CARBON VALLEY
PARK & RECREATION DISTRICT

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**Carbon Valley
Park and Recreation District
Park and Recreation Master Plan**

April 2015

Acknowledgements

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Table of Contents

Table of Figures

Table of Tables

I. Executive Summary

Purpose of this Plan

The Carbon Valley Park and Recreation District (CVPRD) is a special district of about 45 square miles, and includes the communities of Frederick, Firestone, and Dacono and surrounding rural areas. The District's service area is experiencing exponential growth, presenting both challenges and opportunities as the District strives to maintain a high quality of life. There is a strong commitment on behalf of its leadership and citizenry supporting park and recreation as integral to this quality of life. CVPRD is in a position to meet this challenge and plan for dynamic recreational services.

This Park and Recreation Master Plan is based on a comprehensive planning process that involved extensive staff and community input as well as research and analysis of the existing parks and recreation system in the CVPRD service area. Sections II-IV of this Plan include key findings and information gathered from the demographic and trends analysis, the public input process, the statistically-valid survey, and the inventory and analysis of existing Carbon Valley Park and Recreation parks and facilities, along with a review of the District's operations. Based on this analysis, recommended goals and strategies are detailed in Section V to address the key issues identified in the initial needs assessment phase of the project.

Planning Process Summary

This project has been guided by a Park and Recreation District project team made up of District staff, with input from the Park and Recreation Board Directors, and leadership from the three municipalities that make up the District. The Project Team provided input to the GreenPlay consulting team throughout the planning process. A collaborative approach creates a plan that fully utilizes the consultant's expertise and incorporates the local knowledge and institutional history that only community members can provide. The project consisted of the following tasks:

Community Engagement
It was important to reach out to as many groups and individuals as possible in order to gain diverse public input. The community input process included participants from the leadership of the three municipalities, Dacono BMX, seniors, citizens from the three communities the Weld County Health District, St. Vrain Valley School District schools (SVVSD), and the High Plains Library District. The process included the following tasks:
- Review of previous planning efforts andtown historical information.
- Extensive community involvement effort including focus groups, meetings with key stakeholders, and a community-wide public meeting.
- Leadership Summit to bring together the leaders of the three municipalities and the CVPRD Board of Directors.
- Statistically-valid community interest and opinion survey.
- Online community engagement website – MindMixer.

Facility Inventory
- Inventory of parks and facilities using existing mapping, staff interviews, and on-site visits to verify amenities and assess the condition of the facilities and surrounding areas.

GRASP® Level of Service Analysis
- Interviews with staff to provide information about District facilities and services, along with insight regarding the current practices and experiences of the District in serving its residents and visitors.
- Identification of alternative providers of recreation services to provide insight regarding the market opportunities in the area for potential new facilities and services.
- Analysis addressing recreation, the park, and related services.

Assessment and Analysis
- Review and assessment of relevant plans.
- Measurement of the current delivery of service for District facilities using the GRASP® Level of Service Analysis, and allowing for a target level of service to be determined that is both feasible and aligned with the desires of citizens as expressed through the citizen survey. This analysis is also represented graphically in GRASP® Perspectives.
- Exploration of finance and funding mechanisms to support development and sustainability within the system.

Needs Assessment
- Consideration of the profile of the District and demographics, including population growth.
- Research of trends related to the District region and American lifestyles to help guide the efforts of CVPRD over the next several years.

Operational and Marketing Analysis
- Analyze recreation programming and service delivery.
- Conduct an organizational SWOT analysis.
- Develop a broad assessment of the overall park and recreation operations.

Recommendations: Goals, Objectives, and Action Plan
- Identification and categorization of recommendations into themes with goals, objectives, and an action plan for implementation.
- Development of an action plan for capital improvements including cost, funding source potentials, and timeframe to support the implementation of the plan.

CVPRD

Key Issues Summary

During the initial stages of the project, the following Key Issues were identified for focus:

Organizational:
- Improve Communication and Partnerships
- Improve Marketing and Communication
- Ensure Maximum Inclusion in the District
- Ensure Maximum Benefit to Residents of the District
- Maintain and Improve Partner Agency Relationships
- Solidify the Operations of the Dacono BMX Track

Finance:
- Explore Additional Funding Options
- Establish a Best Practice Cost Recovery and Pricing Philosophy and Practice

Programs and Service Delivery:
- Improve Registration System Capabilities
- Improve Technology
- Improve and Increase Customer Base
- Increase Recreation Programming Opportunities in Geographic Areas of Need

Facilities and Amenities:
- Maintain Existing District Facilities
- Add, Expand, or Improve Existing District Facilities
- Ensure Quality Park, Facility, and Component Standards Provided by Partner Agencies
- Ensure ADA Accessibility at All Facilities
- Increase Multi-Modal Access

Demographics

The District's population is predicted to increase by an annual rate of 4.9 percent to 35,183, from 2014 to 2019. This represents significant growth for the District from a population of 9,237 in 2000 (the annual growth rate from 2000 to 2010 was 10.2 percent). The District had a significant Caucasian population at 85.2 percent in 2014. This population declined slightly from 2010 (86.1%) and is expected to continue a slight decline to 83.3 percent by 2019.
- Hispanic origin provides a separate look at the population, irrespective of race. The Hispanic population is expected to remain at 18 to 19 percent through 2019.
- The Asian population, at 2.3 percent in 2014, is expected to grow to 3.3 percent by 2019.
- The African American and American Indian populations are not expected to grow above one percent by 2019.

In general, the young adult population (25-34) is expected to increase slightly, and the senior population is expected to grow significantly.

- The 25-34 age cohort is predicted to increase slightly in size from 2010 to 2019; however, it will be decreasing as a percent of the total CVPRD population from 15 percent to 11.9 percent.
- At the same time, the 65-74 age cohort is predicted to increase in size for this time period, from 4.7 percent to 7 percent of the population.

The estimated 2014 median household income for residents of CVPRD is $75,192 and is expected to grow to $83,264 by 2019.

- Most households in the District have an income in the $100,000 – $149,999 range (about 24%) followed by the $50,000 – $74,999 and $75,000 – $99,999 income ranges (at about 18-19%).
- More than 10 percent of the population is expected to have income levels in the $150,000 – $199,999 range 2019.
- By 2019, 11.6 percent (one in ten) of households in the District will have an annual income below $35,000.

Trends

Identification of current park and recreation resources, as well as recreation trends, community demographics and needs, help provide a better understanding of future recreational opportunities and the unique niche of the CVPRD. The values and standards that the Park and Recreation District brings to the community, along with park and recreation trends, work together to create a unique opportunity for CVPRD to plan for and implement future park and recreation facilities.

It is a challenge and an opportunity for park and recreation agencies to continue to understand and respond to the changing recreation interests of their constituencies. In this fast-paced society, it is important to stay on top of current trends. Trends were researched at the local, regional, and national level relevant to the somewhat older demographic of Carbon Valley, and interests including special events, aquatics, fitness and wellness, and athletics were evaluated as well. Improved funding for parks and recreation in general is being widely reported following the decline during the recession.

Key Inventory and Level of Service (LOS) Analysis Findings:

- In general, while there are differences in how each of the three communities develops its parks, the standards and quality of parks are fairly similar.
- The current population distribution within the District tends to be mostly concentrated centrally and north to south along the Colorado Boulevard corridor.
- CVPRD utilizes a wide variety of facilities to provide recreational programming opportunities. These opportunities are well distributed throughout approximately 20 outdoor facilities, 2 primary indoor facilities, and several schools in the area.
- Proximity and transportation are relevant factors affecting levels of service. The provision of assets is reasonably distributed across the District, especially given resident access to motorized transportation. CVPRD's current use of facilities within the District closely reflects population distribution.
- Using a three mile radius for primary access to indoor recreation, there is a large concentration of access in the southern portion of the District.

- The majority of current programming is offered at the Recreation Center and Gymnastics/Senior Center with some offerings also at local schools. Outdoor programming is well distributed at parks throughout the District.

Areas of Focus and Recommendations

Based on the Needs Assessment, utilizing information gathered in interviews and focus groups, a statistically-valid survey, and the GRASP® inventory and analysis, the following areas of focus were identified as high priorities for action for the District. Areas of Focus with Action Steps are outlined in the main document to create a process to move forward. Over the next three to five years, many influences will impact the success of the development of future facilities, programs, and services. Funding availability, staff buy-in, and political and community support will play significant roles in future planning efforts.

Actionable Planning & Prioritization for Inventory and Level of Service
The following Goals, Objectives, and Action Items are drawn from the inventory and level of service with a primary focus on maintaining, sustaining, and improving the park, facilities, and programming in CVPRD.

Goal 1: Organization

Objective 1.1:			
Improve communication and partnerships (Senior Group and Community Leadership)			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
1.1.a Develop methods for regular communication with the Leadership of the three municipalities and Weld County.	CVPRD	Staff Time	Short-Term
1.1.b Maintain regular monthly Senior team meetings with the Senior Advisory Group to engage a two way communication system when developing programs and activities.	CVPRD	Staff Time	Short-Term
Objective 1.2:			
Improve marketing and communication			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
1.2.a Develop and implement a Marketing Plan for the District.	CVPRD	Staff Time	Short-Term
1.2.b Continue to develop and improve the website for marketing and registration.	CVPRD	Staff Time	Short-Term

Objective 1.3:			
Ensure maximum inclusion in the District			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
1.3.a Work with the Leadership of the three municipalities to develop a ballot initiative to deal with holdout properties for inclusion into the District.	CVPRD	Staff Time	Short-Term
1.3.b Work with the Leadership of the three municipalities to include new development and annexations to ensure inclusion into the District boundaries.	CVPRD	Staff Time	Short-Term
Objective 1.4:			
Ensure maximum benefit to residents of the District			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
1.4.a Shift to an identification of District and Non-District rather than residents and nonresident.	CVPRD	Staff Time	Short-Term
Objective 1.5:			
Maintain and improve partner agency relationships			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
1.5.a Establish CVPRD as the subject matter expert for recreation and parks in the area and work with the leadership of the three municipalities and the County on planning and development review and approval.	CVPRD	Staff Time/TBD	Short-Term
1.5.b Review and update existing IGAs with the three municipalities, the County, and the School District to align with the Master Plan.	CVPRD	Staff Time	Short-Term
Objective 1.6:			
Solidify the operations of the Dacono BMX track			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
1.6.a Work with the City of Dacono to establish an IGA for the operations and maintenance of the Dacono BMX track.	CVPRD	Staff Time/TBD	Short-Term
1.6.b Work with the existing parent volunteer organization, develop an MOU for the cooperative operations of the track.	CVPRD	Staff Time	Short-Term

CVPRD

Goal 2: Finance

Objective 2.1			
Explore additional funding options			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
2.1.a Develop strategy to seek alternative funding sources that includes donations, grants, sponsorships, and tax incentives.	CVPRD	Staff Time	Short-Term
Objective 2.2:			
Establish a best practice Cost Recovery and Pricing Philosophy and practice			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
2.2.a Develop a resource allocation and cost recovery philosophy, model, and policy that is grounded in the values, vision, and mission of CVPRD.	CVPRD	Staff Time	Short-Term
2.2.b Establish a pricing methodology that continuously reflects community values, while generating adequate revenues to sustain CVPRD facilities, programs, and services.	CVPRD	Staff Time	Short-Term

Goal 3: Programs and Service Delivery

Objective 3.1:			
Improve registration system capabilities			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
3.1.a Replace current registration software with an industry proven product.	CVPRD	TBD	Short-Term
Objective 3.2:			
Improve technology			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
3.2.a Develop a Technology Plan for the District that addresses connectivity, server issues, software compatibilities, and telecommunications.	CVPRD	TBD	Short-Term

Objective 3.3:			
Improve and increase customer base			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
3.3.a Become a regional provider of recreation and programming services.	CVPRD	TBD	Short-Term
Objective 3.4:			
Increase recreation programming opportunities in geographic areas of need			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
3.4.a Investigate additional opportunities to program at quality park, facility, and components provided by partner agencies.	CVPRD	TBD	On-going
3.4.b Explore opportunities to provide new District facilities and programming where need is shown but partner opportunities are not available.	CVPRD	TBD	Short-Term

Goal 4: Facilities and Amenities

Objective 4.1			
Maintain existing District facilities			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
4.1.a Develop standards for District owned assets including, but not limited to, fitness equipment, aquatic facilities, sports equipment, etc., with regard to lifecycle cost.	CVPRD	TBD	Short-Term
4.1.b Develop system to monitor assets on a regular basis through a preventative maintenance plan.	CVPRD	TBD	Short-Term
Objective 4.2			
Add, expand, or improve existing District facilities			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
4.2.a Continue to monitor and respond to use of District facilities in regard to capacity, function, and trends.	CVPRD	TBD	Short-Term
4.2.b Consider current demand or needs for increased options to add, expand, and repurpose current facilities or programming opportunities or partnerships.	CVPRD	TBD	Short-Term

CVPRD

| 4.2.c
As annexation occurs, the District boundary changes or expands, population increases, and distribution of population changes, explore options for new District owned facilities, unique opportunities, or partnerships.	CVPRD	TBD	Short-Term

Objective 4.3:
Ensure quality park, facility, and component standards provided by partner agencies

Actions	Primary Dept. Responsibility/ Support	Resource Impact/Budget Requirement	Timeframe to Complete
4.3.a
Develop District standards for assets including, but not limited to, multi-purpose fields, ballfields, playground structures and surfacing, picnic shelters, basketball courts, etc.	CVPRD	TBD	Short-Term
4.3.b
Work with partner communities to ensure current and future assets meet these standards.	CVPRD	TBD	Short-Term

Objective 4.4:
Ensure ADA accessibility at all facilities

Actions	Primary Dept. Responsibility/ Support	Resource Impact/Budget Requirement	Timeframe to Complete
4.4.a
Using the District wide ADA Accessibility Transition Plan to address deficiencies, continue Self Evaluation assessment, and create and implement action plan.	CVPRD	TBD	Short-Term

Objective 4.5:
Increase multi-modal access

Actions	Primary Dept. Responsibility/ Support	Resource Impact/Budget Requirement	Timeframe to Complete
4.5.a
Work with partner communities to address recreational connectivity District-wide.	CVPRD	TBD	Short-Term

This master planning process took place between April 2014 and April 2015. It followed a management review of the District that brought significant change, including a new strategic direction, new administrative leadership, and changes in staffing. The Master Plan development included a series of public engagement meetings that took place in the summer of 2014. The recommendations in this Master Plan were developed from the information gathered from that input, coupled with a level of service and programming analysis. To their credit, this energized staff began addressing issues as they were identified. As a result, many of the specific recommendations in this Master Plan have already been initiated or implemented, laying a solid foundation and springboard for the bigger, more generalized recommendations regarding new development opportunities and expansions of the District. These will take the hard work of further research and identification of opportunity to fulfill, but the staff and board are up to the task and in a great position to do so. We commend the District for its efforts and determination to provide only the best for the communities it serves.

II. Past, Present and Future – The Planning Context

A. Purpose of this Plan

The purpose of this Master Plan is to assist the Carbon Valley Park and Recreation District in creating a roadmap for ensuring an appropriate balance of facilities and amenities throughout the communities that it serves now and into the future, and to offer guidance in the re-branding of CVPRD. A system-wide approach is used to evaluate recreational facilities and amenities in order to develop goals, policies, and guidelines along with achievable strategies.

B. Background and History

Formed in 1983, the District is a special district covering roughly 45 square miles, including the communities of Frederick, Firestone, Dacono, and rural areas that surround the Carbon Valley area in Colorado. These communities are strategically located along the Front Range of the Colorado Rocky Mountains, primarily east of Interstate highway I-25 and approximately 25 miles north of the state's capital city of Denver. These communities have benefited from substantial growth of the region in the past 10 years and anticipate significant growth in the future.

The District strives to increase and enhance recreational opportunities by providing a variety of quality programs and activities for the residents of Frederick, Firestone, and Dacono. Through the management of two facilities, the District has offered new as well as traditional programming. The main recreation facility is a 50,000 square foot center that hosts a 25 yard, six lane lap pool, an activity pool with amenities including logs, a lazy river, an 18 ft. slide, and a kids' splash pool. The pool area also offers a steam room and a hot tub for guests. Outside of the pool area, the facility houses a dance studio, two gymnasiums, cardio fitness studios, a state of the art weight room, a child care facility, and meeting spaces. The second facility is across the street, and it houses the District's Gymnastics Center and Senior Center (55+) Center.

The District also owns one park, while the three towns within District boundaries are the primary providers of trails, sports fields, and public parks.

C. Related Planning Efforts and Material Review

This is the first comprehensive parks and recreation master planning effort for CVPRD. In order to ensure that this plan is integrated with existing planning efforts in the area, GreenPlay reviewed a variety of documents pertaining to the three municipalities that make up the CVPRD including: the Firestone 2013 Master Plan; 2014 Firestone Community Survey Results; the Town of Firestone Land Use Map; the Firestone Park and Trail Map; Firestone CIP – Impact Fees; the Firestone CVPRD IGA; the Dacono CVPRD IGA; CVPRD 2014 Membership Rates, Organizational Structure, and Revised Personnel Manual; the Frederick CVPRD IGA; and the Joint Use Agreement with the Saint Vrain Valley School District.

D. Methodology of Planning Process

This project has been guided by a project team made up of key staff, along with input from a public input process. The staff team met with consultants from GreenPlay and provided valuable input throughout the planning process. This collaborative effort creates a Plan that fully utilizes the consultant's expertise and incorporates the local knowledge and institutional history. The project consisted of the following tasks:

Needs Assessment and Public Involvement:
- Review of previous planning efforts and historical information.
- Consideration of the profile of the community and demographics, including anticipated population growth.
- Extensive community involvement effort including eight focus groups of staff, leadership, community, and senior groups; meetings with key stakeholders; a community-wide public meeting; and a statistically-valid community interest and opinion survey.
- Identification of alternative providers of recreation services to provide insight regarding the market opportunities in the area for potential new facilities and services.
- Research of trends and statistics related to American lifestyles to help guide the efforts of programming staff.

Inventory:
- Inventory of parks and facilities using existing mapping, staff interviews, and on-site visits to verify amenities and assess their condition, along with that of surrounding areas.

Level of Service Analysis:
- Interviews with staff to provide information about parks and recreations facilities and services, along with insight into the current practices and experiences of the CVPRD in serving its residents and visitors.
- Analysis addressing parks, recreation, open space, trails, environmental sensitive areas, and related services.
- Review and assessment of relevant community plans.
- Measurement of the current delivery of service using the GRASP® Level of Service Analysis and allowing for a target level of service to be determined that is both feasible and aligned with the desires of citizens as expressed through the citizen survey. This analysis is also represented graphically through maps.
- Exploration of finance and funding mechanisms to support development and sustainability of the system.

Recommendations and Implementation Strategies:

- Identification and categorization of recommendations into themes, goals, and strategies for implementation.
- Development of an action plan for recommendations and capital improvements including cost and timeframe to support the implementation of the Plan.

F. Timeline for Completing the Master Plan

Start-up	March 2014
Community Input Process	July 2014
Inventory and Assessment of Existing Facilities	June – November 2014
Demographic and Trends Analysis and Projections	June – August 2014
Analysis of Area Programs and Services	August – October 2014
Community Needs Assessment Survey	September – October 2014
Findings Compilation Report and Presentation	December 2014
Drafting of Master Plan Recommendations	February 17, 2015
Presentation and Adoption of Master Plan	April 21, 2015

III. What We Want – Our Community and Identified Needs

Identification of the current park resources as well as recreation trends, community demographics, and needs helps to better define future parks and recreation needs and opportunities for CVPRD.

The following is an overview of the CVPRD community and a needs assessment for parks and recreation facilities and services. This section first articulates the mission, or purpose of the District, along with its values, and secondly describes key demographic information that characterizes the community. Regional and national trends in parks and recreation services identify what is popular and describe best practices for providing services. Additionally, community input from stakeholder interviews, focus groups, and a community meeting identifies strengths, weaknesses, and opportunities of CVPRD's park and recreation facilities and services.

Next, results from a statistically-valid community survey are highlighted to further clarify park and recreation needs and interests. Additionally, the inventory and GRASP® level of service analysis of current parks and recreation facilities is reviewed.

Finally, an overview and analysis of programs is discussed. All of this information provides a framework to understand CVPRD's context, community needs, and future direction.

A. Mission and Values

The mission and values of an organization provide a grounding for the work that is accomplished. They also provide an anchor for the development of the Master Plan. The mission of CVPRD is to:
- Engage Community
- Enhance Life
- Encourage Play

The Carbon Valley Park and Recreation District strives to increase and enhance recreational opportunities by providing a variety of quality programs and activities for the residents of Frederick, Firestone, and Dacono and surrounding areas that are also served by the District.

This mission is carried out through the following values:

Financially Responsible
- Manage and maintain our capital resources
- Promote best practices
- Invest in the District's future

Inspiration
- Build teamwork and trust: Be Team Driven
- Lead, teach, and empower
- Encourage, involve, and reward

Communication
- Show pride in what we do
- Demonstrate transparency
- Collaborate in community partnerships

Innovation
- Emerging as professional leaders
- Catalyst in recreational services and facilities
- Deliver a united community spirit

B. Community Profile and Demographic Study

CVPRD is a special district of about 45 square miles, encompassing the communities of Frederick, Firestone, Dacono, and surrounding rural areas. The demographics provided below for the District are provided by ESRI Business Analyst Forecasts based on the 2010 US Census Bureau Data.

Table 1: Summary Demographics for CVPRD – 2014

Summary Demographics	
Population	27,585
Number of Households	9,263
Avg. Household Size	2.97
Median Age	34.8
Median Household Income	$75,192

Source: 2010 U.S Census, ESRI Business Analyst estimates for 2014

Population Projections

Table 2 illustrates the population growth trends for the CVPRD. The District's population is predicted to increase by an annual rate of 4.9 percent to 35,183, from 2014 to 2019. This represents significant growth for the District from a population of 9,237 in 2000 (the annual growth rate from 2000 to 2010 was 10.2 percent).

Table 2: Population Projections for CVPRD

US Census (2000 and 2010) and ESRI Projections	
2000 Population	9,237
2010 Population	24,390
2014 Estimated	27,585
2019 Projected	35,183

Source: U.S, Census, and ESRI Business Information Solutions

CVPRD

Race/Ethnicity

Figure 1 reflects the District's racial/ethnic population distribution.

- The Caucasian population was 85.2 percent in 2014. This population has declined slightly from 2010 (86.1 percent) and is expected to continue a slight decline to 83.3 percent by 2019.
- The Asian population, at 2.3 percent in 2014, is expected to grow to 3.3 percent by 2019.
- The African American and American Indian populations are not expected to grow above one percent by 2019.
- Hispanic origin provides a separate look at the population, irrespective of race. The Hispanic population is expected to remain at 18 to 19 percent through 2019.

Figure 1: Ethnicity Statistics (2014)
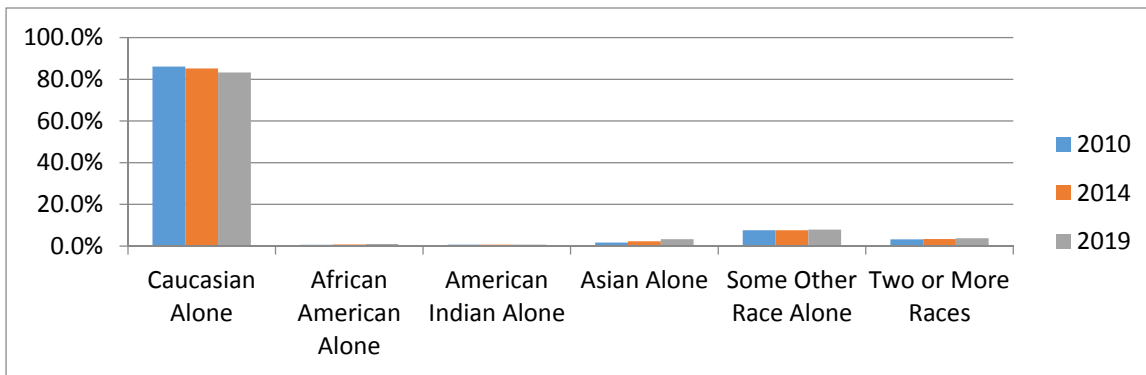
Source: 2010 U.S. Census; 2014 estimates and 2019 forecast provided by ESRI Business Information Solutions.

Age Distribution

CVPRD's estimated population breakdown by age from 2010 to 2019 is shown in *Figure 2*.

Figure 2: Breakdown by Age for the Years 2010, 2014, and 2019

Source: 2010 U.S. Census; 2014 estimates and 2019 forecast provided by ESRI Business Information Solution.

In general, from 2010 to 2014, the 10-24 age population is expected to grow, the young adult population (25-34) is expected to drop significantly, and the senior population is expected to grow significantly.
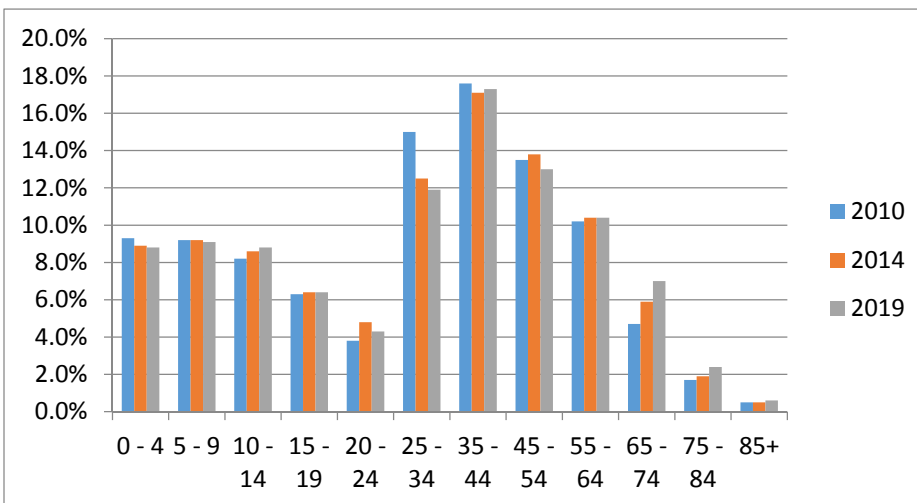
- The 25-34 age cohort is predicted to drop by 20 percent in size from 2010 to 2019, from 15 percent to 11.9 percent of the CVPRD population.
- At the same time, the 65-74 age cohort is predicted to increase in size for this time period, from 4.7 percent to 7.0 percent of the population.

Household Information

As reflected in *Table 3,* in 2014, CVPRD had 9,783 housing units with a 78.4 percent owner-occupied housing rate, compared to a 16.3 percent renter occupied rate, indicate a relatively stable community.

Table 3: Carbon Valley Park and Recreation al District Housing Statistics

	2010	2014	2019
Total housing units	8,693	9,785	12,565
Percent owner occupied	80.7%	78.4%	78.2%
Percent renter occupied	14.1%	16.3%	16.3%
Percent vacant	5.2%	5.35%	5.5%

Source: 2010 U.S. Census; 2014 estimates and 2019 forecasts provided by ESRI Business Information Solutions.

Household Income

The estimated 2014 median household Income for residents of CVPRD is $75,192 and is expected to grow to $83,264 by 2019. *Figure 2* illustrates the full income distribution estimated for the District in 2014 and projected for 2019.

- The largest number of households in the District have an income in the $100,000 – $149,999 range (about 24%) followed by the $50,000 – $74,999 and $75,000 – $99,999 income ranges (at about 18 to 19%).
- More than 13 percent of the population is expected to have income levels above $150,000 range by 2019.
- By 2019, 11.6 percent (approximately one in ten) of households in the District will have an annual income below $35,000.

CVPRD

Figure 3: Annual Household Income Distribution Comparison (2014)
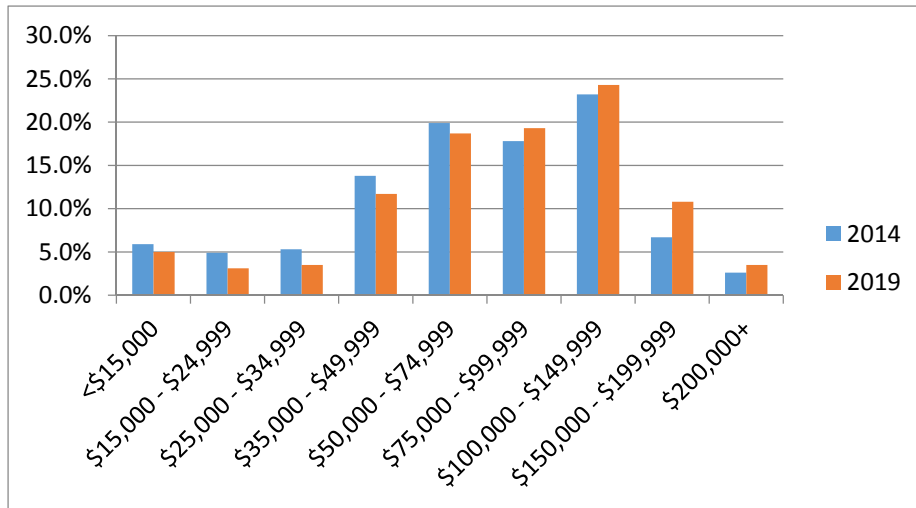
Source: ESRI Business Information Solutions, 2014.

Employment

According to the ESRI estimates for 2014, the industry in the community providing the greatest employment is the Service Industry (42.3%), followed at distance by Retail Trade (14%) and Manufacturing (13.9%). **Figure 4** reflects the ESRI estimate of employment by industry in the District in 2014.

Figure 4: 2014 Employment by Industry
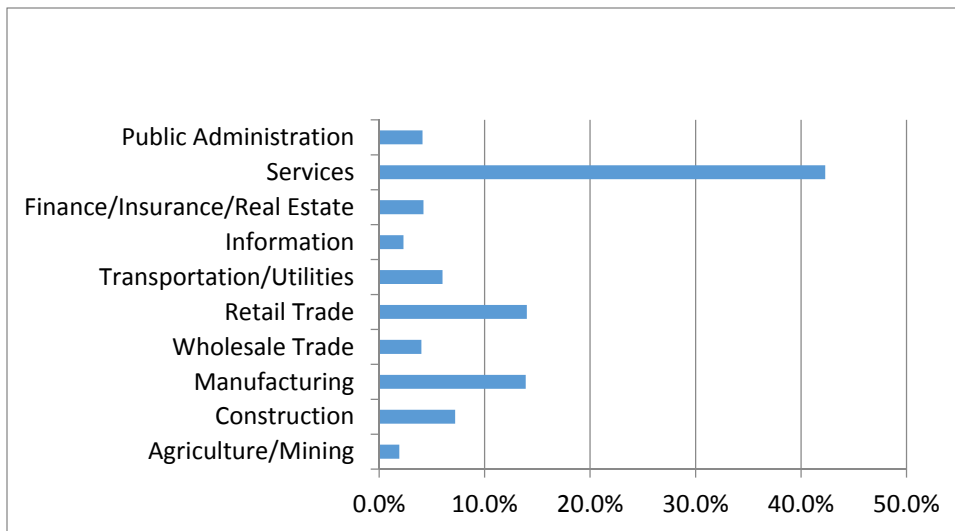
Source: ESRI Business Information Solutions, 2014 estimate from 2010 U.S. Census.

Education

According to a U.S. Census Bureau study, education levels had more effect on earnings over a 40-year span in the workforce than any other demographic factor, such as gender, race, and ethnic origin. As Shown in *Figure 5*, ESRI's forecasts from the U.S. Census provide the following education level estimates for 2014 in the Carbon Valley Park and Recreation District:

- The education level of the highest percentage of residents in CVPRD is some college with no degree (25.9%).
- Residents with Bachelor's Degrees and High School Graduate Degrees follow closely behind, with about 22 percent in each category.

Figure 5: Educational Attainment in CVPRD (2014)
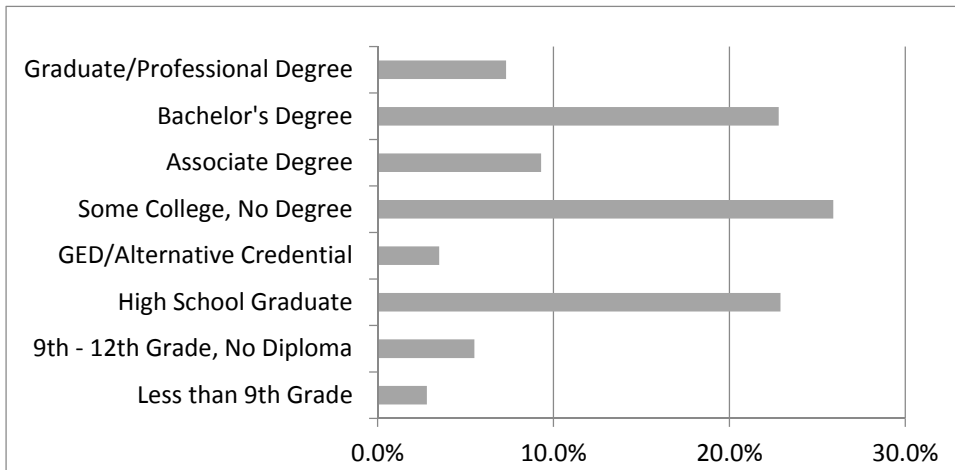
Source: ESRI Business Information Solutions, 2014 estimate from 2010 U.S. Census.

C. Current Trends

It is a challenge and an opportunity for parks and recreation providing agencies to continue to understand and respond to the changing recreation interests of serviced populations. In this fast-paced society, it is important to stay on top of current trends. The following highlights relevant local, regional, and national recreation trends relative to the Carbon Valley Park and Recreation District demographic and identified interests. A full report on trends can be found in *Appendix A.*

Demographic Trends

- Millennials lead structured lives filled with rules and regulations. Less accustomed to unstructured play than previous generations and apprehensive of the outdoors, they spend most of their time indoors, leaving home primarily to socialize with friends and family members. With an upbeat and with a can-do attitude, this generation is more optimistic and tech-savvy than its elders.

The highest ranking age cohort in the District is 35-44 (17.1% of the population) followed by the 45-54 (13.8%) and 25-34 (12.5%). Additionally, the 55-85+ cohort is expected to grow from 17.1 percent in 2010 to 20.4 percent in 2019. Planning for the next ten years suggests a growing demand for programs and services for young adults, Baby Boomers, and seniors.

CVPRD

- With their varied life experiences, values, and expectations, Baby Boomers are predicted to redefine the meaning of recreation and leisure programming for mature adults. Boomers are second only to Gen Y/Millennials (born between 1980 and 1999) in participation in fitness and outdoor sports. Boomers will reinvent what being a 65-year-old means.
- Hispanic participants and nonparticipants alike cite a lack of access to nearby places to participate in outdoor activities as a barrier to participation more often than other ethnicities.
- Minority youth participants cite school work as the top reason they do not get out more often – a barrier they cite more prominently than Caucasian youth.
- Young adults engage in mobile data applications at much higher rates than adults in age brackets 30 and older. It is also a fact that minority Americans lead the way when it comes to mobile internet access.

Facility Trends

- The current national trend is toward "one-stop" indoor recreation facilities to serve all ages. Larger, multi-purpose recreation centers that serve large portions of the community help increase cost recovery, promote retention, and encourage cross-use.
- Swimming for fitness is the top aspirational activity for "inactives" in 6 of 8 age categories in the SFIA "2013 Sports, Fitness, and Leisure Activities Topline Participation Report," representing a significant opportunity to engage inactive populations.
- That a connected system of trails increases the level of physical activity in a community has been scientifically demonstrated through the Trails for Health initiative of the Centers for Disease Control (CDC). Trails can provide a wide variety of opportunities for being physically active.
- Park and recreation agencies have begun installing "outdoor gyms," with equipment comparable to what would be found in an indoor workout facility, such as leg and chest presses, elliptical trainers, pull down trainers, etc. Such equipment can increase the usage of parks, trails, and other outdoor amenities while helping to fight the obesity epidemic and increase the community's interaction with nature.
- There is an increasing trend toward indoor leisure and therapeutic pools. Additional amenities such as "spray pads" are becoming increasingly popular as well.
- In recent years, mountain biking, and BMX biking have continued their upward trend, while inline skating and skateboarding have trended slightly downward in popularity.

Programming Trends

- There have been many changes in fitness programs in the last ten years. Strength training remains at a solid 2nd for the second year in a row, and body weight training appears for the first time in the top 20 trend survey. Zumba and outdoor activities appeared in the top 10 for the first time in 2012 and remains at 12 – one of the biggest trends in fitness over the past three years.
- The NSGA "Youth Sports Participation Report" from 2001 – 2011 indicates that specific offerings for children's fitness are slowly increasing in health and fitness facilities. Facilities are offering more youth-specific exercise equipment. Individualized youth sports training opportunities are becoming more popular as well.
- Extreme sports are not just a fad. Regardless of the time of year, extreme sports are increasing in participation.
- Participation in walking for pleasure and family gatherings outdoors were the two most popular activities for the U.S. population as a whole as reported in a 2012 report. These outdoor activities were followed closely in popularity by viewing/photographing wildlife, boating, fishing, snow/ice activities, and swimming. There has been a growing momentum in participation in sightseeing, birding, and wildlife watching in recent years.
- Some of the top ten athletic activities ranked by total participation include: exercise walking, swimming, exercising with equipment, camping, and bicycle riding.
- A national trend in the delivery of parks and recreation systems reflects more partnerships and contractual agreements reaching out to the edges of the community to support specialized services.

Festivals and Events

- In the context of urban development, from the early 1980s, there has been a process that can be characterized as "festivalization," which has been linked to the economic restructuring of counties and cities, and the drive to develop communities as large-scale platforms for the creation and consumption of "cultural experience."
- There are a growing number of smaller, more local community-based festivals and events in communities, most often supported by local councils that have been spawned partly as a reaction to larger festivals that have become prime economic-drivers. These community-based festivals often will re-claim cultural ground based on their social, educational, and participative value.

Nature Programming

- Sixty-eight percent (68%) of public parks and recreation agencies offer nature-based programming, and 61 percent have nature-based facilities.
- The most common programs include nature hikes, nature-oriented arts and crafts, fishing-related events, and nature-based education in cooperation with local schools.

> *"There's a direct link between a lack of exposure to nature and higher rates of attention-deficit disorder, obesity, and depression. In essence, parks and recreation agencies can and are becoming the 'preferred provider' for offering this preventative healthcare."*
>
> – **Fran P. Mainella**, former director of the National Park Service and Instructor at Clemson University.

CVPRD

- When asked to describe the elements that directly contribute to their most successful programs, agencies listed staff training as most important followed by program content and number of staff/staff training.
- Of the agencies that do not currently offer nature-based programming, 90 percent indicated that they want to in the future. Additional staff and funding were again the most important resources these agencies would need going forward.
- The most common facilities include: nature parks/preserves, self-guided nature trails, outdoor classrooms, and nature centers.

Trail Recreation and Cycling Trends
- Trail-related recreation activities such as hiking, bicycling, and running, the 2013 "Outdoor Recreation Topline Report" indicates a positive three-year trend for trail running, running/jogging, hiking, and mountain biking, but a slightly negative trend for road/surface bicycling.
- Urban bike tours, popular in cycle-friendly cities in Europe, are taking hold in the United States. Bikes and Hikes L.A., an eco-friendly bike and hike sightseeing company founded in September 2010, offers visitors the opportunity to "see the city's great outdoors while getting a good workout." In 2014 in New York, a hotel and a bike store partnered to offer guests cruisers to explore the city during the summer.[1]
- Participation in BMX bicycling is up significantly over the past three years (12.2%).

Role and Response of Local Government
Collectively, these trends have created profound implications for the way local governments conduct business. Some local governments are now accepting the role of providing preventative health care through parks and recreation services. The following concepts are from the International County/County Management Association.[2]
- Parks and recreation departments should take the lead in developing communities conducive to active living.
- There is growing support for recreation programs that encourage active living within their community.
- One of the highest priorities is a cohesive system of parks and trails and accessible neighborhood parks.

The United States of America, its states, and its communities share the enormous task of reducing the health and economic burden of obesity. While numerous programs, policies, and products have been designed to address the problem, there is no magic bullet to make it go away. The role of public parks and recreation as a health promotion and prevention agency has come of age. What matters is refocusing its efforts to ensure the health, well-being, and economic prosperity of communities and citizens.

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[1] Michelle Baran, "New trend: Urban bike tours in Los Angeles and New York," *Budget Travel Blog*, http://www.budgettravel.com/blog/new-trend-urban-bike-tours-in-los-angeles-and-new-york,11772/, accessed on March 24, 2014

Administration Trends for Recreation and Parks
Municipal parks and recreation structures and delivery systems have changed, and more alternative methods of delivering services are emerging. Certain services are being contracted out, and cooperative agreements with non-profit groups and other public institutions are being developed. Newer partners include the health system, social services, the justice system, education, the corporate sector, and community service agencies. These partnerships reflect both a broader interpretation of the mandate of parks and recreation agencies and the increased willingness of other sectors to work together to address community issues. The relationship with health agencies is vital in promoting wellness.

The traditional relationship with education and the sharing of facilities through joint-use agreements is evolving into cooperative planning and programming aimed at addressing youth inactivity levels and community needs.
Listed below are additional administrative national trends:
- Level of subsidy for programs is lessening and more "enterprise" activities are being developed, thereby allowing subsidy to be used where deemed appropriate.
- Information technology allows for better tracking and reporting.
- Pricing is often determined by peak, off-peak, and off-season rates.
- More agencies are partnering with private, public, and non-profit groups.

Funding
According to *Recreation Management* magazine's "2013 State of the Industry Report," survey respondents from parks and recreation departments/districts reporting about their revenues from 2009 through 2014 reveals the impact of the recession as well as the beginning of a recovery. More than 25 percent of respondents saw their revenues decrease from 2009 to 2010, and 21.8 percent of respondents reported a further decrease in 2011. Forty-four percent (44%) of park and recreation respondents reported increases from 2011 to 2012.

Marketing by Parks and Recreation Providers
Niche marketing trends have experienced change more frequently than ever before as technology affects the way the public receives information. Internet based interactive tools are a trend for agencies to use as a means of marketing programs and services. Providers of parks and recreation programs and services should stay aware of popular electronic and social media marketing tools to keep up with the need to reach customers electronically, and they should stay in tune with other emerging trends in communication.

Mobile marketing is also an emerging trend that may continue into the future. Young adults engage in mobile data applications at much higher rates than adults in age brackets 30 and older. Usage rates of mobile applications demonstrate that chronologically across four major age cohorts, Millennials tend to get information more frequently using mobile devices such as smart phones. For example, 95 percent of 18-to-29-year-old cell phone owners send and receive text messages, compared to 82 percent of 30-to-49-year-olds, 57 percent of 50-to-64-year-olds, and 19 percent of 65 and older.

D. Citizen Engagement

On July 29-30, 2014, 128 people participated in four focus groups, a public forum, and a Leadership Summit. In addition, the MindMixer **(carbonvalley.mindmixer.com)** online community engagement opportunity contributed to the discussion.

Organizational Issues
Improving communication with the Leadership of the three municipalities and other key partners was mentioned during the Leadership Summit and several of the focus groups as an area for improvement. Many attendees also identified maintaining and improving partner agency relationships.

The marketing and communication of park and recreation activities and facilities was consistently brought up as a weakness, with many citing that they do not know what programs are being offered, when, and at what location.

Many of the residents thought it was very important to ensure maximum inclusion in the District. They noted confusion as to whether some neighborhoods were part of the District or not. Additionally, full inclusion would maximize benefits of the District to all residents.

Building on the renovation of the Dacono BMX track and the Mile High Nationals, many focus group attendees felt that solidifying the operations of the track would be a great benefit to the District.

Programs and Service Delivery
When asked about what Park and Recreation programming needed to be expanded, the overwhelming response was to provide additional programs for families, seniors, and teenagers. Additional programs to expand included wellness/fitness, cultural, special needs, and aquatics. The public would like to see an increase in the number of special events and festivals.

Improving the current registration system capabilities and the District's technology, increasing recreation programming opportunities in geographic areas of the District, and increasing the customer base would all benefit the District.

Facilities and Amenities
When the focus group attendees were asked what facilities and amenities need to be improved or potential new facilities that could be built, the overwhelming response was to maintain and improve existing facilities if at all possible prior to building new facilities. Existing facilities mentioned most often included expanding the Senior Center, expanding the indoor pool, and providing more space for fitness classes.

The vast majority of input supported the construction of a multi-purpose facility that incorporated an aquatic center, additional gymnasiums, fitness/wellness spaces, indoor walking track, and flexible spaces for teen and senior programming.

Finance

Consensus emerged to implement user fees for park and recreation activities based on a value received by the participant for the services with a personal benefit.

Most focus group attendees agreed that it would be wise to pursue any and all grant opportunities at the federal, state, regional, and local levels.

Developing a strategy to seek alternative funding sources that includes donations, grants, sponsorships, and tax incentives was also mentioned by the focus groups.

E. Citizen Survey

This citizen survey research effort and subsequent analysis was designed to assist the CVPRD in the creation of a needs assessment as part of the development of its Master Plan.

The survey was conducted using three primary methods: 1) a mail-back survey, 2) an online, invitation-only web survey to further encourage response from those residents already within the defined invitation sample, and 3) an open-link online survey for members of the public who were not part of the invitation sample. The analysis herein primarily focuses on responses from the invitation sample unless otherwise noted. However, open link responses are discussed, particularly when they differ from the invitation sample.

This community survey section is a summary of the survey results. Many survey result charts and statements are utilized throughout this document. The complete survey results including the open ended comments were provided as a separate staff resource document due to the large number of pages.

A total of 3,000 surveys were mailed to an invitation sample of District residents in September 2014. The final sample size for this statistically valid survey was 281 (222 from the paper survey and 59 from the web-invitation survey), resulting in a margin of error of approximately +/- 5.6 percentage points calculated for questions at 50 percent response. The open link survey received an additional 273 responses.

Given a robust invitation sample with demographics that closely matched the underlying demographics of the community regarding income and presence of children in the household, results were not weighted. However, results are segmented by demographic variables a few times within this report in order to explore how opinions vary as a result of age, annual household income, or presence of children in the household.

As noted, the survey was sent to a randomly selected sample of 3,000 residents in Dacono, Firestone, Frederick, and unincorporated areas of the District. Due to variable response rates by some segments of the population, the underlying results, while weighted to best match the overall demographics of District residents, may not be completely representative of some sub-groups of the population, including younger residents and those in the Latino community.

CVPRD

Survey Respondent Profile
This section of the report discusses the respondent and household demographics of both the invitation and open link samples. By understanding how the characteristics of these two groups differ, it is easier to determine underlying reasons for contrasting response patterns for various questions on the survey.

Gender
Most invitation sample respondents are female (67%), while roughly a third of respondents are male (33%). Meanwhile, open link respondents also skewed female, but more significantly (84%).

Age
The average age of invitation sample respondents is 47.8 years. Open link respondents are younger on average, with an average age of 44.5. In particular, there is a higher share of open link respondents within the 35 to 44 (39% vs. 29%) and 45 to 54 (17% vs. 12%) age cohorts than found in the invitation sample. Meanwhile, there are higher percentages of invitation respondents within the 55 to 64 (17% vs. 12%) and 65 to 75 age cohorts (13% vs. 10%).

Household Profile
Households with children at home comprised the largest share of invitation sample respondents (52%), distantly followed by couples without children (21%), empty-nesters (15%), and singles without children (10%). A majority of respondents reported being in a couple, either with or without children (80%), while one in five invitation respondents are single, either with or without children.

Open link respondents were also mostly comprised of households with children at home, but much more notably than what was reported within the invitation sample. Three-quarters of all open link respondents indicated having children at home. Eighty-eight percent (88%) of open link respondents reported being in a couple, either with or without children, while 12 percent of open link respondents are singles.

Ethnicity/Race
Ten percent of invitation respondents and seven percent of open link respondents consider themselves to be of Hispanic, Latino, or Spanish origin. An overwhelming majority of respondents from both samples consider themselves to be white (94%).

Household Income
Most invitation sample households (67%) earn an annual income of less than $100,000 per year, with a bulk of those respondents reporting an annual household income of between $50,000 and $100,000 (44%). An additional 22 percent of respondents earn between $100,000 and $150,000, while 11 percent earn $150,000 or more per year.

Open link respondents skewed slightly more affluent, with a quarter of respondents earning between $100,000 and $150,000, an additional 22 percent earning $150,000 or more per year.

Number of People in Household
Invitation sample respondents reported an average of 3.0 persons living in the household. Twelve percent (12%) of invitation respondents report living alone, 53 percent live in households of 2 to 3 people, and 36 percent live in households with 4 to 10 people.

Open link respondents indicated living in larger households, on average (3.7 people), due to a greater share of couples with children at home within the household profile. Fifty-nine percent (59%) of open link respondents reported having between 4 and 10 household members.

Location of Residence
The CVPRD primarily represents residents of Dacono, Firestone, and Frederick, as well as those living in nearby unincorporated areas. Both the invitation and open link samples had notable representation among all of these locations. The invitation sample was comprised of 43 percent Frederick residents, 31 percent Firestone residents, 18 percent Dacono residents, and 8 percent from unincorporated areas. Nearly half of open link respondents live in Firestone (49%), followed by 36 percent who live in Frederick, 7 percent in Dacono, and 7 percent in unincorporated areas.

Years in Carbon Valley Park and Recreation District
Invitation sample respondents have lived in the area for 8.9 years, on average, with most respondents reporting having lived in the area between 4 and 10 years (44%). Overall, open link respondents have lived in the area for fewer years than invitation sample respondents, with an average length of time in the area of 7.5 years.

When length of time in the area is evaluated by town of residence, some differences emerge. Taking the overall sample (both invitation and open link), respondents who live in unincorporated areas have lived in the District for the longest length of time (15.6 years, on average). Dacono respondents have lived in the area for 9.8 years on average, followed by Frederick (7.6), and Firestone (7.0). Results provide some insight into which parts of the District are populated by newer residents.

Own or Rent
A majority of respondents own their residence, both in the invitation sample (92%) and open link sample (94%).

Values and Vision
Respondents were asked to indicate their top five priorities for recreational services. This provides the opportunity to see how respondents prioritize various values in relation to one another. Improving physical health and fitness is the top priority among invitation respondents, with 74 percent of respondents including this category as one of their top five priorities. Improving physical health and fitness also had the highest share of respondents indicating this to be their top priority (43%). In a second tier of priorities, positive activities for youth (60%) and make my community a more desirable place to live (55%) also ranked high on the list.

Figure 6 explores the top five priorities between the invitation and open link samples. Among both groups, improving physical health and fitness is the top ranked priority, with 74 percent of invitation respondents and 79 percent of open link respondents reporting this as one of their top five priorities. Additionally, positive activities for youth and making the community a more desirable place to live come in as the second and third top priorities overall. However, beyond having the same top three values, differences in priorities emerge between the two groups. Larger shares of invitation respondents prioritize increasing property values, helping to attract new residents and businesses, diverse leisure opportunities for adults, and maintaining what we have. Meanwhile, open link respondents are more likely to prioritize positive activities for youth, making the community a more desirable place to live, community events, improving mental health and reducing stress, opportunities for increased social interaction, and better use of existing shared agreements with school sites.

Figure 6: Top Five Priorities for Recreational Services
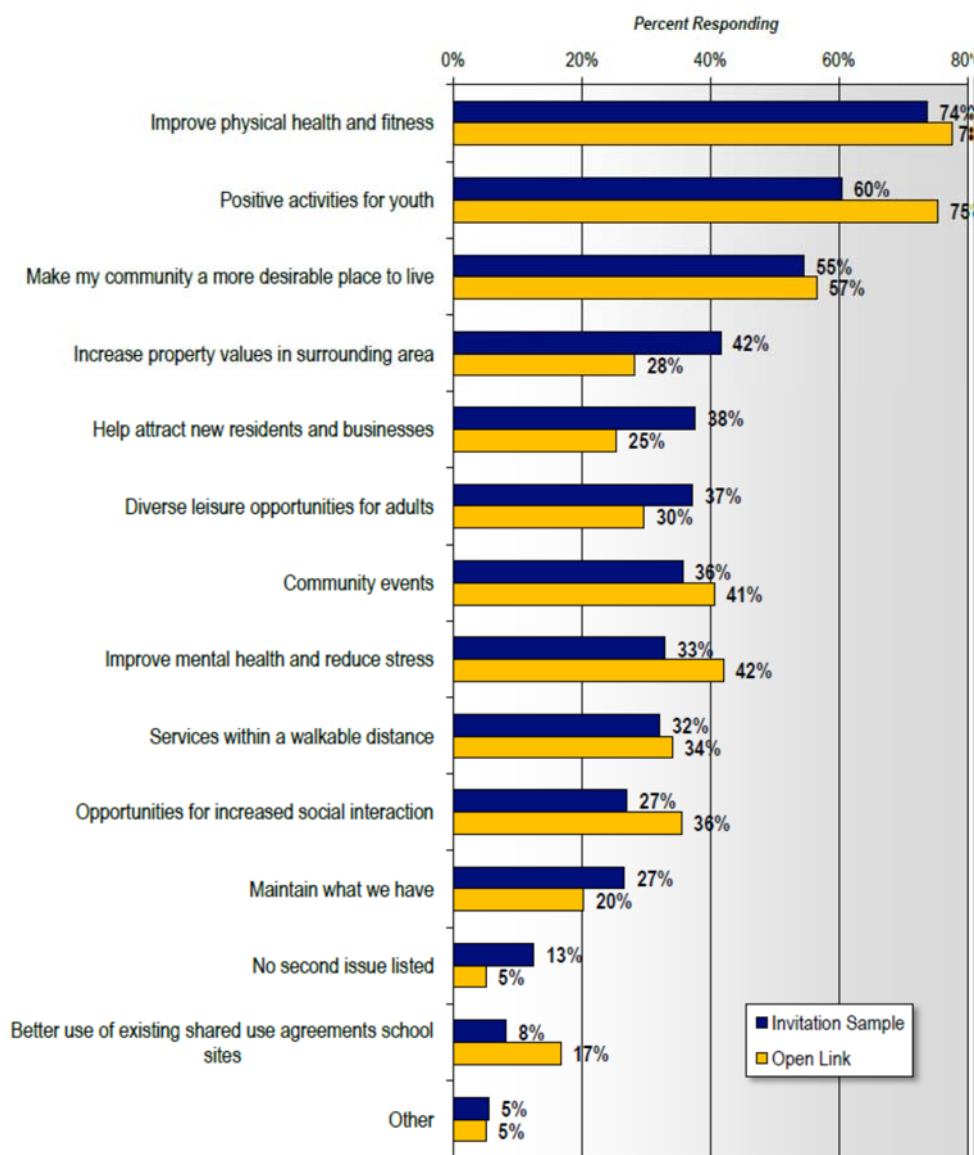
Current Use and Ratings of Programs and Facilities

Importance of Local Recreation Opportunities

Respondents were asked to indicate the importance of the availability of local recreation opportunities to their household on a scale of 1 to 5, with 1 meaning "not at all important," and 5 meaning "extremely important." Local recreation opportunities are considered very important, with 83 percent of invitation respondents providing a rating of "4" or "5" and an average rating of 4.2. Open link respondents were even more likely to indicate these opportunities were important, with 93 percent of respondents providing a rating of "4" or "5" and an average rating of 4.5.

Participation in CVPRD Programs

When asked if respondents or members of their household have participated in CVPRD recreation programs, 76 percent of invitation respondents and 92 percent of open link respondents reported that they had. Results show that open link respondents skew more currently active in the District.

Frequency of Participation

Respondents who indicated that they had participated in CVPRD programs were asked how often they or members of their family had visited the CVPRD Recreation Center over the past 12 months. Among those who recalled their frequency of participation ("do not know" responses excluded), 93 percent of invitation respondents and 99 percent of open link respondents had visited the CVPRD Recreation Center. Most respondents from both samples reported having been at least 20 times (44 to 45 percent of respondents). Clearly, users of CVPRD programs skew toward heavy use of facility programs.

Ratings of the CVPRD Recreation Center Facility

CVPRD participants were also asked to rate the Recreation Center on a scale of 1 to 5, with 1 meaning "poor" and 5 meaning "excellent." Invitation respondents gave an average rating of 3.7, with most respondents providing a rating of "4" (42%), and 16 percent indicating that the quality was "5" ("excellent"). Ratings among invitation respondents were somewhat higher than those given by open link respondents. Open link respondents provided an average rating of 3.4, with most giving a rating of "3" (42%).

Ratings of the Quality of Programs Utilized

A final question to CVPRD participants asked them to rate the quality of programs that they or members of their households have participated in on a scale of 1 to 5, with 1 meaning "poor" and 5 meaning "excellent." Invitation respondents provided an average rating of 3.6, compared to open link respondents who provided an average rating of 3.4.

Use of Programs, Activities and Special Events

Survey respondents were asked the percentage of households who have used the program or service at least once in the past year. Among invitation respondents, the following were used most often in the past year: aquatic programs (29%), fitness and wellness programs (26%), youth sports programs (15%), special events (14%), and gymnastic programs (11%). Among open link respondents, the following were used most: fitness and wellness programs (36%), aquatic programs (34%), youth sports (24%) special events (22%), gymnastic programs (20%), and dance/music/drama programs (11%). As shown, the two samples had frequent use of similar programs and services.

Importance of Programs, Activities and Special Events

Using a 5-point scale, with 1 meaning "not at all important" and 5 meaning "very important," respondents rated each program and service listed. The following had at least half of all respondents providing a rating of "4" or "5" ("important"):

- Fitness and wellness programs (82% of respondents providing a rating of "4" or "5")
- Aquatic programs (74%)
- Youth sports (65%)
- Special events (50%)
- Senior programs (50%)

Overall, each of the programs earned high importance ratings, with at least a third of all respondents providing a rating of "4" or "5." However, it is worth noting that a couple programs had higher shares of respondents noting the program was unimportant (providing a rating of "1" or "2") than important ("4" or "5"). These include preschool programs (46% not important vs. 32% important) and Kid Zone (39% not important vs. 38% important). Also, dance/music/drama programs had equal shares of respondents indicating that these programs were not important than important (36% each, respectively). A further segmentation of these invitation responses by whether or not respondents have children at home reveals that average ratings of importance for these three programs are higher among households with children than among those without children at home.

Degree to Which Programs, Activities and Special Events are Meeting Household Needs

Using a 5-point scale with 1 meaning "not at all" and 5 meaning "completely," respondents also indicated to what degree their needs were being met by the programs offered by CVPRD. The following had at least half of all respondents providing a rating of "4" or "5" ("needs met"):

- Senior travel (56% of respondents providing a rating of "4" or "5")
- Meals programs for seniors (55%)
- Aquatic programs (54%)
- "Other" (53%)
- Fitness and wellness programs (51%)

Several programs had higher shares of invitation respondents indicating needs were not met (providing a rating of "1" or "2") than met. These include youth summer camps/programs (57% needs unmet vs. 24% met), dance/music/drama (56% unmet vs. 23% met), arts and crafts programs (55% unmet vs. 26% met), preschool programs (55% unmet vs. 27% met), and adult sports programs (40% unmet vs. 30% met).

Top Priorities for Additions, Expansions, or Improvements

Respondents were asked to indicate their top three priorities for additions, expansions, or improvements of programs within the District. Among both groups, fitness and wellness programs are the top ranked priority, with 56 percent of each sample reporting it as one of their top three priorities. Additionally, aquatic programs and youth sports programs are ranked second and third among both groups. Beyond having similar top priorities, there were some differences in priorities between invitation and open link respondents. Invitation respondents were more likely to prioritize senior programs, volunteer programs, and senior travel. Meanwhile, open link respondents prioritized all other categories to a greater degree than did invitation respondents, suggesting a broader range of interests among these respondents. In particular, open link respondents were much more likely to list youth sports programs, special events, youth summer camps/programs, dance/drama/music, and preschool programs as priorities than invitation respondents.

Importance vs. Needs-Met Matrix – Current Programs and Facilities

It is informative to plot and compare the programs and facilities scores for level of importance and degree to which needs are being met by these programs using an "Importance vs. Needs- Met" matrix. In *Figure 7* following, scores are displayed in this matrix using the mid-points for both questions to divide into four quadrants. The Importance scale midpoint was 3.1 (the median rating for importance across all programs); the Satisfaction with Needs-Met midpoint was 3.0.

The upper left quadrant shows the programs that had a high average rating of importance as well as higher level of needs being met. These programs are less of a priority for improvement because needs are being met, but are important to maintain moving forward as they are perceived as important to resident households:

- Fitness and wellness programs
- Aquatic programs
- Special events

Programs located in the upper right quadrant are programs with relatively high importance but lower level of needs being met, which suggest that these programs could be improved. Improving these programs would have a strong impact on the degree to which needs are being met overall. This includes:

- Adults sports programs
- Teen programs
- Volunteer programs
- Senior programs and youth sports programs are on the cusp of needs being met. In other words, needs are being met more fully by these programs than the programs listed above. However, it will still be important to keep track of satisfaction with these programs moving forward—especially youth sports programs, which earned a high average rating of importance.

The lower left quadrant shows programs that are not important to many households, yet are meeting their needs very well. It would be beneficial to evaluate if the resources supporting these programs outweigh the benefits. Reallocating these resources to the programs in the upper right quadrant could be a more efficient use of resources.

- Meals programs for seniors
- Gymnastic programs
- Senior travel
- Kid Zone

Programs found in the lower right quadrant, further below the in-need midpoint, are programs not meeting needs well; however, they are important to fewer members of the community. These "niche" programs may have a small but passionate following; therefore, there is merit to measuring participation and planning for potential future enhancements accordingly.

- Youth summer camps/programs
- Arts and craft programs
- Dance/music/drama
- Preschool programs
- "Other"

Figure 7: Importance/Needs Met Matrix (Invitation Sample Only)
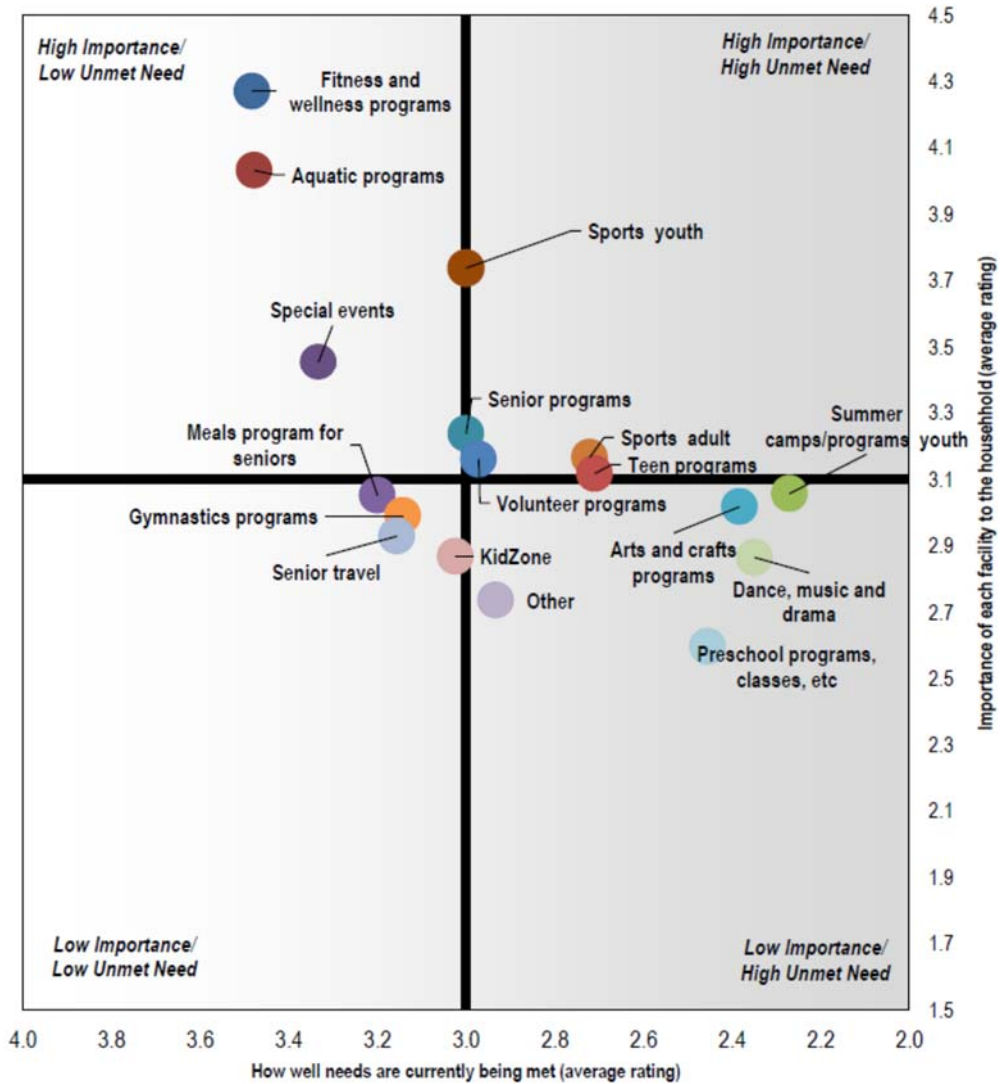
Current vs. Preferred Communication Methods

A section of the survey had respondents indicate the methods by which they usually receive information about CVPRD recreation facilities, services, and programs. A related question prompted respondents to consider the best of these methods for reaching them, recognizing that there is a cost to communicating with them. The activity guide is by far the most common method of receiving information (68 percent of all invitation respondents). At the recreation facility/program location (36%) and via local media (24%) are also relatively popular current methods of receiving information.

Opinions Regarding Program and Facility Fees and Future Financial Support

Program Fees

Most invitation respondents feel that current programs fees currently charged directly to them by the CVPRD are acceptable (47%). Less than one percent of respondents reported that they were underpriced, and 21 percent indicated that they were too high. If respondents who did not know/were unsure (20%) or noted that the question did not apply to them (12%) are removed, results show that one percent feel that program fees are underpriced, 68 percent feel that they are acceptable, and 31 percent report that they are too high. Open link respondents are slightly more likely to indicate that program fees are acceptable (55 percent including do not know/not applicable and 71 percent excluding those respondents).

Facility Fees

Respondents were also prompted to assess the fees charged for facilities. Overall, more invitation respondents noted that facility fees were acceptable (52 percent including do not know/not applicable and 75 percent excluding those respondents) than what was reported with regard to program fees. This pattern also holds for open link respondents, but the difference is less notable. In other words, open link respondents had generally similar opinions regarding fees charged for programs and facilities, while invitation respondents were clearly more accepting of facility fees.

Likelihood of Support for an Increase in Fees

Invitation respondents skew toward not being likely to support an increase in fees to offset operating expenses. Twenty-seven percent (27%) of respondents indicated that they probably or definitely would support an increase in fees, while 58 percent noted that they probably or definitely would not, and an additional 15 percent were undecided. Open link respondents were slightly more likely to support a fee increase, with 31 percent reporting that they probably or definitely would support an increase, 58 percent noting that they probably or definitely would not, and 11 percent indicating that they were unsure. Ultimately, both samples leaned toward not supporting a fee increase.

Likelihood of Support for an Increase in Property Tax

In a similar question, respondents were asked, "In the event new recreation facilities are deemed a community need, would you support an increase in the property tax (to be voted on in a general election) with the additional tax dollars collected going to help pay for the construction and/or operating costs of future facilities?" Respondents were generally supportive of the idea. Forty-three percent (43%) of invitation respondents (vs. 57 percent of open link respondents) said that they probably or definitely would support such a measure, 39 percent of invitation respondents said that they probably or definitely would not support it (vs. 30 percent of open link respondents), and 18 percent were undecided (vs. 12 percent of open link respondents). Overall, respondents show support, with open link respondents being more supportive of a potential future property tax increase.

Importance of Future Outdoor and Indoor Facilities over Next 3-5 Years

Using a 5-point scale, with 1 meaning "not at all important" and 5 meaning "very important," respondents rated the importance of adding or improving a list of outdoor and indoor facilities within the District over the next 3 to 5 years. The following had the highest shares of respondents providing a rating of "4" or "5" ("important"):

- Indoor/outdoor pool area (60% of respondents providing a rating of "4" or "5")
- Multi-purpose fields (46%)
- Field house (44%)
- Cardio equipment/weight training room (43%)
- Rock climbing facility (43%)
- Outdoor spray ground/splash pad/water playground (41%)
- Indoor track (39%)
- Open water recreational area (lakefront facility) (38%)

Top Priorities for Additions or Improvements of Facilities

Respondents were asked to indicate their top three priorities for additions or improvements of outdoor and indoor facilities within the District over the next three to five years. This provides the opportunity to see how respondents prioritize various values in relation to one another. An indoor/outdoor pool area is the top priority, with 49 percent of invitation respondents including this category as one of their top three priorities. This choice also had the highest share of respondents noting that it was their number one priority (27%). A pool area was distantly followed by a second tier of facility priorities, including cardio equipment/weight training room (27%), open water recreational area (23%), outdoor spray ground/splash pad/water playground (21%), multi-purpose fields (20%), rock climbing facility (20%), outdoor plaza/gathering space (19%), ice rink/arena (18%), and teen center (18%).

IV. FACILITY INVENTORY AND LEVEL OF SERVICE ANALYSIS

A. GRASP® Methodology

The purpose of this Level of Service (LOS) analysis is to evaluate how facilities, parks, and programming opportunities in CVPRD serve the District and its communities. The analysis may be used as a tool to benchmark current level of service and to direct future planning efforts. Combined with other findings, including survey results and focus group and stakeholder feedback, it is also intended to indicate the level of service anticipated by the District.

Why Level of Service?
Level of Service for a parks and recreation system is important, as it is indicative of the ability of people to pursue active lifestyles. LOS can have implications for health and wellness, the local economy, and quality of life and tends to reflect community values. It is often emblematic of the manner and extent to which people are connected to their communities.

Composite-Values Level of Service (LOS) Analysis is the process used to inventory and analyze park and recreation assets in the District, including quantity, location, and various qualities of each. This process yields analytical maps and data that may be used to study LOS across the study area and utilizes MS Excel, MS Access, and common GIS software.

The composite-values based LOS analysis process used by GreenPlay and Design Concepts is proprietary, and known as "**GRASP®**" (Geo-referenced Amenities Standards Process). It has been somewhat automated through creation of additional software code and template design for efficiency in data collection and analysis. *A detailed history and overview of **Composite-Values Methodology (CVM)** and description of **GRASP®** methodology is included in **Appendix B**.*

Programming Inventory
To begin the programming inventory, the team identified which programs would need to be inventoried, discussed how CVPRD staff would gather the information, and which characteristics would be necessary. The **Programming Inventory Collection Template** was updated for this project to include additional characteristics that the Project Team deemed potentially important for this study. The information desired for this type of analysis is not always the type of information typically collected by CVPRD as part of their ongoing daily, or even annual, work reporting. CVPRD is a high-functioning agency, with progressive staff who understand the value of good management and planning practices. That being said, the study of programming is in its infancy in this industry, and even computerized registration software packages are not collecting the information needed to comprehensively analyze data. Even so, the staff and the project team worked diligently to gather information and define characteristics that are relevant for this study.

The **Programming Inventory Collection** Spreadsheet with a list of programs and services offered by CVPRD was created. The list was organized by program areas (similar to components used in the assets analysis) and include the following:

- Active Seniors
- Aquatics
- Fitness
- Gymnastics
- Special Events
- Youth Sports
- Adult Sports

This inventory is designed to be expandable and dynamic, so that it can be used to analyze other programs for other project warrants and even age groups, if desired, in the future. In addition, the inventory and analysis can be expanded to include additional program/service areas such as alternative providers of services (YMCA, Faith Based Groups, Boys and Girls Clubs, etc.), if desired.

Along with the list of program areas, the individual programs were also identified by pre-defined applicable characteristics. Some of these characteristics are helpful from a mapping/location standpoint, some are more administrative information.

Creating the Inventory

While the District currently owns and manages two indoor facilities and a small park, it also actively works in partnership with the communities of Frederick, Firestone, and Dacono to provide recreation programming at a number of outdoor locations across the district. **Map 1** shows all of the recreation opportunities in the current system. Larger scale maps may be found in ***Appendix E***.
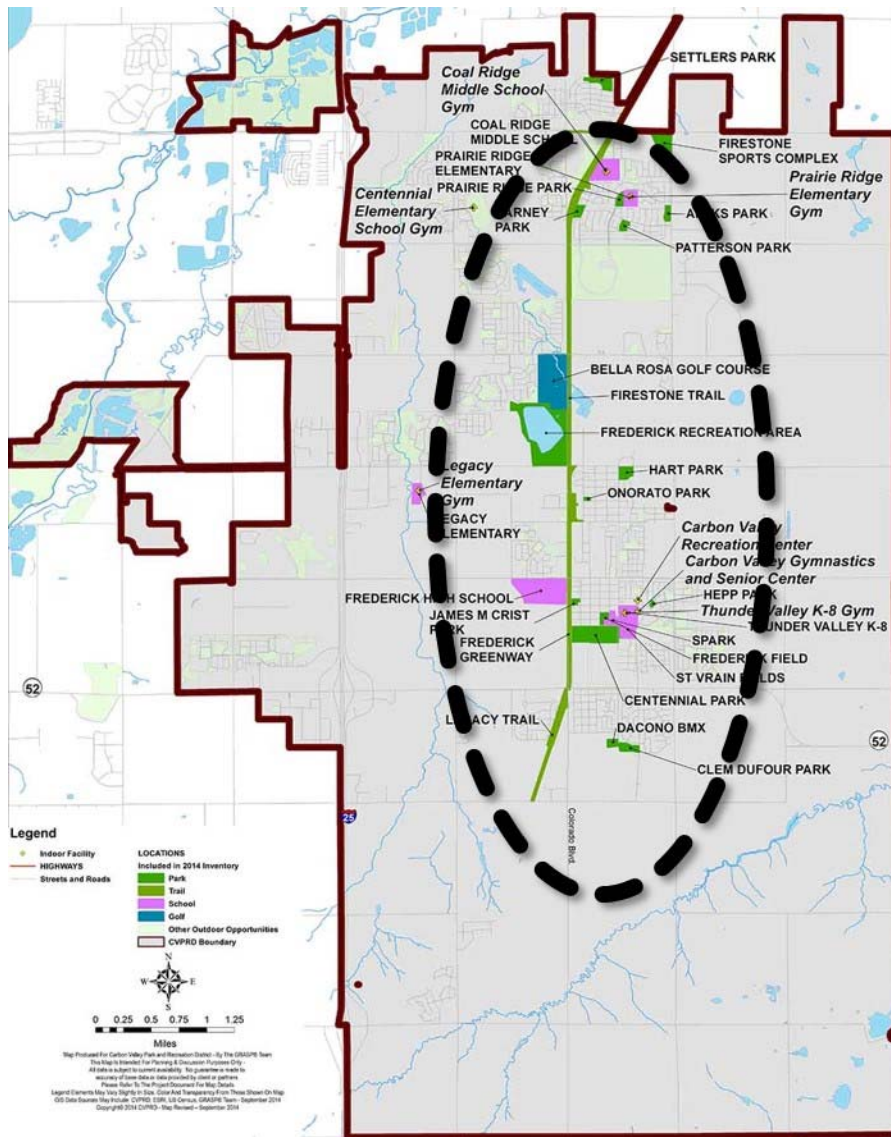
Map 1: CVPRD system map showing all parks and recreation inventory included for GRASP® analysis.

For the purposes of this study, the inventory was limited to those facilities that CVPRD currently uses for programming or properties with potential or future opportunities. The light green parcels on the map represent possible recreation opportunities that CVPRD does not currently use in programming.

This asset inventory was created to serve the District in a number of ways. It can be used for a wide variety of planning and operations tasks such as asset and program management as well as future strategic and master plans. The assets inventory currently includes public parks, recreation, and trails assets managed by the three communities, CVPRD, and those school facilities that are open to usage for recreation outside of school hours.

A summary of the component assets in by ownership is included in *Table 4* that follows.

Asset Scoring

In planning for the delivery of parks and recreation services, it is useful to think of parks, trails, indoor facilities, and other public spaces as parts of an infrastructure. This infrastructure allows people to exercise, socialize, and maintain a healthy physical, mental, and social wellbeing. The infrastructure is made up of *components* that support this goal. Components include amenities that a person would go to a park to use, such as playgrounds, picnic shelters, courts, and fields.

In the inventory of assets, the following information is collected:
- Component type and location
- Evaluation of component functionality
- Evaluation of associated comfort and convenience features at a location
- Evaluation of general design and ambience at a location
- Site photos
- General comments

The immediate surroundings of a component affect how well it functions, so in addition to scoring components, each park site or indoor facility was given a set of scores to rate its comfort, convenience, and ambient qualities. This includes traits such as the availability of restrooms, drinking water, shade, scenery, etc. These *modifier* values are attributed to any component at a given location and serve to enhance component and location scores. All scoring is based on condition, size, site capacity, and overall quality. The inventory team used the following three tier rating system to evaluate these:
    1 = Below Expectations
    2 = Meets Expectations
    3 = Exceeds Expectations

It is important to note that while the District has minimal control of the quality or maintenance of partner facilities or components, the quality of these assets is extremely important in the quality or opportunities for the District to offer programming at these facilities or to use them as a basis of programming.

The following three tables summarize the inventory used in the level of service analysis for CVPRD. *Table 4* provides a breakdown of outdoor inventory by ownership and component. In *Table 5* and *Table 6*, each facility is summarized by its individual components.

Table 4: Outdoor Inventory Summary by Ownership

OWNER	Aqua Feat, Spray	Backstop, Practice	Ballfield	Bandstand	Basketball	Batting Cage	BMX Course	Complex, Ballfield	Complex, Tennis	Concessions	Dog Park	Driving Range	Educational Experience	Event Space	Golf	Horseshoes	Loop Walk	MP Field, All Sizes	Multiuse Court	Natural Area	Open Turf	Open Water	Other-Passive	Passive Node	Picnic Grounds	Playground, Destination	Playground, Local	Public Art	Restroom	Shelter	Skate Park	Tennis	Track, Competition	Trailhead	Water Access, Developed	Water Access, General	Water Feature
CVPRD																					1						1										
Dacono			1		2		1																1		1	1			3	5				1			
Firestone			5		5			1		1	2						3	4			3				1	2	7		5	14	1	3		1			1
Frederick	1		1	1	0.5	1				2	1	1	2	1	1	2	2	3		2	2	2		2	1		3	2	5	3				1	1	1	
School District		2	8		8			1	1									7	4		4						4			1		6	3				
Totals:	1	2	15	1	16	1	1	2	1	3	3	1	2	1	1	2	5	14	4	2	10	2	1	2	3	3	15	2	13	23	1	9	3	3	1	1	1

**Table 5: Outdoor Inventory Summary by Facility**

| LOCATION	Estimated Acres	Aqua Feat, Spray	Backstop, Practice	Ballfield	Bandstand	Basketball	Batting Cage	BMX Course	Complex, Ballfield	Complex, Tennis	Concessions	Dog Park	Driving Range	Educational Experience	Event Space	Golf	Horseshoes	Loop Walk	MP Field, All Sizes	Multiuse Court	Natural Area	Open Turf	Open Water	Other-Passive	Passive Node	Picnic Grounds	Playground, Destination	Playground, Local	Public Art	Restroom	Shelter	Skate Park	Tennis	Track, Competition	Trailhead	Water Access, Developed	Water Access, General	Water Feature
AISIKS PARK	3.9											1																										
BELLA ROSA GOLF COURSE	77.4												1			1																						
CENTENNIAL PARK	37.8										1				1		1		3		1				1			1		1	1							
CLEM DUFOUR PARK	6.8			1		2																		1		1	1			2	4							
COAL RIDGE MIDDLE SCHOOL	27.0		1	1		2													2																		1	
DACONO BMX	3.7							1																						1	1							
FIRESTONE SPORTS COMPLEX	18.5			3					1													1					1			1	1							
FIRESTONE TRAIL	109.0																							1						1	1		1		1			
FREDERICK FIELD	4.1			1			1				1																			1								
FREDERICK GREENWAY	27.3													1															1						1			
FREDERICK HIGH SCHOOL	59.7			4		2			1	1									2														6	1				
FREDERICK RECREATION	128.5					0.5						1					2	1		1	1	1			1		1	1		2	2					1	1	
HARNEY PARK	5.5					1												1	1								1				3							
HART PARK	7.9			1		1												1	1											1		1	2					1
HEPP PARK	1.0																					1								1								
JAMES M CRIST PARK	1.8	1				1								1																1	1							
LEGACY ELEMENTARY SCHOOL	9.9					2													1	1		1								1								
LEGACY TRAIL	25.0																																		1			
ONORATO PARK	0.9					1																								1	1		1					
PATTERSON PARK	3.5																	1												1	1							
PRAIRIE RIDGE ELEMENTARY SCHOOL	10.2		1			2														1		1								1								
PRAIRIE RIDGE PARK	4.9																	1												1			1					
SETTLERS PARK	13.8			1		2					1	1						1				2								2	1		4	1	2			
SPARK SCHOOL	6.6																		1			1								1	1							
ST VRAIN FIELDS	16.7			3															1			1																
THUNDER K8 SCHOOL	12.4																		1	1										1					1			
TOTALS:	**623.8**	1	2	15	1	16	1	1	2	1	3	3	1	2	1	1	2	5	14	4	2	10	2	1	2	3	3	15	2	13	23	1	9	3	3	1	1	1

CVPRD

Table 6: Indoor Inventory Summary by Facility

LOCATION	Childcare/Preschool	Fitness/Dance	Food -Vending	Gymansium	Gymnasium	Kitchen - Kitchenette	Lobby/Entryway	Multi-purpose	Patio/outdoor seating	Pool, Lap	Pool, Leisure	Pool, Therapy	Racquetball	Sauna/steam	Track - Indoor	Weight/Cardio Equipment
Carbon Valley Gymnastics and Senior Center					1	1	1	1								
Carbon Valley Recreation Center	1	1	1		1		1	2	1	1	1	1	1	1	1	2
Centennial Elementary School					1											
Coal Ridge Middle School				1	1											
Legacy Elementary School					1											
Prairie Ridge Elementary School					1											
Thunder K-8 School					1											
Totals:	1	1	1	1	7	1	2	3	1	1	1	1	1	1	1	2

Population Distribution

Considering that the District currently covers a great deal of land in predominately suburban and rural settings, it is advantageous to ensure that current facilities and programming are concentrated in higher population areas. The following population density map (*Map 2*) and system map enlargement (*Map 3*) shows that based on current population levels and programming locations, the District is currently utilizing appropriate facilities.

Map 2: 2014 Population Density and Total Population by Census Block
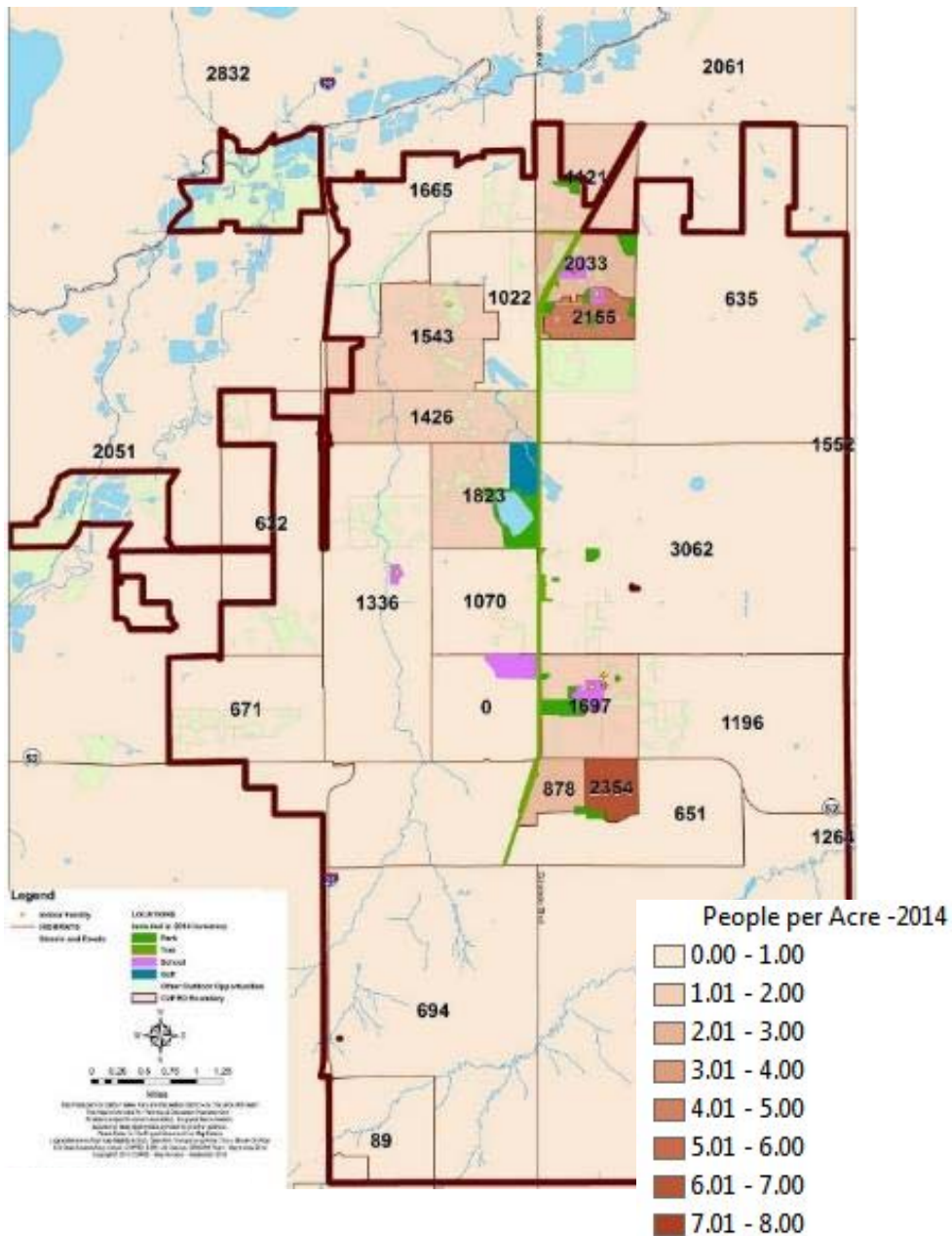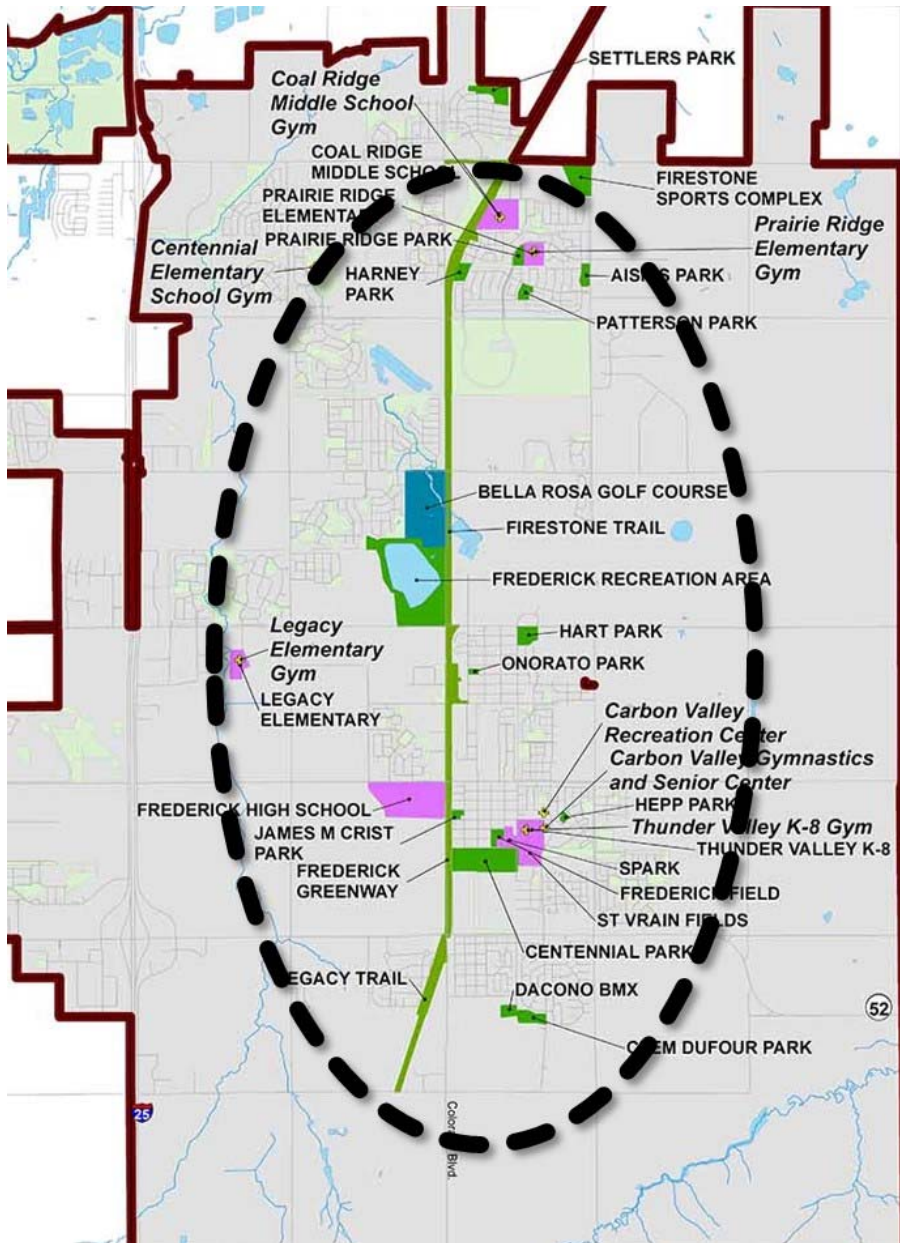
Map 3: System map enlargement showing the concentration of assets and current programming opportunities.

Catchment Areas

Outdoor Catchment Areas, also called buffers or radii, are used to estimate the approximate service area for each park and its individual components. A radius of a specific distance is drawn around each component.

People use a variety of transit modes to reach a recreation destination: on foot, on a bike, in a car, via public transportation, or utilizing any combination of these or other alternatives. The mode is often determined, at least in part, by the distance to be travelled. The GRASP® system accounts for this by applying more than one catchment area distance to examine access to assets.

The GRASP® methodology typically applies two different catchment areas which serve to estimate primary access to individual facilities and components. Using these two catchment areas essentially creates a premium for proximity:

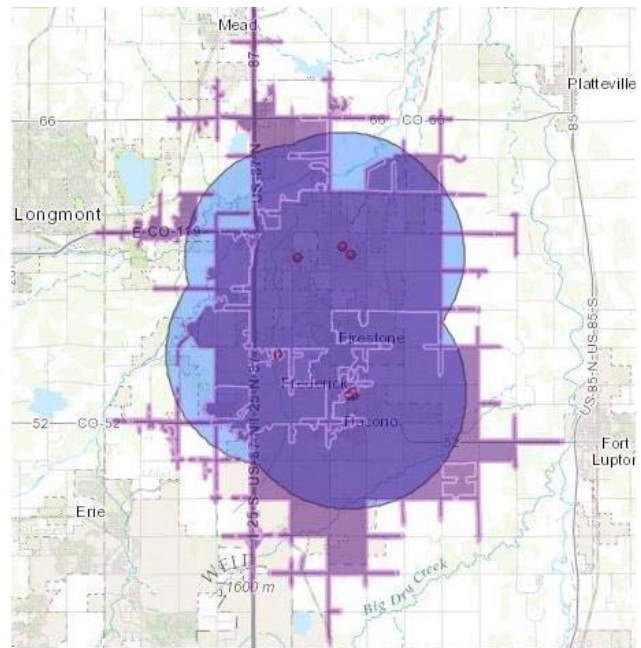1. Overall Level of Service
2. Walkable Level of Service

Overall access applies a primary catchment distance of one mile. This is considered a suitable distance for a bike ride or a short drive in a car, or an even longer walk. A one-mile catchment is intended to capture recreational users travelling from home or elsewhere to a park or facility by way of bike, bus, or automobile.

Walkable access uses a more focused catchment distance intended to capture users within a 10 to 15 minute walk travelling at a leisurely pace. This distance can range from as short as one-fourth of a mile to as high as one half mile depending on the study area. **For CVPRD, a one half mile catchment buffer was used.** This distance represents a travel time of 15 minutes based on an average walking speed of three miles per hour. A one half mile catchment is able to account for longer actual walking distances due to indirect routes, as are commonly found in a grid street pattern, and serves to ensure a travel time of 15 minutes or less for most people. Further discussion of walkable distances and catchment buffer types may be found in *Appendix B*.

Indoor Facility Catchment Areas: Indoor facilities are typically thought of having a larger catchment area than parks, especially a large multi-function recreation center such as CVPRD Recreation Center. Smaller community centers or gathering areas may be more likely to be distributed on a one mile radius. For the purposes of this study, a drive time analysis was done to help determine an appropriate indoor facility catchment area.
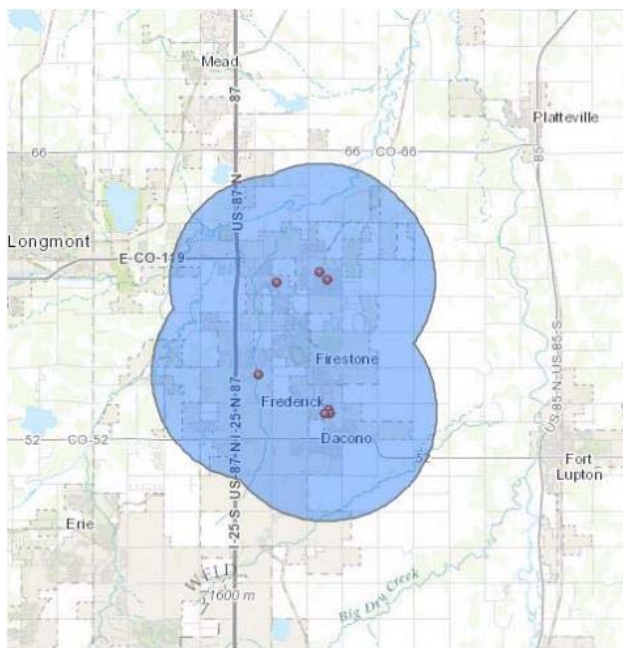
Map 4: Three Mile Radius   **Map 5:** 10 Minute Drive-time

By comparing **Map 4** and **Map 5**, it was determined that a 10 minute drive time, or a three mile radius, was appropriate for the CVPRD Indoor Catchment Area. Again, in order to create a premium for proximity, smaller catchment areas of one mile and half mile were also included in the analysis for indoor facilities.

Perspectives

Perspective maps and charts are produced based on scoring calculations determined by applying the GRASP® process to the asset or programming inventory. Each park or recreation location, along with all on-site component assets, has been assigned a service value, or GRASP® score. These GRASP® scores are distributed on a map based on the previously discussed catchment areas.

A GRASP® score ascribed to a catchment area yields a **service area** for a particular asset which reflects that score. When service areas for multiple components are plotted on a map, a picture emerges that represents the cumulative level of service provided by that set of components in a geographic area.

On a map, darker shade results from the overlap of more service areas. Darker shades indicate areas served by more and/or higher quality components. All shades have GRASP® scoring values associated with them such that for any given spot on a perspective map there is a GRASP® Level of Service score for that reflects cumulative scoring for nearby assets. **Figure 8**, below, illustrates this shading.

Figure 8: Example of CVPRD GRASP® Level of Service (LOS)
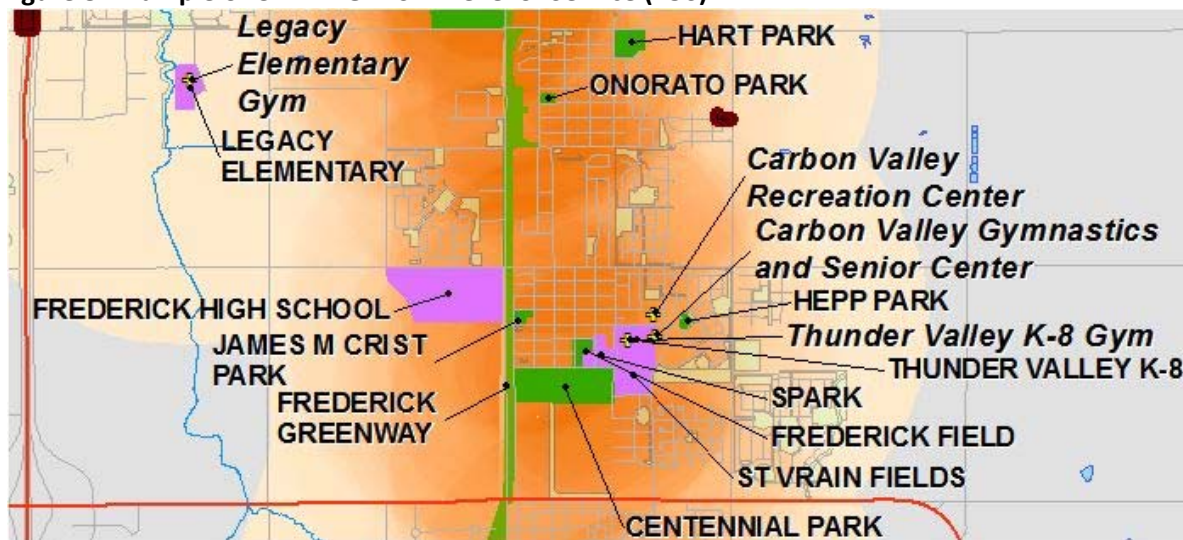
B. Findings

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Key Inventory and Level of Service Findings

- In general, while there are differences in how each of the three communities develops its parks, the standards and quality of parks are fairly similar.
- Current population distribution within the District tends to be mostly concentrated centrally and north to south along the Colorado Boulevard corridor.
- CVPRD utilizes a wide variety of facilities to provide recreational programming opportunities. These opportunities are well distributed throughout approximately 20 outdoor facilities, two primary indoor facilities, and several schools in the area.
- Proximity and transportation are relevant factors affecting levels of service. The provision of assets is reasonably distributed across the District, especially given resident access to motorized transportation. CVPRD's current use of facilities within the District closely reflects population distribution.
- Using a three mile radius to determine primary access to indoor recreation, there is a large concentration of access in the southern portion of the district.
- The majority of current programming is offered at the Recreation Center and Gymnastics/Senior Center with some offerings also at local schools. Outdoor programming is well distributed at parks throughout the District.

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Several different analyses or perspective maps were generated to evaluate the assets and programming available to residents. For purposes of this study, the CVPRD current boundary was used as the extent of the study area.

Access to Outdoor Recreation

One perspective was created to examine Overall Level of Service for the CVPRD. Results of this analysis are displayed in *Map 6*, which models access to all recreation components by all transportation modes. One-half mile and one-mile catchment radii have been placed around each component and shaded relative to the component's GRASP® score. As a result, scores are doubled within one-half mile of the asset to reflect the added value or premium for walkable proximity.

In general, *Map 6* indicates that CVPRD utilizes good distribution of outdoor facilities. Areas of higher concentration (darker orange gradient) are notable, particularly around Centennial Park, the Frederick Recreation Area, and the Firestone Sports Complex. Other outdoor recreation opportunities are known to exist but are not currently utilized by the District. Catchment areas for these other locations are displayed in a light purple hatch for reference.
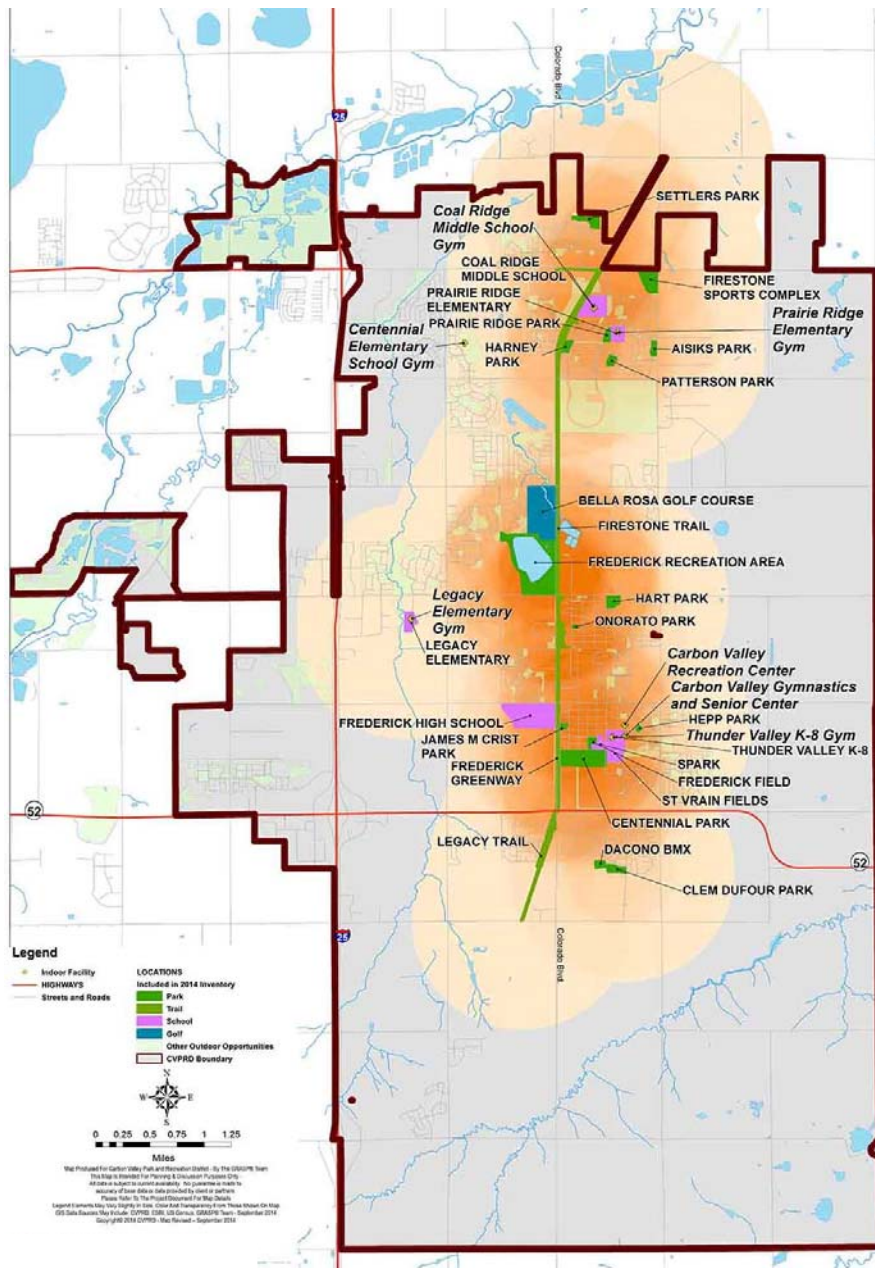
Map 6: Access to Outdoor Recreation in CVPRD

Walkability is a measure of how user-friendly an area is to people travelling on foot. A walkable environment benefits public health, the local economy, and quality of life. Many factors influence walkability. These include presence or absence and quality of footpaths, sidewalks or other pedestrian rights-of-way, traffic and road conditions, land use patterns, building accessibility, and safety considerations among others. While walkability was not specifically analyzed as part of this study, it is an important aspect of *recreational connectivity* – the extent to which community recreational resources are physically linked to allow for easy and enjoyable travel between them. These concepts are discussed further in *Appendix D.*

Access to Indoor Recreation

Map 7 models access to indoor recreation using the three catchment areas described earlier. The analysis shows a concentration, as expected, around the Recreation Center and the Gymnastics/Senior Center. However, District utilization of several school gymnasiums also provides some access across the northern portion of the District.
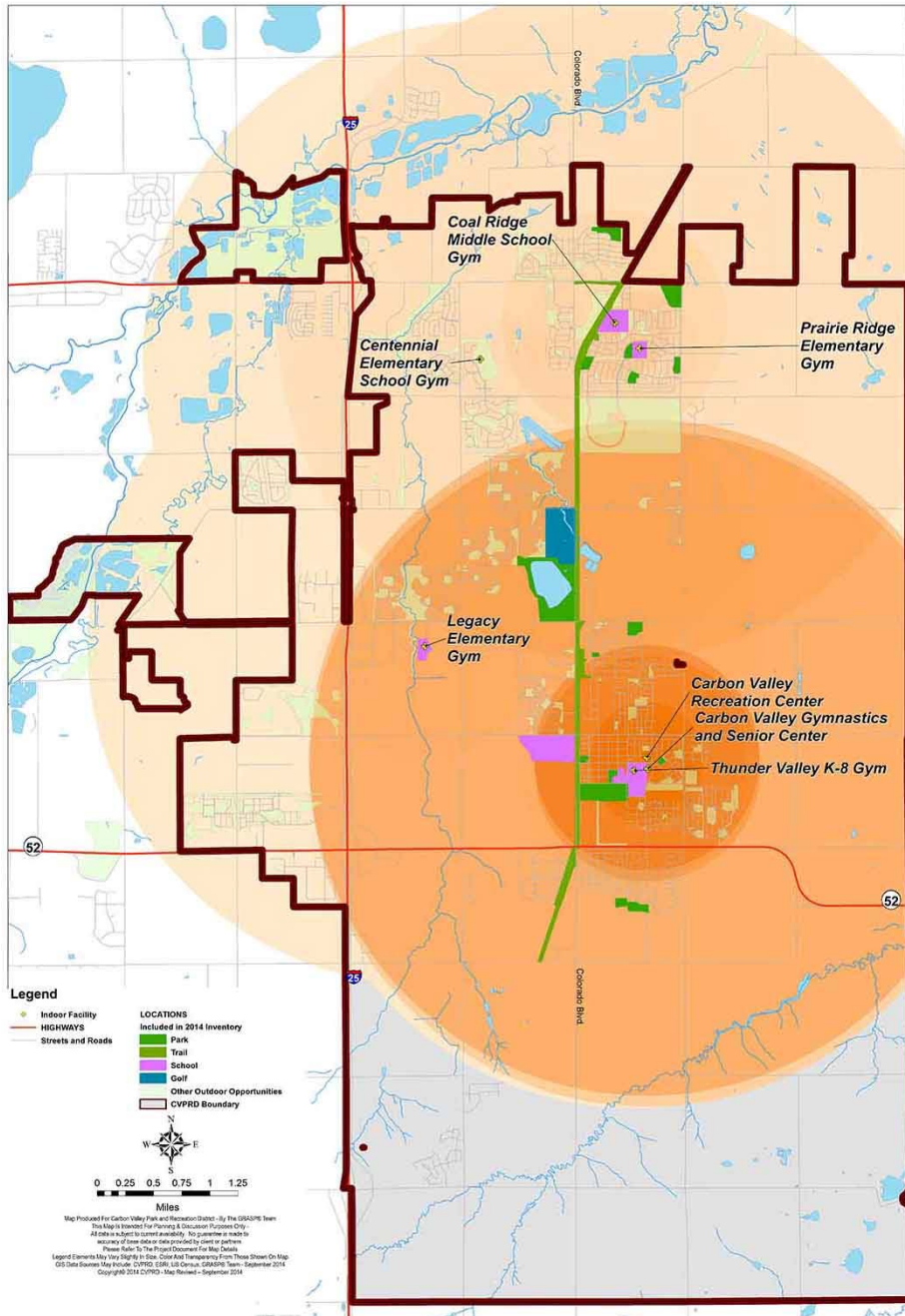
Map 7: Access to Indoor Recreation in CVPRD

Access to Recreation Programming

Map 8 models access to recreation programming using the four different catchment areas:
- 6 Mile District or Regional Focus
- 3 Mile City or Localized Focus
- 1 Mile Neighborhood Focus
- One-Half Mile Walk-to Focus
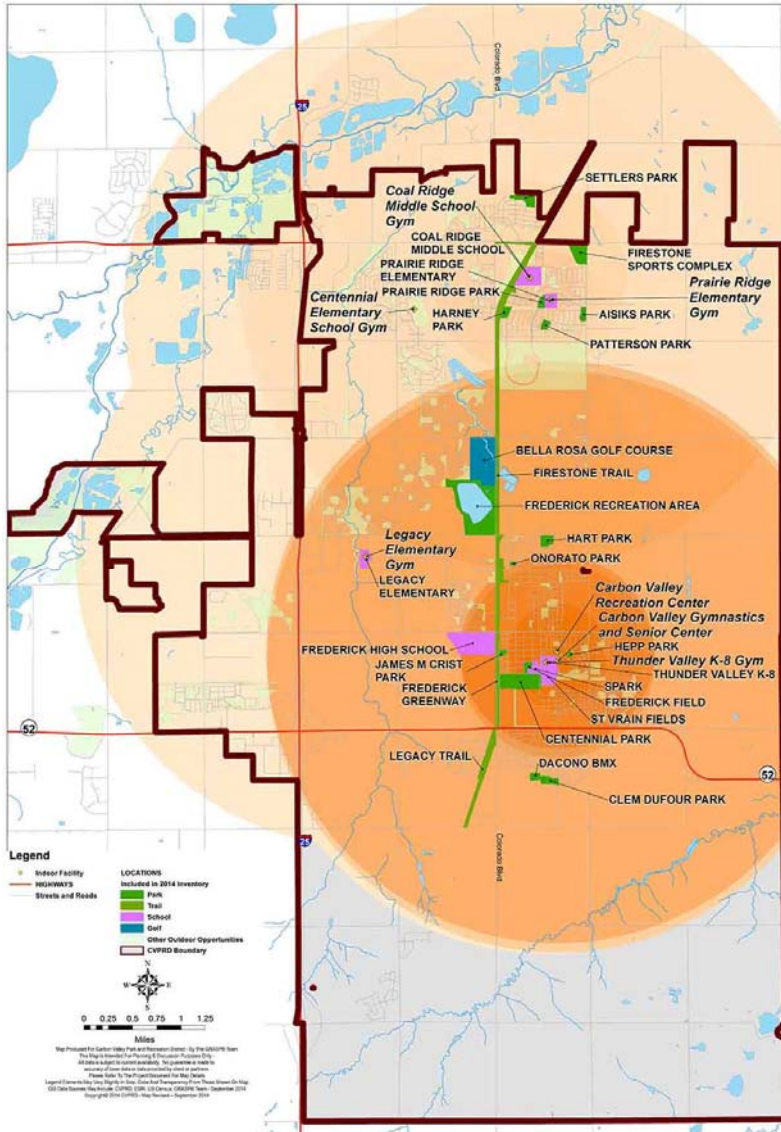
Map 8: Access to Recreation Programming

A majority of programming currently occurs at the Recreation Center and Gymnastics/Senior Center. These facilities are generally convenient for the southern portion of the District. In addition, while programming is generally intended for all residents, it is important to be realistic about the distance/time people are willing to travel for different types of programming, and thus, the attempt was made to break down each individual program by intended service area or catchment.

Used in conjunction with other needs assessment tools (such as needs surveys and a public process), Perspectives can be used to determine if current levels of service are appropriate in a given location. If so, plans can then be developed that provide similar levels of service to new neighborhoods.

Conversely, if it is determined that different levels of service are desired, new planning can differ from the existing community patterns to provide the desired LOS.

More on Utilizing the GRASP® Perspectives
Different Perspectives can be used to determine levels of service throughout the community from a variety of views. These Perspectives can show a specific set of components, depict estimated travel time to services, highlight a particular geographic area, or display facilities that accommodate specific programming. It is not necessarily beneficial for all parts of the community to score equally in the analyses. The desired level of service for any particular location will depend on the type of service being analyzed and the characteristics of the particular location. Commercial, institutional, and industrial areas might reasonably be expected to have lower levels of service for parks and recreation opportunities than residential areas. Levels of service for retail services in high density residential areas should probably be different than those for lower density areas.

Each Perspective shows the cumulative levels of service across the study area when the catchment areas for a particular set of components are plotted together. As previously stated, darker shades represent areas in which the level of service is higher for that particular Perspective. It is important to note that the shade overlaying any given point on the Perspective represents the cumulative value offered by the surrounding park and recreation system to an individual situated in that specific location, rather than the service being provided by components at that location to the areas around it.

C. Discussion and Analysis

Findings of the GRASP® LOS analyses provide some guidance in consideration of how to improve parks and recreation in CVPRD. This section describes ways to enhance level of service through improvement of existing sites, future development of new facilities, and potential partnerships.

Outdoor Level of Service Improvements based on Projected Population Growth
Map 9 displays current CVPRD Park and Partnership parks level of service areas in an orange hatch, as well as other potential partnership lands LOS service areas in purple hatch. Future development and population growth projections for 2019, displayed in *Map 10* would indicate the need to add additional partnerships at some existing parks, or acquisition of additional parks and recreation facilities/lands.
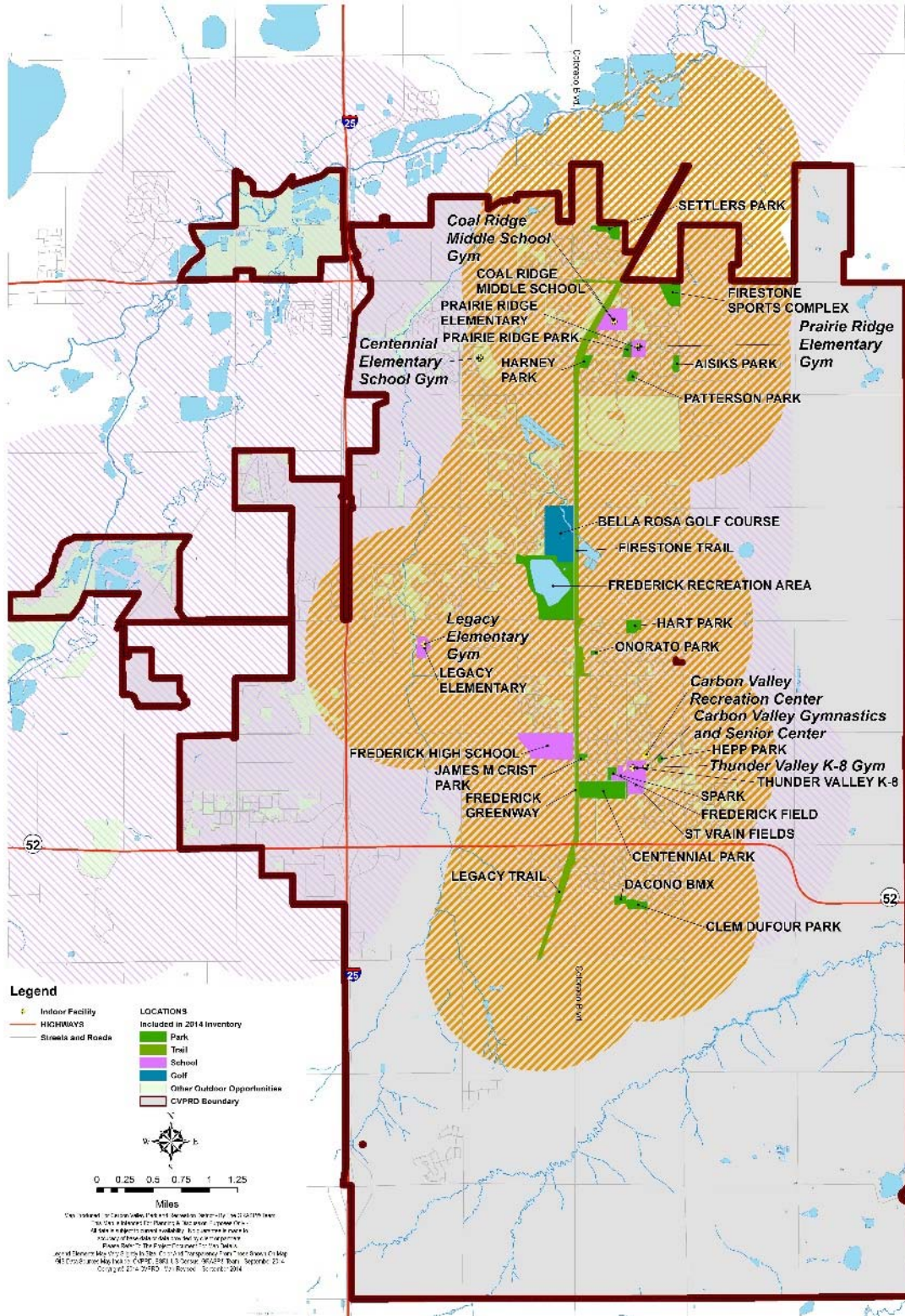
Map 9: 2014 Level of Service Areas
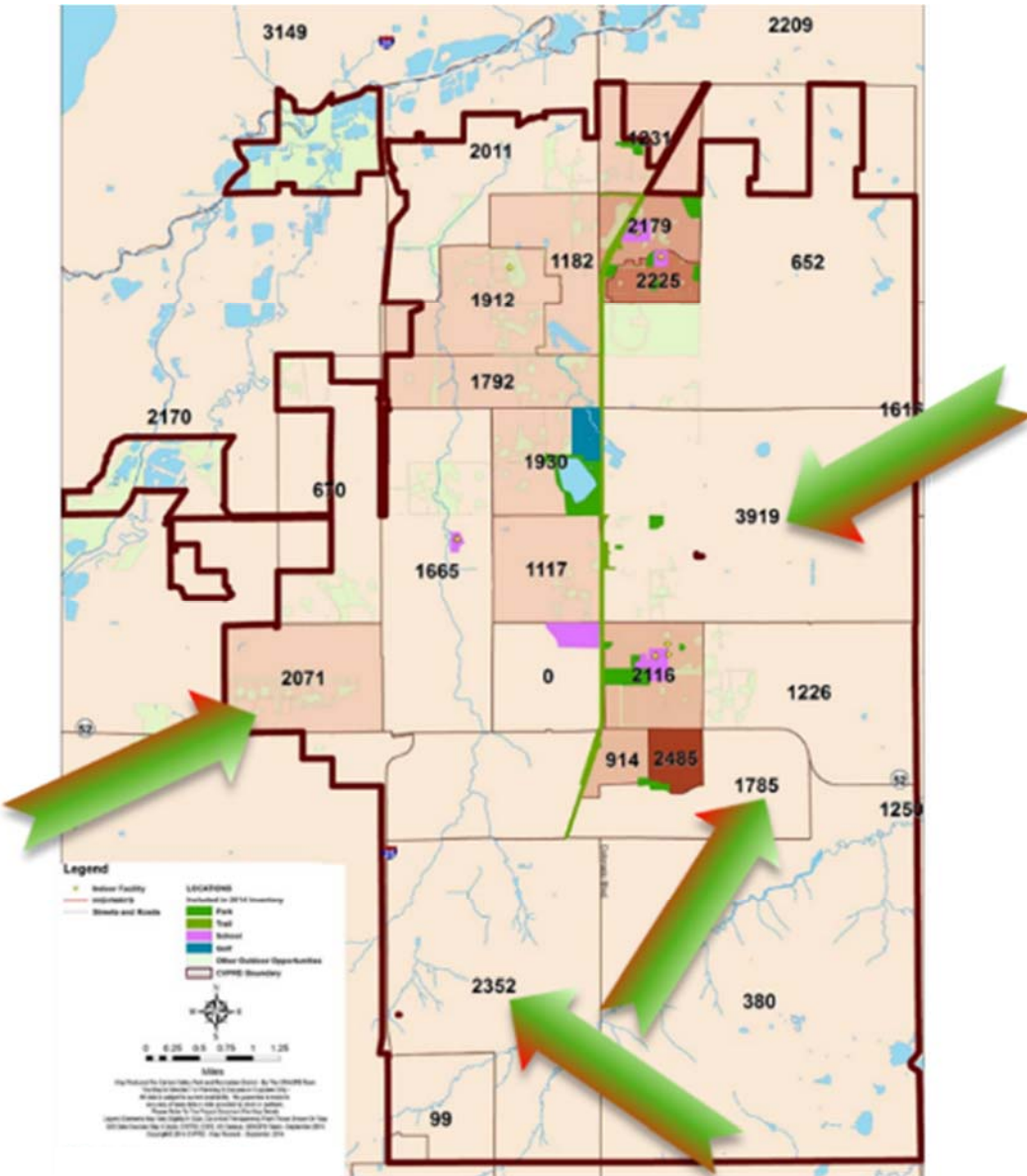
Map 10: 2019 Population Projections

Current Outdoor Recreation Level of Service Gaps or Areas of Concern
As annexation and population within the District expand or increase, it is important to expand or increase programs and services.

Indoor Level of Service Improvements based on Projected Population Growth
Map 11 displays current CVPRD Indoor Recreation level of service. Arrows displayed on the map indicate potential areas of concern based on future population projections from *Map 10*.
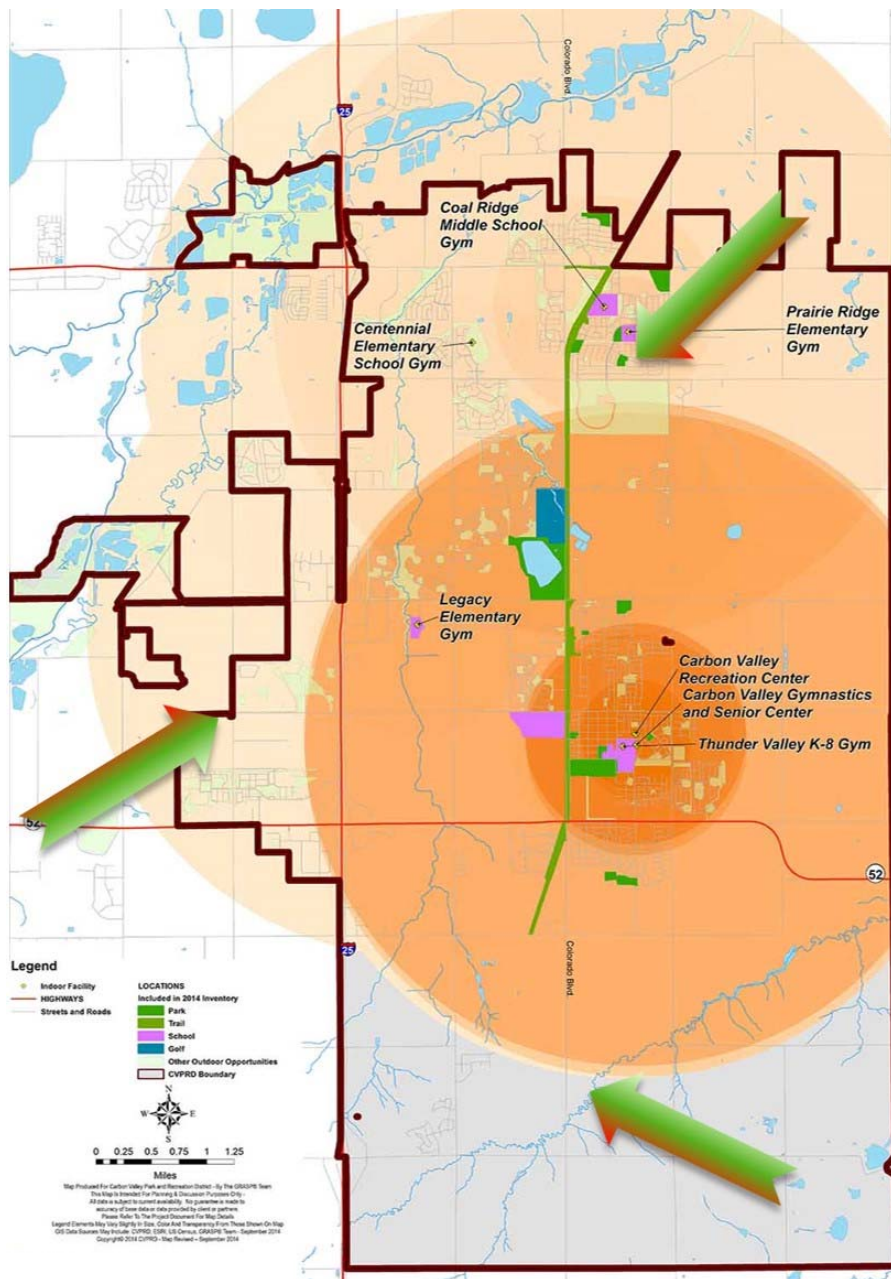
Map 11: Potential Indoor Facility Gap Areas based on Population Projections

Current Indoor Recreation Level of Service Gaps or Areas of Concern:
Again, as annexation and population within the District increase, expanding or adding indoor facilities may be important in strategic areas.

Programming Level of Service Improvements based on Projected Population Growth
Map 12 displays current CVPRD programming level of service. In anticipation of future programming needs, CVPRD staff has already begun to evaluate additional existing parks for future programming opportunities.
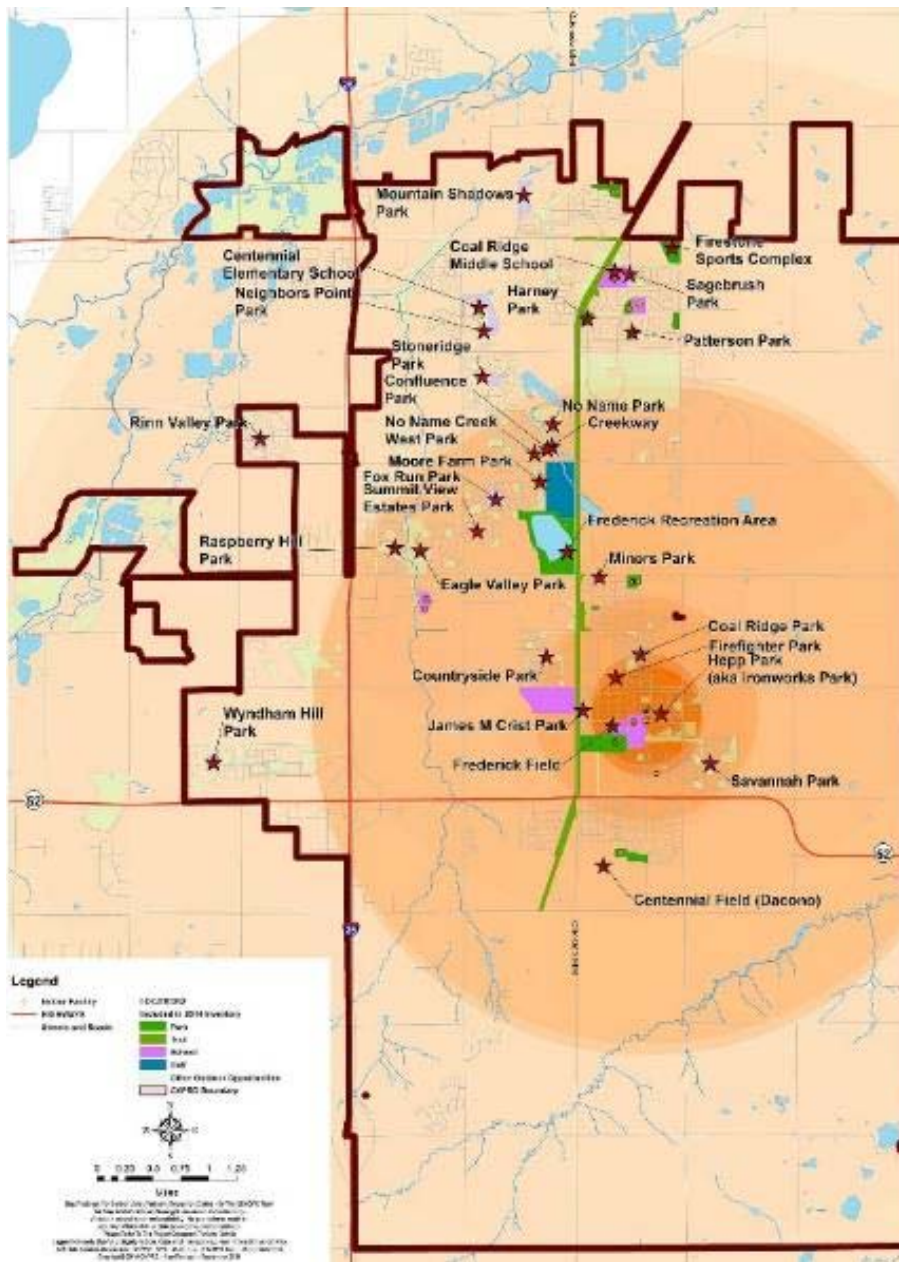
Map 12: Potential Programming Gap Areas based on Population Projections

Current Programming Level of Service Gaps or Areas of Concern

As annexation and population within the District expand or increase, it is important to expand or increase programs and services. Staff should continue to evaluate existing facilities within the District for potential programming opportunities. In addition, as new development occurs it will become increasingly important for CVPRD to participate in efforts to ensure that appropriate facilities are provided as part of the planning and approval processes within the individual jurisdictions.

ADA Transition Plan and Compliance

According to the ADA.gov website, "Access to civic life by people with disabilities is a fundamental goal of the Americans with Disabilities Act (ADA). To ensure that this goal is met, Title II of the ADA requires State and local governments to make their programs and services accessible to persons with disabilities… One important way to ensure that Title II's requirements are being met in cities of all sizes is through self-evaluation, which is required by the ADA regulations. Self-evaluation enables local governments to pinpoint the facilities, programs, and services that must be modified or relocated to ensure that local governments are complying with the ADA." Transition plans are also required to implement needed changes identified during the self-evaluation process. CVPRD currently has a transition plan and has been working annually to address elements of the plan. Ongoing self-evaluation and review of the current comprehensive transition plan must remain a priority of CVPRD.

Level of Service Improvements

Areas of the District that either show minimal or no service at all, called low-service areas and no-service areas, often provide opportunities for improvement. This will involve working with the leadership of the three municipalities to ensure that identified low scoring components are addressed, especially with regard to assets used by the District for programming (for example, fixing up a tired picnic shelter or updating playground structures or safety surfacing). Such efforts to improve level of service are more attainable than alternatives that require land acquisition and large-scale capital investment. Several such opportunities exist to improve level of service in CVPRD.

Level of Service

In general, while there are differences in how each of the three communities develops its parks, the standards and quality of parks are fairly similar. Current population distribution within the District tends to be mostly concentrated centrally and north to south along the Colorado Boulevard corridor. CVPRD utilizes a wide variety of facilities to provide recreational programming opportunities. These opportunities are well distributed throughout approximately 20 outdoor facilities, two primary indoor facilities, and several schools in the area. Proximity and transportation are relevant factors affecting levels of service. The provision of assets is reasonably distributed across the District, especially given resident access to motorized transportation. CVPRD's current use of facilities within the District closely reflects population distribution. Using a three-mile radius to determine primary access to indoor recreation, there is a large concentration of access in the southern portion of the district. The majority of current programming is offered at the Recreation Center and Gymnastics/Senior Center with some offerings also at local schools. Outdoor programming is well distributed at parks throughout the District.

Low-Score Components

The District should develop a method or process for continued assessment of existing facilities as a key to monitoring existing resources. The assessment process used for this plan involves scoring of all included assets. This scoring takes into account condition and functionality. Those components with low-scores may be addressed one by one and will serve to improve level of service. The easiest and most obvious way to raise level of service is to improve *low-score components*, those that scored low because they do not meet expectations. This entails repair, refurbishment, or replacement of existing components that are in need of some attention.

A step-by-step process for scoring and strategies to address low-score components may be found in *Appendix C*.

Booster Components
Another way to enhance existing assets is through the addition of ***booster components*** intended to "boost" the level of service at specific existing park sites or recreation facilities through the addition of new components. These are most effective in low-service areas in which park sites already exist that have space for additional components. The addition of new components may also increase District programming opportunities.

High Demand Components and Future Programming Opportunities
The statistically-valid survey asked respondents to rank facilities by importance based on those they felt the District needed to add or improve. While most of these related directly to programming, it will also be necessary to ensure that appropriate facilities are available as programming needs expand or change.

Partnerships with the local jurisdictions must continue to build in order to make sure that future park improvements or new park development supports these expressed community needs. These ***high demand components*** should be considered in any efforts to add new components to parks within the current system.

The highest priority for added, expanded, or improved outdoor activities listed by survey respondents are:

1. Fitness and Wellness programming
2. Aquatic Programming
3. Youth Sports
4. Senior Programming
5. Outdoor spray ground/splash pad/water playground
6. Multi-purpose fields

Many of these needs may be addressed within the existing system by placing an emphasis on intergovernmental communication and building partnerships. One of the keys to this is establishing buy in from the individual municipalities on this master plan and in the District's involvement in further planning efforts by the communities. Other efforts such as working with the communities to upgrade facilities and retrofitting less frequently used assets are also important:

- Paved and unpaved trails are typically indicated as one of the most important type of facilities. Further development of trails is one of the keys to fulfilling this fitness and wellness need. Although there is a strong north/south trail and bike route corridor, there are ways to both enhance existing and apply best practices for future development.
- As the individual jurisdictions update, improve, or repurpose existing parks, the District should work with them to take into consideration the demand and needs listed above.

CVPRD

IV. Recommendations and Prioritization

The following Goals, Objectives, and Action Items are drawn from the focus groups, stakeholder meeting, leadership summit, survey, MindMixer, and inventory and level of service with a primary focus on maintaining, sustaining, and improving the park, facilities, and programming in the District.

Goal 1: Organization

Objective 1.1:			
Improve communication and partnerships (Senior Group and Community Leadership)			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
1.1.a Develop methods for regular communication with the Leadership of the three municipalities and Weld County.	CVPRD	Staff Time	Short-Term
1.1.b Maintain monthly regular Senior team meetings with the Senior Advisory Committee to facilitate develop two way communication and engagement when developing programs and activities.	CVPRD	Staff Time	Short-Term
Objective 1.2:			
Improve marketing and communication			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
1.2.a Develop and implement a Marketing Plan for the District.	CVPRD	Staff Time	Short-Term
1.2.b Continue to develop and improve the website for marketing and registration.	CVPRD	Staff Time	Short-Term
Objective 1.3:			
Ensure maximum inclusion in the District			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
1.3.a Work with the Leadership of the three municipalities to develop a ballot initiative to deal with holdout properties for inclusion into District.	CVPRD	Staff Time	Short-Term
1.3.b Work with the Leadership of the three municipalities to include new development and annexations to ensure inclusion into the District boundaries.	CVPRD	Staff Time	Short-Term

Objective 1.4:			
Ensure maximum benefit to residents of the District			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
1.4.a Shift to an identification of District and Non-District rather than residents and non-resident.	CVPRD	Staff Time	Short-Term

Objective 1.5:			
Maintain and improve partner agency relationships			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
1.5.a Establish CVPRD as the subject matter expert for recreation and the park in the area and work with the leadership of the three municipalities and the county on planning and development review and approval.	CVPRD	Staff Time/TBD	Short-Term
1.5.b Review and update existing IGAs with the three municipalities, the county, and the School District to align with the Master Plan.	CVPRD	Staff Time	Short-Term

Objective 1.6:			
Solidify the operations of the Dacono BMX Track			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
1.6.a Work with the City of Dacono to establish an IGA for the operations and maintenance of the Dacono BMX track.	CVPRD	Staff Time/TBD	Short-Term
1.6.b Work with the existing parent volunteer organization, develop an MOU for the cooperative operations of the track.	CVPRD	Staff Time	Short-Term

Goal 2: Finance

Objective 2.1 *Explore additional funding options*			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
2.1.a Develop strategy to seek alternative funding sources that includes donations, grants, sponsorships, and tax incentives.	CVPRD	Staff Time	Short-Term
Objective 2.2: *Establish a best practice Cost Recovery and Pricing Philosophy and practice*			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
2.2.a Develop a resource allocation and cost recovery philosophy, model, and policy that is grounded in the values, vision, and mission of CVPRD.	CVPRD	Staff Time	Short-Term
2.2.b Establish a pricing methodology that continuously reflects community values, while generating adequate revenues to sustain CVPRD facilities, programs, and services.	CVPRD	Staff Time	Short-Term

Goal 3: Programs and Service Delivery

Objective 3.1: *Improve registration system capabilities*			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
3.1.a Replace current registration software with an industry proven product.	CVPRD	TBD	Short-Term
Objective 3.2: *Improve technology*			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
3.2.a Develop a Technology Plan for the District that addresses connectivity, server issues, software compatibilities, and telecommunications.	CVPRD	TBD	Short-Term

Objective 3.3: *Improve and increase customer base*			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
3.3.a Become a regional provider of recreation and programming services.	CVPRD	TBD	Short-Term

Objective 3.4: *Increase recreation programming opportunities in geographic areas of need*			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
3.4.a Investigate additional opportunities to program at quality park, facility, and components provided by partner agencies.	CVPRD	TBD	On-going
3.4.b Explore opportunities to provide new District facilities and programming where need is shown but partner opportunities are not available.	CVPRD	TBD	Short-Term

Goal 4: Facilities and Amenities

Objective 4.1 *Maintain existing District facilities*			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
4.1.a Develop standards for District owned assets including, but not limited to, fitness equipment, aquatic facilities, sports equipment, etc., with regard to lifecycle costing.	CVPRD	TBD	Short-Term
4.1.b Develop system to monitor assets on a regular basis through a preventative maintenance plan.	CVPRD	TBD	Short-Term

Objective 4.2 *Add, expand, or improve existing District facilities*			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
4.2.a Continue to monitor and respond to use of District facilities regarding capacity, function, and trends.	CVPRD	TBD	Short-Term
4.2.b Consider current demand or needs for increased options to add, expand, and repurpose current facilities or programming opportunities or partnerships.	CVPRD	TBD	Short-Term

CVPRD

4.2.c As annexation occurs, the District boundary changes or expands, population increases, and distribution of population changes, explore options for new District owned facilities, unique opportunities, or partnerships.	CVPRD	TBD	Short-Term

Objective 4.3: *Ensure quality park, facility, and component standards provided by partner agencies*			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
4.3.a Develop District standards for assets including, but not limited to, multi-purpose fields, ballfields, playground structures and surfacing, picnic shelters, basketball courts, etc.	CVPRD	TBD	Short-Term
4.3.b Work with partner communities to ensure current and future assets meet these standards.	CVPRD	TBD	Short-Term

Objective 4.4: *Ensure ADA accessibility at all facilities*			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
4.4.a Using the District wide ADA Accessibility Transition Plan to address deficiencies, continue Self Evaluation assessment, and create and implement action plan.	CVPRD	TBD	Short-Term

Objective 4.5: *Increase multi-modal access*			
Actions	**Primary Dept. Responsibility/ Support**	**Resource Impact/Budget Requirement**	**Timeframe to Complete**
4.5.a Work with partner communities to address recreational connectivity District-wide.	CVPRD	TBD	Short-Term

Appendix A – Demographics and Trends Report

The following information highlights relevant regional, and national outdoor recreation trends from various sources that may influence the Carbon Valley Park and Recreation District's recreation planning for the next several years.

Demographic Trends in Recreation

Adult – The Baby Boomers: Planning for the Demographic Shift

Baby Boomers are defined as individuals born between 1946 and 1964, as stated in Leisure Programming for Baby Boomers.[3] They are a generation that consists of nearly 76 million Americans. In 2011, this influential population began its transition out of the workforce. As Baby Boomers enter retirement, they will be looking for opportunities in fitness, sports, outdoors, arts and cultural events, and other activities that suit their lifestyles. With their varied life experiences, values, and expectations, Baby Boomers are predicted to redefine the meaning of recreation and leisure programming for mature adults. In the July 2012 issue of *Parks and Recreation* magazine (published by NRPA), Emilyn Sheffield, Professor of Recreation and Parks Management at the California State University, at Chico, wrote an article titled, "Five Trends Shaping Tomorrow Today." In it, she indicated that Baby Boomers are driving the aging of America with Boomers and seniors over 65 comprising about 39 percent of the nation's population.[4]

> The highest ranking age cohort in the District is 35-44 (17.1% of the population) followed by 25-34 (15%) and 45-54 (13.8%). Additionally, the 55-85+ cohort is expected to grow from 17.1 percent in 2010 to 20.4 percent in 2019. Planning for the next five years suggests a growing demand for programs and services for young adults, Baby Boomers, and seniors.

In the leisure profession, this generation's devotion to exercise and fitness is an example of its influence on society. When Boomers entered elementary school, President John F. Kennedy initiated the President's Council on Physical Fitness; physical education and recreation became a key component of public education. As Boomers matured and moved into the workplace, they took their desire for exercise and fitness with them. Now as the oldest Boomers are over 65, park and recreation professionals are faced with new approaches to provide both passive and active programming for older adults. Boomers are second only to Gen Y/Millennials (born between 1980 and 1999) in participation in fitness and outdoor sports.[5]

Jeffrey Ziegler, a past president of the Arizona Parks and Recreation Association identified "Boomer Basics" in his article, "Recreating Retirement: How Will Baby Boomers Reshape Leisure in Their 60s?"[6] Highlights are summarized as follows.

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[3] Linda Cochran, Anne Roshschadl, and Jodi Rudick, Leisure Programming For Baby Boomers, Human Kinetics, 2009.

[4] Emilyn Sheffield, "Five Trends Shaping Tomorrow Today," *Parks and Recreation*, July 2012 p. 16-17.

[5] 2012 Participation Report, Physical Activity Council, 2012.

[6] Jeffry Ziegler, "Recreating Retirement: How Will Baby Boomers Reshape Leisure in Their 60s?" *Parks and Recreation*, October 2002.

Boomer Basics:
Boomers are known to work hard, play hard, and spend hard. They have always been fixated with all things youthful. Boomers typically respond that they feel 10 years younger than their chronological age. Their nostalgic mindset keeps them returning to the sights and sounds of their 1960s youth culture. Swimming pools have become less of a social setting and much more of an extension of Boomers' health and wellness program. Because Boomers in general have a high education level, they will likely continue to pursue education as adults and into retirement.

Boomers will look to park and recreation professionals to give them opportunities to enjoy many life-long hobbies and sports. When programming for this age group, a customized experience to cater to the need for self-fulfillment, healthy pleasure, nostalgic youthfulness, and individual escapes will be important. Recreation trends will shift from games and activities that Boomers associate with senior citizens, as Ziegler suggests that activities such as bingo, bridge, and shuffleboard will likely be avoided because they relate these activities to being old.

Boomers will reinvent what being a 65-year-old means. Parks and recreation agencies that do not plan for these active older adults carrying on in retirement with the same hectic pace they have lived during their years in employment will be left behind. Things to consider when planning for the demographic shift:
- Boomer characteristics
- What drives Boomers?
- Marketing to Boomers
- Arts and entertainment
- Passive and active fitness trends
- Outdoor recreation/adventure programs
- Travel programs

Youth – Planning for the Demographic Shift
As one of the, "Five Trends Shaping Tomorrow Today," Sheffield also identified that the proportion of youth is smaller than in the past, but still essential to our future. As of the 2010 Census, the age group under age 18 forms about a quarter of the U.S. population, and this percentage is at an all-time low. Nearly half of this population group is ethnically diverse, and 25 percent is Hispanic.

Multiculturalism
Our country is becoming increasingly racially and ethnically diverse. In May 2012, the U.S. Census Bureau announced that non-white babies account for the majority of births in the United States. "This is an important tipping point," stated William H. Frey, the senior demographer at the Brookings Institution, describing the shift as a "transformation from a mostly white Baby Boomer culture to the more globalized multi-ethnic country that we are becoming." [7] Cultural and ethnic diversity adds a unique flavor to communities expressed through distinct neighborhoods, multicultural learning environments, restaurants, places of worship, museums, and nightlife.[8]

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[7] Adam Serwer, "The End of White America," Mother Jones, http://www.motherjones.com/kevin-drum/2012/05/end-white-america, May 17, 2012.
[8] Baldwin Ellis, "The Effects of Culture & Diversity on America," http://www.ehow.com/facts_5512569_effects-culture-diversity-america.html, accessed on Sept. 20, 2012.

CVPRD

According to Sheffield, in the United States, the Hispanic population increased by 43 percent over the last decade, compared to five percent for the non-Hispanic portion, and accounted for more than half of all the population growth. The growing racial and ethnic diversity is particularly important to recreation and leisure service providers, as family and individual recreation patterns and preferences are strongly shaped by cultural influences.[9]

The District's demographic profile indicates that about 19 percent of the population is Hispanic (any race), one percent is African-American, and three percent is Asian.

As the recreation field continues to function within a more diverse society, race and ethnicity will become increasingly important in every aspect of the profession. More than ever, recreation professionals will be expected to work with, and have significant knowledge and understanding of, individuals from many cultural, racial, and ethnic backgrounds.

- **Outdoor Participation varies by Ethnicity**: Participation in outdoor activities is higher among Caucasians than any other ethnicity and lowest among African Americans in nearly all age groups.
- **Minority Youth, More Focused on School:** Minority youth participants cite school work as the top reason they do not get out more often – a barrier they cite more prominently than Caucasian youth.
- **Hispanics, Looking for Nearby Outdoor Recreation:** Hispanic participants and nonparticipants alike cite a lack of access to nearby places to participate in outdoor activities as a barrier to participation more often than other ethnicities.

Recreational Preferences among Ethnic/Racial Groups (Self-Identifying):

Nationwide, participation in outdoor sports in 2012 was highest among Caucasians in all age groups and lowest among African-Americans, according to the 2013 "Outdoor Recreation Participation Report."[10] The biggest difference in participation rates was between Caucasian and African American adolescents, with 64 percent of Caucasians ages 13-17 participating and only 46 percent of African Americans in this age range participating.

Asian-Americans

Research about outdoor recreation among Asian-Americans in the San Francisco Bay Area (Chinese, Japanese, Korean, and Filipino)[11] found significant differences among the four groups concerning the degree of linguistic acculturation (preferred language spoken in various communication media). The research suggests that communications related to recreation and natural resource management should appear in ethnic media, but the results also suggest that Asian Americans should not be viewed as homogeneous with regard to recreation related issues. Another study[12] found that technology use for finding outdoor recreation opportunities is highest among Asian/Pacific Islander populations. Over 60 percent of these populations use stationary or mobile technology in making decisions regarding outdoor recreation.

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[9] Emilyn Sheffield, "Five Trends Shaping Tomorrow Today," Parks and Recreation, July 2012 p. 16-17.
[10] "Outdoor Recreation Participation Report 2013," Outdoor Foundation, 2013.
[11] P.L. Winter, W.C. Jeong, G.C. Godbey, "Outdoor recreation among Asian Americans: A case study of San Francisco Bay Area residents," *Journal of Park and Recreation Administration*, 2004.
[12] Harry Zinne and Alan Graefe, "Emerging Adults and the Future of Wild nature," *International Journal of Wildness*. December 2007.

According to the 2013 "Outdoor Recreation Participation Report," the most popular outdoor activities among Asian/Pacific Islanders are: running and jogging (24%); road, mountain, and BMX biking (14%); hiking (13%); camping (car, backyard, and RV) (10%); fishing (freshwater, saltwater, and fly) (9%;); and skiing (cross-country, alpine, freestyle, and telemark) (8%).

Caucasians
The report also indicates that the most popular outdoor activities among Caucasians are: running and jogging (18%); fishing (freshwater, saltwater, and fly) (17%); road, mountain, and BMX biking (16%); camping (car, backyard, and RV) (16%); and hiking (14%).

Hispanics (Any Race)
Participation in outdoor sports among those who identify as Hispanic is at seven percent nationwide, according to the 2013 "Outdoor Recreation Participation Report."[13] Those who do get outdoors, however, participate more frequently than other outdoor participants, with an average of 43 outings per year. Hispanic youth (ages 6-17) are the most likely age group in this demographic to participate in outdoor recreation, followed closely by those in the 25-44 age range. The most popular outdoor activities among Hispanics are: running and jogging (22%); road, mountain, and BMX biking (17%); fishing (freshwater, saltwater, and fly) (14%); camping (car, backyard, and RV) (11%); and hiking (9%).

Multiculturalism and Marketing
Today, the marketplace for consumers has dramatically evolved in the United States from a largely Anglo demographic, to the reality that the United States has shifted to a large minority consumer base known as the "new majority."

The San Jose Group, a consortium of marketing communications companies specializing in reaching Hispanic and non-Hispanic markets of the United States, suggests that today's multicultural population of the United States, or the "new majority," is 107.6 million, which translates to about 35.1 percent of the country's total population. The United States' multicultural population alone could essentially be the 12th largest country in the world.[14] Parks and recreation trends in marketing leisure services continue to emerge and should be taken into consideration in all planning efforts, as different cultures respond differently to marketing techniques.

Facilities

According to *Recreation Management* magazine's "2013 State of the Industry Report,"[15] national trends continue to show an increased user-base of recreation facilities (private and public). To meet that growing need, a majority of the survey respondents (62.7%) reported that they have plans to build new facilities or make additions or renovations to their existing facilities over the next three years. The average age of respondents' main facilities is 27.7 years. Public parks and recreation respondents planning construction were the most likely to be planning renovations (50.5%), building new facilities (28.3%), and making additions to current facilities (27.9%).

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[13] "Outdoor Recreation Participation Report 2013," Outdoor Foundation, 2013.
[14] "SJG Multicultural Facts & Trends," San Jose Group, http://blog.thesanjosegroup.com/?p=275, posted October 25, 2010.
[15] Emily Tipping, "2012 State of the Industry Report, State of the Managed Recreation Industry," Recreation Management, June 2012.

CVPRD

The average amount planned by public parks and recreation respondents for construction for parks in 2013 budgets saw an increase of 15.5 percent from an average of $3,440,000 in last year's survey to an average of $3,973,000 for 2013. The five most commonly planned facility additions include: dog parks, splash play areas, trails, park structures (shelters/restrooms), and playgrounds.

The current national trend is toward "one-stop" indoor recreation facilities to serve all ages. Larger, multi-purpose recreation centers that serve large portions of the community help increase cost recovery, promote retention, and encourage cross-use. Agencies across the U.S. are increasing revenue production and cost recovery.

Aquatics/Water Recreation Trends
According to the National Sporting Goods Association (NSGA), swimming ranked third nation-wide in terms of participation in 2012.[16] Outdoor swimming pools are not typically heated and open year round. Swimming for fitness is the top aspirational activity for "inactives" in 6 of 8 age categories in the SFIA "2013 Sports, Fitness, and Leisure Activities Topline Participation Report," representing a significant opportunity to engage inactive populations. Nationally, there is an increasing trend toward indoor leisure and therapeutic pools. Additional indoor and outdoor amenities like "spray pads" are becoming increasingly popular as well. In some cities and counties, spray pads are heavily utilized in the summer and are converted into ice rinks in the winter.

The 2013 "Outdoor Recreation Participation Report" provided nation-wide trends for various outdoor activities, including the following water recreation activities: board sailing/windsurfing, canoeing, fishing, kayaking, rafting, sailing, stand-up paddle boarding, and wakeboarding (*Table 7*). Among water recreation activities, boardsailing/windsurfing has had the largest increase in participation in the past three years (17.6 percent increase) followed by whitewater kayaking (13.3 percent increase). Participation in fly fishing is up, while other fishing activities are down in the past three years. Stand-up paddle boarding had the highest number of new participants of all sports rated in the past year, while rafting participation is down over the past three years.[17]

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[16] National Sporting Goods Association, "2012 Participation – Ranked by Total Participation," 2013.
[17] "Outdoor Recreation Participation Topline Report 2013," Outdoor Foundation, 2013.

Table 7: Water Recreation Participation by Activity (in thousands) (6 years of age or older)

	2008	2009	2010	2011	2012	3 Year Average Change
Boardsailing/Windsurfing	1,307	1,128	1,607	1,151	1,593	17.6%
Canoeing	9,935	10,058	10,553	9,787	9,839	-.6%
Fishing (Fly)	5,941	5,568	5,478	5,360	6,012	2.6%
Fishing (Freshwater/Other)	40,331	40,961	38,860	39,071	39,135	-1.5%
Kayaking (Recreational)	6,240	6,212	6,465	8,229	8,144	10.1%
Kayaking (White Water)	1,242	1,369	1,842	1,546	1,878	13.3%
Rafting	4,651	4,318	4,460	3,821	3,690	-4.8%
Sailing	4,226	4,342	3,869	3,725	3,958	-2.8%
Stand Up Paddling	no data	no data	1,050	1,242	1,542	no data
Wakeboarding	3,544	3,577	3,645	3,389	3,348	-2.1%

Source: Outdoor Foundation 2013 (numbers in thousands).

Fitness Programming

There have been many changes in fitness programs in the last 15 years. What clients wanted in 2000 is not necessarily what they want today. The American College of Sports Medicine's (ACSM) *Health and Fitness Journal*[18] has conducted an annual survey since 2007 to determine trends that would help create a standard for health and fitness programming. *Table 8* shows survey results that focus on trends in the commercial, corporate, clinical, and community health and fitness industry. Strength training remains at a solid 2nd for the second year in a row, and body weight training appears for the first time in the top 20 trend survey. Zumba appeared in the top 10 for the first time in 2012 and remains at 12 – one of the biggest trends in fitness over the past three years.

Table 8: Top 10 Worldwide Fitness Trends for 2007 and 2013

2007	2013
1.Children and obesity	1. Educated and experienced fitness professionals
2.Special fitness programs for older adults	2. Strength training
3.Educated and experienced fitness professionals	3. Body weight training
4. Functional fitness	4. Children and obesity
5. Core training	5 Exercise and weight loss
6 Strength training	6. Fitness programs for older adults
7. Personal training	7. Personal training
8. Mind/Body Exercise	8. Functional fitness
9 Exercise and weight loss	9 Core training
10. Outcome measurements	10. Group personal training

Source: American College of Sport Medicine

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[18] "Walter R. Thompson, "Worldwide Survey of Fitness Trends for 2012," Health & Fitness Journal, American College of Sports Medicine, 2011.

CVPRD

General Programming

One of the most common concerns in the recreation industry is creating innovative programming to draw participants into facilities and services. Once in, participants recognize that the benefits are endless. According to *Recreation Management* magazine's "2013 State of the Industry Report,"[19] the most popular programs offered by survey respondents include holiday events and other special events (64.2 %), fitness programs (61.4%), educational programs (58.9), day camps and summer camps (55.2%), youth sports teams (54.3%), sports tournaments and races (49.2 %), mind-body/balance programs (49.1%), swimming programming (teams and lessons) (48.5%), adult sports teams (47.8 %), sports training (44.1%), arts and crafts (42.7%), and programs for active older adults (40.9%).

The report also suggested slightly more three in ten (30.2%) respondents indicated that they are planning to add additional programs at their facilities over the next three years. The most common types of programming they are planning to add include:

1. Educational programs (up from No. 5 on 2012 survey)
2. Fitness programs (up from No. 3)
3. Mind-body/balance programs – yoga, tai chi, Pilates or martial arts (up from No. 6)
4. Day camps and summer camps (up from No. 10)
5. Holiday events and other special events (up from No. 7)
6. Environmental education (down from No. 1)
7. Teen programming (down from No. 2)
8. Active older adults programming(down from No. 4)
9. Sports tournaments or races (not on the 2012 survey
10. Sport training (not on the 2012 Survey)

Off the top 10 list for new programming from 2012 are adult sport teams and performing arts.

Festivals and Events

In the context of urban development, from the early 1980s, there has been a process that can be characterized as "festivalization," which has been linked to the economic restructuring of towns and cities, and the drive to develop communities as large-scale platforms for the creation and consumption of "cultural experience."

The success rate for festivals should not be evaluated solely on the basis of profit (sales), prestige (media profile), and/or size (numbers of events). Research by the European Festival Research Project (EFRP)[20] indicates that there is evidence of local and city government supporting and even instigating and managing particular festivals themselves to achieve local or regional economic objectives, often defined very narrowly (sales, jobs, tourists, etc.). There are also a growing number of smaller, more local community-based festivals and events in communities, most often supported by local councils that have been spawned partly as a reaction to larger festivals that have become prime economic-drivers. These community-based festivals often will re-claim cultural ground based on their social, educational, and participative value. For more information on the values of festivals and events, see the CRC Sustainable Tourism research guide[21] on this topic.

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[19] Emily Tipping, "2013 State of the Industry Report, Trends in Parks and Recreation," *Recreation Management*, June 2013.
[20] EFRP is an international consortium seeking to understand the current explosion of festivals and its implications and perspective, http://www.efa-aef.eu/en/activities/efrp/, accessed October 2012.
[21] Ben Janeczko. Trevor Mules and Brent Ritchie, "Estimating the Economic Impacts of Festivals and Events: A Research Guide," Cooperative Research Centre for Sustainable Tourism, 2002,

In 2014, festivals grew in popularity as economic drivers and urban brand builders. Chad Kaydo describes the phenomenon in the January 2014 issues of *Governing* magazine: "Municipal officials and entrepreneurs see the power of cultural festivals, innovation-focused business conferences and the like as a way to spur short-term tourism while shaping an image of the hose city as a cool, dynamic location where companies and citizens in modern, creative industries can thrive."[22] Examples of successful festivals include:

- South by Southwest (SXSW) – this annual music, film, and digital conference and festival in Austin, Texas, is a leading example. Launched in 1987, the festival's economic impact has grown steadily over recent years. In 2007, it netted $95 million for Austin's economy. In 2013, the event topped $218 million.
- Coachella Valley Music and Arts Festival in California – this two-week cultural event draws big-name bands, music fans, and marketers, attracting 80,000 people per day.
- First City Festival in Monterey, California – Private producer, Goldenvoice, launched this smaller music event in August 2013 with marketing support from the Monterey County Convention and Visitors Bureau, drawing on the city's history as host of the Monterey Jazz Festival. Adding carnival rides and local art, furniture and clothing vendors to the live music performances, the event drew 11,000 attendees each of its two days.

Healthy Lifestyle

National Trends

In October, 2010 the Robert Wood Johnson Foundation's "Vulnerable Populations Portfolio"[23] shared thoughts on how health is impacted by where and how we live, learn, work, and play. The following list demonstrates the connection that nonmedical factors play in where health starts before illness sets in.

Where We Live

Residential instability has adverse health impacts. Examples include:

- Homeless children are more vulnerable to mental health problems, developmental delays, and depression than children who are stably housed.
- Difficulty keeping up with mortgage payments may be linked to lower levels of psychological well-being and a greater likelihood of seeing a doctor.
- The connection between access to public transportation and health studies found that people who live in counties with high "sprawl indexes" were likely to have a higher body mass index than people living in more compact counties.
- Convenient, affordable, and available eating habits result from inability to move from place to place within the community. PolicyLink and the Food Trust, two nonprofits focused on expanding access to fresh foods where low-income people live, have found that "decreased access to healthy food means people in low-income communities suffer more from diet-related diseases like obesity and diabetes than those in higher-income neighborhoods with easy access to healthy food, particularly fresh fruits and vegetables."

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http://www.sustainabletourismonline.com/1005/events/estimating-the-economic-impacts-of-festivals-and-events-a-research-guide, accessed October 2012.

[22] Chad Kaydo, "Cities Create Music, Cultural Festivals to Make Money," *Governing*, January 2014, http://www.governing.com/topics/finance/gov-cities-create-mucis-festivals.html.

[23] Health starts Where We Live, Learn, Work, and Play, RWJF Vulnerable Populations Portfolio, Robert Wood Johnson Foundation, http://www.rwjf.org/en/search-results.html?u=&k=how+health+is+impacted+by+where+and+how+we+live%2C+learn%2C+work%2C+and+play, accessed 2012.

CVPRD

- Communities with lower crime rates are healthier. Researchers from the Baltimore Memory Study found that residents living in the most dangerous neighborhoods were nearly twice as likely to be obese as those living in the least dangerous neighborhoods.

Where We Work
The relationship between work and health is critical to creating productive environments.
- Investing in the right ways to support employees, businesses can help create a workforce that is less stressed and more content. The net result: a happier, healthier workforce which is more productive and yields better results.
- An approach such as "lifestyle leave" to take care of the inevitable personal and family needs that arise is a valuable asset for many of the parents. Programs which help provide employees with the peace of mind also help them to breathe and work more easily.
- Business leaders and employees alike should view work as a place of opportunity — a source of support, satisfaction, and motivation, which can offer mutual benefits when done right.

Where We Learn
Eight times more lives can be saved with education than with medical advances.
- Without graduating from high school, one is likely to earn less money and struggle to make ends meet, work longer hours (and maybe even two jobs) just to feed a family, and live in a compromised neighborhood without access to healthy food.
- Better educated people have more opportunities to make healthier decisions. They have the money and access necessary to buy and eat healthier foods.
- Data from the National Longitudinal Mortality Study indicates that people with higher education live five to seven years longer than those who do not finish high school.
- Schools are not just centers of teaching and learning, they are places that provide the opportunity to improve the health of all Americans.

Where We Play
Play is a profound biological process that shapes brain function.
- Play prompts us to be continually, joyously, physically active, combating obesity and enhancing overall health and well-being.
- Play can interrupt the damage done by chronic stress, and even gives the immune system some relief.
- Play is a basic need; a biological requirement for normal growth and development. Scientists associated with the National Institute for Play are united in their concern about "play under-nutrition," noting that the corrosive effects of this form of starvation gradually erode emotional, cognitive, and physiologic well-being – a major aspect of sedentary, obesity, and poor stress management can be readily linked to play starvation.
- Providing places to spend leisure time and recreate are critical to creating healthy communities.

Statewide Trends: Health and Obesity
In an effort to educate Americans and encourage them to take steps toward a healthier future, the United Health Foundation annually presents "America's Health Rankings: A Call to Action for Individuals & Their Communities."

The UHF has tracked the health of the nation for the past 22 years, providing a unique, comprehensive perspective on how the nation (and each state) measures up. Recent editions of the Rankings suggest that our nation is extremely adept at treating illness and disease. However, Americans are struggling to change unhealthy behaviors such as smoking and obesity, which cause many of these diseases. Obesity continues to be one of the fastest growing health issues in our nation, and America is spending billions in direct health care costs associated with poor diet and physical inactivity.

Colorado, which has long claimed bragging rights as the leanest state in the nation, received some bad news in recent years.[24] While, the adult obesity rate of 20 percent gives Colorado a number one ranking in the country for low obesity, the Colorado 2013 Health Report Card[25] found that the state's obesity rate has doubled in less than 20 years. The Health Report Card also found that childhood obesity levels for children aged 10-17 has fallen from 14.2 percent in 2007 to 10.9 percent in 2012. [26] However, one third of Colorado children do not participate in regular physical activity, leading to a ranking of 24th in the nation for childhood vigorous physical activity. Colorado's poor performance for this and other child health indicators (earning Colorado a 'C' rating for "Healthy Beginnings" and "Healthy Childhood"[27]) does not bode well for healthy adults in the future.

The State of Colorado, along with non-profit partners such as the Colorado Health Foundation and Live Well Colorado, has invested in numerous programs aimed at countering the obesity epidemic. Efforts are directed at healthy eating and combating sedentary lifestyles. Policy makers want Colorado to be the first state in the country to start reducing obesity levels, which has occurred in some counties in the state.

Shade Structures
Communities around the country are considering adding shade structures as well as shade trees to their parks, playgrounds and pools, as "a weapon against cancer and against childhood obesity,"[28] both to reduce future cancer risk and promote exercise among children. A 2005 study found that melanoma rates in people under 20 rose three percent a year between 1973 and 2001, possibly due to a thinning of the ozone layer in the atmosphere. It is recommended that children seek shade between 10 a.m. and 4 p.m., but with so little shade available, kids have nowhere to go. Additionally, without adequate shade, many play areas are simply too hot to be inviting to children. On sunny days, the playground equipment is hot enough to scald the hands of would-be users.

Trees would help, as tree leaves absorb about 95 percent of ultraviolet radiation, but they take a decade or more to grow large enough to make a difference. So, many communities are building shade structures instead. The non-profit Shade Foundation of American is a good resource for information about shade and shade structures, www.shadefoundation.org.

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[24] Katie Kerwin McCrimmon, "Obesity levels spike in Colorado," Solutions, http://www.healthpolicysolutions.org/2012/03/22/obesity-levels-spike-in-colorado/, Accessed November 17, 2012.
[25]http://www.coloradohealth.org/yellow.aspx?id=6562.
[26]http://www.coloradohealth.org/uploadedFiles/Publications/HealthReportCard2013/HRC%20Physical%20Activity_Behind%20the%20Numbers_Final.pdf.
[27] http://www.coloradohealth.org/uploadedFiles/Publications/HealthReportCard2013/COHRC13.pdf
[28] Liz Szabo, "Shade: A weapon against skin cancer, childhood obesity," USA Today, June 30, 2011, usatoday.30.usatoday.com/news/health/wellness/story/2011/06/Shade-serves-as-a –weapon-against-skin-cancer-childhood-obesity/48965070/1, accessed 5/23/3013.

CVPRD

Trails and Health

That a connected system of trails increases the level of physical activity in a community has been scientifically demonstrated through the Trails for Health initiative of the (CDC).[29] Trails can provide a wide variety of opportunities for being physically active, such as walking/running/hiking, rollerblading, wheelchair recreation, bicycling, cross-country skiing and snowshoeing, fishing, hunting, and horseback riding. Recognizing that active use of trails for positive health outcomes is an excellent way to encourage people to adopt healthy lifestyle changes, American Trails has launched a "Health and Trails" resource section in its website: www/americantrails.org/resources/benefits/.

The health benefits are equally as high for trails in urban neighborhoods as for those in state or national parks. A trail in the neighborhood, can create a "linear park," making it easier for people to incorporate exercise into their daily routines, whether for recreation or non-motorized transportation. Urban trails need to connect people to places they want to go, such as schools, transit centers, businesses, and neighborhoods.[30]

Economics of Health

Economic Effects of Inactivity and Obesity

The Alliance for Biking and Walking's "Bicycling and Walking in the United States 2012 Benchmark Report" [31] indicates:

- Bicycling and walking levels fell 66 percent between 1960 and 2009, while obesity levels increased by 156 percent.
- Between 1966 and 2009, the number of children who bicycled or walked to school fell 75 percent, while the percentage of obese children rose 276 percent.
- In general, states with the highest levels of bicycling and walking have the lowest levels of obesity, hypertension (high blood pressure), and diabetes and have the greatest percentage of adults who meet the recommended 30-plus minutes per day of physical activity.

Inactivity and obesity in the United States cost the country hundreds of billions of dollars annually. Recent studies have identified at least four major categories of economic impact linked with the meteoric rise of obesity in this country, likely leading to over $215 billion in economic costs associated with obesity, annually[32]:

- Direct medical costs (as much as 100 percent higher than for healthy weight adults).
- Productivity costs (absenteeism, presenteeism [working while sick], disability, and premature mortality – total productivity costs as high as $66 billion annually).
- Transportation costs and human capital costs (studies indicate significant but further work is needed to quantify).

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[29] "Guide to Community Preventive Services" Centers for Disease Control and Prevention (CDC), http://www.thecommunityguide.org/index.html
[30] "Health Community: What you should know about trail building," National Trails Training Partnership: Health and Fitness, http://www.americantrails.org/resources/health/healthcombuild.html, accessed on May 24, 2013.
[31] The Alliance for Biking and Walking published Bicycling and Walking in the United States 2012 Benchmark Report.
[32] Ross A. Hammond and Ruth Levine, "The Economic Impact of Obesity in the United States," Dove Medical Press: Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy, http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3047996/, accessed December 31, 2013.

The economic benefits of bicycling and walking:
- Bicycling and walking projects create 11 to 14 jobs per $1 million spent, compared to just seven jobs created per $1 million spent on highway projects.
- Cost benefit analyses show that up to $11.80 in benefits can be gained for every $1 invested in bicycling and walking.

At the 2013 Walking Summit held in Washington D.C., presenters called walking a wonder drug with the generic name "physical activity." [33] While other forms of physical activity work equally well, three factors were cited as making walking the most effective treatment:
1. Low or no cost.
2. Simple to do for people of all ages, incomes and fitness levels.
3. Because walking is America's favorite physical activity, we are more likely to stick with a walking program than other fitness or pharmaceutical regiments.

Natural Environments and Open Space

Nature Programming

Noted as early as 2003 in *Recreation Management* magazine, park agencies have been seeing an increase in interest in environmental-oriented "back to nature" programs. In 2007, the National Recreation and Park Association (NRPA) sent out a survey to member agencies in order to learn more about the programs and facilities that public park and recreation agencies provide to connect children and their families with nature.[34] A summary of the results follow:

> *"There's a direct link between a lack of exposure to nature and higher rates of attention-deficit disorder, obesity, and depression. In essence, parks and recreation agencies can and are becoming the 'preferred provider' for offering this preventative healthcare."*
>
> – **Fran P. Mainella**, former director of the National Park Service and Instructor at Clemson University.

- Sixty-eight percent (68%) of public parks and recreation agencies offer nature-based programming, and 61 percent have nature-based facilities.
- The most common programs include nature hikes, nature-oriented arts and crafts, fishing-related events, and nature-based education in cooperation with local schools.
- When asked to describe the elements that directly contribute to their most successful programs, agencies listed staff training as most important followed by program content and number of staff/staff training.
- When asked what resources would be needed most to expand programming, additional staff was most important followed by funding.
- Of the agencies that do not currently offer nature-based programming, 90 percent indicated that they want to in the future. Additional staff and funding were again the most important resources these agencies would need going forward.
- The most common facilities include: nature parks/preserves, self-guided nature trails, outdoor classrooms, and nature centers.

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[33] Jay Walljasper, "Walking as a Way of Life, Movement for Health and Happiness," The Walking Summit Brochure, October 2013, http://everybodywalk.org/media_assets/WalkingAsAWayOfLife1_Final.pdf.

[34] National Recreation and Parks Association (NRPA), "NRPA Completes Agency Survey Regarding Children and Nature," http://www.narrp.org/assets/Library/Children_in_Nature/nrpa_survey_regarding_children_and_nature_2007.pdf, April 2007.

CVPRD

- When asked to describe the elements that directly contribute to their most successful facilities, agencies listed funding as most important followed by presence of wildlife and community support.

Figures from the Association for Interpretative Naturalists, a national group of nature professionals, demonstrate that nature-based programs are on the rise. According to Tim Merriman, the association's Executive Director, the group was founded in 1954 with 40 members. It now boasts 4,800 members, with research indicating that about 20,000 paid interpreters are working nationally, along with an army of more than 500,000 unpaid volunteers staffing nature programs at parks, zoos, and museums. The growth of these programs is thought to come from replacing grandparents as the teacher about the "great outdoors." It is also speculated that a return to natural roots and renewed interest in life's basic elements was spurred as a response to September 11, 2001. [35]

In his book Last Child in the Woods: Saving Children from Nature Deficit Disorder,[36] Richard Louv introduced the concept of the restorative qualities of being out in nature, for both children and adults. This concept, and research in support of it, has led to a growing movement promoting connections with nature in daily life. One manifestation of this is the development of Nature Explore Classrooms in parks. Nature Explore[37] is a collaborative program of the Arbor Day Foundation and the non-profit organization, Dimensions Educational Research Foundation, with a mission of helping children and families develop a profound engagement with the natural world, where nature is an integral, joyful part of children's daily learning. Nature Explore works to support efforts to connect children with nature.

Economic & Health Benefits of Parks
There are numerous economic and health benefits of parks, including the following:
- Trails, parks, and playgrounds are among the five most important community amenities considered when selecting a home.
- Research from the University of Illinois shows that trees, parks, and green spaces have a profound impact on people's health and mental outlook.[38]
- U.S. Forest Service research indicates that when the economic benefits produced by trees are assessed, the total value can be two to six times the cost for tree planting and care.[39]
- Fifty percent of Americans regard outdoor activities as their main source of exercise.[40]

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[35] Margaret Ahrweiler," *Call of the Wild – From beautiful blossoms to bugs and guts, nature programs are growing as people return to their roots" Recreation Management* Magazine, Http://recmanagement.com/200310fe04.php, October 2003.
[36] Richard Louv, Last Child in the Woods: Saving Children from Nature Deficit Disorder, Algonquin Books of Chapel Hill, North Carolina, 2005.
[37] "What is the Nature Explore Program," http://www.arborday.org/explore/documents/ NE_FAQ_002.pdf, accessed on August 12, 2012.
[38] F.E. Kuo, "Environment and Crime in the Inner City: Does Vegetation Reduce Crime?" *Environment and Behavior*, Volume 33, pp 343-367.
[39] Nowak, David J., "Benefits of Community Trees," (Brooklyn Trees, USDA Forest Service General Technical Report, in review).
[40] "Outdoor Recreation Participation Report 2010," Outdoor Foundation, 2010.

The Trust for Public Land has published a report titled: *"The Benefits of Parks: Why America Needs More City Parks and Open Space."* The report makes the following observations about the health, economic, environmental, and social benefits of parks and open space[41]:

- Physical activity makes people healthier.
- Physical activity increases with access to parks.
- Contact with the natural world improves physical and physiological health.
- Residential and commercial property values increase.
- Value is added to community and economic development sustainability.
- Benefits of tourism are enhanced.
- Trees are effective in improving air quality and act as natural air conditioners.
- Trees assist with storm water control and erosion.
- Crime and juvenile delinquency are reduced.
- Recreational opportunities for all ages are provided.
- Stable neighborhoods and strong communities are created.

Researchers have long touted the benefits of outdoor exercise. According to a study published in the *Journal of Environmental Science and Technology* by the University of Essex in the United Kingdom, "as little as five minutes of green exercise improves both mood and self-esteem."[42] A trend started in China as they prepared to host the 2008 Summer Olympics. Their aim was to promote a society that promotes physical fitness and reaps the benefits of outdoor exercise by working out on outdoor fitness equipment.

The United States is now catching up on this trend, as park and recreation departments have begun installing "outdoor gyms." Equipment that can be found in these outdoor gyms is comparable to what would be found in an indoor workout facility, such as leg and chest presses, elliptical trainers, pull down trainers, etc. With no additional equipment such as weights and resistance bands, the equipment is fairly easy to install. Outdoor fitness equipment provides a new opportunity for parks and recreation departments to increase the health of their communities, while offering them the opportunity to exercise outdoors. Such equipment can increase the usage of parks, trails, and other outdoor amenities while helping to fight the obesity epidemic and increase the community's interaction with nature.

Sports and Recreation Trends

General Sports and Recreation Trends

The National Sporting Goods Association (NSGA) survey on sports participation in 2012[43] found that the top five athletic activities ranked by total participation included: exercise walking, exercising with equipment, swimming, camping, and aerobic exercising. Additionally, the following active, organized, or skill development activities remain popular: hiking, running/jogging, bicycle riding, basketball, golf, and soccer. *Table 9* outlines the top twenty sports ranked by total participation in 2012.

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[41] Paul M. Sherer, *"The Benefits of Parks: Why America Needs More City Parks and Open Space,"* The Trust for Public Land, San Francisco, CA, 2006.

[42] Cited in: Sally Russell, "Nature Break: Five Minutes of Green Nurture," Green Nurture Blog, http://blog.greennurture.com/tag/journal-of-environmental-science-and-technology, Accessed on November 14, 2012.

[43] 2012 Sport/Recreation Activity Participation," National Sporting Goods Association, 2013, http://www.nsga.org.

CVPRD

Table 9: Top Twenty Sports Ranked by Total Participation (in millions) in 2012

Sport	Total
1. Exercise Walking	102.1
2. Exercising with Equipment	57.7
3. Swimming	48.6
4. Camping (vacation/overnight)	45.2
5. Aerobic Exercising	44.8
6. Hiking	42.2
7. Running/Jogging	40.0
8. Bicycle Riding	39.3
9. Bowling	35.5
10. Workout at Club	35.2
11. Weight Lifting	31.1
12. Fishing (Freshwater)	30.8
13. Wrestling	28.4
14. Basketball	25.6
15. Yoga	22.9
16. Billiards/Pool	21.8
17. Target Shooting	21.7
18. Golf	21.1
19. Hunting with Firearms	19.4
20. Boating, Motor/Power	17.0

Source: NSGA 2012

The Sports and Fitness Industry Association (SFIA) produces a yearly report on sports, fitness, and leisure activities in the U.S. The following findings were highlighted in the 2013 Report[44]:

- Overall participation in sports, fitness, and related physical activities remained relatively steady from 2011 to 2012.
- Fitness sports had the largest increase in participation (two percent increase to 61.1 percent).
- Racquet sports participation also increased one percent increase to 12.8 percent) but still remains below the 2008 peak rate of 14 percent.
- Both team sports (21.6%) and water sports (12.5%) participation increased slightly, while individual sports (36%) and winter sports (6.6%) participation decreased slightly.
- Outdoor sports participation remained stable at around 49 percent.
- Spending on team sports at school and lessons/instruction/sports camp was expected to increase in 2013 as it has in 2011 and 2012.
- Twenty-eight percent (28%) of all Americans are inactive, while 33 percent are active to a healthy level (engaged in high calorie level sport/fitness activities in a frequent basis).

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[44] "2012 Sports, Fitness and Leisure Activities Topline Participation Report," Sporting Goods Manufacturers Association (renamed Sports and Fitness Industry Association in 2012, http://www.sfia.org/reports/all/.

The "Ten-year History of Sports Participation Report,"[45] published by NSGA, shows national trends in team sports and individual sports. Overall participation trends indicate a general increase in 2011 for most team sports. However, softball and volleyball show a decrease in participation through 2011. Over the past decade, individual sports that have shown a dramatic increase include aerobic exercising, exercise walking, exercising with equipment, hiking, kayaking, running/jogging, target shooting, target shooting with an airgun, tennis, weightlifting, and working out at a club.

Table 10 illustrates a ten year change in participation for selected activities including both team sports and individual sports.

Table 10: Ten-Year History of Sports Participation (in millions) 2001-2011

	2001	2003	2005	2007	2009	2011
Aerobic Exercising	24.3	28.0	33.7	34.8	33.2	42.0
Archery (Target)	4.7	3.9	6.8	6.6	7.1	6.3
Backpacking/Wilderness Camping	14.5	13.7	13.3	13.0	12.3	11.6
Baseball	14.9	14.6	14.6	14.0	11.5	12.3
Basketball	28.1	27.9	29.9	24.1	24.4	26.1
Bicycle Riding	39.0	36.3	43.1	37.4	38.1	39.1
Billiards/Pool	32.7	30.5	37.3	29.5	28.2	20.0
Boating, Motor/Power	22.6	24.2	27.5	31.9	24.0	16.7
Bowling	40.3	39.4	45.4	43.5	45.0	34.9
Camping	45.5	51.4	46.0	47.5	50.9	42.8
Dart Throwing	16.9	n/a	n/a	12.1	12.2	9.3
Exercise Walking	71.2	79.5	86.0	89.8	93.4	97.1
Exercising with Equipment	43.0	48.6	54.2	52.9	57.2	55.5
Fishing (Freshwater)	39.1	33.2	37.5	30.8	29.0	28.0
Fishing (Saltwater)	11.3	10.6	10.0	10.4	8.2	9.7
Football (tackle)	8.6	8.7	9.9	9.2	8.9	9.0
Golf	26.6	25.7	24.7	22.7	22.3	20.9
Hiking	26.1	25.0	29.8	28.6	34.0	39.1
Hockey (ice)	.2	1.8	2.4	2.1	3.1	3.0
Hunting w/Bow & Arrow	4.7	5.0	6.6	5.7	6.2	5.1
Hunting with Firearms	19.2	17.7	19.6	19.5	18.8	16.4
In-Line Roller Skating	19.2	16.0	13.1	10.7	7.9	6.1
Kayaking	3.5	4.7	7.6	5.9	4.9	7.1
Mountain Biking (off road)	6.3	8.2	9.2	9.3	8.4	6.0
Muzzleloading	3.0	3.1	4.1	3.6	3.8	3.1
Paintball Games	5.6	7.4	8.0	7.4	6.3	5.3
Running/Jogging	24.5	22.9	29.2	30.4	32.2	38.7
Skateboarding	9.6	9.0	12.0	10.1	8.4	6.6
Skiing (Alpine)	7.7	6.8	6.9	6.4	7.0	6.9
Skiing (Cross Country)	2.3	1.9	1.9	1.7	1.7	2.3
Snowboarding	5.3	6.3	6.0	5.1	6.2	5.1

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[45] Ten-Year History of Sports Participation (2001-2011), National Sporting Goods Association, 2012, http://www.nsga.org/i4a/pages/index.cfm?pageid=3346.

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	2001	2003	2005	2007	2009	2011
Soccer	13.9	11.1	14.1	13.8	13.6	13.9
Softball	13.2	11.8	14.1	12.4	11.8	10.4
Swimming	54.8	47.0	58.0	52.3	50.2	46.0
Target Shooting	15.9	17.0	21.9	20.5	19.8	19.6
Target Shooting (Airgun)	2.9	3.8	6.7	6.6	5.2	5.3
Tennis	10.9	9.6	11.1	12.3	10.8	13.1
Volleyball	12.0	10.4	13.2	12.0	10.7	10.1
Water Skiing	5.5	5.5	6.7	5.3	5.2	4.3
Weight Lifting	21.2	25.9	35.5	33.2	34.5	29.1
Workout at Club	26.5	29.5	34.7	36.8	38.3	34.5
Wrestling	3.5	n/a	n/a	2.1	3.0	3.2

Note: Participated more than once (in millions), seven (7) years of age and older.
Source: NSGA 2012

Youth Sports

The 2013 SFIA sports participation report indicates that in 2012 youth (ages 6-12) participation was highest for outdoor (63.1%), team (53.1%), and individual sports (49.8%). Children in this age group have increased interest in camping, while young adults ages 18-24 are becoming more interested in running/jogging.

The NSGA "Youth Sports Participation Report" indicates that specific offerings for children's fitness are slowly increasing in health and fitness facilities. Facilities are offering more youth-specific exercise equipment. Individualized youth sports training opportunities are becoming more popular as well. In 2011, in-line roller skating experienced the largest decrease in participation. For youth ages 7 to 17, exercise walking, exercising with equipment, and swimming, followed by overnight/vacation camping had the highest number of participants in 2011.[46]

In 2009, an article in the *Wall Street Journal* observed that, in recent years lacrosse has become one of the country's fastest growing team sports. Participation in high school lacrosse has almost doubled this decade. An estimated 1.2 million Americans over age seven played lacrosse in 2009.[47] A 2011 report entitled, "U.S. Trends in Team Sports," finds that Lacrosse and other niche team sports and volleyball are continuing to experience strong growth for youth and adults.[48]

Outdoor Recreation

The Outdoor Foundation releases a "Participation in Outdoor Recreation" report, annually. According to the 2013 report,[49] while there continues to be fallout from the recent economic downturn, the number of outdoor recreation outings reached the highest participation an all-time high in 2012. The foundation reports that the top outdoor activities in 2012 were running, fishing, bicycling, camping, and hiking. Bird watching is also among the favorite outdoor activities by frequency of participation.

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[46] "2011 vs 2001 Youth Sports Participation," National Sporting Goods Association, 2012, http://www.nsga.org/i4a/pages/index.cfm?pageid=3494.
[47] Evans and Trachtenberg, "Lacrosse Muscles Its Way West," *Wall Street Journal*, May, 2009.
[48] "2011 Preview: U.S. Trends in Team Sports, Fall 2011," SMGA, 2011.
[49] "Outdoor Recreation Participation Report 2013," Outdoor Foundation, 2013.

The Outdoor Foundation's research brought the following key findings.

Participation in Outdoor Recreation

- **Return to Nature:** Nearly 50 percent of Americans ages six and older participated in outdoor recreation in 2012. That equates to a total of 141.9 million Americans and a net gain of one million outdoor participants.
- **Top Five Biggest Participation Percentage Increase in Outdoor Activities in the Past three years**: Triathlon (Off Road), Adventure Racing, Telemarking, Freestyle Skiing, and Triathlon (Traditional/Road).

Youth Participation in Outdoor Recreation

- **Participation Fairly Steady from 2011**: However, participation rates dropped among teens ages 13 to 17 (particularly teenage girls) and rose among adults ages 25 to 44.
- **The Influence of Family:** Most youth are introduced to outdoor activities by parents, friends, family, and relatives.
- **Physical education in schools**: The importance cannot be understated. Among adults ages 18 and older who are current outdoor participants, 75 percent say that they had PE in school between the ages of 6 and 12.

Outdoor recreation trends are also a recurring topic of study by the United States Forest Service through the Internet Research Information Series (IRIS). An IRIS report dated January 2012[50] provides the following recent nature-based outdoor recreation trends. Participation in walking for pleasure and family gatherings outdoors were the two most popular activities for the U.S. population as a whole. These outdoor activities were followed closely in popularity by viewing/photographing wildlife, boating, fishing, snow/ice activities, and swimming. There has been a growing momentum in participation in sightseeing, birding, and wildlife watching in recent years.

Adventure Programming and Extreme Sports

Extreme Sports

Extreme sports are not just a fad. Regardless of the time of year, extreme sports are increasing in participation.[51] A 2008 SGMA report, shown in **Table 11,** demonstrates this increase in participation.

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[50] "Recent Outdoor Recreation Trends," USDA Forest Service Internet Research Information Series (IRIS) Research Brief, January 2012, http://warnell.forestry.uga.edu/nrrt/nsre/IRISRec/IRISRec23rpt.pdf, accessed August, 2012.
[51] Sporting Goods Manufacturers Association (SMGA), "Extreme Sports: An Ever-Popular Attraction," http://www.sgma.com/press/2_Extreme-Sports%3A-An-Ever-Popular-Attraction.

Table 11: Most Popular Extreme Sports in the USA (U.S. population; 6 years of age or older)

Extreme Sport	# of Participants (participated at least once in 2007)
1. Inline Skating	10,814,000
2. Skateboarding	8,429,000
3. Mountain Biking	6,892,000
4. Snowboarding	6,841,000
5. Paintball	5,476,000
6. Cardio Kickboxing	4,812,000
7. Climbing (Indoor, Sport, Boulder)	4,514,000
8. Trail Running	4,216,000
9. Ultimate Frisbee	4,038,000
10. Wakeboarding	3,521,000
11. Mountain/ Rock Climbing	2,062,000
12. BMX Bicycling	1,887,000
13. Roller Hockey	1,847,000
14. Boardsailing/Windsurfing	1,118,000

Source: Sporting Goods Manufacturers Association, 2007

In recent years, mountain biking, and BMX biking have continued their upward trend, while inline skating and skateboarding have trended downward in popularity.[52]

Zip Lines

According to a story by National Public Radio on August 28, 2012, zip line tours and aerial adventure parks are booming in the Northwest United States.[53] At least a dozen commercial zip line attractions have opened in Oregon, Washington, and Idaho, plus an equal number in Alaska and British Columbia. While there have been some grumblings about bringing in private business to public parks, zip line purveyors point out that they are fun, not too expensive to make, and safe.

Tacoma, Washington's public park district, Metro Parks Tacoma, recently opened a publicly run zip line at its Northwest Trek Wildlife Park, looking to set itself apart from other local recreational opportunities and seeking to attract a different demographic. Municipal park departments around the country are looking at this booming trend and the potential revenue stream it can bring and are adding zip line attractions and aerial adventure parks to their public park offerings.

[52] "Outdoor Recreation Participation Topline Report 2012," Outdoor Foundation, 2012.
[53]Tom Banse, "Getting High in the Northwest…On Zip Lines," National Public Radio Story, August 28, 2012, http://www.npr.org/templates/story/story.php?storyId= 160244351&ft=3&f=160244351

Golf Trends

The National Golf Foundation keeps records of golf trends in the United States. **Figure 9** reflects trends in rounds of golf nationwide. Golf participation is a factor of the economy and the weather, and participation has been on a downward trend since 2000. A 5.7 percent increase in rounds of golf played in 2012 was apparently as much a factor of the weather as a recovering economy, and a 4.9 percent drop in rounds of golf played in 2013 (a year of poor weather) reveals that the golf economy is recovering at a slower pace than the overall U.S. economy. Nevertheless, golf trend analysts point to a couple factors indicating a stabilization of the golf industry, and perhaps even a move in a positive direction[54]:

1. Even though rounds played decreased from 2012 to 2013, there remains a slight increase in rounds played from 2011 (463 million) to 2013 (466 million).
2. Despite the impact of poor weather, more rounds were played per day courses were open in 2013 than in 2012 or 2011.

Figure 9: NGF Estimate of Rounds of Golf Played
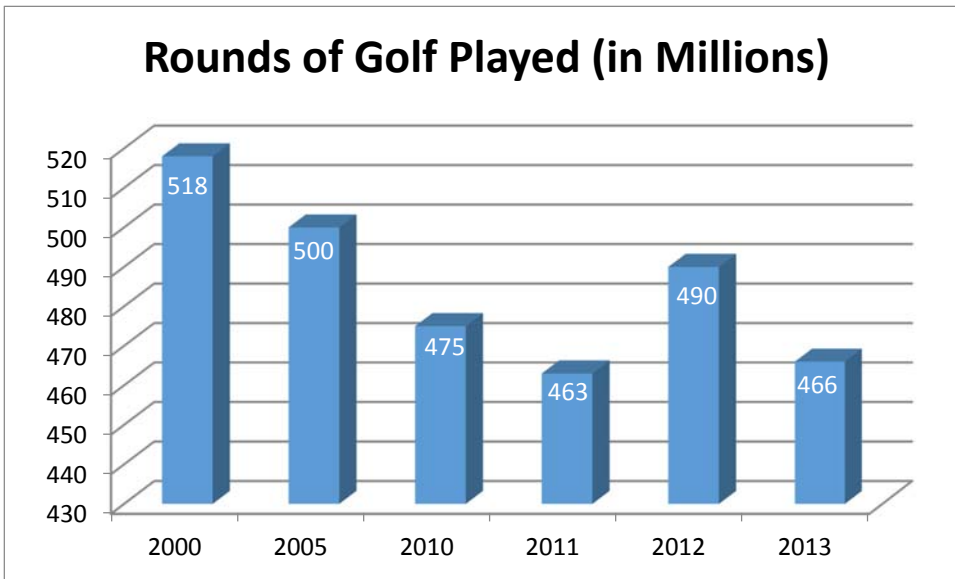
Source: National Golf Foundation

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[54] "Golf Industry Overview – 2013 Rounds Played Summary," National Golf Foundation February 2014 Newsletter, http://ngfdashboard.clubnewsmaker.org/Newsletter/1xsy3ctzasr?a=1&p=2266785&t=392795, accessed April 2014 (citing the NGF *Golf Industry Overview: 2014 Edition*).

Winter Recreation Trends

In a 2012 report,[55] Snow Sports Industries America (SIA) uncovered the following snow sports participation habits:

- Seven percent of the total U.S. population (+6 years old) participates in at least one snow sport discipline.
- Alpine skiers (44%) and snowboarders (31%) make-up three-fourths of all participants.
- Fifty-six percent (56%) of the alpine skiers are concentrated in the following ten states: CA, TX, NY, CO, PA, MI, IL, NJ, WA, and MA.
- Sixty percent (60%) of snowboarders are concentrated in the following ten states: CA, NY, IL, PA, NJ, WA, MI, CO, WI, and VA.
- High-income earners account for large segments of participants with 50 percent of alpine skiers and 37 percent of snowboarders earning annual incomes of $100,000 or more.
- Snow sports are becoming more diverse; minority ethnic groups make up over 25 percent of all participants.

The Outdoor Foundation's "Topline Outdoor Recreation Report"[56] reflects a three-year increase in participation (from 2009 to 2011) in cross-country skiing (12.2%) and snowshoeing (40%). Additional winter sports to consider are extreme sledding, which is all the rage in Minnesota,[57] as well as the new winter sports trends such as speed riding (skiing while attached to a paraglider), equestrian skijoring (skier pulled along by a pony), and dog sledding.[58]

According to Global Industry Analysts, Inc., the snowmobiling industry has recovered from the recession and registered positive growth in 2011. [59] GIA expects the market to grow in coming years, "expected to be drive by the increased popularity of outdoor recreation, growing health consciousness, [and] the fun and adventure element of snowmobiling."

Therapeutic Recreation

Nationally, therapeutic recreation (TR) as a service is experiencing many struggles and challenges. The changing face of health care is having a dramatic effect on TR services in many rehabilitation settings and specifically in physical rehabilitation settings, thus affecting community recreation programs.

A secondary issue caused by the decreased stay is the need for a clinical facility to promote community reintegration. In the past, clinical facilities provided programs such as wheelchair basketball, but due to the reduction of expenditures, facilities no longer provide such services and expect communities to address these needs.

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[55]Sports Industries America, " SIA Releases 2012 Participation Report," http://www.snowsports.org/SuppliersServiceProviders/Resources/PressReleases/SIAPressReleases/PressReleaseDetail/content id/2029/, accessed on August 12, 2012.
[56] "Outdoor Recreation Participation Topline Report 2012," Outdoor Foundation, 2012.
[57] "Extreme Sledding in Minnesota," http://www.minnesota-visitor.com/extreme-sledding.html, accessed on August 12, 2012.
[58] Winter-Sports.com, "New Winter Sports Trends," http://www.winter-sports.com/EN/Articles/new_winter_sports_trends.php, accessed on August 12, 2012.
[59] PRWeb," Global Snowmobiles Market to Reach 165 Thousand Units, and US$1.3 Billion by 2017," http://www.prweb.com/releases/snowmobiles_utility/performance _touring/prweb9264472.htm, accessed on August 12, 2012.

The fundamental goal of TR services is to enable participants to return successfully to their communities. This not only means they need to have the functional skill, but also that they have physical and social environments in the community that are receptive to the individual.

Another trend is the renewed focus on serving people with psychiatric disabilities. In 2004, The National Council on Disability (NCD) issued a comprehensive report, "Livable Communities for Adults with Disabilities."[60] This report identified six elements for improving the quality of life for all citizens, including children, youth, and adults with disabilities. The six elements are:
1. Provides affordable, appropriate, accessible housing
2. Ensures accessible, affordable, reliable, safe transportation
3. Adjusts the physical environment for inclusiveness and accessibility
4. Provides work, volunteer, and education opportunities
5. Ensures access to key health and support services
6. Encourages participation in civic, cultural, social, and recreational activities

The right to enjoy services and programs offered to all members by both public and private entities is the essence of the elements. Unlike persons with physical disabilities, people with psychiatric disabilities face attitudinal barriers of those around them. Attitudinal barriers are exemplified by policies, programs, and beliefs about psychiatric disabilities. Fortunately, the mental health system is moving toward a model based on recovery. This model believes that everyone with a mental health diagnosis is able and capable of living independently within the community with supports.

Role and Response of Local Government

Collectively, these trends have created profound implications for the way local governments conduct business. Some local governments are now accepting the role of providing preventative health care through parks and recreation services. The following concepts are from the International County/County Management Association.[61]
- Parks and recreation departments should take the lead in developing communities conducive to active living.
- There is growing support for recreation programs that encourage active living within their community.
- One of the highest priorities is a cohesive system of parks and trails and accessible neighborhood parks.

The United States of America, its states, and its communities share the enormous task of reducing the health and economic burden of obesity. While numerous programs, policies, and products have been designed to address the problem, there is no magic bullet to make it go away. The role of public parks and recreation as a health promotion and prevention agency has come of age. What matters is refocusing its efforts to insure the health, well-being, and economic prosperity of communities and citizens.

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[60] National Council on Disability, "Livable Communities for Adults with Disabilities," December 2004, http://www.ncd.gov/publications/2004/12022004.
[61] www.ICMA.org, Accessed in 2012.

Administration Trends for Recreation and Parks

Municipal parks and recreation structures and delivery systems have changed, and more alternative methods of delivering services are emerging. Certain services are being contracted out, and cooperative agreements with non-profit groups and other public institutions are being developed. Newer partners include the health system, social services, the justice system, education, the corporate sector, and community service agencies. These partnerships reflect both a broader interpretation of the mandate of parks and recreation agencies and the increased willingness of other sectors to work together to address community issues. The relationship with health agencies is vital in promoting wellness.

The traditional relationship with education and the sharing of facilities through joint-use agreements is evolving into cooperative planning and programming aimed at addressing youth inactivity levels and community needs.

Listed below are additional administrative national trends:

- Level of subsidy for programs is lessening, and more "enterprise" activities are being developed, thereby allowing subsidy to be used where deemed appropriate.
- Information technology allows for better tracking and reporting.
- Pricing is often determined by peak, off-peak, and off-season rates.
- More agencies are partnering with private, public, and non-profit groups.

Agency Accreditation

Parks and Recreation agencies are affirming their competencies and value through accreditation. This is achieved by an agency's commitment to 150 standards.

There are currently 116 agencies around the nation that have received the **Commission for Accreditation of Parks and Recreation Agencies (CAPRA) accreditation.**

Additional benefits of CAPRA accreditation include:

- Boosts staff morale
- Encourages collaboration
- Improves program outcomes
- Identifies agency and cost efficiencies
- Builds high level of trust with the public
- Demonstrates promise of quality
- Identifies best management practices

> Accreditation is a distinguished mark of excellence that affords external recognition of an organization's commitment to quality and improvement.
>
> Accreditation has two fundamental purposes; to ensure quality and to ensure improvement.
>
> *The National Recreation and Parks Association administratively sponsors two distinct accreditation programs. The Council on Accreditation of Parks, Recreation, Tourism and Related Professions (COAPRT) approves Academic institutions and **Commission for Accreditation of Parks and Recreation Agencies (CAPRA) approves agencies. It** is the only national accreditation of parks and recreation agencies, and is a valuable measure of an agency's overall quality of operation, management, and service to the community.*

Americans with Disabilities Act (ADA) – Compliance
On September 14, 2010 the U.S. Department of Justice (DOJ) issued an amended regulation implementing the Americans with Disabilities Act (ADA 2010 Standards).[62] On March 15, 2011, the amended Act became effective, and for the first time in history, it includes recreation environment design requirements. Covered entities were to be compliant with design and construction requirements and the development of three-year transition plan by March 15, 2012. Implementation of the three-year transition plan must be complete by March 15, 2015.

The Role of the ADA with regard to Parks and Recreation Programming
How a community interprets and implements the guidelines of the ADA regarding parks and recreation programs and services for children, youth, and adults with disabilities ultimately depends upon the philosophy of staff and how accepting they are of people with disabilities. Some organizations provide a basic level of service as per the law and other communities embrace the notion of accessibility and choose to exceed what is expected.

> *"People with disabilities are allowed equal access to all services provided by local, state, and federal governments, including recreational services. The ADA allows full and equal access by persons with disabilities to any place of public accommodation, governmental or private."*
>
> *July 26, 1990, the United States officially recognized the rights of people with disabilities by enacting the Americans with Disabilities Act (ADA).*

Community therapeutic recreation programs must address the needs of all people with disabilities. Disabilities may include autism, developmental, physical, learning, visual impairments, hearing impairments, mental health and more. Community therapeutic recreation programs should also serve children, youth, and adults of all ages.

The types of programs offered by a community therapeutic recreation program may include specialized, inclusive, and unified programs. Specialized recreation programs generally serve the needs specifically for someone with a disability. A "Learn to Swim" program for children with autism or an exercise program for adults with arthritis are just two examples of specialized programs. An inclusive program is one in which a person with a disability chooses to participate in a regular recreation program with a reasonable accommodation, alongside typical peers who do not have a disability. A third type of program is a unified program. This program is for individuals with and without disabilities who participate together as a "buddy," or are paired or matched – an able-bodied participant with a participant with a disability. Many Special Olympic programs are offered as unified programs.

Funding
According to *Recreation Management* magazine's "2013 State of the Industry Report," survey respondents from parks and recreation departments/districts reporting about their revenues from 2009 through 2014 reveals the impact of the recession as well as the beginning of a recovery. More than 25 percent of respondents saw their revenues decrease from 2009 to 2010 and 21.8 percent of respondents reported a further decrease in 2011. 43.8 percent of park and recreation respondents reported increases from 2011 to 2012.

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[62]U.S. Department of Justice, Americans with Disabilities Act, ADA Home Page, http://www.ada.gov/, accessed on November 15, 2012.

Marketing by Parks and Recreation Providers

Niche marketing trends have experienced change more frequently than ever before as technology affects the way the public receives information. Web 2.0 tools and now Web 3.0 tools are a trend for agencies to use as a means of marketing programs and services. Popular social media marketing tools include:

- Facebook
- Pinterest
- Twitter
- You Tube
- Instagram
- LinkedIn

Mobile marketing is a trend of the future. Young adults engage in mobile data applications at much higher rates than adults in age brackets 30 and older. Usage rates of mobile applications demonstrate that across four major age cohorts, Millennials tend to get information more frequently using mobile devices such as smart phones. For example, 95 percent of 18-to-29-year-old cell phone owners send and receive text messages, compared to 82 percent of 30-to-49-year-olds, 57 percent of 50-to-64-year-olds, and 19 percent of 65 and older.

It is also a fact that minority Americans lead the way when it comes to mobile internet access. Nearly two-thirds of African-Americans (64%) and Latinos (63%) are wireless internet users, and minority Americans are significantly more likely to own a cell phone than are their white counterparts (87 percent of Blacks and Hispanics own a cell phone, compared with 80 percent of whites).[63] By 2015, mobile internet penetration is forecast to grow to 71.1 percent for Hispanics compared to 58.8 percent for whites.[64]

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[63]Aaron Smith, "Mobile Access 2010," Pew Internet and American Life Project, Pew Research Center, July 7, 2010, http://www.pewinternet.org/Reports/2010/Mobile-Access-2010/Summary-of-Findings.aspx, Accessed on November 15, 2012.
[64] Erik Sass, "Minority Groups Heaviest Users of Mobile Net," *Media Daily News*, Nov. 18, 2011, http://www.mediapost.com/publications/article/162699/minority-groups-heaviest-users-of-mobile-net.html#axzz2CK9zYGFw, Accessed on November 15, 2012.

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Appendix B – GRASP® History and Methodology

GRASP® Glossary

Buffer: see catchment area.

Catchment Area: a circular map overlay that radiates outward in all directions from an asset and represents a reasonable travel distance from the edge of the circle to the asset. Used to indicate access to an asset in a level of service assessment.

Component: an amenity such as a playground, picnic shelter, basketball court, or athletic field that allows people to exercise, socialize, and maintain a healthy physical, mental, and social wellbeing.

Geo-Referenced Amenities Standards Process® (GRASP®): a proprietary composite-values methodology that takes quality and functionality of assets and amenities into account in a level of service assessment.

Level of Service (LOS): the extent to which a recreation system provides a community access to recreational assets and amenities.

Low-Score Component: a component given a GRASP® score of "1" or "0" as it fails to meet expectations.

Modifier: a basic site amenity that supports users during a visit to a park or recreation site, to include elements such as restrooms, shade, parking, drinking fountains, seating, BBQ grills, security lighting, and bicycle racks among others.

No-Service Area: an area of the District with no GRASP® level of service.

Perspective: a map or data quantification, such as a table or chart, produced using the GRASP® methodology that helps illustrate how well a community is served by a given set of recreational assets.

Radius: see catchment area.

Recreational Connectivity: the extent to which community recreational resources are transitionally linked to allow for easy and enjoyable travel between them.

Recreational Trail: a soft or hard surface trail intended mostly for leisure and enjoyment of resources. Typically passes through park lands or natural areas and usually falls to parks and recreation professionals for planning and management.

Service Area: all or part of a catchment area ascribed a particular GRASP® score that reflects level of service provided by a particular recreational asset, a set of assets, or an entire recreation system.

Trail: any off-street or on-street connection dedicated to pedestrian, bicycle, or other non-motorized users.

Trail network: a part of a greater trail system within which major barrier crossings have been addressed and all trails are functionally connected by such things as crosswalks, pedestrian underpasses, and/or bridges. Typically separated from other trail networks by missing trail connections or by such barriers as roadways, rivers, or railroad tracks.

Trail system: all trails in a community that serve pedestrian, bicycle, and alternative transportation users for purposes of both recreation and transportation.

Transportation trail: a hard surface trail, such as a city sidewalk, intended mostly for utility in traveling from one place to another in a community or region. Typically runs outside of park lands and is managed by Public Works or other city utility department.

Composite-Values Level of Service Analysis Methodology

Analysis of the existing parks, open space, trails, and recreation systems are often conducted in order to try and determine how the systems are serving the public. A Level of Service (LOS) has typically been defined in parks and recreation master plans as the capacity of the various components and facilities that make up the system to meet the needs of the public. This is often expressed in terms of the size or quantity of a given facility per unit of population.

Brief History of Level of Service Analysis

In order to help standardize parks and recreation planning, universities, agencies, and parks and recreation professionals have long been looking for ways to benchmark and provide "national standards" for how much acreage, how many ballfields, pools, playgrounds, etc., a community *should* have. In 1906 the fledgling "Playground Association of America" called for playground space equal to 30 square feet per child. In the 1970s and early 1980s, the first detailed published works on these topics began emerging (Gold, 1973, Lancaster, 1983). In time "rule of thumb" ratios emerged with 10 acres of parklands per thousand population becoming the most widely accepted norm. Other normative guides also have been cited as "traditional standards," but have been less widely accepted. In 1983, Roger Lancaster compiled a book called, "Recreation, Park and Open Space Standards and Guidelines," that was published by the National Park and Recreation Association (NRPA). In this publication, Mr. Lancaster centered on a recommendation "that a park system, at minimum, be composed of a core system of parklands, with a total of 6.25 to 10.5 acres of developed open space per 1,000 population (Lancaster, 1983, p. 56). The guidelines went further to make recommendations regarding an appropriate mix of park types, sizes, service areas, and acreages, and standards regarding the number of available recreational facilities per thousand population. While the book was published by NRPA and the table of standards became widely known as "the NRPA standards," these standards were never formally adopted for use by NRPA.

Since that time, various publications have updated and expanded upon possible "standards," several of which have been published by NRPA. Many of these publications did benchmarking and other normative research to try and determine what an "average LOS" should be. It is important to note that NRPA and the prestigious American Academy for Park and Recreation Administration, as organizations, have focused in recent years on accreditation standards for agencies, which are less directed towards outputs, outcomes and performance, and more on planning, organizational structure, and management processes. In essence, the popularly referred to "NRPA standards" for LOS, as such, do not exist. The following table gives some of the more commonly used capacity "standards" today.

CVPRD

Commonly Referenced LOS Capacity "Standards"

Activity/ Facility	Recommended Space Requirements	Service Radius and Location Notes	Number of Units per Population
Baseball Official	3.0 to 3.85 acre minimum	¼ to ½ mile Unlighted part of neighborhood complex; lighted fields part of community complex	1 per 5,000; lighted 1 per 30,000
Little League	1.2 acre minimum		
Basketball Youth High school	2,400 – 3,036 vs. 5,040 – 7,280 s.f.	¼ to ½ mile Usually in school, recreation center or church facility; safe walking or bide access; outdoor courts in neighborhood and community parks, plus active recreation areas in other park settings	1 per 5,000
Football	Minimum 1.5 acres	15 – 30 minute travel time Usually part of sports complex in community park or adjacent to school	1 per 20,000
Soccer	1.7 to 2.1 acres	1 to 2 miles Youth soccer on smaller fields adjacent to larger soccer fields or neighborhood parks	1 per 10,000
Softball	1.5 to 2.0 acres	¼ to ½ mile May also be used for youth baseball	1 per 5,000 (if also used for youth baseball)
Swimming Pools	Varies on size of pool & amenities; usually ½ to 2-acre site	15 – 30 minutes travel time Pools for general community use should be planned for teaching, competitive & recreational purposes with enough depth (3.4m) to accommodate 1m to 3m diving boards; located in community park or school site	1 per 20,000 (pools should accommodate 3% to 5% of total population at a time)
Tennis	Minimum of 7,200 s.f. single court area (2 acres per complex	¼ to ½ mile Best in groups of 2 to 4 courts; located in neighborhood community park or near school site	1 court per 2,000
Volleyball	Minimum 4,000 s.f.	½ to 1 mile Usually in school, recreation center or church facility; safe walking or bide access; outdoor courts in neighborhood and community parks, plus active recreation areas in other park settings	1 court per 5,000
Total land Acreage		Various types of parks - mini, neighborhood, community, regional, conservation, etc.	10 acres per 1,000

Sources:

David N. Ammons, Municipal Benchmarks - Assessing Local Performance and Establishing Community
    Standards, 2nd Ed., 2002

Roger A. Lancaster (Ed.), *Recreation, Park and Open Space Standards and Guidelines* (Alexandria, VA: National
    Recreation and Park Association, 1983), pp. 56-57.

James D. Mertes and James R. Hall, *Park, Recreation, Open Space and Greenways* Guidelines, (Alexandria, VA:
    National Recreation and Park Association, 1996), pp. 94-103.

In conducting planning work, it is key to realize that the above standards can be valuable when referenced as "norms" for capacity, but not necessarily as the target standards for which a community should strive. Each community is different and there are many varying factors which are not addressed by the standards above. For example:

- Does "developed acreage" include golf courses? What about indoor and passive facilities?
- What are the standards for skateparks? Ice Arenas? Public Art? Etc.?
- What if it is an urban land-locked community? What if it is a small town surrounded by open Federal lands?
- What about quality and condition? What if there is an abundance of ballfields, but they haven't been maintained in the last ten years?
- And many other questions….

GRASP® (Geo-Referenced Amenities Standards Program)

In order to address these and other relevant questions, a new methodology for determining Level of Service was developed. It is called a **composite-values methodology** and has been applied in communities across the nation in recent years to provide a better way of measuring and portraying the service provided by parks and recreation systems. Primary research and development on this methodology was funded jointly by GreenPlay, LLC, a management consulting firm for parks, open space and related agencies, Design Concepts, a landscape architecture and planning firm, and Geowest, a spatial information management firm. The trademarked name for the composite-values methodology process that these three firms use is called **GRASP® (Geo-Referenced Amenities Standards Program).** For this methodology, capacity is only part of the LOS equation. Other factors are brought into consideration, including *quality*, *condition*, *location*, *comfort*, *convenience*, and *ambience*.

To do this, parks, trails, recreation, and open space are looked at as part of an overall infrastructure for a community made up of various components, such as playgrounds, multi-purpose fields, passive areas, etc. The ways in which the characteristics listed above affect the amount of service provided by the components of the system are explained in the following text.

Quality –	The service provided by anything, whether it is a playground, soccer field, or swimming pool is determined in part by its quality. A playground with a variety of features, such as climbers, slides, and swings provides a higher degree of service than one with nothing but an old teeter-totter and a jungle gym.
Condition –	The condition of a component within the park system also affects the amount of service it provides. A playground in disrepair with unsafe equipment does not offer the same service as one in good condition. Similarly, a soccer field with a smooth surface of well-maintained grass certainly offers a higher degree of service than one that is full of weeds, ruts, and other hazards.
Location –	To be served by something, you need to be able to get to it. The typical park playground is of more service to people who live within easy reach of it than it is to someone living all the way across town. Therefore, service is dependent upon proximity and access.
Comfort –	The service provided by a component, such as a playground, is increased by having amenities such as shade, seating, and a restroom nearby. Comfort enhances the experience of using a component.

Convenience –	Convenience encourages people to use a component, which increased the amount of service that it offers. Easy access and the availability of trash receptacles, bike rack, or nearby parking are examples of conveniences that enhance the service provided by a component.
Ambience –	Simple observation will prove that people are drawn to places that "feel" good. This includes a sense of safety and security, as well as pleasant surroundings, attractive views, and a sense of place. A well-designed park is preferable to poorly-designed one, and this enhances the degree of service provided by the components within it.

In this methodology, the geographic location of the component is also recorded. Capacity is still part of the LOS analysis (described below) and the quantity of each component is recorded as well. The methodology uses comfort, convenience, and ambience as characteristics that are part of the context and setting of a component. They are not characteristics of the component itself, but when they exist in proximity to a component they enhance the value of the component.

By combining and analyzing the composite values of each component, it is possible to measure the service provided by a parks and recreation system from a variety of perspectives and for any given location. Typically this begins with a decision on **"relevant components"** for the analysis, collection of an accurate inventory of those components, analysis and then the results are presented in a series of maps and tables that make up the **GRASP®** analysis of the study area.

Making Justifiable Decisions

All of the data generated from the GRASP® evaluation is compiled into an electronic database that is then available and owned by the agency for use in a variety of ways. The database can help keep track of facilities and programs, and can be used to schedule services, maintenance, and the replacement of components. In addition to determining LOS, it can be used to project long-term capital and life-cycle costing needs. All portions of the information are in standard available software and can be produced in a variety of ways for future planning or sharing with the public.

It is important to note that the GRASP® methodology provides not only accurate LOS and facility inventory information, but also works with and integrates with other tools to help agencies make decisions. It is relatively easy to maintain, updatable, and creates easily understood graphic depictions of issues. Combined with a needs assessment, public and staff involvement, program and financial assessment, GRASP® allows an agency to defensibly make recommendations on priorities for ongoing resource allocations along with capital and operational funding.

Appendix C – Addressing Low-Scoring Components

The inventory process for the master plan included rating components throughout the system on their functionality. Components whose functionality is below expectations were identified and scored with a "one." A list of these can easily be extracted from the inventory dataset. By raising the score of a component, the Level of Service in the community is also raised. But deciding how to do this may seem daunting. A strategy for addressing the repair/refurbishment/replacement or re-purposing of low-functioning components should begin with the following steps. This should be done for each individual component in the inventory that is not functioning up to expectations.

A. Determine why the component is functioning below expectations. Was it poorly conceived in the first place? Is it something that was not needed to begin with? Is it the wrong size, type, or configuration? Is it poorly placed, or located in a way that conflicts with other uses or detracts from its use? Have the needs changed in a way that the component is now outdated, obsolete, or no longer needed? Has it been damaged? Or, has the maintenance of the component simply been deferred or neglected to the point where it no longer functions as intended?

Another possibility is that the component was scored low because it is not available to the public in a way that meets expectations. For example, a facility might be rated low because it is leased to a private group and access by the general public is limited. This may be a perfectly acceptable situation and appropriately scored – the service is at a lower value because of the limitations on access.

An additional example would be when a component is old, outdated, or otherwise dysfunctional, but has historic or sentimental value. An example would be an old structure in a park such as a stone barbecue grill, or other artifact that cannot be restored to its original purpose, but which has historic value.

B. Depending on the answers from the first step, a strategy can be selected for addressing the low-functioning component:
    - If the need for that type of component in its current location still exists, then the component should be repaired or replaced to match its original condition as much as possible. Examples of this would be playgrounds with old, damaged, or outdated equipment, or courts with poor surfacing or missing nets.
    - If the need for that type of component has changed to the point where the original one is no longer suitable, then it should be replaced with a new one that fits the current needs. For example, if a picnic shelter is too small for the amount of use currently demanded, it may be replaced with a new, larger one.

- If a component is poorly located, or was poorly designed to start with, consideration should be given to relocating, redesigning, or otherwise modifying it. One of the best ways to deal with this issue both on the initial park development and in park improvements or redevelopment is to make sure CVPRD is part of this planning process. CVPRD should be involved as the subject matter expertise when designing and planning amenities in parks. An example would be an amphitheater next to a street that was once small and quiet but is now loud and busy. The noise from the street makes it undesirable to use the amphitheater for its intended purpose. If there is still a need for this type of facility at this park, then consideration should be given to relocating it or redesigning it to provide screening from traffic and other noise.
- If a component is no longer needed because of changing demands, then it should be removed unless it can be maintained in good condition without excessive expense, or unless it has historic or sentimental value. Some inline hockey rinks may fall into this category. If a rink has been allowed to deteriorate because the community has no desire for inline hockey, then maybe it should be repurposed into some other use such as a basketball or tennis court, multi-use play-pad, or perhaps a skate park. It could even become a something unusual, like a trike-track course. Or it could become the surface for a large group picnic shelter. Another possibility might be to install outdoor fitness stations and make it an "outdoor gym."

  The choice of what to put in the rink's place should be made with input from the community. This could be done with a simple intercept survey, door-hung questionnaire, or by contacting a neighborhood organization. The point is that it makes no sense to replace something that the neighborhood no longer needs with something else it doesn't need.

  If no appropriate alternative use for the rink or the space it occupies is identified, it should be removed to avoid a blighted appearance, and the space should be integrated into the rest of the park with landscaping.

C. It is possible that through ongoing public input, and as needs and trends evolve; new needs will be identified for existing parks. If there is no room in an existing park for new needs, the decision may be made to remove or re-purpose an existing component, even if it is quite functional. An example of this could be found in many communities over the past couple of decades. As the popularity of tennis declined and demand for courts dropped off, perfectly good courts were sometimes converted into skate parks or inline rinks. In most cases this was an interim use, intended to satisfy a short-term need until a decision could be made to either construct a permanent facility or let the passing fad fade. The need for inline rinks now seems to have diminished, while temporary skate parks on tennis courts have been moved to permanent locations of their own and become more elaborate facilities as skateboarding and other wheel sports have grown in popularity and permanence.

Another example of this can be found in the re-purposing by one community of a ball diamond into a dog park. The ball diamond is well-suited for use as a dog park because it is already fenced, and the combination of skinned infield where the dogs enter and natural grass in the outfield where traffic is spread out is ideal.

It is likely that in time this facility will either become a permanent facility designed specifically to meet the needs of people recreating with their dogs, or such a facility will be constructed elsewhere to suit that purpose. Or, it could turn out that dog parks fade in popularity like inline hockey rinks, or are replaced with some other facility that dog owners prefer even more than the current dog park model. Meanwhile, the use of the ball diamond for this purpose is a good interim solution.

Trends to keep an eye on while deciding what to do with low-functioning facilities, or determining how to make existing parks serve the needs of residents as highly as possible, include things like:

- Dog parks continue to grow in popularity. This may have something to do with an aging demographic in America, with more "empty-nesters" transferring the attention they once gave to their children, who are now grown, to their pets. It is also an important form of socializing for people who may have once socialized with other parents in their child's soccer league, and now that the kids are grown they are enjoying the company of other dog owners at the dog park. And for singles, a dog park is a good place to meet people.
- Skateboarding and other wheel sports continue to grow in popularity. Making neighborhood parks skateable and distributing skating features throughout the community provides greater access to this activity for younger people who cannot drive to a larger centralized skate park.
- A desire for locally-grown food and concerns about health, sustainability, and other issues is leading to the development of community food gardens in parks and other public spaces.
- Events in parks, from a neighborhood "movie in the park" to large festivals in regional parks, are growing in popularity as a way to build a sense of community and generate revenues. Providing spaces for these could become a trend.
- Sprayparks are growing rapidly in popularity, even in cooler climates. A wide and growing selection of products for these is raising the bar on expectations and offering new possibilities for creative facilities.
- New types of playgrounds are emerging, including discovery play, nature play, adventure play, and even inter-generational play. Some of these rely upon movable parts, supervised play areas, and other variations that are different from the standard fixed "post and platform" playgrounds found in the typical park across America.
- Integrating nature into parks by creating natural areas is a trend for a number of reasons. These include a desire to make parks more sustainable and introduce people of all ages to the natural environment. An educational aspect is an important part of these areas.

Low Scoring Components

LOCATION	COMPONENT	GIS Map ID	COMMENTS
CENTENNIAL PARK	Playground, Local	C467	Climbing boulders and play house. In need of upgrade or significant maintenance
CLEM DUFOUR PARK	Shelter	C485	No picnic table
COAL RIDGE MIDDLE SCHOOL	MP Field, Large	C458	Poor turf
COAL RIDGE MIDDLE SCHOOL	Ballfield	C457	Does not meet standard of other ballfields in District
COAL RIDGE MIDDLE SCHOOL	Track, Competition	C456	Crusher fines
FREDERICK FIELD	Concessions	C523	Portable and lacks concession use
FREDERICK FIELD	Ballfield	C492	Nice turf but poor infield
HARNEY PARK	Basketball	C450	Does not meet standard of other courts in District
HART PARK	Basketball	C422	Poor surfacing
JAMES M CRIST PARK	Shelter	C527	In need of upgrade or significant maintenance
LEGACY TRAIL	Trailhead	C512	Limited amenities
ONORATO PARK	Tennis	C442	Super nice court but access limited by locked gate
PATTERSON PARK	Playground, Local	C445	Small than others in District
SETTLERS PARK	Concessions	C551	In need of upgrade or significant maintenance
SETTLERS PARK	Basketball	C429	Not as nice as some of the other courts and not striped

Low Scoring Indoor Components

LOCATION	COMPONENT	GIS Map ID	COMMENTS
Carbon Valley Gymnast	Lobby/Entryway	017	small tight seating area with one vending machine and 2 water fountains
Centennial Elementary School	Gymnasium	023	carpet flooring
Prairie Ridge Elementary School	Gymnasium	024	carpet flooring
Legacy Elementary School	Gymnasium	025	carpet flooring

Appendix D – Recreational Connectivity

Walkability and Bicycle Transit

A one-half mile catchment area is used for GRASP® walkability LOS analyses. This distance represents a 15 minute travel time based on an average human walking speed of 3 miles per hour. (Older women can travel as slow as 2.25 mph while a healthy individual with quickened breath may be moving at 4-6.5 mph). Due to indirect routes commonly found in a grid street pattern actual walking distance may in fact be farther than 1/2 mile. A one-half mile circular buffer (as distinct from network buffer) allows for this as even an indirect route one half-mile long can be covered in 15 minutes by an individual travelling 3 mph. Thus a one-half mile catchment distance serves to ensure a travel time of 15 minutes or less for most people.

Walkability is an important consideration in recreation these days. Various walkability metrics and methodologies have emerged to assist park and recreation managers and planners in understanding this dynamic. These include:

- Walk score
- Walkability TM
- Walkonomics
- RateMy Street
- Walkability App
- Safe Routes to Play
- Safe Routes to School
- Sidewalk and Walkability Inventory

It is important to take bicycle and public transportation users into account as well as pedestrians. The concept of "complete streets" refers to a built environment that serves various types of users of varying age and ability. Many associations and organizations provide guidance on best practices in developing walkable and bikeable complete streets infrastructure. One such entity, the Association of Pedestrian and Bicycle Professionals (APBP, www.apbp.org) actively promotes complete streets in cities around the country. Another such organization, the National Association of City Transportation Officials (NACTO, www.nacto.org) recently released the **NACTO Urban Street Design Guide** which provides a full understanding of complete streets based on successful strategies employed in various North American cities. This most comprehensive reference on the topic is a valuable resource for all stakeholders involved in city planning and will likely prove to be a critical reference in building the cities of tomorrow.

The definition of recreation has evolved in recent years to include aspects of the built environment that are more important today than they were in the past. People are more inclined these days to integrate recreational opportunities within their daily lives. The infrastructure available to get people to and from destinations is of greater importance than ever before as more and more people have started to prefer a leisurely walk or bike ride to a trip in the car. People increasingly expect that parks, recreation centers, and other community resources be easy destinations to access for a variety of users employing different modes of travel to include walking and bicycling. This concept of may be referred to as **recreational connectivity**.

Recreational connectivity may be defined as the extent to which community/district recreational resources are transitionally linked to allow for easy and enjoyable travel between them. In addition to recreational trails, this may also include city sidewalks, bicycle paths, bicycle routes, and public transit infrastructure. Of course the scope of creating and maintaining such a network is a substantial undertaking that involves many players. Along with a community expectation for this type of user-friendly network infrastructure comes the expectation that stakeholders work together in the interest of the public good. At the District level this might include public works, law enforcement, private land-owners, and user groups as well as the local parks and recreation departments.

This concept of recreational connectivity is important within the scope of parks and recreation planning but also has deeper implications for public health, the local economy, and public safety among other considerations. As more and more people look for non-automotive alternatives to get to and from local destinations, a complete network of various transportation options is in greater demand than ever to include walking trails, bicycle paths, bicycle routes, and public transit. Other elements of this infrastructure might include street/railroad crossings, sidewalk landscaping, lighting, drainage, and even bike-share and car-share availability.

The Trail System

Recreational connectivity in most American cities usually starts with trails. A *trail* may be defined as any off-street or on-street connection dedicated to pedestrian or bicycle users. *Recreational trails*, as distinguished from transportation trails, typically pass through park lands or natural areas and can be soft or hard surface. Recreational trails are the only elements of an alternative transit network that traditionally fall to parks and recreation professionals. They are intended mostly for leisure and enjoyment of resources. *Transportation trails*, the sidewalks or paved trails found in street right-of-ways in most municipalities, are intended more for utility in getting from one place to another. Yet these two types of city infrastructure must work together to create a well-connected community. The resulting *trail system* includes all trails that serve pedestrian and bicycle users in a community for purposes of both recreation and transportation.

 As a trail system matures, the need emerges to address barriers such as roadways, rivers, and railroad crossings that separate distinct trail networks in order to create a truly connected trail system. A *trail network* is a part of a trail system within which major barrier crossings have been addressed and all trails are connected. Trail networks within a trail system are typically separated from each other by such barriers or by missing trail connections. Crosswalks, pedestrian underpasses, and bridges can be used to help users navigate barriers. New trails may be added to merge trail networks and improve overall connectivity. Most cities have several trail networks that connect users to common destinations such as schools, shops, restaurants, and civic and religious institutions in addition to parks and recreation facilities. The more integrated these networks, the more connected a city or town.

CVPRD

Building a trail system involves many considerations beyond the control of park and recreation managers. Vacant lands, utility easements, street right-of-ways, and existing social trails may be worth investigating for trail feasibility and to determine how trail development in these areas might impact overall connectivity. However, other departments and agencies will need to be consulted and partnered to address issues such as land acquisition, street crossings, and utility maintenance. To complicate matters, the distinction between a recreational trail and a transportation trail can be hazy. Further, on-street connections via usable, comfortable bicycle lanes and routes are also critical to establishing good recreational connectivity. Though these connections can be invaluable to a city's infrastructure, as they supplement a trail system they introduce another set of stakeholders and complications. The types of collaboration necessary to build a trail system are not without their challenges, yet can yield lasting partnerships that benefit the community. The sooner the discussion is started, the better.

Potential partners can include school districts, public works departments, county offices, state entities, federal agencies, and/or private land owners among others. It is important to convince stakeholders that their cooperation is critical to the public good. It can be helpful to remind them of the economic boost that often results from investment in recreational infrastructure like a trail system. Of course, not all players stand to gain from trail development. It is essential that land managers and planners be aware of all possible implications inherent in their efforts.

A **Trails and Alternative Modes of Transportation Master Plan** is could be an important consideration. This planning effort should include all relevant city departments in order to create a comprehensive and implementable plan. This plan should also address frequency and distribution of waysides, trailheads, access points, and interpretation.

CVPRD has potential for an outstanding trail system through a partnership with the three local communities. Here are a few general strategies to use in planning efforts as this system is established:
- Work with a variety of departments, offices, and agencies to obtain assistance and access in creating trail links
- Look for ways to relieve cost burdens for property maintenance presently borne by other utilities by adapting these properties to create recreation opportunities
- Create connections that blend recreation opportunities with restaurants and retail opportunities for greater economic impact (for example the river walk to downtown connection)
- Create connections that allow safe, comfortable routes between homes, schools, and civic and religious institutions for user convenience
- Look at existing utility areas such as power line easements, drainages, and detention ponds for options to improve connectivity
- Use wide, under-utilized or non-used street corridors for best pedestrian and bike routes within developed parts of the city

Where to Start?

Even the most well-planned, extensive trail system has to start somewhere. Since the district is not yet urbanized, good opportunities exist with which to begin building a truly connected trail system. Existing parks and open space area are the first place to plan new trails, with this idea of recreational connectivity in mind. Such interior trail assets, once established, provide a good point of departure to look outside park boundaries.

It is helpful to recognize that trails may be developed at a variety of scales. Many trails serve park users only while others are of citywide, district wide or regional extent. Also, people with a destination in mind tend to take the most direct route while recreationists tend to enjoy loop or circuit trails more than linear trails. An exemplary trail system will provide multiple opportunities for users to utilize trail segments to access different parts of the city directly or enjoy recreational circuits of various size. By employing park trails, city trails, and regional trails users should ideally be able to pick and choose from several options to reach a destination or spend time recreating.

Park Trails
Within CVPRD, the process of building a trail system is underway through the Colorado Corridor. In addition, many users regularly enjoy existing trails and loop walks within parks. A few enhancements could make these heavily used pathways even better.

As many users seem focused on exercise the addition of mileage markers along loop walks and internal park trails would be useful. Users could track their distances which might also encourage them to try out other trail opportunities of similar length. As users tend to be intent on getting a workout rather than a leisurely stroll, it might also be worthwhile to consider adding cardio fitness stations at points along the loop or trail as well.

Local Trails
With internal park trails established, the next step is to focus on connecting these park assets to each other and to various places within the individual municipalities. The District could assist in the development of an informative map of current trails and bike friendly streets.

This will involve capitalizing on existing opportunities to create strategic off-street and on-street pedestrian and bicycle links between popular recreation locations. Strategies to retrofit developed areas to meet the need for safe routes through town may be based on recommendations in this plan as well as other "complete streets" resources. Priority should be given to developing connections between existing parks, schools and other community resources.

Regional Trails
Regional trails can also be developed in coordination with other types of trails and routes. Continued development and expansion of the Colorado Boulevard Corridor is a key to the development of a regional trail system that begins to connect to adjacent towns and cities.

Trail Typology
In addition the park, local, regional trail hierarchy already discussed it may be useful to employ a trails typology. A new "trail" may actually consist of several infrastructural improvements. A trail typology of three different types is recommended for use in the CVPRD. These are:
1. Bike Lane and Detached Sidewalk
2. Urban Trail
3. Multi-Use Trail

Three trail types to be considered in developing a trail system in an established community such as CVPRD. This typology may be applied to a network of connections to determine the most appropriate type for each trail segment. Pedestrian and bicycle users are accommodated in different ways in each trail type. Selection for each is largely driven by the surrounding built environment.

Each trail type refers to a strategy for connecting one place to another. The primary consideration is how to accommodate pedestrian and bicycle users travelling along the same route. In more developed areas, this might involve routing cyclists along an on-street route with a pedestrian path (essentially a sidewalk) in the right-of-way. An alternative to this is the urban trail, a right-of-way path wide enough to accommodate both pedestrians and cyclists. Finally, the traditional multi-use trail provides users with an off-street connection, typically through open space areas or parks. This last is often considered the ideal trail type, yet the land dedication needed to support a multi-use trail makes it impractical or impossible to develop this type of trail in many parts of an established community such as CVPRD.

The 2013 CVPRD Master Plan Update highlights trails and routes to be considered to enhance connectivity in the future. The consulting team for this Parks and Recreation Master Plan has applied the aforementioned trails typology to the network of connections noted in the CVPRD Master Plan. The results are shown in the visioning map below.

Connecting People to Trails
As the trail system continues to develop additional resources will be desirable to support users. It may be worthwhile to consider signage and wayfinding strategies, trailheads and access points, public trail maps, and smartphone applications as strategies to connect people to trails and affect a positive user experience.

Signage and Wayfinding
Signage and wayfinding strategies should be employed to enhance the trail system by promoting ease of use and improved access to recreational resources. An important aspect of effective signage and wayfinding markers is branding. An easily identifiable hierarchy of signage for different types of users assists residents and visitors as they navigate between recreation destinations. Further, a strong brand can imply investment and commitment to alternative transit and which can positively impact city identity and open up economic opportunities.

Trailheads & Access Points

It is also important to provide users access to trails. There are two ways to approach this. First, formal trailheads may be developed to include parking, bike racks, signage, restrooms, drinking water, a trail map, and other amenities. A trailhead is most appropriate to provide access to trails that serve a higher volume of users at destinations reached by automobile. The second approach involves simply providing a trail access point, usually without the extensive amenities found at a trailhead. Trail access points such as this are more appropriate in residential or commercial areas where users are more likely to walk or ride a bicycle to reach the trail.

Map & App Resources

By making trail maps available users may enjoy the trails with greater confidence and with a better understanding of distances, access points, amenities, and the system as a whole. Even with a developing trail system such a trail map can provide valuable information to users.

Another way to provide a trail map to users is through web based smartphone technologies. Maps made available on this type of platform are more dynamic for users, always on hand, and can be easily updated. Upfront investment needed for this type of resource may be cost prohibitive at the present time. However, it is likely as technologies advance these costs will become more manageable in the future. It may be worth considering development of web based maps in long term planning decisions.

Appendix E – GRASP Maps and Perspectives
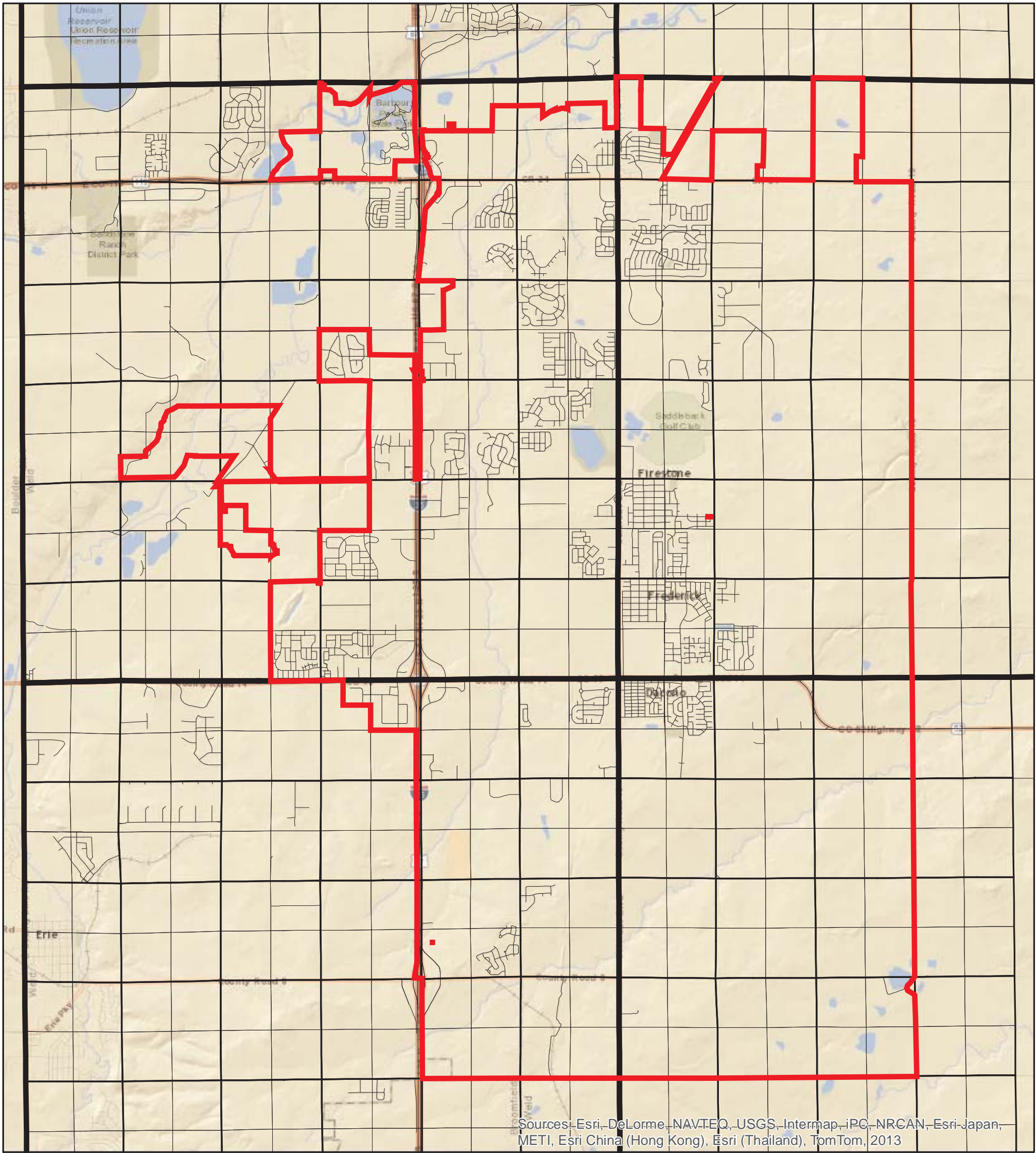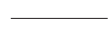
N

Carbon Valley Recreation District (September 2013)

Miles
0   0.3 0.6   1.2

Map created by Civil Resources, LLC 2013 and modified by Design Concepts, LLC 2014.
This map generated using data from Weld County Colorado and the most recent 2013 inclusions.

Carbon Valley Rec. Dis. Outline

Street_Centerline

1/4 Sections

Sections

Township/Range
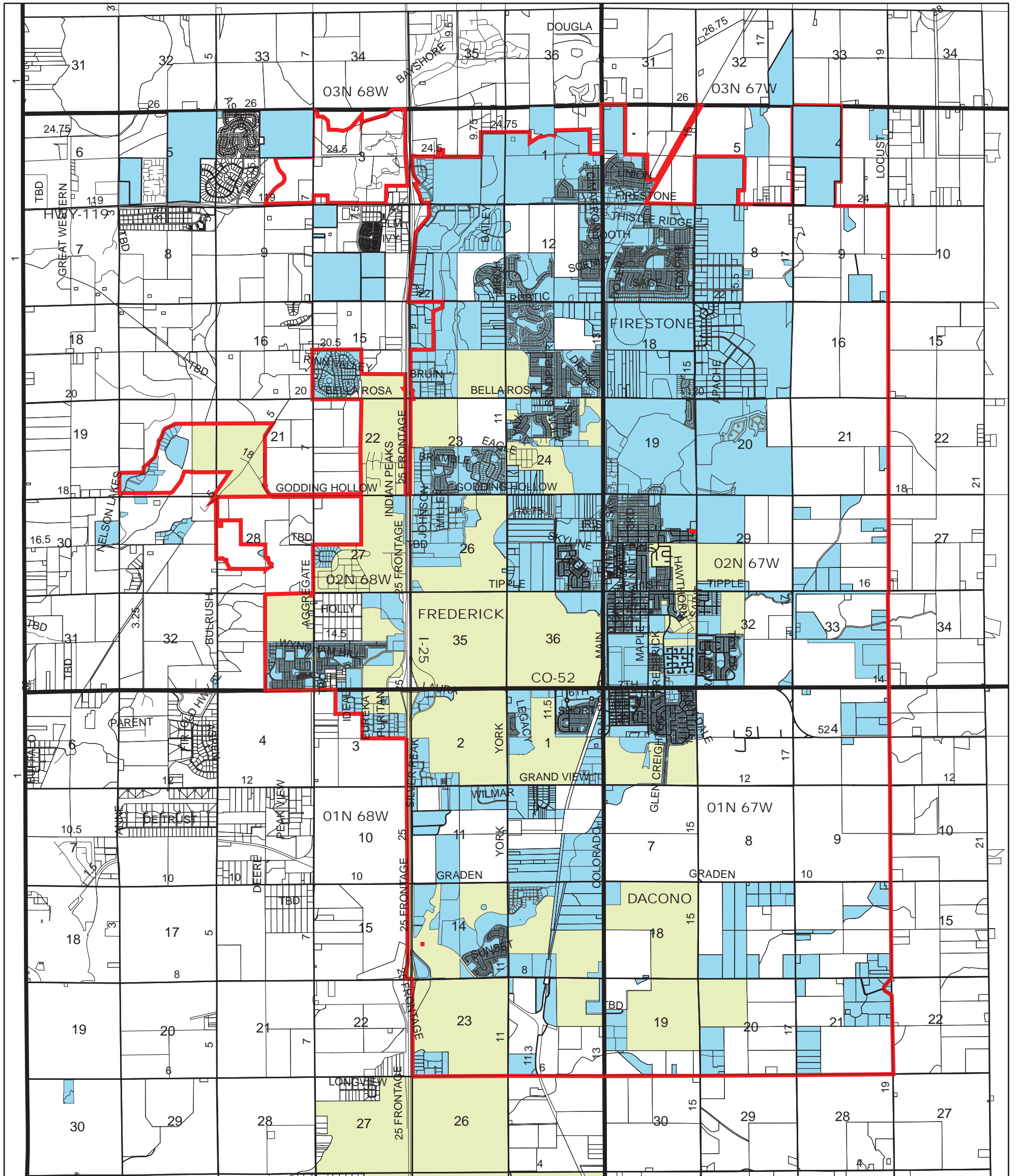
Carbon Valley Recreation District (September 2013)

Legend:
- Carbon Valley Rec. Dis. Outline
- Township/Range
- Major Roads
- Carbon Valley Rec. Dis. Parcels
- Firestone, Frederick & Dacono
- Street_Centerline

N

Miles
0   0.45   0.9   1.8

Map created by Civil Resources, LLC 2013.
This map generated using data from Weld County
Colorado and the most recent 2013 inclusions.

Township/Range labels: 03N 68W, 03N 67W, 02N 68W, 02N 67W, 01N 68W, 01N 67W

Place labels: FIRESTONE, FREDERICK, DACONO, UNION, THISTLE RIDGE, BELLA ROSA, GODDING HOLLOW, NELSON LAKES, BULRUSH, PARENT, DETRUST, LONGVIEW, GRADEN, SUNSET, GRAND VIEW, WILMAR, YORK, LEGACY, I-25, CO-52, HWY-119, GREAT WESTERN, BAYSHORE, DOUGLA, LOCUST, INDIAN PEAKS, 25 FRONTAGE, AGGREGATE, HOLLY, TIPPLE, SKYLINE, HAWTHORN, GLEN CREIGHTON, COLORADO, MAIN, EUREKA, PURITAN, JOHNSON, MILLE, BRAMBLE, EAGLE, BRUIN, RUSTIC, BAILEY, BOOTH, APACHE, MAPLE, 7TH

Legacy
Elementary
Gym

LEGACY
ELEMENTARY

HART PARK

ONORATO PARK

Carbon Valley
Recreation Center
Carbon Valley Gymnastics
and Senior Center

FREDERICK HIGH SCHOOL

JAMES M CRIST
PARK

FREDERICK
GREENWAY

HEPP PARK

Thunder Valley K-8 Gym

THUNDER VALLEY K-8

SPARK

FREDERICK FIELD

ST VRAIN FIELDS

CENTENNIAL PARK

SETTLERS PARK

Coal Ridge
Middle School
Gym

COAL RIDGE
MIDDLE SCHOOL

PRAIRIE RIDGE
ELEMENTARY

PRAIRIE RIDGE PARK

Centennial
Elementary
School Gym

CARNEY
PARK

FIRESTONE
SPORTS COMPLEX

Prairie Ridge
Elementary
Gym

APEX PARK

PATTERSON PARK

BELLA ROSA GOLF COURSE

FIRESTONE TRAIL

FREDERICK RECREATION AREA

HART PARK

ONORATO PARK

Legacy
Elementary
Gym

LEGACY
ELEMENTARY

Carbon Valley
Recreation Center
Carbon Valley Gymnastics
and Senior Center

HEPP PARK

Thunder Valley K-8 Gym

THUNDER VALLEY K-8

FREDERICK HIGH SCHOOL

JAMES M CRIST
PARK

FREDERICK
GREENWAY

SPARK

FREDERICK FIELD

ST VRAIN FIELDS

CENTENNIAL PARK

LEGACY TRAIL

DACONO BMX

CLEM DUFOUR PARK

Colorado Blvd

52

52

I-25

Legend

- Indoor Facility
- HIGHWAYS
- Streets and Roads

LOCATIONS
Included in 2014 Inventory

- Park
- Trail
- School
- Golf
- Other Outdoor Opportunities
- CVPRD Boundary

N
W E
S

0   0.25 0.5 0.75 1   1.25
Miles

CARBON VALLEY

SETTLERS PARK

Coal Ridge
Middle School
Gym

COAL RIDGE
MIDDLE SCHOOL

FIRESTONE
SPORTS COMPLEX

PRAIRIE RIDGE
ELEMENTARY

Prairie Ridge
Elementary
Gym

Centennial
Elementary
School Gym

PRAIRIE RIDGE PARK

HARNEY
PARK

AISPIS PARK

PATTERSON PARK

BELLA ROSA GOLF COURSE

FIRESTONE TRAIL

FREDERICK RECREATION AREA

HART PARK

Legacy
Elementary
Gym

ONORATO PARK

LEGACY
ELEMENTARY

Carbon Valley
Recreation Center
Carbon Valley Gymnastics
and Senior Center

HEPP PARK

Thunder Valley K-8 Gym

THUNDER VALLEY K-8

FREDERICK HIGH SCHOOL

JAMES M CRIST
PARK

SPARK

FREDERICK FIELD

FREDERICK
GREENWAY

ST VRAIN FIELDS

CENTENNIAL PARK

LEGACY TRAIL

DACONO BMX
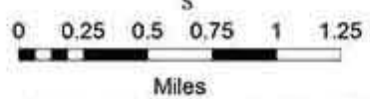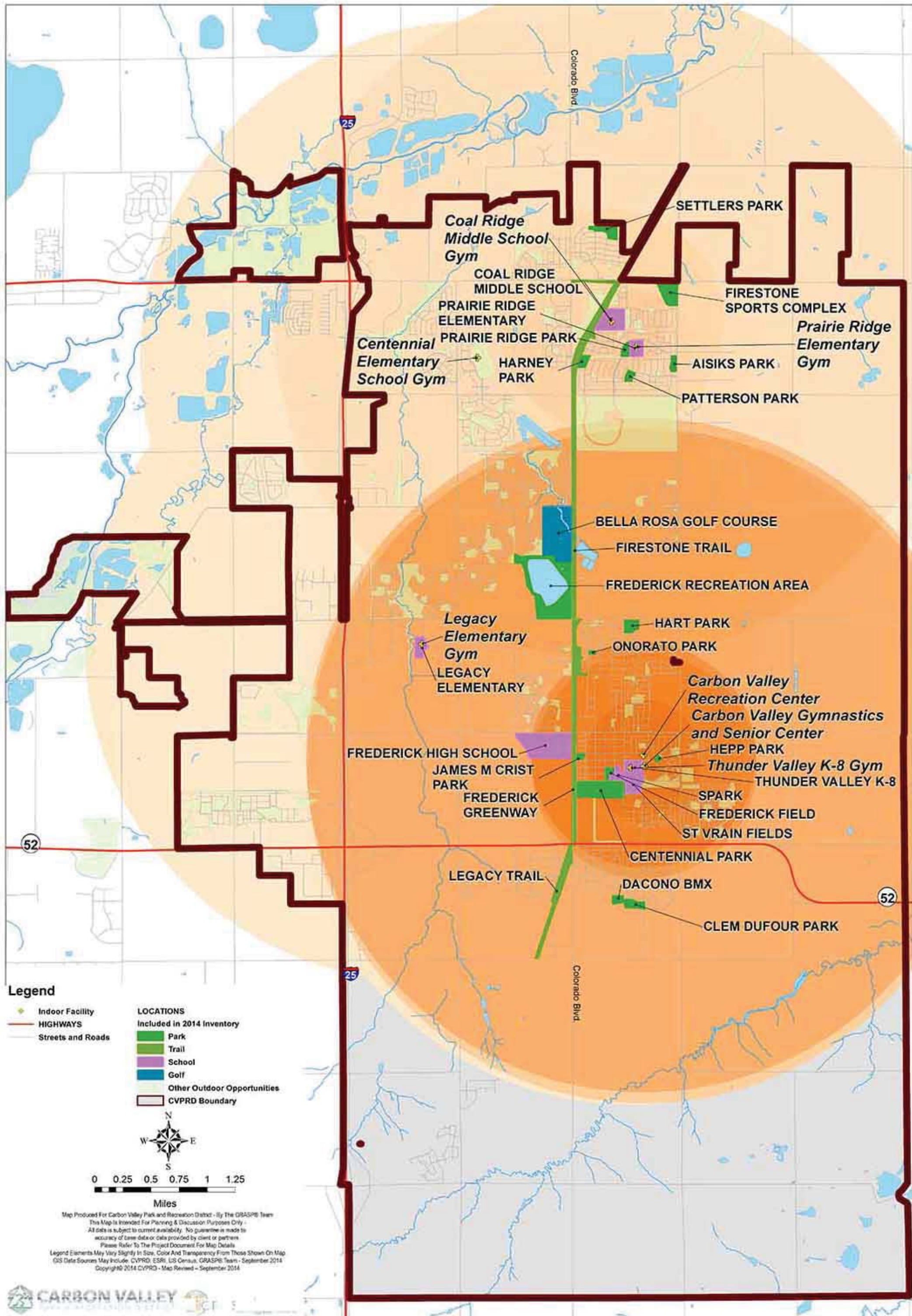
CLEM DUFOUR PARK

Color Blvd.

52

Legend

- Indoor Facility
- HIGHWAYS
- Streets and Roads

LOCATIONS
Included in 2014 Inventory
- Park
- Trail
- School
- Golf
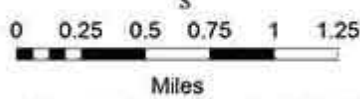- Other Outdoor Opportunities
- CVPRD Boundary

0 0.25 0.5 0.75 1 1.25

Miles

Map Labels

SETTLERS PARK

Coal Ridge Middle School Gym

COAL RIDGE MIDDLE SCHOOL

PRAIRIE RIDGE ELEMENTARY

PRAIRIE RIDGE PARK

FIRESTONE SPORTS COMPLEX

Prairie Ridge Elementary Gym

Centennial Elementary School Gym

HARNEY PARK

AISIKS PARK

PATTERSON PARK

BELLA ROSA GOLF COURSE

FIRESTONE TRAIL

FREDERICK RECREATION AREA

Legacy Elementary Gym

LEGACY ELEMENTARY

HART PARK

ONORATO PARK

Carbon Valley Recreation Center

Carbon Valley Gymnastics and Senior Center

HEPP PARK

Thunder Valley K-8 Gym

THUNDER VALLEY K-8

FREDERICK HIGH SCHOOL

JAMES M CRIST PARK

FREDERICK GREENWAY

SPARK

FREDERICK FIELD

ST VRAIN FIELDS

CENTENNIAL PARK

LEGACY TRAIL

DACONO BMX

CLEM DUFOUR PARK

Colorado Blvd

CARBON VALLEY

Coal Ridge Middle School Gym

Centennial Elementary School Gym

Prairie Ridge Elementary Gym

Legacy Elementary Gym

Carbon Valley Recreation Center Carbon Valley Gymnastics and Senior Center

Thunder Valley K-8 Gym

Colorado Blvd

Colorado Blvd

Legend

- ◆ Indoor Facility
- — HIGHWAYS
- — Streets and Roads

LOCATIONS
Included in 2014 Inventory
- ■ Park
- ■ Trail
- ■ School
- ■ Golf
- ■ Other Outdoor Opportunities
- ▭ CVPRD Boundary

N W E S

0   0.25   0.5   0.75   1   1.25
Miles

Map Produced For Carbon Valley Park and Recreation District - By The GRASP® Team
This Map Is Intended For Planning & Discussion Purposes Only -
All data is subject to current availability. No guarantee is made to
accuracy of base data or data provided by client or partners
Please Refer To The Project Document For Map Details
Legend Elements May Vary Slightly In Size, Color And Transparency From Those Shown On Map.
GIS Data Sources May Include: CVPRD, ESRI, US Census, GRASP® Team - September 2014
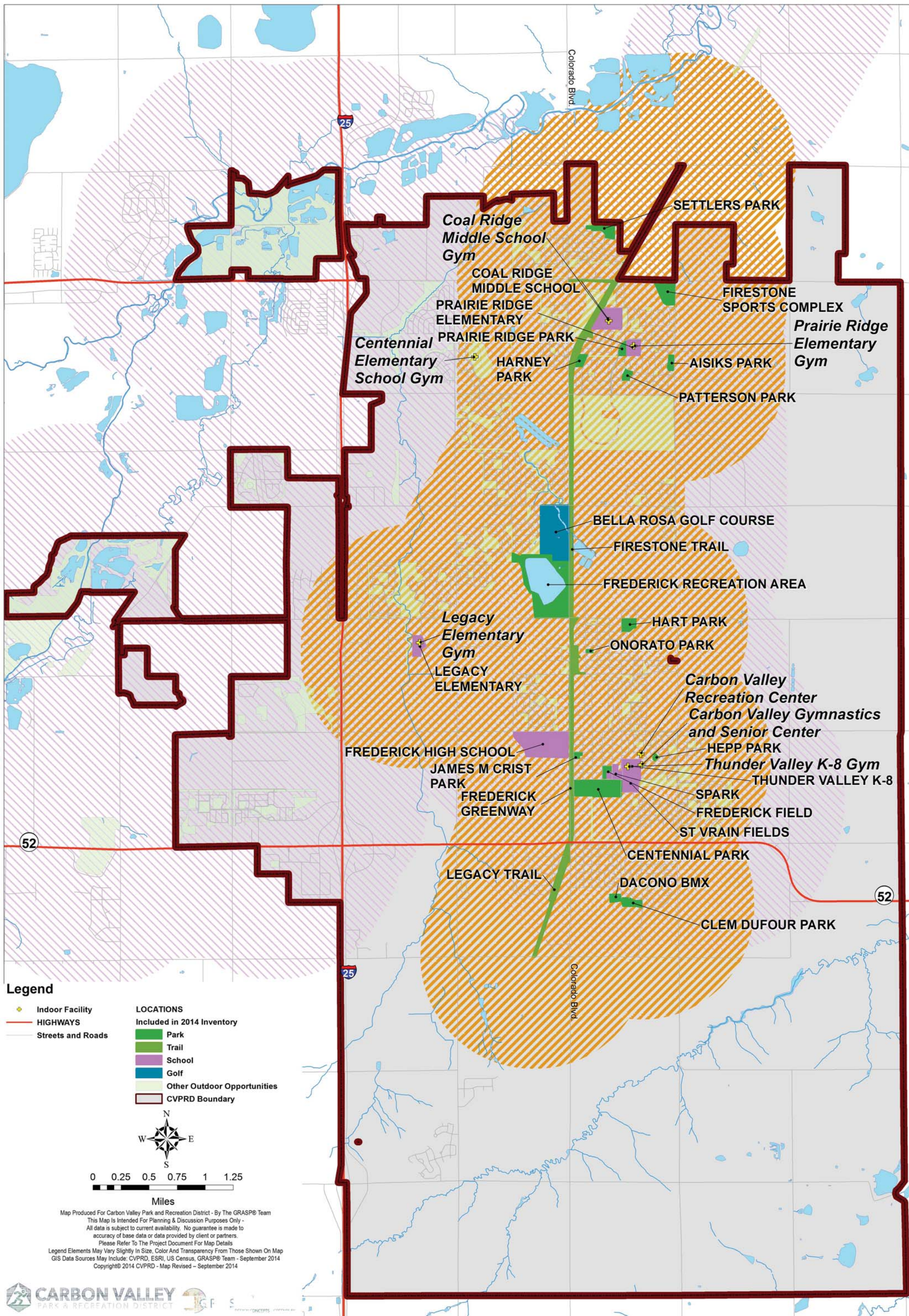Copyright© 2014 CVPRD - Map Revised – September 2014

CARBON VALLEY

Legend

Indoor Facility
HIGHWAYS
Streets and Roads

LOCATIONS
Included in 2014 Inventory
Park
Trail
School
Golf
Other Outdoor Opportunities
CVPRD Boundary

0   0.25   0.5   0.75   1   1.25
Miles

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GIS Data Sources May Include: CVPRD, ESRI, US Census, GRASP® Team - September 2014
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CARBON VALLEY

SETTLERS PARK

Coal Ridge
Middle School
Gym

COAL RIDGE
MIDDLE SCHOOL

FIRESTONE
SPORTS COMPLEX

PRAIRIE RIDGE
ELEMENTARY

PRAIRIE RIDGE PARK

Prairie Ridge
Elementary
Gym

Centennial
Elementary
School Gym

HARNEY
PARK

AISIKS PARK

PATTERSON PARK

BELLA ROSA GOLF COURSE

FIRESTONE TRAIL

FREDERICK RECREATION AREA

HART PARK

Legacy
Elementary
Gym

ONORATO PARK

LEGACY
ELEMENTARY

Carbon Valley
Recreation Center

Carbon Valley Gymnastics
and Senior Center

HEPP PARK

Thunder Valley K-8 Gym

FREDERICK HIGH SCHOOL

THUNDER VALLEY K-8

JAMES M CRIST
PARK

SPARK

FREDERICK FIELD

FREDERICK
GREENWAY

ST VRAIN FIELDS

CENTENNIAL PARK

LEGACY TRAIL

DACONO BMX

CLEM DUFOUR PARK

Colorado Blvd.

Colorado Blvd.

Legend

- Indoor Facility
- HIGHWAYS
- Streets and Roads
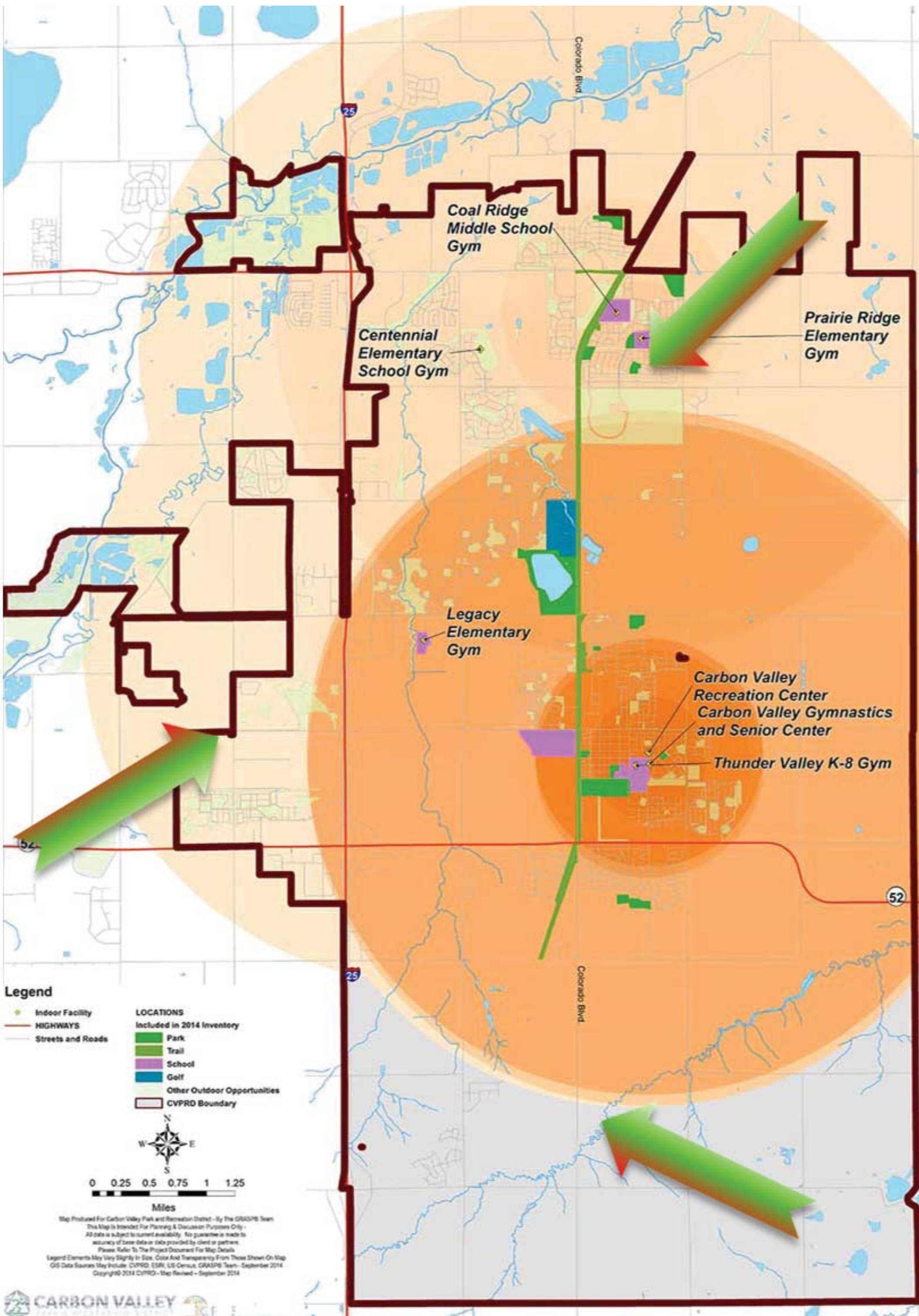
LOCATIONS
Included in 2014 Inventory
- Park
- Trail
- School
- Golf
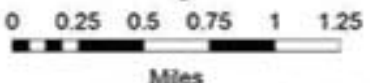- Other Outdoor Opportunities
- CVPRD Boundary

N
W   E
S

0   0.25 0.5 0.75 1   1.25
Miles

Map Produced For Carbon Valley Park and Recreation District - By The GRASP® Team
This Map Is Intended For Planning & Discussion Purposes Only -
All data is subject to current availability. No guarantee is made to
accuracy of base data or data provided by client or partners.
Please Refer To The Project Document For Map Details
Legend Elements May Vary Slightly In Size, Color And Transparency From Those Shown On Map
GIS Data Sources May Include: CVPRD, ESRI, US Census, GRASP® Team - September 2014
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CARBON VALLEY
PARK & RECREATION DISTRICT

Coal Ridge
Middle School
Gym

Prairie Ridge
Elementary
Gym

Centennial
Elementary
School Gym

Legacy
Elementary
Gym

Carbon Valley
Recreation Center
Carbon Valley Gymnastics
and Senior Center

Thunder Valley K-8 Gym

Colorado Blvd

Legend

⬦ Indoor Facility
— HIGHWAYS
— Streets and Roads

LOCATIONS
Included in 2014 Inventory

■ Park
■ Trail
■ School
■ Golf
☐ Other Outdoor Opportunities
☐ CVPRD Boundary

N
W E
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0   0.25   0.5   0.75   1   1.25
Miles

CARBON VALLEY