# WaterSMART

## Development of Drought Contingency Plan
## Funding Opportunity BOR-DO-17-F009

## North Bay Drought Contingency Plan

**February 2017**

Sonoma County Water Agency (As Administrative Agency)

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# Technical Proposal and Evaluation Criteria

## Executive Summary

**Date:** February 13, 2017.

**Applicant**: Sonoma County Water Agency (SCWA) is a regional agency with main offices located in the city of Santa Rosa, Sonoma County, CA. The SCWA is the lead agency and fiscal agent for the North Bay Drought Contingency Plan (DCP) and will convene the DCP Task Force in collaboration with the North Bay Water Reuse Authority (NBWRA/NBWRA.org) a 3-county, 10-agency, partnership working collaboratively on water and recycled water issues on study area for the last 15-years.

**Summary:** The DCP area is home to some of California's most valuable agriculture, diverse communities and the most significant expanse of open-space and environmental resources in the North Bay; all have been impacted by the effects of California's 5-year drought. Surface water supplies are from local rivers and reservoirs, not the state's major reservoirs, with the exception of Napa County which receives some water from the State Water Project. Drought has also impacted the region's many creeks and streams with reduced or non-existent flows and where agricultural irrigation diversions, riparian habitat and associated aquatic species, all complete for meager resources. Groundwater basins are also showing the impacts of long-term pumping with declining groundwater levels and, associated potential for migration of higher salinity waters from the Bay, effecting both rural homeowners and agricultural irrigation supplies. These conditions, and the knowledge of drought and water scarcity will forever be a part of their future, will bring water managers and local stakeholders to the DCP process to share technical information, understand the impacts of drought, increasing temperature and variability of precipitation on their businesses, the environment, and way of life. Through the DCP process projects, actions and partnerships will be developed yielding benefits to the region and its diverse water users.

**Schedule**: The Drought Plan will be initiated on October 1, 2017, will take two years, and be completed late summer 2019.

**Reclamation Nexus:** SCWA and the NBWRA have a long, successful partnership working together to implement the NBWRA's regional scale Title XVI Program. Please refer to **Evaluation Criterion D – Nexus to the Bureau of Reclamation** for more information.

## Background Data

This section provides background data consisting of a description of the area, water supply sources, water rights, water uses, water users and their demand, and past working relationships with Reclamation.

### Description of Drought Contingency Plan Area

The Drought Contingency Plan area (Plan Area) includes five primary watersheds (Miller Creek, Novato Creek, Petaluma River, Sonoma Creek and lower Napa River) and numerous creeks that drain into the northern edge of San Pablo Bay and includes approximately 350 square miles in Marin, Sonoma and Napa counties as shown in Figure 1. The North Bay region is

home to urban and rural residential areas, extensive vineyards and agriculture and diverse environmental communities that include riparian corridors and salt marsh providing habitat for fisheries, aquatic species and a home for migrating waterfowl on the North American Pacific flyway.

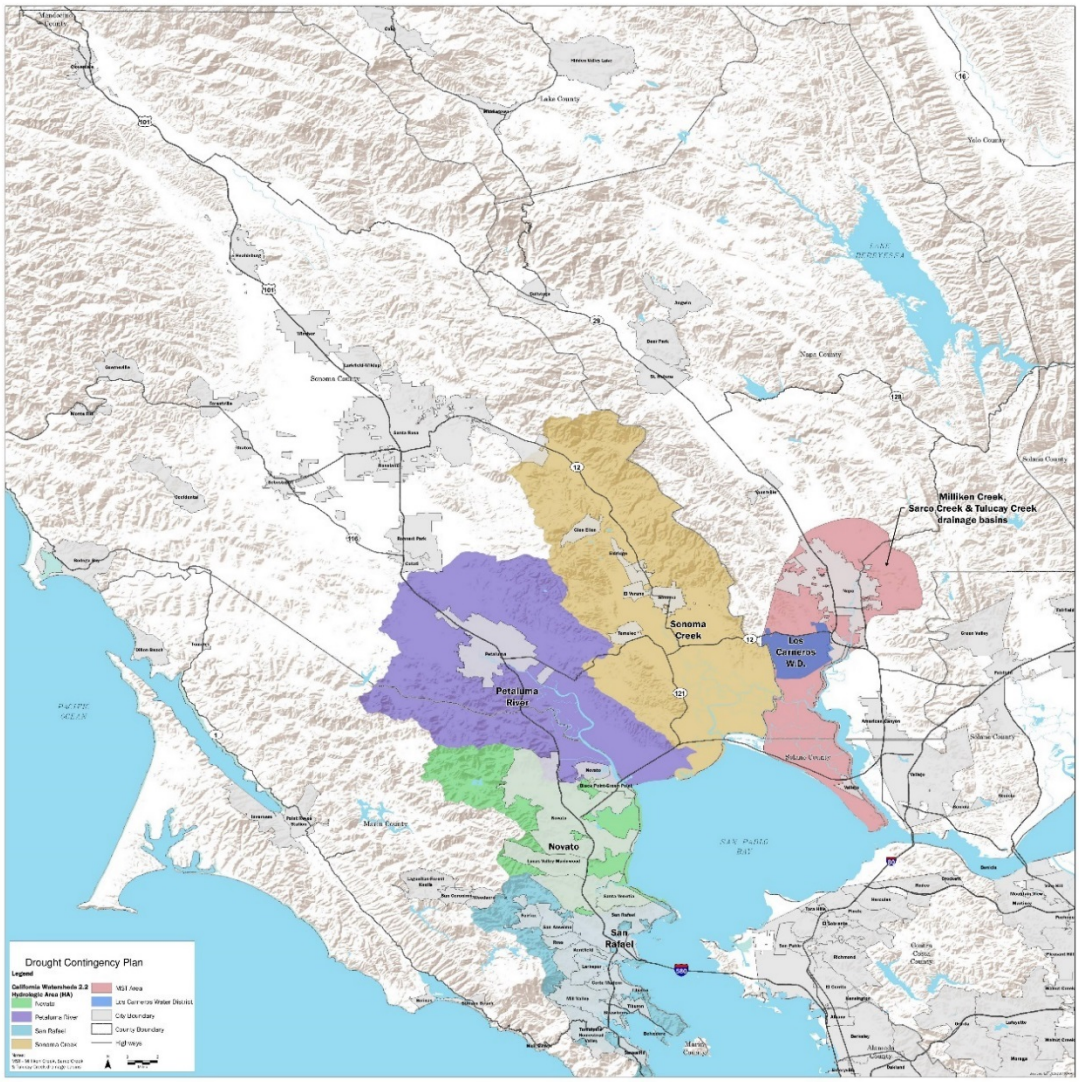


**Figure 1. Drought Contingency Plan Area**

## Water Supply Sources

Water users in the proposed Plan Area rely on a mixture of water supplies from local surface water, imported surface water, groundwater, and existing recycled water produced at several wastewater treatment plants (WTTPs).

Local surface water is used by urban water suppliers, agricultural users, and some smaller self-supplied domestic users within the region. The main waterways in the study area are the Napa River, Petaluma River, Sonoma Creek, Novato Creek, and many smaller tributaries that feed these waterways, which all flow into San Pablo Bay. Streamflow in all of the rivers and creeks varies greatly by season and year depending on precipitation.

Napa County is a State water contractor receiving flow from via the North Bay Aqueduct (NBA) for urban uses. The contract has been providing significantly reduced flow levels due to drought, Delta water constraints, and conveyance capacity limitations of the North Bay Aqueduct. In Sonoma and Marin County, Sonoma County Water Agency (SCWA) delivers water imported from the Russian River via its transmission system to the City of Sonoma, Valley of the Moon Water District, City of Petaluma, North Marin Water District, and Marin Municipal Water District. Because SCWA's water supply facilities and operations on the Russian River have the potential to adversely affect fisheries protected under the Endangered Species Act (ESA), SCWA entered into a Memorandum of Understanding in December 1997 to participate in a consultation under Section 7 of the ESA. The resulting Biological Opinion requires SCWA to implement a series of actions to modify existing water supply and flood control activities that, in concert with habitat enhancement, are intended to minimize impacts to listed salmon species. Based on recent modeling, during the single year drought condition, future diversions under SCWA's water rights could be reduced by approximately 18 percent of the 2040 average annual demand, thereby significantly impacting their water contractors in the study area. To represent a single dry year, year 1977 was selected as the single most dry year on record. In these circumstances, the Water Agency would work with its Customers to reduce water demands, or to utilize additional local sources, or both.

Some of the region's groundwater basins are showing the impacts of long-term pumping with declining groundwater levels and areas of low water quality. Groundwater level declines within deep zone aquifers in the Sonoma Valley groundwater sub-basin (primarily in the southwestern and southeastern Sonoma Valley) have persisted for the last decade or more and appear to be expanding. While groundwater quality within the Sonoma Valley is generally good, brackish groundwater present beneath the southernmost Sonoma Valley has historically affected water wells located in this area and represents a threat to groundwater resources should groundwater declines continue to persist. In 2006, SCWA and United States Geological Survey (USGS) developed a cooperative technical study for Sonoma groundwater basins that evaluated groundwater resources. Based on modeling, rural domestic, agricultural and urban groundwater use is projected to increase and this new demand is estimated to result in a reduction of approximately 16,000- 22,000 acre-feet from storage in the groundwater basin. New modeling efforts to refine these estimates are currently being developed and will support the DCP effort. In 2014, the SCWA and City of Petaluma partnered with USGS to conduct a three-year groundwater study of the Petaluma Valley, which is scheduled to be completed in late 2017. And in 2003, the USGS also completed a study of the 10,000-acre Milliken–Sarco–Tulucay (MST) Creeks area that lies adjacent to the city of Napa. Groundwater is the only source of water in much of the lower MST area and increased extraction for agriculture has resulted in the general decline of ground-water levels throughout the area.

Given that the Plan Area is unique with a mix of sensitive environmental resources, growing urban areas, and high-value agricultural land, all competing for limited water resources, the key water supply challenges facing the Plan Area are summarized as follows:

**Water Quality and Reliability.** Continued urbanization of the greater San Francisco Bay Area, including the proposed Plan Area, requires highly reliable sources of water. Additionally, the local agricultural economy is dominated by high-value vineyard culture, which requires a highly reliable water supply to maintain both production and the secondary economy associated with the industry.

**Environment Protection.** The vitally important estuarine ecosystem of the North San Pablo Bay area, which includes endangered species and wetlands, has been under intense stress. Although protective and restorative measures are in place and underway, the habitat requires a reliable water supply to support these efforts.

**Water Vulnerability.** The local surface water supplies are becoming less reliable sources due to climate change impacts such as drought, reduced winter flow, and dry or low summer flows. These shortages are further exacerbated by impacts associated with multiple diversions on these limited supplies. Additionally, imported water supplies that are conveyed from the Russian River are subject to reduced availability during the most severe drought conditions and have only limited ability to be expanded in the future.

**Groundwater Availability and Quality.** Groundwater supplies are pumped for agricultural, commercial, rural domestic, and municipal uses and a number of the basins are experiencing declining levels, marginal quality, and are at risk of intrusion from poor quality water.

**Recreation.** Water is a highly-valued recreation and aesthetic amenity for the outdoor oriented citizens of the North Bay.

**Costs.** Increasingly stringent wastewater discharge requirements are increasing the costs of wastewater treatment and disposal.

These water management challenges have resulted in the need for the agencies in the area to investigate expanding the use of various water supply alternatives as a way to increase water supply and reliability.

## Water Rights

The State Water Resources Control Board (SWRCB) has declared the Sonoma Creek and the Napa River as fully appropriated streams. In addition, the SWRCB has a policy, Policy for Maintaining Instream Flows in Northern California Coastal Streams, of maintaining instream flows in northern California coastal streams for the protection of fishery resources, thus minimizing water supply impacts on other beneficial uses of water. The geographic scope of the policy encompasses coastal streams from the Mattole River near the border with Oregon to San Francisco, including streams entering northern San Pablo Bay. This encompasses five counties, Marin, Sonoma, and portions of Napa, Mendocino, and Humboldt. The policy applies to applications to appropriate water, small domestic use, small irrigation use, livestock stock pond registrations, water rights registrations, and water rights petitions.

Surface water is imported from two sources for urban uses only, the Russian River Project operated by the SCWA and the State Water Project (SWP), which is owned and operated by the California Department of Water Resources (DWR). SCWA diverts and conveys water from the Russian River Project (including water from Lake Mendocino and Lake Sonoma) in accordance with terms in SCWA's water rights permits. The City of Napa contracts with the Napa County Flood Control & Water Conservation District (NCFCWCD) to buy imported surface water from the State Water Project (SWP). While the SWP contract amount for the City of Napa is 21,900 AFY, the North Bay Aqueduct conveyance capacity limits the supply to 19,900 AFY.

Groundwater supplies water for agricultural and rural residential users is a supplemental supply for some of the urban water agencies in the NBWRA study area. There are eight groundwater basins in the proposed Plan Area identified by California Department of Water

Resources (DWR). None of these basins have been identified as "critical conditions of overdraft" by DWR and none of these basins are adjudicated.

## Water Uses and Number of Users

Current water uses are for municipal, agricultural, rural residential, and environmental purposes. Municipal uses include water used by residential, commercial, industrial, and public customers. Agricultural water use has the highest water use of all of the user categories in the Plan Area. Metered agricultural water use data is not available because the use is mostly unmetered, unrecorded, or not centrally tabulated. Therefore, agricultural water use must be estimated. In an estimate developed by the USGS in 2010 agricultural water use for all of Sonoma, Napa, and Marin Counties was estimated to be 266,265 AFY. This estimate can be further refined by utilizing the DWR generated Detailed Analysis Units for sub-watershed areas within each county. The unit applied water factors estimate irrigated crop acreages and applied water for 20 crop categories. The estimated agricultural water use developed by DWR for the three Detailed Analysis Units is approximately 20 percent of the total agricultural water use in the three counties developed by USGS. Environmental water demands include water for ecological purposes including plant and animal uses throughout the watershed. Environmental water uses within the region benefit multiple habitats: instream aquatic habitat, riparian vegetation, lake and reservoir aquatic habitat, and wetlands. Creeks and rivers within the region provide instream habitat for fish. Table 1 summarizes the total water demand by demand sector.

**Table 1. Total Water Use in Marin-Napa-Sonoma Counties, AFY**

| Demand sector | 2015 | 2040 |
|---|---|---|
| Urban[1] | 72,282 | 81,574 |
| Agricultural | 53,166 | 53,166 |
| Domestic and industrial self-supplied | 66,924 | 66,924 |
| Environmental | – | – |
| Total | 192,372 | 201,664 |

*Source:*

*NBWRP 2017, 2015 UWMPs*

*1. City of Napa did not prepare a UWMP for 2015, "Urban" data presented for 2040 is based on projections developed using data from their 2010 UWMP.*

While urban growth has been relatively modest in recent years, the local population is projected to continue to grow. Table 2 presents the current (2015) and projected future population of the urban areas within the Plan Area.

**Table 2. Population of Urban Areas within the Plan Area**

| Urban water agency | 2015 | 2040 |
|---|---|---|
| Marin Municipal Water District | 189,000 | 210,400 |
| North Marin Water District | 61,381 | 67,482 |
| City of Petaluma | 61,798 | 73,350 |

| Table 2. Population of Urban Areas within the Plan Area | | |
|---|---|---|
| City of Sonoma | 11,147 | 12,430 |
| Valley of the Moon Water District | 23,782 | 26,300 |
| City of Napa[1] | 89,243 | 93,569 |
| Total | 436,351 | 483,531 |

*Source:*

*2015 UWMPs.*

*1. City of Napa did not prepare a UWMP for 2015, data presented for 2040 is based on projections developed using data from their 2010 UWMP.*

## Current and Projected Water Demand

Table 3 summarizes the total water demand in the Plan Area by demand sector. The agricultural water demands are assumed to remain constant into the future. Calculating environmental demands and projecting future demands requires knowledge of habitats, demands by habitat type, instream flow requirements, and groundwater-surface water interactions for areas with shallow groundwater. Some of this information is not yet available; therefore, rigorous demand calculations are not currently possible.

| Table 3. Projected Water Demand (AFY) | | | | | |
|---|---|---|---|---|---|
| Demand Sector | 2020 | 2025 | 2030 | 2035 | 2040 |
| Urban[1] | 79,428 | 79,624 | 79,917 | 80,646 | 81,574 |
| Agricultural | 53,166 | 53,166 | 53,166 | 53,166 | 53,166 |
| Domestic and industrial self-supplied | 66,924 | 66,924 | 66,924 | 66,924 | 66,924 |
| Environmental | – | – | – | – | – |
| Total | 199,518 | 199,714 | 200,007 | 200,736 | 201,664 |

*Source:*

*NBWRP 2017 (Table 2-22), 2015 UWMPs*

*1. City of Napa did not prepare a UWMP for 2015, "Urban" data presented for 2040 is based on projections developed using data from their 2010 UWMP.*

## Agricultural Irrigation

Agricultural land uses constitute much of the Plan Area. The primary agricultural land uses in the southern Sonoma, Napa, and Petaluma Valleys are vineyards and hay. Vineyards exist mainly in the hillside ranges and upland areas adjacent to the diked baylands. Oat hay exists mainly on the diked baylands, and some farmers double-crop their lands with beans. In the past, farmers have grown other crops such as barley and legumes, but changes in market conditions have decreased profitability for these crops given their high production costs. Secondary land uses include dairy farming, row crops, orchards, the farming of other livestock, and grassland, which includes irrigated pastureland. The agricultural acreage in the Plan Area is not quantified. A key task of the Drought Contingency Plan is to develop the specific information for the Plan Area.

### Reclamation Relationships

For detailed descriptions on the above see **Evaluation Criteria D - Nexus to the Bureau of Reclamation.**

# Project Description

This technical study description describes the specific activities to be accomplished for the development of a **Drought Contingency Plan** that meets the requirements of the Drought Response Program. The technical study description includes the six elements of a Drought Contingency Plan and several required procedural steps. The Drought Contingency Plan will incorporate the work done by some of the urban water agencies in their urban water management plans and water shortage contingency plans and incorporate information from the numerous local and regional previous and ongoing water supply studies.

### Task 1. Initial Drought Contingency Plan Steps

Following finalization of the financial assistance agreement, SCWA and their consultants will work with Reclamation to finalize the Drought Contingency Plan work plan before development of the DCP begins.

**Establish the NBWRA Drought Contingency Plan Task Force.** SCWA will lead a Drought Contingency Plan Task Force (Task Force) and Advisory Committee made up of various stakeholders in the region that represent multiple interests within the planning area as listed below. **For detailed description of the Task Force and Advisory Committee see Evaluation Criterion B – Diversity of Stakeholders.**

**Development of a Detailed Work Plan.** SCWA will develop a work plan in consultation with Reclamation that will describe in detail how the various tasks included in developing the Drought Contingency Plan will be accomplished. This includes a detailed project schedule, coordination and responsibilities of Reclamation, SCWA as the planning lead, the NBWRA, and other interested stakeholders.

**Development of a Communication and Outreach Plan.** The purpose of this effort is to build understanding and support for drought contingency planning. The process for inclusion includes establishing a Task Force that will coordinate and make initial planning decisions to be vetted by an Advisory Committee and various regional stakeholders through a series of collaborative activities. An Advisory Committee made up of additional interests, not specifically represented on the Task Force, will review Task Force proposals and provide vital feedback.

Once the Task Force and the Advisory Committee is formed, kickoff activities will include a summit session defining the objectives, timeline, and financial obligations of each participating agency and/or organization represented. A series of relevant topical Workshops or Public Informational meetings will be developed to inform stakeholders, the public, and media alike.

Providing information and receiving input from various community members will occur through written communication, face-to-face, web, and external events.

## Task 2. Background, Study Area, and Participating Agencies

The background, study area and participating agencies in the Plan area are described in the Executive Summary, Background Data and Criterion D sections of the funding application; please refer to these sections for detailed information on these topics.

In addition to the information provided elsewhere in this application, existing relevant water contingency and drought plans, response policies, emergency response plans, urban water management plans, water management plans, California Department of Water Resources and Reclamation drought planning guidelines, groundwater management plans, general plans, and other relevant information will be reviewed. The history of drought in the area, current drought situation, severity of drought conditions, recent drought experiences, and the period of time that the area has been experiencing drought conditions will be described. Historical drought frequency and magnitude, including multi-year droughts and seasonal droughts will be summarized.

## Task 3. Water Supplies and Demands

Review and summarize existing water supply and demand data for all pertinent water agencies and end users. Describe the availability and quality of existing data and models applicable to the proposed plan. For a detailed description of available models see **Evaluation Criterion C - Project Implementation.**

Describe existing water supplies and the key water supply facilities. These sources include river surface water, groundwater, recycled water, wastewater, stormwater, agricultural return water, and interconnections with neighboring systems. Quantify stream flows, reservoir storage levels and yield, water quality, and historic flow patterns, flow requirements, including magnitude and timing of release.

Define the drought impacts to each water purveyor's water supply, water quality, and the vulnerability of the existing water supply sources. Describe water quality impacts of drought conditions. The water supply and demand comparison will compare the water supply sources available in normal and dry periods to the projected water demands.

## Task 4. Drought Monitoring Process

Establish a process for monitoring near and long-term water availability, and a framework for predicting the probability of future droughts or confirming an existing drought. Develop a process for the collection, analysis, and dissemination of water availability and other drought-related data. Explain how this data will be used to predict or confirm droughts, including identifying metrics and triggers that may be used to define stages of drought, to trigger mitigation or response actions, and to define the different stages or levels of severity of drought.

Identify drought indicators and trigger levels that are currently being used by each participating agency to signal pending drought conditions and severity. Summarize current drought monitoring strategies used by each major user and water agency. Develop as necessary specific parameters and triggers to monitor for drought conditions. Provide recommendations for drought indicators and triggers to use for deciding when a drought starts and when it ends.

## Task 5. Vulnerability Assessment

Evaluate the vulnerability of water supplies to drought and climate change. Describe the reliability and vulnerability of the water supply to seasonal or climatic shortage. Consider a range of future conditions, including the effects of climate change.

Describe the severity of consequences for not addressing drought risks to water supplies. Present descriptions of existing or potential risks to human health and safety including water quality risks; endangered, threatened, or candidate species; agricultural water supplies; hydropower production; fish and wildlife habitat; recreation; and any other significant areas of risk. The consequences of seawater intrusion and sea level rise will be evaluated.

Provide an analysis of the drought impacts of climate change and the resulting practical implications for drought planning for the plan area. Identify impacts to water supplies for a range of possible drought and climate change scenarios. Review and summarize the climate change work being done by Reclamation, the State of California, and other federal and state agencies. Summarize the climate change analysis presented in each of the two integrated regional water management plans.

## Task 6. Mitigation Actions

Identify, evaluate, and prioritize mitigation actions and activities that will build long-term resiliency to drought, mitigate the risks posed by drought, decrease sector vulnerabilities, and reduce the need for response actions.

Identify drought actions, responses, programs, and strategies. Review, compare, and summarize the staged demand reduction program used by each participating agency. Identify and evaluate potential additional responses for use at each stage of drought. Consider the best way to equitably allocate drought water resources to the various types of water needs. Provide recommendations to improve the consistency of the region's drought response.

Identify potential mitigation projects that would build long-term resilience to drought and reduce the need for emergency response actions. Work with the participating agencies to include projects that have been previously identified and discussed, regardless of the level of planning and development that has been done to date.

Evaluate the projects using screening criteria and develop a short list of the best projects, mitigation actions, and response actions and their associated triggers. This criteria list will be compiled into a matrix of criteria with weighting factors and used to screen potential response Actions and mitigation actions.

For the short list of potential drought mitigation projects, describe each mitigation project and how the identified project would address the existing or potential drought risks and develop cost estimates.

Describe the benefits that are expected to result from implementing the projects based on whether the projects will result in benefits to the health and safety of people and fish and wildlife and the environment. Describe benefits that are not captured above including projects that support agriculture, promote and encourage collaboration among parties, prevent a water-related crisis or conflict, and facilitate the voluntary sale, transfer, or exchange of water.

Describe how the identified projects have a nexus to Reclamation project activities. Define the steps that are required for implementing the identified projects, including developing an estimated project schedule for implementing each project. Describe the magnitude of the

impacts if the identified projects are not implemented including economic, social, public health, and number of people impacted by the risks.

## Task 7. Response Actions

Identify, evaluate, and prioritize drought response actions and activities that can be implemented quickly during a drought to mitigate the impacts and provide rapid benefits. Establish a staged approach to implementation. Develop bundles of response actions that would be implemented at each stage. Define the stages of drought when the response actions are triggered to manage the limited supply and decrease the severity of immediate impacts. Estimate the expected ability each stage of response actions are expected to have on reducing water demands on a temporary basis. Consider water savings, lead time to activate response actions, costs, and procedural requirements for implementation.

## Task 8. Administrative and Organizational Framework

Develop an operational and administrative framework to identify who is responsible for undertaking the actions necessary to implement each element of the plan, including communicating with the public about those actions. Identify roles, responsibilities, and procedures necessary to conduct drought monitoring, initiate response and mitigation actions, and update the Drought Contingency Plan.

The organizational structure currently used by each of the participating agencies to respond to a drought will be reviewed, and updated if appropriate. This includes elements such as the establishment of a described water shortage response team, public information, interagency coordination, staffing, costs, communications, and drought response actions.

The participating agencies process for the development of the Drought Contingency Plan will consist of having regular progress meetings, providing status reporting, and conducting workshops. Conduct joint session workshops with the elected Directors from all participating agencies regarding the Drought Contingency Plan effort.

## Task 9. Update Process

Describe a process and schedule for monitoring, evaluating, and updating the Drought Contingency Plan. Develop an organizational framework and process to routinely update the Drought Contingency Plan. Develop guidelines to use to determine the triggers to identify when an update should be done.

## Task 10. Drought Contingency Plan Document

Summarize all task efforts and findings into a Drought Contingency Plan document. Prepare the Drought Contingency Plan document and associated appendices, maps, figures, tables, and computer models.

Submit first and second draft of the Drought Contingency Plan for review and comment. Twenty copies of each of the draft reports will be submitted. Based on the results of agency input, a final submittal will be prepared. Twenty copies of each submittal, as well as one electronic/digital copy, will be provided.

### Task 11. Project Management

Provide monthly updates of project status, issues, and concerns. Maintain project schedule. Conduct project progress meetings once per month with senior staff. Provide weekly email project status reports. Provide project documentation, quality control checks on project deliverables, management of progress against budget and schedule commitments, and submittal of monthly invoices and monthly project status reports.

# Evaluation Criteria

## Evaluation Criterion A – Need for a Drought Contingency Plan or Plan Update

Describe the severity of the risks to water supplies that will be addressed in the Drought Contingency Plan.

The DCP study area faces risks to imported surface water supplies, local surface water supplies and to the groundwater basins. Reductions in imported water supplies, local surface waters, and rainfall can cause increased reliance on some of the highly-used groundwater basins in the DCP plan area. Even without droughts, under current climate conditions the impacts can be significant as demonstrated in the recent 5-year drought in California and in response to regulatory constraints. With climate change we can anticipate even greater impacts to the DCP plan area.

#### Imported Water Supply

The proposed study area within Napa County receives some imported water that has limitations. In the city of Napa urban area, Napa County is a state water contractor that receives State Project Water from the California Delta via the North Bay Aqueduct. State Project Water is not available to agriculture. The State Project Water has not been providing contract flow levels due to drought, Delta water constraints, and conveyance capacity limitations of the North Bay Aqueduct.

In Sonoma and Marin Counties, SCWA delivers water imported from the Russian River via its transmission system to City of Sonoma, Valley of the Moon Water District, City of Petaluma, North Marin Water District, and Marin Municipal Water District. Because the Water Agency's water supply facilities and operations on the Russian River have the potential to adversely affect the three-listed species, the Water Agency entered into a Memorandum of Understanding in December 1997 to participate in a consultation under Section 7 of the ESA. The Biological Opinion requires SCWA to implement a series of actions to modify existing water supply and flood control activities that, in concert with habitat enhancement, are intended to minimize impacts to listed salmon species and enhance their habitats within the Russian River and its tributaries.

#### Groundwater Supply

The Sonoma Groundwater basin is a sub-basin of the Napa-Sonoma Valley Groundwater Basin. The 44,700-acre Sonoma Valley Groundwater Sub-basin is located within the larger 106,680-acre Sonoma Creek watershed. SCWA staff has worked with scientists from USGS to develop cooperative technical study program that evaluated groundwater resources in the basins completed in 2006. Based on modeling, rural domestic, agricultural, and urban groundwater use in the Sonoma Valley is projected to increase from an estimated total of 8,500 AF/yr in 2000 to an estimated 10,100 to 11,300 AF/yr in 2030, with and without an

increase in imported water supplies, respectively. This increased demand on groundwater is estimated to result in a reduction of approximately 16,000 to 22,000 acre-feet from storage in the groundwater basin. The losses from overall groundwater storage will likely result in lower groundwater levels, and cause various associated potential adverse impacts such as increased extraction costs, possible well deepening or replacements costs, possible groundwater quality degradation including salinity intrusion, potential land subsidence, decreases in streamflow, and environmental damage.

The Petaluma Valley Groundwater Basin is 46,000-acre and located within the larger 93,440-acre Petaluma Valley watershed. In 2014, the Sonoma County Water Agency and City of Petaluma partnered with the USGS to conduct a three-year groundwater study of the Petaluma Valley, which is scheduled to be completed in 2017. The objective of the study is to develop an updated assessment of the hydrogeology, geochemistry, and geology of the Petaluma Valley, including development of a geographical information system database, collection, and interpretation of water quality data and streamflow measurements, estimates of groundwater recharge and annual groundwater pumping, and development of a computer model to simulate groundwater flow.

The Milliken–Sarco–Tulucay Creeks area, in southeastern Napa County, California, lies adjacent to the city of Napa and extends eastward into the Howell Mountains. Groundwater is the only source of water in much of the lower Milliken–Sarco–Tulucay Creeks area. An increase in ground-water extraction since the 1950s has resulted in the general decline of ground-water levels throughout the area. Increases in population and in irrigation for grape production in the past few decades have increased water demand. Declining ground-water levels evident over a large part of the Milliken, Sarco, and Tulucay Creeks area is an indication that groundwater use exceeds average ground-water replenishment.

### Drought Impacts on Agriculture

The recent drought highlighted the vulnerability of agriculture to drought in the study area. A Sonoma County survey in 2014 requested production information for pasture, rangeland, oat hay, oat grain, oat silage, straw, green chop, volunteer hay, corn silage or “other.” Respondents indicated:

- Rangeland-94% loss
- Pasture-93% loss
- Oat hay-100% loss
- Volunteer hay-100% loss
- Oat silage-41% loss
- Ryegrass silage-65% loss
- Total projected financial loss $6,241,171

The DCP study area includes world famous wine growing regions. The vineyards are impacted in a number of ways during the recent drought. California’s ongoing drought is causing problems for Napa’s famous vineyards.

- Yield: There is a direct correlation between the amount of water a vine receives and the yield. To put it simply 80% less water equals 80% less fruit.

- Productivity: Small producers of low priced wines are likely to suffer the most, wine producers generating bottles that cost $7 or below will significantly retract production due to high cost of irrigation. Larger wine producers seldom bottle estate wine and instead resort to grapes purchased from large growers who have implemented sophisticated irrigation programs that help minimize the negative effects of the drought.
- Water Allocation Reductions: Many wine producers are left with 20% of their normal irrigation allocation. Although grapes are quite drought tolerant and older vines will go down deeply into the ground looking for water, without rain to flush the soil the salinity level will increase eventually killing the vines.

### Drought Impacts on Tourism

The wine growing regions of Sonoma and Napa counties create a large tourist economy. The water for the wine industry and for the tourism industry (lodging, dining, and other activities) is critical to the economy of the region. Visitors to Napa Valley, California, contributed $1.27 billion to the region's economy in 2015, a record figure that represents an 8.9 percent increase from 2014, according to a report from the state's tourism board. Visitors to Sonoma County contributed $1.8 billion. The economic boost from tourism is no doubt in part due to region's thriving wine industry and it all depends on water.

### Describe existing or potential drought conditions to be addressed in the Drought Contingency Plan.

The issue of drought will be exacerbated by the impacts of climate change in the region. The local and regional agencies have initiated studies to address the issue. The DCP will incorporate and elaborate on the ongoing work to create a vision of the water balance and water needs of the region during drought periods

SCWA is initiating a Climate Adaption Plan that will include reviewing and summarizing climate science, conducting vulnerability assessments, performing risk assessments and identifying and developing adaptation options at water supply, flood control and sanitation facilities. A draft Plan is scheduled to be completed in Fall 2017. Already, Sonoma County has seen the impacts of climate change, experts said. There are more hot days throughout the year, with those days growing hotter, increasing fire danger. Drought conditions have also sapped moisture from the ground, preventing rain from recharging underground water supplies. The following potential future climate-related risks to Sonoma County have been identified through the Water Agency's climate work:

- Continuing increasing temperatures are consistently predicted by climate projection models.
- Although the climate projection models do not agree whether Sonoma County will be overall wetter or drier in the future, there is agreement that precipitation will be more variable and that atmospheric rivers are likely to play a key role in that variability.
- Given increasing temperature and variability of precipitation, the severity of droughts is likely to increase.
- Stronger flooding events are considered likely due to increased variability of precipitation and increased role and strength of atmospheric rivers.

- An increased risk of wildfires is predicted across the Western United States, including Sonoma County.
- Sea-level rise will continue to occur.

A 2011 report indicates that Napa Valley has warmed slightly over recent decades. According to the Napa Valley-specific data analyzed for our report, the warming experienced, one to two degrees Fahrenheit, has taken place primarily in overnight temperatures between the months of January to August. In fact, Napa Valley has actually experienced cooler daytime temperatures and increased marine fog influence during the summer growing season in recent years. Although part of the greater California wine industry, Napa Valley is a unique place and is best understood by looking at appellation-specific data. Napa Valley is neither a coastal nor an interior climate, but shares traits of both — the southern part of the valley is more maritime, while central northeastern Napa Valley features some climate traits similar to California's coastal valleys. Daily and seasonal temperature changes are higher than cool coastal climates, but less severe than warmer inland climates. Napa Valley is highly influenced by the marine layer, especially in the summer. Marine-influenced morning cloud cover mitigates daytime high temperatures, even though the clouds dissipate by early afternoon.

Potential effects of projected climate change on Marin County includes increases in temperature, changes in precipitation, and sea level rise could result in the increased frequency or intensity of certain climate hazards, including shifts in the water supply and demand, wildfires, extreme heat, and inland flooding. Shifts in the energy supply and demand and changes in the agricultural growing season present additional potential impacts in the County.

### Describe the status of any existing planning efforts.

No current regional drought plan exists. Further, the agricultural areas are underrepresented in terms of consensus drought contingency planning. However, each urban water supplier has a water shortage contingency plan that is required by the California Department of Water Resources as part of the urban water management plan that defines stages and temporary response actions to take in the event of a water shortage. These water shortage contingency plans provide some of the elements of a drought plan, but do not include most of what is required to be included in the Drought Contingency Plan. These existing plans will be incorporated, where appropriate, into the Drought Contingency Plan to create a holistic regional approach with a common language and consistency of approach.

## Evaluation Criterion B – Diversity of Stakeholders

### Describe the stakeholders to be involved in the planning process.

The Drought Contingency Plan is being undertaken by the SCWA as lead agency and fiscal agent for the NBWRA who will convene the DCP Task Force. The NBWRA member agencies will contribute both funding and in-kind services toward making the DCP both technically sound and reflective of diverse community interests and priorities.

The NBWRA is in the process of building their membership beyond the founding agencies to include municipalities, flood control and water conservation districts, surface and groundwater management authorities and other stakeholders within the proposed DCP area.

Both SCWA and NBWRA are committed to conducting the DCP as part of planning for a stable water supply future. Please refer to the attached support letter from NBWRA Board Chair,

Sonoma County Supervisor David Rabbitt, that captures the commitment of the regional partnership to undertake the DCP.

The following agencies, local governments, wholesale and retail water providers, and sanitation districts all currently provide water and wastewater services to agricultural, recreational, environmental, and municipal customers as part of the NBWRA:

- County of Marin
- Las Gallinas Valley Sanitary District
- North Marin Water District
- Novato Sanitary District
- Marin Municipal Water District
- Napa County
- Napa Sanitation District
- City of American Canyon
- Sonoma County Water Agency
- Sonoma Valley County Sanitation District
- City of Petaluma

### Efforts to ensure participation by a diverse array of stakeholders

**Create an Outreach Group**. As described under Task 1 – Initial Drought Contingency Plan Steps, the DCP planning team will work to identify the appropriate regional organizations, their leaders and staff and to convene an Outreach Group. The Outreach Group will work with opinion leaders that can be identified by a few characteristics: the person's appointed or elected position, his or her values and traits, his or her competence or expertise, and his or her social position. During the initial planning steps these opinion leader stakeholders will be contacted to determine their support and interest in participating in the process. The specific efforts that will be undertaken to engage them in the planning process will be developed in the communication and outreach plan.

Opinion organizations and their leaders can include, but are not limited to, the following:

**Hospitality;** Visit Napa Valley, Sonoma County Convention & Visitors Bureau, Sonoma County Tourism and Marin County Convention & Visitors Bureau.

**Agriculture:** Sonoma, Marin and Napa County Farm Bureaus, Sonoma County Vintners Association, Sonoma County Grape Growers Association, Carneros Wine Alliance, Napa Valley Grape Growers Association, United Winegrowers of Sonoma County, Marin Agricultural Land Trust, Sonoma, Marin and Napa County Resource Conservation Districts and new formed Groundwater Sustainability Authorities.

**Environmental:** Friends of the Petaluma River, Sonoma Ecology Center, Sonoma County Conservation Action, Sonoma Environmental Education Collaborative, Environmental Education Coalition of Napa County, Sonoma County Open Space District, Sonoma Land Trust, Sonoma County Water Coalition, Friends of the Napa River, Napa County Parks and Open Space District, Gallinas Watershed Council, Marin Conservation League, Marin Audubon, and Friends of Novato Creek.

**Business and other Interests:** Chambers of Commerce

Please refer to **Evaluation Criterion D – Nexus to Bureau of Reclamation** for more information on the NBWRA and stakeholder involvement.

## Evaluation Criterion C – Project Implementation

### Describe the approach for addressing the six required elements of a Drought Contingency Plan within the two-year timeframe.

The six elements of the Drought Contingency Plan will be addressed within the two-year time frame in accordance with the schedule presented in Table 4.

**Table 4. Drought Contingency Plan Schedule**

| Task | Month | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| 1. Initial Drought Contingency Plan Steps | | | | | | | | | | | | |
| 2. Background, Study Area, and Participating Agencies | | | | | | | | | | | | |
| 3. Water Supplies and Demands | | | | | | | | | | | | |
| 4. Drought Monitoring Process | | | | | | | | | | | | |
| 5. Vulnerability Assessment | | | | | | | | | | | | |
| 6. Mitigation Actions | | | | | | | | | | | | |
| 7. Response Actions | | | | | | | | | | | | |
| 8. Administrative and Organizational Framework | | | | | | | | | | | | |
| 9. Update Process | | | | | | | | | | | | |
| 10. Drought Contingency Plan Document | | | | | | | | | | | | |
| 11. Project Management | | | | | | | | | | | | |
| Stakeholder meetings | | | | | | | | | | | | |

### Describe the availability and quality of existing data and models applicable to the proposed plan or plan update

There are a number of surface water and groundwater models that have been developed by the local agencies that can be brought to bear in addressing the DCP. Below is a brief list of some of the key models available.

**Table 5. Key Models Available for the Plan Area**

| Model Name | Purpose | Geography |
|---|---|---|
| Root Zone Model | Average annual change in groundwater storage | Napa Valley Groundwater Subbasin |
| USGS Model | Ground water conditions | MST Subarea of Napa County |

| Table 5. Key Models Available for the Plan Area | | |
|---|---|---|
| Integrated surface water/groundwater model (MIKE-SHE ISGW) | Groundwater Conditions | Napa Valley Groundwater Subbasin |
| Sonoma Valley Groundwater Model (MODFLOW-OHM) | Groundwater Conditions | Sonoma Valley Groundwater Basin |
| Petaluma Valley Groundwater Model (MODFLOW-OHM) In development | Groundwater Conditions | Petaluma Valley Groundwater Basin |
| Basin Characterization Model | Historical and Future Hydrologic Water Balance Model | Sonoma and Marin Counties |
| Drinking Water Systems Annual Reports | Provides monthly data by categories of water production and use (2011-2015); Prior to 2011, datasets only have annual max month and max day production by categories. | All Sonoma County PWSs |
| 2015 UWMPs – Sonoma County Water Agency, VOMWD, City of Sonoma, City of Petaluma, NMWD, MMWD, City of Napa | Provides information regarding available water supply under variable hydrologic conditions, projected demands, drought contingency plans and projected climate change impacts. | DCP Plan Area |
| Sonoma Valley Groundwater Management Program, Five Year Review and Update | | Sonoma Valley Groundwater Basin |
| Novato Watershed Models | Hydrology and Hydraulics | Novato Creek Watershed |
| Sonoma Valley Salt and Nutrient Management Plan | | Sonoma Valley |
| Novato Watershed Models | Hydrology and Hydraulics | Novato Creek Watershed |

## Identify staff with appropriate technical expertise and describe their qualifications.

**Grant Davis** (SCWA) – As the General Manager of the Sonoma County Water Agency, Mr. Davis is responsible for the Water Agency's core functions of providing drinking water to over 600,000 residents in portions of Sonoma and Marin counties, wastewater management for 60,000 customers, maintaining nearly 100 miles of streams and detention basins for flood protection, and restoring habitat for three federally listed fish species in the Russian River. Mr. Davis and his team are also implementing a renewable energy portfolio that has resulted in a carbon free water supply and distribution system. The Water Agency is a regional leader in the development and implementation of federal and statewide initiatives, such as the North Coast and San Francisco Bay Area Integrated Regional Water Management Program, Water Bond Coalition, and the Pacific Coastal Salmon Restoration Fund.

Also supporting project management will be Jay Jasperse (Chief Engineer and Director of Groundwater Management, SCWA), Pamela Jeane (Permitting, SCWA), Marcus Trotta (Principal Hydrogeologist, SCWA), Don Seymour (principal Engineer, SCWA), and other SCWA staff as necessary.

Jay Jasperse (Sonoma County Water Agency) is the Chief Engineer and Director of Groundwater Management for the Sonoma County Water Agency. Mr. Jasperse received a Bachelor of Science degree in Geology from the University of California at Davis and a Master's degree in Civil Engineering from the University of California at Berkeley. He is a Registered Professional Engineer in the State of California. Prior to joining the Water Agency, he worked as an environmental engineering consultant specializing in groundwater resource characterization and remediation. He is responsible for the Water Agency's capital projects program and resource planning and management activities. Mr. Jasperse has been a member of NATO and NSF delegations in Egypt and South Korea, respectively. He is an author of published journal articles and book chapters on topics such as surface water-groundwater interactions, natural filtration processes, riverbank filtration, and integrated water resource management.

Pamela Jeane (Sonoma County Water Agency) is responsible for the continuous operation and permitting of the Water Agency's potable water and sanitation facilities. Ms. Jeane completed her Bachelor's degree in civil engineering at California State University at Chico. Upon graduation, Ms. Jeane worked overseas for two years. She has been with the Water Agency since 1991 and is a registered civil engineer in the State of California.

Marcus Trotta (Sonoma County Water Agency) is the Principal Hydrogeologist overseeing Agency's Groundwater Section. He has more than 20 years of experience in water resource planning and groundwater management. The primary focus of his work involves leading feasibility studies for enhanced groundwater recharge projects and managing groundwater monitoring programs and technical studies in support of collaborative groundwater management activities. He is a California Professional Geologist and Certified Hydrogeologist and received his Bachelor of Science degree in Geology with an emphasis in Hydrologic Science from the University of California at Davis.

Don Seymour (Sonoma County Water Agency) is the Principal Engineer overseeing the Water Agency's Resource & Planning Section. He has more than 20 years of experience in water supply planning in Sonoma County and the Russian River Watershed, including California water rights issues, hydrologic and hydrogeologic planning studies, hydraulic modeling and Urban Water Management Plan development. Mr. Seymour received a Bachelor of Science degree in Microbiology and a Master's of Science degree in Civil Engineering from the University of California at Berkeley. Mr. Seymour has been with the Water Agency since 2000 and is a registered civil engineer in the State of California.

The SCWA staff are expected to be supported by a multi-discipline team of water resources planners, hydrologists, climate change experts, environmental scientists, and public involvement specialists. It should be noted that the consulting team members described below have worked closely with SCWA in the preparation of this grant proposal. However, if this grant is awarded, there may be a competitive process to select the consulting team that will support SCWA with the preparation of the Drought Contingency Plan.

- Paul Selsky (Brown and Caldwell) has 39-years of experience in the water industry providing water supply planning and design to western water agencies with a regional and policy-level focus. Paul provided drought planning assistance for El Dorado County Water Agency including developing drought strategy, preparing informational materials, and assisting with the interagency committee and focus group meetings. This Agency represents El

Dorado Irrigation District, South Tahoe Public Utility District, Georgetown Divide, and Grizzly Flats. The plan developed by Paul in 2007 is now being implemented.

- Mike Savage (Brown and Caldwell) is a water resources engineer with more than 40 years of experience. He specializes in leading large and complicated water resources programs and offers a broad perspective to each program that enables him to examine options clearly, use available resources, and evaluate each potential solution to meet overall water agency goals. He is accomplished at working closely with Boards of Directors, City Councils, and multiple stakeholders to address tough water issues using a range of decision making tools.
- Mark Millan (Data Instincts) has over 20 years of experience in marketing and public relations. His firm specializes in developing public outreach strategies for challenging public projects and specifically public information and community relations for Environmental Impact Reports and design and construction of water related projects.
- Ginger Bryant (Bryant & Associates) has developed, directed and participated in diverse consulting teams comprised of individuals with the technical and policy expertise required to address complex water management issues in the West. Her watershed-based management strategies bring a comprehensive understanding of the value of water from many perspectives, be it landowner, community interests, state or federal agency. As a participant in technical teams, Ginger works closely with her team members to develop innovative alternatives to water management issues that reflect her expertise.

## Evaluation Criterion D – Nexus to the Bureau of Reclamation

The NBWRA has successfully worked with Reclamation on their Title XVI Program for both studies and project implementation and to date, over $100M in infrastructure investment has been made as a direct result of Reclamation's support.

The NBWRA proposes to continue this successful partnership with the development of a DCP to take a broader look at managing limited surface and groundwater water resources including optimizing recycled water developed under Title XVI. Local leadership recognizes a 'one water' approach is needed for managing drought impacts and, in addition to mitigation or response actions that may be identified, there is both a need and opportunity to fully utilize the infrastructure and recycled water developed under Title XVI to build resiliency into the regions supply portfolio.

Please see the graphic below that illustrates how the NBWRA is evolving to undertake the 'one water' approach and to include new members beyond the initial group of Title XVI agencies.

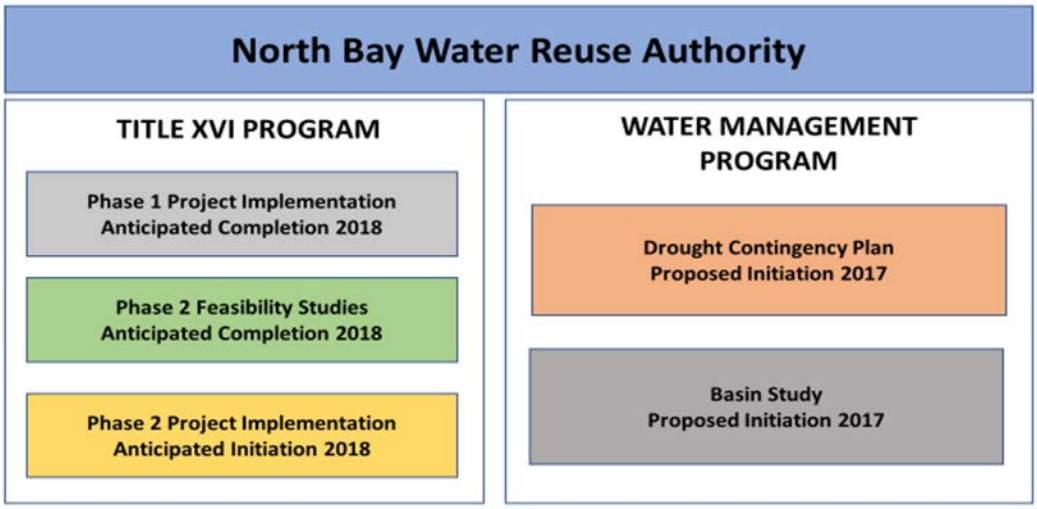


**Figure 2. Evolution of NBWRA Program**

The NBWRA planning area 'footprint' for the DCP is the same as the regional Title XVI Program; the over 350 sq-mile watershed in parts of Marin, Sonoma and Napa counties that that drains into San Pablo Bay (refer to map under Figure 1).

Under the DCP process, we propose to continue our work with Reclamation to address the effects of drought and climate impacts on the regions urban, agricultural and environmental water supply needs. The DCP not only initiates a process to maximize use of infrastructure and limited water resources but in equal measure, helps build capacity into the organization with new members and stakeholders beyond the original Title XVI member agencies.

The outcomes from the DCP being that diverse stakeholders contribute to – and become invested in – a process that presents context, trade-offs, opportunities and decisions towards managing the regions limited water supplies for a resilient future.

# Existing Drought Contingency Plan (if applicable)

No regional drought contingency plan exists. There are only the water shortage contingency plans that are an element of urban water management plans that the urban water suppliers are required to prepare by the California Department of Water Resources. For a more detailed description of the water shortage contingency plans, see **Evaluation Criterion A-Need for a Drought Contingency Plan or Plan Update.**

# Required Permits or Approvals

No permits or approvals are needed for the Drought Contingency Plan

# Letters of Support

A letter of support from the NBWRA that represents 10 local agencies: counties, municipalities, water and wastewater districts, is attached as an Appendix.

# Official Resolution

The Resolution is yet to be approved by the Sonoma County Board of Supervisors, Directors of the Sonoma County Water Agency. The Resolution is scheduled to be approved by the Sonoma County Board of Supervisors, Directors of the Sonoma County Water Agency, on March 7, 2017. Once approved, the Resolution will be submitted.

# Project Budget

## Funding Plan and Letters of Commitment

SCWA commits to providing $301,195.70 in non-federal matching funds in support of the activities identified in this application. It is expected that this amount will be satisfied by SCWA revenues, as well as anticipated in-kind costs. A funding commitment letter appears on the following page.

As of the date of this application no costs have been incurred on the project.

SONOMA COUNTY WATER AGENCY

CF/47-0-20 US Bureau of Reclamation (Grant Agree for Drought Contingency Plan) FP-00176 (ID 6676

February 14, 2017

Rupal Shah
Bureau of Reclamation
Financial Assistance Services
Mail Code: 84-27852
P.O. Box 25007
Denver, CO 80225

RE: WaterSMART BOR-DO-17-F009: North Bay Drought Contingency Plan

Dear Ms. Shah:

The Sonoma County Water Agency (Water Agency) is submitting this letter documenting its funding commitment in support of the North Bay Drought Contingency Plan grant application submitted to the WaterSMART Funding Opportunity BOR-DO-17-F009.

The Water Agency will provide a 60.1%% cash match or $301,195.70 of the total $501,195.70 project cost for Reclamation's WaterSMART grant. This funding is from the Water Agency's general fund, which receives revenue from property taxes.

I verify that the Water Agency will meet the cost share commitment and that the funds would be available pursuant to grant award. Such funding would directly support the preparation of a Drought Contingency Plan described in the grant application. We thank you for your consideration of this worthy, vital program.

Sincerely,

Grant Davis
General Manager

| Table 6. Summary of Non-Federal and Federal Funding Sources | |
|---|---|
| **Funding Sources** | **Funding Amount** |
| **Non-Federal Entities** | |
| 1.Sonoma County Water Agency | 301,195.70 |
| **Non-Federal Subtotal** | 301,195.70 |
| **Other Federal Entities** | |
| 1. | |
| **Other Federal Subtotal** | 0 |
| **Requested Reclamation Funding** | 200,000.00 |
| **Total Study Funding** | 501,195.70 |

# Budget Proposal

| Table 7. Funding Sources | | |
|---|---|---|
| **Funding Sources** | **% of Total Study Cost** | **Total Cost by Source** |
| Recipient Funding | 60.1% | $301,195.70 |
| Reclamation Funding | 39.9% | $200,000.00 |
| Other Federal Funding | 0% | $0 |
| **Totals** | 100% | $501,195.70 |

Total Drought Contingency Plan costs are $501,195.70 comprised of $99,678.70 SCWA costs to administer, support, review, and facilitate the project and $401,517.00 of contractual costs. The Budget Proposal is shown in Table 8 below and uses a format that allows us to more accurately reflect our direct labor and fringe benefit allocations.

# Attachment: Board Resolution (Draft)

The official resolution will be submitted before March 14, 2017.

Item Number: _____

Date: March 7, 2017 Resolution Number: _____

☐ 4/5 Vote Required

**Resolution Of The Board Of Directors of the Sonoma County Water Agency, State of California, authorizing the General Manager of the Sonoma County Water Agency, or his designee, to: 1) Sign and file a grant application with the US Department of Interior, Bureau of Reclamation, for Funding of the North Bay Water Reuse Authority Drought Contingency Plan; 2) Certify that the Sonoma County Water Agency will provide the amount of match funding and/or in-kind contributions specified in Funding Opportunity Announcement BOR-DO-17-F009; 3) Execute a Grant Agreement with the US Department of Interior, Bureau of Reclamation; and 4) Take all necessary actions to carry out the project and implement the grant agreement.**

**Whereas,** the Sonoma County Water Agency (Water Agency) wishes to promote and expand the beneficial use of recycled water in the North San Pablo Bay Region thereby promoting the conservation of limited surface and groundwater resources; and

**Whereas,** the Water Agency, Sonoma Valley County Sanitation District, Napa Sanitation District, Novato Sanitary District, Napa County, North Marin Water District, County of Napa, County of Marin, Marin Municipal Water District, and Las Gallinas Valley Sanitary District, collectively known as the North Bay Water Reuse Authority (Authority), signed a Memorandum of Understanding to assess and implement regional water recycling opportunities for restoration and agricultural irrigation; and

**Whereas,** the Memorandum of Understanding designates the Water Agency as the administrative agency for purposes of carrying out the administrative tasks of the Authority; and

**Whereas,** US Department of Interior, Bureau of Reclamation (Reclamation) has issued Funding Opportunity Announcement No. BOR-DO-17-F009 – WaterSMART Drought Response Program: Drought Contingency Planning Grants for Fiscal Year 2017 to assist states, tribes, and local governments to prepare for and address drought in advance of a crisis; and

**Whereas,** the Reclamation has established procedures and criteria necessary to administer the program; and

**Whereas,** said procedures and criteria established by the Reclamation require a resolution certifying the approval of application by the Applicant's governing body before submission of said application to the Reclamation; and

**Whereas,** the Water Agency intends to apply for a grant to prepare a Drought Contingency Plan for the Authority; and

**Whereas,** the Water Agency, if selected, will enter into an agreement with the Reclamation on behalf of the Authority to prepare the Drought Contingency Plan; and

**Whereas,** the Authority's Board Chairman has directed the Water Agency to submit an application on behalf of the Authority.

**Now, Therefore, Be It Resolved** that the Water Agency's Board of Directors hereby finds, determines, certifies, and declares as follows:

1. The General Manager of the Water Agency, or his designee, is hereby authorized to sign and file a grant application with the Reclamation, for Funding of the Authority Drought Contingency Plan under the Reclamation's WaterSMART Drought Response Program: Drought Contingency Planning Grants 2017.

2. The Water Agency, on behalf of the Authority, will provide the amount of match funding and/or in-kind contributions specified in Funding Opportunity Announcement BOR-DO-17-F009.

3. The General Manager of the Water Agency, or his designee, is hereby authorized to execute a Grant Agreement with the Reclamation.

4. The General Manager of the Water Agency, or his designee, is hereby authorized to take all necessary actions to carry out the project and implement the grant agreement.

**Directors:**

Gorin: Rabbitt: Gore: Hopkins: Zane:

Ayes: Noes: Absent: Abstain:

**So Ordered.**

## Attachment: Letter of Support


February 6, 2017

Mr. Grant Davis, General Manager
Sonoma County Water Agency
404 Aviation Boulevard
Santa Rosa, CA 95403

Re: Letter of Support for Sonoma County Water Agency:
US Bureau of Reclamation Drought Contingency Planning Grant

On behalf of the North Bay Water Reuse Authority (NBWRA/Authority), a regional partnership of 10 water management agencies and local governments in Marin, Napa, and Sonoma counties, I am writing to express the Authority's strong support for submitting this grant application and, for its members to participate in the Drought Contingency Planning (DCP) process.

As you are well aware, the NBWRA has a successfully history of working with Reclamation to develop recycled water to serve the region's urban, environmental and agricultural water users. By working together, we have accomplished great things for North Bay.

The DCP offers the Authorities members – and new stakeholders – the opportunity to build on their collaborative efforts. The process provides a forum for careful consideration of the effect of drought, climate variability, and sea-level rise on local water resources and from there, the ability to develop actions and future projects to build resiliency into our surface and groundwater supplies.

We look forward to SCWA's successful award of their DCP grant application and to continuing our work toward meeting the future water supply needs of our region.

Sincerely,

David Rabbitt, Sonoma County Second District Supervisor
Chair, North Bay Water Reuse Authority