

Message from the Chair

The Trust is completing its fourteenth year of providing farmland stewardship programs. Thanks to Delta farmers' good stewardship of whole fields and field margins through the Trust, habitats have been provided for the abundance of wildlife that use Canada's most significant Important Bird Area, the Fraser Estuary, out of 597 sites across the country.

Many people are partners in this model stewardship enterprise. The Trust is guided by the informed leadership of its Directors who represent the two founding sectors, farmers and conservationists; thank you John Hatfield, John Malenstyn, Don Mark, Anne Murray, Hugh Reynolds, Noel Roddick, and Edward van Veenendaal. The daily operations of the Trust are taken care of by our reliable, professional staff. On behalf of the Board, thank you Markus Merkens as Wildlife Coordinator, Lena Syrový and David Bradbeer as Agriculture Coordinators and Margaret Paterson as the Office Coordinator.

The stewardship project that benefited the largest acreage of farmland this year was the highly successful Winter Cover Crop program. A total of 2,871 acres (1162 ha) was planted with grass and grain crops to help feed Canada's largest wintering population of waterfowl (swans, geese and ducks). Cover crops, like all Trust programs, are cost shared with farmers and amounted to \$129,173 of this year's budget. They were closely followed by another whole-field program, the Grassland Set-asides (\$126,063) that provided habitat to a wide diversity of wildlife species on 503 acres (204 ha) of farmland. Lime was spread on 897 acres (363 ha) and a further 339 acres (137 ha) were laser levelled. Field margin projects totaled 6.91 acres (2.8 ha) of hedgerow and 2.69 acres (1.1 ha) of grass strips with 330m (1,082') of new hedgerow planted. Combined the programs covered 4,620 acres (1,870 ha) of farmland for a total cost of \$336,567.

None of this work could take place without the generous support of our funding partners. On behalf of the Board, many thanks the Delta Agricultural Society, the BC Waterfowl Society, Ducks Unlimited and VanCity as well as many corporate and private donors who continue to finance the Trust's programs.

Looking to the future, local food production and wildlife habitat in the Lower mainland, especially in Delta, are under significant threat. Gateway projects including port expansion on Roberts Bank, the South Fraser Perimeter Road and railway infrastructure required to support the port generated container traffic will remove up to 1,000 acres (405 ha) of Delta farmland and fragment many farm properties. The cumulative impact of the effects of this loss on the future viability of farming or on our ability to conserve habitats in the Fraser River delta has not been assessed. However, the Trust will continue to promote the preservation of farmland and enhancement of soils and wildlife habitat through research, education and stewardship incentive programs. Thank you everyone for being partners in farmland stewardship in Delta.

Dr. Mary J. Taitt, Chair
Delta Farmland and Wildlife Trust

Board of Directors 2006/07

Mary Taitt, Chair

Mary is a tutor with Thompson Rivers University, a naturalist for Vancouver Whale Watch and an ecological consultant. She is interested in conserving Delta's ecosystem and is a director of the Boundary Bay Conservation Committee. She is a founding Director of the Trust and returned to the Board in February 2005.

Anne Murray, Treasurer

Anne is a lifelong naturalist with a keen interest in birds, and a background in education and has recently published A Nature Guide to Boundary Bay. She is a volunteer board member with Nature Canada and BC Nature and returned to this Board after a brief hiatus.

John Malenstyn

John is a second generation Delta farmer initially operating a dairy operation. He now grows row crops. He is member of the Delta Farmers Institute. He completed a 6 year term as a Board member in 2003 and returned in February 2005 to serve again.

Hugh Reynolds

Hugh is a fourth generation vegetable farmer. He is dedicated to the economic sustainability of farming in the Fraser Valley and has been studying the changes to Delta's geography and the effects on the environment. He is a founding Director and returned to the Board in 2006.

Noel Roddick, Vice Chair

Noel is a founding director of DFWT and has been active on our Board on numerous occasions over the past decade. He has worked in agriculture on the delta for over three decades as the owner of an agricultural supply and services company. He rejoined the Board in 2002.

John Hatfield, Secretary

John is a retired biologist who spent most of his career as a land manager for the Canadian Wildlife Service. He is a founding director of the Delta Farmland and Wildlife Trust and has filled his current position on the Board since 2000.

Don Mark (as of February 2007)

Don Mark is a retired lawyer and a long-time member of the Boundary Bay Conservation Committee. He completed a 6 year term as a Board member in 2005 and has returned to the Board after a brief hiatus.

Edward van Veenendaal

Edward is the owner/operator of a landscape business offering environmentally friendly garden services. He is a member of the Delta Naturalists. Local ecology and sustainability issues hold his interest. He joined the Board in February 2005.

What is the Delta Farmland and Wildlife Trust?

The Delta Farmland and Wildlife Trust (hereinafter DF&WT or the Trust) is a non-profit organization that is committed to developing and financing innovative and cooperative solutions to farmland and wildlife management issues on the Fraser River delta. Guided by a voluntary Board of farmers and conservationists, it has developed into a model for farmland and wildlife habitat conservation. The Trust values the farm as a basic unit of conservation and works with farmers to maximize yield potential and enhance wildlife habitat on local farms. This report summarizes the work of DF&WT during the 2006/07 fiscal year and outlines goals, concerns and priorities for the coming years.

OUR VISION

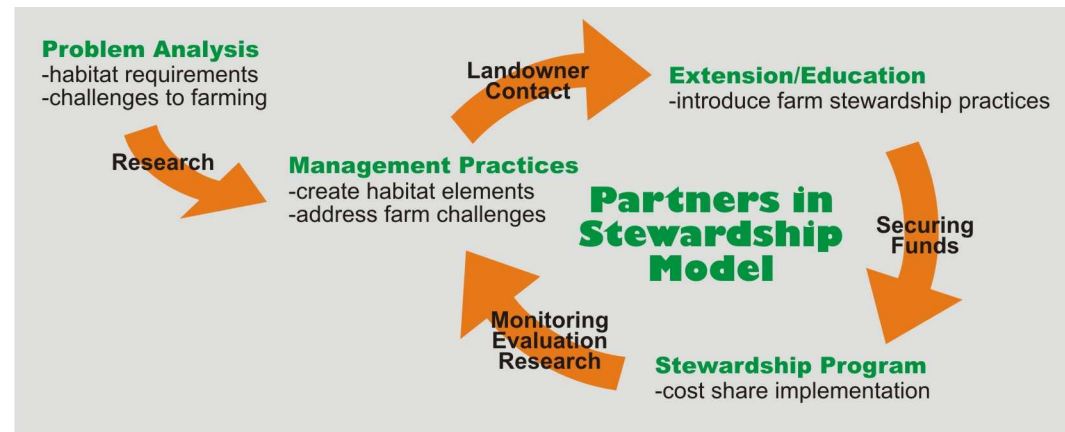
A vibrant and extensive agricultural area where good farm stewardship contributes to soil conservation and the production of diverse economically viable crops that are maintained in a sustainable rotation while supporting and enhancing wildlife habitat so that future generations can value, enjoy, and benefit from locally grown foods and the great diversity of wildlife present today.

OUR MISSION

DF&WT promotes the preservation of farmland and associated wildlife habitat on the Fraser River delta through sustainable farming and land stewardship.

OUR METHODS

Management of farmland is controlled and constrained by ecological, socio-economic and political factors, often with short time horizons. Under these conditions it is difficult to ensure that agricultural resources are conserved in a manner consistent with long term agricultural sustainability and maintain wildlife habitat capacity. DF&WT supports land stewardship practices on farmland that contribute to long-term agricultural sustainability and enhancement of wildlife habitat. The Trust does this by: 1) identifying appropriate farm management practices that will benefit soil and/or wildlife habitat conservation through review of local and international research programs, 2) providing information to local farmers with respect to the benefits and operational requirements of these practices, 3) raising funds to cost share the wide-scale implementation of these programs with local farmers, and 4) evaluating the programs to ensure that they are effective. This approach has allowed farmers and conservationists to come together as “Partners in Stewardship.”



Background

The highly productive ecosystem on the Fraser River delta continues to support both a profitable farming industry and an incredibly rich and diverse wildlife community. Although human development of the delta has resulted in the loss of 87% of the original wetland habitat through regional dyking and drainage of the flood plain, the remaining area continues to provide important wildlife habitat, some of which can be found on farmland. Most of the drained land was initially used for agricultural purposes but over the last 5 decades much of the farmland in Richmond and some in Delta have been converted to urban, industrial and transportation uses. The remaining agricultural, natural, and semi-natural landscapes are important in maintaining the capacity of the area to support food production and wildlife habitat.

The delta is recognized as one of several vital links along the Pacific Flyway between Arctic breeding areas and wintering grounds to the south. Its extensive marshes, mudflats and productive farmlands support Canada's highest density of wintering waterfowl, shorebirds and raptors. It also supports many migratory songbirds during summer and winter as well as impressive numbers of resident wildlife populations. The significance of the soil-based farmlands, surrounding foreshore and, to some extent, parklands as wildlife habitat cannot be overemphasized. The presence of several bird sanctuaries (George C. Reifel Migratory Bird and Serpentine Wildlife Area), the Alaksen National Wildlife Area, several Provincial Wildlife Management Areas along with the designation as a Ramsar Site and a Hemispheric Site of the Western Hemisphere Shorebird Reserve Network all attest to the regional, national and international importance of the area as wildlife habitat. The entire area has been recently recognized as Canada's most significant Important Bird Area (IBA). Despite its reputation as an important wildlife area, continued and accelerated development in the area is putting further pressure on the wildlife populations using the area, and existing habitats continue to be lost or made inaccessible to wildlife.

In addition to its value as wildlife habitat, farmland on the delta is amongst the most productive in Canada. The high agricultural capability of the land can be attributed to a combination of favorable climate and rich soils. Delta has the longest frost free period in Canada reaching from mid-April through to the end of October and experiences an average of 1000 cm of precipitation annually. The long growing season and ample precipitation has resulted in diverse crops with good yields for local farms.

Much of the original vegetation prior to cultivation of the delta was grassland (North and Teversham 1984). Repeated cycles of grassland growth and decomposition over the millennia contributed to the accumulation of humus and rich organic matter in the upper soil horizon. Today the soils, now protected from high water through extensive dikes, are inherently fertile, heavy in texture and deep. If managed properly, the soil is capable of long-term sustainable agriculture. However, a number of soil factors may be limiting its potential crop productivity. Inadequate sub-surface drainage, deep soil compaction, loss of soil surface structure, declining soil organic matter and soil salinity problems were identified as potential limiting factors for local farms in the early 1990's (Klohn Leonoff Ltd. *et al.* 1992). At that time, the cultivated soils on the delta were degrading in the absence of appropriate crop rotation options and readily available sources of organic matter as soil amendments. Traditional crop rotation sequences had become economically unsustainable due to the loss of important processing crops when local processors moved to distant locations closer to competing agricultural areas. Also, the disintegration of livestock and vegetable production removed pasture or hay rotations from many farms. Added to this were uncertainties in land tenure. In the late 1980's, 2/3 of farmland in Delta was being farmed under lease or rental agreements. The lack of secure tenure for the bulk of the farmland was working against the long-term investment necessary for sustainable agriculture. Justifiably, farmers had little

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incentive to invest in practices related to soil conservation, retaining hedgerows, and building up soil fertility.

Wildlife and food production at the western edge of the lower mainland has been pushed to an ever-shrinking proportion of the land base. Management of the remaining land will need to be carefully planned and supported to maintain sustainable agriculture in the region while simultaneously providing habitat on the same or adjacent lands. The multipurpose farmlands in the area are vital as a greater proportion of other areas in the lower mainland is committed to urban, industrial, non-wildland recreation and transportation use. Wildlife and agriculture can coexist if land is managed to conserve habitat. With respect to the Fraser River delta ecosystem we are at a point in time when this is imperative.

Failure to provide wildlife with suitable habitat in this internationally significant "ecological hotspot" can have dire consequences over the short and long term. Migratory birds that depend on productive staging areas spread at appropriate intervals along the Pacific Flyway will suffer increased mortality as they lose important stop-over and wintering areas. The Fraser River delta has been identified as one of the most important staging areas on the west coast of Canada. A reduction in the capacity of the delta to support 300 bird species that use a combined geographic range spread across 20 countries along the Pacific flyway has the potential to negatively impact many ecosystems along the flyway.

In the early 1990's it became evident that concerted efforts needed to be made to preserve the farmland so that the farming lifestyle, wildlife populations and their value to society could benefit future generations. Local farmers and conservationists developed a co-operative approach to solving some of these issues by establishing the Trust in 1993. The Delta Farmland and Wildlife Trust has proven itself to be a valuable model to facilitate improving agricultural productivity while simultaneously enhancing wildlife habitat. Its multi-faceted and results oriented approach has allowed farmers and conservationists to work together in improving the capacity of the land to produce high quality food and support the wildlife. The key to the program's widely recognized success has been its focus on cooperative partnerships with farmers, other conservation organizations, funding partners, three levels of government (municipal, provincial and federal) and private sector interest groups. Our partners are dedicated to the goal of increasing the quality of agricultural land as well as maintaining the habitat capacity in the Fraser River delta. Essential to the wide-spread coverage of DF&WT's programs has been the willingness of local farmers to embrace these programs and establish best management practices to implement them on their farms.

Farmland Stewardship as Compensation for lost Habitat

YVR Wildlife Stewardship Agreement

Construction of the third major runway and associated developments at the Vancouver International Airport between 1992 and 1996, contributed to reducing the value of approximately 350 ha of agricultural habitat. A series of environmental impact assessments determined that a wide range of wildlife species would be impacted by the proposed airport expansion that was well under way at the time. These habitats supported a significant number of breeding passerines (31 species); wintering birds (78 species, including at least 13 raptor species and 12 species of waterfowl); as well as a diversity of resident wildlife (Cooper 1993, Searing and Wiggins 1993).

Approval of the airport expansion was contingent on a mitigation/compensation program that addressed the loss of wildlife habitat and

displaced wildlife. At the time, the Federal Government committed itself to protecting or replacing wildlife habitat so that no net loss of habitat capability resulted from the parallel runway project. The Wildlife Habitat Advisory Committee on Compensation (WHACC) was established in 1993 to explore means of achieving the goal of no net loss. The recommendation from the WHACC was to allocate compensation funding between three main program categories: 1. Securement of land; 2. Enhancement of secured properties; and 3. Land stewardship.

As a result of the WHACC recommendations, a combination of land purchases, habitat enhancements and land stewardship activities have ensued. A total of 318 ha of land were secured for the purposes of wildlife habitat and agriculture in the vicinity of the Lower Fraser River delta. This included: the Sea Island Conservation Area; Robertson Farm (Westham Island); Spetifore Lands (Boundary Bay); and Iona, Don and Lion Islands (Richmond). Although securing these lands and conducting habitat enhancement on them likely contribute to the goal of conservation of habitat capability, it does not compensate for all loss. Secured lands provided some habitat capability prior to being secured as conservation lands and may offer some increase in capability after enhancements. To meet the additional requirements, a Wildlife Compensation fund (YVR Wildlife Compensation Fund or YVR Wildlife Stewardship Fund (YVR WSF)) was established to finance land stewardship activities on private lands in perpetuity. This fund (\$2.25 million) was granted to DF&WT which subsequently transferred it to the Vancouver Foundation as an endowment fund. Yearly returns from the fund are used to support core programs administered by DF&WT under the guidelines of the Memorandum of Agreement between Environment Canada and DF&WT established in 1995.

Boundary Shores Compensation Agreement

During the early 1990's the development of the Boundary Shores Golf Course just southwest of the Boundary Bay Airport caused a loss of farmland and wildlife habitat. Covering 153 acres of previously farmed land, the course removed approximately 39 acres of old-field and 90 acres of waterfowl winter grazing habitats. In 1990, the developers of the Boundary Shores Golf Course agreed to pay \$531,720 to the Corporation of Delta as part of a mitigation and compensation package. These funds were to be used as a conservation fund to purchase, lease, or manage land for wildlife habitat. Both the Canadian Wildlife Service (CWS) and British Columbia Ministry of Environment (MOE) suggested that the funds be used for the "replacement" of lost old-field and waterfowl grazing habitat. The comments of both government agencies were the basis of the Habitat Compensation Trust Agreement between the Corporation of Delta and the developers of the Boundary Shores Golf Course. Under the Habitat Compensation Trust Agreement, the developer and the Corporation of Delta agreed that the Municipality would transfer the funds to an existing or yet to be established entity whose objectives related generally to the conservation of the Lower Fraser delta ecosystem. Five specific objectives were identified. They were:

1. to compensate for and repair damage done to wildlife habitat resulting from land alienation in the delta floodplain by securing important habitat for wildlife in perpetuity through acquisition, easement, lease and other mechanisms;
2. to contribute to the permanent viability of the Boundary Bay ecosystem through co-operative habitat management programs with land owners, farmers, private citizens, non-government and government organizations;
3. to promote the long-term viability of agriculture in the Lower Fraser delta by developing programs that demonstrate and promote the

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compatibility of wildlife and agriculture;

4. to act as a catalyst for wildlife habitat conservation by developing links, agreements, programs and wildlife areas with groups and entities such as Agricultural Research Development Corporation, The Nature Trust of British Columbia, North American Waterfowl Management Plan, Delta Farmer's Institute, Ducks Unlimited Canada, Pacific Estuary Conservation Program and others; and
5. to serve as a repository and administrator of funds received from various sources that are intended for the conservation of the Lower Fraser delta ecosystem.

After submitting a Boundary Shores Compensation Management Plan Proposal to the Corporation of Delta in 2000, DF&WT received the initial compensation fund and transferred it to the Vancouver Foundation as a perpetual endowment. Yearly returns from the fund are used to support core programs administered by DF&WT under the guidelines of a written Agreement between the Corporation of Delta and DF&WT established in 2000.

Land Stewardship Programs

DF&WT has identified several areas where enhancement/conservation practices might be viable within land stewardship programs whose objectives are to: 1) contribute to soil and wildlife habitat conservation in the Lower Fraser River delta and 2) to potentially compensate for habitat capacity lost through human development in the greater ecosystem. Some of these practices increase habitat capability on farmland while others work to improve the capacity of the soil to produce crops, for agriculture and for wildlife. A variety of specific land stewardship programs have been developed, implemented and evaluated over the last 14 years. Most of these continue today, however some have been discontinued due, primarily to lack of funds to support them over the long term.

Currently, the Trust offers programs for Grassland Set-asides, Winter Cover Crops, Land Leveling, Field Liming and establishing new Hedgerows or Grass Margins. Under these programs landowners enter into formal agreements with DF&WT which lay out management practices on fields or field margins. In return farmers receive a cost share for managing identified fields or margins over the period of the agreement. This period is dictated by the particular field use or habitat enhancement being carried out as well as the farmers plan for crop rotations. During 2006/07, the Trust was able to fund a total of 4,620 acres (1,870 ha) of wildlife habitat and field improvements at a total cost share of \$336,567 excluding hedgerow maintenance and construction, staff time and administration costs (Figure 1, Table 1).

Table 1. Summary of stewardship program-acres and cost share transferred to farms for all DF&WT Land Stewardship Programs during the 2006/07 fiscal year.

Program	Acres	Hectares	Program Cost
Winter Cover Crops	2,871	1,162	\$129,173
Grassland Set-asides	503	204	\$126,063
Land Laser Leveling	339	137	\$ 36,435
Field Liming	897	363	\$ 43,049
Hedgerows	6.91	2.8	\$ 1,040
Grass Margins	2.69	1.1	\$ 807
Total	4,620	1,870	\$336,567

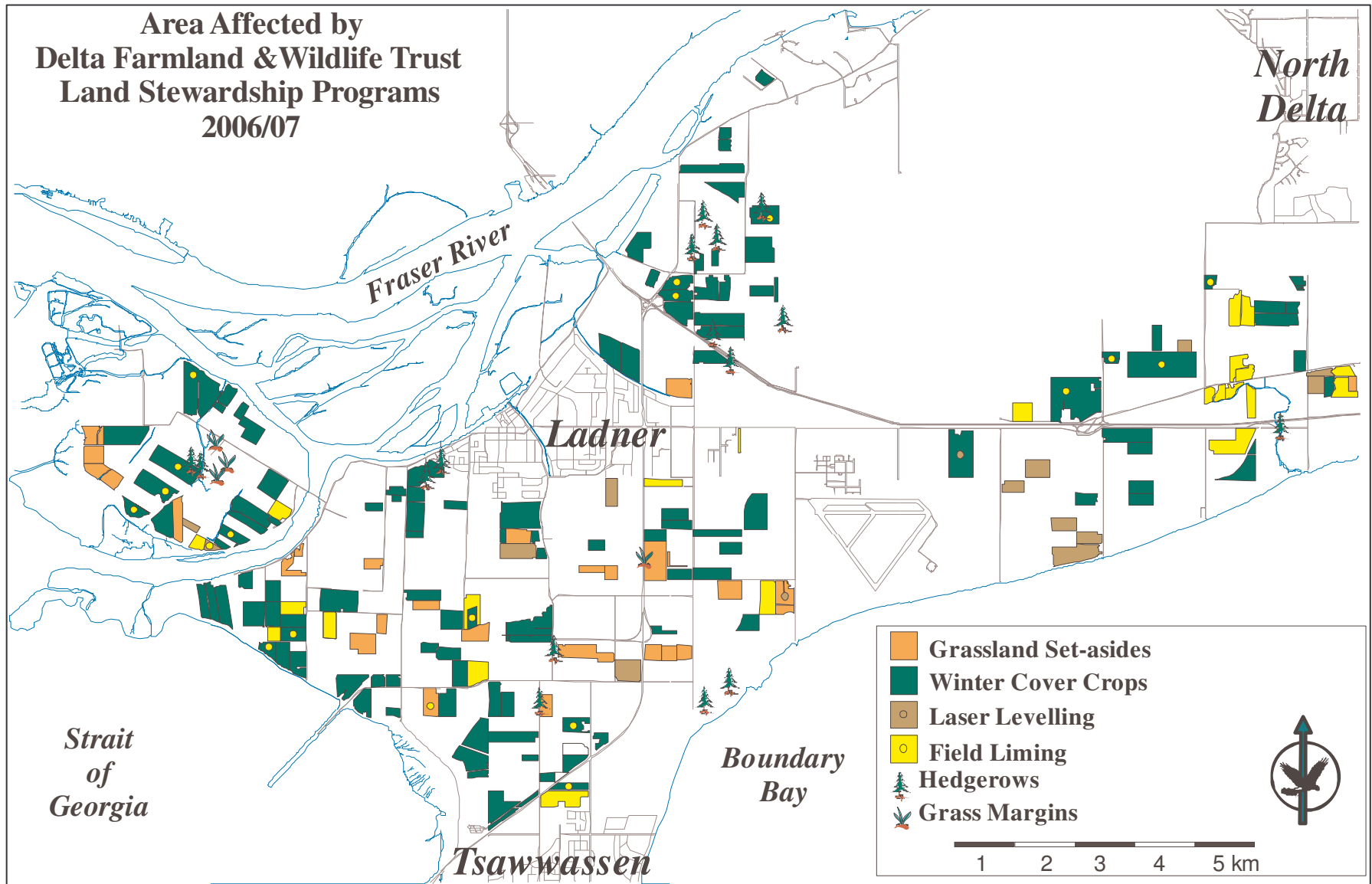


Figure 1. Area affected by 6 land stewardship programs through Delta Farmland and Wildlife Trust for the 2006/07 fiscal year.

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DF&WT believes that it is important to continue to study the impacts of these stewardship practices within an ongoing research program to ensure that objectives are being met and to provide information important to the adjustment of programs over time. Management practices used for soil, farm and wildlife conservation will need to be altered as agricultural systems and land-use patterns in the area change. Monitoring, evaluation and research continued on winter cover crops, grassland set-asides and hedgerows this year. Field work was completed on winter use of set-asides by raptors, small mammal winter densities in set-asides, songbird surveys along selected field margins and waterfowl grazing of winter cover crop fields.

Winter Cover Crops

Background

Cover crops can provide multiple benefits to farmland ecosystems. They play a dual role in soil management by providing ground cover to prevent erosion and organic carbon input to enhance soil quality. The organic residues from green manures also help to stabilize the soil structure, increase the water holding capacity of the soil, and increase the infiltration of moisture into the soil and percolation through the soil. Many of the fields in Delta are cropped year after year and can have their organic matter depleted over time. Winter cover crops can contribute valuable organic matter to these soils when they are ploughed down in the spring.

While directly improving soil health, cover crops can also provide many other environmental and ecosystem benefits. Use of cover crops can reduce farmer's dependence on chemical control of weeds and pests. They can reduce the amount of nutrients leaching from the soil profile by acting as a catch crop and reduce atmospheric greenhouse gases by sequestering carbon within plant biomass while the crop is growing and subsequently in soil organic carbon when the crops are ploughed under. They can also increase biodiversity levels across the landscape by supporting healthy communities of micro-organisms and invertebrates in the soil and providing valuable habitat to numerous wildlife species.

Cover crops may also lure waterfowl away from economically important crops in the landscape during critical periods. Between October and March, dense waterfowl populations stage in the area and in recent years and it has been shown that winter populations of trumpeter swans and lesser snow geese have been on the increase. Recent population trends are not available, although it is felt that over wintering duck numbers could be increasing as they short-stop during migration in the agricultural areas found in the Lower Fraser Valley and similar habitats in the Puget Sound area of Washington State, USA just to the south.

Although foreshore habitats contribute to supporting these waterfowl, agricultural uplands within the delta have, over several decades, become more important as feeding and resting areas for dabbling ducks, geese and swans, particularly during the extreme high tides and frequent storms typical of winter on the lower coast of BC.

The close juxtaposition of natural habitat, important bird management areas and active farmland has resulted in a significant conflict between waterfowl conservation and farming. Winter use of farmland by waterfowl has resulted in substantial damage to economically important crops. The most important crop affected by waterfowl is perennial forage. Crop damage caused by grazing waterfowl represents a considerable cost to many hay and dairy producers in the area. Minimizing damage to these economically important farm fields can be

partially achieved through the management of alternative foraging areas (AFA) in the landscape. Providing farmers with a cost share for establishing appropriate winter cover crops is a cost effective method of providing AFAs for waterfowl while at the same time contributing to soil conservation.

Program Summary

Prior to 1990 very few farmers in Delta planted winter cover crops and those that did, planted them with the intention of harvesting them as a cash crop the following year. The implementation of the Greenfields (Winter Cover Crop) program has dramatically increased the area planted with cover crops. Since then, an average of close to 2,800 acres (approximately 11% of the ALR in delta) has been planted annually (Figure 2).

During 2006/07, a total of 2,871 acres (1,162 ha) of winter cover crop were established by Delta farmers under DF&WT's program (Table 1, Figure 1, Appendix 1). Although weather during the harvest season was amenable to cover crop planting, late season harvest and cash crop composition limited planting. Several hundred additional acres had been seeded, however, they did not receive funding because broadcast seed was not adequately incorporated into the soil or fields were subsoiled well past cover crop germination affecting the quality of the cover crop. All other fields were funded at \$45/acre (\$111/ha) for every acre planted with cover crops under the guidelines established for the program.

Over half of the winter cover crop area planted this year consisted of spring barley planted before September 10 (52%). Winter wheat, planted primarily after September 10, was the next most abundant crop (24%). Oats, rye, spring wheat and timothy accounted for 24% of the area planted.

Monitoring and Evaluation

Field monitoring of cover crops occurred three times over the winter of 2006/07. Grazing surveys were conducted in November/December, February and March. Although surveys usually occur in January, it was necessary to postpone the mid-winter survey till February due to extremely wet and cold weather. Weather factors also resulted in the three survey periods being somewhat extended. Snow fall and frozen fields made surveys impossible for 2 weeks in December and 2 weeks in January.

During each survey, an observer walked through each field to visually estimate the proportion of field that was grazed by waterfowl as well

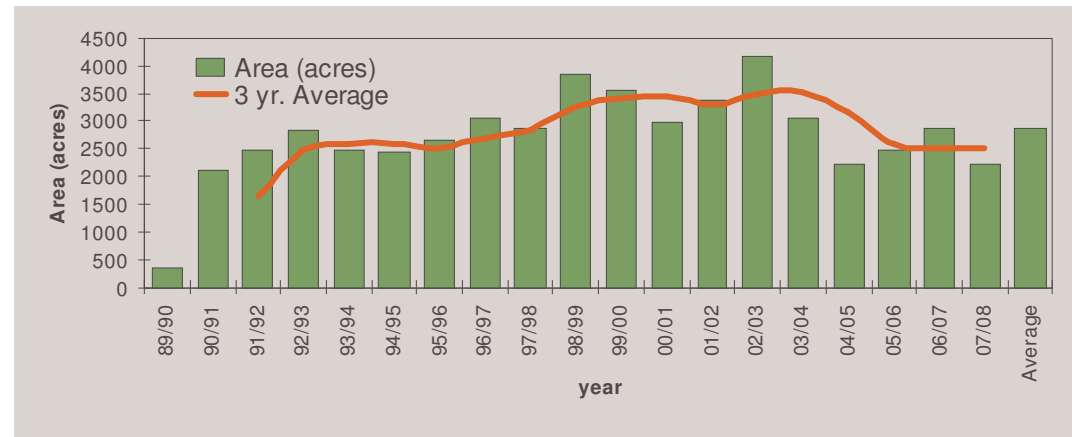


Figure 2. Annual winter cover crop acreage since implementation of the Greenfields Program in 1990.



Swans on winter cover crop. Flocks consist primarily of Trumpeter Swans but sometimes include Tundra Swans (red circle).



Advancing edge of a Snow Goose flock on a winter cover crop.



American Wigeon and Mallards feeding on an already short winter cover crop. Some fields are repeatedly grazed over the winter.

Figure 3. Examples of waterfowl using winter cover crops during the Winter of 2006/07.

as the intensity with which it was grazed (not grazed, partially grazed (evidence of waterfowl clipping vegetation), heavily grazed (half of crop plants grazed off), extremely grazed (cover crop stubble left), completely grazed (no evidence of cover crop left)).

Despite inclement weather, including 4 weeks of snow cover, waterfowl use of cover crops was significant during the winter of 2006/07. Swans, snow geese and mixed flocks of ducks were seen foraging on cover crops throughout the winter when not covered in snow (Figure 3). Early season grazing was moderate and by the end of winter (March 2007) 79% of 2,871 acres of cover crops showed evidence of grazing. Well over half was either extremely or completely grazed (Figure 4).

Timothy, winter wheat and barley were particularly vulnerable to waterfowl grazing with 100%, 82% and 86%, respectively, showing evidence of grazing by March. Spring wheat was remarkably untouched with only 25% being grazed by March.

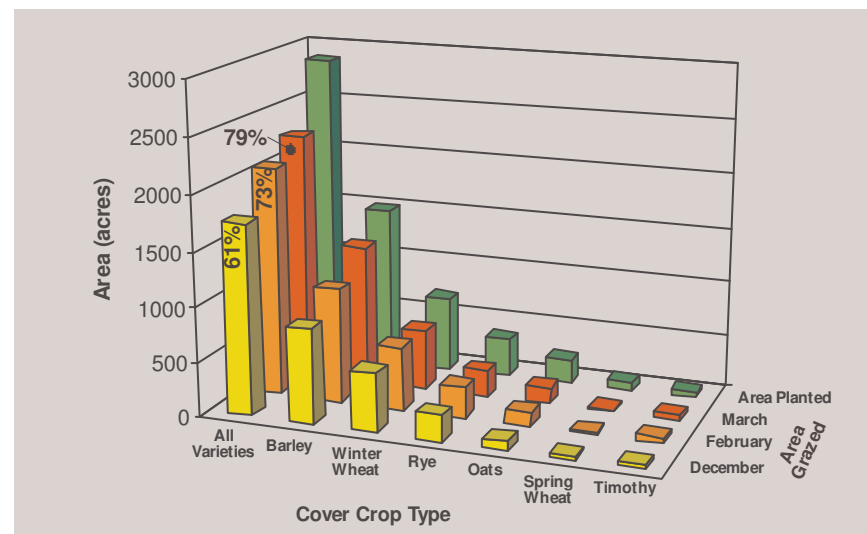


Figure 4. Total winter cover crop area compared to grazing extent during three winter surveys.

Oats and rye crops were moderately grazed at 66% and 69%, respectively. Despite extensive grazing, many fields still contained significant cover crop biomass allowing for incorporation of organic carbon after plough down. In one case a farmer was able to harvest grain from an ungrazed wheat cover crop field in late summer 2007.

Grassland Set-asides

Background

The nature of grasslands within Delta's landscape has changed over the last 150 years. Before European settlement most of the lowlands of Delta were covered in a grass or grass/shrub vegetation community (North and Teversham 1984). Conversion to farmland still provided medium- to tall-grass habitats in the early years when the majority of farmers produced primarily grain and grass crops. Since 1950, intensification of agriculture on the delta has resulted in a reduced area committed to grass and grain crops. Today, less than 25% of farmland in Delta is used for grass and grain crops and contemporary perennial forage fields are managed under highly intensive production schedules. Whereas hay fields would be cut once or, rarely, twice a year up until the middle of the last century, modern intensive silage and hay production systems yield up to 5 cuts a year resulting in short grass habitat for wildlife that require tall-grass or old-field habitat at critical times of the year.

Over the same period, urban and industrial development throughout the Lower Mainland has resulted in a reduction in old-field habitat and agricultural habitats containing old-field characteristics (Sullivan 1992, Moore 1990). Grassland dependent species in the lower mainland have been declining over the last 30 years as a result of changes in agricultural practices and conversion of habitat. It is recognized that old-field habitat is used preferentially by many raptor species that reside within or visit the delta (Butler and Campbell 1987, Sullivan 1992, Merckens 2005). Many of these species need the protective cover provided by tall grass as well as grassland dwelling small mammals as prey. The Townsend's Vole, a relatively large-sized native rodent, is an important component of grassland habitats in the Fraser lowlands and can reach high densities in grassland areas (Taitt and Krebs 1983, Sullivan 1992, Merckens 2005).

Data collected by the DFWT have shown that the re-introduction of short to medium term grassland rotations into farmland management plans can provide valuable habitat for a variety of grassland hawks and owls particularly during winter months (Merckens 2005). The provision of grassland set-asides is meant to benefit wildlife by providing some of the values encountered in old-field habitat. Grassland set-asides contain relatively dense populations of Townsend's Vole, which are utilized by many birds of prey, some of which are listed as being of conservation concern. The Short-eared Owl has been listed as an "Identified Wildlife Species" in British Columbia. This is based on recent population trends and habitat alteration throughout its range and particularly in its main wintering area on the Fraser River delta. It is Blue-listed in BC and is a species of Special Concern under the Federal Species at Risk Act (SARA). The western population of Barn Owls is also listed as a species of special concern under SARA. These species are just examples of the many grassland dependent species world-wide that have in recent years been declining in numbers, presumably due to intensification of agricultural systems (Newton 1998, Murphy 2003, Vickery *et al.* 2004). Among the factors contributing to the decline of bird habitat on farm grasslands are: spring ploughing, early season harvest, loss of mixed farms, and general declines in pasture and hay field area.

Increasing the relative value of some fields in an agricultural landscape for short periods can partially offset the effects of intensifying

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agricultural production systems. Some grassland raptor species use 2nd year or older set-asides on the Fraser River delta as their most preferred foraging and/or roosting habitat during winter months. Although literature suggests that old-field habitat is important to Short-eared Owls (British Columbia Ministry of Water, Land and Air Protection 2004) relatively short-term grassland habitats provide dense prey populations and suitable cover for wintering hawks and owls (Merkens 2005).

The use of grassland set-asides in crop rotation provides benefit to farming as well. The large-scale disappearance of livestock from the agricultural landscape and the increase in cultivated row crops has resulted in fewer opportunities to keep grass crops in rotation. By incorporating grassland set-asides into the rotation farmers have the opportunity to rebuild soil structure and fertility while receiving a cost share for providing important habitat. Improvement in farmland productivity following the set-aside fallow period can be significant, particularly for severely degraded soils.

In recent years, local farmers have been subscribing to the Grassland Set-aside program to bridge the transition period required for organic crop production. A three-year set-aside qualifies a field for organic certification provided that no prohibited substances or management practices were used during that period. In a recent analysis of set-asides over the last 8 years it was determined that between 15 and 20% of the area in set-asides is converted to organic systems after being ploughed under. The transition to organic agricultural production further benefits wildlife by reducing the degree of pesticide use that is potentially harmful to both wildlife and humans in the delta.

Program Summary

The management objectives of these set-asides are twofold: to contribute to soil conservation by improving soils for farming and to provide wildlife habitat. Growers are encouraged to introduce short to moderately long-term rotations of grass mixes into their farm operation. Under the program growers are responsible for all costs associated with planting and managing the crop, and receive \$300/acre/year for the first year and, subsequently, \$250/acre/year each year the land is adequately maintained in a grassland state. Growers can apply for up to 50 acres of grassland set-aside for up to four years. The cost share payment is reduced by half if the grower chooses to take one harvest of grain or hay in a given year. Growers may be asked to mow fields to improve grass growth and to reduce weed density.

A grass seed mix has been developed locally to meet the objectives of the Trust's Grassland Set-aside program. A nurse crop of barley, oats or annual ryegrass is sometimes used to reduce weeds and provide a beneficial microclimate for the other grasses to grow in. New seed mixes are being developed and tested for application on particularly poor soils that have salt problems.

The Trust has been involved in providing funding to farmers for cost sharing the establishment of grassland set-asides since 1994. On average 571 acres (231 ha), representing almost half of the available tall grass habitat existing on upland areas, has been supported by the program since 1996 (Figure 5).

Seventeen farming operations co-operated with DF&WT to maintain 25 fields totalling 502.5 acres (203 ha) of grassland set-asides for the 2006/07 fiscal year at an average cost share of \$250/acre (\$620/ha) (Table 1, Figure 1, Appendix 2). Of these, 9 fields (193.5 acres or 78 ha) were newly established set-asides. The sharp decline in set-aside area seen this year (from 571 acres in 2005/06) was the result of a significant reduction in annual funding from one of our funding partners. Rather than maintain the program at close to 600 acres, the

decision was made to temporarily reduce the acreage until more stable and diverse funding sources could be secured. An appeal for funding for set-aside funds was made during the year generating interest from local companies and individuals.

Due to funding constraints DFWT's Grassland Set-aside program is habitually oversubscribed. Our figures indicate that there is an interest from local farmers to commit an additional 200 - 300 acres (81-121 ha) to grassland set-asides if a funding source could be found. In fact, some larger farms have chosen to establish over 150 acres (60 ha) of grassland set-asides outside of the program to rebuild soil structure and productivity on lands that have been intensively used for vegetable production over the last decade. At the end of 2006/07 there were 287 acres (115 ha) on the waiting list.

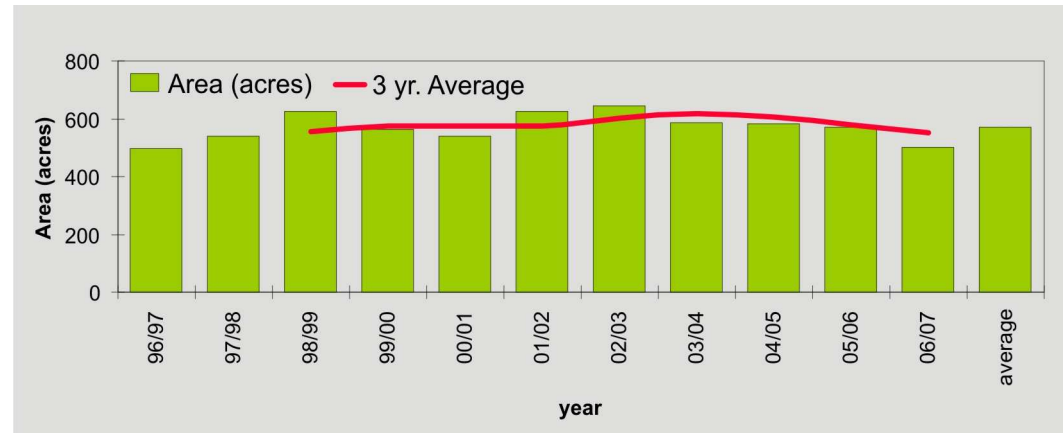


Figure 5. Annual area in Grassland Set-aside Program since 1996.

Monitoring and Evaluation

Winter surveys of small mammals and raptors continued within selected grassland set-asides and forage fields this year. The objectives of these surveys were to quantify: 1) relative densities of small mammals within these field types and 2) measure relative use of selected grass field types by wintering raptors.

Three replicates of first, second and third year set-asides as well as forage fields were selected between 72nd street and Brunswick Point for surveys over the winter. Trap lines consisting of 20 live-traps placed at 10-m intervals were placed in each field to establish relative density of small mammal species using mark-recapture techniques. Traps were left pre-baited with whole oats for a minimum of 3 weeks prior to the first trapping session. Although five 2-day trapping sessions were planned over the winter of 2005/06 only two trapping sessions were completed. October trapping sessions consisted of a two-night trapping session at each field site. Traps were baited and set on day one and then checked once per day on the following two days. The second trapping session was conducted in March, after water had adequately drained from the fields. In an effort to reduce shrew mortality, traps were set and checked twice between 8:00am and 4:00pm on two consecutive days, then locked open over night rather than conducting overnight trapping. All captured animals, except shrews, were identified to species in the field. Weight, sex and breeding condition were determined at each trapping event for all vole and mouse captures. All captured mice and voles were further tagged using serially numbered National Band and Tag 1005-1 ear tags.

Small mammal trapping was severely hindered by extended periods of high water tables and frozen fields over the winter. Trap capture rates for Townsend's Voles was low for most field types with some second and third year fields accounting for 85% of all captures (Figure

6). High water and long frost periods combined with significant waterfowl grazing on first year fields severely damaged many of the set-asides driving inhabitants from fields or to higher ground within the fields if available. Temperatures had fallen below zero twice for two week periods in December and January encasing some traps in as much as 20 cm of ice (Figure 7). Townsend's Voles were captured in only 3 of the study fields during the March trapping session. These fields still had adequate vegetative cover to support voles whereas most of the other fields had little thatch or low grass canopy left.

Shrews were primarily captured in second and third-year set-asides during the October trapping session. Capture rates in March were negligible although one shrew nest with five young was found in a trap box while setting traps on the RT3 site.

Raptor use was assessed within the same fields using three 60-minute field surveys over the winter months of 2006/07 (December, January and February). As with small mammal trapping, more surveys had been planned but extreme weather interfered with many of the surveys. During these 60-minute field watches, all raptor movements within the field areas were observed, characterized by location and behaviour and timed to the nearest second.



Figure 7. Second year set-aside covered in snow and ice mid-January 2007.

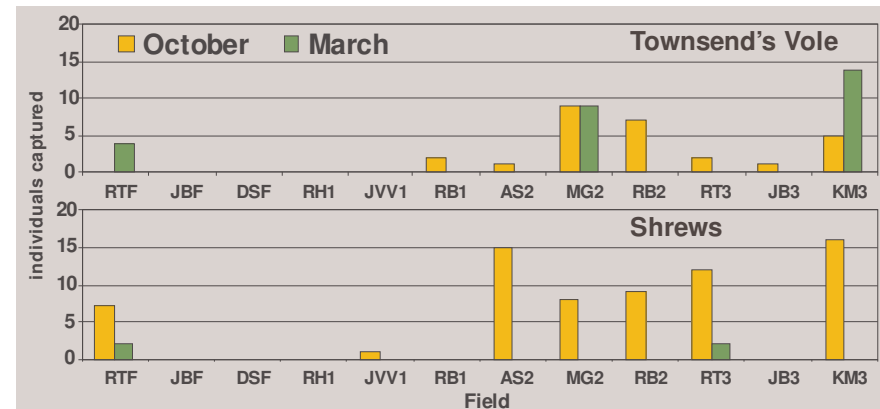


Figure 6. Vole and shrew captures for survey sites over winter of 2006/07. xxF fields represent forage fields, xx1, xx2 and xx3 represent 1st, 2nd and 3rd year set-asides.

Seven raptor species were recorded during surveys of set-asides and forage fields with Northern Harriers accounting for 73% of all observations (see Figure 8 for some of the species encountered). Other raptor species included Bald Eagle, Red-tailed Hawk, Rough-legged Hawk, Cooper's Hawk, Peregrine Falcon and Short-eared owls. Significant use of two set-asides (one 2nd year, one 3rd year) by Short-eared Owls and Rough-legged Hawks was noted near 41b Street. This area had a significant complex of forage and set-asides within the landscape which likely contributed to high use by these species.

Overall, harrier use of fields surveyed was low relative to data collected in some previous years but very similar to last year. This may be the effect of the poor weather encountered over much of the winter. Less than 1 minute of Harrier hunting/hour/acre (2.5 min/hour/ha) was observed during most field surveys across all age classes but several 2nd and 3rd year set-asides showed higher levels (Figure 8). Harrier use of second-year set-asides was highest in December

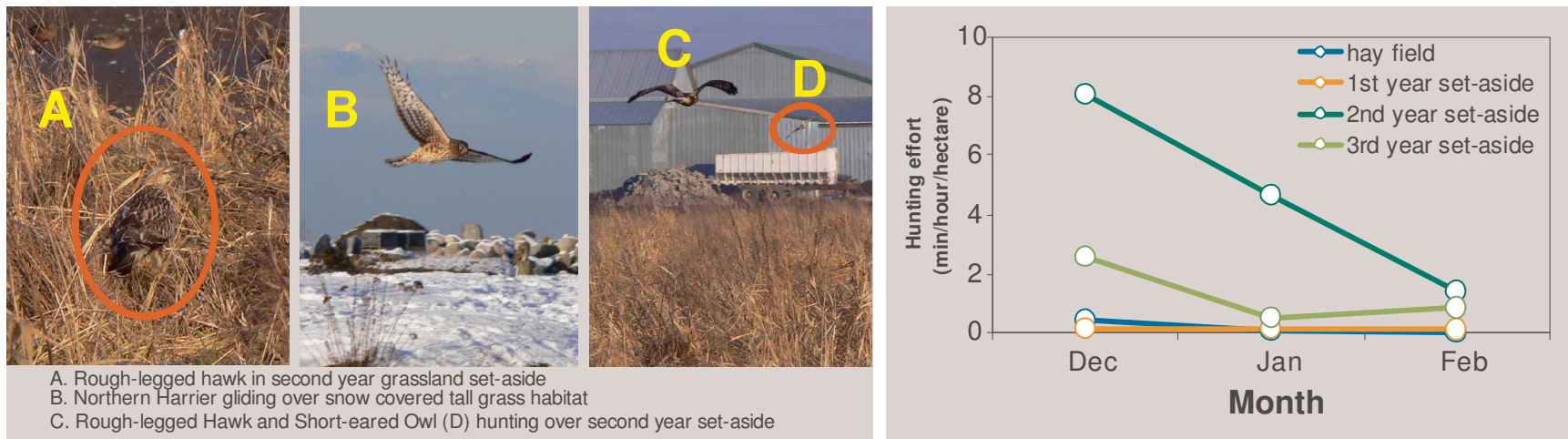


Figure 8. Examples of some raptor species using grassland set-asides (left) and comparison of Northern Harrier hunting effort between four grass field types (right) during the winter of 2006/07.

and then fell significantly into January and February. This is expected given that vole populations had declined to extremely low levels in set-asides over the winter.

Data collected from grassland set-asides during the winter of 2006/07 continue to show that these habitats are populated by Townsend's Voles and are used by raptors, particularly the Northern Harrier. Winter raptor habitat capacity of the Fraser River delta has undoubtedly been improved through implementation of the grassland set-aside program. During most winters grassland set-asides provide adequate cover and food resources for at least three species of grassland raptors based on data collected over the last decade. Were it not for the financial incentives provided to farmers by DF&WT, these fields may have remained bare or would have potentially remained in crop production instead of long term set-asides. Short-term set-asides (1 year) do not provide good wintering raptor habitat. It would be fair to say that the average habitat capacity has likely increased as a result of implementing the grassland set-aside program.

Hedgerow and Grass Margin Programs

Background

Hedgerows are linear barriers of trees, shrubs, perennial forbs and/or grasses usually associated with field boundaries. This simplistic definition fails to include the many functional roles that hedgerows can play in a landscape. A more complete definition could be: *"Hedgerows are linear strips of vegetation within arable landscapes. They induce many important abiotic properties, such as windbreaks and different microclimates, but also provide valuable biotic qualities such as habitats, refuges or stepping stones for small mammals, birds and invertebrates"* (Tischendorf et al. 1998).

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It is widely accepted that hedgerows are beneficial to many species of wildlife. Within an agricultural landscape hedgerows can provide food, offer concealment and thermal cover, provide breeding sites and can function as travel corridors connecting habitat fragments for many species of wildlife. In some areas, habitat provided by these structures has become extremely important in supporting wildlife communities, particularly breeding birds (Sparks *et al.* 1996). Worldwide, intensification of agriculture has resulted in the rapid loss of a significant amount of these important ecosystem components and many countries, particularly in Europe, have implemented agri-environment schemes to rebuild hedgerows. Under these programs, landowners receive payments for creating and maintaining hedgerows on their farms.

Like hedgerows, linear patches of grass habitat around cultivated fields can also provide benefit to wildlife and farming interests under certain situations. Grass margins will be used by small mammals, songbirds, raptors and insects. Some forms of agriculture (organic crop production) require field margins around cultivated areas and, if maintained as grass, these can choke out agricultural weeds and provide refuges for beneficial insects. Grass margins can also provide a transition between the agricultural field and the hedgerow or ditch habitats. They also improve the filtration of field run-off reducing the amount of soil, silt and excess nutrients that leach from a field. Farmer interest in this program has been limited to date; however, with the increase in organic production within the delta the area covered by grass field margins may also increase.

Program Summary

DFWT has been funding the establishment of new hedgerows and grass margins within Delta since 1995. The ultimate goal of this program is to build hedgerows that provide valuable year-round habitat for songbirds, raptors and other wildlife groups. New hedgerows typically consist of 1-5 m wide vegetation strips that include a diversity of native shrub and tree species that are intensively managed to develop into a structurally complex and species diverse hedgerow. Likewise, grass margins can be up to 5 m wide and of indefinite length.

Building hedgerows can be an expensive undertaking. Construction costs in Delta range from \$40,000 - \$60,000 per km. These costs include preparing the field margin for hedgerow placement, building a hedgebank or berm, purchase and planting of all plant material, installation of 3-4 year battery-operated, programmable irrigation systems, placement of a sawdust or bark mulch layer and a limited warrantee of 1 or 2 years for replacement of dead planting material.

DFWT hedgerow agreements with co-operators span 10 years and can be extended for a second 10-year term. During this time, the co-operator is compensated at a rate of \$300/ac/yr (\$741/ha/yr) for any land taken out of agricultural production for the purposes of establishing a hedgerow.

A combined area of 9.6 acres (3.89 ha) was affected by the program this fiscal year, consisting of 6.91 acres (2.8 ha) of hedgerow and 2.69 acres (1.1 ha) of grass margin (Figure 1, Appendix 5). There are now 16 distinct hedgerow sites and 3 grass margin sites within the program. One hedgerow co-operator chose not to renew their agreement at the end of the ten year original agreement. Although the hedgerow created under the agreement still stands, it is no longer included in our inventory, but will be monitored into the future.

DF&WT hedgerows require significant maintenance to ensure the survival of the planted stock and thereby maximum benefit to wildlife.

The greatest maintenance objective is the control of competing vegetation until the hedgerows become well established and shade out competing vegetation. A total of \$5,376 was used to support maintenance of DFWT hedgerows during this year.

One new hedgerow was completed this year at Grove Crest Farms adjacent to Burns Road (Appendix 6). The remaining 330 m of the planned 480 m of 2-m wide hedgerow was planted at this site at a cost of over \$21,000. Grove Crest Farms continues to maintain a 3-m grass strip between the hedgerow and cultivated field.

Monitoring and Evaluation

Continued monitoring of hedgerows created under the DFWT Farmscape Program will provide data necessary to document changes in bird use over time and, ultimately, measure the success of the hedgerow program. Some DFWT hedgerows are now over a decade old and are beginning to develop into complex structures with almost continuous closed shrub canopies in the 0-3 m height category. They are beginning to resemble some of the older mature hedgerows that already exist in Delta.

Spring breeding bird surveys conducted in 2006 continued to assess the development of the hedgerows, particularly with respect to increases in bird species richness. Bird surveys were conducted along 20 field margins found throughout Delta. These field margins were stratified into 4 basic groups: those having no “hedgerows” (control), those having young hedgerows established under the DFWT Farmscape Program (1-5 years old (new)), those having 6 to 9 year-old hedgerows developed by DFWT (old) and those having mature hedgerows likely 20 years old or older (mature). A total of 6 early morning (5:00 am to 9:00) surveys were completed over a six-week period at each site during breeding season (April to early June). Encounter transects were used to establish presence of species and rough estimates of relative abundance. For each bird detection, the species, detection type (call, song or visual), number of individuals, location within hedgerow and perching substrate were recorded. Surveys were discontinued if heavy rain, strong wind or excessive traffic (or farm machinery) had the potential to significantly reduce detectability of birds.

A total of 46 bird species were detected along surveyed field margins for all surveys combined during the 2006 breeding season. Species richness (number of species) (Figure 9) and for the most part overall relative abundance (total number of bird detections/ 100 m) (Table 2) of birds was highest in mature and “old” hedgerow margins relative to younger hedgerows and control sites. The increased structural and plant species diversity of the older hedgerows obviously attract a greater diversity of songbirds. Several of the mature hedgerows showing low plant species

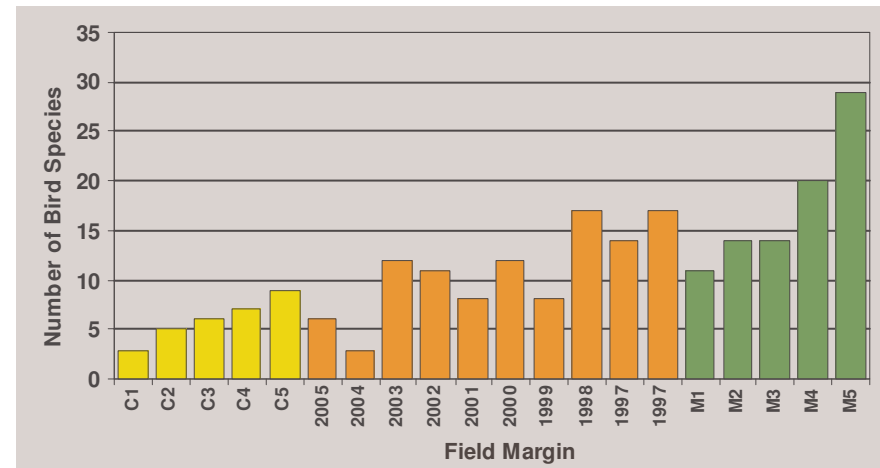


Figure 9. Bird species richness for 21 field margins surveyed during the 2006 breeding bird season. C sites are controls, numbered sites are DF&WT hedgerows indicating year of establishment and M sites are older mature hedgerow sites.

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Table 2. Relative density of birds (detections/visit/100m) for field margins surveyed in Delta during the 2006 breeding season

Site	Control					DFWT Hedgerows (Year of construction in parentheses)										Mature				
	1	2	3	4	5	(2005)	(2004)	(2003)	(2002)	(2001)	(2000)	(1999)	(1998)	(1997)	(1997)	16	17	18	19	20
Great Blue Heron				0.05		0.06								0.1						0.13
Blue-winged teal															0.03					
Green-winged Teal				0.1															0.09	
Gadwall					0.74										0.06					0.14
Mallard		0.12		0.62	0.89			0.21		0.25			0.12		0.31	0.18			0.19	0.43
Wood Duck				0.15											0.03	0.04			0.05	0.05
Bald Eagle																				0.03
Cooper's Hawk																			0.05	
Northern Harrier					0.07															
Red-tailed Hawk																			0.09	
Sharp-shinned Hawk										0.06										
Ring-necked Pheasant		0.06																		0.03
Killdeer				0.05																
Rufous Hummingbird												0.06			0.03		0.06		0.14	0.03
Wilson's Snipe																0.04				
Hutton's Vireo									0.12											0.05
Warbling Vireo																0.04	0.06			0.03
Northwestern Crow			0.1		0.07			0.49							0.21		0.5		0.05	0.13
Tree Swallow								0.14			0.08		0.03			0.04				0.03
Barn Swallow					0.07								0.03					0.06		
Black-capped Chickadee											0.23			0.1		0.21	0.06			0.18
Bushtit																0.17	0.06	0.05		0.49
Marsh Wren			0.02												0.06					
Golden-crowned Kinglet																			0.05	
Ruby-crowned Kinglet											0.08		0.08				0.12			0.03
American Robin				0.15					0.36	0.06	0.54	0.12	0.25	0.1	0.48	0.17	0.06	0.06	0.79	0.38
Eurasian Starling			0.1		0.07			0.28						0.25	0.33					
Cedar Waxwing													0.05						0.09	0.51
Orange-crowned Warbler					0.07			0.07			0.08	0.06		0.21			0.12		0.05	0.1
Yellow Warbler								0.07	0.12		0.08		0.05	0.1	0.03					0.13
Yellow-rumped Warbler													0.03				0.06	0.19		0.03
Common Yellowthroat	0.1	0.23	0.02			0.13	0.14	0.14	0.73	0.12	0.23	0.12	0.05	0.21	0.15		0.18	0.32	0.32	0.33
Wilson's Warbler													0.03				0.06			0.13
Spotted Towhee																	0.06			0.08
Savannah Sparrow	2.54	1.38	0.71	0.21	1.41	0.89	0.92	0.69	1.82	0.49	1.53	1.44	0.33	1.04	0.33		1.86	3.75	0.51	0.13
Song Sparrow			0.08					0.07	0.36	0.12	0.46	0.12	0.3	0.21	0.3	0.04	0.24	0.06	0.14	0.82
White-crowned Sparrow						0.13		0.14	0.73				0.05				0.42	0.19		0.05
Golden-crowned Sparrow								0.21	0.49		0.23		0.08	0.1				0.19	0.05	0.1
Dark-eyed Junco																			0.05	0.05
Red-winged Blackbird		0.12			0.37	0.03			0.36		0.15	0.86		0.1						0.08
Brewer's Blackbird						0.28									0.03		0.06			
Brown-headed Cowbird								0.21					0.05	0.63	0.06		0.06	0.09		0.08
House Finch									0.12	0.19			0.19	0.1	0.03		0.36	0.13		
American Goldfinch							0.14		0.36				0.05		0.12			0.38	0.09	
House Sparrow										0.12	0.15				0.09	0.04				0.03
Total	2.73	1.9	1.04	1.34	3.78	1.52	1.21	2.71	5.59	1.42	3.82	2.88	1.91	3.55	2.36	1.33	3.72	5.6	3.06	4.63

diversity but high canopy closure showed relatively high diversity but lower relative densities. This may be due to actual lower densities or a detectability bias. Warbler and sparrow density and diversity was higher in older hedgerow sites relative to most control sites and young hedgerows.

The new DF&WT hedgerows are still quite small in size with 1-3 year-old hedgerows being between 0.5 and 2 m in height and between 1 and 5 m in width. Although some of the mature hedgerows surveyed here are less than 30 years old, they have developed into structurally complex hedgerows with a well developed shrub layer, often in excess of 2 m, and an intermittent tall tree canopy (6-10m tall). Densely planted DF&WT hedgerows have been designed to develop, relatively quickly, into hedgerows exhibiting these characteristics. Increased density and diversity of trees and shrubs have been shown to increase density and diversity of songbirds in hedgerows.

Many factors contribute to the habitat value of hedgerows. Floristic composition and diversity, size (height, width, and volume), fragmentation, management practices, and nature of adjacent habitat all contribute to the relative value of individual hedgerows (Arnold 1983, Yahner 1983, Burel and Baudry 1990, Green *et al.* 1994, Parish *et al.* 1994, MacDonald and Johnson 1995, Parish *et al.* 1995). All of these factors likely have a larger combined effect than just hedgerow age considered here. Factors extrinsic to the hedgerow such as connectivity with other hedgerows, adjacency of grass strips, ditches, nearby woodlands, and the nature of bordering fields all potentially influence the bird communities that will use specific hedgerows (Hinsley and Bellamy 2000). These can not be controlled for in the relatively small sample size that we have used here.

The continued monitoring of bird use of DF&WT developed hedgerows will provide added data on the impact of these structures on the songbird habitat capacity of the delta over time. A more detailed study on hedgerow characteristics within the delta could provide information on how to plan and install more valuable bird habitat specific to the area in the future. The guidelines derived from assessing habitat models in the general literature are likely a good starting point, however more refined hedgerows could be developed with additional data on how they function specifically in the agricultural landscape found in the lower Fraser River delta. Intensive and extensive hedgerow surveys including many more variables than considered here would allow for bird community or species specific hedgerow management. Furthermore, surveys in the future could focus on which season is found to be most important to contributing to bird conservation. Breeding bird surveys may not be as important with respect to conservation goals if the hedgerows are more valuable as temporary habitat for migrant species traveling through the delta or those that winter in the delta. Local hedgerows typically house common species during the breeding season that are not of significant conservation concern.

Laser Levelling

The agricultural land found in the delta is protected by dykes, consists of heavy textured soil and is frequently affected by a high water table. Although the presence of water is beneficial for agricultural production at certain times of the year, too much water can lead to a decline in productivity. The topography of agricultural land plays an important role as it affects surface water runoff, erosion and soil drainage. As water flows across land it can carry away the finest particles, organic matter and nutrients thereby eroding soil fertility. Water movement and ponding can damage soil through erosion, soil compaction and/or concentrating salt in low spots.

Our Land Laser Levelling program shares in the cost of recontouring fields with farmers so that the impact of water erosion and standing

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water on fields is minimized. This in turn dries fields out more quickly and allows earlier access for planting in spring. Earlier access and planting dates give farmers more options on what to plant in their fields and also make it more likely that a cover crop can be planted on the field once the cash crop is harvested. Ultimately land levelling contributes to increasing productivity for both agriculture and wildlife.

Since 1996, Delta farmers have been eligible to receive 50% of the cost of laser levelling their fields up to a maximum of \$125/acre (\$309/ha) from DF&WT. Under the program up to 50 acres (20 ha) per co-operator per year is cost shared annually. All levelling agreements received prior to the end of October are included in the program in any given year. At the end of October, the approved budget is allocated so that every farmer who has submitted an agreement and has completed the levelling work will receive cost-share support.

A total of 339 acres (137 ha) of levelling was completed at 20 sites within Delta during 2006/07 (Figure 1, Appendix 3). A cost share of \$36,435 was committed to this. Fields affected by the program had an estimated average of 391 cubic yards of soil moved per acre (140 m³/ha) to facilitate field contouring for a total of almost 133,000 cu yd (102,000 m³).

Field Liming

In Delta the soils have a tendency to acidify relatively quickly. Farmers must work to maintain soil pH in a range that allows important plant nutrients to be available for their crops to absorb. Soil chemistry can be complex and must be matched to the crops to ensure optimum growth. The application of lime to fields allows farmers to adjust soil pH to approach a level that maximizes yield potential, particularly for vegetable crops. While many factors, such as the kind of crop, soil type, and climate, influence the effect of liming a field, it can be generally stated that the application of lime on all moderately to strongly acid soils will improve and maintain productivity.

At a cost of \$69 per tonne lime is an important investment in the stewardship of agricultural soils. In an economic climate of increasing farm input costs and high land values, the application of lime has become challenging for many farms in Delta. Forgoing lime application can result in declining productivity over time. The effect of lime is not always immediate. Often as much as six months is needed before pH changes significantly and long-term effects may be realized over as many as 10 years.

This is the fourth year that DF&WT has been able to offer a cost share for application of lime to soil. The intent of this program is to encourage growers to invest in field liming to improve the productivity of their lands and those that they rent/lease. Under the program applicants are allowed to apply for a maximum \$30/ton of lime applied to their fields. Restrictions within the program include a maximum of 100 tons per farming operation and a maximum application rate of 2 tons/acre.

In total, farms applied 1,435 tons of lime to 897 acres (363 ha) under the program. The maximum cost share of \$30 per ton was made available to applicants even though the program was significantly over subscribed.

Collaboration, Education and Communication

As a community based Society, DF&WT's activities are not limited solely to promoting land stewardship programs. DF&WT continues to work with other organizations to develop solutions to the conflicts between urban-, agricultural- and wildlife-use on the delta. In this regard,

Delta Farmland and Wildlife Trust

DFWT participates in important programs outside of the Trust's core programs. During 2006/07 we continued to participate on the Delta Forage Compensation Program Steering Committee; the BCIT Fish, Wildlife and Recreation Advisory Committee as well as relevant workshops and conferences as they come up. We offer access to applied lessons in land management to BCIT and UBC students through coordination of field exercises showcasing some of our land stewardship programs. DFWT also provides advice and shares data with organizations involved in the management of land in Delta as well as individuals or companies involved in conducting land development impact assessments. The GVRD contracted the Trust to design a replacement hedgerow north of the runway at the Delta Heritage Airpark. Data and expertise are also shared with undergraduate and graduate students working on theses at local colleges and universities.

DFWT recognizes that public education and communication are valuable to the successful implementation of farm stewardship programs and wildlife habitat conservation. DFWT actively participates and co-operates with government and non-government agencies to communicate the benefits of farm stewardship practices and wildlife habitat conservation. A variety of extension materials are maintained and updated, such as a regular newsletter (Farmland and Wildlife), a static display, program fact sheets, a regularly updated information pamphlet and, most recently, a website (www.deltafarmland.ca).

Public outreach organized by the Trust during 2006/07 included the first annual "Day at the Farm." The event, funded by a grant from Vancity along with sponsorship from Ducks Unlimited Canada (DUC), was a continuation of the Farmland Awareness Campaign launched last year. The overall goal was to give people living in the Lower Mainland an opportunity to reconnect with the land that feeds them and to learn about how these same lands provide habitat for many wildlife species. The message was clear: "Farmland Benefits Everyone."

Delta's agricultural community provided produce give-aways, livestock and farm machinery displays, hay baling demonstrations, beekeeping information and Gordon Ellis' hay wagon farm tours were particularly popular. DUC's "Mini Wildlife Theater" provided details on many of our stewardship programs and a dozen other agricultural and environmental groups set-up displays showing their work. It is estimated that between 1,000 and 1,500 people came out to the event and feedback was very positive.

DFWT staff continued to present lectures, slide shows and brief mini tours to local, regional and international organisations as well as post secondary institutions upon request or on DFWT's suggestion. As part of this, DFWT's biologist gave presentations/tours to:

- BC Waterfowl Society AGM (April 2006) – Waterfowl on the Delta: role of farmland and conservation.

- Tour with local Municipal Councilors to view programs and continuing conflicts (April 2006)

- World Urban Forum – Field Tour entitled Biting the Hand That Feeds You (June 2006)

- North American Colleges and Teachers of Agriculture Conference Field Tour (June 2006)

- Canadian Wildlife Service Seminar Series (October 2006) – The Importance of Tall-grass Habitat in one of Canada's most Significant IBA's and Suggestions for Conservation.

- UBC Agroecology 490 – Supporting non-market environmental goods and services provided by farms

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South Coast Conservation Program Workshop (February 2007) – Partners in Stewardship: managing agroecosystems to benefit species of conservation concern

The Trust also set up a display at the Pacific Agriculture Show in Abbotsford (February 2007). The display included an updated series of posters, interactive musical slideshow and a multiple choice computerized farmland bird quiz.

A broader audience has access to the newsletter. Two newsletters were produced in this last fiscal year (July and December 2006) (Appendix 8) and mailed to over 1,100 people on our main mailing list. Another means of dissemination is the creation of press releases and publication of information articles in local newspapers.

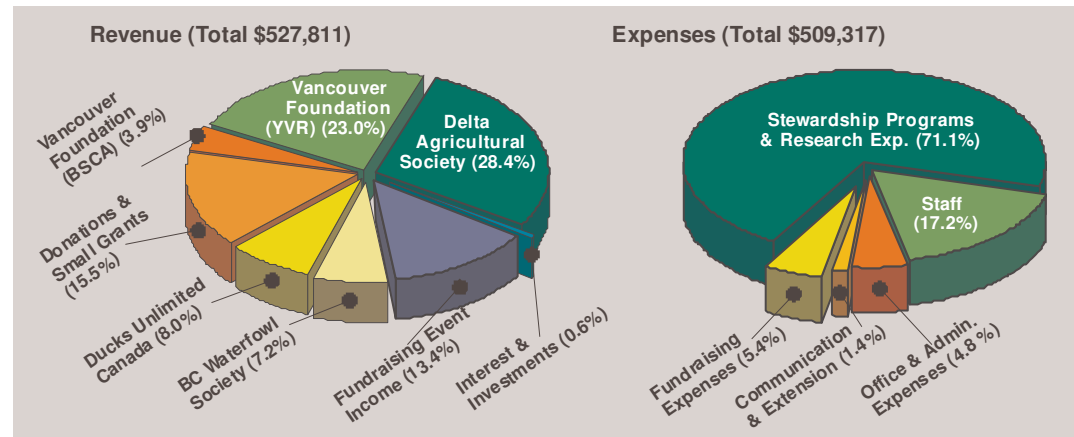
Financial Highlights

Revenues totalling \$527,811 during 2005/06 were 7.1% lower than last year at (See Appendix 8 and 9 for detailed financial statements). Once again, the Delta Agricultural Society provided the greatest single contribution to our programs accounting for 28% of revenue. Our two endowment funds held at the Vancouver Foundation provided total dividends of \$142,314 representing 23% of total revenue. The endowment income rose a respectable 19% over last year. The increase in dividends is primarily a result of a change in the payout structure for dedicated funds from the Vancouver Foundation which was increased from 5% to 5.5% of the value of the YVR Wildlife Stewardship Fund and the Partners in Stewardship Funds during 2006/07. In addition, the value of these two funds showed an 8% increase over the 2006 calendar year due to a general improvement in the economy. See Appendices 10 and 11 for details on the endowments including budget projections for the 2006/07 fiscal year.

Other major funding partners included BC Waterfowl Society and Ducks Unlimited Canada accounting for 15.7% of revenue. Their combined contribution was instrumental in supporting the winter cover crop program. The Corporation of Delta provided a grant of \$15,000 to support both the cover crop and grassland set-aside programs accounting for 2.6% of revenue.

Just under \$72,000 in revenue was raised during our Summer Solstice Fundraiser thanks to the generous donations of numerous supporters. Net revenue of over \$45,000 from the event represents discretionary funds that are important in meeting shortfalls in program costs and supporting office and staff costs. A core group of long-term individual private donors and some new supporters provided over \$16,000 over the year.

Once again, the majority of expenses went directly to Land Stewardship and Research Programs. Close to \$370,000 (71% of total expenses) was



used to share the cost of land stewardship with farming operations. Staff and office costs accounted for 22% of expenses. Our staff provide administration, coordination, extension, fundraising and research services important to the smooth operation of programs. Fundraising costs include special event costs, donor stewardship costs, and advertising costs.

The Future

Concerns

Worldwide climate change coupled with rising demand for agricultural crops for both food and energy are putting great pressure on farmland. The benefits of grassland set-aside programs initiated in various regions around the world in the 1980s and 90's are now in jeopardy of being lost due to changes in political priorities. For instance, as new subsidy programs for biofuel production displace Conservation Reserve Program lands in the United States and the UK set-aside program comes to an end, we may see a further decline in farmland birds and soil organic matter in the absence of proper crop rotations. These programs should not be abandoned but should be retained in new long-term rotations where temporary (4-10 year) set-asides are maintained in the landscape.

Agriculture in Delta is at a point when change is inevitable. New crops, new farmers, changes in the market place, loss of local crop processors, increasing regulations and impending changes in land use are all impacting the way farming is carried out in this Important Bird Area. Current developments in the planning and implementation phase have the potential to significantly impact the capacity of farmland to produce crops and support wildlife. In the next few years we will likely see the Agricultural Land Reserve in Delta shrink by at least 1,000 acres (4%). New transportation infrastructure will cover some of this and negatively affect the ability of some farmers to access their fields and move produce.

Through our experience in developing on-farm wildlife and soil conservation techniques for the Fraser River delta ecosystem we have identified a set of practices that specifically addresses some of the soil and wildlife habitat concerns related to upland farmland management. Although these appear to be providing the benefits that we anticipated at this point, changes in land-use and agricultural crops in the future may affect the magnitude of these benefits. As a greater area of crops that are incompatible with grassland rotations is established in the landscape, it will become difficult to expand our programs. It is imperative that society as a whole recognize the value of Delta grown vegetable crops not only as a source of high quality locally grown food, but also as a means of supporting other environmental benefits linked to diverse crop rotations.

Goals

The primary goal for the upcoming years will be to maintain or increase current stewardship programs. The greatest barrier to this objective is a shortfall of funding. In fact, it is likely that funding from current supporters will, temporarily, continue to decline over the next two years. Accordingly, DF&WT will be focusing expenditures on specific priority programs where possible and pursuing new funding sources.

Increasing public awareness of the benefit of farmland conservation will remain an important objective for the Trust. DF&WT will continue with its awareness campaign and search for funds to support the development of additional extension materials such as brief farmland

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related field guides and educational material for inclusion in school curricula. An important component of the extension programs will be introducing the public to farms through tours and open houses. “A Day at the Farm” will likely continue as part of this given the positive response during this year. The Trust will also be exploring the possibility of working with local farms and produce distributing organizations to develop a Buy Local brand that will be linked to the environmental benefits of supporting diverse agriculture within Delta.

DF&WT will be looking to develop new programs in response to agricultural change in the landscape. The Partners in Stewardship model will be used to identify new management tools, perhaps, for some of the crops that have become more economically important in recent years. New programs may include carbon sequestration, improved upland habitat for shorebirds, additional lure crops for wintering waterfowl, berry crop management systems and integrating programs within farms to maximize on-farm biodiversity. This will be a relatively long term process and new programs, once identified, may not be implemented immediately.

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Appendix 1. Details of Winter Cover Crop Agreements for the winter of 2006/07

Contract	Farm Name	Area (acres)					Total	#of fields
		barley	oats	rye	spring wheat	timothy		
WCC06-01	Canoe Pass Farms Ltd.		14		81.5	51.5	44.5	10
WCC06-02	K. Ming Farm	24					24	2
WCC06-03	Delta Pride Farms		11.5				11.5	1
WCC06-04	Neveridle Dairy Farm Ltd			18			18	1
WCC06-05	Bow Chong Farm Ltd	30					30	1
WCC06-06	Suki S Badh Farms		75				75	1
WCC06-07	Jowkema Enterprises Ltd.	67					67	4
WCC06-08	Warren Nottingham						24	1
WCC06-09	Sohi Blueberry Farm						15	1
WCC06-10	Zellweger Farms						140	9
WCC06-11	Featherstone Farms Inc						40	1
WCC06-12	Davie Farms						14.5	1
WCC06-13	Felix Farms Ltd.	168	62				230	14
WCC06-14	Dhaliwal Farms Ltd.	20					20	1
WCC06-15	J & M Farms	15					15	1
WCC06-16	Del Cory Farms	106					106	1
WCC06-17	Fraserland Farms	479					479	23
WCC06-18	R&D Sherrell	66					66	3
WCC06-19	Tecarte Farms		4	17			26	4
WCC06-20	Snow Farms						25	1
WCC06-21	Emma Lea Farms Ltd.		33				32	5
WCC06-22	Reynelda Farms	45					85	3
WCC06-23	Kamlah Farms Inc.		20				20	2
WCC06-24	Hothi Farms Inc.	240		121			361	9
WCC06-25	Martiann Holsteins			86			86	3
WCC06-26	Westcoast Instant Lawns			58			58	2
WCC06-27	Grove Crest Farms Ltd.	72					134	7
WCC06-28	Ed Mckim Farms Ltd.	44					44	3
WCC06-29	DJM Farms						100	1
WCC06-31	R. Newman and Sons	110		52			162	4
Grand Total		1486	219.5	352	81.5	51.5	680	120

Appendix 2. Details of Grassland Set-aside Agreements for 2006/07

<i>Agreement</i>	<i>Farm Name</i>	<i>Est. year</i>	<i>Measured area</i>	<i>Harvested</i>	<i>Mowed</i>
GLSA03-02	Kamlah Farms Inc	2003	28	0	0
GLSA03-05	Stuart and Naomi Evans	2003	15	0	0
GLSA03-08	Delta Pride Farms	2003	7	0	0
GLSA03-09	Fraserland Farms	2003	4	0	0
GLSA04-01	Fraserland Farms	2004	10	0	0
GLSA04-02	Fraserland Farms	2004	25	0	0
GLSA04-03	Canoe Pass Farms	2004	16	0	0
GLSA04-05	Tecarte Farms	2004	20	0	0
GLSA04-06	R&M Townsend	2004	40	0	0
GLSA05-01	Zellweger Farms	2005	21	0	0
GLSA05-02	Dhaliwal Farms Ltd.	2005	25	0	0
GLSA05-03	Mike Guichon Ltd	2005	20	0	0
GLSA05-05	Burr Farms Ltd	2005	28	0	0
GLSA05-05	Burr Farms Ltd	2005	10	0	0
GLSA05-06	Hothi Farms Inc	2005	30	0	0
GLSA06-01	Zellweger Farms	2006	29	0	0
GLSA06-02	Reynelda Farms	2006	40	0	0
GLSA06-03	Burr Farms Ltd	2006	12	0	0
GLSA06-04	Hothi Farms Inc	2006	10	0	0
GLSA06-05	John van der Velde	2006	20	0	0
GLSA06-06	Fraserland Farms	2006	11	0	0
GLSA06-07	Felix Farms	2006	10	0	0
GLSA06-08	W&A Farms	2006	10.5	0	0
GLSA06-09	Tecarte Farms	2006	26	1	0
GLSA06-10	Grove Crest Farms	2006	35	0	0
			502.5		

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Appendix 3. Details of Land Laser Levelling Agreements for 2006/07

<i>Agreement</i>	<i>Farm name</i>	<i>Total acres eligible</i>	<i>Est. cuyd moved</i>	<i>Est. cuyd/acre</i>
LL06-01	Delta Pride Farms Ltd	24	11,300	471
LL06-02	Emma Lea Farms	18	1,500	83
LL06-03	Sohi Blueberry Farm	20	1,000	50
LL06-05	Suki S Badh Farms	50	54,000	794
LL06-06	Burr Farms Ltd.	25	4,314	173
LL06-07	Eagle View Farms Ltd.	48	11,520	240
LL06-08	Avtar Gosal	25	9,350	374
LL06-09	Felix Farms	25	8,750	350
LL06-10	Fraserland Farms	28	12,659	451
LL06-12	Chahal Farm	16	4,000	248
LL06-13	Davie Farm	27	7,000	196
LL06-14	Joe Vaupotic Farms	33	7,260	220
Total		339	132,653	
Average				304

Appendix 4. Details of Field Liming Agreements for the 2006/07 Fiscal Year

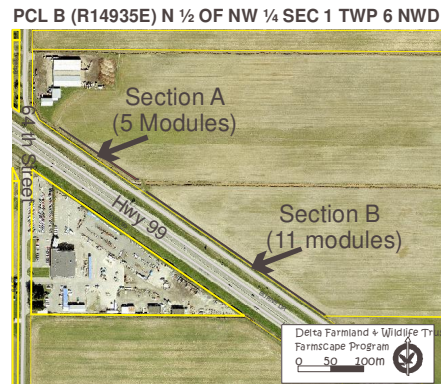
<i>Agreement</i>	<i>Farm name</i>	<i>area applied for (acres)</i>	<i>eligible area (acres)</i>	<i>application rate (tons/acre)</i>	<i>eligible application rate (tons/acre)</i>	<i>total eligible tonnes</i>
FL06-01	Emma Lea Farms	53	53	1.86	1.86	98.36
FL06-02	Neveridle Farm Ltd.	25	25	2.15	2.00	50.00
FL06-04	Fraserland Farms	13	13	1.99	1.99	25.90
FL06-05	Delta Pride Farms	78	78	2.01	2.00	100.00
FL06-07	Burr Farms Ltd	31	31	2.02	2.00	62.00
FL06-08	Del Cory Farms	46	46	2.17	2.00	92.00
FL06-09	J&M Farms	37	37	1.68	1.68	62.01
FL06-10	Felix Farms	55	55	2.32	2.00	100.00
FL06-11	Snow Farms	58	58	1.98	1.98	100.00
FL06-12	Zellweger Farms	66	66	2.01	2.00	100.00
FL06-13	DJM Farms	100	100	1.04	1.04	100.00
FL06-14	Gill Farm	24	24	3.39	2.00	48.00
FL06-15	Grove Crest Farms	54	54	1.99	1.99	100.00
FL06-16	Ed McKim Farms Ltd.	80	80	1.03	1.03	82.70
FL06-17	R. Newman and Sons	50	50	2.14	2.00	100.00
FL06-18	Dhaliwal Farms Ltd	40	40	1.50	1.50	60.00
FL06-19	K. Ming Farm	60	60	3.18	2.00	100.00
FL06-20	Tecarte Farms	27	27	2.00	2.00	54.00
<i>Total</i>		<i>897</i>	<i>897</i>			<i>1,435</i>
<i>Average</i>				<i>2.03</i>	<i>1.84</i>	







Appendix 5. Details of Grass margin and Hedgerow Agreements for the 2006/07 Fiscal Year

	COOPERATOR	year est.	WIDTH (m)	LENGTH (m)	AREA (ac)	FIELD LOCATION	Tree Species	Shrub Species
Grass Margins	Ian and Micheline Cameron	1996	4	225	0.22	Tamboline Rd.	N/A	N/A
	Don Cameron	1999	3	290	0.22	Tamboline Rd.	N/A	N/A
	Fraserland Farms	2005	8	1140	2.25	3643 64th Street	N/A	N/A
	SUBTOTAL				2.69			
Hedgerows	Jack Van Dongen	1996	3	50	0.04	4769 112 St.	4	0
	Casey Houwelling	1997	10	185	0.46	2776 64th Street	12	14
	Casey Houwelling	2002	3	230	0.17	2777 64th Street	5	7
	Don Campbell	1998	7	615	1.06	6432 64th Street	6	10
	Donald and Beryl Cameron	1996	3	225	0.17	Tamboline Rd.	4	0
	John and Maureen Malenstyn	1995	varied	varied	1.15	6556 60th Ave.	9	4
	Ian and Don Cameron	1999	2	300	0.15	Tamboline Rd.	6	12
	Ian and Micheline Cameron	1996	3	560	0.41	Tamboline Rd.	5	0
	Laurence Guichon	1997	12.5	470	1.45	4302 River Road	17	20
	Laurence Guichon	2001	5	270	0.33	4302 River Road	5	7
	Laurence Manning	1999	2	620	0.31	5280 64th St	6	8
	Nottingham Farms Ltd.	1997	3	188	0.14	6720 60th Ave	1	2
	Roland and Sharon Embree	1997	2	460	0.23	6466 68th St.	2	0
	Stuart and Naomi Evans	2004	3	228	0.17	2680 52nd Street	8	10
	Bob and Marilyn Townsend	2003	1.5	190	0.07	3028 Arthur Drive	5	7
	Grove Crest Farms	2005	5	150	0.19	5628 64th Street	2	5
	Grove Crest Farms	2006	5	330	0.41	5628 64 th Street	2	5
	SUBTOTAL				6.91			
	TOTAL				9.60			

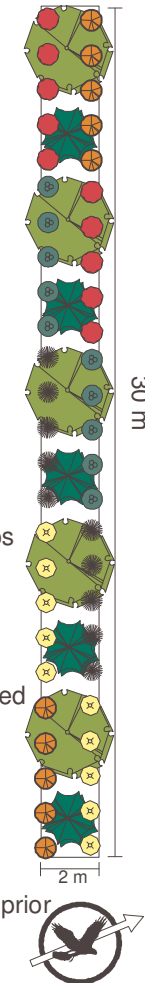
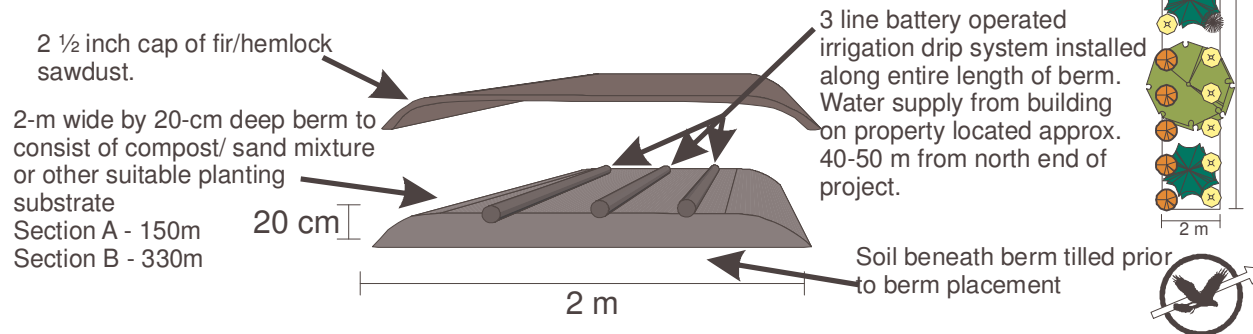
Appendix 6 Farmscape Construction Projects

Trevor Harris Hedgerow Design - Spring 2005 5628 64th Street, Delta, B.C.



-  Red Alder (*Alnus rubra*)
-  Western Red Cedar (*Thuja plicata*)
-  Red Elderberry (*Sambucus racemosa*)
-  Nootka Rose (*Rosa nutkana*)
-  Beaked Hazelnut (*Corylus cornuta*)
-  Tall Oregon Grape (*Mahonia nervosa*)
-  Sitka Willow (*Salix sitchensis*)

Each 30-m section (module) consist of 5 Red Alder (*Alnus rubra*) and 5 Western Red Cedar (*Thuja plicata*) planted alternating at approximately 3-m intervals centered on the berm. In addition, five groups of five shrubs to be planted in a straight line at 1.2-m spacing on either side of the central tree row.



Appendix 7. Farmland and Wildlife – Newsletter of the Delta Farmland and Wildlife Trust

Appendix 8. Detailed Financial Statement for the Delta Farmland and Wildlife Trust for the 2006/07 Fiscal Year

Schedule	Projects Fund (restricted)								General and Capital Asset Fund (unrestricted)						
	Farmscape Program	Grassland Set-asides	Winter Cover Crops	Laser Levelling	Field Liming	Monitoring and Evaluation	Wildlife Coordinator	Agriculture Coordinator	Administration	IAF Debt	Communication and Extension	Special Events	Donations	Capital Assets	Total
Revenue															
Vancouver Foundation (YVR)	6,077.57	64,422.23				1,823.26	28,564.59	6,077.56	12,155.15		2,431.03				121,551.39
Vancouver Foundation (BSCA)		8,305.22	8,305.22				2,076.31	1,370.36	705.94						20,763.05
Delta Agricultural Society (DAS)		37,194.50	23,321.32	36,435.08	43,049.10				10,000.00						150,000.00
B.C. Waterfowl Society (BCWS)			37,867.50												37,867.50
Ducks Unlimited Canada (DUC)			42,132.50												42,132.50
General Funding							4,000.00		40.23				200.00		4,240.23
Day at the Farm Sponsorship											1,000.00				1,000.00
Donations												1,975.00	16,515.00		18,490.00
Restricted Donation		32,000.00	15,270.00				2,000.00		2,000.00				5,150.00		56,420.00
Interest Income									1,698.85						1,698.85
Investment Income													1,293.90		1,293.90
BBQ Income												70,655.00			70,655.00
Total Revenue	6,077.57	141,921.95	126,896.54	36,435.08	43,049.10	1,823.26	36,640.90	7,447.92	26,600.17	0.00	3,431.03	72,630.00	23,158.90	0.00	526,112.42
Expenses															
Remittance to Co-operators	1,846.59	126,062.50	129,172.50	36,435.08	43,049.10										336,565.77
Accounting									2,695.96						2,695.96
Newsletter											3,748.11				3,748.11
Display Updating											348.90				348.90
Bank Charges									442.70						442.70
Postage									351.93		25.96				377.89
Courier, Delivery, Freight									35.54						35.54
Memberships (LTA, DCC)									367.58						367.58
Meetings									169.81						169.81
Advertising											78.28	281.75			360.03
Event Participation											1,081.25				1,081.25
Insurance									3,139.00						3,139.00
Legal (incl. Annual report subm.)									25.00						25.00
Program Materials and Supplies	212.41		52.48			413.92					1,169.59				1,848.40
Reports											192.39				192.39
Office Services (water, internet)									374.98						374.98
Office Co-ordinator (Wages)									21,935.09						21,935.09
Office Supplies									2,758.21						2,758.21
Wages							59,224.32	2,012.38							61,236.70
Rent									11,705.69						11,705.69
Board Recognition									534.54						534.54
BBQ Cost												27,204.19			27,204.19
Telephone									1,388.35						1,388.35
Travel/Mileage	114.62		230.36			461.88			141.80		736.55	110.24			1,795.45
Farmscape Construction	18,941.64														18,941.64
Farmscape Maintenance	5,375.96														5,375.96
EI contributions							1,032.62	51.52	570.92						1,655.06
CPP contributions							1,923.36	51.05	919.77						2,894.18
WCB									118.15						118.15
Total Expenses	26,491.22	126,062.50	129,455.34	36,435.08	43,049.10	875.80	62,180.30	2,114.95	47,675.02	0.00	7,381.03	27,596.18	0.00	0.00	509,316.52
Net Income (Loss)	-20,413.65	15,859.45	-2,558.80	0.00	0.00	947.46	-25,539.40	5,332.97	-21,074.85	0.00	-3,950.00	45,033.82	23,158.90	0.00	16,795.90
Interfund Transfers		-1,558.80	1,558.80				25,539.40	-5,332.97	21,074.85		3,950.00	-45,231.28			0.00
Fund Balances - Beginning	27,402.68	34,943.25	0.00	0.00	0.00	376.16	0.00	0.00	-1,071.00	-38,000.00	0.00	30,598.07	69,105.57	3,262.00	126,616.73
Fund Balances - End	6,989.03	49,243.90	-1,000.00	0.00	0.00	1,323.62	0.00	0.00	-1,071.00	-38,000.00	0.00	30,400.61	92,264.47	3,262.00	143,412.63
Accounts Receivable			1,000.00												1,000.00

Notes for Detailed Financial Statement –

Revenue Sources :

Vancouver Foundation (YVR) – Revenue from endowment held at the Vancouver Foundation. The result of habitat compensation funds from Transport Canada for the development of the third runway at Vancouver International Airport.

Vancouver Foundation (BSCA) - Revenue generated by an endowment held at the Vancouver Foundation originally awarded to DFWT was the result of habitat compensation funds from Ahoy Industries for the development of a golf course on farmland adjacent to Boundary Bay.

Delta Agricultural Society - Annual contribution based on proposal submitted by Delta Farmland and Wildlife Trust

BC Waterfowl Society - Annual contribution based on proposal submitted by Delta Farmland and Wildlife Trust

Ducks Unlimited Canada - Annual contribution based on proposal submitted by Delta Farmland and Wildlife Trust

Program/expense Schedules:

Farmscape Program – Stewardship program consisting of hedgerow and grass margin installation.

Grassland Set-asides – Stewardship program consisting of the establishment and maintenance of grassland set-asides

Winter Cover Crops - Stewardship Program consisting of the establishment and maintenance of winter cover crops

Laser Levelling – Land Laser Levelling Stewardship Program

Field Liming - Cost share program to support field liming in Delta

Monitoring and Evaluation – Expenses related to conducting Wildlife Monitoring and Evaluation activities. These activities consist of scientific studies on the effect of DFWT's land stewardship programs on wildlife communities. Expenses do not include staff time. These are reported under schedules Wildlife Coordinator and Agriculture Coordinator.

Wildlife Coordinator – Wages paid to DFWT's full-time wildlife biologist. Covers administration and coordination of stewardship programs, extension activities, wildlife research (monitoring and evaluation), fundraising activities and participation in various steering and advisory committees related to DFWT's activities.

Agriculture Coordinator – Wages paid to DFWT's agriculture coordinator who, at the moment, is on part-time contract to DFWT. Covers administrative duties related to selected stewardship programs and research into waterfowl use of winter cover crops.

Administration – Costs related to the administration of DFWT's activities. These include office rent, office supplies, computers, accounting, insurance, legal costs, general office expenses and the wages for DFWT's part-time office coordinator.

Investment Agriculture Foundation (IAF) Repayment – This schedule was set up to repay a grant given to DFWT by the IAF to establish a formal fundraising program in 1999. The formal program was discontinued in 2000 due to inadequate return.

Communications and Extension – All costs linked directly to extension (education and outreach) programs. These include newsletter costs, display costs, and expenses related to attending conferences or activities where DFWT's display is set up.

Special Events Fundraising – On occasion DFWT will organize special events for the express purpose of fundraising. Revenue and expenses for these activities are tracked under this schedule. Funds generated from these events are also reallocated to other Schedules when necessary.

Donations- this schedule tracks "unsolicited" donations that come, usually by mail, into DFWT's office. Funds generated here are reallocated to other Schedules when necessary.

Appendix 9. Summarized Statement of Financial Position – March 31, 2007

<i>ASSETS</i>	
<i>Cash</i>	<i>22,229</i>
<i>Term Deposits</i>	<i>87,161</i>
<i>Contribution receivables</i>	<i>1,000</i>
<i>GST Receivable</i>	<i>2,090</i>
<i>Investments – at cost</i>	<i>112,480</i>
<i>Equipment</i>	<i>4,837</i>
<i>TOTAL</i>	<i>184,249</i>
<i>LIABILITIES</i>	
<i>Accounts payable</i>	<i>0</i>
<i>Payroll liabilities</i>	<i>2,119</i>
<i>Grant repayable – current year</i>	<i>0</i>
<i>Grant repayable – long term</i>	<i>38,000</i>
<i>TOTAL</i>	<i>40,119</i>
<i>NET ASSETS</i>	<i>144,130</i>

Appendix 10. YVR Wildlife Stewardship Fund Update

Vancouver Foundation - Statement of Fund Activity

Established: April 5, 1995

Statement for January 1, 2006 Through December 31, 2006

<i>YVR Wildlife Stewardship Fund</i>	<i>Market Value</i>	<i>Contributed Principal</i>	<i>Income</i>
<i>Beginning Balance as of January 1, 2006</i>	<i>\$2,597,563.09</i>	<i>\$ 2,250,000.00</i>	<i>\$ 28,123.05</i>
<i>Contributions Received</i>		<i>\$ -</i>	<i>\$ -</i>
<i>Income (See Schedule C below)</i>			<i>\$121,551.39</i>
<i>Distribution (See Schedule D below)</i>			<i>(\$117,109.55)</i>
<i>Ending Balance as of December 31, 2006</i>	<i>\$2,804,895.15</i>	<i>\$ 2,250,000.00</i>	<i>\$ 32,564.89</i>

No. of units @ December 31, 2006: 151,288.68

Unit Value @ December 31, 2005: \$17.1696

Unit Value @ December 31, 2006: \$18.5400

Schedule C – Income

<i>Date</i>	<i>Description</i>	<i>Amount</i>
<i>03/31/2006</i>	<i>Income Allocated to Fund</i>	<i>\$ 28,407.48</i>
<i>06/30/2006</i>	<i>Income Allocated to Fund</i>	<i>\$ 28,513.38</i>
<i>09/30/2006</i>	<i>Income Allocated to Fund</i>	<i>\$ 32,065.64</i>
<i>12/31/2006</i>	<i>Income Allocated to Fund</i>	<i>\$ 32,564.89</i>
	<i>Totals:</i>	<i>\$ 121,551.39</i>

Schedule D – Distribution

<i>Date</i>	<i>Grantee/Purpose</i>	<i>Amount</i>
<i>02/01/2006</i>	<i>Delta Farmland and Wildlife Trust Endowment Income</i>	<i>\$ 28,123.05</i>
<i>05/02/2006</i>	<i>Delta Farmland and Wildlife Trust Endowment Income</i>	<i>\$ 28,407.48</i>
<i>08/02/2006</i>	<i>Delta Farmland and Wildlife Trust Endowment Income</i>	<i>\$ 28,513.38</i>
<i>11/01/2006</i>	<i>Delta Farmland and Wildlife Trust Endowment Income</i>	<i>\$ 32,065.64</i>
	<i>Totals:</i>	<i>\$ 117,109.55</i>

Delta Farmland and Wildlife Trust

Use of YVR Wildlife Stewardship Fund Endowment Income and Net Assets for Fiscal year 2006/07

Note: Reporting period different than for YVR Wildlife Stewardship Fund Statement of Fund Activity on previous page

	Budget	% of	Actual	% of Actual
	2006/07	Budget	2006/07	
<i>Revenues:</i>				
<i>Vancouver Foundation - YVR WSF</i>	<i>\$113,450.00</i>		<i>\$121,551.39</i>	
<i>Revenue Total</i>	<i>\$113,450.00</i>		<i>\$121,551.39</i>	
<i>Expenses:</i>				
<i>Farmscape</i>	<i>\$ 5,672.50</i>	<i>5</i>	<i>\$ 6,077.57</i>	<i>5</i>
<i>Grassland Set-asides</i>	<i>\$ 60,128.50</i>	<i>53</i>	<i>\$ 64,422.23</i>	<i>53</i>
<i>Newsletter</i>	<i>\$ 2,269.00</i>	<i>2</i>	<i>\$ 2,431.03</i>	<i>2</i>
<i>Monitoring and Evaluation</i>	<i>\$ 11,345.00</i>	<i>10</i>	<i>\$ 12,155.14</i>	<i>10</i>
<i>Co-ordination</i>	<i>\$ 22,690.00</i>	<i>20</i>	<i>\$ 24,310.28</i>	<i>20</i>
<i>Administration</i>	<i>\$ 11,345.00</i>	<i>10</i>	<i>\$ 12,155.14</i>	<i>10</i>
<i>Total</i>	<i>\$113,450.00</i>		<i>\$121,551.39</i>	
<i>Revenues Minus Expenses</i>	<i>\$ 0.00</i>		<i>\$ 0.00</i>	
<i>Net Assets - Beginning</i>	<i>\$ 0.00</i>		<i>\$ 0.00</i>	
<i>Net Assets - Ending</i>	<i>\$ 0.00</i>			

Anticipated Budget for 2007/08 for use of YVR WSF Income

Reports from the Vancouver Foundation indicate that the usable income from the YVR WSF would be approximately \$128,500 for the 2007/08 fiscal year.

	Budget 2007/08	% of Budget
<i>Revenues:</i>		
Vancouver Foundation - YVR WSF	\$128,500.00	
Revenue Total	\$128,500.00	
<i>Expenses:</i>		
Farmscape	\$ 6,425.00	5
Grassland Set-asides	\$ 68,105.00	53
Newsletter	\$ 2,570.00	2
Monitoring and Evaluation	\$ 12,850.00	10
Co-ordination	\$ 25,700.00	20
Administration	\$ 12,800.00	10
Total	\$128,500.00	
Revenues Minus Expenses	\$ 0.00	
Net Assets - Beginning	\$ 0.00	
Net Assets – Ending	\$ 0.00	

Appendix 11. Boundary Shores Compensation Agreement Fund (Partners in Stewardship Fund) Update

Vancouver Foundation - Statement of Fund Activity

Established: December 6, 2000

Statement for January 1, 2006 Through December 31, 2006

Partners in Stewardship Fund	Market Value	Contributed Principal	Income
Beginning Balance as of January 1, 2006	\$443,708.13	\$ 531,720.00	\$ 4,803.90
Contributions Received		\$ -	\$ -
Income (See Schedule C below)			\$ 20,763.05
Distribution (See Schedule D below)			(\$ 20,004.31)
Ending Balance as of December 31, 2006	\$479,123.99	\$ 531,720.00	\$ 5,562.64

No. of units @ December 31, 2006: 25,842.69

Unit Value @ December 31, 2005: \$17.1696

Unit Value @ December 31, 2006: \$18.5400

Schedule C - Income

Date	Description	Amount
03/31/2006	Income Allocated to Fund	\$ 4,852.48
06/30/2006	Income Allocated to Fund	\$ 4,870.57
09/30/2006	Income Allocated to Fund	\$ 5,477.36
12/31/2006	Income Allocated to Fund	\$ 5,562.64
	Totals:	\$ 20,763.05

Schedule D - Distribution

Date	Grantee/Purpose	Amount
02/01/2006	Delta Farmland and Wildlife Trust Endowment Income	\$ 4,803.90
05/02/2006	Delta Farmland and Wildlife Trust Endowment Income	\$ 4,852.48
08/02/2006	Delta Farmland and Wildlife Trust Endowment Income	\$ 4,870.57
11/01/2006	Delta Farmland and Wildlife Trust Endowment Income	\$ 5,477.36
	Totals:	\$ 20,004.31

Use of Partners in Stewardship Fund Endowment Income for Fiscal year 2006/07

Note: Reporting period different than for Partners in Stewardship Fund Statement of Fund Activity on previous page

	Budget 2006/07	% of Budget	Actual 2006/07	% of Actual
<i>Revenues:</i>				
Vancouver Foundation – Partners in Stewardship Fund	\$ 19,350.00		\$ 20,763.05	
Revenue Total	\$ 19,350.00		\$ 20,763.05	
<i>Expenses</i>				
Grassland Set-asides	\$ 7,740.00	40.0	\$ 8,305.22	40.0
Winter Cover Crops	\$ 7,740.00	40.0	\$ 8,305.22	40.0
Delivery, Co-ordination, M&E	\$ 3,212.10	16.6	\$ 3,446.67	16.6
Administration	\$ 657.90	3.4	\$ 705.94	3.4
Total	\$ 19,350.00		\$ 20,763.05	
Revenues Minus Expenses	\$ -			
Net Assets - Beginning	\$ -			
Net Assets - Ending	\$ -			

Delta Farmland and Wildlife Trust

Anticipated Budget for 2007/08 for the use of BSCA Fund Income

Reports from the Vancouver Foundation indicate that the usable income from the BSCA would be approximately \$21,900 for the 2007/08 fiscal year.

	<i>Budget 2007/08</i>	<i>% of Budget</i>
<hr/>		
<i>Revenues:</i>		
<i>Vancouver Foundation – Partners in Stewardship Fund</i>	<i>\$ 21,900.00</i>	
<i>Revenue Total</i>	<i>\$ 21,900.00</i>	
<hr/>		
<i>Expenses</i>		
<i>Grassland Set-asides</i>	<i>\$ 8,760.00</i>	<i>40.0</i>
<i>Winter Cover Crops</i>	<i>\$ 8,760.00</i>	<i>40.0</i>
<i>Delivery, Co-ordination, M&E</i>	<i>\$ 3635.40</i>	<i>16.6</i>
<i>Administration</i>	<i>\$ 744.60</i>	<i>3.4</i>
<i>Total</i>	<i>\$ 21,900.00</i>	
<i>Revenues Minus Expenses</i>	<i>\$ -</i>	
<i>Net Assets - Ending</i>	<i>\$ -</i>	
<hr/>		

Appendix 12. Details of North Growth Management Funds*(Funds held in Schedule 13 (Donations) on Detailed Financial Statement–Appendix 9)**North Growth Management Ltd. - Statement of Fund Activity**North Growth U.S. Equity Fund**Established: October 31, 2000**Statement for March 31, 2006 Through March 31, 2007*

<i>North Growth U.S. Equity Fund</i>	<i>Book Value (contributed principal)</i>	<i>Unit Balance</i>	<i>Unit Price (\$)</i>	<i>Market Value</i>
<i>Opening Balance as of March 31, 2006</i>	<i>\$ 33,278.69</i>	<i>1,720.817</i>	<i>\$ 24.4682</i>	<i>\$ 42,105.29</i>
<i>Distribution (Income)</i>	<i>\$ 0.00</i>	<i>0.000</i>	<i>\$</i>	<i>\$ 0.00</i>
<i>Ending Balance as of March 31, 2007</i>	<i>\$ 37,526.33</i>	<i>1,720.817</i>	<i>\$ 25.4937</i>	<i>\$ 43,869.99</i>

*North Growth Canadian Equity Fund**Established: December 16, 2004**Statement for March 31, 2006 Through March 31, 2007*

<i>North Growth Canadian Equity Fund</i>	<i>Book Value (contributed principal)</i>	<i>Unit Balance</i>	<i>Unit Price (\$)</i>	<i>Market Value</i>
<i>Opening Balance as of March 31, 2006</i>	<i>\$ 28,112.04</i>	<i>2,189.002</i>	<i>\$ 13.5798</i>	<i>\$ 29,726.21</i>
<i>Distribution (Income)</i>	<i>\$ 1,293.90</i>	<i>105.599</i>	<i>\$ 12.2530</i>	<i>\$ 1,293.90</i>
<i>Ending Balance as of March 31, 2007</i>	<i>\$ 29,405.94</i>	<i>2,294.601</i>	<i>\$ 12.7099</i>	<i>\$ 29,164.15</i>