The Economic Benefits of Greenways in the Pikes Peak Region

Executive Summary

Prepared for

The Greenway Fund

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Principal Authors

Tom Binnings & Jason Doedderlein

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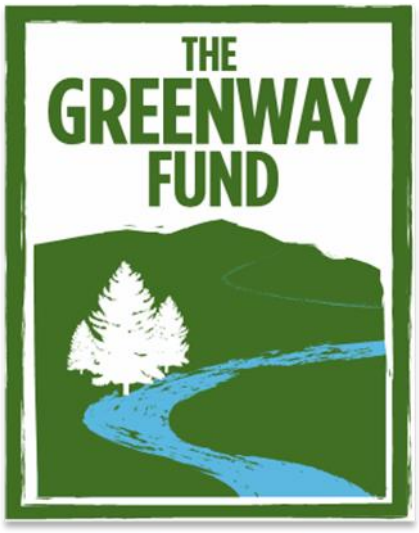

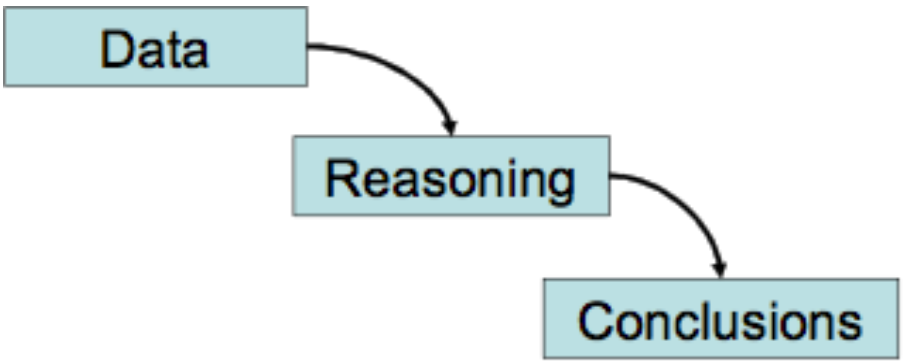

- Empirical Research
- Computer Modeling
- Rigorous Analysis

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PURPOSE OF REPORT

As assets, Greenways (defined below) offer positive community impacts that include recreational opportunities, improved community health, and aesthetic corridors where people can commute while attracting tourists and their coveted spending. Measurable primary economic benefits include local tax impacts, greater property values, and community health. Secondary benefits are evident but difficult to measure in an economic context, like better neighborhood interaction, educational opportunities and improved environmental health. Tertiary benefits include robust natural habitats along stream corridors and the ineffable human experience of sitting next to a beautiful, flowing stream, and are clearly beyond empirical economic quantification. All of these are predicated on water of a sufficient quality to be an amenity.

The purpose of this report is to answer the question, "what are the economic benefits of greenways." To consider the benefits, three community assets will be examined in detail:

- the Legacy Loop, encircling downtown Colorado Springs,
- the Midland Trail, connecting historic Manitou Springs and Old Colorado City while running between Garden of the Gods and Red Rocks Park, and
- Sand Creek, as it runs from Powers Boulevard towards the confluence with Fountain Creek through a low and moderate income area of Colorado Springs.

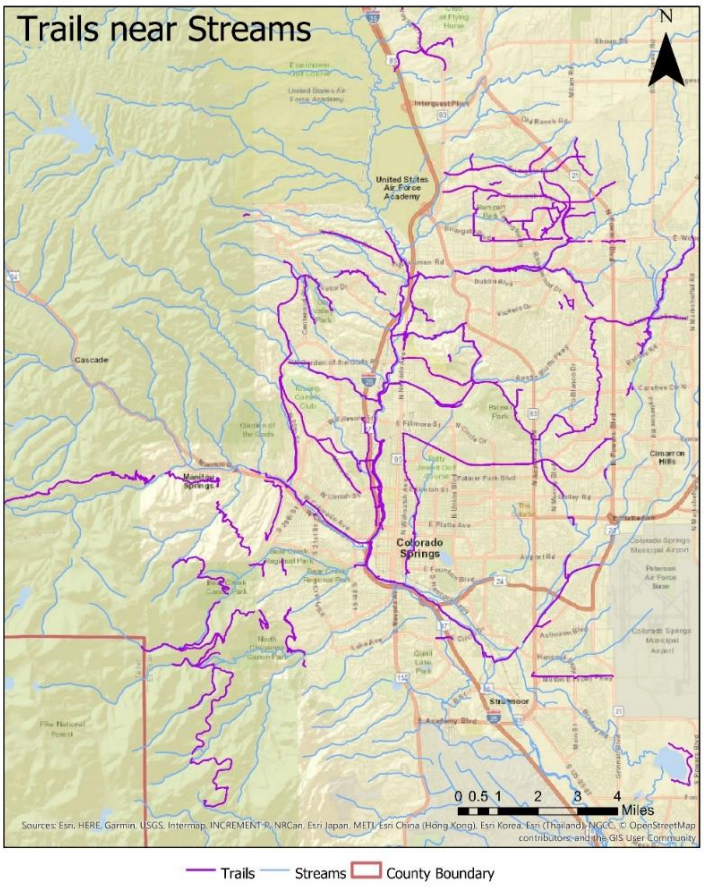
This exploration of greenway projects within a socio-economic context allows for comparisons of the different greenways. The information obtained during the research offers many insights, and a few surprises, as to the positive, and occasional negative, impacts greenways have on the surrounding area and the greater community at large.

From this perspective this report intends to:

- Enhance understanding of greenways for strategic and advocacy planning;
- Promote Return on Investment thinking when approaching capital investment in recreational facilities that accompany stormwater management structures;
- Advocate for the neighborhood level as a better basis for discussion, critique, and planning;
- Promote a better understanding of the economics of greenways;
- Create a tool that might be applied in studying additional greenway segments in the future.

GREENWAY DEFINED

The best definition for the term Greenway comes from the European Greenway Association, which in 2004 stated: "*greenways are both protecting environmental values and the network of routes that are allocated for only the motor less vehicles (on horseback, bicycling or etc.) in order to increase the health of environmental life*" (Salici, 2013).



This definition applies in El Paso County to include riparian corridors along Fountain, Monument, Sand, and Cottonwood Creeks. Greenways can also include trails along converted railroad beds and trails on mesa ridges. These greenways then connect to the numerous trails entering the mountains and Pike National Forest from Colorado Springs – many of which have been used by mankind for many centuries. Passing through the Garden of the Gods, the Mountain Ute Tribe followed Fountain Creek to the Ute Trail which originates in Manitou Springs.

EVOLUTION OF WATERWAYS

Urban greenways today follow the natural riparian drainage areas that existed before the city developed. As urbanization overlaid natural watersheds, resulting in changed hydrology through the urban area, these waterways were viewed as liabilities or nuisances in many cases. To minimize flooding and erosion urbanized watersheds were increasingly constrained and channeled with concrete, rip rap, and other materials.

Historically, river corridors were the main transportation corridors preceding and during the industrial age. Due to transportation access they often became locations for manufacturing and storage. The drainage areas also frequently became an entry point for poorer individuals when migrating into urban areas due to the availability of water, waste removal, open space, and access to resources.

From this perspective, urban greenways are emerging in urban areas, replacing land uses that have become rather obsolete, with uses more suitable for serviced based and wealthier economies. Most notable are natural areas for recreation and physical activity in modern societies which have become more prone to sedentary lifestyles. As the future evolves the emerging need for alternative transportation and "smart" cities is likely to continue driving greenways into greater use and desirability within the urban fabric.

The Flood of '65

A great regional example of this metamorphosis can be seen along the South Platte River and Cherry Creek in Denver, Colorado. On June 16th in 1965, within the space of four hours, fourteen inches of rain fell north of Palmer Lake (Prendergrast, 2015). This deluge sent a wall of water flowing down small tributaries to Plum Creek, and from Plum Creek the wall pushed into the South Platte River, several miles southwest of Denver. As the water pushed into the Denver metro area it began sweeping up houses, bridges, and everything that had been dumped into the river and piled along its banks, resulting in urban wasteland that some compared to a war zone.

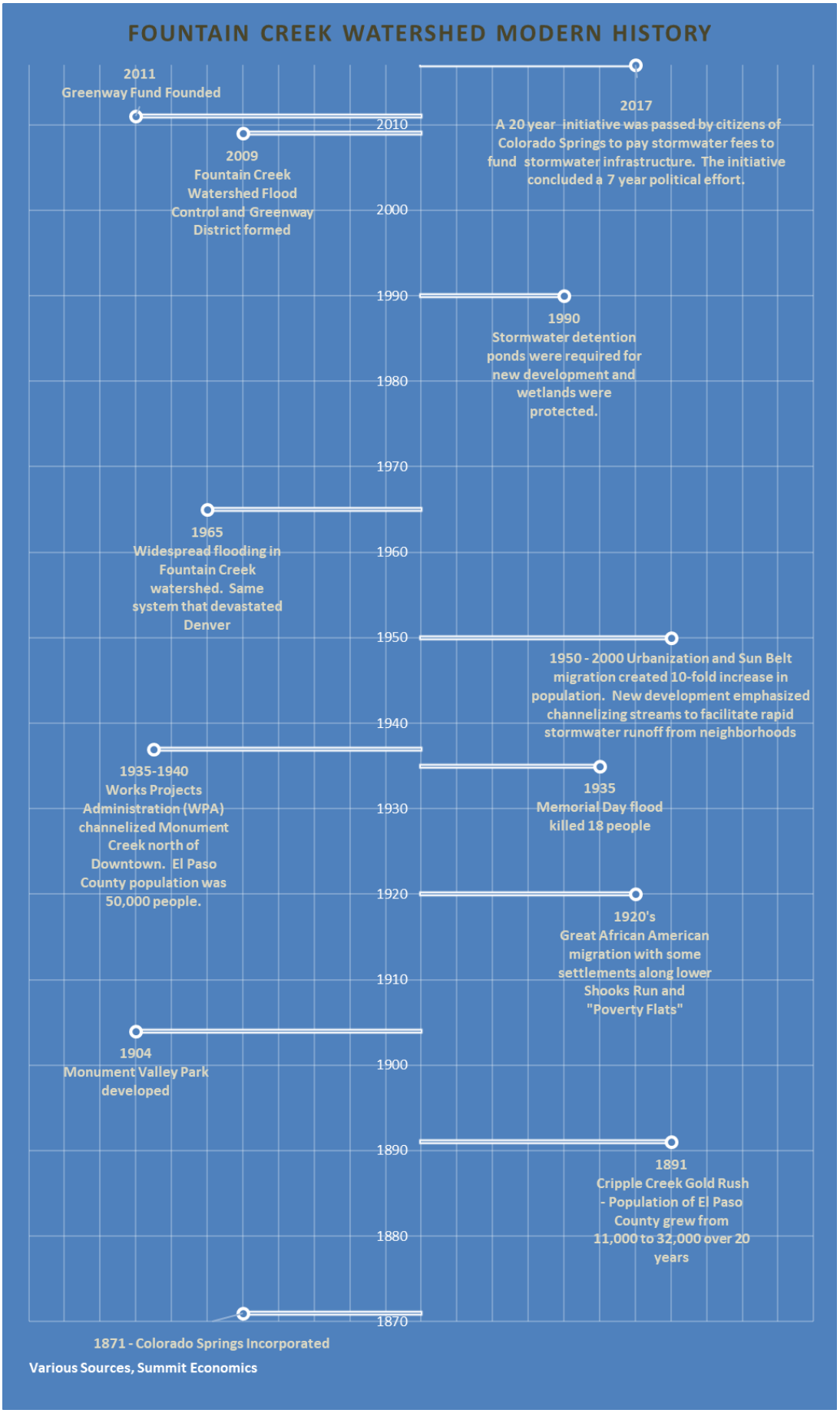
The 1965 flood required Denver to reevaluate how it had treated the South Platte River and the role humans had to play in impacting the natural environment. In 1969, the city formed the Urban Drainage and Flood Control District ("UDFCD") to begin the task of trying to maintain

the waterway and minimize the risk of future floods. In 1974, what was to become the Greenway Foundation was created with $2 million of city money with the task of improving the waterway, from an environmental perspective. That $2 million has been leveraged to create one of the most extensive and modeled greenway systems in the United States. A 1980 article in the Rocky Mountain News describes how quickly the transformation of the Platte happened: "In a brief space of five years, the Platte River Project has transformed a blighted, degraded river—little more than an open sewer—into a major amenity for Denver" (Warren, 1980). Today, the river is the centerpiece of Denver's urban development vision, with a plan to build upon what has already been accomplished because it has become apparent the economic opportunities exist when cities transform their waterways into assets.

Local Waterways as Regional Assets

The Flood of '65 also impacted El Paso County waterways, but not as dramatically as in Denver or the Memorial Day flood of 1935 when 18 people died in the Colorado Springs area. As shown in the timeline on the following page, the watershed of Fountain Creek has its own modern history, since the City of Colorado Springs was founded in 1871. In the early 1900's Colorado Springs had the foresight to develop Monument Valley Park along the creek; essentially creating an early greenway next to downtown. The adjacent picture shows the park in 1920. The rapid growth and dramatic urbanization of the last 50 years (adding at least 70,000 people per decade from 1950 onward), saw an emphasis on development that constrained floodplains and channelized creeks, runs, and ravines to quickly expel runoff into the main creeks. Although a national movement to preserve riparian areas by managing stormwater beyond basic flood control emerged in the 1990s, the Fountain Creek watershed was mostly built out with concrete-lined drainage channels. Lacking a sustainable funding sources for maintenance of these improvements, except in some of the smaller municipalities, the condition of the waterways, functioning solely as drainage channels, continued to degrade.

The local perspective valuing "greenways" emerged as new urban development increasingly valued connecting trail systems in new neighborhoods and the rail trail movement began emerging nationally. The modern era continues to see ongoing challenges. While Colorado Springs, which houses the majority of the County's population, recently adopted a stormwater funding mechanism, issues surrounding water quality remain. The challenges derive partially

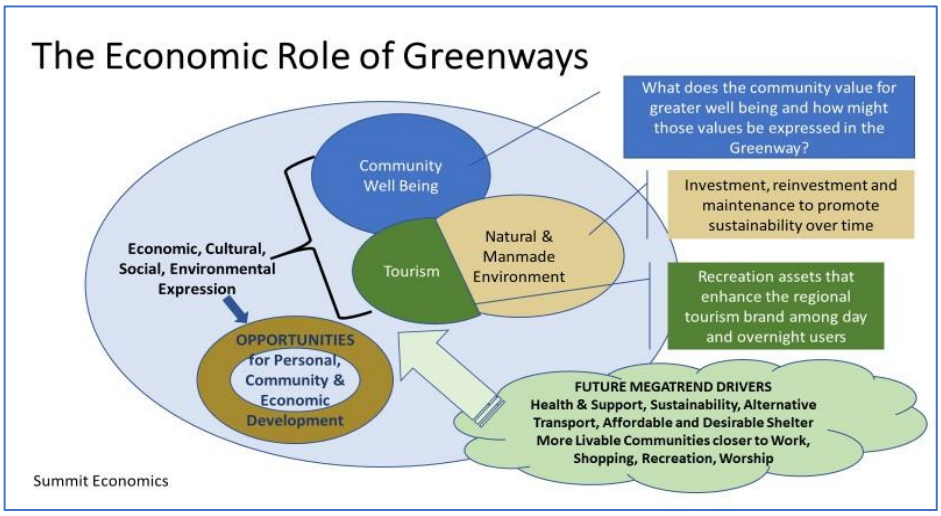

FOUNTAIN CREEK WATERSHED MODERN HISTORY
2011
Greenway Fund Founded
2009
Fountain Creek Watershed Flood Control and Greenway District formed
2017
A 20 year initiative was passed by citizens of Colorado Springs to pay stormwater fees to fund stormwater infrastructure. The initiative concluded a 7 year political effort.
1990
Stormwater detention ponds were required for new development and wetlands were protected.
1965
Widespread flooding in Fountain Creek watershed. Same system that devastated Denver
1950 - 2000 Urbanization and Sun Belt migration created 10-fold increase in population. New development emphasized channelizing streams to facilitate rapid stormwater runoff from neighborhoods
1935-1940
Works Projects Administration (WPA) channelized Monument Creek north of Downtown. El Paso County population was 50,000 people.
1935
Memorial Day flood killed 18 people
1920's
Great African American migration with some settlements along lower Shooks Run and "Poverty Flats"
1904
Monument Valley Park developed
1891
Cripple Creek Gold Rush - Population of El Paso County grew from 11,000 to 32,000 over 20 years
2010
2000
1990
1980
1970
1960
1950
1940
1930
1920
1910
1900
1890
1880
1870
1871 - Colorado Springs Incorporated
Various Sources, Summit Economics

from a tragedy of the commons created by overuse associated with urban storm and irrigation water runoff and partially from degradation resulting from inappropriate use of a community asset to be enjoyed by all people.

The assets become liabilities when water quality is unhealthy and citizens no longer view the greenways as safe corridors for travel on foot or bicycle. Faced with the trends, changes, and challenges, a greater segment of the region is becoming interested in the next chapter of the evolution of the Fountain Creek watershed – namely greenway development, redevelopment, restoration, and management.

ECONOMIC ROLE OF GREENWAYS

As shown in the adjacent graphic, greenways provide benefit to: 1) Community Well Being, 2) the Environment, both Natural and Manmade, and 3) Tourism. This report models the economic impact and benefits in four broad categories:



A. Real estate property benefits
B. Common non-property benefits, i.e. improved health, recreation, and transportation like biking and walking
C. Economic Development through tourism
D. Natural Environment - natural capital

Every household, neighborhood, or community has a sense of their overall well-being. Increasingly, economic literature is moving beyond traditional economic measures (such as market value created or gross production and output) to consider whether individuals or groups are "happy" however they might define it. "Happiness" is an element of well-being, as is health, social connectedness, economic security, sense of community and even culture. Research done by Buettner, a National Geographic Fellow, while not academically robust, leads him to conclude "our data show that people tend to be happiest close to water and when they have access to nature, green spaces, and fruits and vegetables. Walkability and bikeability also always correspond to higher well-being" (Buettner, 2017).

A natural role of greenways is that the presence of nature in urban areas can help keep the local area cleaner and cooler. It can also serve an educational role by exposing students and the population at large to natural elements and ecosystems. This can promote an ethos of natural sustainability and intergenerational obligation. If a quality natural environment is desired by the local population, they will use it and typically want to be closer to it. This can drive people's decision where to locate residences, stores, and offices.

On the manmade side of the equation, usage of greenways can cause neighboring real estate to change use – typically to more dense development, sometimes with a mix of uses within a

single structure (i.e., residential, hotel, office, retail). As greenways become heavily used for transportation as well as recreation, new commercial nodes can emerge as economic thresholds are achieved. Urban design is reoriented, and the greenway becomes the front door or show piece rather than an urban dumping grounds or eye sore.

Greenways are becoming a place to share with out-of-town visitors along with other unique community assets that drive local pride. In the case of the Pikes Peak Region, tourism, especially outdoor tourism, is a significant local industry and the potential impact of greenways is substantial.

The three realms depicted in the above graphic evolve over time based upon societal megatrends which influence most communities and sub-cultures. The megatrends are expressed in the area through economic, social, cultural, and environmental outcomes. Economically, a healthy greenway will increase property values and local tax collections. Socially, there may be more community engagement and social interaction among households and groups. Culturally, aspects of greenway may become sacred elements to be preserved. Environmentally, efforts to maintain the qualities of the natural setting persist. From these expressions emerge opportunities for personal, community, and economic growth.

Benefit Modeling Overview

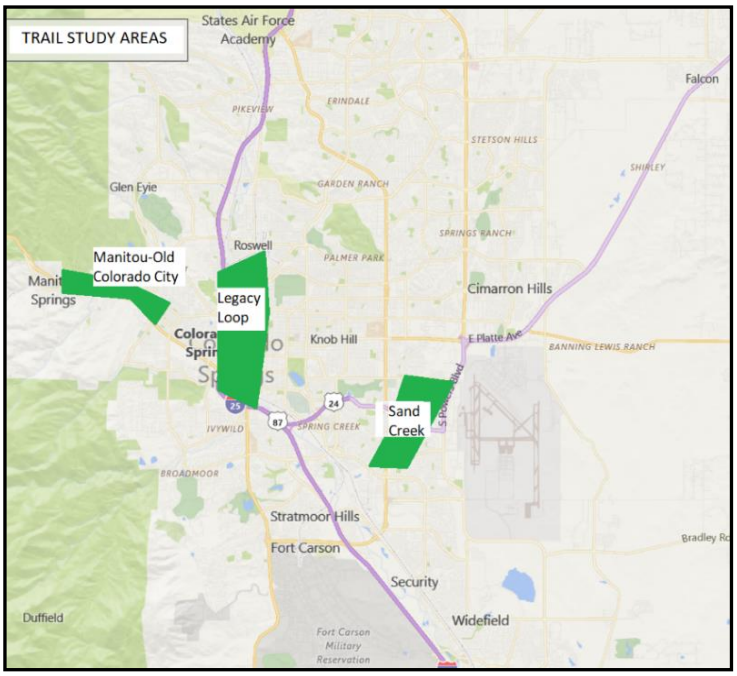
Economic modeling pursues quantification to get reasonable economic views of reality. Given that this study models greenways prospectively, or into the future, as well as for present conditions, it relies on existing observations, research related to economic benefits of greenways, and assumptions in guiding future trajectories.

The three areas and segments modeled are:

1. The Legacy Loop surrounding the central city core of Colorado Springs as it undergoes downtown redevelopment;

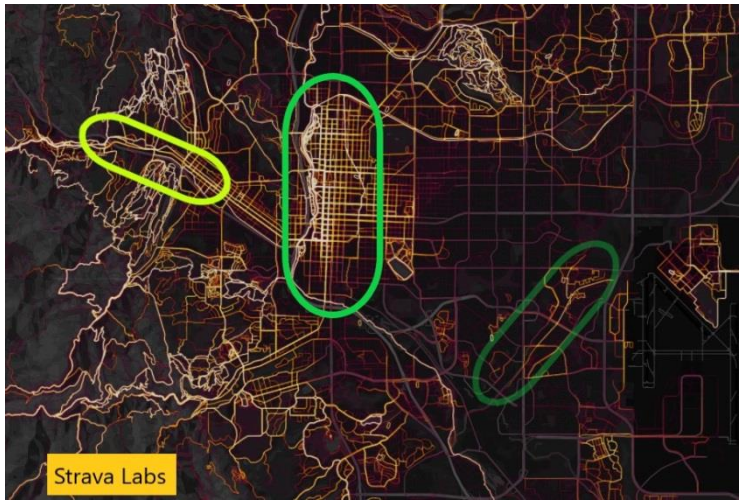
2. The Manitou – Old Colorado City section of the Midland Trail (MOCC) through "no man's land." In its heyday, the Midland corridor was a middle-class tourist area. Today, the corridor is the recipient of substantial public investment for road and transportation improvements after years of decline, and

3. Sand Creek through southeastern Colorado Springs between Hancock and Airport in the area to the west of the Colorado Springs Airport and Powers Boulevard.



The modeling was first done for the Legacy Loop and then refined before being applied to the MOCC and Sand Creek. The El Paso County Assessor's office 2017 data set was used to aggregate property values and other household information for various areas within the county. The information allowed for comparisons of locations near greenways to similar neighborhoods further away. The relative use of these greenways was derived through observation, heatmaps generated by Strava Labs (see following map), and research done primarily by Dr. John Crompton of Texas A&M University.

The Strava heatmap combines the levels of running, hiking, and biking activity based upon data warehouses provided by active trail users wearing GPS enabled exercise devices. The map clearly shows more intense uses (bright white) accessing mountain trails to the west, the west side of the Legacy Loop and Downtown Colorado Springs, regional parks (north and south of the Midland MOCC) and northeast of the Legacy Loop (Palmer Park). On a relative basis Sand Creek has low usage, Midland MOCC and the eastern half of the Legacy Loop have moderate usage, and the western Legacy Loop has high usage.



Dr. Crompton's research on the economic impact of parks on surrounding or proximate properties is extensive. The model uses his research findings as a foundation[1]. He concludes that there is a "proximate value" associated with real estate and greenspaces. Greenspaces exert a definite influence on surrounding property values; especially those within 500-600 feet of the greenspace. The impact on value, can be positive or negative and generally falls within the range of +20% to -15%. Distances up to 2,000 feet from greenways are also impacted, but to a much lesser degree.

Residential Values Relative to Baseline	Legacy Loop	Sand Creek	Midland MOOC
Existing			
< 500 Feet of Trail	13.1%	-1.1%	4.2%
500 to 2,000 Feet of Trail	1.5%	1.9%	2.5%
Remaining Potential			
< 500 Feet of Trail	6.9%	21.1%	15.8%
500 to 2,000 Feet of Trail	2.2%	0.7%	1.5%

El Paso County Assessor, Summit Economics

The Legacy Loop, which is by far the most used trail, shows an existing average price premium of 13.1% for the <500 feet group relative to the baseline. Moving to the 500 - 2,000 feet zone along the Legacy Loop, the average price premium drops to 1.5%. In contrast, residential properties within 500 feet of the Sand Creek greenway show lower values than their baseline comparable on average. This implies the housing market views Sand Creek as neutral or slightly negative closer to the trail. The Midland MOCC greenway shows a 4.2% premium within 500 feet which is consistent with observation from the

[1] Before developing a model based on Dr, Crompton's work, valuation summaries were collected on residential property values in adjacent neighborhoods similar in terms of property size and age. The average values were then compared as a group based upon the distance the group is from the relevant greenway. The groups included residential properties within 500 feet of the greenway (the < 500 group), residential properties 500 to 2,000 feet from the greenway (the 500 – 2,000 group), and baseline properties adjacent to the 2,000 foot boundary, but beyond 2,000 feet from the greenway. All data was collected from the El Paso County Assessor's new platform. The link to the Assessor's system is http://community.spatialest.com/co/elpaso/#/Area-Overview/map/38.815245,-104.50332400000002,10

standpoint that the Midland MOCC has usage between the observed relative extremes of the Legacy Loop (high usage) and Sand Creek (little usage).

As an important reminder, this model is not a rigorous academic research study, but rather applies research findings to three cases. In doing so, we find the property groups appear conceptually consistent with limited observations of actual usage of the trails in the different greenways. We also find in the case of the Legacy Loop and the Midland MOCC that greater relative property values are found in the closer <500 feet group.

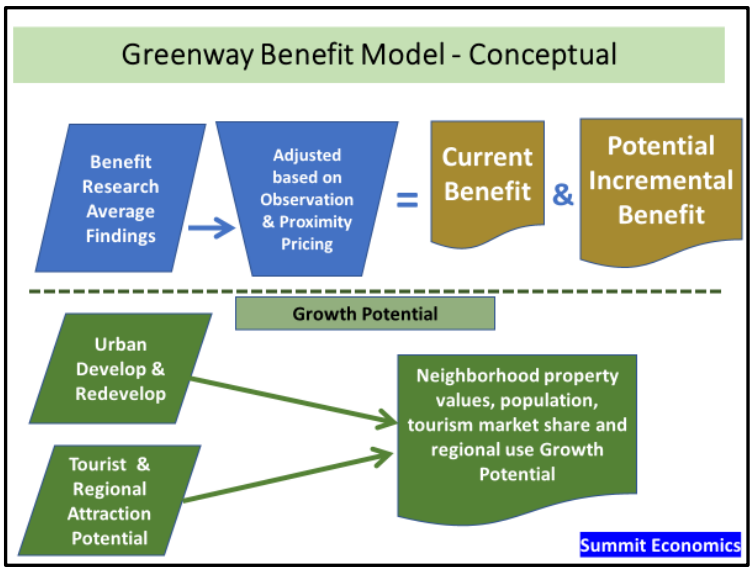
Benefits Included and Excluded

Included	Excluded
Property Asset Values	
Proximity Pricing Urban Development/ Redevelopment	Manmade asset quality
Common Non-Property and Non-Tax	
Health Recreation Transportation Tourism	Workforce Enhancement Jobs and income created from investment in greenways
Annual Tax Impacts	
Annual Property Taxes related to property/ asset values Taxes from sales to Tourists	Taxes from sales of recreational equipment or home improvements to regional residents
Community Development	
	Local Engagement Social Interaction Education
Natural Environment	
Natural Capital	Wetlands Flood Control Stormwater

Benefits Included

Secondary research was conducted on benefits associated with greenways in broad categories: real estate property asset values, common non-property including tourism and economic development, community development, and environmental benefits. The benefits used in the model are shown shaded in green in the adjacent table. They were selected because secondary research exists documenting the benefits, which provides greater justification in the modeling effort.

There are three dimensions considered in modeling. These are geography, risk, and time. As described previously only three segments of greenways were modeled to keep the effort focused rather than geographically dispersed throughout the watershed. Risk is assumed away so single best estimates can be derived. As for time, the model breaks out:



1. Estimated <u>Current Benefits</u> that appear to be realized based upon residential values compared to baseline (see adjacent graphic);
2. <u>Current Potential Incremental</u> benefits assuming levels of activity and value associated with successful greenways nationally are achieved given the current and planned general levels of greenway physical investment and programming to promote safe use and a positive image, and
3. <u>Growth Potential</u> from urban development and redevelopment assuming future greenway projects and programming promote the image and functionality of the greenways for recreation and transportation.

The amount of development/ redevelopment translates into population growth in the neighborhood which, along with the new asset property values, growth in the greenways' tourism market, and ability to attract individuals from throughout the region to work and play close to the greenway results in a forecast of long-term growth potential beyond current estimates (bottom right of graphic).

Summary Model Results: Property Assets Value Category

Except for areas within 500 feet of the Legacy Loop, little of the potential benefits have been realized at the present time. That leaves significant Current Potential based upon what secondary research literature suggests is achievable.

The Legacy Loop neighborhood already benefits the most from its greenway. That is due to its long and generally positive reputation as embodied in property values which, based upon research and valuation theory, results from greater usage and appreciation by neighboring residents. The Midland Trail between Manitou Springs and Old Colorado City and between Garden of the Gods and Red Rocks Open Space currently enjoys significant benefits, but it is rather muted based upon socio-economic and automobile traffic conditions within 500 feet of the MOCC. Sand Creek is a relatively unused greenway due possibly to the lack of regional connectedness with other greenways and trail systems. It also may suffer from a lower socio-economic stigma associated with safety – whether or not true.

Recap of Benefit Categories				
	Total Potential	Current	Current Potential Increment	Growth Potential
Sand Creek				
Population		35,013		3,617
Per Capita Benefits				
Total Asset Values	$ 7,923	$ 274	$ 1,373	$ 6,277
Annual Non-Tax Benefits	$ 438	$ 54	$ 267	$ 117
Total Annual Tax Impacts	$ 49	$ 1	$ 8	$ 40
As Percent of Total				
Total Asset Values	100%	3%	17%	79%
Annual Non-Tax Benefits	100%	12%	61%	27%
Total Annual Tax Impacts	100%	2%	17%	81%
Legacy Loop				
Population		50,431		7,690
Per Capita Benefits				
Total Asset Values	$ 13,604	$ 1,859	$ 1,456	$ 10,288
Annual Non-Tax Benefits	$ 750	$ 307	$ 201	$ 242
Total Annual Tax Impacts	$ 111	$ 10	$ 9	$ 92
As Percent of Total				
Total Asset Values	100%	14%	11%	76%
Annual Non-Tax Benefits	100%	41%	27%	32%
Total Annual Tax Impacts	100%	9%	9%	83%
Midland MOCC				
Population		15,235		4,370
Per Capita Benefits				
Total Asset Values	$ 7,282	$ 856	$ 1,084	$ 5,343
Annual Non-Tax Benefits	$ 966	$ 256	$ 277	$ 434
Total Annual Tax Impacts	$ 79	$ 8	$ 9	$ 62
As Percent of Total				
Total Asset Values	100%	12%	15%	73%
Annual Non-Tax Benefits	100%	26%	29%	45%
Total Annual Tax Impacts	100%	11%	11%	78%

The largest component of asset values (70% to 79%) comes from Growth Potential associated with vacant lot development and current land use redevelopment, which in all cases assumes higher residential density and 80% residential land use in those future developments. Overall, development and redevelopment triggered by successful greenways would be the most noticeable benefit along with actual usage on the greenways. The large Growth Potential

benefits from future development and redevelopment translates into the largest tax benefits coming from Growth Potential.

Summary Model Results: Common Non-Property Category

Included in the Annual Non-Tax Benefits (see above table) are Health, Recreation and Transportation (HRT) benefits. Details of the HRT benefits accruing to individuals are shown in the adjacent table. Overall, the total per capita benefit ranges from $353 to $516 per capita per year. Total Potential per capita HRT is the greatest along the Legacy Loop followed by the Midland MOCC and then Sand Creek. The greatest difference between the areas shows up as being recreation along the Legacy Loop compared to Sand Creek and the MOCC ($282 versus $124 and $139 respectively). This is because a much greater market share of recreation use originating from residents within 2,000 feet of the greenway is, and will continue to be, attributable to the Legacy Loop versus other outdoor recreational assets in the surrounding neighborhoods.

Total Per Capita Benefit Detail

	Legacy Loop	Sand Creek	Midland MOCC
Health	$ 141	$ 147	$ 199
Recreation	$ 282	$ 124	$ 139
Transportation	$ 94	$ 82	$ 127
Total Potential	$ 516	$ 353	$ 465

The Midland MOCC is considered the most heavily used for transportation and generates the greatest health benefit simply due to its proximity to four of the Region's major tourist attractions – Garden of the Gods, Manitou Springs, Old Colorado City, and Pikes Peak. It should also benefit from the road transformation and underpass at Columbia which adds to its Potential Increment without any new growth.

Summary Model Results: Economic Development

The Legacy Loop appears to enjoy some tourism activity from overnight visitors staying in the downtown area and certainly has neighborhood family and friends of tourists referring to the Legacy Loop. These benefits are also included in the Annual Non-Tax Benefits in the table on the prior page. It stands to benefit incrementally in the coming few years due to the Phase 1 Legacy Loop improvements off Fontanero Street as well as the completion of the Olympic Museum and hotels either planned or under construction. Sand Creek also realizes neighborhood family and friend referrals, but not to the degree of the Legacy Loop due to Sand Creek's apparent reputation within the neighborhood (based upon is lack of a proximity pricing premium). As a result, one can infer minimal tourist usage at Sand Creek, although it is modeled to have some Growth Potential from greater future connectivity to other trails, proximity to the National Museum of WWII Aviation, and the growth of the balloon tire bike industry which enables riding bikes in the bottom of Sand Creek.

Economic returns from natural capital are minor in all cases due to the lack of secondary research on the topic. This should change in the coming years as more data and studies become available.

MONITORING & IMPROVING GREENWAYS

As a result of the research and modeling associated with this study, we recommend consideration of the following specific elements to institutionalize the advocacy of greenways for the future health of neighborhoods and communities.

1. Map informal trails differentiating public and private lands.
2. Compile all maps and map links remotely associated with greenways and surrounding communities, as well as all background research, into an online depository.
3. Strava Labs heatmaps are based on their extensive database from exercise trackers like Fitbit. Such devices are increasingly used by people monitoring their health and exercise. The data might be acquired and utilized to create a usage index of various greenway and trail networks.
4. Many assumptions had to be made regarding users of greenways for this study. While there is extensive research regarding geographic impediments to use and socio-economic interactions, specific data is unavailable. Conducting a daylong annual census of trail users could provide great insight into the type and range of benefits. This data can easily establish trends over time to assist in identifying opportunities and challenges.
5. Monitor property values on a periodic basis such as every five years. As data becomes more readily available along with methods for sorting, segmenting, and combining it, the ability to monitor changes in proximity value and specific property investment increases. The process used in this study was based upon summary data metrics from the Assessor's office, but it could enhanced through emerging tools and database access to create more meaningful metrics at a reasonable cost.
6. Monitor redevelopment, including substantial commercial renovations. To establish the correlation with greenways, even if anecdotal, interview and/or survey the larger development, redevelopment, and renovation projects as they emerge. Recent work by Summit Economics along the South Platte and Cherry Creek Greenways in Denver yielded positive results.
7. Promote greenways through tourist, recreation, and alternative transportation channels, especially using social media and smartphone apps.
8. Entice suppliers of goods and services such as bike rentals, massage tents, and small public markets into greenway access points.
9. Overlay enterprise and opportunity zones over greenways and adjacent properties to possibly create special incentives for designs that orient improvements to greenways and promote higher density development adjacent to greenways.
10. Research innovative community engagement, bicycle, hiking, water, recreation, and exercise programs around the world to model greenway programs after.
11. Engage community, neighborhood and education groups to develop collaborations for increasing greenway benefits, sustainability, advocacy, and usage.
12. Attempt to position greenways comparable to regional cultural assets and regional parks. The advantage of greenways is they can provide alternative and healthier access to many destinations while providing recreational value.
13. Search for reasonable methods to incorporate business location decisions and workforce recruitment savings into the economic benefit model developed here.
14. Advocate for greenway development and regional connectivity with greenfield real estate developers as emerging trends in real estate suggest that the hottest product is the green space community. Many greenfield real estate developers are designing

their developments and communities around green space, building greenways and trails into their real estate offerings.

15. Become part of stormwater, flood control, and other watershed related planning and implementation efforts.

FUNDING MECHANISMS

Although funding is limited by definition, the positive economic impact of greenways as community assets that favorably increase adjacent property values may offer a new paradigm for thinking about funding mechanisms. Especially relevant in coming quarter century is the health narrative. Greenways are in the public eye; especially among younger generations, whose perception will dominate the future. This provides for new twists and narratives to entice traditional funding mechanisms for greenway development and maintenance. The traditional mechanisms include:

- General Funds & Bonds
- Philanthropic Funds
- Foundational Funds
- Government Grants

To continue expanding, maintaining, and improving urban greenways, a shift from traditional funding methods offers significant opportunities. The following funding mechanisms should be creatively explored.

- Tax-Increment Financing (TIF)
- Improvement Districts
- Enterprise and Opportunity Zones
- Concessions and Special Events
- Social Enterprise and Green Investing

Depending upon specific project locations, the following should also be explored:

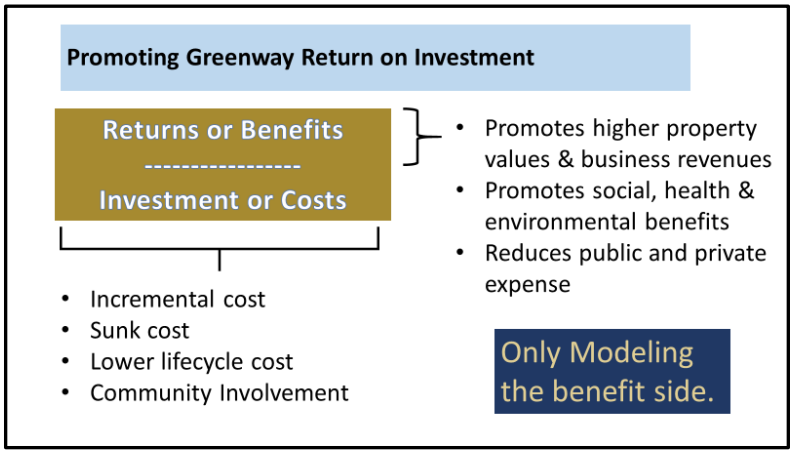
- Park fees during the redevelopment process
- Redesign where public funding already exists for infrastructure related to stormwater or private redevelopment
- Real Estate transaction fees for properties within a special district
- Greenway fees for unique and/or heavily used areas;
- Tourist taxes;
- Urban Renewal Authority infrastructure improvements;
- Additional tax on bicycle purchases
- Pubic Private Partnerships – possibly in conjunction with long-term land leases or land trusts
- Designated use of new development impact fees and tradeable credits by developers and private individuals, especially where there are obvious returns on natural capital

- GoFundMe initiatives among specialty recreationalists to make up for small gaps in funding.

CONCLUDING THOUGHTS

How will Colorado Springs and the greater Pikes Peak region value its greenways, as assets or liabilities. By reviewing three greenways within the Fountain Creek watershed, it becomes apparent that when viewed as community assets, greenways have a current and future positive impact on property values, community health, and a host of ancillary benefits like non-motorized travel and a robust natural environment.

As an economic analysis, two key strategies emerge for promoting greenways. The first is to consider the medium-to-long-term potential cost and benefits of major projects, including both new development and redevelopment. In this report we have modeled the benefits of embracing the recreational, water quality and health benefits of such an investment. These can be better understood within a return on investment (ROI) context. As noted in the adjacent graphic, improving any return on investment involves increasing the return or benefit side and/or reducing the investment or cost side. The second strategy is to advocate and organize through alliances that can take on small, high success projects.



On the benefit side, more usage is generally better, similar to highest and best use in real estate. However, if a greenway is not maintained, or usage is so intense in one area as to significantly conflict with residential land use, the positives can turn into negatives; resulting in deterioration of proximity values. The returns must be sustainable over the long-term via asset and environmental preservation.

On the cost side, lower cost investment for the same potential benefit can take numerous forms. For example:

- Piggybacking recreational amenities onto other investments like stormwater or flood control structures,
- Sustaining water quality at a level encourages activities next to flowing water,
- Connecting two or more large trail networks with a short trail connector,
- Reducing transportation and recreation impediments at key locations,
- Utilizing signage to promote usage,
- Promoting higher density development and redevelopment,
- Promote neighborhood involvement at the greenway level including the formation of exercise groups, artists groups, nature or birdwatching groups, community gardens, etc.,

- Taking advantage of existing natural and manmade features in the greenway,
- Encouraging design orientations that embrace greenways.

Other opportunities exist when viewing greenways with a sustainable planning strategy. The Pikes Peak Region is known for its scenic beauty, outdoor access, and climate. This is consistently considered the key strength of the region by its residents and tourists. While natural areas are generally associated with the mountains and mountain access, greenway restoration and enhancement has the potential to bring the outdoors closer to home. Currently, companies recruiting a younger, educated workforce tout the outdoors.

Fifty-two percent of all Millennial respondents to a 2016 survey focused on outdoor recreation indicated they volunteer for an outdoor organization (El Pomar Foundation Heritage Series, 2017). This bodes well for the future of greenways as alternative transportation corridors and provides an excellent, time limited opportunity for brand or image development of regional greenways since life-long brand preferences are established when people are in their late teens to early 30s.

While Colorado Springs, along with the entire state, has a strong reputation for physical health in indices such as the Gallup-Healthways Wellbeing Index, lower income households are more likely to suffer from chronic, lifestyle diseases such as diabetes. Targeted greenway advocacy in areas like the southern halves of both Sand Creek and the Legacy Loop should yield greater marginal health improvements over time. Similarly, Colorado and Colorado Springs rate high on emerging Happiness Indices and appear to be attracting more and more retirees. The appeal of nearby greenways is likely to increase among the aging population throughout the watershed. This will complement the affinity younger people and many of their employers have for the greenways.

Existing improved (partial or complete) greenways often traverse older urban areas. As is the case with the Midland MOCC and Legacy Loop, greenway investment can stimulate urban redevelopment with higher density which then increases the benefits received from the greenway. Such a self-reinforcing loop is what we expect and have modeled in this study and essentially places greenways on par with other infrastructure and community improvements used to stimulate development and redevelopment such as road interchanges and stadiums.

This economic investigation of the contributions of greenways in Colorado Springs reveals tremendous potential value if greenways are perceived as assets. Similarly, poorly maintained drainageways can impose a cost on neighbors resulting in lower property values. Capturing increased proximity value and the resulting higher property tax collections, when combined with the economic benefits of health, recreation, transportation, natural capital, and tourism, warrants community investment in future of the region's greenways. Such investment can help transform aging neighborhoods, become an avenue for community engagement and development, and enhance regional branding for economic development.