

Appendix 1.5 Water-related Pitkin County Caucus Plan Goals and Objectives.

Excerpts from Crystal Caucus Master Plan	1
Excerpts from Snowmass/Capitol Creek Caucus Master Plan	2
Excerpts from Maroon/Castle Creek Caucus Master Plan	4
Excerpts from the Owl Creek Caucus Master Plan	8

Excerpts from Crystal Caucus Master Plan

<http://www.aspenpitkin.com/pdfs/depts/7/finalcrystalplan.pdf>

Growth

1.3 Limit new development to projects that minimize detrimental impacts to water quality or quantity and that promote environmental and resource protection

1.7 Where practical, based on balancing of interest, direct future development away from areas with environmental constraints such as steep slopes, floodplain, avalanche, rockfall and wildfire or that contain resources such as critical wildlife habitat or view corridors.

Commercial and Retail Uses

4.8 Protect lands within the Crystal River Planning area from the environmental impacts if mining, mineral exploration, oil and gas drilling and exploration, sand and gravel pits, rock crushers, contract batch plants and other extractive operations.

Environment and Open Space

5.6 Develop and maintain a program to protect water quality and quantity and to control impacts from septic systems and other pollution sources

5.7 Encourage appropriate government agencies and private stream protection organizations to establish a minimum streamflow and purchase the required rights to support wildlife, fisheries, recreation and economic stability, while opposing the construction of dams and reservoirs.

5.8 Prevent development of dams and reservoirs on the Crystal River in order to preserve its free-flowing nature while preserving private water rights.

5.9 Investigate the impacts of “Wild, Scenic and Recreational” designation for the Crystal River.

Recreation

6.1 Encourage each other to voluntarily permit access to our streams, trails, and waters while respecting private property rights.

6.6 Support the granting or purchase of conservation, fishing, and trail easements in order to facilitate enjoyment of natural resources by neighbors and visitors.

Excerpts from Snowmass/Capitol Creek Caucus Master Plan

<http://www.aspenpitkin.com/pdfs/depts/7/snowcapfinalmasterplantext.pdf>

Environment Section

2.1 General Goal

Because of the unique and abundant natural resources of these valley (e.g. wildlife habitat, riparian corridors, air quality, and intact ecosystems), this Master Plan recommends preserving this natural environment to the maximum extent possible.

2.1.1 Only allow development that does no harm to water quality or quantity and that actively promotes the protection of environmental and natural resources.

2.1.2 Support actively the land preservation efforts of the Pitkin County Open Space and Trails Program and the land preservation programs and activities of other conservation groups in order to foster, encourage and facilitate the continued acquisition of conservation easements and similar techniques promoting land conservation.

2.1.5 Recommend that Pitkin County design and distribute pamphlets to educate citizens about the need of all residents to take simple and thoughtful steps to encourage tolerance of agricultural practices and to protect: abundant wildlife through habitat preservation and restrictions on dogs, noise and lighting; night skies through lighting regulations; and superior water quality through stream set backs and other requirements that minimize degradation and sedimentation.

2.1.6 Aggressively pursue the control of noxious weeds within the Caucus Area.

2.3 Water Use, Quantity, and Quality Goal

Strict protection of all creeks and tributaries, and of all adjacent wetlands and riparian areas, is an absolute priority against which any development activity and every development application shall be measured. Preservation of water quantity, including established minimum instream flows, and protection of water quality are equally high priorities. Efforts should also be made to promote the preservation of fish and other aquatic habitat, shoreline integrity and vegetation.

2.3.1 Continue working with Snowmass Village, the Colorado Division of Wildlife and other agencies to establish a long-term, sustainable solution for protecting water quality and quantity (maintaining at least the minimum stream flow) in Snowmass Creek in order to protect the ecosystem of the Valley and preserve a thriving trout population and precious wetlands and wildlife habitat.

2.3.2 Protect streams, riparian areas, ponds, lakes, wetlands and other surface water bodies through diligent administration of the current County policies and provisions of the Pitkin County Land Use Code regarding surface water resources.

2.3.3 Protect Capitol Creek, Snowmass Creek, East Sopris Creek and other streams within the Caucus Area by seeking an amendment to the required minimum stream setback, contained in the Pitkin County Land Use Code, to require a minimum of 50 feet from the ordinary high water mark. The amendment should include a process by which the stream setback can be altered pending a determination of the County Engineer and the County Wildlife Officer.

2.3.4 Gather information regarding state and/or federal programs for funding fencing to help protect stream banks, riparian areas and water quality from impacts related to livestock.

2.3.5 Work to ensure the protection of ground water, particularly domestic wells, from potential pollution by poorly designed, inadequate or failing septic systems.

2.3.6 Prohibit buildings in flood plains, wetlands, washes and riparian areas.

2.3.7 Recommend that the County establish a system for analyzing the adequacy of a proposed water supply for all purposes associated with a development proposal including all domestic or commercial uses and other associated uses such as landscaping and fire fighting.

2.3.8 Recommend that Pitkin County study the possibility of incentives for the reuse of gray water for domestic irrigation and establish effective and workable regulations governing gray water reuse in order to eliminate environmental impacts and health, safety concerns related to such reuse.

2.3.9 Establish public education programs to foster the value of rivers and surface waters in order to prevent pollution and minimize the impacts of human activities on water quality. Special emphasis should be placed on education regarding the critical importance of maintaining in-stream flows particularly during dry years.

2.3.10 Install monitoring stations to monitor water quality and quantity in Snowmass, East Sopris and Capitol Creeks.

5.1 Road Goal

5.1.5 Recommend elimination of the use of magnesium chloride on all roads within the caucus area and recommend that the County seek environmentally less impactful solutions for road deicing in winter and dust suppression in summer.

Excerpts from Maroon/Castle Creek Caucus Master Plan
<http://www.aspenpitkin.com/pdfs/depts/7/mccmarooncastleplan.pdf>

Water Use, Quantity and Quality

Existing Conditions Analysis

Drainages

The headwaters of Castle and Maroon Creeks begin at Castle Peak (14,265 feet) and the Maroon Peaks (14,014 feet and 14,156 feet) respectively. Both creeks flow northward toward Aspen and drain into the Roaring Fork River on the northeast edge of town. While Maroon and Castle Creeks are the main drainages in the area, several smaller creeks, including East and West Maroon, Willow, Conundrum and Express Creeks drain into Maroon and Castle, respectively. The drainages support high quality wetlands and riparian habitat and are an integral piece of the recreational amenities provided in the Maroon/Castle area. Castle Creek also functions as one of the sources for the City of Aspen's water system and for snowmaking.

Water Services

City water is available to the Highlands Ski Area, but not beyond. All others properties are served by individual well.

Sewage Disposal

Properties along Maroon Creek Road are served by Aspen Consolidated Sanitation District (ASCD) as far as the Heatherbed Lodge. However, most properties within the Maroon/Castle planning area are on individual septic systems. The County is currently assessing the impacts of septic systems on water supply within the Roaring Fork Valley.

Objective

Strict protection of all creeks and tributaries, and of all adjacent wetlands and riparian areas, is a priority against which any development activity and every development application should be measured. Preservation of water quantity, including established minimum instream flows, and protection of water quality are equally high priorities. Efforts should also be made to promote the preservation of fish and other aquatic habitat, shoreline integrity and vegetation.

Implementation Measures:

1. Support and enforce all County policies addressing the protection of surface and ground water resources including, and most especially, the following:

“It is the policy of the County to preserve and protect its present water resources, recognizing the county's semi-arid character and that significant transmountain and transbasin diversions and the vested rights of senior appropriators have materially curtailed the availability of water resources. Furthermore, wetlands and riparian ecosystems, which are important to maintaining the overall balance of ecological systems; and are important plant communities, wildlife habitat and movement corridors, should be conserved, protected and restored. The County seeks to protect citizen's rights to permanently protected minimum stream flows in rivers and creeks, and to the preservation of remaining natural riparian areas and wetlands.”

2. Protect Maroon and Castle Creeks and other streams within the Planning Area by seeking an amendment to the required minimum stream setback, contained in the Pitkin County Land

Use Code, to require a minimum of 50 feet from the ordinary high water mark. The amendment should include a process by which the stream setbacks can be altered pending a determination of the County Engineer and the County Wildlife Officer.

3. Work to ensure the protection of ground water, particularly domestic wells, from potential pollution by poorly designed, inadequate or failing septic systems.
 - a. Require that the County Environmental Health Department aggressively enforce the existing Individual Sewage Disposal System (ISDS) regulations on all new development and redevelopment within the Planning Area.
 - b. Encourage the County to research progressive new technologies for wastewater treatment and modify its existing ISDS regulations and other administrative policies and procedures and other applicable Code provisions to accommodate new technology where it can be shown to provide comparable or greater protection for ground and surface water.
4. Prohibit buildings in flood plains, wetlands, washes and riparian areas.
 - a. Enforce the floodplain regulations and stream setbacks as regulated under the Pitkin County Land Use Code.
 - b. Require all land use applications, for properties containing streams, ponds, lakes, washes, wetlands or other surface water bodies, to include information regarding the extent of riparian habitat zone in order to adequately evaluate the impacts of development on riparian habitat.
5. Consider developing a system to evaluate legal and hydrologic proof of an adequate, sustainable water supply before approving development, including domestic, landscape features and institutional uses.
6. Study the possibility of providing incentives for the reuse of gray water for domestic irrigation; and establish effective and workable regulations governing gray water reuse in order to eliminate environmental impacts and health, safety concerns related to such reuse. Especially in the Rural/Remote zone district, explore acceptable and reliable off- the-grid systems.
7. Promote and/or establish public education programs to foster the value of rivers and surface waters in order to prevent pollution and minimize the impacts of human activities on water quality. Special emphasis should be placed on education regarding the critical importance of maintaining in-stream flows particularly during dry years.
8. Install monitoring stations as necessary to monitor water quality and quantity in Maroon and Castle Creeks.
9. Encourage methods for water softening systems that are environmentally sensitive.

Natural Environment

A. Wildlife

Existing Conditions Analysis. The Castle-Maroon Planning Area contains numerous occurrences of ecological communities that are of significant importance at the state and global level including a wide assortment of wetland and riparian systems. This area contains habitat for

federally listed Endangered and Threatened species including peregrine falcons, boreal toads, and Canada lynx as well as a plethora of U.S. Forest Service Region 2 Sensitive Species. Fortunately, the vast majority of these important habitats are on public lands – predominantly White River National Forest – and much of that is within the Maroon Bells – Snowmass Wilderness Area. The Castle-Maroon Planning Area contains thousands of acres of mule deer, elk, mountain goat, and bighorn sheep summer range but again, most of this is on Federal lands. While there are few true “migration corridors” within the area there are numerous migration patterns as defined by the Colorado Division of Wildlife. These include the Castle Creek and East Maroon Creek-Maroon Creek-Willow Creek routes.

It is important to note that elk that summer in this part of the elk range historically wintered from the southwesterly facing slopes above lower Maroon and Castle Creeks down to what is now the Aspen School Campus, Meadowood, the west facing slopes of Shadow Mountain, the former Moore Ranch, and down toward the Aspen Golf Course-Burlingame area. As this habitat was lost to development over time, the elk were forced to find alternative winter range. The only winter range left in this planning area is the west facing slopes above Castle Creek extending from the undeveloped portions of the west side of Shadow Mountain up to about 9800 feet and as far up Castle Creek as Castle Creek Valley Ranch. This is not an optimal situation, and should the Valley see a truly harsh winter these animals may be in dire straits.

Another concern in portions of the Castle-Maroon Planning Area containing private lands is the numerous wetlands and the riparian areas of Maroon and Castle Creeks and their tributaries. These riparian areas support four significant plant communities dominated by Drummond’s willow (*Salix drummondiana*), narrowleaf cottonwood (*Populus angustifolia*) or blue spruce (*Picea pungens*). At the lower elevations dominated by private land, the riparian areas and many of the riparian wetlands are degraded and surrounded by residential development, the golf course, and the Aspen Highlands Ski Area. Roads, associated with the above activities, parallel the riparian areas and cause siltation, erosion, and reduced ecological function.

Objective

It is of great importance to the residents of the Planning Area to preserve and protect the open space, drainage ways, plant species, cover and corridors for the healthy protection, reproduction, movement and migration of all native wildlife species in the Castle and Maroon Creek valleys, and to ensure that large contiguous parcels remain available for wildlife use and movement.

Implementation Measures

1. Require all existing and proposed developments to strictly adhere to the policies and regulations of the Pitkin County Land Use Code concerning wildlife including the following policy statement contained in the County’s Land Use Policy Guidelines.

“It is the policy of the County to ensure that proposed land uses (including structures) are compatible with the ecosystem of wildlife habitats and do not pose immediate, longterm or potential detrimental impacts to such habitats. The county seeks to preserve, restore and perpetuate native wildlife and plant diversity by maintaining sufficient habitat.”

2. Consider the adoption of land use regulations that include a broad perspective in terms of wildlife habitat including the concept of “biodiversity,” which places greater importance on preserving a broad spectrum of plant and animal species as opposed to a few “indicator” species.
3. Consider adoption of stringent policies and regulations to protect the numerous wetlands and riparian areas of both Maroon and Castle Creeks; and the remaining areas of elk winter range on the west facing slopes above Castle Creek as far up as Castle Creek Valley Ranch.
4. Establish educational information reminding citizens of steps they can take to protect wildlife and wildlife habitat including keeping dogs under control at all times and the dangers of using chemicals in the treatment of noxious weeds in terms of the impacts to wildlife.
5. Enforce dog restrictions within developments where such restrictions were required in the land use approvals granted by the County.

Excerpts from the Owl Creek Caucus Master Plan

<http://www.aspenpitkin.com/pdfs/depts/7/finalowlcreekplan.pdf>

Water/Sewer

A. Drainages

Existing Conditions

Spring Creek and Owl Creek are the two existing drainages in the area. Both flow generally from south and west to north and east. The Owl Creek Ditch also provides irrigation water to the area.

B. Water Service

Existing Conditions

In 2000, the County approved the Buttermilk Metro District to address road improvements and water service within a service area, which includes the Owl Creek Ranch and East Owl Creek subdivisions. The intent of the district is to provide potable water for domestic use and for fire protection for subdivisions which are already approved by the County and partially or fully builtout.

The special district service area, as approved, may not be expanded without County approval.

Objectives/Actions

1. In the event that water district expansion is requested, ensure that such expansion does not result in, or encourage suburban or urban densities or development to the extent that the rural character of the Owl Creek Valley is compromised.
2. For properties not included within the district, encourage shared water systems for new development; and require a hydro geologic analysis as part of subdivision or development review to prove that an adequate, reliable water source exists for the development proposed.
3. The Buttermilk Metro District is encouraged to develop and implement water conservation measures for the Owl Creek Valley.
4. To the extent possible, ensure that water rights for irrigation on historically irrigated properties be dedicated for irrigation purposes.

C. Water Quality

Existing Conditions

Historically, run-off from Owl Creek road has contained gravel and magnesium chloride which has at a minimum, impacted wetlands along Owl Creek. It is unknown whether irrigation associated with hayfields and pasture has had any impact on water quality in the area. If the planned paving of Owl Creek Road is completed, (see "Roads" section) water quality impacts related to gravel and magnesium chloride should be lessened or eliminated.

Objective

Monitor wetlands and wells to determine the extent to which (if any) water quality has been impacted by road runoff and/or agricultural practices. Modify run-off and/or erosion control regulations to the extent necessary to ensure that water quality meets state and local standards for health/safety and environmental quality.

D. Sewage Disposal

Existing Conditions

Properties within the Owl Creek Caucus are on individual septic systems. The County is currently assessing the impacts of septic systems on water supply within the Roaring Fork

Valley. Given the relatively new age of septic systems within the Caucus boundary, septic system failure may not be an issue.

Objective

Monitor water quality to determine the potential for sewage effluent impacts to water supply. Implement modifications to the *Individual Sewage Disposal System Code* as necessary to ensure that water quality in streams and wells meets applicable health/safety and environmental quality standards.

Natural Environment

A. Wildlife (See *Elk and Deer Habitat Maps in Attachment B.*)

Existing Conditions

Open space in the Owl Creek Valley contributes to the scenic value and rural character of the area. Fortunately, the irrigated pastures associated with the Owl Creek Ranch and East Owl Creek subdivisions are protected as common areas and will not be further developed. The most significant open space value remaining in the Owl Creek corridor is the wildlife habitat to the south of Owl Creek Road. The breeding and calving habitat, the migration corridor and the critical winter range are key pieces to the wildlife patterns of use in the broader area.

Migratory Corridor Mule deer use the western- most portion of the Planning area as a migratory corridor to move between summer and winter range. They migrate from their summer ranges on Burnt Mountain, north through Owl Creek, over the divide between Owl Creek and Brush Creek into Wildcat Ranch.

The Maroon Bells Snowmass elk herd (approximately 300 animals) summers across a large area throughout the northern third of the Maroon/Snowmass Wilderness area. Movement north toward winter range begins around the 4th week of September with most migration occurring in late October and early November. It is the southeast facing shale slopes to the north of owl creek road that provide winter range, severe winter range, winter concentration areas and critical habitat for some of the elk that don't continue on to winter range further north. While elk use the entire owl creek area to migrate, the primary migration corridor coincides with that used by deer in the western portion of the owl creek area. Owl creek remains as one of the major undisturbed migration corridors for deer and elk populations.

Breeding and Calving Specific north- facing slopes south of owl creek road contain aspen groves that function as critical habitat, breeding and calving areas for elk. This area also supports a diversity of bird species and small mammals.

Transition Range Hayfields and pastures are used by deer and elk as transition range during summer and fall until snow makes forage inaccessible.

Wetlands and Riparian areas Wetlands and riparian areas exist throughout the area, but are not mapped. Gravel and silt from roads and irrigated hayfields is having an adverse impact on at least one wetland on Owl Creek Ranch.

Objective

Preserve the wildlife habitat remaining in the Owl Creek corridor, as the breeding and calving habitat, the critical winter range and the migration corridor are key pieces to the wildlife patterns of use in the broader area.

Action Items

1. With the exception of parcels within the East Owl Creek Subdivision, and those within the AH, and AF-Ski zone districts, rezone the planning area from AFR-10 to a large- lot resource preservation-oriented zone district (Large Lot Conservation Zone and/or Large Lot/Low Density

Zone) with a minimum lot size of at least 35 acres. This change in zoning will more accurately reflect the current land use pattern and average density in the area and may help to preserve the remaining diverse wildlife habitat by keeping larger tracts of land open.

2. Develop and provide incentives for use of rural clustering guidelines in order to preserve larger tracts of critical wildlife impact and to limit the area of influence of homes on habitat. Ask members of caucuses to help review guidelines as they are developed.

3. Pitkin County and/or a land trust are encouraged to seek to obtain additional conservation easements in the area to maintain and provide continuity between habitats in the Willow Creek