

Acknowledgements: Contents in this newsletter were prepared in a joint effort by the California Department of Water Resources, Tehama County Flood Control and Water Conservation District, Glenn County Department of Agriculture, Colusa County Resource Conservation District, and the University of California Cooperative Extension.

## **MY DOMESTIC WELL "IS GIVING ME PROBLEMS" OR "GONE DRY, WHAT CAN I DO?"**

### **What are some early signs that my well may go dry?**

- Declining pressure through the household faucets.
- Sprinklers and outdoor faucets operating at lower pressure.
- Water is produced sporadically and air is present in the household and landscape water lines.
- Sediment or sand in your water supply.
- Noticeable change in taste or color of domestic water.

### **What might cause my pump and well to have problems or go dry?**

- Groundwater levels decline below where the pump is set. The pump may need to be lowered.
- Groundwater levels decline below where the well is slotted or screened to intercept groundwater. The well may need to be deepened or replaced with a deeper well.
- A pump may become worn and can no longer efficiently lift groundwater under the current groundwater levels. The pump might need to be repaired or replaced.
- A pump that may have been selected and installed for certain groundwater lifts but now the groundwater levels have declined enough that it is miss-matched and it is not operating efficiently. The pump may need to be replaced.
- The well pump pressure switch may need to be replaced, or the pressure tank may not be able to hold an air charge, especially in bladder pressure tanks. A pump company should be called out for an evaluation.
- The steel well casing may have slots or screens to intercept the groundwater and they may have corroded or the casing has collapsed and is no longer operable. The well may need to be rehabilitated or replaced.

### **My well has "gone dry" how do I begin to address the problem?**

- Secure a clean, reliable potable water supply to drink and to use for cooking and other short-term needs.
- Begin to assess your immediate living situation and understand that remediating a water well that has gone dry may take days, weeks, or even months depending on the problem. This may require hauling and storing water from a neighbor with a nearby domestic well or living with

family or friends while the situation is addressed. Unfortunately, it will be an imposition on daily living and it will be a case of making the best of a bad situation.

- Educate yourself. Replacing or repairing a well that has gone dry is not a small matter and one that you will want to do right. Refer to [wellowner.org](http://wellowner.org). This website is sponsored by the National Groundwater Association and is tailored to assisting domestic well owners. It is a user-friendly, well rounded website that provides the basics about replacing or repairing a water well, identifying qualified well and pump contractors in your local area, and seeking potential sources of financial assistance.
- Notify, the appropriate local authorities that your domestic well is dry. Each county may have a slightly different notification protocol. As a beginning point, this may involve contacting the county office of Emergency Services, the county office of Environmental Health and Safety, the county Department of Public Works, or the county Department of Water Resources.

### **What can I expect by contacting local authorities?**

- Local authorities within county government can help address basic, short-term needs for water soon after the well has gone dry. They may be able to help: acquire bottled water or identify licensed water haulers to deliver potable water; locate local well or pump contractors; and identify sources of financial assistance, if needed.
- Local authorities may also help you attain and understand information about the current well that has gone dry and information about groundwater levels in the vicinity of where you live. Information about the well that has gone dry and the groundwater conditions where you live can provide insight about how to repair or replace the well to secure water in the future.
- It is also helpful for local authorities to be alert to your well going dry. While local authorities cannot solve individual well problems, information collected from reports of well problems will help to understand groundwater basin conditions and assess the need for broader emergency responses as well as complete drought assessments which can influence planning of future community water service districts or expansion of municipal services.

### **What can I expect when I contact a well or pump contractor?**

- The 2014 drought is creating a tremendous demand on contractors. Anticipate that you will be added to a waiting list that will likely require weeks or even months for them to assist you. A pump repair may be completed more quickly than deepening a well or constructing a new one.
- This wait time is an opportunity to contact more than one well and pump contractor to inquire about their availability and services. It is also a chance to educate yourself about the construction features of your previous well that has gone dry, the current groundwater water levels in the vicinity of your well, and about the various types of well drilling and construction methods so that you know how to improve upon the well that has gone dry.
- Extending an existing well or drilling and constructing a new domestic well is relatively costly (maybe in the range of \$10,000 to \$20,000), so also use this time to assemble your finances to make this home improvement.

## **What types of information would help me become more informed about my domestic well and where can I find it?**

- A confidential well completion report is available from either the county Department of Environmental Health or the California Department of Water Resources. It is only available to the well owner or whomever the well owner grants permission. It will tell where and when the well was constructed and how deep it is. It may also indicate construction steps taken to protect groundwater contamination at the well head and it will certify that the water tested safe for drinking.

A confidential well completion report for an existing well can be acquired by contacting the Department of Water Resources Northern Region at (530)-529-7300 or access the request form at:

[http://www.water.ca.gov/pubs/groundwater/well\\_completion\\_report\\_request-owner/wcr\\_request\\_owner\\_20110518.pdf](http://www.water.ca.gov/pubs/groundwater/well_completion_report_request-owner/wcr_request_owner_20110518.pdf). A well completion report lists the location of the well, when it was drilled, the geologic formation sediments that the well was drilled through, and the depth of the water bearing strata. It also lists the well construction, such as how deep the casing is, where the perforated interval is to intercept groundwater, if the well is open hole at the bottom, what the wellhead protection is, etc. It will also indicate the depth to groundwater at the time the well was constructed so it is possible to tell how much the groundwater conditions may have changed since its construction, and it may give the maximum flow rate pumped from the well soon after it was constructed.

- Information about groundwater levels at or near your domestic well will help answer questions about how deep a well should be to provide water reliably and how deep to position the pump inside the well so it will lift water reliably for many years ahead. To access groundwater level information for your area refer to the California Statewide Groundwater Elevation Monitoring (CASGEM) program at: [http://www.water.ca.gov/groundwater/casgem/online\\_system.cfm](http://www.water.ca.gov/groundwater/casgem/online_system.cfm) or the California Water Data Library at <http://www.water.ca.gov/waterdatalibrary/index.cfm>. Alternatively, it is possible to learn how to measure groundwater levels in your own domestic well. This will be a topic of another group of frequently asked questions.

## **Replacing a domestic well is expensive, is there any financial assistance available?**

- Yes, there is some financial assistance available from the United States Department of Agriculture (USDA) depending upon your age and income. The assistance is aimed at elderly and low income households. For Tehama and Glenn Counties the financial assistance program is administered through the USDA branch office in Redding, CA. For Butte and Colusa Counties, this program is administered through Oroville, CA. The program is called the "504 Program". Both grants and low interest loans (1% APR) are offered through this program. Grants are limited to \$7500 total and the low interest loans are limited to \$20,000 and must repaid in 20 years or less. There are other requirements related to property eligibility, home equity, and safe, public access to accommodate well inspection.

- For more information about this financial assistance program refer to the following link:

<http://eligibility.sc.egov.usda.gov/eligibility/welcomeAction.do>

This link provides a worksheet to determine your eligibility. If it appears you are eligible for the financial assistance, it would then be appropriate to contact the local branch USDA office:

For Tehama and Glenn Counties: Cheri Skudlarek, USDA Area Specialist Redding Office, Rural Development, (530)-226--2588 or Cheri.Skudlarek@ca.usda.gov.

For Butte and Colusa Counties: Frances Parker, USDA Area Specialist, Oroville Office, Rural Development, (530) - 533 - 4401 x 101 or Frances.Parker @ca.usda.gov.

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