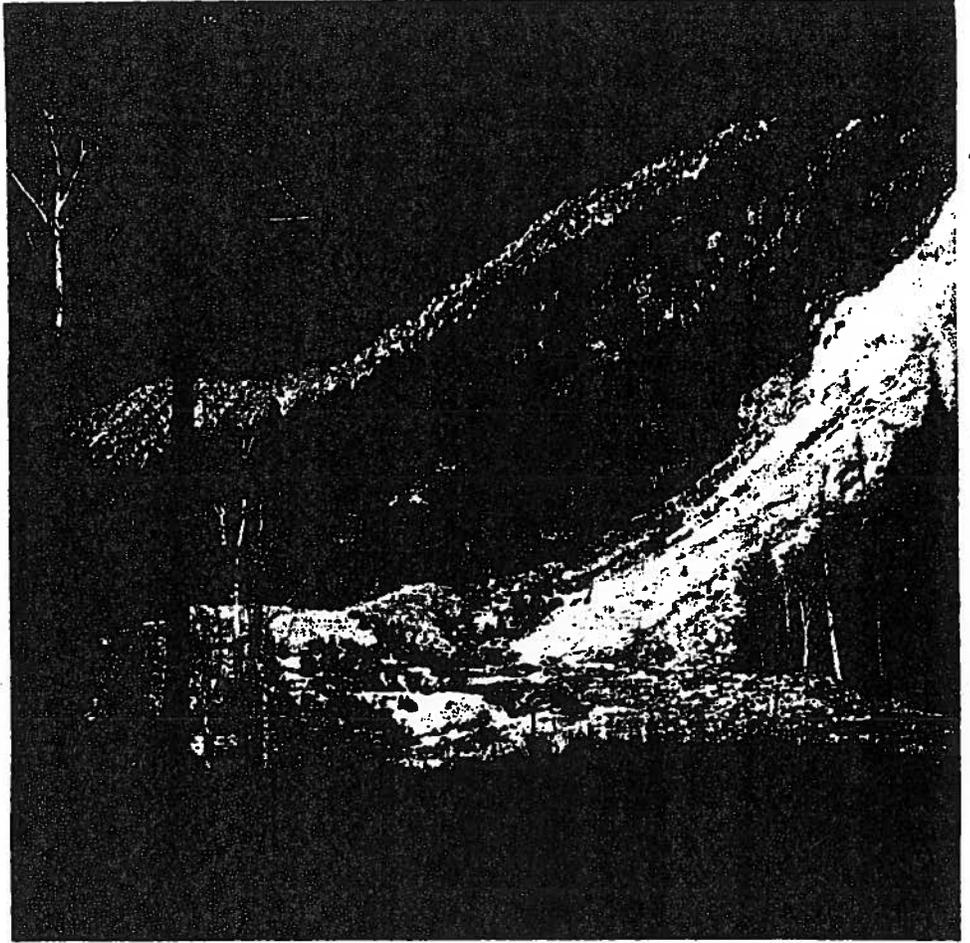


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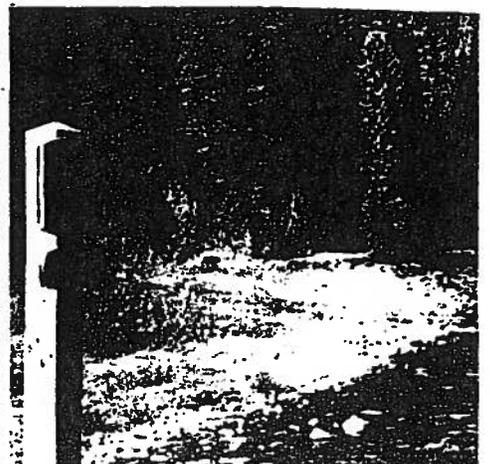
Walker & Macy
April 1992

VIEWSHED CORRIDOR

EAGLE CREEK

PINE RANGER
DISTRICT

WALLOWA - WHITMAN
NATIONAL FOREST
USDA FOREST SERVICE



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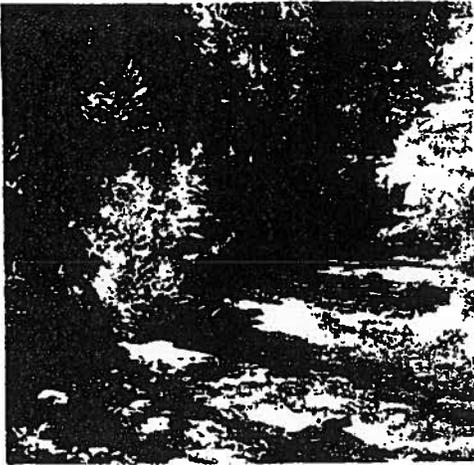
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INTRODUCTION



PURPOSE

The Wallowa-Whitman Forest Plan requires that viewshed corridor plans are to be prepared for each Sensitivity Level 1 corridor on the Forest. Eagle Creek is designated as a level 1 corridor. The viewshed corridor plan identifies opportunities for scenic enhancement, establishes entry priorities and timing for vegetation management, and provides direction to protect, maintain, and enhance the scenery within the Wild and Scenic corridor as one of the outstandingly remarkable values.

The plan includes mapping of visually sensitive areas within the viewshed or "seen area". The database, the analysis, and the plans and recommendations for management were developed for input in the planning effort of the interdisciplinary team (I.D.T.) of the Wallowa-Whitman National Forest. The information will be incorporated into the Eagle Creek Wild and Scenic River Plan.

LIMITATIONS

Vegetative mapping was not available to incorporate in this Plan; therefore priorities and timing of vegetation management are not addressed in this plan.

Because the Eagle Creek Valley is so narrow within the viewshed corridor, background is virtually unseen; and therefore, brief views of distant valleys seen at the ends of the viewshed were not modeled beyond 3 miles.

The corridor, as it enters into the wilderness to the north, was not analyzed in depth because the Eagle Cap Wilderness is more restrictive in its management due to its VQO designation of preservation. Viewpoints from within the wilderness were analyzed only if they had some influence upon the seen area that falls outside the Eagle Cap Wilderness area.

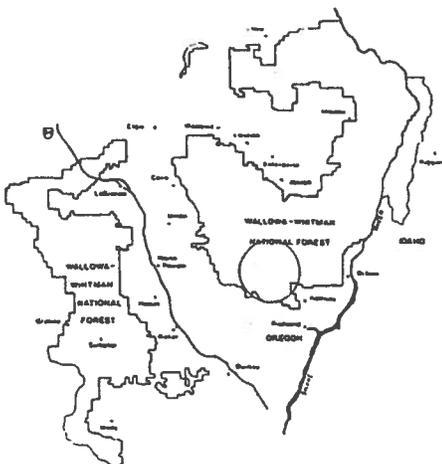
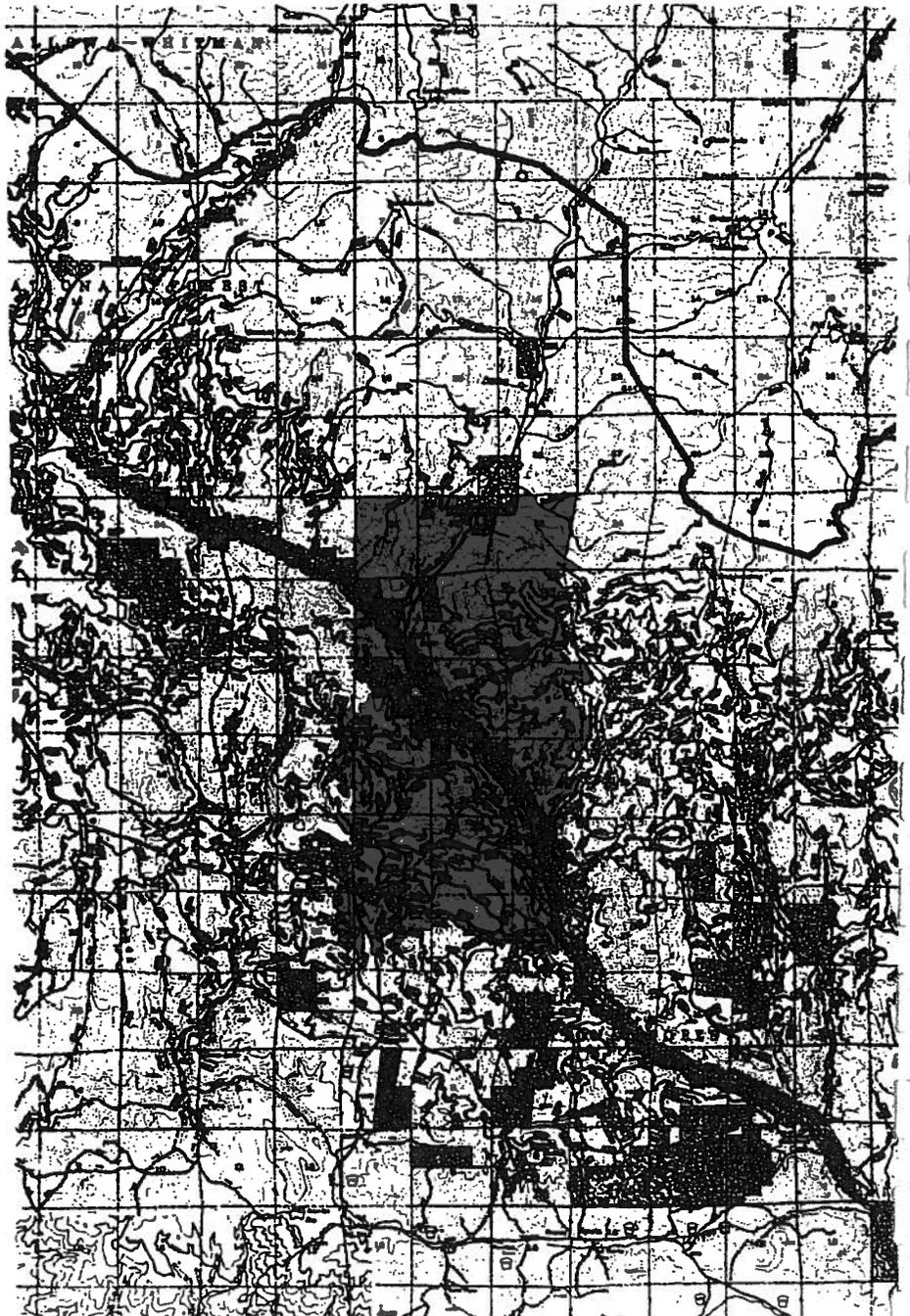
ASSUMPTIONS

The vegetation management plan will follow the River Management Plan and will identify project entry priorities and treatments.

CORRIDOR LOCATION

The headwaters of Eagle Creek begin within the Eagle Cap Wilderness area at Eagle Lake and flow generally southward, meandering at times, within a relatively flat valley floor and steep hillsides. Eagle Creek intercepts West Eagle Creek and then turns eastward following a very narrow canyon that twists and turns for approximately 14 miles to the Wallowa-Whitman National Forest Boundary.

Since the Eagle Cap Wilderness is under more restrictive management policies, viewpoints from within the wilderness were analyzed only if they had any influence upon the seen area that falls outside the Eagle Cap Wilderness area.



CHARACTERISTIC LANDSCAPE

The landscape is a true representation of the Wallowa Mountains as described in the Landscape Character Types of the National Forests in Oregon and Washington, USDA Forest Service, publication from high elevations to low elevations in the foothills.

The generalized land form of the Eagle Creek Valley is a very long narrow twisting valley running generally north-south contained by very steep hillsides on either side.

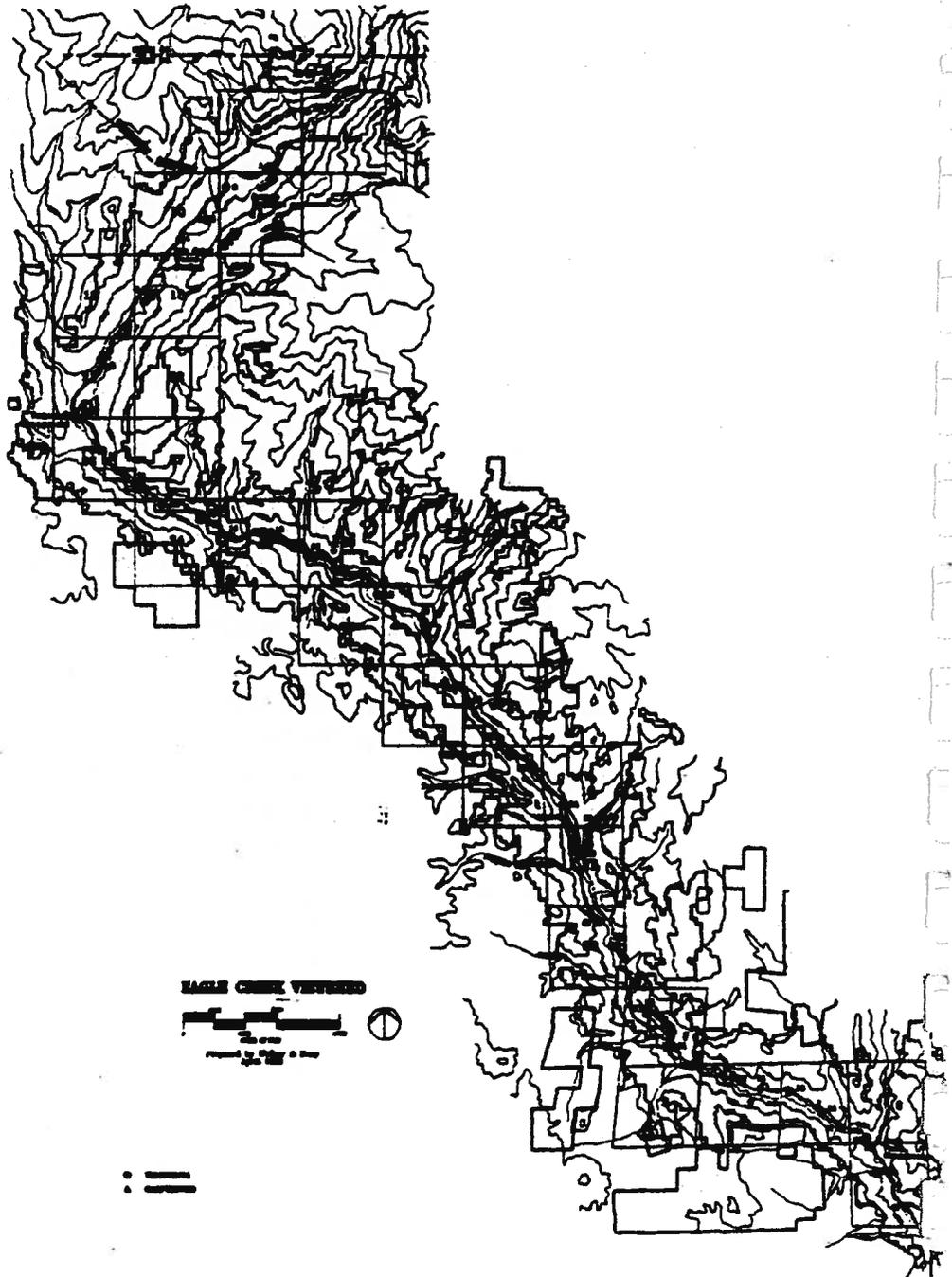
EXISTING VISUAL CONDITION

The degree of alteration by man is relatively minor. Beginning at the northern end the previous constructions at Boulder Park Resort have been removed and repairs have been made to allow its return to a natural state. Discreetly located camp sites and toilets are available; and are used primarily by those hiking in the Eagle Cap Wilderness. The gravel road #7755, generally follows Eagle Creek southward to a variety of dispersed camping, and the Two Color Guard Station and Two Color Campground. After Road #7755 meets Road #77, the corridor turns south-eastward just before the fully developed and monitored Tamarack Campground. As one continues eastward on Road #77, the canyon generally becomes very narrow and the road is often 30 to 50 feet above the river. Many parcels of private land exist within this area of the canyon. Glimpses of private vacation homes are seen along the river's edge. Road #77 follows the river until it intersects with Road #7015. It then leaves the river by climbing up the steep hillside, turning northward to connect with Road #7735 which returns to the river at Eagle Creek Campground approximately 5 miles downstream. The river is accessible upstream of Eagle Creek Campground by the Martin Bridge Trail. Private lands occur along the trail, one of which was once a sawmill site. Ponds are still in evidence of that prior use. Road #7735 continues through a very narrow, rocky, gorge to the National Forest boundary to the south.

LAND ALLOCATIONS / FOREST PLAN DIRECTION

Forest Plan Landscape Management Goals, Standards, and Guides provide general direction for the Eagle Creek Valley under its classification of Sensitivity Level 1. The Wallowa-Whitman Desired Visual Model provides general desired visual conditions for coniferous forests in foreground and midground areas of retention VQO's.

The segment of Eagle Creek within the Eagle Cap Wilderness is identified as a Wild River. From the Wilderness boundary south to Paddy Creek, approximately 15.5 miles, it is designated as a Recreation River. From Paddy Creek to Little Eagle Creek it is designated as a Scenic River. Then, from Little Eagle Creek to the Forest boundary it returns to a Recreation River again. Specific direction of the management of Eagle Creek will be addressed in the River Management Plan as a supplement to the Wallowa-Whitman Forest Plan. The River Management Plan will be adopted into subsequent management plans developed for the Eagle Cap Wilderness.



VIEWSHED ANALYSIS PROCESS

The River Management Plan provides standards and guides for the protection and enhancement of the outstandingly remarkable values of the Lostine River which includes scenery, recreation, botanical, wildlife, and fisheries, and for the protection of water quality and free-flowing characteristics of the river. This Viewshed Corridor Plan will be appended to the River Management Plan.

PROCESS

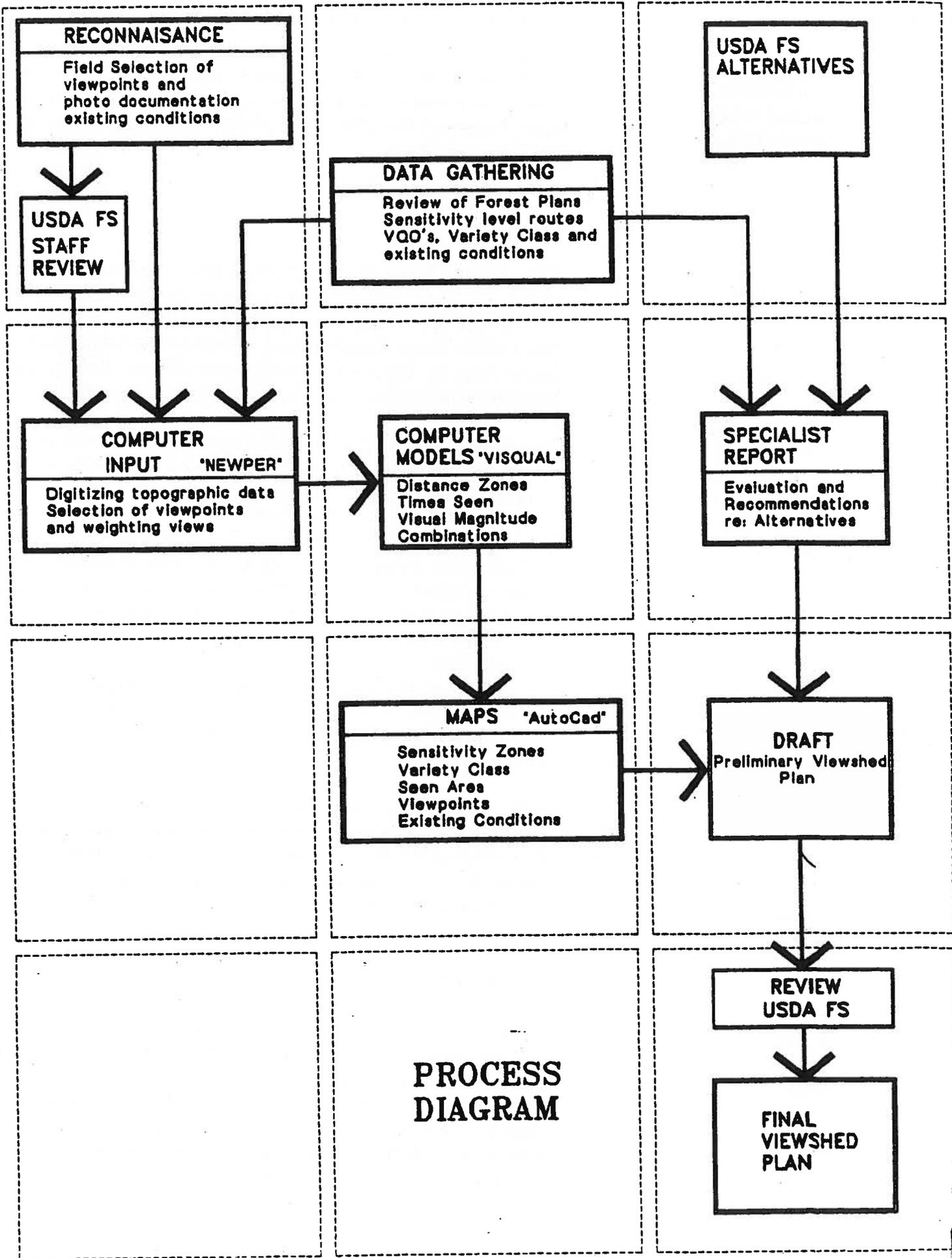
The process in the development of this viewshed plan began with gathering pertinent data including review of USDA Forest Service determinations and policies related to the management of the Eagle Creek Valley. On-site reconnaissance was performed to document existing conditions and to select specific viewpoints for computer analysis and modeling.

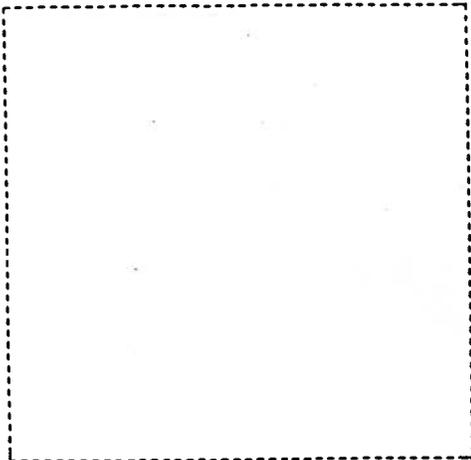
The viewpoints selected are approximately at 1/2 mile intervals along the river corridor; and include vantage points at which important views exist. Since the foreground selected is at a 1/4 mile distance, the foreground is modeled by the computer continuously between viewpoints. Upon USDA Forest Service review, each viewpoint was given a value in relationship to other viewpoints. To account for the amount of time or duration that any particular view might provide, additional values or "weighting" was given to each viewpoint. Heavily used defined campgrounds and some dispersed camp sites were weighted by a factor of 10. Other focussed or picturesque viewpoints were weighted by a factor of 5. All others were assigned a value of 1. See Appendix for assigned weights for each viewpoint.

Utilizing computer software, contour information was digitized from USGS quad maps and Forest maps to begin a process of modeling of the viewshed. After preselecting distance zones, the computer assisted process developed several terrain models for analysis.

COMPUTER MODELS

Based on all-viewpoints, the computer analysis developed several models. The models included distance zones, times seen and visual magnitude. One additional model was developed as a combination of times seen and visual magnitude. The models presumed no vegetation, so as not to affect the analysis of the potentially seen terrain, since trees are a transitory element in the landscape.





The distance zone model examined all areas of the viewshed that can be seen within the foreground limit of 1/4 mile radius and the midground from 1/4 mile to a limit of 3 miles. All areas falling within the distance zones, limited by topography, are defined as the "seen area".

The times seen model examined the terrain areas that can be seen the least to the most times from all of the viewpoints. This particular model is directly influenced by the "weighting" given to each viewpoint.

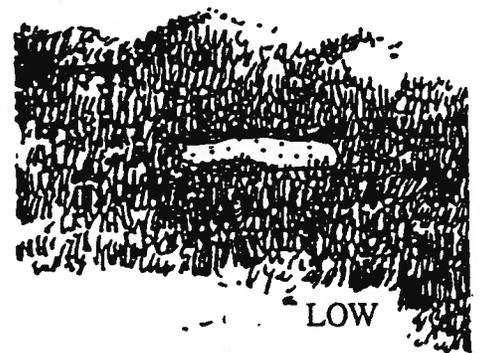
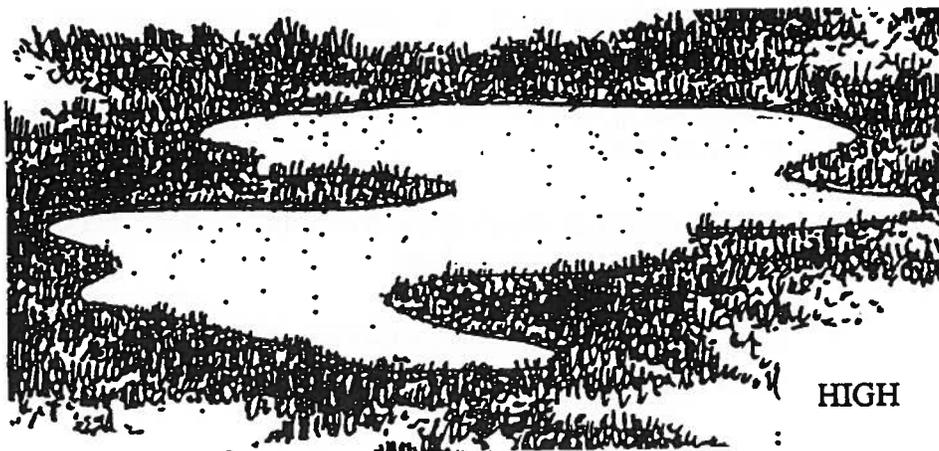
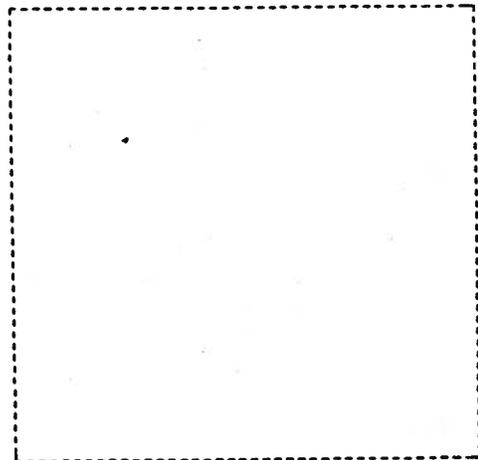
The visual magnitude model examined those terrain areas within the seen area that are of a particular size relative to a particular view direction.

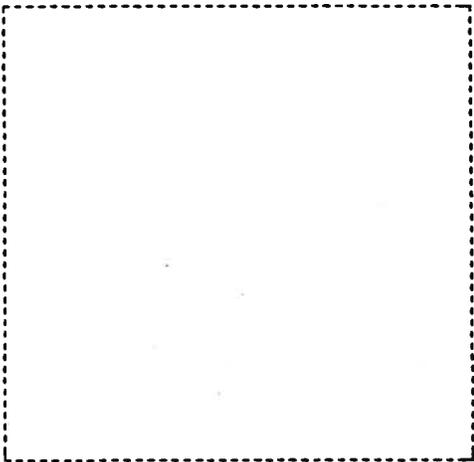
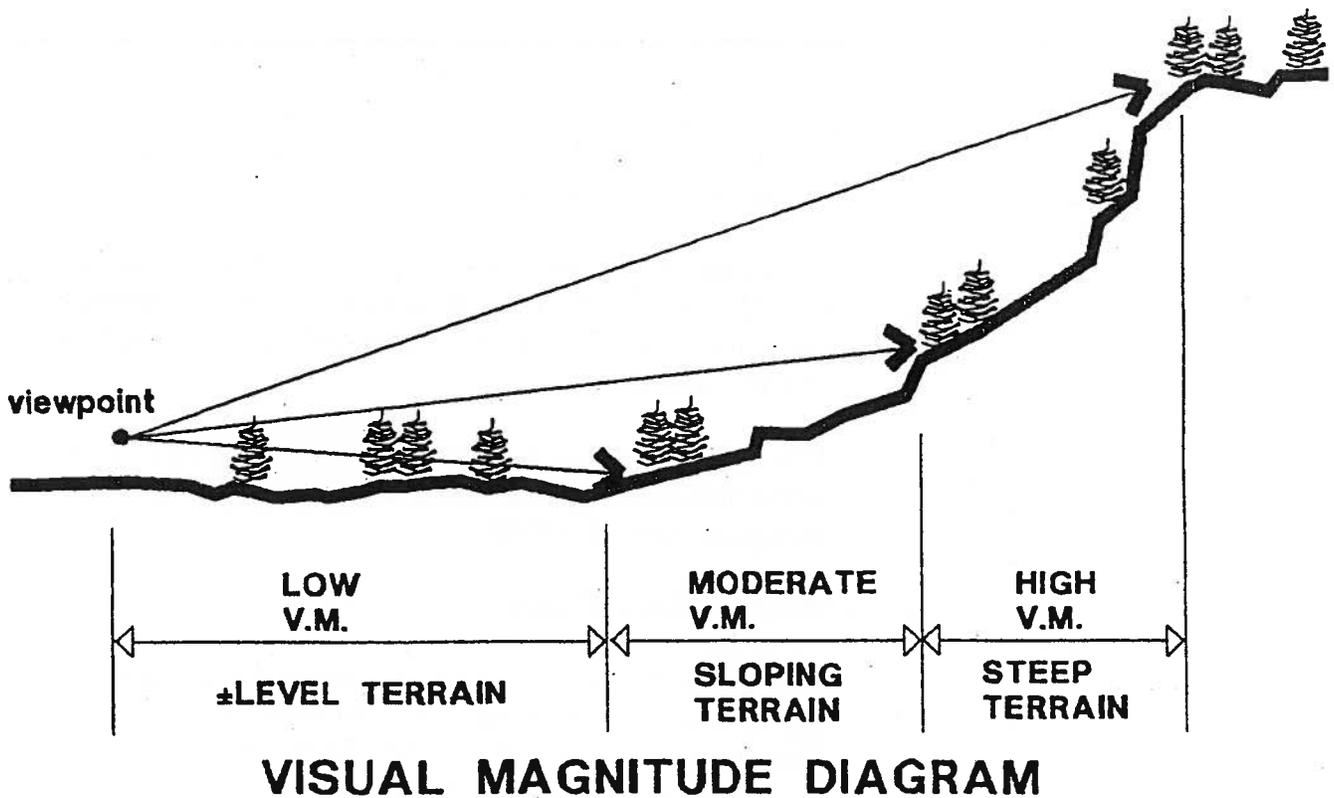
VISUAL MAGNITUDE

Visual magnitude is a measure of the relative degree of visibility (size) of an area of terrain as seen from a particular viewpoint. The amount of visual magnitude is effected by slope and distance. As terrain steepens (increasing its exposure to the viewer) visual magnitude increases. As the distance between viewer and the area of terrain increases, the visual magnitude decreases. Technically, visual magnitude is measured in square minutes of arc.

Combining the times seen model with the visual magnitude model another model was developed that indicates relative sensitivity. For example, those areas which are seen the greatest number of times combined with the highest visual magnitude, are the most sensitive to change. Similarly, areas seen the least number of times combined with the lowest visual magnitude, are the least sensitive to change.

Given a view distance of 3 miles, the following sketches, when held at arms-length, illustrate the approximate range of visual magnitude of openings in the forest cover from low to high used to develop the map.





MANAGEMENT RECOMMENDATIONS

VISUAL QUALITY OBJECTIVE

The visual quality objective of the corridor is retention except within the Eagle Cap Wilderness. The sensitivity level for the corridor is designed as level 1. The variety class for the valley is Class A by virtue of the predominance of extremely steep slopes, of outstanding rock outcroppings and rock slides, of a variety in plant species, and the changing characteristics of Eagle Creek. The distance zones are primarily foreground with very little midground and virtually no background.

DESIRED FUTURE CONDITION

The optimum future condition relative to scenic values would be evidenced by:

1. A balance in the variety and amount of open and closed forest spaces.
2. Accentuation of views toward mountain tops, hillsides, and meadows in the valley floor.
3. A variety of tree species, including deciduous, with mixed ages.

4. A predominance of open-type character and larch / pine species in campgrounds.
5. Campgrounds screened from view from both road and river.

The Wallowa-Whitman National Forest Visual Management Plan - Desired Visual Model is included in the appendix as reference. In both foreground and middle ground Retention for conifer associations, the following recommendations related to the Desired Visual Model should supersede the applicable objectives because they are more restrictive:

1. Maintain stump profiles at ground level up to a maximum height of native grasses and groundcovers within 200 feet of the main roadway.
2. Cover all stumps with forest soil and duff.
3. Remove by raking up and hauling or chip slash (branches 1 inch in diameter or greater) in all seen areas.
4. Seed with native valley grasses and wildflowers in seen activity areas.

RECOMMENDATIONS FOR SPECIFIC ACTIVITIES

Vegetation Management: The following are recommendations for those areas of the corridor that fall outside the Eagle Cap Wilderness and within the seen area:

1. Uprooted stumps from blowdown should be removed by endhauling unless the stand is heavily infected with root rot disease.
2. Burned and blackened standing dead timber should be removed immediately after events occur.
3. Thinning in lodgepole pine / larch stands for reasons of forest health is visually appropriate as well.
4. Long-term visual quality will be enhanced by management activities which result in a mix of species and uneven age stands.
5. Lodgepole pine / Larch or Ponderosa stands should be maintained for established campgrounds and dispersed camping areas that are heavily used.

6. Firewood program activities should occur only in unseen areas and those screened by vegetation.
7. Wherever possible, long-term silvicultural treatments and management activities should occur behind a screen of established trees after which, and much later, the screening stand can be removed.

Recreation: Developed Sites: Sites such as established campgrounds, trailheads, and staging areas for groups on horseback require built structures such as gates, fences, bridges, outhouses, signs, picnic tables, etc.:

1. Signage should be standardized for the Eagle Creek Valley as to color, size, and style. It should be made of wood or stone, be restrained, be complementary, and be relative to the character of the valley.
2. All built structures should be made of wood or stone. Those structures that require added strength or durability from other materials should be clad in wood or stone whenever possible.

Recreation: dispersed Camp Sites: Although allowed, dispersed camping should not be encouraged, especially in those areas that have not been previously used for camp sites.

1. Repair damage to the natural landscape caused by camping activities.
2. Provide vegetation and/or stone boulders as natural barriers to mitigate damage from vehicles entering off-road into forest areas.
3. Provide vegetation to screen the obvious dispersed camping sites from the road and/or the river.

Transportation Facilities:

1. The narrow roadway in the valley should be continuously maintained at a safe width and additions of base rock should be added to mitigate the amount of dust that carries on the roadside foliage, into the air, and into the river. The dusty conditions substantially impacts the appreciation of the scenery, if only momentarily.

Administrative Sites:

1. Additions to the existing Guard Station or the development of new sites should be designed to retain an intimate scale, to use natural materials, and to avoid "high tech refinements" unless hidden from view. The existing Two Color Guard Station should be used as an example of appropriate appearance. Utilities and free-standing structures on a site should be screened from view by vegetation, made of or clad with wood or stone whenever possible to complement the natural surroundings. Paint colors should be discreet and harmonious with natural surroundings to avoid undue attention and distraction.

Private Land Development: Private land interrupts the National Forest as one travels the road through the valley. The structures and site development are currently visually compatible with the natural forest environment.

1. Since either the public lands and the private lands are potentially impacted in a negative way from changes, or expansion of facilities, management activity, and natural catastrophic events, the USDA Forest Service and the private landowners should mutually develop specific standards for new development, expansion or modifications. Once the standards are agreed upon, agreements of compliance should be drafted and signed to guarantee adherence. Agreement should address issues of alterations of natural landform, maintaining privacy, providing communications, timing and extent of necessary timber harvests, and provision of landscape restorations and/or screening to mitigate impacts.

Other Uses: Future development will inevitably continue in the valley. Power, telephone, TV, sewers, and other utilities can potentially impact the visual environment in a negative way.

1. Visual mitigation of new buildings, or large free standing and/or linked structures such as power lines may prove extremely difficult in the valley. Placement, scale, color, and screening are important issues to resolve to mitigate potentially intrusive structures. Underground placement should be a standard policy for location of all utility lines.

MAP USE

Recommendations

It is recommended that the visual magnitude map be used as an overlay to the VQO map. Those areas of highest sensitivity that coincide with foreground retention should be the most carefully considered to minimize potential effects on visual quality related to management activities and to develop public/private agreements. Virtually all of the defined area of the Wild and Scenic Lostine River falls within that category.