

Decision Memo
Rush1 Vegetation Treatment

USDA Forest Service
Big Valley Ranger District, Modoc National Forest
Modoc County, California

T.40N., R.9E., Sections 1-4, 9-16, 21-28, 34, and 35;
T.40N., R.10E., Sections 18, 19, and 30; and
T.41N., R.9E., Section 34.

DECISION

I have decided to implement the thinning, masticating, tractor piling, pile burning, and underburning of approximately 3,500 acres within the wildland urban interface surrounding the Rush Creek community. The Proposed Action will comply with the Modoc National Forest Land and Resource Management Plan as revised by the Sierra Nevada Forest Plan Amendment Supplemental Environmental Impact Statement (LRMP).

Why here-

The National Fire Plan (2002) and Healthy Forest Restoration Act (2004) provide direction to reduce fuel loadings in fire-prone forests to protect people and sustain resources. Concurrent with the above initiatives, the Pacific Southwest Region of the Forest Service has launched the “Forests with a Future” campaign (2004) to emphasize the protection of communities, old growth trees, and wildlife in the Sierra Nevada from the risk of catastrophic wildfires. The wildland-urban interface (WUI), areas where flammable wildland fuels are near homes and communities, is one of the highest priorities for treatment. The Rush Creek community was included in a national list of urban-interface communities that are at high-risk from wildfire.

The topography, access, and weather patterns in the Rush Creek area dictate that primary fire suppression efforts, in the event of a large wildfire, would be along the major ridges and roads. These are the areas where it is critical to thin stands and reduce fuel loadings. While fuel treatments do not “fire proof” an area, strategically placed treatments can manipulate stand structure and reduce surface fuels, the two factors that contribute most to high-intensity, destructive fires.

The Rush1 Vegetation Treatment addresses management on National Forest System lands, however, it has been designed to coordinate with treatments planned on privately owned lands. Some treatments have already been accomplished on both private and public lands. The Rush1 Vegetation Treatment expands these treatments by treating along public/private boundaries.

Within the Rush1 Vegetation Treatment planning area there are approximately 353 acres of wildlife habitat managed for the Northern Goshawk and old growth timber. Treatment of fuels within and adjacent to these critical wildlife habitats is important to reduce the potential of high intensity wildfires destroying these areas.

The Rush1 Vegetation Treatment planning area covers portions of 17 sub-watersheds. Vegetative cover is critical for maintaining the hydrological functioning of any watershed. A large, high intensity fire within the planning area would have severe impacts on water quality. Hill slope stability would likely be reduced, and short-term increases in turbidity from fine, suspended sediment would occur. Aquatic systems and habitat could be degraded temporarily. Water temperatures could increase in stream reaches where riparian vegetation mortality is high and tree canopy is consumed by fire.

Why now-

The project area has not experienced a large wildfire recently. The lack of fire has allowed dense vegetation and surface fuel loading to accumulate. The potential for a wildfire start is high due to residential development, recreational use, lightning and the presence of a major state highway. Predicted fire behavior modeling of timber stands and representative fuel types indicate that high intensity fires with rapid rates of spread would most likely occur under moderate weather conditions.

In addition, logging, fire suppression and subtle climate changes have resulted in changes in species composition, structure and density. Dense, closed canopies have favored the regeneration of shade tolerant white fir and incense cedar to the exclusion of shade intolerant ponderosa pines and oaks. The shade tolerant species are more susceptible to mortality from fire by forming dense understories, which act as fuel ladders to the larger overstory trees. Thinning the understory can increase the proportion of shade intolerant species, and increase the health and vigor of the larger overstory trees.

The following table displays the estimated existing conditions within the proposed treatment areas and the outcomes of fuels treatments recommended to achieve desired fire behavior.

Table 1: Fuel Treatment Outcomes

	<i>Height to Live Crown</i> Average distance from the ground fuel bed to the live crowns of the overstory trees.	<i>Flame Length</i> The estimated average length of flames during 90 th percentile weather conditions.	<i>Type of Fire Behavior</i>
Defense Zone Generally within ¼ mile of residential structure	Desired: 15’ to 25’ Existing: 2’ to 8’	Desired: < 6’ Existing: 13’ to 18’	Desired: Surface Fire Existing: Passive to Active Crown Fire
Threat Zone Generally within 1.5 miles of Defense Zone	Desired: 15’ to 25’ Existing: 2’ to 8’	Desired: < 6’ Existing: 13’ to 18’	Desired: Surface Fire Existing: Passive to Active Crown Fire

Under existing conditions, a surface fire is likely to burn into the crowns of trees. Greater flame lengths and intensity would require the use of heavy tractors or indirect fire line construction and burnout operations.

Treatments are designed to create a defensible space and strategically connect with fuel reduction work already accomplished along the southern boundary of the Rush Creek community extending to Lower Rush Creek campground. The areas proposed for treatment form the base for establishing contiguous fuel treatments for the entire Rush Creek WUI that extends to the California Pines subdivision.

Generally, silvicultural goals for the planning area are: to reduce the accumulation of fuels on the forest floor; to remove the smaller trees to reduce fuel ladders; and to remove some of the medium-to-large trees to provide separation in the crowns of residual trees to minimize the potential for a sustained crown fire and to increase the growth rates of the remaining trees.

See attached map and stand table for specific locations. They represent estimates obtained from orthographic photos, maps and field reconnaissance. Actual acres may change slightly, as final project layout is completed, and adjustments are made for site-specific conditions, although the total area treated is not likely to fluctuate more than 10%.

Proposed Action:

- Stands with a thinning prescription will be thinned from below, cutting the smaller trees first, followed by removal of the medium-to-large trees until the silvicultural goals are met. No pine, fir or cedar trees greater than 30 inches in diameter will be harvested. Species preference for residual trees, in descending order of priority, are: ponderosa pine, incense cedar and white fir. Black oaks will not be designated for removal, although some may be removed to facilitate operations.
- Snags that pose a hazard to treatment operations or are in excess of snag requirements (LRMP, pages 4-30,31), will be removed, or felled and left in log deficient areas.
- Most of the thinning will occur using mechanical equipment to harvest the trees. Stand treatment will be accomplished manually in areas that are not accessible by equipment or are restricted for use.
- Where necessary, concentrations of existing or activity generated fuels within the stands will be treated by tractor piling with a brush rake, masticating with a shredder, or hand cutting and piling. Piling and burning will be utilized in sensitive areas where smoke from burning tractor piles would dissipate quicker than smoke from prescribed underburns.

- Post treatment evaluations of site-specific fuel conditions will be completed to determine the need for follow-up prescribed underburning. Underburning will only be done after the stands have been thinned, the fuel ladder removed and it is determined that the existing fuel loading would create average flame lengths greater than six feet. Underburning will be allowed to back into the stream management zones (SMZs); however, ignition will not occur in SMZs, except as needed to maintain control. All prescribed fireline construction will follow the established guidelines outlined in the watershed Best Management Practices (BMPs). Objectives for burning will include protecting sensitive features, such as archaeological sites, sensitive plant populations, nest trees, specific snags or down logs, oak trees, SMZs, structures, and other improvements.
- Requirements in the Smoke Management Plan will reduce the effects of prescribed burns on air quality. It will prescribe desirable conditions, such as favorable winds and an unstable or neutral atmosphere, that will facilitate venting and dispersion of smoke from the planning area.
- Tree thinning and prescribed burning activities will meet visual quality objectives (VQO's) as stated in the LRMP (Appendix Q).
- An archaeological survey for the planning area was completed during the 2004 field season (Rush1 Vegetation Treatment, ASR 05-09-1389, document on file at the Modoc NF Supervisors Office). Cultural resource sites within the planning area will be flagged for avoidance. Should the discovery of previously unknown heritage resources occur during project implementation, work would be halted in the area. The Zone Archaeologist and/or Forest Archaeologist will be contacted immediately to assess the nature of the discovery and make appropriate protection and management recommendations in consultation with the State Historic Preservation Office.
- The Northern Goshawk, a sensitive species, is known to nest in the planning area. Within the goshawk territory, a limited operating period (LOP) will be from February 15 to September 15. Outside of the territory but within ¼ mile of an active nest, the LOP will be from February 15 to August 15. The LOP affects portions of stands 0100, 0404, 3942, 4000, 4100 and 4200 within compartment 456. The LOP applies to all project activities except the use of existing Forest roads. Additional activities may be permitted, such as handwork, dependent on a site-specific analysis of species status.
- A wildlife biologist review will occur prior to burning to determine presence of threatened and endangered species (TES) and/or species of concern. Burning will be postponed if it is determined that potential adverse impacts to these species would occur.
- Critical habitat for the Modoc sucker, an endangered species, exists within Rush Creek and Johnson Creek drainages. No activities will occur within the SMZs of these drainages with two exceptions. The use of a quad-runner or manual treatment of stands within these SMZs will be allowed uphill of Forest roads 40N05 and 41N11J.

- Management activities will avoid disturbance to the known noxious weed locations and will include a mitigation measure to require off-road equipment to be weed-free before entering Forest Service lands.
- Sporax will be applied on all conifer stumps equal to or greater than 14 inches in diameter for the control of annosus root disease by the fungus *Heterobasidion annosum*. Contractors will be required to adhere to all applicable state and local requirements for the use of sporax.
- A list of the BMPs to be implemented is located in the project file.
- Down logs will be protected to the greatest possible degree by following recommendations in the LRMP standards and guidelines. Down log numbers in excess of LRMP recommendations could be removed to reduce the fuel loading of a stand.
- The existing road system would be used for hauling wood products. A low standard road will be constructed to access stands 800 and 820, within compartment 456, and would be obliterated once the harvest and fuel reduction activities are completed. Additionally, one short low standard spur road will be constructed within stand 400, in compartment 427, to provide access to a landing. The total length of low standard road construction does not exceed one mile.
- Forest road 40N14AA will be closed seasonally; opened during dry conditions for fire suppression access and closed during the wet season of the year.
- Access to stand 210, within compartment 464, and stands within Post Canyon will be dependent on the Forest Service acquiring rights of way from private landowners for the use of Forest roads 40N29 and 40N26, respectively.
- The Last Chance well will be used to furnish water for dust abatement. Water will be used on native and gravel surface roads to maintain surface fines and minimize dust.
- The project administrator will approve skid trail systems in each stand. Existing skid trails will be used, if appropriate, to limit the extent of additional soil compaction. Erosion control measures will be constructed after completing operations in each stand.
- A by-product of implementing the treatments will be the production of saleable timber and forest products, which is consistent with the LRMP and the Big Valley Federal Sustained Yield Unit (BVFSYU) policy to provide sustainable commodity production opportunities for the local community.
- Landlines will be established within Section 24, T.40N., R.9E.
- Within perennial streams, no activities will occur within the SMZs of these drainages with the exception of two locations. The use of a quad-runner or manual treatment will be allowed within the SMZs of stands uphill of Forest road 40N05 and Forest road 41N11J.

- For seasonal streams (intermittent and ephemeral), hand treatments will be allowed within the SMZs of stands 100 and 404, in compartment 456. Mechanical treatments will be allowed outside the SMZs. Designated streamcourse crossings will be agreed to by the project administrator and operator prior to construction and use. One landing will be located within a SMZ of stand 400, in compartment 427; the effects of this landing location will be mitigated by following the recommendations of the Hydrology Specialist Report. Pile burning may occur in the outer half of the SMZs, provided that the piles are burned above the slope break (if one is present). Underburning may occur within the SMZs as long as fire is allowed to back down into the drainages and no ignition occurs within riparian vegetation. Wet areas, or “seeps”, will be buffered from all mechanical and fuels treatment activities.

CATEGORICAL EXCLUSION

This action is categorically excluded from documentation in an environmental impact statement or an environmental assessment pursuant FSH 1909.15, Section 31.2, Category 6. “Timber stand and/or wildlife habitat improvement activities which do not include the use of herbicides or do not require more than one mile of low standard road construction.” Section 31.2, 6.a. “Thinning or brush control to improve growth or to reduce fire hazard including the opening of an existing road to a dense timber stand.” Section 31.2, 6d. “Prescribed burning to reduce natural fuel buildup and improve plant vigor.”

The Forest Service has found that projects like this one do not have significant adverse effects on the environment providing there are no extraordinary circumstances as defined in the Forest Service Handbook 1909.15.

This project does not have any adverse effects on threatened or endangered species. A Biological Assessment prepared for threatened and endangered species resulted in a “no effect” determination for threatened and endangered species.

Biological Evaluations prepared for sensitive species resulted in a “may affect individuals or habitat, but will not likely contribute to a trend towards federal listing or loss of viability to the populations or species” of American marten, goshawk, great gray owl, pallid bat, long-haired star-tulip, or mountain lady’s-slipper. For the remaining sensitive species, the proposed action will have “no effect”. All potential effects are mitigated through adherence to standards and guidelines, operating season limitations, and specific prescription elements.

Archaeological, cultural, and historic sites will be protected from adverse effects. Government to government consultation with Atwamsini Band of the Pit River Tribe has also occurred. Tribal representatives are in favor of the project as designed.

PUBLIC INVOLVEMENT

A proposal for the Rush1 Vegetation Treatment planning effort was listed in the Planning, Appeals, and Litigation System since January 1, 2004. The agency held a public meeting on January 28, 2004, and invited residents of the Rush Creek community, and local and state fire protection agencies, to cooperatively develop the proposed action. The attendees suggested activities that they felt could accomplish goals outlined in the Healthy Forest Restoration Act and National Fire Plan. Those in attendance were supportive of activities that were suggested.

On March 15, 2004, the Rush1 Vegetation Treatment planning effort was presented to the Pit River Tribal Council at the Quarterly Consultation Meeting. The Council identified issues that were later reviewed and discussed at a separate meeting held on March 26, 2004, at the Big Valley Ranger District.

The proposal was also provided to the public and other agencies for comment during a scoping period that lasted from June 1 through June 30, 2004. Four comments were received noting general agreement with the proposed action: two of the four stated the thinning activities could allow them to work closer to home; one remarked that the visual impacts of prescribed underburning could reduce private property values; and another noted environmental concerns. A review of the comments indicated that no significant issues were identified.

A separate scoping letter was sent to the Pit River Tribe during the same time period. The Atwamsini Band Head noted their support for the fuel reduction objectives of the planning area and planned project activities. They emphasized the tribes' interest in employment opportunities that could result from treating the area.

Finally, a conference call with members of the Sierra Nevada Forest Protection Campaign occurred on July 26, 2004. The representatives discussed issues, requested information and generally agreed with the type of proposed activities.

A list of contacts and meeting notes for all of the public involvement efforts are in the project file available for review at the Big Valley Ranger District office, Adin, California.

FINDINGS REQUIRED BY OTHER LAWS

This decision is consistent with the LRMP, the National Forest Management Act, and other applicable laws.

IMPLEMENTATION DATE

This project can be implemented immediately, subject to the Limited Operation Period.

ADMINISTRATIVE REVIEW OR APPEAL OPPORTUNITIES

Under 36 CFR 215, this decision is not subject to appeal.

CONTACT PERSON

For additional information concerning this decision, or the Forest Service appeal process, please contact Laurence Crabtree, District Ranger, or John Landoski, Forester, at the Big Valley Ranger District, P.O. Box 159, Adin, California, 96006, (530) 299-3215.

SIGNATURE AND DATE

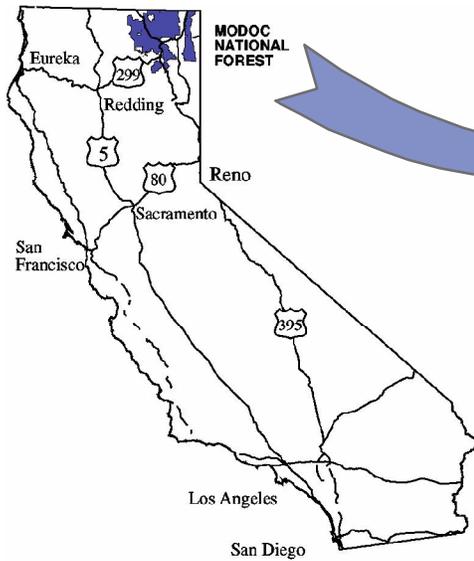
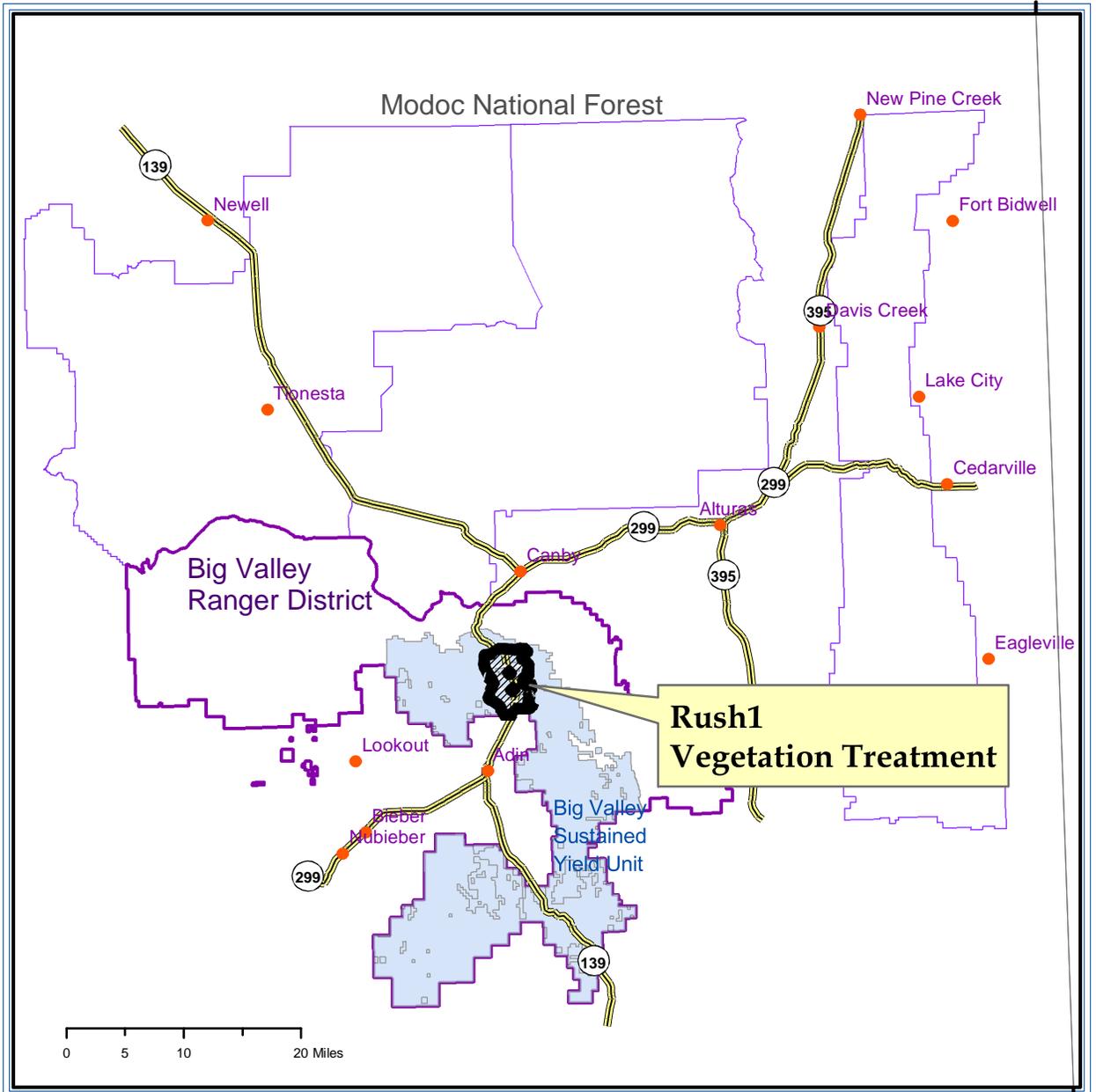
/s/ Laurence Crabtree

9/30/2004

LAURENCE CRABTREE
District Ranger
Big Valley Ranger District
Modoc National Forest

Date

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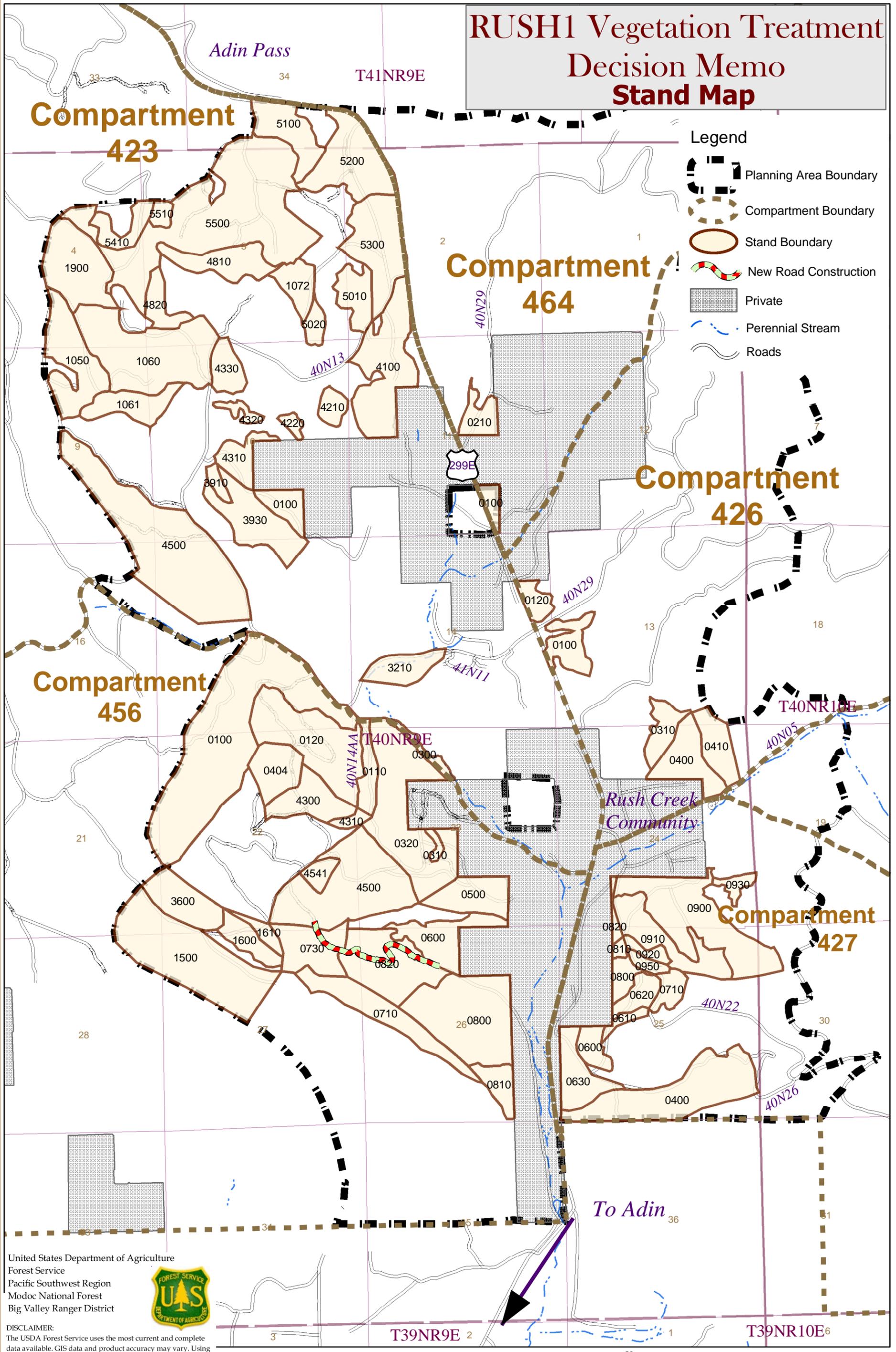


Project Location Map



RUSH1 SILVICULTURAL AND FUELS TREATMENTS									
		Silvicultural	Fuels					Silvicultural	Fuels
Stand	Acres	Treatment	Treatment			Stand	Acres	Treatment	Treatment
Compartment 423				Compartment 427 continued					
100	22	Thin	HP/UB			710	16	Thin	MAST/UB
1050	72	Thin	MP/UB			800	15	Cut Juniper	MAST
1060	135	Thin	MAST/HP/UB			810	4	Thin	HP
1061	37	Thin	MP/UB			820	6	None	HP
1072	25	Thin	MP/UB			900	116	Thin	MAST/MP
1900	74	Thin	MP/UB			910	57	Cut Juniper	MAST/UB
3210	30	Thin	HP			920	9	Thin	HP/MAST
3910	8	Thin	HP/UB			930	10	Thin	HP
3930	55	Thin	UB			950	8	Cut Juniper	MAST/MP
4100	99	Thin	MP/UB						
4210	14	Thin	MP/UB			Compartment 456			
4220	6	Thin	MP/UB			100	265	Thin	MP/HP/UB
4310	25	Thin	MP/UB			110	22	None	MP
4320	8	Thin	MP/UB			120	80	Thin	MP/HP/UB
4330	24	Thin	MP/UB			300	10	Thin	HP
4500	204	Thin	UB			310	5	Thin	HP
4810	43	Thin	HP/UB			320	130	Thin	MP/HP
4820	21	Thin	MP/HP			404	38	Thin	HP
5010	30	Thin	HP/UB			500	43	Thin	MP/UB
5020	12	Thin	UB			600	47	Thin	MP/MAST/HP
5100	46	Thin	HP/UB			710	61	None	MP/UB
5200	80	Cut Juniper	MAST/UB			730	50	Thin	MP/HP/UB
5300	77	Cut Juniper	MAST/UB			800	120	Thin	MP/MAST
5410	23	Thin	MP/UB			810	22	Thin	HP
5500	256	Thin	MP/UB			820	80	Thin	MAST/MP
5510	8	Thin	MP/UB			1500	150	Thin	MP/UB
						1600	25	None	UB
Compartment 426									
100	31	Thin	MP/UB			1610	10	Thin	MP/HP/UB
120	16	Thin	MP/UB			3600	45	Thin	MP/HP/UB
310	24	Cut Juniper	HP			4300	42	Thin	MP/MAST/UB
400	45	Cut Juniper	HP			4310	7	None	MP
410	32	Thin	HP/UB			4500	133	Thin	MAST/MP
						4541	12	Thin	MAST
Compartment 427				Compartment 464					
400	113	Thin	MAST/UB			100	12	Thin	HP/UB
600	18	Thin	MAST/UB			210	21	Thin	HP/UB
610	7	Cut Juniper	MAST/UB						
620	19	Thin	MAST/UB						
630	14	Cut Juniper	MP			TOTAL:	3424		
FUELS TREATMENTS:									
*MAST= MASTICATION TREATMENT									
* HP= HAND PILING									
* MP= MACHINE PILING									
* UB= UNDERBURNING MAY ALSO BE IDENTIFIED AS A FOLLOW-UP TREATMENT.									
EXAMPLE: IF A STAND HAS A FUELS TREATMENT LISTED AS "MP/HP/UB", A PORTION OF THE STAND WOULD BE MACHINE PILED AND A PORTION OF THE STAND WOULD BE HAND PILED. THE ENTIRE STAND WOULD BE EVALUATED FOR UNDERBURNING.									

RUSH1 Vegetation Treatment Decision Memo Stand Map



- Legend**
- Planning Area Boundary
 - Compartment Boundary
 - Stand Boundary
 - New Road Construction
 - Private
 - Perennial Stream
 - Roads

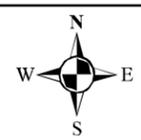
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This map was prepared using Modoc National Forest databases as of May 2004.

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filed: BVTask 03
Dec Memo Stands 081204 Spreadsheet.mxd