

Chapter 7: MANAGEMENT IMPLICATIONS AND SUMMARY

This chapter summarizes the management implications and describes the ongoing work needed to maintain the Upper Swan Valley Landscape Assessment as ground truthing, research and experience suggest changes. It provides guidance for using the Landscape Assessment's findings by federal, state and county agencies, corporate and small private landowners, the Confederated Salish & Kootenai Tribes, the general citizenry and other organizations or individuals interested in sustaining the ecological integrity of the Swan Valley.

The Landscape Assessment is a foundation document, a collection of concepts, principles and information intended to help people, organizations and governments work in harmony with each other and with respect for natural processes as we seek sustainable use of the land and its resources. In short, the Landscape Assessment's purpose is:

1. To create a snapshot in time of the Upper Swan Valley landscape.
2. To provide the background needed to recommend management and restoration opportunities for sustainable use of the Upper Swan Valley.
3. To provide the background needed to help create a sustainable ecosystem management plan for the Upper Swan Valley.

ECOSYSTEM MANAGEMENT PRINCIPLES

That stakeholders might reason better together, the framers defined the concept of ecosystem management early in preparing the Landscape Assessment. The idea of managing whole ecosystems replaces the more compartmentalized notion of managing individual resources. Ecosystem management recognizes each function or value to be linked in a myriad of ways to each other and therefore dependent on each other. Thus, as we plan and use the land, management focuses first priority on caring for the whole of the place under consideration (ecological integrity).

This land stewardship concept underlies all aspects of implementing the Landscape Assessment. Managers and users of the land should be mindful that this concept differs a great deal from stewardship and management practices of the past. Ecosystem management does not detract from the usefulness of currently available scientific, historic and practical knowledge. The concept demands all of the knowledge and experience that we can get. The main difference between historic concepts and the Landscape Assessment is a more holistic and ecological way of using and stewarding the land.

If we are to sustain and enjoy the parts, then we must give first priority to taking care of the whole place.

APPLICATION OF ECOSYSTEM MANAGEMENT

Wherever a critical issue or proposed project may be, the *Ecosystems (Chapter 2)* and the *Connections (Chapter 3)* chapters make it possible to describe in a broad sense, the potential effects of the project on the rest of the landscape. **Chapter 2** discloses the location of the project in one of the five ecosystems and **Chapter 3** shows the landscape and habitat connections that must be protected to maintain the ecological integrity of the Swan Valley. All these provide valuable information useful in relating what one might do in a given place to the health of the larger landscape.

However, more detailed eco-cruising (**Glossary**) and mapping is needed to propose and validate restoration, ecosystem health, economic or similar projects that impact the landscape. Intra-ecosystems and connections within the larger ecosystem have to be identified, mapped and their conditions described (**Appendix E**). Obviously, much time will be needed to accomplish this work on the five major ecosystems defined in this Landscape Assessment. Nor should the numerous situations in the Swan Valley's landscape wait very long for management attention. A process is needed to use this Landscape Assessment to locate and implement ecologically sound and beneficial projects on the land.

A first and periodic task, especially for large ownerships (U.S. Forest Service, Plum Creek Timber Company, Montana Department of Natural Resources and Conservation - Division of Forestry) is to identify, prioritize and share with each other and the communities, those land-related issues, problems and opportunities, that if

developed, would benefit the ecosystem and therefore, the people. The Swan Valley's local governments and land stewards already have much of this sort of information on hand. This process would reveal the high priority places that need attention in the landscape. Management could then be focused and localized.

The *Ecosystems* and *Connections* chapters of the Landscape Assessment will show the relationship of any new proposals to the ecology of the landscape. Site specific analysis would be focused to obtain more localized data needed to evaluate the validity of the project, identify environmentally safe methodology, respond to NEPA and to local constraints necessary to carry out the project while protecting the ecological integrity of the landscape.

The foregoing procedure would also work for development projects contemplated by small landowners and public entities such as garbage sites, roads, quarries, business locations, land allocations and similar community amenities and developments.

In addition to ecosystem-based management and project analysis, this Landscape Assessment provides an indispensable foundation for creating ecosystem management plans for all ownerships. The framers of the Landscape Assessment hope that pertinent sections of this document become imbedded in the management plan and subsequent stewardship of the Flathead National Forest. Working together with the Montana Department of Natural Resources and Conservation's Extension Service, the Swan Ecosystem Center intends to encourage and help private landowners write management plans for their forested ecosystems. Several private landowners already look forward to developing these ideas.

MAJOR MANAGEMENT IMPLICATIONS

Several useful management implications are drawn from this Landscape Assessment.

(1) This Landscape Assessment promotes changing from resource management to ecosystem management. This is a proven way to go, yet new to many land managers. Understanding ecosystem concepts and their application is not widespread among forest landowners, forest land managers, support technicians and the general citizenry. Several levels of education and training will be needed as the process unfolds.

(2) There is potential to lose the land base of our working forests and therefore, the economy, lifestyles and access long enjoyed by the people due to the acceleration of Plum Creek Timber Company's divestment of their Swan Valley properties. Already Plum Creek's sales of its lands have impacted the ecological integrity of the landscape in many ways. Much more seems imminent. Swan Valley communities, supported by several non-profit foundations and organizations are working together to achieve ecological balance between the impacts of residential estates, wildlife habitat, public access and working forests. At this writing, the purchase of Plum Creek's lands to create a community forest seems to be the preferred direction. This Landscape Assessment provides a needed foundation for such a collaborative effort. If the preferred direction is realized, the Landscape Assessment should provide the ecological foundation for management of the community forest through ecosystem principles.

(3) We are losing the whitebark pine forests from the Cold, Steep, Forested Ecosystem. High elevation watersheds, several species of wildlife including threatened grizzly bears, natural beauty and the remarkable sense of place these trees provide in the alpine basins of the Swan Valley's mountains are at risk. Disease and the long-time absence of natural fire seems central to the problem. Leaders of the Flathead National Forest recognize this ecological degradation and have applied research and prescribed fire programs for several years. This pioneer work points the way. Both the Swan Range and Mission Mountains need a long-term program of whitebark pine restoration.

(4) The harvest for commercial purposes of non-timber products such as berries, beargrass, mushrooms, medicinal plants, decorative trees and shrubs **is growing.** Conflict has already arisen between the public, bears and commercial huckleberry pickers. These once benign activities need management attention, regulation and enforcement to protect the ecological integrity of the landscape.

(5) The Landscape Assessment re-emphasizes the uniqueness of the Valley Bottom Ecosystem, especially its wetlands including the Swan Valley potholes. As noted in **Chapter 2**, this wetlands complex is probably the single most outstanding geographic and biological feature of the Upper Swan Valley. Obviously, the potholes should be treated as local, regional and national treasures. To sustain their natural qualities deserves special management attention including: (a) designation as intra-ecosystems within the larger Valley Bottom Ecosystem; (b) recognition of their significance in maintaining endangered plants (*Howellia aquatilis*) and mammals (grizzly bears); (c) rehabilitation for some

wetlands; (d) stewardship of their surroundings to protect natural beauty and their unique sense of place; and (e) education programs to disclose their significance in the Swan Valley's landscape.

(6) Noxious weeds present a serious threat to the ecosystem health and sustainability of the Swan Valley landscapes. Six out of every seven (87%) persons surveyed in 2001 strongly agreed to the statement that “cooperative weed management plans should be developed.” **(Chapter 6).** Weeds follow roads and trails to take root wherever the land has been disturbed. Some planning, organization and weed control is already at work in the Swan Valley. Organized results are spotty. Weed control is needed and this requires cooperative management by stakeholders, which is all of us who live in the Swan Valley.

(7) Old-growth forests are becoming disconnected from their surrounding ecosystems. Much of the unlogged, old-growth forests in the Swan Valley's landscape is located on the Flathead National Forest. Plum Creek Timber Company has long practiced removal of old-growth and regeneration of new stands to increase production of saw timber on their lands. As Plum Creek divests of its lands, the company is cutting much of the available merchantable timber on lands to be sold. Such disruption of ecological connections leaves some national forest old-growth sections as islands surrounded by heavily-logged and disconnected ecosystems.

In many places, these old-growth and even medium growth islands are all that remain viable in otherwise degraded ecosystem connectivity. Some of these island locations need ecosystem

management attention. Light-on-the-land practices could be helpful in some places if done with assurance that ecological integrity be nurtured until time, nature and restoration practices restore connectivity to the lands surrounding these islands.

(8) Ancient and historic fires have been a primary agent of diversity in the landscape. As the country settled, widespread natural fires posed a threat to towns, homesteads, railroads and similar facilities. The people and governments reacted with stern and effective measures to control fires in the forests and grasslands throughout the West thereby diminishing fire's natural role in the ecosystems. Natural fire's absence in some ways was replaced by aggressive logging.

Outside the wilderness and roadless areas, natural fire, for better or worse, has largely been replaced by logging with some prescribed burning as agents of diversity in the Swan Valley's landscape. Yet, towns, facilities and people still need protection from fires in the forests. Many forest and grassland ecosystems need fire to prosper. This complex issue includes the security of the people and the ecological integrity of the landscape. Fire on the land, this basic force in nature, is at once friend and foe to the land and the people, depending on the time, place and circumstance. The issue of fire demands enduring attention by stewards of the land as the concept of ecosystem management unfolds.

SUMMARY

This Landscape Assessment is more than “background needed to help create a management plan.” It can be **the foundation** of the sustainable ecosystem management plan for the Upper Swan Valley. It leads the manager or planner through essential geographical, biological, ecological and cultural history. It identifies major ecosystems on a scale best suited for ecosystem management and discloses and maps the location of ecological connections essential to sustaining the natural integrity of the place. It creates a general “snapshot in time” of the conditions of each ecosystem. And it suggests procedures, processes and eco-cruising needed to identify and validate projects for ecosystem restoration, ecosystem health and sustainable use by people of the land’s resources. The Landscape Assessment also presents trends, conditions and situations that should be given special consideration by ecosystem managers and planners.

This Landscape Assessment is adaptive in nature. It is not a new plan. It incorporates and recognizes the wealth of data, experience and methodology that landowners, universities, governments and managers have accumulated over the years of research and of working forests and grasslands. The intent is to build on the foundation already available with management priorities focused more on healthy ecosystems than on individual resources.

Land managers should view the Landscape Assessment’s chapters as essential steps on the way to ecosystem management of the Upper Swan Valley’s landscape. Some situations and operational demands are new. We might have to learn as we go, then go as we learn to solve them. The Ecosystem Management Plan should be thoughtfully amended as we gain experience and surface new information.

As the land goes, so goes much of our way of life. That is why the people who live in the Upper Swan Valley insist on a strong voice in decisions that affect the ecological integrity of this valley. That is why people, governments, organizations and industries joined in the preparation of this Landscape Assessment. We are all in this together. And that is why we should hold together as we apply the concepts of ecosystem management to achieve the purposes and goals of the Upper Swan Valley Landscape Assessment.

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