County of San Bernardino
Land Use Services Department
STANDARD PROCEDURE

Procedure No. 8-11

Effective Date 08-19-08

Subject: Requirments for a Groundwater Assessment Report

Related Regulatory Documents (if any):

Subsection 85.03.060(b)

Approved:

Julie Rynerson Rock, Director

PURPOSE

Water availability and sustainability are critical issues for many development projects proposed within the County. Often, an established water purveyor is capable of serving the project; however, increasingly projects are being proposed outside of the service area of local water purveyors and must rely on the extraction of underlying groundwater. Extraction of groundwater can result in local impacts including adverse effects to riparian areas, water quality and neighboring wells as well as contributing to basin overdraft and land subsidence. In order to adequately evaluate the potential impacts of groundwater withdrawal and verify the availability and sustainability of the water supply during the life of the proposed development, a groundwater assessment (hydrogeologic report) is required for certain projects.

Groundwater is a vital resource and in many of the desert areas of the County, essentially a non-renewable resource. Demonstration of an adequate and sustainable water supply is essential for the project, public health and continued economic growth. Analysis of the potential impacts of groundwater withdrawal is fundamental for the County to meet these objectives and to satisfy the letter and intent of various state mandates, including the California Environmental Quality Act (Public Resources Code §§ 21100 et seq.).

APPLICATION

This standard procedure applies to all projects that contemplate the extraction of underlying groundwater at a total rate equal to or greater than ten (10) acre-feet per year. The County Geologist may apply a lesser threshold to specific projects within impaired or very limited groundwater basins as recommended on a project-by-project basis.

Typical residential water use ranges from approximately 0.5 to 1.0 acre-feet per household per year. An acre-foot is equivalent to approximately 326,000 gallons. Unless it can be verified that the total project use will remain less than 10 acre-feet per year, a hydrogeologic report will be required for all residential subdivisions that propose to utilize groundwater to serve fifteen (15) or more units, lots or parcels.

PROCEDURE

During Application-Intake, the Land Use Services Department staff shall require the submittal of a hydrogeologic report for all land use applications that meet the above criteria.

Hydrogeologic reports must be prepared and signed by a licensed professional (i.e., California Certified Hydrogeologist or Registered Professional Geologist).

As a minimum, the hydrogeologic report shall include the following:

I. BASIN REVIEW

- A review and evaluation of existing literature and well data for the basin.
- A discussion of the groundwater basin, including aquifer geology, recharge, groundwater movement, groundwater barriers, current extraction, estimated perennial yield and general water quality.

II. SITE INVESTIGATION

- Evaluation, pump testing and sampling of existing on-site wells. If no wells exist, it may be necessary to drill one or more test wells and a monitoring well to adequately demonstrate water availability and acceptable water quality. Pump testing should be of sufficient duration to adequately establish aquifer characteristics.
- Well logs, results of pump testing, water quality analysis and any other data utilized for the site investigation should be included within the written report.

III. IMPACT ANALYSIS

- Based upon current and proposed future groundwater use, the report must discuss the anticipated long-tem impacts on groundwater quality and quantity within the underlying aquifer. In addition, potential impacts to neighboring wells, springs, streams, lakes, ponds, wetlands and riparian areas should be discussed.
- When deemed appropriate, a Groundwater Monitoring and Management Plan may be necessary in order to ensure impacts are identified early and properly mitigated.