

## **DRAFT for Discussion Purposes Only; Subject to Revision**

### **Proposal**

#### **2021 Voluntary Critical-year Response Program**

### **Purpose**

Applying lessons learned from the last drought as well as innovations developed since then, the three water agencies in the Delta developed potential voluntary actions for water users to consider implementing across the Delta in order to provide a comprehensive water conservation program in response to the critical dry-year conditions. Implementation of aspects of the program have been initiated by some Delta water users even as components of a comprehensive program remain under development.

### **Executive Summary**

- Delta water users recognize the predictable but nonetheless catastrophic impacts of 2021 water shortage conditions throughout the watershed and in the export communities.
- Under the leadership of the three Delta Water Agencies, Delta water right claimants propose to implement this response program on a voluntary basis; many implementation actions are already being taken.
- Along with this short-term in-Delta response program, the Delta Water Agencies are committed to collaborating for more effective, predictable, and integrated long-term response programs that intelligently prepare for future droughts.
- Available responses to water shortage conditions vary by sub-region in the Delta; not all actions listed in the program menu can or should be implemented throughout the Delta. This unified Delta response program flexibility accommodates these sub-regional variations.

- Effective response to water shortage in the Delta is tied more closely to water quality (particularly salinity management) than quantity (physical availability).
- Physical conditions in the Delta limit practical methods for reducing consumptive use; however, this response program includes a menu of available actions to maximize and monitor potential consumptive use savings.
- For unified drought and response program management purposes in 2021, it is useful to simplify by treating all Delta water use as sharing riparian surface water right elements of (i) unquantified beneficial use (ii) tied to location, while temporarily deferring unresolved issues related to water source differentiation.
- Critical-year response depends on improved water use data (more timely, consistent, credible, and accessible), which Delta water users are continuing to develop, contribute, apply, and pursue.
- The effectiveness of actions taken under this program should be (i) monitored and measured using OpenET and (ii) “scored” against the Net Delta Outflow Index, modified by current-year conservation credit in DAYFLOW.
- Delta water use during 2021 should be measured against use in base-year 2013 to assure comparability with urban and external agricultural conservation responses.
- The menu of actions listed in this response program is not exhaustive; Delta water users encourage suggestion and evaluation of additional actions, refinements, and combinations of actions.

## **Background and Context**

Farmers in the Delta recognize and have adapted to the watershed’s extreme precipitation variability, the whiplash swings from drought to flood and back. Acting individually, or in concert with neighbors, reclamation districts, and their respective Delta Water Agencies, farmers manage and invest to maintain productivity and profitability of their varied operations throughout extreme weather cycles. They know that enlightened water management strategies and

land/levee stewardship are critical to the protection of the Delta ecosystem and to the viability of their businesses.

Water users in the Delta understand that the main constant in the Delta is dynamic change. As documented in the Delta Stewardship Council's Draft Vulnerability Assessment,<sup>1</sup> climate change is likely to accelerate impacts that are already apparent (fewer cold units needed to set certain crops, more pressure from a variety of invasive species better able to adapt to new conditions, increased risk of salinity intrusion, greater "event risk" to the interconnected levee system, more frequent and intense eruptions of harmful algae bacteria, etc.).

Increasingly, however, water users in the Delta are challenged to understand and cope with another major source of risk and uncertainty: mercurial, erratic, inconsistent and often uninformed decision-making. To reduce "noise" and clarify "signal" in the decision-making information system, Delta water users support across-the-board investments in better water use data. Through their Delta Water Agencies, they have put their money and their organized efforts behind improving water use data. (See "Water Data Improvements" herein.)

The Delta is not a monolith. It is an area the size of the state of Rhode Island, comprised of a number of sub-regions distinguished by elevation, soil type, crop variety, irrigation technique, transportation access, water rights, proximity to Project<sup>2</sup> operations, levee integrity, and a host of other factors. That variety alone requires farmers to adapt and manage in different ways according to regional and sub-regional conditions and opportunities. Thus, farmers are often frustrated by State policies, operations and regulations that ignore differences within the Delta in favor of the simplifying assumption that the Delta is an unfathomable "black box" that can only be managed on a mass balance basis:

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<sup>1</sup> [Delta Stewardship Council's Vulnerability Assessment](#)

<sup>2</sup> Throughout this document, we refer collectively to "the Projects" while recognizing the distinct but coordinated Central Valley Project and the State Water Project.

measure water flowing in versus water flowing out and ignore the internal dynamism of how water is managed within.<sup>3</sup>

Notwithstanding these internal distinctions, water users within the Delta are fully capable of uniting behind the attributes that they share, not just squabbling over the attributes that distinguish among them. For example, after a dry 2020, Delta farmers naturally began to plan operations for 2021 to account for risks of both drought and flood. By February, however, risk perception and planning in all regions of the Delta had swung decisively to preparation for drought throughout the watershed.

But drought is experienced differently in the Delta than in most areas of California. Because of tidal connectivity with the Pacific Ocean, drought risk in the Delta is associated far more with the quality of water in Delta channels than with physical availability. What informs and unifies drought response, therefore, is recognition that the Delta is dependent on river flows to repel ocean salinity and preserve useable freshwater during periods when freshwater inflows are severely constrained by drought and drought response. The focus on protecting against salinity intrusion is a common concern among in-Delta water users, the export Projects and environmental advocates. Protection of quality—not quantity of water available for diversion and use—unites the Delta. Further, Delta farmers fully support management of Project facilities to protect—insofar as possible in respect of unavoidable tradeoffs—the Delta ecosystem and the iconic species that depend on that ecosystem.

Although impacts vary by region, severe drought and extreme floods require concerted action throughout the Delta. Based on long experience—particularly the experiences of the 2014-15 drought—water users in the Delta have already taken a wide variety of actions which have informed this critical-year response program proposal.

## Lessons Learned



CalFed Ops  
3 Operations Briefing D-1641



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Figure 3 NDC

- In the absence of effective and coordinated response from the Delta, other actors will take potentially counterproductive actions affecting the Delta.<sup>4</sup>
- Voluntary cooperation among responsible water users is not only possible but also promotes understanding and improves outcomes.<sup>5</sup>
- Lack of credible data on actual water use in the Delta handicaps shared understanding and effective responses to shortage conditions.<sup>6</sup>
- Periodic “droughts” highlight the fact that, even under historic average conditions, the highly variable Delta watershed cannot produce, let alone manage, adequate water resources to satisfy all the water right claims on the watershed plus the minimum needs of a healthy ecosystem.
- [others]

### Changed Circumstances Since the Last Drought

- A final decision in *Modesto Irrigation District v. Heather Robinson Tanaka*, 48 Cal.App.5<sup>th</sup> 898 (2020), provides judicial support for the continuing validity of riparian water right claims in the Delta.
- The development of OpenET provides a consistent, non-invasive, low-cost, highly accessible method of measuring the consumptive use of crops in the Delta.<sup>7</sup>
- An independent study, commissioned jointly by the San Luis Delta Mendota Water Authority, the State Water Contractors, the State Water Resources Control Board (State Water Board) and Delta farmers, demonstrates that fallowing productive cropland within the Delta in order to conserve water is relatively expensive, highly variable by location and practice, hard to

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<sup>4</sup> See (i) State Water Contractors 2015 complaint and curtailment model proposal; (ii) [final decision of the SWRCB dismissing enforcement against BBID/WSID](#); (iii) WC §1840 and its implementing regulations at 23 CCR §931 et seq.; and (iv) consolidated curtailment cases (currently on appeal).



Report on  
Voluntary Diversion

<sup>5</sup> [Report on Voluntary Diversion](#)

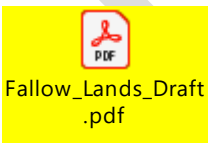
<sup>6</sup> Data aggregated in the State Water Resources Control Board’s eWRIMS significantly overstate actual water use in the Delta, because of both inadequacies in that system and wide-spread errors in user reports. See “Water Data Improvements” below.

<sup>7</sup> [EDF, NASA, DRI and Google Announce Web Application to Transform Water Management in the Western United States September 15, 2020](#).

monitor and quantify, and may even be detrimental to water quality and soil health.<sup>8</sup>

- The Metropolitan Water District of Southern California (Metropolitan) acquired all or parts of five islands in the Delta in 2016 and has responsibly managed them, gaining insight into the challenges of farming and water operations in the Delta and improving overall stewardship practices.
- Delta water users and their representatives have participated cooperatively and constructively in efforts to address ecosystem deterioration, water supply restrictions, water data credibility, and flood response challenges.<sup>9</sup> These efforts have advanced shared objectives and enhanced communication, cooperation, and trust.
- The Division of Water Rights (Division) has significantly refined its “Water Unavailability Methodology for the Delta Watershed”<sup>10</sup> and conducted outreach to further develop it, most recently in a staff workshop on May 21. As noted therein, “Additional refinements to the methodology would be required to implement it for pre-1914 appropriative and riparian claimants and for use during the upcoming wet season.”<sup>11</sup>
- [others]

## Leadership



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<sup>9</sup> Examples include: (i) Delta Channel Maintenance Group; (ii) Comprehensive Operations Planning and Monitoring Special Studies; (iii) Paradise Cut Flood Control and Habitat Enhancement Project; (iv) Delta Measurement Experimentation Consortium; (v) Consensus Strategy for Avoiding Duplicative Reporting of Water Use; (vi) Delta Levee and Habitat Advisory Committee; (vii) Cooperation to Protect the Delta “Freshwater Pathway”; and (viii) workshops and hearings related to revising the Delta Plan and the Water Quality Control Plan.



Water

<sup>10</sup> Unavailability Methc

<sup>11</sup> At Section 3.3, page 48. [Delta water users share the Division’s implicit hope that the upcoming season will, indeed, be wet.]

At their April meetings, the Board of Directors of each of the three Delta Water Agencies authorized their respective general managers (GMs)<sup>12</sup> and professional advisors to convene at the invitation of the Office of the Delta Watermaster (Watermaster) with the objective of coordinating and implementing the Delta's 2021 critical-year response program (hereinafter, the Program). That authorization is framed by common principles informally developed through discussions at each of those meetings. (See summarized "Principles of the Program" herein.)

At each of the ensuing meetings of the Program development working group, progress has been explicitly dependent upon the unanimous policy direction of the three GMs.<sup>13</sup> This document should be considered the initial exposure DRAFT description of the Program developed by the working group; it is scheduled for review by the Boards of the Delta Water Agencies at their respective June meetings.

The Delta Water Agencies have included Metropolitan's Delta manager<sup>14</sup> in design and implementation of the Program.

### **Program Principles**

- Implementation of the Program will be voluntary at the individual water right level.
- Upon approval, the Delta Water Agencies will coordinate outreach, explanation, survey, and encouragement of participation in the Program.
- While expressing a unified drought response across the Delta, the Program will respect and incorporate sub-regional implementation strategies.
- The Program will present strategies and actions to address water quantity, quality and data challenges presented by drought conditions throughout the watershed.

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<sup>12</sup> Melinda Terry for the North Delta Water Agency; Dante John Nomellini, Sr. for the Central Delta Water Agency; John Herrick for the South Delta Water Agency.

<sup>13</sup> The GMs were assisted during their planning meetings by a small group of trusted advisors including engineers and lawyers and by the Watermaster's facilitation.

<sup>14</sup> Russell E. Ryan, Senior Engineer, Bay-Delta Initiatives.

- Though cognizant of significant disputes over operations, projects, regulations, and policies, the Program will maintain focus on constructive response to challenges of the worsening drought of 2021.
- The Program will not compromise protections claimed under California law (statutes, court decisions, and regulations). Specifically, the Program will not anticipate curtailment or other restriction on riparian, pre-1914 or contractual water rights during 2021. The Program will, however, anticipate that post-1914 water rights will be curtailed during 2021, according to priority.
- Progressive development of a coherent, unified, constructive Program will incorporate respectful feedback from stakeholders within and outside the Delta.

### **Unified Program Recognizing Regional Differences**

- For consistency with urban water demand management, Delta crop water use during 2021 will be compared to base-year 2013.
- Crop evapotranspiration (ET) under the Program will be measured using the ensemble provided by OpenET.
- In cooperation with the Projects and the State Water Board, the Program will endeavor to “score” Program water conservation within the framework of D-1641’s Net Delta Outflow Index. The scoring protocol will require 2021 modification of the DAYFLOW element of that Index.<sup>15</sup>
- Actions under the Program will be paid for by participants as a part of their routine cost of farm management; no third-party compensation will be available to offset costs of 2021 drought response.
- All actions voluntarily taken by water users within the Delta during 2021 that are consistent with the Program and reported to the Watermaster will be counted in evaluating the effectiveness of the Program, without regard to timing or motivation.

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<sup>15</sup> Developing a transparent and credible scoring process will require collaboration among the Delta Water Agencies, the Department of Water Resources, and the State Water Board.



- To minimize administrative burden, the Program will develop standard forms on which participants will report their 2021 drought response actions.
- Participants will submit completed forms to the Watermaster which will develop and submit an after-action written report on the Program to the State Water Board.
- The Program constitutes a voluntary, 2021 critical-year response plan. Based upon its effectiveness, the Delta Water Agencies anticipate that the Program could develop into a template for more predictable Delta response to future dry- and critical-year conditions.
- Effective response to future dry- and critical-year conditions will require significant investment in Delta (i) physical infrastructure, including the levee system; (ii) data infrastructure, including a next-generation replacement of the outdated electronic Water Rights Information Management System (eWRIMS); and (iii) continued improvement in farming practices, including carbon capture, subsidence reversal, salinity management, and regenerative agricultural practices.

## Menu of Water Conservation Actions

### Water Data Improvements

The Delta Water Agencies, in cooperation with the Watermaster and the Division, have pursued a consistent strategy of improving Delta water use data since the inadequacy, inconsistency and unreliability of such data became glaringly apparent in the last drought. Ongoing implementation of this strategy since 2016 (a continuing “work in progress”) helps inform this Program. Among the already useful accomplishments:

- **Eliminate Failures to File** [Annual water use reporting only became mandatory within the Delta in 2010.<sup>16</sup> Following the mad scramble to respond to the Division’s 2015 Informational Order within the prescribed 30 days, the Delta Water Agencies, in concert with the

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<sup>16</sup> The requirement was adopted as part of the Delta Reform Act in 2009.

Watermaster, launched a program to eliminate failures to file the required annual reports. According to the jointly-developed protocol, within a week of each filing deadline, the Watermaster prepares an Excel spreadsheet listing any delinquent reports. The spreadsheet is emailed to the Delta Water Agencies and a subscription list of water right claimants, engineers, lawyers, and agents. They scan the list for clients, constituents, and other connections and then initiate contact to encourage prompt filing (and thus avoid potential fines). Their encouragement is supported by the Watermaster's enforcement authority, which has been exercised as necessary. This cooperative effort has essentially eliminated failures to file among Delta water users and provides a favorable comparison with the rate of delinquencies among water use reporters outside the Delta. Eliminating delinquencies has freed personnel and computer resources to concentrate on QA/QC of the filed reports, a far more productive endeavor than tracking down delinquents.]

- **Outreach & Education** [Delta Water Agencies have developed an effective training regime to help water users improve the quality and responsiveness of their reports. In addition, the Central Delta Water Agency developed and annually updates an Excel template, which incorporates METRIC as the method for measuring crop ET. Delta water users can download and apply the spreadsheet to their particular acreage, crop and irrigation technique to estimate their amount of water use. Based on two-way communications with their constituents, this effort has also allowed the Delta Water Agencies to suggest changes to the State Water Board's reporting protocols to improve accuracy. Some improvements are described below.]
- **Avoid Duplicative Reporting of Water Use** [During 2020, Delta water users responded to a serious problem with aggregated data in eWRIMS and cooperatively developed a Consensus Strategy for voluntarily addressing the problem.<sup>17</sup> A preliminary analysis of

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<sup>17</sup> [Consensus Strategy for Avoiding Duplicative Reporting of Water Diversion and Use in the Delta](#)

eligible Reports of Licensees indicates that 65% of licensees in the Delta (193 out of 299) voluntarily adopted the Consensus Strategy. (The adoption percentage eliminates 20 Delta licensees, including the Projects, that do not have overlapping claims of senior water rights.) Further, discussions are currently underway to bring two additional water use reporters (representing five reclamation districts and roughly 45,000 acres of irrigated land) into voluntary adoption. Based on further analysis of results following submission of Supplemental Statement at the end of June, it seems likely that Delta water users will support formal adoption of the Consensus Strategy by the State Water Board prior to the next annual reporting cycle. If approved by the State Water Board, universal adoption of the Consensus Strategy will eliminate one of the most significant distortions of Delta water use through aggregation of duplicative reports of water use.]

- **Develop Alternative Compliance Plan** [Delta water users faced significant challenges complying with the State Water Board’s regulations implementing Water Code §1840 (diversion measurement) in their complex settings. In cooperation with the Watermaster, Delta water users formed an *ad hoc* group<sup>18</sup> to evaluate best practices for complying. In 2020, the Consortium continued research on pathways to strict compliance but also decided to develop an Alternative Compliance Plan (Delta ACP) pursuant to 23 CCR §935. The Delta ACP is on schedule to take effect on January 1, 2022; first reports of water use should be filed in early 2023. Delta water users, acting cooperatively through subcommittees of the Consortium, have pursued three interconnected strands to develop the Delta ACP.

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<sup>18</sup> Membership in what became the Delta Measurement Experimentation Consortium (Consortium) includes DWR, The Nature Conservancy, The Freshwater Trust, the Central Delta Water Agency, Metropolitan, as well as several reclamation districts, engineering firms and lawyers. The Consortium has met quarterly since 2016 to share the results of equipment tests, measurement methodology applications, data collection and distribution challenges, maintenance efforts, hypothesis development, and experimentation strategies. Proceedings of the Consortium are posted [here](#).

- **Contribute to Creation of OpenET** [Delta Water Agencies have been early and consistent supporters of the Environmental Defense Fund’s drive to create OpenET. In addition to contributing \$150,000 directly to EDF in support of the four-year, \$8.5 million development process, the Delta Water Agencies proposed the Delta as a “use case,” which eventually contributed to the Delta ACP.]
- **Create Digitized Places of Use** [In order to interface with OpenET’s architecture, it was necessary to create digitized maps (“polygons” or “shapefiles” within ARC-GIS) to set the boundaries of each place of use (POU) associated with Delta water rights seeking coverage under the Delta ACP. The Central and South Delta Water Agencies took on the task of drawing the polygon representing each POU within their respective boundaries. Emulating the Agencies’ process and protocols, water right claimants outside their boundaries are digitizing their own POUs in order to participate in the Delta ACP. The digitization process was designed from the beginning to interface with OpenET, so these shapefiles will allow access and interoperability with many additional data tools including Google EarthEngine and the Delta Stewardship Council’s Open Delta Agricultural Production Model.]
- **Develop Interactive Software** [Acting through a leadership team comprised of senior representatives of the Central Delta Water Agency, Metropolitan and the Watermaster, the Consortium is commissioning software which will be the “connective tissue” to seamlessly link Delta ACP participants with the State Water Board’s legacy Report Management System as well as OpenET. Again, the Central and South Delta Water Agencies stepped up to engage Habitat7 as the Consortium’s software developer. In developing the specifications, scope, schedule, and budget for the software development task, the leadership team sought and has

received the ongoing assistance of the California Water Data Consortium.]

- **Contribute to Refinement of Water Unavailability Methodology** [On May 12, the Division published its “Water Unavailability Methodology for the Delta Watershed,”<sup>19</sup> a significant improvement over methodology applied during the 2015 drought. Publication was followed quickly by a staff workshop on May 21. According to the Division, the Methodology may support curtailment of post-1914 water rights as early as June; however, the Methodology requires refinement prior to being applied in the complex circumstances of the Delta as well as to pre-1914 and riparian rights throughout the watershed. After the exigencies of this critical-year, the Delta Water Agencies have offered to collaborate with the Division in the needed refinement process, with the objective of improving its credibility and usefulness for application within the Delta.]

### **Water Quantity Conservation Actions**

- **Fallow Cropland** [This action eliminates surface water diversion for irrigation during part or all of the growing season but provides only limited ET savings. Reduction in consumptive use is difficult to monitor and widely variable based on field elevation, depth to groundwater, soil transmissivity and management practices.<sup>20</sup> Some fallowing is motivated by objectives other than water conservation including normal crop rotation/conversion, commodity demand/price, availability of required inputs, etc.]
- **Change Crops** [Foreseeing dry conditions and observing commodity prices, some Delta farmers planted wheat instead of corn, anticipating irrigation primarily from winter precipitation. Even though dry conditions throughout the winter of 2021 induced some unexpected surface water diversion for irrigation, this crop selection

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<sup>19</sup> See footnote 10 herein.

<sup>20</sup> See footnote 8 herein.

did shift crop water demand away from the summer peak. Other farmers consciously selected lower water use crops like dry beans and safflower which were already in their fields, prior to finalization of the Program. Finally, farmers in the Delta, like elsewhere throughout the Central Valley, have been converting from annual field crops to vineyards and orchards, pursuing higher crop value rather than water conservation. Nonetheless, such conversions temporarily reduce water consumption during the transition and first-, second-, third-leaf years. Though conversion to vineyards and orchards hardens long-term water demand and reduces the quality of terrestrial habitat, serendipity in timing can reduce water use in a dry year.]

- **Forego a Second Crop** [more to come]
- **Reuse Tailwater** [Delta water users have increased their reuse of tailwater in order to substitute for marginal surface water diversions required to meet crop ET. This practice can be effective during dry- and critical-years; however, it risks build-up of salts in the soil, so the practice must be balanced with salt leaching practices when water shortage recedes.]
- **Selectively Reduce Irrigation** [Experience from 2015 demonstrates that reduced surface water irrigation can modestly reduce crop ET with lesser reduction in crop yield. For example, eliminating one of four planned irrigations of mature alfalfa reduces surface water diversion by 25%, but the crop's deep roots take in subsurface water to make up a portion of water for ET.]
- **Adjust Irrigation Practices** [During 2015, some growers experimented with alternate furrow irrigation, particularly for corn. Modest water conservation appeared to emanate primarily from reduced evaporation and quicker completion of irrigation cycles, not reductions in crop transpiration. Similarly, conversion from flood to drip irrigation reduces evaporation in the irrigation process but is often incentivized by improved produce quality and yield that are generally not responsive to annual variability in water supply. Thus, conversion to drip or other more efficient irrigation practice is

experienced as a water conservation trend over time, not a response to transient drought conditions.]

- **Change Crop Management Practices** [For instance, in 2015, farmers reduced surface water diversions by taking corn to silage rather than finishing it to grain. The practice reduces ET at the cost of somewhat reduced crop value (and may have created a localized glut that further depressed silage prices in 2015). Farmers are also experimenting with reduced tillage, retention of crop stubble, maintaining a drought tolerant cover crop and selective soil amendment practices. Although there is evidence that such practices reduce field ET, the actual consumptive use reduction had been hard to measure until the advent of OpenET.]
- **Coordinate Irrigation** [Until recently, farmers lacked information that would allow practical coordination of irrigation. Thus, each farm manager irrigated according to field-by-field need, rotation of water in communal distribution systems, fluctuating water levels in Delta channels based on tidal action and sediment occlusion, or availability of field equipment and personnel. Since the last drought, however, Delta farmers have accessed improved availability of local CIMIS and other “precision irrigation” monitoring and response tools that increase water use efficiency and marginally reduce ET.]

### **Water Quality Protection Actions**

- **Adopt Data-informed Irrigation** [Prospectively, farmers armed with real-time insight on species preservation actions (periodic pulse flows, aquatic weed eradication activities, export pump operations, barrier installation/removal, salinity conditions, etc.) could coordinate timing and method of irrigations to reduce negative or enhance positive interactions. While promising, however, data-informed irrigation is at an early stage and localized scale. Moreover, the impacts on either quantity conservation or quality protection are inherently difficult to establish, particularly at the individual field scale. That said, in a dry year, cooperation,

coordination and communication among the Projects, regulators and farmers hold the promise of improving water quality.]

- **Manage Salinity**<sup>21</sup> [In the critically dry 2015, DWR considered constructing additional salinity barriers (beyond the one installed in False River), but the barriers could not be located and permitted quickly enough to be effectively deployed. At least one proposed barrier location proved problematic for Delta water users. Additional barriers—as contemplated in ordering paragraph 8 of Governor Newsom’s May 10 Proclamation of a State Emergency—should be developed in consultation under this Program to assure that the Delta Water Agencies can assist the Projects with location selection, design development and mitigation strategies.]  
[description of subsurface channel “speed bumps” and other potential actions to come]
- **Adopt Regenerative Agriculture Techniques** [description and relation to CDFA’s Healthy Soils initiative to come]
- **Negotiate Compensation Rather than Damages** (paying for water quality exceedances under contract or regulation) [description of NDWA proposal to come]
- **Pursue Multi-benefit Projects** [specific descriptions to come; includes protection of levee maintenance and enhancement programs; Southern Delta Master Plan example]

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<sup>21</sup> In a critically dry year, natural freshwater flows netted against flood and ebb tides are not sufficient to prevent or retard saline water intrusion from the Bay. Under D-1641, the Projects have been assigned interim responsibility to augment freshwater flows through the Delta, when necessary to maintain water quality, by making releases of Supplemental Project Water. In 2015, in order to conserve dwindling storage in their reservoirs, the Projects undertook alternative measures to address the risk of salinity intrusion. Among such efforts, the Department of Water Resources (DWR) constructed and then removed an emergency rock barrier in False River. DWR also considered but ultimately abandoned proposals to erect other salinity barriers in the Delta. The Bureau of Reclamation operated the Cross Channel Gates more actively than normal in an attempt to more delicately balance water supply/quality/fish tradeoffs. The Projects also conserved stored water by jointly constricting export operations to 1500 cfs, which was considered the minimum required to protect “minimum health and safety.”



## **Program Administration**

### **Participation Forms**

[to come]

### **Scoring Methods**

[to come following discussions with DWR and State Water Board]

## **Potential Additional or Alternative Dry- and Critical-year Response Actions**

This Program is a conscientious and coordinated attempt to voluntarily respond to the critical drought conditions of 2021. It reflects not only the experience of generations of Delta farmers but also the adoption of new and emerging science, tools, and techniques. It promotes collective effort to ease the strain of this year's drought on the Delta watershed in ways that are practical, regionally flexible, and achievable in the necessarily tight timeframe. It incorporates policies embedded in the Brown Administration's Water Action Plan and the Newsom Administration's Resilience Portfolio; it adheres to the legally enforceable Delta Plan and observes other requirements of California water law and policy.

This proposed Program has emerged from intense internal discussion and deliberation; many early actions to implement it have already been taken or are currently underway. However, its proponents, the Delta Water Agencies, are open to considering other actions that may be suggested by stakeholders, including the Projects, their contractors, the regulatory agencies, environmental organizations and non-farm interests within the Delta and its communities.

The Delta Water Agencies have worked hard to create a unified Program, to acknowledge and accommodate sub-regional distinctions, and to respond—to the extent of practical ability—to drought challenges not only within the Delta but also throughout California. Assuming that this Program is evaluated as it has been developed—objectively, practically, cooperatively, voluntarily—the Delta can provide marginal relief of the pressure that critically dry conditions in 2021 have forced on the Delta watershed.

Looking beyond the current conditions, however, the Delta Water Agencies seek “a seat at the table” where consideration and negotiation of programs affecting the Delta have failed to consistently include the perspective of water users and their representatives. For instance, the Delta Water Agencies have observed with growing concern reports of the negotiation of “voluntary agreements” to implement the State Water Board’s prospective revision of the Water Quality Control Plan. The Delta Water Agencies and their constituents recognize that such agreements (or their alternative “implementation plans”) portend profound consequences for the Delta, but the agreements are being negotiated without effective input from the Delta.

Candidly, the Delta Water Agencies acknowledge that engaging productively with disparate interests in the Delta has been complicated for “outsiders” not only by the inherent complexity of the Delta, which is both a hub and bottleneck for California’s water system, but also by the absence of a unified locus for such engagement. Without subverting the sub-regional interests of our respective constituents, the Delta Water Agencies—in concert with the Watermaster—are developing our own capacity to engage productively, not as a single representative of the Delta but as a responsible and unified focus for Delta water user feedback and action.

As noted above, the 2021 Program holds the potential for informed, productive, predictable, flexible, and evolving responses by Delta water users in the face of recurring dry conditions in the watershed as they will inevitably be exacerbated by climate change. The Delta Water Agencies look forward to contributing to constructive programs that address common interests, even as we continue to defend as necessary against existential threats.