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Drought Planning Workshop

December 15, 2020



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Background

- Previous Discussions & Actions
 - 1999 Drought Planning Guidelines (post 1987-1992 drought)
 - 2013-2015 Drought Operations
 - Irrigation Rules
 - Ag Water Management Plan (Appendix G)
 - Drought Incident Action Plan

- There are many variables with every drought
- Drought plans that are too rigid will not work



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Objectives

- Objectives
 - Product needs to be comprehensive
 - Existing components
 - New components
 - Product needs to be flexible
 - Drought Planning "tool-box"
 - "Tools" are applied to each drought year based on their applicability
 - Product should be utilized early and re-assessed often as conditions change
 - October 1st Drought Group Meeting



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Agenda

- Review and Discuss Drought Planning Components
- Discussion of 2021 Water Year Initial Drought Planning Assessment & Actions



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Drought Planning Components

- **Board Interactions & Approvals**
 - Policy, Rules, & Resolutions affecting available water, season duration, rate schedule, etc.
- **District Operations**
 - Watershed monitoring & modeling, weather modification program, Turlock Lake operations, conjunctive management program, maintenance work, storm water, water conservation efforts, etc.
- **Grower Assistance Programs**
 - Pump rental, pumping for credit, Transfer program
- **Online Tools**
 - Online account, ordering, dashboard, etc.
- **Grower Communications**
 - Email, phone, & call center: focus groups, newsletters, grower meetings, etc.



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Board Interactions & Approvals

■ Board Interactions

- Weekly hydrology updates
- Drought planning agenda items
 - Early (Initial assessments, multi-year carryover, & presentation of drought "components")
 - Post precipitation update

■ Board Approvals

- Early irrigation
 - Timing and length
- Regular irrigation season
 - Length of irrigation season
 - Available water
 - Garden head frequency
- Water rate schedule
 - Normal year rate schedule
 - Dry year rate schedule
- Irrigation rule adjustments



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District Operations

- Upper Watershed Monitoring & Modeling
 - Increase monitoring & modeling
 - Early ASO flights
- Weather Modification Program
 - Increase flights
- Turlock Lake Operations
 - Conservation mode both during irrigation & off-season
- Conjunctive Management Program
- In-Canal Maintenance Work
- Off-season Irrigation
- Storm Water & TID Drainage Well Water
 - Lateral 8 Reservoir
- Water Conservation Efforts & Projects
 - Reduce spills to less than 5%
 - Ceres Main Regulating Reservoir
 - Finish automating of heads of canals
 - Automating additional drainage wells
 - Potentially automating rented wells



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Existing Grower Assistance Programs

- **Pump Rental Program**
 - District rents private/ID pumps to augment surface water supply
 - District provides additional surface water to pump/ID owner(s)
- **Pumping for Credit Program**
 - Grower provides pump water to District
 - Grower builds credit for use at another time and/or location
- **Existing Transfer Program**
 - Grower can transfer water from properties owned and/or rented



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Drought Transfer Program

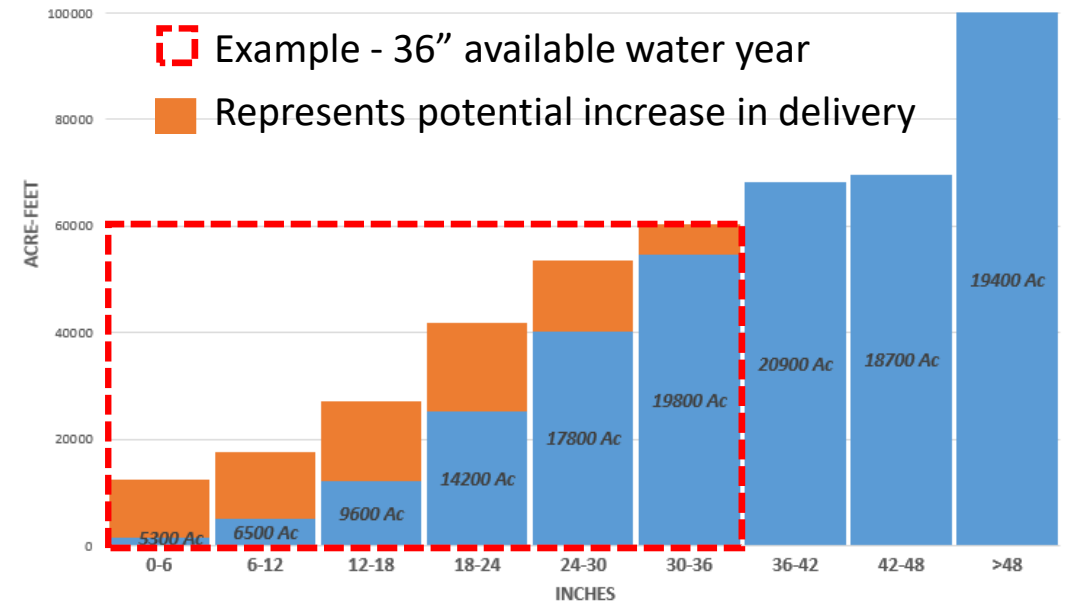
- Make Unused Water by Some Growers Available to Other Growers
- Grower Benefits
 - Provides more options/flexibility to growers
- Potential Risks
 - Could result in delivering more water than planned
 - Could lead to price gouging
 - Could lead to increased groundwater pumping



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Drought Transfer Program Risks / Mitigations

- Could Result in Delivering more Water than Planned
 - Acreage that has not historically utilized all available water could do so
- Potential Mitigations
 - Only allowed by those that irrigated in previous year(s)
 - Limit individual transfer volume to previous year's usage
 - Limit total transfer volume

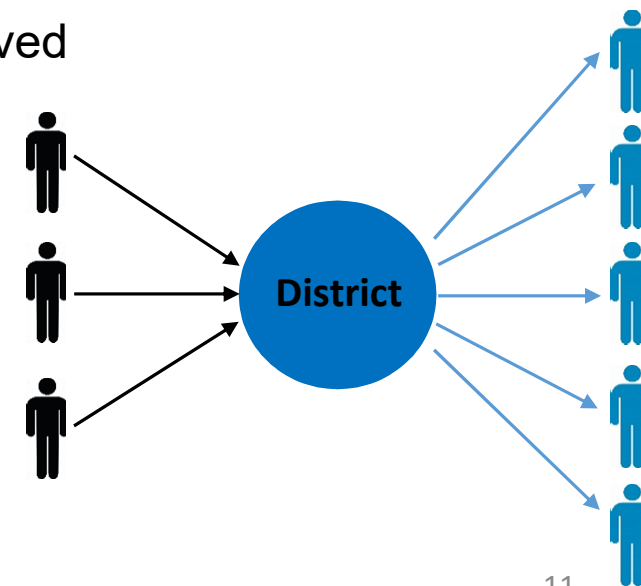




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Drought Transfer Program Risks / Mitigations

- **Could Lead to Price Gouging**
 - Unrestricted Transfer between growers could lead to exorbitant water prices
- **Potential Mitigations**
 - Transfer via District
 - Could be on a lottery system or first-come first-served
 - Could limit buyer to only one irrigation's worth
 - District sets price of water





Drought Transfer Program Risks / Mitigations

- **Could Lead to Increased Groundwater Pumping**
 - Growers who historically applied surface water, could move to groundwater in order to transfer
- **Potential Mitigations**
 - Only allowed by those that irrigated in previous year(s)
 - Limit individual transfer volume to previous year's usage
 - Limit total transfer volume
 - District sets price of water



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Potential 2021 Drought Transfer Program

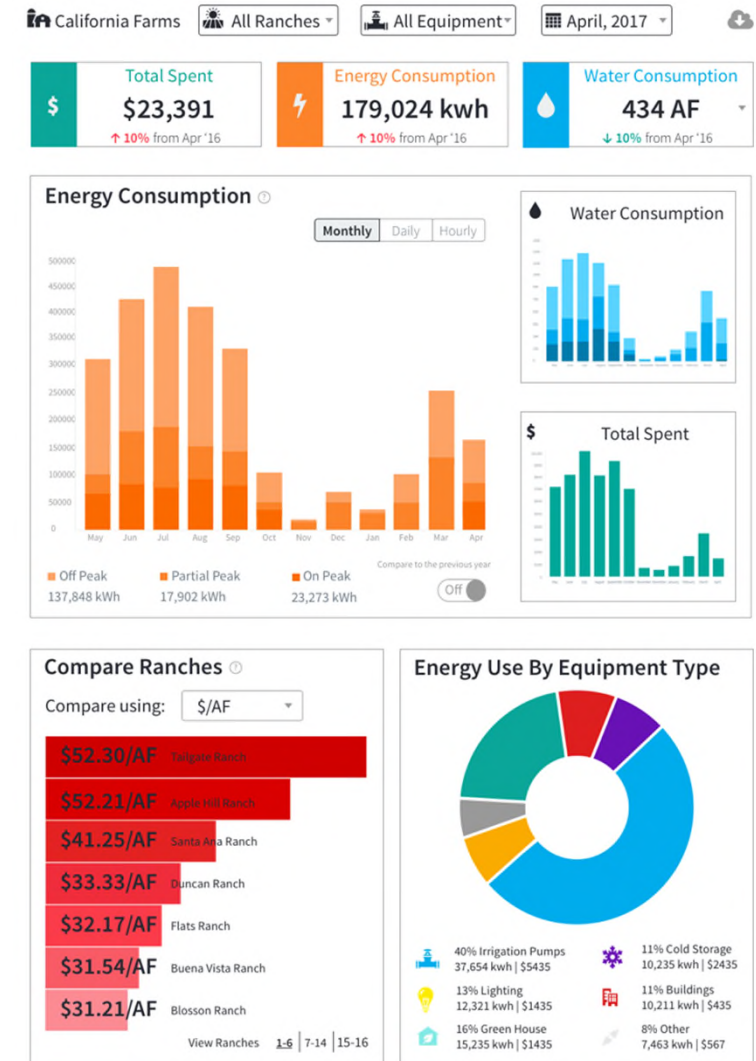
- Potential 2021 Drought Transfer Program
 - Focus Group
 - Grower diversity, interest, cost, behavior, etc.
 - Board Workshop
 - Draft Program Development
 - Participation criteria
 - Volume limitations
 - Pricing
 - Program implementation details & logistics



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Online Tools

- Develop Mobile-Friendly Online Account Access
- Online Account
 - Grower Dashboard
 - Usage graphs
 - Text alerts
 - Planning calculator
 - Training videos
- Focus Group – seek feedback





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Grower Communications

- Usage Notification Alerts Notification Alerts -
(25%, 50%, 75%, last irrigation)
 - Call center, online account, text alert & email
- Increase Grower Communications
 - Grower meetings
 - Social media
 - Text & email
 - Outreach letters
 - The Grower Newsletter
 - Regional drought information
- Focus Group(s)
 - As necessary for specific purposes



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2021 Water Year

Early Operations & Actions



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2021 Water Year – Early Operations & Actions

- **Board Interactions & Approvals**
 - Weekly Hydrological Reports
 - Early irrigation Discussion
- **Operational Impacts & Actions**
 - Increase Watershed monitoring & modeling
 - Increase weather modification plans
 - Prioritize & Modify construction & maintenance work
 - Early planning of Pump Rentals & Pumping for Credit
 - Increase development coordination
 - Capture storm flows in Lateral 8 Reservoir
 - Coordination Off-season irrigation



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2021 Water Year – Early Operations & Actions

- **Drought Transfer Program**
 - Conduct Transfer Program focus group
 - Hold Transfer Program Board workshop
 - Transfer Program development
- **Online Tools**
 - Develop, test and implement additional tools ASAP
- **Communications**
 - Prepare call center & online usage notifications
 - Utilize virtual mediums
 - Reports & updates on social media & email
 - Prepare communications for potential early irrigation