Regional Trail & Bikeway
Systems Plan
2006

SECTION V
ECONOMIC ADVANTAGES

Proud Past, Promising Future

SECTION V. ECONOMIC ADVANTAGES

A) The Health Benefits of Trails

Our community is facing a serious health crisis associated with obesity due in part to physical inactivity. According to the Clark County Health Department, over 60% of the adult population of our county is either overweight or obese. Providing people with easy access to trails can provide the necessary opportunity to change one's life for the better.

Obesity is associated with many serious health problems: heart disease, certain types of cancer, Type 2 Diabetes, stroke, arthritis, breathing problems, and psychological disorders, such as depression.

Here are some additional sobering statistics:

- Excess weight and physical inactivity account for more than 300,000 premature deaths per year in the U.S., second only to deaths related to smoking.

- The percentage of overweight adolescents has nearly tripled in the past two decades.[i] Safe trails allow children to develop habits for their health that can last a lifetime.

One reason people don't exercise enough is lack of time and convenience. By providing convenient, safe and inviting trails that link to work, school, shopping, etc. trails can allow people to combine exercise with necessary trips. Instead of driving to the gym to use a treadmill, for example, trails can provide convenient opportunities for people to get the exercise they need.

John Knapp, Clark County Resident, at one point weighed 450 pounds and was diagnosed with Type 2 Diabetes and at risk of losing his eyesight. He became a trail enthusiast when he was able to lose 200 lbs regularly by walking and bicycling on the Padden Parkway trail. "The trail saved my life," he says. Knapp struggled with managing his weight and disease through

diet and medication, but he knew he must add exercise in order to improve his condition. Then one day, the Padden trail opened up next to his home. He started to use it regularly to run errands, drop off movies at the local video store, and enjoy the fresh air and natural beauty of Clark County. Within six months, he was able to cut back on his medication, and within one year he was able to go off of it altogether. Within 18 months, he was able to get his weight down to 180 pounds and save his vision!

Recommended Amount of Physical Activity

According to the US Dept of Health and Human Services and the CDC, to be beneficial, physical activity doesn't need to be strenuous or time consuming. People of all ages can benefit from moderate amounts of physical activity, such as 30 minutes of brisk walking five or more times a week.[ii]

Seniors Can Benefit Most

According to the US Dept of Health and Human Services and the CDC, Americans age 65 and older are the least active age group in the United States: approximately 35% of those aged 65-74 years and 46% of those aged 75 or older report no leisure time physical activity at all! Most seniors (80%) have at least one chronic condition, and 50% have at least two.

Research has shown that seniors who have healthy lifestyles that include regular physical activity reduce their risk for chronic diseases and have half the rate of disability of those who do not.[iii]

Studies Show that Trails Lead to Greater Physical Fitness

Through comprehensive analysis and public involvement, the trail system proposed in this plan will provide the opportunity for community members to improve their overall health. Additionally, this opportunity is supported by empirical research. According to the Guide to Community Preventive Services, a review of relevant studies found that providing access to places for physical activity, such as trails, definitely increases the level of physical activity in a community. The median estimates from the reviewed studies suggest that creating or improving access to places for physical activity can result in a 25% increase in the percent of persons who exercise at least three times a week. [iv]

Healthy Lifestyles Benefit to our Economy

According to the state of Washington, it is estimated that the cost for physical inactivity in Washington State was more than $5 billion in 2002.[v] In the year 2000, the cost of health problems associated with obesity was estimated to be as high as $117 billion in the United States. Not only does increasing opportunities for physical fitness improve our waistline, but also our economic bottom line.

Research shows that providing the opportunity for community members to improve their overall physical health through

trails, will provide important economic advantages to our region.

For example, a 2004 empirical study of the relationship between the use of bike/pedestrian trails in Lincoln, NE, and the reduction of health care costs associated with inactivity, quantifies that for every dollar invested in trail development, nearly three dollars ($2.94) of public health benefits are produced.[vi] The study also found that the cost of increasing physical activity by providing and maintaining trails comes to about $98 annually per newly-active trail user. [vii] In addition to the health costs, there are serious economic ramifications of our physical inactivity. The proposed trail system while promoting healthy living can also provides economic advantages to our region.

"Every $1 investment in trails for physical activity led to $2.94 in direct medical benefit."

A 2004 study of using bike/pedestrian trails in Lincoln, Nebraska, to reduce health care costs associated with inactivity, quantifies the benefits of money spent on trail development from a health standpoint. The conclusion is that for every dollar spent on trails nearly three dollars ($2.94) of public health benefits are produced.[2][3]

[2][3] The study is Cost-Benefit Analysis of Physical Activity Using Bike/Pedestrian Trails by Guijing Wang, PhD, Caroline A. Macera, PhD, Barbara Scudder-Soucie, Med, Tom Schmid, PhD, Michael Pratt, MD, MPH, David Buchner, MD, MPH. It appeared in Journal: Health Promotion Practice; April 2005 Vol. 6, No. 2, 174-179

Scientific evidence from the Guide to Community Preventive Services shows that providing access to places for physical activity, such as trails, increases the level of physical activity in a community. The median estimates from the reviewed studies suggest that creating or improving access to places for physical activity can result in a 25% increase in the percent of persons who exercise at least 3 times a week. [4][5]

B) Economic Benefits of trails

Case Study: The Waterfront Renaissance Trail
Vancouver, WA

To appreciate how trails can benefit the Clark County economy, one need only visit the Vancouver water front via the Waterfront Renaissance Trail (WRT). The WRT is a 14-foot-wide, shared-use concrete trail that connects Vancouver's downtown area to the city's long-neglected Columbia River shoreline.

The trail was a key component to helping the city's Columbia riverfront area come alive with new investments in condos, hotels and restaurants, giving it a renewed vitality as one of the regions great places for gathering, socializing and experiencing the area's majesty and natural beauty. While the 4-mile trail cost about $1 million per mile, it has seen private sector investment about ten-times this amount to the tune of about $350 million dollars.

[4][5] http://www.thecommunityguide.org/pa/pa-int-create-access.pdf

The trail follows the Columbia River, passing Vancouver Landing, the Captain Vancouver Monument and the plaza dedicated to Ilchee, a Native Indian chief's daughter.

The Water Resources Education Center lies along the trail, as does the Old Apple Tree, Marine Park, Kaiser Viewing Tower and Shipyards, and Tidewater Cove. Along the way are shops, restaurants and great places to picnic, play, or just enjoy the view. The trail will continue east with the future Wintler Park extension.

Trails Benefit Real Estate Investments

One resident of the new condominiums along the Waterfront Renaissance trail said, "The trail gives everyone a sense of certainty that they will always have access to the waterfront". Such certainty can serve as a strong motivating factor for people to buy into such a newly accessible, revitalizing area.

According to a 2002 study by the National Association of Realtors, and the national Association of Home Builders, trails ranked as the second most important community amenity out of a list of 18 choices.

A study of real estate agents found that 70% of real estate agents use trails as a selling feature when selling homes near trails. 80.5% of them feel the trail would make it easier to sell. In Minnesota, 87% of home owners believe trails either increased the value of their homes or had no impact. On Seattle's most popular trail, homeowners with properties nearby but not adjacent sold for about 6% more than comparable properties elsewhere. Additionally, the U.S. National Parks Service notes that increases in property values range from 5 to 32% when adjacent to trails and greenways.[viii]

As well as helping raise the value of real estate, a comprehensive trail system helps improve a community's overall bottom line in many ways, from creating great public spaces that attract tourists and locals alike, to facilitating safe and healthy trips to work, school, etc.

The below sample of studies show how trails have brought direct economic benefits to commercial areas:

A. According to the Federal Highway Administration, the Mineral Wells to Weatherford Rail-Trail near Dallas, Texas, attracts approximately 300,000 people annually and generates local revenues of $2 Million.

B. In the months following the opening of the Mineral Belt Trail in Leadville, Colorado, the city reported a 19% increase in sales tax revenue.

C. A rigorous 2004 survey of trail use conducted for the City of Eugene, OR found that city businesses and stores benefited directly from biking and walking trails. The study showed that a significant portion of people were primarily attracted from out of town just to use the bike trails. Furthermore, the study showed that they often went to stores and restaurants in Eugene immediately before and/or after their bike rides. [ix]

Calculating Economic Benefits of Bicycle Facilities and Trails

At the website http://www.bicyclinginfo.org/bikecost/, there is a calculating tool that one can use to estimate various costs and benefits associated with a particular new trail project, calculating such things as the number of new cyclists that may start using the trail, the measured economic benefits, time savings, decreased health costs, etc.

One of the primary resources for this tool is the National Cooperative Highway Research Program's Project 7-14 report entitled *Guidelines for Analysis of Investments in Bicycle Facilities.* This report is designed to provide guidelines to evaluate the projected costs and benefits of bicycle-facility investments. The guidelines are designed to evaluate when facilities are warranted, which particular facility is most appropriate, and how to integrate bicycle-facility cost-benefit analysis into the overall transportation planning process. More information on the report can be found at: http://www4.trb.org/trb/crp.nsf/All+Projects/NCHRP+7-14

C) Environmental Benefits of Trails

Benefits to Transportation Choice and Air Quality

According to the National Household Transportation Survey, half of all trips in urbanized areas are three miles or less, easy distances for walking and bicycling.[x] Additionally, two recent polls found that a majority of Americans would like to bike and walk more.[xi] All of these statistics show the importance of providing safe and attractive bike paths and trails in our communities.

By increasing the attractiveness to walk or bicycle instead of to drive, there are benefits to our air quality, as well as to our communities. Studies have found strong correlations between bicycling and the 'percentage of arterial miles with bike lanes.[xii]

Providing safe and attractive trails encourages bicycling and walking. One study found a 23% increase in bicycle traffic after the installation of a bicycle lane;[xiii] another found that residents were 65% more likely to walk in a neighborhood with sidewalks.[xiv] Streets that provide travel choices give people the option to avoid traffic jams, and increase the overall capacity of the transportation network.

Air Quality Benefits

It has been estimated that, in 1991 alone, bicycling and walking trips in the U.S. replaced nearly 28.8 billion motor vehicle kilometers (18 billion miles). These non-motorized trips saved about 3.2 billion liters (850 million gallons) of gasoline which would have added 10.4 million metric tons of exhaust emission air pollution into the atmosphere (NBWS Final Report).

Tools for Conservation, Habitat Restoration and Environmental Education

As tools for conservation, trails and greenways preserve important natural landscapes; provide needed links between fragmented habitats and offer tremendous opportunities for protecting plant and animal species. Partially due to sprawl, "islands" of habitat dot the landscape, isolating wildlife and plant species and reducing habitat necessary for their survival. Trails and greenways provide important links between these island populations and habitat and increase the land available to many species.

* The preserved Pinhook Swamp between Florida's Osceola National Forest and Georgia's Okefenokee National Wildlife Refuge protects a vital wildlife corridor. This greenway keeps intact an important swampland ecosystem that sustains numerous wildlife species including the Florida black bear, timber rattlesnake and the Florida sandhill crane.

Greenways and other off-road trails also provide environmental benefits by linking existing parks, open spaces, and undeveloped lands while allowing for the preservation of the natural landscape. Such facilities are havens for flora and fauna, whether they are endangered, threatened, rare, or abundant.

A. In March 1999, 12,638 acres of critical wetland habitat along the Rio Grande in Cameron, Texas were added to the National Wildlife Refuge system, creating a larger ecological system needed by migratory birds.
B. The endangered black-crowned night heron have found homes along the Fox River Trail in Illinois. Trail Manager John Carlson stated, "The habitat for wildlife such as these rare birds has been dramatically improved by the rail-trail. The wildlife along the rail-trail is abundant compared to other sections of the river where there are private homes and manicured lawns abutting the river's edge." [xv]

Access for Educational Opportunities

As waterfront trails usually access some of the most interesting active natural and urban areas, they provide important opportunities for education about both the environment and a waterfront's vibrant and important urban and industrial history.

Trails and greenways are important tools for improving water quality. Greenways provide natural buffer zones that protect streams, rivers and lakes from pollution run-off caused by fertilizers and pesticides coming off of yards and farms. Such non-point source pollution degrades waterways and threatens water quality and the health of aquatic species.

According to the U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service, agricultural buffers, if properly installed, can remove up to 50% or more of nutrients and pesticides and up to 75% or more of sediment that would otherwise be washed into waterways.[xvi] Realizing the importance of these buffers, USDA launched an initiative to help landowners install 2 million miles of buffers by the year 2002, and in Washington and the Pacific Northwest, the USDA uses these buffers to help protect the $1 billion annual fishing industry.[xvii]

Flood Disaster Mitigation

River greenways mitigate damage caused by floods by absorbing excess water when rivers overflow. Unfortunately, many floodplains have been developed over the years. Today, almost 10 million homes are located in floodplains, placing millions of people in danger every time a river overflows. According to the Federal Emergency Management Agency (FEMA), flooding causes over $1 billion in property damages every year.[xviii]

i In 1999, 13 percent of children aged 6 to 11 years and 14 percent of adolescents aged 12 to 19 years were overweight.

ii Source: Centers for Disease Control:

http://www.dcd.gov/nccdphp/dnpa/obesity/contributing factors.htm , accessed on 10/2/05.

iii Source: US Dept of Health and Human Services and the CDC: Trails for health: Promoting Healthy Lifestyles & Environments, Brochure

iv http://www.fixcommunity guide.org/pa/pa-int-create-access.pdf

v The Health Management Associates, commissioned by the Washington State Department of health and Washington Coalition for Promoting Physical Activity

vi The study is Cost-Benefit Analysis of Physical Activity Using Bike/Pedestrian Trails by Guijing Wang, PhD, Caroline A. Macera, PhD, Barbara Scudder-Soucie, Med, Tom Schmid, PhD, Michael Pratt, MD, MPH, David Buchner, MD, MPH. It appeared in Journal: Health Promotion Practice; April 2005 Vol. 6, No. 2, 174-179

vii Ibid.

viii http://www.americantrails.org/resources/economics/MNecon.html

ix http://www.engine-er.gov/portal/server.pt/gateway/PTARGS_0_2_28845_0_0_18/20041S_Final%20Report_050904.pdf

x Clarke, A. National Household Transportation Survey, original analysis.

xi Belden, Russonello & Stewart, 2003

xii The FHWA (Case Study #1, 1994)

xiii Macbeth, A.G. (1999) Bicycle Lanes in Toronto ITE Journal 38-46.

xiv Giles-Corti, B., & Donovan, R.J. (2002). The relative influence of individual, social, and physical environment determinants of physical activity. Social Science & Medicine, 54 1793-1812.

xv Source: NBPC Technical Brief National Bicycle and Pedestrian Clearinghouse

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xvi "Buffer Srips: Common Sense Conservation," National Conservation Buffer Initiative, Natural Resources Conservation Service, U.S. Department of Agriculture, www.nhq.nrcs.usda.gov/CCS/Buffers.htl.

xvii Steve Lerner and William Poole, The Economic Benefits of Parks and Open Space, The Trust for Public Land, 1999, p. 41.

xviii Agency (FEMA), flooding causes over $1 billion in property damages every year.