

**Guidance Document: Compensation and Mitigation Requirements for Easements  
on the City of Fort Collins Natural Areas and Conserved Lands.  
November 2011**

The mission of the Natural Areas Program is to “*protect and enhance lands with existing or potential natural areas values, lands that serve as community separators, agricultural lands, and lands with scenic values. Protection of natural habitats and features is the highest priority, while providing for education and recreation for the Fort Collins community.*”

Lands purchased and conserved by the Natural Areas Program (NAP) provide a wide variety of benefits to the citizens of Fort Collins and Larimer County that include fish and wildlife habitat, wildlife viewing, recreation opportunities, agricultural products, community separation and simply the value provided by open space views. Other benefits include water and air purification, water infiltration, flood control, habitat for pollinators of crops and natural vegetation, erosion control, and maintenance of biodiversity. Collectively these benefits are described as ecological goods and services (also called natural goods and services) and represent resources and processes that are supplied by natural ecosystems. Ecosystem goods are considered tangible items such as food, timber, and natural fiber. Ecosystem services are less tangible but just as integral to a healthy, functioning ecosystem. These services often go unnoticed and include such items as water purification and flood control.

The conservation community has long recognized that ecological goods and services have a financial value based in part on the fact they are difficult and costly to duplicate. Numerous studies published in natural resource and economic literature have delineated and quantified these ecological goods and services, and others have devised methodologies for placing a value on the ecological goods and services provided by conserved lands. NAP has selected a document prepared by the Trust for Public Land titled *A Return on Investment: The Economic Value of Colorado's Conservation Easements* (see Attachment 1) to establish the value of ecological goods and services on NAP lands. TPL conducted this analysis to determine Colorado's return on investments in conservation easements. As part of this project, TPL estimated the value of ecological goods and services provided by conserved lands in Colorado based on information gathered through a literature review of values previously calculated for the major land cover types featured in the National Land Cover Dataset, created by the U.S. Geological Survey. Ecological goods and services considered in the analysis include water supply, flood control, fish and wildlife habitat, recreation, aesthetics, carbon sequestration, dilution of waste water, erosion control, grazing, and agricultural crop production. While, this synthesis document will be used to establish ecological goods and service values for NAP conserved lands, NAP recognizes this is a growing field of study and will continue to pursue opportunities to better define and adjust the values. In all cases, ecological goods and service values will be adjusted on an annual basis based on the Denver-Boulder-Greeley CPI-U. Table 1 provides the value per acre per year for the cover types in Colorado; values are reported in 2011 dollars.

## **Compensation**

The Natural Area Program owns and/or manages over 35,000 acres of land within Fort Collins and in unincorporated Larimer County. As such, NAP is contacted with requests for easements and rights-of-way that cross conserved lands. The general policy is to avoid, to the maximum extent feasible, granting easements or rights-of-way for activities that will adversely affect the use of the land for meeting the community's goals for natural area protection and or community shaping. When easements or rights-of-way are authorized by City Council, efforts will be made to avoid and/or minimize environmental impacts and NAP will be compensated for the value of the property.

Compensation to the NAP will be based on the property's fair market real estate value as determined by accepted appraisal techniques, and the value of the ecological goods and services lost due or impacted by the project as described below in "Ecological Goods and Services Calculation."

## **Administration and Maintenance Fees**

Once a site is disturbed, not only is the value of the natural goods and services lost for a period of time, but it takes many hours of staff time to administer the restoration of the disturbed site. A base administrative fee of \$1,500 will be charged to process easement requests. The base administrative fee is due with the initial application packet. Staff will track its cost to administer the easement and will bill the Grantee for any cost in excess of \$1,500 based on staffs' pay rates plus 20% for overhead expenses. Staff will regularly inform the applicant of the costs the applicant is incurring during the administrative process.

Following final grading and initial seeding of the disturbed site and acceptance by the City, the NAP will be responsible for ongoing vegetation management, including weed control, mowing, and reseeded, as needed. The cost for the City to perform the vegetation management over the next five to ten years is calculated to be three thousand dollars (\$3,000.00) per acre of disturbance based on grassland / shrubland cover types. Vegetation management fees will be determined for other cover types on a case-by-case basis. The cost of this service will be evaluated and adjusted as needed.

## **Ecological Goods and Services Calculations**

The length of time needed for ecological goods and services to return to a pre-disturbance condition is difficult to predict. Since the time necessary for full restoration is difficult to predict the following assumptions are made: (1) a period of ten years will be used to estimate the length of time ecological goods and services are lost or reduced (2) ecological goods and services are lost in full for the first five years and compensated at one hundred percent (100%) of the assigned value, and (3) ecological goods and services are partially restored in years six through ten and compensated at fifty percent (50%) of the assigned value. Payment will be due in full at the time the easement is granted and will be based on the entire ten year period.

Table 1 Provides the per acre per year value for the cover types in this area (from Sargent-Michaud, J. 2010. A return on investment: The economic value of Colorado’s conservation easements. The Trust for Public Lands)

Ecosystem Type	Fee/Acre/Year (2011 Dollars)
Mixed Forest	\$891
Deciduous Forest	\$890
Evergreen Forest	\$890
Emergent Herbaceous Wetland	\$793
Woody Wetland	\$793
Scrub/shrub	\$617
Agriculture	\$286
Open Water	\$270
Developed – Low Density Urban/Open Space	\$196
Developed – High Intensity Urban	\$196
Shortgrass Prairie	\$88
Grassland/Herbaceous	\$86
Sagebrush	\$83
Barren	N/A
Altered or Disturbed	N/A
Developed – Oil/Mine/Quarry	N/A

**On-site or Off-site Mitigation**

NAP may select cash or mitigation as compensation for the loss in natural goods and services. Mitigation projects may occur on or off-site and include such items as:

- Habitat or vegetation restoration beyond what is disturbed by the project,
- Trail construction or repair
- Natural Area Public Facility upgrade or repair
- Removal or undergrounding of above ground features.

Preference will be given to mitigation projects that occur within or adjacent to the Natural Area affected by the easement. If additional acres are restored, preference will be given to the restoration of the same cover type within or adjacent to the affected Natural Area.

In all cases, the site impacted by the easement project will be restored and the mitigation project approved by Council.