

Delta Farmland & Wildlife Trust



Promoting Farmland & Wildlife Habitat Conservation

Annual Report  
2004-05

Annual Report for the period of  
April 1, 2004 to March 31, 2005

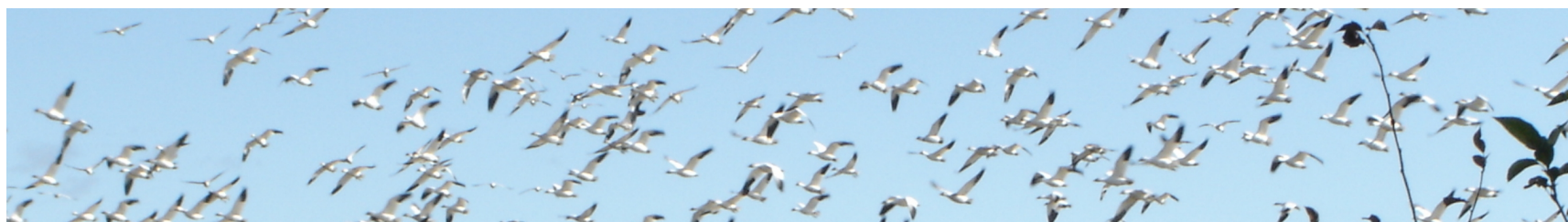


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### *Message from the Chair*

Having been on the Board of Directors for the last six years has been an eye opening experience for me. In that time I have been fortunate to experience the challenges and rewards of being involved with a group of people who address the important issue of land stewardship related to soil improvement and habitat enhancement across Delta's farmland. I have also learned a great deal more about the value of the agricultural resources that are stewarded by the farmers of Delta.

I have witnessed DFWT make significant progress. Co-operator participation has steadily increased and programs have expanded thanks to funding partners such as the Delta Agricultural Society, BC Waterfowl Society, Ducks Unlimited and the Canadian Wildlife Service, Envision Financial, Lehigh, as well as many other corporate and private donors. I would like to sincerely thank all of them for their generous and continued support.

In this report you will learn about how much agricultural habitat has been enhanced, how many acres have been limed, how many acres have been levelled and how many metres of hedgerow were installed among other statistics related to DFWT's work. This can only be achieved through the dedicated commitment of a Board of Directors and the hard work of Staff. I would like to thank Markus Merkens for his work on evaluating the stewardship programs through field research, spreading the word of the importance of farmland conservation for food production and environmental benefits through his many presentations and his commitment to wildlife conservation issues and farmers on Delta's farmland. Margaret Paterson has been instrumental in making sure that the administration of DFWT remains on the straight and narrow. Her behind the scenes work on accounting, fundraising and other paperwork has firmed up the smooth operation of the office. Heather Meberg has provided excellent assistance in the tracking of all stewardship agreements and assessing use of winter cover crops by waterfowl. Her many years of work with Delta farmers have been invaluable to the success of her work.

DFWT continues to be beneficial to both the farming community and wildlife that use agricultural habitat enhanced through the stewardship programs. Significant challenges lie ahead as population growth in the lower mainland puts additional pressure on valuable agricultural resources. It is my hope that the work of DFWT will continue to be effective in promoting the conservation of these resources well into the future.

I am grateful for the opportunity to have served on the Board and will continue to assist in DFWT endeavours from the sidelines when I can.

Jack Bates, Outgoing Chair  
Delta Farmland and Wildlife Trust



## Board of Directors 2004/05

<p><b>Mary Taitt, Chair</b> (as of February 2005)  <i>Mary is a Tutor with the BC Open University, a Naturalist tour guide for Vancouver Whale Watch and an Ecological Consultant. She is interested in conserving all aspects of the Delta ecosystem and is a member of the Boundary Bay Conservation Committee. She was a founding director of the Trust and returned to the Board in February 2005.</i></p>	<p><b>John Malenstyn</b>  <i>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 years as a Board member in 2003 and returned in February 2005 to serve again.</i></p>
<p><b>Ron Harris, Vice Chair</b>  <i>Ron is a fourth generation Delta farmer. His farming operation is involved in cutting edge farming particularly with respect to organic production. He and his sons and son-in-law also continue conventional farming. He has been on the Board since 1999.</i></p>	<p><b>Noel Roddick</b>  <i>Noel is a founding director of DFWT has been active on our Board on numerous occasions over the past decade. He is the owner of an agricultural supply and services company in Delta. He rejoined the Board in 2002.</i></p>
<p><b>Susan Jones, Treasurer</b>  <i>Susan is a teacher with a keen interest in conservation issues particularly within the Boundary Bay area. She is a director of the Boundary Bay Conservation Committee and has been on this Board since 1999.</i></p>	<p><b>Jim Ronback</b>  <i>Jim is a retired engineer, member of the Delta Naturalists and director of the Boundary Bay Conservation Committee. Jim's interests include bird watching, biodiversity, habitat conservation and pollution issues. He joined the Board in February 2005.</i></p>
<p><b>John Hatfield, Secretary</b>  <i>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.</i></p>	<p><b>Edward van Veenendaal</b>  <i>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.</i></p>



Back row left to right: John Malenstyn, Jim Ronback, Edward van Veenendaal, Noel Roddick  
 Front row left to right: Susan Jones, Mary Taitt, Ron Harris, John Hatfield

Outgoing directors: Jack Bates (Chair), Don Mark (Vice Chair) and Al Kimmel

*What is the Delta Farmland and Wildlife Trust?*

The Delta Farmland and Wildlife Trust (DFWT) is a non-profit society dedicated to promoting the preservation of farmland and associated wildlife habitat on the Fraser River delta through sustainable farming and land stewardship. It was founded in 1993 by a group of farmers, conservationists and agricultural specialists collectively interested in developing creative solutions to conflicts, barriers and challenges to farming and wildlife in the area.

*Why is DFWT's work important?*

The stewardship of the Fraser River delta's fertile soil is becoming more and more vital to the overall health of the human and wildlife communities that occupy the delta and beyond. Delta contains one of Greater Vancouver's last vestiges of extensive open and productive farmland. The area also provides critical habitat to Canada's largest winter populations of shorebirds, birds of prey and waterfowl as well as year-round habitat for an extremely diverse wildlife community. For over 130 years Delta's farmers have stewarded some of the richest agricultural land in BC, and their continued contribution to the local economy, wildlife habitat and cultural heritage is contingent on conserving farmland resources and maintaining wildlife habitat into the future.

Ten thousand hectares of farmland remain on the Fraser River Delta. The management of these is controlled and constrained by environmental, meteorological, market and political pressures which are all constantly changing. Under these conditions ensuring that agricultural resources are conserved in a manner consistent with long term agricultural sustainability and wildlife habitat capacity can be made difficult. Land stewardship programs available to farmers in Delta through DFWT contribute to the viability of farms by sharing in the cost of land management to facilitate soil and wildlife habitat conservation.



### Land Stewardship Programs

Strategies and tactics employed by DFWT are built around an integrated program of research, education and financial incentives in the development and promotion of land stewardship activities contributing to soil conservation and enhancement of wildlife values in Delta. DFWT has identified several areas where voluntary enhancement/conservation practices might be viable within a land stewardship program. Some of these increase habitat capability on farmland while others work to improve the capacity of the soil to produce crops, for agriculture and for wildlife. Within DFWT's land stewardship programs the cost of conducting land management practices is shared with landowners or leaseholders.

Currently, DFWT offers cost share programs for winter cover crops, grassland set-asides (GLSA), land laser levelling, field lime applications and establishing new hedgerows or grass margins. Under these programs, landowners enter into formal agreements with DFWT which lay out acceptable management practices on specific fields/areas for varying periods of time. The period of time is dictated by the particular stewardship practice being carried out. In return for their co-operation, DFWT shares the cost of managing the field or structure for the period outlined in the agreements.

Once again, the programs have impacted a significant area of farmland in Delta. A total of 56 farming operations spread across Delta participated in the programs during 2004/05. Approximately 15% of the land within the Agricultural Land Reserve in Delta was affected by these programs (Figure 1, Table 1). This is down slightly from previous years due to a significant reduction in winter cover crops planted. Reasons for this are detailed in the Winter Cover Crop section.

**Table 1. Summary of total area covered and cost share transferred to farming operations for all DFWT Land Stewardship Programs during the 2004/05 fiscal year.**

Program	Acres	Hectares	Program Cost
Winter Cover Crops	2219	898	\$99,855
Land Laser Levelling	418	169	\$48,571
Grassland Set-asides	581	235	\$171,750
Field Liming	1054	427	\$48,339
Farmscape-Hedgerows	6.45	2.61	\$851
Farmscape-Grass Margins	1.47	0.69	\$441
<b>Total</b>	<b>4180</b>	<b>1692</b>	<b>\$369,807</b>

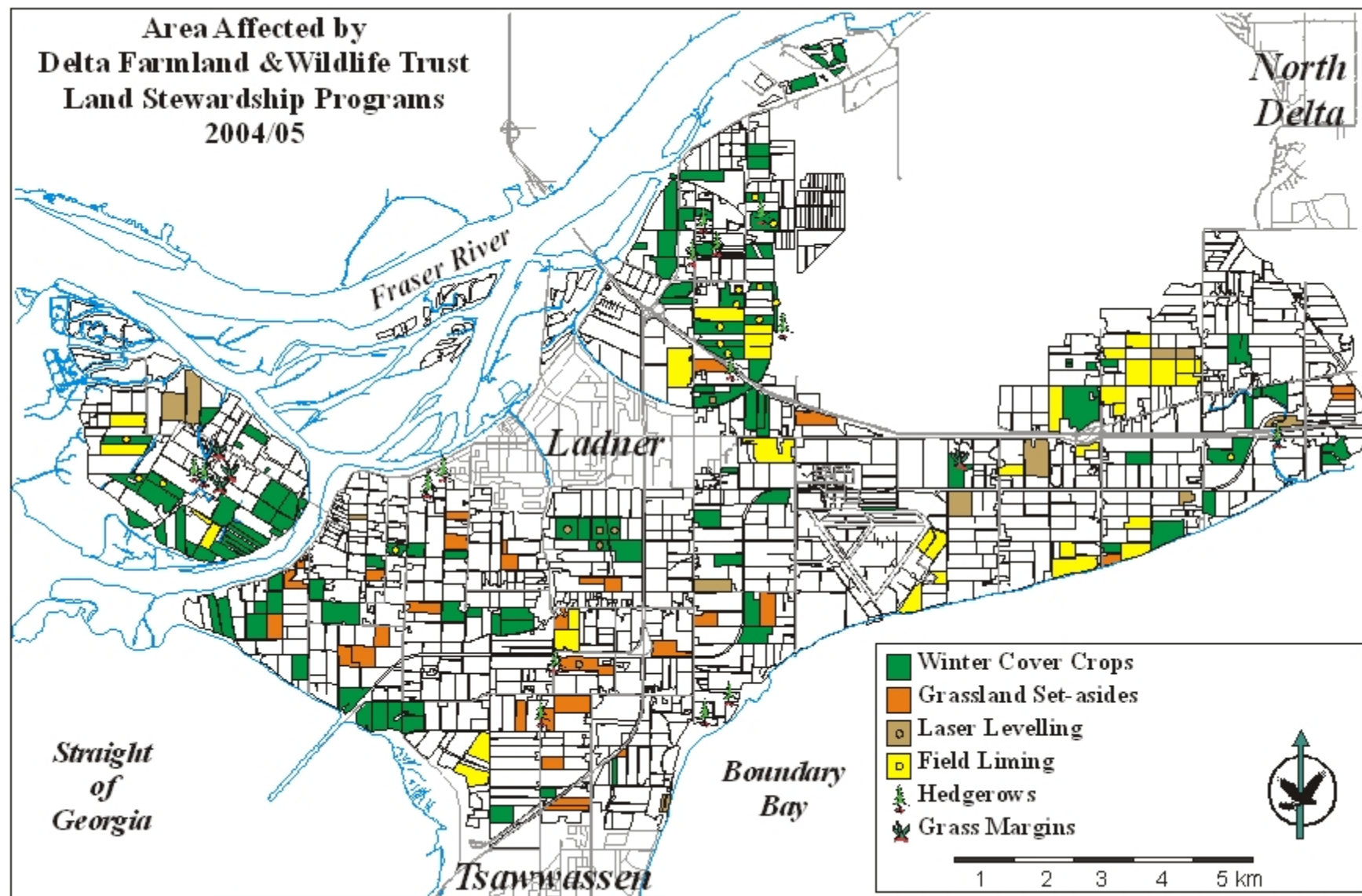


Figure 1. Area affected by 6 land stewardship programs available through Delta Farmland and Wildlife Trust for the 2004/05 fiscal year.

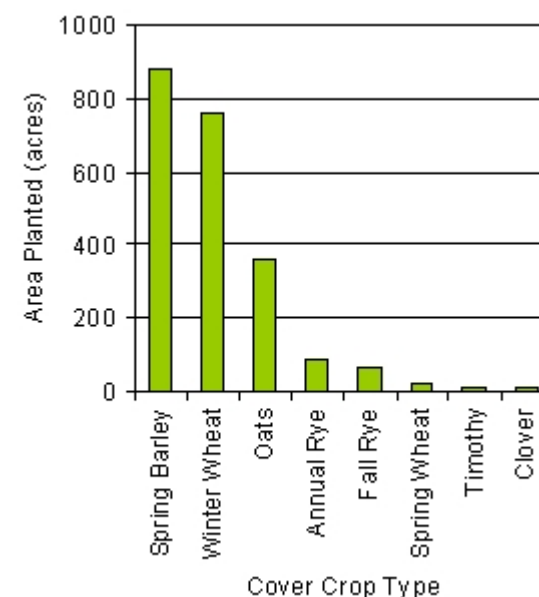
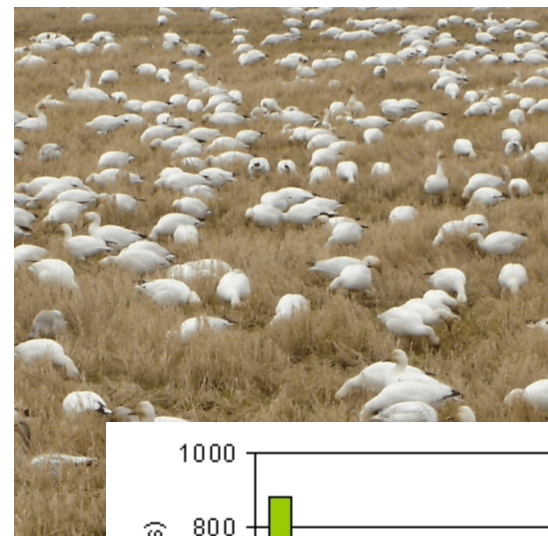


### Winter Cover Crops

The practice of planting winter cover crops provides many benefits to agriculture and wildlife management. In Delta, these crops, which are typically planted late in the year, protect, condition and rebuild soils over the winter months so that soil productivity can be enhanced the following year. In terms of soil health, they speed infiltration of excess surface water, slow cross field movement of water and associated soil erosion, add organic matter that stimulates beneficial soil microbial organisms, enhance nutrient cycling and improve soil structure, particularly for fields that have been over tilled. Including an early planted legume has the added benefit of improving available nitrogen in the soil.

While providing benefits to agriculture, the Greenfields Program has supplied critical winter foraging habitat to hundreds of thousands of overwintering waterfowl such as Snow Geese, Trumpeter Swans, Mallard, Northern Pintail and American Wigeon since being implemented in the winter of 1990. Fields planted with winter cover crops are used extensively by waterfowl and are meant to act as lure crops drawing waterfowl away from economically important crops such as perennial forage fields. Without DFWT's Winter Cover Crop Program, the delta could not support winter waterfowl populations to the same degree and greater levels of damage to perennial forage crops would likely occur.

This year cooperators registered a total of 2,219 acres (898 ha) of winter cover crops under DFWT's program (Table 1, Figures 1 & 2, Appendix 1). This is down substantially from the average of 3,300 acres (1336 ha) per year. Although much of the year consisted of relatively good although dry weather, September and October were far from ideal. Heavy rains and extended wet periods delayed or prevented cash crop harvest in many areas of Delta and reduced winter cover crop planting at the same time. This resulted in the lowest area of winter cover crops in over a decade. Whereas an average of 70% (~2,300 acres, ~931 ha) of annual cover crops are usually planted during



**Figure 2. Snow geese graze on a barley field after returning from the Skagit River delta in February (top), breakdown of winter cover crop composition for 2004-05 (bottom).**

September and October, only 50% (~1,100 acres, ~ 445 ha) were this year.

Most of the winter cover crops consisted of spring barley (40%) and winter wheat (34%), with oats, annual rye, fall rye, spring wheat, timothy and clover accounting for 26% of the area planted (Figure 2). Only 91 acres (37 ha) of silage corn were relay cropped with Italian rye grass. Once again, relay crops were harvested as silage on all fields. Yield and forage quality continue to be high for relay crops with all farmers harvesting them early in the following growing season.

The trend in cover crop planting will be difficult to determine in the next few years. Although more land is being actively farmed in the delta, much of this reworked land as well as some of the current active agricultural land is being planted with blueberries. This conversion will result in less land available for winter cover crops as blueberries and other multi-year berry crops are not compatible with annual winter cover cropping. Some of the reduction in land available for winter cover crops may be offset by an increase in corn acreage being relay cropped, but the acceptance of this management practice by all farmers is not guaranteed. The practice should work equally well with sweet corn yet sweet corn has not been relay cropped to date.

One concern of farmers is the increased time required for fields to dry out the spring following winter crop planting. Given the high water table and wet conditions throughout winter, some fields take 2-3 weeks longer to dry out enough to work the land relative to fields that are not cover cropped. This is not the case when fields are heavily grazed by waterfowl. Effort should be made to identify optimum planting regimes and late winter management options to alleviate this concern.

Bird use of cover crops this year was not as intense as in most previous years. Although a few fields were heavily grazed by American Wigeon, Mallards and Northern Pintails, the majority survived the winter relatively unscathed by wintering waterfowl. The observed reduction in winter use of grass fields by



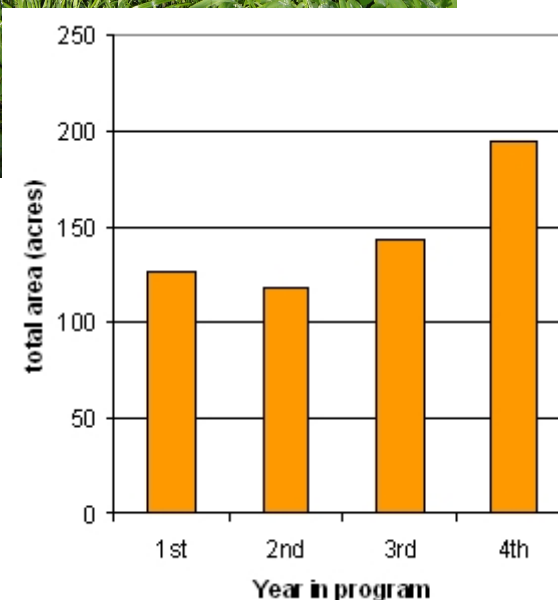
**Figure 3. Snow geese preferred to use unharvested potatoes as foraging habitat for much of the winter (top), a few cover crop fields were used intensively by ducks (centre) and some Snow Geese fed on late winter barley fields prior to flying north (bottom).**

waterfowl can be linked to the availability of more valuable winter food sources on the delta. For example, Trumpeter Swans and Snow Geese were able to survive the winter almost entirely on approximately 450 acres (182 ha) of unharvested potatoes. The carbohydrate rich tubers provided birds with winter forage for energy and allowed them to build fat reserves for their migration to northern breeding sites. Dabbling ducks are unable to dig up deep potatoes themselves but benefited from those unearthed by their long-necked cousins. Although the winter cover crops were, for the most part, not eaten over the winter, they did contribute to soil conservation by protecting the soil from erosion due to winter rains and increasing soil organic content when they were ploughed down.

### Grassland Set-asides

The management objectives of grassland set-asides (GLSA) are twofold: improvement of soils for farming and provision of wildlife habitat. Farmers/landowners are encouraged to introduce short- to medium-term rotations of grass mixes into their operations by sharing the cost for the management of land used in grassland set-asides. Since the implementation of the grassland set-aside program, it has been shown that soil structure and organic matter are improved and that these set-asides provide numerous wildlife species with important habitat.

Improvement in farmland productivity following the set-aside fallow period can be significant. In Delta's farming history, grass and fallow years were part of normal crop rotations. Grain and forage production dominated the rural landscape of Delta until the mid-1960s. Forage production was less intense thus allowing for longer periods of tall-grass growth both during summer and winter months. Changes in farm management practices have altered the physical landscape and habitat composition of the delta. The GLSA Program has made it possible for farmers to fallow their land and rebuild soil productivity and provide habitat.



**Figure 4. Fourth year UBC students survey first year set-aside for birds (top), area of set-asides by year in program for 2004-05 (bottom).**



Twenty-one farming operations co-operated with DFWT to maintain 29 individual fields totalling 580.5 acres (235 ha) of grassland set-asides for the 2004/05 fiscal year (see Figures 1&4, Appendix 2). Of these, 6 fields (126 acres or 51 ha) were newly established set-asides. There is considerable variability in field size, ranging from 8 to more than 40 acres (3 ha - 16+ ha). In situations where fields are very large, DFWT does not fund the area in excess of 40 acres (16 ha) and the farmer carries the expenses for the extra acreage.

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 restricted chemicals or management practices were used during that period. 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.

DFWT's Grassland Set-aside program is habitually oversubscribed due to funding constraints. 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. At the end of 2004/05 there were 256 acres on the waiting list.

Five funding sources were used for the Grassland Set-aside program (Delta Agricultural Society (DAS), YVR Wildlife Stewardship Fund (YVR WSF), Boundary Shores Compensation Agreement (BSCA), the Long-term Grassland Set-aside Management Fund (LGSMF established in 2000/01), and designated private/corporate donations) during the 2004/05 fiscal year. The total available budget for set-asides for this year was set at \$180,000. Given that some of the set-asides were harvested and the 600 acre target for set-asides was not maintained, the reduction in cost share resulted in cost share expenditures that were under budget by \$8,250. As a result \$12,631 of the LGSMF were used during this fiscal year leaving \$30,490 to be used in future years. Additional funding partners need to be established for this program. Restructuring the



**Figure 5. Common Yellowthroats (top) and Savannah Sparrows (second from top) use grassland set-asides during spring and summer. Northern Harriers (second from bottom) will use set-asides year round as they hunt for Townsend's Voles (bottom).**



program pay-outs can lead to some additional acreage but this would not be enough to reduce the waiting list to zero unless there are additional funds available.

### *Laser Levelling*

Laser levelling can be an effective tool contributing to sustainable agriculture. Precision field contouring allows farmers to control water flow across a field and prevent areas of standing water when conditions are wet. Water movement and ponding can damage soil through erosion, soil compaction and/or concentrating salt in low spots. The Land Laser Levelling program shares in the cost of recontouring fields with farmers so that the impact of water erosion and other deleterious affects on fields is minimized.

Reduced wintertime flooding of fields also improves the establishment and longevity of winter cover crops and grass fields that are subject to grazing by waterfowl, thereby improving the habitat for wildlife and reducing the risk of costly damage to economically important crops for farmers.

Laser levelled fields also tend to dry out more quickly in the 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 alike.

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 DFWT. A maximum of 50 acres (20 ha) per co-operator per year is cost shared annually under this program. 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 418 acres (169 ha) of levelling was completed at 20 sites within Delta during 2004/05 (Figure 1, Appendix 3). A cost share of \$48,571 was committed



**Figure 6. Soil conservation and improved productivity are both products of laser levelling soil, particularly in Delta where the water table can be high.**

to this.

### Field Liming

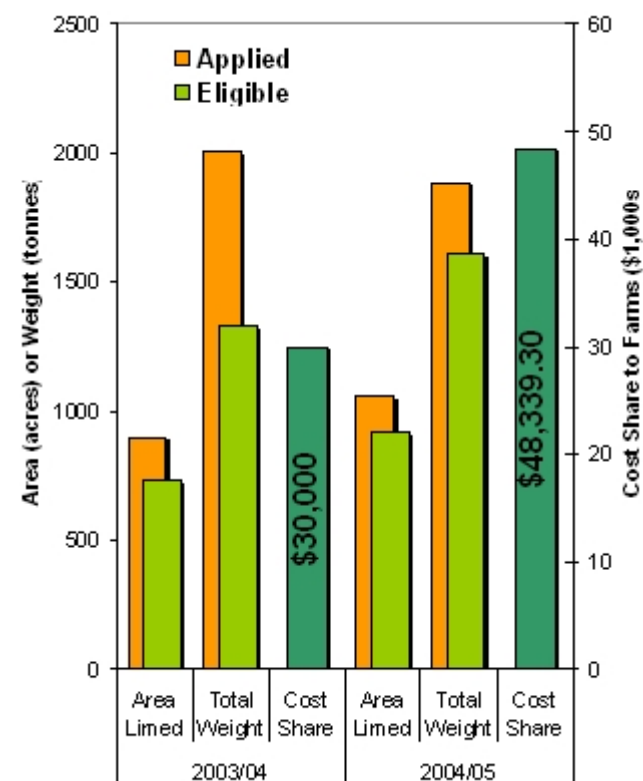
In Delta the soils have a tendency to acidify relatively quickly. The application of lime to fields allows farmers to adjust soil pH to approach a level that maximizes yield potential. While many factors, such as the kind of crop, soil type, and climate, influence the effect of liming a field, it can be generally stated that the application of lime on all moderately to strongly acid soils will improve and maintain productivity. Where liming is an established practice, it is applied to maintain soils in the most suitable pH range for the crops and soils in the area. Increasing the pH of soils improves productivity by affecting chemical processes in the soil that suppress aluminum and manganese levels and improve phosphorous availability and microbial activity in the soil. The physical structure of soil also benefits from lime application.

The intent of this program is to encourage growers to invest in field liming to improve the productivity of their lands. 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.

This is the second year in which the Field Liming Program has been made available to local farms and 20 farms applied 1,884 tons of lime to 1,054 acres (427 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. Relative to last year, total area limed, tonnage of lime and cost share transfer were 26%, 21% and 61% higher, respectively (Figure 6).

### Hedgerow and Grass Margin Programs

Delta Farmland and Wildlife Trust has been funding the installation of hedgerows within Delta since 1995. The goal of this program is to establish hedgerows that provide valuable year-round habitat for some of the songbirds that inhabit the lower Fraser River delta. New hedgerows provide a framework



**Figure 7. Comparison between 2003/04 and 2004/05 Field Liming Program parameters.**

consisting of a diversity of native shrub and tree species that is intensively managed to develop into structurally complex and species diverse hedgerows. 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.

Like hedgerows, linear patches of grassland 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. 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.

A combined area of 7.7 acres (3.1 ha) has been affected by the program to date consisting, roughly, of 6¼ acres (2.5 ha) of hedgerow and 1½ acres (0.6 ha) of grass margin (Figure 1, Appendix 5). This inventory of hedgerows requires significant maintenance to ensure the survival of the planted stock and thereby maximum benefit to wildlife. The greatest maintenance requirement is the control of competing vegetation, and, once again, particular attention was given to this aspect of the program in the 2004/05 fiscal year. Just under \$6,500 were used to pay for maintenance of DFWT hedgerows during this year.

One new hedgerow was established this year at Evan's Farm on 52<sup>nd</sup> Street just south of 28<sup>th</sup> Ave. This hedgerow consists of 230m of 3-m wide x 0.2-m high berm planted with a variety of trees and shrubs (Appendix 6a). The planting substrate consists of a mix of sand and soil that is capped in fir/hemlock bark mulch. A drip line was embedded within the sawdust layer and connected to a battery operated programmable control valve to facilitate irrigation for the drier



**Figure 8. Section of new hedgerow established at Evan's Farm during 2004/05 (top) compared to 7 year-old hedgerow at Campbell Stables (bottom).**

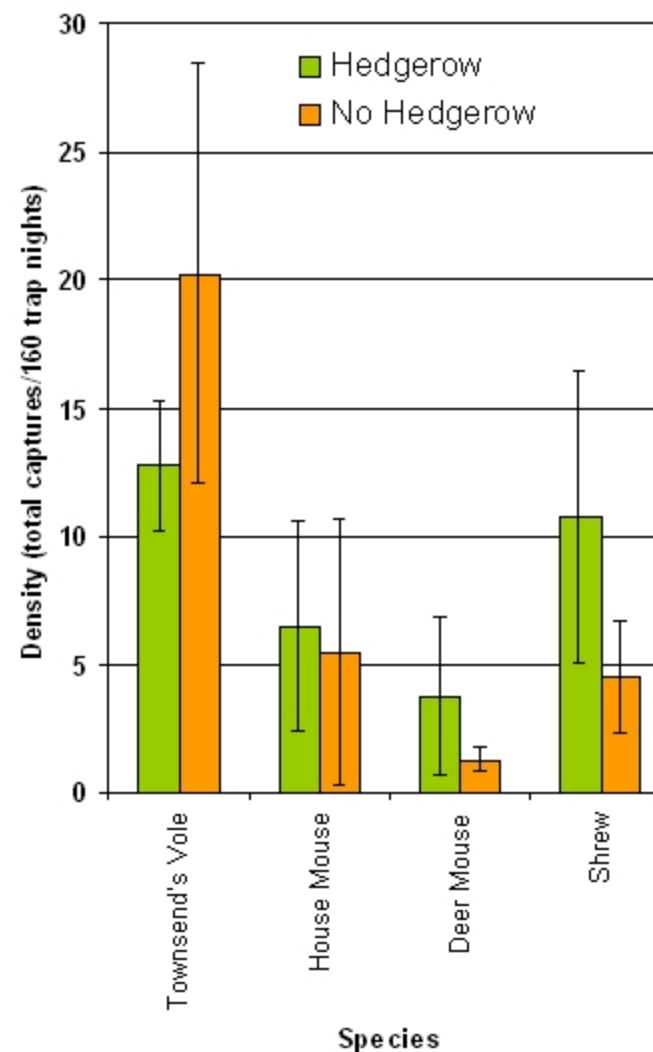
seasons over the first three to four years of establishment.

An additional hedgerow was designed during this year for installation early in the 2005/06 fiscal year. In total, 480 m of 2-m wide raised berm will be planted with three rows of vegetation adjacent to two fields at Grove Crest Farm on Burns Drive just south-east of 64<sup>th</sup> Street (Appendix 6b). A drip line irrigation system will be installed to operate for the first three to four years. The cooperator has agreed to maintain a 3-m grass strip between the hedgerow and cultivated field. The strip will be mowed to control weeds for the first two years.

### *Monitoring, Evaluation and Research Update*

Monitoring, evaluation and research continued on hedgerows, grassland set-asides and winter cover crops. This year studies were conducted on small mammal populations in hedgerows, breeding songbirds in grassland set-asides, winter use of set-asides by raptors, small mammal winter densities in set-asides and waterfowl use of winter cover crop fields. A brief summary of surveys and results follows.

A pilot study on small mammals inhabiting hedgerows was conducted during the winter of 2004/05. In this study small mammal populations were live-trapped at four DFWT hedgerow sites and compared to those sampled at nearby non-hedgerow field margins. A line of 20 live-traps spaced at 10-m intervals was established at each site. Four 2-day trapping sessions were completed over the winter of 2004/05 at each site. Data collected during this study indicate that relative density of several small mammal species in hedgerows was not significantly different than found in nearby undeveloped field margins (Figure 9). All hedgerows included in this survey were less than 6 years old and the lower vegetation layers were strongly influenced by neighbouring habitat types. As these hedgerows increase in age, the nature of ground level vegetation will likely change drastically from neighbouring habitats. This may result in a change in the density of small mammals relative to undeveloped field margins. This survey will be repeated at regular intervals in the future.

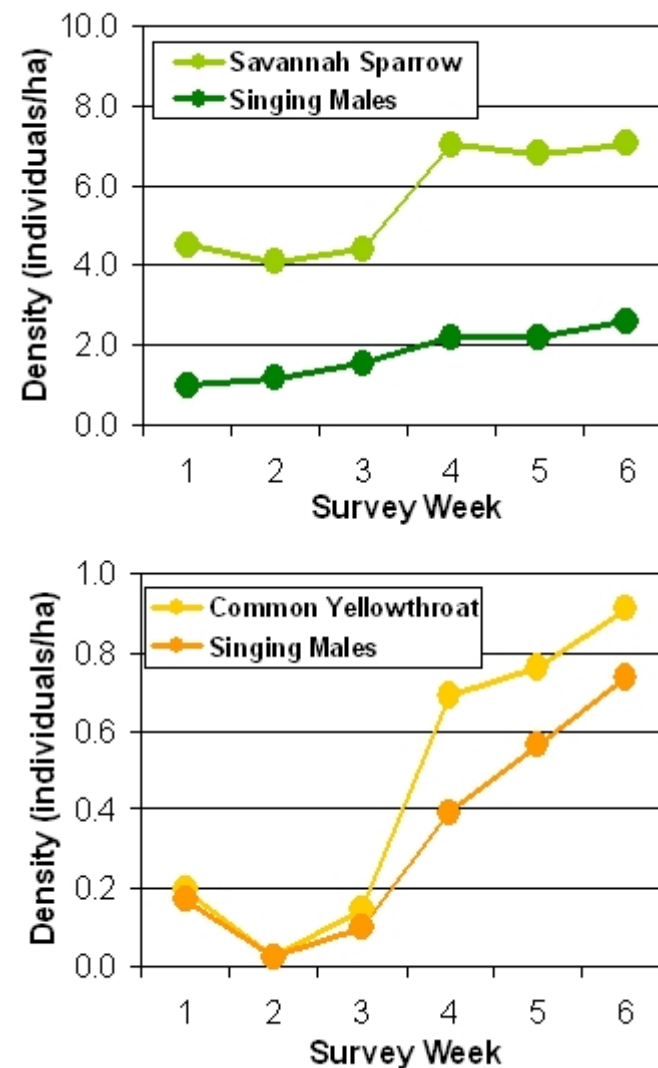


**Figure 9. Small mammal densities (mean ± SE) along hedgerows and undeveloped field margins during winter of 2004/05.**



This is the first year that breeding song birds were specifically surveyed in grassland set-asides. The objective of this study was to determine which species are using the habitat provided by these short term grasslands during breeding season. Breeding bird surveys were conducted in 11 two- to four-year-old grassland set-asides between May 3 and June 18, 2004. A total of 33 circular bird plots (150m in diameter) were established and surveyed for 10 minutes once a week for 6 consecutive weeks. Bird detections were plotted on survey plot maps and classified by detection type (song, call, visual). A total of 19 bird species were detected across all plots and surveys with Savannah Sparrows accounting for 83.1% of all detections. The second most prevalent bird was the Common Yellowthroat (6.7% of detections) followed by Barn Swallows (5.1% of detections).

Although the diversity of song birds in set-asides is low relative to hedgerows on farmland, these data indicate that set-asides are used extensively by Savannah Sparrows (Figure 10). More than 2 singing males were detected per hectare towards the end of the survey period. Much of the increase in total Savannah Sparrow detections between the third and fourth weeks of surveys can be attributed to fledglings produced through the first clutch of the season. Use of the interior of grassland set-asides by Common Yellowthroats appeared to increase significantly over the breeding season. Detections of this species increased from about 1 every 5 hectares to almost 1 per hectare. Although this can partially be explained by more individuals migrating into the area, a change in Yellowthroat behaviour is likely the primary cause. Yellowthroats tended to concentrate along ditch margins early in the breeding season and increased their activity in the interior of set-asides later when the grass had grown significantly in height and density. This species is capable of producing 2 broods per year at this latitude. Perhaps the first brood was fledged within the field boundary ditch and the second within the field. The Yellowthroats could effectively be placing their eggs in two baskets separated in space, time and habitat type, thereby increasing the likelihood of greater success in fledging



**Figure 10. Density of Savannah Sparrows and Common Yellowthroats in grassland set-asides between early May and mid-June 2004.**

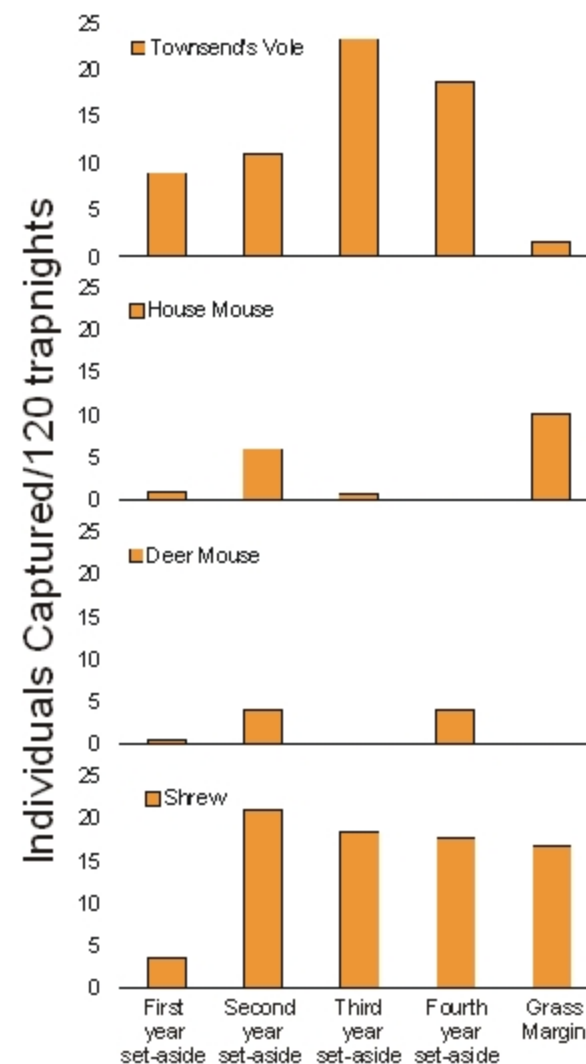
young. Further breeding season surveys in future years may provide data to support this.

Barn Swallows tended to cruise the fields erratically just above the grass canopy, presumably capturing aerial insects and spiders. Dispersing spiderlings are an easy catch as they "balloon" from their hatching place on fine silk threads. Grassland set-asides are frequently awash in spider silk attesting to the high densities of spiders relative to those found in other agricultural field habitats.

A number of raptors were observed foraging within grassland set-asides during the breeding season, but none was found breeding in any of the set-asides being studied this year. Evidence of Northern Harrier breeding was seen at another 4<sup>th</sup> year set-aside not included in the breeding bird surveys.

Winter surveys of small mammal relative density and raptor use continued within selected grassland set-asides this year. Index lines (20 live-traps spaced at 10-m intervals) were used to monitor small mammal relative density at three replicates of four set-aside age classes and grass margins. Three 2-day trapping sessions were completed over the winter of 2004/05. Data collected this year showed the same trends in Townsend Vole relative density in relation to age of set-asides as were found in previous years (Figure 11). Vole density was higher in older set-asides relative to first year set-asides. Grass margins contained fewer voles relative to all of the set-asides. This may be related to the relatively isolated nature of the 2 grass margins that were surveyed.

Raptor numbers and activity also followed the same general trends during the winter of 2004/05 as determined in previous years. Raptor use was assessed for three replicates of four age classes of set-aside using six 60-minute field watches over the winter months of 2004/05. All raptor movements within the field areas were observed, characterised by location and behaviour and timed to the nearest second as best as possible. Seven raptor species were recorded during surveys of set-asides with Northern Harriers accounting for 78% of all observations. Other raptor species included Bald Eagles, Red-tailed Hawks,



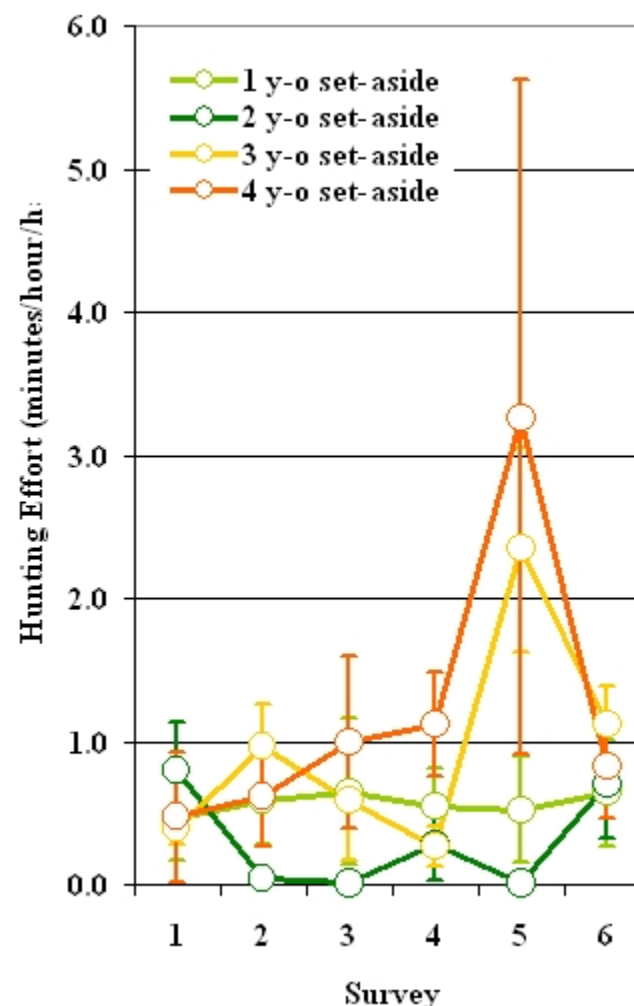
**Figure 11. Relative density of 4 small mammal groups surveyed in four ages of grassland set-aside and grass margins during the winter of 2004/05.**

Rough-legged Hawks, Peregrine Falcon, Merlin and Coopers Hawk. Although Short-eared owls were observed within some grassland set-asides, none was recorded during any of the timed surveys.

Northern Harrier hunting effort varied somewhat between set-aside ages. Fewer than 1½ minutes of Harrier hunting/hour/ha were observed during most field surveys across all age classes (Figure 12). Only in 3<sup>rd</sup> and 4<sup>th</sup> year set-asides did Harrier hunting effort reach more than 2 minutes/hour/ha during the 5<sup>th</sup> winter survey. On average, the relative use of first year set-asides appeared to be higher than in previous years. This is primarily due to characteristics and use of one of the three first year set-asides surveyed. One first year set-aside was located immediately adjacent to an old-field site used extensively by Northern Harriers, Red-tailed Hawks and Rough-legged Hawks. In addition, this set-aside contained a denser and taller grass canopy than typical for first year set-asides. Raptors using the old-field site would frequently drift across the field boundaries during hunting bouts, travel across the field to access other sites on the delta and/or spend more time hunting within this set-aside than typical for young set-asides. It is unlikely that this particular set-aside would have been used as extensively had the neighbouring old-field site not been present.

Data collected from grassland set-asides during the winter of 2004/05 show that these habitats continue to be populated by Townsend's Vole and are used extensively by raptors, particularly the Northern Harrier.

Assessment of winter cover crop use by waterfowl continued during the winter of 2004/05. Further biomass studies using the falling plate meter were conducted on 14 oat or wheat fields planted as winter cover crops. The statistical validity of correlations between falling plate meter readings and cover crop biomass were once again confirmed for wheat crops. Other crops were not surveyed for various reasons (excessive early season grazing damage, lack of suitable number of replicates, failure of crops). Significant early season grazing excluded many oat fields from further surveys during the winter. Late season surveys of wheat fields showed biomass reduction in areas grazed by waterfowl



**Figure 12. Comparison of Northern Harrier hunting effort between four ages of set-aside across 6 surveys during the winter of 2004/05.**

relative to areas from which waterfowl were excluded (Figure 13). Wheat fields experiencing significant waterfowl grazing had 60% reduction in yield due to waterfowl grazing by March (Fields JZ5 and HR2).

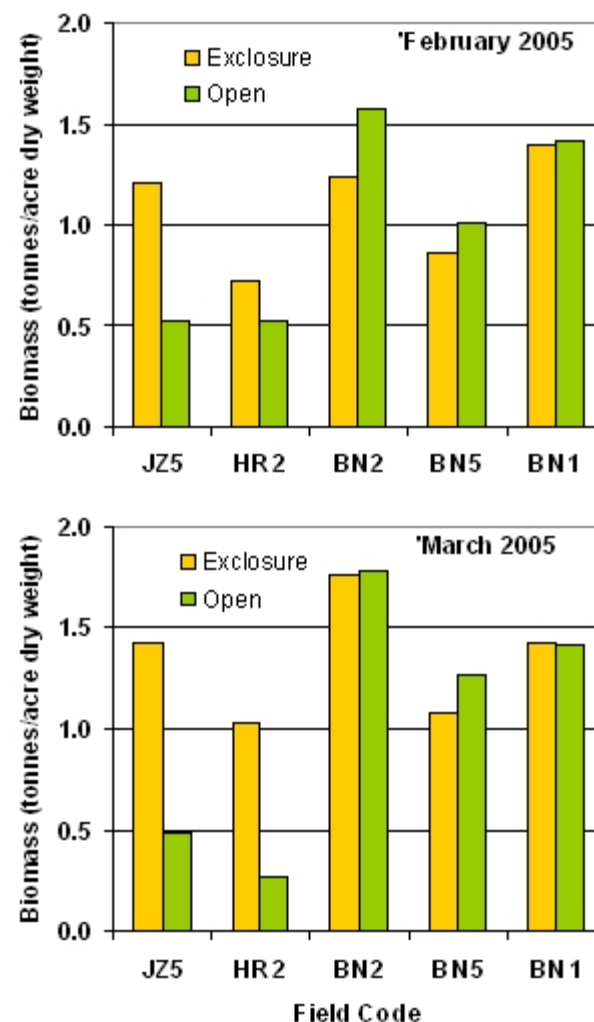
### Collaboration, Education and Communication

As a community based Society, DFWT's activities are not limited to land stewardship programs. DFWT continues to work with other organizations to develop solutions to the conflicts between urban-, agricultural- and wildlife-use on the delta. In this regard, staff are members of the Delta Forage Compensation Program Steering Committee, the Wire Worm Task Force Working Group and participate in relevant workshops and conferences as they come up. This year DFWT presented one oral presentation at the Farmland Preservation conference in conjunction with the launch of the Ontario Farmland Trust in Guelph, Ontario.

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.

DFWT recognises that public education and communication are valuable to the successful implementation of farm stewardship programs and wildlife habitat conservation. DFWT actively participates in this process and co-operates with various 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 and a regularly updated information pamphlet. DFWT staff present lectures and slide shows to local and regional organisations as well as post secondary institutions upon request or on DFWT's suggestion. As part of this, DFWT's biologist gave lectures at:

BCIT 2<sup>nd</sup> year Wildlife Course,  
Birds on the Bay Festival,



**Figure 13. Comparison of wheat biomass in areas protected from waterfowl grazing (exclosure) and areas exposed to potential grazing (open) for selected winter cover crop fields during winter of 2004/05.**



Corporation of Delta Planning and Environment Advisory Committee,  
Delta Naturalists,  
Delta Farmers Institute AGM,  
Delta Heritage Airpark,  
Islands Farmer's Institute,  
SFU 4<sup>th</sup> Year Agriculture and the Environment Course,  
UBC 4<sup>th</sup> Year Agroecology Course,  
and Vancouver Natural History Society Birders Night.

A broader audience has access to the newsletter and other information at local community events where DFWT's information display is set up and staff members, directors and volunteers explain the programs to interested individuals. Another means of dissemination is the creation of press releases and publication of information articles in local newspapers.

A Fall Field Tour of stewardship programs and farms in the area was offered again this year. The overall objective of the tour was to connect people with agriculture and inform them about the importance of conserving agricultural resources for food production and wildlife habitat. Tour guests witnessed some of the agricultural diversity in Delta. Throughout the tour the connection between farming and wildlife was emphasised and the role of DFWT funded land stewardship programs in relation to the balance between them was highlighted. The benefits as well as research related to each of DFWT's stewardship programs was summarized.

Two newsletters were produced in this last fiscal year (July and December 2004) (Appendix 7) and mailed to over 1,200 people on our main mailing list.

### Financials

Revenue for DFWT totalled \$514,531 over the 2004/05 fiscal year (See Appendix 8 for detailed Financial Statement). Once again, the Delta Agricultural Society (DAS) was the greatest single contributor accounting for over 50% of



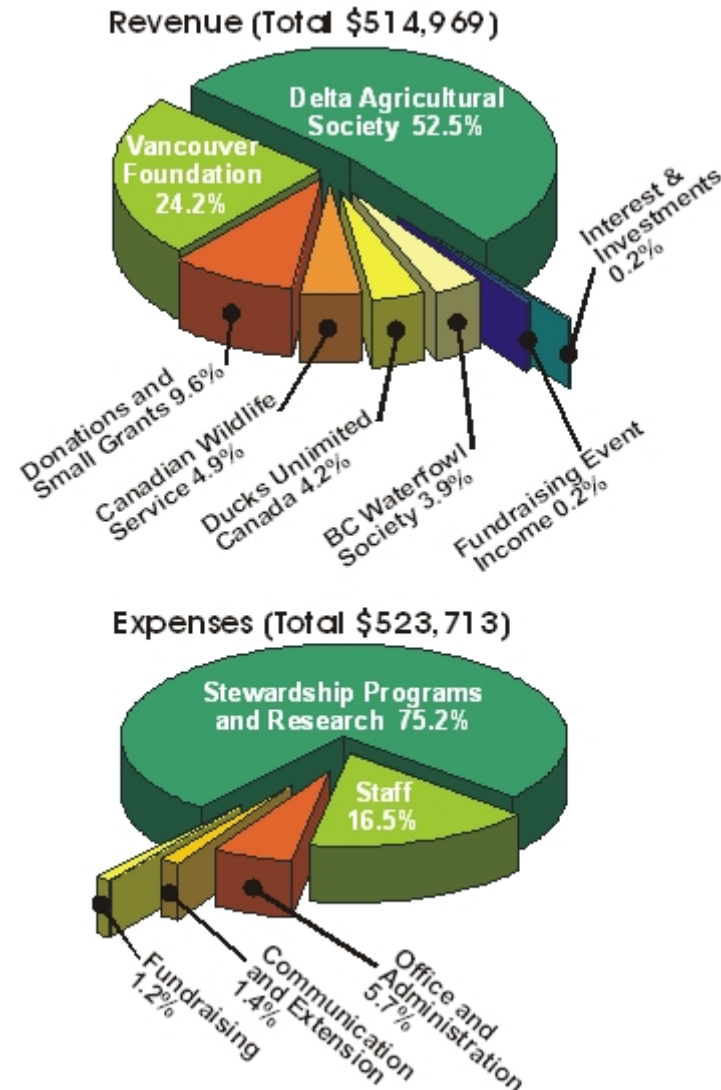
**Figure 14. Art Bomke (UBC) explains the finer details of soil conservation during the fall field tour (top). Stops on the tour included Martiann Holsteins (middle) and Fraserland Farms cranberry fields (bottom).**

income. The increase in relative support was driven by an increase in the relative expenditure on the liming program which DAS solely funded and a reduction in the amount of cover crops planted this year. The income from two endowment funds at the Vancouver Foundation (YVR Wildlife Stewardship Fund and Partners in Stewardship Fund, total revenue = \$124,472), accounting for 24% of total revenue, was down 8% relative to last year. Some of this decline was anticipated and the original budget for 2004/05 was adjusted accordingly. See Appendices 9 and 10 for further details on these 2 funds including budget projections for the 2005/06 fiscal year.

Other major funding partners included Ducks Unlimited Canada, BC Waterfowl Society and the Canadian Wildlife Service accounting for a combined contribution of 13% of total income. Additional fundraising efforts, unsolicited donations and a \$25,000 contribution from the North Growth Foundation (see Appendix 11 for details on this fund) made up 9.6% of total income. Income from interest and investments and early fundraising event revenue from 2005/06 where negligible at under ½%.

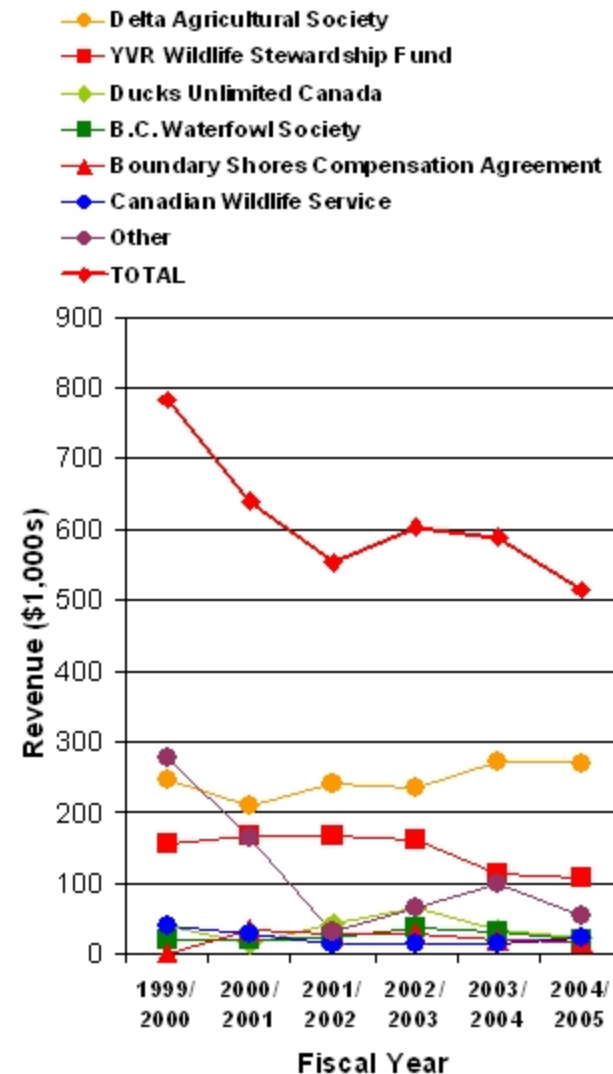
Once again, the majority of expenses went directly to Land Stewardship and Research Programs. As mentioned previously, just under \$370,000 (71% of total expenses) went directly into sharing the cost of land stewardship with farming operations. Staff and office costs accounted for 16.5% of expenses. 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, advertising costs, as well as repayment of a grant obtained from the BC Investment Agriculture Foundation (BCIAF). In 1999 DFWT received a grant to pay for a new fundraising program in order for DFWT to tap other sources of funding through in house fundraising efforts. Although some success was achieved through the program, it was not able to be self-supported. Given that some revenue was generated, the initial agreement with BCIAF stipulated that the grant would have to be repaid.



**Figure 15. Breakdown of revenue and expenses for the 2004/05 fiscal year.**

Revenue has generally declined over the last 5 years (Figure 16). Reasons for this decline are varied. Loss of access to BC Gaming funds, the end of the BC Investment Agriculture Fundraising project and reductions in income from both endowment funds have all contributed to lower revenue. Over the next two years concerted effort will be invested in expanding the funding base through the application for funds from foundations interested in environmental initiatives such as ours, local fundraising events, and campaigns targeting local businesses and the community at large. This will be coupled with a stepped up communication and extension program involving community and regional newspapers, community television and an increased profile at local events. Methods of obtaining access to BC Gaming funds will also be considered.



**Figure 16. Trend in DFWT revenue over the last 6 years.**

## Appendix I. Details of Winter Cover Crop Agreements for the winter of 2004/05

Contract	Cooperator	Area (Acres)								# of fields	
		winter wheat	annual rye grass	fall rye	spring barley	oats	spring wheat	clover	timothy		
WCC04-01	Bow Chong Farm Ltd				94					94	4
WCC04-02	Canoe Pass Farms Ltd	6				90	26	12	16	150	8
WCC04-03	Sohi Blueberry Farm	37								37	1
WCC04-04	Neveridle Dairy Farm Ltd		30							30	2
WCC04-05	Del Cory Farms	100			22					122	4
WCC04-06	Les Hoggard Farms					47				47	1
WCC04-07	Fraserland Farms				336					336	23
WCC04-08	H.R.Savage and Sons				29					29.5	1
WCC04-09	J.A.Nottingham Co. Ltd.	99								99	5
WCC04-10	Warren Nottingham	21								20.5	4
WCC04-11	Dhaliwal Farms Ltd	16			23					39	2
WCC04-12	Jowkema Ent.Ltd.				40					40	1
WCC04-13	Port Guichon Farms Inc.	23								23	2
WCC04-14	Zellweger Farms	134								134	8
WCC04-15	Westcoast Instant Lawns			61						61	2
WCC04-16	Grove Crest Farms				76					76	5
WCC04-17	Brent Kelly Farms Inc.	20			30					50	3
WCC04-18	Ed McKim Farm Ltd					70				70	2
WCC04-19	Reynelda Farms	55								55	2
WCC04-20	R&D Sherrell				64					64	4
WCC04-21	Felix Farms Ltd	30			129	57				216	13
WCC04-22	Emma Lea Farms	30		7	22	14				73	6
WCC04-23	Joe Vaupotic Farm					85				85	6
WCC04-24	Hothi Farms Inc	190								190	5
WCC04-25	Martiann Holsteins Ltd		36							36	2
WCC04-26	Gordon Ellis				17					17	3
WCC04-27	Seabreeze Farm Ltd.		25							25	2
		761	91	68	882	363	26	12	16	2219	121

## Appendix 2. Details of Grassland Set-aside Agreements for the 2004/05 Fiscal year

<b>Agreement</b>	<b>Cooperator</b>	<b>Est. year</b>	<b>Area (Acres)</b>	<b>Harvested</b>	<b>Mowed</b>
GLSA01-1	Port Guichon Farms	2001	15	no	no
GLSA01-2	Leona Wright	2001	40	no	no
GLSA01-4	J & C Van der Velde	2001	33	no	no
GLSA01-4	J & C Van der Velde	2001	7	no	no
GLSA01-5	Art Berney	2001	21	no	no
GLSA01-7	Todd Kelly	2001	18	no	no
GLSA01-9	Ted Dykstra	2001	30	no	no
GLSA01-12	Robert Savage	2001	19	no	no
GLSA02-01	Dennis Kamlah	2002	12	no	no
GLSA02-02	Canoe Pass Farms	2002	24	no	no
GLSA02-03	Mike Guichon Farms Ltd.	2002	20	no	no
GLSA02-04	Felix Farms	2002	40	no	no
GLSA02-05	Danny Chong	2002	8	no	no
GLSA02-07	Port Guichon Farms	2002	25	no	no
GLSA02-09	Robert Savage	2001	11	no	no
GLSA02-10	Don LeBrun	2002	13.5	no	no
GLSA03-02	Dennis Kamlah	2003	28	no	no
GLSA03-03	Snow Farms	2003	30	no	no
GLSA03-05	Stuart Evans	2003	15	no	no
GLSA03-06	Laurence Manning	2003	23	no	no
GLSA03-08	Delta Pride Farms	2003	18	no	no
GLSA03-09	Fraserland Farms	2003	4	no	no
GLSA04-01	Fraserland Farms	2004	10	no	no
GLSA04-02	Fraserland Farms	2004	25	no	no
GLSA04-03	Canoe Pass Farms	2004	16	yes	no
GLSA04-04	Dhaliwal Farms	2004	15	no	no
GLSA04-05	Tecarte Farms	2004	20	no	no
GLSA04-06	R&M Townsend	2004	40	no	no
			<b>580.5</b>		

## Appendix 3. Details of Land Laser Levelling Agreements for the 2004/05 Fiscal Year

Agreement	Cooperator	Area (acres)	cuyd of soil moved	cuyd/acre
LL04-02	First Choice Hay and Feed	5.43	2424	446
LL04-02	First Choice Hay and Feed	9.58	3110	325
LL04-04	Kajla Farm	12.20	3354	275
LL04-07	Reynelda Farms	44.78	11150	249
LL04-08	R&D Sherrell	29.13	3050	105
LL04-11	Sohi Blueberry Farm	15.50	6066	391
LL04-11	Sohi Blueberry Farm	19.50	4482	230
LL04-12	Rod Swenson Farms	40.43	11118	275
LL04-13	Tecarte Farms	10.92	1092	100
LL04-14	Eagle View Farms Ltd	29.80	10500	352
LL04-15	Mike Guichon Ltd	11.00	3692	336
LL04-15	Mike Guichon Ltd	11.00	3334	303
LL04-15	Mike Guichon Ltd	9.00	2681	298
LL04-16	Felix Farms Ltd	25.40	6140	242
LL04-16	Felix Farms Ltd	9.50	2317	244
LL04-17	Avtar Gosal	50.00	45000	900
LL04-18	R&D Sherrell	20.87	4750	228
LL04-19	Fraserland Farms	16.80	3875	231
LL04-19	Fraserland Farms	4.20	1226	292
LL04-20	R&M Townsend	43.00	12774	297
TOTAL		418.04		
Average				306

## Appendix 4. Details of Field Liming Agreements for the 2004/05 Fiscal Year

<i>Agreement</i>	<i>Cooperator</i>	<i>area applied for (acres)</i>	<i>area eligible (acres)</i>	<i>application rate (tons/acre)</i>	<i>eligible application rate (tons/acre)</i>	<i>tons cost shared</i>
FL04-01	Terry Bremner	5	5	2.57	2	10
FL04-02	Burr Farms Ltd.	58	58	1.5	1.5	87
FL04-03	Del Cory Farms	40	43	1.97	1.97	85
FL04-04	Gill Farm	30	30	2.05	2	60
FL04-05	Gordon Koka	25	25	1.96	1.96	49
FL04-06	DJM Farms	120	120	1	1	100
FL04-07	JA Nottingham Co. Ltd.	85	85	1.57	1.57	100
FL04-08	Reynelda Farms	55	55	3.28	2	100
FL04-09	H.R. Savage and Sons	57	57	2.25	2	100
FL04-10	Dhaliwal Farms Ltd.	133	133	1.4	1.4	100
FL04-11	Pickmick Dairy Farms Ltd.	40	40	2.02	2	80
FL04-13	Zellweger Farms	60	60	1.64	1.64	98
FL04-14	Jowkema Enterprises Ltd.	77	77	1.35	1.35	100
FL04-15	Warren Nottingham	30	30	1.63	1.63	49
FL04-16	Les Hoggard Farms	47	47	1.52	1.52	71
FL04-17	Eagle View Farms Ltd.	56	56	2.02	2	100
FL04-18	Grove Crest Farms	45	45	1.92	1.92	86
FL04-19	Felix Farms Ltd.	65	65	1.89	1.89	100
FL04-20	Emma Lea Farms	23	23	1.54	1.54	36
FL04-21	Brent Kelly Farms Inc.	85	85	2	2	100
<b>Total</b>			<b>1139</b>			<b>1611</b>



## Appendix 5. Details of Grass margin and Hedgerow Agreements for the 2004/05 Fiscal Year

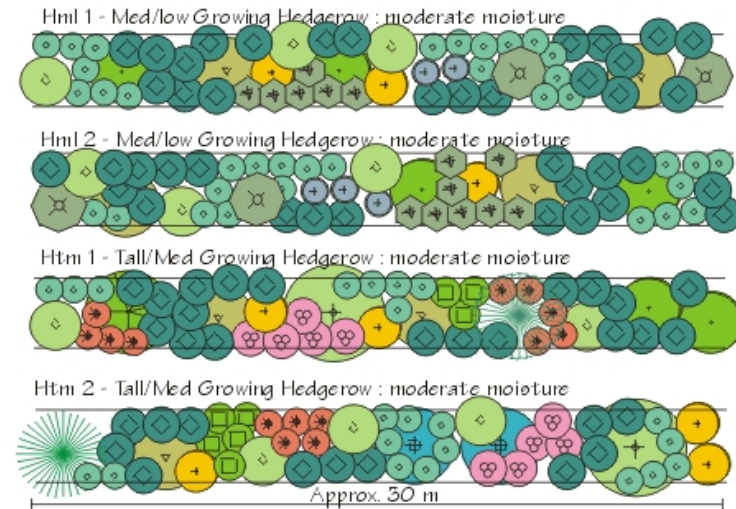
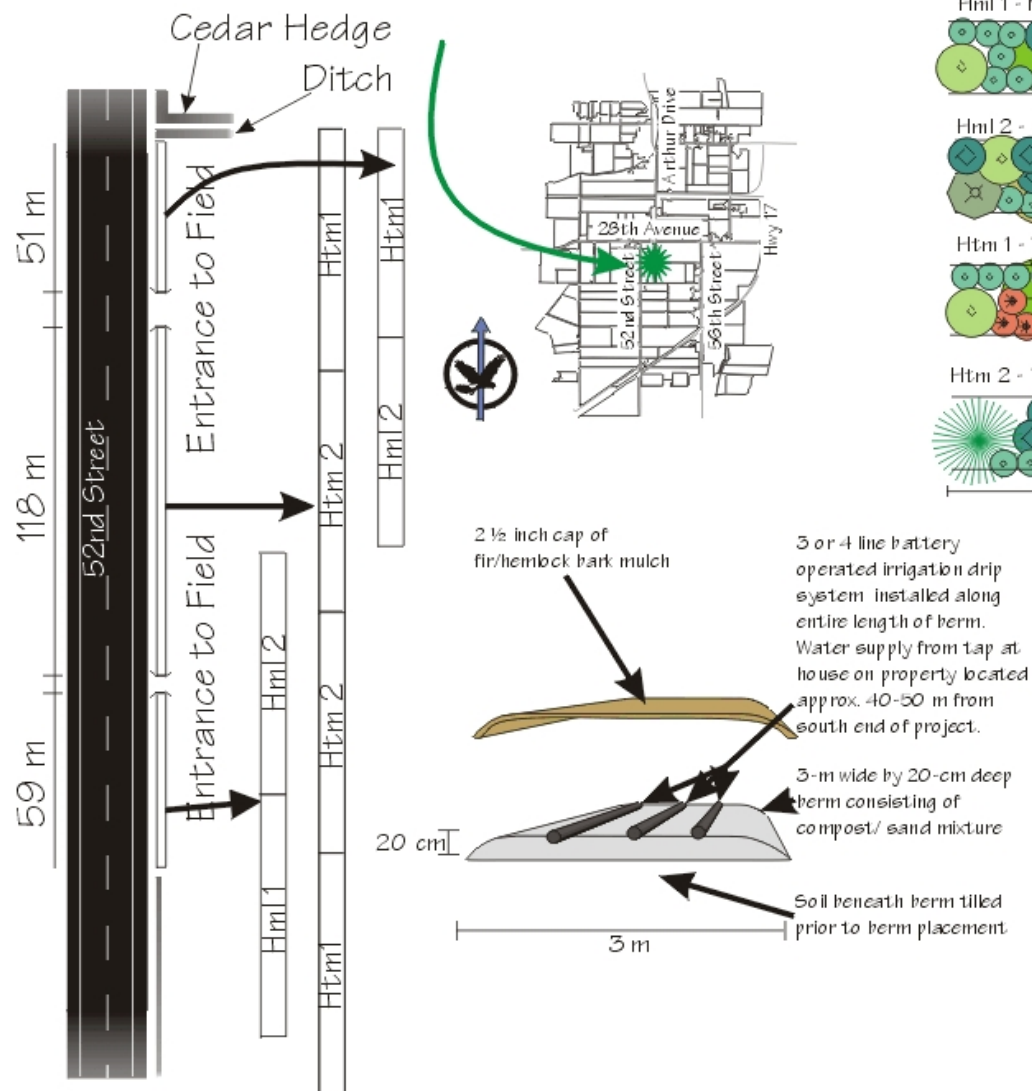
COOPERATOR	year est.	WIDTH (m)	LENGTH (m)	AREA (ac)	FIELD LOCATION	Tree Species	Shrub Species
Ian and Micheline Cameron	1996	4	225	0.22	Tamboline Rd.	N/A	N/A
Suki Badh	1999	3	340	0.25	8442 Ladner Tr.	N/A	N/A
Don Cameron	1999	3	290	0.22	Tamboline Rd.	N/A	N/A
Abtar Singh	1999	5	600	0.75	Westham Island Rd.	N/A	N/A
Grass Margins SUBTOTAL				1.44			
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
Hedgerows 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
Patricia Deptford	1996	2	270	0.13	6438 60th Ave.	5	1
Roland and Sharon Embree	1997	2	460	0.23	6466 68th St.	2	0
Bob and Marilyn Townsend	2003	1.5	190	0.07	3028 Arthur Drive	5	7
SUBTOTAL				6.27			
TOTAL				7.71			



## Appendix 6a

# Evans Hedgerow Design - Spring 2004

## 2680 52nd Street, Delta, B.C.



### Plant Species Code - Delta Farmland and Wildlife Trust Hedgerow Program

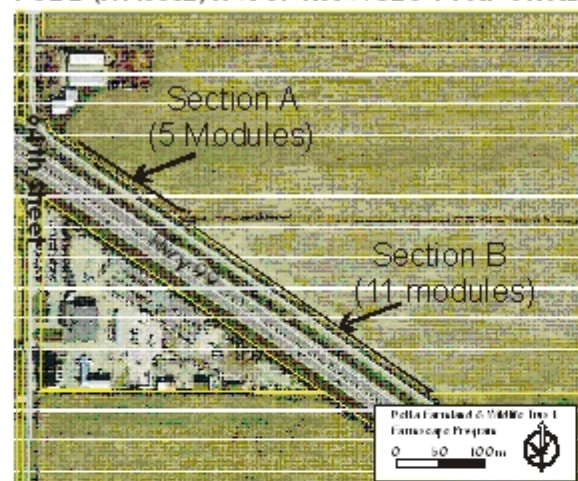
Trees		Shrubs	
<i>Acer sacrophyllum</i>	<i>Thuja plicata</i>	<i>Cornus cornuta</i>	<i>Philadelphus lewisii</i>
<i>Alnus rubra</i>	<i>Picea sitchensis</i>	<i>Cornus tokitifera</i>	<i>Fibrea angustata</i>
<i>Corylus douglasii</i>	<i>Populus trichocarpa</i>	<i>Mahonia aquifolium</i>	<i>Forsythia viridis</i>
<i>Malus fusca</i>	<i>Thuja plicata</i>	<i>Spiraea douglasii</i>	<i>Rubus spectabilis</i>
		<i>Sambucus racemosa</i>	








## Appendix 6b

## Trevor Harris Hedgerow Design - Spring 2005

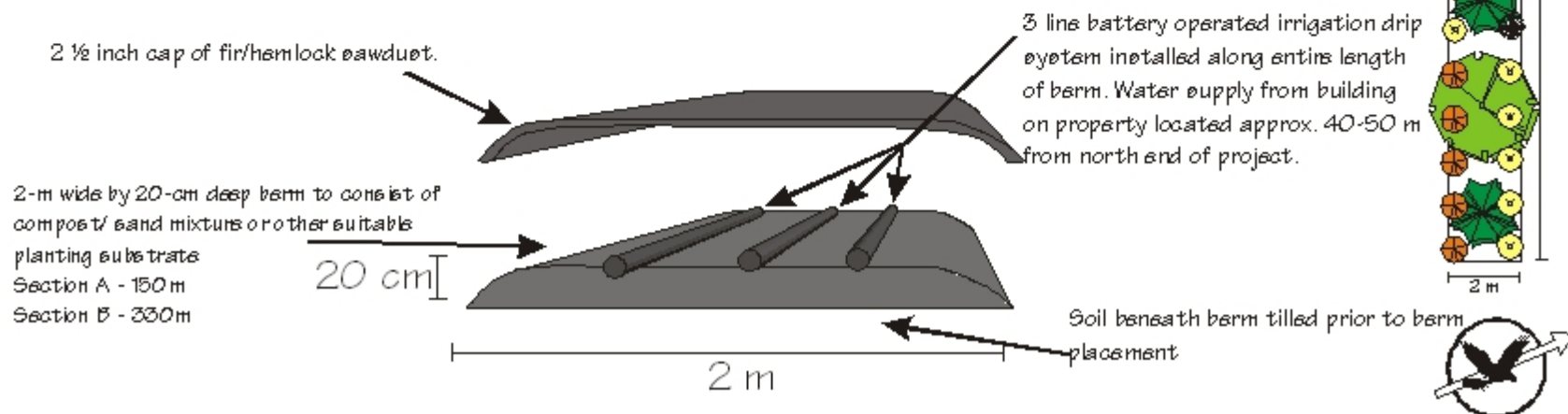
5628 64th Street, Delta, B.C.

PCL B (R14935E) N ½ OF NW ¼ SEC 1 TWP 6 NWD



-  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 - Official Newsletter of the Delta Farmland and Wildlife Trust*

## Appendix B Detailed Financial Statement for the Delta Farmland and Wildlife Trust for the 2004/05 Fiscal Year

Schedule	Projects Fund (restricted)								General and Capital Asset Fund (unrestricted)					Capital Assets	TOTAL
	3	4	5	6	7	8	14	15	9	10	11	12	13		
	Farm scape Program	Grassland Set-asides	Winter Cover Crops	Laser Levelling	Field Liming Program	Monitoring & Evaluation	Wildlife Coord.	Agriculture Coord.	Admin.	IAF Fund-raising	Commun. and Extension	Special Event Fund-raising	Donations		
Revenue:															
Delta Agricultural Society (DAS)		109,400	46,690	48,571	45,339				20,000						270,000
Vancouver Foundation (YVR)	20,199	41,462				1,595	24,963	5,316	10,631		2,126				106,312
Ducks Unlimited Canada (DUC)			20,000								1,650				21,650
B.C. Waterfowl Society (BCWS)			20,000												20,000
Vancouver Foundation (BSCA)		7,264	7,264				1,816	1,199	617						18,160
Canadian Wildlife Service (CWS)			15,000				10,000								25,000
BBQ Income												2,500			2,500
Live Auction															0
Silent Auction															0
Other fundraising															0
General funding															0
Unrestricted donations											3,600		37,645		41,445
Interest and other revenue									1,665						1,665
Restricted donations		1,060	60								7,117				8,237
<b>REVENUE TOTAL</b>	<b>20,199</b>	<b>159,186</b>	<b>109,014</b>	<b>48,571</b>	<b>45,339</b>	<b>1,595</b>	<b>36,799</b>	<b>6,514</b>	<b>32,913</b>	<b>0</b>	<b>14,493</b>	<b>2,500</b>	<b>37,645</b>	<b>0</b>	<b>514,963</b>
Expenses:															
Remittance to co-operators	1,292	171,750	99,855	48,571	48,339										369,807
Farm scape Construction	14,718														14,718
Farm scape Maintenance	6,435														6,435
Program Materials and Supplies			310			431					3,836				4,578
Travel/Mileage	203	67	361			1,211			161		-12				1,992
Wages							58,889	5,715	21,980						86,583
Accounting and Legal									6,583						6,583
Advertising									272			155			427
Capital Asset Depreciation														1,802	1,802
Bank Charges									186						186
BBQ Cost												2,557			2,557
Board Recognition									874						874
Display Updating											10				10
Donor Stewardship												60			60
Event Participation											406				406
Farmland & Wildlife Day											3,076				3,076
Insurance									2,889						2,889
Meetings									186						186
Memberships (LTA, DCC)									194						194
Newsletter											3,592				3,592
Office Supplies, Services									3,053			23			3,076
Rent									11,430						11,430
Staff Prot. Fees and Developm.									961						961
Telephone									1,292						1,292
<b>EXPENSE TOTAL</b>	<b>22,648</b>	<b>171,817</b>	<b>100,526</b>	<b>48,571</b>	<b>48,339</b>	<b>1,643</b>	<b>58,889</b>	<b>5,715</b>	<b>50,060</b>	<b>0</b>	<b>10,908</b>	<b>2,795</b>	<b>0</b>	<b>1,802</b>	<b>523,713</b>
<b>Net Income (loss)</b>	<b>-2,449</b>	<b>-12,631</b>	<b>8,488</b>	<b>0</b>	<b>-3,000</b>	<b>-48</b>	<b>-22,090</b>	<b>799</b>	<b>-17,147</b>	<b>0</b>	<b>3,586</b>	<b>-296</b>	<b>37,645</b>	<b>-1,802</b>	<b>-8,744</b>
Interfund Transfers			-8,488	0	3,000	0	22,090	-799	13,207	8,000	-2,000	-27,009	-8,000	0	0
Fund Balances - Beginning	24,722	43,121	0	345	0	167	0	0	-1,702	-46,000	0	51,447	42,438	6,348	120,687
Fund Balances - End	22,273	30,490	0	345	0	119	0	0	-5,642	-38,000	1,586	24,142	72,283	4,545	112,143

*Notes for Detailed Financial Statement - The previous page is a modified excerpt from DFWT's 2004-05 Financial Audit conducted by Cran and Stuart Certified General Accountants. Results of the Audit can be viewed at the offices of Delta Farmland and Wildlife Trust.*

**Revenue Sources :**

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

*Vancouver Foundation (YVR) – Revenue generated by an endowment held at the Vancouver Foundation originally awarded to DFWT was the result of habitat compensation funds from Transport Canada for the development of the third runway at Vancouver International Airport. Funds are allocated to stewardship programs as per the original agreement with Wildlife Habitat Advisory Committee (WHAC) and current input from the YVR WSF Steering Committee.*

*Ducks Unlimited Canada - 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*

*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. Funds are allocated to stewardship programs as per the original agreement with the Corporation of Delta and current input from the BSCAF Advisory Committee.*

**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. YVR Wildlife Stewardship Fund Update

## Vancouver Foundation - Statement of Fund Activity

Established: April 5, 1995

Statement for January 1, 2004 Through December 31, 2004

<b>YVR Wildlife Stewardship Fund</b>	<b>Market Value</b>	<b>Contributed Principal</b>	<b>Income</b>
Beginning Balance as of January 1, 2004	\$2,419,296.62	\$ 2,250,000.00	\$ 26,808.35
Contributions Received		\$ -	\$ -
Income (See Schedule C below)			\$106,312.06
Distribution (See Schedule D below)			(\$106,348.37)
<b>Ending Balance as of December 31, 2004</b>	<b>\$2,485,272.10</b>	<b>\$ 2,250,000.00</b>	<b>\$ 26,772.04</b>

No. of units @ December 31, 2004: 151,288.68

Unit Value @ December 31, 2003: \$15.9913

Unit Value @ December 31, 2004: \$16.4274

## Schedule C - Income

<b>Date</b>	<b>Description</b>	<b>Amount</b>
03/31/2004	Income Allocated to Fund	\$ 26,486.11
06/30/2004	Income Allocated to Fund	\$ 26,461.90
09/30/2004	Income Allocated to Fund	\$ 26,592.01
12/31/2004	Income Allocated to Fund	\$ 26,772.04
<b>Totals:</b>		<b>\$ 106,312.06</b>

## Schedule D - Distribution

<b>Date</b>	<b>Grantee/Purpose</b>	<b>Amount</b>
02/03/2004	Delta Farmland and Wildlife Trust Endowment Income	\$ 26,808.35
05/03/2004	Delta Farmland and Wildlife Trust Endowment Income	\$ 26,486.11
08/03/2004	Delta Farmland and Wildlife Trust Endowment Income	\$ 26,461.90
11/01/2004	Delta Farmland and Wildlife Trust Endowment Income	\$ 26,592.01
<b>Totals:</b>		<b>\$ 106,348.37</b>



## Use of YVR Wildlife Stewardship Fund Endowment Income and Net Assets for Fiscal year 2004/05

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

	Budget	% of	Actual	% of
	2004/05	Budget	2004/05	Actual
<b>Revenues:</b>				
Vancouver Foundation - YVR WSF	\$107,000.00		\$106,312.06	
<b>Revenue Total</b>	<b>\$107,000.00</b>		<b>\$106,312.06</b>	
<b>Expenses:</b>				
Farmscape	\$ 22,330.00	19	\$ 20,199.29	19
Grassland Set-asides	\$ 41,730.00	39	\$ 41,461.70	39
Newsletter	\$ 2,140.00	2	\$ 2,126.24	2
Monitoring and Evaluation	\$ 10,700.00	10	\$ 10,631.20	10
Co-ordination	\$ 21,400.00	20	\$ 21,262.40	20
Administration	\$ 10,700.00	10	\$ 10,631.20	10
<b>Total</b>	<b>\$107,000.00</b>		<b>\$106,312.06</b>	
<b>Revenues Minus Expenses</b>	<b>\$ 0.00</b>		<b>\$ 0.00</b>	
<b>Net Assets - Beginning</b>	<b>\$ 0.00</b>		<b>\$ 0.00</b>	
<b>Net Assets - Ending</b>	<b>\$ 0.00</b>		<b>\$ 0.00</b>	



Anticipated Budget for 2005/06 for use of YVR WSF Income

Reports from the Vancouver Foundation indicated that the usable income from the YVR WSF would be approximately \$108,900 for the 2005/06 fiscal year.

	Budget 2005/06	% of Budget
<b>Revenues:</b>		
Vancouver Foundation - YVR WSF	\$108,900.00	
<b>Revenue Total</b>	<b>\$108,900.00</b>	
<b>Expenses:</b>		
Farmscape	\$ 20,691.00	19
Grassland Set-asides	\$ 42,471.00	39
Newsletter	\$ 2,178.00	2
Monitoring and Evaluation	\$ 10,890.00	10
Co-ordination	\$ 21,780.00	20
Administration	\$ 10,890.00	10
<b>Total</b>	<b>\$ 108,900.00</b>	
<b>Revenues Minus Expenses</b>	<b>\$ 0.00</b>	
<b>Net Assets - Beginning</b>	<b>\$ 0.00</b>	
<b>Net Assets - Ending</b>	<b>\$ 0.00</b>	

## Appendix 10. Boundary Shores Compensation Agreement Fund (Partners in Stewardship Fund) Update

## Vancouver Foundation - Statement of Fund Activity

Established: December 6, 2000

Statement for January 1, 2004 Through December 31, 2004

<b>Partners in Stewardship Fund</b>	<b>Market Value</b>	<b>Contributed Principal</b>	<b>Income</b>
Beginning Balance as of January 1, 2004	\$413,257.17	\$ 531,720.00	\$ 4,579.32
Contributions Received		\$ -	\$ -
Income (See Schedule C below)			\$ 18,159.91
Distribution (See Schedule D below)			(\$ 18,166.11)
<b>Ending Balance as of December 31, 2004</b>	<b>\$424,536.91</b>	<b>\$ 531,720.00</b>	<b>\$ 4,573.12</b>

No. of units @ December 31, 2004: 25,842.69

Unit Value @ December 31, 2003: \$15.9913

Unit Value @ December 31, 2004: \$16.4274

## Schedule C - Income

<b>Date</b>	<b>Description</b>	<b>Amount</b>
03/31/2004	Income Allocated to Fund	\$ 4,524.28
06/30/2004	Income Allocated to Fund	\$ 4,520.14
09/30/2004	Income Allocated to Fund	\$ 4,542.37
12/31/2004	Income Allocated to Fund	\$ 4,573.12
	<b>Totals:</b>	<b>\$ 18,159.91</b>

## Schedule D - Distribution

<b>Date</b>	<b>Grantee/Purpose</b>	<b>Amount</b>
02/03/2004	Delta Farmland and Wildlife Trust Endowment Income	\$ 4,579.32
05/03/2004	Delta Farmland and Wildlife Trust Endowment Income	\$ 4,524.28
08/03/2004	Delta Farmland and Wildlife Trust Endowment Income	\$ 4,520.14
11/01/2004	Delta Farmland and Wildlife Trust Endowment Income	\$ 4,542.37
	<b>Totals:</b>	<b>\$ 18,166.11</b>

Use of Partners in Stewardship Fund Endowment Income for Fiscal year 2004/05

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

	Budget 2004/05	% of Budget	Actual 2004/05	% of Actual
<b>Revenues:</b>				
Vancouver Foundation – Partners in Stewardship Fund	\$ 18,000.00		\$ 18,159.91	
<b>Revenue Total</b>	<b>\$ 18,000.00</b>		<b>\$ 18,159.91</b>	
<b>Expenses</b>				
Grassland Set-asides	\$ 7,200.00	40.0	\$ 7,263.96	40.0
Winter Cover Crops	\$ 7,200.00	40.0	\$ 7,263.96	40.0
Delivery, Co-ordination, M&E	\$ 2,988.00	16.6	\$ 3,014.55	16.6
Administration	\$ 612.00	3.4	\$ 617.44	3.4
<b>Total</b>	<b>\$ 18,000.00</b>		<b>\$ 18,159.91</b>	
<b>Revenues Minus Expenses</b>	<b>\$ 0.00</b>		<b>\$ -</b>	
<b>Net Assets - Beginning</b>	<b>\$ -</b>		<b>\$ -</b>	
<b>Net Assets - Ending</b>	<b>\$ -</b>		<b>\$ -</b>	

*Anticipated Budget for 2005/06 for the use of BSCA Fund Income*

*Reports from the Vancouver Foundation indicated that the usable income from the BSCA would be approximately \$18,600 for the 2005/06 fiscal year.*

	Budget	% of Budget
	2004/05	
<i>Revenues:</i>		
<i>Vancouver Foundation – Partners in Stewardship Fund</i>	\$ 18,600.00	
<i>Revenue Total</i>	\$ 18,600.00	
<i>Expenses</i>		
<i>Grassland Set-asides</i>	\$ 7,440.00	40.0
<i>Winter Cover Crops</i>	\$ 7,440.00	40.0
<i>Delivery, Co-ordination, M&amp;E</i>	\$ 3,087.60	16.6
<i>Administration</i>	\$ 632.40	3.4
<i>Total</i>	\$ 18,600.00	
<i>Revenues Minus Expenses</i>	\$ -	
<i>Net Assets - Ending</i>	\$ -	

## Appendix II. Details of North Growth Management Funds

In 2000 the Rudy and Patricia North Foundation established a \$25,000 account in the North Growth U.S. Equity Fund as a donation to the Delta Farmland and Wildlife Trust. At that time DFWT decided to follow the advice of the donor and commit to leaving the donation within the fund for at least the suggested 5-year period with distributions from the fund being reinvested in the fund. We are now 4½ years into this period of investment and the market value of the initial donation has grown by 53.4%. In December 2004 the Rudy and Patricia North Foundation (now the North Growth Foundation) awarded a second gift of \$25,000 invested in the North Growth Management Canadian Equity Fund. DFWT intends to leave both of these funds in place until the end of the first 5 full years of investment, then decide on the use or further investment of the funds at that time. DFWT's balance sheet reflects the book value of the fund, which is allocated to Schedule 13 (Donations). DFWT will write-off any potential loss at such time when funds are withdrawn from the account.

### North Growth Management Ltd. - Statement of Fund Activity

#### North Growth U.S. Equity Fund

Established: October 31, 2000

Statement for March 31, 2004 Through March 31, 2005

North Growth U.S. Equity Fund	Book Value	Unit Balance	Unit Price (\$)	Market Value
	(contributed principal)			
Opening Balance as of March 31, 2004	\$ 33,122.32	1530.303	\$ 23.5983	\$ 36,112.55
Distribution (Income)	\$ 156.27	6.411	\$ 24.3755	\$ 156.27
Ending Balance as of March 31, 2005	\$ 33,278.69	1536.714	\$ 24.9508	\$ 38,342.24

#### North Growth Canadian Equity Fund

Established: December 16, 2004

Statement for March 31, 2004 Through March 31, 2005

North Growth Canadian Equity Fund	Book Value	Unit Balance	Unit Price (\$)	Market Value
	(contributed principal)			
Opening Balance as of March 31, 2004	\$ 0.00	0	\$ 12.2127	\$ 0.00
Purchase December 16, 2004	\$ 25,000.00	1934.326	\$ 12.9244	\$ 25,000.00
Distribution (Income)	\$ 281.41	21.829	\$ 12.8915	\$ 281.41
Ending Balance as of March 31, 2005	\$ 33,278.69	1956.155	\$ 12.8521	\$ 25,140.70