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# Groundwater Data Management and Disclosure

## Guidance Document January 2013



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## Introduction

Groundwater and surface waters are very important natural resources in Napa County. Largely a rural agrarian community, County residents embrace a fragile balance between agriculture and the natural environment. Similar to other areas of Northern California, the County faces many water related challenges now and in the future including:

- Sustaining groundwater recharge capacity and supplies,
- Preserving the quality and availability of local water supplies,
- Addressing competition for current and future water supplies,
- Addressing effects of prolonged drought,
- Avoiding adverse environmental impacts from water use, and
- Addressing reductions in long term availability due to climate change.

To address these challenges, long-term, systematic monitoring programs are essential to providing sufficient information for improved evaluation of water resource conditions and to facilitate effective and efficient water resources management. Recognizing these challenges, the Board of Supervisors adopted the 2008 General Plan Update which included the following Goals and Action Items:

**Goal CON-8:** Reduce or eliminate groundwater and surface water contamination from known sources (e.g., underground tanks, chemical spills, landfills, livestock grazing, and other dispersed sources such as septic systems).

**Goal CON-10:** Conserve, enhance and manage water resources on a sustainable basis to attempt to ensure that sufficient amounts of water will be available for the uses allowed by this General Plan, for the natural environment, and for future generations.

**Goal CON-11:** Prioritize the use of available groundwater for agricultural and rural residential uses rather than urbanized areas and ensure that land use decisions recognize the long term availability and value of water resources in Napa County.

**Goal CON-12:** Proactively collect information about the status of the County's surface and groundwater resources to provide for improved forecasting of future supplies and effective management of the resources in each of the County's watersheds.

**Action Item CON WR-8:** The County shall monitor groundwater and interrelated surface water resources, using County-owned monitoring wells and stream and precipitation gauges, data obtained from private owners on a voluntary basis, data obtained via conditions of approval associated with discretionary projects, data from the Department of Water Resources, other agencies and organizations. Monitoring data shall be used to determine baseline water quality conditions, track groundwater levels, and identify where problems may exist. Where there is a demonstrated need for additional management actions to address groundwater problems, the County shall work collaboratively with property owners and other stakeholders to prepare a plan for

managing groundwater supplies pursuant to State Water Code Sections 10750-10755.4 or other applicable legal authorities.

**Action Item CON WR-9.5:** The County shall work with the State Water Resources Control Board (SWRCB), California Department of Water Resources (DWR), Department of Public Health (DPH), California Environmental Management Agency (CalEPA), and applicable County and City agencies to seek and secure funding sources for the County to develop and expand its groundwater monitoring and assessment and undertake community-based planning efforts aimed at developing necessary management programs and enhancements.

To effectively implement the above Goals and Action Items, the County embarked upon the “Comprehensive Groundwater Monitoring Program, Data Review, and Policy Recommendations for Napa County Groundwater Resources” project. This project resulted in five technical memoranda culminating in a 2011 report entitled “Napa County Groundwater Conditions and Groundwater Monitoring Recommendations.” These efforts have led to a broader awareness of available groundwater data and an assessment of current groundwater conditions and trends, and have identified factors related to future assessment of groundwater availability. On-going efforts will emphasize development of a sound understanding of groundwater conditions and implementation of an expanded groundwater monitoring and data management program as a foundation for future coordinated, integrated water resources planning and dissemination of water resources related information.

To address recommendations contained in recent studies and to meet the goals and actions set forth by the Board of Supervisors, the Napa County Groundwater Monitoring Plan 2012 was developed to formalize and augment prior groundwater monitoring efforts, for both level and quality, to better understand the County’s groundwater resources, aid in making the County eligible for public funds (e.g. grants) administered by the California Department of Water Resources, and regularly evaluate trends to identify changes in groundwater levels and /or quality and causal factors related to those changes that warrant further examination to ensure sustainable water resources.

In addition to the County’s efforts, State and Federal programs are underway. Some of these efforts are independent of the County. Others rely upon the County for data collection and submittal.

Multiple county-wide, multi-jurisdictional programs are collecting, processing, storing, evaluating and publishing information about Napa County groundwater and surface water resources. It is anticipated that these programs will continue to become increasingly robust to address the challenges ahead.

Toward the purposes of transparency and documentation, the intent of this document is to inform County staff and consultants, monitoring program participants and the public by summarizing:

- Known data collection efforts by all agencies throughout the County,
- What type of information is collected,
- How data is stored, processed and evaluated by the County,
- What information is considered to be proprietary,
- What information is considered to be sensitive by the County and,
- What information is published by the various programs.

In the coming years as information accumulates, is evaluated and results reported; Napa County needs to consistently meet the expectations of its constituents and program participants. To that end, this document is intended primarily as a guide for the collection and release of information as well as to set the expectations of our monitoring program participants. It is also intended to memorialize collected information about other programs throughout Napa County. Undoubtedly the guide will need to be revised periodically as groundwater programs and statutes change.

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## Data Collection Efforts

Napa County is not the sole agency interested in water resources within its jurisdiction. Several local, state and Federal agencies also maintain their own programs. This section summarizes the many groundwater and surface water data collection efforts within Napa County. It also summarizes the types of information collected.

### Napa County Voluntary Monitoring Programs

The County has been collecting groundwater level information from volunteered wells for many years, some since 1918. In 2009, the County embarked on a countywide effort to develop the “Comprehensive Groundwater Monitoring Program, Data Review and Policy Recommendations for Napa County’s Groundwater Resources” (Program) to address action items identified in the 2008 General Plan Update. The Program involved many tasks that led to the preparation of five technical memoranda and a 2011 report on “Napa County Groundwater Conditions and Groundwater Monitoring Recommendations”. The report is primarily a reconnaissance level review of prior data collection efforts, data management, and geologic units and groundwater conditions primarily within Napa Valley based upon limited analysis.

Following through on recommendations for more robust monitoring, the “Napa County Groundwater Monitoring Plan 2012” (Plan) was developed. This Plan formalizes recommendations provided in the Program by outlining steps to augment countywide groundwater level and quality monitoring. Recent studies by Napa County have found that there are many areas in the county where further efforts to establish or refine groundwater monitoring, using existing or new monitoring facilities, will improve the understanding of groundwater resource conditions and availability. This Plan summarizes groundwater monitoring priorities and recommendations for addressing these priorities. This Plan also summarizes the overarching groundwater level and quality monitoring objectives defined by the County. These objectives provide the framework necessary to ensure that the data collected from the countywide monitoring facilities can address these objectives. All reports referenced in this section can be found at <http://www.countyofnapa.org/bos/grac/> under Groundwater Reports and Data.

The County currently monitors groundwater levels in 47 privately owned wells. The Plan has identified and prioritized areas where one or more additional wells are needed. The Plan has also identified the need for additional water quality monitoring sites. Although it is estimated that 177 wells are currently being monitored for water quality by other agencies, data gaps exist. It is possible that Napa County may undertake water quality monitoring in the future if the need persists and a funding source is identified.

Volunteer participants are asked to sign a Right-of-Entry form authorizing entry on their property and use of their information. A sample form is included in the Appendix.

Napa County also provides data to the Department of Water Resources (DWR) California Statewide Groundwater Elevation Monitoring (CASGEM) Program. In November 2009, Senate

Bill SBX7 – 6 mandated that the groundwater elevations in all basins and subbasins in California be regularly and systematically monitored with the goal of demonstrating seasonal and long-term trends in groundwater elevations. In accordance with the mandate, DWR developed the CASGEM program.

On December 29, 2010, the County applied to DWR to become the local countywide Monitoring Entity responsible for designating wells as appropriate for monitoring and reporting groundwater elevations for purposes of the CASGEM program. Following confirmation, the County, as the Monitoring Entity, proceeded to identify a subset of monitored wells to be included in the CASGEM network and to prepare a CASGEM Network Plan as required by DWR. At the time the County's CASGEM Network Plan was submitted to DWR, fourteen wells were included in the program. Currently, the number of CASGEM wells has increased to nineteen. Not all groundwater basins in the County are currently monitored as required; therefore, additional outreach is anticipated in hopes of having at least one well in every basin.

The 19 CASGEM private wells are a subset of those (currently 47) monitored by County staff. Their owners have volunteered specifically for the CASGEM program. Twice each calendar year the collected level information is uploaded to DWR. Any further processing, evaluation and publication is performed by DWR in accordance with the CASGEM program. This is discussed further in the Publication of Data and Results Section.

### **Napa County Non-voluntary Monitoring Programs**

The County collects well information on a non-voluntary basis from two groups as conditions of approval for land use permits. Recently, permits issued in the Coombsville area for parcels in the watersheds of the Milliken, Sarco and Tulocay (MST) Creeks and permits for some specific projects in other areas contain various groundwater reporting requirements.

Groundwater in the MST area has been studied for over 60 years due to declining levels. In 1999, the Board of Supervisors declared the MST to be a groundwater deficient area and imposed a groundwater ordinance which requires metering of water consumption for new development projects. In 2003 a United States Geological Survey (USGS) study indicated that groundwater levels were continuing to decline. In 2004 the County adopted a "no net increase in water consumption" policy for discretionary permits to comply with the California Environmental Quality Act (CEQA).

Recently permitted wells in the MST are required to meter their groundwater usage and submit documentation to the County twice annually. If the usage exceeds the allocation approved for the parcel, additional conservation measures can be imposed. Groundwater levels in the MST are monitored through the County's voluntary program. Some owners reporting usage also report their levels.

Individual projects in other areas of the County have had conditions of approval applied to their development projects which require monitoring. Some large or controversial projects have been required to construct monitoring wells to develop baseline information prior to initiation

of consumptive uses. Detailed construction information on the monitoring wells is also required to understand the horizontal and vertical effects of new pumping on the aquifer. Wells on adjacent properties may also be monitored with the consent of the owner. Groundwater levels in all wells subject to monitoring may be checked as often as monthly, for a year before the project well is permitted to go into production. When constructed, production wells are subjected to an aquifer test with data collected at the same monitoring wells used to develop the baseline data. Production wells are also subject to on-going reporting of pumping rates and volumes as well as groundwater levels. Periodically, a report must be prepared by a licensed geologist and submitted to the County and adjacent property owners.

Similarly, some projects have been subject to surface water flow monitoring to establish baselines. Following establishment of the baseline, on-going monitoring and adaptive management may be required.

### **Napa County Proposed Public Monitoring Wells and Stream Gauging Stations**

Napa County, the Flood Control District, USGS and the cities have been collecting precipitation and stream flow data for many years (at least since 1929). Currently information is collected at about 50 sites. Since 2006, current conditions and historical data can be viewed at <http://napa.onerain.com>. Information available includes stream levels in area creeks and the Napa River, and rainfall and other local weather data.

To better understand their interrelationship, the County has proposed coupling rainfall, groundwater and surface water monitoring at six locations along the Napa River. This would entail construction of six dedicated monitoring wells and one surface water gauging station. Data from the one new and five existing gauging stations operated by the Flood Control District and the USGS would be compared with the nearby monitoring well data.

The purpose of the project is to characterize the relationship between groundwater and surface water resources in the vicinity of each monitoring site. Where possible, data from the six monitoring locations would be compared with groundwater data collected at other monitored wells in the area to evaluate the extent to which observations made at monitoring wells near the river are or are not discernible in the aquifer system.

Construction of this project is not currently funded. In July 2012 the County applied for a \$250,000 grant from DWR to implement the project. Results of the application are expected in early 2013.

### **California Department of Water Resources Monitoring Programs**

Groundwater information has been collected from many locations throughout California by the Department of Water Resources (DWR), primarily through the efforts of the four Regional Offices of the Division of Integrated Regional Water Management. The North Central Region Office (NCRO), located in West Sacramento, collects groundwater quality and groundwater elevation information in Napa County and makes that data publically available on DWR's

website. Historically, groundwater elevation and quality data have been input into DWR's Water Data Library (WDL - <http://www.water.ca.gov/waterdatalibrary/>); however, groundwater elevation information is being migrated into a new database that will store the groundwater elevation data historically input into the WDL, as well as new information generated by the State's legislative mandate to have local entities monitor groundwater elevations under the California Statewide Groundwater Elevation Monitoring Program (CASGEM Program - <http://www.water.ca.gov/groundwater/casgem/>).

Groundwater elevation data has been collected by DWR in Napa County since 1918. A total of 166 wells have been historically monitored by DWR, mostly in the Napa Valley. Currently, NCRO staff collects monthly groundwater elevation data from three wells and semi-annual data from one well. In addition to groundwater elevation data, NCRO staff collects groundwater quality data from four wells on a bi-annual basis.

### **California Department of Public Health Monitoring Programs**

CDPH routinely collects groundwater production and quality information on public water supply wells from agencies under their jurisdiction. CDPH currently regulates 169 systems in Napa County, many of which rely upon groundwater as their primary source. These systems range from the cities, small communities, individual wineries and resorts in size. The information received by CDPH is not published. Information on the regulated systems can be viewed at <http://drinc.ca.gov:8080/DWW/> and then select Napa County.

### **State Water Resources Control Board Monitoring Programs**

SWRCB maintains the GeoTracker database, a clearinghouse for environmental information related to regulated facilities in California at <https://geotracker.waterboards.ca.gov>. GeoTracker is the State Board's data management system for sites that impact groundwater. Information in the database is collected and submitted by local agencies (e.g. Napa County and the Regional Water Quality Control Boards) on sites subject to permitting or cleanup activities. An example of permitted facilities would be gas stations. Most of the cleanup activities are related to leaking underground storage tanks.

### **California Division of Oil, Gas and Geothermal Resources**

Under the Department of Conservation, DOGGR is responsible for permitting and documenting geothermal wells, amongst other duties. A substantial number of geothermal wells are located in the vicinity of Calistoga. For additional information see <http://www.conservation.ca.gov/dog/geothermal/>.

### **United States Geological Survey**

The USGS monitored and studied the MST area between 2000 and 2002. Their study results were published as "Groundwater Conditions in the Lower Milliken-Sarco-Tulocay Creeks Area of Southeastern Napa County California 2000 – 2002", 2003, (Water-Resources Investigation Report 03-4229). USGS in conjunction with the State Water Resources Control Board also

conducted a Groundwater Ambient Monitoring and Assessment (GAMA) effort in 2010 published as “Groundwater Quality in the North San Francisco Bay Groundwater Basins, California” (Fact Sheet 2010-3060). These documents can be downloaded from <http://pubs.usgs.gov>.

Currently the USGS California Water Science Center is monitoring nine wells in Napa Valley as a part of their Groundwater Watch Program. The wells are located in American Canyon, City of Napa, Yountville, Rutherford and St. Helena. Water level and quality data is being collected. Over 240 water quality parameters and attributes were analyzed on each sample. Information can be found at [http://groundwaterwatch.usgs.gov/countymaps/CA\\_055.html](http://groundwaterwatch.usgs.gov/countymaps/CA_055.html).

## Types of Data Collected

Information typically collected on wells and groundwater consists of four types:

- A physical description of the well,
- Depth to groundwater data.
- Groundwater quality data,
- Groundwater production data

This section describes Napa County’s approach to collecting these types of data.

### Physical Characteristics of Wells

California Water Code Section 13751 establishes the minimum amount of information that must be collected about a well when it is constructed. This information must be submitted on the required forms to DWR within 60 days of the well’s completion. Often referred to as a Well Completion Report the information submitted must include:

- A description of the well site sufficiently exact to permit location and identification of the well.** This typically consists of longitude and latitude.
- A detailed log of the well.** Typically, this is a summary of the geology encountered when the well was drilled. Other types of logs can also be developed.
- A description of type of construction.** This describes the size of casings, casing material, drilling method etc.
- The details of perforation.** The type of perforations or screens used, their length along the casing and the depth(s) at which they were located. This is how the groundwater enters the well.
- The methods used for sealing off surface or contaminated waters.** Depending on the type of well, e.g. potable or irrigation, different surface sealing requirements will apply. This is to prevent potentially contaminated surface or shallow ground water from entering the well or aquifer.
- The methods used for preventing contaminated waters of one aquifer from mixing with the waters of another aquifer.** If the well penetrates more than one aquifer, measures may be necessary to prevent the well from becoming a conduit for water moving from one aquifer to enter another.

### **G. The signature of the California licensed well drilling contractor.**

Having a copy of the Well Completion Report is very valuable when interpreting groundwater level and quality data, especially when comparing multiple wells. Knowing the location, geology and perforation levels allows far greater understanding of the data and thus the aquifer.

Napa County obtains a copy of the Well Completion Report through the well permitting process on new wells. As a government agency the County can also obtain copies from DWR on request.

### **Groundwater Level Data**

The County currently monitors 47 private wells manually with the owner's permission. Measurements are taken twice a year, spring and fall. These seasonal intervals are chosen to reflect the highest and lowest groundwater elevations. Depths to water measurements are taken by a trained technician utilizing specialized equipment. The procedure is straightforward:

1. If requested, notify the owner that the measurement will take place.
2. Upon arrival, determine if the well pump is running.
3. If not running, measure the depth to water and record in the field notebook.
4. If running, leave and return at another time when the pump is not running. The pump needs to be off for a prescribed period of time before a representative measurement can be taken.
5. Once the measurement is taken, advise the owner in writing of the measurement prior to leaving the site. Also, as a courtesy, advise the owner of any obvious abnormalities (e.g. leaks or frequent pump cycling).
6. Convert the depth measurement to elevation, follow quality assurance procedures and provide the results to the County Groundwater Database Manager.

The County has also obtained monitoring records from other agencies, primarily DWR, USGS and SWRCB.

The County has proposed construction of six dedicated monitoring wells as previously described. These wells would be instrumented for automated monitoring of water level and quality using sensors and data loggers. The County is currently awaiting the results of a grant proposal submitted to DWR.

### **Groundwater Quality Data**

The County does not currently monitor groundwater quality, with the exception of County regulated cleanup (GeoTracker) sites. The Napa County Groundwater Monitoring Plan 2012 (Plan) recommends that some water quality monitoring be initiated to supplement monitoring performed by other agencies. If and when sampling for groundwater quality is initiated by the County, the procedure shall be as follows:

1. If requested, notify the owner that the sampling will take place.
2. To ensure a representative sample is obtained, collect sample at a location (e.g. a tap) near the wellhead (i.e. not after a pressure tank).
3. Follow the protocol(s) for sampling provided by the laboratory and obtain the prescribed volume. These will vary depending on the types and number of tests to be performed. Use appropriate pre-prepared containers. Store the samples as required and complete the chain-of-custody documentation.
4. Deliver the samples to the laboratory within the prescribed time allotment. The lab will then process the samples and prepare a report. This may take several days or weeks.
5. Once the analyses are complete, provide the owner with a copy of the results. If requested, have qualified staff assist in interpreting the results.
6. Provide the results to the County Groundwater Database Manager.

The County has obtained water quality information from other agencies, primarily DWR, CDPH, USGS and SWRCB.

### **Groundwater Production Data**

All groundwater production information is provided to the County by the well owners or their representatives. The County does not collect this information in the field.

## **Napa County Data Processing**

Napa County collects groundwater data under several programs, as previously described, including:

- Napa County Voluntary Monitoring Programs
- Monitoring Information Collected by Other Agencies
- Napa County Non-voluntary Monitoring Programs

This section summarizes the County's storage and use of that information.

### **The Napa County Groundwater Data Management System (DMS)**

The Napa County DMS is being developed to establish a centralized repository for recording and archiving countywide well construction data (as related to groundwater monitoring wells), historical groundwater level and quality measurements, pumpage, usage and groundwater permit information, and for developing procedures for analyzing data on a programmatic basis. The current DMS effort focuses on groundwater-related data; however, some surface water information has been incorporated. In the future, the database could be expanded to include additional surface water data.

Currently, all information collected through the voluntary monitoring efforts or obtained from other agencies is stored in the DMS consisting of thousands of entries. Information collected through permitting or non-voluntary reporting efforts is not currently stored in the DMS, as described below, but may be included in the future.

The DMS has five key attributes, including: 1) flexibility for importing data from and exporting data to other systems, 2) sufficient capacity to store existing (qualified) historical data, 3) ability to export data to numerous kinds of commercially available software, 4) ability to transition to a larger data management system in the future, i.e. from Access to SQL, and 5) an interactive platform from which to view and report on the data. It is anticipated that the County will, in the future, be able to export data from the core database to software programs that allow three-dimensional or animated depiction of the data.

At this stage, the emphasis has been to establish the DMS structure, ensure the quality of the historical and baseline data that have been and/or will in the future be entered by the County, establish procedures for the ongoing quality control of future data compilation and entry into the core database, and develop procedures for preliminary data evaluation and data transfer to the DWR, or other central data repositories, as applicable. Additional information on the DMS development can be found in the 2011 Napa County Groundwater Conditions and Groundwater Monitoring Recommendations report.

### **Other Data Bases**

New individual well permits are tracked with an independent database developed by the County's Permitting Department. Information collected with the permit application and subsequent submittals are maintained in hard copy and/or electronic formats. Older wells only have paper records.

Approximately 50 recently permitted wells in MST are required to meter their groundwater consumption and submit documentation to the County twice annually. Several projects permitted in other areas of the County have also been conditioned with reporting groundwater usage due to neighbor and/or environmental concerns. This information is presently entered into an independent database maintained by the Planning, Building and the Environmental Services Department.

### **Uses of Collected Information**

Information stored in the DMS has been used to inform recent studies undertaken by Napa County including:

- Napa County Groundwater Conditions and Groundwater Monitoring Recommendations, 2011
- Napa County Groundwater Monitoring Plan, 2012
- Updated Hydrogeologic Conceptualization and Characterization of Conditions Report (2013)

Most recently, the Napa County Updated Hydrogeologic Conceptualization and Characterization of Conditions Report describes the work conducted to implement a number of the recommendations pertaining to the County's Comprehensive Groundwater Monitoring Program, including:

- Prepare an updated hydrogeologic conceptualization and characterization of conditions in various areas of Napa County;
- Analyze the potential for surface water/groundwater interactions;
- Refine and further characterize areas of the greatest recharge potential; and
- Link well construction information to groundwater level monitoring data, and provide groundwater monitoring recommendations.

Forthcoming in a separate document, the County is also developing an approach to determine whether groundwater pumping near a surface water course (such as might occur for a proposed project) would be anticipated to effect groundwater discharge to the surface water course. The approach being developed is being informed by the updated hydrogeologic conceptualization of conditions (as can be identified with existing data), including the accompanying groundwater monitoring recommendations.

Future efforts may include annual evaluations of baseline conditions and trends in groundwater elevations and quality. These types of evaluations can easily be performed by staff on key wells to determine if the County's groundwater basins continue to maintain their sustainability or if

areas require additional attention and study. Eventually, if the need and expense are justified, the DMS could be used to update and refine the County's groundwater model developed for the General Plan update in 2009.

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## **Publication of Data and Results**

Napa County and the other agencies previously discussed each have individual approaches to disclosing and publishing data, studies and reports. This section summarizes the Napa County approach and provides examples of information published by others in the Appendix. This section concludes with a summary of the legal issues associated with disclosure of groundwater well information.

### **Napa County Voluntary Monitoring Programs**

All information collected from private sources shall be considered to be sensitive and the well owner's privacy respected. In practical terms, this means all data or information made available to the public shall not be directly associated with the well from which it is obtained. For example, names and addresses or complete state well numbers shall not be used as identifiers. Maps shall depict well locations at the subarea or larger scale level.

No information considered proprietary under law shall be released to the public. There have been proposals in the Legislature to remove the proprietary status for Well Completion Reports. Should that occur, those reports shall still be considered to be sensitive for County purposes.

At this time only completed reports/studies are made available either in hard copy or digital form. The County has no plans, and no need, to make raw data accessible to the public. This does not apply to County staff, other government agencies or consultants that have a legitimate need to access the information.

One exception to this is information and data provided to DWR as a part of the CASGEM program. Participants in the CASGEM program are volunteers that have been advised that their information is made publically available. The CASGEM website displays information from the well log, historical groundwater elevations and a location map at the parcel level scale. Refer to the CASGEM website representation in the Appendix for further information

The other exception is that the County currently supplies information collected in the field to DWR's Water Data Library (WDL). The WDL website does not display proprietary information but does include a location map along with the groundwater elevation information. The location map is not as accurate as the map provided on the CASGEM website.

### **Napa County Non-voluntary Monitoring Programs**

Data collected under the non-voluntary programs is done so as a condition of a permit or environmental mitigation requirement. Information in these instances may be published in an enforcement action or disclosure may be required as a part of the condition. Release of this information will be consistent with the condition under which it was obtained.

### **Napa County Proposed Public Monitoring Wells and Stream Gauging Stations**

Information collected in this proposed effort will not be obtained from private sources. Public funds will have been used to construct facilities to monitor and correlate data on the interaction between groundwater and surface water at select locations along the Napa River. It is the intent that this information will be publically available on the <http://napa.onerain.com> website. Surface water information has been available at this site for many years.

### **Publication by Other Governmental Agencies**

As previously discussed, several agencies collect and publish groundwater information. Each sets their own standards for what information is to be published and in what level of detail. Their standards and content are subject to change. Therefore rather than to attempt to summarize that information, below are the current addresses of known groundwater related websites.

- **California Department of Water Resources**  
CASGEM <http://www.water.ca.gov/groundwater/casgem/>  
Water Data Library <http://www.water.ca.gov/waterdatalibrary/>
- **California Department of Public Health** <http://drinc.ca.gov:8080/DWW/>
- **State Water Resources Control Board** <https://geotracker.waterboards.ca.gov>
- **California Division of Oil, Gas and Geothermal Resources**  
<http://www.conservation.ca.gov/dog/geothermal/>
- **United States Geological Survey**  
GAMA <http://pubs.usgs.gov>  
Water Science Center [http://groundwaterwatch.usgs.gov/countymaps/CA\\_055.html](http://groundwaterwatch.usgs.gov/countymaps/CA_055.html)

Examples of current groundwater content are provided in the Appendix.

### **Legal Issues Related to Groundwater Issues**

There are two California statutes relevant to disclosure of groundwater information: Government Code (GC) Section 6250 et seq, known as the Public Records Act (PRA) and Water Code Sections 13751 and 13752.

GC Section 6250 states: “The Legislature, mindful of the right of individuals to privacy, finds and declares that access to information concerning the conduct of the people's business is a fundamental and necessary right of every person in this state.”

In short, the subsequent sections provide the requirements for the release of “public records”. Section 6253(a) states “Public records are open to inspection at all times during the office hours of the state or local agency and every person has a right to inspect any public record, except as hereafter provided. Any reasonably segregable portion of a record shall be available for inspection by any person requesting the record after deletion of the portions that are exempted by law.”

Napa County Counsel’s Office has determined that groundwater information in the possession of Napa County is a public record, except as provided in the PRA and in the Water Code as

described below. As such it must be provided if and when such a request is made. To date, no such request has been made. Although Napa County has established guidelines for use and publication of groundwater information, it would have no control or responsibility for the use of that information by another party.

Water Code Section 13751 requires that a well log be prepared for every well drilled. The log must be provided to DWR. Water Code Section 13752 states that such well logs are not to be made available to the general public. Copies of these code sections are included in the Appendix.

**Appendix A**  
**Water Code Sections 13751 and 13752**

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**13751.** (a) Every person who digs, bores, or drills a **water** well, cathodic protection well, groundwater monitoring well, or geothermal heat exchange well, abandons or destroys such a well, or deepens or re-perforates such a well, shall file with the department a report of completion of that well within 60 days from the date its construction, alteration, abandonment, or destruction is completed.

(b) The report shall be made on forms furnished by the department and shall contain information as follows:

(1) In the case of a **water** well, cathodic protection well, or groundwater monitoring well, the report shall contain information as required by the department, including, but not limited to all of the following information:

(A) A description of the well site sufficiently exact to permit location and identification of the well.

(B) A detailed log of the well.

(C) A description of type of construction.

(D) The details of perforation.

(E) The methods used for sealing off surface or contaminated waters.

(F) The methods used for preventing contaminated waters of one aquifer from mixing with the waters of another aquifer.

(G) The signature of the well driller.

(2) In the case of a geothermal heat exchange well, the report shall contain all of the following information:

(A) A description of the site that is sufficiently exact to permit the location and identification of the site and the number of geothermal heat exchange wells drilled on the same lot.

(B) A description of borehole diameter and depth and the type of geothermal heat exchange system installed.

(C) The methods and materials used to seal off surface or contaminated waters.

(D) The methods used for preventing contaminated **water** in one aquifer from mixing with the **water** in another aquifer.

(E) The signature of the well driller.

13752. Reports made in accordance with paragraph (1) of subdivision (b) of Section **13751** shall not be made available for inspection by the public, but shall be made available to governmental agencies for use in making studies, or to any person who obtains a written authorization from the owner of the well. However, a report associated with a well located within two miles of an area affected or potentially affected by a known unauthorized release of a contaminant shall be made available to any person performing an environmental cleanup study associated with the unauthorized release, if the study is conducted under the order of a regulatory agency. A report released to a person conducting an environmental cleanup study shall not be used for any purpose other than for the purpose of conducting the study.

**Appendix B**  
**Sample Public Agency Groundwater Information Web Sites**

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California Statewide Groundwater Elevation Monitoring (CASGEM) - Windows Internet Explorer provided by Napa County ITS

File Edit View Favorites Tools Help

http://www.water.ca.gov/groundwater/casgem/online\_system.cfm

CA .GOV DEPARTMENT OF WATER RESOURCES

Home Newsroom Flood & Safety Planning State Water Project Funding Environment Supply & Use Data

California Cooperative Snow Surveys Water Supply Contracts Water Use Efficiency All Supply/Use Topics...

### California Statewide Groundwater Elevation Monitoring (CASGEM)

Home → Groundwater Information Center → CASGEM → Online System - Public

#### CASGEM Online System – Public Portal

As a result of SBX7 6 (enacted in November 2009), the Department of Water Resources developed the California Statewide Groundwater Elevation Monitoring (CASGEM) Program. The CASGEM Program makes groundwater monitoring information available to the public through a collaboration between local monitoring parties and DWR to collect groundwater elevation information statewide. The data have been compiled in the CASGEM Online System and made available to the public via the Internet with a GIS map interface. As a result, all interested parties can use the data to evaluate and monitor groundwater conditions in California.

The CASGEM Online System will allow you to:

- View lists of local agencies, counties and associations who have volunteered to serve as CASGEM Monitoring Entities providing groundwater data statewide
- View CASGEM Monitoring Plans and Groundwater Management Plans (via hyperlink)
- Search and view groundwater elevation data in tabular format
- View hydrographs that show groundwater elevations for wells
- Search and view groundwater monitoring well information
- View mapped locations of CASGEM wells, monitoring area boundaries, and other geographic information
- Measure distances between wells and size of monitoring areas and basins
- Download well information, groundwater data, hydrographs and maps
- Download summary reports on wells, groundwater elevations, Monitoring Entities and basin information.

#### GIS Minimum Computer Requirements

The CASGEM web application has been designed to work most efficiently on computers that have the following minimum specifications:

Processor:	Dual Core - 1.67 GHz CPU
Memory:	1 GB RAM
Operating System:	Windows XP
Browser:	Internet Explorer 8 with Adobe Flash Player (v10.1 or higher)

If your system does not meet these specifications, the application might not perform optimally.

**GROUNDWATER ELEVATION MONITORING**

- CASGEM Home
- 2012 CASGEM Status Report to Legislature
- Public Login
- Monitoring Entity Login
- Designated Monitoring Entities
- What's New?
- Sign Up/Subscribe
- Background
- SBX7 6 (Bill Text)
- AB 1152 (Bill Text)
- Monitoring Entities
- Groundwater Elevation Data
- Documents & Outreach
- Public Comments
- FAQs
- Contacts

**OTHER LINKS**

- Groundwater Information Center
- Bulletin 118
- IWRIS
- Funding
- IDWMM

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Groundwater Elevation Management System, California Department of Water Resources - Windows Internet Explorer provided by Napa

File Edit View Favorites Tools Help

https://www.casgem.water.ca.gov/OSS/(S(dilljvyj3onyme5supzg5fyh))/Public/WellInfo.aspx?WellKey=27615&Src=P&Menu=N&Digest=IbXhloLFB'

Groundwater Elevation Management System, Cal...

**CASGEM**  
Online System

Welcome: Phillip Miller

**Public: Well Details**

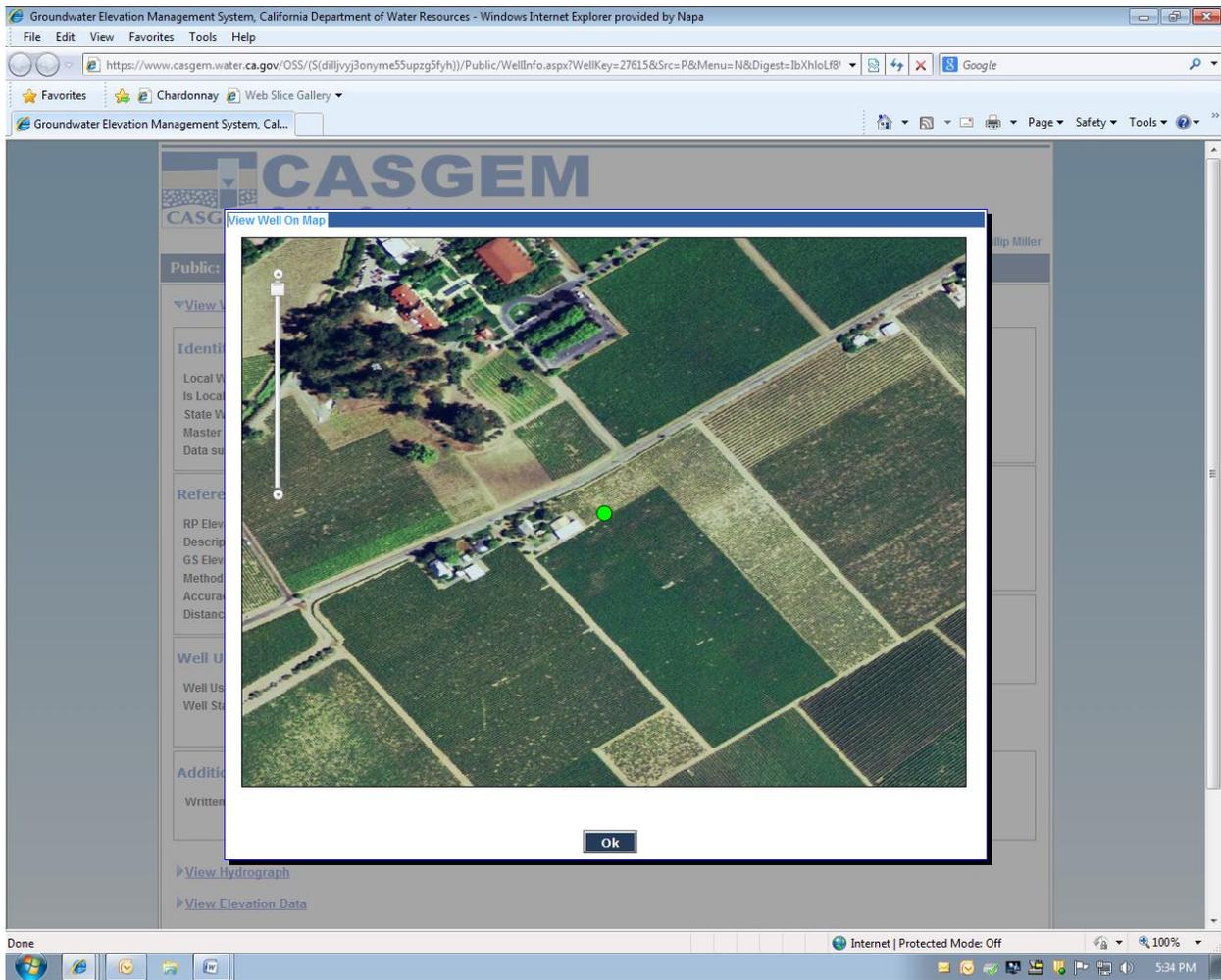
[View Well Data](#)

<p><b>Identification</b></p> <p>Local Well Designation 138          Is Local Designation the same as State Well #? No          State Well Number 07N05W16N002M          Master Site Code 384518N1224299W001          Data submittals for this well are under Voluntary</p>		<p><b>Coordinates</b></p> <p>Latitude 38.452148 North          Longitude 122.429160 West  <a href="#">View on Map</a></p> <p>Method Digital aerial photo          Accuracy 150 ft.</p>	
<p><b>Reference and Ground Surface</b></p> <p>RP Elevation 196.10 ft.          Description Top of casing access South          GS Elevation 196 ft.          Method USGS quad          Accuracy 10 ft.          Distance from RP 0.10</p>		<p><b>Well Construction</b></p> <p>Completion Type Single Well          Total Depth Confidential          Do you have well construction data? Confidential          Well completion report available? No</p>	
<p><b>Well Usage</b></p> <p>Well Use Residential          Well Status Active</p>		<p><b>Associated Basin &amp; County</b></p> <p>Basin/Portion 2-2.01 - Napa Valley          County Napa</p>	
<p><b>Additional Information</b></p> <p>Written description of location of well</p> <p>Any additional comments irrigation use too</p>			

[View Hydrograph](#)

[View Elevation Data](#)

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Water Data Library Home - Windows Internet Explorer provided by Napa County ITS

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http://www.water.ca.gov/waterdatalibrary/

Water Data Library Home

WATER RESOURCES

Home Newsroom Flood & Safety Planning State Water Project Funding Environment Supply & Use Data

CDEC CIMIS WDL IEP IWRIS All Data Topics...

- Water Data Library Home
- Groundwater Level Data
- Water Quality Data
- Continuous Data
- Historical Information
- Contact Information

### Water Data Library

Use the map below to locate monitoring stations. You can find an area of interest if you zoom and pan the map. Quickly find an area searching for named features on a map such as the name of a city, park, landmark, lake, water feature, or zip code within California. Once at the area of interest, select the desired Site Type and click the "Refresh Map" button to show monitoring stations in the area. Additional searches by data type are possible by clicking the links on the left. For help on these and other ways to find your data [click here](#).

#### WDL STATION MAP

**Location Search**  
To find monitoring stations for a specific area, enter the placename or zip code into the text box below then, click the "Search" button.

napa

Search

**Site Type**  
Select the desired site type using the checkboxes, then click the "Refresh" button.

- Groundwater Level
- Water Quality
- Continuous Data
- Multi-parameter site
- Cluster, showing

Refresh Map

Map Center: 38.304722, -122.298889  
 Map SR: 38.277675, -122.350616  
 Map NE: 38.331827, -122.247276  
 Map Zoom: 13

Mouse Lat/Lon: 38.539573, -123.392944  
 Mouse Px: 10305, 25154  
 Mouse Tile: 40, 98  
 Mouse Click:

Map data ©2013 Google - (247) of 113

Marcelo Montagna©2008 - <http://maps.forum.nu>

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Water Data Library - Groundwater Level Reports - Windows Internet Explorer provided by Napa County ITS

File Edit View Favorites Tools Help

http://www.water.ca.gov/waterdatalibrary/groundwater/hydrographs/report\_html.cfm?wellNumber=06N04W32J006M

Water Data Library - Groundwater Level Reports

**WATER RESOURCES**

Home Newsroom Flood & Safety Planning State Water Project Funding Environment Supply & Use Data

CDEC CIMIS WDL IEP IWRIS All Data Topics...

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- Historical Information
- Contact Information

### Groundwater Level Data for Well o6No4W32Joo6M

Your selection returned a total of 25 records. Wells in the Department of Water Resources monitoring network are identified by a [State Well Number](#), which is based on the Public Land Grid System. The table headings and records contain several [codes and abbreviations](#). Press the **New Search** or **Nearby Search** buttons or at the bottom of the page to begin a new data retrieval. Data for this well can also be downloaded in [MS Excel](#) or [text delimited format](#).

Groundwater Levels in Well 06N04W32J006M  
Napa Valley Groundwater Basin

NOTE: red circles denote questionable measurements. Please see the data table below for specifics.

Groundwater Level Readings									
Meas. Date	R.P. Elev.	G.S. Elev.	RPWS	WSE	GSWS	QM Code	NM Code	Agency	Comment
02-16-1950	94.0	94.0	8.6	85.4	8.6			5000	
07-19-1962	94.0	94.0	37.4	56.6	37.4			5050	

Done

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USGS -- Water Resources of the United States - Windows Internet Explorer provided by Napa County ITS

File Edit View Favorites Tools Help

http://groundwaterwatch.usgs.gov/countymaps/CA\_055.html

USGS -- Water Resources of the United States

**USGS**  
science for a changing world

USGS Home  
Contact USGS  
Search USGS

**Groundwater Watch** Latest News...

**Napa County, California**  
Hover mouse over site for information. Click site to open page with information and data.

**Explanation - Percentile classes** (symbol color based on most recent measurement)

● Low	● <10	● 10-24	● 25-75	● 76-90	● >90	● High	● Not Ranked	○ Wells	○ Springs
● Much Below Normal	● Below Normal	● Normal	● Normal	● Above Normal	● Much Above Normal	● High	● Not Ranked	○ Real-Time	○ Continuous
								□ Continuous	△ Periodic Measurements

Map generated 1/20/2013 8:51:56 AM

Groundwater Watch Help Page

Google Maps Display interactive map

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Done

5:46 PM

USGS -- Water Resources of the United States - Windows Internet Explorer provided by Napa County ITS

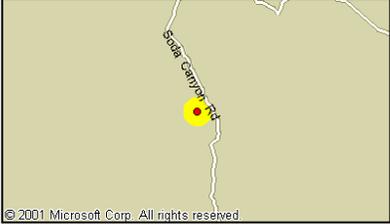
File Edit View Favorites Tools Help

http://groundwaterwatch.usgs.gov/AWL Sites.asp?S=382505122175301

USGS -- Water Resources of the United States

### Groundwater Watch

Site Number: 382505122175301 - 007N004W34D001M



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[Groundwater Watch Help Page](#)

**DESCRIPTION:**  
 Latitude 38°25'05", Longitude 122°17'53.3" NAD83  
 Napa County, California, Hydrologic Unit 18050002  
 Well depth: 400 feet  
 Hole depth: 405 feet  
 Land surface altitude: 1,264 feet above NAVD88.

**AVAILABLE DATA FROM NWISWeb:**  
 Field groundwater-level measurements  
 Field/Lab water-quality samples

Additional Data Sources	Begin Date	End Date	Count
Groundwater Watch **offsite**	2012	2012	1

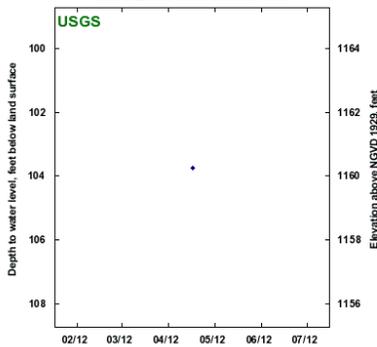
**OPERATION:**  
 Record for this site is maintained by the USGS California Water Science Center  
 Email questions about this site to [California Water Science Center Water-Data Inquiries](#)

### Periodic Groundwater Data

Summary for Period of Record Periodic Water Levels  
 Depth to water level, feet below land surface  
 Approved Periodic Water Level Values

Begin Date	End Date	Number of Values
04/17/12	04/17/12	1

Highest WL	Date of Highest WL	Lowest WL	Date of Lowest WL
103.73	04/17/12	103.73	04/17/12



**Groundwater Levels Options**

- [USGS](#) View latest data on NWISWeb
- View annual monthly statistics for all data types
- Download Groundwater levels in text format

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**Appendix C**  
**Sample Right of Entry Form**

DRAFT

**AGREEMENT TO PARTICIPATE IN THE NAPA COUNTY  
VOLUNTARY GROUNDWATER MONITORING PROGRAM and RIGHT OF ENTRY  
TO ACCESS GROUNDWATER WELLS**

Site Address: \_\_\_\_\_ APN: \_\_\_\_\_  
State Well Number: \_\_\_\_\_  
Napa County Well Number: \_\_\_\_\_  
Name of Property Owners: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
Telephone No: \_\_\_\_\_  
Email Address: \_\_\_\_\_

As the owner(s) of the above property, we agree to participate in (please check **only** one box):

**California Statewide Groundwater Elevation Monitoring Program (CASGEM)**

- Groundwater level measurements are collected twice a year (April and October)
- Well construction details, well location, type of well (e.g., residential, irrigation, etc.) ground surface elevation and groundwater elevation data will be made available to the public on State and County websites or through other means.

**Napa County Program**

- Data will be collected as above, but confidential data such as the precise well location and well construction details will not be made publically available.

Optional water quality testing may be conducted under the Napa County program unless the box below is checked.

- We do not agree to participate in Napa County groundwater quality monitoring.

As participants in the Groundwater Monitoring Program, we agree to grant to the County and its authorized agents, assignees, employees and designees access to the property for the purpose of groundwater monitoring. Groundwater quality testing may be performed unless the above box is checked.

The County shall indemnify, defend and hold harmless Owner(s) from and against all claims, causes of action, damages, liabilities, injuries, actions, costs, and expenses (including reasonable attorneys' fees and costs), arising from or related to County's use of the property, exercise of County's rights under this Agreement, excepting only such loss, damages, or liability arising from intentional acts or sole negligence of the Owner(s).

The County agrees to provide collected groundwater data to the Property Owner no later than 90 calendar days after the sampling event.

The term of this Agreement shall begin on the date last signed below and shall continue until terminated in writing by either Party.

**Property Owner:**

**Public Works Director:**

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date \_\_\_\_\_

Date \_\_\_\_\_

DRAFT