

NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

WELL WATER TESTING
(No.)

CODE 355

DEFINITION

Testing for physical, biological, and chemical characteristics of groundwater in wells or spring developments.

PURPOSE

This practice may be applied as part of a conservation management system to determine the quality of a groundwater supply for the following intended uses: irrigation, livestock, fish and wildlife habitat, aquaculture enterprises, or other agricultural uses.

CONDITIONS WHERE PRACTICE APPLIES

This standard applies to water supplies that are used or have potential to be used on farms or ranches.

This practice does not apply to groundwater for human consumption, nor wells for monitoring groundwater hydrology or contamination associated with animal waste storage or treatment installations.

CRITERIA

The specific use of the water and the water quality concerns shall be identified.

The required tests and applicable standards shall be determined based on the planned use of the water.

Water samples shall be collected and analyzed in accordance with established procedures. Specific parameters, sampling procedures, and laboratory analyses may be specifically required by local, State, Tribal, or Federal laws and regulations. The U.S. Geological Survey's National Field Manual for the Collection of Water-quality Data: (U.S. Geological Survey Techniques of Water-Resources Investigations, book 9, chaps. A1-A9) is available online at <http://pubs.water.usgs.gov/twri9A>. Contact the testing entity for specific guidance.

Interpretation of test results and recommendations for remedial actions, as necessary, shall be obtained from a knowledgeable source appropriate to the test and purpose.

CONSIDERATIONS

The following items should be considered in planning water supply testing:

- Location and depth of supply, type of geology and history of site in relationship to sources of potential contamination such as surface water, septic system, chemical storage facilities, roads, and animal waste storage or treatment facility, or naturally occurring sources of contamination.
- Water supply construction practices used such as dug, drilled, casing, or spring development.
- Using a computerized total farm record-keeping system for ease of data input, analysis, and retrieval.
- Using a state certified lab. In California, the state Department of Health Services' Division of Laboratory Science administers the Environmental Laboratory Accreditation Program (ELAP). Accreditation is required of an environmental laboratory for producing analytical data for California regulatory agencies. The data may be used to demonstrate compliance with applicable requirements of drinking water, wastewater, food for pesticide residues, shellfish testing, and hazardous waste sections of the California Health and Safety and Water Codes. More information is available online at <http://www.dhs.ca.gov/ps/ls/elap/html/elapinfo.htm>.

PLANS AND SPECIFICATIONS

Plans and specifications for water testing shall be consistent with this standard to achieve the desired results.

Plans and specifications shall include a description of processes for collecting, storing, transporting, and testing samples; and reporting test results.

OPERATION AND MAINTENANCE

Records on water testing information will include:

- Sample site, location, and depth
- Remotely-sensed or in-situ records of water quality conditions within the well (pH, conductivity, turbidity, etc.)
- Date and time water sample taken
- Name and title of person who collected sample and chain of custody records
- Type of sample and sampler used
- Standard collection procedure followed
- Water test analysis date
- Laboratory used
- Contaminants tested
- Schedule of additional testing at required frequency according to applicable standard
- Records to evaluate trends and the effects of remedial action actions to produce water of sufficient quality for the intended purpose
- Weather data
- Personal observations on site and well conditions
- Other records as required