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PREFACE

Organization of Report

The format of the 2003/2004 Annual Report is similar to previous Annual Reports in that funded projects are presented by category and program areas.

Projects are listed in the following categories and program areas:
Open Priority Program Areas:

- Eco-tourism
- Ecosystem Conservation
- Environmental Technology Innovation and Demonstration
- Northern Community Development and Environmental Issues
- Regional Waste Management
- Sustainable Agricultural Practices
- Sustainable Community Development
- Understanding Our Environment
- Water

Broad Allocations:

- Environmental Youth Corps
- Manitoba Climate Change Action Fund
- Manitoba Habitat Heritage Corporation Southwest (Agro) Woodlot Program
- Orphan Mine Site Assessment Program
- Orphan Mine Site Rehabilitation Program
- Waste Reduction and Pollution Prevention Fund
- Zebra Mussel Program

Purpose

The Sustainable Development Innovations Fund was created in October 1989 to provide financial assistance towards development, implementation and promotion of environmental innovation and sustainable development projects. The Fund was continued under *The Sustainable Development Act,* proclaimed July 1, 1998.

The Fund provides grants in support of innovative projects, activities, research and developments that further the sustainability of Manitoba's environment, economy, human health and social well-being, and support sustainable economic growth. The Fund encourages creation of partnerships towards improving this sustainability.

Projects qualifying for support must:

- address one or more of the priority areas;
- demonstrate measurable progress towards achieving one or more of the Fund's objectives;
- promote a sustainable approach, have clear environmental benefits, and take into account benefits to the community and the economy;
- be environmentally and ecologically sound;
- involve youth where possible;
- adhere to a realistic budget and use appropriate resources to conduct the project;
- have a distinct start and finish, and be implemented in a timely fashion;
- have written support from all entities, including financial contributions, in-kind project support and/or technical expertise;
- conduct project activities in Manitoba or be of benefit to Manitoba; and
- have a clear concrete plan for future use, sharing, or replication.

Ineligible applications and funding requests include:

- projects that will result in proprietary knowledge and being held exclusively by the grant recipient;
- applications for debt financing or cost recovery purposes;
- purchase of playground and recreational equipment;
- purchase of real property, including land, buildings or vehicles;
- ongoing administration and established operational budgets;
- Initiatives that need to be undertaken as a result of a government order, such as removal of petroleum distribution systems, investigations, and remediation.

Source of Revenue

Revenue for the fund is derived from an environmental protection tax on glass liquor bottles and disposable diapers.

Process

The Pollution Prevention (P2) Branch of Manitoba Conservation administers the Sustainable Development Innovations Fund with the cooperation of provincial government departments. Proposals submitted for funding consideration are evaluated against the SDIF criteria by provincial staff. The evaluations are compiled and summarized and then submitted for review to the SDIF Advisory Review Committee, which is comprised of representatives from provincial government departments. The Advisory Committee reviews the proposals and the evaluations and makes funding recommendations to the Minister of Conservation. The Minister of Conservation has delegated approval authority for projects receiving funding of $25,000 or less. Projects to be awarded funding in excess of $25,000 are subject to Treasury Board approval.

Communication

The Sustainable Development Innovations Fund is promoted through the following activities:

- Speaking engagements
- Pollution Prevention web site – www.susdev.gov.mb.ca
- Community events, trade shows, exhibitions, conferences
- Ministerial announcement of funded projects
- News releases
- Acknowledgement in publications, printed material, and signage of funded projects
- Listing in Funding Directories
- Provincial government offices and staff
- Word of mouth

A total allocation of $3.4 million was authorized to support the SDIF, which is comprised of the Open Category and seven targeted broad allocations. The targeted allocations are:

- Environmental Youth Corps (EYC)
- Manitoba Climate Change Action Fund (MCCAF)
- Manitoba Habitat Heritage Corporation Southwest Agro-Woodlot Program
- Orphan Mine Site Rehabilitation Program
- Orphan Mine Site Assessment Program
- Waste Reduction and Pollution Prevention (WRAPP) Fund
- Zebra Mussel Program

The MCCAF is managed by Manitoba Energy, Science and Technology, the Orphan Mine Site Rehabilitation Program is managed by Manitoba Industry, Economic Development and Mines and the Zebra Mussel Program is administered by Manitoba Water Stewardship. The remaining broad allocations are administered by Manitoba Conservation.

Sixty new projects were approved for funding from the Open Category of the SDIF in 2003/04, expending approximately $1.11 million. Projects funded include ventures that focus on Aboriginal interests, youth programming, training initiatives and scientific analysis. The seven broad allocations spent $1.76 million, while $69,229.91 was expended on seven projects carried over from previous fiscal years. In total, $2,944,892.09 was expended against a total of $3.1 million[1]. A summary of project expenditures under the Open Category — Priority Program Areas and Broad Allocations is presented on the following pages.

[1] Mid-year expenditure management reduced the SDIF allocation by $300.0 to $3.1 million.

OPEN CATEGORY — PRIORITY PROGRAM AREAS

Eco-tourism:

A total of $94,990.00 was expended in 2003/2004 for six projects described in the eco-tourism category. The projects approved under this category are initiatives that address ecosystem preservation, public education and economic opportunities through tourism with a priority on rural and northern communities.

Ecosystem Conservation:

A total of $78,290.00 was expended in 2003/2004 for four projects in the ecosystem category. The objectives of this category are to conserve resources, preserve and maintain urban forests and ecosystems and rehabilitate and revitalize degraded areas.

Environmental Technology Innovation and Demonstration:

A total of $74,950.00 was expended in 2003/2004 for two projects in the environmental technology innovation and demonstration category. Projects that fall within this category include feasibility studies, research and development of new products and processes, environmental technology demonstrations, and special projects, such as strategic studies relating to industrial sectors.

Northern Community Development and Environmental Issues:

A total of $140,000.00 was expended during the 2003/2004 fiscal year for five projects funded in the northern community development and environmental issues category. Projects in this category should reflect the enhancement of the environment and sustainable economic development activities of northern and remote communities, with a priority on Aboriginal communities.

Regional Waste Management:

A total of $50,000.00 was expended during the 2003/2004 fiscal year for two projects in the regional waste management category. The objectives of this category are to develop and enhance waste transfer stations with the goal of minimizing environmental risk from landfill waste.

Sustainable Agricultural Practices:

A total of $212,856.48 was expended during the 2003/2004 fiscal year for eleven projects in the sustainable agricultural practices category. Projects that fall within this category include research, demonstration projects, and feasibility studies on agricultural practices that protect the environment and that will assist in diversifying Manitoba's agricultural sector.

Sustainable Community Development:

A total of $63,875.00 was expended during the 2003/2004 fiscal year for four projects in the sustainable community development category. Sustainable community practices include eco-efficiency initiatives, environmental stewardship, capacity building mechanisms, and encouragement of inner city revitalization, with and emphasis on partnerships with Aboriginal people and youth.

Understanding Our Environment:

A total of $245,640.00 was expended during the 2003/2004 fiscal year for seventeen projects in the understanding our environment category. Projects that fit into this category help Manitobans make educated decisions and take action regarding the environment, such as education and awareness activities, training, research, seminars and forums.

Water:

A total of $154,260.00 was expended during the 2003/2004 fiscal year for nine projects in the water category. Projects in this category include initiatives that address aquatic nuisance species, livestock stewardship, water quality protection, wise and efficient use of water resources, and scientific and technological innovation in the development, testing, and implementation of technologies that reduce water waste and conserve water.

BROAD ALLOCATIONS

Environmental Youth Corps:

A total of $200,000.00 was expended during the 2003/2004 fiscal year for seventy-four projects funded through the Environmental Youth Corps (EYC) and the administrative cost of managing the Fund. The EYC supports projects in the various regions of Manitoba that include water quality, waste minimization, protection of flora and fauna, rehabilitation and conservation of the natural environment, wildlife conservation and habitat preservation.

Manitoba Climate Change Action Fund:

A total of $247,420.00 was expended during the 2003/2004 fiscal year for eleven projects funded through the Manitoba Climate Change Action Fund (MCCAF). The priority areas within MCCAF include education and outreach, impacts and adaptation, technical innovation and energy efficiency.

Manitoba Habitat Heritage Corporation (MHHC) Southwest (Agro) Woodlot Program

A total of $210,870.00 was expended during the 2003/2004 fiscal year to maintain the MHHC Southwest Woodlot Program at its existing level of funding once the Canada-Manitoba agreement was terminated. This program was established to encourage private landowners in southwestern Manitoba to use Agro-forestry and woodlot management practices that diversify farm income and maintain wildlife habitat.

Orphan Mine Site Assessment Program

A total of $305,936.48 was expended by the Department of Conservation during the 2003/2004 fiscal year to undertake two independent assessments of identified orphan mine sites and adjacent environment to characterize and determine the management strategy to protect the environment and area residents.

Orphan Mine Site Rehabilitation Program:

A total of $249,964.36 was expended by Manitoba Industry, Trade and Mines during the 2003/2004 fiscal year to carry out rehabilitation measures at orphan mine sites in northern Manitoba.

Waste Reduction and Pollution Prevention (WRAPP) Fund:

A total of $522,766.43 was expended during the 2003/2004 fiscal year for twenty-eight projects and program development funded through the Waste Reduction and Pollution Prevention Fund (WRAPP). The priority areas within the WRAPP Fund include composting, construction and demolition (C&D) waste management, green procurement, institutional waste reduction, integrated waste management, market development, parks projects, pollution prevention, promotion and education, and regional recycling.

Zebra Mussel Program:

A total of $23,843.43 was expended by Manitoba Conservation during the 2003/2004 fiscal year to undertake activities that will prevent the spread of zebra mussels into Manitoba lakes, rivers and streams.

Table 1: **Summary of SDIF Open Category and Broad Allocation Projects**

Project Categories	Number of Projects Allocated Funding in 2003/2004	Amount Expended
Open Category		
Eco-tourism	6	$ 94,990.00
Ecosystem Conservation	4	$ 78,290.00
Environmental Technology Innovation and Demonstration	2	$ 74,950.00
Northern Community Development and Environmental Issues	5	$140,000.00
Regional Waste Management	2	$ 50,000.00
Sustainable Agricultural Practices	11	$212,856.48
Sustainable Community Development	4	$ 63,875.00
Understanding Our Environment	17	$245,640.00
Water	9	$154,260.00
Broad Allocations		
Environmental Youth Corps (EYC)	74	$200,000.00
Manitoba Climate Change Action Fund (MCCAF)	11	$247,420.00
Manitoba Habitat Heritage Corporation Southwest (Agro) Woodlot Program[2]	N/A	$210,870.00
Orphan Mine Site Assessment Program	N/A	$305,936.48
Orphan Mine Site Rehabilitation Program	N/A	$249,964.36
Waste Reduction and Pollution Prevention (WRAPP) Fund	28	$522,766.43
Zebra Mussel Program	N/A	$ 23,843.43
Total for Broad Allocations	**113**	**$1,760,800.70**
Total for Open Category	**60**	**$1,114,861.48**
Projects Carried Over into 2003/04	**7**	**$69,229.91**
Total for SDIF	**180**	**$2,944,892.09**

[2] The Manitoba Habitat Heritage Corporation Southwest (Agro) Woodlot Program, the Orphan Mine Site Assessment Program, the Orphan Mine Site Rehabilitation Program and the Zebra Mussel Program support specific activities related to these issues and do not award grants to project proponents.

ECO-TOURISM

PROJECTS ALLOCATED FUNDING

DURING THE 2003/2004 FISCAL YEAR

Number of Projects: 6

Total Amount Expended: $94,990.00

Project Name	**Total Expended**
Green Corridor Master Plan	$10,000.00
Pine Creek Trail Enhancement	$22,300.00
Public Education and Conservation	$10,690.00
Red River Greenway Educational Project	$25,000.00
Riverton Sandy Bar Spits Renovation, Revitalization, Environmental and Natural Preservation Project	$22,000.00
Windmill/Park Project	$ 5,000.00

ECO-TOURISM

DETAILED LISTING OF PROJECTS ALLOCATED

FUNDING DURING THE 2003/2004 FISCAL YEAR

GREEN CORRIDOR MASTER PLAN

Proponents Are: Fort Whyte Centre
Date Approved: December 23, 2003
Total Amount Approved: $10,000.00
Total Amount Expended: $10,000.00

Summary:

A grant of $10,000.00 was approved to develop a Corridor Master Plan that will create a future blueprint for a major recreational “spine” through southwest Winnipeg. The "green corridor" is intended to link Assiniboine Park to the north with existing and future developments in southwest Winnipeg through the Fort Whyte Centre’s 640 acres of urban greenspace. The Centre will liaise with the City of Winnipeg, Partners of the Park, Rivers West, Manitoba Recreational Trails and other organizations to conduct an inventory and analysis to determine the natural, physical and neighbourhood context of Fort Whyte Centre lands and the overall recreational corridor route. Once the inventory and analysis are complete, concept development will be initiated to reveal and document development and program possibilities for the various sections of the corridor throughout the trail route.

PINE CREEK TRAIL ENHANCEMENT

Proponents Are: North East Sustainable Development Association Inc.
Date Approved: December 23, 2003
Total Amount Approved: $22,300.00
Total Amount Expended: $22,300.00

Summary:

A grant of $22,300.00 was approved to undertake phase II of the "Interpretative Education Trail Enhancement Project" by conducting various activities that will further enhance and revitalize Pine Creek Trail, as well as provide opportunities to educate students and the public on sustainable forestry practices, forest ecosystems, biodiversity and the role of the boreal forest. The project will be undertaken cooperatively with community volunteers, industry, youth and schools inclusive of the various cultures in the area. It is intended that students will share tasks, help in the design and placement of selected project activities, and experience hands-on learning opportunities. The goal of this initiative is to provide an outdoor working laboratory where students from four school divisions and different cultures will be able to take ownership of the project, enjoy the outdoor experience, share their viewpoints, values and cultures, and together form partnerships and friendships.

PUBLIC EDUCATION AND CONSERVATION

Proponents Are: William Street Publishing
Date Approved: October 10, 2003
Total Amount Approved: $10,690.00
Total Amount Expended: $10,690.00

Summary:

A grant of $10,690.00 was approved to educate the public and promote Manitoba's natural heritage by documenting and creating a nature-viewing guide for publication in print and digital format. The initial phase of this initiative will involve the compilation of research information gathered from field research and literature reviews of candidate sites. Riparian stewardship initiatives, demonstration projects or interpretive features that promote environmental stewardship or habitat management will rank high in the site selection process. A cartographer will design an original map to guide potential visitors and high-resolution digital photos will be created for the selected nature viewing sites and self-guided tour itineraries. It is intended that the end result will be the creation of literature about Manitoba's natural heritage leading to an increased appreciation and knowledge about conservation, habitat management, and environmental stewardship.

RED RIVER GREENWAY EDUCATIONAL PROJECT

Proponents Are: Rivers West-Red River Corridor Association Inc.
Date Approved: June 26, 2003
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved to demonstrate the developmental requirements and educational value of creating a "greenway" along the Red River corridor from Emerson to Lake Winnipeg. Greenways are corridors of protected open space managed for conservation and recreation purposes. Educational materials will be developed to identify the important role that greenways play in promoting and supporting the natural, tourism, cultural and heritage, and recreational resources available along the Red River corridor. In undertaking phase one, a "signature greenway" will be established at Fort Dufferin, near the Town of Emerson, Manitoba. A trail system will be established and interpretative signage developed for educational purposes. Signage will depict the natural history and flooding of the area, as well as identification of local flora and fauna. An informational brochure will be developed and distributed to all landowners in the Red River Valley highlighting the importance of greenways to flood mitigation and conservation efforts, such as riparian habitat restoration and ecosystem preservation, as well as identifying ways landowners can participate in creating a continuous greenway. The project intends to demonstrate the importance of greenways to flood mitigation, protection of habitat, and serve as a model for future greenway development along the Red River. A greenway curriculum unit targeted at middle years' students is also proposed as part of the second phase of the initiative.

RIVERTON SANDY BAR SPITS RENOVATION, REVITALIZATION, ENVIRONMENTAL AND NATURAL PRESERVATION PROJECT

Proponents Are: Riverton-Bifrost Community Development Corporation
Date Approved: December 23, 2003
Total Amount Approved: $22,000.00
Total Amount Expended: $22,000.00

Summary:

A grant of $22,000.00 was approved to increase eco-tourism opportunities and undertake activities that will assist in preserving and protecting the natural marsh habitat for birds, fish and wildlife in the Riverton Sandy Bar Spits. Phase I involves constructing a nature walking trail, an observation mound; blinds that will be strategically placed along the trail; and two artificial islands for use by various bird species for nesting and predator protection. As well, surveys and research into animal behaviour and habitat, birds and vegetation within the area will be conducted. Phase II involves enhancing the parking lot and the building on the site, constructing environmentally friendly rest facilities, revitalizing the beach swimming area, constructing and erecting signage, and development of community school programs and other promotional items.

WINDMILL/PARK PROJECT

Proponents Are: Holland Park Committee
Date Approved: July 8, 2003
Total Amount Approved: $5,000.00
Total Amount Expended: $5,000.00

Summary:

A grant of $5,000.00 was approved to revitalize a two-acre area into a community accessible green space with walking paths that can be utilized year round. The project will increase awareness of the need to protect the environment, help create an atmosphere that will sustain birds and animals, and encourage bird watchers to enjoy the community green space. The project will be facilitated by community volunteers who will assist in creating a park-like setting with the planting of native grasses and trees, planting flower beds around the main focal point, the windmill area, as well as constructing birdhouses, flower containers and picnic tables.

ECOSYSTEM CONSERVATION

PROJECTS ALLOCATED FUNDING

DURING THE 2003/2004 FISCAL YEAR

Number of Projects: 4

Total Amount Expended: $78,290.00

Project Name	**Total Expended**
Acre By Acre	$24,000.00
Environmentally Sensitive Lands Plan	$25,000.00
Reclaim two former St. Vital dumpsites and restore degraded riparian forest along Winnipeg's Seine River	$25,000.00
Seeding Cypripedium Species Project	$ 4,290.00

ECOSYSTEM CONSERVATION

DETAILED LISTING OF PROJECTS ALLOCATED

FUNDING DURING THE 2003/2004 FISCAL YEAR

ACRE BY ACRE

Proponents Are: Fort Whyte Centre
Date Approved: July 8, 2003
Total Amount Approved: $24,000.00
Total Amount Expended: $24,000.00

Summary:

A grant of $24,000.00 was approved to demonstrate habitat restoration techniques. The intent of the project is to create multi-aged, disease free plots within forest, grassland and meadow habitats for the benefit of native Manitoba flora and fauna, as well as develop educational tools that will identify the importance of habitat protection and restoration activities. Three habitat restoration demonstration projects will be undertaken. One acre of the "Muir Lake Meadow" will be restored using a controlled burn, mimicking the natural impact and encouraging re-growth of meadow species. Interpretive signage will be developed to explain how the burn creates multi-aged habitats and species diversity. One acre of previously cultivated land will be restored to prairie grassland, consisting of mixed native vegetation. Once restored, the grassland will be monitored for species diversity and interpretative signage will be placed throughout the area. Three one-acre plots of Fort Whyte's "Millennium Forest" will be used to showcase sustainable forestry principals and practices, such as irregular clear-cut, selection harvest and stand conversion for public demonstration and interpretation purposes. Fort Whyte Centre will use the plots as "living textbooks" for the Centre's middle years' "Sustainable Forests" program.

ENVIRONMENTALLY SENSITIVE LANDS PLAN

Proponents Are: City of Winnipeg Naturalist Services Branch
Date Approved: July 8, 2003
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved to develop an Environmentally Sensitive Lands Plan for managing and protecting environmentally sensitive lands and natural areas. The goal of this initiative is to create a by-law for the protection and management of environmentally sensitive lands. It is proposed that the by-law would have as its reference, a technical document containing maps and outline of the various tools and management techniques needed for protecting these lands. In undertaking this initiative, an inventory and a prioritization of lands with natural heritage and environmentally sensitive features will be created, allowing the City of Winnipeg to better manage urban forests and ecosystems. Maps will also be created using previously conducted land inventories and newly collected land inventories. This information will be geographically referenced using the City of Winnipeg's Information System (GIS) software. It is intended that the Environmentally Sensitive Lands Plan will assist in managing, protecting, rehabilitating, and revitalizing designated environmentally sensitive lands, including natural and degraded areas. The Plan will also assist in directing future community development plans to be developed in an environmentally sensitive manner.

RECLAIM TWO FORMER ST. VITAL DUMPSITES AND RESTORE DEGRADED RIPARIAN FOREST ALONG WINNIPEG'S SEINE RIVER

Proponents Are: Save Our Seine River Environment, Inc.
Date Approved: March 19, 2003
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved to conduct a two-year project to ensure the survival of the valuable riparian corridor along the Seine River, protect water quality, and ensure the safety and health of the surrounding community and greenway-users. The Seine River Greenway has been recognized since the early 1970s for its potential to serve as a corridor for natural areas, parks, cultural and historic features within Winnipeg. The project involves cleaning up two former dumpsites in St. Vital, one at the end of Beliveau Road and the other within the *Bois des Esprits* - the largest remaining piece of habitat on the Seine River, then restoring these sites by planting native tree and shrub species. This is intended to increase terrestrial and aquatic wildlife habitat, prevent further soil erosion, reduce pollution of the watershed and reduce the risk of flooding. Community residents will have the opportunity to develop a greater understanding of ecological restoration through hands-on experience and by working collectively to positively influence decisions that affect them and the environment surrounding them.

SEEDING CYPRIPEDIUM SPECIES PROJECT

Proponents Are: Conserve Native Plants Society
Date Approved: March 4, 2004
Total Amount Approved: $4,290.00
Total Amount Expended: $4,290.00

Summary:

A grant of $4,290.00 was approved to undertake a research project to determine if native orchid species, Showy Lady's Slipper, Yellow Lady's Slipper and Moccasin Flower, can be propagated by way of "seed scattering" on lands previously harvested for peat production and other natural areas. The intent of the research is to determine the feasibility of returning orchids to restored areas, introducing or augmenting natural populations of endangered species in protected areas, and provide a framework for complementary research being undertaken in other areas. Cypripedium do not survive transplantation from tissue culture or other propagation methods, therefore, this project will attempt to increase the population with seed collected from hand pollination or from wild populations. The project is expected to assist in conserving, protecting and reintroducing endangered flora in Manitoba. In undertaking this initiative, the University of Manitoba, Department of Plant Science will provide technical expertise on native orchids, and volunteers from Brokenhead First Nation and Buffalo Point First Nation will assist in seeding.

ENVIRONMENTAL TECHNOLOGY INNOVATION AND DEMONSTRATION

PROJECTS ALLOCATED FUNDING

DURING THE 2003/2004 FISCAL YEAR

Number of Projects: 2

Total Amount Expended: $74,950.00

Project Name	**Total Expended**
Ozonation Reduces Sludge Production and Pollutants	$25,000.00
Salt Contaminated Soil Phytoremediation	$49,950.00

ENVIRONMENTAL TECHNOLOGY INNOVATION AND DEMONSTRATION

DETAILED LISTING OF PROJECTS ALLOCATED

FUNDING DURING THE 2003/2004 FISCAL YEAR

OZONATION REDUCES SLUDGE PRODUCTION AND POLLUTANTS

Proponents Are: University of Manitoba, Faculty of Engineering, Department of Civil Engineering
Date Approved: December 23, 2003
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved to conduct a series of bench scale experiments with a biological nutrient removal system. The project involves use of ozone to treat a portion of return activated sludge in a multi-phase system removing nutrients, produce less waste sludge, generate carbon to facilitate nutrient removal, and remove endocrine disrupting hormones. During the Clean Environment Commission hearings into the discharges of wastewater into the Red River, the public raised concerns regarding biologically active compounds (BAC) such as pharmaceuticals and hormones affecting downstream and Lake Winnipeg water quality. Research has shown the presence of hormones in the effluent due to the lack of in-plant removal. The proposed research is expected to provide information useful in determining methods of achieving nutrient and contaminant reduction. The result would be improved effluent quality from the Winnipeg North End Pollution Centre and improved water quality in Manitoba's waterways and lakes. The project is being undertaken in collaboration with the City of Winnipeg and EarthTech Consulting Engineers.

SALT CONTAMINATED SOIL PHYTOREMEDIATION

Proponents Are: ERIN Consulting Ltd.
Date Approved: February 24, 2004
Total Amount Approved: $49,950.00
Total Amount Expended: $49,950.00

Summary:

A grant of $49,950.00 was approved to conduct a two-year research project to investigate and demonstrate the use of halophytic (salt tolerant) plants to revegetate and rehabilitate areas affected by brine spills. The research will be undertaken at a contaminated site near the edge of Lulu Lake in Turtle Mountain Provincial Park. The site is approximately 50 acres in size, with two of the selected study sites being severely contaminated with brine and each site being approximately two acres in size. The project involves identifying a group of halophytic plants that can be used to clean up brine contamination; understanding the potential amount and speed of bioaccumulation in the various plant species; and determining if plants showing hyper-accumulation capabilities can be successfully propagated and produced on contaminated sites.

NORTHERN COMMUNITY DEVELOPMENT AND ENVIRONMENTAL ISSUES

PROJECTS ALLOCATED FUNDING

DURING THE 2003/2004 FISCAL YEAR

Number of Projects: 5

Total Amount Expended: $140,000.00

Project Name	**Total Expended**
Environmental Youth Centre	$25,000.00
Geochemical Evolution of Ruttan Mine Tailings	$50,000.00
MKO Local Lumber Initiative	$25,000.00
Scrap Metal Recycling Training Program	$15,000.00
Thompson Environmental Project	$25,000.00

NORTHERN COMMUNITY DEVELOPMENT AND ENVIRONMENTAL ISSUES

DETAILED LISTING OF PROJECTS ALLOCATED

FUNDING DURING THE 2003/2004 FISCAL YEAR

ENVIRONMENTAL YOUTH CENTRE

Proponents Are: Thompson Boys and Girls Club
Date Approved: December 23, 2003
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

The Thompson Boys and Girls Club, in partnership with the Manitoba Métis Federation, established the Environmental Youth Centre to increase environmental awareness in the North, explore innovative green economic development, and involve northern youth, particularly youth at risk, in environmentally friendly activities. A grant of $25,000.00 was approved to expand the Non-Timber Use of Forest Program, in partnership with the Non-Timber Forest group in the Pas, by developing training course and materials for youth from various northern communities. The training course will focus on activities that are friendly to the forests, as well as on opportunities that will develop sustainable income sources. Trainees will complete two-weeks of training that will identify handling, knowledge, etc. of Non-Timber Forest Products. Trainees will also be instructed on how to harvest products such as Seneca Root, Morale mushrooms and Portabella mushrooms in various areas around Thompson. As well, it is also proposed that the Environmental Youth Centre will participate in other forest reclamation activities, training northern aboriginal youth to be tree planters, developing a model environmentally friendly landfill at Paint Lake, and determining the feasibility of producing compost from fish offal and sawdust.

GEOCHEMICAL EVOLUTION OF RUTTAN MINE TAILINGS

Proponents Are: University of Manitoba, Department of Geological Sciences
Date Approved: June 24, 2003
Total Amount Approved: $50,000.00
Total Amount Expended: $50,000.00

Summary:

A grant of $50,000.00 was approved to investigate a potential source of environmental pollution and provide information for the prevention of leachate migration by undertaking a two-year research study of the geochemical and mineralogical processes within the Ruttan mine tailings. The study will include mineralogical investigations with attention to speciation of metal bearing phases; chemical analysis of water from the tailings, as well as drainage streams around tailing impoundment; simulation of metal precipitation from solution by calculation and experimentation; and microbiological study of the functionality of bacteria. The goal is to understand the overall processes of the heavy metal migration at the early stage of weathering of high-sulfide mine waste to predict the probability of environmental contamination in the future. The project has been designed to provide information on the basic processes that are occurring in mine tailings so that this waste product from Ruttan Mine can be managed in the most economical and environmentally sustainable manner. This initiative will also form the first step in an extensive study of all of northern Manitoba's high-sulfide tailings to develop an evolution model for this type of mine waste in Manitoba's climatic conditions, which will allow for the quantitative prediction of contamination transport from tailings into the environment.

MKO LOCAL LUMBER INITIATIVE

Proponents Are: Manitoba Keewatinowi Okimakanak (MKO) Inc.
Date Approved: December 23, 2003
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved to conduct a pilot project for sustainable management of the forests of MKO First Nations' traditional lands. The project intends to train participants from four MKO First Nations to selectively harvest trees according to the Forest Management Plan in their cutting permit area, milling trees into dimensional lumber, and drying and grading the lumber. The lumber produced by the trainees will be inspected and graded by a certified lumber inspector then stamped for use in Canada Mortgage and Housing (CMHC) housing. Culled lumber will be re-sawn or used as fuel wood. This initiative unites First Nations, Indian and Northern Affairs Canada, Manitoba Conservation, Canada Mortgage and Housing, Manitoba Employment and Training Services, Manitoba Aboriginal and Northern Affairs, and the Northern Association of Community Councils in an effort to address the pressing need for sustainable forestry, employment and housing.

SCRAP METAL RECYCLING TRAINING PROGRAM

Proponents Are: North Central Community Futures Development Corporation and Earthbound Environmental Inc.
Date Approved: October 10, 2003
Total Amount Approved: $15,000.00
Total Amount Expended: $15,000.00

Summary:

A grant of $15,000.00 was approved to provide a learning tool for remote northern communities to use when training youth to recycle scrap metal in a safe and environmentally acceptable manner. This project is part of a broader, comprehensive project to improve scrap metal recycling activities in Northern Manitoba. The video will be produced as a supplement to the Scrap Metal Recycling guide currently being developed. Filming will be done in two locations, at Mandak Metals in Selkirk and at Lynn Lake Salvage in Lynn Lake.

THOMPSON ENVIRONMENTAL PROJECT

Proponents Are: Thompson Homelessness Project Inc.
Date Approved: June 26, 2003
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved for the Thompson Homelessness Project Inc., (a committee of Thompson City Council), in partnership with The Salvation Army Corps of Thompson and Nanastowiho Wikamik (Shelter), to implement a two-year environmental pilot project in the City of Thompson. The organization proposes to hire and train homeless people will to undertake various community enhancement, beautification and waste minimization activities. Through this initiative, it is proposed that issues such as garbage versus recycling will be addressed through workshops and other educational activities. The benefits of recycling, cleaning up and beautifying the community will be demonstrated to homeless people, local organizations and the residents of Thompson.

REGIONAL WASTE MANAGEMENT

PROJECTS ALLOCATED FUNDING

DURING THE 2003/2004 FISCAL YEAR

Number of Projects: 2

Total Amount Expended: $50,000.00

Project Name	**Total Expended**
Completion of City of Selkirk's Solid Waste Transfer Station	$25,000.00
Landfill Bin-Wall Waste Transfer Unit	$25,000.00

REGIONAL WASTE MANAGEMENT

DETAILED LISTING OF PROJECTS ALLOCATED

FUNDING DURING THE 2003/2004 FISCAL YEAR

COMPLETION OF CITY OF SELKIRK'S SOLID WASTE TRANSFER STATION

Proponents Are: City of Selkirk
Date Approved: March 19, 2003
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved to complete construction of the City of Selkirk's waste transfer station as part of its long-term solid waste management plan. Selkirk closed its solid waste landfill and began construction of a solid waste transfer station, including relocation of the used oil centre and implementation of a waste reduction program.

LANDFILL BIN-WALL TRANSFER UNIT

Proponents Are: City of Steinbach
Date Approved: March 4, 2004
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved to complete construction of the City of Steinbach's waste transfer station as part of its long-term solid waste management plan. Steinbach closed its solid waste landfill and began construction of a solid waste transfer station, including relocation of the used oil centre and implementation of a waste reduction program. The projects to be completed during 2003 include a swap shop shelter, lock-block containment system, methane detection system in the office and garage, fencing and gates, topsoil and hydraulic seeding, site extension, leachate collection line and signage.

SUSTAINABLE AGRICULTURAL PRACTICES

PROJECTS ALLOCATED FUNDING

DURING THE 2003/2004 FISCAL YEAR

Number of Projects: 11

Total Amount Expended: $212,856.48

Project Name	**Total Expended**
Demonstration of an Integrated Barn-Biofilter-Greenhouse System	$22,250.00
Determination of Phosphorus Sorption-Desorption Characteristics of Manitoba Soils	$25,000.00
Forms and Reactivity of Manure Phosphorus from Phytase Fed Swine in Manitoba Soils	$25,000.00
Livestock Manure Phosphorus Expert Committee	$ 4,296.48
Manure Nutrients in Sensitive Land	$24,810.00
Modeling the task of operating an agricultural sprayer	$16,500.00
Municipal Group for Innovative Management of Livestock Waste in Manitoba	$25,000.00
Organic Livestock Handbook	$10,000.00
Pasture Pipeline Plough Program	$10,000.00
Peguis Riparian Improvement Project	$25,000.00
Reducing Salmonella Transfer from Manure to the Environment	$25,000.00

SUSTAINABLE AGRICULTURAL PRACTICES

DETAILED LISTING OF PROJECTS ALLOCATED

FUNDING DURING THE 2003/2004 FISCAL YEAR

DEMONSTRATION OF AN INTEGRATED BARN-BIOFILITER-GREENHOUSE SYSTEM

Proponents Are: University of Manitoba, Department of Biosystems Engineering
Date Approved: July 8, 2003
Total Amount Approved: $22,250.00
Total Amount Expended: $22,250.00

Summary:

A grant of $22,250.00 was approved to conduct a two-year pilot project to construct and demonstrate an integrated barn-biofilter-greenhouse system. The project will capture and use the heat energy being exhausted from a hog barn to heat a greenhouse. To eliminate odour, exhaust air from the barn will be passed through a wood chip biofilter before being released to the greenhouse. Two greenhouses will be used, one will be situated as close to a hog barn as possible to eliminate the need for supplemental heating, while the other will be located away from the hog barn and will be used as an experimental control. Odourous compounds will be removed from the air stream by absorption and diffusion into a moist film on the surface of a media known as biofilm. The contaminants will accumulate in the biofilm, which are then digested by the microorganisms in a process called bio-oxidation. Two of the by-products of bio-oxidation are water and carbon dioxide, which is required for photosynthesis and plant growth.

DETERMINATION OF PHOSPHORUS SORPTION-DESORPTION CHARACTERISTICS OF MANITOBA SOILS

Proponents Are: Manitoba Livestock Manure Management Initiative Inc.
Date Approved: December 23, 2003
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved to conduct a research study to develop, test and calibrate a Phosphorus Index, which can be used to estimate the risk of Phosphorus loss from Manitoba soils. This research proposal intends to identify the parameters and perfect tests as a first step in the development of the Phosphorus Index. Agricultural land is a large source of phosphorus loading and livestock manure is a growing source of this Phosphorus. Loss of phosphorus from soil can potentially contaminate surface and groundwater sources. Once developed, the Phosphorus Index has the potential to rank the relative risk of phosphorus loss from land to water, based on site and management factors. This ranking could be used to focus efforts on alternative management options to reduce the risk. This research will be conducted in association with Manitoba Agriculture, Food and Rural Initiatives, Agri-Food Canada, and the Manitoba Livestock Manure Management Initiative.

FORMS AND REACTIVITY OF MANURE PHOSPHORUS FROM PHYTASE FED SWINE IN MANITOBA

Proponents Are: Manitoba Livestock Manure Management Initiative Inc.
Date Approved: October 10, 2003
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved to conduct a two-year research project that addresses a significant issue in livestock production. The project is designed to study the environmental impacts of hog production, and to determine if a common method used to enhance phosphorus uptake by hogs has a negative effect on the environment. The proposed research will develop feeding strategies that can be used by swine and poultry producers to reduce the Phosphorus content of manure, thereby reducing the potential for phosphorus export from the soil to surface water. The project is multi-disciplinary, will be directed by a soil fertility scientist and swine nutrition scientist both from the University of Manitoba, and will be conducted as three subprojects. Subproject one involves two nutritional experiments that would explore different phytase supplementation strategies for lowering the phosphorus content of swine manure. Subproject two will characterize manure Phosphorus using a sequential laboratory extraction procedure on manure generated in subproject one. Subproject three will determine the solubility of manure Phosphorus in Manitoba soils from swine whose diets have been amended with phytase and swine whose diets have not been amended.

LIVESTOCK MANURE PHOSPHORUS EXPERT COMMITTEE, YEAR 2

Proponents Are: Manitoba Conservation
Date Approved: June 26, 2003
Total Amount Approved: $18,000.00
Total Amount Expended: $ 4,296.48

Summary:

A grant of $18,000.00 was approved to support the Livestock Manure Phosphorus Expert Committee. With the expansion of Manitoba's livestock industry over recent years and with the distinct possibility of continued expansion, there is concern about the environmental impact and sustainability of the industry, in particular about the potential exports of phosphorus from livestock manure to surface water. This committee has the mandate to carry on a scientific analysis of the pathways of phosphorus transport from agricultural fields to surface water bodies. The goals of the committee are to estimate the likely extent of phosphorus pollution from livestock production to Manitoba's surface water, and reach conclusions on the need and form of regulatory or other approaches for managing livestock manure phosphorus.

MANURE NUTRIENTS IN SENSITIVE LAND

Proponents Are: University of Manitoba, Department of Soil Science
Date Approved: March 4, 2004
Total Amount Approved: $24,810.00
Total Amount Expended: $24,810.00

Summary:

A grant of $24,810.00 was approved to undertake a three-year research project that will contribute to the development of best management practices to reduce greenhouse gas emissions and nutrient build up. The proposed "Manure Nutrients in Sensitive Land" project will complement and build upon a larger research and demonstration initiative entitled, “Best Management Practices to Improve Environmental Sustainability and Productivity of Grassland Systems Using Hog Manure”, taking place on a commercial pasture near La Broquerie, Manitoba. This portion of the research intends to further the investigation of nutrient cycling and greenhouse gas emissions from soil from the larger research project.

MODELLING THE TASK OF OPERATING AN AGRICULTURAL SPRAYER

Proponents Are: University of Manitoba, Department of Biosystems Engineering
Date Approved: July 8, 2003
Total Amount Approved: $16,500.00
Total Amount Expended: $16,500.00

Summary:

A grant of $16,500.00 was approved to undertake the initial components of a field research project that will model the task of operating an agricultural sprayer for operators using a GPS lightbar guidance system. Accurate and functional guidance systems for agricultural equipment can reduce negative impacts to the environment caused by over application of pesticides. Currently, there is a guidance error by many agricultural sprayer operators that may result in the double application of pesticides and fertilizers. Doubling the application rate increases the probability of environmental contamination. It is proposed that if over application of crop inputs can be reduced or eliminated, it will not only lower the potential for environmental contamination, it will also lower production costs and reduce greenhouse gas emissions due to consumption of less fertilizer, pesticide and fuel. Information compiled from this research will describe how the task demands of a sprayer operator change from day to night operation when using a GPS lightbar system.

MUNICIPAL GROUP FOR INNOVATIVE MANAGEMENT OF LIVESTOCK WASTE IN MANITOBA

Proponents Are: Rural Municipality of Hamiota
Date Approved: March 4, 2004
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved to assist in establishing an organization "Municipal Group for Innovative Management of Livestock Waste in Manitoba". This Group will involve rural municipalities in western Manitoba and the Hamiota feedlot. It is proposed that this organization will research, develop, and demonstrate an affordable, socially and environmentally sustainable disposal system for livestock producers, abattoir operators and municipal governments. This initiative will be undertaken in three-phases and will adapt existing technologies to address the needs of rural Manitoba**.** The goal of this initiative is to create the capacity in rural Manitoba to establish regional livestock management facilities that will provide opportunities for rural communities to support continued growth and development of the livestock production and processing sectors and potentially establish bio-energy production.

ORGANIC LIVESTOCK HANDBOOK

Proponents Are: Canadian Organic Growers Inc.
Date Approved: December 23, 2003
Total Amount Approved: $10,000.00
Total Amount Expended: $10,000.00

Summary:

A grant of $10,000.00 was approved to update and reprint the "Organic Livestock Handbook". The revised version of the handbook will contain a comprehensive review of information on organic livestock production specific to Canada. It is proposed that new handbook will pull together the wisdom, observations and experience of a number of successful organic farmers, from throughout Canada, creating a valuable resource and tool for beginning and experienced organic producers. The "Organic Livestock Handbook" will be divided into three sections, supplemented by photographs and figures, and an appendix. The handbook will identify the principles of organic livestock husbandry including information on animal welfare, nutrition and health care, and how to convert to organic methods. Section two will provide information on various management tools, such as health care alternatives, manure management and certification and record keeping. Section three intends to focus on livestock management practices using examples from Canada and the northern United States to illustrate the various types of organic livestock enterprises, from dairy cattle to honey bees. The appendix materials will include a comparison of organic livestock standards currently in use and a supplies and services listing.

PASTURE PIPELINE PLOUGH PROGRAM

Proponents Are: Tiger Hills Conservation District
Date Approved: June 26, 2003
Total Amount Approved: $10,000.00
Total Amount Expended: $10,000.00

Summary:

A grant of $10,000.00 was approved to document and demonstrate the benefits of the "Pasture Pipeline Plough Program". The program assists cattle producers with an easy and efficient means of delivering water to livestock in pastures. The program will also assist cattle producers with the installation of pipelines, which allows water to be pumped into troughs and away from natural water bodies or dugouts. Once water systems are designed and implemented, cattle producers will be able to implement other sustainable agriculture practices, such as protection of riparian areas, rotational grazing, pasture feeding, low stress ranching and a reduction in herd disease. In undertaking this initiative, the Conservation District will provide a "Pipeline Plough" to producers, as well as provide technical support through on-site consultations, as well as demonstrate and assist in the pipeline installation. Also, a GPS unit and GIS System will be used to map each system. A map will be provided to the producer detailing a permanent record of where the pipeline is located.

PEGUIS RIPARIAN IMPROVEMENT PROJECT

Proponents Are: Peguis Development Corporation
Date Approved: July 8, 2003
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved to undertake a study and pilot project that will help protect water quality and determine best land management practices for livestock producers in First Nation communities. Peguis First Nation will conduct this study in conjunction with fourteen livestock producers located on or near the Fisher River within the Peguis community. The study will investigate and document each site to determine the most environmentally sustainable agricultural land practices to be implemented, as well as assessing the volume of manure at each site and type of remedial work that may be needed. Site assessments will assist in creating a comprehensive plan for livestock producers, will determine equipment needs, as well as identifying suitable land base to apply the manure in a sustainable and environmental fashion. To further promote the project, fact sheets and other media to encourage livestock producers to adopt and implement best practices for land management will be developed.

REDUCING SALMONELLA TRANSFER FROM MANURE TO THE ENVIRONMENT

Proponents Are: Manitoba Livestock Manure Management Initiative Inc.
Date Approved: December 23, 2003
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved to conduct an eighteen-month multi-disciplinary research project to determine the conditions required for *Salmonella* survival in manure and manure amended soil. It is proposed that this research be undertaken to identify manure management practices that will minimize the potential transfer of the pathogenic bacteria from hogs to the environment. Until recently, foodborne illnesses have been attributed to foods of animal origin, but now fruit and vegetables have been identified as sources of some illnesses. This may be due in part to the application of organic fertilizers from animals containing pathogenic bacteria. Survivability of *Salmonella* in soil temperatures typical of manure applied land in Manitoba is unknown. This research study proposes to investigate two components. The first component being investigated is manure storage, which will provide information on the temperature variability of storage types and relate that to the survivability of Salmonella in three different manure types. The second component being investigated is land application (soil), which will determine the effect of temperature on the survivability of Salmonella in soil after surface application and incorporation.

SUSTAINABLE COMMUNITY DEVELOPMENT

PROJECTS ALLOCATED FUNDING

DURING THE 2003/2004 FISCAL YEAR

Number of Projects: 4

Total Amount Expended: $63,875.00

Project Name	**Total Expended**
Dauphin Lake Creel Census	$25,000.00
Forest Harvesting Training Program 2003/2004	$12,000.00
Mountain Equipment Co-op Green Roof	$14,375.00
Sustainable Ecosystems in Municipal Planning	$12,500.00

SUSTAINABLE COMMUNITY DEVELOPMENT

DETAILED LISTING OF PROJECTS ALLOCATED

FUNDING DURING THE 2003/2004 FISCAL YEAR

DAUPHIN LAKE CREEL CENSUS

Proponents Are: Manitoba Conservation and West Region Tribal Council
Date Approved: October 10, 2003
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved to conduct a survey over a period of one year to determine an estimate of the total harvest of walleye by sport fishers in Dauphin Lake. Previously, creel census studies have been conducted in the tributaries of Dauphin Lake, but there are no statistics on the harvest on the open lake. Two students from the local area will conduct the survey, supervised by the Regional Fisheries Biologist. The study will be conducted in such a manner that will entail surveying recreational anglers to determine their catch per unit effort that will then be extrapolated to determine total harvest. Work hours will be staggered to ensure data collection occurs at peak angler activity. During the open water season, aerial surveys will be conducted once a week to determine the total boat count and estimate the number of users on the lake. This project is the first step in the co-management process of developing a plan for management of the Dauphin Lake fishery. Once the resulting co-management plan has been developed, it will guide the activities of all user groups in an equitable manner without jeopardizing their economic viability as well as the sustained viability of the fishery.

FOREST HARVEST TRAINING PROGRAM 2003/2004

Proponents Are: Peguis Development Corporation
Date Approved: March 4, 2004
Total Amount Approved: $12,000.00
Total Amount Expended: $12,000.00

Summary:

A grant of $12,000.00 was approved to enhance Peguis Development Corporation's sustainable forestry-training program developed in 2000. In undertaking this initiative, it is proposed that a comprehensive training program will be developed and implemented and will include conventional forest harvesting and mechanical forest harvesting, with emphasis on the mechanical harvesting training components. It is also proposed that training will be held in conjunction with the summer cut allocation. The training manual will be updated to include new training information that will contribute to the overall commitment to sustainable forestry. As well, to further enhance the training program, a video of the Peguis Forest Harvesting Program will be produced. The core-training components include: elders historical perspective, logging safety, environmental standards, best management practices and logging aesthetics, first aid/CPR, forest harvesting techniques. These core-training areas will be divided into conventional and mechanical forest harvesting, business concept and a field practicum.

MOUNTAIN EQUIPMENT CO-OP GREEN ROOF

Proponents Are: Prairie Architects Inc.
Date Approved: July 8, 2003
Total Amount Approved: $14,375.00
Total Amount Expended: $14,375.00

Summary:

A grant of $14,375.00 was approved to encourage the development of green roofs for Manitoba commercial buildings by demonstrating the viability of green roof installation and sustainable building technologies. The green roof will integrate every aspect of the building's sustainable design ranging from reduction of air and heat pollution to energy conservation, water conservation and incorporation of pollution prevention measures. The roof will be designed and constructed to incorporate a variety of natural prairie plants to create a roof top garden. As well, two local schools will participate in this initiative by growing natural prairie grasses for transplant to the green roof. The project intends to demonstrate a number of innovative green roof design elements, including a solar powered irrigation system, non conventional cooling capabilities, and solid and liquid material from the composting toilet for use as a soil fertilizer. The Mountain Equipment Co-op (MEC) building, located on Portage Avenue in Winnipeg will be used as the demonstration site for the installation of the green roof. The MEC building was selected for demonstration purposes, as the building was constructed from recycled materials and was designed with energy efficiency capabilities that will assist in reducing the building's carbon dioxide emissions; as well the building incorporated a range of water conservation technologies, including composting toilets. The green roof is the last component of this commercial building to be completed.

SUSTAINABLE ECOSYSTEMS IN MUNICIPAL PLANNING

Proponents Are: Rural Municipality of Morris
Date Approved: December 23, 2003
Total Amount Approved: $12,500.00
Total Amount Expended: $12,500.00

Summary:

A grant of $12,500.00 was approved to explore and demonstrate the use of satellite imagery to improve municipal Geographic Information Systems (G.I.S.). The G.I.S will be used as a tool to assist in monitoring environmental concerns and help maintain sustainable ecosystems. To minimize the negative impacts of intensive agriculture and other developments in the municipality, the rural municipality proposes to implement a new development plan that will incorporate a municipal G.I.S. As well, the municipality intends to use SPOT imagery, for mapping vegetation. It will be used to determine nutrient (particularly Phosphorus and Nitrogen) run-off from farmland into drainage channels that can potentially contaminate water resources such as rivers, streams and lakes; and LandSat Thematic Mapper Satellite Imagery for mapping soil texture, soil moisture and organic material at a uniform scale for use in the municipal G.I.S. The plan, once implemented may lead to improved land and environmental management practices. As well, ecosystem maps (i.e. land use, recreation, wildlife habitat, woodlands) will be compiled by converting and geo-referencing data available from other sources.

UNDERSTANDING OUR ENVIRONMENT

PROJECTS ALLOCATED FUNDING

DURING THE 2003/2004 FISCAL YEAR

Number of Projects: 17

Total Amount Expended: $245,640.00

Project Name	**Total Expended**
Aboriginal Rights and Responsibilities (Hunting, Fishing, Trapping and Gathering)	$ 5,000.00
Churchill's Polar Bear Viewing Industry, Phase III	$12,000.00
Creating a Land Management Plan for Poplar River Park Reserve	$25,000.00
Eastern Woodland Caribou	$25,000.00
Environmental Heartland Initiative	$ 6,500.00
Exposed for Life: children's health and the environment, a conference	$ 5,000.00
Habitat use of the northern prairie skinks in southwestern Manitoba, Phase II	$23,640.00
Living in Bear Country Video	$10,000.00
Manitoba Eco-Network Geographic Information System	$10,000.00
Manitoba Ecosite Project	$25,000.00
Matootoo Lake Traditional Medicine Program	$ 5,000.00
Process of Green Building Design	$10,000.00
Re-assessment of Undeveloped Road Allowances	$15,500.00

Project Name	**Total Expended**
Resource Management in an Urban Environment	$15,000.00
Sustaining Riding Mountain Cattle Producers in the Face of Bovine Tuberculosis	$24,500.00
We Have The Power	$10,000.00
Wolf Dispersal and Disease Movement	$18,500.00

UNDERSTANDING OUR ENVIRONMENT

DETAILED LISTING OF PROJECTS ALLOCATED

FUNDING DURING THE 2003/2004 FISCAL YEAR

ABORIGINAL RIGHTS AND RESPONSIBILITIES (HUNTING, FISHING, TRAPPING AND GATHERING)

Proponents Are: Bright Eyes and Ears Films Inc.
Date Approved: March 4, 2004
Total Amount Approved: $5,000.00
Total Amount Expended: $5,000.00

Summary:

A grant of $5,000.00 was approved to assist in producing an educational video on Aboriginal people's rights and responsibilities for certain natural resources. An educational web site will be created to complement the video. It is intended that the video and web site will assist in furthering education and communication efforts of Aboriginal people's rights and culture for all people. This initiative is expected to increase awareness and serve as a mechanism toward achieving mutual respect and understanding for all resource users and to help to bridge and strengthen communication between various cultures.

CHURCHILL'S POLAR BEAR VIEWING INDUSTRY, PHASE III

Proponents Are: University of Waterloo, Department of Recreation and Leisure Studies
Date Approved: July 8, 2003
Total Amount Approved: $12,000.00
Total Amount Expended: $12,000.00

Summary:

A grant of $12,000.00 was approved to conduct the third phase of a four-year social scientific research study in the area of human-bear interactions in the Cape Churchill Wildlife Management Area (CCWMA). Once seen as a nuisance, many residents of Churchill now view the polar bears and the polar bear viewing industry as a viable and sustainable industry in the area. Alterations to bear behaviours, as a result of increased human presence, as well as the need to manage human-bear interactions in order to maintain the quality of the tourism experience and protect bears, have provided challenges for traditional management systems in North America. The goal of the research is to assist agencies such as Manitoba Conservation with the regulations that will help to maintain quality polar bear viewing opportunities in Churchill. The first phase examined bear-viewer responses to proposed user-fees in the CCWMA. The second phase examined bear-observers' motivations, benefits sought, environmental attitudes, on-site experiences, socio-demographic characteristics, and the impact of their expectation on the management systems. The third phase of this research project will be a continuation of phase two. The researcher will used a mixed method approach to obtain results, specifically, self-administered questionnaires, discussions with key informants, such as managers and local operators, and participant observation on-site.

CREATING A LAND MANAGEMENT PLAN FOR POPLAR RIVER PARK RESERVE

Proponents Are: Poplar River First Nation
Date Approved: July 8, 2003
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved to develop a workable lands management plan, based on traditional ecological and scientific knowledge, for the Poplar River Park Reserve located at the northern edge of Lac Seul Uplands natural region of the Manitoba's Boreal Forest. With the assistance of Manitoba Conservation, this First Nation has completed a Land Use and Occupancy Study and their traditional lands have obtained an interim designation as a protected area. Many steps in the Poplar River First Nation's protected lands initiative have been completed or are in process to provide the scientific and technical foundation for the management plans for these lands. Some of these steps include a traditional use study, archaeological studies, technical work and forest inventory. The community team and planning partner that will develop this management plan are in place. In the first year, the planner will learn about the Poplar River Park Reserve lands and community and begin the steps to determine the elements of the management plan. The first year will include study on the best approaches for the management plan and consultation and work with the community to approve a planning framework and develop the draft management plan. In the second year, the planner will work through the options and goals with the community to arrive at a finalized management plan for the traditional territory.

EASTERN WOODLAND CARIBOU

Proponents Are: Manitoba Model Forest Inc.
Date Approved: March 4, 2004
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

The Eastern Manitoba Woodland Caribou Project is managed through the Eastern Manitoba Woodland Caribou Advisory Committee established by the Manitoba Model Forest Inc. A grant of $25,000.00 was approved to continue integrated research activities to develop a woodland caribou conservation strategy for eastern Manitoba. The goal is to maintain woodland caribou populations east of Lake Winnipeg at current levels within their contemporary ranges. In 2003, GPS data was collected on caribou movements and habitat use, woodland caribou HIS models and maps of caribou core use areas were developed, a broadcast-quality video and associated newsletter was produced for public distribution, and interviews were conducted with elders from two First Nation communities. Project activities for the 2004/05 fiscal year build upon previous years' work. Ongoing work will be required to conclude the analyses of core use areas for each of the woodland caribou ranges in eastern Manitoba. Once core use areas are defined, it will form the basis for the identification of critical woodland caribou habitat. The associated reports will provide baseline information for the development of provincial and national conservation strategies. New components of the workplan include generating fine-scale information on caribou movements in both summer and winter range. These will provide opportunities for direct public involvement in data collection. The information gained will be used in developing recreational use strategies, to further the understanding of predator-prey relationships, and to assist resource managers in developing and validating site-specific prescriptions for forestry operations in and adjacent to the woodland caribou range.

ENVIRONMENTAL HEARTLAND INITIATIVE

Proponents Are: Pine Falls School Division #2155
Date Approved: March 4, 2004
Total Amount Approved: $6,500.00
Total Amount Expended: $6,500.00

Summary:

A grant of $6,500.00 was approved to assist in developing and implementing phase one of a four-phase, multi-disciplined development project that will enhance educational and economic opportunities within the community and region by establishing a specialized Environment & Sustainability College on the East Side of Lake Winnipeg. It is proposed that through research and training environmental educational standards will be raised, and specific actions to preserve the integrity of ecosystems for future generations will be identified. Phase one involves three components: Developing and delivery of enhanced environmental and sustainability units into the K to 12 curriculum; piloting of a sustainable forest management course that could be incorporated into the Provincial Grade 10 curriculum; and conducting an international youth bio-monitoring research project with Mexico that will be designed to educate and develop student skills by linking environmental studies with multi-lingual internet communications, while simultaneously laying a foundation and framework from which to gather relative data on the comparative environmental impacts across an international region.

EXPOSED FOR LIFE: CHILDREN'S HEALTH AND THE ENVIRONMENT, A CONFERENCE

Proponents Are: Social Planning Council of Winnipeg
Date Approved: October 10, 2003
Total Amount Approved: $5,000.00
Total Amount Expended: $5,000.00

Summary:

A grant of $5,000.00 was approved to host a two-day conference during spring 2004, in Winnipeg, focusing on children's environmental health and well-being. The conference will focus on urban greening and the benefits of preservation and maintenance of urban forests and ecosystems, as well as on water quality and conservation. As well, it will address children's environmental health as it relates to the effects from climate change and air quality, and the differential impacts on Aboriginal and low-income families. The conference will help to facilitate awareness of the effects of toxic exposure and environmental degradation on children; educate health professionals, policy makers and community members in preventative strategies; and stimulate prevention-oriented research, education and policy change. This initiative is expected to assist in providing practical solutions and forming unique multi-disciplinary partnerships for maintaining sustainable communities.

HABITAT USE OF THE NORTHERN PRAIRIE SKINKS IN SOUTHWESTERN MANITOBA, PHASE II

Proponents Are: University of Manitoba, Natural Resources Institute
Date Approved: January 13, 2004
Total Amount Approved: $23,640.00
Total Amount Expended: $23,640.00

Summary:

A grant of $23,640.00 was approved to conduct the second year of a two-year research project into the habitat of the northern prairie skink, a small cylindrical lizard, found in the mixed grass prairie of southwestern Manitoba. The mixed-grass vegetated areas of Spruce Woods Provincial Park are thought to represent ideal habitat for this skink. These skinks are considered a species of "special concern" federally and provincially and are considered a "vulnerable" species. The purpose of this Master's thesis is to determine habitat attributes critical for the conservation of northern prairie skink populations in Manitoba. The analysis of habitat selection functions will provide a greater understanding of the ecology and habits of this skink. This information, combined with an examination of current management activities, including policy and legislation, will be used to develop recommendations for the management of the northern prairie skink and its habitat in Manitoba and to develop a management plan. The potential to use skinks as an indicator species for mixed-grass prairies and guidelines for monitoring populations will also be evaluated.

LIVING IN BEAR COUNTRY VIDEO

Proponents Are: Safety in Bear Country Society
Date Approved: October 10, 2003
Total Amount Approved: $10,000.00
Total Amount Expended: $10,000.00

Summary:

A grant of $10,000.00 was approved to produce an educational video "Living in Bear Country" that will focus on people behaviour-modification techniques. This twenty-five to thirty minute video will identify principles and practices that are applicable to anyone living or participating in recreational activities in bear country. The video will provide information regarding bear biology and behaviour to understand why bears are attracted to places where people live and how they become food-conditioned. It also proposes to deliver consistent messages and focus on problems with people's behaviour and offer appropriate solutions. Each year, effort and money is spent reacting to complex problems associated with food-conditioned bears around communities. As bears become "problems", they often have to be relocated or destroyed, and it is anticipated with increased education and awareness, the habituation opportunities will be reduced.

MANITOBA ECO-NETWORK GEOGRAPHIC INFORMATION SYSTEM

Proponents Are: Manitoba Eco-Network
Date Approved: October 10, 2003
Total Amount Approved: $10,000.00
Total Amount Expended: $10,000.00

Summary:

A grant of $10,000.00 was approved to establish an accessible Geographic Information System (GIS) and mapping service at Manitoba Eco-Network's location to further their mandate of providing an environmental resource for their members and the public. Having GIS and mapping expertise and infrastructure available to groups will be valuable in building their capacity to carry out their conservation and education goals. For many environmental, non-government groups (ENGOs) that work on land-use and conservation issues, GIS service is not financially viable, given that mapping is primarily from the private sector. The project will involve acquiring the equipment, software and data; assembling the technical expertise to work with the ENGO community to produce and analyze maps and spatial information; establishing protocols for data use; and providing service to groups interested in utilizing the GIS in their work. An educational component will be incorporated by providing opportunities for interns from various college and university programs related to GIS to participate directly in real-life projects with community organizations.

MANITOBA ECOSITE PROJECT

Proponents Are: University of Manitoba, Health, Leisure and Human Performance Institute
Date Approved: March 4, 2004
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved to conduct the final year of an initiative that will develop an integrated digital database of Manitoba's forest resources and produce an ecosite scale map of the Province of Manitoba. It is proposed that development of an ecosite classification and mapping system will assist in determining, measuring and mapping other forest values such as biodiversity, habitat supply, landscape-level planning, recreational and ecotourism uses, indigenous uses, and aesthetic, cultural and spiritual values.

MATOTOO LAKE TRADITIONAL MEDICINE PROGRAM

Proponents Are: Matootoo Lake Medicine Lodge Incorporated
Date Approved: October 10, 2003
Total Amount Approved: $5,000.00
Total Amount Expended: $5,000.00

Summary:

A grant of $5,000.00 was approved to assist with a program to develop, research, teach and transmit knowledge of traditional medicines that will promote environmental stewardship and capacity building in Aboriginal communities. Program participants, through hands-on learning experience, intend to develop a video, map, pamphlets and brochures that will be used to promote traditional medicines and the conservation of medicinal areas. In addition, the Medicine Program will develop curriculum materials and create a database that can be used to share knowledge and implement sustainable harvesting strategies, and identify areas of plants to further conservation and education efforts. The database will be distributed to health centres, organizations, hospitals and Manitoba Conservation as a resource material. General knowledge obtained on traditional plant use and location can assist government and industry in addressing natural resource management issues.

PROCESS OF GREEN BUILDING DESIGN

Proponents Are: Centre for Indigenous Environment Resources (CIER)
Date Approved: March 19, 2003
Total Amount Approved: $10,000.00
Total Amount Expended: $10,000.00

Summary:

A grant of $10,000.00 was approved to document the process of redeveloping or constructing “green” buildings in Winnipeg using the "Integrated Design Process" (IDP). It is proposed that the new CIER building and proposed Hydro tower be used as case studies for documentation purposes. An IDP guideline document will be developed, using integrated design principles, and will highlight the two Winnipeg case studies. The "Integrated Design Process" is a team-based, collaborative approach that focuses on the design, construction, operation and occupancy of the building over its entire life-cycle. The team is comprised of the building owner or developer, architect, engineers, an energy modeller, contractor and consultants that specialize in areas such as sustainable building materials or indigenous plantings.

RE-ASSESSMENT OF UNDEVELOPED ROAD ALLOWANCES

Proponents Are: Turtle Mountain Conservation District
Date Approved: March 4, 2004
Total Amount Approved: $15,500.00
Total Amount Expended: $15,500.00

Summary:

A grant of $15,500.00 was approved to re-assess the Right of Ways (ROWs) in the Rural Municipality of Morton to determine if the "Conservation Corridor Program" has been successful and provide recommendations on the future of the program. In 1983, the Rural Municipality of Morton passed a by-law that protected road allowances in native condition from cultivation practices that would destroy the habitat. Two students will be hired to re-examine two hundred and fifty-nine ROWs that were inventoried in 1983. Information gathered will be examined, analyzed and any loss of habitat will be quantified. In addition, rare plants or wildlife that are observed during the inspections will be recorded. Every mile of undeveloped road allowance accounts for 12 acres of habitat that is crown land under the jurisdiction of each municipality. This study is not only important for the Rural Municipality of Morton, but for all Manitoba municipalities, as the study will assist in raising awareness on the importance of these crown lands and will provide information that can be used when developing protection programs.

RESOURCE MANAGEMENT IN AN URBAN ENVIRONMENT

Proponents Are: Manitoba Forestry Association Incorporated
Date Approved: March 4, 2004
Total Amount Approved: $15,000.00
Total Amount Expended: $15,000.00

Summary:

Manitoba Forestry Association proposes to host and deliver an Envirothon Competition for Manitoba High School students from May 13 to May 15, 2004. A grant of $15,000.00 was approved to assist with the costs associated with the Envirothon Competition. Envirothon is an Olympic style competition where students benefit from attending the event by increasing their knowledge on the environment and ecosystem, receive hands-on environmental education and have the opportunity to address current environmental issues. The 2004 Envirothon theme is "Resource Management in an Urban Environment". Issues to be addressed include: sustainable urban environment, including benefits of trees, urban soils, vegetation and wildlife habitat quality, water quality, handling of wastewater, point and non-point source pollution, air pollution, and urban sprawl. Resources are provided to registered schools and schools are encouraged and are provided with assistance to undertake community-based action projects throughout the year. The goal of the program is to achieve a generation of young people who have a knowledge and understanding of environmental issues and can make informed decisions in the future, both as they choose their careers and as they enter the work force. In addition, students share information learned with their schools and communities.

SUSTAINING RIDING MOUNTAIN CATTLE PRODUCERS IN THE FACE OF BOVINE TUBERCULOSIS

Proponents Are: University of Manitoba, Environmental Sciences Program
Date Approved: October 10, 2003
Total Amount Approved: $24,500.00
Total Amount Expended: $24,500.00

Summary:

A grant of $24,500.00 was approved to conduct research into elk-agriculture interactions in the Riding Mountain region to better understand the factors causing the spread of Bovine Tuberculosis, and to work with local cattle producers and other stakeholders in developing a locally derived “best practices” for better management of this disease and its effects on producers. The study will synthesize quantitative ecological research on elk with local knowledge held by residents of the region. Participation with local farm operators in the study will provide opportunities to share knowledge, concerns and perceptions regarding wildlife-agriculture interactions. The project will also provide management recommendations to government agencies involved in managing Bovine Tuberculosis such as Parks Canada, Manitoba Conservation, Manitoba Agriculture and Food and the Canadian Food Inspection Agency. Bovine Tuberculosis (TB) is considered a significant threat to the Riding Mountain elk population and if the Bovine TB persists in cattle in the Riding Mountain area, the economic impact to the cattle industry in Manitoba could equal many millions of dollars a year. The study will help to ensure the sustainability of the cattle industry in Manitoba and minimize the impacts to wildlife populations and habitat.

WE HAVE THE POWER

Proponents Are: Pembina Trails School Division
Date Approved: March 4, 2004
Total Amount Approved: $10,000.00
Total Amount Expended: $10,000.00

Summary:

A grant of $10,000.00 was approved to assist in conducting a pilot project in the eastern part of the school division, Fort Garry/Waverley area. It is proposed that this initiative will increase awareness and participation of staff and students in reducing greenhouse gas emissions contributing to climate change, as well as facilitate environmental stewardship and energy efficiency within the workplace. Behavioural and educational initiatives will be developed that relate to energy efficiency and climate change to ensure sustainability over the long-term. Energy efficient retrofit and re-commissioning opportunities within divisional facilities will be identified for implementation and a list of priorities for consideration will be identified for future financial budget planning. All staff, including custodial, administrative and maintenance staff, teachers, students and community members are expected to be participants in this initiative.

WOLF DISPERSAL AND DISEASE MOVEMENT

Proponents Are: Canadian Parks and Wilderness Society, Manitoba Chapter
Date Approved: October 10, 2003
Total Amount Approved: $18,500.00
Total Amount Expended: $18,500.00

Summary:

A grant of $18,500.00 was approved to conduct a research project to determine the degree of genetic exchange in wolves within the Riding Mountain Ecosystem and the influence of wolf movement in transmission of disease. Riding Mountain National Park is considered an “island” reserve, and a combination of habitat fragmentation, human-caused mortality and disease may threaten the long-term survival of wolves in the park and surrounding areas. There are two species of wolves in Manitoba, the gray wolves of Riding Mountain National Park and the eastern wolves in the northern parts of Manitoba. The extent to which these two types of wolves may interbreed is presently unclear and this study will provide data to assess this question. This project will build upon ongoing research in the region and provide information needed to manage wolves and wildlife habitat in the Riding Mountain Biosphere. Information compiled from this research will assist Parks Canada, Manitoba Conservation and local conservation organizations in identifying target areas for management, land acquisition and stewardship initiatives to promote long-term conservation of the Riding Mountain Ecosystem, and mitigate isolation of wildlife in Riding Mountain National Park.

WATER

PROJECTS ALLOCATED FUNDING

DURING THE 2003/2004 FISCAL YEAR

Number of Projects: 9

Total Amount Expended: $154,260.00

Project Name	**Total Expended**
Black River First Nation Research Project	$20,000.00
Clean-up and Water Testing of the Duck and Wigwam River Systems	$19,710.00
Clean Up of the Waterhen Rivers, Tributaries and Lakeshore	$25,000.00
Drain Line Carry Study	$15,000.00
Little Souris River Resource Inventory	$10,000.00
Maximum Performance Toilet/Flapper Evaluation	$10,000.00
Prairie Water Solutions: The Tobacco Creek Model Watershed	$25,000.00
Roseau River Watershed Planning Study	$15,000.00
Surface Water Quality Assessment Program	$14,550.00

WATER

DETAILED LISTING OF PROJECTS ALLOCATED

FUNDING DURING THE 2002/2003 FISCAL YEAR

BLACK RIVER FIRST NATION RESEARCH PROJECT

Proponents Are: Little Black River First Nation
Date Approved: July 8, 2003
Total Amount Approved: $20,000.00
Total Amount Expended: $20,000.00

Summary:

A grant of $20,000.00 was approved to collect and analyze data regarding the rivers flowing through their traditional land use area and marine habitat over a two-year period. The main study area will focus on the Black River and extensive sampling will occur at three sites along river. Water quality, flow temperature and erosion rates will be measured at each of the minor study areas, including O'Hanly River, Manigotagan River and Wanipigow River. The goal of the project is to determine the cause of declining fish stocks and rate of riverbank erosion, and to address community concerns over the quality of the local drinking water. The research project proposes to determine fish species present, monitor walleye/sauger spawning activity, in-stream habitat condition, hydrology, water quality, benthos and algae presence, riparian and stream bank conditions. Several community members will be trained to conduct research on the rivers and to provide ecological and conservation training to students enrolled in the Black River Alternative/Adult Education Program.

CLEAN-UP AND WATER TESTING OF THE DUCK AND WIGWAM RIVER SYSTEMS

Proponents Are: Pine Creek First Nation
Date Approved: October 10, 2003
Total Amount Approved: $19,710.00
Total Amount Expended: $19,710.00

Summary:

A grant of $19,710.00 was approved to initiate phase one of a project that will assist in reversing the decline of fish stocks in Lake Winnipegosis. In undertaking this initiative, garbage from the Duck and Wigwam Rivers that flow into Lake Winnipegosis will be removed. Large objects along the river and lakeshore will be identified for removal. These objects will be photographed and reviewed by Manitoba Conservation and Fisheries and Oceans Canada to determine the best method of removal. Landowners will be consulted regarding the removal of objects in a manner that will cause the least disturbance to property. Other activities include monitoring of beaver dams and migration of fish back to the lake. The water will be sampled and analyzed to determine water quality. If contaminants are found, potential control mechanisms may be implemented to stop or limit the contaminants. The results of the water sampling will be graphed and charted alongside water levels and weather conditions to determine what affects water quality. All of the information gathered from the project will be placed on the Pine Creek First Nation's website. A fish habitat inventory will be conducted once this phase of the overall project has been completed.

CLEAN UP OF THE WATERHEN RIVERS, TRIBUTARIES AND LAKESHORE

Proponents Are: Skownan First Nation
Date Approved: October 10, 2003
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved to initiate the process to revitalize Waterhen Lake. The rivers and streams flowing into and out of Lake Waterhen and the shoreline of the lake will be cleaned. It is anticipated that fish spawning will be improved, as well as the region as a tourism destination that preserves and protects its wildlife, their habitat and resources. A comprehensive survey of all the contaminants and garbage that inundates the water system will be collected. Crews will traverse the rivers and lakeshore to identify locations of large objects to be removed. Large objects will be filmed and reviewed by Manitoba Conservation and Fisheries and Oceans Canada to determine the best method of removal. Another crew will remove the smaller objects along the shoreline. Landowners will be consulted regarding the removal of larger objects in a manner that will cause the least disturbance to their property. A major fish habitat inventory will be conducted once the clean up is completed.

DRAIN LINE CARRY STUDY

Proponents Are: Canada Mortgage and Housing Corporation (CMHC)
Date Approved: December 23, 2003
Total Amount Approved: $15,000.00
Total Amount Expended: $15,000.00

Summary:

A grant of $15,000.00 was approved to conduct a study to identify the optimal drain pipe slope under various conditions and with various types of Ultra Low Flush (ULF) toilets. The intent of this study is to provide science-based data on drain line carry, i.e., the effectiveness of popular toilet models to transport solids to the sewer. There is currently some question regarding how well drain lines in older construction can transport toilet waste. Critics suggest that ULF technology is insufficient to draw waste away from the building through existing drain lines whose size, length, and slope have been designed for greater flow rates, thereby leading to clogging or plugging of the drain line, poor toilet performance, and potentially expensive clean-out costs. As such there is a real need to identify if the installation of ULF toilets, especially in older buildings, can lead to drain line problems, and therefore, flushing performance problems. This study will measure the effectiveness of several different types of ULF toilet flushing systems to transport realistic test media (soybean paste and toilet paper) along drain lines installed at different slopes. This study will enable science-based decisions by provincial and municipal governments, industry, building trades, and the public regarding drain line installations.

LITTLE SOURIS RIVER RESOURCE INVENTORY

Proponents Are: Mid Assiniboine River Conservation District
Date Approved: December 23, 2003
Total Amount Approved: $10,000.00
Total Amount Expended: $10,000.00

Summary:

A grant of $10,000.00 was approved to compile a resource inventory for use in developing an integrated watershed management plan for the Little Souris River Watershed, south and east of Brandon, Manitoba. It is intended that the project will provide data relevant to the cultural, political, environmental and geographic needs of the watershed. It is also proposed that the integrated watershed plan, once developed, will include relevant issues and options within the watershed including a list of appropriate best management practices, management alternatives, proposed land use changes, permanent and structural solutions under consideration, financial incentives, as well as, monitoring and evaluation components. The project supports the Manitoba Water Strategy that recommends community-driven, integrated watershed plans as a key cornerstone to sustainable development.

MAXIMUM PERFORMANCE TOILET/FLAPPER EVALUATION

Proponents Are: Manitoba Conservation
Date Approved: December 23, 2003
Total Amount Approved: $24,300.00
Total Amount Expended: $10,000.00

Summary:

A grant of $24,300.00 was approved to field test Ultra Low Flush (ULF) toilet performance and the effect of toilet flapper replacement on water savings. Twelve ULF toilets that are available in Manitoba and that were tested using simulated waste material will be installed in various Manitoba Conservation offices and field-tested in an appropriate scientific manner. Toilet flappers usually last five years or less and yet they are a crucial element in a toilet's flushing system. Choosing the wrong flapper for a ULF toilet can result in a loss of performance as well as much higher water use per flush. This project will test various replacement flappers to determine which flappers should be used in specific ULF toilets to ensure that each toilet continues to flush properly and uses only six litres or less per flush. Information will be presented in at least three presentations targeting the public, government and industry regarding domestic plumbing, testing and monitoring programs, and the proper selection of toilets. This study will enable science-based decisions by provincial and municipal governments, industry, building trades, and the public regarding water use and efficiency.

PRAIRIE WATER SOLUTIONS: THE TOBACCO CREEK MODEL WATERSHED

Proponents Are: Deerwood Soil and Water Management Association
Date Approved: July 8, 2003
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved to develop The Tobacco Creek Model Watershed as a "living watershed laboratory" to address inter-related agricultural and environmental issues. The area encompassed by this "living watershed laboratory" is 400 square miles and straddles the five local governments of the Rural Municipality of Morris, Rural Municipality of Roland, Rural Municipality of Thompson, Rural Municipality of Lorne, and Rural Municipality of Dufferin. The goals of the project are to expand watershed research partnerships to the Morris River, promote a watershed vision of agriculture (research, planning and action), demonstrate municipal and provincial infrastructure cost-savings and other benefits, and provide an effective framework to address inter-related watershed management issues, environmental challenges and community development opportunities.

ROSEAU RIVER WATERSHED PLANNING STUDY

Proponents Are: Roseau River International Watershed Group/Red River Basin Commission
Date Approved: March 4, 2004
Total Amount Approved: $15,000.00
Total Amount Expended: $15,000.00

Summary:

A grant of $15,000.00 was approved to undertake a watershed planning study for the Canadian portion of the Roseau River. This study will be completed with the support of the Roseau River International Watershed Group, the Red River Basin Commission, Roseau River First Nation and the Rural Municipalities of Piney, Stuartburn and Franklin. Manitoba and Minnesota portions of the transboundary watershed have completed hydrology studies and both jurisdictions will initiate the watershed-planning portion of the study. This initiative is expected to take two years to complete and the study will be complementary to the completed preliminary hydrology study. The Watershed Planning Study will consider all data and information related to the watershed; identify, discuss and document watershed issues, opportunities and management options; and develop and recommend watershed management plans.

SURFACE WATER QUALITY ASSESSMENT PROGRAM

Proponents Are: Seine-Rat River Conservation District
Date Approved: July 8, 2003
Total Amount Approved: $14,550.00
Total Amount Expended: $14,550.00

Summary:

A grant of $14,550.00 was approved to establish a surface water quality assessment program. It is proposed that baseline water quality data and analysis of the current status of water quality in the southeast watershed be established, and all data collected will put into the Conservation District's Global Information System (GIS). Eleven sites will participate in developing a surface water quality database. Data collected from the various sites will be used to identify trends in water quality. Trends will be analyzed and related to local activities and land practices so that long range conservation and resource management plans can be developed.

BROAD ALLOCATIONS

PROJECTS ALLOCATED FUNDING

DURING THE 2003/2004 FISCAL YEAR

Number of Broad Allocations: 7

Total Amount Expended: $1,760,800.70

Project Name	**Total Expended**
Environmental Youth Corps (EYC)	$200,000.00
Manitoba Climate Change Action Fund (MCCAF)	$247,420.00
Manitoba Habitat Heritage Corporation Southwest (Agro) Woodlot Program	$210,870.00
Orphan Mine Site Assessment Program	$305,936.48
Orphan Mine Site Rehabilitation Program	$249,964.36
Waste Reduction and Pollution Prevention (WRAPP) Fund	$522,766.43
Zebra Mussel Program	$ 23,843.43

BROAD ALLOCATIONS

DETAILED LISTING OF PROJECTS ALLOCATED

FUNDING DURING THE 2003/2004 FISCAL YEAR

ENVIRONMENTAL YOUTH CORPS

Proponent: Manitoba Conservation
Date Approved: 2003/04 Treasury Board Estimates Review
Total Amount Approved: $200,000.00
Total Amount Expended: $200,000.00

Summary:

The Environmental Youth Corps (EYC) has provided Manitoba's young people with an opportunity to prepare for the environmental challenges of tomorrow by helping them gain valuable education and experience today. EYC encourages youth to volunteer within their community for projects to improve and protect Manitoba's environment. The EYC program allows youth the opportunity to be involved in a variety of environmental activities that may otherwise not occur. The EYC program has demonstrated the government's commitment of increasing the opportunities for young people to be involved in environment-related activities, and to further the commitment of environmental protection and education for youth.

Environmental projects eligible for funding to a maximum of $5,000.00 include: water quality, waste minimization (recycling, composting, etc.), protection of flora and fauna, rehabilitation and conservation of the natural environment, wildlife conservation and habitat preservation.

EYC SUMMARY

Total Allocation for 2003/2004	**$200,000.00**
Applications Processed	90
Applications Approved	74
Applications Deferred	6
Applications Declined	9
Applications Withdrawn	1
Number of Youth Involved	4,632.00
Total Amount for Grants Approved	$187,575.00
Total Amount for Grants Expended	$187,282.52
Administration Costs (travel, printing, promotion, Coordinator's salary)	$ 12,717.48
Total Amount Expended	**$200,000.00**

Brief descriptions of the 74 projects approved under the EYC program during the 2002/2003 fiscal year are as follows:

RED RIVER REGION

Age and Opportunity Centre, Winnipeg received $2,500.00 to involve up to 25 youth in a community beautification and enhancement project in partnership with the Westend Senior Centre. The youth cleaned up the surrounding area, created a community garden and revitalized the entranceway.

Age and Opportunity Centre, Winnipeg received $2,500.00 to involve up to 20 youth in a community beautification and enhancement project in partnership with the Norwin 55+ Active Living Centre. The youth cleaned up the surrounding area, created a community garden and revitalized the entranceway.

Brennan School, Newton received $2,807.00 to involve up to 25 youth in a school beautification and enhancement project. The youth planted grass, trees, shrubs, perennials and flowers.

Brock Corydon Parent Advisory Council, Winnipeg received $1,000.00 to involve up to 280 youth in creating an outdoor classroom or common ground with trees, shrubs, wildflowers, seedlings wood chip pathways and benches.

Darwin Parent Group Gardening Committee, Winnipeg received $1,405.00 to involve up to 375 youth in creating an outdoor learning area and garden space to be shared by Darwin School and community. Youth helped to create this green space by planting trees and flowers.

Dakota Plains Wahpeton First Nation, Portage la Prairie received $2,500.00 to involve up to 20 youth in a community clean up and tree planting project. The youth assisted in planting poplar trees throughout the community, picking up garbage, and cleaning the grounds around public buildings (band office, health centre, etc.). Garbage collected was sorted for recyclables.

Donwood Elementary School, Winnipeg received $800.00 to involve up to 450 youth in a schoolyard beautification project. The youth planted a shelterbelt of 200 trees around the schoolyard.

First Nation Limited Partnership, Winnipeg received $2,500.00 to involve up to 22 youth in their Junior Rangers Program. The youth participated in tree planting activities in areas near Bissett and Brokenhead. Youth were involved in activities that will teach them about traditional knowledge and sustainable forest management practices.

Fort Whyte Centre, Winnipeg received $3,350.00 to involve up to 75 youth in a forest, grassland and meadow restoration project. The youth stacked wood and brush to create habitat for animals, transplanted native prairie grasses, planted trees and assisted with clean up activities around the center.

Fort Whyte Centre, Winnipeg received $2,750.00 to involve up to 120 youth in a tree planting project that will help to enhance and stabilize the west shore of Lake Cargill, as well as participated in building bat boxes that will help to create shelter and habitat for the little brown bat.

Friends of the Garden in partnership with St. Claude School, St. Claude received $5,000.00 to involve up to 150 youth in a schoolyard and community beautification project planting flowers, trees and a berry patch, constructing composting bins and creating a walking path.

George McDowell School, Winnipeg received $1,386.00 to involve up to 35 youth in the continuation of a school beautification project. The youth planted shrubs and perennials in three new planters at the school entrance area.

Growing Healthy Together, Gladstone in partnership with Gladstone School, 4-H and Odd Job Squad received $4,133.00 to involve 80 youth in the completion of a nature trail. The youth helped clear away debris, construct and erect bird and bat houses, and create wooden interpretative signs identifying the natural vegetation along the trail.

Holland Park Committee, Holland received $2,950.00 to involve up to 25 youth in the creation of a park like setting at the edge of town in Holland. The youth constructed birdhouses and planted trees and shrubs.

Isaac Newton School, Winnipeg received $2,954.00 to involve up to 40 youth in the creation of an outdoor heritage courtyard garden. The youth planted indigenous grasses, flowers, vegetables and trees.

John Taylor Collegiate, Winnipeg received $360.00 to involve up to 500 students in a community clean up and recycling program. The youth participated in a spring and fall clean up of the school ground. Youth also assisted in creating storage units for recyclable materials and picking up and sorting the recyclables on a weekly basis at the school.

John W. Gunn Middle School, Winnipeg received $1,850.00 to involve up to 24 youth in a project to increase awareness of waste minimization efforts at the school. The youth participated in a variety of activities including managing the recycling program and vermi-composting units at the school. The “John Gunn E-Team” also helped to educate other students about litter-less lunches and helped to build a 3-bin outdoor composting container.

Kent Road School, Winnipeg received $450.00 to involve up to 12 youth in the creation of an outdoor courtyard classroom. The youth helped design, plant and create a green space and a perennial garden.

Lord Selkirk Aboriginal Women’s Group Inc., Winnipeg received $3,650.00 to involve 10 to 15 youth in a community enhancement, beautification and recycling project. The youth set up workshops and brought in presenters to educate other youth and their families in the community on the importance of recycling. Once a week, youth participated in clean up activities throughout the community, all items that are recyclable were sorted from the clean up.

Machray School, Winnipeg received $4,050.00 to involve up to 250 youth in a school beautification project. The youth planted trees, container gardens, and flowers beds as well as cleaned up the school grounds and added refuse and recycling containers.

Murdoch MacKay Collegiate Institute, Winnipeg received $4,020.00 to involve up to 40 youth in a schoolyard beautification project. The youth planted trees, shrubs and lilac bushes and pruned, weeded, and spread mulch to help with water conservation efforts.

Niverville Collegiate Institute, Niverville received $4,290.00 to involve up to 15 youth in a school beautification project. The youth planted trees and shrubs, helped to create pathways and installed garbage bins.

Pacific Junction Playground Development Committee, Winnipeg received $2,800.00 to involve up to 35 youth in activities that will help to naturalize the school ground. The youth assisted in planting trees, vines and shrubs. Benches and garbage receptacles were also installed.

Projet d'Embellisement de la Cours d'Ecole, Lorette received $5,000.00 to involve up to 15 youth in a schoolyard enhancement and beautification project at Ecole Lagimodière. The youth planted a shelterbelt of Poplar, Lilac and Cedar trees.

Roland Home and School Parent Advisory Council, Roland received $3,100.00 to involve up to 84 youth in a school beautification and enhancement project. The youth planted shrubs, trees, and vines, as well as created a butterfly garden. They also assisted in building birdhouses and window planters.

St. Norbert Art Centre, St. Norbert received $2,963.00 to involve up to 50 youth in several projects to beautify the community. The youth participated in a community compost demonstration site, created a wood chip path, and cleaned up the riverbank and green space areas, planted trees along the La Salle River and nurtured small saplings.

Ste. Anne Collegiate, Ste. Anne received $2,559.00 to involve up to 40 youth in a schoolyard beautification project. The youth were involved in the planning of the green space, moving topsoil, as well as, planting trees and shrubs.

Silverwinds School, Sperling received $3,350.00 to involve 20 youth in creating a park-like setting near the schoolyard. The youth participated in a number activities including, planting native trees and prairie plants, as well as building bird houses with the intent of establishing a forest and grassland habitat for animals and birds. Youth also helped with tree pruning, and soil and water quality testing activities.

Southwood Elementary School, Winkler received $2,860.00 to involve up to 290 students in a schoolyard beautification and enhancement project. Youth assisted to plan, develop and prepare garden plots at the school, and painted several large mural sections.

Spence Neighbourhood Association, Winnipeg received $3,963.00 to involve up to 10 youth in an inner-city garden and composting project. The youth helped to plant gardens and participated in clean up activities to beautify the neighbourhood.

Teen Stop Jeunesse, Winnipeg received $4,346.00 to involve up to 10 youth in the “Bishop Grandin Greenway” and “Save our Seine” projects. The youth participated in clean ups, weeding, working in flowerbeds and participated in shoreline clean up activities.

The Indian and Métis Friendship Centre of Winnipeg Inc., Winnipeg received $2,330.00 to involve up to 10 youth in a community beautification and enhancement project. The youth participated in clean up activities in the Lord Selkirk area in Winnipeg.

Town of Gladstone, Gladstone received $2,280.00 to involve up to 15 youth in a recycling education campaign. The youth helped to educate local residents by creating and distributing brochures on the benefits of recycling corrugated cardboard. They also arranged a cardboard pick-up schedule with local businesses.

Victory School Lighthouse Program, Winnipeg received $3,743.00 to involve 30 youth in a community enhancement and beautification project. The youth participating in the "youth action group for the environment" were engaged in various environmental activities such as: planting flowers in front of the school, community clean up activities, and adopting local parks to keep free of litter.

Westpark School, Portage la Prairie received $1,567.00 to involve up to 23 youth in a schoolyard beautification project. The youth participated in constructing birdhouses and feeders as well as planting trees.

Winnipeg Boys and Girls Clubs, Winnipeg received $3,800.00 to involve 10 to 12 youth in a project to transform a vacant parking lot into a usable green space and create a park-like setting for the neighbourhood. Youth assisted in naturalizing the area with the planting of trees, shrubs and native Manitoba grasses. In addition to creating a green space, recycling and waste containers, benches and bird feeders were added to enhance the site.

Winnipeg Métis Association Inc., Winnipeg received $600.00 to involve up to 10 youth as part of their “It’s my Community Too” project. The youth participated in community clean up activities throughout Winnipeg.

Youth For Christ, Winnipeg received $510.00 to involve up to 10 youth in their Samsons Wilderness Adventure Team program. The youth cleaned up and planted trees in Elmwood, created a vermi-compost site and participated in activities that will teach them about the environment.

EASTERN REGION

Berens River First Nation, Berens received $1,160.00 to involve up to 50 youth in a community clean up. The youth helped to beautify their community by removing garbage and debris from the riverbank and ditches.

Berens River First Nation, Berens River received $3,130.00 to involve up to 24 youth in a community beautification project. The youth cleaned the park areas and planted trees, flowers and shrubs. They also organized education sessions for the community, focusing on the importance of the land and the environment.

Black River First Nation received $5,000.00 to involve up to 18 youth in the creation of a natural park. The youth participated in tree planting and trail development activities, with interpretive and directional signs being placed along the trail.

Buffalo Point First Nation received $2,505.00 to involve up to 20 youth in a community and riverbank clean-up project. The youth cleaned up the community, created signs and planted flowers and trees.

Hollow Water First Nation, Wanipigow received $2,020.00 to involve up to 30 youth in a community clean up. The youth participated in clean up activities in the community and on Black Island.

Ross L. Gray School, Sprague received $1,200.00 to involve up to five students in a school-recycling project. The youth assisted in organizing and picking up recyclable materials at the school. Also, recycling bins were built to expand the recycling program to include the collection of tin/aluminum and plastics at the school. The bins will also assist with the storage of materials that are awaiting transport to the recycling depot.

Whiteshell School District, Pinawa received $1,000.00 to involve up to 10 youth in creating xeriscape garden areas around Pinawa Secondary School and F.W. Gilbert School. The youth were involved in preparing the ground, planting and maintaining shrubs and flowers.

INTERLAKE REGION

Dauphin River School, Dauphin River First Nation received $3,860.00 to involve up to 10 youth in a community beautification and enhancement project. The youth planted flowers and grass, and picked up garbage.

Fisher Branch and Area Playground Enhancement Committee, Fisher Branch received $5,000.00 to involve up to 40 youth in a school beautification project. The youth planted berries, trees, flowers and a vegetable garden as well as built bird, bat houses, bird feeders and a compost bin.

St. Laurent Community Development Corporation, St. Laurent received $1,220.00 to involve up to 12 youth in a shoreline clean up project along Lake Manitoba. The youth helped to clean the shore of debris from last years ice break-up.

The Narrows Education Authority, Lake St. Martin First Nation received $3,694.00 to involve up to 50 youth in a schoolyard beautification project. The youth cleaned up debris, planted shrubs and perennials, participated in recycling activities and set up signs to encourage keeping the schoolyard clean.

Waterhen Community Council, Waterhen received $2,548.00 to involve up to 43 youth in a bat house project. The youth constructed up to 50 bat houses to help control the local mosquito population.

Woodlands School, Woodlands received $2,910.00 to involve up to 115 youth in the school's "Wildlife Habitat Restoration" project. The youth were involved in planting trees, shrubs, and prairie grasses.

NORTHEAST REGION

Churchill Summer Youth Program, Churchill received $854.00 to involve up to 90 youth in a community beautification and enhancement project. The youth planted 600 trees in Churchill, at the Study Centre and Twin Lakes.

Pikwitonei Community Council, Pikwitonei received $3,980.00 to involve up to 12 youth in community composting project. The youth helped to create a community backyard-composting demonstration site. The youth composted grass clippings and other organic garden materials collected from the community.

Wabowden Community Council, Wabowden received $700.00 to involve up to 10 youth in promoting recycling and raising awareness on the benefits of reducing waste. The youth created posters, distributed blue bags and discussed recycling with residents.

NORTHWEST REGION

Cormorant Community Council, Cormorant received $3,583.52 to involve up to 20 youth in a community recycling and clean up project. The youth built a recycling bin and informed residents about recycling activities. They also participated in a community clean up along the roads, ditches and community playgrounds.

Moose Lake Community Council, Moose Lake received $3,263.00 to involve up to 36 youth in a community clean up project. The youth cleaned ditches, cut brush and helped to clear away debris.

Opaskwayak Cree Nation, The Pas received $2,125.00 to involve up to 10 youth in a community beautification project. The youth planted trees, cleaned up litter and debris from parks and roadsides.

WESTERN REGION

Barrows Community Council, Barrows received $2,920.00 to involve up to 30 youth in a community beautification project. The youth planted flowers and trees in community flowerbeds, and participated in community clean up activities.

Camperville Community Council, Camperville received $2,563.00 to involve up to 14 youth in a community clean up project. The youth cleaned approximately 19 km along roadways and helped to repair or repaint the wooden garbage containers.

City of Brandon Community Services, Brandon received $1,452.00 to involve up to 140 youth in the "Kids in Bloom" program. The youth engaged in various activities such as recycling, composting, green space awareness, community clean up, planting, and tree identification.

Crane River Recreation Committee, Crane River received $2,510.00 to involve up to 10 youth in the beautification of two parks. The youth watered trees and planted flowers as part of the "Fun in the Sun" program.

Dauphin Joint Recreation Commission, Dauphin received $4,115.00 to involve up to 15 youth in activities that will help them learn about the environment while protecting, enhancing and rehabilitating the natural environment of Vermilion Park. The youth participated in a riverbank clean up, planting trees, weeding, leveling and replanting grass and clean up activities.

Decker Colony School, Decker received $2,675.00 to involve 47 youth in a schoolyard naturalization project. The youth created the naturalization plans for a schoolyard garden, planted shrubs and trees for a shelterbelt, and constructed and erected birdhouses and feeders.

Henderson School, Dauphin received $1,620.00 to involve up to 230 in the creation of an outdoor classroom and park-like setting. The youth planted flowers and trees and industrial arts students from the local high school built six picnic tables.

Nature Valley School, Wawanesa received $1,348.00 to involve up to 12 youth in creating garden planters and bird feeders for placement at the Glenboro Health District Personal Care Home.

Pierson Environmental Group, Pierson received $4,520.00 to involve up to 40 youth in several projects. The youth participated in activities involving tree propagation, stream bank cleaning, planting and transplanting trees from their tree nursery.

Pine Creek School, Pine Creek First Nation received $940.00 to involve up to 3 youth in a community beautification project. The youth picked up garbage and debris along the highways.

Red Deer Lake Community Council, Burrows received $2,745.00 to involve up to 10 youth in a community clean up and beautification project. The youth cleaned up litter and debris from parks and roadsides.

Rossburn Collegiate, Rossburn received $1,509.00 to involve up to 8 youth in the clean up and beautification of a drainage creek area. The youth assisted in removing debris, lined the shoreline area with rocks to create habitat for frogs and other small creatures, pruned trees and created a park-like area.

Shoal Lake Garden Club, Shoal Lake received $575.00 to involve up to 90 youth in a park beautification project. The youth planted and watered plants and trees and participated in a community clean up.

Shoal Lake School, Shoal Lake received $200.00 to involve up to 35 youth in the creation of a natural memorial garden in memory of 3 students. The students prepared, planted and maintained the garden on the school grounds.

Spence Lake Recreation Committee, Spence Lake received $2,510.00 to involve up to 6 youth in a community beautification and enhancement project in the Spence Lake Park Area. The youth planted trees and watered plants.

Vincent Massey Enviro Club, Brandon received $1,252.00 to involve up to 15 youth in developing a prairie habitat around the school. The youth planted native grass and other plant species to help create the prairie habitat.

Wawanesa Lions Club, Wawanesa received $1,100.00 to involve up to 60 youth in the completion of two riverside trails along the Souris River.

MANITOBA CLIMATE CHANGE ACTION FUND (MCCAF)

Administering Department: Manitoba Energy, Science and Technology, Climate Change Branch
Date Approved: 2003/2004 Treasury Board Estimates
Total Amount Approved: $250,000.00
Total Amount Expended: $247,420.00

Summary:

On July 18, 2000, Treasury Board approved a four year $1.0 million Broad Allocation ($250,000.00 annually) under the Sustainable Development Innovations Fund for the Climate Change Action Fund (MCCAF). Manitoba Energy, Science and Technology, Climate Change Branch, administers the Manitoba Climate Change Action Fund (MCCAF) to support practical, Manitoba based, actions that respond to the issue of Climate Change. MCCAF will support projects focusing on public education and outreach; the scientific understanding of climate change impacts and potential adaptation practices; technological innovation (research and commercialization); energy efficiency and alternative or "green energy". MCCAF will provide up to 50% of the total budget costs.

During the 2002/2003 fiscal year, the Climate Change Branch was transferred from Manitoba Conservation to the new Ministry of Manitoba Energy, Science and Technology. The Minister of Conservation has delegated grant approval authority up to $25,000.00, including approvals cash flowed or phased over more than one fiscal year.

MCCAF SUMMARY

Total Allocation for 2003/2004	**$250,000.00**
Applications Processed	23
Applications Approved	11
Applications Deferred	0
Applications Declined	12
Applications Withdrawn	0
Total Amount for Grants Approved	$247,420.00
Total Amount Expended	**$247,420.00**

Brief descriptions of the eleven projects approved under the Manitoba Climate Change Action Fund during the 2003/2004 fiscal year are as follows:

Education and Outreach

Canon Envirothon 2006 – Climate Change

Proponents: Manitoba Forestry Association
Date Approved: January 6, 2004
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved to support the Manitoba Forestry Association's host role for Canon Envirothon 2006. Manitoba has been selected by Canon Envirothon (International) to host the international Olympic-style Envirothon competition for high school students in 2006. Climate change, including topics such as carbon sequestration, fuel cells, wind energy and use of ethanol, will be the special environmental topic for the 2006 competition, where it is expected that close to 700 people from all over North America will be participating in the five-day event.

Climate Change Connection Phase II

Proponents Are: Manitoba Eco-Network Inc.
Date Approved: September 17, 2003
Total Amount Approved: $27,500.00
Total Amount Expended: $27,500.00

Summary:

A grant of $27,500.00 was approved to provide uninterrupted service in hosting Manitoba's Climate Change Public Education and Outreach Hub, the Climate Change Connection (CCC), originally established as a pilot project for Manitoba in 2002. The Climate Change Connection will be able to maintain and build upon its unique response to the Government's call for made-in Manitoba approaches to the challenges and opportunities of climate change by continuing to create awareness about climate change; to empower Manitobans to take action to reduce their greenhouse gas emissions, both individually and as a community; and to assist Manitobans in making the changes necessary to live more sustainable and climate-friendly lifestyles.

Communities and the Impact of Climate Change

Proponents Are: CUSO
Date Approved: September 30, 2003
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved to assist with the expenses of an international conference entitled, “Communities and the Impact of Climate Change”. The event brought together approximately 175 citizens and leaders from communities in Canada’s Arctic, Canada’s rural areas and nations from the Southern Hemisphere to share their knowledge and experience regarding the real impacts a changing climate is having on their communities and their lives. Actions and solutions related to reduction, adaptation and transition measures were also featured.

Commuter Challenge 2003

Proponents Are: Resource Conservation Manitoba (RCM)
Date Approved: August 22, 2003
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

Green Transportation methods help to reduce harmful greenhouse gas emissions in support of Manitoba's climate change commitment. A grant of $25,000.00 was approved to expand participation in the national “2003 Commuter Challenge” event within Manitoba. The goal of the project was to achieve increased participation both in terms of number of workplaces and number of people involved in this annual competition which encourages individuals in workplaces and schools to use sustainable transportation methods during Environment Week. Winnipeg placed first in the national competition, recruiting the highest number of participants (over 10,000 individuals), and achieving the highest per capita participation rate among large Canadian cities (1.6%). Winnipeggers from 155 workplaces and schools traveled approximately 400,000 green kilometres, avoiding nearly 125 tonnes of greenhouse gases that contribute to climate change.

Global Change Game Capacity Building Workshop Pilot

Proponents Are: Global Change Game Inc.
Date Approved: August 18, 2003
Total Amount Approved: $2,100.00
Total Amount Expended: $2,100.00

Summary:

A grant of $2,100.00 was approved to pilot Global Change Game’s new environmental workshop in August 2003 at the Tunza International Youth Conference in Dubna, Russia, which was attended by youth environmental leaders from around the world. Following facilitation, monitoring and evaluation of the pilot workshop by Global Change Game staff, the project will be adapted accordingly with the intention of making it available to Manitoba youth and educators.

Greenhouse Gas Data Management & Research Facility Business Plan

Proponents Are: Local Government District of Pinawa, Economic Development Committee
Date Approved: January 6, 2004
Total Amount Approved: $38,500.00
Total Amount Expended: $38,500.00

Summary:

A grant of $38,500.00 was approved to commission a business and operating plan for a proposed Pinawa greenhouse gas data management and research facility. This business plan will build on the opportunities presented in a 2002-2003 feasibility study which identified four key and four subsidiary opportunities related to greenhouse gas sequestration in Pinawa and will further the development and implementation of such a facility.

Travel Choices for GHG Reduction

Proponents Are: Resource Conservation Manitoba (RCM)
Date Approved: March 8, 2004
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved to support promotion of alternative transportation at workplaces and schools in Manitoba for the June 2004 Commuter Challenge. Resource Conservation Manitoba will follow-up with participating workplaces and schools to build capacity and support implementation of trip reduction and transportation demand management (TDM) measures. The project will use community-based social marketing (CBSM) approaches to identify and dismantle barriers to environmentally friendly travel choices at participating sites. The project seeks to contribute toward year-round modal shifts in commuting choices, from Single Occupant Vehicles (SOVs) toward alternatives such as transit, walking, cycling and carpooling.

IMPACTS AND ADAPTATION

Climate Change Damage Tolerant Transportation Infrastructure in Manitoba

Proponents Are: University of Manitoba, Department of Civil Engineering
Date Approved: January 6, 2004
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved to improve the understanding of the effect of climate change on surface transportation systems in the Prairies and in the Canadian North, and to build capacity for developing appropriate adaptation strategies. The research to be conducted will assess changes in the vulnerability of key components of infrastructure associated with increased flood risks in southern Manitoba and further degradation of permafrost in Northern Manitoba due to climate changes, and will provide guidelines for the maintenance, rehabilitation and reconstruction of existing facilities which incorporate climate-induced loads.

Manitoba-PARC Climate Change Coordinator: Extension

Proponents Are: University of Winnipeg, Centre for Forest Interdisciplinary Research (C-FIR)
Date Approved: January 6, 2004
Total Amount Approved: $20,000.00
Total Amount Expended: $20,000.00

Summary:

A grant of $20,000.00 was approved to address the need for an individual to coordinate the disparate climate change research efforts in the province in order to ensure that duplications are minimized and that available resources are used most effectively. Strategic gas relating to research expertise and to areas with significant funding and growth potential, as well as impact on the public good, will also be addressed through this project.

Snow Cover Characteristics at the Arctic Treeline

Proponents Are: Churchill Northern Studies Centre
Date Approved: January 6, 2004
Total Amount Approved: $9,320.00
Total Amount Expended: $9,320.00

Summary:

A grant of $9,320.00 was approved to quantify environmental changes resulting from climate change across the Arctic treeline and to educate the public on climate change issues. Snow samples will be selected for geochemical analysis to determine snowpack chemistry and assess changing geochemical characteristics. A real-time data link from a weather station located in a tundra environment will be set up to the CNSC for educational purposes.

Vulnerability of the Assiniboine Delta Aquifer Under Climate Change

Proponents Are: University of Manitoba, Department of Civil Engineering
Date Approved: January 6, 2004
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved to conduct a case study to assess atmospheric changes on groundwater resources in a large sand and gravel aquifer system known as the Assiniboine Delta Aquifer. The purpose of the research is to ascertain changes in the vulnerability of the Assiniboine Delta Aquifer water resources due to climate-induced demand and to provide scientifically-based guidelines for adapting to climate change based on sound economic theory.

MANITOBA HABITAT HERITAGE CORPORATION SOUTHWEST (AGRO) WOODLOT PROGRAM

Managing Department: Manitoba Conservation, Forestry Branch
Date Approved: 2003/2004 Estimates Review
Total Amount Approved: $312,400.00
Total Amount Expended: $210,870.00

Summary:

On March 6, 2001, Treasury Board approved a Broad Allocation of $312,400.00 commencing in 2001/2002 under the Sustainable Development Innovations Fund to support the operations of the Manitoba Habitat Heritage Corporation Southwest (Agro) Woodlot Program.

Following are brief descriptions of the services and activities undertaken through this program during the 2003/2004 fiscal year:

WOODLOT MANAGEMENT

Woodlot Management Planning

In the 2003/2004 fiscal year, woodlot management planning was separated out from woodlot operating plans and harvesting. Manitoba Habitat Heritage Corporation staff completed a total of 50 woodlot plans on 6,051.5 acres.

Based on Manitoba Conservation, Forestry Branch's three new categories of woodlot management plans, Manitoba Habitat Heritage Corporation has completed, since 1992, at least 434 woodlot plans on at least 44,825 acres.

Plan Type	Number of	Total Completed (2003/04)	Total (1992/93 – 2003/04)
Stewardship Plans[1] (Previously Timber Assessments)	**Stewardship Plans**	7	130 + 1 = **131**
	Acres	390.1	6,500[2] + 92 = **6,592.0**
Clearing & Conversion Plans[3]	**Clearing & Conversion Plans**	3	10 + 1 = **11**
	Acres	277.1	539.2[2] + 160 = **699.2**
Registered Woodlot Management Plans[4]	**Registered Woodlot Plans**	40	281 + 11 = **292[4]**
	Acres	5,384.3	35,857[2] + 1,675.9 = **37,532.9**
Total Plans	**Total No. of Plans**	7 + 3 + 40 = 50	421 + 13 = **434[10]**
	Total No. of Plan Acres	390.1+277.1+5,384.3 = **6,051.5**	42,897 + 1,927.9 = **44,825 ac[10]**

[1] Stewardship Plans provide a brief assessment of management options for a typical (non-merchantable) stand in the area. Since the property is not cruised, volume is estimated.

[2] The number of acres represents acres assessed for management, but do not necessarily represent the total number of owned woodlot acres.

[3] Clearing & Conversion (C & C) Plans include a cruise, volume calculation and a Timber Sale Agreement. NOTE: C & C demand started in 2000/01.

[4] Registered Woodlot Management Plans are based on a detailed broad resource inventory. Plans include volume calculations as well as management options and recommendations.

Woodlot Operating and Harvesting

Manitoba Habitat Heritage Corporation completed a total of 11 operating plans on 243 acres in FY 2003/2004. In addition, MHHC completed 10 harvesting plans on 297 acres that resulted in the harvesting of approximately 3,547 cords of timber in 2003/2004.

Based on "back casting" estimates, since 1992, MHHC has completed at least 73 operating plans on at least 2,761 acres. In addition, MHHC estimates that since 1992, it has completed at least 50 harvesting plans on at least 2,369 acres, which resulted in the harvest of approximately 6,312 cords of timber.

Plan Type	**Number of**		**Total Completed (2003/04)**		**Estimated Total (1992/93 – 2003/04)**	
Total Operating Plans[1]	**Operating Plans**		11		70 + 3 = **73**	
	Acres		403		2,423 + 248= **2,671** [3]	
Total Harvest Projects[2]	**Harvesting Projects**		10		49 + 1= **50**	
	Acres	**Cords**	297 ac	3,547 cords	2,233 + 136= **2,369 ac**[3]	5,612 + 700 = **6,312 cords**

[1] After reviewing Registered Woodlot Management Plan, landowners may decide to complete Operating Plans – i.e. marking trees, laying out skid trails, landings etc. for harvest. Staff may refer landowners to contractors and markets as well as assist landowners in negotiating a timber sale agreement.

[2] Harvesting may happen years after completion of a woodlot management plan. Services may include contractor supervision and post harvest inspection.

[3] Estimated operating and harvesting acreage must be totaled separately from woodlot management plan acreage, since:

(i) Operating and Harvesting may occur on the same acreage identified in woodlot plans and/or

(ii) MAWP may be asked to become involved in projects on the brink of selling and harvesting timber – i.e. without completing a plan.

Woodlot Trends and Observations

Due to the series of newspaper articles and workshops that received good coverage throughout Agro-Manitoba, the Manitoba Agro Woodlot Program received several contacts for woodlot management planning. Landowners are becoming increasingly interested in improving the value and health of their woodlots by utilizing lower grade hardwoods i.e. Full Vigour Forestry.

Industrial Scale Forestry Trends and Observations

Minnesota mills have indicated that winter wood supplies will not meet demand. As a result, mills will be requiring pulpwood from Manitoba to maintain production and to fill yards during the summer of 2004.

Aspen pulpwood harvesting started in February in the Turtle Mountain region south of Deloraine for export markets.

Spruce and aspen pulpwood is being harvested east of Spruce Woods Provincial Park for export. Spring break-up has slowed activity, but harvesting will resume after break-up. In addition, new logging contractors are establishing operations for pulpwood harvesting east of Spruce Wood Provincial Park. Currently there are five large-scale logging operations competing for pulpwood from private land in the region. Average stumpage rate for aspen pulpwood paid to the landowner is $8.00/cord. Spruce pulpwood stumpage rate remains at $20.00/cord.

Given increasing interest in aspen south of Riding Mountain, several landowners have contact Manitoba Habitat Heritage Corporation for aspen management plans as well as referrals to loggers.

TREE PLANTING

Given Manitoba Conservation, Forestry Branch's interest in reducing agro-forestry (agriculture related tree planing); MHHC continued to reduce tree planting projects. There were no trees planted or new projects started during the winter. Staff concentrated on details related to the 24 projects and 27,404 trees to be planted in the spring of 2004.

Since 1992/93, Manitoba Agro Woodlot Program has planted 1,099,526 trees and shrubs on 856 landowner projects. Since 1992/93 the program has planted 66,613 trees on 139 community projects. The Agro Woodlot Program was either directly involved in preparing funding proposals or became involved in planning and organizing projects that have secured in excess of $209,508 for community planting since 1993. In total, since 1992/93, the Manitoba Agro Woodlot Program has planted 1,166,139 trees and shrubs on 995 projects.

COMMUNICATIONS

Training Workshops

Manitoba Habitat Heritage Corporation (MHHC) delivered a half-day "Wealth in Woodlots Workshop" in partnership with Little Saskatchewan River Conservation District in Erickson.

MHHC planned and organized two "Chainsaw Workshops" in partnership with Little Saskatchewan River Conservation District and Darrell Neustater in Erickson. Planning is completed for a third chainsaw workshop in Gimli in April 2004.

MHHC planned and organized a "Kiln Drying Workshop" in Portage la Prairie. Participants praised the quality of Dr. Gene Wengert's presentation. In addition to being Professor Emeritus at the University of Wisconsin, Dr. Wengert is highly respected throughout North America.

MHHC planned and organized a one day workshop on Green Dimension Lumber held at Oak Hammock Marsh Interpretive Centre. Bob Bartz from Minnesota and Manitoba's Richard Gobeil explained how to maximize economic returns by milling and kiln drying short lumber form low-grade logs.

Since 1992, MHHC has delivered a total of 65 micro forestry-training workshops for 825 participants as well as a total of 45 other workshops for 1,159 participants.

In total, since 1992, MHHC has delivered 110 workshops for 1,984 participants.

Workshop Summary

Workshop Type	Workshop Name	Number of	4th Quarter 2003/2004	Total (1992 – 2003)
Micro Forestry Workshops[1]	Kiln Drying	Workshops	1	
		Participants	23	
	Wealth In Woodlots	Workshops	1	
		Participants	16	
	Chainsaw	Workshops	2	
		Participants	12	
	Green Dimensioning	Workshops	1	
		Participants	27	
	Sub-Total Micro Forestry	Workshops	5	**60 + 5 = 65**
		Participants	78	**747 + 78 = 825**
Other Workshops[2]		Workshops	0	**45 + 0 =45**
		Participants	0	**1,159 + 0 = 1,159**
Total		Workshops	5	**105 + 5 = 110**
		Participants	78	**1,906 + 78 = 1,984**

[1] Micro Forestry Workshops include Chainsaw Operation and Maintenance, Bandsaw Mill Alignment, Circular Sawmill Operation and Maintenance, Hardwood Lumber Grading, Kiln Drying, Maximizing Economic Returns from Hardwood, Square Timber Building, Wood Turning, and Wealth in Woodlots etc.

[2] Other includes "Everything You Wanted to Know About Timber Sales, But Were Afraid to Ask", Community Tree Care, Bioengineering, First Nations Forestry Conference and the Lumber Auction etc.

Events/Presentations

MHHC staff manned the Agro Woodlot booth at Manitoba Ag Days in Brandon and made two presentations. The two presentation were made to the Pembina Soil & Crop Management Association, one on "How Challenges on the landscape Influenced the Agro Woodlot Program" given by Shane Tornblom, and the other on "Values and Opportunities in a Woodlot" given by Carol Graham.

Articles/Media Coverage

Six articles appeared in various rural newspapers, guides, reports, etc. The articles include: "Black Poplar Makes Good Lumber", "Diversity your Farm: Harvest a Woodlot"; "Local Woodlots Produce Good Lumber"; "Woodlot Management Another Farm Option"; "Turning Green Timber into Greenbacks"; and "Proper Felling Techniques are Critical to Woodlot Management".

RURAL ECONOMIC DEVELOPMENT

The Kiln Drying Workshop motivated some sawyers who were thinking about constructing a kiln and adding value to their lumber. Since the workshop, three participants in southern Manitoba have indicated that they will have kilns built in the summer of 2004, ranging in size from 100-2500 bf. In addition, two operators are considering building small kilns south of Riding Mountain.

As a result of the kiln workshop, staff met two new kiln operators who built kilns in the past six months i.e. a solar kiln in Winkler and a dehumidification kiln in Carberry.

One sawyer indicated his plan to mill and dry Manitoba maple to maximize hardwood utilization and to meet consumer demand for character wood. The limitations to milling Manitoba maple are now perceived to be less prohibitive, due to increasing consumer demand.

PROFESSIONAL DEVELOPMENT

Two staff members participated in the G.I.S. User's Group Conference March 19, 2004 in Brandon.

ORPHAN MINE SITE ASSESSMENT PROGRAM

Managing Department: Manitoba Conservation, Headquarters Operations
Date Approved: 2003/2004 Treasury Board Estimates Review Process
TB Minute – TB12B/2004 – Item 26, March 23, 2004
Total Amount Approved: $307,000.00
Total Amount Expended: $305,936.48

Summary:

Treasury Board approved a four year $1.0 million Broad Allocation ($250,000.00 annually) commencing in 2001/2002 under the Sustainable Development Innovations Fund for the Department of Conservation to undertake site specific human health and environmental site assessments at identified orphan/abandoned mine sites (Refer to Table 1).

TABLE 1

A total of $1,000,000.00 was approved over a four-year period for the following assessment projects:

Location	Approved Amount	Assessment Project	Status	Total Expenditure to Date
Sherridon	$375,400.00	• Hydrogeological/chemistry study • Site Specific Human Health and Ecological Risk Assessment	- Completed - Initiated December 2002	$246,153.80
Gods Lake	$80,000.00	• Site Specific Human and Ecological Health Risk Assessment	- Initiate in 2004/05	
Lynn Lake	$384,600.00	• Site Specific Human and Ecological Health Risk Assessment	- November 2001 to March 2004	$384,664.60
Snow Lake	$80,000.00	• Site Specific Human and Ecological Health Risk Assessment	- Initiate in 2004/05	
Baker Paton	$80,000.00	• Site Specific Human and Ecological Health Risk Assessment	- Initiate in 2004/05	

Two assessments were initiated since the program's inception, one at Sherridon and the other at Lynn Lake. The hydrogeolocial/geochemical study of the Sherridon mine tailings impoundment was initiated in 2001/2002. This study provided important environmental information on the impacts of the mine tailings on the adjacent water bodies and the data obtained will be applied in the site specific risk assessment that was initiated in 2002/2003. Data collection was collected over the summer and early fall of 2001 with additional sampling work conducted in 2002/2003. This involved collection of groundwater and surface water samples around the mine tailings impoundment and assessment of hydrogeological/geochemical conditions. The samples were analyzed and the data assessed. The study determined that contaminants continue to be released to the aquatic environment and this will continue for the next 100 years. The information from the study will be applied in the site specific risk assessment.

COLD LAKE/SHERRIDON RISK ASSESSMENT

Total Amount Expended 2003/2004: $213,186.21

In August 2002, Manitoba Conservation met with the Cold Lake/Sherridon Town Council and conducted a public meeting on the proposed Cold Lake/Sherridon Human Health and Environmental Risk Assessment. A Request-for-Proposal (RFP) was developed and issued. The selection committee, consisting of representatives from Manitoba Conservation, Manitoba Industry, Trade and Mines and Manitoba Health, reviewed the consultants' proposals. UMA Engineering, in association with Senes Consulting, was selected to undertake this risk assessment. In November 2002, UMA initiated a review of existing human health and environmental data. Based on the available information, UMA proposed a monitoring plan that was reviewed by Manitoba Conservation's Technical Advisory Committee (TAC). This TAC consists of the same representation as the Lynn Lake TAC, however the Town Council of Cold Lake/Sherridon selected their representative to participate in the TAC.

Air monitoring stations and sample collection locations were selected and data collection commenced in the spring of 2003. Water, soil, sediment, vegetation and biological samples were collected and analyzed over the summer and fall of 2003. In October 2003, Manitoba Conservation and their consultants presented the available results from the sampling program to the Town Council and public. Additional sampling has since been undertaken to supplement available data and the risk modeling has been initiated. The project is scheduled to be completed in March 2004.

LYNN LAKE ASSESSMENT

Total Amount Expended 2003/2004: $92,750.27

On September 5, 2001, a public meeting was held in Lynn Lake to provide the local community and the Marcel Colomb First Nation an opportunity to provide input on a Request-for-Proposal (RFP) to undertake a site specific human health and environmental risk assessment at Lynn Lake. The RFP was issued in October 2001 and a contract was awarded to Dillon Consulting Limited in November 2001. A Technical Advisory Committee (TAC) consisting of technical staff from Manitoba Conservation, Manitoba Health and Manitoba Industry, Economic Development and Mines was established to provide guidance to the consultant. The Town of Lynn Lake and the Marcel Colomb First Nation was invited to participate in the TAC.

The consultant reviewed existing human health and environmental data to determine data gaps. The consultant developed and implemented in the spring of 2002, a monitoring plan to acquire the necessary data for the risk assessment. In addition, the consultant initiated work on environmental and human receptor characterization. This work identified important ecological features in order to develop a clear understanding of the local ecosystems and indigenous wildlife and all relevant human receptors in the community. These tasks were completed by February 2002 and on March 20, 2002 meetings were held with the Town of Lynn Lake Council, Marcel Colomb First Nation and the Community Adjustment Committee, and a public open house was conducted to solicit community input. Contaminant characterization that will assess ambient air exposure, indoor air exposure, contaminant releases, exposure pathway analysis, aquatic/terrestrial exposure and uncertainty analysis, were completed and the results presented to Marcel Colomb First Nation, Town Council and the public in November 2002. In March 2003 the provincial Technical Advisory Committee provided comments to the consultant on the draft risk assessment report. In April 2003 the report was finalized and presented to the Town Council, Marcel Colomb First Nation and the public.

The risk assessment indicates that mine tailings in and near Lynn Lake pose a risk to the local environment of the Lynn River, from the mouth of the town ditch to the confluence of the Keewatin River. This risk includes portions of the terrestrial environment from the East Tailings Management Area to the southwest and southeast to the Lynn River. Additional hydrogeological/geochemical studies were undertaken in 2003/2004 to provide additional scientific support to the risk assessment.

ORPHAN MINE SITE REHABILITATION PROGRAM

Managing Department: Manitoba Industry, Economic Development and Mines, Mines Branch
Date Approved: 2003/2004 Treasury Board Estimates Review Process
Total Amount Approved: $250,000.00
Total Amount Expended: $249,964.36

Summary:

On July 18, 2000, Treasury Board approved-in-principle a four-year $1.0 million Broad allocation ($250,000.00 annually) from the Sustainable Development Innovations Fund to the Department of Industry, Economic Development and Mines, Mines Branch, for an Orphan Mine Site Program to rehabilitate Crown owned orphan mine sites in Manitoba. The four-year work plan included rehabilitation at Sherridon, Gods Lake, Baker Paton, Snow Lake and East Lynn Lake.

The total expenditure for Fiscal Year 2003/2004 was $249,964.36 and the details are given below in Table 1.

TABLE 1

Project Location	**Total SDIF Approval ($)**	**Expenditure for 2000-03/04**	**Expenditure for 2003/04**	**Total Expenditure up to March 31, 2004**
Sherridon	100,000	$90,789.93	$2,753.21	$93,543.14
Gods Lake	250,000	$222,593.04	$36,371.22	$258,964.26
Snow Lake	20,000	$54,430.33	nil	$54,430.33
Lynn Lake	480,000	$38,502.51	$159,300.00	$197,802.51
* Emergency Work			$43,000.00	$43,000.00
Baker Paton	150,000	$193,529.56	$8,539.93	$202,069.49
Total	**1.0 M**	**$599,835.37**	**$249,964.36**	**$849,809.73**

* Treasury Board approved to re-allocate funding from Lynn Lake towards emergency work.

Sherridon

A 12m x 15m perimeter fence was installed around the old shaft area. All corner posts were braced and secured. All brush removed from either side of the fence and debris disposed of in the designated dump.

God's Lake

A final site inspection was carried out in June 2003 and the contractor was asked to correct the deficiencies such as leveling of the broken concrete at the mill site, leveling of the precast slabs at No. 4, to tighten the holding down bolts on the shaft caps and to supply with documentation regarding the appropriate disposal of the asbestos lined boiler. All the deficiencies have been corrected and the project was completed in the latter part of 2004.

Snow Lake

A “Mineralization & Geochemical Study of Arsenic in Alteration Products of Sulphide-Rich, Arsenopyrite-Bearing Mine Waste” in Snow Lake was conducted by U of M and the final report was published in March 2004.

The objectives of the study are:

1. To assess the process and solubility controls of arsenic release in Arsenopyrite Stockpile pore water and drainage water.

2. To characterize the extent of alteration of a high sulphide, refactory arsenopyrite mine wastes after 40 years of supergene weathering.

3. To elucidate the geochemistry of arsenic in secondary alteration products of arsenopyrite.

Two types of solid material from the stockpile were analyzed. A bucket of altered refactory sulphide material collected by the mine staff in 1998 and in March 2002, four sample holes were drilled into the pile and cores were collected. Further water samples were collected in June and September 2003 from areas where contamination from the arsenopyrite stockpile was inspected.

Findings:

Prior to alteration, the refactory sulfide residue contained up to 55% arsenopyrite, 10% pyrrhotite, and 5% pyrite with the gangue minerals quartz, feldspar, biotite, amphibole and minor calcite. The study found that prolonged exposure of the sulfide residue to air and water initiated oxidation of sulfide minerals, forming an alteration zone 0.5 m thick. Below the oxidation zone arsenate, arsenite, sulfate and ferrous ions were released to pore-water solution. The arsenic content in water infiltrating through the oxidized layers was found to be controlled by secondary As-phases including X-ray amorphous iron sulfoarsenates (AISA), scorodite and jarosite. The dominant secondary phase, AISA, contained 16 to 37 wt% As with the As/S ratio decreasing with progressive mineralization. Reducing conditions below the alteration zone prevent the precipitation of secondary phases, allowing the release of arsenic in pore-water. Pore-water sampled from the refactory sulfide residue locally contained up to 100 mg/L total arsenic, and up to 25 mg/L of the mobile arsenite oxyanions.

Lynn Lake

Dyke Stabilization

- UMA Engineering Consultants completed the specifications for Dykes Nos. 4 and 5 stabilization and replacement of Weirs “C” and “D”.
- Dykes 4 & 5 upgrading consists of placement of geotextile (7600 m^2); granular rip-rap (4000 m^3), granular filter material (5500 m^3) and granular backfill material (7500 m^3).
- Overflow channel and weir construction consists of replacement of Weir C in Dyke 4, Weir D in Dyke 5, placement of granular rip-rap (1500 m^3), and geotextile (2000 m^2).
- Weir demolition and culvert removal consists of weir demolition and removal of culvert. Smook Bros. from Thompson was awarded the work at an estimated cost of $344 K. The construction was completed at a cost of $361 K. The engineering design, supervision and inspection cost was $118 K. As per the MOU between Viridian Inc. and Manitoba, the Province paid $158.4 K contribution to the cost

Permeable Reactive Barriers (PRB)

A PRB is constructed excavation at a location and depth for intercepting contaminated groundwater flow that has been filled with a mixture of permeable materials capable of reacting with the contaminants of interest. An engineered reactive barrier filled with limestone and organic materials can react with acidic metal-bearing groundwater such that the groundwater leaving the barrier can have lower acidity and metal content. Additional field investigations and laboratory studies at the University of Waterloo with respect to potential applications of PRB technology to treat acid run-off has been supported by the Branch. The preliminary results of column testing using "engineered water" look promising. The test work is now completed and the profile of the water quality is underway. The column test will be conducted using acid water from mine site. Based on the end results, a final decision will be taken.

Emergency Rehab Work

A. *Central Manitoba Mine (CCM)*
Abandoned CCM is located 27 km southeast of Bissett in Nopaming Park. In July 2003 an open shaft was noted by the Claim Inspector. The shaft is only 50 m away from the local access road and is a potential threat to public safety. An engineered concrete cap was designed and Cyr Construction was awarded a contract to install a concrete cap and four danger signs. The rehab work was completed in January 2004 at a cost of $16 K.

B. *Gunnar Mine*
Abandoned Gunnar Mine is located 35 km southeast of Bissett. In May 2003 local residents noticed an open shaft and informed the Branch inspection section. The open shaft is in a cottage tourism area and presents a danger to public safety. An engineered shaft cap was designed and Cyr Construction was awarded a contract to install a concrete cap. The rehab work was completed in June 2003 at a cost of $27 K.

Treasury Board approved reallocation of funds from the Lynn Lake Project for $43,000.00 to cover cost of emergency work

Baker Patton

Baker Patton Mine is located approximately 35 km east of Flin Flon. The mine lies within ML59, and held in the name of Pinebay Mines Ltd. Acres Consultants were hired to develop the scope of work and to provide emergency services to rehabilitate the mine site. The primary scope of work is to remove about 5000 cubic yards of sulphide-bearing mine rock, to remove all the oxidized sediments from the creek bed and to revegetate the site. The rehabilitation contract was awarded to Strilkiwski Contracting Ltd. for an estimated cost of $175 K. The work commenced in March 2003. The creek bed was cleaned, fertilized and seeded to regenerate vegetation. To minimize the damage to the access road, the mine waste rock from the site was hauled during the winter of 2004. The project was completed in March 2004. All deleterious waste including scrap metal, tires and oil drums along the creek were removed and disposed of appropriately. The creek bed was scraped and all acid generating material from the creek bed and at the mine site (5000 m^3) was hauled into the HBMS tailings compoundment area in Flin Flon. Fertilizer was spread, seeded and erosion control blankets were secured with pins. Dry waste wood from logging operation stored on the site was mulched and spread on top of the erosion control blankets to regenerate vegetation. Costs were 25% over the estimate due to a number of factors which included poor winter road conditions, increased engineering and site supervision and more stringent environmental requirements.

WASTE REDUCTION AND POLLUTION PREVENTION FUND

Administering Department: Manitoba Conservation, Pollution Prevention Branch
Date Approved: 2003/2004 Estimates Review Process
Total Amount Approved: $550,000.00
Total Amount Expended: $522,766.43

Summary:

On May 30, 2000, Treasury Board authorized the Department of Conservation to proceed with the implementation of a new Broad Allocation, the Waste Reduction and Pollution Prevention (WRAPP) Fund, which is to be funded from the Sustainable Development Innovations Fund. This program was allocated $550,000.00 for the 2003/2004 fiscal year, as part of a four-year $2.2 million Broad Allocation.

The WRAPP Fund will support projects in the following priority areas: construction and demolition waste management; composting; institutional waste reduction; market development; pollution prevention; integrated waste management system development and planning; promotion and education; parks projects; regional recycling; green procurement; and other. Financial partnerships are encouraged.

Up to $100,000.00 of the total allocation is set aside for program development.

The Minister of Conservation has delegated grant approval authority up to $25,000.00, including approvals cash flowed or phased over more than one fiscal year.

WRAPP FUND SUMMARY

Total Allocation for 2003/2004	**$550,000,00**
Applications Processed	37
Applications Approved	28
Applications Deferred	2
Applications Declined	7
Applications Withdrawn	0
Total Amount for Grants Approved	$467,200.00
Total Amount for Grants Expended	$467,200.00
Program Development (consultations, promotions, contracts, seminars, supplies, etc.)	$ 55,566.43
Total Expended	$522,766.43

Brief descriptions of the twenty-eight (28) projects within the priority WRAPP areas are as follows:

C & D WASTE

BUILDING DECONSTRUCTION AND DEMOLITION IN THE EXCHANGE DISTRICT

Proponent: Centre for Indigenous Environmental Resources (CIER)
Date Approved: December 23, 2003
Total Amount Approved: $20,000.00
Total Amount Expended: $20,000.00

Summary:

A grant of $20,000.00 was approved to assist with redevelopment of three dilapidated buildings in the Exchange District. Redevelopment involves the demolition and clean-up of the former Salvation Army Recreation Building on Rupert Avenue and two existing buildings on Rupert and Pacific Avenue. Salvaged building materials will be cleaned, palletized and reused as needed in the reconstruction project. The demolition phase of this project will establish a new protocol for building deconstruction and salvage in the Province of Manitoba. The deconstruction phase of the project will build upon the achievements of the Mountain Equipment Co-op and Red River College-Princess Street Campus Projects. The ultimate goal of Manitoba Government Services in partnership with the Centre for Indigenous Environmental Resources (CIER) is to create a facility that has zero-net operating costs and result in one of Canada's "greenest" retrofit heritage buildings.

COMPOSTING

BACKYARD COMPOSTING SALE

Proponent: City of Winnipeg
Date Approved: July 8, 2003
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved to assist in the sale of 10,000 Earth Machine composters from four different locations in Winnipeg. Composters will be sold at a subsidised price of $25.00 each. This project includes partnering with the City of Portage la Prairie and the City of Selkirk. Both of these communities will receive 200 composters to distribute to their residents.

COMPOST ACTION 2003

Proponent: Resource Conservation Manitoba
Date Approved: June 10, 2003
Total Amount Approved: $45,000.00
Total Amount Expended: $45,000.00

Summary:

A grant of $45,000.00 was approved to expand on activities carried out in *Compost Action 2002*. Through this project, RCM will continue to promote and advertise services offered in *Compost Action 2003*, as well as conduct public backyard composting workshops, research and share information on backyard composting strategies, maintain demonstration sites, and continue outreach programs to community groups across Manitoba. A key focus of this project will be to build capacity within partner organizations to carry on the work initiated by RCM throughout Manitoba's communities. Additional project sponsors include the City of Winnipeg, other foundations and organizations.

COMPOSTING CATTLE MORTALITIES

Proponent: University of Manitoba
Date Approved: December 23, 2003
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved to address the long-term needs of mortality management on beef and dairy operations in Manitoba. A two-year composting trial will be conducted on four cattle farms in Manitoba. Two sites will be located in the Southwest region of Manitoba and two sites will be located elsewhere in the province. The trial will involve a two-stage stack pile composting process in which carcasses will not be processed or turned frequently. Different carbon sources will be tested, including sawdust, straw, woodchips, sunflower shells, flax shive, waste corn silage and feedstuff from feed bunks. Monitoring of compost piles will ensure complete pathogen kills and assessment of leaching risks as well as the water content of compost heap. From this research a simple, low-cost composting protocol will be devised to encourage the adoption of this technique by cattle producers. A yearly field trip will be organized to demonstrate project activities. A fact sheet will be distributed to producers and results of the project research are to be published in Manitoba Co-operators and Farmers' Independent Weekly. All project activities will be carried out with the participation of Manitoba Agriculture, Economic Development and Food and Manitoba Conservation.

FISH WASTE AND SAWDUST COMPOSTING PROGRAM

Proponent: Thompson Boys and Girls Club
Date Approved: July 8, 2003
Total Amount Approved: $24,000.00
Total Amount Expended: $24,000.00

Summary:

A grant of $24,000.00 was approved to implement a composting program that will have the ability to transform 120 tonnes of fish waste into usable compost. A forced aerated windrow composting system will be implemented at the Wabowden landfill to properly compost fish wastes with sawdust and wood chips. It is estimated that 240 tonnes of composted material can be created from this project. The project will also address a waste disposal problem associated with wood waste and fish waste in this area. Emerge Knowledge Design Inc. has assisted the proponent in identifying the most effective method of fish waste composting.

ORGANIC WASTE MANAGEMENT PROJECT

Proponent: Town of Altona
Date Approved: July 8, 2003
Total Amount Approved: $15,000.00
Total Amount Expended: $15,000.00

Summary:

A grant of $15,000.00 was approved to assist in utilizing the end product of a local leaf and yard waste compost program. Composted materials will be screened and blended with topsoil to form usable products for community parks and general landscaping. This end product will also be marketed to topsoil suppliers and residents in Altona, Manitoba.

ORGANIX FIX PROGRAM

Proponent: Fort Whyte Centre
Date Approved: July 8, 2003
Total Amount Approved: $9,550.00
Total Amount Expended: $9,550.00

Summary:

A grant of $9,550.00 was approved to create a composting program that brings all on-site organic waste full-circle through the waste cycle. Educating visitors on composting and its benefits is also a major component of this project. Two large-scale composting units will be established at both on-site restaurants. A yard and garden composting centre will also be implemented and all composted materials from these activities will be used as fertiliser. The educational component of this project involves displaying signage at large-scale composters and developing educational composting bulletins for visitor use. A school lunch program will also be established to educate student visitors about composting. Upon implementing this program, there is significant opportunity to educate numerous individuals on composting issues as the Fort Whyte Centre receives 110,000 visitors annually.

RECYCLED LUMBER COMPOST BIN SUBSIDY

Proponent: Lumberlovers Pallet and Wood Recycling
Date Approved: July 8, 2003
Total Amount Approved: $6,500.00
Total Amount Expended: $6,500.00

Summary:

A grant of $6,500.00 was approved to manufacture wood compost bins from diverted wood waste available at the local landfills. It is intended that the bins be delivered mostly to City of Winnipeg residents, but will not exclude any residents in smaller municipalities. Bin dispersion will be conducted in groups of up to twelve in order to minimize fuel consumption. Residents will be educated on the use of compost bins and will be contacted by phone for follow-up on the use of their bins. A survey will be administered to evaluate the success of the project after one year of resident participation.

INTEGRATED WASTE MANAGEMENT

CHURCHILL WASTE MENEGEMENT RECYCLING/TRANSFER STATION

Proponent: Town of Churchill
Date Approved: December 23, 2003
Total Amount Approved: $7,050.00
Total Amount Expended: $7,050.00

Summary:

A grant of $7,050.00 was approved to develop a detailed plan to build and operate a cost-effective waste transfer station in Churchill, Manitoba. The waste management plan will come in the form of a detailed report that proposes a cost-effective facility design. Key features of the facility design will include an efficient sorting and processing system for recycling and composting materials, an efficient method of loading rail cars and collecting reusable construction materials. Staffing and equipment requirements will be projected. A concerted effort will be made to contact people in the northern region who have been involved in local recycling efforts. This will ensure that past experiences gained are incorporated in the proposed facility. Resources for developing an effective promotional campaign will also be identified. Financial projections will be included in this report. Recommendations will be provided that highlight changes to be made to the local garbage and recyclable collection system to ensure compatibility with the proposed facility. Communications with surrounding communities will highlight areas able to accept Churchill's solid waste. Project staff will explore opportunities to integrate the proposed waste transfer facility into other regional recycling initiatives such as the proposed scrap metal recycling pilot project scheduled for the summer of 2004.

STEINBACH WASTE TRANSFER UNIT

Proponent: City of Steinbach
Date Approved: December 23, 2003
Total Amount Approved: $10,000.00
Total Amount Expended: $10,000.00

Summary:

A grant of $10,000.00 was approved to develop a waste transfer unit comprised of six roll-off containers at the City of Steinbach waste disposal ground. This six-bin waste transfer unit will be used to more effectively separate and manage recyclables/compostables than the current system allows. Four 40 cubic yard roll–off containers will be used for regular solid waste, wood waste, compostable waste and tires and one 30 cubic yard container will be used for the collection of recyclables. A 60 cubic yard container will be supplied by Mandak metals in order to more efficiently collect metallic waste for recycling. Existing equipment at the City of Steinbach will move the full bins to the appropriate areas for unloading. Aside from the purchase of these roll-off containers, funding will be used for bin site preparation just west of the landfill scale office. In order to ensure resident awareness, advertising will be placed in the city newsletter, local paper, and in handouts distributed to contract municipalities. Appropriate signage at the landfill also plays an integral role in resident awareness. Usable compost will be applied to the City of Steinbach planting and cultivated areas as well as offered to residents for use in private applications. This project will serve the RM of LaBroquerie, RM of Ste. Anne, Town of St. Anne and the RM of Hanover as well as City of Steinbach residents.

PARKS PROJECTS

RECYCLING TRAILER SYSTEM

Proponent: Bakers Narrows/Clearwater Park
Date Approved: February 20, 2003
Total Amount Approved: $10,200.00
Total Amount Expended: $10,200.00

Summary:

A grant of $10,200.00 was approved to enhance the recycling programs for the Bakers Narrow Park District and Clearwater Lake Park District. The Park Districts in partnership with The Pas and Area Recycling will purchase two recycling trailers for use. Recyclables will be collected for transfer to The Pas and Flin Flon. The trailer system has been piloted as part of the regional recycling system used by The Pas and Area Recycling. New revenues will be derived from Manitoba Product Stewardship Corporation support payments.

POLLUTION PREVENTION

DEVELOPMENT OF AN I.P.M. SYSTEM FOR MANITOBA

Proponent: Manitoba Golf Superintendents Association
Date Approved: February 20, 2003
Total Amount Approved: $15,000.00
Total Amount Expended: $15,000.00

Summary:

A grant of $15,000.00 was approved to develop a standard Integrated Pest Management (IPM) System for non-agricultural applications in Manitoba. Development of the system will occur in four stages: (1) Canada-wide review of existing pesticide management systems; (2) stakeholder consultations, two in Winnipeg and two in Rural Manitoba, to gather the input of all levels of government, industry, pesticide users, educational institutions and environmental organizations; (3) development of a preferred model IPM program to be reviewed by stakeholders; (4) implementation of the IPM system including information dissemination and program initiation.

LEACHATE MANAGEMENT

Proponent: City of Winnipeg
Date Approved: December 23, 2003
Total Amount Approved: $16,500.00
Total Amount Expended: $16,500.00

Summary:

A grant of $16,500.00 was approved to assist the City of Winnipeg Water and Waste Department to identify viable alternatives to current leachate management practices. The end product will be an inventory of potentially suitable practices for consideration by the City of Winnipeg, and other landfill operators. This inventory will include a budget for implementation of each suitable option. In order to thoroughly understand leachate management options, a review of leachate generation in Winnipeg facilities will be conducted. Also, current regulations for municipal leachate handling and treatment will be defined. The need for this project stems from a recent Clean Environment Commission hearing, which recommended a termination of leachate disposal at Winnipeg water pollution control centres. The expertise of Dillon Consulting Limited will be utilized throughout this project.

POTATO WASTE RECYCLING PROCESS

Proponent: Midwest Food Products Inc.
Date Approved: July 8, 2003
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved to assist with reducing the amount of pollutants generated by Midwest Food Products' potato plant in Carberry. This will be achieved by conducting a study assessing the engineered efficiencies of separating the potato peel, oil and grease from the effluent pipeline. The process by-product (potato peels) will be recycled for feed, the odoriferous impacts on the community will be reduced, and waste stream quality will be improved.

REGIONAL RECYCLING

ARGYLE NUISANCE GROUNDS WASTE MANAGEMENT

Proponent: Rural Municipality of Woodlands
Date Approved: July 8, 2003
Total Amount Approved: $5,000.00
Total Amount Expended: $5,000.00

Summary:

A grant of $5,000.00 was approved to implement four recycling depots at the Argyle Waste Disposal Ground. As facilities do not yet exist at the Argyle Waste Disposal Ground, site preparation will need to be done before the implementation of these new bins. News bulletins will be distributed to residents to encourage participation. The project also involves adding four recycling depots to existing recycling facilities at the RM of Woodlands waste disposal grounds.

GLADSTONE RECYCLING FACILITY UPGRADE

Proponent: Town of Gladstone
Date Approved: December 23, 2003
Total Amount Approved: $10,000.00
Total Amount Expended: $10,000.00

Summary:

A grant of $10,000.00 was approved to expand of the existing recycling program. This project also involves the purchase of equipment to streamline recycling operations. Agricore United Ltd. has donated a building large enough to accommodate recycling expansion, but funding is required to renovate the facility. The R.M. of Westbourne and the R.M. of Lakeview have expressed interest in becoming partners to this facility. The Town of Gladstone also hopes to negotiate with the R.M. of North Norfolk and the Village of MacGregor to process their recyclables. An ongoing newsletter will be created to target Westbourne and Gladstone residents and a more concerted effort will be made with Gladstone businesses to recycle old corrugated cardboard. The purchase of a baler would cut transportation costs by 80% and would allow for the delivery of similar products to processors (e.g. Pine Falls Paper Mill).

LEAF RAPIDS RECYCLING PROGRAM IMPLEMENTATION

Proponent: Town of Leaf Rapids
Date Approved: December 23, 2003
Total Amount Approved: $15,000.00
Total Amount Expended: $15,000.00

Summary:

A grant of $15,000.00 was approved to implement a waste diversion strategy developed by Earthbound Environmental. Project activities will involve the development of a curbside pick-up program and a commercial pick-up program, as well as used oil, tire, and scrap metal collection programs. A mini-recycling centre will be developed and will serve as space for office use and promotion and education materials as well as provide storage for both equipment and recyclables. On-going project promotion and education is an integral part of this project as publicity in the monthly newsletter and implementation of a student STAR program is intended.

MATERIAL HANDLING EQUIPMENT UPGRADE

Proponent: Eastman Recycling Services
Date Approved: February 20, 2003
Total Amount Approved: $15,000.00
Total Amount Expended: $15,000.00

Summary:

A grant of $15,000.00 was approved to expand the recycling capacity of Eastman Recycling Services' (ERS) regional recycling facility through the purchase of equipment for moving loose materials in and around the recycling facility. ERS continues to expand their services throughout southeastern Manitoba. Materials from new municipal clients could increase materials volume by at least 25 metric tonnes per month.

NORTHERN MANITOBA REGIONAL RECYCLING COORDINATOR

Proponent: North Central Development
Date Approved: March 23, 2004
Total Amount Approved: $30,000.00
Total Amount Expended: $30,000.00

Summary:

A grant of $30,000.00 was approved to conduct the evaluation stage (Phase III) of the northern integrated waste management project. Previous stages, Phase I and II involved the development and implementation of waste diversion strategies for northern communities. This stage involves determining the impacts and outcomes of the operating regional recycling systems developed in Phase II. The formative evaluation will be conducted through interviews and open-ended questionnaires in which staff and partners will be asked about project operations and training materials. Project funds will also be used to maintain and support the communities with existing recycling efforts and to provide regional recycling co-ordination services. In addition to assisting on-going recycling efforts in northern communities, this project will also implement a waste diversion strategy in five communities that are currently not involved in recycling efforts. The five communities which will be targeted for implementation are Cross Lake, Granville Lake, Leaf Rapids, Lynn Lake and Thicket Portage. Participating communities include: Fox Lake First Nation, Gillam, Nelson House First Nation, Norway House First Nation, Split Lake First Nation, Wabowden and York Factory First Nation.

NORTHERN SCRAP METAL RECYCLING (PHASE II)

Proponent: North Central Development
Date Approved: February 3, 2004
Total Amount Approved: $50,000.00
Total Amount Expended: $50,000.00

Summary:

A grant of $50,000.00 was approved to conduct the implementation phase (Phase II) of the Northern Scrap Metal Recycling Project. This phase will initiate scrap metal recycling programs in the communities of Gillam, Churchill, Rankin Inlet, and Coral Harbour according to the implementation plan that was developed in Phase I of the project. The project will be carried out by Manitoba Aboriginal and Northern Affairs in partnership with the Government of Nunavut, North Central Development Inc., Earthbound Environmental Inc., Mandak Metals, and the local communities participating in the project.

RECYCLING DEPOT

Proponent: Wawanesa Lions Club
Date Approved: July 8, 2003
Total Amount Approved: $400.00
Total Amount Expended: $400.00

Summary:

A grant of $400.00 was approved to build a small recycling drop-off site for campers in the Wawanesa Lions Campground to collect paper, aluminum and glass containers, as well as plastic bottles. A cement pad would be constructed and a recycling drop-off structure would be built.

RECYCLING PROGRAM IMPLEMENTATION

Proponent: Municipality of Gillam
Date Approved: July 8, 2003
Total Amount Approved: $15,000.00
Total Amount Expended: $15,000.00

Summary:

A grant of $15,000.00 was approved to provide additional recycling bins to local schools and organizations, as well as purchase a recycling trailer. The project intends to initiate an awareness and education campaign to educate residents about recycling. Information pertaining to recycling and marketing strategies will be dispersed to increase potential revenues. This project will also attempt to partner with local public works staff to clean-up and improve local waste disposal grounds. The nine communities that are involved in this project are the Town of Gillam, Churchill, Leaf Rapids, Wabowden, York Landing, the Fox Lake First Nation, Nelson House First Nation, Norway House First Nations, and the Split Lake First Nations community.

RM OF PINEY RECYCLING PROGRAM

Proponent: Rural Municipality of Piney
Date Approved: July 8, 2003
Total Amount Approved: $10,000.00
Total Amount Expended: $10,000.00

Summary:

A grant of $10,000.00 was approved to establish seven recycling bins at five waste disposal sites managed by the Rural Municipality of Piney. Recycling services will be contracted to Eastman Recycling Services in Steinbach for a five-year period. The project will help the R.M. divert material from their landfills and re-evaluate the need to maintain 5 waste disposal sites.

ROCK LAKE AND RURAL RECYCLING PROGRAM

Proponent: Rural Municipality of Roblin
Date Approved: July 8, 2003
Total Amount Approved: $3,000.00
Total Amount Expended: $3,000.00

Summary:

A grant of $3,000.00 was approved to establish a curbside Blue Box recycling program for residences and cottage owners at the South West Rock Lake Resort area in the R.M. of Roblin. Collection bins will also be installed for the campers and day-users of the park. Project implementation will reduce the costs of hauling waste from the new transfer station to the landfill site at the R.M. of Argyle. Project partners include the R.M. of Roblin and the Village of Cartwright.

RUSSELL-BINSCARTH RECYCLING FACILITY EXPANSION AND UPGRADE

Proponent: Town of Russell
Date Approved: July 8, 2003
Total Amount Approved: $10,000.00
Total Amount Expended: $10,000.00

Summary:

A grant of $10,000.00 was approved to expand and upgrade an existing recycling facility. The current facility is an unheated storage building with limited space. Expansion will allow the two neighbouring municipalities of Shellmouth-Boulton and Silver Creek to become involved in the Russell-Binscarth Recycling Program.

SOUTHWEST RECYCLING DEPOT

Proponent: Town of Melita
Date Approved: February 20, 2003
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved to establish a regional recycling facility in southwestern Manitoba that will service three towns and four rural municipalities. The current recycling facility does not have the capacity to collect materials in the region, and the project intends to purchase relocate and equip a more appropriate building. It is believed that project implementation will increase the recycling rate from 15 kg per person to 50 kg per person.

SWAN RIVER RECYCLING DEPOT AND DISTRIBUTION CENTRE

Proponent: Town of Swan River
Date Approved: July 8, 2003
Total Amount Approved: $10,000.00
Total Amount Expended: $10,000.00

Summary:

A grant of $10,000.00 was approved to establish a recycling depot and materials distribution centre at the Swan River landfill site. Recyclable and compostable materials will be intercepted and diverted from the landfill. A monitoring system will be put in place to track the source and amount of materials diverted from the landfill in order to monitor the growth and benefits of the project.

WABOWDEN RECYCLING IMPLEMENTATION PROJECT

Proponent: Rural Municipality of Wabowden
Date Approved: July 8, 2003
Total Amount Approved: $15,000.00
Total Amount Expended: $15,000.00

Summary:

A grant of $15,000.00 was approved to implement curb-side recycling and construct recycling depots in the Town of Wabowden, Manitoba. The project also focuses on the development of a mini-recycling centre to handle standard recyclables, as well as a depot for the collection of used oil, oil filters and oil containers. Promotion of recycling and the education of neighbouring residents will also be a major part of this project. Month end progress reports, conducted by the local recycling co-ordinator, will assist in tracking the project activities. The implementation strategy formed for this project was developed by Earthbound Environmental Inc. This recycling program is proposing to utilize the community youth summer employment program to assist in building signage as well as organising and sorting at the community landfill.

PROGRAM DEVELOPMENT

An allocation of up to $100,000 was approved for WRAPP program development in fiscal year 2003/04.

In 2003/2004, the WRAPP Fund expended $55,566.43 of its operating development budget on the following activities:

- Plastics Stewardship Workshop (University of Manitoba – Natural Resources Institute)
- Waste Reduction Week (Resource Conservation Manitoba)
- Pesticide Reduction (Canadian Centre for Pollution Prevention)
- Energy Conservation in Public Buildings
- ODS Program Implementation and Communications
- Household Hazardous Waste (HHW) Contract Support
- Master Composter Program
- Part-time and Summer STEP position
- MPSC Business Plan consultation process
- Project monitoring and administration

ZEBRA MUSSEL PROGRAM

Managing Department: Manitoba Water Stewardship
Date Approved: 2003/2004 Estimates Review Process
Total Amount Approved: $25,000.00
Total Amount Expended: $23,843.43

Summary:

Zebra mussels are small clam-like organisms that are not native to North America. They were discovered in Lake St. Claire in 1988 and it is generally believed that they were transported to North America in the ballast water of an ocean-going vessel. This ballast water was then discharged into the Great Lakes system in approximately 1986. Since that time, zebra mussels have spread quickly to all of the Great Lakes, the St. Lawrence and Ottawa rivers, Trent-Severn and Rideau Canal systems, Mississippi River from St. Paul Minnesota to the Gulf of Mexico delta including its major tributaries. More recently, zebra mussels have been found in the Missouri River at Sioux City, Iowa. Although not presently found in Manitoba waters, this costly foreign species is close to our watershed boundaries; Thunder Bay on Lake Superior, and St. Paul Minnesota near the headwaters of the Mississippi River.

Zebra mussels attach themselves to any suitable submersed surface including the inside of man-made structures. They have caused millions of dollars of damage in the Great Lakes region of Ontario and the US by clogging the intakes of towns, cities, manufacturing industries, and utilities. They have severely reduced the recreational value of beach areas, and reduced native species important in the food chain.

Dispersion of zebra mussels in large connected water basins is largely due to the movement of commercial watercraft such as large ships and barges that have zebra mussels attached to the hull. Movement of zebra mussels from infected bodies of water to other, isolated bodies of water is due to accidental transport on water-based equipment including boats, trailers, motors, as well as in live wells and bait buckets.

Manitoba remains vulnerable to invasion by zebra mussels. For example, on June 30, 1999, zebra mussels were found on a pleasure boat that was purchased five days earlier at Orillia Ontario (Lake Simcoe) and trailered to a yacht club on the Red River just north of Winnipeg. All zebra mussels were dead, and no immatures were found in the bilge water. As a precaution, however, the owner was ordered to scrape the boat and wash it down with water containing bleach.

Water quality data indicate that numerous lakes and rivers in Manitoba would support populations of zebra mussels should they be accidentally introduced into the province. Trailered watercraft with attached zebra mussels has resulted in dispersion to unconnected or isolated bodies of water throughout Michigan, Wisconsin, southern Ontario, and most recently, Minnesota. Trailered watercraft is recognized as a key vector of zebra mussel dispersion by North American agencies responsible for Aquatic Nuisance Species (ANS) prevention and management.

Thus, the likely route of entry of zebra mussels into Manitoba is accidental introduction from trailered recreational watercraft originating from the Great Lakes area of Ontario and from northeast and central US. The Manitoba / US border offers a convenient inspection location of recreational watercraft trailered from US locations. The international border crossings also offer an opportunity for visiting fishers and recreational boaters to be informed and surveyed about zebra mussels and other aquatic nuisance species.

GOAL AND OBJECTIVES:

The primary goal of this program is to prevent accidental introduction of zebra mussels and other aquatic nuisance species into the province of Manitoba by visitors transporting water-based equipment across our borders. This goal also provides a means to heighten public awareness to the issues of zebra mussels and other ANS in Manitoba. This goal will be achieved by the following objectives:

1. To inspect and survey visitors transporting water-based equipment at various international border crossings in eastern Manitoba. Whiteshell Provincial Park is also a popular recreational destination for visitors. As such, inspections of boats and trailers will be conducted where practical (boat launches, Travel Manitoba Info Centre).

2. To provide literature (brochure and gift of appreciation) to boating visitors about how to prevent accidental introduction of zebra mussels into Manitoba.

3. To supply information to Manitoba Conservation Regional offices (brochures, fact sheets, boat-ramp signage) for distribution and posting.

4. Target the boating audience with the clear message of preventing accidental zebra mussel introduction into Manitoba (information provided to registrants of fishing derbies, booth at the Mid-Canada Boat Show, advertisement in the Manitoba Angler's Guide, written articles).

5. To provide employment to students under the Green Team Employment Initiative, under the STEP Employment Initiative.

Manitoba remains vulnerable to invasion by zebra mussels. Although not presently found in Manitoba waters, this costly foreign species is close to our watershed boundaries. Numerous lakes and rivers in Manitoba would support populations of zebra mussels should they be accidentally introduced into the province. The route of entry of zebra mussels into Manitoba is likely to be on trailered recreational watercraft from the Great Lakes area of Ontario and from northeast and central US. The Manitoba / US border offers a convenient inspection location of recreational watercraft trailered from US locations. The international border crossings also offer an opportunity for visiting fishers and recreational boaters to be informed and surveyed about zebra mussels and other aquatic nuisance species. Whiteshell Provincial Park is also a popular destination for visitors from Canadian and US visitors and offers opportunities for equipment inspections.

During the summer of 2003 (May to August), Manitoba Conservation continued a program to inspect trailered watercraft crossing the international border into Manitoba for zebra mussels and other aquatic nuisance species (ANS). The Sustainable Development Innovations Fund provided $25,000.00 to implement this initiative in 2000/2001. An expenditure level of $25,000.00 was provided in 2002/2003 as part of a broad allocation of $75,000.00 for 3 years ending in 2004/05 (TB #16B 2002 Item 26, April 30, 2002). In addition salaries for two students were provided through the Green Team summer employment program and Manitoba Conservation. Students were hired to conduct inspections of trailered watercraft and boater surveys. Inspections and surveys were conducted at the most eastern US/Manitoba border crossings and throughout Whiteshell Provincial Park.

Results:

- 247 border inspections were conducted and no zebra mussels or other aquatic nuisance species were found on trailered watercraft or equipment entering Manitoba from the United States during 2003.

- 1232 boat trailers in Whiteshell Provincial Park and the Red River corridor (Emerson to Selkirk) were inspected with no evidence of zebra mussels on trailers or boats.

PROGRAM RESULTS 2003/04:

Communication is a key focus of the zebra mussel inspection program. An informed and educated boating public is critical in preventing accidental introduction of zebra mussels and other aquatic nuisance species.

Media Communications:
The zebra mussel inspection program was officially announced by the Honorable Steve Ashton, at a kick-off held in June 2003. This kick-off provided staff an opportunity to highlight to the local television media, zebra mussels and the importance of preventing their introduction to Manitoba. Conservation staff was also interviewed about the program by local radio media during 2003. Zebra mussel information and prevention will appear again in the Angling Guide 2004.

Education and Promotion:
A zebra mussel brochure was re-drafted and distributed for the boating public and a key-chain compass was designed and printed. Brochures outlining the steps boaters can take to prevent accidental introductions and key-chains reminding boaters to check their equipment were provided to each boater who was inspected and surveyed at the international borders and other boat ramps in eastern Manitoba including Whiteshell Provincial Park.

- During the open water season of 2003, two Green Team students and two STEP students were employed by Manitoba Conservation to inspect trailered watercraft travelling into Manitoba. STEP students were hired 3 weeks earlier in the season than in previous years. This allowed for inspections to occur earlier in the fishing season. Inspections were made at the international border crossings at Emerson and Sprague. In addition, inspections of boat trailers were made at launch sites in the Whiteshell Provincial Park, and along the Red River corridor from Emerson to Selkirk Park. In addition to equipment inspections, boaters were surveyed (where possible) about their general knowledge of ANS. Results of the inspections and surveys are summarized as follows:

  Border Crossings:

  Students inspected trailered watercraft entering Manitoba at Sprague and Emerson from approximately May 28th to August 26th, 2003. Many inspections were conducted on weekends and after regular business hours to include the boating visitors travelling at night.

- 247 border inspections and interviews were conducted at two international border locations, and 294 interviews were conducted at various boat launches where boaters were present.
- 1232 inspections of boat trailers were conducted in the Whiteshell Provincial Park and Red River Corridor;
- 217 trailered watercraft were recorded entering Manitoba across the Manitoba/Ontario border during 8 survey observation periods;
- 75 boats out of 247 (57%) originated from jurisdictions that have waters with zebra mussels;
- no evidence of zebra mussels or other ANS was found on any boat or trailer;
- 64% correctly knew whether or not zebra mussels were present in their jurisdiction of origin;
- 28% of the boating visitors incorrectly stated that zebra mussels were not present in their jurisdiction of origin;
- boats originated mostly from the following jurisdictions: Minnesota (58%), North Dakota (11%), Iowa (9%), South Dakota (6%), Wisconsin (2%), Indiana (2%), and Illinois (1%).

Public Boat Launch Inspections:

- 1232 boat trailers were inspected at 17 launch sites;
  - 97% originated within Manitoba;
  - 1% originated from Minnesota;
  - 1% originated from Iowa;
- no evidence of zebra mussels or other ANS were found on boat trailers;

Road Counts of Trailered Watercraft:

- 217 trailered watercraft were observed travelling west across the Manitoba/Ontario border;
  - 69% were boats trailered with Manitoba license plates;
  - 11% were boats trailered with Ontario license plates;
  - 4% were boats trailered with Nebraska license plates;
  - 4% were boats trailered with Alberta license plates;
- 68 % of the trailered boats were fishing/pleasure boats, and 32 % were jetski/canoes.

Financial Implications
$25,000.00 in funding provided in 2003/04 by broad allocation of the Sustainable Development Innovations. Details of the 2003/04 expenditures are as follows:

Item	Budget
SDIF	$25,000.00
Transportation: Vehicle rental and mileage charges	$5,943.07
Student Salary: Student Salaries, per diem expenses from May to August, 2003	$13,396.53
Communication and Promotion:	$4,503.83
Totals	$23,843.43

PROGRAM EVALUATION:

A critical evaluation of the program indicates that during 2003/04, all five program objectives were met. Approximately 1526 equipment inspections were completed from various locations in eastern Manitoba, and 294 surveys of visiting boaters were completed. Brochures and key-tags reminding boaters about Aquatic Nuisance Species (ANS) were handed out to visiting boaters. Information about the prevention of zebra mussels was also sent to registrants of those Manitoba fishing derbies likely to attract international competitors.

In cooperation with Fisheries Branch, Green Team students working in Whiteshell Provincial Park spent some of their time at the Fish Hatchery educating visitors about zebra mussels, and prevention of invasive exotics. The Minister of Conservation announced the 2003 program which received very positive media coverage. Local radio media also ran positive coverage on the zebra mussel inspection program as a result of the information booth at the Mid Canada Boat Show. Manitoba Conservation regional offices were sent boat ramp signs reminding boaters not to transport zebra mussels and how to inspect their equipment before launching. These efforts

provided employment for five Green Team Students and one STEP student. The student's work schedule was very flexible allowing for inspections of water equipment to take place after business hours at the Emerson border crossing.

Although all objectives of the program were met, shortcomings were recognized at the planning of the project. Two STEP students were hired for the survey and inspections at Canada Custom facilities at the border crossings. These students were based in Winnipeg to ensure proper supervision and that meant much of their workday was spent driving to Sprague or Emerson.

PROJECTS FROM PREVIOUS YEARS

PROGRAMS ALLOCATED FUNDING

DURING THE 2003/2004 FISCAL YEAR

Number of Projects: 7

Total Expended: $69,229.91

Project Name	**Total Expended**
SUSTAINABLE AGRICULTURAL PRACTICES	
Livestock Manure Phosphorus Expert Committee	$15,972.31
UNDERSTANDING OUR ENVIRONMENT	
Hayes River Educational Project	$0.00
Manitoba Science Fair Sustainable Development Award	$0.00
Manitoba Youth Round Table for Sustainable Development	$0.00
Petroleum Storage Tank Program	$13,869.17
Provincial Sustainability Indicators	$36,001.80
Sila Alangotok – Inuit Observations on Climate Change Video and Teacher's Guide/Skownan, Our Land Our Future Video and Teacher's Guide	$3,386.63

DETAILED LISTING OF PROJECTS

FROM PREVIOUS YEARS WITH CARRYOVER AUTHORITY

IN THE 2003/2004 FISCAL YEAR

Projects listed below are those that were initially allocated funding from the Sustainable Development Innovations Fund in previous fiscal years, but had carryover authority for the 2003/2004 fiscal year.

Project descriptions have been provided in previous Annual Reports.

SUSTAINABLE AGRICULTURAL PRACTICES

LIVESTOCK MANURE PHOSPHORUS EXPERT COMMITTEE

Proponent:	Manitoba Conservation, Regional Support Services
Date Approved:	January 9, 2003
2003/04 Expenditures:	$15,972.31
Total Amount Projected:	$ 0.00

UNDERSTANDING OUR ENVIRONMENT

HAYES RIVER EDUCATIONAL PROJECT

Proponent:	Manitoba Conservation, Parks and Natural Areas Branch
Date Approved:	October 28, 2002
2003/04 Expenditures:	$ 0.00
Total Amount Projected:	$9,635.00

MANITOBA SCIENCE FAIR SUSTAINABLE DEVELOPMENT AWARD

Proponent:	Manitoba Conservation
Date Approved:	January 24, 2995
2003/04 Expenditures:	$0.00
Total Amount Projected:	$0.00

MANITOBA YOUTH ROUND TABLE FOR SUSTAINABLE DEVELOPMENT

Proponent:	Manitoba Conservation
Date Approved:	March 16, 2001
2003/04 Expenditures:	$0.00
Total Amount Projected:	$0.00

PETROLEUM STORAGE TANK PROGRAM

Proponent:	Manitoba Conservation
Date Approved:	April 21, 1994
2003/04 Expenditures:	$13,869.17
Total Amount Projected:	$ 3,315.22

PROVINCIAL SUSTAINABILITY INDICATORS

Proponent:	Manitoba Conservation
Date Approved:	June 10, 1998
2003/04 Expenditures:	$36,001.80
Total Amount Projected:	$ 0.00

SILA ALANGOTOK: INUIT OBSERVATIONS ON CLIMATE CHANGE VIDEO AND TEACHER'S GUIDE AND SKOWNAN: OUR LAND OUR FUTURE VIDEO AND TEACHER'S GUIDE

Proponent:	Manitoba Education, Citizenship and Youth
Date Approved:	October 10, 2001
2003/04 Expenditures:	$3,386.63
Total Amount Projected:	$ 0.00

APPENDIX I

Sustainable Development Innovations Fund
Five Year Expenditure Summary ($000)
for years ending March 31, 2000 - March 31, 2004

APPROPRIATION	Actual/*Adjusted Expenditures				
	1999/00	2000/01	2001/02	2002/03	2003/04
Sustainable Development Innovations Fund	1,633.0	2,073.3	2,865.8	2,848.3	$2,944.9
Total	1,633.9	2,073.3	2,865.8	2,848.3	2,944.9

* Adjusted figures reflect historical data on a comparable basis in those appropriations affected by a re-organization during the years under review