

Sonoma Valley Regional Water Resources

Water for a Changing Future

SUMMARY

When Sonoma Valley water agencies reported that the closure of the water treatment plant at the Sonoma Developmental Center had the potential to cause difficulties for them and their customers, an investigation by the Sonoma County Civil Grand Jury found several meaningful problems. One of them is addressed in a companion report, *Emergency Water Shortages in Sonoma Valley*, dealing with an emergency risk that needs prompt attention. That report also provides a context for understanding a broader problem with water in Sonoma Valley. This report addresses the importance of how the Sonoma Valley will be supplied with water in the future.

The changes at the Sonoma Developmental Center made sense in isolation for the Sonoma Developmental Center, but the wider effect of these changes on water throughout the Valley was not considered. The impacts of the Sonoma Developmental Center closure illustrate the need for an improved understanding of the interdependence of all water entities in the region.

Many cooperative programs and efforts already exist in Sonoma Valley, notably the aqueduct operated by Sonoma Water, the Sonoma Valley Groundwater Sustainability Agency and the *Regional Water Supply Resiliency Study*. Additional programs are needed to address current and future water challenges in Sonoma Valley. This report identifies significant opportunities for water-related entities to leverage their collective water resources to improve regional water supply, reliability and resilience.

Some of this will have to be worked through in the months and years ahead, and part of the answer lies in a commitment on the part of water-related agencies to acknowledge that they are all part of an interactive region—each one affects the others—and embrace working together regionally on the basis of common interests.

BACKGROUND

Early water service in the Sonoma Valley was provided by small private water companies. Through the years, those companies proliferated and consolidated as communities expanded. By 1957 groundwater levels were declining, threatening the dependability of existing water supply sources. Efforts to bring in water through an aqueduct from the Russian River stalled for lack of financing until 1963, when the agency now called Sonoma Water completed the Sonoma Aqueduct to the City of Sonoma.

Today there are more water users in the Valley than ever. Valley residents still depend on surface and groundwater resources throughout the Valley. These resources are not sufficient to sustain the current population without importing additional water from the Russian River. Water resource planning, development, regulation and



*Sonoma Creek Falls
Headwaters - Sonoma Creek
Sugarloaf Ridge State Park*

use take place primarily in four local organizations: the City of Sonoma, the Valley of the Moon Water District (VOMWD), the Sonoma Developmental Center (SDC), and Sonoma Water. These are separate entities, but they all depend on the same limited resources. The actions of each affect all the others. There are many reasons for them to cooperate with one another and work together on a regional basis to serve their customers efficiently, protect scarce resources and increase resiliency to respond to emergencies and climate change.

Major Water Suppliers in Sonoma Valley

The City of Sonoma:

The City of Sonoma operates its own water system, serving more than 11,000 people on 4,000 service connections. It has its own wells, but demand far exceeds the amount of water produced by the City's wells. Most of its water comes from the Russian River, purchased from Sonoma Water and delivered through the Sonoma Aqueduct.

The Valley of the Moon Water District:

The Valley of the Moon Water District (VOMWD) came into being through the consolidation of several smaller private water companies. It supplies water to much of the area known as the Valley of the Moon, serving nearly 25,000 people through 8,700 metered accounts. Its territory covers a 12-square-mile area stretching from Glen Ellen to the City of Sonoma (excluding the SDC campus). The VOMWD also has its own wells, but most of its water today comes from the Russian River, purchased from Sonoma Water and delivered through the Sonoma Aqueduct.

Sonoma Developmental Center:

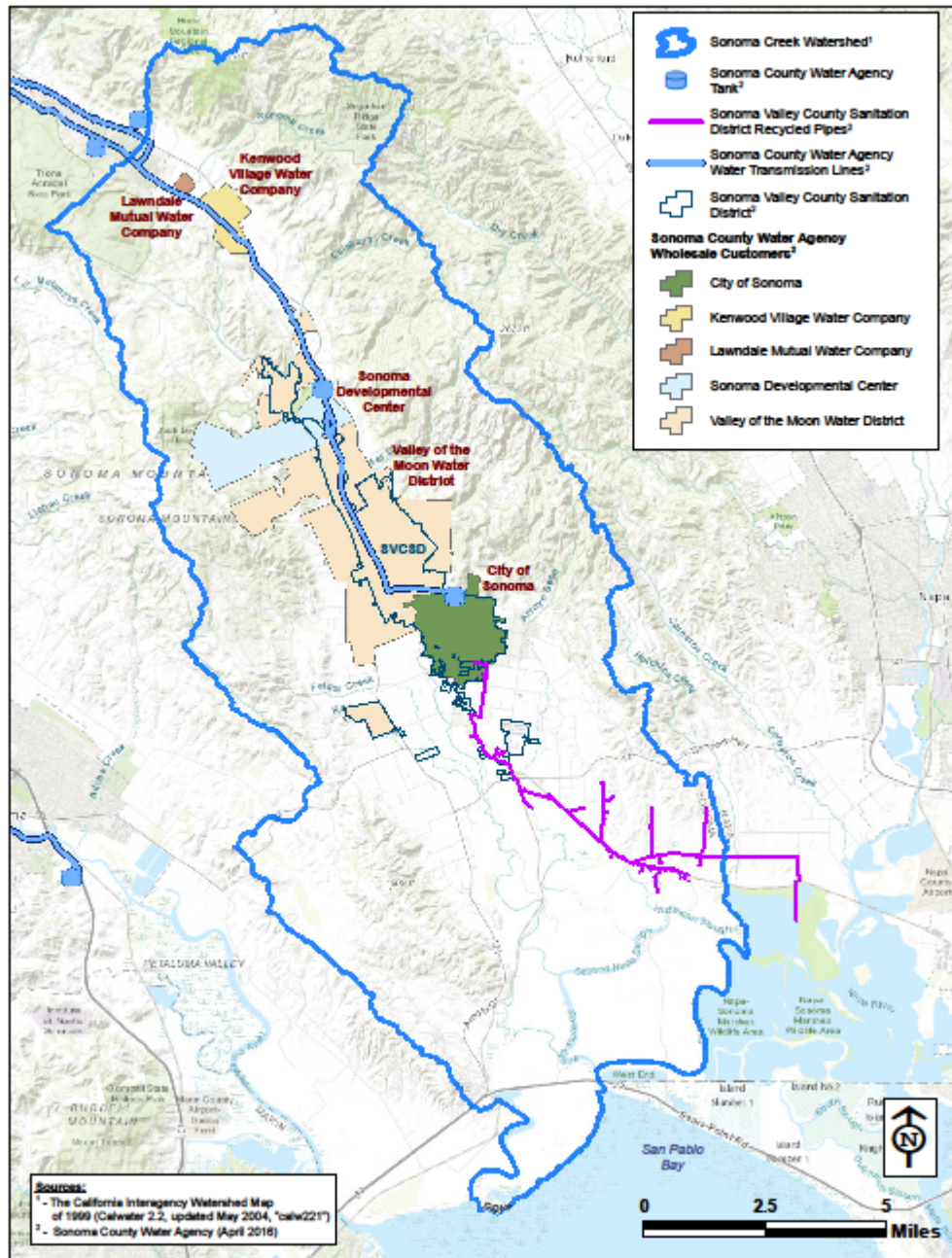
The Sonoma Developmental Center (SDC) campus occupies the property south of Glen Ellen that is owned by the State of California. Until the end of 2018 it was a residential facility for people with physical and developmental disabilities. At peak occupancy it housed as many as 4,500 patients and staff. It is currently administered by the California Department of General Services (DGS) while Sonoma County conducts a three-year land use planning process to decide how the land should be redeveloped. This process will result in an SDC Specific Plan, due in December 2021.

Until recently, water for domestic, agricultural, and fire suppression purposes came primarily from surface water on the property, which was treated on site in a facility with a capacity of up to 1.8 million gallons a day. As the population of the SDC declined, the water treatment plant handled less and less water until it closed completely in September 2019. The ultimate disposition of this site, and the water uses that will go along with it, are as yet undetermined and depend on the eventual contours of the SDC Specific Plan. The priorities for the Specific Plan include, among other things, creating affordable housing and protecting open space and natural resources.

Sonoma Water:

Sonoma Water is the current name of a special district created in 1949 to provide flood protection and water supply services for Sonoma County. It also operates the Sonoma Aqueduct that delivers water from the Russian River to more than 600,000 residents in portions of Sonoma and northern Marin counties. The agency is a water wholesaler, selling potable water primarily to nine cities and special districts, which in turn sell it to their customers. The VOMWD and the City of Sonoma are among the contracting agencies that buy water from Sonoma Water. The

SDC is one of several “Other Agency Customers” that Sonoma Water directly supplies with limited quantities of water.



SOURCE: SCWA

Southern Sonoma SWRP
Figure 10
 Sonoma Creek Watershed
 Potable and Recycled Water Supplies



Figure 1: Public entities providing water services in Sonoma Valley
(Southern Sonoma County Storm Water Resources Plan)

Allied Water Interests

Private Water Companies:

The full scope of water resources in Sonoma Valley includes not only these major suppliers, but many small private water companies, industrial centers, wineries and other agricultural interests and thousands of private wells. A few of the private water companies in this area include Diamond A Mutual Water Company, Sobre Vista Water Company, Kenwood Village Water Company and Mission Highlands Mutual Water Company. The Sonoma County Local Agency Formation Commission (LAFCO) has proposed the first two of these for possible annexation to the Valley of the Moon Water District.

Sonoma Valley County Sanitation District:

The Sonoma Valley County Sanitation District (SVCSD) serves an area from Glen Ellen in the north to Schellville in the south, including the City of Sonoma. Under the management of Sonoma Water, the SVCSD provides wastewater collection and treatment and recycled water distribution to a population of approximately 42,000 residents.



Sonoma Valley Groundwater Sustainability Agency:

With the exception of water sourced from the Russian River and provided by Sonoma Water, most of the water used in Sonoma Valley is pumped from the Sonoma Valley Groundwater Basin. Because the groundwater levels in parts of Sonoma Valley are declining and infiltration of salt water into the aquifer threatens serious damage, the Sonoma Valley Groundwater Sustainability Agency (SVGSA) was formed in 2017 to deal with these issues and work for sustainable solutions. The SVGSA is not a supplier; its mandate is to maintain groundwater at sustainable levels so that it will continue to be available to all users, including the thousands of rural households, businesses and farms that do not receive water from established water systems. The SVGSA is required by law to issue a 20-year Groundwater Sustainability Plan by 2022.

Fire Protection Districts:

Fire protection districts work closely with the major water suppliers. Fire departments typically rely on mutual assistance agreements for backup. In 2017, the City of Sonoma and the Valley of the Moon Fire Protection District entered into an agreement to merge under the name Sonoma Valley Fire & Rescue Authority. Effective July 1, 2020, LAFCO gave its approval to include the Glen Ellen Fire Protection District and an appropriate portion of County Service Area 40-Fire Services (Mayacamas Volunteer Fire Department) in the merger. The new service will operate under the name Sonoma Valley Fire Protection District. In the future, the Kenwood Fire Protection District and the Schell-Vista Fire Protection District may be added to the newly created agency.

Other Agencies:

Other governmental entities play important roles in making sure our water resources are protected, safe and adequate both for people and for the wildlife and environmental interests that we value. Federal and State organizations include the U.S. Environmental Protection Agency (EPA), the U.S. Fish and Wildlife Service, the California Department of Fish and Wildlife and various water quality organizations. They are regulatory agencies rather than local suppliers or users, but they are significant players in the regulatory environment.

Regional cooperation

Sonoma County residents have long acted cooperatively when it comes to water resources, ranging from building and maintaining local water companies, supporting the construction of the Sonoma Aqueduct, to conserving groundwater resources under the SVGSA. This kind of cooperative effort is continuing as Sonoma Water and its water contractors (including City of Sonoma and the VOMWD) conduct a resiliency study to learn how to improve their operations in the face of emergencies such as earthquake, fire, flood, drought and climate change. This same spirit of cooperative planning extends to County officials responsible for the SDC Specific Plan, as they engage local water providers in the planning process.

METHODOLOGY

This investigation evolved out of responses to the 2018-2019 Civil Grand Jury investigation about the availability of water after an earthquake. The Grand Jury explored how the underlying problems might have been avoided through better cooperation.

The Grand Jury held interviews with:

- Representatives of Sonoma Water, the Valley of the Moon Water District, and the City of Sonoma.
- Representatives of Permit Sonoma, fire agencies, and the California Department of General Services.

The Grand Jury reviewed and evaluated a wide range of sources:

- The Valley of the Moon Water District and the City of Sonoma responses to the 2018-2019 Grand Jury report *Will There Be Water After an Earthquake?*
- A variety of maps, studies, contracts and planning documents relating to the water resources of the Sonoma Valley.
- Technical documents dealing with water sourcing, storage, distribution and use under normal conditions and in hypothetical and real emergencies.
- Information pertaining to the Sonoma Valley Groundwater Sustainability Agency and the Sonoma Valley County Sanitation District.

DISCUSSION

For those dealing with water issues, change may affect conservation, groundwater sustainability, water quality, reclaimed water and water allocations from the Sonoma Aqueduct, among other major issues. The ability to bring about positive change or reduce risks demands common effort.

As an example, the Sonoma Aqueduct is a major asset for the Valley. Life in the Valley as we know and enjoy it would not be possible without water from the Sonoma Aqueduct. The Aqueduct was a major change and success when it was completed nearly 60 years ago. The first efforts to organize and fund the project failed. It took the ongoing efforts of people working together to persist and succeed.

The decision to close the Sonoma Developmental Center (SDC) is a current example of a major transition that is affecting the lives of thousands of people. The SDC was once the largest employer in the County. Now it is closed. Changes at the former SDC site figure prominently in this report because they have a marked effect on water suppliers and other governmental entities throughout Sonoma Valley, most notably the nearby Valley of the Moon Water District.

Ongoing Efforts Requiring Further Cooperation

The following efforts in Sonoma Valley still need further cooperation to maximize their success:

- Recent threats to groundwater overdraft have resulted in the Sustainable Groundwater Management Act (SGMA), with a sustainability plan expected in a few years.
- A feasibility study for recycled water led to expectations of more extensive use, until the VOMWD dropped out.
- The SDC and VOMWD had a mutual aid agreement that called for the exchange of water during emergencies, until the closure of the SDC water treatment plant made it ineffectual.¹

Effective Cooperative Efforts

The consolidation of fire districts in Sonoma Valley is an example of working together cooperatively.

The City of Sonoma, fire districts, and other water-oriented agencies in Sonoma Valley:

- Recognize and affirm the mutuality of their goals and services.
- Cooperate in joint activities and projects as appropriate, working together for the common benefit of the region.

The City of Sonoma and Valley of the Moon Fire Protection District had an agreement with the Sonoma Valley Fire and Rescue Authority. The agreement fostered mutual planning and response in both normal times and in an emergency. Most recently, building on this foundation, fire districts joined together to provide consistent coverage throughout most of Sonoma Valley.

¹ The Grand Jury's companion report, *Emergency Water Shortages in Sonoma Valley*, details what happened.

The three major water suppliers within Sonoma Valley are the City of Sonoma, VOMWD and Sonoma Water. They participate in county, regional and state partnerships, including:

- California Master Mutual Aid Agreement
- California Water Efficiency Partnership
- Sonoma-Marin Saving Water Partnership
- Sonoma Water Technical Advisory Committee and Water Advisory Committee
- Urban Water Management Plan
- California Water Loss Audit Reports / American Water Works Association
- Sonoma Valley Recycled Water Feasibility Study
- Southern Sonoma County Stormwater Resources Plan

With recent reductions in scope and activity, the SDC is no longer required to make most of the mandatory filings associated with water districts. In the future, considerable activity is expected to resume in some form at the SDC site.

Both Sonoma Valley water utilities and Sonoma Water participate in the Sonoma-Marin Saving Water Partnership and the California Water Efficiency Partnership. The partnerships have been active in conserving water and planning for droughts. Although the focus differs, the benefit for emergency preparedness is similar because less water used in normal times means less water needed during emergencies. Guidance for water conservation also comes from the *Restructured Agreement for Water Supply*, the contract between Sonoma Water and its water contractors that governs Russian River water delivered through the Sonoma Aqueduct.

California law requires urban retail water suppliers to submit annual validated water-loss audits to the California Department of Water Resources (DWR). The VOMWD and the City of Sonoma filed reports for 2018, the most recent year of record. There are no leakage audit reports on file for SDC, but it is commonly believed that their system losses are substantial. The SDC water distribution system is outdated and has been getting by with minimal maintenance; the fire department reports pipes bursting during training exercises. The SDC system also has dual piping (originally separate systems for drinking and untreated water), which means more joints, valves and fittings that can break or leak.

The DWR has been tasked with developing new goals for urban retail water suppliers aimed at reducing indoor water consumption to 55 gallons per person per day. There will also be a goal for outdoor water consumption. There are no legal mandates on consumers, but utilities will have to conserve or pay substantial fines. This is an example of resource limitations and changing conservation standards that we have to accept as the State's population increases. It will take cooperative effort to achieve the goals.

Sonoma Water is leading local water utilities in the *Regional Water Supply Resiliency Study*. This study will determine how the region would benefit from leveraging their collective water resources by improving regional water supply reliability and resiliency.

Sonoma County Local Agency Formation Commission (LAFCO)

The Sonoma County Civil Grand Jury is not the first to recommend working cooperatively. When LAFCO studied the Valley of the Moon Water District in 2017 and determined that its Sphere of Influence includes the SDC area, the findings that led to that determination recognized significant opportunities for cooperation among water entities in Sonoma Valley. LAFCO proposed the following to the VOMWD:

- Continue discussions with the City of Sonoma regarding opportunities for coordinating provisions to produce efficiencies and cost savings, up to and including potential consolidation of operations in the future.
- Explore opportunities to reduce costs (management, office operations, equipment) through a joint operating agreement or consolidation with the City of Sonoma's water utility.
- Take advantage of opportunities to reduce costs and provide more efficient services. The VOMWD has already taken advantage of many and should consider opportunities to share facilities and services with smaller local agencies including the City of Sonoma and nearby municipal water companies. Potential shared services might include:
 - Meter reading
 - Customer billing and payment processing
 - Water sample collection and testing
 - Customer service

LAFCO also pointed out opportunities for cooperative activities between VOMWD and SDC, both now and during the transition to a redeveloped property:

- The VOMWD can serve existing and potential users on the Sonoma Developmental Center site, using existing water supply resources. The VOMWD is also capable of taking on management and operation of SDC water-delivery infrastructure, though it is assumed that significant improvements and upgrades would be needed.
- The disposition of the properties comprising the community previously operated as the SDC may call for the transfer of the campus water production and delivery system to a capable local agency; VOMWD is the only rational choice to do so.
- For the SDC, an eventual annexation of the area may allow the VOMWD to develop additional local supply and groundwater management options, to the benefit of both the SDC area, the VOMWD and Sonoma Valley as a whole.

The LAFCO study observed that the VOMWD “remains open to forging agreements with the State to cooperatively manage water supply and delivery assets at the campus for broader benefit to the Sonoma Valley community. Opportunities include seasonal water storage, use of groundwater and surface water sources, and siting of groundwater recharge facilities.”

The professionals engaged by the County (Dyett & Bhatia) to consult on the SDC Specific Plan have a broader work statement: “The [water supply assessment] will consider various water supply alternatives, including annexation to the Valley of the Moon Water District, conversion to a private utility, and others.” The sooner those options can be addressed and decided, the better it will be for the three-year planning effort and for addressing immediate concerns in the field.

Opportunities for Regional Cooperation

The California Department of Water Resources urges regional water management as:

A collaborative effort to identify and implement water management solutions on a regional scale that increase regional self-reliance, reduce conflict, and manage water to concurrently achieve social, environmental, and economic objectives. This approach delivers higher value for investments by considering all interests, providing multiple benefits, and working across jurisdictional boundaries. Examples of multiple benefits include improved water quality, better flood management, restored and enhanced ecosystems, and more reliable surface and groundwater supplies.

The 2020 Urban Water Management Plan (UWMP) presents an especially attractive opportunity. Each water supply utility prepares an extensive planning document every five years, presenting detailed information about the utility's services, capabilities, water demand and sources, and plans and projections for the future. The State's guidelines for preparing the reports encourage regional submittals among cooperating utilities. "Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable."

CONCLUSION

Sonoma Valley will need to adopt a more regional approach to water management because of ongoing challenges such as population growth and climate change in the region. Water resources in the Valley are clearly limited; formalized agreements and efforts to share water supplies in an emergency should be equally valuable. Mutual aid agreements can also be applied to supplies, equipment and staffing. Cooperative efforts can extend to joint projects such as water conservation, groundwater recharge and distribution of reclaimed water, all of which are regional concerns.

Sonoma Valley has had some notable successes in cooperating on water management such as the Sonoma Aqueduct, the Sonoma Valley Groundwater Sustainability Agency and the *Regional Water Supply Resiliency Study*. Now they are going to need to go beyond that due to future challenges. The need for potable water affects everyone in Sonoma Valley, especially during emergency conditions such as fire, earthquake, drought or flood. As conditions change and we need better ways to manage water, we must seek solutions through cooperation. To anticipate and prepare for tomorrow's problems, Sonoma Valley needs a regional approach to managing regional water resources.

FINDINGS

- F1. The unilateral closure of the Sonoma Developmental Center water treatment plant has negatively impacted water agencies throughout the Valley and illustrates the need for a regional approach to water management.
- F2. The Sonoma Developmental Center has chosen to purchase water from Sonoma Water, rather than continue treating local water for its supply, but the Restructured Agreement may give the Valley of the Moon Water District the right to replace Sonoma Water as the water supplier for the Sonoma Developmental Center.
- F3. The SDC Specific Plan provides an opportunity for regional cooperation.
- F4. As the Sonoma County Local Agency Formation Commission's presumptive water supplier for the site, the Valley of the Moon Water District could contract with the Department of General Services to operate and manage the existing water distribution system on the Sonoma Developmental Center site until the SDC Specific Plan is implemented.
- F5. The City of Sonoma, the Valley of the Moon Water District, and Sonoma Developmental Center have common interests that warrant current and ongoing cooperation between and among them through formal and informal processes.
- F6. Small private water districts in the Valley would also benefit from regional cooperation.
- F7. Cooperation between regional water suppliers might include projects such as: wastewater collection and treatment, recycled water use, spreading basins for groundwater recharge and fire suppression.
- F8. The State of California encourages cooperative efforts among water supply agencies, including joint preparation of regional Urban Water Management Plans.

RECOMMENDATIONS

The Sonoma County Civil Grand Jury recommends that:

- R1. Sonoma Water, the Valley of the Moon Water District, the City of Sonoma and Permit Sonoma work with California Department of General Services to seek an agreement, by October 31, 2020, that potable water storage facilities at Sonoma Developmental Center shall remain active and available for sharing water (F2)
- R2. Permit Sonoma establish, by August 31, 2020, a continuing dialog with water system managers for the City of Sonoma, the Valley of the Moon Water District, and the Sonoma Developmental Center to inform the SDC Specific Plan. (F5, F8)
- R3. Sonoma Valley water agencies take an active role in the SDC Specific plan process, by September 30, 2020. (F3, F7)
- R4. Permit Sonoma communicate the results of the Water Supply Assessment to water system managers for the City of Sonoma and the Valley of the Moon Water District as soon as they become available. (F8)

- R5. The City of Sonoma and the Valley of the Moon Water District establish a mutual aid agreement that provides for ongoing cooperation on planning, services, projects and such other collaborative efforts that they deem to be to be mutually beneficial (e.g., sharing of such resources as staff, equipment and emergency water), with a copy of the mutual aid agreement to be sent to the Grand Jury by December 31, 2020. (F8)
- R6. The Valley of the Moon Water District and the City of Sonoma meet by October 31, 2020 to discuss the issuance of a regional 2020 Urban Water Management Plan rather than two separate ones. (F8)

REQUIRED RESPONSES

Pursuant to Penal Code §933.05, the Grand Jury requires responses as follows:

- The Valley of the Moon Water District (R1, R2, R3, R4, R5, R6)
- City of Sonoma (R1, R2, R3, R4, R5, R6)
- Sonoma Water (R1)
- Permit Sonoma (R1, R2, R3, R4)

The governing bodies indicated above should be aware that the comment or response of the governing body must be conducted subject to the notice, agenda and open meeting requirements of the Brown Act.

INVITED RESPONSES

The Grand Jury invites the following to respond:

- Director of the California Department of General Services (R1)

BIBLIOGRAPHY

For brevity, the bibliography for this report is included in the similar bibliography in the companion report, *Emergency Water Shortages in Sonoma Valley*.

GLOSSARY

- DWR California Department of Water Resources
- LAFCO Sonoma County Local Agency Formation Commission
Regulates the boundaries of cities and special districts.
- SDC Sonoma Developmental Center
- Sonoma Valley Geographical area stretching from Kenwood through the City of Sonoma and south to San Pablo Bay
- Specific Plan A detailed plan for implementing or modifying the County's General Plan for land use, in this report the SDC property

- SVGSA Sonoma Valley Groundwater Sustainability Agency
- UWMP Urban Water Management Plan
- VOMWD Valley of the Moon Water District