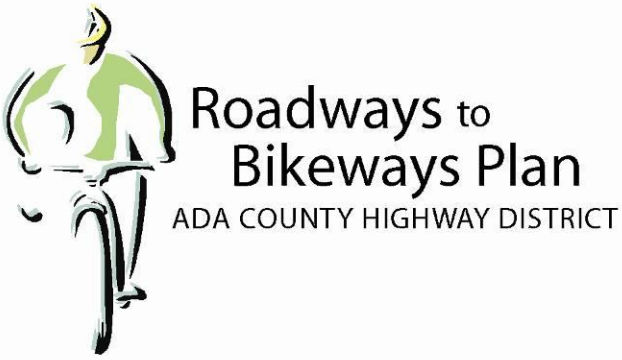

5/12/2009 Final Draft

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Executive Summary

Vision and Purpose of the Plan

The Roadways to Bikeways Plan provides a broad vision, policy, goals and objectives for how the Ada County Highway District (ACHD) can facilitate and improve conditions for bicycling in Ada County over the next fifty years. The Plan envisions an interconnected bicycle network that connects local neighborhoods, schools, public facilities, business districts and environmental features. The proposed network will connect all parts of the County, while providing a bicycle facility within a quarter-mile from 95 percent of all the residents in Ada County and its six cities. Once achieved, this Plan will improve Ada County residents' health, enhance their quality of life, help improve and protect the County's vital natural resources, and be a source of pride to the community. The project was produced by the consulting team of Alta Planning + Design and Parametrix, Inc and funded by ACHD.

Overarching Concepts

Ada County currently benefits from an existing bikeway system that has been developed over the past several decades. Ada County remains one of only two counties in the nation designated as bronze-level Bicycle Friendly Communities. Over 4,000 people in Ada County's workforce use a bicycle as their primary mode of transportation, and thousands more bicycle to school, to visit friends, to go shopping, and to improve their health. In the decade since the update of the 1996 Ridge-to-Rivers Pathway Plan, numerous on- and off-street bicycle facilities have been constructed by ACHD, Ada County, and its cities. This 2009 Plan takes an updated look at the existing ACHD roadway network, building upon the previous planning foundation and making recommendations to enhance and expand the existing on-street bikeway network, connect gaps, address constrained areas, provide for greater local and regional connectivity, and encourage more residents to bicycle. This Plan provides a basis and recommendations for an updated system of bike lanes, signed shared roadways, and bicycle boulevard designations. The Plan also recommends a variety of programs and policies to allow for safe, efficient and convenient bicycle travel in and between the communities of Ada County and connecting to destinations outside the county.

Reasons for the Plan

Having a unified Plan for all of Ada County is important for the following reasons:

- **Create a multimodal transportation system that includes bicycling as a practical alterative to driving and increases the use of bicycling for commuting and short distance trips to meet daily needs:** A multimodal transportation system which includes bicycling as a practical alternative to automobile use, particularly for short daily commute and utilitarian trips, leads to reduced traffic congestion, air pollution and consumption of non-renewable fuels.

- **Enhance the quality of life in Ada County**. The development of bicycle facilities creates people-friendly streets, paths, trails, and activity centers that are accessible to everyone and supports sustainable community development. Commuting and utilitarian bicycling reduces traffic congestion, vehicle exhaust emissions, noise, and non-renewable energy consumption. It is a healthy and active form of travel. It is an affordable means of transportation and recreation. Good bicycling opportunities can also stimulate the economy by bolstering businesses. Safe and efficient recreational cycling opportunities will attract tourists to scenic areas and employees to the many sports and recreation-oriented businesses.
- **Improve safety and encourage cycling**: The design standards and guidelines, education, and enforcement recommendations outlined in this plan are tools to enhance safety for bicyclists. This plan provides recommendations for route improvements intended to make cycling safer for bicyclists of all ability levels. Encouragement programs are also suggested to motivate residents to ride for work, school, exercise and recreation.
- **Expand the network and support facilities**: Ada County and its six cities already have a number of vastly popular bikeways such as the Boise River Greenbelt, which is also used by pedestrians and in-line skaters. While many of these existing facilities provide excellent scenic routes for recreational bicyclists, developing a more comprehensive on-street network is necessary to provide full bicycle connectivity. Implementing a complete bikeway network that links a variety of destinations – employment, shopping, school, and recreation – is the key to attracting greater numbers of bicyclists. In addition to expanding and connecting the key routes, providing support facilities such as clear directional signage and secure bicycle parking will enhance the functionality of the network and encourage more people to bicycle.
- **Increase funding for implementation**: With the identification and prioritization of specific facility and programmatic improvements found in the Roadways to Bikeways Plan, ACHD and other local jurisdictions can apply for appropriate funding to support bicycling throughout the county and its six cities.

Bicycling as Part of the Transportation System

Developing a multimodal transportation system will address traffic congestion, air and water pollution, energy consumption, problems with near-exclusive use of automobiles, use of non-renewable fuels to supply transportation, and increased pressure on infrastructure budgets to build and maintain roads. Bikeway network enhancements are expected to generate more bicycling trips in the future. This growth is expected to improve air quality by further reducing the number of vehicle trips, vehicle miles traveled and associated vehicle emissions. This Plan seeks to develop the bicycle network to encourage bicycling to be a practical alternative to driving for Ada County residents during spring, summer and fall months.

Bicycling for Recreation

Bicycling is also a healthy and active form of recreation, which takes advantage of the natural beauty and scenic quality of the region. ACHD is in an excellent position to capitalize on the bicycle-

friendly attributes that exist in the area – moderate climate, relatively flat terrain in developed areas, centralized agency control and a reputation as a place with ample recreational amenities-- to increase the number of residents and visitors who travel by bicycle for recreational trips.

Existing Conditions and Planning History

Ada County has a growing reputation as a desirable, livable community. One of the aspects that makes a community livable are places where people feel comfortable bicycling, whether they be school children, young adults, working people, or senior citizens. In general, the six cities in Ada County have connected street grids and several low-traffic roads that are pleasant to bicycle on. Despite this existing system, Ada County residents have identified several issues with the existing system and key safety concerns, which are addressed in this Plan.

State of the Network

Bicycle counts found that a large proportion of cyclists ride on sidewalks, indicating that they are uncomfortable riding in the street with cars. More than half of residents responding to an online survey cited a lack of bike paths, lanes or routes and too many cars/cars drive too fast as key problems with the existing bicycle network (see Figure ES-1).

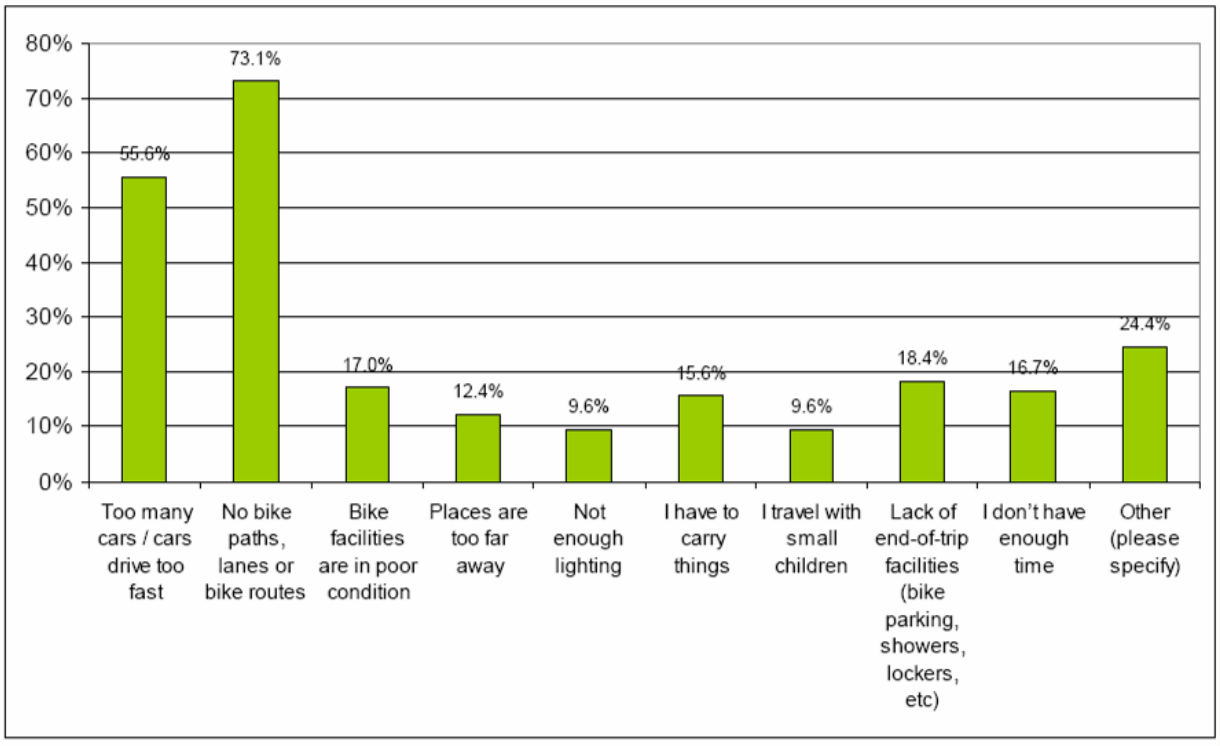


Figure ES-1. Problems with the existing bicycle network as identified by participants in the online survey

When asked what facilities they would like to see in Ada County, respondents of the online survey most frequently answered: more off-street or separated pathways, more bike lanes and completion

of the gaps in the existing system. Increasing ridership among occasional bicyclists, which is the largest cycling group, depends on a better bicycle network and support facilities.

Current Bicycle Activity

The online survey found that the single largest group of adult cyclists in Ada County is the intermittent recreational rider who generally prefers to ride on pathways or quiet side streets. School children also make up a large percentage of bicycle riders, often riding to school, parks or other local destinations. A bicycle demand model was developed, using the 2007 American Community Survey and the most recent available data for the region. The model estimates that Ada County bicyclists currently make approximately 55,000 trips per day, reducing more than 5,000 weekday motor vehicle trips and eliminating 37,000 miles to daily vehicle travel and 21,000 tons of vehicle emissions per year. While many residents of Ada County currently bicycle for some trips, the public outreach identified a significant opportunity to increase the number of residents who travel by bicycle not just for recreation, but for transportation as well.

Planning Foundation

In the decade since the update of the 1996 *Ridge-to-Rivers Pathway Plan*, numerous on- and off-street bicycle facilities have been constructed by ACHD, Ada County, and its cities. ACHD alone has increased the number of miles of on-road bicycle facilities in the county to 164 total miles. This 2009 Plan takes an updated look at the existing ACHD roadway network, building upon the previous planning foundation and making recommendations to enhance and expand the existing on-street bikeway network, connect gaps, address constrained areas, provide for greater local and regional connectivity, and encourage more residents to bicycle. The 2005 *Pedestrian Bicycle Transition Plan* (PBTP) aids this study by laying the groundwork for bicycle and pedestrian planning in Ada County, particularly to address "federal pedestrian planning guidelines and the regulatory requirements of the *Americans with Disabilities Act* (ADA)".

Plan Development

The Plan was developed through a series of research, field, and public process activities from late Spring 2007 to early 2008. Activities included:

- Existing document/policy review
- Bicycle counts
- Interviews
- An online questionnaire
- Assessment of existing conditions/facilities
- Evaluation of bicyclist needs
- Field assessment of missing gaps/system deficiencies
- Regular meetings with a Steering Committee
- Two public open houses
- Additional comments submitted by residents
- Additional presentations and materials to other groups

Technical Review

Development of the plan included technical analysis and extensive public involvement. ACHD staff and the Roadways to Bikeways Steering Committee conducted a review of existing documents and policies, an analysis of demographic, employment and geographic factors affecting demand for bicycle facilities, bicycle count, assessment of existing bicycling conditions and facilities, evaluation of bicyclist needs such as safety improvements, and field assessment of system deficiencies. The differing needs of commuter, utilitarian and recreational bicyclists, and of experienced and more casual riders, were considered to ensure that the proposed network provides facilities for all types of riders.

Types of Cyclists

The differing needs of experienced and casual riders, and of riders making utilitarian and recreational trips, were considered to ensure that the proposed network provides facilities for all types of riders. Experienced cyclists include long-distance road cyclists, racers, commuters and utilitarian cyclists - those who use their bicycle as a primary means of transportation. These cyclists generally feel comfortable riding on roads and with traffic. Casual cyclists include youth and adults who are intermittent riders and may be nervous about riding in a street with cars, preferring quiet streets. Rather than be directed to side streets, most cyclists making utilitarian trips would prefer to be given bike lanes or wider curb lanes on direct routes, and unprotected crosswalks and intersections are a key concerns of riders making utilitarian trips. Recreational users cover all age groups from children to adults to senior citizens. Recreational trips can range from a 50-mile weekend group rides, to a family outing along the Greenbelt, and all levels in between. Recreational cyclists' needs vary depending on their skill level

Public Outreach and Involvement

Public involvement was a key part of creating the Roadways to Bikeways Plan, and helped develop citizen support for a sense of ownership of the overall Plan Public outreach included a review of existing documents and policies, bicycle counts, interviews with local agency representatives, an online Roadways to Bikeways survey, two public open houses, additional comments submitted by citizens, and additional presentations and materials upon request.

Goals, Objectives and Action Steps

Based on feedback from the public process and previous planning efforts the County and cities have undertaken, two overarching goals were established for a comprehensive Ada County bikeway system. They are:

Goal 1: Complete a bicycle facility network that maximizes safety, provides connectivity, and supports the bicycle as a viable transportation mode among the residents of Ada County and its six cities.

Goal 2: Promote bicycle safety and increased bicycling within Ada County and its six cities.

The goals provide the long-term vision and serve as the foundation of the Plan, while the objectives and actions provide more specific descriptions of actions to undertake to implement the plan. Four principle objectives have been identified for achieving the two overarching goals of the Plan.

Objective 1: Implement the Roadways to Bikeways Recommended Bikeway Network to encourage increased use of the bicycle for transportation.

Action 1.1 Complete the recommended bikeway network by closing existing gaps and considering innovative design solutions for constrained locations to provide accessible bicycling corridors throughout Ada County.

Action 1.2 Provide safe and accessible bicycle facilities that link local and community destinations (downtowns, schools, parks, neighborhood centers) and pathway systems, as well as regional facilities and other destinations.

Action 1.3 Implement a continuous network of bike lanes, signed shared bikeways, and bike boulevards that serve all bicycle user groups, including both recreational and utilitarian riders.

Action 1.4 Seek funding for bicycle transportation projects through current local, regional, state, and federal funding programs while forming local partnerships to leverage those funds to maximize the use of available dollars.

Objective 2: Encourage Ada County residents to use bicycles as an alternative mode of travel for both local and commuter trips by publicizing routes and proper facility maintenance.

Action 2.1 Encourage construction or repair activities, both on street and of adjacent buildings, to minimize disruption to bicycle facilities, consider bicyclist safety at all times, and provide alternate routes if necessary.

Action 2.2 Incorporate bicycle network repair and maintenance needs into the regular roadway maintenance regime as appropriate, paying particular attention to sweeping and pothole repair on priority bicycle facilities.

Action 2.3 Install signage along all local and regional bikeways to assist with way finding and to increase awareness of bicyclists.

Action 2.4 Publicize the availability of bicycling maps and other bicycling resources through the ACHD website, bicycle shops, schools, employers, and other locations.

Objective 3: Promote bicycling educational and safety programs, support encouragement programs and implement law enforcement activities.

Action 3.1 Continue existing and pursue new adult and youth bicycle education and safety programs.

Action 3.2 Increase attention by law enforcement officers to bicycle-related violations by both motorists and bicyclists, and emphasize positive enforcement for safe bicycling behavior by children.

Action 3.3 Support Safe Routes to School and other efforts, including educational and incentive programs to encourage more students to bicycle or walk to school, through a partnership with the school districts and YMCA.

Action 3.4 Encourage employers to provide incentives and support facilities for employees that commute by bicycle.

Action 3.5 Encourage jurisdictions to provide incentives to developers completing new and re-development of properties that include bicycle-friendly facilities and design in their projects.

Objective 4: Facilitate Coordination and Cooperation Among Local Jurisdictions in Development of the Roadways to Bikeways Recommendations.

Action 4.1 Provide ACHD community partners and local agencies with the tools and guidance necessary to implement bicycle-specific improvements within their jurisdictions.

Action 4.2 Encourage regular communications between ACHD, constituent cities, ITD, COMPASS, Valley Regional Transit, Ada County, and other affected agencies regarding bicycle planning issues.

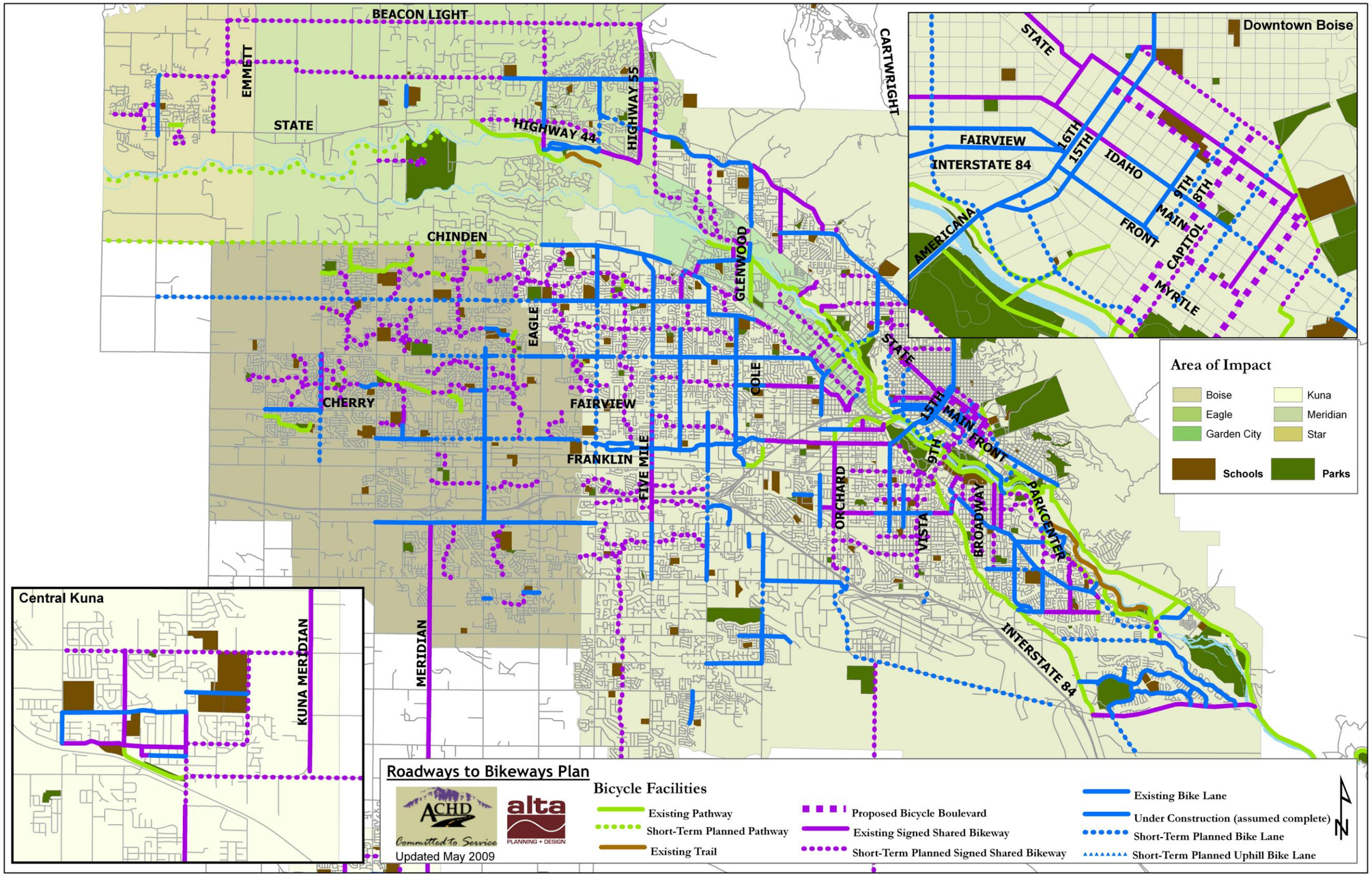
Action 4.3 Encourage large employers, colleges and universities, activity centers and major transit stops to provide secure bicycle storage facilities and racks and promote their efforts.

Action 4.4 Provide projects that improve multi-modal connections and enhance bicycle-transit trip linking.

Implementation

Recommended bicycle infrastructure types to accomplish the first Goal of the Plan include: bike lanes, signed shared bikeways, including bicycle boulevards, other on-road facilities, which include wide outside lanes and shoulder bikeways, and pathways or shared-use paths. Design guidelines for each of these facility types were developed.

The network – when fully implemented – will provide primary routes for bicycling throughout Ada County. The Roadways to Bikeways Recommended Bikeway Network shown on the following Map will serve as a core system of bike facilities that provide easier access to all parts of the county for bicyclists, while serving as a tool for ACHD to focus and prioritize bicycle facility implementation efforts where they will provide the greatest benefit to bicyclists and the community at large.



Map ES-1. Recommended Short-Term Bicycle Projects

In addition to the public outreach and analysis described above, criteria considered in the analysis of existing roadway conditions and selecting specific treatments were:

- Traffic volumes and travel speeds on streets
- Safety concerns
- Amount of side friction (driveways, side streets)
- Curb-to-curb width, available right-of-way and shoulder conditions
- Number of destinations served, including schools, parks and employment centers
- Topography and gradients
- Integration into the regional system
- Presence of reasonable alternatives for bicyclists
- Directness and connectivity to destination

The project prioritization list and individual projects outlined in this Plan are flexible concepts to serve as implementation guidelines. The short-term project list and overall system may change over time as a result of changing bicycling patterns, land use patterns, and implementation constraints and opportunities. ACHD Staff, in conjunction with the Bicycle Advisory Committee and community members, should review the project list and associated projects at regular intervals to ensure that it reflects the most current priorities, need and opportunities for implementing the bicycle network in a logical and efficient manner.

Funding prioritization criteria were developed to reflect the costs and benefits of individual projects and to determine short-term (within 10 years), medium-term (10-25 years), and long-term (25-50 years) project lists. The ranking criteria include: A variety of potential funding sources are available to construct the proposed bikeway improvements, which include Federal, state, regional, local, and private funding programs. Most funding programs are competitive, and involve an extensive application documenting project need, costs, and benefits. Local funding for bicycle facilities would typically come from Ada County or potential future bond or other local revenues. The primary Federal funding source is the U.S. Department of Transportation (USDOT), through the Safe, Accountable, Flexible, and Efficient Transportation Equity Act (SAFETEA). Private funding may be found through foundations, advocacy organizations and businesses.

Implementation strategies to facilitate implementation of the proposed network include:

- **Implementation Strategy 1:** Strategically pursue bicycle infrastructure projects to maximize results and minimize costs.
- **Implementation Strategy 2:** Ensure that the Roadways to Bikeways Plan and project list are current and relevant.
- **Implementation Strategy 3:** Integrate bicycle planning and construction into ACHD‘s day-to-day activities of planning, designing, funding, constructing and maintaining infrastructure in the county.

- **Implementation Strategy4:** Include bicycle infrastructure in cities' development requirements to further expand the bicycle network in Ada County
- **Implementation Strategy 5:** Encourage private donors to support the bikeway system.
- **Implementation Strategy 6:** Qualitatively measure the County's progress toward implementing the Roadways to Bikeways Plan.
- **Implementation Strategy 7:** Implement education, encouragement and enforcement activities to augment the expanded bicycle network, and encourage people who would otherwise not ride to bicycle.

Several supporting programs are also important for promoting bicycling in Ada County, working with and bolstering the comprehensive network of bicycle facilities. These programs include a regular maintenance plan, network signage, education, encouragement and enforcement programs, and community partnerships. Maintenance recommendations outline ways of considering bicyclist safety during construction and maintenance projects. While not directly under ACHD's purview, it is helpful for the Highway District to recognize the importance of support programs for bicyclists, and to support cities and community groups' encouragement efforts.

Community partners can assist ACHD in developing and maintaining the proposed bikeway network, as well as implementing supporting programs and facilities. Cities, employers, colleges and universities, and bicycle advocacy groups are all potential partners.

This Plan presents a blueprint for creating a world-class bicycle network in Ada County, serving both the recreational and transportation needs of this fast growing community. To ensure that this vision is implemented, the Plan must become a living document that is incorporated into ACHD's day-to-day activities of planning, design, funding, constructing and maintaining bicycle facilities as part of its roadway system. With the leadership of ACHD, the region's partner agencies, citizens and organizations, bicycling will be an important part of the future for Ada County.

Chapter 1. Introduction

Bicycling is growing in popularity across the country, and this holds true for Ada County, as the County's commitment to improving the bicycling environment is evidenced by its renewed designation as a bronze-level Bicycle Friendly Community - one of only two counties in the nation to receive such a designation. Over 4,000 people in Ada County's workforce use a bicycle as their primary mode of transportation[1]. Thousands more bicycle to school, to visit friends, to go shopping, and to improve their health[2]. A 2005 survey of mobility in downtown Boise found that 91 percent of respondents typically get around by walking (91 percent), while 13 percent bicycle in the area. However, the same survey found that, "bicycle and pedestrian facilities throughout the study area are in various degrees of disrepair."[3] The 2009 Ada County Highway District (ACHD) Roadways to Bikeways Bicycle Master Plan (*the Plan*) provides a blueprint for expanding existing facilities and creating new facilities for bicycle transportation and recreation in Ada County.

In the decade since the update of the 1996 *Ridge-to-Rivers Pathway Plan*, numerous on- and off-street bicycle facilities have been constructed by ACHD, Ada County, and its cities. ACHD alone has increased the number of miles of on-road bicycle facilities in the county to 164 total miles. This 2009 Plan takes an updated look at the existing ACHD roadway network, building upon the previous planning foundation and making recommendations to enhance and expand the existing on-street bikeway network, connect gaps, address constrained areas, provide for greater local and regional connectivity, and encourage more residents to bicycle. The 2005 *Pedestrian Bicycle Transition Plan* (PBTP) aids this study by laying the groundwork for bicycle and pedestrian planning in Ada County, particularly to address "federal pedestrian planning guidelines and the regulatory requirements of the *Americans with Disabilities Act* (ADA)". The PBTP conducted an extensive inventory of sidewalks and pedestrian facilities, conducted public outreach, and made recommendations with the anticipation of expanding the PBTP findings into a more detailed bicycle master plan effort. The *ACHD Blueprint for Good Growth Implementation: The Transportation & Land Use Integration Plan* (TLIP) is currently in development, and will present a vision for the future development of roadways in Ada County. The TLIP will include consideration of bicycle facilities on roadways in the future. The Roadways to Bikeways Plan was coordinated with the TLIP throughout both Plans' development and recommends strategies for implementing a bikeway network under the current system of roadways.

This Plan provides a basis and recommendations for an updated system of bike lanes, signed shared roadways, and bicycle boulevard designations. The Plan also recommends a variety of programs and policies to allow for safe, efficient and convenient bicycle travel in and between the communities of Ada County and connecting to destinations outside the county.

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[1] U.S. American Community Survey. 2007.
[2] Approximately 11% of bicycle trips are for the purpose of earning a living or going to school; 89% of bicycle trips are for other purposes. Source: U.S. DOT, National Household Travel Survey, 2001.
[3] Downtown Boise Mobility Study (2005)

Why Bicycling?

The bicycle is a low-cost and effective means of transportation that is non-polluting, energy-efficient, versatile, healthy, and fun. Bicycles also offer low-cost mobility to the non-driving public. Bicycling as a means of transportation has been growing in popularity as many communities work to create more balanced transportation systems by giving bicyclists a greater share in use of the roadway networks. In addition, recent national surveys find that more people are willing to cycle more frequently if better bicycle facilities are provided.

Ada County and its six cities are already extremely popular places for bicycling, particularly recreational riding. From challenging on or off-road rides in the foothills to leisurely rides on pathways such as the Boise River Greenbelt, the County and its six cities appeal to a wide variety of bicycle users. ACHD is in an excellent position to capitalize on the bicycle-friendly attributes that exist in this area -- moderate climate, relatively flat terrain in the developed areas, centralized agency control and a reputation as a place with ample recreational amenities -- to increase the number of residents and visitors who travel by bicycle not just for recreation, but for transportation as well.

Ada County is growing at a rate higher than the overall rate of growth in the state of Idaho. Traffic congestion is not yet the problem it is in other communities around the country, many of which have actively encouraged bicycling as a transportation demand management strategy[4]. However, managing traffic is a key strategy for the growing communities of Ada County to ensure they maintain their community character. This Plan is one step toward providing alternative modes and addressing future traffic congestion in the County.

In addition to reducing traffic congestion, another reason for encouraging and promoting bicycling is the enjoyment and quality of life for the residents of Ada County and its six cities. Since bicycling is among the most popular forms of recreational activity in the United States (with almost 80 million people walking and 36 million people bicycling for recreation or exercise nationally, and 27.3 percent of the population over 16 bicycling at least once over the summer)[5] when bicycling is available as a daily mode of transportation or recreation, substantial health benefits result. This is especially true for the older segment of the population who benefit most from such low-impact forms of exercise.

Finally, safety concerns are another reason to improve bicycling conditions in Ada County. Although the incidence of collisions involving bicycles may be low, concerns about safety have historically been the single greatest reason people do not commute by bicycle, as captured in polls as early as 1991 (Lou Harris). A Safe Routes to School survey in 2004 similarly found that 30 percent of parents consider traffic-related danger to be a barrier to allowing their children to walk or bike to school. Addressing those concerns for bicyclists through physical and program improvements is another major objective of this Plan.

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[4] Communities include Washington State, California, Oregon and many others. Congressmen Earl Blumenauer (OR) and James Oberstar (MN) introduced a Congressional Resolution in support of bicycling facilities in February 2008. Amongst the many benefits of bicycling that were cited, congestion was listed second, after health. *Source: http://www.bikesbelong.org/node/619188*

[5] National Sporting Goods Association survey (2003)

Purpose of the Bicycle Master Plan

The 2009 Bicycle Master Plan provides a broad vision as well as strategies and actions for the improvement of bicycling in Ada County and its six cities. Having an adopted Roadways to Bikeways Bicycle Master Plan for all the jurisdictions in Ada County is an essential element of improving transportation for all users. It is especially important for the following reasons:

- **Create a multimodal transportation system that includes bicycling as a practical alterative to driving and increases the use of bicycling for commuting and short distance trips to meet daily needs:** A multimodal transportation system which includes bicycling as a practical alternative to automobile use, particularly for short daily commute and utilitarian trips, leads to reduced traffic congestion, air pollution and consumption of non-renewable fuels.
- **Enhance the Quality of Life in Ada County**. The development of bicycle facilities creates people-friendly streets, paths, trails, and activity centers that are accessible and available to everyone and supports sustainable community development. Bicycling reduces traffic congestion, vehicle exhaust emissions, noise, and energy consumption. It is a healthy and active form of travel. It is an affordable means of transportation and recreation. Good bicycling opportunities can also stimulate the economy by bolstering businesses. Safe and efficient cycling opportunities will attract tourists to scenic areas, and employees to the many sports and recreation-oriented businesses.
- **Improve Safety and Encourage Cycling**. The design standards and guidelines, education, and enforcement recommendations outlined in this plan are tools to enhance safety for bicyclists. This plan provides recommendations for route improvements intended to make cycling safer for bicyclists of all ability levels. Encouragement programs are also suggested to motivate residents to ride for work, school, exercise and recreation.
- **Expand the Network and Support Facilities**. Ada County and its six cities already have a number of vastly popular bikeways such as the Greenbelt. While many of these existing facilities provide excellent scenic routes for recreational bicyclists, developing a more comprehensive on-street network is necessary to provide full bicycle connectivity. Implementing a complete bikeway network that links a variety of destinations – employment, shopping, school, and recreation – is a key to attracting greater numbers of bicyclists. In addition to expanding and connecting the key routes, providing support facilities such as clear directional signage and secure bicycle parking will enhance the functionality of the network and encourage more people to bicycle.
- **Maximize Funding Sources for Implementation**. With the identification and prioritization of specific facility and programmatic improvements found in the Roadways to Bikeways Plan, ACHD and other local jurisdictions can apply for appropriate funding to support bicycling throughout the county and its six cities.

Plan Development

The Plan was developed through a series of research, field, and public process activities from late Spring 2007 to early 2008.

Activities included:

- Review of existing documents and policies related to bicycling in Ada County and its six cities
- Bicycle counts at 33 locations
- Interviews with 13 local agency representatives to discuss their needs, goals, and desires for an updated bicycle network
- An online Roadways to Bikeways questionnaire (over 2100 people provided responses between July and August 2007)
- Assessment of existing bicycling conditions and facilities
- Evaluation of bicyclist needs, such as safety improvements, demographic and geographic population and employment demands, and facility deficiencies
- Field assessment of missing gaps or missing sections and system deficiencies
- Regular meetings with the Roadways to Bikeways Steering Committee, which included representatives of the Bicycle Advisory Committee (BAC), ACHD staff, and local jurisdictions
- Two public open houses were held on August 9, 2007, with 231 people attending and November 14,2007 with 113 people attending
- Additional comments submitted by residents to the ACHD Pedestrian/Bicycle Coordinator
- Additional presentations and materials, upon request, for May in Motion, the Police Appreciation Luncheon, ACHD's Neighborhood Advisory Committee, Treasure Valley High Capacity Transit Study Open House, and the City of Meridian Transportation Task Force

The rigorous public involvement process engaged agencies, stakeholders, and the general public from across the County to develop the Plan. Bicycle count and on-line survey results are discussed in greater detail in Appendix B. A summary of the public involvement outreach is available in Appendix O.

Plan Updates

This Plan is a living document and updates will be necessary in the future to assess progress, take advantage of emerging opportunities, and re-evaluate priorities as needed. As new sections of the bicycle facility network are developed and new technologies are adopted, bicycling mode share will increase and travel patterns will change. Priorities will shift and new opportunities will become apparent. These changes will be reflected in yearly updates to the list of short-term projects. Updates to the full Roadways to Bikeways Plan are recommended to occur every 5-10 years. Updates will be important as ACHD implements the road typologies proposed in the *Transportation and Land Use Integration Plan* (TLIP).

Chapter 2. Needs/Demand Analysis

Ada County bicyclists currently make 55,000 bicycle trips every weekday, saving more than 5,000 weekday motor vehicle trips and eliminating 37,000 miles of daily vehicle travel and 21,000 tons of vehicle emissions[6]. This study indicates that bicycle use will increase as facilities improve across the county, yielding air-quality, congestion reduction and health benefits for residents of the county. The goal of this Plan is to provide an alternative to driving and to reduce traffic congestion and air pollution. The Plan will have achieved its goal if the number of bicycle commuters in Ada County and its six cities increases. Local and national statistics form the basis for determining the demand for and potential benefits of an improved and expanded bikeway network for Ada County.

This Chapter addresses the differing needs and priorities of casual and experienced cyclists, and of bicyclists making utilitarian and recreational trips. The purpose of reviewing the needs of bicyclists is twofold: (a) it is instrumental when planning a system to serve different skill levels and different trip types; and (b) it is useful when attempting to quantify future usage and benefits to justify expenditures of resources. According to the US Department of Transportation, 57 million people, or almost 30 percent of the population 16 years or older rode a bicycle at least once during the summer of 2002[7]. This large number of infrequent riders suggests that there is a large reservoir of potential bicyclists who do not ride (or ride more often). A major reason for this is because infrequent or non-riders do not feel comfortable using the existing street system and/or do not have appropriate bicycle facilities at their destination, as determined by a survey of Ada County residents.

While the majority of Americans own bicycles, most of these people are recreational riders who ride relatively infrequently. School children between the ages of 6-14 typically make up a large percentage of bicycle riders, often riding to school, parks, or other local destinations. Adult road cyclists comprise a small, but enthusiastic, segment of regular bikeway users, along with serious off-road mountain bicyclists, who enjoy riding on trails and dirt roads. Bicycle counts in Ada County found that a large proportion of cyclists ride on sidewalks, which indicates that they are uncomfortable riding in traffic. As determined by the on-line survey, the single biggest adult group of bicyclists in Ada County is the intermittent recreational rider who generally prefers to ride on pathways or quiet side streets. Both the bicycle counts and the online survey results are discussed briefly in this Chapter and in greater detail in Appendix B.

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[6] These numbers are the results of the bicycle demand model, discussed later in this Chapter. The model assumes that a proportion of new bicyclists did not previously drive alone; they walked, took transit or rode the school bus, for example. In addition, the majority of bicycle trips are recreational, and therefore do not take the place of automobile trips.

[7] *Source: 2002 National Survey of Pedestrian and Bicyclist Attitudes and Behaviors*

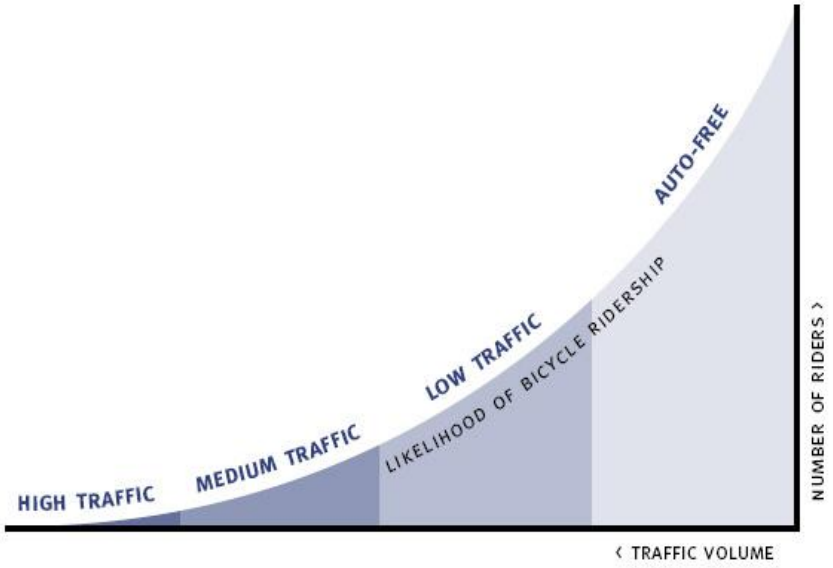

Figure 1. Likelihood of Bicycle Ridership[8]

The potential exists within Ada County and its six cities to dramatically increase bicycling rates by creating a variety of well-placed, connected bikeways. As Figure 1 shows, decreasing traffic volumes lead to an increased likelihood in bicycle ridership. Based on the results of the counts and surveys, this graphic is likely accurate in the Ada County context, as over half respondents cited the number and speed of vehicles as being a major barrier to riding, or riding more.

Needs of Casual and Experienced Cyclists

Cyclist needs vary depending on the skill level of the cyclist and the type of trip the cyclist is taking. For the purposes of this Plan, cyclists are separated into two skill levels: casual and experienced.

Casual Cyclists

Casual cyclists include youth and adults who are intermittent riders. Youths under age 16 may be unfamiliar with operating any type of vehicle on a road, while other casual cyclists may be nervous about riding in a street with cars.

Many younger children (ages seven to 11) use sidewalks for riding to schools or parks, which is acceptable in areas where pedestrian volumes are low and driveway visibility is high. Where on-street parking and/or landscaping obscures visibility, sidewalk riders may be exposed to a higher incidence of accidents. Sidewalk riding also increases conflicts with pedestrians. Older children (12 years or older) who consistently ride at speeds over ten miles per hour (mph) should be directed to riding on-street wherever possible. Children riding the wrong-way on-street are common, pointing to the need for safety education.

[8] Source: Bicycle Transportation Alliance (OR) *Blueprint for Better Biking: 40 Ways to Get There*

The casual bicyclist will benefit from route markers, bike paths, bike lanes on low-speed streets, neighborhood routes, traffic calming, wider curb lanes, and educational programs. Casual bicyclists will also benefit from marked routes that lead to parks, schools, shopping areas, and other destinations. These way finding amenities were explicitly requested by casual riders in the public outreach component of the Plan. To encourage youth to ride, routes must not have substantial traffic volumes or speeds, and otherwise be safe enough for parents to allow youth to ride.

Experienced Cyclists

Experienced cyclists include long-distance road cyclists, racers, commuters and utilitarian cyclists - those who use their bicycle as a primary means of transportation. These cyclists generally feel comfortable riding on roads and with traffic.

The experienced bicyclist will benefit from wider curb lanes on shared roadways, bicycle lanes on more direct arterials, and loop detectors at signals. The experienced bicyclist who is primarily interested in exercise will benefit from long loop routes that lead back to the point of origin and routes with significant elevation changes.

A summary of the needs of the different types of cyclists is provided in Table 1.

Table 1. Characteristics of Casual and Experienced Riders

Casual Riders	Experienced Riders
Prefer off-street bike paths, bike lanes along low-volume, or low speed arterials	Can comfortably ride alongside higher-volume, higher-speed arterials without bike lanes. Prefers on-street facilities to off-street paths.
May have difficulty gauging traffic and may be unfamiliar with rules of the road. May walk bike across intersections.	Negotiate streets like a motor vehicle, including "taking the lane" and using left-turn pockets.
May use less direct route to avoid arterials with heavy traffic volumes.	Prefer a more direct route.
May ride on sidewalks and ride the wrong way on streets.	Avoid riding on sidewalks or on multi-use paths. Rides with the flow of traffic on streets.
Ride shorter distances: ten miles or less.	Cycle longer distances, often more than 25 miles, on a recreational ride.

Needs of Cyclists Making Recreational and Utilitarian Trips

As available state and federal bicycle funding is primarily focused on commuting cyclists – those riding to work or school, or for shopping, errands, and other utilitarian trips – it is important to understand the specific needs of bicyclists who ride for utilitarian trips. On the other hand, recreational bicycling can improve livability and be a catalyst for tourism and economic growth.

Utilitarian Trips

Utilitarian trips include commuter cyclists, which are a primary focus of state and federal bicycle funding, as well as cyclists going to school, shopping or running other errands. Utilitarian bicyclists in Ada County and its six cities range from employees who ride to work or a bus, to a child who rides to school, to people riding to shops. Bicycle commuting requires short distances, typically less than three miles, which are often incompatible with most land use and transportation patterns that result in people living farther and farther from where they work. While three miles is not a long distance, the average trip length is under ten miles[9] and well within bicycling distance. For this reason, improving access to transit is important to help extend the commute range of cyclists. Transit systems also face an increasingly dispersed live-work pattern (due to market-driven land use) that is difficult to serve, and linking bicycle routes to transit can significantly increase the service area of transit stops. Ada County has a great potential to increase the number of people who ride to work or school because of (a) moderate density residential neighborhoods near downtown areas, (b) a favorable climate, and (c) a culture that values fitness and experience of the outdoors and nature as a part of daily life.

Utilitarian cyclists typically seek the most direct and fastest route available, with regular adult utilitarian cyclists often preferring to ride on arterials rather than side streets or off-street facilities. Commute periods typically coincide with peak traffic volumes and congestion, increasing the exposure to potential conflicts with vehicles. Places to safely store bicycles are of paramount importance to all bicycle commuters and cyclists making other utilitarian trips, and storage can be provided through well-designed bicycle parking facilities, as described in Appendix L. Major concerns of utilitarian cyclists include traffic congestion, changes in weather (rain), riding in darkness, personal safety and security.

Rather than be directed to side streets, most utilitarian cyclists would prefer to be given bike lanes or wider curb lanes on direct routes, however, unprotected crosswalks and intersections in general are the primary concerns of all bicycle commuters. Unprotected crosswalks and intersections where no stop sign or signal control aids crossing a street often result in longer and/or unpredictable waiting times. In addition, the lack of marked crossing reduces visibility of cyclists and can create dangerous situations when a cyclist attempts to cross a street. Utilitarian cyclists generally prefer routes where they are required to stop as few times as possible, thereby minimizing delay.

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[9] Bureau of Transportation Statistics, calculated from the 2001 National Household Travel Survey. *Source: http://www.bts.gov/publications/bts_special_report/2007_10_03/html/table_02.html*

Recreational Trips

Recreational users cover all age groups from children to adults to senior citizens. Recreational trips can range from a 50-mile weekend group rides, to a family outing along the Greenbelt, and all levels in between. Recreational cyclists' needs vary depending on their skill level. Road cyclists out for a 100-mile weekend ride may prefer well-maintained roads with wide shoulders and few intersections, stop signs or stop lights. Casual cyclists out for a family trip may refer a quiet bike path with adjacent parks, benches and water fountains.

The differing characteristics of recreational and utilitarian trips are shown in Table 2.

Table 2. Characteristics of Recreational and Utilitarian Trips

Recreational Trips	Utilitarian Trips
Directness of route not as important as visual interest, shade, protection from wind	Directness of route more important than visual interest, etc.
Loop trips may be preferred to backtracking	Trips generally travel from residential to shopping or work areas and back
Trips may range from short to over 50 miles	Trips generally are 1-5 miles in length
Short-term bicycle parking should be provided at recreational sites, parks, trailheads and other recreational activity centers	Short-term and long-term bicycle parking should be provided at stores, transit stations, schools, workplaces.
Varied topography may be desired, depending on the skill level of the cyclist	Flat topography is desired
May be riding in a group	Often ride alone
May drive with their bicycles to the starting point of a ride	Use bicycle as primary transportation mode for the trip; may transfer to public transportation; may or may not have access to a car for the trip
Trips typically occur on the weekend, before morning commute hours or after evening commute hours.	Trips typically occur during morning and evening commute hours (commute to school and work). Shopping trips also occur on weekends.
Type of facility varies, (paved or dirt pathway, shared lane, striped bike path) depending on the skill level of cyclist	Generally use on-street facilities, may use pathways if they provide easier access to destinations than on-street facilities

Opportunities and Constraints in Ada County[10]

Substantial population growth and increasing vehicle numbers throughout Ada County and its six cities have caused increased traffic and congestion and hazardous conditions for bicyclists and pedestrians on the existing roadway system. Streets that were previously low-volume and therefore good bicycling routes may have additional traffic, and cyclists may not be able to share the road with cars safely. In addition, additional turning movements by motorists are unsafe for cyclists, who must be on guard for vehicles turning across their path. This is an excellent opportunity to further develop a comprehensive bicycle network. As Ada County continues to grow, government agencies and the private sector have an opportunity to extend and improve the bicycle network and incorporate bicycle facilities into projects that are in the planning and design stages. Planned new residential and commercial in Ada County presents many opportunities to incorporate bicycle facilities into projects that are in the planning and design stages.

The weather can be viewed as both an opportunity and constraint, depending on the time of year. Good weather in spring, summer and fall support bicycle use, and most Ada County residents who ride bicycles, ride during those seasons. By contrast, winters are cold and windy, and the weather presents a substantial barrier to bicycling.

Heavy traffic volumes and speeds along most of Ada County's arterials, combined with a lack of extra outside lane or shoulder width on some routes, makes bicycling very difficult along many of the county's major streets. This is made more challenging by the fact that nearly any bicycle journey in Ada County requires some amount of travel along or across an arterial, due to the lack of connectivity of the collector and local street networks. As the bikeway network development proceeds, it will be important to balance the accessibility and functionality provided by arterial roads with the difficulties these roads present in terms of safely and feasibly implementing bikeways.

Safe crossings of the freeways and other major roads such as Floating Feather and Meridian for bicyclists are few and far between, and planning for and creating safe crossings along desired bicycle routes will be necessary in creating a comprehensive bicycle network. ACHD should work with Idaho Transportation Department to provide the needed crossings. Furthermore, the current bikeway network is fragmented, with many sections of bike lanes starting and stopping without connecting to additional bicycle facilities. Identifying a connected system that ACHD can implement within a reasonable time frame will be a key priority of the bicycle plan recommendations.

As the roadway provider for all of Ada County, ACHD has the opportunity to create and implement a truly connected on-street bicycle system that serves all residents of the county. Instead of needing coordination between different jurisdictions to ensure that a bike lane started in Boise isn't dropped in Meridian, ACHD provides the centralized agency control to oversee and implement a county-wide bicycle master plan. The county and the cities can be a responsible partner for bike improvements by exacting bicycle improvements as part of the land use entitlement process. Furthermore, ACHD policies can support the work of the various jurisdictions by providing staff time or materials, particularly relating to education, encouragement, and end-of-trip facilities.

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[10] See Appendix C for more detailed analysis of opportunities and constraints in Ada County.

Generators and Attractors of Bicycle Trips in Ada County

Facilities that tend to or have the ability to attract substantial numbers of bicycle trips include educational facilities (including BSU and Schools), major employers (such as Hewlett Packard, Micron, Albertsons/Supervalu Inc., several large hospitals, federal and state governments), park and recreation facilities, and government/civic centers or commercial centers. Traditional residential neighborhood development tends to generate bicycle trips, and this Plan focuses on providing access from generators to attractors.

Bicycle Count Results

As part of the existing conditions analysis for this Plan, Ada County conducted a bicycle count. This count established a baseline of bicyclists, for eventual comparison to future bicycle counts that will be performed as the network develops. This comparison will enable ACHD and the six cities to target improvements to areas where bicycle mode split is high and to evaluate the efficacy of the network development and supporting programs.

There were a total of 1,159 bicyclists counted at the 33 locations. Male cyclists outnumbered female cyclists by a three-to-one margin. This level of gender split was expected, as men traditionally outnumber women when it comes to bicycling. The counts at the various locations support the self-reported results from the survey regarding where people bicycle in Ada County. The highest count locations occurred along or near the Greenbelt and entering downtown Boise. Slightly more than half (55 percent) of bicyclists counted were wearing helmets.

Of particular note is the number of bicyclists riding on the sidewalk; overall, 33 percent of male cyclists and nearly 50 percent of female cyclists were counted riding on the sidewalk. These numbers indicate that bicyclists are likely uncomfortable or consider themselves unsafe when biking in the roadway.

Bicycle counts were not incorporated into the following demand model, as the data is for one year only, and it is not possible to reasonably draw many conclusions about cycling, or discuss any trends regarding cycling in Ada County. At least three years of bicycle count data would be required to conduct a baseline analysis of bicycling in Ada County. Such an analysis could be followed up with additional analysis as the bicycle network is developed, and as additional data becomes available.

Online Survey Results

Citizens had an opportunity to take the ACHD Roadways to Bikeways survey from Wednesday April 25 through June 15, 2007. Of the 2,162 people who completed the survey (by filling it out online or by submitting a paper copy), just over three-quarters of respondents identified Boise as their place of origin, with Meridian a distant second at just over eight percent. When asked why they bike, the majority of respondents said for either exercise (88 percent) or recreation (83 percent), followed by commuting to work (62 percent).

In response to the question, "How often do you ride a bike?" nearly three-quarters of respondents ride their bike at least several times a week. For the six percent of people who responded "Other",

the most frequent comment related to the weather, and how their riding frequency changed depending on the season.

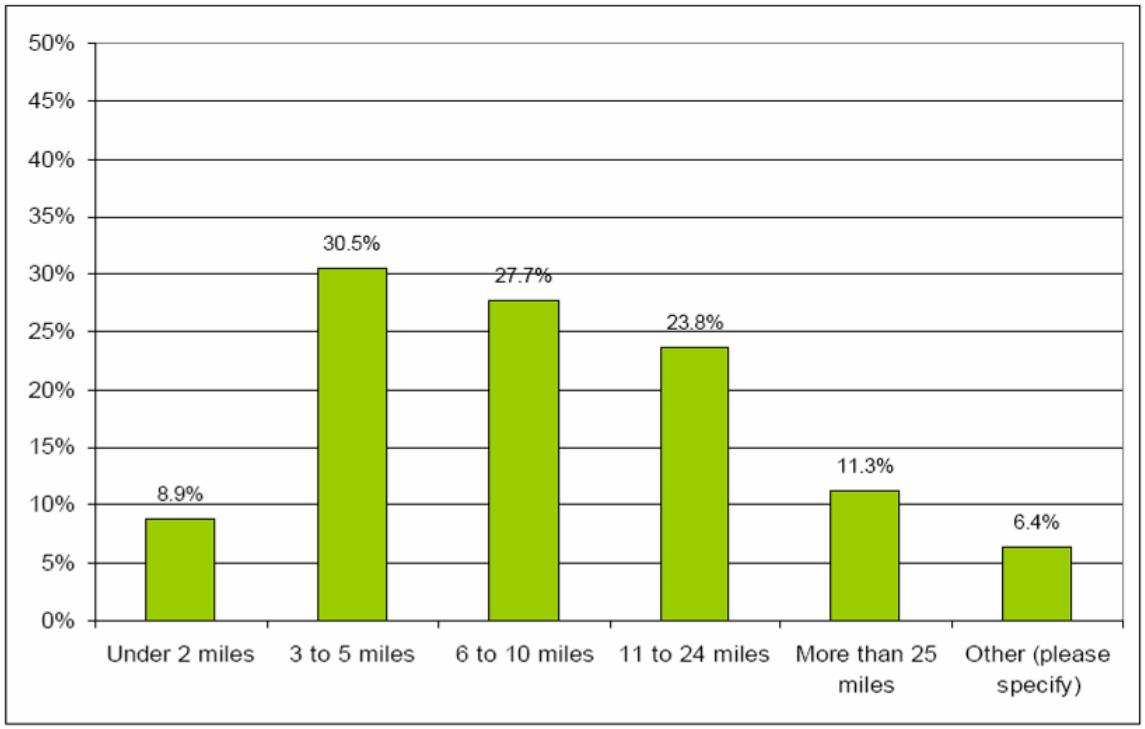


Figure 2. Online Survey Results for Trip Length

A question about trip length found that the highest percent able of respondents ride three to five miles, shown in Figure 2. The primary reason that people responded "Other" was to clarify between commuting/errand distances (generally shorter distances under 10 miles) and recreational/training ride distances (20+ miles).

Although respondents identified several arterials as some of their least favorite places to ride, they continue to bicycle on these facilities, as shown by the bicycle counts and results of the survey. Interestingly, very few people mentioned their neighborhood, or local grocery store, or local park as a favorite place to ride. This indicates that the majority of survey respondents were commuters and/or serious recreational riders, which is supported by the results to earlier questions. Reaching out to the casual bicyclist will be a key to increasing bicycle ridership within Ada County.

In response to the question, "What prevents you from biking more often?", nearly three-quarters of the respondents mentioned the lack of bike lanes, paths, or routes (see Figure 3). Over 55 percent also identified the number and speed of vehicles as a barrier (respondents were allowed to mark all that applied). All of the other response rates were under 20 percent, except for the "Other" category, which included mostly comments about weather and cars or drivers (inconsiderate/distracted drivers that cut bicyclists off or get too close, cars parked in bike lanes, dangerous/illegal driving, etc).

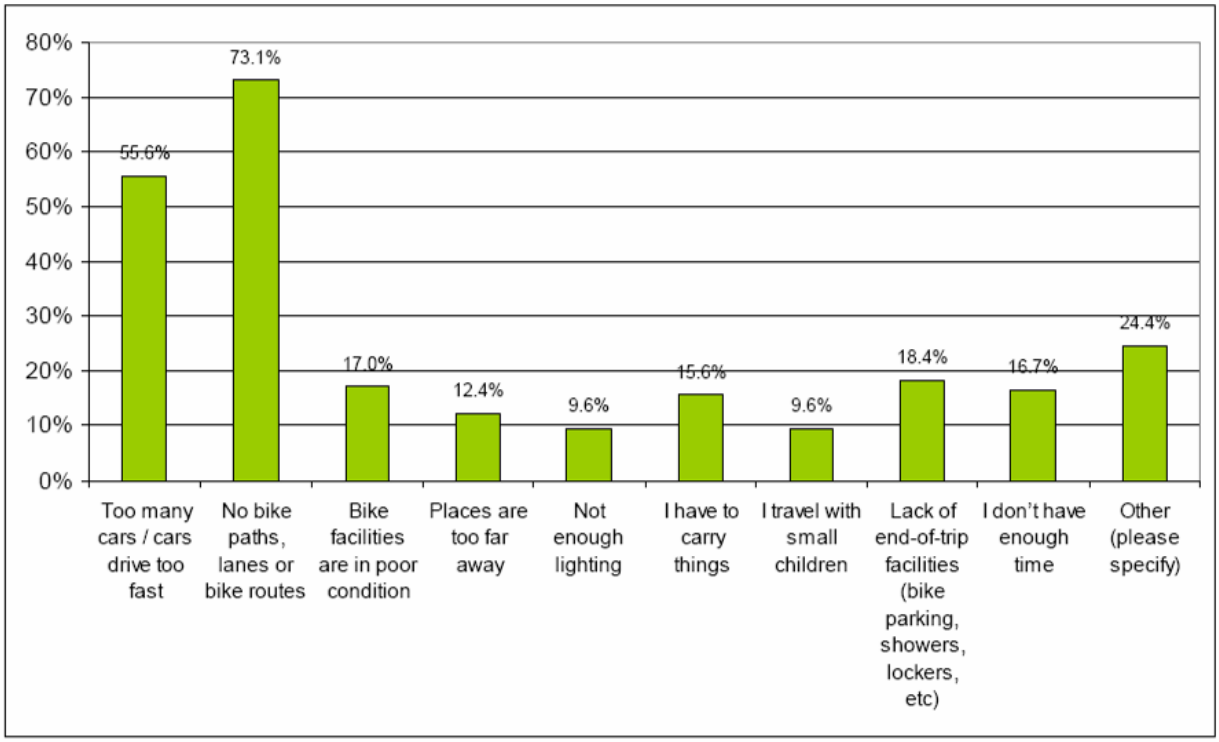


Figure 3. Online Survey Results for Barriers to Bicycling

Survey respondents were also asked what facilities they would like to see in Ada County. The most frequent answers provided fell into the following general categories:

- More off-street/separated pathways
- More bike lanes
- Completing the gaps in the existing system, connecting various communities
- Education (aimed at both driver and bicyclist)
- Promotion of bicycling benefits
- Better signage
- More bicycle racks / bike lockers
- Maintenance of existing facilities (sweeping, filling in potholes, etc)

These results clearly highlight the importance of encouraging additional bicyclists in Ada County to improve the bicycle network, both by adding facilities and improving safety conditions.

Demand Analysis

A variety of demand models are often used to quantify usage of existing bicycle facilities and to estimate the potential usage of new facilities. The purpose of these models is to provide an overview of the demand and benefits for bicycling and walking in Ada County and its six cities. As with all models, the results show a range of accuracy, which varies based on a number of assumptions and available data. The models used for this study incorporated information from existing publications as well as data from the American Community Survey (ACS). All data assumptions and sources are noted in the tables following each section of the analysis.

Existing Bicycle Demand

The COMPASS Ada County bicycle demand model consists of several variables including commuting patterns of working adults and predicted travel behaviors of area college students and school children. Bicycle counts were used to calibrate the model and double-check that the results for current levels of bicycling were accurate, but were not included as part of the model itself, due to a lack of longitudinal data. For modeling purposes, the study area included all residents within Ada County in 2007. The information was ultimately aggregated to estimate the total existing demand for bicycle facilities in the County. The year 2007 is being used as the baseline for the demand analysis, as that is most recent year ACS data is available. The proportion of people in Ada County commuting by bicycle was 1.3 percent according to the 2000 Census, and increased to 2.2 percent in the 2007 ACS, suggesting that the population of bicyclists has likely increased even in the time since the 2007 ACS (based on the assumption that the increase has continued since the 2007 ACS).

For this analysis, population data for the existing labor force (including the number of workers and percentage of bicycle commuters) were obtained from the 2007 ACS findings from Ada County. In addition to people commuting to the workplace via bicycle, the model also incorporates a portion of the labor force working from home. Specifically, it was assumed that about ten percent of those working from home would make at least one bicycling trip during the workday. The 2007 ACS was also used to estimate the number of children enrolled in grades one through 12 in Ada County. This figure was combined with data from National Safe Routes to School surveys to estimate the proportion of children riding bicycles to and from school. College students constitute a third variable in the model due to the presence of Boise State University (BSU) and enrollment was determined through 2007 ACS findings. Data from the Federal Highway Administration regarding bicycle mode share in university communities was used to estimate the number of students bicycling to and from the BSU campus. Finally, data regarding non-commute trips was obtained from the 2001 National Household Transportation Survey to estimate bicycle trips not associated with traveling to and from school or work. Table 3 summarizes estimated existing daily bicycle trips in Ada County.

Table 3. Aggregate Estimate of Existing Daily Bicycling Activity in Ada County (2007)

Variable	Figure
a. 2007 Total Population [1]	373,406
Employed Adults, 16 Years and Older	
b. 2007 Employed Persons [2]	188,338
c. 2007 Bicycle Commute Share Percentage [2]	2.2%
d. 2007 Bicycle Commuters (b*c)	4,069
e. 2007 "Work at Home" Percentage [2]	4.6%
f. 2007"Work at Home" Bicycle Commuters [3] (e*b)	430
g. 2007 Transit Commute Share Percentage [2]	0.4%
h. 2007 Transit-Bicycle Commuters[4]	71
School Children	
i. 2007 Population, Grade 1-12 [5]	62,998
j. 2007 Estimated School Bicycle Commute Share [6]	2%
k. 2007 School Bicycle Commuters (i*j)	1,260
College Students	
l. 2007 College Population [7]	23,370
m. 2007 Bicycle Commute Share [8]	7%
n. 2007 College Bicycle Commuters (l*m)	1,636
School and Work Commute Trips Sub-Total	
o. Daily Commuters Sub-Total	7,395
p. Daily Commute Trips Sub-Total	14,790
Other Utilitarian and Discretionary Trips	
q. Ratio of "Other" Trips in Relation to Commute Trips [9]	2.73
r. Estimated Non-Commute Trips	40,376
Total Estimated Daily Bicycle Trips in Study Area	**55,166**

Note: Census data collected from 2007 American Community Survey (ACS) for Ada County, Idaho.

(1) 2007 ACS, B01003 Total Population.
(2) 2007 ACS, B08006 Sex of Workers by Means of Transportation to Work – Workers 16 years of age and older.
(3) Assumes 5% of population working at home makes at least one daily bicycle trip, based on experience.
(4) Assumes 10% of transit riders access transit by bicycle, based on experience.
(5) 2007 ACS, B14001 School Enrollment by Level of School
(6) Estimated share of school children who commute by bicycle, as of 2000 (source: National Safe Routes to School Surveys, 2003).
(7) 2007 ACS, B14001 School Enrollment by Level of School.
(8) Bicycle mode share at Portland State University in 2007, a commuter-based university similar to BSU. A review of bicycle commute mode share in 7 university communities found the college bicycle mode share to be 10% (source: National Bicycling & Walking Study, FHWA, Case Study #1, 1995).
(9) 27% of all trips are commute trips (source: National Household Transportation Survey, 2001).

Table 3 indicates that approximately 55,000 trips are made on a daily basis. The model shows that non-commuting trips comprise the vast majority of existing bicycle demand. This is consistent with the survey result that 88 percent of respondents bike for exercise and 83 percent ride for recreation (multiple selections were allowed).

It should be noted that this number represents the number of bicycle trips per day, rather than the number of people bicycling; most riders ride for both out and back trips, as well for errands or to lunch, which increases the number of trips made. The 55,000 trips number is also applicable to weekdays only, and to the spring, summer and fall months. During the winter, a small proportion of people will continue to bicycle, but it can be assumed that the number of bicycling trips will be substantially reduced due to weather.

Chapter 3. Goals, Objectives, and Actions

As stated earlier, the Roadways to Bikeways Plan provides a basis and recommendations for an updated system of bike lanes, signed shared roadways, and bicycle boulevard designations. The purposes of the Plan are to enhance the quality of life in Ada County and its six cities, improve safety and encourage cycling, expand the bicycle network and its supporting facilities, and maximize funding sources for implementation. The Plan's Goals, Objectives and Actions provide a framework for strategic implementation. The two primary goals of the Roadways to Bikeways Plan are:

Goal 1: Complete a bicycle facility network that maximizes safety, provides connectivity, and supports the bicycle as a viable transportation mode among the residents of Ada County and its six cities.

Goal 2: Promote bicycle safety and increased bicycling within Ada County and its six cities.

Goals provide the context for the specific objectives, policies and actions discussed in the Plan. The goals provide the long-term vision and serve as the foundation of the plan, while the objectives and actions provide more specific descriptions of actions to undertake to implement the plan.

Four principle objectives have been identified for achieving the two overarching goals of the Plan.

Objective 1: Implement the Roadways to Bikeways Recommended Bikeway Network to encourage increased use of the bicycle for transportation.

Action 1.1 Complete the recommended bikeway network by closing existing gaps and considering innovative design solutions for constrained locations to provide accessible bicycling corridors throughout Ada County.

Action 1.2 Provide safe and accessible bicycle facilities that link local and community destinations (downtowns, schools, parks, neighborhood centers) and pathway systems, as well as regional facilities and other destinations.

Action 1.3 Implement a continuous network of bike lanes, signed shared bikeways, and bike boulevards that serve all bicycle user groups, including both recreational and utilitarian riders.

Action 1.4 Seek funding for bicycle transportation projects through current local, regional, state, and federal funding programs while forming local partnerships to leverage those funds to maximize the use of available dollars.

Objective 2: Encourage Ada County residents to use bicycles as an alternative mode of travel for both local and commuter trips by publicizing routes and proper facility maintenance.

Action 2.1 Encourage construction or repair activities, both on street and of adjacent buildings, to minimize disruption to bicycle facilities, consider bicyclist safety at all times, and provide alternate routes if necessary.

Action 2.2 Incorporate bicycle network repair and maintenance needs into the regular roadway maintenance regime as appropriate, paying particular attention to sweeping and pothole repair on priority bicycle facilities.

Action 2.3 Install signage along all local and regional bikeways to assist with way finding and to increase awareness of bicyclists.

Action 2.4 Publicize the availability of bicycling maps and other bicycling resources through the ACHD website, bicycle shops, schools, employers, and other locations.

Objective 3: Promote bicycling educational and safety programs, support encouragement programs and implement law enforcement activities.

Action 3.1 Continue existing and pursue new adult and youth bicycle education and safety programs.

Action 3.2 Increase attention by law enforcement officers to bicycle-related violations by both motorists and bicyclists, and emphasize positive enforcement for safe bicycling behavior by children.

Action 3.3 Support Safe Routes to School and other efforts, including educational and incentive programs to encourage more students to bicycle or walk to school, through a partnership with the school districts and YMCA.

Action 3.4 Encourage employers to provide incentives and support facilities for employees that commute by bicycle.

Action 3.5 Encourage jurisdictions to provide incentives to developers completing new and re-development of properties that include bicycle-friendly facilities and design in their projects.

Objective 4: Facilitate coordination and cooperation among local jurisdictions in development of the Roadways to Bikeways recommendations.

Action 4.1 Provide ACHD community partners and local agencies the tools and guidance necessary to implement bicycle-specific improvements within their jurisdictions.

Action 4.2 Encourage regular communications between ACHD, constituent cities, ITD, COMPASS, Valley Regional Transit, Ada County, and other affected agencies regarding bicycle planning issues.

Action 4.3 Encourage large employers, colleges and universities, activity centers and major transit stops to provide secure bicycle storage facilities and racks and promote their efforts.

Action 4.4 Provide projects that improve multi-modal connections and enhance bicycle-transit trip linking.

Chapter 4. Roadways to Bikeways Recommended Network

Ada County has a growing reputation as a desirable, livable community. One of the aspects that makes a community livable are places where people feel comfortable bicycling, whether they be school children, young adults, working people, or senior citizens. Providing a connected network of bicycle facilities throughout Ada County is fundamental to achieving the first Goal of this Plan:

Goal 1: Complete a bicycle facility network that maximizes safety, provides connectivity, and supports the bicycle as a viable transportation mode among the residents of Ada County and its six cities.

Additional bike lanes, roadway crossing improvements, and other bicycle facilities are needed in order for bicyclists to reach key destinations and encourage more county residents to bicycle.

A bicycle network is a network of bicycle facilities that, for a variety of reasons including safety and convenience, provide an enhanced level of service for bicyclists. All segments of the Recommended Bikeway Network will have some type of visual cue (a bike lane, a bike route sign, a pavement marking, etc) that identifies the roadway as a part of the Roadways to Bikeways Bike Network. The network – when fully implemented – will provide primary routes for bicycling throughout Ada County. By law, bicyclists are allowed on all streets and roads regardless of whether they are a part of the bikeway system. The Roadways to Bikeways Recommended Bikeway Network (including all short-, medium- and long-term recommendations outlined following) will serve as a core system of bike facilities that provide easier access to all parts of the county for bicyclists, while serving as a tool for ACHD to focus and prioritize bicycle facility implementation efforts where they will provide the greatest benefit to bicyclists and the community at large.

Roadways to Bikeways Plan

The Roadways to Bikeways Recommended Bikeway Network is a tool that allows ACHD to focus and prioritize implementation efforts where they will provide the greatest community benefit. To further that aim, the facility recommendations are broken into short-term (ten years or less;), medium-term (ten to 25 years), and future projects (25-50 years) based on the need of a particular facility and ACHD's ability to implement the planned improvement within the adopted Five-Year Work Plans that govern ACHD roadway improvements. Short-term recommendations can be found in Map 1, on page 31, and complete network recommendation of all tiers can be found in Map 22 in Appendix G. The completed network will connect all parts of the county while providing a bicycle facility within a quarter-mile of 95 percent of all the residents of Ada County and its six cities.

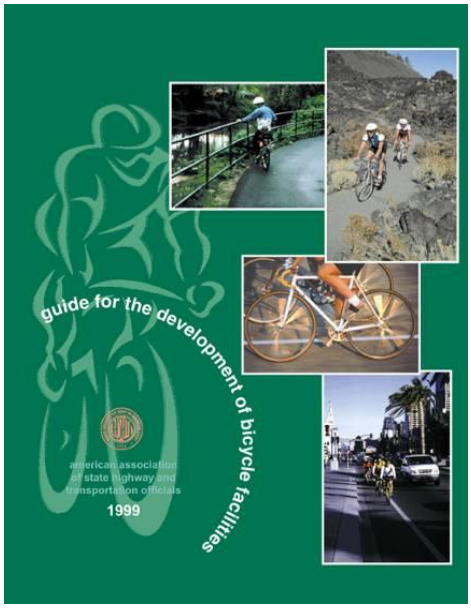
Objective 1 of this Plan directly addresses the development of a recommended bicycle network.

Objective 1: Implement the Roadways to Bikeways Recommended Bikeway Network to encourage increased use of the bicycle for transportation.

Achieving this Objective involves closing existing gaps, considering innovative design treatments, and providing safe and accessible bicycle facilities that link local and regional community centers and other destinations. It includes implementing a continuous network of bike lanes, signed shared bikeways, and bicycle boulevards to serve all user groups, including commuting, recreation and utilitarian trips. Finally, completing a bicycle network requires seeking funding through current local, state and federal funding programs while seeking to form local partnerships to maximize the use of available dollars.

Bicycle Infrastructure Overview

According to AASHTO's (American Association of State Highway and Transportation Officials) *Guide for the Development of Bicycle Facilities* (1999), there are several types of "bikeways". Bikeways are distinguished as preferential roadways accommodating bicycle travel. Accommodation can take the form of bicycle route designation or bicycle lane striping. Shared-use paths are separated from a roadway for use by cyclists, pedestrians, in-line skaters, runners, and others.



The AASHTO Guide for the Development of Bicycle Facilities

It is important to note that bicycles are permitted on all roads in the State of Idaho. As such, the Ada County Highway District's entire street network is effectively the county's bicycle network, regardless of whether or not a bikeway stripe, stencil, or sign is present on a given street. The designation of certain roads as striped bike lanes or bike routes is not intended to imply that these are the only roadways intended for bicycle use, or that bicyclists should not be riding on other streets. Rather, the designation of a network of on-street bikeways recognizes that certain roadways are preferred bicycle routes for most users, for reasons such as directness or access to significant destinations, and allows ACHD to then focus resources on building out this primary network.

Bicycle Facility Types

The Recommended Roadways to Bikeways Network consists of the following types of bicycling facilities. These are:

- Bicycle Lanes
- Signed Shared Bikeways (formerly bicycle routes) – This includes:
  - Bicycle Boulevards

- Other On-Road Facilities – This includes:
  - Wide outside lanes, which may not have enough width to provide bike lanes but do have space to provide a wider (14'-16') outside travel lane; and
  - Shoulder bikeways, which are typically found in rural areas, are paved roadways with striped shoulders wide enough for bicycle travel (minimum of four feet).

In addition, pathways (or shared-use paths), while built and maintained by the local parks and recreation departments, are shown on Map 1 to better illustrate the connectivity of the entire non-motorized network. Other supporting programs and maintenance concerns are discussed in Chapter 6, and supporting facilities (e.g. bike parking and showers) are discussed in Appendix L.

Bicycle Lanes

Designated exclusively for bicycle travel, bicycle lanes are separated from vehicle travel lanes with striping and also include pavement stencils. Bicycle lanes are most appropriate on arterial and collector streets in urban and rural areas where higher traffic volumes and speeds warrant greater separation.

Bike lane on Leighfield Drive, Meridian

Most utilitarian bicyclists would argue that on-street facilities are the safest and most functional facilities for bicycle transportation. Bicyclists have stated their preference for marked on-street bicycle lanes in numerous national surveys. The fact is that many bicyclists – particularly less experienced riders – are far more comfortable riding on a busy street if it has a striped and signed bike lane. Part of the goal of this Plan is to encourage new riders, and providing marked facilities such as bike lanes is one way of helping to persuade residents to give bicycling a try.

This Plan takes the approach that if properly designed, bike lanes can increase safety and promote proper riding. For this reason, bike lanes are highly desirable for bicycle commute and other utilitarian routes along major roadways. Bike lanes help to define the road space for bicyclists and motorists, reduce the chance that motorists will stray into the cyclists' path, discourage bicyclists from riding on the sidewalk, and remind motorists that cyclists have a right to the road. One key consideration in designing bike lanes in an urban setting is to ensure that bike lanes and adjacent parking lanes have sufficient width (usually five feet, see Appendix I, Design Guidelines for additional information) so that cyclists have enough room to avoid a suddenly opened vehicle door.

Bergeson Road bike route, Boise

Signed Shared Roadways

The most common bikeways are shared roadways, which accommodate vehicles and bicycles in the same travel lane. The most suitable roadways for shared vehicle/bicycle use are those with low posted speeds of 25 MPH or less or low traffic volumes of 3,000 average daily traffic or less, many of which are in urban and rural residential areas. These facilities may include traffic-calming devices to reduce vehicle speeds while limiting conflicts between motorists and bicyclists. A common practice is to designate a system of shared roadways which are signed with bicycle route signs, directional arrows and other way finding information.

Bike routes may also be desirable on certain commute routes where installing bike lanes is not possible, provided that appropriate signage is installed to alert motorists to the presence of bicycles on the roadway. Bike route signing may also include "Share the Road" signs at regular intervals along the route.

Bicycle Boulevards

On streets with low traffic volumes of 3,000 average daily traffic or less and low speeds of 25 mph or less, striped bike lanes may not be needed at all. This is based on the potential for serious conflicts being so low that the cost of installing bike lanes may not be warranted. On these types of low-traffic neighborhood streets, called 'bicycle boulevards,' designated and signed bike routes can serve as important connectors to schools and recreational areas such as parks. Bicycle Boulevards are a specific sub-category of signed shared roadways, where different levels of traffic calming, signage and other accommodations are made for bicyclists. While most signed shared roadways are appropriate for more rural low-speed and low-traffic streets, Bicycle Boulevards are beneficial in more urban residential areas, where traffic volumes are still low, but greater cross-traffic or motorist turning activities can become a safety concern for bicyclists.

Bicycle boulevards are developed through a combination of traffic calming measures and other streetscape treatments, and are intended to slow vehicle traffic while facilitating safe and convenient bicycle travel. Appropriate treatments depend on several factors including traffic volumes, vehicle and bicycle circulation patterns, street connectivity, street width, physical constraints, and other parameters. A detailed discussion of traffic calming treatment options can be found in Appendix I. Potential treatments include curb extensions, medians, on-street parking delineation and other features that can be implemented at reasonable cost and are compatible with snow plowing and emergency vehicle accessibility. It should be noted that many bicycle boulevard treatments can also benefit pedestrians. Curb extensions, for instance, can reduce vehicle speeds on a street by creating a visual "pinch point" for motorists. They also improve the pedestrian environment by shortening the pedestrian crossing distance.

Most of ACHD's minor collector and local streets can be classified as shared roadways, as they can accommodate bicyclists of all ages and currently have little need for dedicated bicycle facilities (e.g., bicycle lanes). Curb-to-curb widths generally range between 40' and 50' and the typical street cross-section includes two vehicle travel lanes with on-street parking.

Other On-Road Facilities

Additional on-road facilities include roads where bicycle lane striping or traffic calming may not be appropriate

Star Road shoulder bikeway, Star

Wide Outside Lanes

A wide outside lane may be sufficient accommodation for bicyclists on streets with insufficient width for bike lanes but which do have space available to provide a wider (14'-16') outside travel lane.

Shoulder Bikeways

Typically found in rural areas, shoulder bikeways are paved roadways with striped shoulders (4'+) wide enough for bicycle travel. Shoulder bikeways often, but not always, include signage alerting motorists to expect bicycle travel along the roadway.

The most prominent shoulder bikeways in Ada County exist on portions of Eagle Road (Highway 55), Star Road, Kuna-Meridian Road (Highway 69), State Street (Highway 44) and Chinden Boulevard (Highway 20/26).

Pathways (Shared Use Paths)

Pathways (shared-use paths) are used by various non-motorized users, including pedestrians, cyclists, in-line skaters and runners. Pathways are typically paved (asphalt or concrete) but may also consist of an unpaved smooth surface as long as it meets ADA standards.

Mother and child biking on the Greenbelt, Garden City

In general, pathways are desirable for slower-speed recreational cycling, particularly by families and children. However, they are also used extensively by utilitarian cyclists for at least part of their commute within Ada County. Given the potential mix of users, there is potential for conflicts on heavily-used pathways, necessitating lower bicycle speeds on these paths. Pathways are preferred by bicyclists because the corridors have few intersections or crossings, which reduce the potential for conflicts with motor vehicles. Pathways located immediately adjacent to roadways, often referred to as "side paths" are less desirable due to the numerous potential conflicts with motor vehicles turning on or off of side streets and driveways.

Every jurisdiction within Ada County has at least one pathway, the most well-known and well-used being the Greenbelt which goes through Boise, Garden City, Eagle, and unincorporated Ada County. While pathways are important to the overall circulation network for non-motorized transportation, the focus of this plan is the on-street network. Connections to the existing and

proposed pathway network will be important, but identifying new pathways is not a focus of this Plan. The ACHD street system may provide access to such facilities, but generally the agency does not build or maintain off-road shared use paths such as the Boise River Greenbelt. Instead, ACHD works with other agencies and private developers to provide such facilities.

Roadways to Bikeways Recommended Network

Bicycle Facility Selection Process

As a countywide plan, the Roadways to Bikeways Plan reflects previous planning efforts while focusing on providing a connected on-road bike network within Ada County. Input on the recommended network was received through a public survey, multiple meetings with the Steering Committee and Bicycle Advisory Committee, stakeholder interviews, from staff and via an extensive field survey and analysis process. In addition, the following criteria were considered in analyzing existing roadway conditions and eventually selecting specific treatments:

- Existing bicycling patterns based on reports from surveys and users
- Traffic volumes and travel speeds on streets
- Safety concerns
- Amount of side friction (driveways, side streets)
- Curb-to-curb width, available right-of-way and shoulder conditions
- Number of destinations served, including schools, parks and employment centers
- Topography and gradients
- Integration into the regional system
- Presence of reasonable alternatives for bicyclists
- Directness and connectivity to destinations

The Roadways to Bikeways Recommended Bikeway Network was developed with a focus on connecting communities and destinations within communities (see Appendix D), addressing routes currently used by bicyclists (see Appendix E), and leveraging on specific opportunities and constraints (see Appendix F) in Ada County and its six cities.

Finally, it is important to remember that the bikeway system and the recommended short-term projects serve as guidelines for implementation. The system and segments themselves may change over time as a result of changing bicycling patterns, funding availability, and implementation constraints and opportunities.

Short-Term Network Options

The treatment options for short-term projects fall into the following five categories:

- Narrowing travel lanes to provide bike lanes
- Shoulder widening
- Signed shared bikeways/bicycle boulevards
- Roadway crossing enhancements
- Planned 20-Year Capital Improvement Plan / 5-Year Work Plan Improvements

The following sections outline different methodology and treatment options for accomplishing the specific Plan recommendations, with examples of locations where each of these treatments may be applicable. Detailed design guidelines for each treatment are discussed in Appendix I.

Narrowing Travel Lanes to Accommodate Bike Lanes

Reducing the width of travel lanes can provide space for bicycles, reduce traffic speeds, and increase safety for pedestrians crossing. AASHTO has developed guidelines for narrowing roadways to accommodate bicycle facilities.

Shoulder Widening

There are several locations throughout Ada County where widening the shoulder to provide a wide outside lane, bike lane, or striped shoulder to accommodate bicycle travel is feasible. The width of bike lanes and bike routes on roadway shoulders should follow guidelines presented in Appendix I. Design Guidelines. Recommended locations include:

- Ustick Road
- Beacon Light Road
- Pollard Lane
- Gowen Road
- Amity Road
- Boise Avenue

Signed Shared Bikeways/Bicycle Boulevards

In Ada County, several streets have relatively low traffic volumes and posted speeds, two travel lanes, and no adjacent on-street parking. The potential locations would require new signage, pavement markings, and crosswalk striping at intersections to facilitate bicyclists' mobility and safety. The signed shared bikeways were chosen to connect neighborhoods and residential areas with desirable destinations throughout Ada County.

Recommended locations for signed shared bikeways include:

- Beacon Light Road
- Sunset Avenue
- Kuna Road
- Alpine Street
- Pollard Lane
- S. Eagle Road

Roadways in Ada County that require more intensive traffic calming and signage treatments fall into the bicycle boulevard category. These roads can be considered for curb extensions, medians, and on-street parking delineation, amongst other improvements.

Recommended locations for bicycle boulevard treatments include:

- Hays Street
- Washington Street
- Grove Street

Roadway Crossing Enhancements

Roadway crossing enhancements are intersection treatments that can include signage, marked crossings, signalization, curb extensions, refuge islands and other design elements. Such modifications, particularly of arterial roadways on signed shared bikeways and bike boulevards, can make a major improvement in the comfort and ultimately use of a bicycle facility. They improve the visibility of cyclists and clarify where both bicyclists and motorists should be in the crossing, highlighting potential conflict areas between modes.

Recommended locations for roadway crossing enhancements include several along the following corridors:

- Interstate 84
- Ustick Road
- McMillan Road
- Five-Mile Road

And many other places where bicycle facilities cross major streets or other barriers.

Programming Opportunities

Implementation of the proposed bicycle network in Ada County will benefit from coordination and integration of planning for bicycles and bicycle projects into ACHD's programs. This includes opportunities such as incorporating bikeway network development into annual re-striping, chipseal and overlay planning and implementation. ACHD will review the Capital Improvement Plan roadway and intersection projects previously identified to combine bikeway development with planned roadway projects where feasible.

Major construction projects identified in the FYWP along corridors with a demand for a bicycle facility should incorporate these bicycle accommodation improvements, even if the bicycle project is not designated for short-term implementation. This is due to the relative ease and lower cost of implementing a project along with another major construction effort. It is important to reconcile the funding needs of the plan with the availability of funds, and to strategically implement bikeway projects as roadway construction, repair or maintenance allows, or as funding becomes available.

Miles of Recommended Facilities

Table 4 shows the breakdown of miles of facilities recommended for the Roadways to Bikeways network.

Table 4. Roadways to Bikeways Miles of Recommended Facilities

Facility Type[†]	Miles of Bikeways[*]		
	Existing	Short-Term Recommended[‡]	Total Recommended[§]
Bicycle Lanes/Climbing Lanes	94.7	38.0	289.9
Signed Shared Roadways[**]	45.2	149.0	206.4
Bicycle Boulevards[††]	0	2.7	2.7
Total	139.9	189.7	508.0

[*] For all bikeways, the total miles shown represent roadway centerline miles with bicycle facilities.

[†] Facility Type includes only on-road bikeway facilities that ACHD will be responsible for implementing and maintaining. It is understood that pathways are an important part of the non-motorized transportation network, and are the responsibility of the local parks department.

[‡] Short-term recommended bikeway facilities include existing and short-term projects scheduled for 2008-2012.

[§] Total recommended bikeway facilities include existing, short-term recommendations and other medium- and long-term projects identified in the Roadways to Bikeways Plan.

[**] Includes Level 1 and Level 2 roadway treatments (see Appendix I).

[††] Includes Level 3 - Level 5 roadway treatments

Project Prioritization for Funding

The intent of prioritizing projects is to identify which projects will be considered for bicycle facilities soonest. The project prioritization list and individual projects outlined in this Plan are flexible concepts that serve as implementation guidelines. The short-term project list, and perhaps the overall system and segments themselves, may change over time as a result of changing bicycling patterns, land use patterns, and implementation constraints and opportunities. ACHD Staff, in conjunction with the staff from the six cities, Bicycle Advisory Committee and community members, should review the project list and associated projects at regular intervals to ensure that it reflects the most current priorities, needs, and opportunities for implementing the bicycle network in a logical and efficient manner.

Prioritization criteria were developed to reflect the transportation benefit, connectivity benefit, cost/benefit, safety, benefit and feasibility of bicycle facilities. The criteria used in the rankings include:

- **Connectivity:** What is the likelihood and to what degree will the improvement fill in a missing gap in the bicycle and pedestrian system?
- **User Generator:** To what degree will the improvement likely generate significant usage based on population, corridor aesthetics, etc?
- **Land Uses:** Are the land uses within ¼ - ½ mile of the improvement likely to generate demand for bicycling facilities? User generators include employment centers; shopping districts; dining; public facilities like schools, libraries, post offices, community centers and government offices; transit lines, medical facilities; cultural, sports and entertainment venues; recreational amenities and special events such as concerts in the park, races and parades, and the County fair.
- **Overcomes Barriers:** How well does the improvement overcome a barrier in the current bicycle and pedestrian network?
- **Area Benefits:** To what degree does the improvement offer potential benefits to the wider community by creating increased connectivity between home and workplaces, shopping and services, education, entertainment and cultural venues, recreation, parks, an open space, etc?
- **Ease of Implementation:** How difficult will implementation be? This criterion takes into account topographical, environmental, political, and economic constraints.

The results of this analysis for each recommended corridor can be found in Appendix F.

Using the above criteria, the individual projects were ranked based on information obtained from field work, ACHD staff, the Steering Committee and Bicycle Advisory Committee, and from the public. Each criterion was assigned a numeric scale, depending on its relative importance, and results were added together for a final score. As a result, the projects have been grouped into Short-term, Mid-term, and Long-term project priorities.

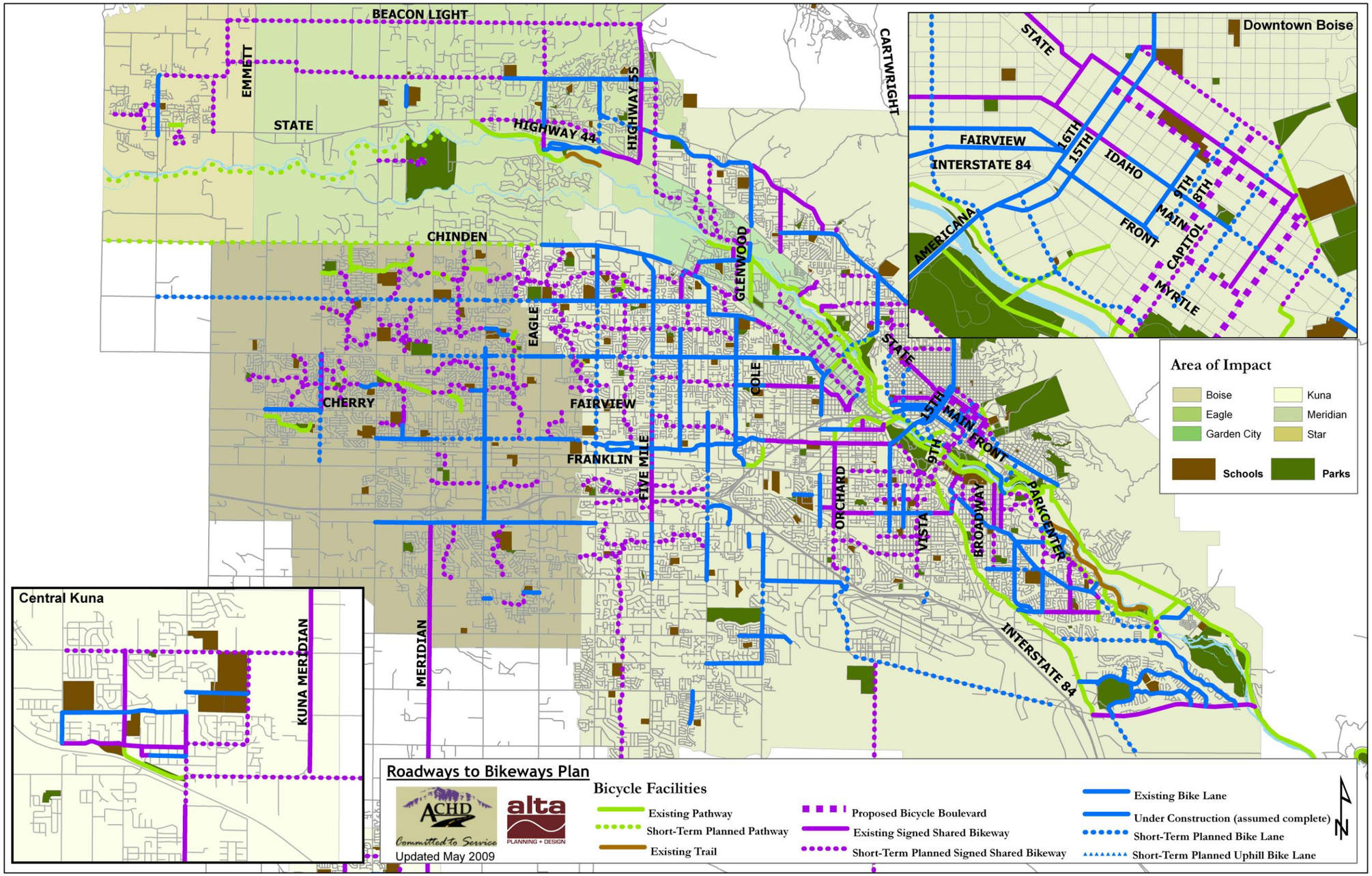
- **Short-term** projects are the top priority bicycle projects implementation within ten years.
- **Mid-term** projects are planned for implementation between ten and 25 years.
- **Long-term** projects are future projects recommended for implementation between the next 25 to 50 years.

The short and mid-term schedule may change according to available funds, changing priorities (both geographic area and type of bikeway facility), new roadway projects that coincide, new development and redevelopment opportunities, or other factors.

It should be noted that the purpose of this exercise is to understand the relative priority of the projects so that ACHD may apportion available funding to the highest priority projects. Mid-term and long-term projects, which have a lower priority, could be advanced in the schedule as part of a development or public works project. The ranked lists should be considered a "living document" and should be frequently reviewed to ensure they reflect current priorities and project opportunities. Map 1 shows the recommended short-term network improvements. A map showing all proposed projects can be found in Appendix G. The following Tables 6 – 10 list the treatments and project prioritization where opportunities to improve the bicycle network in Ada County exist.

Table 5 through Table 11 present a short-term and mid-term program of improvements to various roadway segments to improve the bicycle network in Ada County. The title of each table indicates the time frame and the type of improvement proposed. Types of improvements include adding bicycle lanes, adding signage on shared roadways and creating bicycle boulevards as follows:

- Bicycle Lanes - Table 5 for short-term on east - west routes, Table 6 for short-term projects on north-south routes and Table 11 for midterm projects
- Signage on Shared Roadways - Table 7 for short-term projects on east - west routes and Table 8 for short-term projects on north-south routes
- Table 9 for short term projects Table 12 shows a cost summary for short-term improvements.



Map 1. Conceptual Recommended Short-Term Bikeway Network Improvements

Table 5. Short-term Bicycle Lane Project Opportunities: East-West Routes (Less than ten years)

Road	From - To	Length (mi)
Amity	Federal Way - Surprise Way	1.7
Bannock	6th - Warm Springs	0.7
Boise	Holcomb Rd - Eckert Rd	1.2
E Deer Flat	Linder - Kuna Meridian	1.0
E Pine Ave	Meridian - Locust Grove	0.9
E Pine Ave	Nola - Eagle	0.9
E Ustick	Summerfield Way - Leslie Way	0.6
E Ustick	Duane Dr/Way - Campton Way	0.4
Gowen	Orchard - RR bridge	3.8
Hill Rd Extension	Horseshoe Bend Rd - State St	1.1
Linden	Geckeler - Boise	0.4
McMillan	Star - Locust Grove	5.9
River St	Americana - Capitol	0.8
W Deer Flat	Ten Mile - Linder	1.0
W Executive Dr	Parkdale - Cloverdale	0.4
W Ustick	Tylerson Ave - Five Mile	0.8
W/E Ustick	Meridian - Locust Grove	1.0

Table 6. Short-term Bicycle Lane Project Opportunities: North-South Routes
(Less than ten years)

Road	From - To	Length (mi)
6th	Fort - Myrtle	0.8
9th	Fort - Main	0.5
27th	Fairview - Ellis	1.0
30th St Extension	State - Main	1.0
36th	Stockton - Greenbelt	0.3
Cloverdale	Franklin - Fairview	1.0
Cloverdale	Fairview - Ustick	1.0
Cloverdale	Ustick - McMillan	1.0
Cole	McGlochlin - Victory	0.6
Edgewood	Hill - State	0.6
Five Mile	Franklin - Fairview	1.0
Five Mile	Fairview - Ustick	1.0
Latah	Nez Pierce - Overland	0.2
Main/Meridian Couplet II	Franklin - Cherry/Fairview	1.0
Maple Grove	Overland - Franklin	1.0
Orchard	Victory - Gowen	1.4
Orchard	Malad - Victory	0.4
Technology	Hwy 21 - Columbia	0.8
Ten Mile	Cherry - Ustick	1.0
Ten Mile	Franklin - Cherry	1.0
Vista	Airport - Sunrise Rim	0.3
Walnut	Warm Springs - Park Center/Greenbelt	0.5
Woodbridge/ Bowstring/ Magic View	Locust Grove - Eagle	1.2
Total Short-Term Bicycle Lane Project Opportunities		**20.2**

Table 7. Short-term Signed Shared Roadways Project Opportunities: East-West Routes (Less than ten years)

Road	From - To	Length (mi)
Adams	Greenbelt - Chinden	2.5
Alpine	Orchard - Peasley	1.3
Anatole/Powell Creek/Root Creek	Black Sand - Goddard Creek	0.2
Ashby	McKinley Park - Meridian	0.7
Beacon Light	Pollard - Hwy 55	7.4
Bower/East End	Meridian - Franklin	0.5
Camas/ Hackamore/ Sandpiper	Cloverdale - Maple Grove	2.4
Cassia	Roosevelt - Vista	1.0
Catalpa	Collister - Hill	$1
Claire/ Baldwin/ Addeson/ Cougar Creek/ Challis	West 3rd - Wingate	2.3
Fort	16^{th} - 5^{th}	0.7
Green Meadow/Sharon/Clover Meadow	Planned park - Cloverdale	0.6
Crawford/Irving	Five Mile - Milwaukee	1.7
Dason/Skycrest	Five Mile - Mitchell	0.6
Floating Feather	Star - Pollard	1.0
Floating Feather	Pollard - Preakness	5.1
Foxboro/Pembrook	Wainwright - Milwaukee	3.4
Gambrell/Carswell/ Blake	Tyborne - Star	0.8
Granger/Northview	Five Mile - Milwaukee	1.7
Highland/Mallard	Division - Parkcenter	0.6
Irene	32nd - 15th	1.1
James Ct/Meadow Wood	Meridian - Hickory	0.9
Kay/4th	Deer Flat - Swan Falls	1.2
Kuna	Swan Falls - Eagle	10.2
Kuna Mora	Eagle - Ada County	3.7
Maple/Camellia	Linder - Western	0.6
Monument/Leighfield	Linder - Locust Grove	0.7
Nez Perce	Roosevelt - Vista	1.0
Ottawa/Doberman	Locust Grove - Maple Grove	5.0
Producer/Valentino/Ironstone/ Joshua Tree	Fox Run - Red Horse	0.8
Ridgeside/Chateau	Seasons Park - Glennfield	3.4
Rockbury/Shoup	Winthrop - Maple Grove	3.1
Rose Hill	Roosevelt - Vista	1.0
Rossi/ Denver/ Highland	Lincoln - Division	0.9
Spaulding/ Hillcrest/ Targee	Phillippi - Shoshone	1.6
State	Hwy 44 - Hwy 44	2.2
Strauss/Hickory	Locust Grove - Five Mile	3.6
Sunset	Taft ES - 20th	1.2
Taft	State - 28th	1.3

Road	From - To	Length (mi)
Torana/Station/Annata/Piazza	Ten Mile - Copper Cloud	0.6
Watertower/St Lukes	Main - Eagle	2.2

Table 8. Short-term Signed Shared Roadway Project Opportunities: North-South Routes (Less than ten years)

Road	From - To	Length (mi)
1st	Main - State	0.3
28th	State - Irene	0.2
32nd	State - Taft	0.9
45th	Stockton - Greenbelt	0.5
Apple	Boise - ParkCenter	0.3
Arney/Riverside/Savannah/Plantation	State - Glenwood	0.6
Bennington/McCarthy/Rothmans/ Ice Springs/Camas Creek	McMillan - Chinden	1.2
Bogart/Cattail	Hill - Riverside	1.5
Boise	Protest - Rossi	0.8
Bowmont/ Park Meadow	Coolwater - Chinden	3.7
Capitol*	Vista - Bannock	1.3
Center/Carswell	State - Blake	0.6
Coffey	Marigold - Sorrento	1.4
Crescent Rim	Capitol - Peasley	2.6
Eagle	Floating Feather - Beacon Light	1.0
Eagle	Kuna - Kuna Mora	2.0
Fox Run/existing path	McMillan - Chinden	0.9
Gold Bar/Millenium	Victory - Overland	1.4
Healey/Eckert	Amity - Boise River	0.5
Hickory/Dixon	Pine - Leighfield	2.2
Horseshoe Bend	Floating Feather - State	1.7
Horseshoe Bend/Heceta Bend	State - Ulmer Ln	0.8
Interlachen/Turnberry/Naomi	Cherry - Ustick	1.3
Leadville	Linden - Boise	0.7
Leann/Quarrystone	Chateau - Ustick	0.5
Legacy Woods/Red Horse	Tradition - McMillan	0.6
Manitou/Howard	University - Broadway	1.4
Maxie Way/ Goodard Creek	Chateau - Tignes	2.6
Meadowland/Lena	President - De Meyer	4.1
Mirage/Morello/Todd	Cherry - Ten Mile	0.5
Mountainview	Cole - Ustick	1.0
Observation/East 5th Way	Victory - Overland	1.2
ParkCenter	Beacon - Bown Way	2.7
Phillippi/Malad	Overland - Orchard	1.0

Road	From - To	Length (mi)
Pleasant Valley	Gowen - Kuna Mora	6.8
Plummer Rd	State - Floating Feather	1.0
Pollard	Floating Feather - Beacon Light	1.0
Red Horse/Saguaro Hills	McMillan - Chinden	1.2
Shoshone/Peasley/ Crescent Rim	Hillcrest - Americana	2.7
Towerbridge/ Windchime	Coppercloud - Linder	1.1
Stockton	45th - 36th	1.1
University/Lincoln	Joyce - Boise	0.5
Valley Heights/ Sumpter/ Canonero	Hollandale - Raul	5.5
Venable/Rhodes/Great Basin/Summit/Ashby	Ustick - McKinley Park	1.1
Total Short-Term Signed Shared Roadway Project Opportunities		**147.5**

* Sections of this route currently have bike lanes; the proposed project would fill in the gaps to complete the route.

Table 9. Short-term Bicycle Boulevard Project Opportunities (Less than ten years)

Road	From - To	Length (mi)
East-West Routes		
Grove	Capitol - 3rd	0.3
Washington	16th - Fort	1.0
North-South Routes		
3rd	Julia Davis Park - Fort	0.6
8th	Greenbelt - Hays	0.8

Table 10. Bicycle Boulevard Application Levels

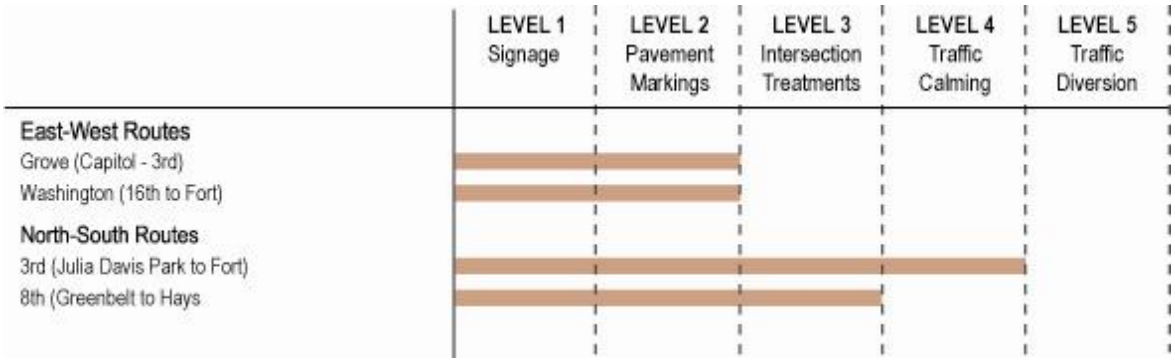


Table 11. Mid-term Bike Lane Project Opportunities (10-25 years)

Project	Extent (From - To)	length (mi)
	East-West Lanes	
Emerald	Cole - Curtis	1.0
Emerald	Curtis - Roosevelt	1.0
Emerald	Roosevelt - Americana	0.2
McMillan	Locust Grove - Eagle	1.0
Overland	Cloverdale - Five Mile	1.0
Overland	Five Mile - Maple Grove	1.0
Overland	Maple Grove - Entertainment	0.7
Overland	Entertainment - Curtis	1.4
Overland	Curtis - Roosevelt	1.0
Overland	Roosevelt - Shoshone	0.7
Overland	Vista - Federal Way	0.6
Palermo	Como - Firenze	0.2
ParkCenter Bridge	ParkCenter - Warm Springs	0.3
Pine	Ten Mile - Linder	1.0
Ustick	Ten Mile - Linder	1.0
Ustick	Linder - McMillan	1.0
	North-South Routes	
11st	Myrtle - Washington	0.5
Broadway	I-84 - Commerce/Enterprise	0.2
Five Mile	Overland - Franklin	1.0
Linder	Main - Trophy	1.0
Locust Grove	Summerheights - McMillan	0.9
Locust Grove	McMillan - Chinden	1.0
Maple Grove	Fairview - Ustick	1.0
Maple Grove	Ustick - Goddard	0.8
Orchard	Emerald - Bond	0.6
Roosevelt	Pasadena - Overland	1.0
Roosevelt	Overland - Franklin	0.8
Roosevelt	Franklin - Emerald	0.7
Ten Mile	Boise - Deer Flat	0.5
ALL MEDIUM-TERM BIKE LANE PROJECTS		**22.9**

Cost Opinion

As noted earlier, build out of the entire future system will result in more than 500 miles of new bicycle facilities. Building the total recommended short-term facilities will result in 190 new miles of bicycle facilities. A summary of cost improvements for the short-term recommendations is provided in Table 12.

Table 12. Cost Summary of Short-term Improvements

Facility Type	Mileage*	Estimated Cost/Mile	Estimated ROW Acquisition Cost†	Estimated Total Cost
Bicycle Lanes/Climbing Lanes	38.0	$150,000‡	$9,768,000	$14,085,540
Signed Shared Roadways	149.0	$2,604§	N/A	$374,670
Bicycle Boulevards	2.7	$2,604**	N/A	$9,661
Total	189.7	-	-	$14,469,871

* This mileage does not include those projects in the 2009-2012 FYWP that incorporate bicycle lanes.
† This cost assumes $6/square foot for residential land uses, $10/sf for office, $5/sf for mixed use, and $16/sf for ROW acquisition in commercial areas. Many bike lanes may not require additional right-of-way. It is not ACHD's general practice to acquire right-of way solely for the addition of bike lanes.
‡ This cost includes 6" aggregate base, crushed aggregate for base type I, plant mix pavement, excavation, installation of roadside signage, striping detail, pavement markings, SWPPP, removals, traffic control, miscellaneous, contingency and mobilization costs.
§ This cost includes signing, pavement marking, miscellaneous, contingency and mobilization costs. Costs for crossing treatments will depend upon additional analysis and are outlined in Appendix J.
** Costs for bicycle boulevard corridors are the same as those for signed shared roadways; however, unidentified intersection improvements will be in addition to these estimated costs for Bicycle Boulevards.

Chapter 5. Network Funding and Implementation

In addition to the short- and mid-term recommendations discussed above, long-term recommendations include constructing bicycle facilities on most ACHD roadways. All of these recommendations can be implemented through a variety of means, including existing funding sources and other potential funding sources. In general, bikeway projects will be funded through one of the following means:

- Re-striping of roadways/narrowing of lanes through the annual re-striping, chipseal and overlay processes. This is not necessarily an additional cost, but may use some of the funding in the Planning & Projects budget if the cost is over and above a normal striping plan.
- The CIP identifies those roadways and intersections that will receive capacity improvements in the next 20 years. By policy, these projects will include bicycle facilities and ACHD will construct the permanent improvements with these projects. Additionally, corridor preservation for on-street bike facilities occurs through the CIP process, whereby ACHD requires development to comply with the corridor widths identified in the CIP.
- Through pursuit of grants and other outside funding opportunities, including partnerships with cities and other agencies.

There is a variety of local, state, regional, and federal funding programs as well as private sector funding that can be used to construct the proposed bicycle improvements. Sources are listed here and described in more detail in Appendix K. Most of the programs are competitive and involve an extensive application documenting the project need, costs, and benefits.

Funding

Existing Funding Sources

ACHD's main revenue sources are property taxes and the Highway Users Fund. ACHD also sets rates for and receives development impact fees. Specific revenue sources identified in the budget include:

- Property Tax
- Highway User's Fund (gas tax)
- Ada County Registration Fees
- Development Impact Fees
- State Sales Tax
- Federal Grants
- Cost Sharing
- Fees and Services
- Interest Revenue

Potential Funding Sources

Potential Federal Funding Sources

Federal funding is primarily distributed through a number of different programs established by the Federal Transportation Act. The latest federal transportation act, The Safe, Accountable, Flexible, Efficient Transportation Equity Act – a Legacy for Users (SAFETEA-LU) was enacted August 2005, as Public Law 109-59. SAFETEA-LU authorizes the Federal surface transportation programs for highways, highway safety, and transit for the 5-year period 2005-2009.

Federal funding is administered through the state (Idaho Transportation Department, or ITD) and regional planning agencies. Most, but not all, of these funding programs are oriented toward transportation versus recreation, with an emphasis on reducing auto trips and providing inter-modal connections. Federal funding is intended for capital improvements and safety and education programs and projects must relate to the surface transportation system.

- SAFETEA-LU
- National Highway System (NHS)
- Surface Transportation Program (STP)
- Highway Safety Improvement Program
- Railway-Highway Crossing Program (RHC)Transportation Enhancements (TE)
- Congestion Mitigation / Air Quality Program (CMAQ)
- Recreational Trails Program (RTP)
- Safe Routes to School (SR2S)
- New Freedom Initiative
- Community Development Block Grants (CDBG)
- Rivers, Trails and Conservation Assistance program
- Land and Water Conservation Fund (LWCF)
- Transportation, Community and System Preservation Program
- Highway Bridge Program

Potential Local Funding Sources (in coordination with cities)

Many of the funding sources listed below require local cities to take the lead and work in coordination with ACHD to provide bicycle facility improvements. Other funding sources would require the Idaho State Legislature to pass an enabling law to give cities and counties permission to use them; they are not currently available but could be in the future.

- Local Bond Measures
- Urban Renewal Funds/Revenue Allocation (also known as Tax Increment Financing)
- System Development Charges/Developer Impact Fees
- Local Improvement Districts
- Business Improvement Districts

- City or Regional Sales Tax
- Local Option Tax

Additional information regarding all of the above potential funding sources can be found in Appendix K.

Network Implementation Process

The Five-Year Work Plan (FYWP) is ACHD's detailed outline for major capital improvement projects over the next several years. The FYWP is a fiscally constrained Plan based on annual revenue projections and anticipated project costs. Projects are included in the program based on community input, scheduling and prioritization analysis. It is for planning purposes only and projects can change throughout the year.

The FYWP is updated annually to address the deletion of projects that have been completed and the addition of new projects as well as changes to budgets designated for particular improvements. Bicycle projects are usually funded by a combination of sources including funds from ACHD that are designated through the FYWP process.

The steps required to implement the projects identified in this Plan will vary by project. Many signing and striping projects can be completed using ACHD funds or grant funds with project level review by the Commissioners, if required, due to the visibility or importance of the project. More complex projects with greater associated impacts typically include the following steps:

- Preparation of a Feasibility Study involving a conceptual design (with consideration of possible alternatives and environmental issues) and Cost Opinion for individual projects as needed.
- Secure, as necessary, outside funding and any applicable environmental approvals.
- Approval of the project by the Commission.
- Completion of final plans, specifications and estimates, advertising for bids, receipt of bids and award of contract(s).
- Construction of Project.

Implementation Strategies

The Roadways to Bikeways Plan provides the long-term vision for the development of a countywide bike network that can be used by all residents for all types of trips. Implementation of the Plan will take place in small steps over many years. The following goals, objectives and action items are provided to guide ACHD toward the vision identified in this Plan. The Roadways to Bikeways Plan presents a vision for the future of bicycling in Ada County. To ensure that that vision is implemented, it must become a living document. The plan strategies are grounded upon the overarching goals of the Plan:

Eight principle strategies have been identified for implementing these two main goals of the Plan.

Implementation Strategy 1: Strategically pursue bicycle infrastructure projects to maximize results and minimize costs.

Target 1.1 Pursue capital improvements funding or grant funding for higher-priority bicycle improvements first.

Target 1.2 In the case where grant requirements or construction in conjunction with another roadway project make construction of a lower priority project possible, pursue funding sources for that project regardless of priority.

Target 1.3 Install approved bicycle projects simultaneous to road improvements projects scheduled in the same area, regardless of the priority placed upon a bicycle project.

Target 1.4 Publish a public report documenting the status and ongoing actions for all bicycle and pedestrian projects at the end of each fiscal year. This report may be combined with the prioritization review discussed below.

Implementation Strategy 2: Ensure that the Roadways to Bikeways Plan and project list is current and relevant.

Target 2.1 Update the Roadways to Bikeways Plan as needed, within a minimum of every ten years.

Target 2.2 Annually review and update the Roadways to Bikeways project list with input from the Bicycle Advisory Committee.

Target 2.3 Share updated Roadways to Bikeways project list with the public and the cities.

Implementation Strategy 3: Integrate bicycle planning and construction into the ACHD's day-to-day activities of planning, designing, funding, constructing and maintaining infrastructure in the County.

Target 3.1 Incorporate regular maintenance and repair of bicycle facilities into the plan review process.

Target 3.2 Adopt policies that promote bicycling.

Target 3.3 Adopt a Complete Streets Policy to ensure that consideration of bicycle and pedestrian facilities are included in all major construction and reconstruction projects. Bicycle and pedestrian facilities should be addressed at the project scoping stage.

Implementation Strategy 4: Include bicycle infrastructure in cities' development requirements to further expand the bicycle network in Ada County

Target 4.1 Coordinate bikeway facility implementation with the local cities by working with their planning and development departments and agencies

Target 4.2 Require sufficient right-of-way is set aside for bicycle facilities during redevelopment

Target 4.3 Ensure that appropriate bicycle facilities are built in or abutting new developments in accordance with this Plan.

Target 4.4 Evaluate the opportunity to work closer with the planning departments of the local cities' to coordinate efforts and integrate transportation and land uses.

Implementation Strategy 5: Encourage private donors to support the bikeway system

Target 5.1 Institute an "Adopt a Bikeway" program to encourage corporations, institutions and individual private donors to support the existing and proposed bikeway system.

Target 5.2 Leverage this program to enhance maintenance through volunteer work to can connect philanthropy with fundraising to sustain the system.

Target 5.3 Evaluate the opportunities for establishing a philanthropic giving program that can be used to support the construction and maintenance of Ada County's bikeways.

Implementation Strategy 6: Qualitatively measure the County's progress toward implementing the Roadways to Bikeways Plan

Target 6.1 Establish measures of effectiveness to evaluate the County's progress toward meeting the goal outlined in this Plan.

Target 6.2 Include measurable indicators of progress and time-sensitive targets for the County to meet.

Implementation Strategy 7: Implement education, encouragement and enforcement activities to augment the expanded bicycle network, and encourage people who would otherwise not ride to bicycle.

Target 7.1 Implement near-term programmatic recommendations within 2-10 years after the Plan is adopted (see Appendix M).

Target 7.2 Implement medium-term programmatic recommendations within 11-25 years after the Plan is adopted.

Target 7.3 Implement long-term programmatic recommendations within the 25-50 years after the Plan is adopted.

Chapter 6. Supporting Programs

Several additional programs can promote bicycling in Ada County, working with and bolstering the comprehensive network of bicycle facilities described previously. These programs include a regular maintenance plan, network signage, and other education, encouragement and enforcement programs.

Goal 2: Promote bicycle safety and increased bicycling within Ada County and its six cities.

Maintenance and Signage Recommendations

Roadwork and construction regularly occurs within bicycling facilities, and conflicts should be minimized. The network facilities should be maintained to reasonable standards, to ensure safety and a pleasant experience for network users. In addition, ensuring that the public is aware of the network and bicycling opportunities is an essential element of encouraging bicycling. Objective 2 addresses both of these issues.

Objective 2: Encourage Ada County residents to use bicycles as an alternative mode of travel for both local and commuter trips by publicizing routes and proper facility maintenance.

Action 2.1 Require that construction or repair activities, both on street and at adjacent buildings, minimize disruption to bicycle facilities, consider bicyclist safety at all times, and provide alternate routes if necessary.

Action 2.2 Incorporate bicycle network repair and maintenance needs into the regular roadway maintenance regime as appropriate, paying particular attention to sweeping and pothole repair on priority bicycle facilities.

Maintenance, monitoring, and security are important factors in the success of a bikeway network. Bikeways passing through complex and varied urban environments must provide users with high levels of maintenance, clear signage, and provide the feeling that the bikeway is a safe and comfortable place to be for people of all ages and abilities. For an on-street bikeway network, key management and maintenance issues will include: signage installation and maintenance, street sweeping and pavement maintenance. Each of these management and maintenance activities should be completed in a consistent manner and on a regular basis for the Ada County bikeway network.

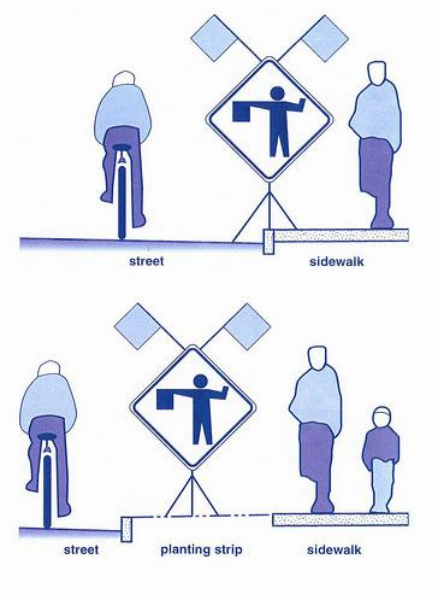
In addition to the other maintenance activities, bicycle detection at traffic signals should be considered. ACHD can mark detection loop at intersections to identify where bicyclists should be in the road to trigger the signal. ACHD should also implement its policy to replace all loop detectors with video detection, as this will enable traffic signals to detect all bicyclists and will aid in bicyclists' crossings of major roads.

Street Construction and Repair

The safety of all users of the roadway network should be considered during the construction and repair process. Along designated bicycle routes, measures should be taken to provide for the continuity of a bicyclist's trip through a closure, particularly providing a safe route through the area. Only in rare cases should pedestrians and bicyclists be detoured to another street when travel lanes remain open.

The following issues should be addressed as part of street construction and repair practices:

- Bicyclists should be accommodated through lane closures and detours where possible
- Signage related to construction should minimize interference with bicycle travel to the greatest extent practicable
- Minimize the use of trenches and provide for bicycle travel over steel plates



Construction Sign Placement

Additional guidelines and considerations for bicycle facilities during street construction and repair can be found in Appendix N.

Regular Maintenance

Like all roadways, bicycle facilities require regular maintenance. This includes sweeping, maintaining a smooth roadway to the extent possible, ensuring that the gutter-to-pavement transition remains relatively flat, and installing bicycle-friendly drainage grates. Pavement overlays can be used as a good opportunity to improve bicycle facilities. Considerations for bikeway repair and regular maintenance should continue to be included in the maintenance management plan. Particular attention should be paid to ensuring that the following activities happen as regularly as is feasible:

- Sweeping
- Roadway Surface
- Gutter-To-Pavement Transition
- Drainage Grates
- Pavement Overlays
- Signage
- Maintenance Management Plan

Wayfinding signage concept

Specific guidelines for each of the above issues can be found in Appendix N.

Publicizing the Network

Action 2.3 Install signage along all local and regional bikeways to assist with wayfinding and to increase awareness of bicyclists.

Action 2.4 Publicize the availability of bicycling maps and other bicycling resources through the ACHD website, bicycle shops, schools, employers, and other locations.

Wayfinding Signage

Implementing a well-designed, attractive, and functional system of network signage greatly enhances bikeway facilities by promoting their presence to both potential and existing users. The ability to navigate through a town or city is informed by landmarks, natural features, and other visual cues. A signage system is a key component of a navigable environment and would inform pedestrians, bicyclists, and motorists, while also enhancing the identity of Ada County and the individual cities. An effective wayfinding system communicates information clearly and concisely. Placing signs throughout the city indicating to bicyclists and pedestrians their direction of travel, location of destinations, and the time/distance to those destinations will increase users' comfort and accessibility to the bicycle and pedestrian system. Costing about $125 each, wayfinding signs are a relatively cost-effective means for improving the walking and bicycling environment.

Wayfinding signage benefits cyclists by indicating where they are traveling and approximating the time to their destinations. The network can be promoted by such signage, which should be complemented by a free or low-cost network map and information about other bicycling resources that are available to residents and visitors.

Signage actions should follow design guidelines for network facility types outlined in Appendix I.

Education, Outreach and Enforcement Program Recommendations

Inside the Boise State University Bike Barn

Ada County Education and Outreach programs are designed to raise awareness of bicycling; connecting current and future cyclists to existing resources; educating them about their rights and responsibilities; and encourage residents to bicycle more often. Key target audiences include drivers; current and potential (interested) cyclists; students, children and families; school personnel; and employees (through employer programs). While many of the recommended actions in this section are not directly under ACHD's purview, it is helpful for ACHD to recognize the importance of support programs for bicyclists.

Education, encouragement and enforcement programs enable new cyclists to safely and easily use the bicycle network. These recommendations support the third Objective of this Plan:

Objective 3: Promote bicycling educational and safety programs, support encouragement programs and implement law enforcement activities.

Action 3.1 Continue existing and pursue new adult and youth bicycle education and safety programs.

Action 3.2 Encourage law enforcement of bicycle-related violations by both motorists and bicyclists, and emphasize positive enforcement for safe bicycling behavior by children.

Action 3.3 Support Safe Routes to School and efforts, including educational and incentive programs to encourage more students to bicycle or walk to school, through a partnership with the school districts and YMCA.

Action 3.4 Encourage employers to provide incentives and support facilities for employees that commute by bicycle.

Action 3.5 Encourage jurisdictions to provide incentives to businesses and residents completing new and re-development of properties that include bicycle-friendly facilities and design.

Existing education and outreach efforts

ACHD, in conjunction with various teaming partners, has produced a number of valuable educational materials aimed at bicyclists and motorists alike. Links to these resources are available in Appendix M.

Available Materials: Idaho Bicycle Commuter Guide

- Idaho Bicycling: Street Smarts
- Getting the Green: A Cyclists Guide to Getting Traffic Signals to Turn Green
- ACHD Bicycle Map
- Ridge to Rivers Trail System Map
- Boise River Greenbelt

Local Online Resources:

- Commuteride
- ACHD Bike/Ped Program
- ITD Bike/Ped Program
- Boise State Bike Congress
- Boise State University Bike Barn

Facilities:

- Boise State University Bike Barn: locked indoor bicycle storage, showers, and lockers. Dry cleaning drop off and delivery services are provided for those who wish to leave a selection of work clothes in their lockers. The facility accommodates approximately 40-50 users per semester. Cost for use of the facility is $10 per semester and it includes an individual key code combination that provides secure entry into the facility and shower privileges. Lockers are available in the facility and in the shower area for an additional cost.
- Idaho Velodrome & Cycling Park: Currently under construction, this facility will be located in Eagle, and will include facilities for BMX, Four-Cross, Skills Terrain, Jump/Aerials Terrain, Short-Track MTB, Cyclo-Cross, and a cornerstone outdoor 333 meter concrete surface cycling track. When completed, this facility will encourage bicycling and be a center for bicycling activity.
- Willow Lane BMX Dirt Jump Park

Programs and Organizations:

- May in Motion: ACHD Commuteride celebrates and rewards commuters for alternative modes of travel used during the month of May, including bicycles.
- Bicycle Shops: Some bicycle shops offer occasional clinics (such as flat fixing or gear shifting clinics) and/or group rides. Several shops host events and/or rides that are aimed at encouraging women cyclists. Shops that occasionally host events include Reed Cycle, Meridian Cycle, George's Cycles and Fitness, REI-Boise, and Bikes2Boards.
- LAB/LCI programs: The Treasure Valley Cycling Alliance offers League of American Bicyclists-certified adult cycling skills training courses
- Bike Rodeos: The Treasure Valley Cycling Alliance offers youth "bike rodeos" (skills and safety training for kids). Also, the Ada County Sheriff's Office hosts approximately 20 bike rodeos and helmet giveaways each year at the request of schools, churches, and scout groups. At rodeos, brochures are handed out about bicycle thefts.
- Boise Bike Week: This week of bike-to-work activities is hosted by the TVCA. It includes commute classes, parades, a scavenger hunt, a race, and several parties.
- AdVenture Programs: Boise Parks and Recreation offers adapted adventure programs for individuals with disabilities, their families and friends, including bicycling events
- Healthy Kids Day/Safe Routes: The Treasure Valley YMCA offers a Healthy Kids Day in May that includes bike helmet safety education. They also partner on Safe Routes to School activities in October each year

Clubs, Organizations, and Racing Teams:

Several clubs have activities aimed at encouraging women riders and young racers. A few of these classes and rides are aimed at inexperienced riders, but most are designed for experienced road riders. Lactic Acid Cycling occasionally hosts maintenance clinics as well.

- BoiseAeros Multisport Club
- Boise Young Riders Development Squad
- BOMBB (Boise Off-Road Mountain Bike Babes
- Community Bicycle Rides
- Cycle Idaho
- Gem State Mountain Bike Alliance
- Lost River Cycling
- Lactic Acid Cycling
- SPIN (Scenic Pedaling Is Nearby)
- South West Idaho Cycling Association
- Southwest Idaho Mountain Biking Association
- Team Dobbiaco
- Team Digestive Health Clinic/AERO Cyclos
- Team Bobs-Bicycles.com
- Treasure Valley BMX
- Treasure Valley Cycling Alliance
- Roll With It and Bike to Work Challenge (offered through BSU)
- Girl Scouts and Boy Scouts: Cycling merit badges are a popular goal for many scouts in Ada County. To earn this badge, scouts must demonstrate knowledge of first aid, basic bicycle maintenance and repair, safe braking, flat repair, road skills and state cycling laws. They must also plan and complete two rides of 10 miles each, two rides of 15 miles each, two rides of 25 miles each, and one 50-mile ride. Also, many local Girl Scout troops earn their "Rolling Along Interest Award" by participating in cycling activities.

Girl scouts can earn a bicycling interest award

Enforcement Activities

The Ada County Sheriff's Office does not emphasize enforcement action against bicyclists, though if a crash involving a bicyclist occurs, the cyclist may be ticketed

Recommended Education, Encouragement and Enforcement Programs

The specific education, encouragement and enforcement recommendations for each implementation tier are outlined in Table 12.

Table 13. Summary of Programmatic Recommendations

Tier I (near term) Recommendations

Program	Target	Primary Agency	Partners	Key Elements	Time Frame	Cost	Potential Funding Sources	Sample Programs
"Lights On" Campaign	Cyclists (students/ low-income commuters)	Boise Police Dept., cities	ACHD, BSU, TVCA	Media outreach, enforcement, bike light giveaways/ subsidies	Fall, annually	$$-$$$(1)	Bike shops (in-kind donations); transit agencies, local news outlets (donated ad space); traffic safety foundations, grant programs; hospitals, insurance companies	Portland's "See & Be Seen" campaign, Dutch "Lights On" campaign
Ada County Bike Central Website	Current and potential cyclists	TVCA, cities	ACHD BAC	Resources, maps and map orders, safety, events, groups	Ongoing	$-$$ (1)	Low cost; may not require outside funding	Vélo Québec
Public Service Announcements	General public	ACHD	None	Awareness campaign with TV spots	Late spring/ early summer, 2009	$ - $$$ (2)	Local television stations (donated airtime), traffic safety foundations and grant programs; hospitals and insurance companies	"Decide to Ride" PSAs
"Your Bike Resources" Sticker	New bike owners	ACHD	Local bike shops	Bicycle resources sticker to be distributed with every new purchased bike.	Ongoing	$	Low cost; additional funding may not be necessary	None

Notes:

(1) Depends on scope or design of program

(2) Depending on whether airtime is purchased or donated

Tier II (medium term) Recommendations

Program	Target	Primary Agency	Partners	Key Elements	Time Frame	Cost	Potential Funding Sources	Sample Programs
BSU Bike Orientation	BSU students, especially incoming freshmen	ACHD and BSU	Boise State Cycling club	Bicycle safety & promotion orientation for incoming freshmen and returning students. Classes & clinics, materials, social events, rides.	Sept., annually	$$	BSU parking fees, TDM funding sources	Stanford University Bike Program
Share the Path Campaign	All path users (especially cyclists)	ACHD, Boise Parks and Recreation	Local cycling clubs/ groups, TVCA, Cities of Boise, Eagle, Garden City, Meridian, Ada County	Bell giveaway; maps and information; media outreach	May/June 2008, or annually	$$	Local bike shops (in-kind donations); volunteer time contributions by local cycling groups; in-kind or time contributions by BPD or ACSO	Portland Office of Trans. Share the Path brochure
Safe Routes to School - Phase 1	Parents, school children, admin.s, planners & engineers	ACHD, school districts	Parent groups at schools, school neighbors	Bicycle and pedestrian audit of infrastructure at elementary schools. Recommended route maps.	Spring 2009	$$	ITD SR2S grant funding; local, state or national health grants	Portland Safer Routes to School Program
Bike to Work Month	Current and potential cyclists	ACHD Commute-ride	TVCA, Boise State Community Bicycling Congress	Publicize Bike to Work Month in May. Offer classes, rides and events.	May, annually	$$ - $$$ (1)	Local businesses & bike shops (in-kind/cash support); hospitals/ insurance companies; City of Boise	Bay Area Bike to Work Day, Bike Commute Challenge (OR)

Notes:

(1) Depends on scope or design of program

Tier III (long term) Recommendations

Program	Target	Primary Agency	Partners	Key Elements	Time Frame	Cost	Potential Funding Sources	Sample Programs
BSU Bike program	BSU students, faculty and staff	ACHD and BSU	Student groups	Attended bike parking; tools and stands; mechanic services; clinics.	Ongoing	$$$	BSU parking fees	UC Davis Bicycle Program
Youth Bike Safety Education	School-age children	ACHD Commuterride, school districts	LABs, TVCA, BAC, Parent groups at schools, community volunteers	In-school and/or after-school on-bike skills and safety training	Ongoing	$$$	ITD Safe Routes to School grant funding; local, state or national health grants (e.g. Robert Wood Johnson Active Living by Design grants)	LAB's Kids I and Kids II curriculum, BTA's Bike Safety Education Program
Pilot Smart Trips Program	Ada County residents who are interested in biking, walking and transit	ACHD Commuterride	Transit agencies, TVCA, community volunteers	Outreach to a target geographic area promoting biking, walking and transit usage.	Program launch in late spring of selected year	$$$	CMAQ (Congestion Mitigation/Air Quality) funds; federal flexible transportation; public transportation funds; hospitals and insurance companies	Portland Smart Trips program

Other program recommendations

During the life of this Plan, it is possible that community interest will develop in programs beyond the priority programs listed above. Some promising additional programs include:

- Bike-sharing program
- Bike kitchen
- Create-a-Commuter program
- Bike parking at events
- Adult skills classes
- Bicycle Brown Bag events
- Walking School Buses (stand-alone program or part of SR2S program)
- Bike Buddy program
- Family day/family biking classes
- Women on Bikes program
- I Share the Road campaign
- Seniors on Bikes program (Safe Routes to Senior Centers, Older Adult Three-Wheeled Bicycle Program)
- Breakfast on the Bridges / free bike safety check
- Ciclovias/Sunday parkways[11]
- Bicycling Ambassadors

[11] First implemented in Bogota, Colombia, the Ciclovia or Sunday Parkway is a community event based around a street closure. Sunday parkways provide local recreational and business opportunities for the community and are becoming increasingly popular city-wide events (www.healthystreets.org/pages/sunday_parkways.htm).

Community Partners

Objective 4: Facilitate Coordination and Cooperation Among Local Jurisdictions in Development of the Roadways to Bikeways Recommendations.

Action 4.1 Provide ACHD community partners and local agencies the tools and guidance necessary to implement bicycle-specific improvements within their jurisdictions.

Action 4.2 Encourage regular communications between ACHD, constituent cities, ITD, COMPASS, Valley Regional Transit, Ada County, and other affected agencies regarding bicycle planning issues.

Action 4.3 Encourage large employers, colleges and universities, activity centers and major transit stops to provide secure bicycle storage facilities and racks and promote their efforts.

Action 4.4 Provide projects that improve multi-modal connections and enhance bicycle-transit trip linking.

In order to implement and maintain the recommended bicycle network and supporting programs and facilities, Ada County and ACHD should work with the following groups:

Cities

- Boise
- Eagle
- Garden City
- Kuna
- Meridian
- Star

Large Employers

- Hewlett Packard
- Albertson's/SuperValu, Inc
- Bechtel BWXT Idaho
- Micron Technology, Inc.

Colleges and Universities

- ITT Technical Institute
- Boise Bible College
- Boise State University
- Brown Mackie College

Bicycle Groups

- ACHD Bicycle Advisory Committee
- League of American Bicyclists
- Boise Off-Road Mountain Bike Babes (BOMBB)
- Cycle Idaho
- Gem State Mountain Bike Alliance
- Lost River Cycling:
- Lactic Acid Cycling: SPIN
- South West Idaho Cycling Association
- Southwest Idaho Mountain Biking Association
- Team Dobbiaco
- Team Digestive Health Clinic/AERO Cyclos
- Team Bobs-Bicycles.com
- Treasure Valley BMX
- Treasure Valley Cycling Alliance
- BoiseAeros Multisport Club
- Boise Young Riders Development Squad

In addition, Ada County and ACHD should work with school districts and transit agencies, as well as other organizations that are applicable to help implement projects.