

GREEN INFRASTRUCTURE

Just as communities benefit from planning their “grey infrastructure” (roads, subdivisions, schools, fire stations, utilities), communities can benefit from interconnected wildlife corridors, recreational trails, forests, wetlands, waterways, parks, open spaces, and other natural areas, also known as “green infrastructure.”

An interconnected system of open space such as forests, agricultural lands, farms, wetlands, wildlife corridors and parks can help to preserve the community’s natural resources and assets, and provide benefits to the residents, resources and wildlife. It helps filter pollutants from entering water bodies, absorbs storm water runoff and reduces the costs for man-made drainage systems. It can also provide flood prevention and mitigation, and helps prevent soil erosion and sedimentation of water bodies. By preserving this interconnected system, clean air, water quality, and natural resources can be sustained for future generations and enhance the quality of life in Sutton.

As land is subdivided and converted, open space is often fragmented into smaller and more isolated patches which can alter the way natural systems, such as wetlands, function. As these natural areas diminish, habitat diversity declines and the degradation of water, natural resources, and fish and wildlife populations occurs. The goal is to place development and open space where it is most needed and most appropriate, and to design development to minimize the long term impacts.

Identifying and maintaining the green infrastructure in Sutton is a much easier task than in, for example, the Core Area between Palmer and Wasilla, or Meadow Lakes, where rapid development has already threatened the infrastructure. Wildlife corridors and hunting opportunities near the urban centers have diminished, major drainage systems have been blocked or re-routed causing flooding and traditional trails are no longer available. Those denser areas are now struggling to regain some of the connectivity, trails, water sources and corridors that have been lost. By identifying these significant features in this Sutton Comprehensive Plan update, protection measures can be put in place to ensure that future development occurs in a way that minimizes negative impact to the land, the wildlife and the community’s quality of life.

Proactive planning can help guide future land development decisions, accommodating population growth while protecting community assets and natural resources. It is important to

understand that preserving environmental resources, such as water quality and water availability, does not require or imply public ownership of all of the land in the system.

Chickaloon Village Traditional Council is currently creating the Matanuska Watershed Ecosystem Based Plan (EBP). The primary goal of ecosystem based planning is to ensure the integrity of local ecosystems. Secondary goals are: protecting cultural activities; maintaining and building healthy and unified communities; and developing diverse, community based economies. The EBP focuses on lands currently owned by Chickaloon Native Village, but encompasses the entire Matanuska Valley, which are ecologically inseparable. The project is designed to help bridge the gap between Native and non-Native communities by serving both the Tribal community of Chickaloon Village and the larger community of the Matanuska Valley. Project findings from the Matanuska Watershed EBP may assist Sutton residents, landowners and business owners define, understand and address some green infrastructure issues. Additional information about the Matanuska Watershed Ecosystem-based Plan is available on the Chickaloon Village Traditional Council's website, www.chickaloon.org.

Recommendations:

- **Provide property owners with information about development options that enhance environmental features and that minimize negative impacts to wildlife corridors.**
- **Identify development options that protect natural functions, (such as the recharge of ground and surface water supplies, and wildlife habitat and corridors) while respecting the needs and desires of the landowners and other stakeholders, such as the open-space subdivision option, outlined in Title 27 - Subdivisions.**
- **Encourage the use of Chickaloon Village Traditional Council's Ecosystem Based Plan as a planning tool which identified and mapped waterways, wildlife habitat and corridors, wetlands, forests, natural hazards, erosion and fire prone areas.**
- **Encourage mapping of outdoor recreation and trail networks.**
- **Encourage protection of local natural resources of community importance.**
- **Protect natural systems prior to development.**
- **Where possible, link waterways, wildlife habitat and corridors, trails, etc. to create an interconnected system of natural corridors in Sutton.**
- **Participate in planning for any further reclamation efforts related to historic mining activities. Reclamation efforts should not damage natural revegetation that has already occurred.**
- **Ensure that additional mining reclamation efforts be coordinated with the input of the community of Sutton and the Borough.**

- **Ensure thoughtful community consideration of attempts to reclassify, lease or sell public lands for mining and natural resource extraction.**
- **Manage activities affecting air, water and land to maintain or improve environmental quality, to preserve wildlife habitat, to prevent degradation or loss of natural features and functions, and to limit risks to life and property.**
- **Identify, monitor, protect, and enhance the quantity and quality of the available watersheds, clean air resources and groundwater. Best available technology should be used.**
- **Encourage site-specific development that preserves environmental quality such as air, water, scenic viewshed, night sky and land quality. Site design that carefully takes into account open space, soils, slope, erosion and pollution should be considered.**
- **Encourage the use of the conservation subdivision concept and open-space subdivision incentives to ensure protection of the area's natural features.**
- **Encourage the Borough to develop a method to compensate private property owners (e.g. tax incentives) for conservation efforts.**