

Policy recommendations to support biodiversity are separated into categories. Many of these support and build on existing policy, including the OCP, the Sustainability Charter and Integrated Stormwater Management Plans.

## A. PLANNING AND DEVELOPMENT

Objective: Consider and incorporate biodiversity initiatives through all levels of the City’s planning and development framework

### A-1 BIODIVERSITY CONSERVATION STRATEGY IMPLEMENTATION

NUMBER	RECOMMENDATION
A-1.1	Integrate recommendations of the <i>Biodiversity Conservation Strategy</i> into the Official Community Plan and other relevant documents;
A-1.2	Review and track the implementation of the GIN every two years as a part of the Sustainability Dashboard;
A-1.3	Work with neighbouring municipal partners and provincial and federal agencies to support biodiversity initiatives;
A-1.4	Provide sufficient resources and staffing to support City biodiversity initiatives;
A-1.5	Develop training programs in relevant municipal departments to raise awareness of new biodiversity objectives;
A-1.6	Ensure interagency and interdepartmental cooperation to implement biodiversity initiatives;
A-1.7	Create and maintain a biodiversity database which should include habitat mapping and population surveys of identified indicator species to monitor change over time; Host an annual “bioblitz” to develop this database; Develop a bird monitoring program in coordination with community volunteers that integrates annual Christmas Bird Count data and a Summer Bird Count;
A-1.8	Update the City’s Sustainability Dashboard to include biodiversity performance indicators and targets;
A-1.9	Incorporate the United Nations’ City Biodiversity Index (when completed) to provide a global comparison of Surrey’s biodiversity efforts;

Table 20. Biodiversity Conservation Strategy Implementation Policy

### A-2 DEVELOPMENT PLANNING, OPPORTUNITIES, PERMIT AREAS AND MONITORING

NUMBER	RECOMMENDATION
A-2.1	Review all development applications to ensure they meet the objectives of the Biodiversity Management Area;
A-2.2	Establish a Riparian Development Permit Area (DPA) for all Class A, A(0) and B watercourses outside of the ALR to protect biodiversity, water quality and slope stability. Width of DPA will include the watercourse, riparian area and extend to 50 metres from the top of bank. All properties including all or a portion of the Riparian DPA will be subject to the DPA guidelines. Any development within the Riparian DPA area requires a Qualified Environmental Professional (QEP) to assess and prescribe management that will meet the objectives of the Biodiversity Conservation Strategy;
A-2.3	Enforce minimum Streamside Protection and Enhancement Areas (SPEA) setbacks from top of bank for Class A, A(0) and B watercourses; disturbed areas within SPEAs must be restored as a condition of development;
A-2.4	Establish an Environmental DPA to protect the ecological integrity of the Green Infrastructure Network (GIN). The DPA will include all GIN areas (hubs, sites and corridors) and extend 50 metres from the edge of GIN. All properties including all or a portion of the Environmental DPA will be subject to the DPA guidelines. Any development within the Environmental DPA area requires a Qualified Environmental Professional (QEP) to assess and prescribe management that will meet the objectives of the Biodiversity Strategy;
A-2.5	Enforce appropriate development and building timing windows for fish and wildlife. Tree clearing should be avoided during the bird nesting season. Work in and around watercourses should respect fish timing windows developed by the BC Ministry of Environment;
A-2.6	Consider incentives to increase density and encourage alternative development approaches (e.g. cluster housing, Conservation Subdivision Design) to retain natural areas and enhance buffer zones adjacent to the GIN;
A-2.7	Implement measures to improve wildlife crossings within the GIN network to facilitate movement and reduce traffic mortality;
A-2.8	Consider incentives to restore degraded habitat during re-development;

A-2.9	Establish canopy cover targets for different land uses that will contribute towards the City wide goal of 40%;
A-2.10	Update the definition of “protected tree” as stated in the City of Surrey Tree Bylaw to include all trees in the GIN and SPEAs;
A-2.11	Continue to support the Tree Voucher Program to increase tree cover on private property;
A-2.12	Update the Tree Bylaw to enhance protection and replacement criteria for all healthy single stemmed conifer trees with a diameter greater than 100 cm measured at 1.4m above the ground;

Table 21. Development Planning, Opportunities, Permit Areas and Monitoring Policy

### A-3 NATURAL AREAS ACQUISITION, PROTECTION AND ENHANCEMENT

NUMBER	RECOMMENDATION
A-3.1	Designate appropriate City-owned land within the GIN as protected;
A-3.2	Identify priority natural areas for acquisition as part of GIN;
A-3.3	Identify opportunities to sell City-owned land outside of the GIN and acquire higher priority land that can be integrated into GIN;
A-3.4	Explore options to implement transfer or purchase of Development Rights for natural areas acquisition;
A-3.5	Work with land trusts and private landholders to establish voluntary conservation easements on private land;
A-3.6	Pursue land contribution, cash in lieu and/or a residential Green Infrastructure Levy to acquire land that contributes to or enhances the GIN;
A-3.7	Consider a Green Tax and adjusting Area and City Wide DCC's to assist in the natural areas acquisitions. Consider applying parkland dedication requirements on Commercial/Industrial/Institutional development.
A-3.8	Lobby senior levels of government to review the applicable legislation for Parkland Dedication and DCC's pursuant to natural areas protection;
A-3.9	Promote biodiversity and environmental protection incentives for golf courses and cemeteries. Encourage environmental certification by international agencies, such as the Audubon Cooperative Sanctuary Program for Golf;

Table 22. Natural Areas Acquisition, Protection and Enhancement Policy

### A-4 GREEN BUILDING STANDARDS

NUMBER	RECOMMENDATION
A-4.1	Explore incentives for and encourage developers to integrate natural biodiversity features (e.g. trees, wetlands) into development; Incorporate a Biodiversity Checklist (Appendix G) that will require developers to achieve a specified biodiversity target, but permit flexibility in how this can be achieved.
A-4.2	Adopt the Sustainable Sites Initiative (SSI) for development of publicly owned lands. Provide incentives to private land owners for meeting these voluntary standards;
A-4.3	Maintain an updated list of recognized invasive plant species and prohibit them from use in all development landscaping;
A-4.4	Incorporate targets for biodiversity such as tree cover, naturoscaping and wildlife movement into applicable City Standards and Guidelines related to landscaping;
A-4.5	Provided targets for development to incorporate a minimum representation of biodiversity friendly flora for landscaping;
A-4.6	Encourage use and implementation of natural drainage patterns, naturoscaping, green infrastructure, permeable surfaces, sustainable drainage features, and Low Impact Development (LID) to manage stormwater and support biodiversity objectives;
A-4.7	Naturalize existing and proposed stormwater detention ponds where possible to enhance habitat value; ensure a naturalized terrestrial buffer; Encourage creation of small wetlands associated with open drainage features;
A-4.8	Promote improved design of parking lots on public and private property that create more opportunities for biodiversity including open, planted swales and trees with larger canopy coverage;

NUMBER	RECOMMENDATION
A-4.9	Promote salvage of native plants and topsoil from greenfield development sites for use in restoration and enhancement projects to support genetic diversity and local seed sources;
A-4.10	Provide incentives to adopt green roofs and walls in new industrial, commercial and residential development;
A-4.11	Implement biodiversity strategies for active parks. Include hedgerows and canopy cover guidelines for playfields, parking lots and landscaped areas;
A-4.12	Minimize light pollution in Environmental DPA areas;

Table 23. Green Building Standards Policy

## B. AGRICULTURAL AREAS

Objective: Enhance biodiversity on ALR through habitat protection and enhancement and sustainable agricultural practices

### B-1. AGRICULTURAL BIODIVERSITY

NUMBER	RECOMMENDATION
B-1.1	Work with farming community to encourage sustainable farming practices that support food production and provide free ecosystem services (i.e. crop diversity, habitat, carbon sequestration, flood risk mitigation);
B-1.2	Work with local farmers and conservationists to find ways to improve stewardship on agricultural land. Integrate and coordinate with existing agricultural programs such as the Environmental Farm Plan, Code of Agricultural Practice, Agricultural Building Setback Standards, Delta Farmland & Wildlife Trust;
B-1.4	Encourage farmers to establish and protect riparian buffers on agricultural land that consider flood return levels;
B-1.5	Work with farm community to sustainably manage temporal and geographic distribution of fallow fields to support biodiversity, particularly migratory birds;
B-1.6	Investigate potential to enhance dykelands with natural vegetation (trees, shrubs) in riparian areas adjacent to Nikomekl and Serpentine Rivers, while recognizing provincial guidelines and dyke maintenance requirements;
B-1.7	Protect integrity of existing dykes; however, explore opportunities to widen the channel for re-vegetation and habitat enhancement;
B-1.8	Explore incentives for private land holders to retain forest and natural habitat on non-arable land;
B-1.9	Ensure windfirm forested and landscape buffers adjacent to the ALR boundary;
B-1.10	Encourage hedgerows, where appropriate, adjacent to fields and row crops;
B-1.11	Ensure that fencing in and around agricultural areas allows for wildlife passage in key areas;
B-1.12	Develop an outreach program that teaches ecological design principles for field drainage systems and ponds. Work with farmers to retain, enhance and create wetlands in areas prone to seasonal flooding;
B-1.13	Identify and protect key groundwater recharge areas, and aquifers that contribute groundwater to open channels during the summer;
B-1.14	Encourage governing agencies to investigate water licenses for agricultural irrigation and livestock and how this may affect the local stream ecology;
B-1.15	Implement a program to support increased native bee production and pollination;
B-1.16	Work with local farmers to restrict livestock access to natural watercourses;

Table 24. Agricultural Biodiversity Policy

## C. CLIMATE CHANGE

Objective: Improve ecosystem resilience to anticipated effects of climate change by adapting to changing ecological conditions

### C.1 CLIMATE CHANGE AND BIODIVERSITY

NUMBER	RECOMMENDATION
C-1.1	Incorporate recommendations of City of Surrey Climate Change Adaptation Strategy to support resilient and healthy ecosystems;
C-1.2	Preserve and restore ecosystems as an integral component of the City's climate change mitigation and adaptation strategy, particularly with regard to carbon sequestration and floodwater management;
C-1.3	Model and manage for predicted impacts of sea level rise to coastal foreshore and floodplain areas;
C-1.4	Develop ecosystem-based adaptive strategies to manage for biodiversity and reduce dyke maintenance/construction costs associated with projected sea-level rise;
C-1.5	Develop biodiversity landscaping and planting guidelines to ensure trees and vegetation are adaptable to the changing climate;

Table 25. Climate Change and Biodiversity Policy

## D. COMMUNITY EDUCATION AND AWARENESS

Objective: Increase awareness of local biodiversity and its importance for community sustainability

### D.1 EDUCATION AND AWARENESS

NUMBER	RECOMMENDATION
D-1.1	Implement interpretive programs to support biodiversity including trail and park signage and informative displays;
D-1.2	Promote nature and biodiversity conservation programming at the Surrey Nature Centre at Green Timbers
D-1.3	Create and update a biodiversity webpage on City of Surrey site;
D-1.4	Support school and summer camp programs that encourage students to learn about biodiversity and experience Surrey's natural areas;
D-1.5	Initiate City workshops to teach residents about naturescaping and sustainable gardening to enhance biodiversity in the City;
D-1.6	Encourage community members to participate in the conservation of biodiversity through participation in events such as the monitoring program, bio-blitz, invasive species pulls etc.;
D-1.7	Inform and educate developers and landscapers of biodiversity conservation objectives;

Table 26. Community Education and Awareness Policy