

**Black River Land Exchange
Analysis of Social – Economic Impacts
Springerville Ranger District
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Introduction

The purpose of this document is to describe the potential effects of the Proposed Action on the social and economic attributes raised as concerns in response to the Notice of Intent to Publish an Environmental Impact Statement for the Black River Land Exchange. This document is intended to provide analysis of effects for the key issue identified for the exchange. One key issue was identified. The key issue is: Possible development of Federal lands (if exchanged) could lead to a possible decrease in the availability of water from existing domestic wells that may result in localized adverse social and economic impacts.

Area of Analysis

The project area consists of the lands subject to exchange as described in the Environmental Impact Statement. The area analyzed for the Federal lands are those proposed for exchange and the surrounding lands within the Greer Phase I Boundary as identified by Apache County Planning and Zoning. The area analyzed for the non-Federal lands are those proposed in the exchange and the surrounding lands within a one mile radius of each parcel.

Methodology Used for Data Collection and Analysis

Issue #1 - Possible development on the Federal lands, if exchanged... will be measured by a qualitative discussion of the implication of potential development on social and economic attributes which were raised as concerns. Analysis will include the amount of drawdown of groundwater aquifers expected from either a deep well or multiple shallow wells and a narrative discussion of the implications of the drawdown.

Three potential development scenarios of Federal lands, if acquired by the proponent, were analyzed.

Scenario 1) No development.

This scenario is based upon the past history of development by the proponent on Federal land conveyed to him in a prior land exchange within the Apache County Greer Phase I boundary, as well as the intended future use of the land as stated by the proponent.

Scenario 2) Development with lot splits.

The estimated level of development under this scenario is based upon the historical data and trend for this type of development within Crosby Acres subdivision in the Greer Phase I boundary. The Crosby Acres subdivision lies adjacent to the Federal lands proposed for exchange and has similar terrain and topographic features. The Crosby Acres subdivision totals 180 acres.

Scenario 3) Development of a planned subdivision.

Development of Elk Crest Estates was used to provide a comparison for determining the rate of development under this scenario. This subdivision is a planned subdivision located near neighboring Eagar, AZ. The infrastructure was built and lots are being sold individually.

The spatial bound for cumulative effects analysis for the Federal lands is the Greer Phase I boundary as identified by Apache County's Zoning Ordinance. This somewhat follows the larger boundary of the Greer Community which is topographically separated from adjacent Forest lands by a rim surrounding the Greer Basin. The mix of land ownership within this boundary is 14% private and 86% federal. Selection of this boundary allows an adequate look at socio-economic effects at a larger scale than the project area.

The spatial bound for the private lands proposed for exchange is a 1 mile radius surrounding these parcels. A qualitative discussion of potential development of those lands will be used to disclose effects.

The temporal bound for cumulative effects is identified as 15 years. Fifteen years provides a timeframe for a look at historical development and exchanges and provides for determining future trends in development. Changes in current zoning ordinances which could place additional constraints upon development within the Greer Phase I Boundary are currently being proposed to Apache County. Analysis of temporal scale beyond 15 years into the future was considered to be speculative.

Regulatory Requirements

- The Apache-Sitgreaves Land Management Plan (A-S LMP) (Doc 1) provides criteria for lands offered by the United States for exchange and acquisition by the United States. This exchange is consistent with the A-S LMP.

Mitigation Measures

No mitigation measures were identified as needed for Tracts A and B. Tracts A and B consist predominantly of upland Ponderosa pine forest. Soils are primarily moderately deep and moderately drained with slight erosion hazard. A need for mitigation measures for protection of threatened, endangered or sensitive species or their habitat was not identified in the BAE (Doc. 74). If the Federal property is conveyed, no restrictions would be placed on the future use of the property. The proponent would add the property to his real estate holdings and could sell all or portions of the property, or bequeath all or portions of the property to others. Any potential future development on the Federal lands would be subject to all laws and regulations of the State of Arizona and Apache County zoning ordinances, including subdivision and Greer Phase I regulations. The relevant laws, regulations, and zoning ordinances contain adequate measures to assure the conveyed Federal lands, adjacent private land and remaining adjacent National Forest are not adversely affected.

Environmental Consequences

Proposed Action

Scenario 1) No development.

Introduction

Federal Land

The land exchange proponent has indicated he has no plans for development on the Federal property should it be conveyed. No evidence to the contrary has been presented. The previous Murphy Engineering Report, which identified maximum potential development in accordance with existing zoning regulations, was done to aid in assessment of land value. The Murphy Engineering Report does not represent a formal plan by the proponent for development on the property.

The land exchange proponent participated in a prior land exchange with the USFS in the Greer area in 1993. The commission for brokerage services provided by Federal Land Exchange, Inc. was paid as 20 acres of land (worth approximately 10% of the value of the Federal lands) rather than cash. This acreage was immediately deeded to a third party

while still in escrow. Some lot splitting and residential development has taken place on the 20 acres over the last 15 years. The proponent retained the remaining 189.15 acres. This acreage has not been subdivided. County records indicate there has been no development on this acreage. The proponent has indicated that he has not entered into nor has any intention to enter into a similar agreement that would use Federal land as payment in this exchange. The proponent has stated he does not plan to develop the Federal land he would acquire in this land exchange. Based on the proponent not developing his property from the prior exchange and his statement that he does not intend to develop the Federal land associated with this proposed exchange, the most likely development scenario within the next 15 years on the federally conveyed lands is that of *no development*.

Non-federal land

If the proposed action occurs, the non-Federal lands would become public lands and development would be precluded.

Direct and Indirect Effects

Federal land

Under this scenario the effect on the various socio-economic attributes would be as previously described in the October 2005 Environmental Assessment.

In addition, development of any new wells for private use by the proponent would occur, subject to State regulations. Based on the history of well development by the proponent on his current holdings, the expected number of new shallow wells developed for private use, if any, would be less than 5. Based upon projections in the Geologic Resources Report, drilling of 5 or less shallow wells would result in minimal effect on the White Mountain aquifer (Doc. 342). An individual shallow well developed on the Federal lands might have an effect on an adjacent well or wells depending upon proximity to the neighboring wells. If this were to occur the existing well may only need to have its pump set deeper or possibly drilling the well deeper so the pump can be lowered. Drilling another well in a new location to maintain water availability might also be an option. Well development for future residential or commercial use and resulting drawdown of the aquifer is not expected to occur under the no development scenario. Overall, drawdown of the aquifer and possibly reduced water availability to adjacent well owners would not be expected under the development scenario.

Several comments were received on the possible loss of outdoor recreation access and opportunities as a result of the land exchange. They express concern that if completed the proposed land exchange would result in reduced opportunity for outdoor recreational activities near the community of Greer, specifically on Federal lands proposed for conveyance. If the exchange were to occur, the property boundaries of some Crosby Acres landowners currently adjacent to Federal land would become adjacent to private land. Access to or across the conveyed Federal land may be granted at the discretion of

the landowner. If access is not granted, recreational opportunities continue to be available elsewhere. Federal lands available for outdoor recreation within the Greer Recreation Area would be reduced by 2.4% (338 acres). There would be an increase of 396.35 acres of National Forest System lands available for public outdoor recreation use elsewhere on the Forest. The lands proposed for acquisition contain riverine systems, riparian habitat, wetlands and habitat for threatened, endangered and sensitive species, as opposed to the upland pine type on the Federal land proposed for conveyance. On the Federal lands proposed for exchange, approximately ¾ mile of existing Squirrel Springs cross-country ski trail number 331 would be relocated and the result would be no loss of skiing opportunity. The Greer Recreation Area would still contain a sizable land base available for outdoor recreation for both residents and visitors. On a forest-wide basis there would be an overall increase of 58.61 acres available for outdoor recreation uses, such as fishing, camping and hiking. With no foreseeable future residential or commercial development on the Federal lands, the effects on social and economic attributes expressed as concerns (traffic, noise, etc.) would be limited to those resulting from normal use by the private party.

Non-Federal land

If acquired, the non-Federal lands would be incorporated into the A-S LMP Management Areas in which they are located (36 CFR 254.3(f)). Management direction would be the same as surrounding Federal lands, unless otherwise changed by future amendment of the A-S LMP.

The proposed action would preclude development of the non-Federal land. This would preserve the more diverse habitat conditions on the non-Federal lands (Doc. 74). No adverse impacts resulting from development would occur to the non-Federal lands.

Cumulative Effects

Federal land

No new residential or commercial development means there would be no incremental effect on social and economic attributes resulting from current or future development on the Federal lands within the Greer Phase I boundary. The no development scenario would not add to the effects of development within the Greer Phase I boundary.

No existing formal plans are in place for exchange of other Federal lands within the Greer Phase I Boundary at this time. Some discussion has occurred regarding exchange of Federal land associated with 19 existing Special Use Permits for Recreation Residences occurring near the Wonderland Road but no formal request has been submitted. The A-S LMP specifies criteria for lands eligible for exchange. Any future proposed exchanges would involve the public.

Non-Federal land

If the exchange occurs, the possibility of future development and associated direct, indirect and cumulative effects would be precluded

Environmental Consequences

Proposed Action

Scenario 2) Development with lot splits.

Introduction

Federal land

If a *change in ownership* of the exchanged Federal parcels were to occur, the following is a possible development scenario and associated effects. This development scenario assumes lot splits in accordance with current Apache County zoning regulations. The Crosby Acres subdivision lies adjacent to Tract B in the proposed land exchange and provides a historical basis for rate of development which could be expected.

Information received from Apache County Planning and Zoning indicates construction of sixty-eight single-family residences, 6 log homes, and 1 RV Park in Crosby Acres between 1965 and 2005. This represents construction on an average of slightly fewer than 2 lots per year over 39 years. P&Z parcel records do not indicate construction of single-family residences, log homes, RV parks, or commercial development on lots within the Crosby Acres in 2005 – 2007 (Doc. 344-A01). Based on the historical average of annual new development subject to Apache County Zoning Regulations, new construction could be projected to occur on approximately 30 lots over the next 15 years. If the rate of future development were to vary by 30 %, new construction would occur on between 25-35 lots in Tracts A and B in the 15 years following conveyance. Proportionally this equates to an estimated 5-7 lots on Tract A and 20- 28 lots on Tract B. Based on historical development, one could expect that new residential construction would predominate with perhaps one or two new commercial enterprises developed along State Route 373.

Parcel records within the Greer Phase I Boundary indicate 14% of the property owners with a mailing address in Greer (Doc 344-A02). This is indicative of the seasonal nature of occupancy within the area. Based upon this information, it is estimated that 14% of the potentially developed lots listed above would be occupied by full time residents. Use by seasonal residents, generally April through September, could be expected on 86% of the potentially developed lots.

Non-Federal land

If acquired, the non-Federal lands would be incorporated into the Management Areas in which they are located (36 CFR 254.3(f)). Management direction would be the same as surrounding Federal lands, unless otherwise changed by future amendment of the A-S LMP.

The proposed action would preclude development on the non-Federal land. This would preserve the more diverse habitat conditions on the non-Federal lands. No adverse impacts resulting from development would occur to the non-Federal lands.

Pristine Open Space

Affected Environment

Federal Land

No structures exist on the Federal parcels. Vegetation consists of a scattered overstory of second growth ponderosa pine with an understory of various grasses and small openings.

Tracts A and B adjoin other private land including the Crosby Acres subdivision and private land owned by the proponent. All developments are within the Greer Phase I Boundary.

Several commentors on the Notice of Intent to Publish an EIS referred to the lands (Tracts A & B) near Greer as “pristine”. Tract B, the larger of the two tracts proposed for exchange, received a commercial thinning in the Greer Multi-product Sale in 1997 and 1998. Tracts A and B represent undeveloped, open space to some individuals who submitted comments.

Non-Federal land

These parcels remain in a relatively undeveloped state. The Rancho Allegre parcel contains some barbed wire range fences and a dirt road. The Thompson Ranch contains an historic cabin. The Blue River Ranch parcel has some range fences, a dirt road, and a Navapache Electric Cooperative 69 KV transmission line crossing through the property.

These lands are surrounded by National Forest. Large areas of federal land and open space, free of development occur adjacent to and near these parcels.

Direct and Indirect Effects

Federal Land

Based upon the historical development in Crosby Acres, the exchange could result in new residential or commercial development and a reduction in open space on Tracts A and B on 25 to 35 lots over the next 15 years. Any reduction in open space is expected to occur gradually over the next 15 year period, i.e. 2 one-acre lots per year x 15 years = 30 acres out of a total of 338 acres in Tracts A and B. The resultant lots would be in proximity to other development which has occurred within the Greer Phase I Boundary.

Non-Federal land

Acquisition of the three isolated parcels (Thompson Ranch, Rancho Alegre and the Blue River Ranch) would result in the ownership of an additional 396 acres by Forest Service. Federal management would assure the maintenance of open space on these lands. Adjacent Forest lands provide a large contiguous block of open space free of development.

Cumulative Effects

Federal Land

Future development is expected to occur on private lands within the Greer Phase I Boundary resulting in reduction of open space. The rate of development is dependent upon market conditions and difficult to predict. According to analysis of data from Apache County parcel records, permits were issued for some type of development on 646 parcels totaling approximately 657 acres from 1915 -2007 (Doc. 344-A10). Open space could be reduced on 25-35 acres within the next 15 years under this development scenario, representing four to five percent of the acreage developed within the Greer Phase I Boundary. No other formal exchange proposals involving federal lands are present within the Greer Phase I Boundary at this time which could result in additional reductions to open space. It is possible that an offer to exchange the federal land that contains the Little Colorado Recreation Residences will be submitted to the Forest in the near future. This would involve up to 35 acres containing 19 currently permitted recreation residences. If this becomes private, existing structures could remain or be replaced with new structures. Little change to the acres of open space from this potential exchange is expected.

Non-Federal land

Development would be precluded. No cumulative impacts on open space from development would occur.

Noise

Affected Environment

Federal Land

The Federal land experiences noise associated with natural phenomena, such as wildlife and wind and from recreational activity and aircraft over flights. Noise levels also include those related to adjacent private development and traffic on SR 373. Noise levels have not been measured, but are expected to be less than lower levels for urban ambient sound. Site-specific data on noise was not collected because the level of possible new development is expected to be gradual and similar to development which has occurred in Crosby Acres. The Forest Service is unaware of any significant effects resulting from historical development of Crosby Acres or adjacent properties.

Non-Federal land

The non-Federal lands are relatively isolated and surrounded by NFS lands. Noise levels are low and primarily associated with natural phenomena, such as wildlife and wind. There is also some noise from recreational activity and aircraft over flights. Noise associated with structural improvements or their removal on the private parcels has been minimal over the course of the last 15 years. This is based on the limited number of structural improvements which have occurred on these parcels.

Direct and Indirect Effects

Federal Land

Construction associated with possible future development may create noise similar to what has occurred during the development of Crosby Acres which may be disturbing to some residents. A temporary increase in noise is expected to occur during any residential or commercial construction activities. This type of construction activity produces less noise than development of shopping malls or industrial plants which are not likely to be developed under current zoning ordinances and due to a lack of market. If development occurs, similar to the development of Crosby Acres, construction activities could occur on an average +/- 2 lots per year for the next 15 years, resulting in a minimal increase in noise. Noise of this nature has been occurring on adjacent subdivisions and other developments within the Greer Phase I Boundary for the last 40 or more years. This noise has not created significant adverse effects.

An increase in noise from construction activities associated with development will not impact federally-listed threatened, endangered or sensitive species. None are known to inhabit the Federal lands.

Non-Federal Land

Development would be precluded. Noise associated with development would not occur.

Cumulative Effects

Federal Land

Other past activities resulting in noise include implementation of forest vegetation treatments in the area, recreational activity, occasional overflights, and private development occurring on other parcels within the Greer Phase I Boundary. No other formal land exchanges resulting in development currently exist, nor are any formal exchange proposals planned except for possibly the existing Little Colorado Recreation Residences. Noise from construction activities resulting from future development occurring on other private parcels can be expected within the Greer Phase I Boundary. Noise of this nature has been occurring on adjacent subdivisions and other developments within the Greer Phase I Boundary for the last 40 or more years. This noise has not created significant adverse effects. No complaints regarding noise of harvesting equipment associated with the implementation of the Greer WUI project have been received by the Springerville Ranger District.

Non-Federal Land

Development would be precluded. Cumulative effects on noise levels resulting from development would not occur.

Traffic / Increased Maintenance Needs for the Transportation system

Affected Environment

Federal Land

The Level of Service (LOS), which is the ratio of traffic volume to capacity, has not been calculated on SR 373 (Doc. 344-A03). Average annual daily traffic (AADT) on SR 373 ranged from 1100 to 1300 (ADOT 2006) from 2003 to 2006 (Doc. 344-A04). Based upon this level of traffic and familiarity with SR 373, ADOT estimates the LOS is class A, which represents free flowing traffic (Doc 344-A03).

Non-Federal land

These lands are accessed by graveled roads on the Forest, including National Forest System Roads (NFSR) 01-25, -116 and -281. Design speed is 45 mph or less. Traffic is primarily seasonal in nature on all three roads. It is not uncommon for winter snowfall to prohibit travel on NFSR 25 and 116 from late November through mid-April. Forest visitors include hunters, fishermen, and other recreationists. Access on NFSR 281 (Greenlee County Road 67004) is maintained by the County and is the sole access for

other private land owners along the Blue River. Some local landowners utilize NFSR 281 throughout the year for access to their adjacent properties.

Direct and Indirect Effects

Federal Land

If the estimated 25-35 units were developed this could result in an increase in the AADT of approximately 70 (two vehicle trips per day, every day, for each of the 35 units – an unlikely, conservative scenario) over the course of the next 15 years. Based upon this increase, ADOT estimates the LOS would remain Class A, which is free-flowing traffic (Doc. 344-A03). Based upon the historical rate of development in Crosby Acres, the rate of increase in AADT is expected to be gradual, resulting from an average of slightly less than 2 lots developed per year.

The potential addition of 25-35 lots within the next 15 years could result in the need for of the addition of turning lanes on SR 373 where intersections with access roads occur in order to maintain the existing flow of traffic (Doc. 344-A05). The rate of development in Crosby Acres has been slightly less than 2 lots per year over the last 39 years. Currently there is one access road from SR 373 for the Crosby Acres subdivision. The Murphy Engineering Report indicates the potential addition of seven roads intersecting SR 373 for a full scale subdivision development of one-acre parcels. Based upon the historical rate of development in Crosby Acres, the potential for additional roads intersecting SR 373 in the next 15 years is expected to be one for Tract A and one for Tract B, resulting in minimal improvement and maintenance needs for SR 373.

Non-Federal land

Access to 3.15 miles of stream would become accessible to sport fishing. An increase in recreational uses such as hunting, hiking, bird watching, etc. would be expected on the non-Federal lands resulting in minor increases in traffic.

Development would be precluded. Impacts on traffic and the transportation system associated with development would not occur.

Cumulative Effects

Federal Land

Ongoing activities which result in increases in local traffic include access by local residents, recreationists, construction workers and others in service industries. Development on other private parcels within the Greer Phase I Boundary is occurring and expected to continue into the future until existing and available private property is built out.

Implementation of the Greer WUI project has resulted in a temporary increase in traffic on SR 373 and certain Forest Roads within the Greer Phase I Boundary by harvesting contractors and their equipment. The Springerville Ranger District has received no complaints regarding this increase in traffic from Greer residents or seasonal visitors.

Implementation of the Greer WUI project is expected to continue in the area through 2009.

Non-Federal Land

There are no current or planned projects adjacent to the private lands which would contribute to an increase in traffic on the non-Federal parcels or adjacent federal lands.

Water Quality / Pollution of adjacent creeks, riparian areas and the Little Colorado River

Affected Environment

Federal Land

The Federal lands proposed for exchange are located within the Greer Wildland Urban Interface (WUI) boundary. The Greer Urban Interface Soil and Water Specialist Report (Doc. 161) completed in 2004 states "Currently, the limited monitoring completed by the ADEQ indicates no exceedance in turbidity on streams within the project area. A Unique water, the West Fork of the Little Colorado River, classified by the ADEQ as an outstanding state resource water (as prescribed in A.A.C. R18-11-112) occurs within the project area. Unique waters have more stringent surface water quality precautions than other surface waters under the state's anti-degradation rule (see appendix B). Activities that may result in a new or expanded discharge of pollutants to Unique Water or its tributaries are prohibited if the discharge would cause degradation of existing water quality. Best management practices (BMPs) have been created by the IDT to protect the unique water from degradation. Below the project area, two reaches of the Little Colorado River have been identified by the ADEQ as being impaired. Total Maximum Daily Load analyses are being completed for these reaches. The pollutant of concern is suspended sediment. Monitoring to date indicates that sediment problem is coming from ungulate activities within the watershed downstream of the Forest, bank destabilization, and from natural sediment input from sandstone tuff outcrops."

Hall Creek lies just north and west of the Crosby Acres subdivision. The monitoring records for Hall Creek indicate there is no water quality problem associated with historical development in the Crosby Acres subdivision.

Soils in Tracts A and B were classified according to terrestrial ecosystem mapping units (Doc. 344-A06). The Greer Urban Interface Soil and Water Specialist Report provide a description of these soil types. No wetlands or floodplains occur on the Federal land.

Non-Federal land

The non-Federal parcels are bisected by riverine systems and contain riparian habitat. The non-Federal parcels contain a total of 118 acres of wetlands and 3.15 miles of floodplain. Soils on these habitats are typically more sensitive to compaction and erosion than upland soils. These habitats are less prevalent than upland habitats on the Forest.

Direct and Indirect Effects

Federal Land

Based upon the Greer Urban Interface Soil and Water Specialist Report, impacts to upland soils are possible if construction activities associated with new development on Tracts A and B were to occur when saturated soil conditions exist. Direct impacts would be restricted to upland soils. These impacts would not have the potential to directly impact the soils of riparian areas, wetlands, floodplains or riverine systems since these habitats do not occur on the Federal land.

Compliance with State and local regulations and Best Management Practices during construction activities associated with future development on the upland soils would minimize adverse impacts to the soils on the Federal lands and adjacent lands.

Non-Federal land

If the exchange occurs, future development would be precluded reducing the potential for impacts to soils and water quality.

Cumulative Effects

Federal Land

Ongoing resource based activities occurring on or adjacent to Federal lands within the Greer Phase I Boundary include various recreational activities and implementation of forest thinning with the Greer WUI project. These activities have not resulted in significant adverse impacts to soils or water quality. Cumulative effects to the soils and water resource were determined to be insignificant in the Greer Urban Interface Soil and Water Specialist Report (Doc 161). There are no known actions that in conjunction with development on adjacent private property would result in substantial impacts to water quality, pollution of adjacent creeks, or riparian areas.

Non-Federal land

If the exchange occurs, development would be precluded, eliminating the potential for impacts on soils and water quality due to future development.

Commercial Development

Affected Environment

Federal Land

Five commercial enterprises are located within one mile of Tract B. They consist of the Greer Mountain Resort (a restaurant, cabins and RV park), the Hall Creek RV Park, the F bar K store (a small A-frame, currently closed), the Snowy Mountain Inn (a lodge, cabins & the Scoreboard Restaurant and Sports Bar) and the Greer Ranch & Stable Bed & Breakfast (includes trail rides).

Non-Federal land

No commercial development is located on the private parcels proposed for exchange. The parcels are isolated private land surrounded by National Forest.

The Big Lake store lies approximately 3 ½ miles east of Thompson Ranch. Sprucedale Ranch lies approximately 3 ½ miles east of Rancho Allegre. The Blue River Fish Hatchery lies approximately 3 miles north of the Blue River Ranch parcel.

Direct and Indirect Effects

Federal Land

Current zoning ordinances would allow for some type of commercial development on the conveyed Federal lands. In a December 19, 2007 meeting with Milton Ollerton of Apache County Planning and Zoning, he indicated commercial development would only be expected along SR 373. Any new commercial development may be objectionable to some local residents. One commercial enterprise (RV Park) has been constructed along SR 373 within the Crosby Acres subdivision in the last 39 years. Four other establishments exist within one mile of Tract B. Based on this historical rate of development, commercial development along SR 373 could occur but would be expected to be minimal.

Non-Federal land

The Proposed Action would preclude commercial development on the isolated non-Federal parcels.

Cumulative Effects

Federal Land

If commercial development were to take place it would add to the existing service oriented business base proximal to Crosby Acres.

Non-Federal land

Commercial development would be precluded and there would be no cumulative impacts from commercial development.

Water Availability / Availability of Water for Riparian areas / State of Arizona regulation of water resources

Affected Environment

Federal Land

The Federal lands proposed for exchange are located at an elevation of 8100 to 8500 feet and the natural vegetation is representative of ponderosa pine forest type. The area drains into Lang and Rosey Creeks. Both are tributaries to the Little Colorado River. The waters of the Little Colorado River are appropriated for irrigation use in the downstream valley communities of Eagar, Springerville, and Saint Johns. There are no streams, springs, or wetlands located on the Federal lands. A Water Resource Evaluation was conducted by the FS and states the following: "The Greer exchange parcels are located entirely on upland sites that do not include any mappable floodplains or wetlands. No water right filings appear to be associated with these exchange locations" (Doc 13).

The groundwater aquifers are described in the Geologic Resources Report (Doc. 342). No creeks or rivers are present on the two parcels proposed for exchange. Rosey Creek which includes riparian habitat lies south of Tract B. Lang Creek lies to the north of Tract A.

Non-Federal land

The non-Federal lands contain portions of the West Fork of the Black River and the Blue River. These rivers flow year-round and support both native and introduced fish populations. The rivers support a healthy riparian community and supply water for wildlife and livestock use (Doc 13).

Direct and Indirect Effects

Federal Land

Under a development scenario that would include lot splits, approximately 25-35 wells might be developed within the next 15 years on the Federal lands. The wells would require drilling permits from the AZ State Department of Water Resources. State regulation of water use is beyond the scope of this analysis. There would be no direct effects on water availability in creeks or riparian areas on the Federal lands since none are present.

The Geologic Resources Report reads, “The overall effect on a 100 – 200 foot saturated zone in the White Mountains aquifer would be minimal, whether it is the result of pumping two wells, 258 wells or even a single shallow well.” (Doc. 342) The conclusion reached under this development scenario is that effects on water availability from multiple shallow wells are expected to be minimal.

Non-Federal land

Acquisition of the non-Federal lands would result in them being incorporated into the adjacent National Forest lands and becoming subject to Forest Service management practices. Any future residential development on these lands, particularly the Blue River Parcel which was previously subdivided and placed on the market as approximately 40 acre parcels but sold in its entirety when the proponent acquired it, would be precluded. Federal management would provide protection to the riparian habitat and riverine systems. Quality and quantity of surface and groundwater resources of the Blue River and West Fork of the Black River attributed to these parcels would be preserved.

Cumulative Effects

Federal Land

No ongoing actions are occurring or foreseeable future actions planned (except for the possibility of a land exchange involving the Little Colorado Recreation Residences) on other Federal lands within the Greer Phase I Boundary which are expected to affect water availability.

Non-Federal land

Acquisition of the non-Federal lands would not result in any direct or indirect effects on water availability. Therefore, no cumulative effects exist. Development would be precluded and quality and quantity of surface and groundwater resources of the Blue River and West Fork of the Black River would be preserved.

Impacts on Wildlife and wildlife corridors

Impacts on wildlife resources will be addressed in the Wildlife Specialist Report.

The following text is from a letter dated January 21, 2003 from the Arizona Game and Fish Department regarding the proposed exchange. It provides a summary perspective of potential effects of the exchange on wildlife resources. “The Department is aware of the concerns of the community of Greer with the proposed land exchange of the selected federal parcels around Greer. While the Department recognizes that these selected federal parcels currently provide limited recreational hunting opportunities, we believe that recreational hunting and fishing opportunities associated with the offered private parcels exceed those of the selected federal parcels. In addition, while the selected

federal parcels currently provide limited wildlife habitat values for a variety of species, we believe the offered private parcels provide very high wildlife habitat values for an even wider variety of wildlife species, including several special status species. The offered private parcels also contain perennial stream/river habitats with very high riparian and fishery values. Acquisition of these parcels by the Forest Service would avoid potential development issues associated with private ownership, and would facilitate greater Department involvement in managing direction and activities. Acquisition would also consolidate Forest Service ownership of reaches of streams, facilitating specific management actions for native fishes.” (Doc. 74).

Sewer Services

Affected Environment

Federal Land

According to the Little Colorado Sanitary Sewer District (LCSD), sanitation facilities within the LCSD typically are operating at 3% of capacity in the winter and at 20% capacity during peak occupancy in the summer (Doc.344-A07).

Non-Federal land

There are no sewer treatment or other sanitation facilities on the private lands.

Direct and Indirect Effects

Federal Land

The capacity of the LCSD sewage treatment facility is expected to accommodate projected growth near Greer. If future development were to occur on Tracts A and B, wastewater services would be provided as the properties lie within the District’s service area. The cost associated with installation would be borne by individual lot owners, but there is a mechanism for potential fee waiver. Also, if multiple owners were involved, they could share the cost (Doc. 344-A07). The addition of 25-35 lots within the next 15 years would not affect the capacity of the existing sanitation facilities.

Non-Federal land

Development and the need for sewer services would be precluded.

Cumulative Effects

Federal Land

Additional private development on the existing non-federal land within the Greer Phase I Boundary would increase the volume of wastewater requiring treatment by LCSD. However, the current operation is much below capacity and the additional volume is not expected to require expansion of the facilities.

Non-Federal land

Acquisition of the non-Federal lands would not result in any direct or indirect effects on the need for sewer services. Therefore, no cumulative effects exist. The need for sewer services associated with potential development would be precluded.

Loss of recreation opportunity

The Affected Environment, Direct and Indirect Effects to Federal and non-Federal lands are as described in the October 2005 Environmental Assessment (Doc. 187).

Cumulative Effects

The only other actions currently being considered within the Greer Recreation Area that may have a future effect on the total number of Federal acres available for outdoor recreation use are a land exchange proposal for approximately 35 acres involving 19 existing summer recreation residences and a FS proposal to purchase approximately 10 acres of floodplain along the Little Colorado River. No significant cumulative impacts are anticipated.

Fire hazard potential

Affected Environment

Federal Land

Tract A

Forest lands immediately to the east, west and north of Tract A received fuel reduction treatment in 2006 and 2007 with implementation of the Greer Wildland Urban Interface project which resulted in reduced fire hazard potential. Prevailing winds that would influence the spread of potential wildfire are from the southwest. Private land is located to the south and southwest of Tract A. Private land owned by the proponent immediately to the south and west of Tract A is an area of low fuel loading, primarily made up of open meadow including a large pond. A forested knoll surrounded by meadow is present. A section of forest land which lies southwest of the private land and

to the southwest of Tract A in Sections 22 and 27 was treated in 2003 in the Lang Fuels Reduction project. This project thinned trees < 12 “dbh and disposed of the resulting slash in a 50 acre block of land (Doc. 344-A11). The result was a reduction in fuel loading and fire hazard potential. These fuels reduction treatments and the presence of meadows immediately south of Tract A have resulted in the creation of a low fire hazard potential for lands surrounding Tract A. Resistance to control of wildfires on the adjacent forest land has been reduced as a result of these treatments.

Tract B

Forest lands east of Tract B were treated as part of the Benny Thinning and Slash Treatment Project in 2003 and 2004. A maximum of sixteen potentially developable lots lie immediately adjacent to SR 373. A maximum of nineteen developable lots, along the southern boundary of Tract B, lie north of and above Rosey Creek, a perennial creek supporting riparian vegetation with low fire risk. The area immediately south of Rosey Creek was recently treated as part of the Greer WUI project, which resulted in a reduction in fire hazard potential. A maximum of twenty lots along the western boundary of Tract B lie above the steep slope of Hall Creek. The forest land to the southwest of these lots is scheduled for fuels treatment in 2009 as part of the Greer WUI project.

Non-Federal land

Specific data on the fire hazard potential on the non-Federal properties and adjacent forest lands is not available. However, the fire hazard potential on the non-Federal properties is expected to be low to moderate as a perennial river passes through each of the properties; the Thompson Ranch parcel contains few, if any trees; the Rancho Alegre parcel consists of mostly a large meadow; and the Blue River Ranch parcel consists of cottonwood-willow forest broken up by several large open areas. The forested lands adjacent to these properties have not recently received fuels reduction treatments. The lack of recent vegetative treatments in the vicinity of these parcels along with the high tree densities on the Forest result in the non-Federal properties being susceptible to a moderate to high fire hazard potential.

Direct and Indirect Effects

Federal Land

Tract A

The Murphy Engineering Report indicates potential for development of 51 one acre lots in Tract A. The time it would take to build out a subdivision of this size (51 lots) is speculative. Based upon the history and rate of development in Crosby Acres, the addition of 5-7 lots on Tract A would be expected within the first 15 years. A 30 % increase in the rate of development within the 15 years would equate to the addition of 7-10 lots developed on Tract A. This is expected to result in only a minor change in fire hazard. The Rodeo-Chediski Fire created a heightened awareness of the risk of wildfire

which may result in fewer man-caused fires originating on private lands. The Greer Volunteer Fire Department has been working in the Greer Community promoting the Firewise program to make homes within the Greer area less susceptible to damage from wildfire. Fires originating on Tract A would be expected to spread to the northeast when driven by the prevailing wind toward SRs 260 and 373 which would serve as containment lines. Large scale fires resulting from the addition of lots are not expected.

Tract B

Based upon current Apache County Zoning regulations and the conceptual development displayed in the Murphy Engineering Report, there exists a potential for a maximum of 199 one acre lots within Tract B. The time-frame to build out a subdivision of this size (199 lots) is speculative. Based upon the history and rate of development in Crosby Acres, the addition of 20-28 lots on Tract B would be expected over the next 15 years. A 30 % increase in the rate of development during the next 15 years would represent the addition of between 27-37 lots developed on Tract B. This is expected to result in only a minor change in fire hazard. Tract B was treated using a commercial thinning in 1997 and 1998 as part of the Greer Multi-product sale resulting in a reduction in ladder fuels and creation of gaps in the tree canopy. The Rodeo-Chediski Fire created a heightened awareness of the risk of wildfire which may result in fewer man-caused fires originating on private lands. The Greer Volunteer Fire Department has been working in the Greer Community promoting the Firewise program to make homes within the Greer area less susceptible to damage from wildfire. Fires originating on Tract B would be expected to spread to the northeast when driven by the prevailing wind toward SR 373 which would serve as a containment line. Large scale fires resulting from the addition of lots are not expected.

Much of the forest land surrounding Tracts A and B received vegetative treatments in 2006 and 2007 with implementation of the Greer Wildland Urban Interface Project. Fire and fuels modeling for the analysis indicated the following: After treatment all the predicted flame lengths are less than 4', indicating that suppression with engines and handcrews would be successful. The Torching and Crowning Index Hazards are Low. Greer WUI Fire Specialist Report (Doc. 143).

Non-Federal land

Fire and fuels management on the acquired lands would be the responsibility of ASF.

Cumulative Effects

Federal Land

Past actions which reduced the fire hazard potential on or adjacent to the Federal lands include implementation of the Greer WUI Project, the Greer Multi-product sale and the Benny Thinning and Slash Treatment Project. Future fire hazard reduction treatments on the area southwest of Tract B is planned for 2009 and is dependent upon funding

availability for treatment within the Greer WUI boundary. There are no other plans for fire hazard reduction projects in the Greer Phase I Boundary at this time.

Non-Federal land

No substantial cumulative effects would occur under the Proposed Action alternative. Fire and fuels management on the acquired lands would be the responsibility of ASF.

Impacts on Plants (“phyto” resources)

Affected Environment

Federal Land

Tract A (70.57 acres): The elevation ranges from 8,160 to 8,400 feet above sea level and is generally gently sloping on the east side with some steeper terrain on the north side. Vegetation consists of a scattered overstory of second growth ponderosa pine with an understory of various grasses and small openings. There are no riparian or wetland/floodplain habitats on this tract.

Tract B (267.17 acres): The elevation ranges from 8,180 feet in the northeast corner to 8,500 feet in the southwest corner. The vegetation is primarily a continuous overstory of second growth ponderosa pine with a grass understory. There are no riparian or wetland/floodplain habitats on this tract.

The list of endangered, threatened, proposed candidate and sensitive species that may be present on the ASNFs (concurrent with the U.S. Fish and Wildlife Service), was used to identify the species which would need to be considered in the analysis. The following three plants, listed as sensitive, were identified for consideration due to possible suitable habitat within the analysis area: 1. Mogollon Paintbrush (Castilleja mogollonica) 2. Gila groundsel (Senecio quarens) and 3. White Mountain Clover (Trifolium longipes var. neurophyllum). The plants were not found during field surveys for the Biological Assessment and Evaluation. They are not listed in the Arizona Game and Fish Department data base as occurring in the area.

Non-Federal land

Rancho Alegre Parcel (79.76 acres): This parcel is in the Apache National Forest on the Alpine Ranger District. The land is situated along the West Fork of the Black River at an elevation of 7,600 feet. The vegetation along the 0.25 mile stretch of river is riparian in nature, with Arizona alder and willows lining both banks. There are 3 acres of wetland habitat along the river. The upland portion of the property is an open meadow, dominated by spike muhly grass. The river and wetlands provide habitat for Apache trout, Chiricahua dace, and native freshwater mussels (Dr. Myers, USFS Report 10/04/01). NFSR 01-25 provides access to the parcel along the south boundary. The east and west boundaries adjoin parcels owned by the Arizona Game and Fish Department.

Thompson Ranch Parcel (157.91 acres): This parcel is in the Apache National Forest on the Springerville Ranger District. The land is situated along the West Fork of the Black River at an elevation of 8,800 feet. The perennial streams passing through this parcel include 1.0 miles of Black River, 0.20 miles of Burro Creek, and 0.20 miles of Thompson Creek. Approximately 60 acres of riparian habitat is characterized by alders, willows and sedges. The parcel provides habitat for Apache trout, Arizona willow, Chiricahua dock, and northern water shrew (Dr. Myers, USFS Report 10/04/01). NFSR 01-116 provides access to the parcel where it runs north-south through the east portion of the parcel and turns west along the south boundary.

Blue River Ranch Parcel (158.68 acres): This parcel is in the Apache National Forest on the Alpine Ranger District. The land is situated along the Blue River at an elevation of 5,500 feet. The vegetation along the approximately 1.50 miles of river channel is riparian dependent and includes Fremont cottonwood, narrow leaf cottonwood, alder, and willow. There are 55 acres of riparian habitat in this parcel. The parcel contains habitat for the spikedace (Dr. Myers, USFS Report 10/04/01). The Blue River Road provides access along the east and south sides of the parcel.

Direct and Indirect Effects

Federal Land

Under the Proposed Action, up to 25-35 lots could be developed over the next fifteen years. The construction of infrastructure and home sites would likely result in a minor loss of vegetation. Ponderosa forest and native grasses would be impacted where development occurs. Current zoning requires a minimum lot size of one acre and regulates removal of vegetation. If the entire acreage of each lot was disturbed during construction, which is unlikely, this would result in a total of 25-35 acres. Actual loss of vegetation would be less. To the extent practicable and in compliance with local zoning, efforts to retain trees and prevent damage to herbaceous vegetation would occur during construction.

No threatened, endangered or sensitive plant species were identified in field surveys of Tracts A and B. Therefore, if development occurred, no damage to any threatened, endangered or sensitive plants would be expected.

Non-Federal land

The Proposed Action would assure conservation of the more diverse vegetation on the non-Federal parcels which include riparian and wetland habitat.

Cumulative Effects

Federal Land

Under the Proposed Action, development of a maximum of 25-35 lots may occur on the Federal land.

Discussions have occurred regarding exchange of up to 35 acres of Federal lands associated with Special Use Permits for Little Colorado Recreation Residences near the Wonderland Road. No formal proposal has been submitted.

Development on existing private lands within the Greer Phase I Boundary may occur resulting in some removal of vegetation.

Non-Federal land

No actions are planned on forest lands near the non-Federal lands which would affect vegetation.

Scenic Quality

Affected Environment, Direct, Indirect and Cumulative Effects are as described in the October 2005 EA (Doc. 187).

Emergency services

Affected Environment

Federal Land

The Forest Service has jurisdiction in the case of wildfire or other emergency response on the Federal lands.

The Federal lands lie within the Greer Fire District (GFD). The GFD is a tax district whose funds provide fire suppression and emergency medical services to the residents and visitors to the Greer area. There are 28 square miles within the district boundaries. This includes all of SR 373 and SR 260 west to Pole Knoll and east to the forest boundary sign. GFD will respond out of district for motor vehicle accidents and medical emergencies, when requested by another agency. GFD will respond as far as A-1 Lake to the west on SR 260, and into Eagar on 260 to the east, as well as into the area around Big Lake, and to Hidden Meadows Ranch on CR 1325.

The GFD is a combination department utilizing both career and volunteer firefighters. The current staff consists of 2 career firefighters and 11 volunteers. The GFD anticipates hiring of 2 additional career firefighters in July 2008, which will provide EMT level or higher medical response in the district 365 days a year. In 2007 the GFD responded to

21 fire calls, 41 EMS calls, 16 MVA's and 15 general service calls, for a total of 93 calls. This was an increase from the 34 calls responded to in the prior year. All career staff are required to hold minimum qualifications of Arizona State Certified Firefighter II (professional firefighter qualifications), EMT or higher, and be wildland firefighter certified. Volunteer staff is required to complete basic wildland firefighter and medical first responder after joining.

Currently, GFD has 2 paramedics, 2 EMT's and 6 First Responders available for response to emergency medical calls. They also have 1 member currently in an EMT program. Automated External Defibrillator's are located in all medical response vehicles. The ability to establish IV access, advanced airway and pharmaceutical therapy by paramedics is available as well. GFD will provide on scene care for all emergency medical calls, but does not transport patients. White Mountain Ambulance Service is the transporting agency for the GFD. They have a response time of approximately 10 – 20 minutes to the area depending on the location of the call and road conditions.

Structural fire suppression is provided by GFD with a 2005 Type 1 engine. This unit has a pump capacity of 1250gpm and holds 1000 gallons of water. In addition Class A firefighting foam can be utilized to increase the effectiveness of the water used. This is enough water for a significant initial attack on an active structure fire, though they have an automatic aid agreement with Eagar Fire Department to respond to all structure fires within the GFD boundaries.

Currently four GFD members are qualified to the professional level of structural firefighter. Two other members are enrolled in the training program with expected completion by April of 2008.

The GFD has recently acquired a set of the Jaws of Life and are in the process of training staff in its use for extricating victims of MVA's. A large number of calls involved motor vehicle accidents in the past, and the GFD expects to provide this service to the people they serve. They anticipate being able to provide this service by April or May of 2008. The closest Jaws capable agency is Eagar Fire Department which currently responds to all MVA's requiring the use of their extrication equipment.

Type 6 wildland engines are used for grassland and forest fires. The GFD has 2 type 6 engines and a type 7 and are currently budgeting for a 3rd type 6 for FY 2008/2009. The GFD has always worked closely with the fire division of the USFS in training and operations, as many homes within the GFD are built against the forest boundary. Greer has been working to become a Firewise community over the past year. To assist with this, Chief Wade and Ry Sluiter are to be trained as Firewise evaluators for property inspection. Additionally, all GFD personnel are required to be trained to the basic wildland firefighter level, (S-130/190) as soon as possible after joining the GFD.

There are no traditional fire hydrants located in the GFD, therefore all water must be trucked to the scene, and placed in drop tanks on the fireground. To facilitate this process GFD has 4 water tenders with capacities totaling 10,650 gallons of water, available at any

time. Numerous draft points have been established in Greer for additional water, if needed. The closest draft points to the Federal parcels would be the pond in Crosby Acres, which is immediately on the right after turning off of SR 373, and Bunch Reservoir, one of the Greer Lakes. Drafting may be possible by lighter apparatus from Benny Creek, depending on conditions.

The GFD is constantly working to improve the services provided within and outside of their fire district (Doc. 344-A08).

Non-Federal land

Apache and Greenlee Counties have jurisdiction for emergency response to non-federal lands located in the National Forest. The Forest Service responds to wildland fires which originate on private lands and may threaten the National Forest.

Direct and Indirect Effects

Federal Land

Future development of between 25-35 new residences over the next 15 years would likely increase the number of emergency responses by the GFD and the White Mountain Ambulance Service in conjunction with other County, State and Federal agencies. The GFD anticipates hiring 2 additional career firefighters in July of 2008, which will enable it to provide EMT level or higher medical response in the District 365 days a year.

Non-Federal land

No change to emergency services is anticipated if these lands are acquired by the Forest Service.

Cumulative Effects

Federal Land

Additional future development on existing private property and the Federal parcels would increase the number of emergency responses by the GFD, White Mountain Ambulance Service, and other Federal, State and local agencies. The additional taxes collected by the GFD should enable it to provide adequate services to the community.

Non-Federal land

No increase in emergency responses is expected if these properties are acquired by the Forest Service.

Adjacent residential property values

Affected environment of the Federal and non-Federal parcels is described in the October 2005 EA (Doc. 187).

Direct and Indirect Effects

Federal Land

If the entire 338 acres of Federal land were to be subdivided and placed on the market at the same time there might be an expectation that there would be an effect on local land values. It is very unlikely that the entire acreage would go on the market at the same time as a subdivision of this size once planned and approved by the County would most likely be developed in phases. Existing private lots immediately adjacent to the National Forest would probably no longer demand a "premium" if re-sold, as they would no longer adjoin the National Forest boundary. The market value of the lots themselves would probably not change.

Non-Federal land

The non-Federal land would be acquired by the Forest Service and administered for public uses.

Cumulative Effects

Federal Land

The two most recent land exchanges in the Greer area (1993 and 1994) did not result in a decrease in private land values. To the contrary, private land values have continued to appreciate. There is no reason to expect any other outcome with this exchange. Therefore, it is not expected that the amount of private land that is normally on the market in the Greer area and the corresponding values would be adversely influenced by the exchange.

Non-Federal land

The non-Federal land would be acquired by the Forest Service and administered for public uses.

Environmental Consequences

Proposed Action

Scenario 3) Development of a planned subdivision.

Introduction

The November 2003 Murphy Engineering Report (Doc. 113), which identified maximum potential development in accordance with existing zoning regulations, was prepared to aid in assessment of land value. The Murphy Engineering Report (MER) does not represent a formal proposal by the proponent for future development on the Federal parcels.

The (MER) has been used for projecting potential future subdivision/maximum development because it identified the maximum build out of 250 residences on 1-acre lots (minimum size lot allowed by Greer Phase I Zoning) with the development of a single deep well.

Development of a master-planned subdivision of the type described in the (MER) has never occurred within the Greer Phase I Boundary. Even if the infrastructure were to be built as described in the (MER), a fast rate of development under this kind of scenario is considered extremely unlikely. It is expected that the required infrastructure would initially be constructed in only a portion of the subdivision, (perhaps for 50 lots) and those lots sold individually. As market conditions allow, subsequent extension of the infrastructure and sale of other lots would occur (Doc 344-A07).

Elk Crest Estates located in the Town of Eagar is used to provide a comparison for determining the possible rate of development under this scenario. This subdivision is a planned subdivision. The infrastructure was built and lots are individually sold with the buyer then constructing a site-built home.

There are a total of 73 lots in the Elk Crest Estates subdivision. From 2003 through 2007, development of 10 single family residences and one Hill-top home occurred on 11 lots. The remaining lots remain vacant as of a parcel search conducted on February 25, 2008 (Doc. 344-A09). Lot development has averaged just over 2 lots per year.

Direct, Indirect and Cumulative Effects

Based on the actual development in Elk Crest Estates, the rate of development for a planned subdivision is nearly the same as what has been projected for possible future development on the Federal parcels with lot splits. Direct, indirect, and cumulative effects are expected to be nearly the same as described for future development with lot splits.

Environmental Consequences

No Action

Introduction

Federal land

Under the No Action Alternative, no change would occur to current use and management of the Federal parcels.

Non-Federal land

The non-Federal lands would be available for development in accordance with Apache and Greenlee County Zoning Ordinances.

Currently, a parcel may be split into four pieces and sold without the need for a subdivision permit from the County. Splitting a parcel into greater than four pieces requires a subdivision permit from the County. The private lands are currently zoned agricultural. If the parcels are split and sold, development could occur. Other private lands surrounded by the Apache National Forest which have incurred development include areas such as Hidden Meadows Ranch, Cotton Flat, Pace Creek, East Castle (east of US 191 and north of the Red Hill Road), the Beaverhead area (just north of NFSR 01-24 and west of US 191), the Blue River Fish Hatchery and Sprucedale Ranch. Single family residences occur at Cotton Flat, Pace Creek, East Castle, and the Beaverhead Area. Recent development of single family homes have occurred just north of NFSR 01-24 and west of US 191 on the Alpine Ranger District. Facilities at Sprucedale include a private residence and multiple guest cabins. The proprietor provides services such as horseback riding under special use permit by the Forest. The Blue River Fish Hatchery contains a private residence and commercial fish hatchery which occurs approximately 3 miles northeast of the Blue River Ranch parcel which is proposed for acquisition. Hidden Meadows Ranch includes a lodge and multiple guest cabins.

Pristine Open Space

Direct and Indirect Effects

Federal Land

The No Action Alternative would result in no changes in current management. Natural changes and future resource management activities to existing vegetative conditions would be expected resulting in little change to open space.

Non-Federal land

If the exchange does not occur, types of potential development on the non-Federal lands could be single family dwellings, a guest ranch such as Sprucedale or Hidden Meadows Ranch or a commercial enterprise such as the Blue River Fish Hatchery. This would result in a reduction of open space on these acres.

Cumulative Effects

Federal Land

No direct or indirect impacts result from the No Action Alternative. Therefore, no cumulative effects exist.

Non-Federal land

Development in the form of single family residences, guest ranches and a commercial enterprise such as a fish hatchery has occurred on isolated private inholdings within the Apache-Sitgreaves National Forests. Similar types of development could occur at some point in time in the future on the private lands proposed for exchange. Development would result in a some reduction of open space on these private parcels. This would add to the loss in open space which has occurred on other isolated private parcels surrounded by the Apache-Sitgreaves National Forests.

Noise

Direct and Indirect Effects

Federal Land

The No Action Alternative would result in no changes to noise levels.

Non-Federal land

If future development were to occur, construction activities could temporarily create noise disturbance to forest users on adjacent Forest land. Construction activities would create noise resulting in disturbance to the threatened, endangered and sensitive species possibly occupying these parcels.

Cumulative Effects

Federal Land

No direct or indirect impacts result from the No Action Alternative. Therefore, no cumulative effects exist.

Non-Federal land

There are no foreseeable actions that, in conjunction with development on the non-Federal lands would result in cumulative impacts associated with noise levels.

Traffic / Increased Maintenance Needs for the Transportation system

Direct and Indirect Effects

Federal Land

No changes in traffic or transportation would occur with the No Action Alternative.

Non-Federal land

Non-Federal lands would continue to be available for future development. Likely development of these lands is low density residential. The potential for development such as guest ranches similar to Sprucedale or Hidden Meadows Lodge is possible. If development occurs, AADT to the isolated parcels could be expected to increase. Some increase in the frequency of road grading and other maintenance needs to Forest Service and County roads would be expected.

Cumulative Effects

Federal Land

No direct or indirect impacts to traffic or transportation result from the No Action Alternative. Therefore, no cumulative effects to traffic or transportation exist.

Non-Federal land

There are no foreseeable actions that, in conjunction with development on the non-Federal lands would result in cumulative impacts to traffic or transportation.

Water Quality / Pollution of adjacent creeks, riparian areas and the Little Colorado River

Direct and Indirect Effects

Federal Land

No direct or indirect effects would occur with the No Action Alternative.

Non-Federal land

If future development occurs, impacts from construction activities would have the potential to directly impact the soils in riparian areas, wetlands, floodplains or riverine systems since these habitats are present on the non-Federal parcels. The wetter soils in these habitats are more susceptible to damage than the upland soils located on the Federal parcel.

Compliance with State and local regulations and Best Management Practices during construction activities would minimize adverse impacts to soils.

Cumulative Effects

Federal Land

No direct or indirect impacts result from the No Action Alternative. Therefore, no cumulative effects exist.

Non-Federal land

Dispersed outdoor recreational activities and other past activities occurring on and adjacent to the non-Federal lands have not adversely impacted soils or water quality. There are no ongoing or planned projects such as vegetative treatments or recreational development on Forest Service lands adjacent to the private parcels. There are no foreseeable actions that, in conjunction with development of the non-Federal lands would result in cumulative impacts to water resources.

Commercial Development

Direct and Indirect Effects

Federal Land

The No Action alternative will have no effect on commercial development.

Non-Federal land

The potential exists for limited commercial development on the private parcels, similar to other development on isolated private parcels within the National Forest such as Sprucedale Ranch, Hidden Meadows Ranch, and the Blue River Fish Hatchery.

Cumulative Effects

Federal Land

No direct or indirect impacts result from the No Action Alternative. Therefore, no cumulative effects exist.

Non-Federal land

If commercial development occurs it would add to other development which has occurred on isolated private lands within the Apache-Sitgreaves National Forests.

Water Availability / Availability of Water for Riparian areas / State of Arizona regulation of water resources

Direct and Indirect Effects

Federal Land

The No Action Alternative will result in no effects to water resources on the Federal land.

Non-Federal land

The non-Federal lands would continue to be available for future development. Likely development on these lands is low density residential. However, development such as guest ranches is also possible. Direct and indirect effects although limited in scope to riparian habitat on the West Fork of the Black River and Blue River resulting from activities associated with future development, such as the construction of unimproved access roads and land clearing activities, would be possible.

Cumulative Effects

Federal Land

No direct or indirect impacts result from the No Action Alternative. Therefore, no cumulative effects exist.

Non-Federal land

There are no foreseeable actions that, in conjunction with development of the non-Federal lands would result in cumulative impacts to water resources.

Impacts on Wildlife and wildlife corridors

Impacts of the No Action Alternative on Wildlife Resources will be addressed in the Wildlife Specialist Report.

Sewer Services

Direct and Indirect Effects

Federal Land

Current management would continue resulting in no addition of sewer services.

Non-Federal land

If future development were to occur, it is likely that on-site sewer disposal facilities would be developed.

Cumulative Effects

Federal Land

Since the No Action alternative results in no direct or indirect impacts on sewer services, no cumulative impacts exist.

Non-Federal land

There are no foreseeable actions that, in conjunction with development of the non-Federal lands would result in cumulative impacts to sanitation.

Loss of recreation opportunity

Direct and Indirect Effects

Federal Land

No change in recreation opportunity would occur. 337.74 acres of upland pine forest within the Greer Recreation Area would remain open to public recreation.

Non-Federal land

396 acres of land along the West Fork of the Black River and the Blue River would remain in private ownership. The non-Federal parcels are private property; and therefore, are not legally open to public use. However dispersed recreation occurs from people entering from the surrounding Forest land.

The non-Federal lands remain available for development. In the case of development, these acres, which include diverse habitats and riverine systems, would no longer be available for public recreation.

Cumulative Effects

Federal Land

No direct or indirect impacts result from the No Action Alternative. Therefore, no cumulative effects exist.

Non-Federal land

Development on the 396 acres associated with riverine systems and riparian habitat would reduce the amount of this type of habitat on the Forest available for dispersed outdoor recreation. Occurrence of these habitat conditions is very limited on the Forest when compared to the acreage of forested land.

Fire hazard potential

Direct and Indirect Effects

Federal Land

Fire and fuels on and in the vicinity of the Federal Parcel would not be affected by the No Action alternative.

Non-Federal land

Under the No Action alternative a developer would be responsible for implementation of any fire and fuel treatments on the non-Federal parcels during and following residential development. It is expected that fire fighting capabilities would be provided to meet Apache County requirements. Fire and fuels management in the surrounding NFS lands would be the responsibility of ANF.

Cumulative Effects

No substantial cumulative effects would occur under the No Action alternative.

Impacts on Plants (“phyto” resources)

Direct and Indirect Effects

Federal Land

No impacts to plants would occur.

Non-Federal land

The vegetation on the non-Federal parcels, which includes riparian and wetland habitat, would be subject to impacts associated with any future development.

Cumulative Effects

Federal Land

No direct or indirect impacts result from the No Action Alternative. Therefore, no cumulative effects exist.

Non-Federal land

There are no foreseeable actions that, in conjunction with development of the non-Federal land, would result in cumulative impacts on vegetation.

Scenic Quality

Direct and Indirect Effects

Federal Land

No change in the existing scenic quality would occur.

Non-Federal land

These isolated lands, surrounded by National Forest, would remain available for future development. Scenic quality, in proximity to the West Fork of the Black River and the Blue River may be affected if development occurs on these parcels.

Cumulative Effects

Federal Land

No direct or indirect impacts to Federal land result from the No Action Alternative. Therefore, no cumulative effects exist.

Non-Federal land

There are no foreseeable actions that, in conjunction with development of the non-Federal land, would result in cumulative impacts on scenic quality.

Emergency services

Direct and Indirect Effects

Federal Land

No change in the need for emergency services would occur.

Non-Federal land

If future development takes place, some increase in the need for local emergency services would be expected.

Cumulative Effects

Federal Land

No direct or indirect impacts result from the No Action Alternative. Therefore, no cumulative effects exist.

Non-Federal land

There are no foreseeable actions that, in conjunction with development of the non-Federal land, would result in cumulative impacts on the need for emergency services.

Adjacent residential property values

Direct and Indirect Effects

Federal Land

No effect on adjacent property values will occur with implementation of The No Action Alternative.

Non-Federal land

The possibility of future development on the non-Federal lands (conversion from ranching to residential or commercial use) exists under the No Action alternative. If development occurs, an increase in property value of other isolated private parcels surrounded by the Apache-Sitgreaves National Forests could be expected.

Cumulative Effects

Federal Land

No direct or indirect impacts result from the No Action Alternative. Therefore, no cumulative effects exist.

Non-Federal land

If the non-Federal lands are developed, an increase in the value of other isolated private parcels of non-Federal land surrounded by the Apache-Sitgreaves National Forests could be expected.