DEPARTMENT OF AGRICULTURE

Forest Service

Lincoln National Forest, New Mexico,
North Fork Eagle Creek Wells Special Use Authorization

AGENCY: Forest Service, USDA.

ACTION: Notice of Intent to prepare an Environmental Impact Statement.

SUMMARY: The Lincoln National Forest will prepare an Environmental Impact Statement (EIS) to document and publically disclose environmental effects of issuing a new special use permit to the Village of Ruidoso (the applicant) for continued operation of their municipal water supply wells on the North Fork of Eagle Creek, located on National Forest System land. The new permit would include additional terms and conditions for adaptive management (monitoring, evaluation, and modification) to ensure management objectives are met. Management objectives include:

1. Providing water management flexibility and water conservation incentives to the Village of Ruidoso, in a way that does not foreclose opportunities to transfer a portion of their water rights for these wells to locations off of National Forest System land; and

2. Minimizing impacts of groundwater drawdown from this well field to maintain surface flows and protect water-dependent ecosystems.

North Fork of Eagle Creek is located in the Sacramento Mountains of south-central New Mexico in Lincoln County north of the Village of Ruidoso and approximately 2.5 miles west of Alto, New Mexico.

DATES: Comments concerning the scope of the analysis must be received by March 21, 2011. The draft EIS is expected in October 2011 and the final EIS is expected in June 2012.

ADDRESS: Send written comments to NFEC Project, Smokey Bear Ranger District, 901 Mechem Dr., Ruidoso, NM 88345. You may also send electronic comments to the project e-mail inbox: comments-southwestern-lincoln@fs.fed.us, or via facsimile to (575) 257–6174.


Individuals who use telecommunication devices for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1–800–877–8339 between 8 a.m. and 8 p.m., Eastern Time, Monday through Friday.

SUPPLEMENTARY INFORMATION:

Background

Urban and resort development and drought conditions have placed increasing demands on surface water and groundwater resources of the Eagle Creek Basin. During 2001–2006, the Village of Ruidoso, New Mexico obtained approximately 31 percent of its water supply from the North Fork well field. During drought conditions prior to 2006, over 50 percent of monthly total surface and groundwater diversions for the Village came from the North Fork well field (Village of Ruidoso 2006). The Village of Ruidoso drilled four production wells on National Forest System land along North Fork Eagle Creek. Three of these wells were put into service in 1988 and remain in use. Concerns have been raised regarding effects of pumping water from these wells. A lawsuit was filed in 2005 based on concerns that operating these wells could be affecting streamflow in Eagle Creek. A 2006 settlement agreement required the Lincoln National Forest to complete an environmental analysis and undertake an independent study of effects of well pumping before a new permit could be issued to the applicant.

The United States Geological Survey (USGS) conducted the independent study from 2007–2009 to determine potential effects of the North Fork well field on streamflow in the Eagle Creek Basin and to provide data for this EIS. The final report was released on October 21, 2010. Findings show that during the study period there was less available sustained baseflow than there was before the wells began pumping in 1988. When groundwater is pumped from the North Fork wells, it causes a temporary decline in groundwater which lowers the water table and creates an expanding cone of depression around the wells. If the cone of depression continues to expand, it can impact water dependent resources outside the stream corridor. This situation is exacerbated by location of the wells within the stream channel, together with low storage capacity of the aquifer.

Although years of below-average precipitation were recorded during both time periods, there were no days of zero flow recorded at the Eagle Creek gage from 1969–1980. No-flow days were recorded in 11 years (totaling 789 days) of the 20 years analyzed after 1988, with 8 of the last 10 years having no-flow days. No-flow days occurred during periods of both below-average and above-average precipitation during the study period, but no-flow days did not occur during periods of below average precipitation before 1988. It is important to note that the Eagle Creek gage measures flow from both North Fork and South Fork tributaries.

Purpose and Need for Action

There is a need for (1) authorizing, under a special use permit, the Village of Ruidoso’s legal right to access and divert groundwater from its North Fork Eagle Creek wells on National Forest System land, as an important part of the municipal water supply system that Ruidoso residents and visitors rely upon; and (2) protecting natural resources on the national forest by maintaining adequate surface and groundwater flows to sustain or improve riparian and aquatic ecosystems that may be affected by groundwater drawdown from the pumping of these wells.

Proposed Action

The Forest Service proposes to authorize, under a new special use permit, the continued presence and operation of four municipal supply water wells (3 equipped and 1 unequipped) and associated monitoring wells, well-house control station and underground pipelines and powerlines on National Forest System land in the North Fork of Eagle Creek drainage. The new permit could be authorized for up
to 30 years, with stipulations for review and verification of the permit terms and conditions at least every 5 to 10 years. The new permit would be similar to the expired permit, with additional terms and conditions reflecting current adaptive management strategies which both respond to the purpose and need for action, and mitigate potential adverse impacts to surface and groundwater water resources from well operations.

The adaptive management strategy would take into consideration the dynamic nature of groundwater systems by establishing a feedback process to guide the management of groundwater withdrawal rates over time. The NFEC basin is characterized as highly transmissive (water moves through it easily), yet with a relatively low groundwater storage capacity; two characteristics that make it sensitive to variations in precipitation patterns and intensity.

Thresholds would be established for streamflows, water table depths, and riparian vegetation, as described below. Exceeding these thresholds would trigger implementation of adaptive management option(s) to mitigate the impact to surface resources. Adaptive management options currently under consideration include limitations on groundwater withdrawal rates; cessation of pumping for short periods; and/or surface flow augmentation. These options are simply an initial list being considered at this stage of planning; they may be revised as more analysis and evaluation is conducted during preparation of the EIS. In addition, a threshold would be established for the total volume of water withdrawn from the applicant’s wells over a consecutive three-year period, where exceeding the threshold would trigger a review of the other thresholds and mitigations to prevent degradation of surface resources.

The proposed action would require the applicant and Forest Service to work in partnership, with assistance from the USGS, to conduct monitoring and adaptive management of ground and surface water resources. Four key monitoring indicators would be used, as described below, to evaluate effectiveness of this management strategy. This adaptive management strategy would be incorporated into terms and conditions of the permit.

**Monitoring Indicators**

**North Fork Surface Flow Volume.** This metric would act as an indicator of surface and groundwater flow volumes necessary to maintain or improve existing riparian vegetation conditions along the NFEC basin. The applicant would be responsible for continued collection of surface water flow data from the Eagle Creek stream gage, located just below the confluence of North Fork and South Fork tributaries. This gage records surface flow volume rates (quantities) in cubic feet per second (cfs). These data are collected and stored by the USGS, and available to the Forest Service and public on the USGS water data Web site (http://waterdata.usgs.gov/nwis).

If there are more than 20 days per year of no surface flow (less than 0.01 cfs) over a period of three consecutive water years at the Eagle Creek gage, or more than 30 no-flow days within any single water year (October 1–September 30), the applicant must reduce groundwater withdrawal rates from these wells. If either of those thresholds is exceeded, then groundwater withdrawals from the North Fork wells would be limited to 50 percent of the volumetric rate of surface flow at the North Fork gage (which is upstream from the wells) until surface flow at the Eagle Creek gage resumes.

The following parameters and assumptions form the baseline on which the North Fork surface flow would be modeled and managed:

- Using a 3-year running average allows for natural fluctuations in precipitation and snowmelt runoff, and periodic short-term drought cycles, considering historic trends.
- The 3-year threshold of 20 no-flow days is equal to about half the average number of no-flow days experienced since pumping began (1988–2009), and should result in an improved trend in surface flows and moisture regimes in the North Fork tributary and its associated riparian area.
- The number of no-flow days would be evaluated based on real-time daily recordings from the Eagle Creek stream gage. No-flow is defined as a daily recording of less than 0.01 cfs.
- It is recognized that Eagle Creek stream gage includes flow contributions from the South Fork tributary. For consistency with data gathered since 1969, the Eagle Creek stream gage will continue to be used, assuming that there will continue to be no measurable changes in human development or water use within the North or South Fork drainages. The South Fork and North Fork stream gages would also continue to be used in long-term monitoring, but have insufficient historical data to initially be used as an effective trigger.

**Water Table Depth.** This metric would provide a continuous indicator of the status of groundwater storage within the NFEC basin. The applicant would continue to maintain monitoring well MW–1B and collect data on changes in the water table levels. Water table depth data (feet below surface) would be collected by USGS and stored in the USGS database. These data would be available to the Forest Service and public on the USGS water data Web site.

Once 5 years of monitoring data from this well have been collected, including the 2 years of data collected prior to developing this EIS, the Forest Service would evaluate this data, and use the 5-year average water table depth to establish a threshold for average water table depth.

The applicant would be required to maintain an average water table depth that is equal to or above this threshold over 3 consecutive water years. If groundwater pumping of North Fork wells results in a declining trend in the average water table depth over any 3 year period, the applicant would reduce diversions from the wells until the average water table depth is reestablished and the Forest Service determines that pumping may resume without creating further departures over a 3 year period.

**Riparian Vegetation.** This metric would provide an indicator of the effects of groundwater withdrawal on the condition and trend of surface resources in and downstream from the NFEC basin. The Forest Service would fund annual or biannual monitoring of riparian vegetation in the project area to include the approximately 2-mile section between the wells and the Eagle Creek stream gage. This would provide a baseline so that any future changes in riparian vegetation in this area would be apparent with future monitoring. Long-term monitoring may occur on riparian areas above the well field as well as on a separate but similar stream reach (to use as a reference point). Monitoring would be conducted through a combination of permanent photo points and field inventories of vegetation canopy cover and species composition. Trends in riparian vegetation canopy cover, composition, or conditions would be evaluated and documented at least every 5 years.

If there are measurable declines in riparian vegetation canopy cover, composition and/or condition over 5 years or longer, and the number of no-flow days at the Eagle Creek stream gage continue to average over 20 days per year, the Forest Service may require diversions from the wells to be reduced to below 50 percent of the annual groundwater pumping of North Fork wells for a period over the past five years, to help restore riparian vegetation.
Well Pumping Volume. The applicant would continue daily monitoring and recording of groundwater withdrawals through the North Fork wells (pumping volumes in acre feet). Combined with precipitation and streamflow records over time, this metric would be used to develop an additional reliable indicator for modeling anticipated effects of groundwater withdrawals on surface resources within the NFEC basin.

An initial threshold of 900 cumulative acre feet over any 3 consecutive water years (300 acre feet per year) would trigger a review by the Forest Service of the current thresholds and mitigations at maintaining or improving surface resource conditions. This threshold is based on current modeling of the average groundwater recharge rate, after subtracting other known and assumed water losses from the NFEC system. If analysis results indicate that current thresholds and mitigations are not sufficient to maintain surface resource conditions, management of groundwater withdrawals would be adjusted to provide additional protections against further degradation of riparian and other surface resources within the NFEC basin.

Adjustments in Management of Water Withdrawals. Every 5 years that the permit is in effect, or when triggered by exceeding the water withdrawal threshold described above, the Forest Service would evaluate and document monitoring results to determine effectiveness of the adaptive strategy and determine whether an adjustment to the parameters of this adaptive management strategy are warranted.

- Adjusting these parameters would be based on Forest Service determinations of the extent to which the North Fork well operations are consistent with the purpose and need and identified management objectives.

Adaptive management adjustments considered for consideration include: Limitations on groundwater withdrawal rates; cessation of pumping for short periods; and/or surface flow augmentation. These groundwater management options are a preliminary list being considered at this stage of planning; they may be revised as more analysis and evaluation is conducted during preparation of the EIS.

Possible Alternatives

No Pumping Alternative: The Forest Service would not issue a new permit for the applicant’s North Fork well operations and maintenance; the use of these wells would no longer be authorized and would be discontinued.

No Action (No Change) Alternative: The Forest Service would issue a new permit for the applicant’s North Fork well operations and maintenance with no change in existing well pumping operations; there would be no specific stipulations or limitations on well operations and the permit would be issued under the same terms, conditions, and history of water use that has been in operation since 1988.

Stream Augmentation Alternative: This alternative, suggested by the applicant, would be essentially the same as the proposed action previously described, with one main difference. Exceeding the thresholds previously described for streamflows, water table depths, and riparian vegetation would trigger augmentation of streamflow by pumping groundwater into the North Fork of Eagle Creek stream channel to mitigate adverse impacts to surface resources.

Responsible Official
The Forest Supervisor of the Lincoln National Forest is the deciding officer for this project. The Forest Supervisor will issue a Record of Decision at the conclusion of the National Environmental Policy Act (NEPA) process, and after evaluating public comments received on the Draft EIS.

Decision Framework
The Forest Service is the lead agency for the project. Based on the results of the NEPA analysis and consideration of public comments, the Forest Supervisor will authorize implementation of one of the following: (1) The agency’s proposed action, including the adaptive management strategy and any mitigation necessary to minimize or avoid adverse impacts; or (2) an alternative way to meet the purpose and need for action, including any applicable adaptive management strategy or other mitigation necessary to minimize or avoid adverse impacts; or (3) the No Action/No Change alternative or the No Pumping alternative.

Preliminary Issues
The main issue to be addressed is the effect that the proposed continuation of well pumping may have on hydrologic resources (surface water and groundwater) in the North Fork Basin, including potential cumulative effects downstream in the larger Eagle Creek watershed. Other issues identified thus far include effects of well pumping on aquatic habitat and fish (particularly brook trout), downstream recreational use (public use of streams for streamside recreation, fishing, and wildlife viewing), riparian vegetation condition, and municipal water supply.

Scoping Process
This notice of intent initiates the scoping process, which guides development of this EIS. To assist the Forest Service in identifying and considering concerns about the possible consequences (effects) of the proposed action or possible alternatives being considered, comments should be as specific as possible. A public open house will be held at the Ruidoso Middle School (123 Warrior Drive, Ruidoso, New Mexico 88345) on Thursday, February 17 from 5 p.m. to 7:30 p.m. Forest Service staff will be on hand to meet with the public, answer questions, and discuss the project and process. Comments may be submitted at the meeting, by e-mail, fax or letter within the 45-day scoping period.

It is important that reviewers provide comments at such times and in such a way that they are useful to the Agency’s preparation of the EIS. Therefore, comments should be provided prior to the close of the scoping period and should clearly articulate the reviewer’s concerns and contentions. Comments, however, are welcome throughout the planning process.

Comments received in response to this solicitation, including names and addresses of commenters, will be part of the public record for this proposed action. Comments submitted anonymously will be accepted and considered; however, anonymous commenters will have no standing to participate in subsequent administrative review or judicial review.

Dated: January 27, 2011.

Robert G. Trujillo,
Forest Supervisor, Lincoln National Forest.

DEPARTMENT OF AGRICULTURE
Forest Service
Madera County Resource Advisory Committee
AGENCY: Forest Service, USDA.
ACTION: Notice of meeting.

SUMMARY: The Madera County Resource Advisory Committee will be meeting in North Fork, California on February 16th, February 23, 2011 and March 9th, 2011, and if necessary on March 16th, 2011. The purpose of these meetings will be to discuss and then vote on submitted