# GREEN COMMUNITY PLAN

## SHAPING OUR FUTURE

ABBOTSFORD

# PREFACE

This Green Community Plan is one in a series of plans and strategies being prepared as part of the City of Abbotsford's Community Sustainability Planning Initiative (CSPI). The CSPI describes the City's ongoing effort with our community partners to grow and function in an integrated way to support the community's fiscal, economic, environmental and social needs today and in the future.

The intent of the CSPI is to develop high-level plans and strategies that support the community in moving toward sustainability. As high-level documents that identify sustainability opportunities and potential responses (e.g. initiatives, actions, policy, approaches, etc.), CSPI plans and strategies do not commit the City or community partners to specific actions or outcomes. Plan and strategy implementation will require participating organizations to consider a variety of factors (e.g. available resources, priorities, work plans, strategic plan alignment, timelines etc.) before committing to action.

The CSPI is guided by the Community Sustainability Strategy which establishes Abbotsford's sustainability vision and supporting framework for integrating sustainability into City policy, plans, strategies, and decision-making, and supports community sustainability efforts. The Green Community Plan sets out to assist in achieving the vision of the CSS by identifying opportunities for the public, community stakeholders and the City to work collaboratively towards a greener community.



The preparation of this plan was carried out with assistance from the Green Municipal Fund, a Fund financed by the Government of Canada and administered by the Federation of Canadian Municipalities. Notwithstanding this support, the views expressed are the professional views of the authors, and the Federation of Canadian Municipalities and the Government of Canada accept no responsibility for them.

# CONTENT

# 1| INTRODUCTION

## 1.1 Purpose

In 2011, the City of Abbotsford initiated development of a Community Sustainability Strategy (CSS). Sustainability is about supporting our community's, fiscal, economic, environmental and social needs today and in the future. The Green Community Plan (GCP) sets out to assist in achieving the vision of the CSS by identifying opportunities for the public, community stakeholders and the City to work collaboratively towards a greener community. The strategies within this plan provide a multi-faceted approach to encourage green initiatives through leadership, education, partnerships and opportunities.

***Sustainable communities are those that maintain a reliable economic base, practice sound financial management, provide a stable environment for their residents, and act as stewards of their land and other environmental resources.*** ***(International County/City Management Association, 2012)***

There is growing awareness of the benefits of going "green" when making plans and decisions at all levels, from personal choices, business decisions made by industry, or community decisions made by Council. Recent industry practices and trends reflect this awareness with the integration of green initiatives into land development, business practices, buildings and our everyday lives. The purpose of this plan is to respond to those trends and identify strategies for the public, community stakeholders and the City to work collaboratively towards a greener community. This will result in an aesthetically pleasing city where the economy is prosperous, the environment and natural resources are carefully stewarded, and where residents enjoy a healthy and rewarding quality of life. For our city to become greener, we must all work together as individuals and as a community, at a number of different levels: in our awareness, our behavior and our decision making.

The GCP outlines 12 specific strategies, organized under three broad themes, for achieving a greener community.

**Table 1: The Green Community Plan Themes & Strategies**

| | |
|---|---|
| **THEME: BUILT URBAN FORM**<br>Promoting a built urban form that incorporates green initiatives can contribute to a thriving green community. | |
| Strategy 1: | Encourage planning at a neighbourhood scale |
| Strategy 2: | Encourage innovative development techniques and standards |
| Strategy 3: | Identify innovative stormwater management opportunities |
| Strategy 4: | Encourage urban food gardens |
| Strategy 5: | Identify incentive opportunities for green development |
| **THEME: NATURAL AREAS**<br>Respecting the natural environment for its ecological and aesthetic qualities as well as managing stormwater efficiently can enhance our community's well being. | |
| Strategy 1: | Undertake stream classifications |
| Strategy 2: | Identify enhancement opportunities |
| Strategy 3: | Create a resource guide for property owners |
| **THEME: SHARED STEWARDSHIP**<br>Encouraging ongoing engagement and partnerships are key components in continuing our efforts in becoming a greener community. | |
| Strategy 1: | Develop education and awareness programs |
| Strategy 2: | Promote partnerships for continued research |
| Strategy 3: | Encourage private land stewardship |
| Strategy 4: | Educate the public on green development practices and encourage their implementation |

## 1.2 Benefits of a Green Community Plan

Abbotsford is the fifth most populous city in British Columbia (BC) and the largest by area. It is one of the fastest growing communities in the country. This rate of development often challenges our natural environment, but also presents an opportunity to become a more green, sustainable and resilient city.

There are many benefits to going "green" when making plans and decisions at all levels, from personal choices, business decisions made by industry, or community decisions made by Council. Some of these benefits include:

- Creation of a sense of place and belonging
- Creation of opportunities for recreation and hobbies
- Building an aesthetically pleasing community
- Ensuring people have jobs close to home
- Reduced infrastructure costs for developers and/or the City
- Reduced stormwater runoff volume and improved stormwater quality
- Improved air quality
- Improved natural landscape

***A study of properties in the Lower Mainland and south Vancouver Island found that residential property values increase by 15-20% when close to greenways (Quayle and Hamilton 1999). Commercial real estate values increase with high quality treed landscaping, with rental rates about 7% higher.***
***(Judith Cullington, 2008)***

## 1.3 Alignment with City Plans and Initiatives

The GCP is one component of the Community Sustainability Planning Initiative (CSPI), which includes three other projects: The Community Sustainability Strategy, Green Energy Plan and Green Economic Investment Study. The Community Sustainability Strategy establishes a sustainability vision for the community through a series of 'future states' that describe what a sustainable Abbotsford looks like and how the City and its community partners can collectively move toward the desired 'future states'. The Strategy includes a sustainability vision and the following desired 'future states' for the City:

- Our community is healthy and enjoys a good quality of life
- Our community's resources and assets are managed effectively and efficiently
- Our natural environment thrives
- Our local economy is prosperous
- Our community is compact, connected and complete

*Waterfall on McKee Peak*

The GCP supports each of these future states in helping the City achieve its vision to grow and function through an integrated approach where the community's, fiscal, economic, environmental and social needs are met today and in the future.

The GCP also supports the City's Official Community Plan (OCP) vision which states "Abbotsford will be a liveable, sustainable and prosperous City in the Country". The OCP expresses a vision of growth and development that uses land efficiently and directs development within a clearly defined urban development boundary. The City seeks to grow in a way that public infrastructure (such as roads, water and sewer) is efficiently used and development pressures on agricultural lands and natural environments are minimized. The OCP also supports a connected system of parks, protected areas, and recreation trails; use of "low impact development" standards; recreation and nature based tourism; and a shared stewardship approach - all key elements that contribute to a green community.

In addition to supporting the Community Sustainability Strategy and the Official Community Plan, there are many other City plans and strategies that the GCP aligns with and supports, including:

- 2012 Strategic Plan
- Parks and Recreation Master Plan
- Trail Development Strategy
- Bicycle Master Plan
- Transportation Master Plan
- Water Efficiency Plan
- Agricultural Land Reserve (ALR) Landscape Buffering Strategy
- Integrated Stormwater Management Plans for Clayburn Creek, Downes Creek and Marshall Creek




# 2| STRATEGIES

The Green Community Plan outlines strategies for achieving a greener community. Many of the identified strategies impact on more than one area of sustainability and involve the public, private industry, and/or local government.

To help organize the strategies outlined in this plan, each has been categorized into the following broad themes:

- Built Urban Form
- Natural Areas
- Shared Stewardship

## 2.1 Built Urban Form

### Built Urban Form: Context

A healthy green community is one that focuses on creating and strengthening neighbourhoods and places that are emotionally uplifting and aesthetically pleasing, where people enjoy being. It includes thinking more about future growth, the quality and efficiency of our built form and the importance of integrating green sustainability initiatives into land use planning. Over 74% of the City's land area is comprised of land within the Agricultural Land Reserve, which results in future development being focused within the Urban Development Boundary (UDB). This growth provides opportunities to re-define our neighbourhoods and incorporate green strategies into the built form. When successfully implemented, the following strategies will result in an aesthetically pleasing city where the economy is prosperous, the environment and natural resources are carefully stewarded, and where residents enjoy a healthy and rewarding quality of life.

### Built Urban Form: Strategies

#### *Strategy 1: Encourage planning at a neighbourhood scale*

Conventional development patterns have relied upon separating homes, jobs and shopping from each other; connecting these uses by roads and parking lots; and building low density housing, retail, and office parks. Abbotsford's strategy for moving towards sustainability builds on the foundation of accommodating future growth within mixed-use neighbourhoods of varied intensities at appropriate locations throughout the city. These neighbourhoods would be supported by a well-designed and compact urban form that provides:

- Better access to daily destinations
- Better quality public spaces
- Better pedestrian connectivity and streetscape design
- More housing choices
- Increased density with a mix of land uses
- Integration of environmental management into the planning process
- Convenient access to transit

This strategy promotes a city where new growth is focused on developing complete neighbourhoods. This means supporting "completeness" in planning for neighbourhoods. Complete neighbourhoods are vibrant, green and safe places, where people of varying ages, incomes, interests and lifestyles feel comfortable and can choose between a variety of building types and locations in which to live, and where daily needs can be met. Prerequisites for "completeness" include things such as community facilities, schools, shops, recreation centres, libraries, employment opportunities and a healthy environment.

This strategy supports diversity to ensure a range of community retail and services, schools and recreational opportunities. The diversity within complete communities generates more choice, to provide residents with the opportunity to live and remain in their own neighbourhood as their housing needs change over their lifetime. There are choices for businesses to locate across the city in neighbourhoods or in a variety of employment areas accessible to local residential concentrations and quality transit service.

**CASE STUDY | Yorkson Neighbourhood, Langley, BC**



The Yorkson Neighbourhood is located in the Willoughby community of the Township of Langley. The area consists of 5-10 acre hobby farms that are now in the midst of significant residential and commercial development. The Yorkson Neighbourhood Plan establishes land use, servicing and environmental provisions that maximize development opportunities while integrating servicing and environmental management in a comprehensive manner. The neighbourhood is envisioned to be a complete neighbourhood consisting of a range of housing types and densities, schools, parks and a neighbourhood commercial centre to serve the daily needs of the residents.

The rural landscape of this area once consisted of a series of man-made, seasonally flowing drainages that provided limited environmental value. These drainages would be required to be protected under municipal, provincial, and federal legislation. Consequently, environmental management on a property by property basis presented a number of challenges for future development. In order to address this, the neighbourhood planning process examined environmental management comprehensively. This resulted in a plan that enabled the elimination of the less significant watercourses and manmade drainage systems by replacing them with strategically located, comprehensive "greenways" that provide higher environmental and aesthetic values, while incorporating important neighbourhood elements such as pathways and stormwater infrastructure. The greenways include meandering channels with fish habitat features, a fishway, diverse native landscaping, biofiltration ponds and wetlands and a public pathway.

## *Strategy 2: Encourage innovative development techniques and standards*

***Cluster Development is when lots are grouped on a development site in order to use the extra land as open space for recreational and/or environmental purposes. This type of development is becoming more popular due to its low impact and sustainability appeal.***

Encouraging innovative development techniques can enable green features to be incorporated or managed in a way that minimizes additional cost and time to the development approval process. Continual collaboration with the development industry to identify techniques and processes is critical to achieve these objectives. The goal of identifying these various techniques is to encourage implementation and provide a process that enables and supports these emerging trends.

- **Encourage site layouts that integrate green features:** During the development application process, development proposals are reviewed for compliance with municipal standards and specifications such as servicing (roads, water and sewer), subdivision layouts and building setbacks. These proposals should be enabled to utilize innovative design solutions to preserve existing green features such as significant individual trees, tree stands, greenways, etc. These features provide significant community benefits and contribute to the livability of our neighbourhoods. This can be achieved by modifying road layouts, reducing road widths, reducing building setbacks, reducing parking requirements or clustering development into a smaller portion of the site to incorporate green spaces for recreational and/or environmental purposes.

**CASE STUDY I Abbotsford Regional Hospital and Cancer Centre Road Re-alignment**

Tree preservation was an important factor considered during the construction of the LEED Gold hospital. Numerous trees were preserved around the site, particularly within the parking lot. For example, to preserve a large Big-leaf Maple tree located near the front entrance, the road layout was modified.

**CASE STUDY I Vicarro Ranch, Abbotsford, BC**

Vicarro Ranch is a proposed 1,400 unit master planned neighbourhood encompassing 160 hectares (395 acres) in the McKee Peak Mountain and Eagle Mountain area of Abbotsford. Baseline environmental studies were undertaken to inform the planning process and studies found various environmental features throughout the Vicarro Ranch property.

Vicarro Ranch conceptual land use plan presented by the proponent at a February 2010 public information meeting shows development clusters (in yellow) among open green space and parkland.

The conceptual land use plan respects environmental sensitivities by avoiding steep slopes, preserving environmentally significant areas and providing a large amount of natural open space through the use of "cluster" development techniques. The proposed plan includes a "cluster" of five residential sub-areas that will provide a variety of housing types and options including single family, duplex, townhomes and condominium units along with an extensive trail and bike path system. The five sub-areas are separated by natural open space and park land encompassing approximately 54% of the Vicarro Ranch property.

*Green Street Design*

- **Promote the incorporation of green streets into site development:** Streets that use vegetated swales within the boulevard of a road are often referred to as green streets. This is a sustainable stormwater strategy that, by using a natural systems approach to manage stormwater, reduces flows, improves water quality and reduces the demand on the conventional municipal stormwater infrastructure. Green streets may also include separated sidewalks, bike lanes, street trees, traffic calming measures, and other pedestrian-oriented features. Benefits of green streets include:

  - Increasing urban green space
  - Creating welcoming and safe pathways for pedestrians and cyclists, thereby increasing physical activity and social interactions
  - Reducing stormwater quantity through decreasing impervious surface areas and infiltrating stormwater through the use of rain gardens, pervious pavement, etc.

- Reducing polluted stormwater entering our creeks
- Improving air quality and reducing air temperatures
- Reducing demand on the City's conventional storm sewer system

**CASE STUDY | Silver Ridge Neighbourhood, Maple Ridge, BC**

Silver Ridge is a community of 393 single family homes encompassing 34 hectares of steep topography in Maple Ridge, BC. The neighbourhood utilizes low impact development techniques (e.g. disconnected roof leaders, absorbent soils, rock pits, and rain gardens) to address flood control and protect water quality for local salmon streams while creating an attractive, walkable streetscape. The development was a 2005 Georgie award finalist for "Best Residential Development in BC", "Best Single Family Landscape Design" and "Best Environmental Consideration and Energy Efficiency".

*Rain gardens used in Silver Ridge provide a stormwater management function while separating foot and vehicle traffic and creating a visually appealing streetscape.*

**CASE STUDY | Crown Street, Vancouver, BC**

In 2004/2005, the City of Vancouver created its first green street in response to residents' concerns over Crown Street's deteriorated condition and its road runoff problems. Modelled after Seattle's Street Edge Alternatives, Crown Street minimizes impervious surfaces, includes a walkway, incorporates traffic calming measures, and facilitates stormwater management through a network of swales and retention ponds. One of the significant benefits of the project was the degree of community building and participation the project initiated through the consultation process. The project brought residents together and upon project completion, the residents took pride in its success and maintenance.

For more information see:
www.tacatc.ca/english/resourcecentre/readingroom/conference/conf2005/docs/s5/kauffman.pdf

Before the project:

Credit: www.waterbucket.ca

After the project:

Credit: landscapeandurbanism.blogspot.ca

- **Consider developing guidelines for climate appropriate landscaping:** The practice of climate appropriate landscaping focuses primarily on native plants and selecting the best ones for a particular setting. Native plants are adapted to our soil and climate so they need relatively little or no watering, fertilizing or care once established. They are also less susceptible to garden pests and diseases, and they attract a variety of native birds and butterflies by providing food and shelter. Climate appropriate landscaping is becoming more regularly used by residents and businesses as a cost saving measure and because of its sustainability qualities.

*Waterwise gardening*

Landscape guidelines would identify native plantings that have a reduced reliance on water usage and provide an overall benefit to our environment. This guideline could be used by developers, local residents and the City as a reference when designing projects.

### *Strategy 3: Identify innovative stormwater management opportunities*

Stormwater management is an important aspect of our built form. Proper stormwater management protects our streams from erosion and sedimentation. There are a number of ways to maximize the natural infiltration and retention of water using stormwater management techniques such as permeable pavement, grass channels, rain gardens, rain barrels and green roofs. Following is a brief summary of each of these different techniques:

- **Permeable pavement:** This type of pavement allows rainwater and runoff to seep through into the ground below where it gets naturally filtered and cleaned as it makes its way into the water table. Parking lots, driveways and private roads built with permeable pavement allow for a smaller scale storm detention system than would be needed for regular pavement and reduces the demands on the City's existing stormwater management infrastructure (e.g. catch basins, pipes, outlets, etc.).

*Permeable pavement*

- **Rain gardens/grass swales:** Rain gardens and grass swales are planted on the edge of, or surrounding impervious surfaces with the purpose of collecting and infiltrating as much runoff as possible into the ground where it can be filtered. Rain gardens often include native plant species that help filter runoff. Rain gardens and grass swales reduce the strains on stormwater management infrastructure and increase the health and vitality of local streams, ponds and other water bodies.

*Rain garden*

- **Rainwater harvesting:** Individual homeowners and larger property owners can benefit greatly from acquiring one or many rain barrels or tanks. By collecting rainwater from rooftops to use for watering gardens, washing cars, and many other outdoor tasks, residents and landowners can significantly reduce their water use and water bill. Large tanks can be used for commercial/industrial/agricultural uses, while small tanks or barrels are better suited for residential uses. Utilizing rainwater harvesting tanks/barrels would reduce the burden on our water supply system, save residents' and landowners' money, reduce the reliance on the City's stormwater management infrastructure, and reduce impacts of stormwater on streams.

*Rainwater harvesting*

- **Green roofs:** Planting roof gardens is an excellent way to achieve several green objectives. Apart from helping insulate a building and decreasing energy costs, lessening the urban heat island effect and providing habitat, they can increase the extent of pervious surfaces in a city. Green roofs capture, collect and use the majority of rainwater as opposed to conventional roofs that direct all of the runoff into stormwater management infrastructure.

*Victoria Marriot Inn's green roof*

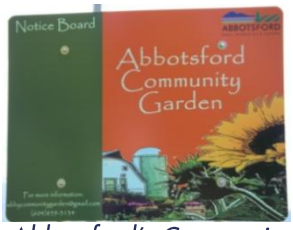
It is recognized that even with implementation of innovative stormwater management techniques, there will still be a need for community detention ponds. These ponds provide opportunities for walking trails, nature viewing areas, water filtration, wildlife habitat, etc.

**CASE STUDY I Willband Creek Park, Abbotsford, BC**

Willband Creek Park is an example of creating a community amenity around a stormwater facility. The park incorporates community stormwater detention ponds into a natural park setting with 3 km of gravel trails. Interpretive signage is placed within the park to educate the public. The ponds provide habitat to a diverse bird population, including raptors, waterfowl and various migratory birds.

### *Strategy 4: Encourage urban food gardens*

Abbotsford is well known for its abundant farmland and the food it produces. However, the City could enhance opportunities for local food production by supporting the development of urban food gardens and community gardens. Currently, the City Zoning Bylaw does not regulate urban food gardens, thus providing uncertainty as to where they may be permitted. The Zoning Bylaw could be amended to define and permit urban food gardens in all zones. This initiative could be enhanced with the City, residents and local community groups developing a program to encourage and support urban food gardens in an effort to increase access to locally grown food.



*Abbotsford's Community Garden opened in 2008, and now provides 150 plots for organic gardening*

**CASE STUDY | Zoning Bylaw update to allow gardens in all zones, Nanaimo, BC**

To encourage a more sustainable and healthy lifestyle for its residents and promote food security, the City of Nanaimo updated its Zoning Bylaw to allow for both urban food gardens and community gardens to be located on any lot within the City. The bylaw allows residents and property owners to grow and sell food on any property in Nanaimo. There were a number of conditions spelled out in the amendment, including total area allowed to be under cultivation, exclusion of mushroom cultivation, and restrictions on the level of commercial activity associated with the garden.

### *Strategy 5: Identify incentive opportunities for green development*

Some green development techniques cost the same or just slightly more than conventional development while others require more substantial investment up front, which can be a barrier to implementation. There are a number of methods to support green investment without imposing a burden on the project.

- **Investigate establishing bonus density provisions for green development**: The *Local Government Act* allows municipalities in British Columbia to permit bonus density in their zoning in exchange for the provision of amenities or affordable housing. This means that in designated zones, a developer can build to a higher density if a community amenity contribution is provided.

  Using the bonusing provisions may be an appropriate way to achieve and secure sustainability objectives for new developments over and above what can otherwise be achieved through the use of more traditional planning tools. These amenities typically

include parks, heritage preservation and affordable housing, but offering increased density in exchange for greener development can also be seen as an amenity to the community.

The City currently offers bonus density for high density residential developments that provide a contribution to the affordable housing fund, which is then used for affordable housing projects throughout the city. The bonus density provisions could be expanded to include a wide range of amenities including green developments. Density bonusing provides a win-win situation as it benefits the developer through the sale of additional units/lots and the community benefits from the green innovations.

**CASE STUDY | UniverCity at Simon Fraser University, Burnaby, BC**

In 1995 Simon Fraser University (SFU) and the City of Burnaby began working together to create a compact, mixed-use and transit-oriented residential community, founded on sustainability principles. Developers are eligible for up to 10 per cent additional density for development projects that either reduce energy use by 45 per cent or use green roofs to manage stormwater.

Credit: Chris Hartman/SFU Community Trust

**CASE STUDY | Gross Density Zoning in Surrey, BC**

The City of Surrey's Zoning Bylaw enables gross-density zoning to be considered for developments at which the municipality would like more than the standard 5% parkland dedication. This tool allows Surrey to protect up to 15% of the land for parks and natural areas. This tool was used in the South Surrey Peninsula in order to protect woodlands that had formed the boundaries between old large lots. The remaining treed area now forms a major linear park.

- **Support the Abbotsford Environmental Leadership Awards:** One way to encourage innovative green developments is to provide recognition of those that are practicing sustainability. The Abbotsford-Matsqui Rotary Club recently initiated the Abbotsford Environmental Leadership Awards, which is a recognition program for individuals, community groups, developers and businesses that are dedicated to environmental/green initiatives. There are eight different award categories including: Energy Saver, Water Saver, Green Projects, AgriLinks (Local Food), Green Leader of Tomorrow, Green Leader, Green Product or Services and Community/Grass Roots.

## 2.2 Natural Areas

### Natural Areas: Context

Abbotsford's natural setting is characterized by a wide variety of beautiful landscapes and natural features including steep escarpments, forested slopes, sandstone rock faces, second growth and old growth forest, dry bluffs, creeks and riparian areas. Respecting the natural environment for its ecological and aesthetic qualities as well as managing stormwater efficiently can enhance our community's well being.

### Natural Areas: Strategies

#### *Strategy 1: Undertake stream classifications*

The City of Abbotsford Council adopted the *Streamside Protection Bylaw* in 2005 as a result of changes to provincial regulations. The City's *Streamside Protection Bylaw* outlines provisions for setbacks based on the stream's classification. The industry standard for stream classifications is:

- **Class A ( ):** Inhabited by salmonids year round or potentially inhabited year round with removal of human-made obstructions.
- **Class A(O) ( ):** Inhabited by salmonids primarily during the over-wintering period or potentially inhabited during the over-wintering period with removal of human-made obstructions. Fish presence is unlikely during the summer due to water levels becoming low or drying up.
- **Class B ( ):** Significant source of food, nutrient or cool water supplies to downstream fish populations. These watercourses have no documented fish presence or reasonable potential for fish presence.
- **Class C ( ):** Insignificant food/nutrient value. These watercourses have no documented fish presence or reasonable potential for fish presence.

The *Streamside Protection Bylaw* is triggered when a permit application is submitted (e.g. rezoning, subdivision, development permit, building permit, soil removal and deposit permit, etc.). However, stream classifications are not contained within the *Streamside Protection Bylaw* and each stream is classified on site-by-site basis. This classification process can delay the development approvals, provide uncertainty and add cost. It is recommended that the City undertake a process to classify streams and update the *Streamside Protection Bylaw* accordingly.

### *Strategy 2: Identify enhancement opportunities*

Through the development approval process, and during capital works projects, environmental assessments are undertaken. All projects that contain environmentally sensitive areas are subject to review to ensure that restoration and enhancement initiatives are identified and incorporated appropriately into the design and construction of buildings, infrastructure, and site features, including stormwater management systems. When habitat restoration and enhancement works are required as a condition of environmental approvals, those works are generally located on the site where the environmental impact occurs. While this approach has positive environmental benefits at the site, it may not represent the best option from a local or regional environmental perspective if the subject site has constraints that limit environmental productivity. Accordingly, directing those same resources toward restoration/enhancement works elsewhere may result in greater environmental benefits.

*In partnership with numerous non-governmental agencies and businesses, the City installed a new culvert for Stoney Creek under Bateman Road, replacing a culvert that was a partial barrier to fish movement.*

Throughout the City, it is recommended that an inventory of environmental areas in need of enhancement be identified to ensure that enhancement works are undertaken on sites where the greatest environmental benefits can be achieved. While ecosystem enhancement opportunities have been identified through the City's integrated stormwater management plans and biophysical inventory work, the enhancement opportunities have not been summarized in a consolidated document that can be used by the City and the development industry.

### *Strategy 3: Create a resource guide for property owners*

Private property owners are often unsure about what best management practices exist for preserving or enhancing environmentally sensitive areas. A resource guide that outlines best management practices for a range of issues, including trail development, fencing design, site restoration/enhancement and invasive plant removal would be intended to be used as an educational/resource tool for the public.

# 2.3 Shared Stewardship

## Shared Stewardship: Context

Encouraging ongoing engagement and partnerships are key components in continuing our efforts in becoming a greener community. The City of Abbotsford recognizes the importance of establishing partnerships with other governmental agencies, private businesses, educational institutions, non-governmental organizations and individuals.

## Shared Stewardship: Strategies

### *Strategy 1: Develop education and awareness programs*

While many Abbotsford residents see sustainability as an important issue, some may be unaware of the benefits in moving towards a greener community. An education and awareness program could provide accessible, plain-language information about actions that can be taken. There are many initiatives already underway by the City and the region and many other sustainability related programs that the City can better promote. The education initiative could include landowner contact programs, seminars, workshops, etc. This could provide an opportunity to partner with non-governmental organizations and senior governments to develop and deliver education programs.

### *Strategy 2: Promote partnerships for continued research*

Abbotsford is fortunate to be home to a high-quality post-secondary institution. The University of the Fraser Valley (UFV) provides excellent partnership opportunities. For example, UFV offers courses that allow students to work on environmental projects. Partnering with such programs offers opportunities for research and encourages students to be environmental stewards.

### *Strategy 3: Encourage private land stewardship*

Encouraging both the development community and individual owners to be good stewards of their land through education and awareness provides an additional opportunity in moving towards a greener community. There are several ways in which a private property owner can become involved with land that is otherwise undevelopable:

- **Ecological Gifts Program** (aka Ecogifts): This program provides a way for Canadians with environmentally sensitive land to protect their properties and leave a legacy for future generations. Landowners can receive significant federal tax relief for donating land outright (i.e. transferring title to all or part of their land) or a partial interest in land (i.e. by registering a conservation covenant) to a qualified recipient. Recipients can include land trusts, other non-governmental organizations, and local, provincial or federal governments. Donors (private or corporate) receive a tax receipt for the full value of their ecological gift. This tax receipt can be applied against 100% of their net annual income. For more information see: www.ec.gc.ca/pde-egp/default.asp?lang=En

**CASE STUDY | Fraser Valley Conservancy: Maclure Wetlands, Abbotsford, BC**

The Maclure Wetlands were donated as an ecogift to the Fraser Valley Conservancy (FVC) in 2008. The wetlands provide habitat for several species at risk as well as numerous common species such as waxwings, chickadees, hawks, mink, ducks, etc. The FVC has received grant funding to help restore some of the degraded habitat. Many volunteers have worked to help replant the site with native species. This contributes to building community connections between both people and places.

*Credit: Fraser Valley Conservancy*

- **Conservation (Restrictive) Covenants:** Conservation Covenants are a voluntary legal agreement that allows a landowner to permanently protect specified environmental features while still retaining ownership and use. Covenants can cover all or part of a parcel. They are attached to the title of the property, and as such are legally binding for future owners. The covenants can be held by government agencies, land trusts and some conservation organizations.

**CASE STUDY | Pincott Conservation Covenant, Abbotsford, BC**


The Pincott family undertook extensive naturescaping on their property and wanted to see it maintained and protected. As a result, in 1999, the Pincott family placed a conservation covenant on a 0.42 hectare portion of their property that contains a forested area, a small wetland and a large patch of blue-listed Pacific Waterleaf.

- **Statutory Right-Of-Ways (ROWs):** Similar to a Conservation Covenant, Statutory ROWs are voluntary legal agreements that can be used to protect specific environmental features on a property. They are used in place of a Conservation Covenant when the local government holds the agreement and is granted future access to the property in the event of a need to undertake maintenance activities (e.g. tree removal/planting, slope stabilization, invasive species removal, etc.).

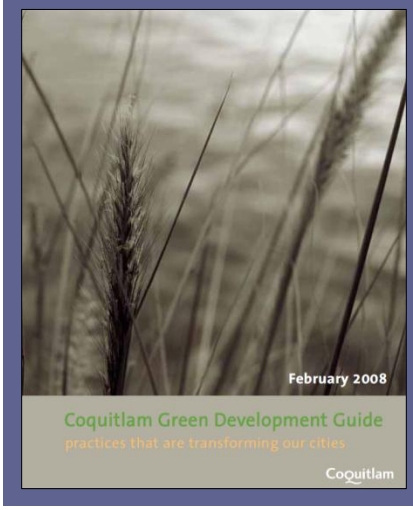
### *Strategy 4: Educate the public on green development practices and encourage their implementation*

Developing new greenfield areas and implementing green practices in existing developments have enormous impact on our economy, our health, our community and the environment. Development and redevelopment offers many opportunities to meet our sustainability goals and create greener and healthier neighbourhoods.

*Rain barrels for rainwater harvesting*

- **Consider creating a resource guide for greening new developments:** The City could create a resource guide that describes current best practices and sustainable technologies. This guide could provide information on green land development techniques, efficient and healthy buildings and creating more sustainable outdoor areas by applying low-impact development technologies.

**CASE STUDY | Green Development Guide, City of Coquitlam, BC**




In 2008, the City of Coquitlam released a Green Development Guide that provides information and case studies on green development practices. The Guide is intended for a wide audience, including developers, consultants, Council, and staff. The purpose of the Guide is to facilitate discussions regarding sustainable development in the hope that the development industry would incorporate more green practices into their development applications and in doing so, create a more sustainable and livable community.

- **Consider creating a resource guide for green building retrofits:** The amount of energy consumed by a building is linked to the age of the building (older buildings are less energy efficient), the size of the building and whether it adjoins other buildings (attached walls have less heat loss), as well as the behaviour of the occupants. Buildings consume approximately half of the community's energy in Abbotsford (26% in homes and 22% in commercial and small industrial buildings). Despite a growing population, the majority of energy consumption in buildings in Abbotsford in 25 years will be in buildings that are already standing now. This represents an opportunity for large reductions in energy consumption if these older buildings are retrofitted.

Older buildings that have not undergone renovations for energy efficiency can achieve significant energy savings through relatively straight forward renovations (e.g. installing a high-efficiency furnace and hot water tank, improving insulation, and sealing windows and doors). The resource guide would provide landowners with a list of ideas and opportunities to retrofit their home or business using green technologies. This would primarily focus on measures such as promotion of rainwater harvesting, climate appropriate landscaping, energy and water conservation, energy efficiency and other actions. This is envisioned to be a "one-stop-shop" for the public to collect ideas before they undertake renovations to their home. The City can play a role in expediting the rate of these renovations by providing information and highlighting the opportunities.

**CASE STUDY | Green Building and Renovating Guidelines, City of Vancouver, BC**


As part of the City of Vancouver's "Greenest City" initiative, the City is working to reduce the amount of energy consumed by its new homes by 33% by 2020 and reduce GHGs from existing buildings by 20% below 2007 levels by 2020. The City is implementing a number of education programs, bylaws, policies and incentives to help reach their targets. In particular, the City developed a Green Home Renovation Guide series that covers common renovation topics including home energy, painting, landscaping, salvage/reuse, etc. The guides provide helpful hints on materials and strategies to create a home that is healthy, saves money and is easy on the environment.

For more information see: http://vancouver.ca/home-property-development/green-home-renovation-guides.aspx

- **Consider creating a sustainability checklist for new developments:** A sustainability checklist could be used as a reference for developers to assess their development's contribution to sustainability. The checklist would outline balanced criteria of environmental, economic and social components, such as urban design, energy and water conservation, stormwater management, green building, transportation, green space protection, good neighbour features, affordable housing, etc. The checklist assessment would indicate how well a proposed development performs relative to the checklist and help identify where improvement may be possible. Sustainability checklists in many municipalities are a mandatory part of the development approvals process. In this case, it would be used for information purposes for the applicant to consider. The checklist could eventually be used to achieve other initiatives contained in this plan, such as density bonusing.

# 3| IMPLEMENTATION

This Green Community Plan outlines strategies that can be taken to move towards a greener community. Some strategies will be relatively easy to put into place, because they require little change and will cost little to implement (e.g. resource guides) while others will require more significant change (e.g. neighbourhood plans). Fundamentally important to the successful implementation of the GCP is the understanding that it is a community plan and its success will ultimately depend on inspired community action. This includes identifying opportunities for the public, community stakeholders and the City to work collaboratively towards a greener community. Success will require that the people of Abbotsford understand, value, and practice principles of sustainable living, and a strong sustained leadership from all parts of the community is paramount.

# 4| SUMMARY

There are many benefits of going "green" when making plans and decisions at all levels: from personal choices, business decisions made by industry, or community decisions made by Council. Recent industry practices and trends reflect this awareness with the integration of green initiatives into land development, business practices, buildings and our everyday lives. The purpose of this plan is to respond to those trends and identify strategies for the public, community stakeholders and the City to work collaboratively towards a greener community. This will result in an aesthetically pleasing city where the economy is prosperous, the environment and natural resources are carefully stewarded and where residents enjoy a healthy and rewarding quality of life. For our city to become greener, we must all work together as individuals and as a community at a number of different levels: in our awareness, our behavior and our decision-making. The GCP seeks to inspire, support and enhance that forward momentum.

ABBOTSFORD

For more information on the City of Abbotsford's Green Community Plan contact:

Economic Development & Planning Services
**T** 604-864-5510
**E** sustainability@abbotsford.ca

www.abbotsford.ca/sustainability