



NATURE IN THE CITY

STRATEGIC PLAN



Adopted March 24, 2015



NATURE IN THE CITY



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I am pleased to present the Nature in the City Strategic Plan.

Nature in the City is a visionary approach to preserving and enhancing our quality of life now and for future generations. As Fort Collins grows in population and as infill and redevelopment continue to urbanize our community, we want to ensure that access to nature remains a defining attribute of our city. This Plan provides a defined approach to ensure there is always nature within our boundaries.

The City of Fort Collins has a long history of valuing our open spaces. We have vibrant Natural Areas and high quality parks and trails. Nature in the City will add to these programs by identifying, acquiring and protecting a network of connections within the community. Through public and private partnerships, the program will create additional natural spaces, providing quick and easy access to nature within a 10-minute walk from anywhere in Fort Collins. Creating and protecting such natural spaces within an urban setting benefits our physical and mental health, our wildlife and plant habitats, and ultimately combines to create a distinct sense of place for the whole community.

The Nature in the City Strategic Plan reflects the input of engaged residents, community and business partners, Colorado State University staff and students, the Mayor and City Councilmembers, and City staff. It reflects an interdisciplinary effort from many City departments and significant public outreach, including an active Citizen's Advisory Committee. I want to convey my appreciation to all of the citizens who participated in this process, the Mayor and Council for their leadership, and City staff for their hard work.

Nature in the City reflects our commitment to the triple bottom line, taking into account the economic, environmental and social impacts of nature, and as such, I believe this project will shape Fort Collins both in the short term and over the next century.

Sincerely,

A handwritten signature in blue ink, appearing to read "Darin Atteberry". The signature is stylized and fluid, with a large initial "D" and a long, sweeping tail.

Darin Atteberry
City Manager



Photo Credit: Natural Areas Department

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Boards and Commissions

Commission on Disability

Economic Advisory Commission

Land Conservation Stewardship Board

Natural Resources Advisory Board

Parks and Recreation Board

Planning and Zoning Board

Senior Advisory Board

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Colorado State University, Center for Public Deliberation

Colorado State University, Department of Fish, Wildlife and Conservation Biology
Colorado State University, Institute for the Built Environment

Colorado State University, Department of Horticulture and Landscape Architecture
Urban Lab

Wildlife Conservation Society

Additional Acknowledgments

All City Boards and Commissions who have provided feedback throughout this process

More than 1,000 citizens who engaged in the Nature in the City planning process

Residents who submitted photos in association with the Nature in the City photo contest



NATURE IN THE CITY

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Photo Credit: Fresh Air Fort Collins

Executive Summary

What is Nature in the City?

Nature is a defining characteristic of Fort Collins; our community has a 40-year history of protecting nature in our City and region. Nature in the City is a planning effort that capitalizes on these long-standing efforts to further protect and integrate nature into the City's fabric through a variety of regulatory, policy, outreach and collaborative solutions. The vision of Nature in the City is to provide a connected open space network accessible to the entire community that provides a variety of experiences and functional habitat for people, plants and wildlife. This vision will be accomplished through a triple-bottom-line approach considering benefits and impacts of environmental, economic, and social variables. Efforts that enhance access for people and wildlife, the quality of natural spaces, and ongoing stewardship of those spaces are the primary focus.



Photo Credit: Rosemarie Russo

Fort Collins' Commitment to Nature

Fort Collins has a long history of protecting open space within the community; as a result, nature has become a significant part of our community's character and quality of life. This commitment to nature brings many benefits to residents including the opportunity to interact with wildlife, award-winning recreational amenities, and contributes to the city's resilient economy.

Need for this Plan

For years, the City has grown toward the edge of the Growth Management Area boundary. While City Plan has enacted policies related to infill and redevelopment since the late 1990s, development has only recently begun to focus on infill in the urban core.

These changes in development patterns have stimulated a conversation regarding how the community can balance infill and redevelopment goals while maintaining a small-town feel, and protecting important habitat for plants and wildlife. Ensuring all residents have access to nature, and opportunities to retreat from the urban environment, has been identified as a key goal by the community, City Council, and the City's Strategic Plan.

How Does Nature in the City Build Upon Existing Efforts?

Nature in the City goes beyond the borders of Natural Areas, Parks and Stormwater facilities to incorporate a connected network of nature for people and wildlife on public and private lands in the City.

The vision of Nature in the City will be accomplished by a multi-faceted approach including:

- Private/public partnerships
- Restoring existing natural spaces to increase the natural quality of sites for people and wildlife
- Working on neighborhood-scale enhancement projects
- Design guidelines to illustrate how nature can be incorporated into the urban environment
- Education, incentives and resources for landowners, business owners and landscapers
- Ongoing partnerships on new and existing City plans, policies and practices
- Targeted land acquisition to provide a connected open space network

How to Use this Plan

Nature in the City will coordinate and connect new and existing City and community resources with the needs of residents. The recommended policies within this plan are intended to be used by City staff, numerous Boards and Commissions, City Council, property owners, and other community stakeholders to identify priority actions on which to focus collaborative efforts.



Vision

A connected open space network accessible to the entire community that provides a variety of experiences and functional habitat for people, plants and wildlife.

Goals

The following goals have been prioritized to help achieve the Nature in the City vision:

- **Easy Access to Nature:** Ensure every resident is within a 10-minute walk to nature from their home or workplace.
- **High Quality Natural Spaces:** Conserve, create and enhance natural spaces to provide diverse social and ecological opportunities.
- **Land Stewardship:** Shift the landscape aesthetic to more diverse forms that support healthy environments for people and wildlife.

Photo Credit: John Bartholow

Planning Process

Nature in the City represents a 15-month planning process conducted in three phases:

Phase I – Inventory and Assessment

(January 2014 – November 2014)

This phase included extensive research and data collection of environmental, social, and economic values and impacts surrounding nature in Fort Collins. Data was collected locally and through a survey of the literature, including:

- Survey on the benefits of nature from an economic perspective and the impacts of parcels near open space, e.g., property values
- Visioning workshop and citizen surveys to assess residents' perceptions and values about nature
- Citywide bird, butterfly, and vegetation sampling

In addition to the inventory and assessment, significant community outreach also occurred during this phase to inform residents, City staff, and community organizations about the development of the plan and to solicit feedback.

More than 1,000 residents were engaged in this phase of the project.

Phase II – Strategic Planning

(November 2014 – March 2015)

Once data were collected and an initial outreach effort had been made, City staff began a strategic planning phase by assembling several subcommittees to create draft recommendations that informed the policies included in Chapter 3. A draft plan was posted online in February 2015 for public review and comment and the plan was submitted to numerous City Boards and Commissions to solicit feedback as well. City Council adopted this plan in March 2015.

Phase III – Implementation and Evaluation

(March 2015 – ongoing)

The implementation phase of Nature in the City begins with the adoption of this Strategic Plan. Numerous short-term (2015-2016), mid-term (2017-2020), and longer-term (2021 and beyond) efforts have already been identified for implementation. Where feasible, cost estimates for each action item have been provided. Projects will continue to be identified and implemented as the policies in this plan are executed.



Policies

This plan outlines 33 policies the City will pursue to accomplish the broader goals and vision of Nature in the City. Each policy identifies a key outcome resulting from implementation. The 33 policies are categorized into five policy areas.

Connectivity

During the outreach conducted for Nature in the City, the issue of connectivity, or the ability for people and wildlife to access nature without interruption, arose again and again. Regardless of age, income level, geographic location or ethnic background, the community expressed a strong desire to enhance connectivity between natural spaces, not only for people but for wildlife as well. The policies in the Connectivity Policy Area are designed to achieve that goal.

Key outcomes include:

- A connected system of nature for people and wildlife
- Access to nature via public transportation
- Innovative wayfinding and interpretation information
- A vibrant, connected Poudre River

A common theme among all stakeholder groups was identification of connectivity as a top priority for Nature in the City to emphasize.

Connectivity Policies

C1 - Increase connectivity for plant and wildlife species

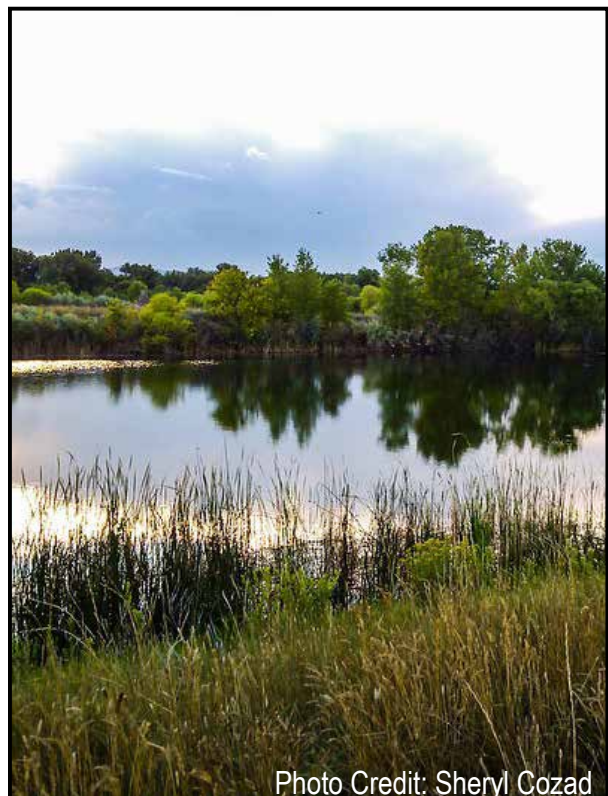
C2 - Increase connectivity for residents

C3 - Prioritize transportation infrastructure to increase access to nature

C4 - Provide public transit connections to nature

C5 - Provide innovative wayfinding and informational resources

C6 - Continue to make the Cache la Poudre River a conservation priority



Land Use and Development

Fort Collins' population may grow from its current 155,000 residents to between 230,000 and 255,000 not long after 2040. Throughout community discussions, a strong desire to preserve Fort Collins' small-town feel while accommodating additional growth was prevalent.

The City's Land Use Code, which governs land development, is a critical tool for addressing this balance. In addition, while many neighborhoods, businesses and districts are not currently poised to redevelop, many have expressed an interest in greater access or a greater variety of experiences with nature. These policies are designed to help meet this need through new developments, properties that redevelop, and existing neighborhoods or properties that wish to enhance their natural spaces.

Key outcomes include:

- Flexible Land Use Code requirements for open space and vegetation structure and composition
- Design guidelines and training resources to install and maintain natural spaces
- Neighborhood-scale projects to create or enhance natural spaces
- Partner with ditch companies to acknowledge multiple value of ditches
- Stormwater basin guidelines that complement Nature in the City principles
- Sustainable urban agricultural operations

Land Use and Development Policies

LU1 - Revise Land Use Code open space standards

LU2 - Develop Land Use Code changes regarding multiple tree sizes and diversity within new developments

LU3 - Create design guidelines to guide development, redevelopment and site restoration

LU4 - Develop training resources for the installation and ongoing maintenance of diverse landscapes

LU5 - Coordinate and incentivize natural space improvements at the neighborhood scale

LU6 - Support and protect the multiple values of the City's ditch system

LU7 - Provide Level of Service guidance for Nature in the City projects

LU8 - Update stormwater basin guidelines to include Nature in the City principles

LU9 - Encourage natural drainages to be re-created

LU10 - Promote and preserve urban agriculture that supports a triple-bottom-line approach

Photo Credit: Fresh Air Fort Collins



City Practices and Policy Coordination

The purpose of this policy area is to ensure the integration of Nature in the City principles into existing City programs and future planning efforts. One of the major charges of Nature in the City is to coordinate with development, infrastructure, and other plans and policies to incorporate nature where appropriate.

Key outcomes include:

- City mowing and spraying operations that adhere to best management practices, provide flexibility for site objectives to be met, ensure the protection of wildlife habitat and meet public safety and aesthetic requirements
- A darker night sky
- A complete dataset of wildlife habitat in the City's urban tree canopy
- Streetscapes with natural landscaping where appropriate
- A quieter community for people and wildlife
- Updated stormwater practices that align with Nature in the City principles
- Coordination with Nature in the City on existing and future City plans, policies and projects, ensuring nature is acknowledged as a key community value in the urban environment
- Increased recognition of the unique role nature plays in the urban environment

City Practices and Policy Coordination

CP1 - Align City mowing and weed control policies to support local species while balancing public safety and aesthetics

CP2 - Work cross-departmentally and with external partners toward a darker night sky

CP3 - Expand the City's tree inventory to include wildlife habitat

CP4 - Pollinator and bird-friendly habitat in City Streetscapes

CP5 - Provide quiet spaces in the City to escape from the urban environment

CP6 - Amend the City's Stream Rehabilitation Program to incorporate Nature in the City Principles

CP7 - Continue the City's current policies related to nature and coordinate Nature in the City initiatives with future planning and policy updates

CP8 - Coordinate with all applicable City planning processes over time to ensure opportunities to implement Nature in the City efforts and initiatives are included

CP9 - Update Nature in the City Strategic Plan

CP10 - Celebrate nature in the urban environment

Photo Credit: mrp2863198



Long-term Monitoring

The Nature in the City Strategic Plan is designed to be an ongoing guide directing how the community incorporates natural spaces into the increasingly urban environment over the next 100 years and beyond. These policies envision a longer-term application and evaluation of the Nature in the City principles.

The policies within the Long-term Monitoring policy area encourage the development of specific targets and long-term monitoring programs to aid the City in assessing whether it is on track to achieve the goals established in this plan. The policies also encourage citizen engagement in long-term monitoring.

Key outcomes include:

- Comprehensive biodiversity goal for public and private land
- Community or regional standards to assess the economic benefit ecosystem services provide
- Projects that support greenhouse gas emissions reductions as detailed in the City's Climate Action Plan
- Long-term monitoring program that tracks key indicator species

Long-term Monitoring Policies

LT1 - Set a Citywide biodiversity goal

LT2 - Establish the value of ecosystem services to the City and track the value added by existing and new projects

LT3 - Establish monitoring for carbon sequestration to support greenhouse gas emission reduction goals

LT4 - Evaluate and monitor natural spaces for air quality improvement in accordance with the Air Quality Plan

LT5 - Establish a long-term monitoring program for the City's biodiversity using citizen science projects



Photo Credit: Molly Rosey

Funding and Incentives

During the public outreach for Nature in the City, participants said they would like to incorporate nature into their homes or businesses, but many times did not have the technical knowledge to do so, and perceived increased costs as a barrier. Financial and other incentives are important to help overcome these barriers. Key to the success of Nature in the City will be establishing public/private partnerships with residents, local businesses, e.g., nurseries and others, and developers to implement the appropriate incentives at the right scale.

Identifying, coordinating and managing all the potential projects Nature in the City may have a nexus with will also require ongoing funding for the program. Policies in the Funding and Incentives Policy Area address these issues.

Key outcomes include:

- Ongoing funding for program support and project-specific capital improvements
- A variety of incentives that help landowners, business owners and others implement Nature in the City projects

Funding and Incentives Policies

F1 - Explore a diverse set of funding options to implement Nature in the City

F2 - Implement incentives that can be incorporated into new development and redevelopment projects

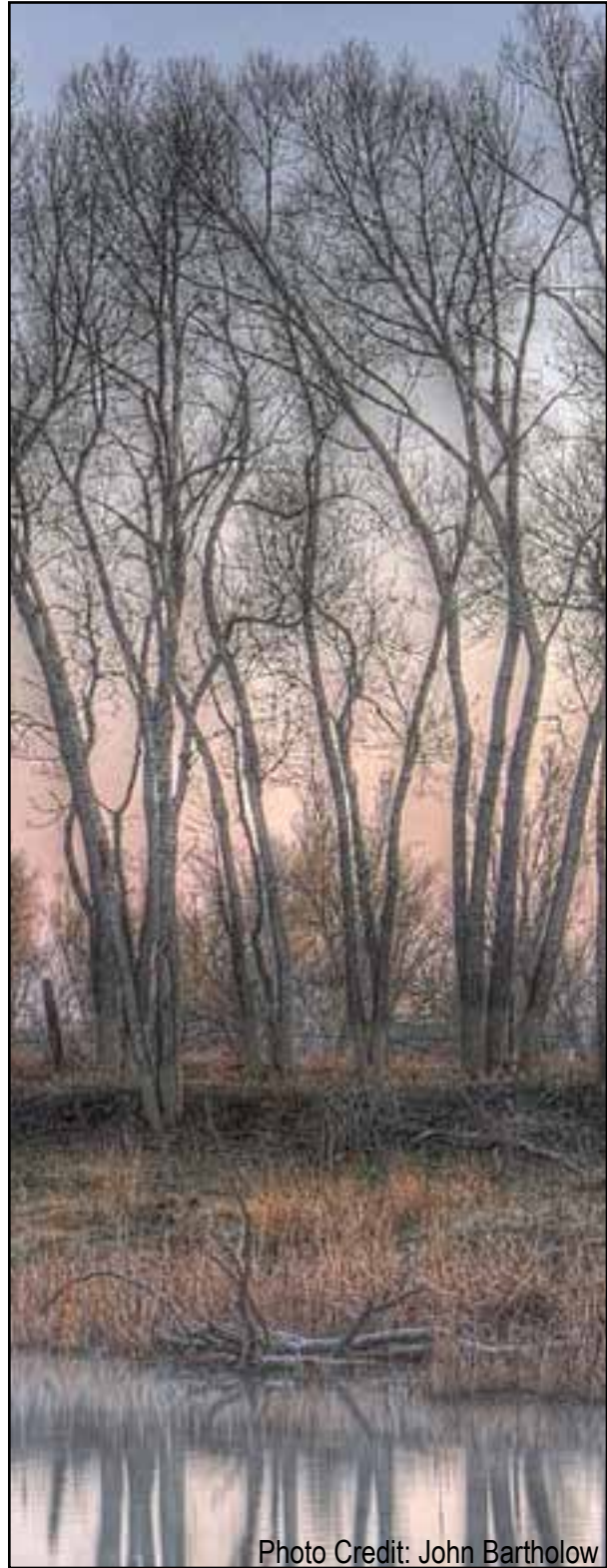


Photo Credit: John Bartholow

Plan Evaluation and Implementation

A common way to evaluate a plan is through the use of performance indicators. Performance indicators are tools used to track and evaluate implementation progress over time. Performance indicators are most effective when they are aligned with the key outcomes. For Nature in the City, the performance indicators are designed to measure whether the vision, goals, and policies are being achieved.

Immediate indicators include access to nature and connected habitat measurements. Longer-term indicators may include a biodiversity goal and neighborhood engagement measures.

A number of projects are detailed in this Plan, including:

Short-term Projects (2015-2016)

- Land Use Code amendments related to open space requirements
- Comprehensive Night Skies Policy and regulatory updates
- Design Guidelines for installation and maintenance of natural spaces
- Connectivity analysis for people and wildlife

Mid-term Projects (2017-2020)

- Incorporate Nature in the City principles in the City Plan update and other planning efforts
- Acquire parcels within identified priority areas
- Neighborhood-scale programs to incorporate Nature in the City

Longer-term Projects (2020 and beyond)

- Encourage natural drainages to be re-created
- Develop level of service for Nature in the City by establishing standards for future projects
- Establish valuation for ecosystem services provided in the City



Photo Credit: Molly Rosey



Conclusion

Nature in the City is an innovative approach to preserving and enhancing the quality of life in Fort Collins now and for future generations. This initiative is part of the City's comprehensive efforts to ensure nature remains a defining attribute of our community.

As Fort Collins grows in population and as infill and redevelopment continue to urbanize our community, having a defined plan and approach to ensure there is always nature within our boundaries is an essential part of protecting a critical value of our City.

Photo Credit: Ava Diamond



Photo Credit: Norm Keally

CHAPTER 1:
INTRODUCTION

Introduction

Background

From its humble beginnings in the 1860s as an Army outpost, Fort Collins has grown to more than 155,000 residents encompassing 55 square miles. Now, Fort Collins is transitioning from a suburban town to a small urban city with a projected buildout population of 230,000 - 255,000 residents not long after 2040. As the City transitions from suburban to urban and densities increase, informal natural spaces and features within the urban core will become more important for both people and wildlife.

Purpose of this Plan

Building upon the work that City Natural Areas, Parks, Stormwater, and others have created, Nature in the City will help facilitate a connected system of public and private lands, with an ultimate goal of weaving together the natural elements and systems throughout the community. Developing this plan now is important so we can take advantage of opportunities that exist to integrate Nature in the City elements into new developments and redevelopments as well as to stimulate restoration of existing sites. Creating a high quality, interconnected open space network as Fort Collins moves toward buildout ensures the ability to preserve, enhance, and add to those natural places within our community. These spaces are integral to plant and wildlife habitat and important to creating our sense of place within Fort Collins.

According to the 2010 U.S. Census, almost 80% of people living in the United States live in an urban setting. That means now more than ever, people are experiencing nature in an urban environment.

Previous Plans and Existing City Efforts

City Plan

City Plan, the City's comprehensive plan, serves as the foundation for all operations and planning efforts in Fort Collins. As Nature in the City is interdisciplinary, numerous Principles and Policies in the Environmental Health and Community and Neighborhood Livability sections align with this project's vision.

Policy LIV 14.1 of City Plan encourages the inclusion of nature in the urban environment:

In addition to protecting existing natural features, encourage integration of unique landscape features into the design and architecture of development and capital projects. These unique features may range from informal and naturalized to highly structured and maintained features. Some examples include tree groves within a project, stormwater facilities that become naturalized over time, walls with vines, drainageway enhancements, and other small, uniquely landscaped spaces.



Citywide 2015-2016 Strategic Plan

Similarly, the City’s 2015-2016 Strategic Plan delves into the Principles and Policies set forth in City Plan for a 5-year timeframe instead of a 25+ year timeframe.

Numerous Nature in the City Policies achieve Key Strategic Outcomes and Strategic Objectives in the Strategic Plan, with the most important objectives as follows:

Strategic Outcomes	Objectives
Community & Neighborhood Livability: Provide a high quality built environment and support quality, diverse neighborhoods	Objective 1.4 – Preserve and provide responsible access to nature
	Objective 1.6 – Promote health and wellness within the community
Culture & Recreation: Provide diverse cultural and recreational amenities	Objective 2.5 – Plan, design, and implement citywide park, recreation and trail improvements
Economic Health: Promote a healthy, sustainable economy reflecting community values	Objective 3.5 – Sustain high water quality to support the community and water-dependent businesses
	Objective 3.7 – Support sustainable infill and redevelopment to meet climate action strategies
Environmental Health: Promote, protect and enhance a healthy & sustainable environment	Objective 4.1 – Improve and protect wildlife habitat and the ecosystems of the Poudre River and other urban streams
	Objective 4.10 – Conserve and restore biodiversity and habitat
Safe Community: Provide a safe place to live, work, learn and play	Objective 5.4 – Protect life and property with natural, aesthetically pleasing flood mitigation facilities through building codes and development regulations
Transportation: Provide for safe and reliable multi-modal travel to, from and throughout the City	Objective 6.3 – Fill the gaps for all modes of travel and improve the current transportation infrastructure while enhancing the aesthetic environment
	Objective 6.6 – Support efforts to achieve climate action goals by reducing mobile emissions and supporting multiple modes of transportation



Existing City Programs and Policies

The City of Fort Collins has a rich history and a strong commitment to protecting the natural areas and habitats both within the City and throughout the region. From the early tax initiatives in 1972 and 1984, and through subsequent initiatives, the City's Natural Areas Department has become an award-winning conservation program that has protected more than 41,000 acres of quality natural areas in Fort Collins, both for the plant and wildlife species that inhabit them and the citizens who recreate in them. More recently, the Utilities' Stormwater Repurposing Effort has expanded the program's focus to emphasize not only runoff capture but also to mimic natural processes. Similarly, the City's Parks Department has designed and constructed new parks incorporating a combination of passive and active uses that better support a balance of natural spaces and habitat with recreation.

Since 1997, the City's Land Use Code has required developments to protect, enhance, and buffer natural resources on private lands. Each of these efforts has led to a community that values the natural environment, along with a high quality built environment.

The City's Natural Areas Department has protected more than 41,000 acres of high quality open space in Fort Collins and the surrounding region.

Existing Plans and Policies

There are a number of policies and plans that already protect and incorporate nature into City operations, providing opportunities for Nature in the City to leverage resources to make even more impact.

Plans and Policies that incorporate nature include:

- City Plan (2011)
- City 2015-2016 Strategic Plan
- Natural Areas Master Plan (2014)
- Our Lands Our Future Study (Larimer County) (2013)
- Paved Trails Recreational Master Bicycle Plan (2013)
- Parks and Recreation Policy Plan (2008)
- Land Use Code

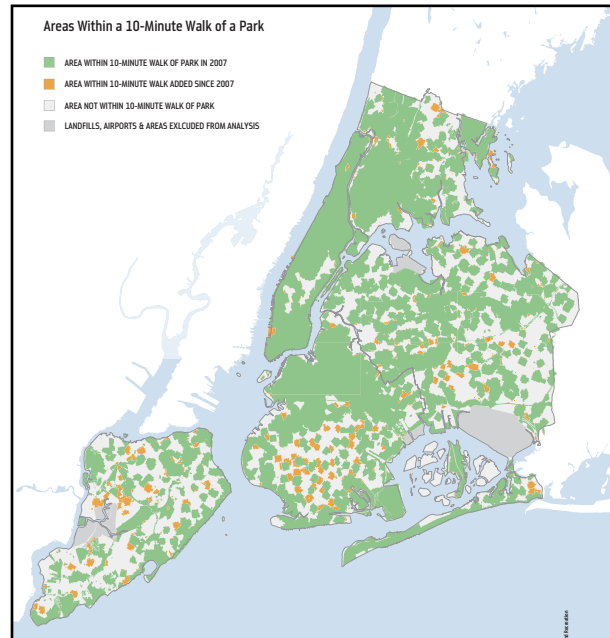


Other Efforts to Incorporate Nature into the Urban Environment

Numerous communities have successfully incorporated nature into the urban fabric in creative and interesting ways. New York City's Forever Wild program has protected more than 50 of the most ecologically valuable lands remaining within the five boroughs, allowing visitors to connect to nature in their urban context. Vancouver, British Columbia has defined a goal of being the Greenest City in the World and is setting out to accomplish that goal with its 2020 Action Plan. Additionally, the city-state of Singapore has invested in integrating nature into the built environment by creating the Gardens by the Bay, which allows visitors to engage with a cloud forest, gardens and lakes all within their city-state.

Nature in the City breaks new ground in weaving nature into the urban environment in the following ways:

- The extensive public, private, and academic partnerships forged through the development of the plan that will continue to be strengthened in its implementation;
- The explicit commitment to the Triple Bottom Line (social, environment and economic) aspects of nature; and
- The acknowledgment that both public and private lands contribute to the City's natural values and the identification of policies that apply to both of these types of lands.



The images above represent a greenway corridor in Vancouver, a map illustrating the 10-minute walk distance to nature in New York City, and a canopy walk in Singapore. While these examples have different climates than Fort Collins, they represent visionary examples for incorporating nature into the urban environment from which we can learn. Photo credits: City of Vancouver, New York City, and the City-State of Singapore.

Public Engagement

The Nature in the City initiative has involved 17 City departments, Colorado State University, and a 15-member Citizens Advisory Committee. Public engagement strategies included open houses, visioning workshops, farmers markets, and focus groups with the business community, schools, City Boards and Commissions, and the Hispanic community through La Familia/The Family Center. Three workshops were held to solicit feedback, and since the project was initiated, more than 1,000 residents participated in a dialogue to formulate the vision and strategic plan for achieving the initiative's goals.

For the full results of all outreach efforts see Appendix B3.

Boards and Commissions involved in Nature in the City

- Commission on Disability
- Economic Advisory Commission
- Land Conservation Stewardship Board
- Natural Resources Advisory Board
- Parks and Recreation Board
- Planning and Zoning Board
- Senior Advisory Board

Inventory and Assessment Summary

In addition to outreach, Phase One was focused on inventory and assessment. A triple-bottom-line (social, economic, and environmental) approach served as the foundation for this effort.

This phase was collected and analyzed data to assess tassets/gaps from a triple-bottom-line perspective. Staff began the project by collecting examples (precedents) from the United States and abroad (Appendix B1). For each perspective of the triple bottom line (social, economic, and environmental), staff conducted a literature review and collected local data. While the literature review is described in Appendix B2, a summary of the local data from each of these perspectives is described below.

Social Inventory and Assessment

A survey gathered feedback about the use and value of nature in our community. Surveys were given to 365 participants between March and September 2014. Demographic data were collected to ensure findings were relevant to the entire community.

92% of respondents to the project's survey indicated that access to nature was important or very important.



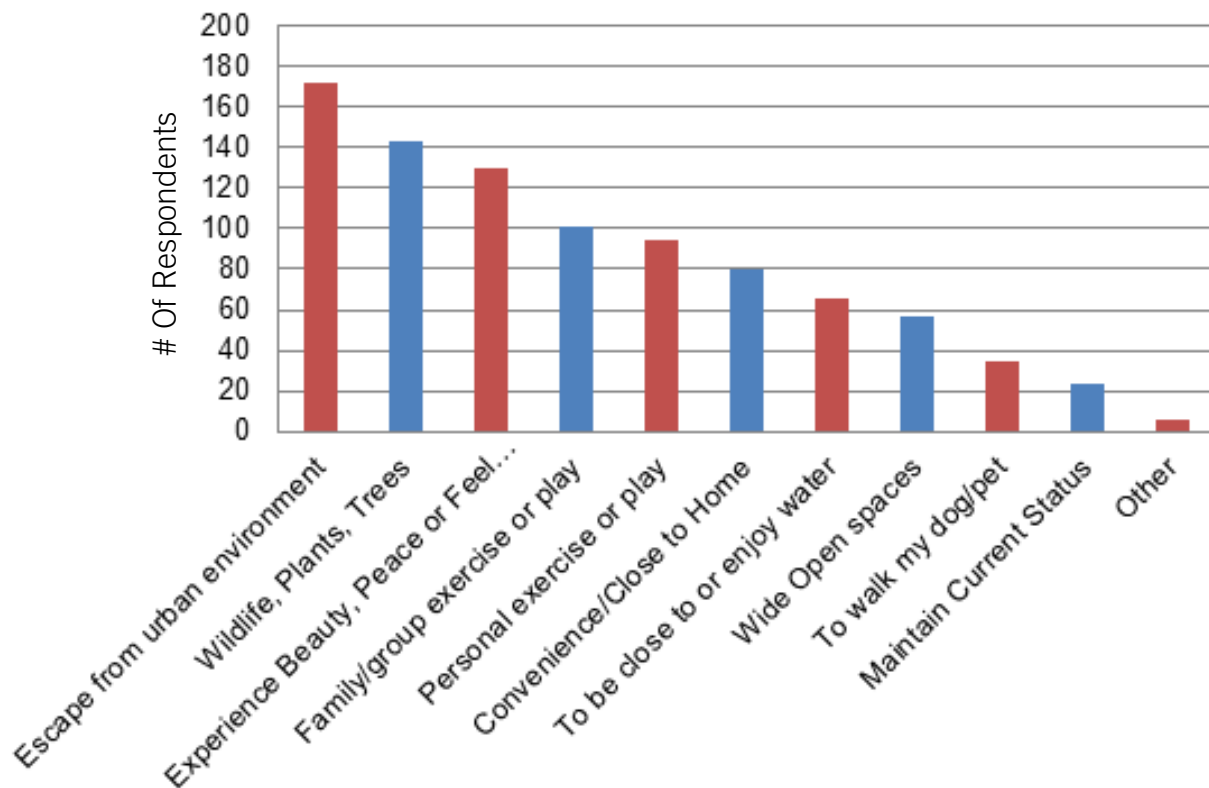
Participants at a Nature in the City visioning workshop facilitated by the Center for Public Deliberation (CSU)
Photo credit: Martin Carcasson.

Key findings of the survey include:

- Residents in Fort Collins strongly value access to nature (92 percent of respondents indicated nature was important or very important to them).
- Most residents feel they have easy access to nature (78 percent agree or strongly agree), but note that a lack of time (94 respondents) and lack of easy access (48 respondents) are the two biggest barriers to open space access.
- When asked what this project should focus on, given our current strengths and weaknesses, four priorities emerged:
 1. Provide opportunities to escape from the urban environment
 2. Increase connectivity and opportunities for wildlife and plants (especially trees) to thrive in the community
 3. Provide places to find beauty, peace, and relaxation
 4. Provide more opportunities for personal and group exercise or play, with an emphasis on a connected network of these opportunities.

The full survey results are available in Appendix B4.

Respondent answers to the question: “Considering our current strengths and weaknesses, which of these values should this project focus on the most for the city overall?” In this question, the opportunity to escape from the urban environment was the top most preferred value to focus on, with wildlife, plants, and trees being the second most preferred item. Of note is that these priorities were consistent overall based on demographics, but that males wanted the project to focus on personal exercise or play as their second priority for the project.

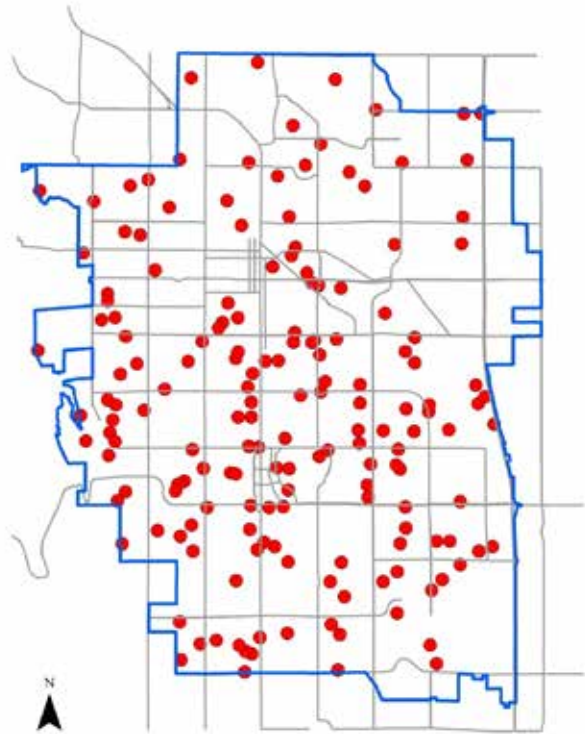


Ecological Inventory and Assessment

From the inception of the project, a key component of Nature in the City has been to conduct long-term monitoring on the condition of Fort Collins' urban habitat and the abundance and diversity of its species. In collaboration with CSU and the Wildlife Conservation Society, staff conducted the following efforts to begin collecting a baseline condition in the summer of 2014:

- Staff sampled 166 sites throughout Fort Collins from May–August 2014 for birds, butterflies and vegetation.
- Field data were collected across nine land use types – Parks, Natural Areas, schools, trails, ditches, urban agriculture, residential open space, non-residential or institutional open space, and Certified Natural Areas/Natural Habitat Buffer Zones.
- 88 species of birds and 33 species of butterflies were observed.
- Data analysis suggests land use, site area, distance to Growth Management Area boundaries and percent of disturbed habitat are the strongest drivers for the abundance and diversity of bird and butterfly species observed this past year. A full summary of results and the methods used for the surveys can be found in Appendix B5.

Bird and butterfly data collected in 2014 indicate that when private lands are managed with wildlife in mind, species diversity is comparable across public and private lands. This illustrates the potential that private lands have to contribute to the community's overall habitat value.



This map illustrates the 166 sites sampled throughout the City for birds, butterflies, and vegetation. Sampling design was developed in collaboration with CSU and the Wildlife Conservation Society.



Photo Credit: Chirpchic

Using the Plan

Economic Inventory and Analysis

City staff met with a significant number of business organizations, primary employers, and ClimateWise partners to assess how access to nature enhances business attraction and retention in Fort Collins (see Appendix B3 for a full list). In summary, the business community reported:

- City is attractive and considered to provide high quality of life
- Nature does help with businesses recruitment and employee retention
- Residential sales price premiums for close proximity to nature in Fort Collins are approximately 10 percent
- The project should be mindful of added costs to development/business
- Encouraged staff to look for ways to “soften” commercial areas (e.g., Downtown flowers) via incentives and partnerships
- Connectivity between open spaces is important

One study in Lawrence, Kansas indicated residents were willing to pay for easier access to nature regardless of income level (see Appendix B2).



The Plan will serve as a policy guide for the City, private landowners and others when considering new regulations and incorporating nature into various projects. The chapters contained within this Plan are briefly described below.

Chapter 2 – Vision and Goals: This chapter presents the overall Nature in the City vision and goals.

Chapter 3 – Policies: This chapter discusses the 33 policies designed to accomplish the goals and vision of Nature in the City. Each policy contains a key outcome that will occur as a result of policy implementation. Each of the policies is categorized into five policy areas for ease of reading:

- Connectivity
- Land Use and Development
- City Practices and Policy Coordination
- Long-term Monitoring
- Funding and Incentives

Chapter 4 – Plan Evaluation and Implementation: This chapter is separated into two sections: (1) plan evaluation and (2) implementation. Plan evaluation includes a set of performance indicators, two of which can be measured as early as 2015 and others that will need to be developed after specific implementation items are complete.

Plan implementation is divided by short-term (2015-2016), mid-term (2017-2020), and long-term (2021 and beyond) actions. Costs, timelines, stakeholders and more are detailed in this section.



CHAPTER 2: VISION AND GOALS

Chapter 2: Vision and Goals

VISION:

“A CONNECTED OPEN SPACE NETWORK ACCESSIBLE TO THE ENTIRE COMMUNITY THAT PROVIDES A VARIETY OF EXPERIENCES AND FUNCTIONAL HABITAT FOR PEOPLE, PLANTS AND WILDLIFE.”



Photo Credit: Ava Diamond

GOALS

Three key goals have been identified to achieve the Nature in the City vision:

- **Easy Access to Nature:** Ensure every resident is within a 10-minute walk to nature from their home or workplace.
- **High Quality Natural Spaces:** Conserve, create and enhance natural spaces to provide diverse social and ecological opportunities.
- **Land Stewardship:** Shift the landscape aesthetic to more diverse forms that support healthy environments for people and wildlife.

Easy Access to Nature

92% of respondents to the 2014 Nature in the City survey said they strongly value access to nature.



Easy Access. Throughout the public outreach process, residents cited easy access to nature as a key priority. In a public survey conducted during March-July 2014, 92 percent of respondents said they strongly value access to nature. One of the Nature in the City goals is to ensure easy access to nature in perpetuity.

One measure of easy access is the distance or amount of time it takes to get to nature. A 10-minute walk has been selected as the target, as it is a nationally accepted standard (see Appendix D for more information). For example, Vancouver, British Columbia and New York City have both embraced a short walk to experience nature. These cities have set 5-minute and 10-minute walking goals, respectively, and are actively acquiring property and restoring sites throughout their communities to achieve these goals.

Access to nature, especially within 10 minutes, has been shown to have many positive social and economic benefits. Studies suggest the following impacts:

- Increased cognitive health
- Increased learning
- Decrease in body mass index (BMI)
- Decrease in attention-deficit hyperactivity disorder
- Positive impact on children with special needs who have access to nature-based, therapeutic interventions
- Faster recovery after surgeries and overall healthcare cost savings
- Creating a sense of place and culture
- Making cities aesthetically pleasing
- Increased opportunities for recreation, community gatherings and refuge from the urban setting
- Increased property values for homes in close proximity to open and natural spaces



High Quality Natural Spaces

Connectivity. Connectivity was identified as an overarching priority for Nature in the City throughout discussions with residents and stakeholders. Residents wanted to be able to leave their home, and quickly access a trail that would lead them to a larger open space. For species, connectivity means different things to different species, e.g., for birds, it can be a series of habitat areas in close proximity whereas some mammals need a physically connected corridor.

Key Access Outcomes:

- Connectivity analysis to identify gaps in residents' access to nature within a 10-minute walk, as well as gaps in wildlife habitat connectivity.
- Land Use Code open space requirements that provide flexible options for natural spaces during the development review process.
- Neighborhood-scale projects, especially in priority areas where connectivity for residents or wildlife is lacking, to create or enhance natural spaces.

The foraging distance for some native bees is roughly the same as the 10-minute walk, underscoring the co-benefits of a connected, easy to access open space network.

High quality natural spaces are beneficial to all species, human and wildlife alike, and help support a resilient economy. The quality of natural spaces is as important as the quantity. This goal protects existing high quality natural spaces, creates new natural spaces to provide connectivity, restores lower quality spaces to provide habitats for local species and enhances opportunities for recreation and rejuvenation.

While providing high quality natural spaces is a key goal of Nature in the City, not every space has to provide all of the benefits of nature. Some spaces are more sensitive than others and may not be conducive to human access, whereas others are highly appropriate for humans and should not be designed for highly sensitive species. Balancing these needs will be critical to the long-term success of the connected open space network within the community.

Benefits to People. According to Nature in the City outreach surveys, respondents value high quality spaces to engage in personal exercise or play, experience peace and beauty, and escape urban settings. Survey respondents indicated they most often experience such high quality natural spaces in the City's Parks, Natural Areas, streams and trails.



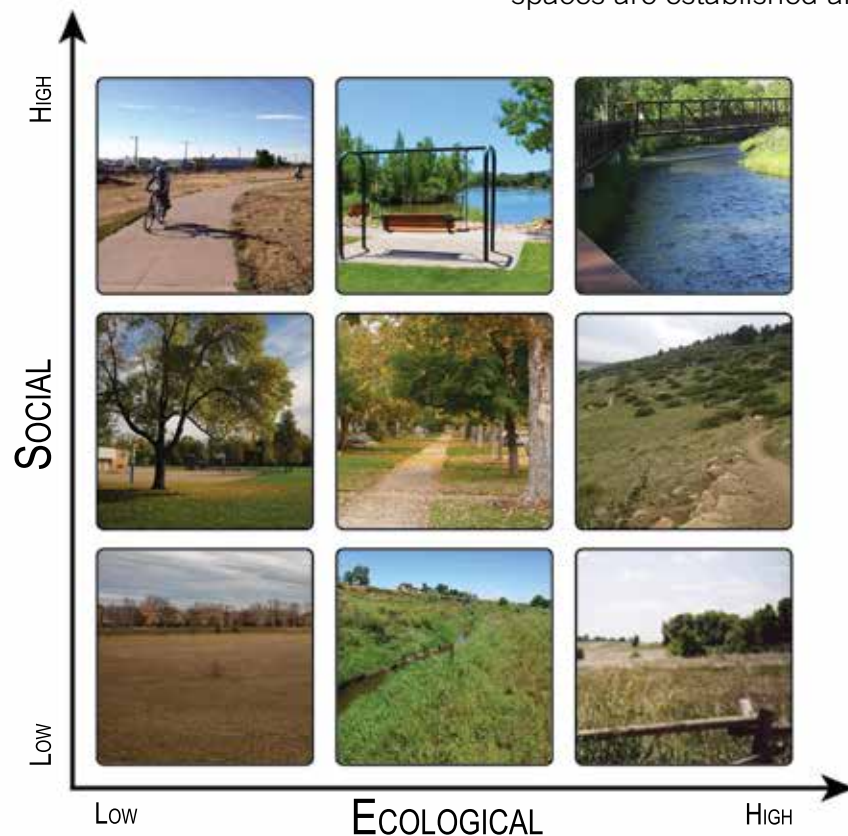
Photo Credit: Katy Bigner

Benefits for Plants and Wildlife. For plant and animal species, high quality spaces provide habitat through the appropriate combination of shelter, food sources, water availability, and natural features such as trees or rock outcrops.

Benefits for the Economy. Fort Collins' businesses and residents indicated that access to a variety of open spaces was essential to quality of life. Research also indicates that high quality open spaces, e.g., access to stream corridors, greater urban tree canopy, etc., command higher sales premiums on homes.

Key Quality Outcomes:

- Sites are enhanced and restored in partnership with existing neighborhoods and property owners.
- A greater diversity of open spaces in new developments and redevelopments is achieved through amendments to the Land Use Code.
- Existing dark sky locations are protected, baseline and trends in regional night skies are monitored, and regulatory changes to facilitate best practices for dark skies are implemented.
- Citywide goals for biodiversity and ecosystem services provided by natural spaces are established and tracked.



This graphic illustrates the variety of types of nature that can be found within Fort Collins. Residents that staff met with indicated that they desire a spectrum of experiences when they are accessing nature. Some places have greater ecological value, e.g., the Poudre River and Natural Areas, whereas other places have greater value for people, e.g., City parks, trails, and residential open spaces. Where appropriate, Nature in the City can help to enhance the value of existing spaces to help achieve the ultimate objective of a site.

Land Stewardship

Many residential and commercial landscapes in Fort Collins look similar: a landscape dominated by turf with shade trees and ornamental shrubs and flowers within. While these landscapes provide benefits, there are ample opportunities to integrate more diverse landscapes that contribute to greater social, ecological and economic health and well-being.

Landscape Preferences. In the Visual Preference Survey conducted during outreach efforts, respondents consistently rated diverse landscapes higher than less diverse forms. When shown images of different natural spaces that could occur throughout Fort Collins, respondents typically preferred images that featured natural landscapes intermixed with manicured features. With the knowledge that people prefer a more diverse landscape, the land stewardship goal provides guidance as to what diverse forms might be appropriate in certain locations, as well as how to successfully install and maintain those spaces.

Benefits of Diverse Landscapes. Diverse landscapes can be more resilient, consume less water, and provide ecological value to the surrounding area. Yet, installing and maintaining these spaces requires a different approach than a typical manicured lawn. Over a project's lifespan, the benefits of more diverse landscapes outweigh the upfront training and site establishment requirements.

Key Stewardship Outcomes:

- Create design guidelines applicable to residents, business owners, and developers for designing, installing, and maintaining more diverse landscapes.
- Align City departments' mowing and spraying procedures to balance wildlife habitat needs with management objectives and aesthetics.
- Where appropriate, adapt the streetscape to include naturalistic landscaping that incorporates pollinator-friendly plant materials, while minimizing wildlife conflicts, as well as provide diverse streetscapes for resident and visitor interactions.



As a part of the Nature in the Neighborhoods program in Portland, Oregon, this site provides opportunities for wildlife and people. This is an example of the types of places that people preferred in the Visual Preference Survey, as there is both a natural element (the wetland) and a manicured space (the seating area). (Photo credit: Megan Bolin)

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Photo Credit: Jeremy White

CHAPTER 3:
POLICIES

Chapter 3: Policies

Nature in the City builds upon many policies in City Plan and other existing planning documents within the City and Larimer County, and is designed to be additive to the work already being done.

The vision of Nature in the City is:

A connected open space network accessible to the entire community that provides a variety of experiences and functional habitat for people, plants and wildlife.

The major goals to achieve this vision are as follows:

- **Easy Access to Nature:** Ensure every resident is within a 10-minute walk to nature from their home or workplace.
- **High Quality Natural Spaces:** Conserve, create and enhance natural spaces to provide diverse social and ecological opportunities.
- **Land Stewardship:** Shift the landscape aesthetic to more diverse forms that support healthy environments for people and wildlife.

Throughout this chapter, each of the Plan goals addressed by a policy recommendation is indicated using the icons below.

Access

Easy Access to Nature

Quality

High Quality Natural Spaces

Stewardship

Land Stewardship

This chapter is organized into five policy areas, which detail specific actions the City will take to strategically accomplish those goals:

- Connectivity
- Land Use and Development
- City Practices and Policy Coordination
- Long-term Monitoring
- Funding and Incentives



Photo Credit: Natural Areas Department

POLICY AREA: CONNECTIVITY

During the outreach conducted for Nature in the City, the issue of connectivity, or the ability for people and wildlife to access nature without the interruption of barriers, arose again and again. While definitions of connectivity vary, regardless of age, income level, geographic location or ethnic background, the community expressed a strong desire to enhance the connectivity between the natural spaces we have, for people and wildlife. The following objectives are designed to achieve that goal.

C1: Increase connectivity for plant and wildlife species

Access

Quality

Stewardship

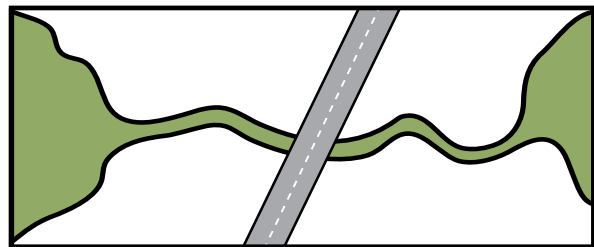
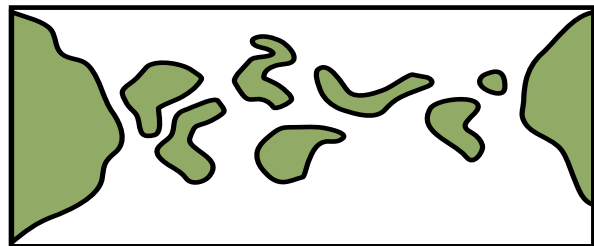
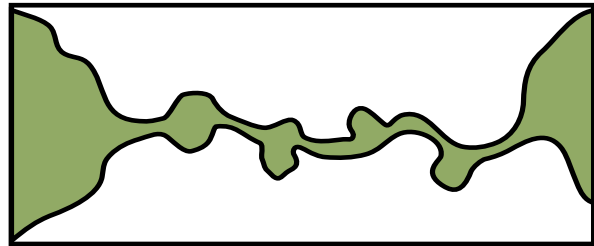
The impacts of fragmented, or disconnected, natural systems include reduced genetic diversity, invasive species establishment and overall ecosystem health decline.

The City will protect connections between existing natural spaces and capitalize on opportunities to reconnect disconnected spaces with appropriate habitat to provide travel corridors, shelter, food and adequate hunting habitat for numerous species.

Initially, connectivity analyses and metrics will focus on bird and butterfly indicator species for which data have been collected, but can later be expanded to include other species identified as indicators.

Outcome: A system of connected natural spaces that wildlife can access with minimal fragmentation.

WHAT IS HABITAT FRAGMENTATION?



This graphic illustrates a continuum from landscapes that are connected to ones that are more fragmented, or disconnected. The top image illustrates two land areas that are connected by a corridor. The middle image illustrates the two land areas with various size patches in between them, but they lack a connected corridor. The bottom image also illustrates fragmentation by showing how roadways can bisect a connected corridor. For some species, e.g., birds and butterflies, the top or middle image may still be perceived as a connected landscape, whereas for other species, e.g., mammals and reptiles, a fully connected landscape is preferred for movement.

In addition to the effects of fragmentation itself, “edge effect” also impacts the quality of smaller patches of habitat. The influence from surrounding impacts lessens as you move in from the edge of a patch. This emphasizes the importance of protecting or creating habitats that are larger, intact, and have less edge.

C2: Increase connectivity for residents

Access

Residents' ability to easily access nature is important due to the numerous health, social, economic, educational and recreational benefits nature can provide. One way to measure easy access is to set a distance or time it takes to get to nature. For Nature in the City, a 10-minute walk has been selected as the target, as it is a national standard for willingness to walk to transit and is quickly becoming a standard for easy access to nature. At the same time, the distance associated with a 10-minute walk may pose a challenge for some residents. Thus, other policies, such as C4 below, will increase accessibility to all nature spaces within the City regardless of walking ability.

The City will complete a connectivity analysis to identify barriers preventing access to nature for the typical resident within 10 minutes. Barriers may include inaccessible private land, arterial streets or a lack of sidewalks or paths. Where gaps or barriers exist, the City will seek opportunities to provide access through land acquisition, access easements, or installing new infrastructure such as pedestrian underpasses beneath arterial streets.

While pursuing additional connectivity for people, it will be imperative to consider and mitigate new impacts to wildlife habitat causing fragmentation, that may come at the expense of additional human connectivity.

Outcome: Accessible network of connected natural spaces for all City residents within a 10-minute walk.

Photo Credit: Natural Areas Department



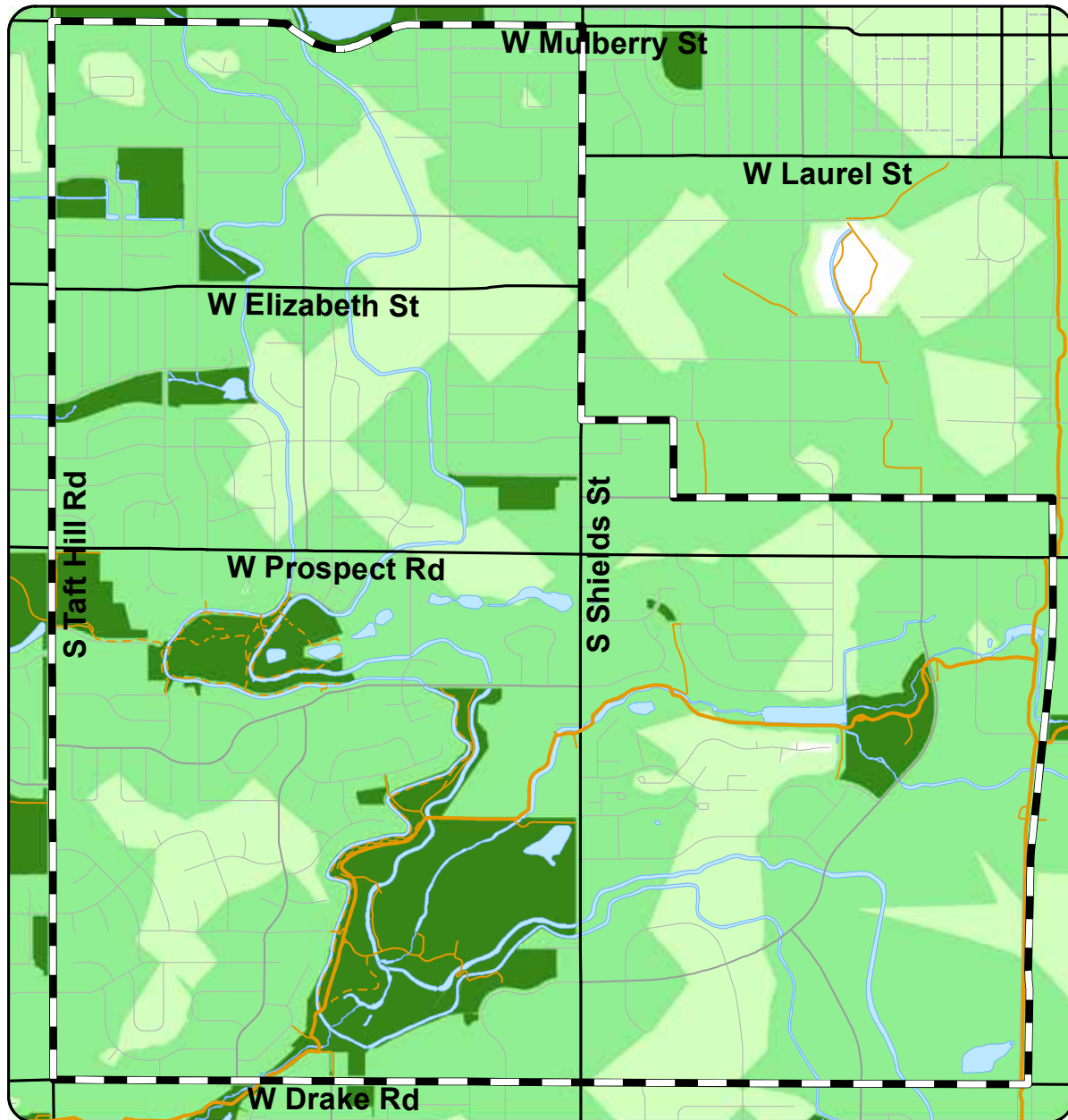
Photo Credit: Molly Rosey



Photo Credit: Be Xtra Ordinary U

West Central Area Plan

10 Minute Walk (Arterial Road Crossings)



0 0.1 0.2 0.3 0.4 Miles



Printed: February 25, 2015

- Paved Major Trail
- - - Natural Surface Major Trail
- Paved Minor Trail
- - - Natural Surface Minor Trail
- + Public Open Space
- + 5 Minute Walk to Protected Lands and Trails
- + 10 Minute Walk to Protected Lands and Trails
- West Central Neighborhoods

The West Central Area Plan has been developed in tandem with Nature in the City, and has served as a pilot for the connectivity analysis proposed in this Plan. This map illustrates areas within the West Central Area Plan boundaries where residents can access natural spaces (Parks, Natural Areas, Stormwater lands, or schools) within a 10-minute walk. The map assumes residents' willingness to cross arterial streets to access nature. For additional maps, see the West Central Area Plan.

C3: Prioritize transportation infrastructure to increase access to nature

Access

While current City planning processes take into account access considerations, such as the Americans with Disabilities Act compliance, access to nature should also be considered during the planning and construction of transportation infrastructure projects.

The City will include access to nature as one consideration for transportation infrastructure projects. Including this consideration in the overall prioritization of projects can provide opportunities to minimize barriers to accessing nature, such as arterial streets. Continued collaboration among the City's Streets, Engineering, Parks, FCMoves and Natural Areas departments will be essential to ensure success of this policy.

Outcome: Access to nature is considered in transportation planning and capital projects.



C4: Provide public transit connections to nature

Access

The City of Fort Collins Transportation Master Plan envisions a community that provides safe, affordable and convenient mobility options for all ages and abilities. While one of the goals of Nature in the City is to provide nature within a 10-minute walk of residents' homes or workplaces, not all Fort Collins residents may be able to walk to these nearby natural spaces. In these situations, Fort Collins' public transportation system can fill the gap for many residents by providing transit service to the natural spaces within the community.

One way to address this gap is by considering access to nature in future Transfort bus stop upgrade priorities and future routing alignments. In addition, bus stops and their associated amenities should be upgraded to meet the Americans with Disabilities Act standards where appropriate, to ensure accessibility for all residents. In a recent Transfort assessment, 57% of the bus stops adjacent to the City's Parks and Natural Areas currently have accessibility challenges.

Outcome: Accessible natural spaces through the City's public transit system.



The bus stop adjacent to Rolland Moore Park has accessibility challenges due to the slope of the ramp leading to the bus stop. (Photo credit: Emma Belmont)



C5: Provide innovative wayfinding and informational resources

Access

Stewardship

The City will build upon existing wayfinding efforts in the community by pursuing opportunities to provide innovative navigation aids, and educational and interpretive information throughout the City on both public and private natural spaces. Methods could include appropriate signage that dovetails into existing sign systems for trails, Natural Areas, and Parks while avoiding sign clutter; and other special aids such as sidewalk pavers, phone apps, podcasts, hard copy and online maps, and walking tours, to aid users' navigation and understanding.

Outcome: A comprehensive wayfinding and information system on public and private natural spaces that integrates the City's existing sign and interpretive systems while providing additional innovative navigational and educational aids.



C6: Continue to make the Cache la Poudre River a conservation priority

Access

Quality

Stewardship

The Cache la Poudre River is in many ways the lifeblood of the City; the river serves as the most significant form of connectivity throughout the community both for humans and for wildlife. The City has developed around the river due to its multiple values, including water delivery, ecological importance, recreation and economics.

The community and the region ask a lot of the Poudre, which poses challenges for the future ecological condition of the river, as well as its capacity to provide various services, such as flood water conveyance and water supply. Because the river is well recognized in numerous City plans as a valuable resource for residents and wildlife, river protection and restoration should remain a high priority in the future.

The City will continue efforts to support the ecological functions essential to a sustainable, healthy and resilient river as well as the recreation values residents enjoy.

This broad spectrum of efforts includes acquiring land in the floodplain; working to protect minimum and enhanced in-stream flows; reconnecting the river to its floodplain to support riparian habitats, nutrient cycling and pollutant filtration; managing the floodplain to promote native species, removing barriers to aquatic life passage; restoring tributaries; engaging in collaborative efforts to maintain a resilient upper watershed; and providing diverse and high quality recreational opportunities.

Outcome: The Poudre River remains a vibrant, connected, and thriving ecosystem that continues to support the social, ecological, and economic values it does today.



Photo Credit: John Bartholow

POLICY AREA: LAND USE AND DEVELOPMENT

As the City grows toward its buildout population, this plan addresses how to incorporate nature into the increasingly urban environment in two ways: (1) through development or redevelopment (2) through existing neighborhoods. There are many neighborhoods, businesses and districts in the City not poised to redevelop, but that have expressed an interest in incorporating greater access or higher quality experiences with nature.

LU1: Revise Land Use Code open space standards

Access

Quality

Stewardship

The City's Land Use Code is a regulatory document that guides orderly land development consistent with community values as set forth in City Plan. Currently, there are specific requirements in the Land Use Code with regard to open space in new developments, such as full tree stocking, defining the diameter of trees planted in development projects, and a section on protecting and enhancing existing natural resources within the City. While these requirements protect existing natural resources, and provide shading and a uniform urban tree canopy, additional standards are needed to encourage the creation of habitat-friendly landscapes and more diverse natural spaces.

To achieve these goals, Land Use Code changes should be designed to provide flexibility to allow site-specific solutions based on context, scale and objectives. For example, high intensity zoning districts (e.g.,

the High-Intensity Mixed-Use Neighborhood and the Community Commercial zone districts) may have different requirements than lower density zone districts (e.g., Low-Density Mixed-Use Neighborhoods).

Further, the standards should be designed to include a mix of qualitative and quantitative requirements similar to existing resource protection standards outlined in Section 3.4.1 of the Land Use Code. Overall, the Land Use Code changes should facilitate functional natural spaces in new and redevelopment projects (e.g., as illustrated on page 48).

Outcome: Land Use Code open space requirements that provide flexible options for functional natural spaces during a project's development or redevelopment.

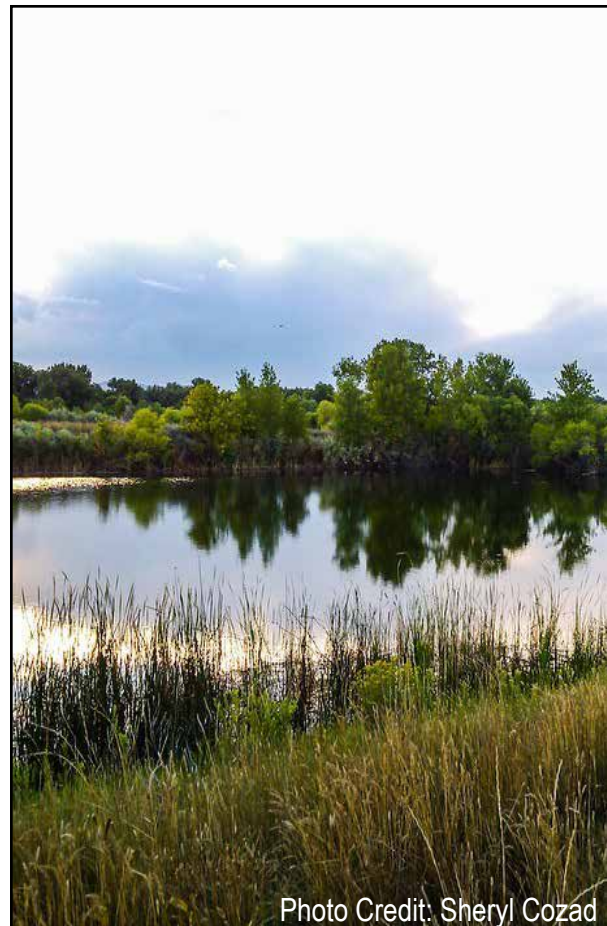


Photo Credit: Sheryl Cozad



The two images above illustrate how open space is typically provided within a multi-family development (top image), e.g., lawn area ringed by shade or ornamental trees. In the bottom image, the open space has been diversified to include pathways, native landscaping, a community garden, and other natural play spaces. The proposed Land Use Code amendments will be designed to encourage a greater diversity in the types and composition of open spaces within multi-family and other development types while still allowing for active play spaces for children and adults.

LU2: Develop Land Use Code changes regarding multiple tree sizes and diversity within new developments

Quality

Stewardship

Currently, the Land Use Code has standard tree size requirements for shade, ornamental and evergreen trees, and for shrubs and perennials as well as minimum diversity requirements for trees. While these standards create the optimum uniform environment for creating an urban tree canopy, in natural landscapes a diversity of vegetation sizes and a greater variety in species may be preferred.

This policy is designed to more explicitly encourage multiple plant sizes when incorporating Nature in the City principles into a design (e.g., in a public plaza, courtyard, or larger open space as discussed in Policy LU1). Further, greater emphasis should be placed on encouraging native and appropriate non-native species that provide wildlife habitat and structure diversity. To ensure success, these changes should be developed with the Land Use Code change team as well as with Natural Areas and Forestry staff with expertise in installing natural landscapes.

Outcome: Land Use Code requirements that support diverse tree, shrub and perennial structure and composition within natural spaces.



In the top image, a uniform tree canopy has been installed. In the bottom image, the landscape has a greater diversity in vegetation types and structure, which is the intention behind Policy LU2.

LU3: Create design guidelines to guide development, redevelopment and site restoration

Quality

Stewardship

One of the most frequently asked questions during Nature in the City outreach efforts was how to incorporate nature into the increasingly urban environment. In practice, establishing native or wildlife-friendly landscapes requires more expertise than establishing lawns.

One key product of Nature in the City will be a suite of design guidelines to provide technical and practical guidance on how to design native or wildlife-friendly landscapes. The design guidelines will include an

evaluation of the triple-bottom-line benefits of each potential design option, which will aid in ensuring landowner objectives can be met.

For example, a landowner seeking to create wildlife habitat will be able to quickly scan the guidelines to explore which options maximize wildlife habitat (ecological values) and be able to assess feasibility based on cost (economic values) both from an installation and maintenance perspective. Design guidelines will also provide information on ways to conserve water, enhance design options to engage all five senses, and establish and maintain the various design options.

Outcome: Design guidelines document illustrating how to incorporate nature into the urban environment; residents, developers, business owners, schools, and other property owners will be able to more easily establish diverse natural landscapes in the urban environment.

LU4: Develop training resources for the installation and ongoing maintenance of diverse landscapes

Stewardship

Homeowners, landscapers and business owners may need additional training and resources to properly install and maintain the more diverse landscapes encouraged in the Design Guidelines (Policy LU3). The City will leverage partnerships with internal and external programs, e.g., nurseries, which already provide these types of trainings and will develop new resources to fill any gaps.

Training resources may include in-person trainings, educational publications, and certification programs for landscapers, websites, webinars and more. Topics could be wide-ranging in order to educate residents to create positive perceptions and reasonable expectations about more diverse landscapes.

Outcome: A suite of training resources for homeowners, landscapers and business owners to successfully install and maintain diverse landscapes.

San Francisco has developed a set of design guidelines for how to improve their streetscapes for wildlife, aesthetics, and pedestrian benefits.

The Fort Collins Design Guidelines will focus on developing design options for residents, developers, and other property owners that utilize graphics (shown on the left) and actual sites (shown on the right).



LU5: Coordinate and incentivize natural space improvements at the neighborhood scale

Quality

Stewardship

An entire neighborhood engaged in a coordinated effort to shift the landscape aesthetic can have much more impact than a single parcel. The City will encourage neighborhood-scale nature projects by engaging homeowner associations or other neighborhood advocates for neighborhoods without HOAs, especially in priority areas, to partner in projects to create or enhance natural spaces in their neighborhood.

Specific projects could include converting grass detention ponds or greenbelts to more diverse landscapes, converting backyards to provide landscaping beneficial to local wildlife, constructing trails through neighborhoods to connect to other natural spaces, and more. These efforts will complement existing programs, such as the Natural Areas Department's Certified Natural Areas program or Neighborhood Services' Neighborhood Grants program, and will lend themselves to new programs, such as Austin, Texas' "Neighborhoods" program that partners on a neighborhood scale to provide free shade trees in locations that could support them.

It is anticipated that once neighborhood projects are completed, the neighborhood would take on the long-term commitment of site establishment and maintenance with engagement and consultation with the City.

Outcome: Neighborhood-scale projects are implemented and/or incentivized, especially in priority areas where connectivity barriers for residents or wildlife exist.

LU6: Support and protect the multiple values of the City's ditch system

Access

Quality

Stewardship

While the primary role of the City's ditches is to deliver water, the community has grown up around this private irrigation network, which also provides wildlife habitat and movement corridors. Additionally, residents appreciate the visual aesthetics of the ditch corridors for wildlife viewing; residents also access recreational opportunities along ditch banks, even though legal access may not be established. The ditches themselves create small lush oases, and often support riparian vegetation. This can occur along ditch banks or in areas that experience high ground water.

This policy directs the City to seek opportunities to partner with ditch companies to:

- Keep ditches daylighted when appropriate
- Remove barriers to aquatic species passage at diversion structures in the Cache la Poudre River
- Remove barriers to wildlife movement along the ditch
- Implement water delivery agreements to increase consistent flows
- Implement wildlife habitat projects
- Provide appropriate access for people while avoiding or minimizing impacts to wildlife
- Enhance connectivity for people and wildlife where appropriate

The City is currently in the scoping process of a Citywide analysis of the ditch system to identify challenges and opportunities related to a variety of considerations such as engineering, long-term maintenance, and development adjacent to ditches. This analysis is the first strategic step in implementing this policy.

Ditch daylighting: Access to open water is a critical resource for wildlife in Colorado, and encouraging ditches to remain open, i.e., water is conveyed on the surface where appropriate, is a key tool for ensuring the ecological function of ditches is protected. As areas surrounding ditches redevelop, the City will actively engage the project developer and ditch company to develop mutually beneficial scenarios that allow the ditch to remain open where possible while weighing the benefits of leaving a ditch daylighted with concerns about evaporative loss. If a ditch is already piped underground, the City will pursue daylighting the ditches where appropriate. Re-alignment of the ditches to achieve the goals outlined in this policy and the specific site development goals should be considered when the ecological value on the site can either be protected or enhanced. Opportunities to incentivize daylighting ditches, as well as to achieve the other goals listed above, should be considered.

Outcome: Strong partnerships with ditch companies that enable their companies and residents to maximize the multiple values of ditches; a vibrant ditch system that largely remains intact and daylighted, and that maintains the diverse values inherent to the system.

LU7: Provide Level of Service guidance for Nature in the City projects

Quality

Level of Service is a commonly accepted standard in Transportation Planning to indicate the quality of a given roadway or pedestrian environment. This policy directs the development of a Level of Service standard or guideline for nature to aid developers, property owners, and City government in deciding which type of restoration or design is appropriate for a given space. For example, some spaces may require an emphasis on social values, e.g., neighborhood parks and trails, while others may benefit from greater emphasis on ecological values. This metric or standard should be evaluated at a Citywide level, to ensure spaces throughout the City provide a wide range of benefits for all residents and species.

Outcome: High quality natural spaces are provided throughout the City, with a diversity of social and ecological opportunities provided for the benefit of all residents and species.



LU8: Update stormwater basin guidelines to include Nature in the City principles

Quality

In 2009, the City adopted the “Landscape Design Standards and Guidelines for Stormwater and Detention Facilities.” While these guidelines were cutting edge at the time of their development, it is timely to revisit these standards and assess how the principles outlined in the Nature in the City Strategic Plan e.g., connectivity for people and wildlife, habitat, urban agriculture, etc., can be incorporated.

These guidelines should also be translated into regulatory standards, either through the Land Use or City Codes, to ensure consistency in application.

Outcome: A set of design standards for new and retrofitted stormwater and detention facilities that promote the ecological and social values outlined in this plan.



LU9: Encourage natural drainages to be re-created

Access

Quality

Historically, natural drainages in urban areas in the Western United States have been reshaped to meet the needs of the community and that of land development. This policy directs future projects, redevelopments or retrofits to consider historical drainage patterns and re-create natural drainages where feasible.

Outcome: Streams, drainages and irrigation corridors throughout the City would be restored to their natural drainages. This would include daylighting previously piped streams or ditches, preserving existing drainages that still remain, and re-creating historic drainage patterns where feasible.



LU10: Promote and preserve urban agriculture that support a triple-bottom-line approach

Access

Quality

Stewardship

A vibrant local food system has significant ecological, social and economic values. Urban agriculture, which includes more traditional agricultural operations that often use organic or holistic farming practices, as well as beekeeping, orchards, etc., can help maintain a sustainable economy by providing food and jobs for those in the community. Urban agriculture also keeps land open, serving as habitat for access connections for people. Results from data collection at urban agriculture sites during Phase I of Nature in the City showed that these sites are important ecologically for birds, butterflies and other wildlife.

The City will pursue partnerships with organizations (e.g., the Northern Colorado Local Food Cluster and others) to provide land, funding, education and resources to further urban agriculture in the City. These partnerships will help create a toolkit to encourage urban agriculture projects that support a triple-bottom-line approach. It will also be important to inventory existing and potential urban agriculture sites, as well as explore agricultural preservation options both via the City and through partnerships with other organizations and agencies.

Finally, City efforts to encourage urban agriculture should also seek ways to enhance the biological diversity at these sites, whether through perennial crops, reduced water use or beneficial crops for species.

Outcome: Urban agriculture operations that can sustainably operate from a triple-bottom-line perspective in partnership with the City and other entities.



Photo Credit: Spring Kite Farm

POLICY AREA: CITY PRACTICES AND POLICY COORDINATION

The purpose of this policy area is to ensure the integration of Nature in the City principles into existing City programs and to incorporate these principles into future planning efforts. One of the major charges of Nature in the City is to seize opportunities to coordinate with development, infrastructure, and other plans and policies to incorporate nature where appropriate, while also ensuring these coordination efforts continue as plans and policies are updated. The following policies address these topics.

CP1: Align City mowing and weed control policies to support local species while balancing public safety and aesthetics

Quality

Stewardship

Several City departments have responsibilities to mow or apply herbicide and other chemicals to vegetated areas on City properties. City Code dictates the management requirement for some of these actions on both public and private lands. Currently each department, with their individual mandate, manages vegetated areas in different ways. While each department utilizes a set of leading best management practices, including integrated pest management, some of these management actions can have unintended consequences for wildlife or plant species depending on the timing, location and method. As different types of properties have different needs, the purpose of this policy is to ensure departments retain the flexibility to achieve their site management objectives, while also minimizing impacts to wildlife and plants.

The City will assess current policies, plans and practices regarding mowing and applying chemicals such as herbicides on City properties to identify differences and develop a unified approach that balances unique management needs, aesthetics and public safety with needs of wildlife and plant communities. Close collaboration with the City's Code Compliance staff and adjacent and interested members of the community will also be essential to avoid conflicting or redundant direction.

Additionally, education and outreach to residents should be developed to illustrate why areas are not mowed or mowing frequency has changed, e.g., for habitat, cost purposes, etc. Finally, revisions to City Code may be necessary to allow taller vegetation in appropriate areas to provide habitat for local species, and to provide flexibility to allow longer establishment of diverse landscapes.

Outcome: City mowing and spraying policies are aligned to provide for aesthetics and public safety while allowing habitat to remain. Residents are more aware of the benefits of less frequent mowing patterns, and City Code amendments surrounding these issues allow taller vegetation for habitat where appropriate, and more time to establish more diverse landscapes.



CP2: Work cross-departmentally and with external partners toward a darker night sky

Quality

Stewardship

Dark night skies are an important, yet sometimes overlooked value of nature. The absence of natural darkness that all living organisms have evolved with over time can have numerous negative impacts. Wildlife are impacted by artificial light and sky glow. Behavioral and physiological changes due to artificial light include altered circadian rhythms, spatial disorientation, disrupted reproduction, and altered predator/prey relationships. These impacts can be detrimental on their own, but are often combined with other environmental stressors, which may trigger population and ecosystem level changes. Human circadian rhythms can be impacted by bright nights as well, with a lack of quality sleep having many health consequences. Beyond health concerns, losing the ability to view a starry sky impacts stargazers, community heritage, connection with the natural environment, and a small-town character.

The City will establish regional partnerships to address night sky brightness issues, including partnering with the National Park Service Night Skies Program and adjacent communities in Northern Colorado and Wyoming. Education, combined with a regional regulatory environment that fosters careful use of exterior lighting will be essential to conserve this resource at the regional scale. An ongoing citizen science program monitoring night sky brightness across the City annually provides a baseline condition and will show trends in night sky quality. Additionally, review and alignment of existing City Land Use and Building Codes related

to lighting will be conducted to reflect best practices for exterior lighting. The City will incorporate night sky conservation standards regarding exterior lighting intensity, color temperature, and timing. Such best practices for exterior lighting can enhance safety, reduce energy use, and improve the environment.

Finally, in important locations where the night sky is still relatively dark, such as Soapstone Prairie Natural Area, the City will seek recognition of these areas by independent certification programs. The City also has an opportunity to elevate its status, marketing appeal, and quality of life for its citizens by pursuing Dark Sky Community certification.

Outcome: A regional darker night sky

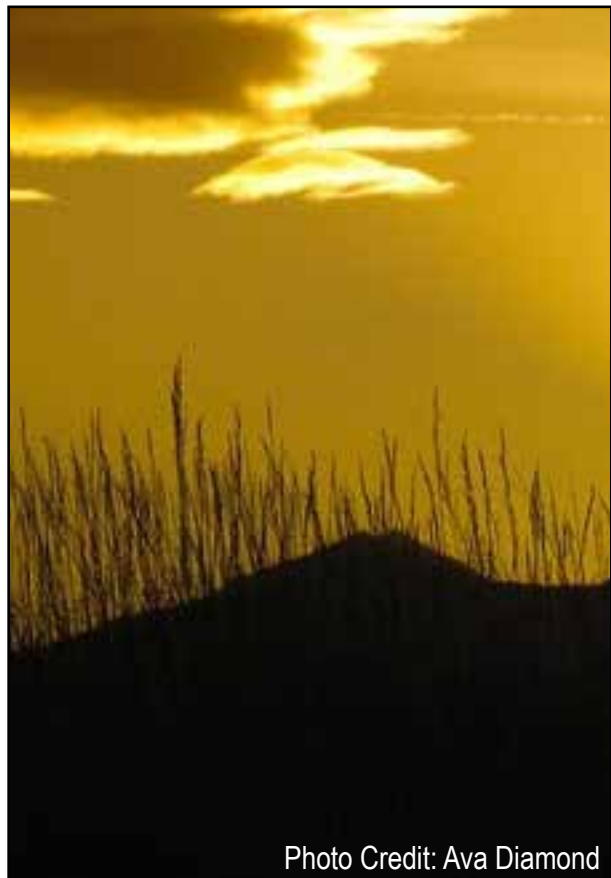


Photo Credit: Ava Diamond

CP3: Expand the City's tree inventory to include wildlife habitat

Quality

Stewardship

The City's urban tree canopy contains almost 50,000 trees on developed City property and contributes significantly to our community's sense of place and quality of life. In 2013, the City embarked on an inventory effort to locate, identify and quantify every City-owned tree on developed public property.

The purpose of this policy is to provide additional funding for the City to allow the collection of data regarding wildlife habitat provided by the tree cover in the urban environment. This data will help aid the City in understanding the contribution the City's urban forest provides to the community's overall wildlife habitat in order to make better site-specific recommendations on how to best protect trees for ecological values, in addition to traditional urban tree assessment tools such as tree health.

Outcome: A complete dataset of wildlife habitat in the public urban tree canopy.

CP4: Pollinator and bird-friendly habitat in City Streetscapes

Quality

Stewardship

Within the City of Fort Collins, significant attention is given to the role streetscapes play in providing an attractive network that knits the city together. Accordingly, the City has developed a set of Streetscape Standards as an accompaniment to the Larimer County Urban Area Street Standards that outlines how parkway strips (the area between the curb and the sidewalk) and medians should be treated.

This policy directs staff and interested citizens to consider the habitat value that streets can provide to the community in addition to the aesthetic and social values. Potential habitat value will vary with street size, type, and surrounding context.

As street retrofits occur to create more complete streets e.g., through the Green Streets effort, by adding bulbouts or additional tree canopy along streets, there is new opportunity to also consider habitat aspects of these spaces. For example, vegetation can be added that attracts pollinators, such as edible or flowering plants. Additionally, drainage culverts and other design components can allow wildlife passage to avoid conflicts on the street surface. Careful consideration must be paid to balance habitat value in the streetscape with ensuring that wildlife conflicts are not created.

Outcome: Where appropriate, the streetscape is adapted to include naturalistic landscaping that incorporates pollinator-friendly plant materials while minimizing wildlife conflicts, as well as providing diverse streetscapes for resident and visitor interaction.



Example of a streetscape that provides high quality habitat

CP5: Provide quiet spaces in the City to escape from the urban environment

Quality

A walk into nature can be quickly impacted by loud noise from a busy street or other activities. Similar to a brighter night sky (Policy CP2), a louder environment can have negative impacts to residents and wildlife. Sounds of the urban environment affect circadian rhythms and can prevent deep sleep, which can have negative health consequences for people. Loud noises from vehicles, equipment or other sources can cause wildlife to abandon habitat, and a louder environment negatively affects predator/prey interactions by not allowing either to hear the other as readily as in a quiet location.

While the City already has a strong noise ordinance in place, the City will work toward mitigating the sounds of an urban area by implementing a multi-faceted approach including incorporating best practices into regulatory documents, incorporating vegetation berms and other design elements into new development to reduce noise, evolving technology to help in noise reduction in capital improvement projects where appropriate, and educating residents about the impacts of urban noise and the benefits of mitigation.

Outcome: A quieter city for people and wildlife

CP6: Amend the City's Stream Rehabilitation Program to incorporate Nature in the City Principles

Access

Quality

Stewardship

In 2012, City Council approved an update to the City of Fort Collins' Stormwater Master Plan in accordance with Stormwater Repurposing goals to incorporate environmentally-focused projects, such as stream rehabilitation and water quality best management practice (BMP) regional projects and retrofits.

This policy directs staff to update this program in two ways:

1. A Multi-Criterion Decision Analysis (MCDA) tool was created to provide a flexible, rational and transparent means to rank and prioritize projects. This tool should be updated to incorporate the principles of Nature in the City e.g., connectivity for people and wildlife as well as access.
2. Develop a separate tool or incorporate into the MCDA a mechanism to consider how lower-cost projects can complement the higher-cost projects and achieve greater connection to more neighborhoods and areas throughout the community.

Outcome: Updated MCDA tool that incorporates Nature in the City principles and stream rehabilitation projects that are equitably distributed throughout the City to achieve both high priority goals and greater access and value of these areas for all residents.

CP7: Continue the City’s current policies related to nature and coordinate Nature in the City initiatives with future planning and policy updates

Access **Quality** **Stewardship**

The City has numerous plans and policies that relate to Nature in the City efforts. Nature in the City is designed to complement and build upon these existing plans and policies, as well as to seek opportunities to include Nature in the City objectives where possible in new or updated plans and policies.

Current examples include incorporating the design guidelines into the Parks and Recreation Policy Plan update, and adding Nature in the City principles into the stormwater restoration program’s decision-making criteria. Over time, numerous plans and policies will be updated with Nature in the City objectives in mind.

Outcome: New and existing policies involving nature will be coordinated with Nature in the City.

CP8: Coordinate with all applicable City planning processes over time to ensure opportunities to implement Nature in the City efforts and initiatives are included

Access **Quality** **Stewardship**

While some Nature in the City projects may be implemented in the short run, a majority of initiatives will evolve over decades as opportunities arise through regular planning updates and redevelopment. It is therefore essential that plans, policies and projects are developed in a coordinated way, so that Nature in the City initiatives are implemented where appropriate.

Nature in the City will be included in the newly-created Sustainability Analysis Tool to ensure every item presented to City Council has an opportunity to assess the potential inclusion of Nature in the City policies. Additional tools should be explored, as needed, to ensure goals continue to be met in perpetuity.

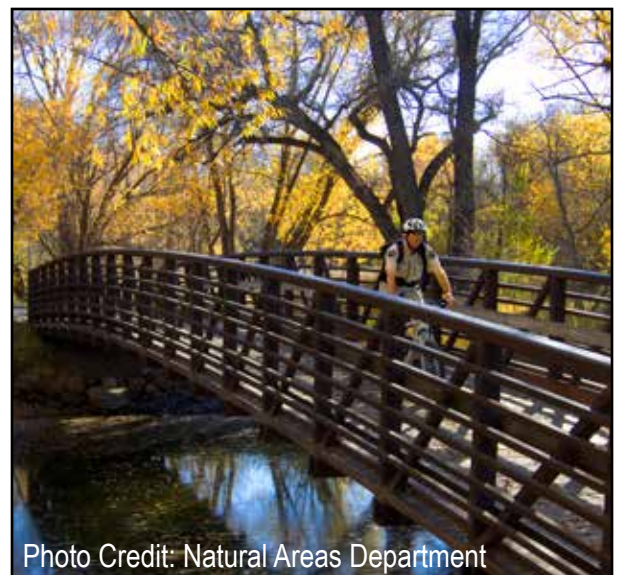
Outcome: All projects that are approved by City Council will have an assessment of the potential to include Nature in the City components.

CP9: Update Nature in the City Strategic Plan

Access **Quality** **Stewardship**

On a regular basis, the Nature in the City Strategic Plan will need to be updated to encompass new projects, the evolution of policies and practices within the City, and changing needs based on demographics, changing development patterns, and strategic direction for the City.

Outcome: A relevant planning strategy that reflects current conditions and efforts.



CP10: Celebrate nature in the urban environment

Stewardship

The City of Fort Collins passed its first open space sales tax in 1972, and since that time, almost 40,000 acres of land have been conserved through the Natural Areas Department, City Parks have been established throughout the City, a strong Land Use Code protects open spaces on private lands, and private landowners throughout the City are increasingly incorporating natural spaces into their projects.

This policy directs staff to acknowledge these successes and seek opportunities to celebrate the natural environment within our community. Key opportunities include the following:

- Build upon the annual Nature Fair and monthly Natural Areas events by partnering with other entities, e.g., the Sustainable Living Association, Gardens

on Spring Creek, Audubon Society, Save the Poudre, etc. to celebrate nature within the urban environment.

- Consider annual events such as a chimney swift walk to highlight the unique biodiversity found within the urban environment. Chimney swifts are a bird species that nests within chimneys in Old Town Fort Collins.
- Recognize excellent examples of Nature in the City through the Urban Design Awards or other recognition programs.
- Develop walks or events to celebrate ditches and other historical resources to highlight their value to our community and to the Fort Collins open space network.
- Work with local schools (public and private) to celebrate nature in the urban environment

Outcome: Increased recognition of the unique role nature plays in the Fort Collins urban environment.



POLICY AREA: LONG-TERM MONITORING

The Nature in the City Strategic Plan is designed to be a living document that guides how the community incorporates natural spaces into the increasingly urban environment over the next 100 years and more. Accordingly, while the prior policy areas focus on needs that can largely be addressed in the next three to ten years, these policies envision a longer-term application and evaluation of the Nature in the City principles.

The following policies encourage the development of specific targets and long-term monitoring programs to aid the City in assessing whether it is on track to achieve the goals established in this plan and what additional policies may need to be developed in order to achieve the Nature in the City vision. The policies also encourage citizen engagement in long-term monitoring to foster a vested interest in this plan by all community members.

LT1: Set a Citywide biodiversity goal

Quality

One of the City's existing sustainability goals is focused on the percentage of native and non-native vegetation cover in Natural Areas. This policy suggests a biodiversity goal should be comprehensive to the entire City, including public and private natural spaces.

In addition, the current metric is limited to percentage of native versus non-native plant cover. The City should consider expanding this goal to include a suite of biodiversity goals that targets, for example, bird and butterfly richness and abundance. This policy would allow decision makers to better assess ecological health of plants and wildlife in Fort Collins.

Outcome: Updated biodiversity goal that includes public and private lands and that evaluates a comprehensive set of metrics.



LT2: Establish the value of ecosystem services to the City and track the value added by existing and new projects

Quality

Functioning ecosystems provide services such as soil erosion prevention, stormwater conveyance and water quality filtering, to name a few. These services have an economic value; disturbances to the ecosystem functions have negative economic and ecological impacts, just as new or restored sites provide additional economic and ecological value.

The Natural Areas Department has adopted the concept of ecosystem services and has implemented mitigation requirements for impacts to these services in the Natural Areas and Open Lands Easement Policy (2012). While research has been done on a statewide level, no research has been completed on a regional or community scale.

The City will partner with researchers to provide more local information about the ecosystem services in the City to better assess the impact development or conservation projects have on the ecological and economic conditions in the City.

Outcome: Community or regional standards for economic value provided by ecosystem services in the community.

LT3: Establish monitoring for carbon sequestration to support greenhouse gas emission reduction goals

Stewardship

Live vegetation and healthy soils can remove carbon dioxide from the atmosphere and store it as carbon, a process known as carbon

sequestration. Depending on the carbon storage capacity, certain land use categories can be an important resource for offsetting carbon emissions or establishing carbon credits and can be preserved, maintained, or enhanced to increase their ability to store carbon.

The City will develop or partner with other entities to establish baseline carbon sequestration data for different land use categories; acquire parcels with high carbon sequestration potential that also have other values such as habitat, access, and connectivity; and support Forestry and other departments' efforts in vegetation monitoring and sequestration modeling. Close coordination in planning (see Policy LT3) with the City's Climate Action Plan and Green Built Environment programs and other departments within the City will be essential to the success of this policy.

Outcome: Support the greenhouse gas (GHG) emissions reduction goals of the Climate Action Plan.



Photo Credit: Dusty Harms

LT4: Evaluate and monitor open spaces for air quality improvement in accordance with the Air Quality Plan

Quality

Trees, shrubs, and other vegetation can improve air quality by absorbing or filtering air pollutants, producing oxygen, and providing a cooling effect, which can decrease the formation of ozone. In addition, vegetated areas can provide respite from heat, smog, smoke, and noise and can reduce the “heat island” effect.

The City will develop or will partner with other entities to define air quality characteristics for select areas of nature within the City. The characteristics could be used in assessing the air quality improvement value of preserving, maintaining, or acquiring key parcels. Assessment of air quality benefits will align with the Air Quality Plan.

Outcome: Support the air quality improvement goals of the Air Quality Plan.

LT5: Establish a long-term monitoring program for the City’s biodiversity using citizen science projects

Quality

Stewardship

Phase I of Nature in the City included establishing a network of locations across the City to collect data regarding bird, butterfly and vegetation abundance and diversity. This effort supplements other existing data collection efforts to provide a baseline condition for the City’s nature at the beginning of the project. However, long-term monitoring of important key indicators will be essential to identify trends in wildlife and plant communities. Additionally, in public outreach efforts, participants often mentioned their

desire to engage in data collection related to this project. Engaging residents in citizen science projects to collect this data leverages City resources and increases citizen buy-in, giving them a vested interest in the success of these projects.

The City will establish and maintain data collection on a regular basis (as well as partner with other organizations who collect similar data) to assess the health of identified key indicators to measure the overall health of nature in the community. This will include developing:

- Indicator plant and wildlife species that can provide important information about impacts of development and climate change.
- A unified City plant list, as part of the Design Guidelines and via other publications, to help developers, landscaping companies, landowners, HOAs and the City coordinate on plants that can provide numerous ecological, social and economic values.

Long-term monitoring efforts could include, but are not limited to, the following:

- Butterfly abundance
- Bird abundance
- Percentage of native plants in Natural Areas
- Regional night sky darkness
- Nuisance species and wildlife conflicts

Outcome: A long-term monitoring program that tracks key indicator species and assists the City in evaluating its progress in achieving the principles outlined in the Nature in the City Strategic Plan.

POLICY AREA: FUNDING AND INCENTIVES

During the public outreach for Nature in the City, participants said they would like to incorporate nature into their homes or businesses, but didn't have the technical knowledge to do so, and perceived increased costs as a barrier. Financial and other types of incentives are important to help overcome these barriers.

In addition, identifying, coordinating and managing all the potential projects Nature in the City may have a nexus which will require ongoing funding for the program. The following policies address these issues.

F1: Explore a diverse set of funding options to implement Nature in the City

Access

Quality

Stewardship

A reliable and diverse set of funding sources is vital to fully implement the goals of Nature in the City. Possible sources include federal and state grants, private and non-profit grants, Building on Basics 2.0 capital improvement funds, Budgeting for Outcomes funding, and others. In order to develop this set of funding sources, the City will identify likely internal and external funding sources and pursue appropriate sources on a project-by-project basis.

Additionally, since native landscapes are more challenging to establish, ongoing operations and maintenance costs need to be considered in addition to capital costs.

Outcome: Ongoing funding for program support and project-specific capital improvements is secured and maintained.

F2: Implement incentives that can be incorporated into new development and redevelopment projects

Access

Quality

Stewardship

Offering different incentives to new developments, existing neighborhoods, businesses or other properties not poised to redevelop can increase the likelihood that Nature in the City features are implemented.

Incentives can be financial, such as rebates, material discounts or competitive grant programs. Another option to consider is the development of a Design Assistance Program, similar to the Landmark Preservation Design Assistance Program, whereby developers can apply for technical assistance for how to include Nature in the City principles into the developments. This program also could be used to help landscaping companies become familiar with best practices for establishing and maintaining native or naturalized landscapes. Opportunities to partner with outside agencies (e.g., the Colorado State Forest Service or the Master Gardener program), should be explored.

Finally, incentives could be recognition based, e.g., LEED certification or Climate Wise. It will be important to partner with existing incentive programs that are offered by other entities within the community, such as the Audubon Society's backyard habitat program, CSU Master Gardeners, and others.

Outcome: A variety of incentives that provide more opportunities to implement Nature in the City projects.

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Photo Credit: Ava Diamond

CHAPTER 4:
PLAN EVALUATION AND
IMPLEMENTATION

Chapter 4: Plan Evaluation and Implementation

This chapter contains two key elements: how the plan will be evaluated and a proposed implementation strategy. Implementing Nature in the City will require dedicated resources, policy and code updates, and coordination among internal and external stakeholders in the years to come. This chapter outlines a strategy to achieve the coordination required to accomplish the vision and goals set forth in this plan.

Plan Evaluation

A common way to evaluate a plan is through the use of performance indicators, which track and evaluate implementation progress over time. Performance indicators are most effective when they are aligned with the key outcomes a project is seeking to achieve. For Nature in the City, the performance indicators are designed to measure whether the vision, goals, and policies are being achieved.

As the vision for Nature in the City is meant to be implemented over time, two phases of indicators are proposed:

1. Indicators to Implement

Immediately: These indicators can be implemented upon completion of the connectivity analysis (planned for 2015) and are designed to evaluate the plan in its entirety:

- *Access to Nature.* This measure will evaluate the percentage of parcels that have access to nature within a 10-minute walk (1/4 – 1/3 mile).
- *Connected Habitat Network.* This measure will build upon the connectivity analysis for wildlife and evaluate the proportion of the habitat network that is connected.

2. Longer-term Indicators: These indicators can be implemented upon completion of specific actions contained within the implementation strategy and may change over time based on community needs. As implementation evolves, specific indicators tied to the plan's goals may be developed. Examples include the following:

- *Neighborhood Engagement.* This measure is an example of how an indicator could tie to a specific Nature in the City goal; in this case, neighborhood engagement is tied to the Stewardship goal. This measure will assess the number or percentage of neighborhoods engaged with Nature in the City projects. This indicator will include evaluating how equitably engagement is distributed across the City, the demographics of the neighborhoods engaged, and a target for how often neighborhoods should be engaged over time, e.g., once every five or ten years.

- *Biodiversity Goal.* This measure is an example of how an indicator could tie to a specific action item. This measure builds upon the ecological data collected through this project and in future efforts to establish a target for biodiversity. Regularly monitoring the City's wildlife will be critical to long-term measurement of the City's biodiversity.

Additional measures will be identified by an interdisciplinary team and be displayed in a transparent and accessible manner to the public to ensure all residents can track implementation progress.

Plan Implementation

The actions identified on the following pages have been divided in two ways:

1. **Timeframe** – The timeframes below indicate when an item will be initiated, but note that many of the items will continue beyond the specific timeframe, e.g., seeking funding will occur in all three time frames.
 - *Short-term* (2015-2016): These items were identified as concurrent actions that should be completed with or shortly after the adoption of the Nature in the City Strategic Plan.
 - *Mid-term* (2017-2020): These are high priority items that should be developed and implemented in alignment with the next budget (BFO) cycles.
 - *Longer-term* (2021 and Beyond): These items generally require ongoing coordination and implementation beyond a specific timeframe to achieve the Nature in the City objectives.

2. Type of Action required

- *City Council Action Items:* These items will require action by City Council, whether by Resolution or Ordinance or through the approval of funding.
- *Administrative Items:* These items will not require action by City Council.

In each of the actions, the key City departments or external stakeholders or partners have been identified to implement the action item. Top priority items have been identified based on citizen feedback and general estimates about staff resources and City Council time availability.

Note that mid-term and long-term implementation items estimated costs are in current dollars and may require additional funding and/or staff resources to implement.

Nature in the City Vision:

A connected open space network accessible to the entire community that provides a variety of experiences and functional habitat for people, plants and wildlife.

Goals:

1. **Access** - Ensure every resident is within a 10-minute walk to nature from their home or workplace
2. **Quality** - Conserve, create and enhance natural spaces to provide diverse social and ecological opportunities
3. **Stewardship** - Continue to shift the landscape aesthetic to more diverse forms that support healthy environments for people and wildlife

Short-Term Actions: 2015-2016

Short-Term Action Item	Description	Related Policies	Responsibility	Estimated Cost
City Council Action Items:				
Land Use Code Amendments (PRIORITY)	<p><i>Open Spaces</i></p> <ul style="list-style-type: none"> Develop clarification on open space requirements; ensure standards allow for site-specific solutions based on context, scale, and objectives. <p><i>Alternative Vegetation Sizes and Composition</i></p> <ul style="list-style-type: none"> Develop standards to allow for a diversity of tree, shrub, and grass sizes and species to be installed with the goal of creating more diverse, natural landscapes. <p><i>Ditches</i></p> <ul style="list-style-type: none"> Craft standards that encourage ditch corridors, which contribute to important ecological functions, to continue to remain daylighted, i.e., retain surface conveyance. 	<ul style="list-style-type: none"> LU1 LU2 LU6 	Planning, City Attorney’s Office, Forestry, Park Planning, Natural Areas, Utilities, e.g., Stormwater	Existing staff resources Estimated costs to the development community will be calculated during the code amendment process.
Climate Action Plan (PRIORITY)	Incorporate Nature in the City principles into the Climate Action Plan update, including carbon sequestration goals. (Scheduled for adoption in February 2015)	<ul style="list-style-type: none"> CP7 LT3 	Environmental Services, Planning	Existing staff resources (Currently underway)

Short-Term Actions: 2015-2016				
Short-Term Action Item	Description	Related Policies	Responsibility	Estimated Cost
City Council Action Items:				
Comprehensive Night Skies Policy and Regulatory Updates (PRIORITY)	<ul style="list-style-type: none"> Conduct an assessment of existing City policies surrounding night skies and where gaps in policies may exist based on current best practices; from this analysis, develop a comprehensive night skies policy. Incorporate this policy into regulatory updates, e.g., the 2015 International Building Code update and the Annual Land Use Code amendments. 	<ul style="list-style-type: none"> CP2 	All City Service Areas, e.g., Utilities, Traffic, Building, Planning, Natural Areas; National Park Service	Existing staff resources (Currently underway)
Acquire parcels, as needed, to achieve the goals contained within this Strategic Plan (PRIORITY)	Acquisitions should target a) sites that ensure all residents have access to nature within a 10-minute walk from their homes, or b) sites that fill gaps from a species connectivity perspective. Estimates include 4-6 parcels for acquisition.	<ul style="list-style-type: none"> C1 C2 	Planning, Natural Areas, Park Planning, Stormwater, Private Property Owners, e.g., Homeowners Associations	Estimated \$1-1.5 million based on initial analysis
Nature in the City Program Management (PRIORITY)	Support the ongoing coordination and implementation of Nature in the City through City-based funding, e.g., capital projects, future budgeting cycles, etc.	<ul style="list-style-type: none"> F1 	Planning, Natural Areas, Sustainability Service Area, City Manager's Office (Grant Specialist)	Will vary based on need; estimate full-time staff member needed to coordinate efforts
West Central Area Plan	Incorporate Nature in the City principles into the West Central Area Plan; strong staff coordination on the Open Space Network portion of the WCAP has been occurring (Scheduled for adoption in March 2015).	<ul style="list-style-type: none"> CP7 	Planning, FCMoves	Existing staff resources (Currently underway)

Short-Term Actions: 2015-2016				
Short-Term Action Item	Description	Related Policies	Responsibility	Estimated Cost
City Council Action Items:				
Update the Stormwater Basin Guidelines	Update the standards for new and retrofitted stormwater and detention facilities to promote the ecological and social values outlined in Nature in the City. These guidelines should also be translated into regulatory standards, either through the Land Use or City Codes, to ensure consistency in application.	<ul style="list-style-type: none"> • LU8 • C1 • C2 • CP7 	Stormwater, Natural Areas, Planning, City Attorney's Office	Existing staff resources
Administrative Action Items (no City Council action required):				
Connectivity Analysis – Wildlife (PRIORITY)	Conduct connectivity analysis to identify fragmented natural systems in the City; identify priority areas and fill in gaps for species connectivity.	<ul style="list-style-type: none"> • C1 	Planning, Natural Areas, GIS, Colorado State University	Funded via Nature in the City (\$8,000) (Currently underway)
Connectivity Analysis – People (PRIORITY)	Conduct connectivity analysis to identify locations with a walk to nature longer than 10 minutes, identify priority areas and fill gaps for access to nature for all residents.	<ul style="list-style-type: none"> • C2 	Planning, GIS, Park Planning, FCMoves	Existing staff resources (Currently underway)
Design guidelines (PRIORITY)	Develop a set of design guidelines for how to incorporate Nature in the City principles into a range of settings, from private backyards and existing businesses to new residential, commercial, and mixed-use developments.	<ul style="list-style-type: none"> • LU3 	Planning, Natural Areas, Park Planning, Stormwater, Light and Power, Environmental Services, Communications and Public Involvement Office, Neighborhood Services, Parks, Colorado State University	Funded via Nature in the City (\$25,000) (Currently underway)

Short-Term Actions: 2015-2016				
Short-Term Action Item	Description	Related Policies	Responsibility	Estimated Cost
Administrative Action Items (no City Council action required):				
Design and install the living wall (PRIORITY)	Through funding from the City's Innovation Fund, the Downtown Development Authority (DDA), and the Urban Lab, install the community's first living, or green, wall.	<ul style="list-style-type: none"> • LU5 	Planning, Urban Lab, Parks, Operation Services, Gardens on Spring Creek, Utilities, Colorado State University	Funded via Nature in the City, the Innovation Fund, and the DDA (\$30,000) (Currently underway)
Establish citizen-science or City-based programs to monitor biodiversity (PRIORITY)	Develop a long-term monitoring program that establishes a baseline over three years and then collects biodiversity data, e.g., birds and butterflies, every 2-3 years thereafter. Key indicators should be developed to track long-term progress of Nature in the City implementation.	<ul style="list-style-type: none"> • LT5 	Colorado State University, Wildlife Conservation Society, Natural Areas, Planning	\$50,000-75,000 to develop; estimate \$10,000-25,000 for ongoing management (Funding proposals in review)
Support the City's efforts to evaluate the multiple values of irrigation ditches	In accordance with the 2015-2016 BFO Offer 130.1, support the City's efforts to conduct a scoping effort for a Ditch Master Plan.	<ul style="list-style-type: none"> • LU6 	All City Service Areas, Ditch Companies, Private Landowners	Existing staff resources (Currently underway)
Support the Northern Colorado Food Cluster's efforts to develop a strategic plan	As the Northern Colorado Food Cluster develops the region's first strategic plan around a resilient, local food system, continue to support these efforts where they align with the principles of Nature in the City.	<ul style="list-style-type: none"> • LU10 • CP7 	Planning, Economic Health, Gardens on Spring Creek, Natural Areas, Northern Colorado Food Cluster	Existing staff resources (Currently underway)

Short-Term Actions: 2015-2016				
Short-Term Action Item	Description	Related Policies	Responsibility	Estimated Cost
Administrative Action Items (no City Council action required):				
Adapt the Sustainability Assessment Tool (SAT) to incorporate Nature in the City	The Sustainability Assessment Tool is a method for evaluating how projects incorporate the Triple Bottom Line (environment, economy, and social); the tool should be adapted to include a line-item for Nature in the City to ensure all City planning processes will be coordinated with the principles outlined in this Strategic Plan.	<ul style="list-style-type: none"> • CP8 	Environmental Services, Planning	Existing staff resources (Currently underway)
Collect baseline data on the carbon sequestration values of the City's tree canopy	Forestry and other departments will conduct data collection in the summer of 2015 on approximately 200 plots throughout the City to assess carbon sequestration values of the tree canopy, among other metrics, e.g., health.	<ul style="list-style-type: none"> • LT3 	Forestry, Environmental Services, Natural Areas, Planning	Estimated \$70,000 (approved through 2015-2016 BFO Offer 99.3) (Currently underway)
Update the Stormwater Program's Multi-Decision Criteria Analysis Tool to incorporate Nature in the City principles	In 2012, the City's Stormwater Program developed a multi-decision criteria analysis tool to prioritize stream restoration efforts across the City; this tool should be updated to include Nature in the City principles, including connectivity for people and for wildlife.	<ul style="list-style-type: none"> • C1 • C2 • CP6 • CP7 	Stormwater, Planning, Natural Areas, Park Planning	Existing staff resources
Collaborate with other ongoing air quality assessments	Environmental Services staff are conducting air quality sampling in accordance with the Air Quality Plan; collaborate with these efforts to also include sampling in open spaces throughout the City.	<ul style="list-style-type: none"> • LT4 	Environmental Services, Natural Areas, Planning	Existing staff resources

Short-Term Actions: 2015-2016				
Short-Term Action Item	Description	Related Policies	Responsibility	Estimated Cost
Administrative Action Items (no City Council action required):				
Incorporate Nature in the City into the City's Strategic Plan	In the update to the 2015-2016 City Strategic Plan, specific language should be added to reflect the implementation of the Nature in the City Strategic Plan.	<ul style="list-style-type: none"> CP8 	City Manager's Office, Sustainability Service Area, Planning	Existing staff resources
Consider pollinator and bird-friendly habitats in the City's Streetscape Standards	Interdisciplinary Streetscape Standards staff team should consider where and when habitat value can be added to City streets while minimizing wildlife conflicts.	<ul style="list-style-type: none"> CP6 	Planning, Parks, Park Planning, Streets, Engineering, FCMoves	Existing staff resources

Mid-Term Actions: 2017-2020

Mid-Term Action Item	Description	Related Policies	Responsibility	Estimated Cost
City Council Action Items:				
Continue to acquire parcels, as needed, to achieve the goals contained within this Strategic Plan (PRIORITY)	Acquisitions should target a) sites that ensure all residents have access to nature within a 10-minute walk from their homes, or b) sites that fill gaps from a species connectivity perspective. Continued from short-term priority (4-6 parcels anticipated to be acquired).	<ul style="list-style-type: none"> • C1 • C2 	Planning, Natural Areas, Parks Planning, Stormwater, Private Property Owners, e.g., Homeowners Associations	Will vary based on need; Funding will be identified and secured on a per-project basis
Align City mowing and weed control policies while balancing public safety and aesthetics (PRIORITY)	Assess City regulations, policies, plans, and practices to identify differences and align around unified best management practices that balance management needs, aesthetics, and public safety with the needs of wildlife and plant communities.	<ul style="list-style-type: none"> • CP1 	Natural Areas, Parks, Neighborhood Services, Planning, Streets, Utilities, e.g., Stormwater, Light and Power, etc.	Existing staff resources
Nature in the City Program Management (PRIORITY)	Support the ongoing coordination and implementation of Nature in the City through City-based funding, e.g., capital projects, future budgeting cycles, etc.	<ul style="list-style-type: none"> • F1 	Planning, Natural Areas, Sustainability Service Area, City Manager's Office (Grant Specialist)	Will vary based on need; estimate full-time staff member needed to coordinate efforts
Neighborhood-scale program to incorporate Nature in the City (PRIORITY)	Develop a coordinated neighborhood-level program, e.g., Sustainable Neighborhoods (Lakewood, CO) or Neighborhood (Austin, TX), that implements projects in neighborhoods where gaps (in access or species connectivity) have been identified to create or enhance natural spaces.	<ul style="list-style-type: none"> • LU5 	Neighborhood Services, Planning, Natural Areas	\$100,000 to pilot the program over two years; estimate \$10,000-25,000 for ongoing management

Mid-Term Actions: 2017-2020				
Mid-Term Action Item	Description	Related Policies	Responsibility	Estimated Cost
City Council Action Items:				
Incentivize incorporating Nature in the City principles into community projects (PRIORITY)	Create a variety of incentives to provide more opportunities for landowners, businesses, and others to implement Nature in the City projects. Estimates include 20-30 parcels that can be restored and improved.	<ul style="list-style-type: none"> F2 	Planning, Natural Areas, Sustainability Service Area, Gardens on Spring Creek, ClimateWise, Property Owners	Will vary based on need, estimate \$1.5-2 million
Develop a Design Assistance Program to train contractors and assist designers with incorporating nature into the urban environment	Similar to the Historic Preservation Design Assistance Program, this action could create a technical assistance program for developers who wish to incorporate naturalized landscaping into their developments; alternatively, it could assist landscaping companies with training for establishing and maintaining native or naturalized landscapes.	<ul style="list-style-type: none"> F2 	Planning, Natural Areas, Parks, Stormwater	Estimate \$30,000-50,000 to develop; estimate \$5,000-10,000 for annual implementation
City Plan Update	Incorporate Nature in the City principles into the next City Plan update.	<ul style="list-style-type: none"> CP7 	Planning, Natural Areas	Adapt into the plan scope
Transportation Master Plan	Incorporate Nature in the City principles into the next Transportation Master Plan update, including transit access and wayfinding to nature and include access to nature within transportation improvement plans.	<ul style="list-style-type: none"> C3 C4 CP7 	FCMoves, Transfort, Engineering, and Planning	Adapt into the plan scope
Parks and Recreation Policy Plan	Incorporate Nature in the City principles into the next Parks and Recreation Policy Plan update, including design guidelines and access to nature standards, and updates to Best Management Practices.	<ul style="list-style-type: none"> CP7 	Park Planning, Planning	Adapt into the plan scope

Mid-Term Actions: 2017-2020				
Mid-Term Action Item	Description	Related Policies	Responsibility	Estimated Cost
City Council Action Items:				
Subarea Plan Updates	Incorporate Nature in the City principles into future subarea plan updates, including Downtown Plan, Old Town Neighborhoods Plan, etc.	<ul style="list-style-type: none"> CP7 	Planning	Adapt into the plan scope
Assess policies related to sound	Conduct an assessment of existing policies surrounding sounds, e.g., the noise ordinance, landscaping requirements, etc., to assess how noise impacts near nature can be mitigated.	<ul style="list-style-type: none"> CP5 	Planning, Natural Areas, Neighborhood Services, Police	Existing staff resources
Continue to support the City's efforts to evaluate the multiple values of ditches	Implementation of this action item could include the development of a Master Plan for the ditches within the City of Fort Collins, pilot projects to demonstrate how ditches can continue to convey irrigation water while also enhancing the other values they provide, etc.	<ul style="list-style-type: none"> LU6 	All City Service Areas, Ditch Companies, Private Landowners	Will vary based on need; plan cost estimated at \$150,000-250,000
Training Resources for the Installation and Maintenance of Natural Spaces	Coordinate an interdisciplinary project team to develop a suite of training resources for landowners, business owners, and landscapers to allow the successful installation and maintenance of diverse landscapes.	<ul style="list-style-type: none"> LU4 LU5 	Planning, Natural Areas, Park Planning, Stormwater, Private Sector Businesses, e.g., landscaping companies, Colorado State University, Homeowners Associations	Estimate \$30,000-50,000 to develop; estimate \$5,000-10,000 for annual implementation

Mid-Term Actions: 2017-2020

Mid-Term Action Item	Description	Related Policies	Responsibility	Estimated Cost
Administrative Action Items (no City Council action required):				
Update the Stormwater Stream Rehabilitation Program to Optimize Project and Funding Distribution (PRIORITY)	Evaluate the outputs of the Multi-Criteria Decision Analysis (MCDA) tool of the stream rehabilitation program to compare the relative value of all possible projects and to make decisions based on results and equity throughout the City, specifically where small projects can significantly improve neighborhood access or quality of experiences.	<ul style="list-style-type: none"> • C1 • C2 • CP6 • CP7 	Stormwater, Planning, Natural Areas, Park Planning	Existing staff resources
Maintain and monitor the living wall (PRIORITY)	Maintain the plants, irrigation system, etc. of the living wall. Monitor the living wall to assess energy efficiency, benefits to habitat, water use, etc. to guide future demonstration projects.	<ul style="list-style-type: none"> • LU5 • LT3 • LT4 • LT5 	Parks, Planning, Environmental Services	Plant maintenance: \$250-500/year (funded); Monitoring estimated at \$2,000-5,000 per year
Transit Connections to Nature	Identify appropriate access points to natural spaces on existing and future transit routes and develop a plan to provide accessible access to open spaces throughout the City. Upgrade bus stops where appropriate.	<ul style="list-style-type: none"> • C4 	Transport, Planning, Natural Areas, Park Planning, Stormwater	Existing staff resources for the planning analysis; average cost of \$10,000 per bus stop to ensure accessibility, though cost will vary based on site-specific conditions.

Mid-Term Actions: 2017-2020				
Mid-Term Action Item	Description	Related Policies	Responsibility	Estimated Cost
Administrative Action Items (no City Council action required):				
Wayfinding to Nature	Develop a comprehensive and consistent wayfinding system throughout the City using innovative wayfinding that helps to minimize sign pollution.	<ul style="list-style-type: none"> C5 	Planning, FCMoves, Natural Areas, Park Planning, Stormwater	Will vary based on need; Directional signs - \$75-200/sign Interpretive signs - \$500-1,200/sign
Identify pilot or demonstration sites to illustrate Nature in the City principles	In addition to the living wall, identify and install additional demonstration projects to illustrate how nature can be incorporated into the increasingly urban environment.	<ul style="list-style-type: none"> LU5 	Planning, Homeowners Associations, Business Associations	Will vary based on need, estimate of \$5,000-30,000 per project
Continue monitoring baseline and trends in night sky brightness in the region	Continue to monitor existing sites within Fort Collins and the region and extend this monitoring to include new sites based on night skies policy.	<ul style="list-style-type: none"> CP2 	Natural Areas, National Park Service	Existing staff resources, but additional resources may be necessary depending on scale, objectives, etc.
Update the City's tree inventory to include wildlife habitat	As the City's tree inventory is updated, collect a complete data set of wildlife habitat in the urban tree canopy to inform future decisions.	<ul style="list-style-type: none"> CP3 	Forestry, Planning, Natural Areas, Parks, Colorado State University	To be determined, as collecting these types of data are not within a standard protocol.
Establish a Citywide biodiversity goal	The City's Sustainability Goals currently focus on biodiversity on public lands. This goal should be updated to reflect goals for the City as a whole, i.e., both public and private lands.	<ul style="list-style-type: none"> LT1 	Environmental Services, Planning, Natural Areas, Colorado State University	Estimate of \$10,000-15,000 for professional expertise to develop an appropriate goal

Mid-Term Actions: 2017-2020				
Mid-Term Action Item	Description	Related Policies	Responsibility	Estimated Cost
Administrative Action Items (no City Council action required):				
Establish monitoring for carbon sequestration	Collect data to estimate the overall carbon sequestration in the City and develop targets to evaluate future progress in accordance with the Climate Action Plan.	<ul style="list-style-type: none"> • P1 • LT3 	Environmental Services, Forestry, Planning, Natural Areas	To be determined after completion of the initial carbon sequestration analysis, currently underway and led by the Forestry Department
Partner with other entities to celebrate nature within the urban environment	Collaborate with key partners to develop annual events surrounding urban nature, e.g., a walk through Downtown to observe the chimney swift populations or a walk along the ditches and other historical resources to highlight their value to the community.	<ul style="list-style-type: none"> • CP10 	Planning, Natural Areas, Gardens on Spring Creek, Environmental Organizations, Property Owners	Existing staff and partnership resources; minimal marketing costs

Longer-Term Actions: 2021 and Beyond				
Longer-Term Action Item	Description	Related Policies	Responsibility	Estimated Cost
City Council Action Items:				
Update the Nature in the City Strategic Plan (PRIORITY)	To ensure the plan continues to function and serve the community well over time, the plan must be reviewed, revised and updated periodically. Plan evaluation should occur on an annual basis with comprehensive updates taking place every 5-10 years.	<ul style="list-style-type: none"> CP9 	Planning, Natural Areas, Park Planning, Utilities, Sustainability Service Area, Colorado State University	Annual monitoring – existing staff resources; 5-year update - \$25,000-50,000
Continue to acquire parcels, as needed, to achieve the Strategic Plan goals (PRIORITY)	Acquisitions should target a) sites that ensure all residents have access to nature within a 10-minute walk from their homes, or b) sites that fill gaps from a species connectivity perspective. Continued from short-term and mid-term priorities.	<ul style="list-style-type: none"> C1 C2 	Planning, Natural Areas, Park Planning, Stormwater, Private Property Owners	Will vary based on need and accomplishments to date.
Establish the value of ecosystem services to the City and track the value of existing and new projects	Current ecosystem services valuations are based on statewide assessments; this item develops a localized assessment of ecosystem services to track the value of the City's ecosystem services over time.	<ul style="list-style-type: none"> LT2 	Natural Areas, Planning, Colorado State University	Estimate of \$100,000
Develop Level of Service standards for Nature in the City	As the data collected on pilot projects begins to emerge, a Level of Service for nature within the community (for public and private sector projects) should be developed to ensure higher quality nature spaces are installed within the community.	<ul style="list-style-type: none"> LU7 	Planning, Park Planning, Natural Areas, Stormwater, Engineering, Sustainability Service Area	Estimate of \$75,000-\$100,000 to develop the Level of Service standards

Longer-Term Actions: 2021 and Beyond				
Longer-Term Action Item	Description	Related Policies	Responsibility	Estimated Cost
Administrative Action Items (no City Council action required):				
Encourage natural drainages to be re-created	Streams, drainages, and irrigation corridors would be restored to their natural drainages; this would include daylighting previously piped streams or ditches, preserving existing drainages that still remain, and re-creating historic drainage patterns where feasible.	<ul style="list-style-type: none"> • LU10 • C1 • C2 	Planning, Natural Areas, Stormwater, Parks	Will vary based on need; should be incorporated into the development review process to the extent feasible.
Long-term stewardship of parcels acquired through Nature in the City	Parcels acquired over the short-, mid-, and long-term will require ongoing stewardship, e.g., site maintenance, restoration, etc. Landownership and maintenance of individual parcels will be determined on a case-by-case basis.	<ul style="list-style-type: none"> • C1 • C2 	Planning, Natural Areas, Park Planning, Stormwater, Private Property Owners	Estimate of \$100,000 on an annual basis