Appendix D. The Benefits of Parks
The Benefits of Parks

Quality of Life
How do parks enhance quality of life? First and foremost, Parks maintain and improve the physical and mental health of all of its users. Access to fresh air, sunshine, and physical activity promote good health for a lifetime. Secondly, preserving natural areas supports local flora and fauna, protect water quality, and promotes stewardship programs. Parks also enhance communities through building relationships, including diverse user groups, and providing safe environments to play that encourages a “sense of belonging” which results in a common identity. Finally, parks support local and state economies through tourism, increasing property values of homes, and attracting investment.

Health Benefits
Healthcare costs have become the single biggest expenditure in U.S. society (Godbey & Mowen, 2010). Providing physical activity opportunities through the parks system provides inexpensive preventative health care. “Public parks and recreation services are becoming part of the healthcare system of the United States and are now recognized as such” (Godbey & Mowen, 2010).

Access to Fresh Air Improves Health
The majority of American adults (ages 12 and over) spend 90 percent or more of their time indoors. According to the Environmental Protection Agency (EPA), “indoor air is more than twice as polluted as outdoor air” (United States Environmental Protection Agency, 2011). Taking 15 minutes a day to go outside in a natural setting brings in the fresh air that is critical in maintaining good health.

Wind and weather naturally diffuse pollutants within the air, increasing the quality of the air that we breathe. This “high quality air” increases the body’s ability of oxygen uptake to one’s cells. A number of health benefits result from adequate oxygen uptake. “High oxygen levels in the blood have been linked to decreasing cancer growth, increasing lung capacity thus reducing the effects of respiratory disease and boosting the immune system” (Miller, 2011). In addition, getting out and breathing fresh air is shown to increase the body’s metabolism, aid in sleep, and improve chronic skin conditions (Miller, 2011).

Parks get people out into nature to play and recreate in the fresh air. As people play, they breathe in the clean air and clear oxygen that fuels the body toward greater health.

Access to Sunshine Provides Essential Vitamin D and UV Radiation
The sun’s rays do more for a person than give that golden tan. Sunshine provides essential vitamin D that helps strengthen bones and maintains their density (Gunnarsson, 2011). While certain foods contain vitamin D (like milk), the Vitamin D that can be obtained from sunshine is higher in quality and
quantity. “The recommended daily allowance [of Vitamin D] is about 600 IU, whereas we can produce more than 10,000 IU in about 30 minutes of full sun exposure, which is over 15 times more than the government recommends for us to take” (Gunnarsson, 2011).

Sunshine is the key ingredient in creating and keeping strong bones throughout a lifetime. Studies have shown that adequate access to Vitamin D strengthens bones for the long term to prevent osteoporosis and osteomalacia (Miller, 2011).

Vitamin D influences other chronic diseases as well. Adequate supplies of Vitamin D have been shown to combat multiple sclerosis, type 1 diabetes, and heart disease (Gunnarsson, 2011).

Sunshine is obtained from getting outdoors into it. Parks provide spaces in nature to access the critical rays that the sun has to offer. So, it seems that playtime in the sunshine is not only medicine for the soul, but is a critical component of a long and healthy life.

Recreation Relieves Stress and Depression
Mental health challenges from stress are becoming increasingly common in this demanding and busy world. As stress builds, the body reacts with an increase in adrenaline. The increase of adrenaline results in a “fight or flight” response with an increase in heart rate, sweating, muscle tension, feelings of anxiety, and depression (California State Parks, 2005).

Anxiety and depression produce serious mental health issues. These can manifest into feelings of despair, loneliness, and deep and prolonged sadness. It is estimated that 34 million adults in the United States will suffer from depression at some time in their lives (Kessler 2003). As a result of depression, 29,350 people committed suicide in 2000, which made it the third leading cause of death in the United States among 15 to 24 year olds (Minino, Arias, Kochanek, Murphy, & Smith, 2002).

Recreation and physical activity can alleviate the symptoms of stress, depression, and anxiety. Physical activity improves self-esteem by releasing chemicals called endorphins into the bloodstream (California State Parks, 2005). Endorphins are released during activity, such as walking, swimming, or hiking, and produce a feeling of well-being known as “runners high”.

Coupled with physical activity, the social connections that are encouraged by park use play a crucial role in alleviating the symptoms associated with depression and anxiety. Drawing people out of their houses and into the fresh air, parks provide a social atmosphere that encourages community connections (California State Parks, 2005). Community connections create “support systems” for individuals which have been found to encourage a feeling of belonging and a sense of well-being that reduce the feelings of isolation and loneliness that are associated with severe anxiety and depression.
**Play and Recreation Combats Obesity and Obesity Related Diseases**

Obesity is a major health concern and is closely linked to physical inactivity. The Centers for Disease Control and Prevention (CDC) have defined over weight and obesity as, “‘R’anges of weight that are greater than what is generally considered healthy for a given height that have been shown to increase the likelihood of certain diseases and other health problems” (Centers for Disease Control and Prevention, 2011).

Obesity is directly correlated to a sedentary lifestyle. More and more people are spending their free time indoors, in front of the television (California State Parks, 2005). Obesity and its related health problems impact all ages, genders, and socio-economic groups.

The Snohomish County Health District estimated that in 2007 upwards of 60 percent of Snohomish County adults are overweight or obese (Sayler, 2007). Additionally, a report from the University of Washington found that almost one in four 8th, 10th and 12th graders in Washington are overweight and the number is climbing (Sayler, 2007).

Individuals who are overweight and/or obese can have significant health problems. Lack of physical exercise coupled with obesity reduces the immune response in individuals. A reduced immune system is shown to exacerbate or cause mortality and chronic medical conditions such as: coronary heart disease, stroke, hypertension, diabetes, gallbladder disease, and respiratory disease, some cancers, arthritis, and osteoporosis (Centers for Disease Control and Prevention, 2011).

Parks support a healthy lifestyle that can result in a healthy weight. The CDC has found that recreational activities help people maintain a healthy weight and can potentially reduce and even reverse the effects of obesity (Centers for Disease Control and Prevention, 2011).

Snohomish County Parks provides a variety of opportunities for the community to remain or get physically fit such as walking the Centennial Trail, swimming at Flowing Lake, skate-boarding at Martha Lake Community Park, playing baseball at Lake Stevens Community Park, or just walking one of the vast number of park trails. Parks encourage the community to get out—and get active.

**Alternative Transportation**

Transportation is the largest single source of air pollution in the United States. Hundreds of thousands of gas consuming vehicles congest U.S. highways each day pumping hazardous organic and non-organic compounds into the atmosphere. “Pollution from cars, trucks, and other transportation causes over half of the carbon monoxide, over a third of the nitrogen oxides, and almost a quarter of the hydrocarbons in our atmosphere” (Union of Concerned Scientists 2008 p1). The big “three” pollutants that cause health officials and scientists the most concern are:

- Nitrogen dioxide (NO₂), which is a toxic by-product of gasoline combustion, is a very harmful and corrosive vehicle emission. Exposure to NO₂ can irritate the lungs and lower the body’s
resistance to respiratory infections especially within the young and the old (United States Environmental Protection Agency, 2011). Nitrogen dioxide poses a great threat to the environment as well. NO2 falls to earth as acid rain (United States Environmental Protection Agency, 2011). When the acidic rainwater comes into contact with plant life, it destroys the tissues. This has laid waste to thousands of acres worldwide.

- Sulfur-oxides (Sox), from emissions, react with sunlight to produce ozone, which is commonly known as smog. On a sunny day, this brown haze hovers above all traffic congested areas. Exposure to ozone can cause skin irritation and respiratory distress (United States Environmental Protection Agency, 2011).

- Carbon dioxide (CO2): Increases in CO2 in the upper atmosphere cause a warming of the atmosphere that scientists believe threatens the world with global climate change. Losses of critical water bodies and desertification will lead to food and water shortages, especially within developing nations, and could lead to widespread famine, disease, and potential conflicts. The warming of the oceans could lead to the loss of biodiversity and to the release of water from the ice shelf in Antarctica that will raise the oceans, resulting in loss of shorelines and in many cases displacement of millions of low-lying island inhabitants.

Providing alternatives to fossil fuel burning transportation is essential to offset some of the environmental and health damage caused in a “gas guzzling” society. Providing transportation corridors such as trails can encourage the use of walking or bicycling to work. The Federal Highway Administration found that in a 12 month period walking and bicycling displaced:

- 420 million gallons gasoline used in passenger vehicles
- Between 4.2 and 15.5 million tons of CO2
- Between 375,000 and 1.35 million tons of Carbon Monoxide (CO) (Ruthven, 2007).

Trails, such as the Centennial Trail, provide alternative transportation opportunities for Snohomish County residents. Bicyclists, walkers, and equestrians are afforded the opportunity to utilize an alternate means of transportation, to work and to play. This can decrease the overall use of cars on the roads, reducing traffic congestion and decreasing air pollution countywide.

**Environmental Protection**

Snohomish County Parks provide an essential ingredient to environmental protection through the conservation of open spaces. Snohomish County Parks boasts facilities that preserve shorelines, wetlands, forested areas, and meadows. Yet, often these open spaces provide ecosystem services that are over looked such as the natural balance of protection from pollution and flooding. The provision of open spaces provide inexpensive pollution control for the ground and water, reduces the risk of flooding, and preserves critical habitat for native flora and fauna.


**Water Management through Open Space Preservation**

Open spaces, especially forested areas and wetlands provide critical functions for managing water quality and quantity. Wetlands and floodplains slow water flow and are natural areas of water purification that results in aquifer recharge and overall increased water quality. Forested areas take up water into the root systems of trees and plants reducing water flow and risks from flooding.

Water quality, throughout the country, is under threat from storm water pollution. Stormwater is water that runs off of pavement, roofs, highways, and parking lots. As the water runs off these impermeable surfaces it picks up whatever pollutants it finds along the way. Fertilizers, chemicals, pesticides, motor oil, gasoline and many other pollutants run with the water into the nearest water body, such as stream, river or ocean.

According to the U.S. Government Accountability Office (Comptroller General of the United States, 1979), “on those lands with natural ground cover only 10 percent of precipitation becomes runoff, while 90 percent infiltrates into the ground. However, when 75 percent of the site is covered with impervious surfaces, 55 percent of the precipitation becomes runoff. On paved parking lots, 98 percent of precipitation becomes runoff. The run-off is often contaminated and must be treated.” (Comptroller General of the United States, 1979).

It is often necessary to install expensive water treatment facilities to treat contaminated surface or groundwater supplies. On the other hand, natural drainage and water management provided by open space can significantly reduce municipal costs for water treatment. “A 2002 survey of 27 water suppliers found that for every 10 percent increase in forest cover in a municipal water system’s watershed, costs of water treatment decreased by 20 percent” (Comptroller General of the United States, 1979).

In addition to a reduction in water quality, a loss of land cover exacerbates flooding during storm events. Floodplains and wetlands are nature’s way of controlling flooding. When they are paved over for construction or infrastructure the natural process that would slow the flood waters down and infiltrate them into the soil is changed and this can lead to extensive property damage and risks to human safety (National Flood Insurance Program).

Preservation of open spaces, such as wetland or forested parks, acts to mediate the issues associated with storm water run-off. Wetland plants take up pollutants into their root systems and help to trap and filter out contaminated sediments (United States Environmental Protection Agency). In addition, the specialized plants and soils slow the flow of the incoming storm water and allow it to infiltrate into the ground. This allows not only for inexpensive water treatment but for the ground water to be recharged (United States Environmental Protection Agency). Recharging the aquifer is critical for clean and sufficient water supply. Without this critical process the quality and quantity of water within the region is at risk.
Open spaces reduce the risks to flooding as well. Wetlands areas act as a sponge, slowing the flow of water by taking it up into the root system of trees and plants or absorbing it into the hydrophilic soils and plants (United States Environmental Protection Agency). Within forested areas, trees soak up excess water and anchor soils to the ground to prevent erosion (Coder, 1996). “Community tree and forest cover intercepts, slows, evaporates, and stores water through normal tree functions, soil surface protection, and soil area of biologically active surfaces” (Coder, 1996). Protection of these areas has the potential to significantly reduce property damage to homes, buildings, and infrastructure during storm events and could save federal, state, and local tax payers millions of dollars for disaster relief.

The open spaces of the park system provide pollution and flood protection that reaches far beyond the park boundaries. By preserving the natural system of water pollution and flood control, the whole region benefits from an inexpensive way to have clean and clear drinking water and an increased security from the dangers of flooding.

**Open Space Preservation Protects Biodiversity**

**PLANTS**

Biodiversity of native plants and animals are the earmarks of a healthy ecosystem. Native plants are specialized for the local region in which they grow. They provide food and shelter for native fauna and are crucial to maintain a healthy balance of nature. When natural ecosystems are disturbed, destroyed, or fragmented, native plants are at risk of being overrun and/or being replaced by non-native, and potentially invasive, species.

When a non-native species is introduced into an ecosystem the natural balance of the ecosystem is disrupted. Invasive species are opportunistic, often taking hold after clear cutting or habitat fragmentation. They “establish” before native plants can recover and will proliferate within the region. Exacerbating the problem, because they are non-native to an area that they invade, they typically have no natural processes to “keep them in check.” They are often unappetizing or even poisonous to local animals and will can choke out and displace native plants. “Of all 1,880 imperiled species in the United States, 49% are endangered because of introduced species alone or because of their impact combined with other forces” (Simberloff, 2000).

What makes matters worse is that introduced species do not stay confined to the area that has been disturbed or destroyed. They can cross boundaries into open fields, meadows, or forested areas. This allows for the opportunity for the invasive plants to “take over” an entire region of landscape (Simberloff, 2000).

Once an invasive plant has taken “hold” within an ecosystem they are difficult to control. “Globally, $1.4 trillion dollars is spent on invasive species each year: This is nearly 5 percent of the global economy” (Decker & Allen). Often non-native species require herbicides and/or costly eradication measures. For example, Japanese Knotweed rapidly invades stream sides preventing native vegetation from growing. It chokes out streams and reduces fish habitat and its vast root systems can dig under foundations of
houses. The only options to eradicate Japanese Knotweed is to either inject its stems with herbicides or dig them out roots and all. Eradicating knot weed is time consuming, labor intensive, expensive, and only moderately successful.

The key to keep invasive species out, and native species in, is to preserve large swaths of open space. Preserving parks and protected areas allows native plants to thrive and cover the land. Parks preserve the natural environment that encourages the health of native plants. They maintain and restore natural ecological communities allowing for the overall ecosystem to achieve the balance that is necessary to protect and preserve biodiversity (APA 2010).

Animals
The single greatest threat to animal biodiversity is habitat loss. It is estimated that 5,200 animals, including one in eight bird species face extinction, due to habitat loss from land conversion (National Parks 2011). Thousands of acres of natural space each day are converted to other uses (APA 2010).

Parks play a critical role in land conservation. Firstly, they conserve, often into perpetuity, large patches of undisturbed land. This can be forested areas, shorelines, meadows, or even deserts. And to many species, size does matter. For example, the Northern Spotted Owl (Strix occidentalis) faced near extinction in the early 1990’s due to rampant loss of habitat. The owl relies on undisturbed stands of mature, old growth forests for nesting. Large scale logging caused the population numbers of the owl to plummet.

Secondly, through the provision of trails and parks, these properties preserve habitat corridors. Habitat corridors provide connections between fragmented areas of land. They provide connections or links between patches of habitats. These may be provided through urban parks, buffer zones along trails, and a variety of other park types. These areas of “linkage” allow migratory animals and birds places of rest or protection when making their way to their nesting or breeding habitats.

Snohomish County Parks play a critical role in this effort. Throughout the county the Parks Department preserve sensitive wetlands, forested areas, urban corridors, meadows, and shorelines. Some examples include:

- **Spencer Island Wildlife Preserve:**
  - Estuary/ wetland that provides habitat for thousands of native migratory and resident birds.
- **Kayak Point Regional Park:**
  - Forested park adjacent to the Puget Sound - provides habitat for migratory and resident birds, as well as local marine mammals and fish.
- **Twin Lakes Park**
  - Urban corridor for migratory birds and animals.
- **The Centennial Trail:**
- Provides over 26 miles of trail with protected buffer zones that act as a habitat corridor for thousands of migratory birds and animals.

And the list goes on. Throughout the county, parks are provided that preserve critical habitat that allow for local, regional, and migratory animals to not only survive but to thrive within the increasingly urbanized environment of the county.

**Community Enhancement**
Parks provide opportunities for people of all walks of life to spend time together and play. They encourage family time and socialization with others within the community. Recreation brings families and neighbors together, encourages safer, cleaner neighborhoods, and creates a livelier community atmosphere (California State Parks, 2005). Parks and recreational facilities also help improve a community’s image, socioeconomic status and enhance the area’s desirability.

The community is built through a tapestry of associations. A sense of belonging is critical to building strong neighborhoods with social connections. Parks get people together. They help weave the family, children, different ethnic groups, the disabled, and the elderly into a cohesive network.

**Strengthens Family Bonds**
Families are increasingly taxed for time together. Demanding work schedules, homework responsibilities, and after school activities put stress on the family unit. Quality time spent together is a critical component to promote a healthy family unit.

Families that play together often stay together. Leisure time spent together has been shown to strengthen marriages and connect children with their parents. Playtime together can build strong family units that encourage the health and well-being of adults and children alike. “When families participate together in leisure activities bonding can occur and the related benefits can include family satisfaction, interaction and stability” (California State Parks, 2005)

Parks provide recreational opportunities where families can bond and build close relationships. Quality time spent outdoors without the distractions of the television, internet, or video games gives families the opportunity to enjoy each other while they experience nature. Activities such as picnicking, camping, or going on a family hike encourages building the critical social ties that keep families healthy, happy, and together.

**Develops Healthy Youth**
Physical activity and recreation plays a fundamental role in a “child’s mental, physical, social and emotional development” (Ginsburg, 2007). Getting out into nature to play can develop healthy cognitive function, promotes social interactions and emotional well-being, and improves behavior in school and at home.
Play is critical to develop a child’s curiosity and imagination. Whether in a playground or in a natural setting, free play allows children experience their world in a new and exciting way (Ginsburg, 2007). Finding a seashell at a local beach, gathering leaves for a art project, or using the fallen log for a game of “king of the mountain” encourage the sense of wonderment only nature can provide. This wonderment peaks the curiosity that can lead to development of a child’s critical thinking, cognitive skills, and emotional development. Cooperative activities encourage inclusion and acceptance along with social skills and abilities to handle conflict. Play not only promotes healthy cognitive function but healthy minds and bodies.

When children do not receive adequate exercise they can display feelings of anger and frustration in stressful situations. As stress builds up, so does adrenaline. If this adrenaline is not released through frequent and adequate exercise, children and adults will experience anxiety and at times depression. This can manifest itself into displays of hostility, aggression, and frustration. Receiving frequent exercise through play can help to release the “stress”, regulate mood swings, and improve attention span. A study of a school in Colorado found that providing 20 minutes of exercise a day will increase alertness and decrease “acting out” in all age groups (California State Parks, 2005).

Snohomish County Parks provide many opportunities for the youth of the region and local communities to experience nature and keep active. Numerous trails, playgrounds, beaches, fishing ponds, a community swimming pool and wading pool, a skate park are but a few of the programs that the Parks provide for the County’s youth and children. Adding to this are community and county activities such as: day camps, swimming lessons, tae kwon do lessons, and educational programs the Parks provides valuable resources to develop the mind and the bodies of the youth throughout the region.

**Promotes Cross Cultural Relationships**

We live in a culturally diverse world. Race, religion, or lifestyle, often cause groups to have little or no interaction with each other outside of the school yard or work place. This lack of social interaction can help to breed fear, cultural clashes, and ultimately isolation of ethnic and cultural groups.

Unfamiliarity with other cultures and ethnic groups often leads to fear and anxiety, increasing expectation negative outcomes with socialization (Gudykunst & Kim, 1995). The anxiety brought on by lack of knowledge and experience with the perceived stranger can lead to segregation in activities thus exacerbating the problem of separation. Generally these anxieties can be reduced by paying more conscious attention to the communication process, and by gathering more information on the stranger (Gudykunst & Kim, 1995).

Public spaces and Parks provide a backdrop that can bring different cultures and ethnic groups together. Recreation promotes positive contact between different ethnic groups in a non-threatening atmosphere (California State Parks, 2005). When recreating and “having fun” people tend to be less concerned with their differences. This reduces the unfamiliarity of the “ethnic” differences forging
relationships through shared commonalities and respect of the cultural differences. This can strengthen the overall community by creating a spirit of inclusiveness.

**Promotes Social Inclusion and Physical Health for the Disabled**

It is estimated that one in five people suffer from a disability. However, “people with disabilities are less likely to engage in regular moderate physical activity than people without disabilities, yet they have similar needs to promote their health and prevent unnecessary disease” (Centers for Disease Control and Prevention, 2011). Those in wheelchairs require regular physical activity to maintain a healthy weight and develop critical muscle tone in the upper body. Lack of exercise reduces muscle mass that is critical to keep active and healthy. When muscle mass is lost, whatever activity that the disabled person was able to do before becomes more challenging (Centers for Disease Control and Prevention, 2011). As activities become more challenging the disabled person may begin to gain unhealthy weight and feel depressed. In addition, the added extra weight can significantly exacerbate existing physical problems and even create new ones. Diabetes, hypertension, arthritis, osteoporosis, and coronary heart disease are common in people who have an unhealthy Body Mass Index (BMI) (Centers for Disease Control and Prevention, 2011).

One of the major obstacles to keeping the disabled active is a lack of choices in activities. Often there are barriers to physical activity and recreation that prevent the disabled from making healthy choices. These barriers can be either physical (the inability to gain access to the program through an architectural barrier) or they can be social (a fear of exclusion leading to isolation).

Parks provide choices in maintaining physically and socially active for the disabled. They provide opportunities for all users, disabled and non-disabled to enjoy nature and recreational programs and work to remove barriers to recreational access. The 2010 updated Americans with Disabilities Act (ADA) and the 2004 Architectural Barriers Act (ABA) require that parks provide a system-wide approach to barrier removal in the services they provide. Some standards within the newly adopted 2010 ADA standards are park specific. Examples of this include but are not limited to: disabled access to playgrounds, picnic areas, campgrounds, beaches, sports fields and courts, trails and a variety of other park provisions.

The newly adopted standards promote equality in park services and work to give the disabled community access to natural spaces to enjoy and recreate with each other and the community at large. This not only provides access to physical activity that can lengthen and improve the health of the disabled but helps them form community connections that are essential for mental health and well-being. Community connections provide support systems that can prevent feelings of isolation and exclusion.

The Snohomish County Parks and Recreation Department is committed to providing services and programs that are inclusive to people with a variety of abilities. The Park Department is currently
evaluating its parks for ADA accessibility and developing an action plan to improve our services for accessibility countywide. Currently the parks department provides ADA accessible camping in three of its parks (Flowing Lake, Wenberg and Kayak), an ADA accessible trail (the Centennial Trail), an ADA accessible pier (Lake Goodwin Community Park) and a variety of ADA accessible playgrounds, picnic areas, and wildlife viewing areas.

In addition, Snohomish County Parks provides special needs specific programs and activities through the Specialized Recreation Program. Activities through the Specialized Recreation program are tailored to bring together the disabled throughout the county to form social ties and build relationships. Some of the activities that the program offers are: movie nights, quarterly dances, summertime barbeques, and specialized outings that are geared toward having fun in a safe and nurturing environment.

**Enhances Community Safety**

Well maintained parks promote use and use deters crime. The presence of park users in and around the facilities is an excellent deterrent (California State Parks, 2005). A park that is frequently used by great numbers of people deters those who would use the park for illicit purposes. “When adjacent to residential areas, green spaces have been shown to create neighborhoods with fewer violent and property crimes and where neighbors tend to support and protect one another” (American Planning Association (APA) 2010p1)

Community identity is built on social connections. Well maintained parks provide an atmosphere of recreation and play that support frequent, casual contact among neighbors. They bring together young and old, rich and poor, diverse ethnic and cultural groups, the disabled and non-disabled. They create neighbors out of strangers and reduce crime through a community sense of connection. People are less likely to steal from a friend than a stranger or inflict harm on someone they know and spend time with (APA 2010).

Creating social connections to combat crime is not the only way that parks reduce crime in the community. It has been found that, “[t]ime spent in natural surroundings relieves mental fatigue, which in turn relieves inattentiveness, irritability, and impulsivity, recognized by psychologists as precursors to violence” (California State Parks, 2005).

**Opportunities to Connect to Nature and Promote Stewardship**

Parks provide opportunities to connect with nature. Each experience with nature emotionally connects the user to his/her surroundings. Activities like bird watching, walking or hiking a trail, swimming in the local lake, or even fishing with granddad allows people from all ages to enjoy and value nature at its finest. These experiences help to develop a lifelong relationship between the park user and the environment of the natural world.
This connection is the key component in promoting positive attitudes towards ecosystem preservation that often result in an improved stewardship of the land. And the more familiar the user becomes with a particular natural setting or park, the more likely that they will understand and appreciate the benefits that only nature can provide.

“Participants’ feelings of care and connectedness for the environment were higher while they were in the park and after they exited the wilderness than when they initially came to the wilderness according to a study of 62 groups in the Okefenokee Wilderness” (Borrie & Roggenbuck, 2001). The feeling of connectedness to a natural place increases people’s perception of the value of the environment. When people gain a new or renewed sense of appreciation for a particular natural setting it can spur a sense of obligation to protect it and others like it. “Ninety-five percent of Americans agree that outdoor recreation is a good way to increase peoples’ appreciation for nature and the environment” (ARC 2000).

This appreciation for environment often crosses boundaries into a sense of community responsibility to protect the environment for others and for the sake of the animal inhabitants. “Optimal outdoor recreation experiences can result in a state of connectedness with the earth and its creatures which in turn, can result in a greater sense of appreciation for the environment and the community of life” (McDonald & Schreyer, 1991).

**Economic Benefits of Parks**

Each year, people take to the “great outdoors” to recreate and relax. Whether taking out the bikes or kayaks for the day trip or “stay-cation”, packing up the mini-van with camping gear for the family vacation, or even hauling the boat or recreation vehicle to the nearest campground, people are spending time in the outdoors.

National, State, and local parks generate billions of dollars in tourist monies. “Across the U.S., parks, rivers, scenic lands, wildlife areas, and open space help to support the $502 billion tourism industry” (City of Columbia, Missouri, 2007). Only a small portion of these dollars is actually spent within the parks. As people make their way to their park destination they will spend billions of dollars within adjacent local communities for gas, lodging, food, recreational supplies, and community tourist attractions. Each dollar spent from tourism changes hands between the tourist, local business owners, and employees. Tourism dollars can be so critical to local economies that they are in a sense a “tourist town” and are reliant on tourism dollars. This is especially true with areas that are “destination” spots that entice wildlife enthusiasts to come in and spent money. Wildlife hobbies are big business and support millions of jobs. For example, “Sport fishing generated $108.4 billion in 1996, supporting 1.2 million jobs and wildlife photographers contributed 84.5 billion to the U.S. economy” (National Parks Association 2010p1).

**Increased Property Values**
Natural open space and trails are prime attractions for potential home buyers. When a park or protected area is located near or adjacent to residential property, the homes are considered more desirable and in turn can demand higher sales prices.

“According to research conducted by American Lives, Inc. for the real estate industry, 77.7 percent of all home buyers and shoppers in the study rated natural open space as either “essential” or “very important” in planned communities. Walking and bicycling paths ranked third. A community design which offers quiet and low traffic was the top ranked feature” (National Park Service, 1995).

The demand for green space can lead to an increase in property values within the community. One study found that the value of properties near Pennypack Park in Philadelphia increased from about $1,000 per acre at 2,500 feet from the park to $11,500 per acre at 40 feet from the park (National Park Service, 1995). Another study listed on the National Trails Training Partnership website, stated “housing prices declined an average of $4.20 for each foot of distance from a greenbelt up to 3,200 feet [and in another] neighborhood this figure was $10.20 for each foot of distance” (National Park Service, 1995). The increase in property values translates to augmentation of tax dollars being spent within the local government.

“A study of the impacts of greenbelts on neighborhood property values in Boulder, Colorado, revealed the aggregate property value for one neighborhood was approximately $5.4 million greater than if there had been no greenbelt.” This greenbelt is estimated in producing an additional $500,000 in property taxes that went directly into the local government (National Park Service, 1995).

**Attracting Investment**

Parks and green spaces attract investment from business and industry. Greenways, rivers, and trails can play an important role in increasing a community’s quality of life, and are attractive to businesses and corporations.

Office site locations adjacent to rivers, trails and greenway are attractive to business for a number of reasons. Firstly, green spaces and parks help promote fitness by providing convenient opportunities for exercise, such as walking, jogging, or exercise courses.

Businesses find that employees that keep physically fit have reduced healthcare costs and take fewer “sick days” than those who are not. “The American Heart Association conducted a study of 8,301 men and women employed at 35 corporations across the country and found that those who were the most physically fit, measured by a rigorous “step test” and body fat measurement, had a 37 percent lower absenteeism rate than those who were unfit. Another study by the American Heart Association reported that Control Data Corporation in Minneapolis, Minnesota saw a 30 percent reduction in medical claim costs and a 35 percent reduction in the length of hospital stays for people participating in a health promotion program” (National Parks Association, 1995). Healthy employees increase
productivity and contribute to a business’s fiscal “bottom line.” By locating a business near or adjacent to a natural space or park the employees stay healthy and the company increases profits.

Public parks and open spaces play a critical role in developing a community. They enhance quality of life by promoting physical and mental health, develop community connections and a “sense of place”, protect and improve the natural environment, enhance community safety, and support a strong economy. It is essential that they continue to be provided and protected for the continued and future health and well-being to all who—get out and get active.
Works Cited


