



Plug in to Nature

Finding Connections to the Outdoors
for Youth and Families in Larimer County

Appendix

Larimer County, Colorado
March 7, 2012

Contents

The Appendix supplements the Larimer County Plug in to Nature document, providing process methodology and detailed findings.

Section A.	LITERATURE REVIEW	1
Section B.	COUNTY-WIDE SURVEY	31
Section C.	PROGRAM INVENTORY	39
Section D.	FACILITY INVENTORY	43
Section E.	COMMUNITY MEETINGS	55
Section F.	FOCUS GROUPS	77

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Literature Review

Literature Review

CHILDREN'S CONNECTION TO NATURE				
Author	Year	Title	Source	Abstract / Summary
Cheng, J., & Monroe, M.	2010	Connection to Nature: Children's Affective Attitude Toward Nature	Environment and Behavior	<p>A connection to nature index was developed and tested to measure children's affective attitude toward the natural environment. The index was employed through a survey that investigates students' attitude toward Lagoon Quest, a mandatory environmental education program for all fourth-grade, public school students in Brevard County, Florida. Factor analyses were conducted to explore and confirm different factors in the connection to nature index. A path analysis was conducted to examine the association among variables. The results suggest four dimensions in the children's connection to nature index:</p> <p>(a) enjoyment of nature, (b) empathy for creatures, (c) sense of oneness, and (d) sense of responsibility. Children's connection to nature influences their intention to participate in nature-based activities in the future. Children's connection to nature, their previous experience in nature, their perceived family value toward nature, and their perceived control positively influenced their interest in performing environmentally friendly behaviors.</p>
Mueller, M., Kals, E. & Pansa, R.	2006	Adolescents' Emotional Affinity toward Nature: A Cross-Societal Study	Journal of Organizational and Social Psychology	<p>The role of emotional affinity toward nature (EAN) in adolescents is investigated by studying the relationships of EAN with willingness to protect the environment and by comparing the affinity toward nature of adolescents in Germany and Lithuania. Results show that in line with previous research (e.g., Kals, Schumacher, & Montada, 1999), EAN contributes significantly to willingness for pro-environmental commitment, while contact with nature does not have a direct impact on this willingness. Cross-societal differences are found both in EAN and pro-environmental commitments, both being higher in the rural Lithuanian sample. The findings are discussed with regard to the development of EAN and the role of societal factors in explaining pro-environmental action.</p>
Perksin, H.	2010	Measuring Care and Love for Nature	Journal of Environmental Psychology	<p>This study aimed to develop a psychometrically sound measure of the construct of love and deep caring for nature as an expression of people's personal and explicitly emotional relationship with nature. Expert opinion and pre-pilot surveys were employed for refinement of the item pool, and a sample of 307 university students was used in a major pilot study aiming to further purify scale items. A field trial was conducted using a sample of 261 tourists at leisure with nature. The final 15-item Love and Care for Nature (LCN) scale is differentiated from established measures of similar constructs, and demonstrates high internal consistency and sound validity. This research extends the psychological frameworks of environmental truism, and has also taken the philosophical concept of biophilia, as love for nature, into the operational realm by making it perceptible and measurable.</p>

Mayer, S., & Frantz, C.	2004	The connectedness to nature scale: A measure of individuals' feeling in community with nature	Journal of Environmental Psychology	Five studies assessed the validity and reliability of the connectedness to nature scale (CNS), a new measure of individuals' trait levels of feeling emotionally connected to the natural world. Data from two community and three college samples demonstrated that the CNS has good psychometric properties, correlates with related variables (the new environmental paradigm scale, identity as an environmentalist), and is not correlated with potential confounds. The CNS promises to be a useful empirical tool for research on the relationship between humans and the natural world.
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BENEFITS OF THE NATURE EXPERIENCE				
Author	Year	Title	Source	Abstract / Summary
American Institutes for Research	2005	Effects of outdoor education programs for children in California	American Institutes for Research, http://www.air.org/reports-products/index.a=viewContent&content_id=644	The American Institutes for Research (AIR) conducted an evaluation to measure the impacts of schools who attended three outdoor education programs (also referred to as outdoor science schools) between September and November of 2004. The evaluation utilized a "delayed treatment design." The specific research questions addressed in this study were as follows: 1. How does participation in outdoor education programs impact students' personal and social skills (e.g., self-esteem, cooperation, teamwork)? 2. How does participation in outdoor education programs foster students' stewardship of the environment and their appreciation of the importance of the wise use of natural resources? 3. How does the science instruction received through the outdoor education program curriculum increase students' knowledge and understanding of science concepts?
Beames, S. & Atenico, M.	2008	Building social capital through outdoor education	Journal of Adventure Education and Outdoor Learning	This paper outlines the principal themes of social capital and explores outdoor education's role in building social capital within the local communities where they often operate. The notion of bridging, as articulated within the social capital concept, offers a way of exploring the recursive relationship that exists between outdoor education programs and host communities.
Berman, D.S., & Davis-Berman, J	1995	Outdoor education and troubled youth.	Charleston, WV: Clearinghouse on Rural Education and Small Schools, Appalachia Educational Laboratory. [Retrieved from http://www.ericdigests.org/1996-1/outdoor.htm	Outdoor educators have explored the therapeutic uses of camping, expeditions, and challenge courses since the 1930s. This Digest provides a brief historical synopsis of the parallel development of both outdoor education and outdoor therapeutic programs in working with troubled and adjudicated youth. The Digest also describes the rationale supporting the use of outdoor approaches, the findings from a recent study of outdoor therapeutic methods, and the findings from the few research and evaluation studies that have been conducted to measure the effect of these approaches.

Berman, D.S., & Davis-Berman, J.	2000	Therapeutic uses of outdoor education	Charleston, WV: Clearinghouse on Rural Education and Small Schools, Appalachia Educational Laboratory. [Retrieved from http://www.eric.ed.gov/PDFS/ED448011.pdf	Recent research has documented the positive effects on emotional well-being of many outdoor education programs. This Digest highlights emotional well-being that is intentionally or incidentally achieved in several program types: adventure therapy, personal growth, college adventure, recreation, and camping.
Bogner, F.X.	2002	The influence of a residential outdoor education program to pupil's environmental perception	European Journal of Psychology of Education, 17 (1), 19-34.	This empirical study finds support for the hypothesis that participation in a special residential education programme enhances facets of pupils' environmental perception. A 4-day extra-curricular educational unit with a cognitive outdoors focus (established in a nature centre in France) was surveyed by using a two stage sampling design in a pre-post-treatment evaluation; the post-test was delayed for a one-month period after participation. All selected participating pupils (n=151) responded twice to the same perception questionnaire. The factorial structure of this questionnaire had been previously developed using a large European sample (n=4500) and separately validated in a smaller French pupil sample (n=900). The matched-pair pre-post-test survey showed significant differences in two of the five primary factors; both of them covered utilitarian preferences and scored in a way which indicated an increase in sensitivity to the environment. A pre-post-tested control group (n=78) revealed no significant difference. Possible reasons for the partial shift in primary factors are discussed, including a consideration of two related studies (in Germany and Switzerland) which were both monitored by the same measurement instrument.
Cavanagh, J.	2000	The effects of the outward bound ascent program on Adolescent self-concept	Unpublished MS Thesis, University of Wisconsin-Stout, Wisconsin	This study examined the impact of an Outward Bound Ascent course on the self concept of at-risk adolescents. A twenty-item survey was developed to assess whether participants believed a significant change had taken place in their self-concept as a result of participating in the course. Out of the 65 Outward Bound program participants who were surveyed throughout the United States, 24 responded. Participant responses indicate that a number of self-concept domains were positively affected through participation in the Outward Bound Ascent Program. In addition, participant responses identified a number of beneficial course components .
Chawla, L.	1988	Children's concern for the natural environment	Children's Environmental Quarterly, 5(3), 13-20	Children's concern for the natural world is placed in the context of surveys of adult environmental knowledge and concern. Surveys of children's environmental dispositions and their knowledge and attitudes regarding animals and vegetation are reviewed and integrated with the results of surveys conducted in the 1970s. Drawing upon social learning theory and psychoanalytic theory, explanations of the patterns found are suggested.

Chawla, L.	1998	Significant life experiences revisited: A review of research on sources of environmental sensitivity	The Journal of Environmental Education, 29(3), 11-21	States that environmental sensitivity, an important variable in environmental awareness and in the predisposition to take responsible environmental action, has been the subject of research in which sensitivity is associated with particular kinds of significant life experiences. Reviews studies of the significant life experiences of environmental educators and professionals and explores various definitions of the term environmental sensitivity.
Cordell, H.K., Betz, C.J. and Green, G.T.	2008	Nature-based outdoor recreation trends and wilderness	International Journal of Wilderness, 14(2), 7-13.	Wilderness and other public land management agencies, both federal and state, have been feeling a pinch. It seems this pinch may partly be in response to a growing perception, or perhaps misconception, that nature-based, especially wildland recreation, is on the decline. This perception has been getting a lot of media attention of late. Some of us who have done research about nature-based recreation trends for years wonder what the reaction to such a perception might be. We wonder especially how congressional, legislative, administrative, and other recreation and wildland protection policy and budget makers might be reacting. Might there be negative effects on funding for matching grant programs or on related federal and state wildland protection programs, such as budgets and staffing levels for wilderness management? Simply looking at reported public land visitation and at traditional hunting and fishing activities tells only part of the trend story. These evidences alone are not enough to conclude very much about Americans' interests in nature and in nature-based recreation. A more complete picture can be seen by examining broad-based data sources such as the Forest Service's National Survey on Recreation and the Environment. Similar to earlier NSRE reports (e.g., Cordell et al 2004), this national survey of U.S. households is showing continued growth in interest in nature-based outdoor recreation since the mid-1990s. Both the total number of Americans and the total number of days annually in which we participate in nature-based recreation have grown since 1994. In particular, viewing, photographing, and studying nature in all its forms, for example, wildlife and birds, have grown strongly (see table 2). Other similar nature-interest activities include viewing flowers, trees, natural scenery, fish, and visiting nature exhibits. The number of days visiting wilderness and other primitive areas has increased 12% since 2000. Primitive camping and backpacking days have increased 12% and 24% respectively since 2000. For the NSRE, a day is any amount of time in a given day that the respondent reported activity participation. Still popular and growing, are visiting beaches, gathering mushrooms and berries, driving off-road vehicles, kayaking, and snowboarding.

Children and Nature Network	2009	Children and Nature 2009: A Report on the Movement to Reconnect Children to the Natural World.	Prepared by the Child and Nature Network and EcoAmerica, [From http://www.childrenandnature.org/downloads/CNNMovement2009.pdf	This updated report on the movement to reconnect children and nature has been developed to serve as a tool for those who care deeply about the importance of reconnecting children with nature. The document begins with a "Brief History of the Movement," demonstrating how much momentum has been achieved and continues to grow—particularly since 2005, with the publication of and response to Richard Louv's seventh book, Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder.
Cox, J.	2006	Hell on Earth - or Glimpses of Heaven?	Horizons, Institute for Outdoor Learning, 34, 10-12	The article asks what is so great about the outdoors. Therapeutic benefits, something real and uncompromisingly solid, it brings satisfaction and comfort, fragile and breakable...It offers great equality city environments don't offer. Asks questions such as How to encourage young people through outdoors? - How to raise awareness of the outdoors as a tool that is readily available as an encouragement or training environment for both the sporty and non-sporty alike.
Fjortoft, I.	2001	The natural environment as a playground for children: The impact of outdoor play activities in pre-primary school children.	Early Childhood Education Journal, 29(2), 111-117	Investigated how play in the natural environment of three Norwegian kindergartens might stimulate 5 to 7 year ' motor fitness, focusing on the opportunities of the landscape for versatile play. Found that children using the forest as a playscape performed better in motor skills than children on a traditional playground. Play activities related to the opportunities provided by the vegetation and topography.
Flowers, A.B.	2007	Assessing the effectiveness of a place-based conservation education program by applying utilization-focused evaluation.	Unpublished Dissertation. The University of Montana: Missoula, MT. [From http://www.boone-crockett.org/pdf/LF_ABFDissertationFinalMay2007.pdf	Lack of personal connection to the natural world by most American youth builds reason for assessing effectiveness of conservation education programs. Place based learning is important in helping youth understand how their personal and societal well-being are linked and dependent upon their local habitats. Across Montana 2277 students in grades 3 - 10 participate in an interactive year long fishing education program with their teachers called Hooked on Fishing (HOF). The purpose of my study was to assess the effectiveness of HOF, a place based conservation education program established in 1996, and modeled after the national Hooked on Fishing, Not on Drugs program. Using a quasi-experimental non equivalent group study design, students received a pre-survey during the beginning of the program, a post-survey after the program, and an extended post-survey 12 to 14 weeks later. Two research questions were: 1) does the frequency of outdoor experiences have significant affects on students' knowledge, skills, attitudes, and intended stewardship behaviors; and 2) does improved knowledge of local natural resources have significant affects on students' skills, attitudes and intended stewardship behavior. Nonparametric statistical analyses calculated statistical significant results for most knowledge and skill outcomes in a positive direction of change with 2 - 3 HOF outdoor experiences. Attitudinal and intended behavior outcomes did not show similar results.

Foster, R.	1997	Mapping wilderness perception habitats: Evaluation of environmental literacy via wilderness education programs	Environmental education for the next generation : professional development and teacher training : selected papers from the Twenty-fifth Annual Conference of the North American Association for Environmental Education : San Francisco Bay Area, California, N	Obtaining environmental literacy through learning a land ethic is essential if the biophysical and psychological values of wilderness are to be preserved and life on Earth sustained. Outdoor recreation leaders have the opportunity and responsibility to inspire awareness and instruction for lasting ethical behavior. Wilderness education programs profess such behavioral changes through Leave-No-Trace (LNT) wilderness ethics instruction. This may be the key to the preservation of both physical and experiential values of wilderness. Students are assessed on ecological understanding, environmental sensitivity, in-depth knowledge of issues, issue redemption skills, internal locus of control, and personal environmental perceptual preferences. A geographic display of the effectiveness of wilderness education programs in respect to environmental literacy as related to wilderness purism will be depicted with GIS by comparing changes in students's preferred wilderness habitat conditions. This should have implications to wilderness education program designers, wilderness managers, and environmental educators world-wide.
Fraser, J., Heimlich, J., & Yocco, V	2010	American beliefs associated with encouraging children's nature experience opportunities Development and Application of the EC NES Scale	http://www.childrenandnature.org/downloads/EC-NES_Final_Report_2010.pdf	The EC-NES scale was developed to asses adults attitudes and beliefs about encouraging children's nature experience. The study found that most respondents have an interest in spending time in nature and acknowledge the benefits of such experiences, though actual time in nature does not align with their high levels of interest.
Freeman, P.A., & Zabriskie, R.B.	2002	The role of outdoor recreation in family enrichment	Journal of Adventure Education and Outdoor Learning	Several studies have indicated a positive correlation between strong, successful families and family participation in outdoor recreational activities. This paper addresses the role of structured outdoor recreation programming in family enrichment. Findings fro two studies based in the United States are presented: one on the effect of a one-day family outdoor adventure program on parental and child perceptions of family functioning and the other from qualitative inquiry into the meaning of family residential campaign experiences. Findings from both studies demonstrate that structured outdoor family recreation programming has a strong positive relationship with family strength. Furthermore, findings indicate that the type of outdoor adventure activities being used in the treatment of dysfunctional and maladaptive families is also effective in providing family enrichment experiences.

Gehris, J.S.	2007	A quantitative and qualitative investigation of the effects of adventure education on high school students	Unpublished Dissertation, Temple University	The purpose of this study was to investigate the effects of adventure education on high school students' physical self-concept, physical fitness, and self-esteem as well as their beliefs regarding the effects of adventure education. A mixed-method design was utilized. The quantitative results revealed no significant main effects of course for any of the physical self-concept or physical fitness measures. One significant main effect of course was found for self-esteem; participants in both the adventure education class and the wellness class had significantly higher self-esteem compared to participants in the health class. The qualitative results revealed nine descriptive themes: (1) Adventure education evokes feelings. (2) Adventure education affords opportunities to learn new skills, to be physically active, and to be successful as a non-athlete. (3) Adventure education is physically demanding. (4) Adventure education involves building relationships. (5) Adventure education promotes self-awareness. (6) Adventure education instills self-confidence. (7) Adventure education requires critical thinking. (8) The physical demands of adventure education increase self-awareness. (9) The physical demands of adventure education increase self-confidence.
Great Outdoors America:	2009	The Report of the Outdoor Resources Review Group	http://www.orrgroup.org/documents/July2009_Great-Outdoors-America-report.pdf	The Outdoor Resources Review Group reflects an effort by leading conservationists from across the nation who have come together to provide advice on the best ways to preserve America's outdoor resources. In their report, this group provided their best recommendations on how the government and Americans everywhere can help preserve and benefit from the Great American Outdoors. Americans all across the country, of all backgrounds, and of all political views, care deeply about the health of our land and water resources—the wildlife, parks, forests, farms and ranchlands, and historic places that have sustained and enriched us as a people over generations. We hope this report will spark a national dialogue about what these outdoor resources mean to the American people and how we can all ensure they provide and endure for generations to come.
Hungerford H.R. & Volk, T.	1990	Changing learner behavior through environmental education.	Journal of Environmental Education, 21(3), 8-21.	Addressed is the effectiveness of environmental education for promoting responsible citizenship behavior. A model of environmental citizenship behavior is presented. Goals for instruction in environmental education are discussed.

Hurley, L.P., & Lustbander, L.L.	1997	Project support: Engaging children and families in the educational process	Adolescence, Fall 1997, 32 (127)	The literature on dropout prevention reveals that a triumvirate of support--from the family, the school, and the community--is necessary to engage children in the educational process. This paper describes Project Support, a federally funded five-year program for at-risk youths that focused on alcohol, drug, and dropout prevention in four low-income, high-minority public school districts in the suburbs of New York City. Of several avenues taken, two were very effective: a school-based mentoring program designed for middle school students and the Outdoor and Environmental Education program that took place during summers and intermittently throughout the school year. The sense of achievement, bonding, and success experienced by participants was acknowledged by administrators, evaluators, parents, and other observers.
Klingman, B.A.	1991	The call of the wild: investigating the relationship between adventure education, character development, and the college curriculum	Unpublished Dissertation. The College of William and Mary, Williamsburg, Virginia	This study investigated potential use of adventure education programs to provide an effective and innovative alternative for enhancing college undergraduate student learning experience. A qualitative survey both post test revealed perceived changes in the character of the subjects. Confidence responsibility, interpersonal or social skills, and risk taking perceptions was enhanced through their participation in the adventure education course. It was determined that adventure education can enhance the overall college educational experience.
Lieberman, G. & Hoody, L.	1998	Closing the achievement gap: Using the environment as an integrating context for learning.	San Diego, CA: State Education and Environmental Roundtable.	This report, prepared by the State Education and Environment Roundtable, is the story of the schools, teachers, and students who are involved in implementing EIC programs (using the Environment as an Integrating Context for learning). It presents the results of a nationwide study; describes the major concepts and assumptions underlying EIC; explores a range of successful EIC programs across the United States; identifies the major characteristics of successful EIC programs; and, analyzes the implications of EIC-based education for student learning and instruction.
Maller, C., Townsend, M., St. Leger, L., Henderson-Wilson, C., Pryor, A., Prosser, L., & Moore, M.	2008	The health benefits of contact with nature in a park context: A review of relevant literature	Deakin University and Parks Victoria. The original 2002 review and annotated bibliography are available online at: http://www.parkweb.vic.gov.au/1process_content.cfm?section=99&page=16	Parks Victoria has adopted 'Healthy parks, healthy people' as its key message to the community of Victoria. Over recent years, other state-based park management bodies have adopted a similar message, and the Parks Forum (the peak body for park management agencies within Australia and New Zealand) has established as one of its Standing Committees a National Coordination Group for 'Healthy parks, healthy people'. The availability of up-to-date information is essential if these agencies are to increase their understanding of what the 'Healthy parks, healthy people' message means, and to have the capacity to communicate the importance of parks and nature for human health and wellbeing to governments and the community at large. The significance of the health and wellbeing benefits from interacting with nature, including in park settings, the implications for public health, and the need for collated up-to-date information on this topic cannot be over-estimated.

Mazze, S.	2006	Beyond Wilderness: Outdoor education and the transfer of environmental ethics.	Unpublished Master's Thesis, University of Oregon.	With growing awareness of environmental issues, few outdoor educators would deny that the environment deserves greater attention in our daily lives. Most adventure education programs focus on treading lightly on the land for the duration of the program, yet may not discuss skill transference to students' daily lives. Through interviews with 9 students and 10 alumnae of an adventure-education program, this qualitative study examines how the local example of leaving no trace can inform living a less resource consumptive lifestyle on a more global scale. Behavior change models and prior research guided the interviews with the goal of exploring: does the environment end at wilderness boundaries for students, or to what extent do they carry home and expand their knowledge of living lightly? As predicted, all subjects achieved some degree of transfer, with contributing factors including time spent in remote wilderness, explicit discussion of transference, and increased knowledge and skills.
National Recreation and Park Association	2008	Health Partnerships of Recreation and Park Organizations: Results from a Nationwide Study	From http://www.nrpa.org/uploadedFiles/Explore_Parks_and_Recreation/Research/Health%20Partnerships%20of%20Recreation%20Organizations.pdf	This report provides a baseline from which to evaluate the growth and success of future health partnership initiatives. NRPA is encouraged to continue their evaluation and support of local, state, and national health partnership initiatives. Study results suggest that health partnerships are well established and well received across most recreation and park organizations, particularly at the local/municipal level. Increasingly, professionals are pursuing health partnerships and are using a variety of mechanisms, particularly programmatic, to promote active lifestyles. Most organizations were experienced collaborators. While the larger and more urban recreation and park agencies are most likely to engage in health partnerships, there was a strong interest in growing health partnerships from the smaller, more rural populations. Current health partnerships within the recreation and park profession are characterized by a high level of trust and a clear recognition of the problem (e.g., obesity, physical inactivity). However, there were concerns about partnership equity, sustainability, and inclusiveness. Moreover, few health partnerships had any sort of evaluation tied to them, making it difficult for participants to know and communicate the merits of their efforts to a broader audience. Another concern raised by partnership non-participants was the difficulty in doing the "front work" and gathering the resources to initiate health partnerships. Based on these results, several strategies and actions to promote additional (and more effective) health partnerships could be pursued.

Neill, J.T.	2008	Enhancing life effectiveness: The impacts of outdoor education programs	Doctoral Dissertation, University of Western Sydney, http://wilderdom.com/phd/2/Neill2008EnhancingLifeEffectivenessTheImpactsOfOutdoorEducationPrograms.pdf	This thesis offers a critical synthesis of theoretical and empirical outdoor education literature, develops instrumentation to measure life effectiveness, and reports on a large, longitudinal study of outdoor education program life effectiveness outcomes. Outdoor education was reviewed as consisting of seven theoretically interactive domains (participant, environment, program, activity, group, instructor, and culture) within a dynamic, experiential milieu. A critical review of traditional and meta-analytic reviews of empirical outdoor education research indicated small-moderate positive impacts on typically measured outcomes (e.g., self-concept, locus of control, and social skills; ES ~ 0.35). However, this research has been limited by a lack of appropriate dependent measures, low statistical power, over-reliance on inferential statistics, a lack of control and comparison groups, a lack of longitudinal data, and a lack of investigation of independent variables. There were moderately positive short-term changes in overall life effectiveness (ES _n = 0.47, N = 3,640), and small-moderate long-term changes (ES _n = 0.31, N = 663). These results were comparable to the affective outcomes of other educational and psychological training interventions. The largest changes were evident for emotional control, self confidence, social competence, task leadership, and time management.
Peterson, M.N. et al	2008	Evaluating Household-Level Relationships between Environmental Views and Outdoor Recreation: The Teton Valley Case	Leisure Sciences, 30: 293–305.	Outdoor recreation may foster positive environmental views among participants and their nonparticipating household members, but little research has addressed this hypothesis at the household level. We address this gap with a case study evaluating both the individual- and household-level relationship between outdoor recreation and environmental views using the new ecological paradigm scale (NEP). Results suggest NEP relates positively to appreciative outdoor recreation participation and negatively to nonappreciative outdoor recreation participation for participants and their household members. Future research should focus on how household dynamics mediate the relationship between environmental views and outdoor recreation.
Pyle, R	2002	Eden in a vacant lot: Special places, species and kids in community of life	In P.H. Kahn, & S.R. Kellert (Eds.), <i>Children and Nature: Psychological, Sociocultural and Evolutionary Investigations</i> . Cambridge: MIT Press.	The culture of childhood that played outside is gone and children's everyday life has shifted to the indoors. As a result, children's opportunity for direct and spontaneous contact with nature is a vanishing experience of childhood. Society today has become "so estranged from its natural origins, it has failed to recognize our species' basic dependence on nature as a condition of growth and development."

Sandell, K. & Öhman, J.	2010	Educational potentials of encounters with nature: reflections from a Swedish outdoor perspective	Environmental Education Research	Direct encounters with the natural environment have a long tradition in environmental education. Given that the role and character of these encounters are shaped by the approach taken to environmental or sustainability education, there is a risk that a shift towards pluralistic and political approaches will lead to a neglect of nature encounters. On the basis of an analysis of Swedish/Scandinavian outdoor and environmental history and current Swedish outdoor education practice, the authors suggest six potentials of encounters with nature: (1) an experience-based meaning of nature; (2) a relational ethical perspective; (3) the addition of a fourth perspective to sustainable development; (4) human ecology in practice; (5) sensing the equality of a simple life; and (6) democracy, identity and dwelling. The authors argue that these potentials widen the scope of environmental and sustainability education, while highlighting the need for a situated, dynamic and process-oriented concept of nature, rather than a static one in which nature is understood as particular place or specific organisms.
Taylor, A.F., & Kuo, F.E.	2006	Is contact with nature important for healthy child development? State of the evidence.	In C. Spencer, & M. Blades (Eds.), Children and their environments: Learning, using and designing spaces. Cambridge, UK: Cambridge University Press.	While we await an improvement in methodological research, the initial hypothesis hold: Children's contact with nature improves cognitive development in social, cognitive, and emotional domains.
Taylor, A.F., Kuo, F.E. & Sullivan, W.C	2001	Coping with ADD: The surprising connection to green play settings.	Environment and Behavior, 33(1), 54-77.	Attention Restoration Theory suggests that contact with nature supports attentional functioning, and a number of studies have found contact with everyday nature to be related to attention in adults. Is contact with everyday nature also related to the attentional functioning of children? This question was addressed through a study focusing on children with Attention Deficit Disorder (ADD). This study examined the relationship between children's nature exposure through leisure activities and their attentional functioning using both within- and between-subjects comparisons. Parents were surveyed regarding their child's attentional functioning after activities in several settings. Results indicate that children function better than usual after activities in green settings and that the "greener" a child's play area, the less severe his or her attention deficit symptoms. Thus, contact with nature may support attentional functioning in a population of children who desperately need attentional support.
Thomas, J.	SP 2005	On All Nine Legs: Teaching Outdoor Love to an Indoor World.	The Taproot: a publication of the Coalition for Education in the Outdoors, 15(1), 4-6.	Article about Michael Cohen's online education program that offers both elementary and advance degree training via Project Nature Connect. The courses get students outside. It was started in 1985. The program has had many students who have learned by doing out of doors.

Tianguchi, S.T., Freeman, P.A., & Richards, R.L.	2005	Attributes of meaningful learning experiences in an outdoor education program	Journal of Adventure Education and Outdoor Learning	This phenomenological study sought to identify the attributes of meaningful learning experiences as found in an outdoor education program. Thirteen students in the Wilderness Writing Program at Brigham Young University were the sample of this study. Their participation in outdoor recreational activities and their reflections about their experiences were analyzed. Through written journal entries, group discussions, observations, and writing assignments, a qualitative analysis identified attributes that occurred in their meaningful learning experiences. Meaningful learning was defined as a realization of a person's weaknesses, strengths, and potentials. This realization came through experiences with attributes of a degree of perceived risk, which led to a feeling of awkwardness, followed by the purifying process, or sublimation. A reflective period allowed for reconstruction of a person's view of himself or herself and this was closely tied with feedback from others in the group.
Wells, N.M. & Evans, G.W	2003	Nearby nature: A buffer of life stress among rural children.	Environment and Behavior, 35(3), 311-330	Presents a study that examined the effect of vegetation near a residential environment on the impact of stressful life events on children's psychological well-being. Review of literature on children's affinity for the natural environment; Analysis of the significance of the level of vegetation to the psychological health of the children; Results and implications.
Wells, N.M., & Lekies, K.S.	2006	Nature and the life course: Pathways from childhood nature experiences to adult environmentalism.	Children, Youth and Environments, 16(1), 1-24	This paper examines connections between childhood involvement with the natural environment and adult environmentalism from a life course perspective. Approximately 2,000 adults age 18-90 living in urban areas throughout the United States were interviewed with respect to their childhood nature experiences and their current, adult attitudes and behaviors relating to the environment. Model testing and cross-validation procedures using structural equation modeling suggest that childhood participation with nature may set an individual on a trajectory toward adult environmentalism. Specifically, childhood participation in "wild" nature such as hiking or playing in the woods, camping, and hunting or fishing, as well as participation with "domesticated" nature such as picking flowers or produce, planting trees or seeds, and caring for plants in childhood have a positive relationship to adult environmental attitudes. "Wild nature" participation is also positively associated with environmental behaviors while "domesticated nature" experiences are marginally related to environmental behaviors.

West, P.C, & Merriam Jr, L.C	2009	Outdoor recreation and family cohesiveness: A research approach	Journal of Leisure Research, Summer 2009	Outdoor recreation is perhaps unique among leisure activities in its dependence on public subsidy and public lands for its continued existence and growth. In our profit-oriented market economy, the existence of benefits of various kinds which cannot be effectively marketed by private enterprise is a principle argument for public provision of outdoor recreation areas like state parks. Thus, outdoor recreation more than any other particular type of leisure activity needs to be studied for its non-market social values. One of these non-market social values may be stronger family cohesiveness. The present study was designed to examine the hypothesis that mutual outdoor recreation helps sustain and increase family cohesiveness by inducing processes of social interaction within the family group. The main value of the study lies in the conceptual and methodological approach used, as statistical results from this particular study were limited.
Woodhouse, J.	1987	Outdoor activities - establishing a life-long friendship.	Bulletin of Physical Education, 23(3), 9-13.	As emphasis for PE shifts towards promotion of active and healthy lifestyles - so does the level of research and debate of program structure, course content, and teaching strategies continue to rise. It is important to stress program components that can carry over in the lifetime. This paper presents the outdoor adventure model as a means to increase teaching skills that can enhance life long benefits for active lifestyles and learning for better health.
Yoesting, D. R., & J. E. Christenson	1978	Reexamining the significance of childhood recreation patterns on adult leisure behavior.	Leisure Sciences 1,(3), pp. 219-229	Examines the impact of childhood participation levels in outdoor recreation on the activity level of that individual as an adult. A stratified random sample of adult residents in Iowa is utilized with forty-five outdoor recreation activities used to determine the carryover of participation from childhood to adulthood. Results indicate a direct effect of the childhood level of participation on adult level of participation. Implications of education for leisure and aspects of socialization are discussed.

CURRENT TRENDS				
Author	Year	Title	Source	Abstract / Summary
Bruyere, B., Dempsey, J., & Herbert, M.	In review	Working with a new kind of partner: Partnerships with diversity-serving community-based organizations to reach youth about nature and science	Journal of Extension	Based on a collaborative of eight organizations in Denver, the authors investigate how large science and nature organizations (e.g., Denver Zoo) can effectively partner with small neighborhood-level community organizations that have trust and access with traditionally hard-to-reach populations. The article highlights the importance of give-and-take between organizations and value of regular evaluation of the partnerships.
Bruyere, B., Teel, T., & Newman, P.	2009	Response to "More kids in the woods: Reconnecting Americans with nature."	Journal of Forestry, 107(7), 378-379.	The movement to reconnect children with nature began in earnest around three years ago with the release of Richard Louv's (2005) book Last Child in the Woods. The book struck a chord with thousands of conservationists, environmental educators, advocacy organizations, and others, who then joined forces to create a national organization (the Children and Nature Network) and numerous regional and local collaboratives committed to getting kids back outside. Included in this movement are our public land management agencies, including the United States Forest Service (USFS), which recently released a discussion paper on the topic (see Kimbell et al. 2009). In this response, we raise additional points not included in the USFS discussion piece and elaborate on some of the points the authors do raise. Our commentary is drawn from our experiences as participants in the children and nature dialogue at local and national levels, as researchers with sponsored projects to study children and nature issues, and as practitioners working to inform natural resource agency planning and decision-making.
Burdette, H.L., & Whitaker, R.C.	2005	A national study of neighborhood safety, outdoor play, television viewing, and obesity in preschool children	Pediatrics 116 (3); 657-662 http://www.pediatrics.org/cgi/content/full/116/3/657	This study examined the relationship between parental perception of neighborhood safety and obesity, physical activity, and TV viewing in preschool children. Although this study found no association between outdoor play and neighborhood safety, the authors maintain that increasing children's outdoor play time and making neighborhoods safer for children are 2 objectives that, if achieved, may still have beneficial impacts on children's well-being even if the 2 objectives are unrelated and even if neither improves fitness or reduces fatness.
Clements, R	2004	An investigation of the status of outdoor play.	Contemporary Issues of Early Childhood, 5(1), 46-50.	This study discusses the extent to which children in the USA today participate in active, outdoor play, compared with the previous generation. Eight hundred and thirty mothers nationwide were surveyed regarding their active, outdoor play experiences as children, as well as their children's play experiences today. The mother's play experiences, compared with the child's, clearly indicate that children today spend considerably less time playing outdoors than their mothers did as children. The study reveals several fundamental reasons for this decline, including dependence on television and digital media, and concerns about crime and safety. The study also conveys findings related to the frequent use of electronic diversions and discusses several suggestions for early childhood professionals, classroom teachers, and parents for fostering the child's enjoyment for outdoor play.

Cordell, H.K., Betz, C.J. & Green, G.T.	2008	Nature-based outdoor recreation trends and wilderness	International Journal of Wilderness, 14(2), 7-13.	Wilderness and other public land management agencies, both federal and state, have been feeling a pinch. It seems this pinch may partly be in response to a growing perception, or perhaps misperception, that nature-based, especially wildland recreation, is on the decline. We wonder especially how congressional, legislative, administrative, and other recreation and wildland protection policy and budget makers might be reacting. Simply looking at reported public land visitation and at traditional hunting and fishing activities tells only part of the trend story. These evidences alone are not enough to conclude very much about Americans' interests in nature and in nature-based recreation. A more complete picture can be seen by examining broad-based data sources such as the Forest Service's National Survey on Recreation and the Environment. Similar to earlier NSRE reports (e.g., Cordell et al 2004), this national survey of U.S. households is showing continued growth in interest in naturebased outdoor recreation since the mid-1990s. Both the total number of Americans and the total number of days annually in which we participate in nature-based recreation have grown since 1994. In particular, viewing, photographing, and studying nature in all its forms, for example, wildlife and birds, have grown strongly (see table 2). Other similar nature-interest activities include viewing flowers, trees, natural scenery, fish, and visiting nature exhibits.
Crawford, D.W., Jackson, E., & Godbey, G.	1991	A hierarchial model to leisure constraints.	Leisure Sciences	The authors review literature to date regarding barriers to recreation participation, and conclude three types of barriers: intrapersonal (individual is not interested), interpersonal (the individual's primary peer groups, family and/or cohorts do not share the interest and structural (time, money, transportation). While this study is dated (20 years old), it provides a simple and sensible framework for understanding barriers.
Ferguson, T., Anatchkova, B., & Taylor, P. (2010)	2010	Our Children and the Outdoors, Wyoming Survey	Technical report	Based on more than 1,300 surveys, with parents of children ages 5-12, respondents showed strong beliefs about the benefits of time spent in nature (physical health, mental well-being, future stewardship ethic). Further, nearly two-thirds expressed a desire for their children to spend more time in nature than they currently do although a strong majority (88%) did not feel their children are disconnected from nature currently. The top places where children spend time outdoors are household yard, local parks and in their neighborhood. The top barriers to time spent outdoors are reported by parents as electronics, homework/ school and playing indoor with friends.

Gaster, S.	1991	Urban children's access to their neighborhood: Changes over three generations.	Environment and Behavior, 23(1), 70-85.	One New York City neighborhood was investigated to determine changes in its children's use of local public space between 1915 and 1976. Twenty-nine adults were interviewed on their experiences there as children. In addition, such archival sources as U.S. census reports were consulted for demographic changes. The interviews were content analyzed to detect changes over time in various aspects of children's activities. Substantial changes were detected in (a) the age at which children were first allowed outdoors without supervision, (b) the number and quality of settings visited, (c) the number and nature of environmental obstacles, (d) the number and nature of parent-imposed restrictions, and (e) the number of professionally supervised activities undertaken. It was found that both the degree to which the neighborhood environment was supportive of children's play and children's access to their neighborhood have declined substantially since the 1940s.
Harmon, L.K.	2008	Get out and stay out	Parks & Recreation, June 2008	According to recent research, kids are spending 50% of less time in outdoors than they did 10 years ago. In addition, the Kaiser family Foundation reports youth are increasing the time they spend with electronic media such as televisions, video games, and computers. During the same decade, per capita visits to national parks have declined. Couple of these trends with increasing levels of obesity in youth ages 12 and under, decreasing time of outdoor play in grade schools, and increasing need of for support for public lands among future voters, and it's clear why reduced time spent outdoors is a national concern. What about kids who are increasingly interested in the array of gadgets filling the market? How could they be helped connected enough with the outdoors that it becomes something they want to do? Is it possible to use the very technology-oriented devices they already enjoy to entice them outside?
Henderson K. A. & Bialeschki M. D.	2005	Leisure and Active Lifestyles: Research Reflections	Leisure Sciences, 27, 355–365.	Leisure researchers have been studying active living for many years. The research, however, has focused more on individual factors than social and environmental determinants that enable physical activity and health. The focus of the introduction to this special issue on "leisure and active lifestyles" is to highlight leisure literature that can be directly tied to active living. These dimensions include outdoor recreation, community recreation areas and facilities, time usage, barriers and constraints, and social interdependence. We provide an overview of the significance of the papers in this special issue and offer some reflections regarding future research related to active living, physical activity, health, and leisure. We underline the value of the holistic approach evident in leisure research and call for broader methods and more collaborative transdisciplinary research.

Jordan, A.B. & Robinson, T.N.	2008	Children, television viewing, and weight status: Summary and recommendations from an expert panel	The Annals of the American Academy of Political and Social Science, 615(1), 119-132	Overweight and obesity among American children has reached epidemic proportions. More than 9 million youth between the ages of six and nineteen years are considered overweight, and more than 80 percent of overweight adolescents will go on to become obese adults. Research has indicated a wide range of factors believed to contribute to obesity among children, but of growing concern is the potential contribution made by children's media use. In April 2006, an expert panel meeting was convened to meet and address children, television viewing, and weight status. This article reviews the evidence discussed at this meeting about the role that media, specifically television, play in the prevalence of overweight among children. It lays out the panel member's conclusions about the most promising strategies for reducing the negative effects of television on children's weight status and makes recommendations for future research that is needed to fully understand the relationship.
Karsten, L.	2005	It all used to be better? Different generations on continuity and change in urban children's daily use of space.	Children's Geographies, 3(3), 275-290.	There is much speculation about children's changing space-time behaviour, yet little is actually known about it. The study reported on here, which was based on oral histories, statistical and archive research, and observations in Amsterdam, compared children's use of space during the 1950s and early 1960s with that of today. The public space of the street used to be a child space, but in two of the three streets studied it has been transformed into an adult space. Conversely, private home space—traditionally the domain of adults—has become a child space. Over time, children's geographies have become more diverse. In addition to the traditional childhood of outdoor children, we distinguish indoor children and children of the backseat generation. These two new types are characterized by a decrease in playing outdoors and an increase in adult supervision. Although this may be regarded as a loss, new children's activities have emerged, outdoors as well as indoors. Contemporary cities can be exciting places for children, but it is clear that inequality by class has become more manifest. Both new geographical childhoods have resulted in a decrease in children's agency, which may have a negative impact on segregation patterns.
Kelly, J.R.	1989	Recreation demand, aging, and the life course.	World Leisure & Recreation, 31(3), 25-28.	This paper analyzes what are the relationships between age, period in the life course and the demand for outdoor recreation opportunities. In this summary paper 2 dimensions are distinguished- participation and style. Age is a useful index for some kinds of participation, but life course period was found more useful for others. The significance of cohort differences and social change is also introduced. Leisure style emphases in the adult life periods of Establishment and Culmination are outlined. Family roles, as well as later life resources and aims, are suggested as significant for both activity choices and the outcomes sought in the activities and environments. The lower rates of outdoor participation for older cohorts are tempered with some analysis of variation for different kinds of activity. Activities and environments which require considerable strength and endurance or that are part of youthful lifestyles do not have many older participants. However, parental, preretirement, and active retirement adults do travel and engage in outdoor recreation styles appropriate to their interests and abilities. These styles vary through the life course and call for different accommodation and facilitation in resource management. Demands exist for appropriate to life period orientations and age-related abilities and resources.

Little, H. & Wyver, S.	2009	Outdoor play - Does avoiding the risks reduce the benefits?	Australian Journal Of Early Childhood	Although the term 'risk-taking' often has negative connotations, the reality is that the willingness to engage in some risky activities provides opportunities to learn new skills, try new behaviors and ultimately reach our potential. Challenge and risk, in particular during outdoor play, allows children to test the limits of their physical, intellectual and social development. This paper examines the current status of outdoor play in urbanized, Western societies such as Australia and provides a critical analysis of the literature to present an argument for the inclusion of positive risk-taking experiences in children's outdoor play, principally in the context of early childhood education. The increasingly restrictive regulation of early childhood services is considered in terms of the impact of risk avoidance in outdoor play for children's optimal growth and development. Finally, a model of possible developmental outcomes resulting from the minimisation of risk-taking in early childhood contexts is proposed.
Pain, R	2006	Paranoid parenting: Rematerializing risk and fear for children	Social and Cultural Geography, 7, 221-243.	Both in the social sciences and in popular debates, recent commentaries on fear for children highlight the mismatch between children's and parents' fears and the risk of stranger danger, point to cultural changes to childhood and parenting in explanation. This paper suggests that a materialist approach to fear and risk may be equally helpful to understanding, and of more strategic advantage in promoting social change which benefits children, especially those who have been victims. It is argued that if research is child-centred, grounded in particular places, and explicit about the social stratification of risk, then experience of victimization itself can explain a large part of children's fears. In support, the paper draws on quantitative and qualitative research with 1,069 children aged 10–16 in a deprived area of northeast England. The geographies of child victimization and children's fears are compared, showing that many fears about public space are spatially congruent with experiences of risk. These geographies of risk and fear are gendered and racialized and, in this geographical context, paedophiles and asylum seekers have replaced the 'stranger' in children's accounts of danger. Implications for current public and policy debates are discussed.

Pergams, O.R.W., & Zaradic, P.A.	2006	Is love of nature in the US becoming love of electronic media? 16-year downtrend in national park visits explained by watching movies, playing video games, internet use and oil prices	Journal of Environmental Management, 80, 387-393.	After 50 years of steady increase, per capita visits to US national parks have declined since 1988. This decline, coincident with the rise in electronic entertainment media, may represent a shift in recreation choices with broader implications for the value placed on biodiversity conservation and environmentally responsible behavior. We compared the decline in per capita visits with a set of indicators representing alternate recreation choices and constraints. The Spearman correlation analyses found this decline in NPV to be significantly negatively correlated with several electronic entertainment indicators: hours of television, video games, home movies, theatre attendance and internet use. There were also significant negative correlations with oil prices, foreign travel, and Appalachian Trail hikers. Income was significantly positively correlated with foreign travel but negatively correlated with national park visits. There was no significant correlation of mean number of vacation days, indicating available vacation time is probably not a factor. Federal funding actually increased during this period, and so was rejected as a probable factor. Park capacity was rejected as limiting since both total overnight stays and visits at the seven most popular parks rose well into the mid-1990s. Aging of baby boomers was also rejected as they are only now reaching retirement age, and thus during the period of visitation decline were still of prime family vacation age. Multiple linear regression of four of the entertainment media variables as well as oil prices explains 97.5% of this recent decline. We may be seeing evidence of a fundamental shift away from people's appreciation of nature (biophilia, Wilson 1984) to 'videophilia,' which we here define as "the new human tendency to focus on sedentary activities involving electronic media."
Pergams, O.R.W., & Zaradic, P.A.	2007	Evidence for a fundamental and pervasive shift away from nature-based recreation	Proceedings of the National Academy of Sciences of the United State of America. 105(7). 2295-2300.	After 50 years of steady increase, per capita visits to U.S. National Parks have declined since 1987. To evaluate whether we are seeing a fundamental shift away from people's interest in nature, we tested for similar longitudinal declines in 16 time series representing four classes of nature participation variables: (i) visitation to various types of public lands in the U.S. and National Parks in Japan and Spain, (ii) number of various types of U.S. game licenses issued, (iii) indicators of time spent camping, and (iv) indicators of time spent backpacking or hiking. The four variables with the greatest per capita participation were visits to Japanese National Parks, U.S. State Parks, U.S. National Parks, and U.S. National Forests, with an average individual participating 0.74-2.75 times per year. All four time series are in downtrends, with linear regressions showing ongoing losses of -1.0% to -3.1% per year. The longest and most complete time series tested suggest that typical declines in per capita nature recreation began between 1981 and 1991, are proceeding at rates of -1.0% to -1.3% per year, and total to date -18% to -25%. Results showed very highly significant correlations between many of the highest per capita participation variables in both untransformed and in difference models, further corroborating the general downtrend in nature recreation. In conclusion, all major lines of evidence point to an ongoing and fundamental shift away from nature-based recreation.

Rideout, V. & Hamel, E.	2006	The media family: Electronic media in the lives of infants, toddlers, preschoolers, and their parents.	Kaiser Family Foundation. Retrieved from http://www.kff.org/entmedia.cfm	<p>Electronic media is a central focus of many very young children's lives, used by parents to help manage busy schedules, keep the peace, and facilitate family routines such as eating, relaxing, and falling asleep, according to a new national study by the Kaiser Family Foundation. Many parents also express satisfaction with the educational benefits of TV and how it can teach positive behaviors.</p> <p>The report, The Media Family: Electronic Media in the Lives of Infants, Toddlers, Preschoolers, and Their Parents, is based on a national survey of 1,051 parents with children age six months to six years old and a series of focus groups across the country.</p>
Rivkin, M.S.	1995	The great outdoors: Restoring children's right to play outside	Washington, D.C.: National Association for the Education of Young Children	<p>Intended for all who are responsible for children in the primary grades, this booklet notes the necessity of play for children's physical, social, and cognitive development, and the increasingly limited opportunities available to children for outdoor play. The booklet makes the case to teachers, administrators, and park and recreation planners to improve outdoor recreation and "kidspace" with children in mind. Chapters in the booklet are: (1) "Vanishing Habitats and Access"; (2) "Considerations in Designing Play Areas"; (3) "Great School Grounds"; (4) "Safety Outdoors"; (5) "Peaceful Playgrounds"; (6) "Broader Community Efforts"; and (7) "Restoring the Birthright." Five appendices include a list of useful books, information sources and checklists on playground safety, guidelines for playground accessibility, IPA (International Association for Child's Right to Play) and the Declaration of the Child's Right to Play, and organization resources on the environment. Contains over 100 references.</p>
Roberts, D.F., Foehr, U., & Rideout, V.	2005	Generation M: Media in the lives of 8 to 18 year olds.	Kaiser Family Foundation. Retrieved from http://www.kff.org/entmedia.cfm	<p>A national Kaiser Family Foundation survey found children and teens are spending an increasing amount of time using "new media" like computers, the Internet and video games, without cutting back on the time they spend with "old" media like TV, print and music. Instead, because of the amount of time they spend using more than one medium at a time (for example, going online while watching TV), they're managing to pack increasing amounts of media content into the same amount of time each day.</p> <p>The study, Generation M: Media in the Lives of 8-18 Year-olds, examined media use among a nationally representative sample of more than 2,000 3rd through 12th graders who completed detailed questionnaires, including nearly 700 self-selected participants who also maintained seven-day media diaries.</p>
Stafford, N., B. Bruyere, M. Davis, C. Ehlinger, S. Easterby, & A. Pitchford	In review	Parents' Perceived Benefits and Fears about Experiences in Nature for Children	Colorado State University	<p>Though nature-based experiences are beneficial for youth, children are spending less time in nature. This article examines urban and suburban parents' perceptions of the benefits and fears of nature experiences. Data were obtained from open and closed-ended survey items from 545 parents in suburban Fort Collins and urban Denver, Colorado. Analyses indicated that parents overwhelmingly believed that nature experiences provide benefits for their children. Parents specifically cited educational and health benefits, as well as gaining a connection to nature. Parents from both types of communities generally agreed that spending time in nature is safe. When asked to write down their greatest concern about spending time in nature, however, safety-related responses were most frequently expressed for both groups. A ranking of five safety-related concerns revealed no one main safety concern. Implications for practitioners and future research are discussed.</p>

Tandy, C.A.	1999	Children's diminishing play space: A study of intergenerational change in children's use of their neighborhoods.	Australian Geographical Studies, 37(2), 154-164.	A survey of 421 children and 165 parents from three suburban primary schools in Newcastle, New South Wales, Australia has provided information on the nature and location of children's play, both at present and a generation ago. Although modern children have greater access to individual transport in the form of higher bicycle ownership, other constraints appear to have restricted their play space. These include the availability of home-based leisure technology such as computer games and greater parental restriction on where children might play. The results of the survey would appear to indicate that children prefer to play at home. However, analysis of the children's stories and drawings suggests that, given the chance, a majority of children would choose to engage in outdoor activities in the bush, in parks or on the beach. Their actual choice of play space may thus be determined by a knowledge of parental constraints.
Veitch, J., Bagley, S., Ball, K., & Salmon, J.	2006	Where do children usually play? A qualitative study of parents' perceptions of influences on children's active free-play	Health & Place, 12(4), 383-393	This study explored the perceptions of 78 parents from low, mid and high socio-economic areas in Melbourne, Australia to increase understanding of where children play and why. Using an ecological model interviews with parents revealed that safety and social factors emerged as key social themes, facilities at parks and playgrounds, and urban design factors emerged as important physical environment themes. The children's level of independence and attitudes to active free-play were considered to be important individual level influences on active free-play. The study findings have important implications for future urban planning and children's opportunities for active free-play.
Wridt, P.J	2004	A historical analysis of young people's use of public space, parks and playgrounds in New York City	Children, Youth and Environments, 14(1), 86-106.	Young people and their use of public spaces This article was printed in the Children, Youth and Environments journal (volume 14, number 1) published by the College of Architecture and Planning at the University of Colorado, USA. It uses three childhood biographies to examine how children's access to and use of public play and recreation space has changed over time. The author's results indicate that access to play spaces in New York has decreased as a result of reduced public investment in parks as well as commercialisation and privatisation of playtime activities.
Young, A.B., Quinn, T. & Steele, T.W.	1994	The relationship of continuum scaling scores and certainty scaling scores on the Outdoor Situational Fear Inventory	Coalition for Education in the Outdoors, Second Research Symposium Proceedings : January 14-16, 1994, Bradford Woods, Indiana	The Outdoor Situational Fear Inventory (OSFI) has been used extensively to measure the social-, physical-, and environmental-based fears of participants in Outward Bound and in college outdoor education programs. The OSFI uses a continuum scaling method in which respondents place a slash mark on a 10-centimeter line representing a continuum from "not at all anxious" to "very anxious." The continuum-scaled OSFI presents several problems: labor-intensive measurements, artificial sense of precision, and difficulties in converting to verbal description. As an alternative, a certainty scaling method was developed in which respondents agree or disagree with a statement and then rate the strength of their opinion from 1 to 5. Both forms of the OSFI were administered to 162 college students on the first day of 2-week outdoor adventure programs. Half of subjects completed the continuum version first, then the certainty-scaled OSFI; the other half did the opposite. The order of administration had no effect on scores. The relationships of the two instruments' overall and subscale scores were strong.

Zwick, R., Flaherty, J., Solan, D., Tisa, M., & Langlois, S.	2005	Perceived opportunities and constraints on participation in Massachusetts youth hunt	Proceedings of the 2005 Northeastern Recreation Research Symposium, pp. 254-261, http://www.fs.fed.us/ne/newtown_square/publications/technical_reports/pdfs/2006/341%20papers/zwick341.pdf	The Massachusetts Division of Fisheries and Wildlife sponsors about 70 basic hunter education courses, serving an average of 2,700 students each year, of which more than 400 are 15- to 17-year-old minors. This study examined parent/guardian and youth participant attitudes toward a special youth hunt in Massachusetts and constraints toward participating in such a hunt. The study objectives were to: 1) determine the opportunities that would be important to both parents and youth for youth to participate in a specialized youth hunt, and concomitant differences in those perceived opportunities; 2) determine the extent of participation in hunting and shooting activities by both parents and youth who participated in the programs; and 3) examine the perceived constraints on youth in participating in hunting activities and the youth hunts. A total of 374 questionnaires were completed after three mailings. Because of the 30 percent response rate, a random sample of 150 subjects was selected for a short telephone survey from the 863 youth and parents who did not return a completed questionnaire, to test for non-response bias. The respondents indicated that parents and youth differed in their perceptions of opportunities and activities important in a youth hunt. An examination of the extent of participation in hunting and shooting activities by parents and the youth revealed similar patterns in hunting on youth participating in hunting, but time constraints as a result of school, work, and sports prevented youth from hunting as much as they would like. Similarly, non-participation in a youth hunt was a result of a lack of time and opportunity rather than a result of social constraints. Parents and their children agreed on several points on what opportunities are important to them to be offered in a specialized youth hunt that could prove helpful to the Massachusetts Division of Fisheries and Wildlife and local sportsmen's clubs in developing and implementing a specialized youth hunt program.
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BARRIERS				
Author	Year	Title	Source	Abstract / Summary
Barriers for K-12 Educators				
Benetti, B. & Marcelo de Carvalho, L	2002	Difficulties the science schoolteacher faces to implement environmental education	Rethinking Science and Technology Education To Meet the Demands of Future Generations in a Changing World	Considering the science teacher's role in the implementation of environmental issues in school, a survey was carried out (Benetti, 1998) to identify science school teachers' perspectives regarding environmental education-related activities in fundamental schools (11 to 14 year-olds). The interviewees' statements were divided into four categories for analysis. This paper discusses the category involving barriers, i.e., the difficulties encountered by school teachers in the development of environmental education. These difficulties are associated with both the school teacher's education per se and the school's infrastructure and organization.
Campbell, T., Medina-Jerez, W., Erdogan, I., & Zhang, D.	2004	Exploring science teachers' attitudes and knowledge about environmental education in three international teaching communities	International Journal of Environmental and Science Education	This study examined the similarities and differences among 171 Grade 7-12 science teachers from three different countries (54 U.S, 63 Bolivian, and 54 Turkish) with respect to their attitudes toward environmental education (EE) and instructional practices. The instrument employed explored how teachers' knowledge, instructional practices, decision-making process, and cultural features influenced their EE attitudes and praxis. The instrument, which was translated into Spanish and Turkish and then back into English, contained a personal data form that included demographic questions and a three-part questionnaire. Based on the analysis completed, significant differences were found between these three countries with respect to 1) teacher's knowledge about global environmental issues, 2) teachers rationales for including environmental education in their science classroom instruction, and 3) while there were no significant differences in the importance of religion in the teachers lives, there were significant differences in the extent to which teachers reported religion influencing instructional decisions. In addition, there were differences regarding the resources that teachers reported drawing on as they included EE in their classrooms. There were no significant differences found when comparing the three countries with respect to extent to which each country reported including technological and/or environmental problems in science classroom instruction. Finally, generally there was agreement regarding teachers' goals and objectives in science classrooms with respect to EE and the most important global environmental problems/threats.

Ernst, J.	2007	K-12 Teachers Motivations and Barriers to Environmental Education	Journal of Environmental Education	The term “environment-based education” describes a form of school-based environmental education in which an instructor uses the local environment as a context for integrating subjects and a source of real world learning experiences. Despite the growing body of evidence that supports the educational efficacy of this instructional approach and its foundation of high-quality environmental education, relatively few teachers seem to practice environment-based education (University of Maryland Survey Research Center, 2000). In the context of encouraging more widespread adoption of this formal instructional approach, the author used exploratory survey research with a convenience sample of 287 teachers to investigate influences on teachers’ decisions to use and their abilities to implement environment-based education. The author used analysis of variance and discriminant function analyses, and results suggest that environmental literacy knowledge and skills and environmental sensitivity are important in teachers’ decisions to use and their abilities to implement environment-based education.
Ernst, J.	2007	Teacher persistence in implementing EE: Implications for the interpretive community	Journal of Interpretation Research	There are a variety of barriers that deter teachers from using environmental education (EE), including state curriculum standards and testing, lack of funding and transportation, lack of training, and misconceptions about what EE is. Despite these barriers, some teachers persist in using EE. Because teachers and students in the formal educational setting often are a key audience for interpretive centers, it would be useful to understand teachers’ motivations for using EE and what helps them overcome barriers to integrating EE into their curriculum. Survey research was conducted with 70 K–12 teachers to investigate what they perceive as the strongest influences on their decisions to implement EE and their abilities to do so. Results indicated personal environmental literacy knowledge and skills, environmental sensitivity, and teaching context as key influences on teachers’ use of EE. Implications for the interpretive community related to providing teacher training and marketing school-based programs are discussed.
Ham, S., & Sewing D.	1998	Barriers to environmental education	The Journal of Environmental Education, 19(2), 17-24.	Describes an inservice teacher workshop implemented specifically to increase the number of teachers conducting environmental education. Presents the workshop objectives and evaluation procedures that were used. Discusses the effects of the workshop on conceptual, logistical, educational, and attitudinal barriers. Gives suggestions for future workshops and research.
Simmons, D.	1998	Using natural settings for environmental education: Perceived benefits and barriers.	The Journal of Environmental Education, 29(3), 23-31.	Teachers judged four types of outdoor settings for potential benefits and barriers to their use in environmental education. Factor analysis of responses showed six benefit and barrier factors: (1) appropriateness of teaching setting; (2) teacher confidence; (3) worries; (4) need for training; (5) hazards; and (6) difficulty of teaching environmental education. Deep woods and rivers were seen as more appropriate for teaching than urban nature.
Wade, K.	1996	EE teacher in-service education: The need for new perspectives	Journal of Environmental Education	Reports on a survey that investigated inservice teacher education (K-12). Results indicate that professional development in environmental education is dominated by activity-based curricula, is primarily science-oriented rather than interdisciplinary, and is concerned more with environmental content than educational context. Argues that the environmental education field needs to reevaluate its approach to teacher education.

Barriers to Participation in Programs - General				
Brown, M. & Fraser, D.	2009	Re-evaluating risk and exploring educational alternatives	Journal of Adventure Education and Outdoor Learning	Risk is positioned as a distinguishing feature of outdoor adventure education pedagogy. Risk defines much what happens in outdoor adventure education, from participants 'taking' risks to instructors 'managing' risks. The taken-for-granted centrality of risk continues to have currency due to the thrill and allure of adventurous outdoor activities. This paper questions the centrality of some current conceptions of risk in outdoor adventure education and explores an alternative pedagogical perspective where risk is less central. A sociocultural lens expands possibilities for how outdoor adventure education is conceptualized, with a focus more on learning than risk. This alternative approach is well supported by research on teaching and learning, and as such offers an opportunity to broaden instructors' repertoires of practice for the benefit of outdoor education participants.
Bruyere, B., Hills, S., & Paulding, L.	In review	Factors that influence participation in informal science education by families on Colorado's Front Range	Visitor Studies	Based on focus groups with 10 groups of parents, including Latino and African-American parents, the researchers suggest a model of barriers to participation in programs about science and nature: 1) lack of awareness about the opportunities; 2) cultural constraints such as unfamiliarity with organizations and their staff, and a lack of representation in organizations by diverse cultures; and 3) practical limitations such as money and transportation.
Davidson, G.	2004	Fact or folklore? Exploring "Myths" about outdoor education accidents: Some evidence from New Zealand	Journal of Adventure Education and Outdoor Learning	This paper provides analysis of the frequency and nature of accidents and near accidents that have occurred in larger outdoor education centres in New Zealand. The author makes several recommendations how the creation of national template for incident reporting, analyzing the incidents according to their severity, and distribution of trends throughout the outdoor education community provide learning points, and also could be used in a positive media campaign for the outdoor education sector highlighting the positive aspects of the experience.

McCoy, C.	2010	Integrating information on wildlife values and barriers to participation in nature-based programs to improve agency efforts for connecting families to nature.	Unpublished Master Thesis. Colorado State University, Fort Collins, CO., 2010.	<p>This thesis presents two manuscripts that explored how information on barriers to participation in nature-based programs and wildlife value orientations could be used to enhance the reach and effectiveness of agencies in connecting children to nature. The overall study focused on connecting children to nature in recognition of the multiple health benefits acquired by spending time in nature, as well as the relationship between time spent in nature as a child and future commitment to natural resource stewardship. The study also addressed the stake agencies have in helping connect children to nature, including maintaining and/or increasing support for future conservation initiatives and securing future funding sources. The primary purpose of the first paper was to explore how information on wildlife value orientations and barriers to participation in nature-based programs might be integrated to improve agencies' educational initiatives. Data were collected via a mail survey administered to residents in Raleigh, North Carolina. Results indicated that there was not much of a relationship between barriers and wildlife-related interests of the respondents, suggesting that these considerations may need to be evaluated separately in thinking about ways to develop more targeted nature-based opportunities in the future. However, given that our sample was relatively homogeneous with respect to its lack of major barriers to participation in program offerings, results also point to the need for additional research to determine if findings can be applied to other populations and geographic locations. The second paper used past research and theory to develop a qualitative methodology to measure wildlife value orientations in a focus group setting. The focus of this paper was on developing a technique to assess wildlife value orientations among diverse populations of various cultures and ethnicities. In this technique, which was administered to Latino and Chinese-American audiences in New York City, New York, focus group participants were shown a number of photographs depicting human-wildlife interactions and were then encouraged to discuss their thoughts and reactions to each photograph. Results revealed that the focus group methodology was effective in eliciting wildlife value orientations. Four wildlife value orientation types recognized from previous literature were identified across the groups based on participants' comments. Finally, suggestions were made on how to improve the methodology for future use and how to adapt it for applications in other settings.</p>
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Barriers to Participation in Programs - Specific Target Audiences				
Allison, M.T., & Hibbler, D.K.	2004	Organization barriers to inclusion: Perspectives from the recreation professional	Leisure Sciences, 26, 261-280	Recreation professionals continually strive to serve a host of diverse program constituents, while leisure researchers attempt to uncover barriers to leisure participation. Much of the barriers or constraints research has come from the perspective of program participants. This study identified, from the perspectives and experiences of 18 recreation professionals, the issues and barriers that they perceive inhibit recreation program access and availability to diverse constituents, particularly ethnic minority populations. Co-cultural theory, which integrates the concepts of muted group theory and standpoint theory, was utilized as the study's theoretical framework. In-depth interviews were utilized. Five primary barriers were identified that related to the changing faces of the community, the changing faces of management and staff, deferred program responsibility, language barriers, and negative attitudes and stereotypes held by some management and staff. This article demonstrates how these barriers impact leisure participation for disenfranchised groups. The findings suggest that recreation agencies, often unwittingly or unknowingly, foster organizational barriers that inhibit the perceived program accessibility or attractiveness to ethnic minorities. Implications for research and professional practice are explored.
Bruyere, B., Billingsley, E, & O'Day, L.	2008	A closer examination of barriers to participation in informal science education for Latinos and Caucasians	Journal of Women and Minorities in Science	Based on interviews (26) and household surveys (386), the researchers found that interest in programs about nature and science is high, but barriers exist related to awareness of programs, cultural factors such as language and trust in organizations, and practical barriers of time, money and transportation.
Bruyere, B., & Salazar, G.	2010	Engaging Latino audiences in out of school programs about science	Journal of Extension	Based on a literature review and collection of research, the authors provide recommendations for how to effectively engage Latino audiences in programs about science and nature. Recommendations include utilizing strong word of mouth networks for raising awareness about opportunities, building relationships with Latino service organizations, insuring programs are offered for the whole family to attend, and paying attention to practicalities of time, money and transportation.
Dwyer, J.F. & Barro, S.C.	2000	Outdoor recreation behaviors and preferences of urban racial/ethnic groups: An example from the Chicago area	Proceedings of the 2000 Northeastern Recreation Research Symposium, USDA Forest Service General Technical Report Northeastern Forest Experimental Station, 276, 159-164. http://nrs.fs.fed.us/pubs/jrnl/2001/nc_2001_Dwyer_002.pdf	A study of outdoor recreation preferences and behavior was conducted in Cook County, Illinois in 1999 of Non-Hispanic White Americans, African Americans, and Hispanics. Phone survey was used. Similarities and differences were found among the three groups for 43 activities in 20 places. Gender, age, education, income, residence, and size household explained outdoor recreation preferences and behavior. Results reinforce the need to avoid stereotyping particular groups or using simple explanations of their outdoor recreation behavior.

Gobster, P.	2002	Managing Urban Parks for a Racially and Ethnically Diverse Clientele	Leisure Sciences	A major planning effort for Chicago's largest park provided an opportunity to examine outdoor recreation use patterns and preferences among a racially and ethnically diverse clientele. Results from on-site surveys of 898 park users (217 Black, 210 Latino, 182 Asian, and 289 White) showed that park users shared a core set of interests, preferences, and concerns about the park and its management. But there were also some important differences among and within racial and ethnic groups with respect to park use patterns, participation, and reports of racial discrimination.
Hong, A., & Anderson, D.H.	2006	Barriers to participation for Latino people at Dodge Nature Center.	The Journal of Environmental Education, 37(4), 33-44.	The authors sought to identify barriers to participation for Latino people at Dodge Nature Center (DNC) in West St. Paul, MN. The authors used a multi-method approach, which included collecting demographic information, surveying the DNC staff, and interviewing Latino community leaders and parents. Results showed that unfamiliarity with DNC, cultural differences, potential for discrimination, and economic factors were major barriers identified by Latino community leaders and parents. Recommendations made to the DNC Board of Directors included increasing outreach to Latino people in the community, offering programs in Spanish, and providing financial assistance for low-income families.
Morris, N.	2002	Blacks and Minority Ethnic Groups and Public Open Space	http://www.immigrantsparks.org/resourceLibrary/assets/BlackMinorityLitRev.pdf	Seven key barriers to participation based on a review of 1) lack of influence on design, 2) lack of appropriate interpretive information; 3) lack of relevant activities; 4) lack of awareness of opportunities; 5) negative perceptions of the environment; 6) financial costs; 7) negative historical associations with natural environment.
Thompson, C.	2002	Urban open space in the 21st Century	Landscape and Urban Planning	This paper asks what should be demanded from urban open space in the 21st century. It explores the social and spatial implications of new lifestyles, values, attitudes to nature and sustainability, and the models for future city life and the patterns of urban open space that might accommodate these. One vital role that urban parks play is providing space for the expression of diversity, both personal and cultural; this raises issues of democratic provision for and access to public open space. It suggests, inter alia, that the role of the urban street as public space may need to be re-thought. The social and cultural values of open space include attitudes towards nature and the desire for contact with it; contemporary understandings of ecology offer new insights into ways to serve both human needs and the broader ecological framework of urban open space structures. It has been suggested that the urbanity of public open space is threatened by the increase in 'virtual' transactions, obviating the need for real, social interaction, but there is also evidence that use of new communications technology can increase and enhance use of public open space; this may include engagement in the productive aspect of our landscape. A more flexible approach to open space definition and usage is proposed, recognizing 'loose-fit' landscapes which allow opportunities for the socially marginalized and the ecologically shifting within a dynamic framework of urban structures and networks.



B

County-Wide Survey

County-Wide Survey

Methodology

Based on the literature review and also the prior experience of the project team, a 58-item survey was developed for dissemination to parents of school-aged children throughout Larimer County. The survey inquired about a number of variables, including:

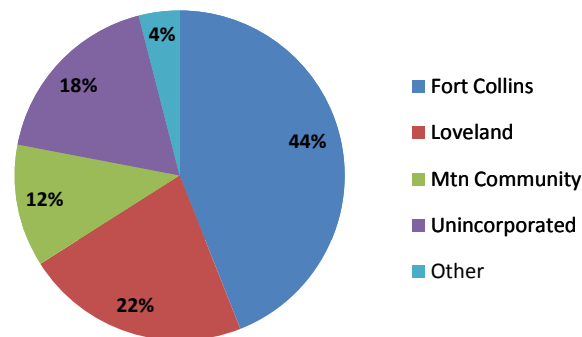
- basic demographics (i.e., geographic location, number of children)
- beliefs about spending time in nature
- participation in 17 different outdoor activities (e.g., hiking, biking on trails)
- importance of 12 different types of settings for experiencing nature (e.g., local park, mountains, schoolyard)
- satisfaction with opportunities to experience the 12 settings in Larimer County
- connection to nature
- potential barriers to spending time in nature

A total of 483 usable surveys were completed, including 307 surveys from the on-line format and 176 hard copy surveys completed on-site at a variety of venues.

Distribution

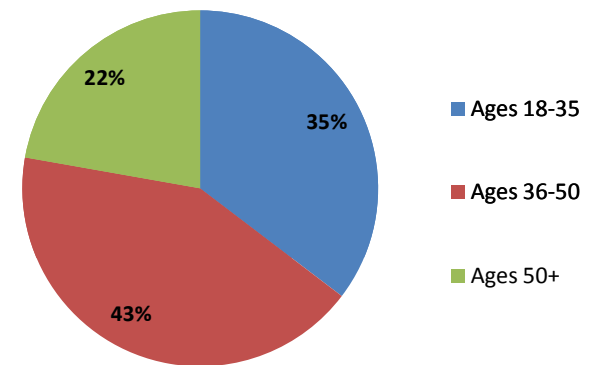
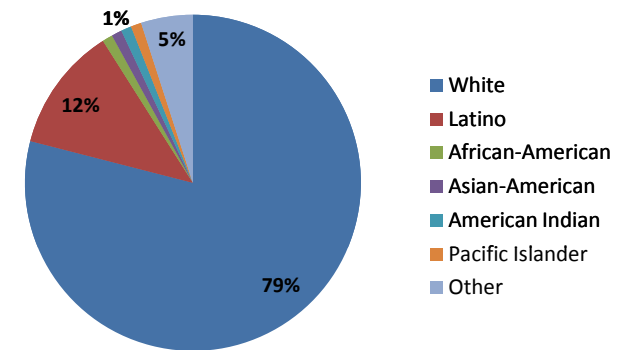
The survey was posted on the internet for widespread dissemination throughout the Larimer County. The survey was announced in local newspapers, parent magazines, newsletters, through email list-servs, at school parent meetings, to church groups, and at outdoor events.

The survey was also translated into Spanish and made available by hard copy to other specific audiences. The venues for paper copy distribution were selected in order to ensure the sample reflected Larimer County's geographic and racial diversity. On-site surveying with hard copies was conducted at three back-to-school nights in schools with high Latino student enrollment; three English-as-a-Second Language classes; two schools with high enrollment of rural families; and two community events in the southern portion of the county.



Survey Sample

Overall, the total sample generally resembled Larimer County in terms of where families with children generally live in the county, as well as by race and education level.



Survey Questionnaire Form



Thank you for your willingness to give 5-10 minutes of your time to answer this survey about your thoughts and experiences with nature and the outdoors. This survey is part of the Plug in to Nature effort by Great Outdoors Colorado (GOCO), Larimer County Department of Natural Resources and numerous partners in northern Colorado to help us identify how we can create better opportunities to experience nature.

We want the opinions of people from a variety of backgrounds, experiences and perspectives. Whether you spend a lot of time in the outdoors or no time at all, that's okay! Your input is important to us! If you have any questions about this survey, please contact Rob Novak, Education Program Coordinator at Larimer County Department of Natural Resources: rnovak@larimer.org.

1. How many children do you have under the age of 18 and who live in your home at least 50% of the time?
_____ children

2. What is your race?

- White
- Latino or Hispanic
- Black or African American
- American Indian or Alaska Native
- Asian
- Native Hawaiian or Other Pacific Islander
- Other _____

3. What is your highest level of education completed?

- Less than high school diploma
- High school graduate (or equivalent)
- Some college (no degree)
- Associate's degree
- Bachelor's degree (BA, BS, AB, etc)
- Master's degree (MA, MS, MENG, MSW, etc)
- Professional or Doctorate degree (e.g., MD, DDC, JD, PhD)

4. What is your gender (circle one): male female

5. What is your age? _____

6. Please indicate where you live:

- Berthoud
- Windsor
- Wellington
- Fort Collins
- Loveland
- Red Feather Lakes
- Laporte
- Bellvue
- Estes Park
- Unincorporated Larimer County
- I do not live in Larimer County

7. Which of the following best describes the area in which you live:

- Urban
- Suburban
- Rural

8. Please indicate the last time that you or someone in your household participated in the following:

	Within the past 30 days	Within the past 3 months	Within the past 6 months	Within the past 12 months	No one has participated in the past year
Fishing					
Hunting	0	0	0	0	0
Mountain biking					
Biking on paved trails	0	0	0	0	0
Horseback riding					
Walking/Hiking on Trails	0	0	0	0	0
Camping					
Wildlife viewing	0	0	0	0	0
Bird watching					

9. Please indicate the last time that you or someone in your household participated in the following:

	Within the past 30 days	Within the past 3 months	Within the past 6 months	Within the past 12 months	No one has participated in the past year
Agriculture/Farm Activities	0				
Gardening	0	0	0	0	0
Visited a playground	0	0	0	0	0
Volunteered for an outdoor project	0	0	0	0	0
Attended an organized outdoor program for kids only	0	0	0	0	0
Attended an outdoor program for families	0	0	0	0	0
Had a picnic	0	0	0	0	0
Visited Rocky Mtn. National Park	0	0	0	0	0
Other: _____	0	0	0	0	0

10. In this section, we want to know how important various outdoors settings are to your family, and your assessment about whether there are sufficient opportunities for your family to experience those types of places.

	How important is this type of setting as a place for your family to be in nature/outdoors?					How would you rate the opportunities for your family to experience this type of setting in Larimer County?				
	Not at all important	Somewhat unimportant	Neutral	Somewhat important	Very important	Not acceptable	Poor	Fair	Good	Very good
Personal yard	1	2	3	4	5					
Neighborhood Natural Area	1	2	3	4	5	1	2	3	4	5
School yard	1	2	3	4	5	1	2	3	4	5
Local park	1	2	3	4	5	1	2	3	4	5
Open space (undeveloped or natural lands)	1	2	3	4	5	1	2	3	4	5
Regional, state or national parks	1	2	3	4	5	1	2	3	4	5
Sports / athletic fields	1	2	3	4	5	1	2	3	4	5
Farm, ranch or garden	1	2	3	4	5	1	2	3	4	5
Trails	1	2	3	4	5	1	2	3	4	5
Lake, pond or reservoir	1	2	3	4	5	1	2	3	4	5
River or stream	1	2	3	4	5	1	2	3	4	5
Mountains	1	2	3	4	5	1	2	3	4	5

11. Please rate the extent to which you agree with the following statements based on how you feel today.

	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
I feel at ease when I spend time in nature.	1	2	3	4	5
I feel distant from nature.	1	2	3	4	5
I care about nature.	1	2	3	4	5
I feel a bond with nature.	1	2	3	4	5
Being in nature makes me feel nervous.	1	2	3	4	5

12. Please rate the extent to which you agree with the following statements based on how you feel today.

	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
Spending time in nature/outdoors provides worthwhile benefits for children.	1	2	3	4	5
The risks to a child while in nature exceed the benefits.	1	2	3	4	5
The effort to have children in nature/outdoors is not worth the benefits.	1	2	3	4	5
I would like my child/children to spend more time in nature/outdoors than they currently do.	1	2	3	4	5
My child would rather play with technology (i.e., computers, video games) than spend time in nature/outdoors.	1	2	3	4	5
Spending time in nature is something I like to do.	1	2	3	4	5
People who are important to me like to spend time in nature/outdoors.	1	2	3	4	5

13. Please indicate how much each of the following would influence your family's decision to spend time in nature/outdoors based on how you feel today.

	No influence	Minor influence	Some influence	A lot of influence	Very strong influence
Time	1	2	3	4	5
Cost	1	2	3	4	5
Transportation	1	2	3	4	5
Location	1	2	3	4	5

14. Please rate the extent to which you agree with the following statements based on how you feel today.

	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
I am familiar with the places we can go to spend time in nature/outdoors in Larimer County.	1	2	3	4	5
I am aware of the programs we can attend in Larimer County to experience nature/outdoors.	1	2	3	4	5
I am uncomfortable with my family being in nature/outdoors because we don't see other people who share our culture.	1	2	3	4	5
We would not attend a program if it was offered in a language different from the language we speak at home.	1	2	3	4	5

Question Results

Summary of survey findings

Based on prior research and the results of this survey, the primary findings about parents in Larimer County include the following:

1. As indicated by the connection to nature and belief results, there is a strong culture and norm of spending time in nature in Larimer County, and this finding is true across all demographic types.
2. More passive forms of recreation and activities that require less technical expertise and/or gear receive greater participation. This includes use of trails, wildlife-viewing and using a playground. Activities such as hunting and mountain biking that require a greater degree of specialization are less common.
3. While many barriers are identified in previous research for other geographic and demographic groups, there are few barriers to respondents in this study with the exception of time, location and an awareness of program opportunities. To elaborate on the latter, respondents are familiar with places to go on their own time, but are less familiar with the options to participate in a guided program about nature.

Connection to Nature items (numbers in cells are percents)

	<i>Strongly disagree</i>	<i>Disagree</i>	<i>Neutral</i>	<i>Agree</i>	<i>Strongly agree</i>
I feel at ease when I spend time in nature.	0	1	6	21	72
I feel distant from nature.	2	6	10	32	50
I care about nature.	0	1	3	21	75
I feel a bond with nature.	1	1	12	27	59
Being in nature makes me feel nervous.	1	2	5	20	72
Overall (above items recoded & combined)	0	0	2	20	78

Beliefs (numbers in cells are percents)

	<i>Strongly disagree</i>	<i>Disagree</i>	<i>Neutral</i>	<i>Agree</i>	<i>Strongly agree</i>
Spending time in nature/outdoors provides worthwhile benefits for children.	0	0	1	14	85
The risks to a child while in nature exceed the benefits.	59	18	5	6	12
The effort to have children in nature/outdoors is not worth the benefits.	71	22	3	1	3
I would like my child/children to spend more time in nature/outdoors than they currently do.	1	3	18	38	40
Spending time in nature is something I like to do.	1	0	4	23	72
People who are important to me like to spend time in nature/outdoors.	1	1	11	33	54

Barriers (numbers in cells are percents)

	<i>Strongly disagree</i>	<i>Disagree</i>	<i>Neutral</i>	<i>Agree</i>	<i>Strongly agree</i>
I am familiar with the places we can go to spend time in nature/outdoors in Larimer County.	1	4	13	53	29
I am aware of the programs we can attend in Larimer County to experience nature/outdoors.	3	20	22	41	14
I am uncomfortable with my family being in nature/outdoors because we don't see other people who share our culture.	66	23	6	3	2
We would not attend a program if it was offered in a language different from the language we speak at home.	19	18	23	24	16

	<i>No influence</i>	<i>Minor influence</i>	<i>Some influence</i>	<i>A lot of influence</i>	<i>Very strong influence</i>
Time	3	7	27	34	29
Cost	11	18	30	21	20
Transportation	20	23	30	15	12
Location	10	11	33	25	21

4. While a variety of settings are deemed important for spending time in nature, settings with more naturalness are more strongly preferred.
5. There are few differences between Latino and non-Latino groups. Both groups noted time

Setting Importance and Satisfaction

All 12 settings were graphed with importance on a scale of 1 (low importance) to 5 (high) on the vertical axis, and satisfaction on a scale of 1 (low) to 5 (high) on the horizontal axis. When graphed on a scatter plot, points that are situated in the upper right quadrant are interpreted positively: the respondents deem them to be important settings and that the opportunities to experience them are satisfactory. In this survey, all 12 settings were graphed in the upper right quadrant when the cross hairs of the axis are at the neutral level of “3”, indicating an overall good result. To force some distinctions between settings and help give some level of direction to practitioners, however, the cross hairs can be moved to help narrow in on respondents’ priorities and overall sentiments. In the graph below, the lines were moved from the standard neutral point of “3” to a higher standard of “4.” In this outcome, settings with less “natural-ness” are interpreted to be less important to the survey respondents: sports/athletic fields, school yards and farms/ranches. The remaining (unlabeled) points such as mountains, open space, regional/national parks and rivers/streams were all rated more strongly.

1 = the unlabeled settings (due to their clustering of each other) include: neighborhood natural area, local park, open space, regional/state/national park, trails, lake/pond/reservoir, river/stream and mountains.

Activity Participation (numbers in cells are percents)

	Within the past 30 days	Within the past 3 months	Within the past 6 months	Within the past 12 months	No one has participated in the past year
Fishing	30	17	5	9	39
Hunting	6	1	2	9	82
Mountain biking	22	8	4	8	58
Biking on paved trails	60	10	6	6	17
Horseback riding	12	10	4	8	66
Walking/Hiking on Trails	74	14	4	3	5
Camping	41	19	4	12	24
Wildlife viewing	69	14	3	2	12
Bird watching	50	8	5	2	35
Agriculture/Farm Activities	27	8	2	5	58
Gardening	74	7	3	2	14
Visited a playground	85	8	1	2	4
Volunteered for an outdoor project	22	12	8	7	51
Attended an organized outdoor program for kids only	24	17	6	6	47
Attended an outdoor program for families	28	16	7	6	43
Had a picnic	58	22	4	4	12
Visited Rocky Mtn. National Park	23	23	11	15	28

C



Program Inventory

Program Inventory

Outdoor/Nature Program Inventory Methodology and Results

Outdoor/Nature Program Providers were identified as those agencies, organizations and companies for whom connecting youth/families with nature is a key part of their mission or objectives. Entities were identified based on past experience; from a list of attendees to former Lt. Governor Barbara O'Brien's Colorado Kids Outdoors forum in Loveland in June 2009; web searches; and via suggestions from the Project Team. Thirty-five of the 41 agencies/organizations completed the survey.

The survey, developed for the Survey Monkey web-based platform, consisted of 22 questions, and a total of 82 items. Providing multiple choice categories from which to choose allowed us to cover much more information than relying on a long list of open-ended questions regarding each factor.

Links to the survey were sent out via email. Several reminders were sent, and then individual emails and/or calls were made to request completion as needed.

Within this summary the data is formatted to report the number of providers. An electronic Microsoft Excell file is available on the Larimer County project website to allow for access to additional analysis.

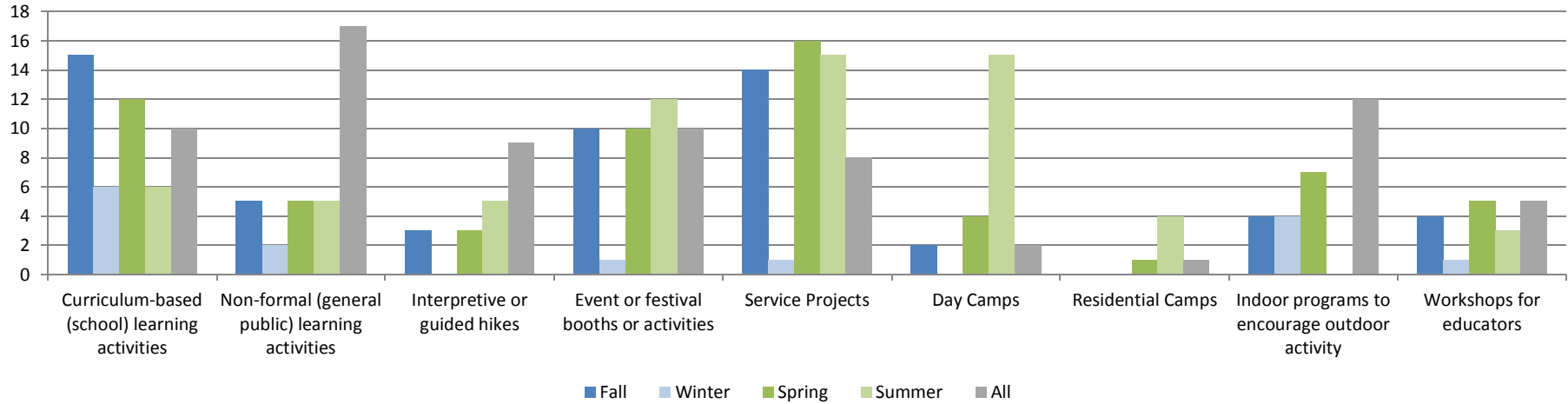
Results Summary

Respondents to the Questionnaire Include:

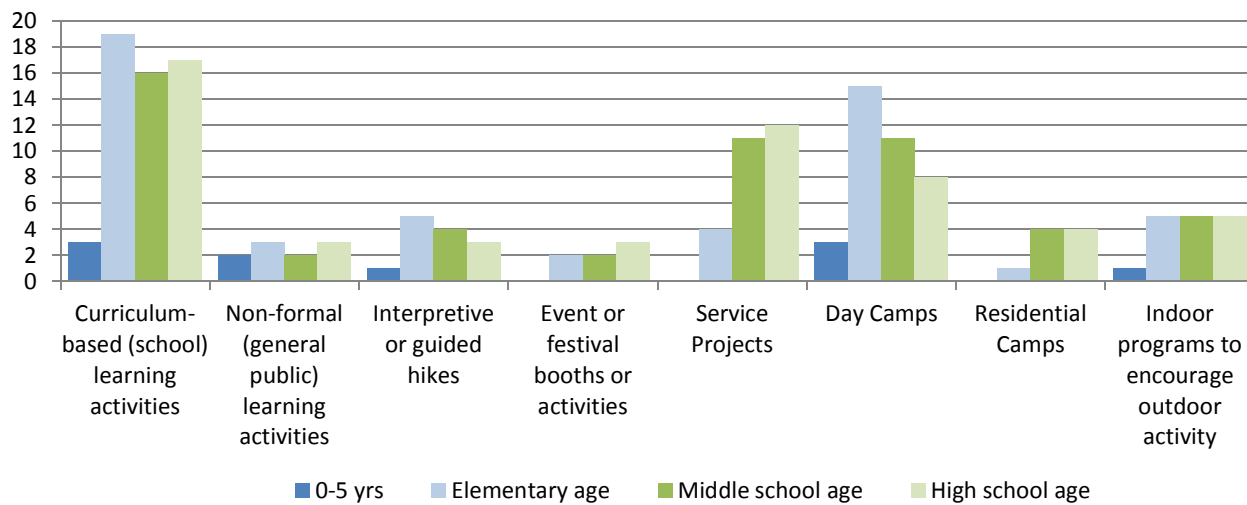
Larimer County Tree Farmers
Colorado Division of Parks and Wildlife
Rocky Mountain National Park
Kent Mountain Adventure Center Inc.
The Growing Project
Roosevelt National Forest/Canyon Lakes Ranger District
Educo Leadership Adventures
City of Fort Collins Utilities
City of Loveland Parks and Recreation Department
Loveland Youth Gardeners
Children and Nature Connection - Northern Colorado
Colorado Youth Outdoors
Lory State Park
Rocky Mountain Flycasters Chapter, Trout Unlimited
Northern Colorado Nature Tribe
Colorado State Forest Service
City of Loveland
City of Fort Collins Natural Areas Program
USDA Forest Service, Rocky Mountain Research Station
Estes Valley Recreation and Park District
Larimer County Youth Conservation Corps
Sylvan Dale Guest Ranch
Rocky Mountain Bird Observatory
The Gardens on Spring Creek

REI
CSU Environmental Learning Center
Larimer County Natural Resources Education Program
Poudre Learning Center, Ray Tschillard
Fort Collins Audubon Society
High Plains Environmental Center
Girl Scouts of Colorado GECCCO troop 71106
Poudre Wilderness Volunteers, Kids in Nature Program
Rocky Mountain Raptor Program
Boyd Lake State Park
YMCA of the Rockies

What geographic areas does your audience come from? Select all that apply:	
Answer Options	Response Count
Fort Collins	24
Loveland	19
Windsorw	19
All of Larimer County	19
Wellington	14
Berthoud	12
Timnath	12
Northeastern Colorado	11
Estes Park	10
Colorado - statewide	10
Beyond Colorado	9
Other (please specify)	9



Age Groups by Type of Program



Youth and Family Program Providers Questionnaire Methodology and Results

A separate questionnaire was sent to Youth and Family Program Providers. These agencies are organizations that regularly reach youth and/or families, but for whom connecting their participants to nature is not a key part of their mission. These organizations include:

- Early Childhood Education (ECE) Providers who work with children younger than school-age;
- K-12 schools; and
- Youth and Family Services, who provide education, family services, youth enrichment, etc.

A survey instrument was created to get basic information about if/ when, frequency, duration and types of sites used for spending time outdoors or in nature with participants. In addition, the survey asked two questions related to why providers were not taking participants out as much as they wanted.

An extensive list of Youth/Family Service and Early Childhood Education providers was generated for email distribution of the questionnaire. In addition, the Healthier Communities Coalition of Larimer County included an article, link, and encouragement to complete the survey in two of their semi-monthly newsletters. The Early Childhood Council of Larimer County sent

an email with a link to the survey to their list of over two hundred ECE providers. Follow-up reminders were sent to the list-serves, and individually to those who were sent emails directly.

Schools were contacted via the Assistant Superintendents for Elementary and Middle Schools for Poudre School District, and through the Director of Curriculum and Instruction for the Thompson District. Attempts to connect with the Estes Park district were not successful, as they were in transition with administrative staff.

Eighty-five respondents completed the survey.

This was broken down as follows:

- ECE Providers - 41 includes 14 youth/family services who work with young children
- K-12 Schools - 30 (Thompson - 12, Poudre - 18, including 5 duplicates)
- Youth/Family Services - 33 entities, including 2 duplicated

The complete database and the summary database are available in Microsoft excell format.

D



Facility Inventory

Facilities Inventory

Inventory Process

The purpose of the facilities inventory is to identify natural area facilities in Larimer County that are available for use by youth and families to connect to nature. For this inventory, a natural area is defined as “An area with some natural vegetation and/or natural features (like rocks or water) likely to be perceived by a child as a wild or semi wild space. There is no minimum size.”

The facilities include government lands and parks, including federal, state, county and municipal lands. Facilities not managed by a government entity were also included, such as the High Plains Environmental Center, Colorado Youth Outdoors, Sylvan Dale Guest Ranch, etc.

24 organizations were sent a questionnaire and 16 responses were received (67%). Follow-up phone interviews were conducted with some of the land managers to fill in additional information.

Larimer County Natural Areas Facilities Inventory List

	GIS Map	Natural Areas	Parking	Trail head	Trail System	Indoor Meeting	Outdoor Meeting	Interpretive Signs	Campground	Rest rooms	Main Attractions/Characteristics/Uses	Public Access (1. Yes, 2. No, 3. Trail, 4. Seasonal, 5. Restricted, 6. Unknown)
Federal												
U.S. Forest Service												
Arapaho National Forest	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes		yes, trail
Roosevelt National Forest	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes		yes, trail
National Park Service												
Rocky Mountain National Park	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Scenery, Wildfire, Alpine Tundra, easy access	yes
State												
Colorado State Parks												
Boyd Lake	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Boyd Lake (boating, swimming, tubing, sailing, fishing, water skiing, PWC use), camping, picnicking, relaxing on the swim beach, winter activities, hunting	yes, trail
Lory State Park	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	over 25 miles multi-use trails	yes, trail, seasonal
Colorado State University												
CSU Environmental Learning Center	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Poudre river, ecosystems, bird viewing	trail
County												
Larimer County Dept. of Natural Resources												
Big Thompson Roadside Parks: Forks, Glade, Narrows, Sleepy Hollow	Yes	Yes	Yes	Yes	No	No	No	No	No	Yes	river access; fishing; picnicking	yes, restricted

	GIS Map	Natural Areas	Parking	Trail head	Trail System	Indoor Meeting	Outdoor Meeting	Interpretive Signs	Campground	Rest rooms	Main Attractions/Characteristics/ Uses	Public Access (1. Yes, 2. No, 3. Trail, 4. Seasonal, 5. Restricted, 6. Unknown)
Bison Visitor Center	Yes	Yes	Yes	No	No	Yes	Yes	No	No	Yes	administrative offices; meeting space	yes, restricted
Carter Lake County Park	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	camping, boating, fishing, trails, rock climbing, picnicking, swim beach	yes, trail, restricted
Devil's Backbone Open Space	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	multi-use trails and regional trail connection, birding, wheelchair access trail, interpretive trails, picnicking, outdoor classroom	yes, trail, restricted
Eagle's Nest Open Space	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	trail system, river access, fishing, restricted hunting, picnicking	yes, trail, restricted
Estes Park Campgrounds at Mary's Lake and East Portal Reservoir	Yes	Yes	Yes	No	No	No	No	No	Yes	Yes	camping, swimming pool, store	yes, restricted
Flatiron Reservoir County Park	Yes	Yes	Yes	No	No	No	Yes	No	Yes	Yes	camping, fishing, camper cabins, picnicking	yes, restricted
Fossil Creek Reservoir Regional Open Space	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	hiking-only trails, wheelchair accessible trails, outdoor classroom, interpretive trails, bird viewing blinds and pier, picnicking	yes, trail, restricted
Hermit Park Open Space	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	camping, camper cabins, multi-use trails, regional trail connection, group use area, picnicking, future outdoor classroom and future restricted hunting	yes, trail, restricted
Horsetooth Mountain Open Space	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	multi-use trails and regional trail connection, backcountry camping, interpretive trails, picnicking, outdoor classroom	yes, trail, restricted
Horsetooth Reservoir County Park	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	camping, camper cabins, multi-use trails, regional trail connection, group use areas, picnicking, fishing, swim beach, rock climbing	yes, trail, restricted

	GIS Map	Natural Areas	Parking	Trail head	Trail System	Indoor Meeting	Outdoor Meeting	Interpretive Signs	Campground	Rest rooms	Main Attractions/Characteristics/ Uses	Public Access (1. Yes, 2. No, 3. Trail, 4. Seasonal, 5. Restricted, 6. Unknown)
Pinewood Reservoir County Park	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	camping, boating, fishing, trails, picnicking	yes, trail, restricted
Poudre parks: Lions' Open Space and Pleasant Valley Trail, Bingham Hill Park	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes		Yes	multi-use trails, regional trail connection, river access, fishing, picnicking, interpretive trails, outdoor classroom	yes, trail, restricted
Ramsay-Shockey Open Space	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	multi-use trails	yes, trail, restricted
Red Mountain Open Space	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	multi-use trails, outdoor classroom, restricted hunting, interpretive trails, picnicking	yes, trail, restricted
Rimrock Open Space	Yes	Yes	Yes	Yes	Yes	No	No	No	No	Yes	multi-use trail	yes, trail, restricted
River Bluffs Open Space and Poudre River Trail	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	multi-use trail, regional trail connection, river access, canoe access, fishing, interpretive trail, picnicking	yes, trail, restricted
Municipal												
Gardens on Spring Creek (City of Ft. Collins)	?	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Community botanic gardens, includes interactive children's garden	Open year round to public. Spring Creek bike path access .
Fort Collins Natural Areas												
Arapaho Bend	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	Popular for fishing	yes, trail
Bobcat Ridge	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Hiking, challenging mountain bike trail, historic cabin, educational programs	yes, trail
Butterfly Woods	Yes	Yes	No	Yes	Yes	No	No	No	No	No	Paved Poudre River Trail passes through	yes, trail
Cathy Fromme Prairie	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Hiking, dog walking, wheeled recreation since it's a paved trail.	yes, trail
Cattail Chorus	Yes	Yes	No	Yes	Yes	No	No	Yes	No	No	Little visitation, on paved Poudre Trail, nice for bird watching.	
Colina Mariposa	Yes	Yes	No	No	No	No	No	No	No	No	Neighborhood access only.	yes, trail
Cottonwood Hollow	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	No	Great bird watching area, solitude near town.	yes, trail

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Coyote Ridge	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Hiking, mountain biking, connection to Blue Sky Trail	yes, trail
Eagle View (not yet open to public)	Yes	Yes	No	No	No	No	No	No	No	No		no
Fischer	Yes	Yes	No	Yes	Yes	No	No	No	No	No	Just off paved Spring Creek Trail, dog walking or cyclists.	yes, trail
Fossil Creek Reservoir (not yet open to public)	Yes	Yes	No	No	No	No	No	No	No	No		no
Fossil Creek Res. Regional Open Space	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Bird watching, educational events, walking	yes, trail, one trail is seasonally closed.
Fossil Creek Wetlands	Yes	Yes	No	No	No	No	No	No	No	No	Limited access.	yes
Gateway	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Picnicking, hiking, natural playground	yes, trail
Gustav Swanson	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	Walking- near downtown	yes, trail
Hazaleus (not yet open to public)	Yes	Yes	No	No	No	No	No	No	No	No		
Kingfisher Point	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	Fishing, cyclists community through.	yes, trail
Magpie Meander	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	walking, educational programs, near low income neighborhood.	yes, trail
Mallard's Nest	Yes	Yes	No	Yes	Yes	No	No	No	No	No	Along Spring Creek Trail, so lots of cyclists, dog walkers.	yes, trail
Maxwell	Yes	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Hikers, dog walkers, mountain bikers	yes, trail
McMurry	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	Fishing, walking, river access at beach, rope swings	yes, trail
Nix	Yes	Yes	No	Yes	Yes	No	No	No	No	No	Paved Poudre River Trail goes through site.	yes, trail
North Shields Pond	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Fishing, walking.	yes, trail
Pelican Marsh (not yet open to public)	Yes	Yes	No	No	No	No	No	No	No	No		no
Pineridge	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Dog walking, running, fishing in Dixon Reservoir.	yes, trail

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Prairie Dog Meadow	Yes	Yes	Yes	No	No	No	No	No	No	No	Limited access	yes, no trail, can park and walk on sidewalk adjacent to property.
Prospect Ponds	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	No	Fishing, lunchtime walk spot for nearby businesses.	yes, trail
Red Fox Meadows	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	Mostly neighborhood use.	yes, trail
Redtail Grove	Yes	Yes	No	Yes	Yes	No	No	No	No	No	Paved Fossil Creek Trail goes through this site, so lots of cyclists.	yes, trail
Redwing Marsh	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	Mostly neighborhood use.	yes, trail
Reservoir Ridge	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Hikers, mountain bikers, northern end of Foothills Trail.	yes, trail
Riverbend Ponds	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	Lots of fishing, also hiking.	yes, trail
River's Edge	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	Limited use.	yes, no trail but off trail use allowed.
Ross	Yes	Yes	No	Yes	Yes	No	No	No	No	No	Just off Spring Creek Trail.	yes, trail
Running Deer	Yes	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Limited use, mostly hikers	yes, trail
Salyer	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	Hickory St spur goes through it so cyclists use it, also popular for river access.	yes, trail
Soapstone Prairie	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Hiking, mountain biking- over 40 miles of trail, remote site. Archeological resources.	yes, trail, one trail is seasonally closed.
Springer	Yes	Yes	No	Yes	Yes	No	No	Yes	No	No	Paved Poudre trail is main access.	
Sterling	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	Walking- adjacent to North Shields Pond	yes, trail
The Coterie	Yes	Yes	No	Yes	Yes	No	No	No	No	No	Paved Spring Creek Trail is only access.	yes, trail
Two Creeks	Yes	Yes	No	Yes	Yes	No	No	No	No	No	Paved trail (Fossil Creek Trail?) is only access.	yes, trail
Udall (not yet open to public)	Yes	Yes	No	No	No	No	No	No	No	No		no
Vangbo	Yes	Yes	No	No	No	No	No	No	No	No		
Williams	Yes	Yes	No	Yes	Yes	No	No	No	No	No		yes, trail

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City of Loveland Open Lands and Natural Areas												
Big Thompson River Corridor	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	Rec trail/natural areas along Big Thompson River	yes
Morey Wildlife Reserve at Mariana Butte	Yes	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Pond - passive recreation	yes
Centennial NA	Yes	Yes	No	No	No	No	No	No	No	No	River	no
CTM Place	Yes	Yes	No	No	No	No	No	No	No	No	River	yes
Jayhawker Ponds	Yes	No	No	Yes	Yes	No	No	No	No	No	Ponds - fishing	yes
Macy NA	Yes	Yes	No	No	No	No	No	No	No	No	River	yes
RFJY	Yes	Yes	No	No	No	No	No	No	No	No	River	yes
Trailwood	Yes	Yes	No	No	No	No	No	No	No	No	Wetlands	yes
Meadowbrook NA	Yes	Yes	No	Yes	Yes	No	No	No	No	No	Pond, trails	yes
HP Agilent Open Space	Yes	Yes	No	No	No	No	No	No	No	No	Ponds	no
Boyd Lake sites (3)	Yes	No	Yes	No	Yes	No	No	No	No	Yes	Ag land & rec trail along Boyd L.	trail
Brose NA	Yes	Yes	No	No	No	No	No	No	No	No	River, wetlands	no
Namaqua NA	Yes	Yes	No	No	No	No	No	No	No	No	River - bird watching, fishing	yes
Prairie Ridge	Yes	Yes	No	No	No	No	No	No	No	No	Dryland farming, hogbacks	no
Wild Property	Yes	Yes	No	No	No	No	No	No	No	No	River	no
City of Windsor												
Folkstone NA	Yes	Yes	No	No	No	No	No	No	No	No	Tree Nursery Open Space	yes
Poudre NA	Yes	Yes	Yes	No	Yes	No	No	No	No	No	Dog Park, River, Trail	yes, trail
Bellmont Ridge Open Space Trail (open to public but managed by HOA)	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	Open Space to arroyo's	yes, trail
Estes Valley Recreation and Park District												
Lake Estes Marina and Trail	No	Yes	Yes	No	Yes	No	Yes	No	No	Yes		
Mary's Lake	No	Yes	Yes	No	No	No	No	No	No	Yes		
Town of Berthoud												
Hillsdale Nature Park	No	Yes	Yes	Yes	Yes	No	No	Yes	No	No	Trail through riparian area	Yes via trail, no restrictions

	GIS Map	Natural Areas	Parking	Trail head	Trail System	Indoor Meeting	Outdoor Meeting	Interpretive Signs	Campground	Rest rooms	Main Attractions/Characteristics/ Uses	Public Access (1. Yes, 2. No, 3. Trail, 4. Seasonal, 5. Restricted, 6. Unknown)
Nielsen Greenway	No	No	No	No	Yes	No	No	No	No	No	Public trail along historic drainage	Yes via trail, no restrictions
Waggenger Community Park	No	No	No	No	No	No	No	No	No	No	Views of working farm	No
Other												
High Plains Environmental Center	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Fishing, trails, native plant gardens, vegetable gardens, focus on sustainable site design within development	Yes
Colorado Youth Outdoors - Swift Ponds	Yes	Yes	Yes	No	No	No	Yes	No	Yes	Yes	Swift Ponds is a 240 acre outdoor education area designed to introduce youth and adults to sportsman related outdoor activities. The main attraction to Swift Ponds are the 12 fishing ponds that making catching a fish very easy. The property also features an open air pavilion that can seat up to 120 people and a 12 target archery range.	No. Swift Ponds is available for use by non-profit organizations who specialize outdoor activity programing and sportsman related activities for youth and families.
The Nature Conservancy - Phantom Canyon Preserve	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No	Yes (3)	Road-less canyon, conservation landscape, grasslands, shrub lands, riparian system, aquatic system, Ponderosa pine, visitor center, overnight cabin, bunkhouse for seasonal staff, not winterized, 6 month facility, catch and release fly fishing, hiking, guided interpretive hikes, volunteer stewardship days, CSU internships, support partner conservation organizations, school field trips, place based educational program	Restricted. The property is surrounded by other private property, we have an access agreement to escort visitors thru the neighbors locked gate-hence we set up trip opportunities and advertise via a newsletter and website
Sylvan Dale Guest Ranch	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Full-service, 3200-acre working guest ranch and conference/ meeting facility, about 70% protected by conservation easements; diverse habitats in foothills and Big Thompson River corridor.	Yes, by reservation

2. OTHER ORGANIZATIONS/ FACILITIES

Rocky Mountain Nature Association (did not respond)
I added the Bellmont Ridge open space trail that is dedicated as public access, but is HOA maintained.
Cherokee Park Dude Ranch
Two Bars Seven Guest Ranch
Educo
Pingree Park Campus (did not respond)
Sky Ranch

3. NEW FACILITIES PLANNED TO BE ADDED IN THE NEXT FEW YEARS

A management plan for the City of Loveland HP Agilent Open Space is currently being developed to include public access for trails, fishing, passive recreation, etc.
Expanded native plant demonstration gardens, stormwater ponds that are designed as restored habitat with boardwalks/interpretive signs, greenhouse/classroom for school trips, Native American powwow grounds for school trips focusing on bio-regional/indigenous education
Colorado Youth Outdoors has plans to develop a similar property in the Colorado Springs area to serve our program in that area within the next 5 years

4. WHAT FACILITIES DO YOU FEEL ARE LACKING AT ANY LOCATION THAT WOULD ENHANCE VISITOR USE AND VISITOR EXPERIENCE?

An environmental center for visiting school groups
A visitor center with displays and information, we currently have a very small VC that only has a counter and sells park passes.
Interpretive signage park wide
A park gift/book shop
An amphitheater
Additional camping sites, some tent only
We have not received any feedback indicating that we are missing anything. However, if more opportunities were available I think they would be utilized.
More rest rooms and formal paved parking at Mary's Lake.
Much of Larimer County's Open Space areas are very restricted in the types of recreational activities that are permitted. Many areas could be opened to sportsman activities like and hunting and fishing with minimal impact to the land

5. ARE THERE REGULATIONS AT YOUR FACILITY THAT PROHIBIT FREE PLAY (OFF TRAIL, NO FLOWER PICKING, NO MOVING ROCKS, ETC.)

Yes. Regulations against taking or disturbing anything. Certain areas closed for resource protection.

Swimming is allowed only at the designated swim beach

yes. No free play, supervised. Trails have specific use regulations. No off trail, no flower picking, no moving, kicking rocks

One of our biggest issues I feel is the requirement to pave parking lots, I feel this has the potential to negatively impact development and access into open space areas if we were able to access more.

In some areas but we also have a “wild zone” specifically intended to allow children unrestricted access to nature

Most regulations at Swift Ponds are related to fishing and facilities access

Yes, stay on trails, no collecting of any sort unless under an approved research permit, no smoking, no pets, no camping, no rock climbing, no river boating

NO RESPONSE WAS PROVIDED BY THE FOLLOWING ORGANIZATIONS:

Colorado Division of Wildlife

City of Fort Collins Utilities

Outdoor classrooms and detention areas

Poudre Learning Center

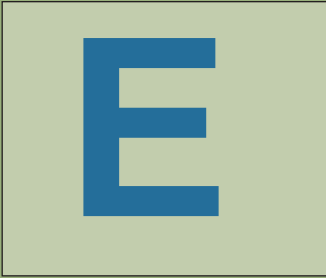
YMCA of the Rockies (Estes Park)

Girl Scouts

Magic Sky Ranch

Boy Scouts

Rocky Mountain Nature Association



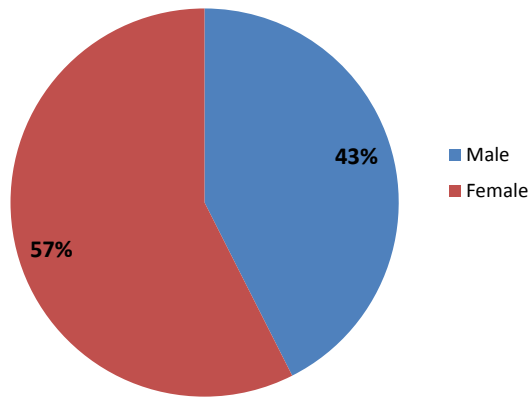
Community Meetings

Community Meetings

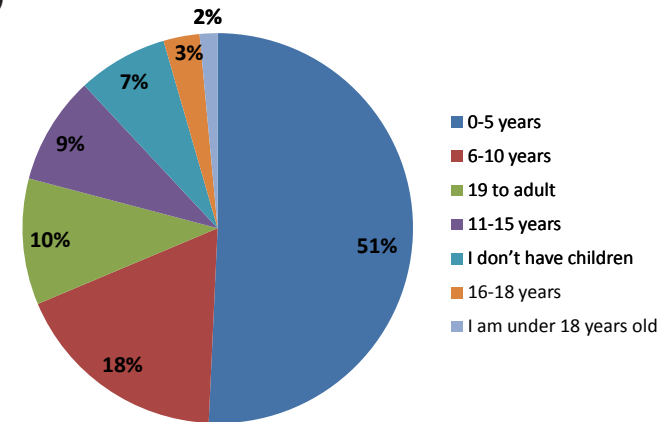
Key-pad Polling Responses

Six community meetings were hosted in different locations throughout the County at a variety of times. 51 participants answered questions using key pad polling, a technique that engages users with a real-time response. The following charts provide a summary of the question responses from all of the meetings.

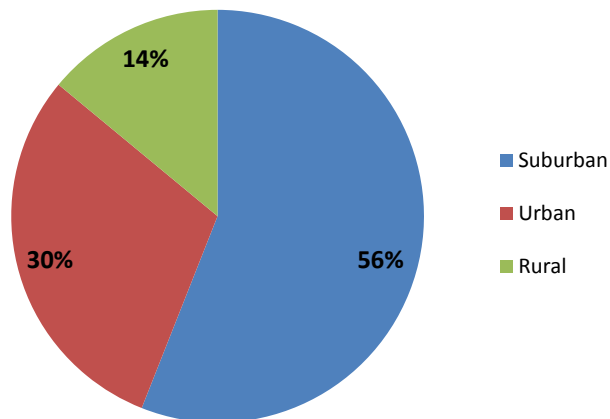
1.) What is your gender?



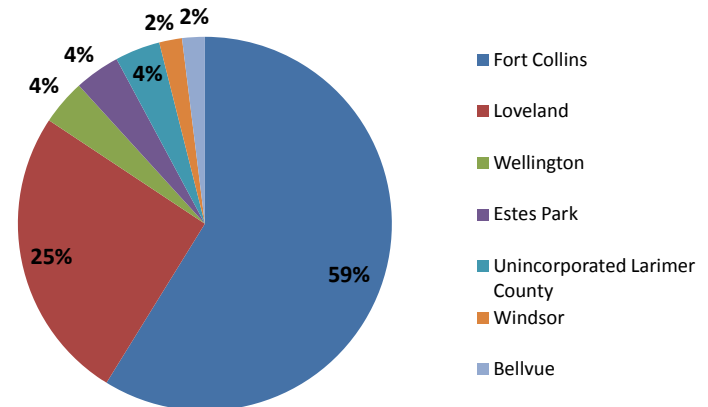
2.) What are the ages of your children? (select all that apply)



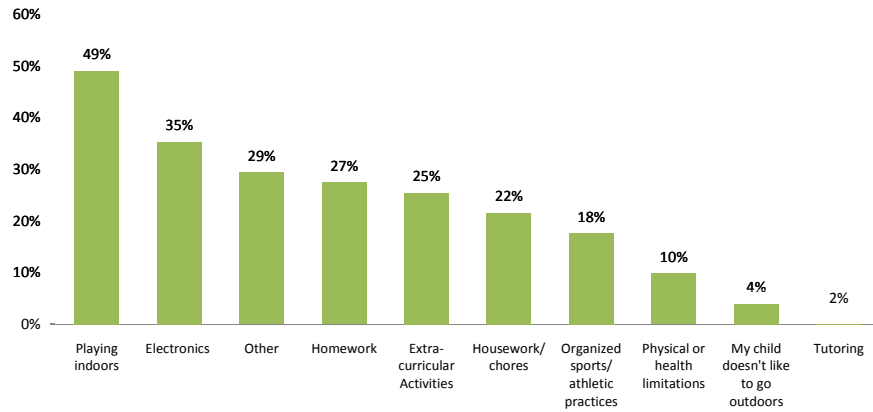
3.) Which of the following best describes the area in which you live? (select one)



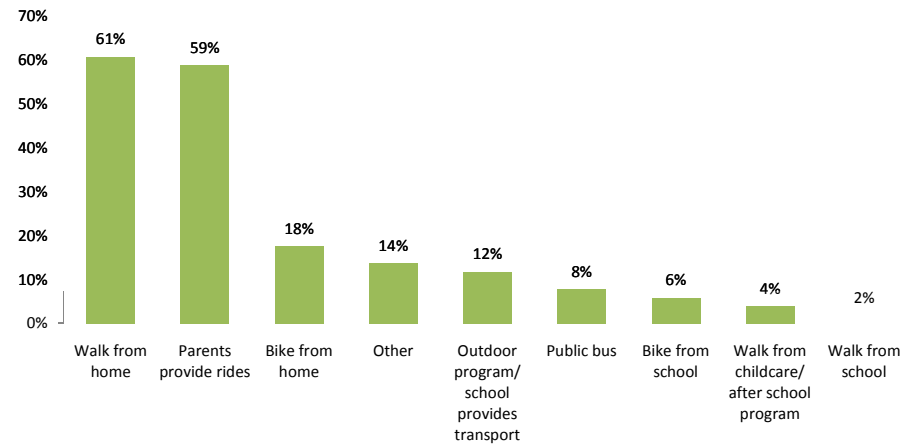
4.) Where do you live?



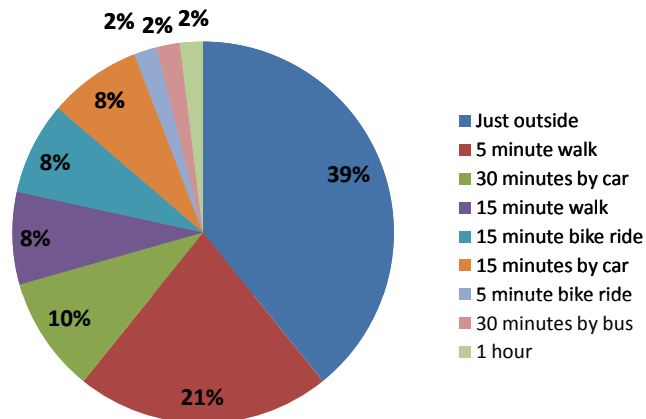
5.) Do any of the following prevent your child from spending time outdoors? (select all that apply)



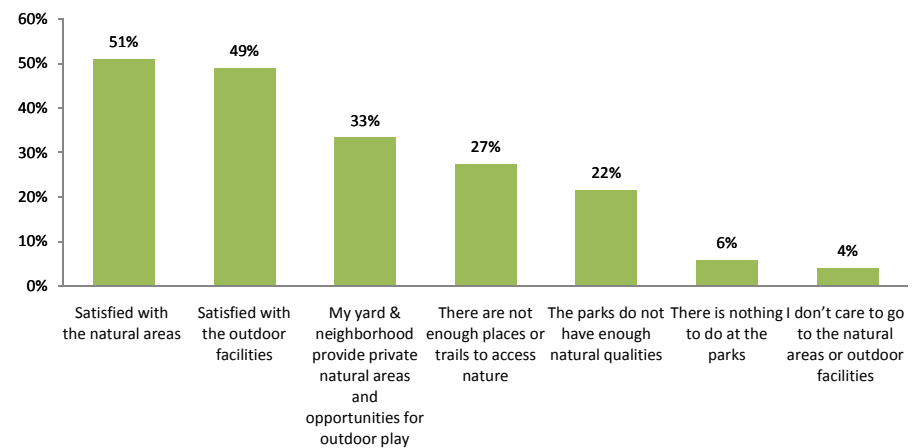
6.) How does your child typically access nature and the outdoors? (select all that apply)



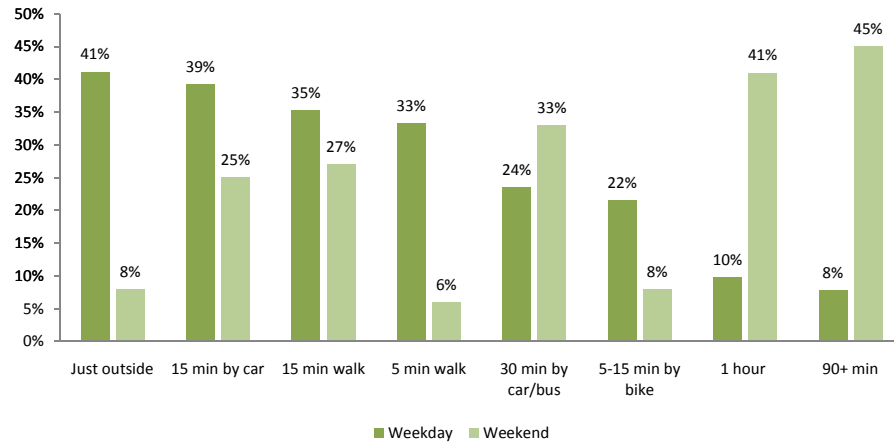
7.) How far from your home is the closest nature place that you think is appropriate for a child to play? (select one)



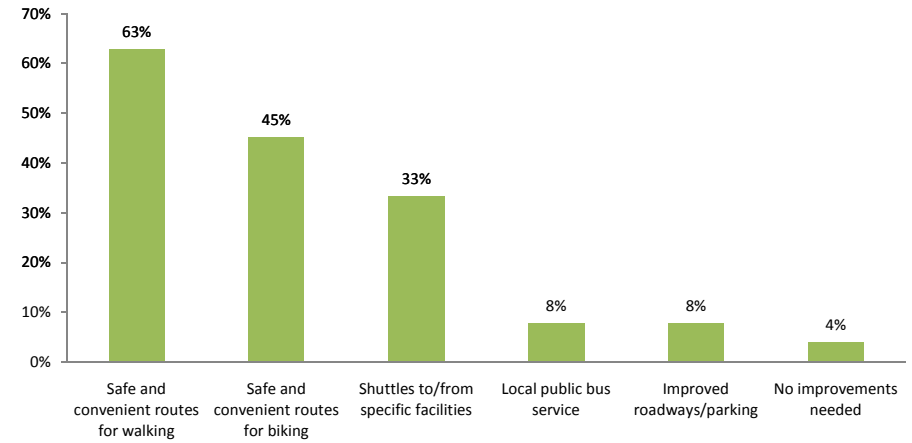
8.) Which of these statements best fits your thoughts about natural areas and outdoor facilities (parks and recreation) near your home? (select up to 3)



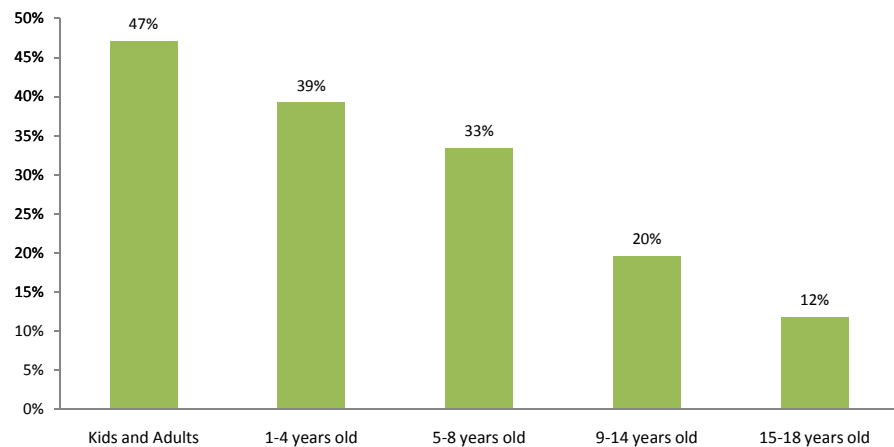
9./ 10.) How long is your family willing to travel to access outdoor facilities, natural areas or programs during the week (weekends)? (select up to 3)



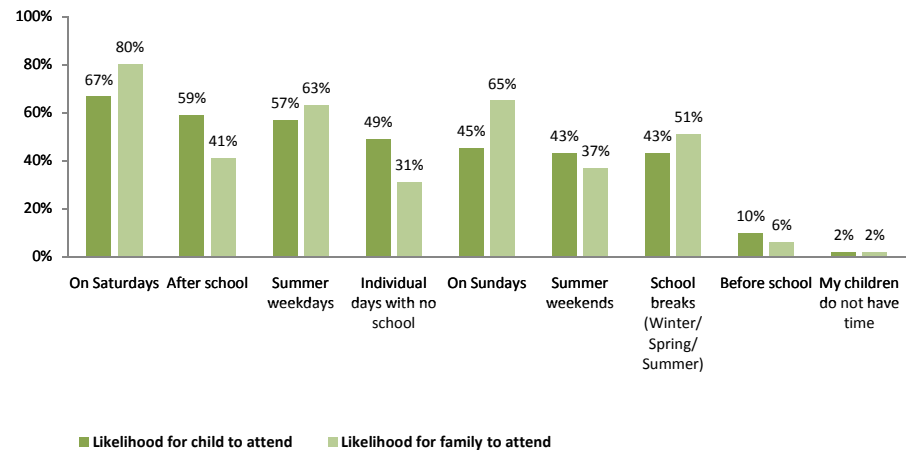
11.) Where should we focus efforts to improve transportation for youth and families to natural areas and outdoor facilities? (select up to two)



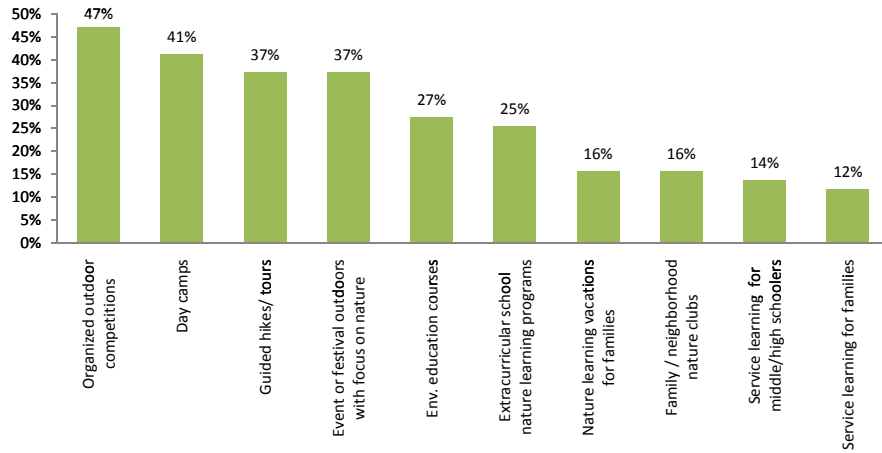
12.) Which age groups in your community do you feel could be better served with nature programs and outdoor facilities? (select up to two)



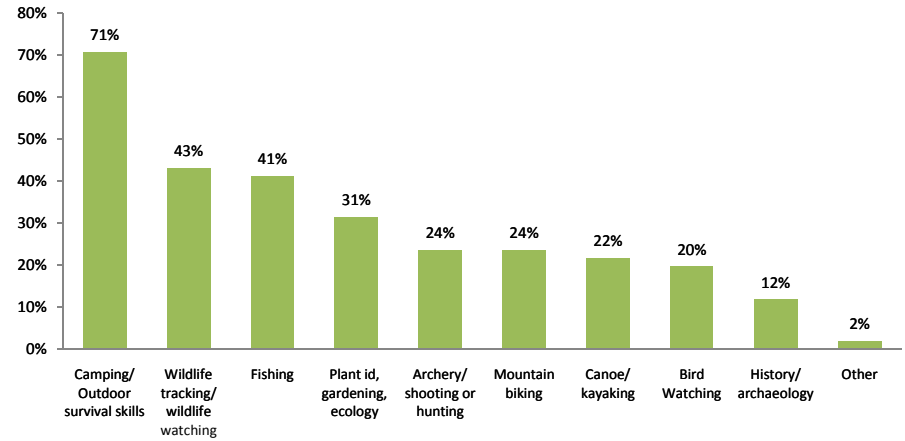
13./14.) More nature-related programs for children may be offered in the future. Which of the following times would increase the likelihood of your child (Family) attending? (select all that apply)



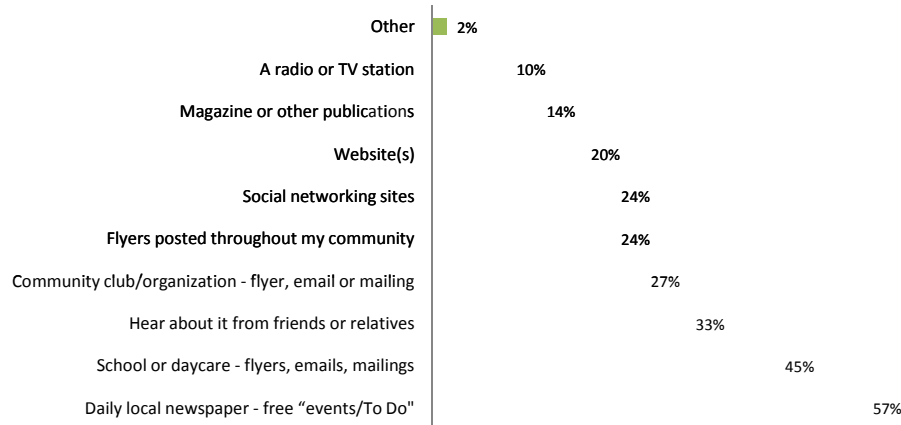
15.) Which of these types of programs or classes are you most likely to have your child attend? (select your top 3)



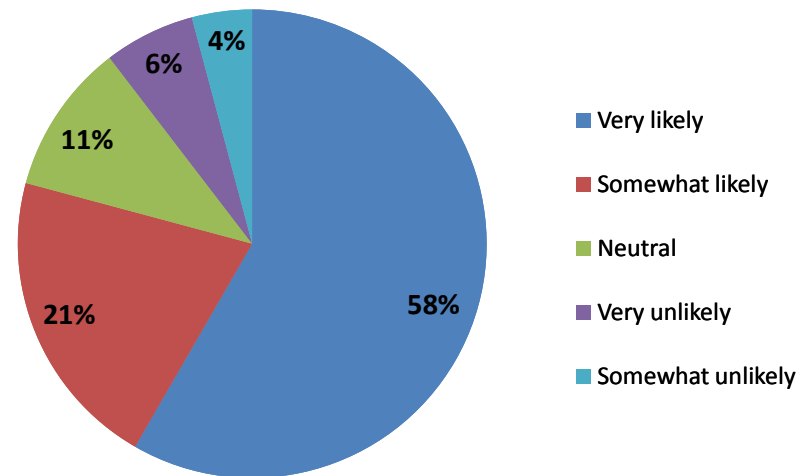
16.) Which topics for outdoor programs would encourage your child to spend more time in nature? (select your top 3)



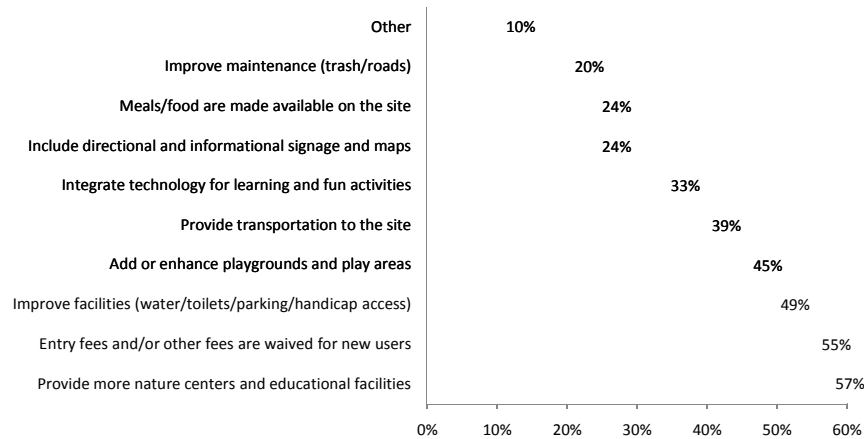
17.) Where are you most likely to learn of an announcement for a nature program or places to go? (select your top 3)



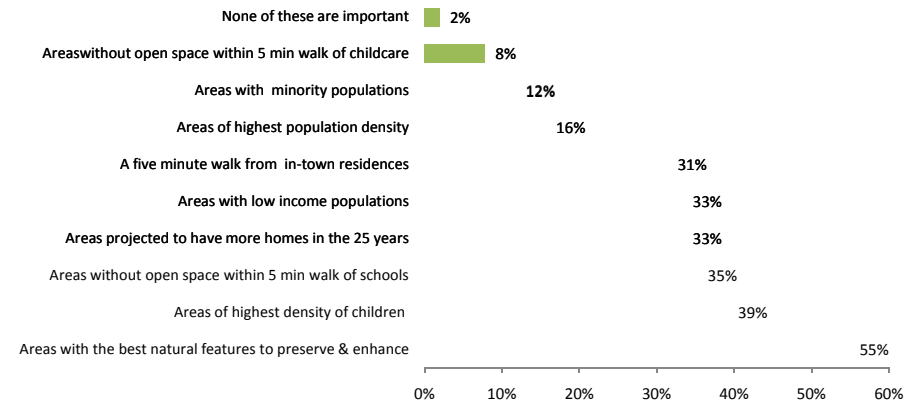
18.) If there were a new, single source website for all nature-related programming and places to go in Larimer County, how likely would you use this to learn of opportunities for your child and/or family? (select one)



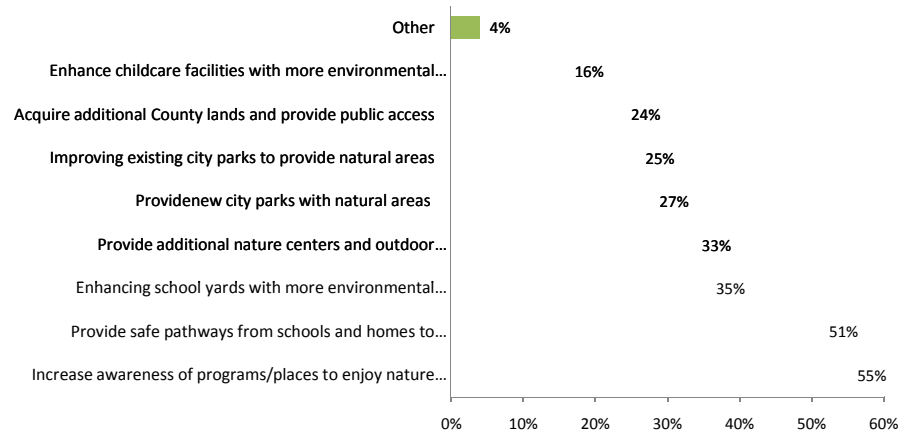
19.) What needs to be improved to encourage use of public natural areas throughout the County? (select all that apply)



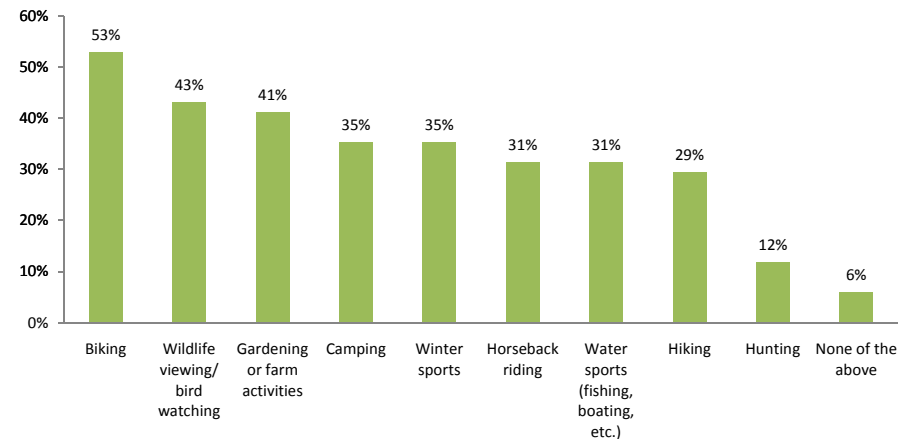
20.) To better connect youth and families to nature, I think we should focus on providing public natural areas and outdoor facilities within: (select your top 3)



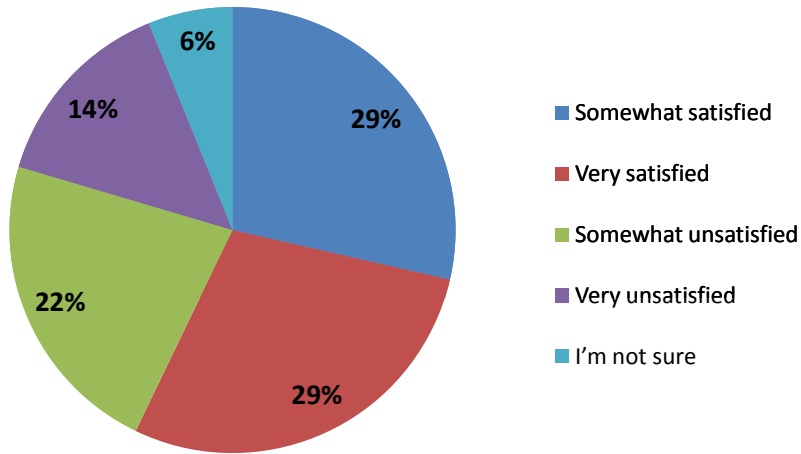
21.) To better connect families and youth to lands in Larimer County, I think we should focus on: (choose your top 3)



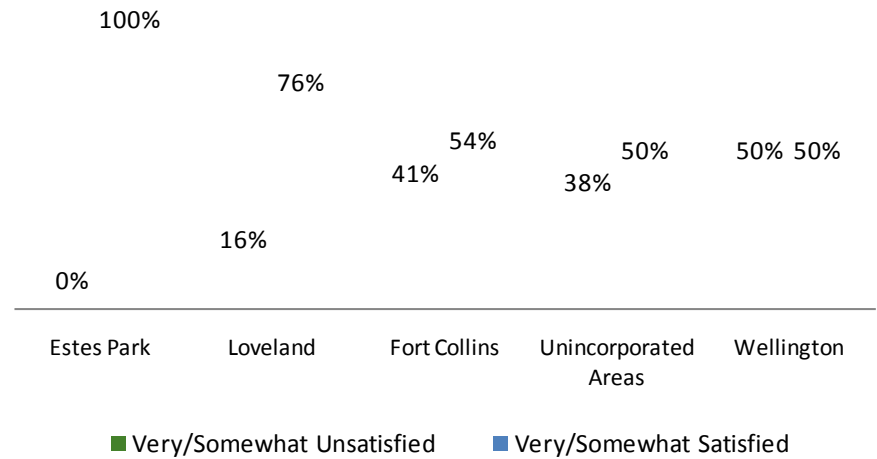
22.) Are more places needed within Larimer County to do any of the following activities that would better connect youth and families to the outdoors/nature? (select all that apply)



23.) How do you feel about the natural areas for kids and families in your community?



Satisfaction with Natural Areas for Kids and Families

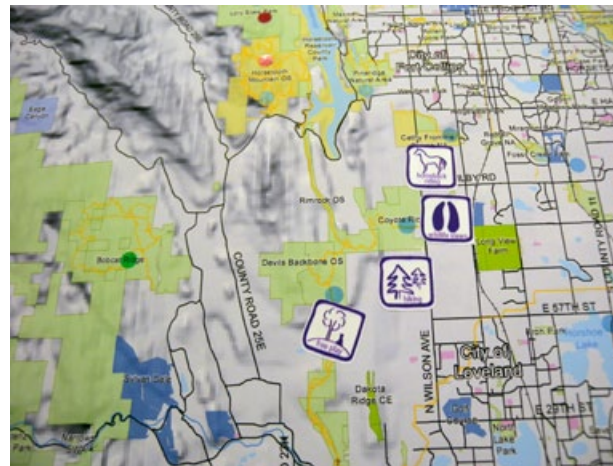


Map Activity

The Community Meetings utilized County and City maps for participants to describe how specific geographic locations might better help connect children to nature. The Plug in to Nature Map Exercise included three steps:

1. Place a dot on the locations you visit regularly to enjoy nature and the outdoors with your family.
2. Circle the outdoor places you want to visit with your family but currently do not. Write down the reasons why.
3. Place stickers on locations where you would like to have new outdoor/nature activities.

The following Maps A-E show a composite of all the activities and their distribution throughout the County that were selected by meeting participants.



Map A: Community Meeting Map Results; Desired Activities - Larimer County



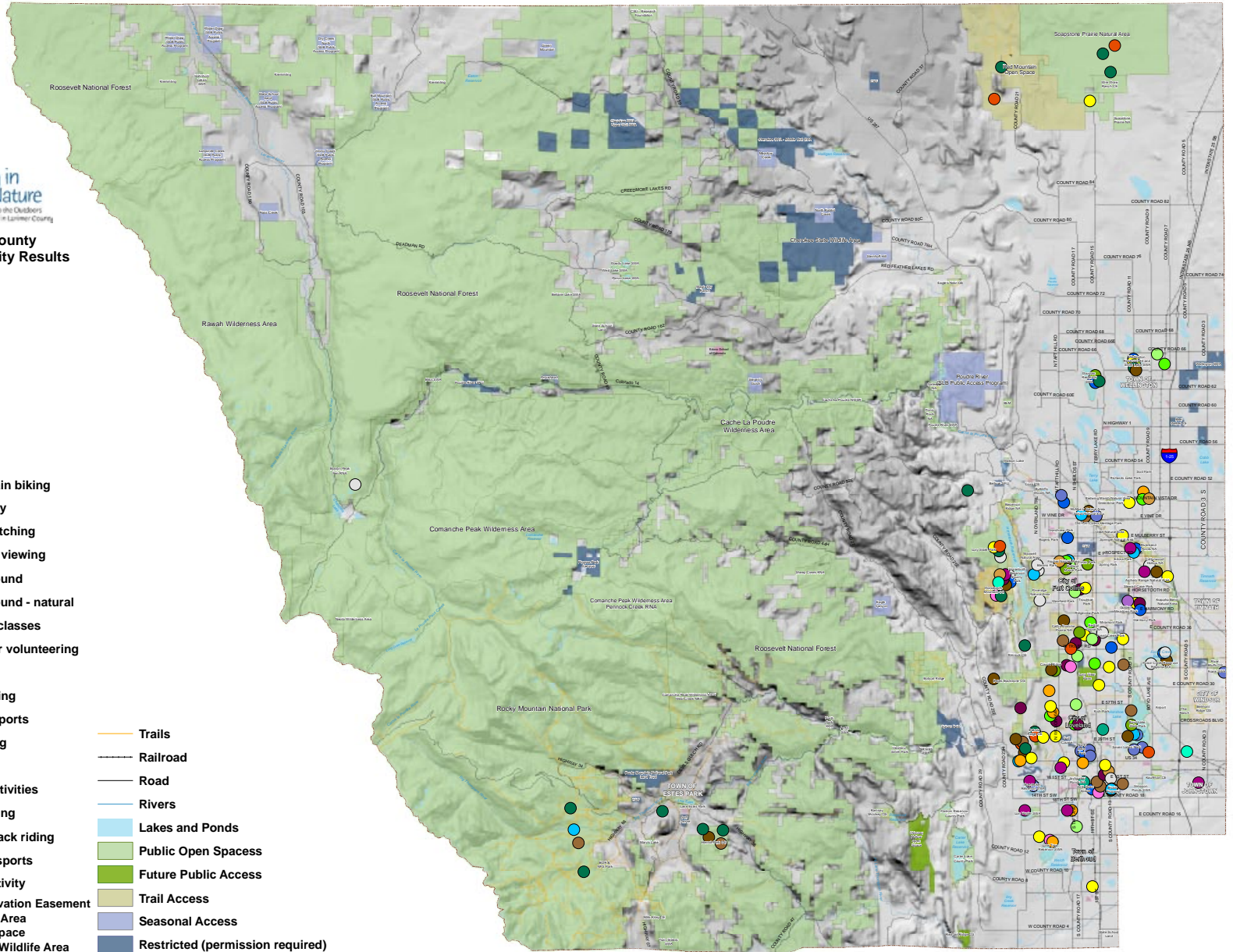
**Larimer County
Map Activity Results**

Activities

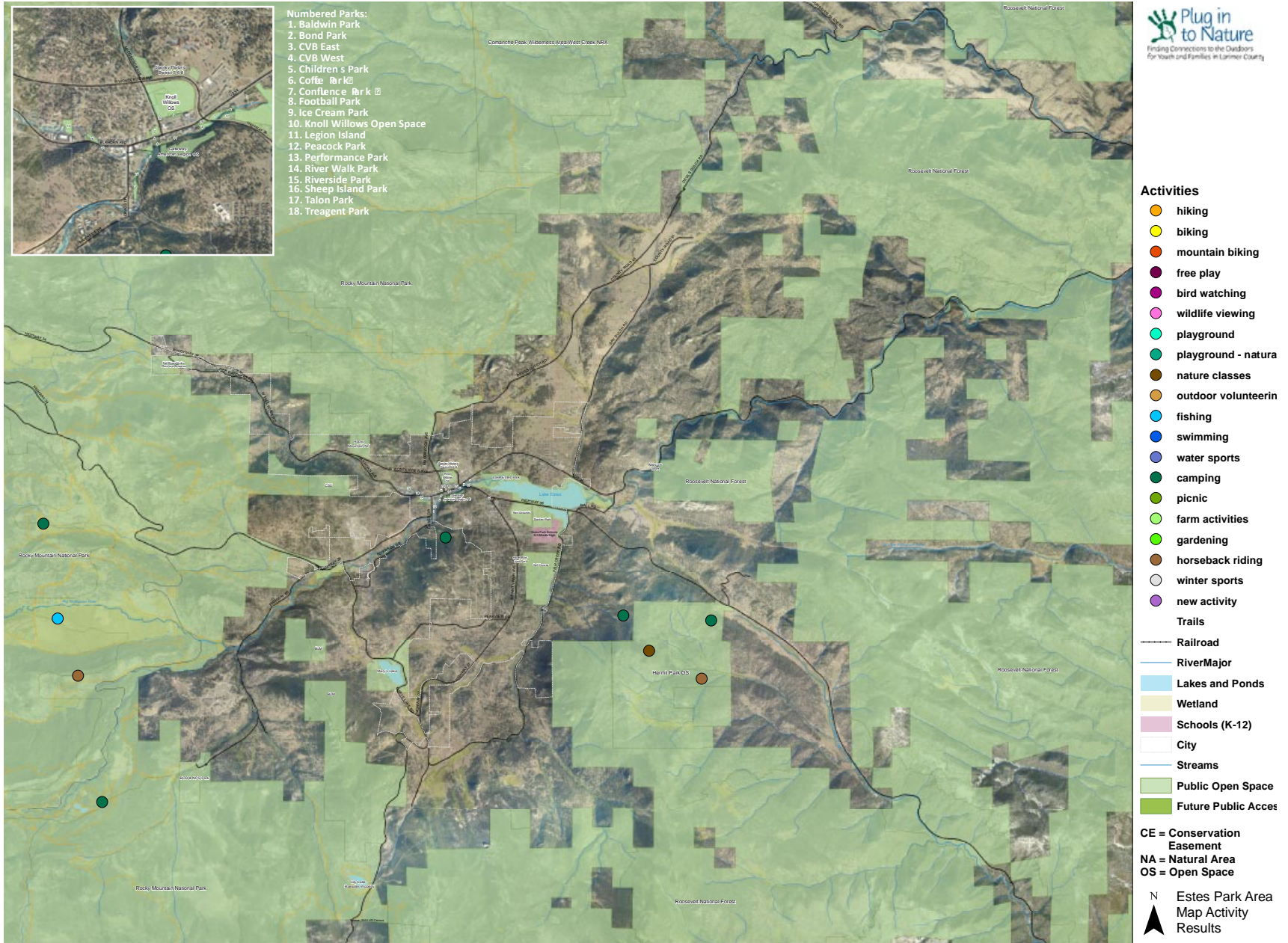
- hiking
- biking
- mountain biking
- free play
- bird watching
- wildlife viewing
- playground
- playground - natural
- nature classes
- outdoor volunteering
- fishing
- swimming
- water sports
- camping
- picnic
- farm activities
- gardening
- horseback riding
- winter sports
- new activity

CE = Conservation Easement
 NA = Natural Area
 OS = Open Space
 SWA = State Wildlife Area

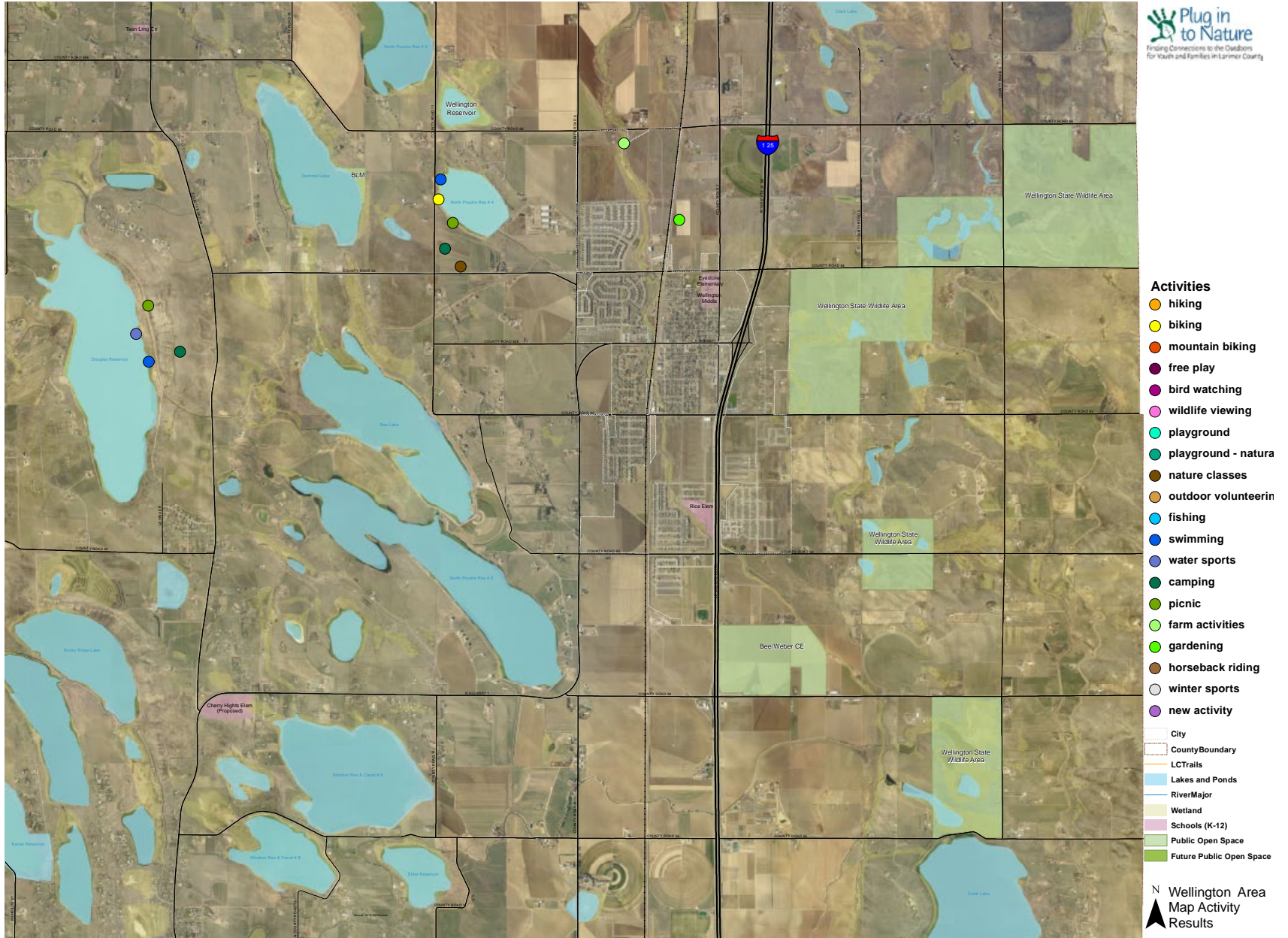
- Trails
- Railroad
- Road
- Rivers
- Lakes and Ponds
- Public Open Spaces
- Future Public Access
- Trail Access
- Seasonal Access
- Restricted (permission required)



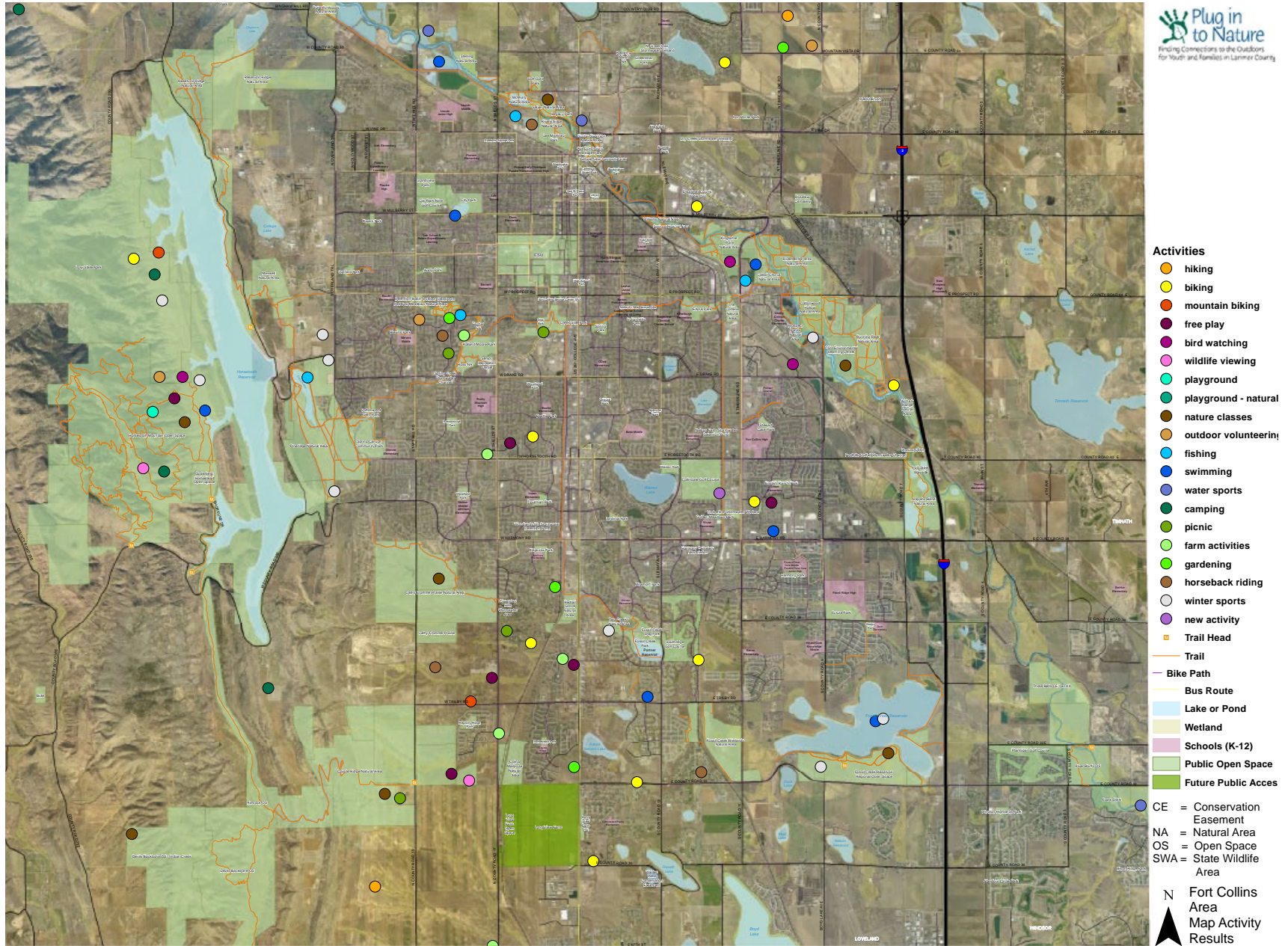
Map B: Community Meeting Map Results; Desired Activities - Estes Park Area



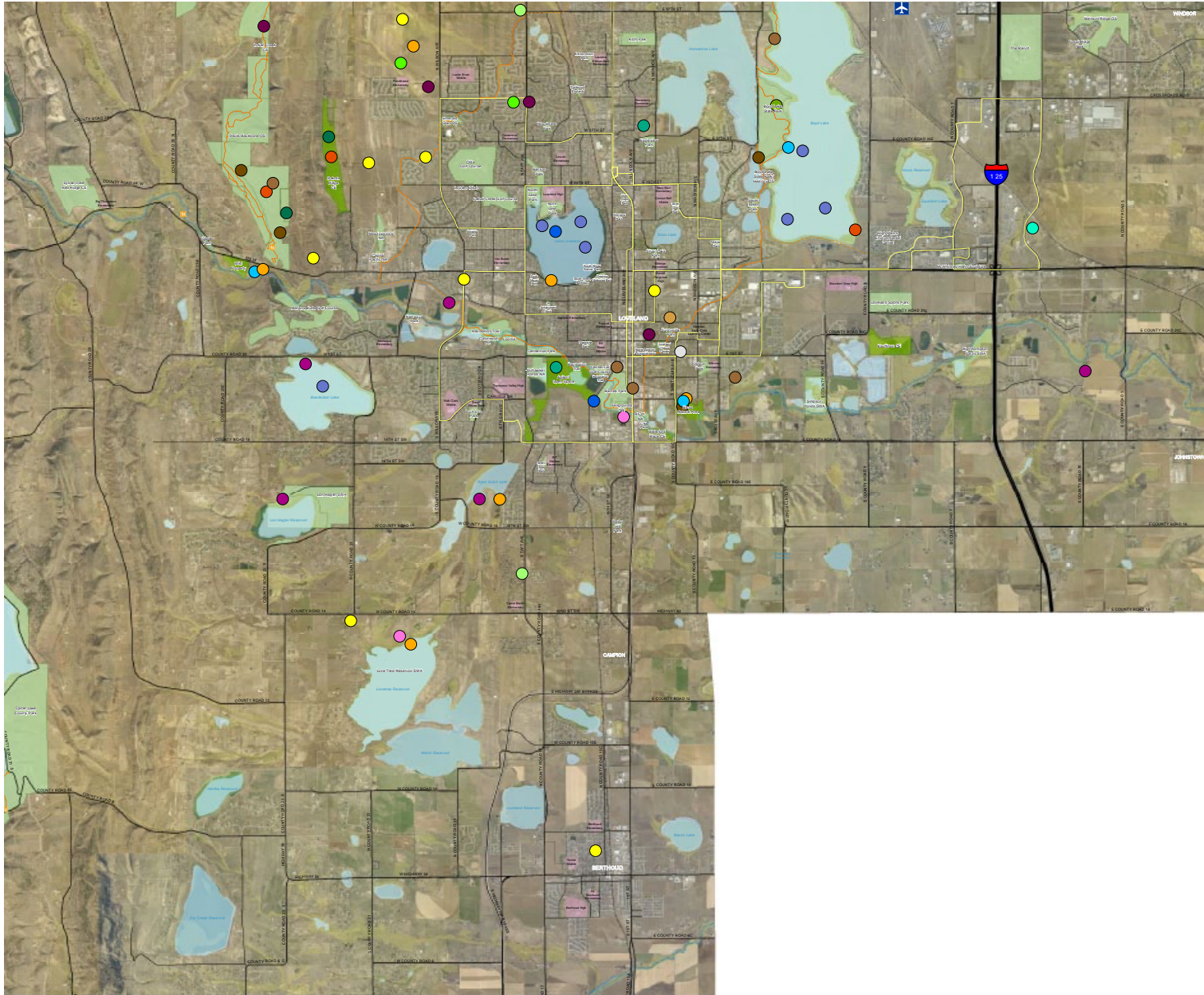
Map C: Community Meeting Map Results; Desired Activities - Wellington Area



Map D: Community Meeting Map Results; Desired Activities - Fort Collins Area



Map E: Community Meeting Map Results; Desired Activities - Loveland/Berthoud Area



- Activities**
- hiking
 - biking
 - mountain biking
 - free play
 - bird watching
 - wildlife viewing
 - playground
 - playground - natural
 - nature classes
 - outdoor volunteering
 - fishing
 - swimming
 - water sports
 - camping
 - picnic
 - farm activities
 - gardening
 - horseback riding
 - winter sports
 - new activity
- Existing Trail
 - - - Proposed Trail
 ■ Trail Head
 — Bus Route
 ■ Lake or Pond
 ■ Wetland
 ■ Schools (K-12)
 ■ Public Open Space
 ■ Future Public Access

CE = Conservation Easement
 NA = Natural Area
 OS = Open Space
 SWA = State Wildlife Area

N Loveland/
 Berthoud
 Map Activity
 Results

The following is a record of the notes recorded on the community meeting maps.

- Please note: the recommendations listed are from meeting attendees and do not represent the final recommendations of this study.

Meeting #1: November 3rd, 2011, Noon Fort Collins, Council Tree Library

GROUP #1 - Group of highly educated nature parents

Places people go

- Horsetooth Mountain Open Space.
- Rotary park - east side of reservoir, picnic and drive
- Green space by home
- Spring Creek trail - need to be careful biking. Crowded
- Spring Creek Trail - Biking
- Spring Creek - Gardens
- Spring Canyon Community Park
- Spring Park - Daycare nearby
- Olander Elementary - Bike to school
- Pineridge - Olander Elementary takes kids to a big tree at Pineridge
- Cathy Fromme Prairie - Hiking
- The Farm
- Ice Cream Park
- Riverbend Ponds - Hiking and bird watching
- Fossil Creek - Hiking and bird watching
- Fossil Creek park - Sledding
- River Bluffs Open Space – Hiking and Biker

Barriers

- Snakes at Cathy Fromme Prairie

Recommendations

- CSU land around Hough Stadium (technically private but used all the time, unofficial dog park, sledding hill for big kids. Disc golf course coming soon. Allowed to go to this place any time but it is unofficial. In the future could be a sledding area for little kids and big kids and dog park. Running.)
- CSU learning center- like classes but need more for each age. Like that kids can go without parents during the week.
- Cathy Fromme Prairie - Nature classes desired, but too many snakes is a barrier to going there
- Coyote Ridge Natural Area - Nature Classes desired. Like hiking and lack of crowds
- Spring Creek - Interested in gardening and classes
- Swift ponds - More summer day camps needed
- Bethke Elementary School: Future outdoor classroom could be near the school in a future park.
- Pouter Rive at Frank State Wildlife Area: could have canoeing or kayak access points that are kid friendly.
- In General
- More kid friendly boating/kayaking access needed
- Need more for kids in the 5-7 age range

GROUP #2 - Mothers new to the area. 3 kids mix of age groups

Places people go

- Sunrise Day Use Area - swimming
- Spring Canyon - playground and catch
- City Park - crowded but go for swimming
- Edora Park - swimming
- Prospect Ponds - walking
- Fossil Creek Park - soccer, sledding and playground
- Fossil Creek Natural Area - sledding and walking
- Fossil Creek Natural Area - watching eagles
- Future park for biking
- County Road 3 Windsor - soccer and biking
- Windsor - water activities

Barriers

- Boyd Lake - crowded
- Pine Ridge - couldn't find a place for swimming
- Ross Natural Area - didn't know about this place (awareness)

Recommendations

- Like the idea of a trail to Greeley from Windsor along the Poudre River

Meeting #2: Thursday Evening, November 3rd - Wellington, Community Center (One Group)

GROUP #1- Parent who takes kids to natural areas, parent with small kid but likes to do lots of activities outdoors, busy parent with 1st grader and 4 year old.

Places people go

- Comanche Peak Wilderness Area
- Gateway Natural Area - favorite place - \$5 entry, short drive, good amenities
- Creedmoor Lakes Road - swimming in Lakes along the road, weekend excursion.
- Seaman Reservoir
- Eagles Nest Open Space
- Red Feather Canyon
- Poudre River Public access program - wildflowers and hiking
- Stormy Peaks Trail - next to Comanche Peaks Trail - good place for Teenagers
- Demmel Lake Reservoir - appears private but would like to go here
- Wellington Reservoir - fishing
- Wellington State Wildlife Area: Trails are great and really natural, kids love all the big trees,
- Barriers:
- Wellington State Wildlife Area: Only one parent knew about his place and it is a little hard to access. Parking along the road but unclear where you can park and access the area.
- Small Natural Area by a church, doesn't look like your kids should go there

- Barrier is the railroad. Crossings are really unsafe

Recommendations

- Place Specific:
- Future park at north end of town is planned to be built in 2018 because they are low on funds - kids will be too old by that time to enjoy it. Told that ball field is the only thing they can get grants for. Would like to see dog park, splash park, playground for little kids.
- Wellington State Wildlife Area: East side of I-25. Raise Awareness/improve access. More management of weeds and shoreline restoration, needs more native Colorado plants. Dogs are required to be on leash but would be great if there was an area for them.
- NE side of I-25: Pedestrian crossing planned at Rice Elementary to new development. Nowhere to play near Rice Elementary.
- North Poudre Reservoir #4 - Trail along the lake, want to walk there but road is unsafe and busy and no sidewalks. Would like to see the trail around the lake - right now it stops a quarter of the way. Would like to see picnic areas, nature classes, camping, biking, swimming. Bathrooms smell bad so don't go there
- Douglas Reservoir - Great trail, but stops a quarter of the way. Need shade along walkways.
- Beek Lake and North Poudre #6. Private and really expensive.
- Small park in town center (Cleveland and 4th) Older kids hang out, scary for young kids.

Graffiti in bathrooms, play area not interesting, won't walk near it when it is dark out.

- Private soccer area: lots of green space to run but playground is too small.

In General

- Gardening: People have small yards and no space for gardening. Would like to see an area for community gardening
- Improve sidewalks which are in bad condition and prevent walking to stores in town or other parks.

Meeting #3: Friday, November 4th, Noon - Estes Park Library

Group: Mom with two young boys, girl scout leader, children's librarian

Places people go

- Rocky Mountain National Park
- Eagle Cliff at YMCA - targets tourists but have great programs that locals should be able to go too.
- Wind River- good for baby backpacking trips
- Mary's Lake - fishing
- Alluvial fans
- Lily Lake - nice walk
- Hermit Park - horseback riding, trails
- Knoll Willow: Geocaching event
- Stanley Park – dog park, kids run free, low traffic
- HWY 34 fishing pull out.
- Like Proximity to hikes that feel remote

Barriers

- Bond Park too loud for activities.
- Rocky Mountain NP - Entrance Fee too much
- Alluvial fans are great, but dangerous when the water is running high
- Fear of the unknown, guided activities help
- Too cold for swimming
- Kid parks - too small and uninteresting.
- Kids like to throw rocks into the river but the parks don't have facilities

Recommendations

- Tourism in the summer makes for no parking and locals have to share overcrowded areas.

Look for parking opportunities or create more local-serving parks in neighborhoods.

- Natural area near the library - would like outdoor story time
- Hermit Park - Self guided nature hiking
- Want to know when things are going on -need more information about programs and events.
- Guided activities to ease fears of the unknown

Meeting #4: Friday Night, November 4th - Fort Collins Recreation Center

Group #1: Dad with 3 kids of different ages, new to the area

Places people go

- Lee Martinez Park
- City Park Golf Course
- Rotary Park
- Horsetooth
- Spring Canyon
- Devils Backbone
- Homestead Park
- Cathy Fromme Natural Area
- Fossil Creek Dog Park
- Prospect Pond
- CSU Environmental Learning Center
- Arapahoe Bend Natural Area

Barriers

- Explore all areas around Fort Collins, but not so much near their home
- Three Bells, Devils Backbone, Boyd Lake, Reservoir Ridge - Didn't know about these places near their home
- Kathy Fromme - Rattle Snakes
- Horsetooth beach - worried about water quality for swimming
- Recommendations:
- Place Specific
- Salyer Natural Area and Lee Martinez - would like to see nature classes and water sports. Worried about little kids safety in the water, older kids love this area.

- Fossil Ridge - Would like to see swimming and ice skating
- Horsetooth beach - awareness about water warnings and fecal chloroform
- In General
- Want more cross country ski rental and places to ice skate

Group #2: Mother new to the area with two boys- lives in Horsetooth area. Mother near Roland Park SW or CSU

Places people go

- Lory State Park - hiking
- Horsetooth Open Space - swimming,
- Spring Canyon Community Park - picnic but area is crowded
- City Park - swimming
- Fisher Natural Area - sledding
- Rolland Moore/ Spring Creek Trail - trail biking anywhere along the trail
- Gardens at Spring Creek - children's games
- Edora Park - biking
- Rivers edge and Martinez - swim (though unsafe), love rope swings
- Fossil Creek - for birding and events
- Poudre - tubing

Barriers

- Cottonwood Hollow - want to go here but don't know what to do
- Horsetooth - too many big boats to go there with kids.
- Poudre River - tubing spill ways in the river are dangerous

- Where do you go for horseback riding on the north west part of fort Collins?
- Rivers Edge and Martinez - Swim but unsafe
- Recommendations:
- Place Specific:
- CSU Stadium - would like to see sledding for all ages - really crazy right now
- Lory State Park - Entrance fee too high
- Horsetooth Open Space - raise awareness about camping at
- Devils Backbone Open Space - looks hard to do with kid, intimidating. Signs would help. Nature class awareness for Devils Backbone. Ecosystem is so different and worried about snakes.
- Horsetooth - want volunteering for kids, free play
- Horsetooth - quiet area for canoes in the fall would be nice
- Cottonwood Pond - would like ice skating and fishing (currently private)
- In General:
- Private lands in developments are for the new residents but parks are not accessible to everyone - need recommendation for development approvals to provide a percent open to the public.
- Would like classes and learning centers for survival
- Where can you ice skate?
- Need info about tubing and safety
- Farm activities are desirable - CSA agriculture volunteer times for the kids not during the day. Happy Heart farms.

Meeting #5: Saturday Morning, November 5th, Fort Collins/Loveland/Berthoud - Church

Group 1: Loveland

Places people go

- Boyd Lake State Park
- Kirk View Park
- Duane Webster Park
- North Lake Park
- Benson Park
- Woodmere Park
- Karoh Park
- Barnes Park
- Recreation Trail
- Centennial Park
- Devils Backbone
- Long Hagler SWA
- Loveland Chilsen Center
- Truscott Elementary
- Water Park

Barriers

- Lake Loveland - smells, lots of geese, low water levels
- Boyd Lake - does not have access for people without boats
- Recommendation:
- Place Specific:
- Land East of Dakota Ridge CE - should stay open to protect views of foothills and mountains.
- Lake Loveland - Improve the lake front, would like swimming, fishing and a beach.

- Boyd Lake - provide a fishing pier for non-boaters, more opportunities for water sports for smaller children. Would like mountain biking, horseback riding, and picnicking.
- Devils Backbone Open Space - people would like to bike there via a connection from town - activities: horseback riding, camping, and biking.
- Open Space north of Ponderosa Elementary School - New hiking and biking opportunities
- Lone Tree Reservoir - more opportunities for wildlife viewing
- South of Agilent Open Space - new dirt bike park
- Next to Osborne Park - Water Park
- West of Osborne park - need cross-country skiing and snowshoeing opportunities
- Sidewalks are needed to and between schools and parks (Truscott Elementary in particular)
- Big Thompson River - bird watching
- Playground at Mall east of I-25

In General

- Bike paths in town
- South of Loveland - new petting zoo

Group 2: Loveland/Berthoud

Places people go

- Lake Loveland - play and picnic there
- Eagle View Park
- Boyd Lake
- Sunny Side Park
- Loveland Chilsen Center

- Barnes Park
- Waterford Place
- Backyards
- Loveland Reservoir
- Fossil Creek
- Devils Backbone OS
- Lon Hagler OS
- Water feature by Barnes Park/Library is very popular
- Barriers:
- Loveland Reservoir is a private lake
- Dangerous on busy roads - a 8 and 12 year old could walk to parks nearby, but there are no sidewalks for them so the mother has to drive them.
- Don't like the cold - prevents getting outside in the winter

Recommendations

Place Specific:

- Barnes Park - would like Swimming
- Boyd Lake State Park - cost and other fees are a deterrent and traffic is prohibitive to get there
- Fossil Creek to Humane Society (needs a paved or dirt path) - not safe right now to go between them.
- Lake Loveland - more water sports and swimming
- Boyd Lake - more water sports opportunities

In General:

- Loveland area - free play/outdoor volunteering and nature classes, wildlife viewing.

- Need a farm type of place like in Fort Collins in Loveland

GROUP 3: FORT COLLINS

Places People Go

- City Park
- Spring Canyon Community Park
- Rolland Moore Park
- Two Creeks Natural Area
- Fossil Creek Dog Park
- Close to home in Yards

Barriers

- Not aware of where to go for bird watching
- Needs to be safer for little kids
- Area around Rivers Edge natural area is private - no access
- In Lory State Park - people don't know what opportunities are available - lack of information
- Recommendations:
- Place Specific:
- Two Creeks Natural Area and Fossil Creek Reservoir Regional Open Space - More winter sports activities at the
- Fossil Creek park - Need sidewalks
- Horsetooth - More wildlife viewing and camping opportunities in.
- Williams Natural Area - More parks nearby
- City Park - Swimming
- Dixon Lake - Fishing at
- Rivers Edge Natural Area along the Poudre River - Would like to see fishing to the west

- King Fisher Point Natural Area - Would like bird watching and fishing near and along the Poudre River and Cattail Chorus Natural Area, also would like bike rentals available for use
- More biking along the river.

In General

- Would like to have classes on the weekends
- Need more areas that serve all age groups but have separate areas for little kids
- Rentals for outdoor activities are desired. Currently bike rentals require \$100 down payment which is too high.
- Want more working farm activities close in to town.
- Would like to see free play and biking in residential areas. (around Beattie Park and English Ranch Park)

Group 4: Fort Collins

Places People Go

- Rolland Moore Park
- City Park
- Spring Canyon Community Park
- Ross Borough Park
- Fossil Creek Dog Park
- Their Own Backyards
- Maxwell Natural Area
- Bike Paths in town.
- Tavelli Elementary

Barriers

- No pools
- Fossil Creek Reservoir - Too many mosquitoes in the summer
- Redtail Grove Natural Area - No access to trails at US 287
- Redtail Grove Natural Area - Land around the area is private, but kids still play there.
- Pine Ridge Natural Area - Not enough information about activities
- Cathy Fromme Prairie - Rattle Snakes
- River Bend Ponds Natural Area - Hard to access from the north

Recommendations

- Would like a community pool in the south
- Free play and play grounds in residential areas
- Biking along the rail road corridor
- Farm activities downtown
- Need more winter sports at Pine Ridge
- Sprinkler parks needed as an option to swimming
- Biking / Hiking along the ditch by north Greenbrier Stormwater Wetland
- Outdoor volunteering and gardening (north of town)

Meeting #6: Saturday Evening, November 5th, Loveland - Chilsen Recreation Center

Group 1: Loveland

Places People Go

- Loveland Sports Park
- Kroh Park
- Lake Loveland
- North Lake Park
- Benson Park
- Along the bike trails***
- Within Neighborhoods
- Van Buren Elementary - Park
- Estrella Park
- Ponderosa Elementary
- Devils Backbone Open Space
- Barnes Park - Fairgrounds and Dog Park
- Spargue Park - near shopping mall

Barriers

- 15 year old doesn't have interest in these places.
- Skiing and snowboarding cost too much.
- Recommendations:
- Place Specific:
- Dakota Ridge Conservation Easement - More Mountain Biking/Camping
- Dakota Ridge Conservation Easement - Want bike trails to connect the cities and to connect Dakota Ridge
- Devils Backbone Open Space - more biking and hiking
- Devils Backbone - Nature classes

- Near the Wild Property - Fishing along the Big Thompson
- Boyd Lake - more water sports
- Boyd lake - Don't like fees for bike trail
- Berthoud - More bike paths

In General

- One website would be great
- Newsletter would be great
- Better maps showing trails in Loveland would help
- Trails should better connect
- Want more biking in general - neighborhoods
- Would like to see organized bike rides for families
- More swimming is needed.
- Bike lanes needed on west county road 14
- Lift served sledding
- Gardening and Free Play in residential areas

Group 2: Loveland

Places People Go

- Coyote Ridge
- Rimrock Open Space
- Devils Backbone Open Space
- Homestead Park
- Colina Mariposa Natural Area
- Fossil Creek Reservoir Regional Open Space
- South Ridge Golf Course
- Spring Canyon Community Park
- Lee Martinez Park
- Library Park
- Along the Poudre River

- Backyard - Open Space behind the house

Barriers

- Fossil Creek Reservoir - No Dogs allowed
- Willing to go but want to know what to expect when they get there, dogs/no dogs/amenities etc.
- South County Road 13 - No place for bikers or markings along the road
- Fees are a barrier
- Kids are too young for certain activities
- Bad information on the maps

Recommendations

Place Specific:

- Colonia Mariposa - Needs public access
- Coyote Ridge Natural Area - Need restrooms and trail head, picnic facilities
- Fossil Creek Reservoir - Would like nature classes
- Provide a quarterly magazine featuring the places to go and activities
- Would like guided hikes and events, educational opportunities, farm activities, guided cross-country, hiking and snowshoeing, as well as rentals.
- Biking throughout town.

Group #2: Fort Collins Map

Places people go

- Loveland Sports Park
- North Lake Park
- Benson Park
- Eagle View Park

- Devils Backbone Open Space
- Namaqua Park
- Lon Hagler State Wildlife Area

Barriers

- Barnes Ditch - No Sidewalks - lots of people walk on gravel road
- Boyd lake - Fees are prohibitive, \$10 each time

Recommendations

Place Specific:

- Devils Backbone - dogs should be allowed off leash
- Devils Backbone - More nature classes
- Boyd Lake - Nature Classes
- Big Thompson - Hiking along the river, trail north of the Big Thompson connecting Devils Backbone Open Space to town.
- Barnes Ditch - Bird Watching
- Lake Loveland - Need a path/access around
- North of Eagle View Park - Would like an all natural playground like north Fort Collins
- Eagle View Park - Wasted space, needs something to climb on
- Eagle View Park - Needs Improvements
- Lone Tree Reservoir - More hiking
- Ryan Gulch Lake - Bird watching and hiking
- Lon Hagler and Bodecker Lake - Repair signs at the trail head
- Lon Hagler and Bodecker Lake; Bird watching
- Brose Natural Area - Hiking and fishing

In General:

- Need more information about programs (Tiny Treckers)
- Off leash dog areas
- Online access for how to find open space

County Scale Maps

FORT COLLINS, FRIDAY LUNCH - Group #1:

Places people go

- Devils Backbone Open Space
- Carter Lake County Park - Eagle Campground
- Hermit Park Open Space- Camping programs for children and adults
- Rocky Mountain National Park (alpine visitors center, sheep lakes)
- Gateway Natural Area
- Poudre River
- Poudre River - Day use camp areas
- Horsetooth Mountain Open Space - hiking, kids on the falls.
- Red Mountain Open Space
- Reservoir Ridge Natural Area
- Boyd Lake State Park
- Fossil Creek Reservoir Regional Open Space
- River Bluffs Open Space
- Frank State Wildlife Area

Recommendations

- Reservoir Ridge Natural Area - promote more activities and classes at Primrose Studio
- Schools could utilize school property and offset irrigation costs

FORT COLLINS, FRIDAY LUNCH - Group #2:

Places people go

- Rocky Mountain National Park
- Bobcat Ridge
- Devils Backbone Open Space
- Coyote Ridge
- Cathy Fromme Prairie
- Pine Ridge Natural Area
- Horsetooth Mountain Open Space
- Lory State Park
- Watson Lake
- Cache La Poudre Wilderness Area
- Cherokee State Wildlife Area
- Red Mountain Open Space
- Douglas Reservoir State Wildlife Area
- Wellington Reservoir
- Horseshoe Lake

Barriers

- Red Mountain Open Space - Distance, time and access
- Don't know about some places like Soapstone Prairie Natural Area
- Chimney Hollow Open Space - Access is an issue
- Pingree Park Campus - Access is an issue
- Recommendations:
- Devils Backbone and Coyote Ridge - want more wildlife viewing, free play, horseback riding, and hiking
- Soapstone Prairie Natural Area /County Road 15 - would like biking
- Winter sports in the mountains

ESTES PARK, FRIDAY LUNCH:

Places people go

- Rocky Mountain National Park
- Carter Lake County Park
- Participate in Library Geocaching
- Denver Zoo Programs

Barriers

- Rocky Mountain National Park - cost of programs, \$20 to go into the park.
- Estes - In town parks are hard to access because of busy streets and crosswalk safety
- YMCA has classes, not available to locals
- Wildlife safety
- Junior Ranger Badge
- Amenities old in some places

Recommendations

- Safe sledding for little kids
- Classes are mostly for adults, need kids programming, such as night sky, types of animals, nature safety, water safety

FORT COLLINS/LOVELAND - SATURDAY MORNING:

Places people go

- Rocky Mountain National Park - waterfalls hike, snowshoe, camping
- Hermit Park
- Twin Sisters State Wildlife Area
- Watson Lake - feed the fish
- Lions Open Space - play in the river
- Picnic Rock Natural Area

- Parvin Lake State Wildlife Area - weekend trips
- Bellaire Lake State Wildlife Area - hiking
- Viestenz Smith Park - Round Mountain Trail

Barriers

- Children's interest is a barrier
- Fear of nature ex: snakes
- Transportation - need a bus to adventure places
- Safety
- Map for winter activities
- Confusion about what pass gets you where
- Not enough outdoor volunteering for kids
- Swimming is not that available

Recommendations

- Website page targeted for programs
- Transportation - need a bus to adventure places

LOVELAND, SATURDAY EVENING

Group 1 and 2:

Places people go

- Ramsay Shockey Open Space
- Round Mountain Hiking
- Hermit Park Open Space
- Twin Sisters State Wildlife Area
- Rocky Mountain National Park - Bear Lake, Camping and programs at Moraine Park, Sheep lakes Wildlife, Alpine Visitors Center Nature Hikes Programs
- Hermit Park
- Viestenz Smith Park - Nice Bathrooms

- Devils Backbone Open Space
- Long View Farm
- Fossil Creek Reservoir
- River Bluffs Open Space
- Horsetooth Mountain Open Space
- Pine Ridge Natural Area
- Parvin Lake State Wildlife Area
- Red Mountain Open Space
- Soapstone Prairie Natural Area

Recommendations

Place Specific:

- Rocky Mountain National Park - More camping
- Hermit Park - Camping
- Devils Backbone - Camping
- Soapstone Prairie Natural Area and Red Mountain Open Space - more camping and mountain biking
- Mariposa Wildlife Area should have areas open to kids

In General:

- More public access
- More biking and free play within Fort Collins
- More open space closer to residential areas.



Focus Groups

Focus Groups

Interviews Focusing on Youth and Underrepresented Groups

Eight focus groups were conducted from November 2011-January 2012. These groups represented a wide diversity of geographic living location as well as socio-economic and cultural diversity. Additionally, youth were engaged in several of the focus groups and caregivers included parents, grandparents and legal guardians. A total of 71 participants took part in the focus groups with ranges in attendance in any one discussion from 4 to 20 participants.

High School Youth

Participants in this focus group identified a varied desire to connect with nature with those who identified nature connection as a family value having a higher sense of connection. The leading barrier for this group was overwhelmingly time, citing homework, school, social and extra-curricular commitments as using all of their time.

This group communicated a strong desire for areas within walking distance of their house that had a natural quality and also the desire for nature activities to incorporate a strong social element such as festivals, group hikes and activities, and peer led clubs.

Working Parents

Parents participating in this focus group confirmed a high connection to nature, a high value on nature connection, a desire for more connection,

and the leading barrier of time. Parents cited the challenges of work, school, and extra-curricular time constraints as the leading barrier. Parents also cited the desire for clear information about available programs with an emphasis on weekends. Additionally, this group of parents spent considerable time discussing the confusion over different land agency rules and management within the county and the subsequent variety in fees for using natural areas as barriers to their participation.

Parents of 4 – 6 Year Old Children

Participants in these groups cited many of the same values and barriers as the working parent group, but also mentioned the additional challenges of children's nap schedule, equipment/gear needed to go outdoors, fears over losing their children while outdoors, encounters with wild animals; snakes and mountain lions, designated trails to connect from close to their home to natural areas, and frustration over not having clear information about trail appropriateness for children, strollers, and bike-trailers.

In addition, this group of parents identified biking and hiking/walking as favored activities with a desire for more winter activities such as sledding and outdoor ice skating.

Parents and Preschoolers

This focus group was conducted in a very hands-on and experiential way. All participants said they enjoyed being outside and in nature. The activities most cited as being attractive to this

group was playing by water, sledding, biking, and looking for animals/bugs.

Parents of Children with Developmental and Physical Disabilities

Parents and guardians participating in this focus group spoke to many of the same values and barriers as other groups, but added in the additional challenges they encounter with their children. Barriers around accessibility (parking, rest rooms, shelters, trails, larger child changing areas, cost), programming specifically geared towards children with developmental and physical disabilities, program awareness to different social, environmental, and developmental needs, gaps in programs for older youth and young adults with disabilities, more than one offering of these programs to accommodate different schedules, and location of natural areas were all mentioned.

Further, for many of these families time was identified as a leading barrier, but with the additional aspect of the time it takes for many of their children to transition into and out of a program in feeling comfortable and able to fully participate. Parents in this group feel strongly about attending programs with their children to assist, but this also creates an additional strain on time.

Activity suggestions and modifications included hiking, fishing, introductory programs, programs with rich textures and appropriate levels of stimuli, programs building towards overnight camping, and biking and hiking trails suited to the unique

needs of children with developmental and physical disabilities (lower volume/less crowding, wider paths, accessibility, and reduced fee access).

Rural and Mountain Community Parents

Participants in this group cited very high levels of connection for both them and their children. Main points of connection to nature included living in nature, chores, hiking, hunting, yard play, and school locations.

These parents did cite a greater concern over children's safety due to mountain lions and other environmental hazards (storms, drowning, cliffs, falling trees). Time remained a major barrier, especially for parents with children attending school in town and using additional time for travel to and from home, school, and events.

Summary

The common findings in all groups mirrored earlier survey findings in the areas of high connection to nature, high value on nature connection benefits, desire for more connection, and the leading barriers of time, location, and information.

Additionally, common themes included:

1. Activities like biking, hiking, informal and unstructured nature play, and fishing were identified as those activities in which they most participated.
2. Additional activities most desired included winter play (sledding and ice skating), age and

ability specific programming, and introductory level programs.

3. Concerns over trail upkeep, closures, and connections. Many parents mentioned the need for connecting the various trails (especially bike trails) to eliminate needing to transport children and equipment via vehicles (adding additional time).
4. Confusion over different land management agency rules, access and fees.
5. Need for centralized source of information with specifics on trail accessibility, age and skill appropriateness, trail closure, and fees.
6. For all groups, the need for easily accessible (walking, biking) natural spaces was highly desired. Water, trees, rocks and the ability to freely explore those areas were mentioned.

Items that did NOT seem to create significant barriers included: technology, lack of desire, and fears.

Program Provider Focus Group Summary

Five focus groups were conducted for Program Providers:

- Early Care and Education (ECE) Providers - 9 attended
- Two meetings for Poudre School District teachers and administrators (one in conjunction with an existing meeting and one convened for this project - 18 attended
- Thompson School District teachers and administrators - 8 attended
- Youth/Family Program Providers - 4 attended.

After an introductory presentation on the results of the project to date question was posed to each group: What could be done - by your program or in conjunction with Outdoor/Nature Providers - to increase the time your participants spent in nature? The facilitated discussion ensued and the ideas/suggestions/concerns are recorded in the following section

Early Care Education Providers

November 15, 2011

Attending:

Heather Griffith, Young People's Learning Center
Nancy Cole – EC Spec Ed, Edmondson Elem, Loveland
Cheryl Cunningham – home child care - Loveland
Amber Lamb – preschool, Rivendell School
Rachel Musel – Bright Horizons East
Jen Torrey – landscape architect
Charlotte Duerr – home child care - Loveland
Irene Gilman – home child care – Loveland

HC = Home Care Providers; C = Centers

Barrier – access to existing natural areas

- HC = Area nearby, but no safe access without driving – big roads block trails along the big Thompson, SW Loveland – feeder trails would help – esp to connect BFK near old HP neighborhood to trails
- Berthoud – nothing within walking distance
- Mixed age groups, hard to walk with children around when different carry modes are needed
- Cities need overhead or underground walkways across major roads...
- Getting permission from parents for every time we want to walk from school grounds. Lots of barriers from district. (including head start rules about transporting – Thompson)

Barrier – hard to make/use on-site natural areas (cost, practical, regulatory)

- HC - Used to be able to get grants to be able to re-do playgrounds. No longer available.
- What are the new state rules and regulations and effects of nature and natural areas – no way kids would be allowed to climb a tree. What can we do in our own environments that would be approved, outside of basic gardening etc. Need guidance on how to make yards into more natural areas.
- Grant program for on-site natural areas – funding, advisor, plans to choose from. Need someone with a vision!
- Nancy (Thompson) – district has very strict regulations for no bugs, etc. Hard to know where to start – someone to come out and help.
- Use creativity to utilize areas we already have or things we are already doing (branch clean up)

Barrier – Awareness

- Trainings on “what to do besides going for a walk” – things to do inside to generate excitement about nature.
- ECE websites, like LFCCA in Loveland could provide a link to a common website with opportunities/programs/places to go – with an opportunity for people to post about good experiences – reviews of outdoor/nature program providers.
- Nature/program providers – need a website about opportunities in near future – so they could look at and see what’s available.

- Parent awareness - need to expect kids will get dirty. Staff can provide ideas for summer or weekend activities (if they have easy access to that info)

Barrier – lack of appropriate programming

- City of Loveland: Has classes, but they are age specific (HC need multi-age).
- Enrichment – put it together – bring it in to a home or center – like the Tumble Bus, Philomusica, Stretch and Grow – come regularly. Esp for Family Child Care providers.
- Train existing O/N providers to work with young children.
- Need bike – related activities – like the summer reading program – bike program sponsor for school aged kids – prizes for doing certain things.

Barrier – curriculum/standards/accepted practices

- Preschools – curriculum is hard to fit other things in – GOLD (Observational strategies to guide curriculum) – only 30 minutes outside. Tie things to state standards....
- Centers use the Pyramid Model for Supporting Social Emotional Competence in Infants and Young Children. It needs to recognize the value of taking kids outdoors.
- How to work within existing regulations - and future ones – very stringent. Those making regulations need to understand the value of kids having outdoor experiences.

Barrier staff time/understanding

- More trainings (again) to re-adjust attitudes of the teachers, seen as “not worth it” when it is difficult to get kids out (winter). Need teachers to consider outdoor lessons as an important part of the curriculum, and they need planned activities to do outside and to know how to utilize things you already have.
- Unstructured time outdoors - kids want teacher engagement – so teachers need to not stop engaging with kids – teachers need more training – teacher as facilitator – also promoting interaction between the kids
- Need trainings on keeping kids safe in natural areas.
- Need training on how to teach and explain nature/outdoors to kids.
- A box of materials to check out – like Food Friends and Mighty Moves – kits – puppets – great things to do. Or packets of materials for activities. Make things easier. By age group. Eliminate steps that it takes them to prep.

Opportunity - parents

- Family nature programs - Things that are consistent – day/time – so that parents can get used to it and plan to do it – need it at times for parents who are working – (so it doesn’t compete with private ece providers)
- Voluntary email list for parents – to stay in touch with each other – could promote meeting somewhere via that (Bright Horizons)

Poudre and Thompson School District Teacher Focus Groups

November, 2011

Attending:

PSD (2 groups): 13 middle school; 3 elementary school, 1 elementary principal, Science Coordinator. Thompson: 3 middle school; 3 elementary school; elementary Science coordinator, elementary math coordinator)

Barrier: Knowledge/skills to take students outside

- Value of taking students outdoors
- How to take students outdoors.
- Identify existing programs/projects that teachers have developed that are effective in getting students outdoors. Follow up with: Wiki site where teachers could post projects/ ideas.
- Community resources database
- To be more successful:
- Implement a district-wide program
- Provide teacher training during the school day – with pay for subs
- Ideas for how to do existing curriculum outdoors

Barrier: How to use school yard; Developing/maintaining/using on-site natural areas/outdoor classrooms

- Nature centers exist on some sites – teachers need training in how to use them. Concern that some are not currently in useable condition.

- Natural playgrounds at elementary schools: Harris, Bacon, Zach
- Training needed: How to develop a natural area –
- How to design and select materials
- Within the district – process to reduce/eliminate barriers
- Funding sources – best if there is money up front!
- (I asked about full time mentor for developing schoolyard habitats – got a positive response)
- Options for gardens – summer maintenance
- Activities integrated into specific curriculum
- Schoolyard habitat grant – garden – hard to maintain – need volunteers

Barrier: Not having/knowing how to use equipment needed

- Need kits of equipment to use outdoors – to teach activities that support standards.
- Need training for how to use, or someone to come with the kit the first time.
- Andrew Warnock's backpacks – good, sturdy, cheap equipment
- Involve MS and HS technology classes in mass producing
- Measurement tools – water quality, etc.
- Resources to schools – like Andrew's book: Geology Field Trips to Lory State Park and the Environmental Learning Center Fort Collins, Colorado (Paperback) 2003. Out of print.
- Need to expand Critter Crates (from DPW) – to promote taking kids outdoors

- Help prepare kids to be naturalists (like Master Naturalist training)
- Update activities – make relevant to Larimer County locations – include field investigations – pair with preparation for on-site activities
- Mtn Pine Beetle box – needs work to meet teachers' needs for field investigations
- Would like a functioning weather station at each school. Promote participation in CoCoRahs. Also groundwater monitoring.
- (local sites): Preston Pond: can adapt to be more natural – phenology (CSU EOC: Phunky Phenology), wildlife camera type stuff.

Barrier: Leadership/school culture that does not support going outdoors

- District and school leaders need to believe it's important to get students outdoors and implement/support policies that make it easier for teachers to do so. Need a cultural expectation within schools/district/education community that when you do science, you go outside.

Barrier: Accessing expertise and resources available outside the district

- Awareness: Many teachers do not know about the resources/opportunities/support that is available. Even programs we think are well-known (City of FC/Larimer County volunteer naturalists)
- Identify the many existing partnerships that promote/support teachers getting kids outdoors.

In Larimer County:

- Use the CSU ELC more?? Could CSU Pulliam Scholars program be expanded to PSD?
- PSD Teacher-in-Residence (TIR) program through CSU College of Natural Sciences, Education and Outreach Center – model for teachers supporting other teachers to implement STEM... (NSF grant and PSD funding). TIR and Other EOC programs – expand to include all of Larimer County?
- Use a similar model for helping teachers get students outdoors?
- The FC Utilities' WaterSHED program has all the components to make it relevant and user-friendly for teachers. All the equipment needed, staff does everything on site, well-organized, curriculum is done, have field notebooks.
- Andrew Warnock – geology of Lory State Park – activities for kids – grades 4-8? Need personnel at Lory and transportation to the park.
- Raptor Program works well – they have done site visits there.
- Loveland Youth Gardeners – Green Adventures at HPEC – good example, good program.

Programs elsewhere that could be a model

- Poudre Learning Center– districts help fund, support teachers to take students there. Institutionalized program/outdoor site. Staff on site. Well organized. Closely aligned to existing curriculum.

- Walking Mountains Science Center (formerly Gore Range Natural Science School), Aspen Center for Environmental Studies, Yampatika (Steamboat), Durango Nature Studies.

Ideas for new partnerships:

- Perhaps a “Naturalist SWAT Team” – trained folks to come to school sites and do lessons outdoors (expansion of existing volunteer naturalist programs).
- Summer school classes as a venue for partners.

Parent and School partnerships:

- How to recruit and utilize parent volunteers. PTO volunteer coordinator at each school in PSD can help. Train parents/others to go out into schools and support outdoor clubs
- School-based family nature outings on weekends. Example – Harris elementary – go as a school to a field site – information disseminated through the school, parents meet at school to carpool or meet at site. Discount for entry to sites with fees.
- Outdoor clubs – for example, parent Michelle Mandeville started an Outdoor Club at Namaqua Elementary.

Barrier: Lack of time/flexibility to add to existing curriculum

With new standards and realignment – this could be a good time. 21st Century Skills – great opportunity.

Elementary schools:

- Need projects outdoors that help teachers meet Science/Health standards
- Model: PREP program – Poudre River Ecology Partners (PSD Mountain Schools) – train teachers, staff support, sustainable. Embedded in curriculum – Science, math, language arts, technology.
- FOSS kits in use in Larimer County – realigning based on new standards. Good time to infuse outdoor activities into Science curriculum. http://www.fossweb.com/pdfs/Taking_FOSS_Out_101011.pdf .

Other possibilities:

- Produce a document (and provide training) showing how teachers could use specific outdoor activities from EE curricula (PW, PLT, other) to support their specific curriculum/ topics/skills in multiple subject areas (esp literacy, math) and things like character education.
- Model: Boulder – FOSS Measurement Kit – retooled to use in school gardens during summer school – using a grant to raise ELL scores. Built raised-bed gardens – 80 classrooms are using it. Includes reading and writing.

Middle Schools:

- Field trips need to meet all subject area standards, but working in the interdisciplinary aspects takes time that some people aren't willing to add to their workload.

- Students need opportunities to gather and analyze data.
- Model – Heidi Lovaas’ position at Blevins – half-time to facilitate STEM and cross-disciplinary planning (she promotes field lessons, too)

Barrier: Difficulty in competing for teachers’ attention (email volume, time)
Examples of good ways to communicate with teachers:

- CanDO – good model – monthly newsletter, database of speakers/activities. Easy to use. (Elementary teachers)
- Having a resource person call and ask if they can come do a program – will always say yes! Don’t rely on email advertisements/flyers.
- Other ways to reach teachers – post notice then come to school after school, be in teachers’ lounge with snacks, give a 15 minute presentation

Barrier: Difficulty in taking field trips

- Bus funding – very expensive. Cannot ask kids to pay – equal access to field trips for all kids. Solutions: on-site natural areas, within walking distance, easy-to-get grants, use charter buses. Increase awareness of close-by sites and what to do there.
- Bus schedules – around all other district uses: leave after 9am, back before 2pm
- Amount of work required by teacher. Solutions: staff on site to do activities with students (or help teacher), older students teaching younger students. All middle school

students go at the same time (sites set up for larger groups and multiple stations) or pay for subs so all don’t have to go on same day.

- Pre-teaching info/packets for field trips – teachers don’t feel like they are qualified, know field trip site, know what students will experience out there – better to have someone from the site come do it – students more engaged, excited about field trip.

Lands/Facilities:

- Need bathrooms!!! Other helpful facilities: gathering place/platforms, signage.
- Site-specific guides to plants, wildlife, geology, water with maps and suggested activities.
- Soaring Eagle Ecology Center at Red Feather – meant to be available for all PSD. (distance is a barrier...)
- Need a field site for archaeology (8th grade)
- Need to have existing sites be secure (can continue to go there) and well-funded (example – Lory State Park)
- Geology field trip idea – from the prairie to the foothills at Lory SP – develop and fund – educate teachers and students about layers, tie to buildings in FC
- Citizen Science programs

Large scale citizen-science programs to get students outdoors:

- Phenology:
- Invasive species: <http://vitalsignsme.org/> (Maine)

- Ladybug distribution: <http://www.lostladybug.org/index.php> (U.S.)
- Urban birds: <http://www.birds.cornell.edu/celebration/data/data/about>
- Nest watch: <http://watch.birds.cornell.edu/nest/home/index>
- Neighborhood nest watch: http://nationalzoo.si.edu/scbi/migratorybirds/research/neighborhood_nestwatch/default.cfm
- Project Budburst <http://neoninc.org/budburst/>
- Journey North: <http://www.learner.org/jnorth/>

Youth/Family Program Providers

November 15, 2011

Attending:

Nina Wickens – The Family Center

Pam Rud – Boys and Girls Club

Cathy Kipp – new PSD Board member

Anna Wasser – Reflections for Youth (residential program, ages 11-18)

Topics/skills they want to do/learn

- Camping: B/G club and Family Center – would love to do more camping. Structured, easily accessible. Help with planning and especially with equipment.
- B/G club – in partnership with EDUCO – have full scholarships for up to 150 kids to attend 1 week summer camp. Free to families, transportation provided. MANY slots go unused – do not know why. EDUCO sends a list of what they need to bring – B/G club offers help to families, so clothing/equipment should not be a barrier.
- Used to partner with Boy Scouts for 6-10 year old boys and girls to go to camp - but scouts no longer have funds to pay for that program
- Close-in camping: Best – within 30 miles of town, feeling of being in nature/isolated. On a bus route or have a shuttle?
- Happy Heart Farm – does a camping overnight. Kids love it.

Structure

- Reflections for Youth (RFY) – need gender-specific activities, especially with camping
- Can provide all staff support
- Staff needs help with learning what/how kids can do things outdoors – how to play/engage students
- Use volunteer naturalists (FC? LarCo?) 2 weekends/month during the summer – kids LOVE it and love to learn about plants and animals.
- Need: Guidebook for leaders of kid groups – what to do at various sites. Site-specific. (teachers identified this, too)
- Family Center – need formal nature activities in adjacent nature area. And ideas for free play – community members to share expertise – local history, nature – loosely guided.

Barrier: Transportation

- Family Center - #1 barrier for them is transportation. No funds for van/insurance. Have used PSD buses in the past, but they are very expensive.
- Transportation – can Transport offer transportation to local sites?
- Family Center – making winter activities accessible – ways to do outdoor things close – sledding, skiing/snowshoeing – need equipment, places to go. JAX does cheap rentals for non-profits - \$2/day.

Barrier: Staffing

- B/G club – have 200 kids per day in the summer (FC site). Need staff to go with small

groups of kids – if 20 kids go – need staff to go with, and staff to stay with the 180 kids who are left!

- Barrier: Awareness of opportunities/options
- Where to get information about things to do on non-school days (RFY)
- Very positive response to idea of a community website/calendar of options/information for youth/family providers to access
- RFY – knowing what land is available – public vs. private
- FC City parks and rec website is hard to navigate
- RFY does community service – needs to know more options than city of FC.

Barrier: Cost

- Waived entrance fees for groups would be very helpful

Partnerships

- Pam – a bike co-op site at B/G club would be GREAT
- Gardening - \$ available from Lowe's, Whole Foods
- Esp good for low-income kids
- Hard to make happen – B/G club needs land (adjacent city/PSD)
- Mentor/coordinator for setting up and supporting gardens? All thought it a good idea. A resource person in the community to help org staff, help find resources. Partner with CanDO

Lands/Facilities

- B/G club – would like to build garden on adjacent land.
- Need more interpretive signs on trails – things to do at each site – more info on structured activities as well (example – disc golf course)
- If we were to do a community summit to share ideas and successes
- Who to invite: service providers, teachers, case managers, chamber of commerce (they have lots of resources – funds, volunteers, sponsors, materials), school districts facilities people, CSU students and clubs, FRCC.
- Red Feather Lakes Elementary – Soaring Eagle Ecology Center – available to groups – needs to be included in lists of lands/facilities.

Outdoor/Nature Program Provider Focus Group

Outdoor/Nature Program Providers within Larimer County were invited to attend a meeting to participate in a facilitated discussion to contribute recommendations for programs. Marcella Wells, an experienced local facilitator, assisted with the discussion. A 30-minute presentation was given on the program-related inventory results, the public input, and the results of the gap analysis and needs assessment. Participants then shared and discussed ideas and recommendations for addressing the gaps and needs identified. They then used criteria provided by the facilitators to give input into prioritizing those ideas and recommendations. In addition, they gave each idea/recommendation a rating for timing of implementation. Input from this meeting was used in formulating the recommendations provided in this report.

Key input/final message/direction for project

- Collaborations/communication/partnerships
- Marketing/awareness
- Build on what's already being done

Proposals with highest rating:

Coordinated marketing campaign/awareness initiative with branding. One-stop shopping. Website, print? Examples exist - Ohio, Colorado Watershed Assembly. Calendar. Ways to use Thur/Fri folder sent home from schools. Include an effort to change culture in schools that prevents frequent outdoor learning. Include **Twitter Service/Text Message/Email list serve** for last minute scheduling.

Collaboration to develop eco-literacy curriculum for NoCo teachers and schools. Train teachers. Include Pre-packed program kits/trunks ready to go for teachers- with facilitator.

Recalibrate existing programs for winter, big public events. For some audiences, regular schedule (every x weeks) is important.

Efforts to reach Latino audiences. Skill building -how to's - different levels for different needs)- for families. In Spanish. Awareness of programs is important - use key informant/contact in the Latino community - LOTS can be done via word of mouth. **Workshop/training for providers on Sheltered English techniques.**

Initiative to address logistics for school gardens, natural areas and green playgrounds. Regulations, policies, people, process.

Attending: Twenty-five people attended, representing 22 entities.

Nicole Stafford	CSU - ELC
Kristen Dean	CSU-ELC
Mary Bollinger	US Forest Service ARNF
Brian Sense	EDUCO Leadership Adventures
Kacie Ehrenberger	Rocky Mountain Bird Observatory (RMBO)
Heathey Lindsay	Larimer County Dept of Natural Resources
Joanna Rago	Loveland Youth Gardeners
Rob Novak	Larimer County Dept of Natural Resources
Maelly Oropeza	Larimer County Youth Conservation Corps
Isabel Gottlieb	Larimer County Youth Conservation Corps
Zoe Whyman	City of Fort Collins Natural Areas
Mary McCormac	Colorado Parks and Wildlife
Lisa Mason	Colorado State Forest Service (CSFS)
Mark DeGregorio	Rocky Mountain National Park (RMNP)
Christine Ginnity	Gardens on Spring Creek
Andrew Warnock	CSU College of NatSciences OEC
Courtney Butler	CSU College of NatSciences OEC
Sue Kenney	Fort Collins Natural Areas
Susan Schafer	Fort Collins Natural Areas
Megan Greer	Fort Collins Recreation Dept
Jim Tolstrup	High Plains Environmental Center (HPEC)
Sheena Pate	Fort Collins Utilities
Linda Hamilton	Lory State Park
Debbie Eley	City of Loveland Open Lands/Natural Areas
James Hetland	REI