ODFW studying possibility or reintroducing Bighorn Sheep in Deschutes Canyon

Bighorn sheep once used the Mutton Mountains as part of their habitat. Heavily hunted in that area and in the Deschutes River Canyon, the species soon vanished. An effort now is being made to reintroduce Bighorn sheep.

The sheep currently inhabit other parts of Oregon and the recent issuance of the Governors Bighorn Sheep tag set forth a new era for bighorn sheep in Oregon. The sale of the tag to the highest bidder provides funds earmarked for the exclusive use on bighorns. The Oregon Department of Fish and Wildlife (ODFW) has used those funds to do bighorn research, habitat development and reintroductions into historic range. A bighorn sheep plan was written and historic range was ranked by priority for future reintroduction. The majority of the sites identified in the original plan have been stocked and a new plan is being developed that will identify new sites.

The Deschutes Canyon has been long recognized as historic range of native California Bighorn sheep but previous land ownership has prevented it from being listed as a priority site. Recent purchases by the Oregon Wildlife Heritage Foundation in conjunction with federal land (BLM) has made it possible to seriously evaluate the Lower Deschutes River from South Junction to the mouth for reintroduction. The current Federal planning document (The Two Rivers Resource Management Plan, Record of Decision and Rangeland Program Summary, June 1986) addresses introduction of Bighorn Sheep onto public lands adjacent the John Day river, but is silent regarding the Deschutes River. Failure to address sheep reintroduction on public lands adjacent the Deschutes River was simply an oversight. The Environmental assessment addresses a proposal from the ODFW to reintroduce California Bighorn Sheep into the Deschutes River canyon.

After a survey by biologists, the canyon was found to have a very good potential for sheep. The forage was rated excellent and when distribution was good. In the areas of preferred sheep use the previous grazing practices had left much of the steep upper slopes relatively ungrazed. This is documented by the May 1984 Soil Conservation Serv ice (SCS) range survey conducted on the Lower Deschutes Management Area. Much of the mid to upper slopes were rated by the SCS as good to excellent. dominant grasses were bluebunch wheatgrass, Idaho fescue, Cusick bluegrass and Sandberg bluegrass. Forbs included phlox, vetch, lomatium, Mt. dandelion, and yarrow. The shrubs consisted of big sage, serviceberry, gray rabbitbrush, green rabbitbrush, and snow buckwheat.

Ram habitat was considered unlimited because of the rams greater mobility. Ewe/lamb habitat was considered the most limiting habitat and every place that provided this specific habitat was mapped. Ewes need secure areas to raise their lambs. These areas are characterized by cliffs, rocky outcrops, good forage and water.

Fifteen Bighorn Sheep of mixed sex and age classes would comprise the initial release, if the plan is adopted. The herd would be managed to maintain a population size of a minimum of 200.

No reduction of livestock permit levels are proposed. Some impact could occur to private lands, primarily in the form of depredation. Population management control by hunting or trapping and resolution of depredation complaints would be the responsibility of ODFW.

Other alternatives to the proposed plan varies from confining release of sheep to areas downstream of Sherar's Bridge to not allowing reintroduction at all. Releases could be made on private land by landowners if they meet restrictions set forth in the environmental assessment for their leased BLM lands

The Warm Springs Tribe has also been examining the possiblity of reintroduction of Bighorn Sheep since they were once indiginous to the Mutton Mountains before they were wiped out by disease. in the early 1900's. Discussions regarding reintroduction on the Reservation will continue.

Bighorn Sheep were found in the Deschutes Canyon as well as the Mutton Mountains in the 1800's. Diesease extirpated the population.

DRMP work sessions planned

The Deschutes River Policy group will hold work sessions to finalize a management plan for the lower Deschutes River, November 5 to 7 and November 19 to 21.

The group will convene in The Dalles at the Shilo Inn November 5 to 7. From November 19 to 21, the group will be in Portland at The Inn at the Coliseum. All meetings begin at 8:30 a.m.

Sessions are open to all interested citizens; however, no public testimony will be taken. The official record for comments on the draft plan is closed. However, anyone wishing to express an opinion on any management issue may send written comments to the Policy Group—attention Jacque Greenleaf, State Parks Department, 525 Trade Street SE, Salem, OR 97310.

Release of a final management plan is expected sometime next spring.

Understanding watersheds helps in management of system

Over the last couple of years, there has been considerable discussion over the value and proper management and use of riparian areas. What are riparian areas? Riparian areas are those areas adjacent to streams where wet soils predominate. Riparian areas are easily identified because vegetation in these areas is quite abundant and green nearly year round. Generally, plant species that are water-loving (or water tolerant) are most abundant. These include willows, alders, cottonwood, grasses, sedges, rushes and a whole host of shrub species. The roots of these plants, particularly of the large, woody vegetation, help hold the riparian area together.

In eastern Oregon, riparian areas are divided into three distinct zones. The most obvious zone is the aquatic zone. Thi includes the free-flowing stream. Located immediately upslope from the stream is the riparian zone. Within the riparian zone resides many plants that protect the stream bank and provide shade to maintain cool water temperatures. Furthest upslope from the stream lies the upland zone. Although the vegetation in the upland zone is not as lush as in the riparian zone, th upland areas still influence th stream by providing some shac and serving as a source for woody debris input. This debris (rotten logs) creates pools (habitat) important for fish rearing, and is an energy source for other aquatic organisms which the young fish prey upon.

Riparian areas are extremely important to the health of our watersheds. Like arteries and veins in the human body that deliver oxygenated blood to our muscles and transport bodily waste out, riparian areas, too, take on a likewise similar function within our watershed. For example, riparian areas help to regulate waterflows by reducing the intensity of flood waters and, at the same time, help maintain constant waterflows during the dry summer months.

Vegetation within the riparian areas screen out suspended sediment during high flows, thus maintaining water quality. When this suspended material falls out along the stream, the stream bank continues to build up and, in so doing, helps provide a major storage area for additional water. This "reservoir" of water is then later released to maintain stream flow even during the dry summer months.

Riparian areas are also home to fish and many other water-dependent species. Upland birds and big game such as deer and elk use riparian areas for travel corridors, for feeding, and for thermal cover during the hot summer months. During the dryer months, the riparian areas are heavily used by big game because of the abundance of green vegetation and cooler temperatures.

The riparian areas are important to society as well. Riparian areas are extensively used for cattle grazing. These areas are an important source of feed and water for livestock. Of course, riparian areas deliver the water to towns and cities below. Riparian areas are also important recreation areas, particularly for fishing and camping.

It's in our own self-interest to manage riparian areas wisely. Degradation from improper logging, over-grazing, and excessive recreational use can lead to a decline in health of riparian zones. Severe degradation reduces grass, shrub, and hardwood cover so that they no longer screen out suspended sediment or hold the soil with their roots. With the lack of streamside vegetation, water velocity increases, adding to the stream's erosive force during high flows. Steep cutbanks and gullies within the stream channel result. Over time, the stream channel widens and becomes very shallow. In addition, with lack of water storage adjacent to the stream, the stream may no longer flow year-round. With little streamside vegetation, water temperatures can rise to the point where fish may no longer be able to tolerate instream conditions. This degradation process undoubtedly reduces the carrying capacity of the entire watershed.

Current riparian management seems to be in the area of restoring severely impacted streams. although this is needed in many areas, we need to also recognize that the stream and riparian zone is but a small part of the watershed. We need to focus our attention on the upland areas as well, as the management of these areas can have great impact on the stream and riparian zone below.

Careful monitoring of our management practices in and around riparian zones will insure their health. By periodically inspecting or checkingthe "pulse" of our streams and riparian areas, we can make a determination as to the overall health of the "patient" -- the watershed. A proper diagnosis can go a long way towards prescribing treatments that will maintain a productive system for the future.

Urban development

Urban development involves clearing, leveling, and filling the land surface; construction of buildings with impermeable roofs, paving roads and sidewalks with impervious materials, and installation of sewage disposal systems. It therefore greatly changes infiltration and runoff, cutting down the amount of recharge to underground water and speeding up runoff concentration time to produce rapidly fluctuating streamflows. High quality water is described as cool, clear, clean, colorless, odorless, tasteless, oxygenated, free of floating and suspended materials, and carrying only limited amounts of dissolved materials. As quality is degraded, water becomes less and less useful for most purposes. Urbanization decreases both water and air quality. Point source pollutants enter waterways from a specific point or conveyance. Common point source pollutants are discharges from factories and municipal sewage treatment plants. This pollution is relatively easy to collect and treat.

Nonpoint source pollution, on the other hand, is really a new name for an old problem—runoff and sedimentation. Nonpoint source pollution runs off or seeps from broad land areas as a direct result of the way the land is used. It comes from a variety of sources such as farm fields, residential developments, roadsides, and parking lots. Sediment, plant nutrients, toxic materials, and animal wastes are the major nonpoint source pollutants. The diffuse source of these pollutants makes more difficult to quantify and control than point source pollutants on water quality may be variable. Some are potential health hazards or harmful to fish and other aquatic organisms. While streams do have an absorption and disposal capacity for limited amounts of various kinds of pollutants, the limits are too often exceeded.

Urban air pollution, especially photochemical smog caused by internal combustion gasoline engine emissions and industrial smokes has contributed to acid rain which has had a subsequent effect on vegetation, streams, and lakes within watershed, especially on the east coast and in Canada. The problem continues to grow, however, and the Pacific Northwest is now experiencing effects of acid rain.

Communication and transportation developments include roads, railroads, airports, powerlines, and pipelines. All of these may involve disturbance of the plant cover, the soil, and the topography. Road and highway networks, with their impermeable paving and rapid drainage systems may radically change the runoff characteristics of their immediate area. They also require changing the natural topography and drainage, and moving huge amounts of soil and rock. They are often responsible for extensive sediment production, and may become the source of still other water pollutants. Railroads have similar effects. Airports involve leveling, filling, and paving the land. Powerlines and pipelines require open paths through tne watershed and access roads for construction and maintenance. Thus, they involve disturbance of plant cover and soil.

Flood control dams, lined stream channels, dikes and levees restrict the spread of floodwaters, and channel bed stabilization techniques are all installations that modify channel capacity plus the rate and volume of streamflow. All are the consequence of man's efforts to modify water yields to better meet seasonal needs.

Many dams are built and operated to be multipurpose—to control floods, store water for irrigation or other consumptive use, to regulate flow for navigation, or to provide power generation. Effects on streamflow and aquatic habitat are similar regardless of purpose. The impoundments, if shallow, allow water to become warmer, and if deep, preserve cooler water. Streamflow becomes more regular from season to season and year to year regardless of climatic variations. Streamflow peaks are reduced and low flows increased. As reservoirs fill with sediment, stream gradients are flattened. In many cases, the reservoirs have added benefits to the use of watersheds, such as water-based recreational opportunity and new fisheries.

Diversions from streams may seasonally be made for irrigation in agricultural areas. This greatly reduces streamflows during the warm growing season. Some of the water taken is returned to the stream by drainage from the irrigated fields. These return flows are warmed and may contain soil salts, fertilizers, and pesticides leached from the fields.

In considering the management of a watershed, the objective is to maintain a useful vegetative cover and soil characteristics beneficial to regulation of a quality water yield. At the same time, the utility and productivity of the land will be enhanced in terms of other resources and uses. The basic nonrenewable soil resource is the main consideration. Where it is protected and maintained in good condition, the renewable fuel, fiber, and food resources, the wildlife habitat, and recreational opportunity can be compatible. Being part of a watershed, the resources of timber, forage, minerals, food, and wildlife represent important considerations. Problems arise when development and use of these resources conflicts with the primary objetive of regulating water yield and maintaining water quality and watershed integrity. They must be considered as part of watershed management, and their use and development be integrated with the type of management that produces and protects water supplies.

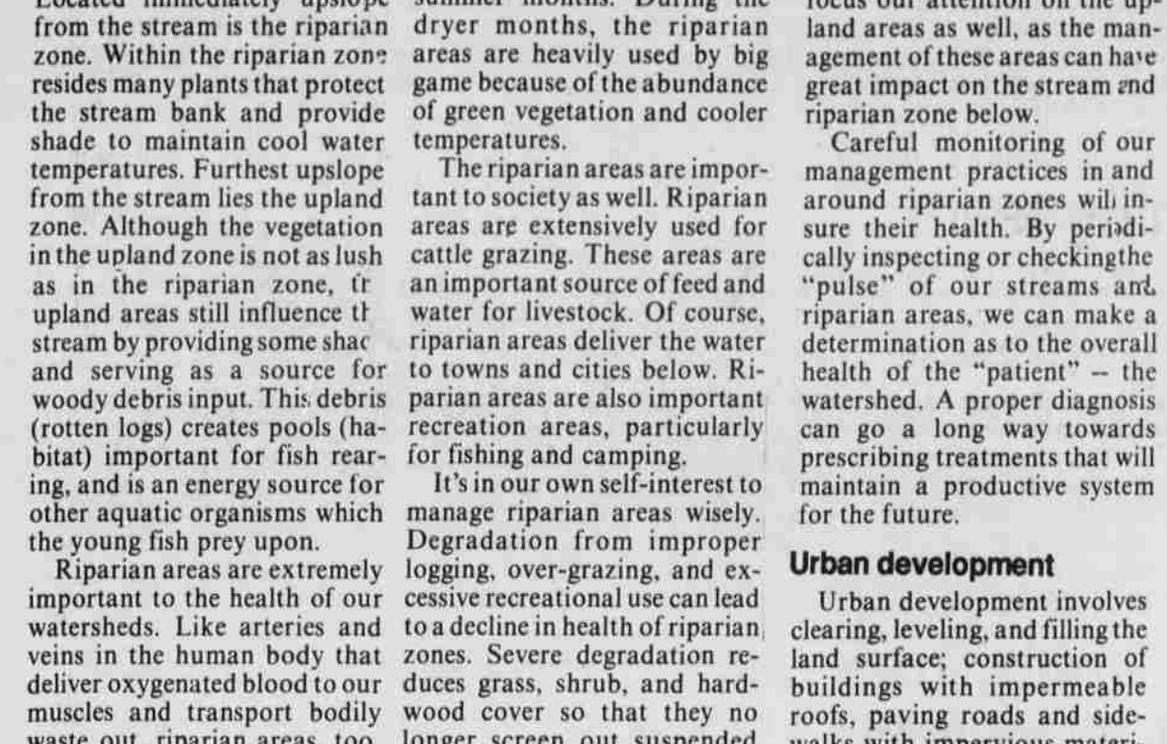
The principal institutional control of watersheds is ownership. Where a public management agency owns the land, it may be free to apply whatever measures it believes necessary or desirable to gain its objectives. It may regulate entry and prevent the use the development of associated resources.

Management conflicts

Many watersheds are in public or state ownership, and unless segregated and protected by specific legislation or agreement, usually must be used and developed to take advantage of all resources available for the general public benefit. It is in these multiple-use watersheds that management may face the most serious conflicts and problems. Here it becomes necessary to attain a balance in use and development that provides the maximum of combined benefits with the least disruption of the water resource.

Watershed users must be aware that that private actions have consequences that can affect everyone. Water quality and water quantity is important.

The critical thing to remember about watershed is that the rivers, the hillsides, the mountaintops, and the flood-formed bottom-lands are really all part of one system. All are integrated with each other. The shape of the hillsides controls the rate of energy expenditure of water flowing over and through them. All biotic elements in the watershed is a function of what lives there. The combination of climatic conditions, soil types, topography, vegetative cover, and drainage system define the particular character of each watershed. In its natural state, the watershed is in a state of equilibrium. We seem to think that the nonbiological portions of a watershed can be changed to suit perceived needs of humans without a corresponding change in the physical system. Rivers do not stop at state lines. The hydrologic and geomorphic effects of natural and human processes within a watershed are focused at its outlet, wherever it may be. Each drainage basin is a portion of some larger drainage basin whose downstream portion may suffer from the upstream influences. Many land-based changes in the watershed will have an effect on the aquatic portion of the system. In all cases, the watershed will respond to the changes in the system until an equilibrium is once again reached. This equilibrium may or may not be the most suitable for the overall quality and contribution of the watershed to the entire picture.



Riparian areas are important to healthy watersheds. They regulate water flow and screen sediment, keeping it from entering the stream. Riparian areas also provide habitat for many species of insect and wildlife.