

SECTION

4

The Need for Trails and Trail Benefits

Part I – The Need

County residents, as well as many non-residents are already aware of existing County trails and the benefits, experiences, and other various opportunities they provide. Health, recreation, and transportation are just a few of these. The current demand generated by these trail users is greater than the existing supply of trails in many areas.

Countywide Goal 1:

Provide a system of “non-motorized trails” (trails) that meets the needs of County residents by providing scenic and enjoyable experiences that include connections with other public facilities such as parks, open spaces, trail systems of other jurisdictions, points of interest, and/or sites with educational or historical significance.

4.1 Trail System Assessment Findings

The Need

The residents of the County of San Diego have a need for trails because they provide a variety of experiences and benefits as well as an alternate mode of transportation. This County need for trails was determined by local surveys, public input, and additional research contained in the Trail System Assessment (TSA) of July 2001.

As the existing population in San Diego County grows, so does the demand for an adequate trails system. This Community Trails Master Plan (CTMP) attempts to address these needs on a countywide level by creating a

trails plan that offers participating communities, both local trails networks and opportunities to connect with neighboring trails systems or regional trails. The goal of the CTMP is to provide various mechanisms for communities to satisfy trail demand. The CTMP strives to assemble community trails networks in a way that achieves the highest level of quality for all users. As such, all trails are intended to be for non-motorized, multi-use.

The TSA found existing trail opportunities in San Diego County are varied and showcase the diverse scenery of the many parks, open spaces, cultural resources, and wilderness areas of the region. The region is graced with nearly ideal weather for trail activities on most days of the year. County residents have access to a wide variety of trail opportunities; from coastal boardwalks, to nature trails in city and county parks, to secluded trails up high mountain peaks and through remote desert lands.

Countywide there are over 1,400 miles of existing trails. Unfortunately, the majority of the trails are in the less densely populated eastern half of the County. Additional trails are needed closer to population centers in the western portion of the County so more residents have convenient access and can experience the recreation, health, and transportation benefits of trails.

The Experience

The County Trails Program (CTP) will consider trail experience a primary factor in development, rather than placing priority on the shortest or most direct route between two points. The solution is to offer a wide range of trail experiences by differing the route, destination, level of difficulty, length, and scenery within the County trails system.

Countywide Policy 1.1:

Continue to provide and expand the variety of trail experiences, including urban/suburban, rural, wilderness, multi-use and single use, staging areas and support facilities.

Typical trail uses range from hiking and walking, to mountain biking and horseback riding, with many users participating in more than one activity. Researchers believe that people who participate in outdoor recreation activities do so because they hope to gain certain rewards or outcomes. These outcomes consist of a wide variety of experiences, including, but not limited to, exercise, solitude, spiritual, challenge, being with friends or family, testing skills, and experiencing nature. The quality of the trail experience is directly proportional to the quality of the visual, natural, and educational environment through which the trail passes.

Countywide Policy 1.3:

Provide a variety of linear distances for users to experience, such as trails that offer long distance experiences and connect with other public trails systems, points of interest

or transit facilities; and trails that offer short distance and loop experiences.

A trails program should achieve an interconnected corridor that educates the user while also providing transportation and recreational benefits, and allows the user to enjoy environmentally sensitive habitats, cultural, historic and, of course, recreational resources. Within the unincorporated boundaries are unique opportunities to provide a diverse trails system to be enjoyed by various groups of the population; from walkers and hikers, to bikers and equestrians, from families to individuals, and for the purposes of exercise and leisure.

It is the goal of the County Trails Program to meet the needs of such a diverse assemblage of trail users, and to chart a workable system that will achieve the highest level of quality for all users. The County will strive to provide a diverse trails system that offers various trail environments and supports a multitude of trail user types.

San Diego County contains hundreds of miles of shoreline, coastal canyons, rolling foothills and rugged mountains, streams, rivers and lakes, and even a vast expanse of desert, all capable of being reached by vehicular travel in a few hours. The unincorporated County comprises 84 percent of the land area and contains an array of impressive landscapes, brimming with assorted colors, fragrances, sounds, forms and textures that shape and define quality trail experience.

Some existing trails have been officially identified as having State or National significance. The Pacific Crest National Scenic Trail is one such trail established by an Act of Congress in 1968. It begins at the Mexican border near Tecate and continues north over 2,600 miles to the Canadian border, giving it international significance. The California Riding and Hiking Trail was initiated by an act of the California Legislature in 1945, and has become a well-known and popular trail with state and historical significance and a designated 2000 Millennium Trail.

The Demand

Countywide, approximately 42 percent population growth is anticipated over the next 20 years. This growth will require expansion of public facilities and services in order to satisfy the additional population. Trails will be impacted by this growth and, like all public facilities, trail opportunities will need to be expanded to accommodate future population demand. Many trails can serve as an alternative form of transportation, which is becoming increasingly important as decreased air quality and increased traffic congestion create a greater need to reduce unnecessary automobile usage.

Opportunities for trails will also become scarce as open space is quickly converting to development in many parts of the County. The County has been making great strides in addressing this issue with the recent

adoption of the Multiple Species Conservation Program (MSCP) and increased efforts in obtaining and preserving open space areas throughout the County. Although the primary purpose of the MSCP is the conservation and protection of sensitive biological resources, it can also accommodate limited recreational activities, such as trails that are compatible with the resource values. The MSCP will also play a significant role in protecting the visual character and scenic quality that will add to the trail experience.

The TSA included a comprehensive assessment of opportunities and constraints, financial considerations, trails program design options, and assessment of public need. The TSA also evaluated existing trails and new opportunities associated with public lands, public rights-of-way, and lands within habitat management and conservation programs, open space preserves, and parks. It also evaluated incompatible land uses and issues associated with impacts to private property, agriculture, environmental resources, and voluntary and mandatory easement dedications. Among other things, the TSA found that while trail opportunities in San Diego County are plentiful, the increasing population is already taking its toll on existing trails. The experience of trails is changing, as unincorporated areas that were once considered rural and remote are now seeing new suburban growth. Many wilderness areas are likewise becoming increasingly threatened by development, and the County is rapidly losing open space and

opportunities for trails as the region's population continues to steadily grow.

4.2 Public Needs Assessment

A Public Needs Assessment was conducted as part of the TSA. The purpose of the needs assessment was to identify the level of service being provided by existing trails, and compare that to the level of demand for trails in the County.

The TSA assumed that the County would attempt to provide for the unincorporated region's population growth needs, while the cities would provide for their own trail needs as their populations grow. It is understood, however, that the County should recognize the magnitude of the growth in the cities and attempt to determine the potential impact to trails throughout the County. It is likely that the residents of the cities currently use trails throughout the County, and this use will potentially increase with the growth in population.

While the trail needs of cities were not directly considered, 11 of the 18 cities in San Diego County have an adopted trails plan. This is a strong indication of the importance of trails in the incorporated cities, as well as the County.

Cities within the County of San Diego with Adopted Trails Plans	
Carlsbad	Oceanside
Chula Vista	Poway
Del Mar	San Diego
Encinitas	San Marcos
Escondido	Santee
	Vista

The Public Needs Assessment included the following surveys

National and State Surveys

Many sources confirm the benefits and desirability of trails in communities. Conclusions drawn from state and national surveys that are relevant to trails in the County of San Diego are noted below.

- In 1996, the typical Californian went walking on an average of 74.3 days/year. Walking enjoys the highest participation rate of the 43 outdoor recreation activities surveyed with a participation rate of nearly 85 percent. Trail hiking (58 percent participation) and jogging/running (28.6 percent participation rate) were ranked 8th and 18th in popularity out of all of the responses. Mountain biking was ranked 27th with a 17.7 percent participation rate and horseback riding was ranked 32nd with a 14.2 percent participation rate. Walking and trail

hiking also rank high in latent demand and in general willingness to pay through an index comparing all 43 activities. Regarding changing attitudes for park and recreation facilities, 76 percent of Californians surveyed approve of developing more horseback riding, hiking, and/or mountain biking areas where no motorized vehicles are allowed (State of California, Planning and Local Services section, Department of Parks and Recreation 1997).

- Seventy percent of California recreation takes place close to home, within an hour's drive of the residence. The effects of an aging population in California will cause the greatest growth rate in non-strenuous outdoor activities such as walking. Consistent patterns of leisure behavior were found among all groups within California regardless of ethnicity, economic status, age, or disability. In every special population there is a strong desire for outdoor, nature-oriented activities (State of California, The Resources Agency, Department of Parks and Recreation 1983).
- When asked about various factors that contribute to quality of life and overall health, 57 percent of Californians (and 60 percent of San Diego/Orange County residents surveyed) believe that good recreation and associated facilities contribute a good deal to their overall

- health. This is an increase from 53 percent in 1996, and implies that recreation facilities will continue to be a priority within the State (California Center for Health Improvement/The Field Institute 2001).
- American Lives, Inc., a market research firm located in Oakland CA, published *Community Preferences* in February 1999. The report presents the results of a survey of recent homebuyers in Florida, California, Texas, and Colorado. The survey, conducted in 1998, was a follow-up to their previous surveys conducted in 1994 and 1995, and the results of the three studies determined consumer preferences for features and amenities in their neighborhoods. The studies found that natural open space, sidewalks, and walking and biking paths/trails are considered at the top of the list of desirable community features regardless of the type of home (new and resale) or what kind of community (both master planned and not). Two-thirds of homebuyers specifically stated that they want walking and hiking paths/trails and natural open space, rating them as very important or extremely important. Other desirable features are preservation of historic sites, interesting small parks, and wilderness areas. Trail networks are compatible with all of these features and can be the mechanism to provide many of these amenities (American Lives, Inc. 1999).
 - A Harris Poll conducted in December 1991 found that 46 percent of American adults age 18 or above had bicycled within the past year and that 73 percent of adults had walked outdoors specifically for exercise. According to a National Sporting Goods Associations survey, exercise walking drew 71.3 million participants in 1990, making it one of the fastest growing participant sports. Replacing automobile trips with bicycling and walking trips would yield environmental benefits relative to air quality and significant health benefits in terms of reducing the risk of coronary heart disease, stroke, and other chronic diseases (U.S. Department of Transportation, Federal Highway Administration 1994).
 - A report on livable communities states that green infrastructure is our nation's natural life support system. It consists of the interconnected network of watersheds, forests, wildlife habitats, greenways, parks, working farms, parkways, and other connected open spaces that sustain and ensure quality of life when incorporated into local and regional plans, policies, and practices. These planned networks of open spaces link urban settings to rural ones and, like other infrastructure, should become part of government operating budgets and management programs. The Department of Transportation plans to develop

training modules and workshops specifically targeting pedestrian and bicycle design in a continued effort to encourage community livability (Clinton-Gore Administration 2000).

- A Surgeon General's report concludes that regular physical activity that is performed on most days of the week reduces the risk of developing or dying from heart disease, diabetes, high blood pressure, colon cancer, depression and anxiety. It also helps control weight and build and maintain healthy bones, muscles, and joints. Examples of moderate activity include walking 2 miles in 30 minutes, running 1-½ miles in 15 minutes, and bicycling 5 miles in 30 minutes. One promising approach to achieving these activity goals for improved health is for communities to build bicycle and walking paths separated from automobile traffic (U.S. Department of Health and Human Services, Centers for Disease Control and Prevention 1996).
- Increasing walking and bicycling opportunities is becoming a fundamental goal of community design, transportation policy, and public health professionals. This includes promoting integrating these activities into daily trip-making routines, and shifting a portion of the 73 minutes the average person drives per day to walking and/or bicycling.

Only 6.4 percent of all trips made in 1995 were by walking and bicycling. There is opportunity to change those percentages by providing adequate trails and pathways as an integral part of a balanced transportation plan (U.S. Department of Transportation, Federal Highway Administration 1997).

- Ten out of 36 recreation activities identified in a nationwide survey were trail-related. Walking for pleasure is the nation's most popular trail-type activity. Forty-two percent of the elderly walk for pleasure. The proportion of bicyclists in the 12-and-older population has more than tripled since 1960. Participation for horseback riding has remained stable (U.S. Department of the Interior, National Park Service 1986).

In summary, state and national surveys indicate a high desire for outdoor activity and confirm that walking and hiking are consistently ranked among the most popular outdoor recreational activities. Nearly 86 percent of Californians enjoy walking, 58 percent enjoy hiking, 29 percent enjoy jogging, 18 percent enjoy mountain biking, and 14 percent enjoy horseback riding.

Surveys of San Diego County Residents

Three local survey methods were used in 2000-2001 to get an impression of the level of satisfaction that residents have with trails and to begin to understand who uses the trails. Users' needs, preferences, and general opinions were gathered to provide a snapshot of trail use and needs in the County.

Phone Surveys

Over 600 phone surveys were conducted to identify user characteristics in terms of trail-use purpose, frequency, time spent traveling to trails, and willingness to utilize County taxpayer funds and/or the County's general fund for trail construction, maintenance and/or improvement. The purpose of the surveys was to obtain a sampling of user characteristics and public opinion. The surveys were directed specifically to homeowners throughout San Diego County (incorporated and unincorporated areas) because the question regarding funding for trails (*Should taxpayer funds and/or the general fund be used to establish trails and/or maintain and improve existing trails?*) would produce more relevant results if asked of those who pay some tax directly to the County in the form of a property tax.

Thirty four percent (34%) of the surveyed San Diego County households indicated they use trails. The following information was also obtained:

San Diego County Trail Users Activity of Choice

84% Hike
36% Bicycle
4% Horseback Riding
* (Overlap due to those who are involved in multiple activities)

Repeated Trail Usage in San Diego County

(Of the 34% of respondents who indicated that they use trails)

12% More than once a week
14% once a week
7% Three times per month
33% Two times per month
34% only a few times a year

Respondent's Stated Purpose for Trail Use

84% Recreation and Leisure
38% Health
2% Transportation
* (Overlap due to those who utilize the trail for multiple purposes)

Respondent's Preferred Trail Length

39% Five miles or more
48% Two to four miles
13% One mile or less

In addition to the user statistics above, primary conclusions of the phone surveys include:

- Proximity to the population base is an important factor to be considered in locating and planning future trails. Community-type trails are most likely to fulfill this local need for easily accessible trails. Providing more trails in close proximity to the population base may also encourage some residents who do not currently use trails to use them in the future.
- Length of trail, time on trail, and trail experience are interrelated factors that should be considered in future planning efforts. Regional-type trails are most likely to fulfill the expressed desire for longer trails through a wider range of scenery and varied difficulty levels.
- A high degree of public support for use of taxpayer funds.
- Hikers are the largest user group and often prefer shorter trails that are closer to their residences.

Trail Organization Surveys

Questionnaires were distributed through organizations and the Internet asking about the type of user and their preferences for various aspects of trail use, including length, purpose for use, and support facilities needed. Over 200 individuals representing 97 organizations responded. Of the trail organization respondents, 32 percent were from Ramona, 23 percent were from San Diego, 13 percent were from Encinitas, 5

percent were from El Cajon, and less than 5 percent came from each other city or community planning area. Overall, 59 percent of the respondents were from the cities and 41 percent were from the unincorporated areas of the County. Primary conclusions of the trail organization surveys include:

- Connectivity of the system should be a priority for the County as a way to readily increase the trail availability.
- A significant need for a more cohesive trail system than what currently exists. Ideally this system will include more and improved trailheads so that the long-distance regional trails are more easily accessible to the residents.
- Though equestrians are the smallest user group, they have the largest need for long distance linear trails.

Field Surveys

Observation surveys and interviews were conducted at three separate trail locations in order to identify how and why existing trails were being used and learn first hand from people using trails what they liked and disliked about them. Observations were made about trail activities, user groups, and user characteristics. Interviews involved asking about: use frequencies; distance traveled; trailhead amenities; reasons for using the trail; type of trail preferred, and ratings for various aspects of the trail. Over 100 field interviews were conducted at three

locations. Survey locations were chosen to represent three distinct trail types in terms of their relative proximity to populated areas. One location was close to urban population, another was a moderate distance, and the third was much more remote. The primary purpose of the interviews was to obtain a sampling of user characteristics and public opinion.

Primary conclusions of the field surveys include:

- There is a need for future trails to be located in closer proximity to the population base. Community-type trails fulfill this need and are an important component of an effective trail system.
- It is important to continue to expand the range of trail experiences available to users.
- There is a need for increased trail opportunities close to the population base for general health and transportation benefits and because the largest user group is hikers. A range of trail locations and opportunities will continue to be in demand to satisfy the various users.

Community Surveys

In addition to trail use surveys, the County initiated a process to gather the input of planning groups. In order to balance countywide trail needs with a desired

community-based process, the County surveyed each Community Planning/Sponsor Group regarding interest in trails in their community. In general, a broad level of participation and support was expressed. Of the 26 Community Planning/Sponsor Groups surveyed, 22 indicated interest in having or expanding local trails. Eighteen submitted preliminary trail maps showing the location and type of trail network important to their communities. Trail maps submitted by 18 of the 26 Community Planning/Sponsor Groups indicate a desire to maintain or expand trails within their communities. This level of participation identifies that “close-in” type community trails are highly desirable and additional trails are needed in many areas.



*Popular Mountain Biking and Horseback Riding Trail
Lakeside*

4.3 Summary of San Diego County Trail Needs

Key points obtained during the public needs assessment can best be summarized as follows. There is an established need for trails in the County of San Diego. It has been recognized that many residents desire long-distance as well as short-distance trails that are easily accessible and provide a variety of trail experiences and lengths. Convenience, connectivity, and versatility of trails have consistently ranked high on the list of needs that users report.

- Approximately 35 percent of San Diego County households use trails at least a few times per year. (Equates to 980,000 people currently; 1.3 million people by year 2020).
- Of those trail users surveyed, 60 to 70 percent were hikers, 15 to 25 percent bikers and 0 to 5 percent equestrians.
- Overall, almost 75 percent of the homeowners surveyed (including trail users and non-users) responded that taxpayer funds should be used to establish or improve trails.

General conclusions drawn from the surveys were:

- Many residents desire long-distance trails and trails that are easily accessible,

- There is a need for local/community trails in close proximity to the population base. These trails will receive more frequent use than outlying trails, and
- A range of experiences provided by a variety of trail locations and lengths should continue to be provided and improved.

Research also indicated that physical activity has direct health benefits, and trails provide the opportunity for many people to participate in some of the most popular activities. The alternative transportation benefits of trails are also growing in importance as our roads become more congested. More people are looking for ways to get from place to place with less impact on the environment, and trails provide this option. Over the past several years, comments received by the County from Community Planning and Sponsor Groups as well as language contained in various Community Plans indicate that many trail benefits are important to residents in the unincorporated area. General Plan 2020 Steering Committee meetings held at the onset of the assessment process confirmed the value of several of these ideas including:

- Access to schools via pathways within communities
- Trails for commuter and recreation uses

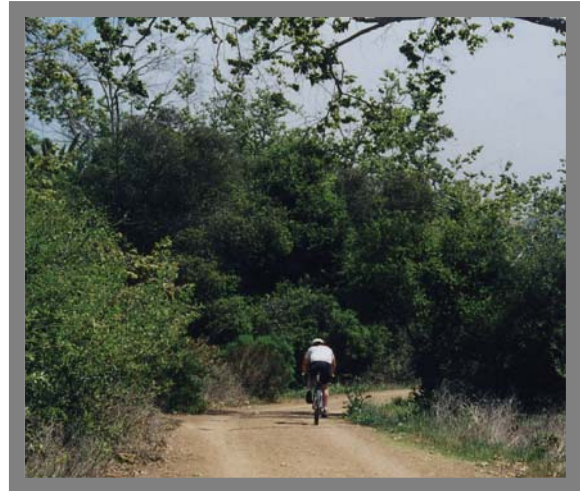
- A Trails Master Plan to assure that land preservation and land development activities incorporate sufficient trails

In summary, the TSA identified a need and public benefit associated with trails in the County of San Diego. As the population increases, trail opportunities must be expanded to continue to provide residents of the County with the many benefits associated with the use of trails. Currently the majority of existing trails are in the less densely populated eastern half of the County. The more urban and populated communities have very few trail opportunities within reasonable access. Additional trails are needed closer to population centers in the western portion of the County so that more residents have convenient access and can enjoy the recreation, health and transportation benefits of trails. These trails should be developed with a “bottom-up-approach” with community involvement being the cornerstone for trail planning efforts.

The primary purpose of trails is to provide the recreation, transportation, health, and quality of life benefits associated with walking, hiking, biking, and horseback riding throughout the County’s varied environments. To insure that this opportunity is provided and available in the future, it is essential that these trails be funded, managed, and maintained in order to provide an effective and enjoyable trail system that meets public needs and expectations.

Countywide Policy 2.4:

Consider long-range “connectivity” as a principal planning element for Regional Trails



Regional Trail Needs

The TSA identified the need for two different specific types of trail systems. The first is a long distance linear “regional” type trail system. Regional trails will focus on connectivity as its most important factor during planning. There are several existing and planned trails with characteristics and conditions that lend themselves to serving a regional function or need. These trails cover long linear distances and transcend boundaries of local municipalities and in some cases, even the County. Regional trails can function as the backbone of the trail system, providing significant north-south and east-west trail corridors. Success of the regional system will depend on the County’s ability to encourage and participate in completing missing segments of these trails with other jurisdictions.

A population-based level of service for these long distance trails was not recommended as a practical planning tool. The study concluded that length of trail, time on the trail, and trail experience are interrelated factors that should be considered in future planning efforts. Regional-type trails are most likely to fulfill the expressed desire for longer trails through a wider range of scenery and varied difficulty levels.

Proper implementation of the County Trails Program will meet the growing trail needs of the unincorporated areas of the County. The primary function of regional trails is to make logical connections or provide the missing segments to other existing or planned long distance linear trails that cross Community/Subregional Plan Areas, and even County borders. These regional trails will extend beyond the borders of communities, provide recreational service levels to multiple communities, and form essential links through the County and region. Regional trails generally have more prominence and public recognition because access is typically available to a broad distribution of users.

The County Trails Program will meet the regional needs by recognizing the importance of connecting missing segments and adding new sections to the existing regional system as opportunities arise and become planned. The CTP provides the opportunity for utilizing both public and private lands that will be needed to establish a valuable trail system. However, it should

also be noted that since the regional trail system is fairly well established (primarily on public lands) its future implementation will not rely heavily on the acquisition of private lands.

The following have been identified as Regional Trails within the County of San Diego. A description of each trail is located in the Regional Trails Plan Section of the CTMP.

- Coast to Crest Trail (San Dieguito River Park)
- California Coastal Trail
- California Riding and Hiking Trail
- Juan Bautista De Anza Trail
- Otay Valley Regional Park Trail
- Pacific Crest Trail
- San Diego River Park Regional Trail
- Sweetwater Loop and Regional Trail
- Trans County Trail

Countywide Policy 2.5:

Encourage development of a Community Trails Master Plan to define community goals, policies, and implementation criteria

Community Trail Needs

In San Diego County, most existing trails are in the mountains and deserts, with far fewer trails close to urban and suburban

communities. The TSA identified the need for a second type of trail system, Community trails, that not only provides needed recreation but also becomes an important component of the local circulation system, providing safe pedestrian, equestrian and bicycle access.



Pine Valley

In communities where there is substantial residential development, the primary beneficiaries of these kinds of trails are the local residents. Trails that are easily accessible to the population base will be in the most demand and should be provided to serve the residents of the County. It was determined that proximity to population base is an important factor to be considered in locating and planning these kinds of trails. Community trails are most likely to fulfill this local need for easily accessible trails.

Community trails serve a different purpose than regional type trails. They can provide connections to community facilities, ideally linking neighborhoods, schools, parks, shopping districts and other land uses. Community trails also provide easily accessible recreation opportunities and alternative transportation options. Local surveys indicated a current desire and need for more local community trails. As the population increases within each community, it is anticipated that the need for community trails will increase as well. For this type of trail system, it was recommended that a population-based level of service be used as one of the primary planning tools to help guide future trail implementation. However, other community related factors should be considered as part of the process of prioritizing community implementation efforts as well. These factors may include but are not limited to historic or cultural significance, trail experience, large local user population, local trail-oriented events or activities, trail connectivity, educational opportunities, or availability of appropriate land. Community trail planning is multi-faceted and should be community-specific, rather than trying to use a “one-size-fits-all” approach.

The TSA also concluded that there was a strong need and desire for trails as affirmed by the Community Planning and Sponsor Groups’ participation in preparing preliminary trail maps. The CTP has been structured to meet existing and future community trail needs. The CTP provides the opportunity for Community

Planning/Sponsor Groups to participate, if they so desire, in preparing their own Trail Plan and subsequent goals, policies, guidelines, and implementation criteria. This participation allows Community Planning/Sponsor Groups to address the specific needs and types of trails that will best serve their communities.

Countywide Implementation Strategy 2.5:
Allow for periodic updates to community-specific criteria and community trail maps and priorities. At that time, participating communities should work with the County to re-evaluate the existing trail network and determine whether modifications, additions, or deletions are needed to reflect current conditions, anticipated future needs, long-term goals, and new opportunities.

The CTP also proposes a provision to allow for periodic updates of Community Trails Maps. This would allow the existing trail network to be re-evaluated to determine whether modifications, additions, or deletions are needed to reflect current conditions, anticipated future needs, long-term goals, and new opportunities.

Additionally, the CTP meets the community trail needs by recognizing that both public and private lands will be important for the implementation of a useful trail system. The nature and relationship of planning documents for these two major categories of trails (regional and community) is an important aspect of meeting community needs and affects the degree of

flexibility for accommodating revisions, changes, and updates.

Countywide Policy 2.6:
Consider a population-oriented numerical level of service as a principal planning element for community trails and for quantifying future community trail needs but consider other community related factors as well.

4.4 Baseline Level of Service

The Board endorsed a policy (CP 2.6) that states “Consider a baseline level of service to plan community trails” whereby the TSA identified a baseline level of service included in this Community Trails Master Plan and will be an important planning tool. This policy also established a baseline level of service that equates the minimum trail infrastructure required to satisfy the community’s need. At a minimum, the County should provide this baseline level of service by implementing and maintaining a trail system sufficient to meet community needs.

The numerical baseline level of service (0.8 miles/1,000 residents) identified in the TSA, is the starting point for determining the amount of trails needed within each community. However, under the new CTP, community trails will only be implemented in community/subregional plan areas of those communities wishing to participate. Those communities not wanting to

participate by developing a community trails plan will not be required by the County to do so. Even though a trails baseline was prepared for planning purposes, implementation of the baseline will be left as a policy decision for the Board of Supervisors and will be considered on a community-by-community basis. Once again, the baseline is only one of many tools that will be used in the planning of future community trails and is not to be relied on as the only measure of need. If a community does not want to participate in the planning and implementation of trails it should be recognized that available, and typically limited, financial resources will be focused on those communities that want to participate.

This baseline is intended to characterize the minimum mileage requirement that sustains a minimum trail environment and experience for the local population. The methodology used to establish the baseline level of service is described in the TSA. When establishing this baseline, it is acknowledged that the County is not trying to provide for the trail needs and population growth of both the unincorporated County and all of the cities.

The process used to derive a baseline level of service was aimed at determining a reasonable quantity of trails to satisfy current needs and that of the projected population growth to the year 2020. In order to identify that quantity, several dynamic

factors were considered. The process included:

- Understanding the County's existing population and density patterns.
- Determining the number of existing trails in the County that serve the existing population base.
- Examining the existing trail locations and their accessibility to the existing population.
- Establishing a baseline by comparing the existing population with the existing trails in order to determine future trail needs.

Methodology for Baseline Derivation

The TSA contains detailed information about the process used for development of the baseline level of service. Below is an overview of the methodology.

Step 1:

Existing and projected populations for the unincorporated County were identified and broken down by Community/Subregional Plan area. Existing population was based on SANDAG information for 2000. Projected population was based on County of San Diego General Plan 2020 (April 2004) modeling. The existing population was identified as 446,080 and the projected 2020 population was identified as 674,440.

Step 2:

All existing trails were identified and quantified – countywide. Countywide there are 1,416 mile of existing trails.

Step 3:

Obtained a ratio of the existing unincorporated population (446,080) to all existing trails in San Diego County (1,416). This ratio equates to 3.1 miles trail per 1,000 residents. This ratio was considered because many of the trail surveys conducted during the TSA indicated a general sense of satisfaction with the overall number of trails within San Diego County, but significant dissatisfaction with how far away the trails were located and the inability to access them within a reasonable drive time.

Step 4:

Location and distribution of existing trails were considered. Determined that 230 miles of trail were in the incorporated cities along the coastal area, and the majority of the 1,186 miles of trail in the unincorporated areas of the County were in the far eastern region. Relatively few trails were in the middle, most populated portion of the County.

Step 5:

Since the TSA determined a significant demand for “close-in” trails that provide a benefit to residents by being able to access trails within a reasonable time/distance the initial ratio of 3.1 miles trail per 1,000 residents was reconsidered. This ratio did not account for the unmet demand for trails that are close, convenient and can be reached within reasonable time/distance. State surveys also confirm the importance of having recreation close to home.

Step 6:

Determined how accessible trails were to population centers within Community/Subregional Plan areas. Executed travel time modeling from population centroids in fourteen of the most populated community plan areas. Used SANDAG travel time/distance formula to determine the amount of trails accessible within 15 minutes travel.

Step 7:

Determined that the quantity of existing trails within 15-minute travel time from population centroids is 380 miles, which includes trails in the cities as well as the unincorporated areas. Compared this quantity with the unincorporated population total of 446,080 residents to produce a ratio of 0.8 miles/1,000 residents.

Step 8:

It was necessary to examine population growth patterns and projections within Community/Subregional Plan areas in order for the County to provide trails in a fair and consistent manner. Planning groups are only able to influence the future of community trails within their individual boundaries. If the provision of sufficient trail quantities to satisfy a community's trail needs were to extend beyond their boundaries, residents would have to rely on neighboring communities to implement a trail system. Individual communities are encouraged to be self-reliant in providing for their own trail needs.

Step 9:

Baseline level of service 0.8 miles trail per 1,000 residents should be used for future trail planning efforts within each Community/Subregional Plan area. Trail planning efforts, community-specific goals, and resulting trail maps can be established through community planning and sponsor groups so that the County can support a "bottoms up" approach to trail planning and implementation

Baseline Application

By projecting the baseline to individual community plan and sponsor group boundaries, it can be seen that many areas exceed the population-based level of service while a substantial number of areas fall below the recommended baseline of 0.8 mile per 1,000 residents (**Table NT-1 and Table NT-2**). This again emphasizes that the location of the trails is important and that although the County has many trails, easily accessible trail opportunities are not as available.

TSA Guideline = 0.8 miles / 1,000 residents

"Baseline" or "Trail Need" = minimum goal
(length in miles for each Plan Area)

Current Trail Need = (2000 population / 1000 x .08)

Future Trail Need = (2020 population / 1000 x .08)

COUNTY TRAILS PROGRAM
COMMUNITY TRAILS MASTER PLAN

Table NT-1: Existing Trail Needs in Miles per County of San Diego Baseline 2000				
Community/Subregional Plan Area	2000 Population	Existing Trails⁽¹⁾	Surveyed Trails⁽²⁾	Current Trail Needs⁽³⁾
Alpine	16,759	23	8	13
*Barona	537			
Bonsall	8,874		1	7
Central Mountain	384			
<i>*Cuyamaca</i>	<i>377</i>	<i>119</i>		
<i>*Central Mountain - Balance</i>	<i>7</i>	<i>2</i>		
*County Islands	1,986			2
Crest-Dehesa	9,440	10	2	8
Descanso	2,242	22	0	2
Desert	3,271			
<i>Borrego Springs</i>	<i>2,592</i>	<i>46</i>	<i>4</i>	<i>2</i>
<i>*Desert - Balance</i>	<i>679</i>	<i>439</i>		<i>1</i>
Fallbrook	39,646	3	3	32
Jamul-Dulzura	9,221	17	1	7
*Julian	3,111	12		2
Lakeside	72,576	20	38	58
*Mountain Empire	6,509			
<i>*Boulevard</i>	<i>1,692</i>	<i>7</i>		<i>1</i>
<i>*Jacumba</i>	<i>660</i>	<i>7</i>		<i>1</i>
<i>*Lake Morena/Campo</i>	<i>3,015</i>	<i>24</i>		<i>2</i>
<i>*Potrero</i>	<i>886</i>	<i>1</i>		<i>1</i>
<i>*Tecate</i>	<i>155</i>			
<i>*Mountain Empire - Balance</i>	<i>101</i>	<i>101</i>		
North County Metro	39,036			
<i>Harmony Grove & Eden Valley</i>	<i>TBD</i>		<i>0</i>	<i>TBD</i>
<i>Hidden Meadows</i>	<i>6,472</i>		<i>0</i>	<i>5</i>
<i>*Twin Oaks</i>	<i>2,572</i>	<i>7</i>		<i>2</i>
<i>*North County Metro - Balance</i>	<i>29,922</i>			
*North Mountain	2,864			
<i>*Palomar</i>	<i>245</i>	<i>37</i>		
<i>*North Mountain - Balance</i>	<i>2,619</i>	<i>68</i>		<i>2</i>
*Otay	8,074	14		6
Pala-Pauma	6,177		0	5
*Pendleton-De Luz	37,012	27		30
Pine Valley	2,329	90	0	2
*Rainbow	1,844			1
Ramona	33,450	19	10	27
San Dieguito	12,528	47	11	10
Spring Valley	59,384		3	48
Sweetwater	13,139	13	12	11
Valley De Oro	40,104	2	17	32
Valley Center	15,653	9	3	13
TOTAL	446,080	1,186	113	333

COUNTY TRAILS PROGRAM
COMMUNITY TRAILS MASTER PLAN

Table NT-2: Future Trail Needs in Miles for County of San Diego Baseline 2020			
Community/Subregional Plan Area	2020 Population	Existing Trails⁽¹⁾	Projected Trails Needs⁽⁴⁾
Alpine	29,300	23	23
*Barona	540		0
Bonsall	14,570		12
Central Mountain	760		
<i>*Cuyamaca</i>	<i>610</i>	<i>119</i>	<i>1</i>
<i>*Central Mountain - Balance</i>	<i>150</i>	<i>2</i>	<i>0</i>
*County Islands	3,140		3
Crest-Dehesa	11,110	10	9
Descanso	2,730	22	2
Desert	15,440		
<i>Borrego Springs</i>	<i>14,030</i>	<i>46</i>	<i>11</i>
<i>*Desert Balance</i>	<i>1,410</i>	<i>439</i>	<i>1</i>
Fallbrook	60,990	3	49
Jamul-Dulzura	21,400	17	17
*Julian	3,920	12	3
Lakeside	87,860	20	70
*Mountain Empire	14,110		
<i>*Boulevard</i>	<i>2,840</i>	<i>7</i>	<i>2</i>
<i>*Jacumba</i>	<i>3,420</i>	<i>7</i>	<i>2</i>
<i>*Lake Morena</i>	<i>4,970</i>	<i>24</i>	<i>3</i>
<i>*Potrero</i>	<i>2,210</i>	<i>1</i>	<i>2</i>
<i>*Tecate</i>	<i>430</i>		
<i>*Mountain Empire - Balance</i>	<i>240</i>	<i>101</i>	
North County Metro	80,360		
<i>Harmony Grove & Eden Valley</i>	<i>TBD</i>		<i>TBD</i>
<i>Hidden Meadows</i>	<i>11,290</i>		<i>9</i>
<i>*Twin Oaks Valley</i>	<i>4,030</i>	<i>7</i>	<i>3</i>
<i>*North County Metro - Balance</i>	<i>65,040</i>		<i>52</i>
*North Mountain	5,800		
<i>*Palomar</i>	<i>520</i>	<i>37</i>	<i>1</i>
<i>*North Mountain - Balance</i>	<i>5,280</i>	<i>68</i>	<i>4</i>
*Otay	13,480	14	11
Pala-Pauma	12,670		10
*Pendleton-De Luz	38,340	27	31
Pine Valley	2,760	90	2
*Rainbow	3,520		3
Ramona	53,340	19	43
San Dieguito	32,360	47	26
Spring Valley	66,860		54
Sweetwater	15,280	13	12
Valley De Oro	43,120	2	34
Valley Center	40,680	9	33
TOTAL	674,440	1,186	538

Notes for Tables NT-1 and NT-2

* **Non-participating Community/Subregional Plan Area**
Mileage numbers are rounded to nearest mile

- (1) **Existing Trails:** Existing trails and pathways located within each Community/Subregional Plan Area. These trails (mileage) may include trails within State, Federal or other public lands jurisdiction that are within a community. ***NOTE: Trail mileage in this table is from the TSA, July 2001, and may differ from the trail mileage in the community sections.***
- (2) **Surveyed Trails:** A GPS and trails/pathway condition assessment was conducted in 2004 of existing, constructed County trail easements for Community/Subregional Plan Areas participating in the CTMP.
- (3) **Current Trail Needs:** Trails needed based on the San Diego Baseline ratio of 0.84 Miles / 1,000 Residents for the existing 2000 population. Baseline derived from the quantity of trails within a 15-minute radius from the unincorporated population "centroids" and the total existing unincorporated population.
- (4) **Projected Trail Needs:** Trails needed based on the San Diego Baseline Ratio of 0.84 Miles/1,000 Residents for the projected 2020 population (based on April 2004 GP 2020 Working Map. Baseline derived from the quantity of trails within a 15-minute radius from the unincorporated population "centroids" (per Figure 2-5 in TSA, July 2001) and the total existing unincorporated population.

Sources: Estrada + KEA Partnership; SANDAG Fall 2000, SDCGP 2020 (April 2004) modeling.

The baseline level of service is a starting point for determining the amount of trails needed within each community. During the initial outreach process, the County worked closely with community groups, coordinating workshops, and aiding in organization of community input into the CTMP. Those communities not wanting to participate in the development of a community trail plan were not required to do so by the County. Even though a trails baseline was prepared for planning purposes, and a demand for trails may exist in any given community, implementation of the baseline will be through the community trail plans.



Regional trails are identified throughout the County and may be located within a community boundary that has not proposed community trails. In this case, implementation of the regional trail and segments of the regional trail will still be

implemented as a high priority throughout that community.

When considering the baseline (minimum) quantity, most areas showing more than their baseline number of trails are located in the central and eastern portion of the County and, for the most part, have many trails provided on state and federal lands. It is not intended that plan areas with an excess of trails should reduce the amount of trails in their communities, but rather recognize that some communities feel they have no need for additional trails based on their existing quantity of trails. On the other hand, some areas have a considerable deficiency based upon the population growth projections and some communities may require more trails, regardless of their population, because they accommodate non-resident trail users from other communities. For example, East County communities such as Lakeside, Ramona, and Pine Valley provide a high percentage of horse boarding facilities for horse owners living in more urban areas or in cities that utilize their community trails.

New trails should be planned and phased in over the next 20 years or longer in order to avoid potential deficiencies in the various areas. If all communities were to participate, an additional 316 miles of trails will be needed by the year 2020 in the unincorporated areas of the County. This quantity should be used as a guide and many factors will influence the quantity and location of future trails.

While the baseline level of service is a good guide, it does have limitations. It does not, for example, account for the quality and setting of the trail experience, which are significant factors for the overall County trail system. Additionally, the fact that residents from the cities may use trails located in the unincorporated region of the County could increase the number of people using those trails, which could affect the quality of the experience for the trails. If the trails become overused and overcrowded, the positive experience associated with using the trails could diminish. Based on feedback and assistance from the community groups, the County will track trail use and user satisfaction and will consider whether future increases to the baseline are warranted.

This baseline figure is used as a general guideline for the minimum amount of trails for meeting a community's needs. It gives the County one way of measuring how well trail demand is being met in any given community. The County's goal is to assist all communities wishing to establish a community trails network to achieve, at a minimum, the baseline quantity of trails in their area. The baseline quantity of trails in each community would be a target, at least initially, and the County could develop community specific goals using the baseline as a guide.

When conducting trail planning and implementation activities, the County proposes to not only consider the baseline value, but other community factors. For example, it may be very important for some communities to

exceed the baseline level of service – especially those who consider trails a key component of their “community character”, or with large trail user populations or large hiking/equestrian populations, activities or events. Also considered will be the type of trail experience offered by the trail network. For example, a community may have segments of trail with significant length, but when examined closely, they may be located near the perimeter of the plan area with no connectivity to the central populated areas. In such cases, exceeding the baseline may be reasonable.

Conclusions of Baseline Level of Service

The public needs assessment conducted as part of the TSA concluded that when considering all Community and Subregional Plan areas, there is a current overall need for 379 miles of community-type (i.e. “close-in”) trails in the unincorporated areas of the County. There is a current deficiency of 215 miles. Using the baseline figure to project future needs one can determine that in the year 2020 there will be an overall need for 549 miles of community-type trails in the unincorporated County. The deficiency for year 2020 is 316 miles of trail.

When considering the population of the unincorporated portion of the County and a 35 percent participation rate for trails, there are approximately 158,000 County residents who currently use trails. In the year 2020, that number will increase to 229,000.

Part II - The Benefits of Trails

Background to Developing the County Trails Program

One of the primary goals of the County Trails Program (CTP) states “provide a system of trails that meets the needs of County residents by providing scenic and enjoyable experiences that include connections with other public facilities such as parks, open spaces, trail systems of other jurisdictions, points of interest, and/or sites with educational or historical significance.” This goal was confirmed in the fall of 2000 by the Board of Supervisors stating that, “recreational trails are a legitimate form of public recreation that the County should provide”. Trails offer a wide variety of public benefits that range from recreation and health to a form of alternative transportation. People use trails to escape the urban environment, to experience the outdoors and to exercise, which in-turn improves their mental, physical and spiritual well being. For many, trails add to their community’s quality of life and can even increase property values.

4.5 Trail Benefits

Access Benefits

Trails make scenic and recreational areas more accessible to everyone, including the

disabled, elderly, and families wanting to interact with nature. Trails can also provide access to remote areas for fire, emergency, and maintenance personnel. Trails provide places for horses and equestrians, away from dangerous city streets. Residential, commercial, public/semi-public, ecological resource area and park/open space land uses all benefit from trail access.

Countywide Policy 1.2

Encourage trail routes that highlight the County’s recreational and educational resources, including natural, scenic, cultural and historic resources whenever possible.

Cultural and Historical Benefits

Public/semi-public, as well as park/open space land uses benefit from trails that link to historic and culturally significance sites. Trails provide opportunities for educational experiences and historic appreciation.

- Trail projects can provide linkage to sites of cultural and historical significance.
- Innovative project planning and development can emphasize the history of a region. Trail routes may

follow historic transportation routes or a historical theme may be used for project development.

- Rails-to-trails projects offer unique and intimate opportunities to appreciate and relearn the history and importance of America's railroad industry
- Trails can highlight local culture, be the site of cultural activities, or serve as an added attraction for events held in surrounding communities.

Economic Benefits

Hiking, cycling, equestrian activities, and wildlife viewing are popular tourist activities. Trails provide opportunities for these experiences and bring revenue into communities such as bed and breakfasts, bicycle rentals and repairs, shuttle services, and other ventures for creative entrepreneurs. The better the trail, the more people that come to the area to use it.

Real estate values often increase when trails are easily accessible, often becoming a selling point for homes. In addition, studies have found that bike paths/trails are considered at the top of the list of desirable community features regardless of the type of home (new and resale) or what kind of community (both master planned and not) (*American Lives, Inc. 1999 Community Preferences, Oakland, California*).

- *Economic Impacts of Protecting Rivers, Trails, and Greenway Corridors*, A National Park Service Publication examines how exercise derived from recreational activities such as trail use lessens health-related problems and reduces healthcare costs.
- Business and growth are attracted to communities that offer amenities such as trails and greenways, which improve local quality of life. Improving access to the outdoors provides for an escape from the city and a sense of well-being and freedom for residents.

In nationwide studies, development projects near or adjacent to trails show property values increase from 1% – 6% over properties further removed from trail locations. Trails also provide a unique facility to serve a diverse population of a community that may otherwise have limited opportunities to access natural areas due to financial or transportation constraints.

One way to measure the economic impact from trails is from the purchases by trail users of durable goods, equipment, and maintenance related to their recreation. Often the purchases are in areas near the trails. Local hotels, bed and breakfasts, restaurants, gas stations, and other businesses also benefit from tourist spending. Studies show that long trails (regional), which attract users from far away, represent the most spending per user.

Shorter, urban (community) trails generally get more users, so they also have a high economic impact on the local community.

Educational Benefits

Public/semi-public land uses, such as schools and other public facilities benefit from trails because of the educational opportunities they can offer. Trails can provide educators and students opportunities for field trips to outdoor classrooms and offer a wide variety of studies related to biology, ecology, history and even art. Trails associated with park/open space land uses can provide these same opportunities to the general public. These studies can be in conjunction with interpretive centers or information signage developed as part of the trail system located within Ecological Resource Areas

- Trails can be used to teach all users, young and old, the diverse natural, cultural, and historical features of trail and adjacent areas.
- Schools and students can utilize trails for educational purposes and often learn about local habitat.
- Development of trails near sensitive environments provides hands-on educational opportunities for children and adults to learn about the importance of preserving unique plant communities, wildlife habitats, ecological systems, and remnants of

native plant habitats that are invaluable resources for scientific study.

- Dedicating land for open space preservation and obtaining public access easements helps to ensure that valuable educational resources will not be lost nor go unappreciated.
- Interpretive signs, volunteer programs, and promotional materials developed in conjunction with trail systems can provide the opportunity for every trail user to learn about the areas through which he/she is passing.

County Implementation Strategy 3.5

Develop design guidelines that protect sensitive species and their habitats, and encourage enhancement of habitats and educational opportunities as part of trail implementation activities.

Environmental Benefits

There are important public benefits of experiencing firsthand, environmentally sensitive habitats, and resources with cultural and historic significance, by designing trails that intersect and parallel these special environments while providing appropriate interpretive features and environmental protection.

Trails can benefit ecological resource area and park/open space land uses by providing corridors that can be used to preserve various types of sensitive biological

resources. They can help to raise environmental consciousness, offer a means of reducing air pollution, increase an area's visual appeal, can function as natural buffers between sensitive habitat and humanity, or provide a safe means of monitoring an area without intruding upon it. Schools and other public facilities benefit from trails that provide "hands-on" opportunities to experience nature, environmentally sensitive areas, and gain understanding about the importance of protecting and preserving environmental resources.

- Green spaces and trails serve as important buffer zones between urban development and sensitive natural habitat and waterways. These natural areas can protect water resources, shelter plants and wildlife and allow alternatives to automobile use.
- Trails and adjacent green space buffers provide a new and safe home for plants and wildlife. They also help to preserve the natural landscapes that are quickly disappearing.
- Trail and greenway projects often include drainage control considerations that aid in storm water management by stabilizing stream banks, protecting river valley lands from erosion, serving as natural flood control mechanisms, and keeping flood prone lands free of urban development.

Health and Quality of Life Benefits

Trails provide the opportunity for improved health and increased physical fitness. They can give people peace of mind by providing a necessary mental and physical "escape" from an individual's immediate surroundings. They can improve a person's sense of well being, thereby improving their mental health.

Variety of experiences such as solitude, challenge, being with friends or family, testing skills, experiencing nature, and others are a part of enjoying the trails. Experiences vary a great deal across activities, among people participating in the same activity, and even within the same individual on different outings. Many citizens view environmental quality and fitness as important factors influencing their personal health.

The following information is from the Center for Disease Control website (www.cdc.gov/nccdphp/dnpa/physical/trails):

"Trails have been built and maintained in this country mainly for reasons related to transportation and recreation. Rarely, however, have people asked how important are trails to our health and whether trails should be a resource accessible to multiple-types of recreation users?"

There is strong scientific evidence that regular physical activity promotes health and reduces risk of premature death and many chronic diseases. It is recommended

that adults obtain a minimum of 30 minutes of moderate intensity (e.g., brisk walking) on most, if not all, days of the week.

Indeed, there is now scientific evidence that providing access to places for physical activity increases the level of physical activity in a community.¹ The Task Force on Community Preventive Services strongly recommends creating or enhancing access to trails and other places for physical activity. However, just building trails is not enough, the Task Force highlighted that communication strategies and outreach activities that promote using trails and facilities are also recommended. A typical study of an intervention to create or enhance access to places for physical activity reports a 25% increase in physical activity levels.²

The Health Benefits of Using Trails are Significant:

- *Regular physical activity is a key component of any weight loss effort.³ Greater access to trails can directly impact our nation's obesity epidemic by improving access to places for physical activity and opportunities.*
- *Participating in aerobic training significantly reduces systolic and diastolic blood pressure.⁴ Trails provide the opportunity for individuals to help control their hypertension (high blood pressure).*
- *Moderate physical activity such as walking and cycling on trails can protect*

against developing non-insulin dependent diabetes.⁵

- *Through aerobic exercise training, walking and cycling on trails can improve, symptoms of mild-to-moderate depression and anxiety of a magnitude comparable to that obtained with some pharmacological agent.⁶*
- *Studies have reported that walking two or more miles a day reduces the chance of premature death by 50%.⁷*

Trails Reach the Whole Community

Many commonly recognized activities related to physical activity exclude large segments of the community. For example: organized team sports may favor athletically gifted individuals and families with sufficient financial means; fitness centers may favor individuals who have high self-determination and fitness ability; youth recreational programs may favor young children. Trails, however, represent a diversity of opportunity from the gifted athlete interested in a convenient place to train to the individuals who are looking for an aesthetically pleasing place to take an after dinner walk to a family walking to spend time together.

Many Users—Many Uses

Trails are a medium that offers many opportunities for physical activity:

- *Walking the dog*
- *Walking as break from work*
- *Walking to a scenic outlook*
- *Walking as a break from driving*
- *Rollerblade/in-line skating*
- *Jogging & Running*
- *Wheelchair accessible recreation*
- *Bicycling*
- *Horseback riding*
- *Cross-country skiing and snowshoeing*
- *Fishing and hunting*
- *Landscaping and trail maintenance*
- *Bird watching*
- *Playing with children*
- *Strolling with infants and toddlers*
- *Spending time with friends & relatives*
- *Your ideas here. . .*

Land Use Benefits

The County Trail System Assessment (TSA) evaluated various land use categories to determine whether trails offered a benefit to them. The land use categories evaluated include residential, commercial, industrial, agricultural, public/semi-public, ecological resource area, and park/open space (**Table TB-1**). By linking various land uses through proper trail planning, significant benefits can be expanded to wider areas.

People participate in certain general activities that are directly related to broad categories of land use. For example, there are certain patterns of behavior and expectations on the part of people when they are in a “residential” environment. This is where they expect to live, maintain their households, and experience typical neighborhood settings. They often socialize with neighbors, groom their yards, and perhaps walk or otherwise recreate in front of their homes or up and down their streets.

Likewise, when people are in a “commercial” setting there are certain patterns of behavior and expectations that most of us would agree upon. In an “industrial” setting, few of us would expect to see people socializing with adjacent industries, spending time grooming the perimeter of their businesses, or participating in recreational activities. On the other hand, in a “park or open space” environment, we would expect to see people relaxing, enjoying nature, hiking, or participating in sporting activities.

When trails are accessible to some categories of land use, they can provide a benefit to people within that land use. However, in other land use categories, readily accessible trails would provide little benefit because behavior patterns and expectations on the part of people within that land use category do not correspond to using, or wanting to use trails for recreation.

Table TB-1: Land Use Categories and Trail Benefits								
Land Use Category	Trail Benefits							
	Recreation	Economic	Educational	Environmental	Transportation	Historic	Access	Health/ Quality of Life
Residential	X	X			X		X	X
Commercial	X	X			X		X	X
Industrial					X			X
Agricultural								X
Public/Semi-Public	X	X	X	X	X	X	X	X
Ecological Resource Area			X	X	X		X	
Park/Open Space	X		X	X	X	X	X	X

Recreation Benefits

Trails increase opportunities for low-cost outdoor recreational activities such as hiking, walking, horseback riding and biking. In residential and park/open space land uses, trails can be used frequently, and at any time throughout the day. In commercial land uses, employees can use trails for noontime exercise and for relaxation. Schools, churches, community facilities, and recreation centers that are typically comprised of public/semi-public land use areas have students, employees, and community residents that can use trails throughout the day to help satisfy their recreational needs.

- Trail users realize improved health and increased physical fitness through convenient access to the outdoors and close-to-home recreational opportunities.
- *Trails for All Americans* reports that 60 million Americans are bicyclists; 17 million are horseback riders and 100 million walk for pleasure.
- Developers and administrators of linear parks and trail systems realize increased urban recreation programming, higher visibility, and lower facility acquisition and development costs for outdoor recreation facilities.

- As the number of two-career couples and single-parent families continue to increase, the physical and economic limits to mobility are increasing and available leisure time is decreasing. These factors influence recreation options and make close-to-home opportunities a priority that trails can satisfy.
- Trails make the outdoors more easily accessible to the general public and provide people with an intimate opportunity to enjoy shorelines, rivers, lakes, mountains, and deserts.

Social Benefits

Trails can act as a meeting place for the community and foster public involvement and pride, in addition to providing an opportunity to interact with people of varying backgrounds, and experiences.

- Trails help build partnerships among private companies, landowners, neighboring municipalities, local government, and advocacy groups.
- Residents, when encouraged to be involved in a community project like a trail project, feel more connected to the community.
- Trails provide recreation away from highway traffic. A good place for some quality time with family or friends.

Transportation Benefits

Trails connected to important destinations (i.e. employment centers, community facilities, recreation centers, schools) can reduce the reliance on automobiles, improve roadway capacity and help with mass transit integration. Trails provide transportation benefits to residential, commercial, industrial, ecological resource areas, public/semi-public, and park/open space land uses. Residential, commercial, and industrial land uses benefit by allowing people to commute on trails that offer safe and direct routes to homes and businesses, or to mass transit centers that can help reduce automobile-pedestrian/cyclist conflicts. Public and semi-public land uses benefit from trails by providing safe routes to intended destinations, and in the case of schools, providing safe routes to school for students.

- Trails used as alternative transportation is growing in importance as roads become more congested. More people are looking for ways to get from place to place with less impact on the environment, and trails provide this option.
- Trails can provide linkages to important destinations, improve the opportunities to use alternatives to automobiles, help increase integration with mass transit systems, and, if properly designed, can reduce motor vehicle-bicycle conflicts.
- The most successful commuter trails offer a safe and direct link to origin and destination points, with access provided

to adjacent residential, commercial, and recreational points of interest.

- Networks of trail systems can connect cities, regional points of interest, different parts of a community, and various transportation routes.
- Bicycling and walking provide access to schools from within neighborhoods, removing vehicles from collectors and arterials.
- Bicycling or walking once per week would free up roadway capacity by 20 percent. (U.S. Department of Transportation, Federal Highway Administration. 1994. *The National Bicycling and Walking Study: Transportation Choices for America*. Washington, D.C.)

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