

May 20, 2002

**RESPONSIVENESS SUMMARY**  
**LA CIENEGA VALLEY AREA AQUIFER SOLE SOURCE AQUIFER PETITION**

This document summarizes and responds to written and public hearing comments received by EPA on the petition, submitted by the La Cienega Valley Citizens for Environmental Safeguards, requesting designation of the La Cienega Valley area aquifer as a Sole Source Aquifer. Comments are combined by type or issue and presented as a single comment. EPA's responses address the consolidated comments.

**Written Comments**

**Statistical Summary**

A total of seventeen comment letters were received by EPA during two public comment periods, January 16 to March 5, 2001, and April 11 to May 14, 2001. Of these comments, five were in favor of designation of the La Cienega Valley aquifer as a sole source aquifer.

**Public Hearing**

**Statistical Summary**

Seventeen individuals registered at the Public Hearing held in Santa Fe on February 15, 2001.

A total of 10 speakers made statements during the hearing. Of these, three voiced support for designation of the aquifer.

**Response to Public Comments**

1. **Issue:** Duplication of Existing Protection Programs  
  
**Concern:** Some commenters expressed the view that designation of a SSA would create redundant work and would not bring any additional protection to the aquifer because the New Mexico Environment Department issues ground water discharge permits and other State and Federal programs protect ground water.  
  
**Response:** After designation of a SSA, proposed federal assistance for any project which might contaminate the aquifer through a recharge zone is subject to review and potential disapproval by EPA. In some instances, such projects are subject to State or other federal requirements protecting ground water, but in others they are not, depending on the nature of the project. In any event, Congress, in enacting SDWA §1424(e), did not

include a provision for denial of a petition for designation on the basis that it would result in duplication of existing environmental safeguards.

- 2. Issue:** Lack of Public Involvement before Submission of the Petition

**Concern:** Some commenters contended that there should have been a process to involve the public prior to the filing of the SSA petition.

**Response:** SDWA §1424(e) does not require that interested persons involve the public in preparation of a petition for SSA designation. When EPA receives such a petition, however, it notifies the public and provides an opportunity for comment before taking action (as in this case).
- 3. Issue:** Availability of Federal Funds for Pollution Prevention in SSAs

**Concern:** One commenter notes that the Safe Drinking Water Act says that no federal funds will be committed for projects which might contaminate a designated SSA but that federal assistance may be used “to plan or design the project to assure that it will not so contaminate the aquifer.” The commenter suggests that as a part of the designation, federal funds can be made available for prevention of pollution.

**Response:** At this time there is no federal funding dedicated specifically to the prevention of pollution of a sole source aquifer. A federal agency may, however, include pollution prevention costs in the development of its project(s).
- 4. Issue:** Inclusion of Watershed Areas in the Proposed Sole Source Aquifer.

**Concern:** One person commented that the proposed SSA boundary takes in the Santa Fe watershed, which provides surface water for drinking purposes, and is not hydrologically relevant.

**Response:** In determining SSA delineations, the surface watershed area (stream flow source area) that drains onto the recharge area of the aquifer system is included because activities in any part of the watershed can ultimately impact the aquifer’s water quality.
- 5. Issue:** Proposed Boundaries Not Consistent with EPA Guidance

**Concern:** Several commenters noted that the proposed aquifer boundaries do not coincide with generally recognized boundaries of the Tesuque and Ancha Formations in the Santa Fe Group and that the proposed boundaries also

do not define a unit which is hydrologically separated from the rest of the aquifer. The commenters contend this is inconsistent with the “Sole Source Aquifer Designation Petitioner Guidance” EPA issued in 1987.

**Response:** The 1987 EPA guidance states:

“A petitioner may request designation for part of an aquifer, an entire aquifer or an aquifer system. This follows from the definition of an aquifer as a geological formation, group of formations or part of a formation capable of yielding a significant amount of water to a well or spring. A petitioner can petition for part of an aquifer if that portion is hydrogeologically separated from the rest of the aquifer.”

The obvious import of this statement is that petitioners should carefully define the boundaries of an aquifer portion for which they seek designation to assure contaminants will not flow or migrate to it from other portions of the same aquifer. Hydrogeologic separation may in many instances be the only feasible means of providing such protection, but EPA does not arbitrarily require such separation if it is unnecessary to provide the full measure of protection afforded by SSA designation. In this case, providing such protection would not require hydrogeologic separation; ground water flows *from* the petition portion *to* other portions of the aquifer. Had EPA not denied the petition on other grounds, the portion of the aquifer for which SSA designation was sought would have been a viable management unit.

6. **Issue:** The Principal Source of Drinking Water for the Petitioned Area

**Concern:** Some commenters supported the petitioner’s use of the State Engineer’s water rights allocations as accurate estimates of the relative drinking water use from the three water sources in the area. Other commenters pointed out deficiencies in this approach, some saying that the State Engineer’s well inventory is incomplete and that the aquifer provides more than the 54% of water use as determined in the petition. Others contended that the inventory includes wells not in use and that water allocations do not represent actual water use.

**Response:** After a careful review of water use data for the area EPA has determined that the available information on water rights allocations does not accurately reflect drinking water use and dependency on the aquifer. Principal reasons for this determination include; deficiencies in the State Engineer’s inventory; the assignment by the State Engineer of a minimum 3 acre-feet allocation for domestic wells which probably produce much

less than this amount; incompatibility of allocations with reasonable estimated per capita consumption rates; and the demonstrated difference between recorded water use and water allocations in the City of Santa Fe.

In determining whether the aquifer supplies half or more of the drinking water for the proposed area EPA used data on metered water use in the City of Santa Fe and an estimated per capita rate for the area outside the City. Based on 10 years of water supply records, the City water supply system has withdrawn an average of 2,283 acre-ft/year from the aquifer and an average of 9,591 acre-ft/yr from surface water sources and wells outside the proposed sole source aquifer. Based on water-use studies the residents living in the portion of the proposed sole source aquifer area outside the City are estimated to use an average of 96.4 gallons per day (0.108 acre-feet/year), all supplied by the aquifer. Using recent census information indicating a population of 36,803 and this per capita rate, drinking water consumption is 3,208 acre-ft for the area outside the City. In combination, the portion of the City's drinking water supplied by the aquifer and the drinking water from the aquifer used in the area outside the City amount to approximately 39 % of the total drinking water used in the petitioned area.

7. **Issue:** Some of the surface water used by the City water system comes from the aquifer

**Concern:** The petitioner has asserted that a portion of the flow in the Santa Fe River which supplies the City's drinking water reservoirs is a result of base flow derived from upstream portions of the aquifer, and should be counted toward aquifer use rather than as surface water.

**Response:** EPA recognizes the importance of interactions between ground water and surface water in maintaining stream flows and aquifer ground water levels. It also recognizes that discharge from the fractured granites and minor channel deposits located in the upstream area of the proposed designation supply a part of the water in the Santa Fe River. The amount of base flow provided by these sources would have to be greatly in excess of 50% of the stream flow in order to support the conclusion that the aquifer supplies at least half of the drinking water for the area. Hydrologic studies specific to this issue are not available for this area, but it appears very unlikely that the upstream area provides more than a minor amount of water in the city reservoirs. The granite which forms most of the upstream area is not typically considered an aquifer and probably will not serve as a reliable water supply for even small domestic wells over most of the area. This portion of the proposed designation would qualify for inclusion as a stream flow source area which provides water that recharges the aquifer.

8. **Issue:** Other Potential Sources of Water Supply

**Concern:** Some commenters suggested that Santa Fe is working toward increasing one of its potential sources of water, the San Juan-Chama diversion, which would further reduce the amount of water supplied by the aquifer to the petitioned area. Other commenters contended that it is unlikely that this source will add any additional water to the area.

**Response:** Santa Fe officials have discussed increasing the City's water supply from this source. It is not now clear, however, that resolution of the legal, technical and political issues required to fully utilize this source will occur in the near future. As a result, this potential source of additional drinking water was not considered in the designation decision.