species**
  - Destructive impacts on wetland habitats, agriculture, and levee structures
  - Active control since 2017 with the goal of eradication
    - 3 taken in the Delta in 2021 (640 in 2020)
    - 640 taken in the watershed in 2021 (1,237 in 2020)

- **Native fish population and biomass**
  - Decrease in native fish population: 4% in 2020 (39% in 2019)
  - Decrease in native fish biomass: 8% in 2020 (22% in 2019)
Delta Mercury Control Program

Mercury toxicity accumulates in Delta fish and the food webs

• In 2021, Independent Scientific Review of methylmercury control studies in wetlands and open water areas completed.

• Program will transition to the implementation phase in 2022.

• Control of mercury is important because fish from Delta waterways that are consumed by people and wildlife may contain harmful levels of mercury.
Water Supply Reliability
Water Supplier Planning

• The Delta Plan supports the “statewide strategy of investing in improved regional supplies, conservation, and water use efficiency”.

• State law requires most urban water supplier to prepare Urban Water Management Plans (UWMPs) every five years.

• State law requires most major agricultural suppliers to prepare Agriculture Water Management Plans (AWMPs) every five years.

• The Delta Plan recognizes that individual actions by water suppliers throughout the state will be vital to achieving the state policy to reduce reliance on the Delta and uses water management planning information to track those actions.
Reduced Reliance Policy

• Delta Plan Policy WR P1 requires covered actions to demonstrate that water suppliers demonstrate a measurable reduction in Delta reliance and improvement in regional self-reliance in a UWMP or AWMP.

• Delta Plan administrative performance measure WR R05-01 tracks DWR’s progress toward publishing guidelines for the preparation of an expanded Water Supply Reliability Element.

• For the first time, the 2020 UWMP guidebook includes an example approach to demonstrate reduced Delta reliance.
Delta Plan Performance Measures

Data in 2020 UWMPs/AWMPs will allow new updates to important PMs

**Urban Water Use**
Tracks project per capita gallons per capita day of water use.

**Alternative Water Supply**
Tracks desalination, recycled water, and storm water capture project planning and implementation.

**Water Supply Reliability**
Tracks water supply reliability during dry years.

**Agricultural Water Planning**
Tracks agricultural water efficiency reporting.
03. Delta Tourism
Delta Tourism Performance Measure

Protecting and enhancing the recreational value of the Delta

• One of the Delta Plan strategies is to "Encourage recreation and tourism that allow visitors to enjoy and appreciate the Delta, and that contribute to its economy".

• Performance Measure 5.8 identifies metrics related to tourism:
  • Fishing license sales
  • Land that is publicly accessible
  • Publicly accessible shoreline
  • Web/social media traffic
  • First time visitors
  • Offseason visitors

• For the first time we are reporting data on visitor seasonality.
Results

- Source: a 2019 survey funded by the Delta Protection Commission to support the Economic Sustainability Plan Update
- Winter offseason experiences significantly fewer visitors than the summer peak season.
Reducing Delta Flood Risk
Flood Risk

• Water code 85305(a): "The Delta Plan shall attempt to reduce risks to people, property, and state interests in the Delta by promoting effective emergency preparedness, appropriate land uses, and strategic levee investments."

• The Council has developed the Delta Levees Investment Strategy (DLIS) to support strategic levee investments.

• The DLIS analysis tool generates annual expected fatalities (EAF) and annual expected damages (EAD).

• PM 7.2 tracks EAD and EAF toward a target of 50% reduction in each.
Results

- New EAD and EAF estimates have decreased by 50% putting them on target to meet the performance measure.
- This is the result of 2 factors:
  - Improved methods using updated hydrology and improved fragility estimates
  - New data which accounted for a decade of levee improvement investments in the region
- Risk is not stationary. Investment in levees remains important to reduce risk to people and property in the face of climate change.
Communicating Performance Measures
Performance Measures Dashboard

- Explore performance data
- View updated status and trends
- Engage to learn and understand

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Next Steps in 2022
In 2022:

• Perform performance measure data updates, summarize findings and provide key take-aways.

• Engage with agencies and stakeholders to inform decisions.

• Prepare outreach products to increase awareness and promote understanding.

• Revise administrative measures to align with current policies and climate resilience actions.

• Support program and project reviews.