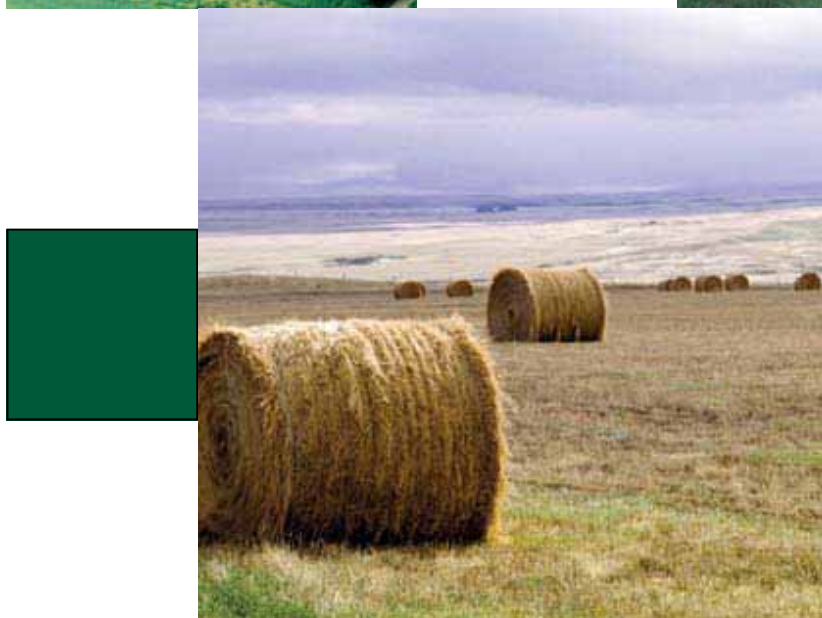


Guide to the Canada - Saskatchewan Farm Stewardship Program (CSFSP)

For the period April 1, 2006 to March 31, 2007



Important Information

Welcome to the Canada - Saskatchewan Farm Stewardship Program (CSFSP). The objective of the program is to provide technical and financial assistance that will help you implement your Environmental Farm Action Plan. This guide includes a program overview and descriptions of eligible beneficial management practices (BMPs). Please read the sections on the **Program Guidelines, Planning Your Project**, and **CSFSP Application Process** before you apply for any BMPs. If you have questions about the CSFSP, please contact the AAFC Client Service Centre at 1-800-667-8567.

Note: in order to apply to the CSFSP, you must complete an Environmental Farm (EFP). If you have not completed an EFP, please contact the Provincial Council of Agricultural Development and Diversification Boards (PCAB) at 1-306-955-5477 or visit their website at www.saskpcab.com for the time and location of the next EFP workshop in your area.

Information from your Environmental Farm Plan remains confidential; however, you are required to complete a CSFSP application in order to receive BMP incentives to implement your Environmental Farm Action Plan.

This guide represents beneficial management practices available through the Canada - Saskatchewan Farm Stewardship Program from April 1, 2006 to March 31, 2007. The Saskatchewan Environment Chapter Working Group reserves the right to adjust program policies as required throughout program delivery year.

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Introduction

The objective of the Canada-Saskatchewan Farm Stewardship Program (CSFSP) is the adoption of Beneficial Management Practices (BMPs) on Saskatchewan farms and agricultural landscapes. The program will provide cost-shared incentives to producers to implement BMPs that address on-farm environmental risks.

Recent technological advancements, increased research efforts and greater producer education have led to the accelerated development and adoption of many BMPs across Canada. At the same time, increasing awareness and concern for environmental issues throughout society has generated increased interest and support for agricultural BMPs.

For the purposes of the CSFSP, a BMP is defined as any agricultural management practice with the following key characteristics:

- Mitigates or minimizes negative impacts and risk to the environment, by maintaining or improving soil, water and air quality and/or biodiversity;
- Insures the long-term health and sustainability of land related resources used for agricultural production; and
- Is practical, and does not negatively impact the long-term economic viability of producers and others in the agricultural industry.

The National Farm Stewardship Program (NFSP) is designed to complement other government policies (such as the Kyoto Protocol, Species at Risk Act, Fisheries Act) and the other Agriculture Policy Framework incentive programs, such as Greencover Canada.



CSFSP Program Guidelines

1. To be eligible to receive funding, you **must** have an EFP Certificate of Endorsement from Provincial Council of Agriculture Development and Diversification Boards (PCAB) **or** a Statement of Completion from an equivalent agri-environmental plan.
2. Total funding available to an applicant through CSFSP cannot exceed **\$30,000**.
3. You must receive approval for all CSFSP projects **prior** to beginning work on your project.
4. For most eligible and in-kind costs, refer to the latest edition of Saskatchewan Agriculture and Food's (SAF) Farm Machinery Custom and Rental Rate Guide. *The guide is available on line at http://www.agr.gov.sk.ca/docs/econ_farm_man/business/customrateguide00.asp or by contacting SAF Agriculture Knowledge Centre at 1-866-457-2377.*
5. Eligible in-kind labour cost is fixed at **\$12.00** per hour.
6. An applicant is required to disclose all sources of funding for a proposed project, both requested and approved, on the program application form.
7. The maximum allowable contribution from Federal and Provincial governments must not exceed 90 per cent.

Planning Your Project

When planning your BMP project, please consider the following:

- If your application is approved, you will be required to obtain all necessary federal, provincial and municipal licenses, permits and approvals prior to starting your project. Agriculture and Agri-Food Canada (AAFC) staff can assist you in identifying these requirements. Processing time for permits and licenses can range from several weeks to several months, depending on the nature of the project. As a good rule of thumb, begin seeking licensing and permit approval in the fall if you are planning to construct in the spring.
- You are encouraged to consult with technical specialists when planning your project. AAFC staff can provide you with technical information and assistance on project design. Producers who access technical expertise before construction may realize a cost saving above and beyond the program funding. You may also wish to refer to the technical resources list within the "References" sections of the EFP workbook. Additional technical support can be accessed by calling the AAFC Client Service Centre at 1-800-667-8567.
- Depending on the nature of your project, an environmental assessment may be required. An environmental assessment must be completed prior to the start of the project and provision of federal approval or financial support. Applications will be reviewed by AAFC staff to determine assessment requirements and if necessary, program staff will contact you to obtain the additional project information. This information may include a project description (including a detailed site plan), a description of project components, construction details, proximity of the project to water bodies, and details on environmental parameters (e.g. soils, water, geology). The completed environmental assessment will determine the potential impacts of the project and required mitigation measures. **You cannot proceed with your project until the assessment is complete and you have received approval from the Canada-Saskatchewan Farm Stewardship Program.** You are encouraged to consult with AAFC at 1-800-667-8567 early in the planning process to ensure timely completion of required environmental assessments.

For further information about planning your project, call the AAFC Client Service Centre at 1-800-667-8567.

CSFSP Application Process

Please keep the following steps in mind when participating in the CSFSP:

a) Application

- There are no application deadlines. You may submit your application directly to the AAFC Client Service Centre at any time. Applications will be processed within 6 to 8 weeks, after which you will be notified of the status of your application. The application may include a written description of the project including a site plan (sketch), location, type, and estimated costs of all works to be performed. The site plan should include an inventory of existing site facilities.

Note: Projects requiring construction will trigger the Canadian Environmental Assessment Act (CEAA) and may also trigger other Federal and Provincial legislation. **Before applying for these projects, contact the AAFC Client Service Centre at 1- 800- 667- 8567.** Agriculture and Agri-Food Canada (AAFC) staff can assist you in identifying additional process requirements for this type project. Given the additional requirements that may be necessary to complete BMPs that involve constructed works, applicants should begin the process 6 to 12 months prior to construction.

b) Approval Process

- For projects that do not have additional process requirements you will receive an approval letter allowing you to proceed with your project. **You must receive an approval letter prior to proceeding with your project. Any project costs or invoices incurred before the date of approval will not be paid.**
- If the project involves construction or triggers the Canadian Environmental Assessment Act you will receive a **conditional approval** subject to completion of an Environmental Assessment Report by AAFC. **You may not begin your project until the environmental assessment is complete and you have received final approval from the CSFSP.** Where required, program staff may do a site inspection prior to construction.

c) Project Work

- Begin work and complete your project.
- Submit documentation (i.e. receipts, pictures of site, etc.) when the project is completed.

d) Payment

- Program staff may do a final inspection of the site after completion.
- Payment will be made when all program requirements have been met.
- An audit inspection of final work may occur.

Eligible Beneficial Management Practices

This guide provides background information, objectives and benefits for each BMP. It also provides a brief description, including relationship to the Saskatchewan Environmental Farm Plan Workbook, conditions for eligibility, specific process requirements and eligible practices, funding maximums, cost-shares, eligible in-kind and ineligible costs. Please refer to the Table of Contents on Page 2 of this guide for BMPs of interest to you.



1. Improved Manure Storage and Handling

BACKGROUND

The objective of the improved manure storage and handling BMP is to provide producers with assistance in adopting technologies that will reduce the potential environmental impacts of on-farm manure storage. The practice of increasing storage capacity within the BMP category is not intended to increase production capacity, but rather to distribute existing storage capacity on an existing land base to promote more consistent nutrient application.

Although liquid and solid manure storage have the potential to contaminate surface and ground water sources with nutrients and/or pathogens, this has not always been considered when locating or designing manure storage facilities. Improperly designed manure storage can also cause odour problems for neighbors.

Adequate manure storage is important because manure is better utilized when applied prior to or during periods of crop growth. In Saskatchewan, 400 days of earthen storage and 240 days of tank storage are preferred to allow for seasonal weather events that might delay or prevent manure application.

Adequate manure storage will also allow producers to limit manure application to once or twice a year, which will minimize issues associated with frequent agitation, removal and application. In addition, storages can be covered to reduce odour, and agitation can be improved to reduce odour during pump out. These practices have the added benefit of reducing greenhouse gas emissions.

The benefits of proper manure storage and handling include:

- Increased storage capacity which allows for appropriate timing and reduced number of manure applications, avoiding application in dormant season and during adverse weather;
- Increased protection of groundwater and surface water from nutrients and pathogens;
- Reduced odour and reduction of greenhouse gas emissions; and
- Ease of monitoring the manure storage system to determine if problems exist.

Note: If you are applying for funding for Manure Storage and Handling, you may also want to review the description for Farmyard Runoff Control (BMP#5).

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 8: Manure Storage

CONDITIONS FOR ELIGIBILITY

- You must have an EFP Certificate of Endorsement from PCAB.
- Your present storage site and/or manure handling have the potential for impact on water/air quality.
- If new or improved manure storage is constructed to facilitate expanded production, eligible costs would be adjusted to implement the BMP for the existing production only.
- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program, prior to construction.**

REGULATORY CONSIDERATIONS

Construction of a Manure Storage facility will trigger the Canadian Environmental Assessment Act (CEAA) and may also trigger other Federal and Provincial legislation.

Before applying for this BMP category, contact the AAFC Client Service Centre at 1- 800- 667- 8567. Agriculture and Agri-Food Canada (AAFC) staff can assist you in identifying additional process requirements for this type of project. Given the additional requirements that may be necessary to complete this BMP, applicants should begin the process 6 to 12 months prior to construction.

FUNDING

Improved manure storage and handling projects are cost-shared at **30 per cent** to a maximum of **\$30,000**.

IMPROVED MANURE STORAGE AND HANDLING PRACTICES

- Building manure storage facilities on an existing operation to prevent winter spreading (includes satellite storage)
- Increasing the capacity of an existing manure storage facility
- Installing monitoring devices for existing lagoons to prevent risks of water contamination
- Installing remediation devices in leaking lagoons (e.g. liners and berms)
- Purchasing and installing manure storage covers to reduce odours and greenhouse gases
- Constructing containment systems for solid manure storage facilities including construction of impermeable base and walls

- Hiring a consultant or engineer to assess and monitor your existing manure storage infrastructure
- Hiring an engineer to do design work for the construction of a manure storage facility; this work will stand alone as a project and can be funded if the project does not proceed for economic, technical or environmental (CEAA) reasons.

Eligible costs include:

- Consultant fees for engineering, site investigation/testing, geotechnical investigation, survey, remediated site plans, on-site construction supervision;
- Contractor costs for earthwork and construction activities at new site including, leveling, grading, or concrete pouring;
- Materials;
- Labour; and
- Assessment/monitoring costs - for example, consultant/engineer's fees (tests to determine structural integrity; installation of monitoring devices such as piezometers to determine if there is leakage to groundwater).

In-kind costs include:

- Applicants' labour allocated toward the projects (at \$12.00/hour)
- Use of applicant's equipment at rates included within the Saskatchewan Custom Rates Guide. *The guide is available on line at http://www.agr.gov.sk.ca/docs/econ_farm_man/business/customrateguide00.asp or by contacting SAF Agriculture Knowledge Centre at 1-866-457-2377.*

Ineligible costs:

- Costs associated with expanded production.
- Transportation of manure.

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist with your application and refer you to a technical advisor. **It is recommended that**

you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area. These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

2.**Manure Treatment****BACKGROUND**

The objective of the manure treatment BMP is to provide producers with assistance in implementing manure treatment technologies including de-watering and nutrient recovery systems; and technologies that allow for effective composting of manure. Manure treatment can be used to address odour and/or insufficient land for manure spreading, or can be used for the creation of value-added products.

Livestock operations are often associated with odour and greenhouse gas emissions. Siting new operations in locations where odour is not an issue is one solution. However, this is not always practical. In these cases, manure treatment can be used to reduce odour.

Untreated manure has low concentration nutrients by volume. Treating manure or livestock mortalities to reduce volume and concentrate nutrients will reduce costs associated with hauling and land application, may reduce land requirements and add to its value as a concentrated fertilizer. In Saskatchewan, The Agricultural Operations Act requires that manure from intensive

livestock operations be applied according to agronomic rates to meet crop demand. Operations that have an insufficient land base to apply at agronomic rates may need to treat the manure to reduce the nutrient concentration or volume of manure.

REGULATORY CONSIDERATIONS

Manure treatment practices may trigger the Canadian Environmental Act and may also trigger other Federal and Provincial legislation. **Before applying for this BMP category, contact the AAFC Client Service Centre at 1- 800- 667- 8567.** Agriculture and Agri-Food Canada (AAFC) staff can assist you in identifying additional process requirements for this type project. Given the additional requirements that may be necessary to complete this BMP, applicants should begin the process 6 to 12 months prior to construction.

The benefits of manure treatment include:

- Increased efficiency of nutrient management;

- Decreased manure volumes, reduced transportation costs;
- Improved options for application with separation of solids and liquids;
- Opportunities for composting manure and livestock mortalities;
- Reduced odour, pathogens and greenhouse gas emissions; and
- Reduced risk of nutrient and pathogen flow to water.

Note: If you are applying for funding for manure treatment, you may also want to review the description for Nutrient Management Planning (BMP#24). Completion of a nutrient management plan is encouraged.

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 8: Manure Storage
- Chapter 14: Nutrient Management for Crop Production
- Chapter 15: Manure Use and Management

CONDITIONS FOR ELIGIBILITY

- You must have an EFP Certificate of Endorsement from PCAB.
- Your livestock operation has issues relating to manure volumes, nutrient excesses or odour.
- If a new or improved manure treatment system is constructed to facilitate expanded production, then the eligible costs will be pro-rated to the existing level of production.

- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program, prior to construction.**

FUNDING

Manure treatment projects are cost-shared at **30 per cent** to a maximum of **\$30,000**.

MANURE TREATMENT PRACTICES

- De-watering and nutrient recovery systems
- Composting of manure
- Developing and installing anaerobic bi-digester systems
- Engineering design work; this project will stand alone if the project does not proceed for economic, technical or environmental (CEAA) reasons.



Eligible costs include:

- Liquid manure separation/de-watering equipment;
- Nutrient recovery equipment (i.e. flocculants, membrane systems, etc.);
- Composting - passive aeration systems, compost turners-pads, walls, covers,



vessels, containment structures for compost area, specialized conveying equipment for raw or finished products to and from compost area and to storage, mixing/aeration (windrow turner) and watering equipment; monitoring equipment (temperature, moisture, oxygen, sensors etc.); and

- Engineering/consulting fees

In-kind costs include:

- Applicants' labour allocated toward the projects (at \$12.00/hour); and
- Use of applicant's equipment at rates included within the Saskatchewan Custom Rates Guide. *The guide is available on line at http://www.agr.gov.sk.ca/docs/econ_farm_man/business/customrateguide00.asp or by contacting SAF Agriculture Knowledge Centre at 1-866-457-2377.*

Ineligible costs:

- Cost of aerobic digester systems

- Operational costs related to composting manure including:

- Equipment operation and maintenance;
- Conventional farm equipment;
- Additives or other feedstock to supplement manure; and
- Transporting raw or finished product from or to another location.

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist with your application and refer you to a technical advisor. **It is recommended that you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area.** These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

3.

Manure Land Application

BACKGROUND

The objective of the manure land application BMP is to assist producers in purchasing specialized equipment or modifying existing equipment for improved manure application.

Applying manure or compost to land at agronomic rates is a sustainable agricultural practice. Manure is a source of plant nutrients and helps to improve soil tilth, structure, aeration and water holding capacity. Manure and/or compost serve as viable substitutes for commercial inorganic fertilizer because of

their on-farm availability, nutrient composition and ability to enhance the organic matter content of soil.

Livestock and poultry farms produce manure that, if used properly, can be recycled to enrich the soil. However, if it improperly managed, manure can have a negative impact on soil and water quality and can generate odours.

Manure application methods have considerable impact on nutrient retention and loss. The development of manifold

distribution systems has allowed liquid manure to be delivered to a toolbar that can apply the manure close to the ground or through direct injection into the soil. If manure is supplied with a drag hose, soil compaction can also be significantly reduced. Low-disturbance openers are suitable for liquid manure application into post-emergent forage and annual crops as well as pasture, zero-tillage or reduced-tillage systems.

Solid manure application generally involves broadcasting with or without incorporation. Due to the rather inconsistent nature of most solid manure, uniformity is often an issue. Incorporation of solid manure helps to reduce odour, conserve ammonium, increase the manure-to-soil contact for decomposition and prepare a suitable seed bed.

The benefits of improved manure application practices include:

- Increased nutrient retention and utilization;
- Reduced odour, ammonia volatilization and nitrous oxide emissions; and
- Reduced risk of runoff of nutrients and pathogens to water.

Note: If you are applying for funding for Improved Manure Application Practices, you may also want to review the description for Nutrient Management Planning (BMP#24). Completion of a nutrient management plan is encouraged.

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 14: Nutrient Management for Crop Production
- Chapter 15: Manure Use and Management

- Chapter 17: Crop Management

CONDITIONS FOR ELIGIBILITY

- You must have EFP Certificate of Endorsement from PCAB.
- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program, prior to purchase or equipment modification.**

FUNDING

Manure treatment projects are cost-shared at **30 per cent** to a maximum of **\$10,000**.

MANURE LAND APPLICATION PRACTICES

- Purchase of specialized equipment or modification to equipment for improved manure application.

Eligible costs include:

- For liquid manure - equipment modification, components of new equipment that are unique and are needed to make improvements (i.e. injector openers, sub-canopy applicators, aeration/infiltration tools, hoses, delivery system, frame to support openers/applicators, spreader tank agitator);
- For solid manure - specialized modifications to existing equipment that significantly improve consistency (i.e. beaters) when compared to standard equipment; and
- Rate monitoring (i.e. flow meters, weigh devices) and rate control devices (i.e. manual or automatic controllers for variable rate, devices for adjusting flow and rates with tractor speed).

In-kind costs include:

- Applicants' labour allocated toward the projects (at \$12.00/hour)

**Ineligible costs:**

- GPS systems for improved tracking for more efficient application of manure are eligible, but only through the Improved Cropping Systems BMP #14.

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist with your application and refer you to a technical advisor. **It is recommended that you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area.** These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

4.**In - Barn Improvements****BACKGROUND**

The objective of the in-barn improvement BMP is to assist producers with modifications to in-barn watering and manure removal systems. These improvements can result in improved air quality in the barn, reduced odour outside the barn, lower water consumption, higher nutrient concentrations in the manure and, potentially, reduced storage requirements. Modifications to watering systems, such as the installation of wet/dry feeders, can reduce water consumption, resulting in lower utility costs. Concentration of manure nutrients can be increased by reducing the amount of waste water entering the manure and may reduce manure storage requirements.

Odour and air quality inside and outside the barn can be affected by modifying manure handling systems. At present, the most common system in Saskatchewan for handling of manure is a pull-plug system. Pits beneath slatted or partially slatted floors are emptied periodically by pulling a plug. Air quality issues associated with this practice include hydrogen sulphide (H₂S) and the ammonia levels in the barn, which are affected by the presence of manure in the pits. Alternative systems, such as belts and flush systems prevent manure, urine and feces from mixing and/or remove the manure more quickly from the pen area. This also results in an improvement in air quality for workers and pigs inside the barn, and may directly affect the air quality and odour outside the barn. Treating manure at source may be

the most effective way to improve air quality inside and outside the barn.

The benefits of in-barn improvements include:

- Reduced water consumption;
- Improved air quality in the barn;
- Reduced odour outside the barn;
- Lower utility costs;
- Higher nutrient concentrations in liquid manure; and
- Potentially reduced storage requirements.

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 8: Manure Storage

CONDITIONS FOR ELIGIBILITY

- You must have an EFP Certificate of Endorsement from PCAB.
- You must have identified water use or odour as issues within your EFP.
- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program prior to construction.**

Note: If an improved in-barn modification is constructed to also facilitate expanded production, then the eligible cost will be proportionally reduced to the amount required

to implement the BMP for the existing level of production.

FUNDING

Manure treatment projects are cost-shared at **30 per cent** to a maximum of **\$20,000**.

IN BARN IMPROVEMENT PRACTICES

- Installing more efficient livestock watering devices and manure clean out systems to reduce water use and decrease the volume of manure.
- Hiring an engineer for design work; this work will stand alone as a project and can be funded if the project does not proceed for economic, technical or environmental (CEAA) reasons.

Eligible costs include:

- Engineering/consulting fees to assess water use improvements and installation of alternative manure handling systems;
- Contractor costs for earthwork and construction activities such as excavation for new pipelines or valves associated with gutter flush systems, electrical, etc.; and
- Cost of construction materials and/or equipment such as wet dry feeders, remote pull plugs, in-barn manure handling systems.

In-kind costs include:

- Applicants' labour allocated toward the projects (at \$12.00/hour); and

- Use of applicant's equipment at rates included within the Saskatchewan Custom Rates Guide. *The guide is available on line at http://www.agr.gov.sk.ca/docs/econ_farm_man/business/customrateguide00.asp or by contacting SAF Agriculture Knowledge Centre at 1-866-457-2377.*

Ineligible costs:

- Costs associated with a new facility, i.e. - Improvements have to be retrofitted to an existing facility; and
- installation of main power source service.

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist with your application and refer you to a technical advisor. **It is recommended that you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area.** These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

5.

Runoff Control

BACKGROUND

The objective of the runoff control BMP is to provide producers with assistance in addressing the environmental impacts of uncontrolled runoff passing through farmsteads and livestock operations.

Uncontrolled runoff may become contaminated with manure and/or other farmyard wastes and may also transport nutrients, pathogens or other potentially hazardous products to surface and groundwater supplies. Contaminated runoff that enters surface or groundwater may present a risk to both human and animal health.

Runoff is influenced by slope, precipitation, soil type, drainage patterns, vegetative cover and potential for flooding. Surface water (water in sloughs, rivers or creeks) can be impacted by runoff which occurs during spring snow melt and seasonal rainfall events. Groundwater may become impacted if runoff collects in ditches, low spots, sloughs or

buffer strips where there is insufficient vegetation to capture and tie up nutrients, allowing nutrient and pathogens to leach into groundwater, especially on porous soils.

The benefits of runoff control include:

- Improved surface and groundwater quality.
- Improved site conditions as a result of improved drainage.

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 2: Drinking Water Sources
- Chapter 8: Manure Storage
- Chapter 9: Intensive Livestock Operations
- Chapter 10: Livestock Wintering Sites
- Chapter 21: Water Bodies

CONDITIONS FOR ELIGIBILITY

- You must have an EFP Certificate of Endorsement from PCAB.
- Your existing facility is less than 300m from surface water; or the existing site has an impact on surface water; or the existing site has an impact on groundwater quality.
- Where relocation is requested as a result of sensitive groundwater systems, these systems must be shown to be at significant risk from surface activities related to livestock confinement.
- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program prior to construction.**

Note: Funding will be provided to construct or improve runoff control for existing farmyards or existing structures/ locations within a farmyard.

REGULATORY CONSIDERATIONS

Runoff control practices may trigger Canadian Environmental Act and may also trigger other Federal and Provincial legislation. **Before applying for this BMP category, contact the AAFC Client Service Centre at 1- 800-667- 8567.** Agriculture and Agri-Food Canada (AAFC) staff can assist you in identifying additional process requirements for this type project. Given the additional requirements that may be necessary to complete this BMP, applicants should begin the process 6 to 12 months prior to construction.

FUNDING

Runoff control projects are cost-shared at **50 per cent** to a maximum of **\$20,000**.

RUNOFF CONTROL PRACTICES

- Diverting water around farmyards and livestock facilities via berms or constructed waterways
- Downstream runoff protection such as, collection berms, sediment basins, retention/holding ponds or constructed waterways/grass or vegetative filters.
- Hiring an engineer for design work; this work will stand alone as a project and can be funded if the project does not proceed for economic, technical or environmental (CEAA) reasons.

Eligible costs include:

- Earthwork;
- Construction materials;
- Consultative fees for site planning; and
- Cost of seed for re-vegetation of waterways or buffer strips and/or other plants for establishment of vegetative filters.

In-kind costs include:

- Applicants' labour allocated toward the projects (at \$12.00/hour); and
- Use of applicant's equipment at rates included within the Saskatchewan Custom Rates Guide. *The guide is available on line at http://www.agr.gov.sk.ca/docs/econ_farm_man/business/customrateguide00.asp or by contacting SAF Agriculture Knowledge Centre at 1-866-457-2377.*

Ineligible costs:

- Runoff control on new farmstead sites;
- Diversion of runoff not associated with farmyard and/or livestock facility protection for water quality purposes i.e. field drainage is ineligible.

with your application and refer you to a technical advisor. It is recommended that you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area. These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist

6.**Relocation of Livestock Confinement and Horticultural Facilities****BACKGROUND**

The objective of this BMP is to assist producers in relocating livestock or horticultural facilities away from surface or groundwater sources.

Many livestock farms and horticultural facilities were originally established close to waterways and within riparian zones in order to ensure access to water, food and shelter. Riparian zones are the lushly vegetated zones in coulees, and alongside rivers, creeks, lakes, sloughs, potholes, hay meadows and springs. In Saskatchewan, the increased moisture in these areas produces unique plant communities that differ noticeably from surrounding crop and pasture land. Livestock confinement and horticulture facilities that are located adjacent to surface water or within riparian areas can pose a risk to surface water quality. Surface water may be vulnerable if uncontrolled runoff flows from these facilities into a nearby watercourse. Groundwater may be vulnerable if:

- Operations are located over sand or gravel;

- Aquifer is at or near the surface;
- Contaminated runoff flows directly into a sand or gravel basin; or
- The operation is at a higher elevation than a nearby spring or well.

In some cases, it may be possible to minimize environmental impacts by implementing practices such as farmyard runoff control. However, in other cases, it may be more appropriate to relocate the livestock or horticultural facility.

This BMP applies to:

- Animals confined in pens over winter and stockyards located within 300 meters of a watercourse (to be verified by site inspection);
- Applicants have completed the self evaluation for approval of plans under The Agricultural Operations Act and have identified the need for an approval; or

- Horticulture facilities (greenhouse and container nurseries) that are located adjacent to or within riparian areas.

REGULATORY CONSIDERATIONS

Relocation of livestock or horticultural facilities will trigger the Canadian Environmental Act and may also trigger other Federal and Provincial legislation. **Before applying for this BMP category, contact the AAFC Client Service Centre at 1- 800- 667- 8567.** Agriculture and Agri-Food Canada (AAFC) staff can assist you in identifying additional process requirements for this type project. Given the additional requirements that may be necessary to complete this BMP, applicants should begin the process 6 to 12 months prior to construction.

The benefits of relocation of livestock confinement and horticultural facilities include:

- Protection of ground and surface water;
- Improved water quality;
- Improved riparian health;
- Increased wildlife habitat; and
- Improved herd health.

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 2: Drinking Water Sources
- Chapter 8: Manure Storage
- Chapter 9: Intensive Livestock Operations
- Chapter 10: Livestock Wintering Sites
- Chapter 21: Water Bodies



CONDITIONS FOR ELIGIBILITY

- You must have an EFP Certificate of Endorsement from PCAB.
- The location or design of existing livestock facilities is compromising surface or groundwater resources.
- Horticulture facilities are compromising surface or groundwater sources as a result of proximity or location.
- All required licensing and permitting is completed by the producer.
- Where relocation is requested as a result of sensitive groundwater systems, these systems must be shown to be at significant risk from surface activities related to livestock confinement or horticultural facilities.
- Remediation of existing confinement site is mandatory. A field visit will be required by AAFC and/or Sask Ag and Food Ag Operations staff to determine the most practical means of achieving the objectives of this BMP (reduction of environmental risks associated with the *existing* site) without demanding the removal of “low risk” infrastructure such as sheds or buildings not associated with livestock confinement. Based on the site inspection the applicant will be notified of mitigations necessary to complete the project.

- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program prior to construction.**

Note: If a new livestock confinement or horticultural facility is constructed to also facilitate expanded production, then the eligible cost will be proportionally reduced to the amount required to implement the BMP for the existing level of production. Also, applicants are only eligible for replacement costs on comparable structures when they are relocating an ILO or feeding operation away from a riparian area.

FUNDING

Relocation of livestock or horticultural facilities projects are cost-shared at **50 per cent** to a maximum of **\$30,000**.

RELOCATION OF LIVESTOCK CONFINEMENT AND HORTICULTURAL FACILITIES PRACTICES

- Relocating livestock facilities such as corrals, paddocks and shelters away from riparian areas including relocation design, new site construction, and abandoned site remediation;
- Relocating horticultural facilities such as greenhouses and container nurseries away from riparian areas including relocation design, new site construction, and abandoned site remediation; and
- Hiring an engineer for design work; this work will stand alone as a project and can be funded if the project does not proceed for economic, technical or environmental (CEAA) reasons.

Eligible costs include:

- Cost of abandoned site remediation, such as moving/demolition/decommissioning of old buildings, corrals or greenhouses and reclamation earthworks (i.e. leveling, grading, ditches and berms);
- Contractor costs for earthwork and construction activities at new site including, leveling, grading, holding ponds or concrete pouring;
- Consultant fees for engineering, site investigation/testing, geotechnical investigation, survey, relocation design, remediated site plans, on-site construction supervision;
- Cost of construction materials including corral supplies, fencing to restrict livestock access, slab fencing, foundations, new buildings, water system and irrigation changes, power installation, and energy improvements;
- Cost of re-vegetation (seed and/or plants and trees and planting activities); and
- Engineering/ consulting fees for site investigation and testing, surveys, and design work.

In-kind costs include:

- Applicants' labour allocated toward the projects (at \$12.00/hour); and
- Use of applicant's equipment at rates included within the Saskatchewan Custom Rates Guide. *The guide is available on line at http://www.agr.gov.sk.ca/docs/econ_farm_man/business/customrateguide00.asp or by contacting SAF Agriculture Knowledge Centre at 1-866-457-2377.*

Ineligible costs:

- Cost of manure and non-livestock waste removal; and/or
- Development of a new water source;
- Costs associated with expanded production.

assist with your application and refer you to a technical advisor. **It is recommended that you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area.** These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can

7.**Wintering Site Management****BACKGROUND**

The objective of the wintering site management BMP is to assist producers in reducing the risks to ground and surface water from off-site transport of nutrients and pathogens from wintering cattle within confined feeding areas. This accomplished by providing assistance for planning and implementing management strategies reduce herd density, improve feeding and bedding strategies, limit direct access to environmentally sensitive watering sites and improve runoff control methods to mitigate the impact of livestock on the environment during winter. Each livestock operation functions under different circumstances such as herd size, land base, accessibility to water, shelter and feed. As a result they may choose one or a combination of wintering feeding techniques including: swath grazing, bale grazing or stock piled forages. When used in combination with watering, fencing, and shelter options, tailored to the specific site, these practices can provide a good alternative to confined grazing.

The benefits of wintering site management practices include:

- Reduced concentration of manure, nutrients and pathogens in the environment;
- Improved dispersion of nutrients;
- Improved feed utilization;
- Reduced volume of fossil fuels required to harvest, store and feed livestock;
- Enhanced land base utilization; and
- Improved herd health.

Note: If you are applying for funding for Wintering Site Management, you may also want to review the descriptions for Riparian Area Management and Grazing Management (BMP#10).

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 2: Drinking Water Sources
- Chapter 8: Manure Storage
- Chapter 9: Intensive Livestock Operations
- Chapter 10: Livestock Wintering Sites
- Chapter 21: Water Bodies
- Chapter 22: Natural Areas, Shelterbelts, Woodlots and Wildlife

CONDITIONS FOR ELIGIBILITY

- You must have an EFP Certificate of Endorsement from PCAB.
- Your existing wintering site has an impact on surface water; or groundwater quality or is causing soil erosion.
- Where relocation is requested as a result of sensitive groundwater systems, these systems must be shown to be at significant risk from surface activities related to livestock confinement.
- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program prior to construction.**



FUNDING

Wintering site management projects are cost-shared at **50 per cent** to a maximum of **\$15,000**.

WINTERING SITE MANAGEMENT PRACTICES

- Establishing shelterbelts;
- Building portable shelters and windbreaks;
- Installing alternative water systems
- Improving field access and upgrading alleyways/access lanes; and
- Modifying existing fences.

Eligible costs include:

- Planting and establishment costs for trees and shrubs for the year of planting and one year after the planting year or the termination of the CSFSP, whichever comes first;
- Contractor costs for earthwork and construction;
- Consultative fees for site planning (note: supplier must meet recognized standards);
- Construction materials including: fence supplies, portable shelter materials, culverts/pipes, fill material, gravel, geosynthetics;
- Funding for perimeter fencing will be considered only where such infrastructure supports sustainable winter site management practices;

- Power hookup for alternative watering system from an existing power service; and
- Alternative watering systems: pumps (solar, wind, and grid powered pumps, sling-pumps, frost free nose-pumps, hydraulic ram pumps) storage and delivery components (troughs, floats, pipe, and pipeline materials).

Note: The intent of pipeline delivery systems under the CSFSP is to protect riparian health. Delivery system costs associated with short pipeline delivery systems (i.e. a few hundred metres) for the protection of riparian areas will be considered under the CSFSP. More extensive water delivery systems (i.e. more than a few hundred metres) intended for water supply and grazing management will be referred to the **Canada Saskatchewan Water Supply Expansion Program**. Please contact the AAFC Client Service Centre at 1-866-667-8587 for more details.

In-kind costs include:

- Applicants' labour allocated toward the projects (at \$12.00/hour); and
- Use of applicant's equipment at rates included within the Saskatchewan Custom Rates Guide. *The guide is available on line at http://www.agr.gov.sk.ca/docs/econ_farm_man/business/*

[customrateguide00.asp](#) or by contacting SAF Agriculture Knowledge Centre at 1-866-457-2377.

Ineligible costs:

- upgrades from old site or costs associated with expansion of facilities; and/or
- installation of a new power service (for alternative water system);
- development of a new water source;
- manure and non livestock waste removal.
- annual maintenance of shelterbelts; and
- mobile feed bunkers.

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist with your application and refer you to a technical advisor. **It is recommended that you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area.** These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

8.

Product and Waste Management

BACKGROUND

The objective of the product and waste management BMP is to provide producers with assistance in improving the handling,

storage, and disposal of farm products and waste materials.

Modern agricultural production systems use and/or manage some potentially hazardous products and waste materials that, if not

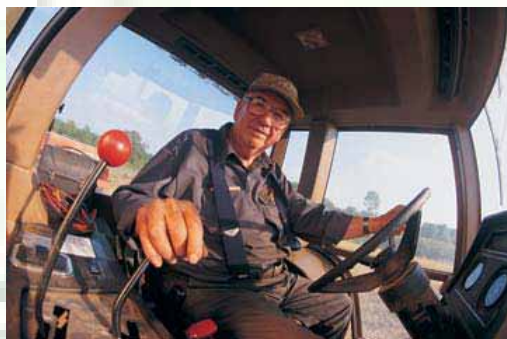
properly stored, handled, transported and disposed of, can affect the environment. These products and materials include pesticides, fertilizers, petroleum products and wastes, and livestock mortalities. Hazards associated with some biological products and wastes, such as livestock carcasses and crop wastes, also have the potential to pollute water sources or reduce air quality if not properly disposed of.

The benefits of improved product and waste management include:

- Decreased risk to soil, water and air quality; and
- Improved on-farm safety.

REGULATORY CONSIDERATIONS

Product and waste management practices may trigger the Canadian Environmental Act and may also trigger other Federal and Provincial legislation. **Before applying for this BMP category, contact the AAFC Client Service Centre at 1-800-667-8567.** Agriculture and Agri-Food Canada (AAFC) staff can assist you in identifying additional process requirements for this type project. Given the additional requirements that may be necessary to complete this BMP, applicants should begin the process 6 to 12 months prior to construction.



RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 3: Pesticide Storage and Handling
- Chapter 4: Fertilizer Storage and Handling
- Chapter 5: Storage of Petroleum Products
- Chapter 6: Disposal of Farm Wastes

CONDITIONS FOR ELIGIBILITY

- You must have and EFP Certificate of Endorsement from PCAB.
- You must obtain all necessary municipal approvals/permits.
- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program, prior to construction.**
- **Fertilizer, fuel storage, and pesticide storage units must meet program requirements for siting containment, and safety (talk to a program advisor for details)**
- **Pesticide storage facilities must be single use facilities**
- Funding for improved on farm storage will be limited to existing farmyards. Funding will not be provided for storage that is associated with construction of a new farmyard or a commercial chemical applicator or fertilizer dealer.
- Composting systems for livestock mortalities must meet all federal and provincial standards and regulatory requirements.

Note: Composting of manure is covered under the Manure Treatment BMP # 2.

FUNDING

- Product and waste management projects are cost-shared at **30 per cent** to a maximum of **\$15,000**.

PRODUCT AND WASTE MANAGEMENT PRACTICES

- Improving on-farm storage and handling of agricultural products including fertilizers, silage, petroleum products (including fuel, oil, and waste oil) used anti-freeze and pesticides.
- Improving on-farm storage, handling and disposal of agricultural waste including livestock mortalities, fruit and vegetable cull piles and wood waste.
- Composting of agricultural waste such as fruit and vegetable residues.
- Installing on-farm septic systems for handling and treating liquid waste or effluent from agricultural operations (e.g. milkhouse wash water)
- Hiring an engineer for design work; this work will stand alone as a project and can be funded if the project does not proceed for economic, technical or environmental (CEAA) reasons.

Eligible costs include:

- Site assessment and engineering design;
- Cost of modifying, constructing, or purchasing properly secured storage facilities, vessels, and storage units. (subject to CSFSP requirements);
- Specialized equipment or equipment modifications required for storage or

handling of agricultural products and waste (e.g. Refrigeration systems for livestock mortalities, wood mulchers for orchard pruning, gauges, automatic dispensers, ventilation equipment, mixing, loading and cleanup systems; sumps, fixed or portable absorption materials, closed mixing systems, evaporation pits, incinerators; (subject to CSFSP requirements));

- Cost of containment systems (in combination with runoff control work BMP # 5) to improve existing storage and handling facilities, including earthwork and materials to construct elevated earthen, asphalt or cement pads and berms and dikes, to contain any potential spills or leaks;
- Infrastructure and equipment costs associated with composting agricultural waste (e.g. Fruit, vegetable, wood, straw residues) including pads, walls, vessels and containment structures for compost areas, on site specialized conveying equipment for raw waste or compost movement, mixing/aeration (e.g. windrow turner) and watering equipment, and monitoring equipment (e.g. Temperature, moisture, and oxygen sensors).
- Cost of on-farm septic systems for handling and treating liquid waste or effluent from agricultural operations (subject to CSFSP requirements).

In-kind costs include:

- Applicants' labour allocated toward the projects (at \$12.00/hour)
- Use of applicant's equipment at rates included within the Saskatchewan Custom Rates Guide. *The guide is available on line at http://www.agr.gov.sk.ca/docs/econ_farm_man/business/customrateguide00.asp or by contacting SAF*

Agriculture Knowledge Centre at 1-866-457-2377.

Ineligible costs:

- Cost of equipment operation and maintenance, conventional farm equipment used in composting process, purchases of additives or other feedstock to supplement raw agricultural waste;
- Cost of transporting agricultural waste or finished compost product;
- Cost of household waste septic systems; storage, handling and disposal of plastic materials, empty containers and conventional garbage; or spreading solid waste on agricultural fields;

- Cost of constructing storage or handling facilities associated with a new farmyard or expansion of an existing farm operation; and
- Multi-use pesticide storage facilities.

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist with your application and refer you to a technical advisor. **It is recommended that you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area.** These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

9.

Water Well Management

BACKGROUND

The objective of the water well management BMP is to provide producers with assistance in protecting ground water supplies through proper management of existing wells and sealing of abandoned wells.

Wells can be a pathway for groundwater contamination. A poor well casing or formation seal allows surface water to seep downward along the outside of the casing. Contamination may also occur where a well pit is used or if a wellhead is located in a low area, where it may receive polluted surface runoff water.

Locating wells in barns, corrals and greenhouses or near areas where contaminants, such as fuels and pesticides, are routinely used, increases the risk of contamination. Multi-aquifer well completion

may allow mixing of water from different aquifers through defective casings. Point-source contamination through a single well may lead to contamination of an aquifer that is used as a water source by many people.

Abandoned water wells that have not been properly sealed are an environmental hazard and a significant safety hazard for people and animals. In some extreme cases, in order to prevent contamination of the well from runoff water, it may be necessary to relocate the well.

The benefits of water well management include:

- Reduced risk of groundwater contamination;
- Prevention of cross contamination between aquifers; and

- Prevention of persons, livestock, wildlife or equipment entrapment.

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 2: Drinking Water Sources

CONDITION FOR ELIGIBILITY

- You must have and EFP Certificate of Endorsement from PCAB.
- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program, prior to construction.**
- **You must use an experienced driller for sealing abandoned water wells.**
- **New well construction is not eligible.**

FUNDING

Water well management projects are cost-shared at **50 per cent** to a maximum of **\$6,000**.

WATER WELL MANAGEMENT PRACTICES

- Abandoning a small diameter well (less than 30 cm): decommissioned by experienced well-driller with licensed rig;
- Abandoning a large diameter well (over 30 cm): decommissioned by experienced well-driller with licensed rig or producer with technical support; or
- Well protection for existing wells by:
- Mounding earth at wellhead or earthwork for runoff diversion;

- Fencing/grassing around the wellhead;
- Installing a pitless adaptor;
- Upgrading or maintenance to wellhead or well casing, fitting, seal and connection to prevent seepage;
- Controlling flow and preventing backflow; and
- Installing casing extensions to elevate wellhead.

Eligible costs include:

- Contractor costs;
- Consultant fees; and
- Cost of construction materials.

In-kind costs include:

- Applicants' labour allocated toward the projects (at \$12.00/hour)
- Use of applicant's equipment at rates included within the Saskatchewan Custom Rates Guide. *The guide is available on line at http://www.agr.gov.sk.ca/docs/econ_farm_man/business/customrateguide00.asp or by contacting SAF Agriculture Knowledge Centre at 1-866-457-2377.*

Ineligible costs:

- New well construction.

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can

assist with your application and refer you to a technical advisor. **It is recommended that you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship**

Advisor for your area. These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

10.

Riparian Area Management

BACKGROUND

The objective of the riparian area management BMP is to provide producers with assistance to implement practices that will protect and enhance riparian areas on their farm or ranch.

Riparian areas are the lands adjacent to streams, rivers, lakes and wetlands, where the vegetation and soils are strongly influenced by the presence of water. They are differentiated by increase soil water and the ability to support more productive and moisture dependent plant communities. They will also support more increased biodiversity than those plant and animal communities on adjacent uplands.

Agricultural activities have the potential to impact the integrity of riparian ecosystems, the biodiversity therein and the water quality these habitats support. Under good management, riparian areas are productive, reliable producers of forage, can provide shelter for wildlife and breeding areas for fish, and will enhance water quality and quantity.

Well-planned BMPs for riparian area management will usually have economic and environmental benefits for producers and the environment.

The benefits of riparian area management include:

- Maintenance or improvement of water quality and supply for livestock watering,

irrigation, spraying, human consumption and/or recreation/fishing;

- Maintenance or improvement of forage productivity and utilization in the riparian area;
- Improved utilization and productivity on upland pastures;
- Additional benefits to the agroforestry industry, such as the sale of timber or maple syrup orchards; and
- Protection of aquatic life and other species important for biodiversity.

Note: If you are applying for funding for Riparian Area Management, you may also want to review the description of Wintering Site Management (BMP#7) and Grazing Management Planning (BMP#26).

REGULATORY CONSIDERATIONS

Riparian area management practices may trigger the Canadian Environmental Act and may also trigger other Federal and Provincial legislation. **Before applying for this BMP category, contact the AAFC Client Service Centre at 1- 800- 667- 8567.** Agriculture and Agri-Food Canada (AAFC) staff can assist you in identifying additional process requirements for this type project. Given the additional requirements that may be necessary to complete this BMP, applicants should begin the process 6 to 12 months prior to construction.

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 2: Drinking Water Sources
- Chapter 8: Manure Storage
- Chapter 9: Intensive Livestock Operations
- Chapter 10: Livestock Wintering Sites
- Chapter 17: Crop Management
- Chapter 18: Pasture Management
- Chapter 21: Water Bodies

CONDITIONS FOR ELIGIBILITY

- You must have an EFP Certificate of Endorsement from PCAB.
- The project must meet the definition of riparian area as described above.
- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program prior to construction.**

FUNDING

Riparian areas management projects are cost-shared at **50 per cent** to a maximum of **\$20,000**.

RIPARIAN AREA MANAGEMENT PRACTICES

- Installing alternative watering systems to manage livestock within riparian the area;

- Establishing riparian buffers (minimum 30 metres): planting of non-invasive forages, shrubs, and trees. Includes establishment costs for forages and planting and establishment costs for shrubs and trees for the year of planting plus one year after the planting year or the termination of the CSFSP, whichever comes first;
- Fencing to manage grazing and improve riparian conditions/function;
- Restoring or establishing native rangeland: seeding and planting of native plant material (grasses, legumes, forbes, shrubs and trees) and ongoing maintenance of established or restored site;
- Grazing management in surrounding uplands - including cross fencing for rotational, seasonal, rest, swath and extended grazing systems, alternative watering systems for improved grazing management; and
- Improving stream crossings.

Eligible costs include:

- Consultative fees - consultant must be qualified to conduct riparian assessments;
- Improved stream crossings - costs associated with improved structures or removal of structures to enhance riparian condition;
- Seed and seeding operation for revegetation;
- Shrubs, trees, weed control and mulch associated with buffer establishment (minimum 30 metres). Trees and shrub species should be adaptable, hardy and

non-invasive (contact the PFRA Shelterbelt Centre assistance in proper species selection). Includes planting and establishment costs for trees and shrubs for the year of planting and one year after the planting year or the termination of the CSFSP, whichever comes first.

- Cross-fencing to implement improved grazing or riparian management;
- Power hookup for alternative water system from existing power source; and
- Alternative watering systems: pumps (solar, wind, and grid powered pumps, sling-pumps, frost free nose-pumps, hydraulic ram pumps) storage and delivery components (troughs, floats, pipe, and pipeline materials).



Note: The intent of pipeline delivery systems under the CSFSP is to protect riparian health. Delivery system costs associated with short pipeline delivery systems (i.e. a few hundred metres) for the protection of riparian areas will be considered under the CSFSP. More extensive water delivery systems (i.e. more than a few hundred metres) intended for water supply and grazing management will be

referred to the **Canada Saskatchewan Water Supply Expansion Program**. Please contact the AAFC Client Service Centre at 1-866-667-8587 for more details.

In-kind costs include:

- Applicants' labour allocated toward the projects (at \$12.00/hour); and
- Use of applicant's equipment at rates included within the Saskatchewan Custom Rates Guide. *The guide is available on line at http://www.agr.gov.sk.ca/docs/econ_farm_man/business/customrateguide00.asp or by contacting SAF.*

Ineligible costs:

- Perimeter fencing; and/or
- Installation of new power service (for alternative water system); and
- Applicants' time working with consultant.

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist with your application and refer you to a technical advisor. **It is recommended that you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area.** These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

11. Erosion Control Structures (Riparian)

BACKGROUND

The objective of the erosion control structure BMP is to assist producers in building erosion control structures to minimize erosion in riparian areas.

Soil erosion results in the loss of soil productivity due to the loss of organic rich topsoil from the landscape. At the same time, eroded material can negatively impact surface water quality through the introduction of nutrients, organic matter, pesticides, pathogens, metals, salts and other hazardous materials. These materials are bound to soil particles which are transported by wind, water or tillage. Where eroded material is transported to a groundwater recharge area, the quality of groundwater may also be affected. Soil erosion occurs in all landscapes and soils, but the rate of erosion varies considerably, depending on soil/landscape characteristics and management practices. In recent years, practices such as reduced tillage have resulted in much lower erosion rates than in the past. Nevertheless, erosion remains a serious concern in certain areas.

The benefits of riparian erosion control structures include:

- Minimized water erosion in riparian areas;
- Reduced soil loss and gully formation;
- Reduced sediment/nutrient inputs to streams, lakes and wetlands from agricultural lands, and
- Improved riparian health and/or water quality.

Note: If you are applying for Erosion Control Structures, you may also wish to review the description for Soil Erosion Control Planning (BMP#27), Erosion Control Structures: Non-Riparian (BMP#12), Land Management for Soils at Risk (BMP#13), and Riparian Area Management, (BMP#10).

REGULATORY CONSIDERATIONS

Construction of erosion control structures may trigger the Canadian Environmental Act and may also trigger other Federal and Provincial legislation. **Before applying for this BMP category, contact the AAFC Client Service Centre at 1- 800- 667- 8567.** Agriculture and Agri-Food Canada (AAFC) staff can assist you in identifying additional process requirements for this type project. Given the additional requirements that may be necessary to complete this BMP, applicants should begin the process 6 to 12 months prior to construction.

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 21: Water Bodies

CONDITIONS FOR ELIGIBILITY

- You must have an EFP Certificate of Endorsement from PCAB.
- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program prior to construction.**

FUNDING

Riparian erosion control structures projects are cost-shared at **50 per cent** to a maximum of **\$20,000**.

RIPARIAN EROSION CONTROL STRUCTURES PRACTICES

- Constructing contour terraces;
- Stabilizing gullies/grassing waterways;
- Stabilizing stream banks including bank shaping, revetment, gabions, rip-rap, crib walls, re-vegetation, blanketing and combination;
- Installing erosion control matting and silt fencing;
- Constructing drop inlet and in channel control structures;
- Improving infiltration of concentrated water flow including filter trenches, filter wells, diffusing wells, and
- Constructing retention ponds and erosion control dams.
- Hiring an engineer for design work; this work will stand alone as a project and can be funded if the project does not proceed for economic, technical or environmental (CEAA) reasons.

Eligible costs include:

- Contractor costs for earthwork, placement of materials and construction of structures;
- Consultative fees (including surveys and design)
- Construction materials (including, but not limited to, rip-rap, gabion baskets, erosion mats, silt fencing, filter trenches, filter wells, diffusing wells, mechanical wind screens and concrete);
- Cost of vegetated buffer zone: trees and shrub species; and

- Cost of forage and cover crop seed with a certificate of analysis and seedbed preparation and seeding operation for re-vegetation.
- Engineering/consulting costs associated with design of erosion control structures

In-kind costs include:

- Applicants' labour allocated toward the projects (at \$12.00/hour); and
- Use of applicant's equipment at rates included within the Saskatchewan Custom Rates Guide. *The guide is available on line at http://www.agr.gov.sk.ca/docs/econ_farm_man/business/customrateguide00.asp or by contacting SAF Agriculture Knowledge Centre at 1-866-457-2377.*

Ineligible costs:

- Water storage structures; and/or
- Cost to construct or repair drainage systems.

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist with your application and refer you to a technical advisor. **It is recommended that you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area.** These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

12. Erosion Control Structures (Non-Riparian)

BACKGROUND

The objective of the erosion control structure BMP is to assist producers in building erosion control structures to minimize erosion in non-riparian areas.

Soil erosion results in the loss of soil productivity due to the loss of organic rich topsoil from the landscape. At the same time, eroded material can negatively impact surface water quality through the introduction of nutrients, organic matter, pesticides, pathogens, metals, salts and other hazardous materials. These materials are bound to soil particles which are transported by wind, water or tillage. Where eroded material is transported to a groundwater recharge area, the quality of groundwater may also be affected. Soil erosion occurs in all landscapes and soils, but the rate of erosion varies considerably, depending on soil/landscape characteristics and management practices. In recent years, practices such as reduced tillage have resulted in much lower erosion rates than in the past. Nevertheless, erosion remains a serious concern in certain areas. Erosion may occur when natural or constructed water courses are inadequate to handle runoff from snow-melt or summer rainfalls.

The benefits of erosion control structures include:

- Minimized wind and water erosion in non-riparian areas;
- Reduced soil loss and gully formation; and
- Reduced sediment/nutrient inputs to streams, lakes and wetlands from agricultural lands.

Note: If you are applying for Erosion Control Structures, you may also wish to review the description for Soil Erosion Control Planning (BMP#27) and Land Management for Soils at Risk and Riparian Area Management (BMP#13).

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 21: Water Bodies

CONDITIONS FOR ELIGIBILITY

- You must have an EFP Certificate of Endorsement from PCAB.
- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program prior to construction.**

REGULATORY CONSIDERATIONS

Construction of erosion control structures may trigger the Canadian Environmental Act and may also trigger other Federal and Provincial legislation. **Before applying for this BMP category, contact the AAFC Client Service Centre at 1- 800- 667- 8567.** Agriculture and Agri-Food Canada (AAFC) staff can assist you in identifying additional process requirements for this type project. Given the additional requirements that may be necessary to complete this BMP, applicants should begin the process 6 to 12 months prior to construction.

FUNDING

Riparian erosion control structures projects are cost-shared at **50 per cent** to a maximum of **\$20,000**.

NON-RIPARIAN EROSION CONTROL STRUCTURES PRACTICES

- Constructing contour terraces;
- Stabilizing gullies/grassed waterways;
- Stabilizing stream banks including bank shaping, revetment, gabions, rip-rap, crib walls, re-vegetation, blanketing and combination;
- Installing erosion control matting and silt fencing;
- Constructing drop inlet and in channel control structures;
- Improving infiltration of concentrated water flow including filter trenches, filter wells, diffusing wells, and
- Constructing retention ponds and erosion control dams.
- Hiring an engineer for design work; this work will stand alone as a project and can be funded if the project does not proceed for economic, technical or environmental (CEAA) reasons.

Eligible costs include:

- Contractor costs - including earthwork, placement of materials and construction of structures;
- Consultative fees including surveys and design;
- Construction materials (including, but not limited to, rip-rap, gabion baskets, erosion mats, silt fencing, filter trenches, filter wells, diffusing wells, mechanical wind screens and concrete);
- Cost of creating a vegetated buffer zone - trees and shrub species;

- Cost of forage and cover crop seed with a certificate of analysis and seedbed preparation and seeding operation for re-vegetation; and
- Engineering/consulting costs associated with design of erosion control structures

In-kind costs include:

- Applicants' labour allocated toward the projects (at \$12.00/hour); and
- Use of applicant's equipment at rates included within the Saskatchewan Custom Rates Guide. *The guide is available on line at http://www.agr.gov.sk.ca/docs/econ_farm_man/business/customrateguide00.asp or by contacting SAF Agriculture Knowledge Centre at 1-866-457-2377.*

Ineligible costs:

- Cost of water storage structures; and/or
- Cost for construction or repair drainage systems.

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist with your application and refer you to a technical advisor. **It is recommended that you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area.** These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

13. Land Management for Soils at Risk

BACKGROUND

The objective of the soils at risk BMP is to assist producers in implementing farm practices that minimize erosion and soil salinity damage on agricultural land.

Profitable, sustainable crop production depends on healthy, productive soil. Soil erosion results in a reduction of soil productivity due to the loss of organic rich topsoil from the landscape, and can drastically reduce yields. At the same time, eroded material can negatively impact surface and groundwater quality. Erosion occurs in all landscapes and soils, but the rate of erosion varies considerably depending on soil/landscape characteristics and management practices.

Soil salinity occurs naturally in semi-arid regions. It occurs where the rate of salt accumulation in the soil profile due to evaporation of groundwater discharge is greater than the rate of salt leaching from infiltration of rain or snow melt. Some agricultural practices, such as fallow, have contributed towards increasing soil salinity. The practice of fallow utilizes soil moisture inefficiently and leads to greater leaching of water to aquifers in recharge areas and subsequent greater groundwater discharge in low lying areas. Salt-tolerant perennial forages have proven to reduce or control the spread of salinity by lowering the groundwater table in the discharge area.

The benefits of land management practices include:

- Minimized erosion and soil salinity damage;
- Reduced soil loss and gully formation; and

- Reduced sediment/nutrient inputs to streams, lakes and wetlands from agricultural lands.

Note: If you are applying for Erosion Control Land Management, you may also wish to review the description for Soil Erosion Control Planning (BMP#27) and Erosion Control Structures (BMP#12).

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 13: Soil Management

CONDITIONS FOR ELIGIBILITY

- You must have an EFP Certificate of Endorsement from PCAB.
- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program prior to construction.**

FUNDING

Land management projects are cost-shared at **50 per cent** to a maximum of **\$5,000**.

LAND MANAGEMENT FOR SOIL AT RISK PRACTICES

- Establishing forage or annual barriers for soils at risk including strip-cropping, grassed waterways, perennial forages on severely erodible or saline soils (**maximum of 40 acres of perennial forages per applicant, either as one parcel or as multiple parcels**).
- Straw mulching; and

- Grazing management not associated with riparian areas - including cross fencing for rotational, seasonal, rest, swath and extended grazing systems and alternative watering systems for improved grazing management;

at http://www.agr.gov.sk.ca/docs/econ_farm_man/business/customrateguide00.asp or by contacting SAF Agriculture Knowledge Centre at 1-866-457-2377.

Eligible costs include:

- Seed and seeding operation for re-vegetation;
- Cross-fencing to protect critical erosion areas;
- Straw purchase, application and anchoring for straw mulching;
- Power hookup for alternative water system from existing power source; and
- Alternative watering systems: pumps (solar, wind, and grid powered pumps, sling-pumps, frost free nose-pumps) storage and delivery components (troughs, floats, pipe, and pipeline materials).



Note: The intent of pipeline delivery systems under the CSFSP is to protect riparian health. More extensive water delivery systems (i.e. more than a few hundred metres) intended for water supply and grazing management will be referred to the **Canada Saskatchewan Water Supply Expansion Program**. Please contact the AAFC Client Service Centre at 1-866-667-8587 for more details.

In-kind costs include:

- Applicants' labour allocated toward the projects (at \$12.00/hour); and
- Use of applicant's equipment at rates included within the Saskatchewan Custom Rates Guide. *The guide is available on line*

Ineligible Costs:

- Perimeter fencing;
- Installation of new power service (for alternative water system); and
- Development of a new water source;

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist with your application and refer you to a technical advisor. **It is recommended that you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area.** These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

14. Improved Cropping Systems

BACKGROUND

The objective of the improved cropping systems BMP is to promote farm practices that lower soil disturbance, before and during seeding, and improve application of fertilizers.

In the past, erosion caused by tillage on most farm fields resulted in water and air pollution and reduced soil quality. Those nutrients not used by crops can also move from fields to nearby water bodies or is lost to the atmosphere. This can be corrected through better nutrient management, direct seeding systems and reduced tillage.

The benefits of improved cropping systems include:

- Reduced erosion;
- Reduced fuel use;
- Reduced dust in the air;
- Reduced sediment and nutrients in water;
- Improved moisture conservation;
- Increased residue on the soil surface; and
- Provision of habitat for biodiversity.

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 13: Soil Management

CONDITIONS FOR ELIGIBILITY

- You must have an EFP Certificate of Endorsement from PCAB.
- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program prior to construction.**

FUNDING

Improved cropping systems projects are cost-shared at **30 per cent** to a maximum of **\$15,000**.

IMPROVED CROPPING SYSTEMS PRACTICES

- Modifying seeding and post-seeding implements for low-disturbance placement of seed and fertilizer; applicants may claim value of eligible components when purchasing equipment (coulters, openers, trash clearance devices, and liquid or row crop fertilizer banders)
- Installing chaff spreaders or collectors on new or existing combines; and
- Precision farming applications - such as using GPS to collect information, installing GPS guidance systems (i.e. autosteer and lightbars) yield monitors, mapping software and manual and variable rate controllers for variable rate fertilizer application.

Note: This BMP is intended to provide support primarily through equipment

modification; however a producer may claim the value of the eligible modification when purchasing an entire equipment unit; the cost of the eligible component must be broken out on a separate invoice.



Eligible costs include:

- Cost of materials and supplies to modify equipment, and
- Installation costs.

In-kind costs include:

- Applicants' labour allocated toward the projects (at \$12.00/hour)
- Use of applicant's equipment at rates included within the Saskatchewan Custom Rates Guide. *The guide is available on line at http://www.agr.gov.sk.ca/docs/econ_farm_man/business/customrateguide00.asp or by contacting SAF Agriculture Knowledge Centre at 1-866-457-2377.*

Ineligible costs:

- Cost of main components of seed and fertilizer equipment, including, liquid fertilizer and anhydrous ammonia kits seeding implement frame, tanks, delivery system (i.e. hoses and fans) and packer wheels;
- Low-disturbance application or banding of fertilizer before seeding is not eligible for funding; and/or
- Cost of equipment rental or custom work associated with all low-disturbance seeding or fertilizer application; and
- Purchase of a hand held GPS unit.

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist with your application and refer you to a technical advisor. **It is recommended that you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area.** These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

15.

Cover Crops**BACKGROUND**

The objective of cover crops is to provide emergency ground cover (i.e. winter cover crops, relay crops, green fallow crops or biennial green manure crops) when levels of crop residue are too low to protect the soil from wind and water erosion.

Wind erosion can be severe in conventionally tilled summer fallow during winter when there is minimal snow cover, or in early spring before a spring seeded crop can be established. This risk is of greater concern with specialty crops, such as organic production, fruits and vegetables. There may also be concern in special situations involving any crop or cropping system where back dry years have resulted in minimal surface residue levels and emergency ground cover is required.

Soil can be at risk of wind erosion if an organically farmed summer fallow field goes into winter with minimal snow cover (increased bare days), and/or when an organically cropped or summer fallowed field is deeply frozen, resulting in erosion during snow melt. Establishing cover crops on lands vulnerable to soil loss by wind and water over the winter and early spring can minimize soil loss to the environment.

The benefits of cover crops could include:

- Reduced soil and wind erosion;
- Reduced loss of soil organic matter;
- Reduced nutrient flow to water; and
- Reduced particulate matter in air (dust from wind erosion).

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 13: Soil Management
- Chapter 21: Water Bodies

CONDITIONS FOR ELIGIBILITY

- You must have an EFP Certificate of Endorsement from PCAB.
- You must have whole fields or parts of fields that are vulnerable to wind and water erosion, due to very low residue cover over the winter and early spring months.
- The cover crop must be sown as recommended, to optimize growth and cover protection.
- When using winter cover crop, you must use the hardiest winter cereal available for Saskatchewan conditions. Since vulnerable fields will have limited residue cover, winter survival is needed to provide early spring protection.
- **Producers are eligible for a one time payment only subject to a field inspection,**
- **Assistance is available for seeding and weed control OR equipment modifications, but NOT both.**
- **If assistance is provided for seed and weed control, the cover crop CANNOT be harvested for economic gain. An economic crop is one that is sold off farm or used on farm for livestock feed or seed.**

- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program prior to starting your project.**

FUNDING

Cover Crop projects are cost-shared at **30 per cent** to a maximum of **\$5,000**.

COVER CROP PRACTICES

- Establishing non-economic crops (i.e. crops cannot be harvested or grazed); eligible items include cost of seeding and weed control; options include:
 - Winter cover crops (seeded after harvest for late fall, winter and spring soil protection)
 - Relay crops (planted with a primary crop but remain after the primary crop is removed)
 - Green fallow crops (annual legumes seeded during a fallow year)
 - Biennial green manure crops (underseeded crops providing soil protection for the year following a low residue crop)
 - Modifying equipment for inter-row seeding of cover crops within an existing row crop (i.e. relay crops).

Eligible costs:

- Cost of seeding the cover crop;
- Cost of weed control for cover fields or parts of fields includes herbicide for conventional operations;

- Cost of leasing of zero-till seeder or custom seeding zero-till if producer does not have zero-till seeding equipment to minimize soil disturbance; and
- Cost of leasing conservation tillage equipment (to keep limited residue on the surface and anchored) for terminating the cover crop and any weeds in spring prior to seeding a spring crop for organic farming only OR use of conservation tillage to terminate cover crop and weeds prior to seeding a spring crop for organic farming.
- Equipment modifications (including installation) for inter row seeding of cover crops within an existing row crop.

In-kind costs include:

- Applicants' labour allocated toward the projects (at \$12.00/hour)
- Use of applicant's equipment at rates included within the Saskatchewan Custom Rates Guide. *The guide is available on line at http://www.agr.gov.sk.ca/docs/econ_farm_man/business/customrateguide00.asp or by contacting SAF Agriculture Knowledge Centre at 1-866-457-2377.*

Ineligible costs:

- Cost of fertilizing; and/or
- Cost of complete seeding units.

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist with your application and refer you to a technical advisor. **It is recommended that**

you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area. These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

16.

Improved Pest Management

BACKGROUND

The objective of this BMP is to minimize the potentially harmful effects of pesticide application through the use of new sprayer technology, monitoring, and the promotion of biological and cultural pest control methods.

Under certain conditions, chemical pesticides and their breakdown products can enter the environment. By implementing an integrated pest management approach, this risk is reduced. The use of alternative methods of pest control other than pesticides can reduce human exposure to toxic materials, avoid risk of contamination of water, soil, air and biodiversity and reduce the risk of chemical pesticide residues in food. An integrated pest management approach involves the judicious use of approved agricultural pesticides in combination with other management options, such as crop rotation, pest resistant varieties, biological control and physical control methods.

The benefits of implementing improved pest management include:

- Reduced human exposure to toxic materials;

- Reduced risk of contaminating the environment;
- Reduced risk of chemical pesticide residues in food;
- A reduction in the build-up of pest resistance; and
- Reduced risk to non-target organisms such as wildlife.

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 20: Pest Management

CONDITIONS FOR ELIGIBILITY

- You must have an EFP Certificate of Endorsement from PCAB.
- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program prior to equipment purchase/modification.**

FUNDING

Improved Pest Management projects are cost-shared at **30 per cent** to a maximum of **\$5,000**.

IMPROVED PEST MANAGEMENT PRACTICES

- Modifying equipment for improved application;
- Collecting information and monitoring;
- Application of biological control agents; and
- Implementation of cultural control practices.

Note: This BMP is intended to provide support primarily through equipment modification; however a producer may claim the value of the eligible modification when purchasing an entire equipment unit; the cost of the eligible component must be broken out on a separate invoice.

Also, while it is recognized that precision farming applications such as GPS have usefulness for information collection and as a tracking system to eliminate overlap and misses, this practice is funded exclusively under Improved Cropping Systems (BMP#14).

Eligible costs:

- Sprayer modifications such as: pesticide injection systems, jug rinsers, rinse tanks, sprayer shrouds and cones, air induction tips, and low drift nozzles;
- Equipment, materials and services such as weather monitoring/reporting/prediction, trapping devices and sampling equipment for determining pest populations;
- Biological control of weeds (leafy spurge and scentless chamomile);
- Installation costs of raptor platforms for gopher control; and

- Planting of annual guard or trap strips (net value or profit of harvested seed to be deducted from eligible expenses).

In-kind costs include:

- Applicants' labour allocated toward the projects (at \$12.00/hour); and
- Use of applicant's equipment at rates included within the Saskatchewan Custom Rates Guide. *The guide is available on line at http://www.agr.gov.sk.ca/docs/econ_farm_man/business/customrateguide00.asp or by contacting SAF Agriculture Knowledge Centre at 1-866-457-2377.*



Ineligible costs:

- Cost for chemical pesticides and complete application units; and
- Producer time for biological control of weeds like leafy spurge and scentless chamomile.

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist with your application and refer you to a technical advisor. **It is recommended that you discuss your project with an AAFC**

Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area. These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

17. Nutrient Recovery from Waste Water

BACKGROUND

The objective of the nutrient recovery from waste water BMP is to expand and/or update circulation and treatment systems to encourage recycling of waste water streams.

The potential for contamination of surface and groundwater associated with the release of agricultural waste water from production facilities such as greenhouses, dairies and vegetable washing facilities is of increasing concern. Nutrients can be recovered from these waste water streams, using existing technologies, allowing for their reuse and reducing impact on the environment.

The benefits of improving nutrient recovery from waste water include:

- Increased water conservation and improved water quality;
- Increased economic returns from lower input costs; and
- Reduced nutrient impact on biodiversity in downstream watercourses.

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 16: Horticultural Production

CONDITIONS FOR ELIGIBILITY

- You must have an EFP Certificate of Endorsement from PCAB.
- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program prior to construction.**

REGULATORY CONSIDERATIONS

Installation of nutrient recovery from waste water systems may trigger the Canadian Environmental Act and may also trigger other Federal and Provincial legislation. **Before applying for this BMP category, contact the AAFC Client Service Centre at 1- 800- 667- 8567.** Agriculture and Agri-Food Canada (AAFC) staff can assist you in identifying additional process requirements for this type project.

FUNDING

Nutrient recovery from waste water projects are cost-shared at **30 per cent** to a maximum of **\$10,000**.

NUTRIENT RECOVERY FROM WASTE WATER PRACTICES

- Recycling of waste water streams from milk-houses, fruit and vegetable washing facilities and greenhouses in order to recover nutrients.

- Hiring an engineer for design work; this work will stand alone as a project and can be funded if the project does not proceed for economic, technical or environmental (CEAA) reasons.

Eligible costs:

- Cost of modifications to existing operations, recirculation equipment, collection/ drainage/ containment systems, treatment systems, concrete floor “catch basins” and sub-irrigation systems (flooded floors, ebb and flow benches, trough benches);
- Cost of treatment equipment (i.e. UV, bio-filters);
- Cost of plumbing hardware (pipes);
- Cost of electronics; and
- Engineering/ consulting costs associated with design of nutrient recovery systems.

In-kind costs:

- Applicants’ labour allocated towards the project (at \$12.00/hour).

Ineligible costs:

- Cost of collection and containment systems associated with primary storage of water and nutrients.

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist with your application and refer you to a technical advisor. **It is recommended that you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area.** These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

18.

Irrigation Management

BACKGROUND

The objective of irrigation management is to provide producers with assistance to upgrade irrigation equipment to improve irrigation efficiency and lessen impacts of irrigation on the environment.

Crop irrigation typically accounts for over 80 per cent of total water consumption by agriculture. Advancements in technology have enabled many producers to adopt more water efficient irrigation systems. Backflow prevention for effluent, fertilizer and pesticide application is crucial for preventing potential crop, water and environmental pollution.

The benefits of adopting proper irrigation management include:

- Improved water use efficiency;
- Decreased energy consumption; and
- Water source protection.

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 19: Irrigation

CONDITIONS FOR ELIGIBILITY

- You must have an EFP Certificate of Endorsement from PCAB.
- **All required licensing and permitting is completed by the producer and the Saskatchewan Watershed Authority and any other relevant agency, such as an Irrigation District, PFRA or Rural Municipality.**
- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program prior to construction.**

REGULATORY CONSIDERATIONS

Implementation of irrigation management practices may trigger the Canadian Environmental Act and may also trigger other Federal and Provincial legislation. **Before applying for this BMP category, contact the AAFC Client Service Centre at 1- 800-667- 8567.** Agriculture and Agri-Food Canada (AAFC) staff can assist you in identifying additional process requirements for this type of project.

FUNDING

Irrigation management projects are cost-shared at **30 per cent** to a maximum of **\$10,000**.

IRRIGATION MANAGEMENT PRACTICES

- Modifying irrigation equipment / improving it to increase water use efficiency: low pressure, low clearance sprinkler system components, trickle or drip system components, irrigation monitoring equipment and use of fertigation technology;

- Installing equipment to prevent backflow of altered irrigation water into water sources; and
- Improving infiltration galleries and irrigation intake systems.

Eligible costs:

- Cost of materials for low pressure sprinklers systems- including low pressure sprinkler nozzles, pressure regulators, pipe/hose extension/carts to provide low clearance, booms for low application, delivery hose/pipe, filters and emitters for trickle or drip systems - and associated installation costs;

- Purchase modification and installation of fertigation equipment
- Cost of monitoring equipment;
- Cost of new or improved backflow prevention mechanism/equipment;
- Cost to repair or reconstruct existing infiltration and intake systems at pump sites and erosion control measures at pump sites; and
- Cost of earthwork.

In-kind costs include:

- Applicants' labour allocated toward the projects (at \$12.00/hour); and
- Use of applicant's equipment at rates included within the Saskatchewan Custom Rates Guide. *The guide is available on line at http://www.agr.gov.sk.ca/docs/econ_farm_man/business/customrateguide00.asp or by contacting SAF Agriculture Knowledge Centre at 1-866-457-2377.*

Ineligible costs:

- Costs associated with irrigation expansion - pumps, pipe infrastructure (i.e. center pivot, wheel move structures, traveling reels, mainline pipe) - and water-source development costs;
- Costs associated with repair or maintenance of an existing backflow prevention system; and/or
- Costs associated with off-farm irrigation works (i.e. irrigation district works).

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist with your application and refer you to a technical advisor. **It is recommended that you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area.** These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

19.**Shelterbelt Establishment****BACKGROUND**

The objective of this BMP is to increase shelterbelt planting and ensure proper establishment of trees and shrubs for farmyards, livestock facilities, dugout snow trap, wildlife habitat, and field enhancement.

The amount of agricultural landscape covered by woody vegetation varies depending on climate and soils. Vegetative cover, which includes trees and shrubs, acts as a natural protective shield. Establishing trees and shrubs on fields, around farmyards, dugouts, livestock facilities, as vegetative buffers along riparian areas, for wildlife habitat and for replenishing riparian areas helps protect our air, soil and water resources.

The benefits of shelterbelt establishment include:

- Reduced soil erosion;
- Improved water conservation;

- Increased crop diversity and production;
- Reduced energy consumption;
- Filtered noise and dust;
- Reduced odours;
- Improved habitat for wildlife;
- Increased atmospheric carbon sequestration; and
- Increased aesthetic value.

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 2: Drinking Water Sources
- Chapter 8: Manure Storage
- Chapter 9: Intensive Livestock Operations
- Chapter 12: Energy Efficiency

- Use of applicant's equipment at rates included within the Saskatchewan Custom Rates Guide. *The guide is available on line at http://www.agr.gov.sk.ca/docs/econ_farm_man/business/customrateguide00.asp or by contacting SAF Agriculture Knowledge Centre at 1-866-457-2377.*

Ineligible costs:

- Cost of shelterbelt maintenance and renovations incurred **after** the first two years;
- Tree species intended for harvesting for economic benefit (e.g. Christmas trees, fruit orchards, woodlots, etc); and
- Purchase and relocation of established trees

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist with your application and refer you to a technical advisor. **It is recommended that you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area.** These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

20.

Invasive Alien Plant Species Control

BACKGROUND

The objective of invasive alien plant species control is to provide assistance for the control of invasive alien species to prevent the loss of biodiversity in riparian or native rangeland habitats.

Invasive species are weedy species that expand undesirably. They can be native to an area or introduced from different countries or ecosystems. Invasive alien species are also known as exotic, non native, introduced and/or non-indigenous species. Some examples of invasive alien plant species found in Saskatchewan are leafy spurge, scentless chamomile and purple loosestrife.

Invasive alien species are considered a serious threat to agricultural production and biodiversity. Crop yields and rangeland

quality can be reduced by these species. Invasive alien species can also reduce habitat availability or quality for desirable species, disrupt ecosystem function and threaten species at risk, as mentioned within the federal Invasive Species program, managed by Environment Canada, as well as the provincial government's 2004 Caring for Natural Environments: A Biodiversity Action Plan for Saskatchewan's Future.

The benefits of invasive alien plant species control include:

- Reduced negative impact of invasive alien species on habitat quality and availability of desirable species, ecosystem health and species at risk;
- Reduced negative impact of invasive alien species on agricultural production, and

- Increased ability of producers to comply with provincial and federal production related legislation such as The Noxious Weeds Act and The Canada Seeds Act respectively.
- Accepted weed control methods can be funded if they enhance biodiversity and not just agricultural production.

Note: If you are applying for Invasive Alien Plant Species Control, you may also wish to review BMPs on Biodiversity Enhancement Planning, Improved Pest Management, Enhancing Wildlife Habitat and Biodiversity, and Species at Risk.

REGULATORY CONSIDERATIONS

Invasive alien plant species control practices may trigger the Canadian Environmental Act and may also trigger other Federal and Provincial legislation. **Before applying for this BMP category, contact the AAFC Client Service Centre at 1- 800- 667- 8567.** Agriculture and Agri-Food Canada (AAFC) staff can assist you in identifying additional process requirements for this type project.

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 18: Pasture Management
- Chapter 20: Pest management
- Chapter 21: Water Bodies
- Chapter 22: Natural Areas, Shelterbelts, Woodlots and Wildlife

CONDITIONS FOR ELIGIBILITY

- You must have an EFP Certificate of Endorsement from PCAB.
- Present site has problems with invasive alien plants adjacent to native upland or riparian habitat.

- Eligibility of particular invasive alien plant species depends upon whether:
 - Federal legislation (Canada Seeds Act, 1986) has classified the invasive alien species as Prohibited Noxious.
 - Provincial legislation (The Noxious Weeds Act, 1984) has declared the invasive alien weed species Noxious.
- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program prior to starting your project.**

ADDITIONAL PROCESS REQUIREMENTS

1. An action plan to address invasive alien plants should include a description and a site plan that shows:
 - The location and area of identified invasive alien plant species and adjacent native upland or riparian habitat that are found within an operation; and
 - The location, description and cost of the proposed biological (selective grazers or bio-control agent), cultural (improved grazing, perennial forage, pesticides), mechanical (removal by hand, tilling, mowing, cutting, discing or prescribed burning) or integrated control.

FUNDING

Invasive alien plant species control projects are cost-shared at **50 per cent** to a maximum of **\$5,000**.

INVASIVE ALIEN PLANT SPECIES CONTROL PRACTICES

- Integrated approaches (cultural, mechanical and biological) for control of invasive plant species (i.e. leafy spurge, purple loosestrife, scentless chamomile).

Eligible costs:

- Cost of equipment rentals, use or required modifications for any of the activities listed below:
- Biological control - leasing and shipping costs of selective grazers (i.e. sheep for leafy spurge) or biological control agents (insects, fungi and bacteria).
- Cultural control – Cross fencing where cross fencing is expected to improve management of invasive alien plant species including the purchase and shipping costs of cross-fencing supplies, perennial forage species seeds or other plant material that can compete with invasive species. Necessary site preparation work including chemical control in order to establish a competitive forage stand.
- Mechanical control - pulling by hand, mowing, cutting, scraping, shearing, uprooting discing and prescribed burning.

In-kind costs include:

- Applicants' labour allocated toward the projects (at \$12.00/hour)
- Use of applicant's equipment at rates included within the Saskatchewan Custom Rates Guide. *The guide is available on line at http://www.agr.gov.sk.ca/docs/econ_farm_man/business/customrateguide00.asp or by contacting SAF Agriculture Knowledge Centre at 1-866-457-2377.*

Ineligible costs:

- Costs incurred to increase production in general rather than control alien invasive species and biodiversity threats.

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist with your application and refer you to a technical advisor. **It is recommended that you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area.** These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

21.

Enhancing Wildlife Habitat and Biodiversity

BACKGROUND

The objective of the BMP is to assist producers in implementing practices that will enhance wildlife habitat and biodiversity on their land. Enhancing wildlife habitat is key

to ensuring compatibility between biodiversity and agriculture. Improving existing wildlife and fish habitat, particularly native uplands and wetlands, is a critical step in maintaining Saskatchewan's biodiversity.

Although much of wildlife habitat and biodiversity enhancement will be achieved through several other BMPs, some aspects to this BMP are unique (i.e. improving stream crossings or haying equipment can facilitate plants, wildlife and fish biodiversity).

The benefits from implementing the wildlife enhancement and biodiversity BMP include:

- Improved wildlife habitat by increasing habitat quality and quantity;
- Facilitation of environmentally-sustainable agricultural practices and provision of public good;
- Restoration of native biodiversity; and
- Reduced greenhouse gases.

Note: If you are applying for Wildlife Enhancement and Biodiversity projects, you may also wish to review BMPs on Biodiversity Enhancement Planning (BMP#28), Species at Risk (BMP#22), Shelterbelt Establishment (BMP#19), Riparian Area Management (BMP#10) and Preventing Wildlife Damage (BMP#23).

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 18: Pasture Management
- Chapter 21: Water Bodies
- Chapter 22: Natural Areas, Shelterbelts, Woodlots and Wildlife

CONDITION FOR ELIGIBILITY

- You must have an EFP Certificate of Endorsement from PCAB.

- Fish and wildlife habitat on your land can be suitably improved or created to promote biodiversity; and
- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program prior to starting your project.**

REGULATORY CONSIDERATIONS

Enhancing wildlife habitat and biodiversity practices may trigger the Canadian Environmental Act and may also trigger other Federal and Provincial legislation. **Before applying for this BMP category, contact the AAFC Client Service Centre at 1- 800- 667- 8567.** Agriculture and Agri-Food Canada (AAFC) staff can assist you in identifying additional process requirements for this type project.

FUNDING

Enhancing wildlife habitat and biodiversity projects are cost-shared at 50 per cent to a maximum of **\$10,000.**

ENHANCING WILDLIFE HABITAT AND BIODIVERSITY PRACTICES

- Establishing buffer strips/native vegetation - plant or enhance native vegetation (i.e. non woody species such as grass, forbes or legumes) to increase buffer width around existing habitats including field margins, riparian areas, dugouts, wetlands or to connect native grass or woodland parcels;
- Installing alternative watering systems;
- Improving grazing management - including cross fencing for rotational, seasonal, rest, swath and extended grazing systems ;

- Establishing wildlife shelterbelts;
- Improving stream crossings;
- Managing hay land to enhance wildlife survival; and
- Wetland restoration.

Note: Wetland restoration will not be directed at projects that are used for water sources (i.e. dams and dugouts). The wetland must be restored to as close to the original size, depth, and ecological function as possible. In addition funding will not cover pothole consolidation or deepening of existing wetlands. Contact the AAFC Client Service Centre at **1-800-667-8567**.

Eligible costs:

- Planting buffer strips/native vegetation of non-woody species such as grasses forbes and legumes;
- Establishing wildlife shelterbelts including planting and establishment costs for trees and shrubs for the year of planting and one year after the planting year or the termination of the CSFSP, whichever comes first;
- Improved grazing systems - cross-fencing supplies and equipment to implement grazing systems including rotational, seasonal, rest rotational deferred and swath;
- Improved stream crossings - costs associated with improving or removing steam/creek crossings to improve fish and wildlife habitat including engineering design, materials, labour and equipment use;
- Employing hay land management to enhance wildlife survival - purchase and installation of flushing bars to reduce

wildlife mortality during hay cutting operation;

- Seed and seeding operation for re-vegetation;
- Wetland restoration- costs of earthwork, ditch plugs, equipment rental and consultant fees;
- Power hookup costs for alternative water system from existing power source; and
- Alternative watering systems: pumps (solar, wind, and grid powered pumps, sling-pumps, frost free nose-pumps, hydraulic ram pumps) storage and delivery components (troughs, floats, pipe, and pipeline materials).

Note: The intent of pipeline delivery systems under the CSFSP is to protect riparian health. Delivery system costs associated with short pipeline delivery systems (i.e. a few hundred metres) for the protection of riparian areas will be considered under the CSFSP. More extensive water delivery systems (i.e. more than a few hundred metres) intended for water supply and grazing management will be referred to the **Canada Saskatchewan Water Supply Expansion Program**. Please contact the AAFC Client Service Centre at 1-866-667-8587 for more details.



In-kind costs include:

- Applicants' labour allocated toward the projects (at \$12.00/hour); and
- Use of applicant's equipment at rates included within the Saskatchewan Custom Rates Guide. *The guide is available on line at http://www.agr.gov.sk.ca/docs/econ_farm_man/business/customrateguide00.asp or by contacting SAF Agriculture Knowledge Centre at 1-866-457-2377.*

Ineligible costs:

- Cost of activities associated with a new or expanded agricultural activity;
- Installation of new power service (for alternative water system);
- Development of a new water source;

- Shelterbelt maintenance and renovation cost incurred **after** two years; and/or
- Cost of perimeter fencing; and
- Cost of seed for non-native species.

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist with your application and refer you to a technical advisor. **It is recommended that you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area.** These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

22.**Species at Risk****BACKGROUND**

The objective of this BMP is to assist producers in implementing practices that will help preserve or enhance species at risk on their land.

All Canadians have a role to play in the conservation of Canada's wildlife. Conservation efforts by farmers and ranchers should be encouraged and supported. Recovering species at risk has been identified as a key priority to achieve the goal of compatibility between agriculture and biodiversity. Canada's official list of "species at risk" now includes over **400** species. Analysis indicates that about a quarter of these species are at risk because of agricultural impacts on loss and

degradation of suitable habitat. In Saskatchewan, 1 species is extinct, 3 are extirpated, 12 are threatened and 24 are of special concern according to the Committee of Status Endangered Wildlife in Canada (COSEWIC) listings. The provincial list of very rare to rare species is much larger. The objective of the Species at Risk BMP is to add new habitat or improve existing habitat for species at risk that are found or likely to occur on a producer's land.

The benefits to improved species at risk management practices include:

- Enhanced use of practices that address species at risk issues;

- Enhance agricultural compatibility with biodiversity; and
- Increased ability of producers to comply with provincial and federal legislation such as the Wild Species at Risk Regulation and Species at Risk Act respectively.

Note: If you are applying for Species at Risk projects, you may also wish to review BMPs on Enhancing Wildlife Habitat (BMP#21) and Biodiversity Enhancement Planning (BMP#28).

REGULATORY CONSIDERATIONS

Species at risk practices may trigger the Canadian Environmental Act and may also trigger other Federal and Provincial legislation. **Before applying for this BMP category, contact the AAFC Client Service Centre at 1- 800- 667- 8567.** Agriculture and Agri-Food Canada (AAFC) staff can assist you in identifying additional process requirements for this type project.

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 18: Pasture Management
- Chapter 22: Natural Areas, Shelterbelts, Woodlots and Wildlife

CONDITIONS FOR ELIGIBILITY

- You must have an EFP Certificate of Endorsement from PCAB.
- The site is located where species at risk are identified (i.e. found on land or likely to occur on land because suitable habitat exists or can be created and species at risk occur in the vicinity).

- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program prior to starting your project.**



ADDITIONAL PROCESS REQUIREMENTS

1. Action plans to enhance species at risk should include a description and site plans that shows:
 - Location of observed or historically recorded species at risk - individual, nest or residence and/or rationale of why such species are expected to occupy a specific piece of land (i.e. suitable habitat and known range or population in the area);
 - Location and amount of wildlife habitat on operation and/or in surrounding area (i.e. wetlands, sloughs, dugouts, coulees, shelterbelts, woodlots, native and tame pasture, annual and perennial crops, forage, etc.);
 - Location and area of agricultural infrastructure or activities that may impact species at risk (i.e. buildings, cultivated field, etc.);

- Location, description and cost of the proposed forage buffer, cross-fencing, improved stream crossing or infrastructure development or relocation;
 - Species at risk surveys can be conducted if required; and
 - Other management practices proposed that are not eligible for funding but may enhance positive impacts or minimize negative impacts on species at risk.
- including fencing to implement grazing systems including rotational, seasonal, rest rotational deferred and swath to enhance habitat for species at risk;
 - Cost of infrastructure development and relocation - construction and installation of nests/nest platforms, protective structures such as cattle guards to prevent nest damage (i.e. burrowing owl, ferruginous hawk), relocation of fences, power lines, trails or other infrastructure having potential negative impacts on species at risk (i.e. fence removal near sage grouse leks);

FUNDING

Species at risk projects are cost-shared at **50 per cent** to a maximum of **\$10,000**.

SPECIES AT RISK PRACTICES

- Installing alternative watering systems;
 - Improving grazing management - including cross fencing for rotational, seasonal, rest, swath and extended grazing systems;
 - Infrastructure development and relocation; and
 - Planting appropriate grass, shrub or tree species for improved cover for selected species at risk (i.e. thorny shrubs for loggerhead shrike; re-establishment of a specific plant species-at-risk).
- Cost of appropriate plant species establishment - seed and seeding operation for grass re-vegetation and establishment costs for trees and shrubs for the year of planting and one year after the planting year or the termination of the CSFSP, whichever comes first, equipment rental and labour;
 - Power hookup costs for alternative water system from existing power source; and
 - Alternative watering systems: pumps (solar, wind, and grid powered pumps, sling-pumps, frost free nose-pumps, hydraulic ram pumps) storage and delivery components (troughs, floats, pipe, and pipeline materials).

Note: The intent of pipeline delivery systems under the CSFSP is to protect riparian health. Delivery system costs associated with short pipeline delivery systems (i.e. a few hundred metres) for the protection of riparian areas will be considered under the CSFSP. More extensive water delivery systems (i.e. more than a few hundred metres) intended for water supply and grazing management will be referred to the **Canada Saskatchewan Water Supply Expansion Program**. Please contact

Eligible costs:

- Alternative watering systems costs - including pumps (solar, wind, and grid powered) sling-pumps, nose-pumps, hydraulic ram pumps delivery, storage components;
- Cost to improve grazing systems - cross-fencing supplies and equipment

the AAFC Client Service Centre at 1-866-667-8587 for more details.

In-kind costs include:

- Applicants' labour allocated toward the projects (at \$12.00/hour); and
- Use of applicant's equipment at rates included within the Saskatchewan Custom Rates Guide. *The guide is available on line at http://www.agr.gov.sk.ca/docs/econ_farm_man/business/customrateguide00.asp or by contacting SAF Agriculture Knowledge Centre at 1-866-457-2377.*

Ineligible costs:

- Development of a new water source;

- Installation of new power service (for alternative water system);
- Costs incurred to increase production rather than enhance species at risk; and
- Costs of seed for non-native species

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist with your application and refer you to a technical advisor. **It is recommended that you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area.** These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

23.

Preventing Wildlife Damage

BACKGROUND

The objective of this BMP is to assist producers in implementing practices that reduce the impacts of managed wildlife species on crop production. Producers have been more willing to promote biodiversity conservation if their yield loss concerns are addressed by compensation and prevention programs. . For some species of waterfowl and big game, some governments have responded to wildlife damage problems by offering compensation and/or prevention programs to landowners. While there has been growing consensus that wildlife habitat in Canada's agricultural areas should be conserved, wildlife damage remains an impediment to habitat and natural biodiversity conservation. In other words, landowners suffering economic damage to orchards and forage and field

crops may alter or remove habitats harbouring both "nuisance" and other wildlife species.

The benefits to preventing wildlife damage include:

- Practices or infrastructure that provides long-term solutions.
- Avoidance of practices that remove or alter habitats, thus benefiting many species of wildlife;
- Decreased likelihood of yield losses that are caused by problem wildlife species;
- Provision of funds for damage prevention so that producers are not disadvantaged by wildlife enhancements;

- Improved acceptance of wildlife habitat enhancements; and
- Enhanced biodiversity compatibility with agriculture.

Note: If you are applying for this BMP, you may also wish to review BMPs on Biodiversity Enhancement Planning (BMP#28), Species at Risk (BMP#22), Enhancing Wildlife Habitat and Biodiversity (BMP#21) and Invasive Alien Plant Species Control (BMP#20).

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 20: Pest Management
- Chapter 22: Natural Areas, Shelterbelts, Woodlots and Wildlife

CONDITIONS FOR ELIGIBILITY

- You must have an EFP Certificate of Endorsement from PCAB.
- Your farm operation is likely to experience yield losses caused by wildlife damage.
- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program prior to starting your project.**

ADDITIONAL PROCESS REQUIREMENTS

1. Any funding received from other provincial government damage prevention programs must be indicated on you CSFSP application.
2. An action plan to prevent wildlife damage should include a description and a site plan that shows:

- Type and location of stored forage, apiaries, irrigation drip systems, high-valued crops, concentrated livestock or other agricultural operations to be protected;
- Type of problem wildlife and associated yield losses found in area;
- Location and amount of adjacent wildlife habitat;
- Location and description of proposed forage buffer strips; and
- Location and description of protective structures/devices such as fence structures or guard structures, scare cannons or liquid deterrents.

FUNDING

Preventing Wildlife Damage projects are cost-shared at **30 per cent** to a maximum of **\$10,000**.

PREVENTING WILDLIFE DAMAGE PRACTICES

- Planting forage buffer strips - convert crop land to forage around wetlands/dugouts where waterfowl cause recurring damage; **Note:** This BMP is unlikely to work for ungulate damage.
- Installing strategic fencing to prevent wildlife damage to stored feed, concentrated livestock, high value crops, drip irrigation systems and other critical agricultural activities; and
- Installing scaring and repellent systems and devices.



Eligible costs:

- Cost of forage buffer strips - seed and seeding operation for re-vegetation;
- Cost of strategic and specialized netting, fencing and guard structures - fencing supplies, guard structures and equipment to prevent possible damage by birds, deer, elk, bear, canine predators and rodents. Fences should follow recommended design for wildlife control; and
- Cost of scaring and repellent systems and devices - possible systems or devices could include the use of electronic devices, noise, animals and chemicals (repellents only).

In-kind costs include:

- Applicants' labour allocated toward the projects (at \$12.00/hour); and
- Use of applicant's equipment at rates included within the Saskatchewan Custom Rates Guide. *The guide is available on line*

at http://www.agr.gov.sk.ca/docs/econ_farm_man/business/customrateguide00.asp or by contacting SAF Agriculture Knowledge Centre at 1-866-457-2377.

Ineligible costs:

- Cost of management practices that are considered part of regular farm management (i.e. maintenance or repair of mechanical or electronic scaring or repellent systems).

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist with your application and refer you to a technical advisor. **It is recommended that you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area.** These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

24.**Nutrient Management Planning****BACKGROUND**

The objective of nutrient management planning is to more closely match nutrients (from all sources) to crop needs on an annual basis. A Nutrient Management Plan (NMP) allows producers to manage the application of all nutrient sources for crop production in a way that maximizes nutrient utilization and minimizes the impacts to soil, water and air resources.

All nutrients applied to soil, regardless of the type of fertilizer, end up somewhere.

Ideally, nutrient applications are calculated to meet crop nutrient demands. However, sometimes nutrients are applied in excess of crop requirements, and the potential for impact of these nutrients must be understood in order to develop good practices. The application method, soil and water conditions and crop selection will have a significant bearing on the nutrient losses following application.

At present, application rates across the prairie region are based on nitrogen. However, in order to meet nitrogen

requirements, other nutrients may be over-applied. Phosphorus is of particular concern, because excess soil phosphorus in runoff water and soil erosion may cause surface water quality problems.

Saskatchewan soils are generally deficient in phosphorus and have a large capacity to fix phosphorus because of the calcareous nature.

The potential benefits of a nutrient management plan include:

- Improved nutrient use efficiency;
- Reduced nutrient losses related to runoff, leaching, volatilization and greenhouse gas emissions.
- Reduced potential for pollution of surface and groundwater.

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 1: Soil and Site Characteristics
- Chapter 13: Soil Management
- Chapter 14: Nutrient Management for Crop Production
- Chapter 15: Manure Use and Management
- Chapter 21: Water Bodies
- Chapter 23: documentation

CONDITIONS FOR ELIGIBILITY

- You must have an EFP Certificate of Endorsement from PCAB.
- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship**

Program prior to starting your project.

FUNDING

Nutrient management planning projects are cost-shared at **50 per cent** to a maximum of **\$4,000**.

NUTRIENT MANAGEMENT PLANNING PRACTICES

- Hiring a qualified consultant to conduct nutrient management plan and produce a report that:
 1. Identifies and locates all fields and any relevant facilities (e.g. Feedlots, wintering sites, manure storage structures, barns, dry lots etc.) on a map or aerial photograph;
 2. Identifies environmentally sensitive areas on or adjacent to the land being managed;
 3. Specifies past and projected crop rotations;
 4. Estimates yields of annual crops, hay and forages;
 5. Incorporates results of soil, plant, and manure analyses;
 6. Accounts for nutrient contributions from all sources available to the farm;
 7. Develops a nutrient budget for each field, land parcel or management unit;
 8. Provides recommendations on nutrient rate, timing, and method of application, suggesting alternative strategies to the current management system;
 9. Allows for the opportunity to review and modify the plan as needed; and

10. Suggests best options for maintaining records.

Eligible costs:

- Consultant fees; accredited individual or agency fees; this can include soil sampling/analysis costs needed for purpose of assessing environmental risk and developing recommendations for implementation of a specific BMP and **MUST** be part of the fees charged; and
- Consultant fees for training producer to develop his/her own plans and tools for such self plans (Computer software for nutrient management planning, maps, air photos, etc.) **MUST** be reviewed or certified by consultant or accredited individual or agency.

Ineligible costs:

- producers' time and travel; and/or

- routine soil sampling and analysis to determine annual/perennial crop needs; and
- computer hardware.

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist with your application and refer you to a technical advisor. **It is recommended that you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area.** These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

25.

Integrated Pest Management Planning

BACKGROUND

The objective of this BMP is to minimize the potential harmful effects of excessive cultural control methods and pesticide application through an integrated pest management approach.

Pest management is an important agricultural production and environmental issue. Traditionally, producers have used cultural methods, such as tillage and crop rotation, to control pests. However, many farmers today are using pesticides to deal with pest problems. While pesticides have usually been effective in controlling pests and reducing the negative consequences of tillage, they have potential negative impacts

both on the environment and agricultural production systems. Agricultural pesticides can potentially have negative impacts on water quality and biodiversity via toxic effects on various species of organisms, and may lead to pest adaptations (or pesticide resistance).

An integrated approach to pest management is the most effective way to achieve the goals of economic production and environmental protection. This management approach involves the judicious use of approved agricultural pesticides in combination with other management options, such as crop rotation, pest resistant varieties, biological control and physical control methods.

An integrated pest management plan will assist a producer to:

- Target pesticide application where and when needed;
- Consider methods of control that may be less costly than herbicides;
- Understand economic threshold numbers for pests, to determine if pesticide application is warranted; and
- Recognize short-term versus long-term impacts of pest control methods.

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 20: Pest Management

CONDITIONS FOR ELIGIBILITY

- You must have an EFP Certificate of Endorsement from PCAB.
- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program prior to starting your project.**

FUNDING

Integrated pest management planning projects are cost-shared at **50 per cent** to a maximum of **\$2,000**.

INTEGRATED PEST MANAGEMENT PLANNING PRACTICES

- Hiring a qualified IPM consultant to conduct integrated pest management plan and produce report that includes the following minimal requirements:

1. Evaluation of current practices and issues - including current pest problems, effectiveness of current control methods and their impact on the environment, as well as production economics;
2. Identification of IPM opportunities - the use of alternative pest control options, their sustainability and their impact on pest populations, the environment and production economics;
3. Development of an IPM implementation strategy - selection of the most promising IPM options, identification of other management adjustments and development of an implementation timetable; and
4. Development of an IPM evaluation process - recommendations for monitoring effectiveness, including field scouting to help in making adjustments to management.

Eligible costs:

- Consultant fees to conduct integrated pest management plan and produce report; and
- Cost of planning and decision support tools (i.e. computer software for IPM, aerial photos).

Ineligible costs:

- Producers' time and travel; and/or
- Cost of computer hardware.

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist with your application and refer you to a technical advisor. **It is recommended that**

you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area. These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

26.

Grazing Management Planning

BACKGROUND

The objective of grazing management planning is to develop a detailed plan that properly assesses all factors for grazing management and make appropriate recommendations.

Livestock graze approximately 18 million acres of rangeland and seeded pasture in Saskatchewan. Improper grazing practices can lead to erosion, reduced ecosystem function, reduced productivity, impaired watershed function and health and loss of biodiversity. Riparian areas are important for preserving water quality and maintaining biodiversity on grazed landscapes. Degradation of riparian areas is important for preserving water quality and maintaining biodiversity on grazed landscapes. Degradation of riparian areas by livestock can result in declining water quality, loss of biodiversity and stream bank erosion. The objective of a grazing management plan is to assess grazing systems and provide specific recommendation to allow for appropriate recovery times and improve animal distribution, stocking rates, range readiness and drought proofing. Implementation of a sound grazing plan can also help prevent infestations by invasive species.

The benefits of a grazing management plan include:

- Improved soil and water quality.
- Increased productivity and economic gains;
- Reduced stream bank degradation;
- Improved nutrient and water retention on the land;
- Reduced risk of invasive species; and
- Reduced soil erosion.

Note: If you are applying for this BMP, you may also wish to review BMPs on Wintering Site Management (BMP#7) and Riparian Area Management (BMP#10).

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 2: Drinking Water sources
- Chapter 10: Livestock Wintering Sites
- Chapter 13: Soil Management
- Chapter 14: Nutrient Management for Crop Production

- Chapter 15: Manure Use and Management
- Chapter 18: Pasture Management
- Chapter 21: Water Bodies
- Chapter 22: Natural Areas, Shelterbelts, Woodlots and Wildlife
- Development of improved grazing management strategy; and
- Development of improved grazing management evaluation process.

Eligible costs:

CONDITIONS FOR ELIGIBILITY

- You must have an EFP Certificate of Endorsement from PCAB.
- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program prior to starting your project.**

- Consultant fees to conduct grazing management plan and produce a report for the producer; and
- Cost of planning and decision support tools (i.e. computer software).

Ineligible costs:

- Producers' time and travel; and/or
- Cost of computer hardware.

FUNDING

Grazing management planning projects are cost-shared at **50 per cent** to a maximum of **\$2,000**.

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist with your application and refer you to a technical advisor. **It is recommended that you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area.** These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

GRAZING MANAGEMENT PLANNING PRACTICES

- Hiring a qualified grazing management consultant to conduct a site specific grazing management plan and produce grazing management report that includes:
- Identification of current issues and impact of current management;
- Identification of improved grazing management options and accompanying constraints;

27.

Soil Erosion Control Planning

BACKGROUND

The objective of erosion control planning is to develop a detailed plan that properly assesses all factors for erosion control and make appropriate recommendations.

Soil erosion is a serious environmental and agricultural production issue throughout Canada. The loss of topsoil by water, wind or tillage erosion, together with the associated loss of soil organic matter, threatens the ability of our soils to produce food crops and livestock feed. In addition, the transport of sediment and dust off the field negatively impacts surface water quality, human health and drainage courses.

The impacts of wind and water are the main causes of soil erosion on farmland; however, tillage can also cause soil erosion by physically transporting soil and by exacerbating the effects of wind and water erosion. In Saskatchewan, adoption of low disturbance direct-seeding has significantly reduced soil erosion rates from traditional levels. On pasture and rangeland, soil erosion can also be exacerbated by overgrazing. Adoption of improved pasture and range management techniques can help reduce erosion risk on these lands.

Benefits of erosion control planning include:

- Reduced soil erosion and runoff;
- Improved nutrient retention on the land for crop growth;
- Improved soil quality and water quality; and
- Improved air quality.

Note: If the main cause of erosion on your farm is overgrazing of pasture or rangeland, you may wish to review the BMP on Grazing Management Planning (BMP#26).

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 13: Soil Management

CONDITIONS FOR ELIGIBILITY

- You must have an EFP Certificate of Endorsement from PCAB.
- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program prior to starting your project.**

FUNDING

Erosion control planning projects are cost-shared at **50 per cent** to a maximum of **\$2,000**.

EROSION CONTROL PLANNING PRACTICES

- Hiring a qualified consultant to develop a soil erosion control plan and produce a site specific report that includes:
 - An assessment of existing soil erosion on the farm;
 - An outline of the various types of soil erosion on the farm and their causes, including rill erosion, sheet erosion, gully erosion, soil degradation and wind erosion;

- A map of the location of the erosion and their proximity to or effect on water bodies or waterways;
- A description of soil types, slopes and slope lengths and their susceptibility to erosion;
- Recommendation for remedies, including those for gully erosion, rill erosion, sheet erosion, wind erosion and soil degradation, based on criteria in above bullet (include long-term solutions and short-term potential problems);
- Cost-analysis of various remedial and preventative actions; and
- Description of recommended cropping and grazing methods, including direct-seeding or reduced tillage, rotational grazing, strip cropping, re-seeding to more protective species, shelterbelts, water run construction and rehabilitation.

Eligible costs:

- Consultant fees to develop a soil erosion control plan and produce a site specific report for the producer; and

- Cost of planning and decision support tools (i.e. computer software for erosion planning).

Ineligible costs:

- Producers' time and travel; and/or
- Cost of computer hardware.

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist with your application and refer you to a technical advisor. **It is recommended that you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area.** These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

28.

Biodiversity Enhancement Planning

BACKGROUND

The objective of this biodiversity enhancement planning is to develop strategies for producers to manage, enhance or restore natural wildlife habitats, including habitat for species at risk and address issues where wildlife damage to agriculture threatens biodiversity.

Biodiversity enhancement planning involves developing recommendations that balance the needs of agricultural production while conserving biodiversity. The difficulty lies first in understanding what biodiversity is, then in knowing what can be done to enhance it. Biodiversity is complex; biodiversity means all life and can be

described as all of the genetic material, species and habitats that are found within agro-ecosystems. In Saskatchewan, biodiversity is primarily a byproduct of good management of riparian areas and rangeland. Good health in both of these areas will likely mean more biodiversity.

The benefits from creating a biodiversity enhancement plan include:

- Increased biodiversity by enhancing or restoring natural habitats, protecting species at risk and controlling invasive species and wildlife damage.
- The identification of landscapes most sensitive to biodiversity loss or risk.

Note: If you are applying for this BMP, you may also wish to review BMPs on Invasive Alien Plant Species Control (BMP#20), Improved Pest Management (BMP#16), Enhancing Wildlife Habitat and Biodiversity (BMP#21) and Species at Risk (BMP#22).

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 18: Pasture Management
- Chapter 20: Pest Management
- Chapter 21: Water Bodies
- Chapter 22: Natural Areas, Shelterbelts, Woodlots and Wildlife.

In addition, many chapters within the Saskatchewan EFP workbook have implications for biodiversity enhancement planning. For example, BMPs for livestock wintering sites, relocating intensive livestock operations, pesticide, fertilizer and manure handling, erosion control, buffers and shelterbelts will have indirect positive benefits to biodiversity.

CONDITIONS FOR ELIGIBILITY

- You must have an EFP Certificate of Endorsement from PCAB.
- Your agricultural operation has the potential to enhance native prairie, woodland or wetland habitat or species at risk; or
- To control invasive alien species and prevent wildlife damage.
- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program prior to starting your project.**

FUNDING

Biodiversity enhancement planning projects are cost-shared at **50 per cent** to a maximum of **\$2,000**.

BIODIVERSITY ENHANCEMENT PLANNING PRACTICES

- Hiring a qualified biodiversity enhancement consultant to conduct biodiversity enhancement plan and produce a site specific report that includes:
- Identification of current issues and impact of current management;
- Identification of biodiversity enhancement opportunities and impacts;
- Development of biodiversity enhancement strategy;
- Development of biodiversity enhancement evaluation process; and
- Wetland restoration planning.

Eligible costs:

- Consultant fees to conduct the biodiversity enhancement plan and produce a report; and
- Cost of planning and decision support tools (i.e. computer software for biodiversity enhancement planning and aerial photos).

Ineligible costs:

- Producers' time and travel; and/or
- Cost of computer hardware.

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist with your application and refer you to a technical advisor. **It is recommended that you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area.** These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

29.**Irrigation Management Planning****BACKGROUND**

The objective of irrigation management planning is to develop strategies for producers to manage irrigation to increase irrigation efficiency or minimize adverse environmental impacts or both.

Approximately 80 per cent of water used by agriculture is for irrigation of crops. Using water more efficiently is important because water supplies are becoming limited as agricultural production and total water use increase. At the same time, conserving water helps assure a more secure supply for other users such as industry, wildlife, recreation and fish.

Agricultural systems that involve irrigation are inherently more intensive than non-irrigated crops. This means that crop inputs such as water, fertilizer and pesticides are applied at higher rates. Well-managed irrigation can help reduce environmental risk by providing more control over growing conditions. For example, the potential for

nutrient loss through leaching may be reduced by avoiding drought conditions, which result in large carryover amounts that could be lost during a subsequent wet dormant season. On the other hand, improperly managed irrigation or greater than normal precipitation following irrigation may result in excess moisture and increased leaching losses. Given the higher rates of nutrient and pesticide application, the magnitude of environmental impact could be greater on irrigated land.

Benefits of irrigation management planning include:

- Increased water use efficiency and maximized percentage of water used by plants;
- Reduced amount of water loss through leaching or runoff;
- Decreased rate of evaporation losses;
- Reduced concentration of salts and minerals; and

- Higher-quality water reaching the crop roots.

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 19: Irrigation

CONDITIONS FOR ELIGIBILITY

- You must have an EFP Certificate of Endorsement from PCAB.
- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program prior to starting your project.**

FUNDING

Irrigation management planning projects are cost-shared at **50 per cent** to a maximum of **\$2,000**.

IRRIGATION MANAGEMENT HANDLING PRACTICES

- Hiring a qualified irrigation management consultant to conduct an irrigation management plan and produce site specific report that includes:
- The identification of current issues and the impact of the current management;
- The opportunities and impacts of various irrigation management options;
- An irrigation management strategy; and
- An irrigation management evaluation process.

The plan shall clearly address either increasing water use efficiency or

minimizing adverse environmental impacts or both.

Eligible costs:

- Fees from a qualified irrigation management consultant to conduct irrigation management plan and produce a site specific report; and
- Cost of planning and decision support tools (i.e. computer software for irrigation planning and aerial photos).



Ineligible costs:

- Producers' time and travel; and/or
- Cost of computer hardware.

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist with your application and refer you to a technical advisor. **It is recommended that you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area.** These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

30. Riparian Health Assessment

BACKGROUND

The objective of riparian health assessment is to develop strategies for producers to manage riparian areas to improve riparian health and improve surface water quality.

A riparian area is a transition zone, or interface, between upland and aquatic ecosystems. The functions of a healthy riparian area include trapping sediments, recharging ground water, providing primary productivity and supporting biodiversity. A riparian health assessment helps individuals understand the health of their riparian areas by conducting an inventory of current conditions and identifying risks to riparian health. Assessment information can then be integrated into farm and ranch planning and be used to identify appropriate management practices to improve the condition of the riparian area.

The benefits of a riparian health assessment include:

- Assistance for individuals in selecting the most appropriate riparian area management practices to address specific riparian health issues;
- Improved water quality; and
- Assistance for individuals in monitoring progress in improving, maintaining and protecting riparian health.

Note: If you are applying for funding for Riparian Health Assessment, you may also want to review the descriptions for Riparian Area Management, Grazing Management Planning (BMP#26) and Wintering Site Management (BMP# 7).

RELEVANT CHAPTERS OF THE SASKATCHEWAN ENVIRONMENTAL FARM PLAN WORKBOOK

- Chapter 2: Drinking Water Sources
- Chapter 8: Manure Storage
- Chapter 9: Intensive Livestock Operations
- Chapter 10: Livestock Wintering sites
- Chapter 17: Crop Management
- Chapter 18: Pasture Management
- Chapter 21: Water Bodies

CONDITIONS FOR ELIGIBILITY

- You must have an EFP Certificate of Endorsement from PCAB.
- **You must receive approval for your project from the Canada-Saskatchewan Farm Stewardship Program prior to starting your project.**

FUNDING

The riparian health assessment projects are cost-shared at **50 per cent** to a maximum of **\$2,000**.

RIPARIAN HEALTH ASSESSMENT PRACTICES

- Hiring a qualified riparian health consultant to conduct an assessment and produce site specific riparian health report.

- The riparian health assessment report should include an assessment of the sites, vegetation, hydrology and soil parameters using the “rangeland health assessment methodology” for riparian areas.

Eligible costs:

- Fees to conduct riparian health assessment complete with riparian health report for the specific site; and
- Cost of planning and decision support tools (i.e. computer software for riparian health assessment, aerial photos).



Ineligible costs:

- Producers' time and travel; and/or
- Cost of computer hardware.

FOR FURTHER PROGRAM OR TECHNICAL INFORMATION:

Call the AAFC Client Service Centre at 1-800-667-8567. A program specialist can assist with your application and refer you to a technical advisor. **It is recommended that you discuss your project with an AAFC Technical Advisor or the Provincial Council of ADD Boards Stewardship Advisor for your area.** These advisors have access to additional technical resources and can assist you in determining required project components and technical standards.

