February 7, 2020

The Honorable Governor Gavin Newsom
1303 10th Street, Suite 1173
Sacramento, CA 95814

Submitted via email input@waterresilience.ca.gov

Re: Comment Letter – Draft Water Resilience Portfolio

Dear Governor Newsom,

Thank you for your acknowledging the enormous challenges California faces with providing safe, reliable and affordable water while maintaining healthy rivers and habitats and a thriving economy. The Natural Resources Defense Council (NRDC) supports your call in Executive Order N10‐19 for the state to “think differently and act boldly by developing a comprehensive strategy to build a climate‐resilient water system.”

While the Draft Water Resilience Portfolio plan (“Draft Plan”) includes several general broad goals and numerous specific recommendations that we support in concept, we are disappointed by the Plan’s failure to prioritize actions for implementation, to establish timelines and metrics for recommended actions, and to provide linkages between these actions. The State should substantially revise the Draft Plan to identify a framework for prioritizing actions, to establish timelines and metrics for each of the specific recommendations, and to provide linkages between the actions to improve water supply reliability and environmental sustainability.

The Draft Plan Should be Revised to Identify a Framework for Prioritization of Actions:

One of the key recommendations of conservation groups, including NRDC, was the need to develop a framework to prioritize actions to achieve environmental and water supply sustainability given limited funding resources. “All of the above” is simply not a financially feasible strategy or plan; instead, the State and local agencies must make informed choices of how best to spend taxpayer monies. The Draft Plan admits that the State cannot implement all of the recommended actions given budgetary limitations, yet it provides no methodology or framework to decide how to prioritize which actions to implement. See Draft Plan at 7 (“This portfolio includes more than 100 separate detailed actions to ensure California water systems work for our communities, our economy, and our environment. These actions will be implemented based on priority and to the extent resources are available.”); id. at 25 (“Given limited resources, not all actions can be implemented with equal priority, but taken together, this suite of actions outlines a vision.”). The Draft Plan should be revised to explain how the State will prioritize which of these actions to
implement in order to achieve environmental sustainability (particularly in the Bay-Delta watershed) and to improve water supply reliability while meeting California’s climate goals.

**The Draft Plan Should be Revised to Identify Timelines and Metrics for Actions:**

Metrics and timelines are essential to be able to prioritize agency actions and to evaluate their implementation. Knowing how long an action will take, and what the outcome of that action should be, are essential for planning and prioritizing actions, as well as for evaluating implementation and considering additional actions to achieve the targets and timelines. For example, Action 4 includes metrics and timelines for significantly increasing water recycling in California, using the State’s existing target (2.5 million acre feet per year) and timeline (by 2030).

Unfortunately, most of the actions recommended in the Draft Plan lack any metrics and timelines. For instance, we strongly support action 18.1, which requires the State Water Resources Control Board to adopt and implement updated water quality standards for the Bay-Delta. The current water quality standards in the Bay-Delta Water Quality Control Plan have not been meaningfully updated since 1995, and the current process to update standards began in 2008. The Draft Plan should be revised to establish a timeline for completing the update of Bay-Delta water quality standards (2020) and for implementing those standards (2024). And in contrast to the targets and timelines for recycled water, there are no metrics or timelines relating to other regional water supply tools including water use efficiency and stormwater capture.

Metrics and timelines should also be used to help ensure that the Draft Plan includes sufficient actions to achieve those goals. For instance, we support the specific actions regarding water recycling, but the Draft Plan fails to demonstrate that these proposed actions are likely to achieve 2.5 million acre feet of water recycling by 2030, which is a significant concern given that the State has missed prior targets and timelines for production of recycled water and appears to be far behind schedule in meeting the 2030 timeline.

The Draft Plan should be revised to include timelines and metrics/targets for each of the recommended actions in the Draft Plan and to evaluate whether the specific actions are likely to achieve those timelines and metrics.

**The Draft Plan Should be Revised to Include Linkages Between Actions:**

Linkages between the recommended actions are essential to ensure that improved water supply reliability does not come at the expense of Bay-Delta ecosystem restoration, and that investments in 19th century solutions like Sites Reservoir do not come at the expense of water efficiency, water recycling, stormwater capture, and other 21st century solutions.
Investments in local and regional water supply projects that reduce reliance on the Delta can reduce the water supply impact of significantly increased flows into and through the Delta that are essential to help restore ecosystem health and maintain water quality. Having linkages between the Draft Plan’s actions also help ensure that projections of water supply and demand account for these actions.

Unfortunately, while the Draft Plan includes a laundry list of specific actions, it fails to include any linkages between the actions. For instance, rather than proposing a single Delta tunnel as part of a portfolio of local and regional water supply investments to improve water supply reliability and restore and protect the Bay-Delta watershed (as proposed in NRDC’s 2013 Portfolio Alternative for the Bay-Delta and in our prior comments on the Draft Plan), DWR has proposed a Delta conveyance project whose sole purpose is to “restore and protect” water exports from the Delta for the State Water Project. See Department of Water Resources, Notice of Preparation of Environmental Impact Report for the Delta Conveyance Project, January 15, 2020 at 2. As such, the NOP fails to consider how investments in local water supplies in Southern California will affect demand for water from the Delta. For instance, how will the achievement of Action 4’s target of 2.5 million acre feet per year of water recycling by 2030 affect demand for Delta exports by State Water Contractors? How will improved water use efficiency, stormwater capture, and other local supply projects affect demand for water from the Delta Conveyance Project, particularly given that the Metropolitan Water District of Southern California has estimated that it may have too much water in the future if local supply projects are implemented?

Similarly, the Draft Plan includes several actions that would likely increase diversions from the Bay-Delta watershed and could cause significant environmental harm (such as Actions 3.4, 3.5, 3.8, 7.1, 19.1), yet there appears to be no consideration of how these actions could conflict with ecosystem restoration in the Bay-Delta as called for in other actions, nor whether and how those projects would be affected by local and regional water supply projects. For instance, Action 7.1 calls for expediting permitting of Sites Reservoir and other Proposition 1 projects in a manner that protects fish and wildlife; however, project proponents have admitted that the project is not feasible or cost-effective for agricultural water districts with minimum instream flow requirements proposed by the California Department of Fish and Wildlife to protect salmon and the environment, and even without meeting the State’s proposed instream flows and environmental protections, the expected water supply yield of the project has been cut by more than 50% (from 500,000 acre feet

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1 We have significant concerns with the legality of DWR’s draft project purpose, which we will discuss in our scoping comments.


per year to 200,000-225,000 acre feet per year).\textsuperscript{4} Similarly, we support Action 26.3 to require the State Water Project (SWP) and Central Valley Project (CVP) to be able to meet Bay-Delta water quality standards and environmental protections during a 6 year drought (in contrast to the waivers and weakening of standards during the last drought), but the Draft Plan fails to include any linkages to ensure that CVP and SWP contractors make investments in local water supply projects and local storage to improve regional water resilience in order for the projects to be able to meet water quality standards and environmental protections during a 6 year drought.

Reducing reliance on water supply from the Delta is essential to protecting the health of the estuary and improving water supply reliability. Including linkages between actions to improve ecosystem health and actions to improve water supply reliability can help both goals. For instance, an updated water quality control plan could establish flow requirements to speed permitting of storage and groundwater recharge projects, and state funding for local water supply projects could be linked to improved instream flows and Bay-Delta water quality standards.

Furthermore, the Draft Plan’s appendices regarding future water demand and supplies are deeply flawed and need significant revision and explanation. The failure to consider linkages between the actions is evident in the Draft Plan’s deeply flawed projections of water demand, the Draft Plan fails to provide any assessments of future water supplies, and the regional assessments fail to justify several of their findings and assumptions. First, the Draft Plan’s assessment of future water demands in 2050 makes several fatally flawed assumptions:

1) There will be no changes in environmental flows in the Bay-Delta or other instream flows, despite the voluminous scientific evidence and agency findings demonstrating a need to significantly increase flows through the Delta, which would reduce diversions from the watershed;

2) Per capita residential water demand will be unchanged from 2014 levels, despite the long-term trend in improved water use efficiency, recent state laws regarding improving urban water use efficiency, and the fact that Los Angeles and other communities have increased population without increasing water use and demand;

3) Agricultural water demand will be unaffected by the Sustainable Groundwater Management Act.

See Draft Plan at 58-59. Notwithstanding these fatal flaws, the Draft Plan projects increased urban water demand (1.0 to 6.7 million acre feet per year), reduced agricultural water demand (-2.0 to -5.9 million acre feet per year), and overall changes in water demand ranging from -3.3 million acre feet per year to +2.9 million acre feet per year. \textit{Id. at}

\textsuperscript{4} \textit{Id.}; \textit{see Sites Joint Power Authority, Joint Authority / Reservoir Committee Workshop Presentation, Nov. 15, 2019, at 9, available online at: https://3hm5en24txyp2e4cxyxaklbs-wpengine.netdna-ssl.com/wp-content/uploads/2019/11/20191115-Workshop-Presentation.pdf.}
60. The Draft Plan states that “projections indicate that change in future urban water demands is less sensitive to housing density assumptions or climate change than to assumptions about future population growth.” This conflicts with historical evidence from San Francisco and Los Angeles where water use is the same (or less) today as 30 years ago, despite substantial growth. Furthermore, approximately half of residential water use occurs outdoors and, without intervention and transition to climate appropriate landscapes, a hotter and drier climate will lead to increased irrigation demand. These projections should be revisited.

Equally important, the Draft Plan fails to include any projections of future water supply against which to compare its estimates of future demands for water, including an analysis of how 2050 water supply would change if the Draft Plan is implemented, or regional assessments comparing water supply and demand in 2050. There is broad recognition that current levels of water use and demand are unsustainable, with demand outstripping supply in many years, yet the Draft Plan fails to project future water supplies, let alone compare future projections of water supply and demand. Such projections, at both the regional and statewide level, would help inform the prioritization of actions in the Draft Plan.

Nor does the Draft Plan appear to be informed by, or respond to, the projections of future water demands. Most notably, there appears to be little in the way of actions to diversify and strengthen regional economies and improve water use efficiency in light of the anticipated reductions in agricultural water use and demand, nor any discussion in the report of the effects of this planned reallocation of water from agricultural to urban uses.5

The Draft Plan should be revised to include linkages between the actions to create a portfolio of actions, rather than a list of disparate, unconnected actions.

**The Draft Plan Should be Revised to Include Equity Implications of Actions:**

While a handful of actions make specific reference to supporting disadvantaged communities (such as Actions 2.3, 3.6, 18.2, 25.5), the entire draft plan lacks any discussion of the equity implications of its actions. For example, Actions 3.3, 3.4, 3.6 talk about the need for the state and agencies to support the creation of groundwater markets and trading, however the actions do not discuss the unintended consequences of those markets. If this portfolio wants to, as is written on page 6, “strengthen partnerships with...stakeholders” it should facilitate transparent conversations about any unintended consequences of actions on disadvantaged communities, tribal communities, and small- and medium-scale farmers before supporting the creation of new market mechanisms.

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5 Moreover, given the potential increases in local water supply projects in Southern California (see note __, supra), and continued improvements in water use efficiency in the basin, we highly doubt the accuracy of these regional water demand projections.
RESPONSE TO SPECIFIC ACTIONS

Maintain and Diversify Water Supplies

Reducing reliance on water supplies from the Delta and diversifying the portfolio of sustainable local and regional water supplies, is essential to sustaining California’s economy in a future with climate change. State law already establishes reduced reliance on the Delta as state policy, but the State should do more to help all regions prepare for less water from the Delta, such as creating financial incentives to help agencies and water districts make investments in water recycling, water use efficiency, and other sustainable supplies that reduce reliance on the Delta. As such, we would recommend that Goal 1 be changed to “Improve Efficiency and Diversify Water Supplies” to better reflect the immense potential for conservation and efficiency in the state and reinforce the administration’s support for efforts to Make Water Conservation (and Efficiency) a California Way of Life.

- Action 2.1

This recommendation seeks to implement existing “Make Conservation A Way of Life” laws (SB 606 and AB 1668, 2018), which create new efficiency standards for residential use and reporting requirements for agricultural use. The legislation also required actions to address commercial, industrial and institutional water efficiency.

Action 2.1 should be expanded to include developing standards for commercial landscapes with a dedicated landscape meter and best practices for CII users, as required by the legislation.

- Action 2.2

The recommendation seeks to simplify the Model Water Efficient Landscape Ordinance, which sets efficiency standards for landscaping of new and retrofitted developments, and support training for local government planners to ensure compliance with this law.

The irrigation of urban ornamental landscapes remains both a major source of waste and inefficient use of treated drinking water and a major opportunity for improved efficiency, so renewed attention to the State landscape regulations (MWELO) is welcome. However, the proposal to “simplify” MWELO should be seen as a means to an end, rather than an end itself. The overarching goal in this area should be to make MWELO a more effective instrument for improving landscape water efficiency. Improving MWELO’s effectiveness involves several steps that should be acknowledged in the final Portfolio report and implemented in the months ahead. These include:

1. Simplify the regulations for both clarity and brevity, without substantive weakening;
2. Strengthen the regulations to incorporate useful precipitation and reduce supplemental watering;
3. Offer guidance to local officials on key terms, including how equivalence must be documented when a local ordinance is adopted that differs from MWLO;
4. Comply with both the letter and spirit of AB 2515 (2016), which requires DWR to forward landscape regulations the Building Standards Commission for inclusion in the state building code;
5. Hold cities and counties accountable for their responsibility to apply MWLO when issuing new permits and to report annually on their permitting activity.

**Protect and Enhance Natural Systems**

California’s natural environment and native species are already at great risk of extinction due to unsustainable water management practices, and these challenges will be worsened by the effects of climate change. Adopting new standards and regulations to protect the environment, and fully enforcing existing requirements, is essential to reversing the trend towards extinction, particularly in the Bay Delta. Reducing reliance on water supplies from the Delta, as required by state law, is essential to protecting the economy, given the effects of climate change and the need to reduce diversions to protect fish and wildlife. However, reducing reliance on the Delta does not actually improve instream flows; updated water quality standards, CESA permits, and other regulations are essential to ensure that reduced reliance on the Delta leads to improved instream flows and increased Delta outflows necessary to protect the environment.

- **Action 18.1**

  Complete the update to the Bay-Delta Water Quality Control Plan for San Francisco Bay and the Delta, as required by law, and implement the Plan, potentially through voluntary agreements. Unfortunately, this action item does not include a timeline.

  The Draft Plan should be revised to establish a timeline for completing the update of Bay-Delta water quality standards (2020) and for implementing those standards (2024).

- **Action 18.3**

  Add a requirement to the water management plans which urban and agricultural suppliers submit to the state every five years that mandates districts that receive water from Delta-based projects to demonstrate how they are reducing reliance on those supplies.

  NRDC supports this recommended action.

- **Actions 16.1, 16.2, 16.3**

  There are only three specific recommendations that mention soil health as a strategy for building water resiliency, and all three recommendations fall under the “protect and enhance
natural systems” section of the portfolio (Actions 16.1, 16.2, and 16.3). For a strategy that emphasizes an integrative approach to resiliency: there are no soil-related actions under the “Maintain and Diversify Water Supplies” section even though building healthy soil can increase natural water storage capacity on working lands; there are no actions that tie soil health metrics to water metrics under the “Build Connections” section even though water quality, use, and supply are tied to improvements in soil health; there are no actions tying improvements to soil health to preparedness in the “Be Prepared” section even though soil can be used as a means to help mitigate floods and store water on natural working lands during drought. The Draft Plan should be revised to include:

1. an action that quantifies how soil building practices directly and indirectly impact the infiltration, storage, and percolation of precipitation and surface water flows across the state’s diversity of soils;
2. an action that, through the Irrigated Lands Regulatory Program, directs the State Water Board to fund a study that quantifies the water quality impacts of healthy soils and irrigation management; and
3. an action that scales up investment in local compost infrastructure to help farmers and ranchers increase their access to and use of compost that builds soil organic matter and increases the water infiltration and retention capacity of soils;

Furthermore, it is unclear what value the three soil health actions listed in the Draft Plan provide. Action 16.1 calls for funding the Healthy Soils Program (HSP): the HSP is already funded using Greenhouse Gas Reduction monies, which means this action can technically be crossed off the list. The Administration must do more and call for increasing funding to the HSP in order for the program to reap its full climate potential. Action 16.2 calls for creating incentives for on-farm conservation: the HSP already incentivizes on-farm conservation so it is unclear how this action differs from Action 16.1. Action 16.3 calls for supporting technical assistance (TA): again, it’s unclear what “support technical assistance” means. TA providers already receive funding through the HSP, so technically, this action has already been met and should, instead, be a call for increasing funding for technical assistance.

Overall, the Draft Plan fails to fully integrate soil health as a water resiliency strategy and provide any meaningful actions to bolster existing soil building efforts, and therefore must be revised to address these deficiencies.

**Build Connections**

The Draft Plan states a clear interest to integrate water decision making and implementation. Page 7 states, “Rather, advanced planning, thoughtful investments, integrated management, and unprecedented collaboration will prepare us for the future,” and page 22 states, “A common, readily available set of facts about water supply and use can make balancing competing needs less contentious and more efficient. Integrated use of science and monitoring, data and technology, coupled with human coordination, can help water managers match assets to challenges and share costs and benefits.” Yet, the Draft Plan fails
to provide actions that enforce data collection and integrate science and data collection across issue areas.

The Department of Water Resources (DWR) is one of several state agencies that collects water data. However, the agency does not enforce water data reporting requirements required by statute, which means that compliance with these reporting requirements is spotty (e.g. farmgate delivery reports, urban water management plans, agricultural water management plans, water loss audit reports, landscape permitting reports). Without enforcing statutory requirements, DWR has an inaccurate and incomplete understanding of water use and distribution in California. The Draft Plan's water data infrastructure recommendations fail to address the underlying causes of incomplete data collection and should be revised to mitigate this deficiency.

All the actions listed in section 22 call on agencies to integrate existing water data (e.g. Action 22.5: integrating surface and groundwater data for modeling purposes). The actions in section 22 miss all the other data needed for decision-makers to understand the totality of their water landscape, even though the plan explicitly states “this [portfolio] cannot take place in silos (Page 25).” The Draft Plan needs to address water management through an intersectional lens, meaning data collection, management, and infrastructure should layer additional metrics onto existing water modeling efforts. For example, water data infrastructure should integrate data that analyzes water storage in soil and other pervious structures, water savings through reduced food waste, water conservation through enforcement of CAFO permits, water quality improvements by restoring historic flows of waterways. Unfortunately, the Draft Plan takes a very siloed approach to data collection, management, and analysis, even though the Draft Plan recognizes that, “Water resilience actions must be integrated with other climate adaptation effort (Page 25).” The Draft Plan should be revised to include actions that integrate water data with other relevant data.

**Be Prepared**

Millions of Californians are at risk of experiencing a damaging flood. As noted in the 2020 Water Resilience Portfolio, one-fourth of the population and more than $500 billion in assets are vulnerable. Since 1978, Californians have experienced thirty-three federal disaster declarations related to flooding, filed over 50,000 National Flood Insurance Program claims, and suffered over $613 million in damages on those claims. Climate change will exacerbate this exposure due to rising seas and more intense downpours.

The 2020 Water Resilience Plan rightly addresses fostering resilience to flooding as a priority. NRDC is pleased to see considerations of this risk in the section titled “Be Prepared,” However, *Action 25 - Help Regions Prepare for New Flood Patterns* lacks sufficient detail to be effective. While NRDC recognizes the importance of flexibility given the diversity of terrain and infrastructure assets across California, providing more
specificity could help ensure the recommendations become actionable policy. NRDC politely requests you consider the following suggestions:

- **Action 25.1**

The terms flood management projects and operations must be defined as they could encompass a wide variety of actions from expanding levees to restoring wetlands. The permitting process and associated environmental reviews could be significantly different based on the project undertaken. Thus, a blanket recommendation to consider how to speed up the permitting process could have numerous unintended consequences and could conflict with other recommendations related to incorporating climate change considerations in permitting processes.

- **Action 25.2**

Without further detail about the reason for why California seeks to provide flood insurance beyond the National Flood Insurance Program, NRDC cautions against this recommendation. Absent a clear objective, California could unintentionally create disincentives for flood preparedness and mitigation. A key component of the NFIP is that a community must adopt minimum building and zoning provisions concerning floodplain development in order for insurance to be made available to the community’s residents. California, at a minimum, would have to require the same to avoid communities loosening their floodplain restrictions. In addition, if the objective is provide less expensive insurance in comparison to the NFIP, the program could create a moral hazard problem where it actually encourages floodplain development due to the availability of cheap insurance.

NRDC recommends as an alternative that communities are provided more financial and technical assistance to help with implementation and enforcement of the NFIP. For example, if the goal is lower insurance rates, providing assistance to communities to join the Community Rating System would be a better alternative. See below.

- **Action 25.4**

NRDC supports this recommendation. NRDC recommends preparing for extreme precipitation scenarios, which are projected to increase as the climate changes, and their impacts to such infrastructure, be specifically mentioned as a priority for planning and training purposes.

- **Action 25.5**

NRDC supports this recommendation.
• **Action 25.6**

NRDC supports this recommendation. However, NRDC believes the recommendation could be more effective if it also required the State to provide accurate projections of future flood risk due to sea level rise in advisory flood maps and ensure that building and zoning codes require conformance with these advisory maps. Working with the Federal Emergency Management Agency (FEMA), California could supplement the Flood Insurance Rate Maps and create and additional Advisory Flood Insurance Rate Maps (Advisory Flood Maps) for that account for future conditions that exacerbate flood risk, like sea level rise, land subsidence, extreme weather events. Advisory maps do not affect flood insurance premiums, but would be used for the purposes of building and zoning code enforcement, longterm land use planning, etc.

• **Action 25.7**

This recommendation lacks sufficient detail to be effective. The term “flood risk reduction projects” should be defined. In addition, the referenced state and federal standards should be described. The lack of specificity means the plan could be addressing anything from insufficient stormwater systems to building and zoning codes related to development in the floodplain. For the latter, communities that exceed the minimum requirements of the National Flood Insurance Program for floodplain development greatly reduce their risk. In this section, the portfolio should recommend the state provide greater financial and technical assistance to assist flood-prone communities to strengthen their building and zoning codes to be more resilient to flood impacts. For example, such assistance could allow for communities to require that all new or substantially improved/damaged construction projects be elevated at least two feet above the 100-year flood elevation. California currently lacks a statewide elevation requirement and only a handful of California communities have adopted a freeboard standard of at least 2 feet. The more communities that adopt such a standard, the more California residents that will be better protected. In addition, such an approach could help more communities become part of the Community Rating System, which would reduce flood insurance rates and potentially address the concern raised in Recommendation 25.2.

**Appendix 3 – Regional Assessments**

The Draft Plan fails to provide adequate explanation for its conclusions in the regional assessments in Appendix 3. For instance, the Draft Plan finds that the Central Coast watershed faces the greatest threats to Ecosystem Vitality, notwithstanding the current extinction crisis in the Bay-Delta watersheds. That finding appears unjustified. Similarly, the regional assessments fail to explain what constitutes “Aging Infrastructure of Statewide Importance,” what constitutes “Reuse water,” or the basis for the estimated changes in regional water demands. The Draft Plan should be revised to provide some explanation for
these assumptions and findings. In addition, we request that the Resources Agency release the modeling that was used to develop the regional 2050 water demand projections.

Additionally, the Draft Plan makes claims about each hydrologic region’s vulnerabilities (e.g. Sacramento River Region Vulnerability Indicators, page 75). Yet, the Draft Plan provides no explanation as to how and why each vulnerability indicator received the ranking that it did. For example, how is it possible that the San Joaquin Region’s “impaired water quality” indicator was only ranked 2, when the region faces significant groundwater quality contamination and 934 of its waterbodies are impaired? The Draft Plan needs to be revised to include reasons stating why each vulnerability received the ranking it did.

The Draft Plan includes an impressive catalogue of actions the state is currently undertaking and provides helpful visual representations of California water data. NRDC supports the Draft Plan’s broad goals and numerous specific recommendations in concept and we look forward to a revised version that includes a framework for prioritizing actions, timelines and metrics for each of the specific recommendations, and linkages between the actions to ensure that improved water supply reliability results in environmental sustainability.

Sincerely,

[Signature]

Tracy Quinn, P.E.
California Director, Water Conservation and Efficiency
Natural Resources Defense Council