

Project Justification and Assurances Form

LIVESTOCK WATERING SYSTEMS, FENCING, SHELTERBELTS, SELECTIVE EROSION CONTROL PROJECTS AND OTHER PROJECTS WHICH INVOLVE WORKING NEAR WATER

Beneficial Management Practices Categories:

- 07 - Wintering Site Pasture Management
10 - Upland and Riparian Area Habitat Management
11 - Erosion Control (Riparian) Selected projects only that do not require specific prescribed design sheets.
12 - Erosion Control (non-Riparian) Selected projects only that do not require a specific prescribed design sheet.
19 - Shelterbelts
23 - Preventing Wildlife Damage (from Managed Species only, no pest control)

AND Working Near Water - any other project that might involve working within 30 metres of a surface water body.

Describe the environmental risk that exists.

Describe the proposed solution

Describe how this project will result in an environmental improvement

Applications for Category 1008 Wetland Restoration must include evidence of a previously existing wetland e.g. topographic maps see Program eligibility Policy and Procedures for more information.

A site Sketch must be included in the package showing the location of the project and relevant site features.

Note: Eligible projects for Category 23- Preventing Wildlife Damage, must help reduce crop, livestock or property damages caused by wildlife species

Fencing Policies:

Permanent Fencing Cat 1003, 705 and 2103-Fencing to exclude livestock shall not exceed \$11.50 Per meter installed. Cross-fencing is designed to complement rotational and other pasture management practices in Cat 1005. Cross fencing shall not exceed \$2.45 per meter installed.

In-Kind Labour Contribution Policies:

Labour of the applicant may be claimed. Allowable labour rate is up to a maximum of \$20 per hour, tractors and implement \$50 per hr. Applications for total in-kind contributions exceeding \$1,500 must submit two signed quotes from reputable contractors on the same work. For more information on the policies and eligibility of in-kind labour claims, contact the local OSCIA Program Representative or refer to complete Project Eligibility Policy and Procedures.

Applies only to Category 10, 11 and 19

If project received technical assistance from the local Conservation Authority

I/We certify that the local Conservation Authority contributed significantly in the planning and/or establishment of this project

Name of Conservation Authority (please print)

Representative Name (please print)

Signature of Applicant Date

Please indicate "Yes" or "No" to the following statement:

I have read, understood, and agree to abide by the Construction Guidelines that have been supplied and that apply to my planned project.

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

Name of Applicant (please print)

Signature of Applicant Date

Please remove this top sheet and return with original signature to:
Ontario Soil and Crop Improvement Association
1 Stone Road West
Guelph ON N1G 4Y2

**INFORMATION PACKAGE for LIVESTOCK WATERING SYSTEMS, FENCING,
IMPROVED STREAM CROSSINGS and OTHER PROJECTS
WHICH INVOLVE WORKING NEAR WATER**

This is a general information package which has been specifically assembled for producers who have expressed interest in utilizing the government cost-share programs in the following beneficial management practices categories:

Best Management Categories include:

07 - Wintering Site Pasture Management

10 - Upland and Riparian Area Habitat Management

11 - Erosion Control (Riparian) Selected projects only that do not require specific prescribed design sheets.

12 - Erosion Control (non-Riparian) Selected projects only that do not require a specific prescribed design sheet.

19 - Shelterbelts

23 - Preventing Wildlife Damage

AND Working Near Water (within 30 metres of a surface water body)

Sections included in the information package are:

- I. BACKGROUND INFORMATION FOR RIPARIAN AREA MANAGEMENT PROJECTS
- II. GENERAL CONSTRUCTION GUIDELINES

Program participants are required to read, understand and abide by the construction guidelines.

There are two Project Justification and Assurances Forms enclosed. One is more complex and is to be used for all Improved Stream Crossing projects*. The more simple form will apply to other beneficial management practice code categories as identified. The appropriate one representing your proposed project must be completed and signed accordingly before being returned to the OSCIA Guelph office. Final approval for the proposed project will not be issued without the submission and acceptance of this form.

PURPOSE

1. To promote the control of nutrient runoff to and sedimentation of riparian areas adjacent to farmland through effective implementation of structural remedial measures and appropriate grazing management practices or fragile land retirement.
2. To provide financial assistance to producers for the construction of functional and practical riparian area management projects on farmland.
3. To encourage the integration of riparian area management projects with improved BMPs for Streamside Grazing, Field Crop Production, Water Management, Nutrient Management and Soil Management.
4. To use appropriate technology, where special solutions are required, through design by qualified contractors or professional engineers.

I. Background Information for Riparian Area Management Projects

- *Cost-share incentives are provided, to the maximum amount for which the applicant is eligible, for riparian area management projects required to reduce erosion, manure runoff and livestock access concerns on ditch banks and in surface waters.*
- *Project Justification and Assurances Forms on sizing and safety features must be completed for the categories identified above. Project Justification and Assurances Forms may also include further information on sizing and safety. These forms will be attached to your 'Conditional Approval Letter'.*
- *Projects may need approval by municipalities or other government agencies prior to construction.*

PROJECT APPROVALS

- a) Multiple Landowner Projects - where two or more landowners are participating on a similar project under the cost-share programs, each landowner must apply for the portion of the project on his farm. Some riparian area management projects can involve large watershed, complex design and require careful construction so that involved landowners are adequately protected. Design of these systems by trained professionals is required.
- b) Design by professional engineers may be advisable on complex and/or large projects. The private sector is expected to fill these requirements. Supervision of Construction is not mandatory, yet may be specified as required on large and/or complex projects.

NOTE: Any professional fees for design and construction supervision are eligible costs for approved projects - but they will only be considered eligible upon completion of the project.

- c) Owner's Responsibilities include:
 - ensuring that any required justification and design sheets are supplied to OSCIA in response to Conditional Approval of the proposed project.
 - ensuring that those contracted to design and construct the project are qualified to carry out the work.
 - negotiating the terms and conditions of the contract for construction, selecting a qualified contractor and ensuring that all work is completed according to the plan is the

responsibility of the landowner.

- ensuring that all projects take collected water to a sufficient and legal outlet. The applicant must secure permission in written form from any adjacent landowner to outlet an NMFAP - funded erosion control structure when legally required. Refer to OMAF Factsheet. Common Law Aspects of Water.
- d) Technical Project Justification and Assurances Forms for all proposed improved stream crossing projects will be supplied to the applicant by OSCIA. These sheets must be completed by someone familiar with recognized hydrologic and hydraulic engineering principles related to that project, e.g. qualified contractor, professional engineering consultant or Conservation Authority professional engineer.
- e) Funding is not allocated for structures until the Project Justification and Assurances Forms are completed and final approval for the proposed project is granted by OSCIA Guelph.
- f) The Intent of OSCIA Acceptance of a project relates to the acceptance of both the proposal, in terms of the size and safety features, and final verification of the project. Verification of projects by OSCIA and subsequent issuing of incentive funds should not imply professional engineering endorsement of the project. All are advised that neither OMAF nor AAFC nor OSCIA are commenting on the structural adequacy of projects under this program.
- g) Projects must be complete and operational prior to contacting program official for final inspection.

II. GENERAL CONSTRUCTION GUIDELINES

Please note the mitigation stated below applies to most, **but not necessarily all** projects. Program participants are responsible for applying appropriate mitigation.

Project Design and Planning

- Participants must refer to the appropriate Worksheets in the Canada-Ontario *Environmental Farm Plan Program*, Third Edition Workbook, 2004 (or earlier version) for guidance. In addition, you should contact your local Conservation Authority for further guidance.
- All engineering structures should be designed as regards sizing and safety according to recognized hydrologic and hydraulic engineering principles as stated in the OMAF Soil Erosion Manual, 1986. (Contact your local OMAF field office.)
- Program participants are responsible for **obtaining** licenses, permits, approvals or authorizations and complying with all applicable municipal, provincial and federal legislation. Projects near water may require approval from the Department of Fisheries and Oceans (DFO). Please contact your local Conservation Authority.
- All projects are to be designed and constructed so as not to damage or obstruct Municipal Drains and other drainage works in the system. Permission from the Municipality is mandatory if the work involves municipal drainage. Compliance with existing legislation must be met (e.g. Lakes and Rivers Improvement Act, Fisheries Act and the fill-line regulations of the local Conservation Authority).
- Program participants should take measures to ensure that substances (manure, pesticides, fertilizers and other chemicals, soil, mulch, etc.) applied in the riparian area do not enter water bodies.
- Program participants should follow the appropriate **Best Management Practice (BMP)** guidelines for the activity being undertaken.

Projects: Tree Planting or Projects In/Or Near Water

Project Component	Description of Effect Mitigation
<i>Species at Risk - Aquatic</i>	Disturbance to aquatic species at risk and/or their critical habitat. <ul style="list-style-type: none"> • If any species at risk are known or expected to be present at any time within or adjacent to the project area, consult with Fisheries and Oceans Canada specialists or the relevant provincial authority regarding measures to avoid harmful disturbance to these species.
<i>Aquatic Sediments</i>	Physical alteration of water body substrates and/or increased potential for release of sediments downstream, including contaminated sediments. <ul style="list-style-type: none"> • Install and maintain sediment and erosion controls (e.g., silt curtains, check dams, coffer dams, silt fences), as required prior to construction. • Keep stream spoils separate from the bank spoils. • Remove accumulated sediments prior to removing barriers (i.e., check dams, on-line ponds, weirs).
<i>Fauna</i>	Disruption to fish migration, spawning and nursery periods. <ul style="list-style-type: none"> • Restrict in-water works to approved timing windows to protect fish during migratory, spawning and nursery periods, and when eggs and fry are vulnerable to floodwaters and sediment. Timing windows vary depending upon species present and water temperature. Consult with regulatory authorities to verify timing windows applicable to the project site. Disruption to wildlife migration and movement patterns, breeding, nesting or hibernation. <ul style="list-style-type: none"> • Schedule activities to avoid disturbance to water bird nesting areas until after the young have fledged. Reduced biomass and diversity of aquatic organisms due to physical activities. <ul style="list-style-type: none"> • Ensure that fish which become trapped or isolated as a result of project activities are salvaged to the main channel of the watercourse. • If isolating the work site, remove any remaining fish and return them to an undisturbed area (i.e., fish salvage). Approval should be obtained from the appropriate federal or provincial agencies for this work. • Minimize duration of in-water work, whenever possible. Wildlife injury or mortality from entanglement in silt fences. <ul style="list-style-type: none"> • Avoid using heavy-duty silt fences, particularly those reinforced with wide mesh, in areas where large-bodied amphibians and reptiles (e.g., large snakes) are found.

<p><i>Surface Water Hydrology</i></p>	<p>Adverse modifications to stream or shoreline morphology, texture or topography of stream bed.</p> <ul style="list-style-type: none"> • Ensure that potential downstream effects due to erosion and mobilization of bed sediments (notably those retained behind channel obstructions and immediately downstream) are considered, and mitigated as necessary, prior to removing any obstructions. • Fully restore stream banks, shorelines, approaches and channels to near original soil materials and contours where this activity is consistent with the purpose of the project. • Whenever possible, limit construction time to 72 hours or less. • Where practical, conduct in-stream or wetland work under frozen conditions. <p>Adverse modifications to water flow conveyance, volumes and levels.</p> <ul style="list-style-type: none"> • During the removal or modification of channel obstructions, monitor areas downstream to determine whether they are being affected by changes in water flow and volumes. Base water flow in the channel must be retained at a rate that is equivalent to the flow prior to the removal or modification of the obstruction, or at a level that will support fish downstream. • Make provisions and contingencies for occurrence of unexpected high flow or low flow conditions during activity, as applicable. • Remove obstructions such as beaver dams and log jams manually. • Suspend work prior to imminent storm events. <p>Increased ice jamming and flooding potential at bends, bridges, crossings, fordings and other flow constrictions (including effects of flooding on the project).</p> <ul style="list-style-type: none"> • Avoid placement of materials, including plantings, in channel and floodplain areas that may reduce its natural flow conveyance capacity, and increase the risk of upstream flooding. • Ensure that there are appropriate cut and fill balances for in-water activities. (Note: Meet all appropriate regulatory requirements.) • Minimize encroachment of permanent facilities into water bodies by installing projects above the high water mark without infilling whenever possible and consistent with project objectives. • Remove all barriers and obstructions related to construction and break up any ice bridges prior to spring runoff to avoid ice jams, upstream flooding and downstream erosion.
<p><i>Surface Water Quality</i></p>	<p>Reduced water quality and clarity due to increased erosion and sedimentation, and transport of debris.</p> <ul style="list-style-type: none"> • Operate and store all materials and equipment in a manner that prevents any deleterious substance (e.g., petroleum products, silt, etc.) from entering the water. • Ensure sandbags used for cofferdam construction are filled with clean sand and are free of fine particulates. • Conduct in-stream work during dry conditions, where flow is low or under frozen conditions. • Ensure that all materials placed below the high water mark of the water body are clean and free of silt and clay sized particles. All materials must meet the applicable regulations governing the placement of fill in water bodies. • Install and maintain sediment and erosion controls (e.g., silt curtains, check dams, coffer dams, silt fences), as required prior to construction. • Minimize duration of in-water work, whenever possible. • Where possible, conduct activities in the dry, above the actual water level and above any expected rises in water level that may occur during a rainfall or snow melt event.

<i>Species at Risk - Terrestrial</i>	Disturbance to terrestrial species at risk and/or their critical habitat. <ul style="list-style-type: none"> • If any species at risk are known or expected to be present at any time within or adjacent to the project area, consult with Environment Canada specialists or the relevant provincial authority regarding measures to avoid harmful disturbance to these species.
<i>Wildlife Habitat (terrestrial and aquatic)</i>	Physical changes to aquatic habitat resulting in a barrier to fish movement and a reduction in area, productive capacity and quality, or a change in function. <ul style="list-style-type: none"> • Avoid summer construction in and adjacent to natural wetlands. • Consult with regulatory authorities regarding any beaver dam removal. • Implement mitigation measures in accordance with any requirements and recommendations stipulated by authorities under the Fisheries Act. • Minimize wetland disturbance through use of swamp mats and replacement of locally removed topsoil. • Restore habitat where necessary. • Revegetate stream banks and shorelines with native species known to be well adapted to the project area. • Conduct removal or modification to channel obstructions at a time when effects on fish habitat can be minimized (i.e., during periods of low water). • Upon project completion, remove all sandbags from the water.

Projects to: Installation of Permanent Fencing

Project Component	Description of Effect Mitigation
<i>Fauna</i>	Disruption to wildlife migration and movement patterns, breeding, nesting or hibernation. <ul style="list-style-type: none"> • Ensure that fencing does not create a significant barrier to wildlife access to breeding areas, food sources or shelter. • Establish vegetated buffer strips between construction zones and areas containing sensitive vegetation and wildlife.
<i>Surface Water Hydrology</i>	Increased ice jamming and flooding potential at bends, bridges, crossings, fordings and other flow constrictions (including effects of flooding on the project). <ul style="list-style-type: none"> • Choose materials that are least likely to contribute to flooding (e.g., page wire or high-tensile wire), if installing in areas that are prone to flooding. • Choose materials that are least susceptible to ice damage such as electric fencing with flexible posts, if installing in areas that are prone to ice jamming. • After flooding events, remove any large debris accumulations on fencing downstream of any flood-vulnerable critical locations. • Where possible, align fencing in the direction of main flow, and locate fence on less frequently flooded ground.
<i>Surface Water Quality</i>	Reduced water quality and clarity due to inputs of contaminants from surface runoff during construction and operation. <ul style="list-style-type: none"> • Avoid using materials with toxic substances for structures in and around water bodies. • Ensure that fencing designed to control livestock access provides total exclusion from any natural water bodies.

<i>Species at Risk - Terrestrial</i>	Disturbance to terrestrial species at risk and/or their critical habitat. <ul style="list-style-type: none"> • If any species at risk are known or expected to be present at any time within or adjacent to the project area, consult with Environment Canada specialists or the relevant provincial authority regarding measures to avoid harmful disturbance to these species.
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Projects That Involve Herbicide Application

Project Component	Description of Effect Mitigation
<i>Air Quality</i>	Decreased ambient air quality due to emissions and increased concentrations of chemical pollutants. <ul style="list-style-type: none"> • Avoid spraying herbicides during windy conditions, during smog advisories or if the ambient temperature is expected to exceed 25°C on the day of application. • Follow any additional directions specified on the herbicide container label.
<i>Species at Risk - Aquatic</i>	Disturbance to aquatic species at risk and/or their critical habitat. <ul style="list-style-type: none"> • If any species at risk are known or expected to be present at any time within or adjacent to the project area, consult with Fisheries and Oceans Canada specialists or the relevant provincial authority regarding measures to avoid harmful disturbance to these species.
<i>Fauna</i>	Bioaccumulation of contaminants by wildlife. <ul style="list-style-type: none"> • Avoid spraying herbicides within 20 m of ungulate forage areas and, where practicable, erect barriers to prevent ungulates from grazing in sprayed zones. • Use herbicide products that are proven to be least toxic to wildlife. Reduced biomass and diversity of aquatic organisms due to physical activities. <ul style="list-style-type: none"> • Comply with the most stringent of any applicable regulatory requirements and also ensure that herbicides are applied at a sufficient distance from any water body to minimize the risk of contamination of aquatic biota. • Use herbicide products that are proven to be least toxic to aquatic organisms. • Use herbicides that are approved for use in Canada by the Pest Management Regulatory Agency (PMRA).
<i>Humans</i>	Effects on human health due to exposure to airborne pollutants. <ul style="list-style-type: none"> • Avoid spraying herbicides during windy conditions, during smog advisories or if the ambient temperature is expected to exceed 25°C on the day of application. • Erect signs and post notices warning the public of herbicide spraying and identifying the compounds used. • Follow any additional directions specified on the herbicide container label. Effects on human health due to exposure to harmful chemicals when handling or disposing of herbicides. <ul style="list-style-type: none"> • Avoid mixing, loading, applying or disposing of herbicides in areas where they could enter water intakes or wells used for domestic purposes. • Contain, seal and store any unused herbicides for future use. Otherwise, return the product to the manufacturer or dispose of it through a licensed waste disposal company. • Install anti-back flow devices on mixing and loading equipment. • Keep adequate First Aid equipment on-site. Follow First Aid instructions on herbicide containers and obtain medical attention, as required. • Thoroughly rinse and drain herbicide containers prior to their disposal or recycling.

<i>Soil Quality</i>	Contamination of soil and disturbance to microscopic organisms in the soil due to herbicide applications and disposal of equipment rinsate on lands. <ul style="list-style-type: none"> • Avoid using herbicides containing metals or other substances that are persistent in the environment. • Whenever possible, store and reuse equipment rinsate for mixing new batches. If this is not possible, spray small amounts of equipment rinsate on land that has been previously treated with the same herbicide (provided that there are no steep slopes).
<i>Species at Risk - Terrestrial</i>	Disturbance to terrestrial species at risk and/or their critical habitat. <ul style="list-style-type: none"> • If any species at risk are known or expected to be present at any time within or adjacent to the project area, consult with Environment Canada specialists or the relevant provincial authority regarding measures to avoid harmful disturbance to these species.
<i>Wildlife Habitat (terrestrial and aquatic)</i>	Physical damage and loss of habitat (terrestrial, riparian and/or wetland). <ul style="list-style-type: none"> • Avoid spraying herbicides during windy conditions to prevent transport of airborne chemicals into non-targeted areas. • Conduct controlled applications to avoid drips onto non-targeted vegetation. • Observe the terrestrial zone recommendations provided on the container label to protect non-targeted vegetation. Maximum buffer widths are desirable. • Use non-chemical controls in or adjacent to sensitive areas provided that these methods are effective in controlling the invasive exotic species and that they do not increase the potential for erosion.

Equipment and Operation

- Clean all machinery and equipment prior to transport to new construction areas.
- Construction equipment must be properly maintained to prevent leaks and spills of fuels, lubricants, hydraulic fluids, or coolants.
- Participant should have spill clean up materials on site. In the event of any reportable petroleum product or hazardous material spills, appropriate provincial authorities must be notified. Ensure emergency contact numbers are available on site.

Wastes

- Storage, handling and disposal of wastes and hazardous waste materials, will be done properly and in accordance with all relevant municipal, provincial and federal legislation.

Wildlife and Species at Risk Section

- Minimize disturbance to fish and wildlife by scheduling work to avoid sensitive periods (i.e., spawning, nesting, migration, staging, breeding, hibernation or nursing) and areas (i.e., residence, wildlife movement corridors). Comply with any applicable 'no construction' timing windows.
 - May need to consult COSEWIC (Committee on the Status of Endangered Wildlife in Canada) species list (federal) and the provincial list on rare and endangered species.
 Federal: <http://www.cosewic.gc.ca>;
 Provincial: <http://www.rom.on.ca/ontario/risk.php>
 (Please contact Steve Bowcott at the Ministry of Natural Resources (705) 755-1754 for assistance.)
 - Survey the area for active nests, burrows or dens prior to clearing, and avoid disturbing them.
 - If migratory birds are breeding in the project area, contact Environment Canada regarding appropriate measures to protect them. (Please contact Andrew Taylor at Environment Canada (905) 336-4464.

- If any aquatic species at risk are known or expected to be present at any time within or adjacent to the project area, consult with Fisheries and Oceans Canada specialists or the relevant provincial authority regarding measures to avoid harmful disturbance. Contact your local Conservation Authority.
- Use existing roads and trails for site access where possible.

Intakes in a Potentially Fish Bearing Water Body

- Ensure that the quantity of water diverted from the watercourse does not restrict in-stream flow needs. Refer to BMP for Irrigation.
- Where water is pumped from a potentially fish bearing waters, intakes must be screened according to the Department of Fisheries and Oceans' "Freshwater Intake End-of-Pipe Fish Screen Guideline" (1995). Contact your local Conservation Authority.
- Project may require an authorization/approval under the Navigable Waters Protection Program if the water body is navigable. Contact Transport Canada, Navigable Waters Protection Program for assistance:
 - Prescott, ON 613-925-1946;
 - Parry Sound, ON 705-774-9250;
 - Kenora, ON 807-468-3079;
 - Sarnia, ON 519-383-1866

Additional Guidance for Pumps/Power Sources

- Remove temporary fuel storages from the pumping site at the end of each growing season.
- Provide drip trays underneath internal combustion engines to capture leaking or spilled oil, grease and fuel.

Additional Guidance for Watering Devices

- Watering device is to be placed in an area that has a minimal effect on water quality (preferably, at least 30 meters from a water body).
- Provide a concrete or gravel pad around the watering facility.

Additional Guidance for Fencing

- The proposed construction, installation, operation, expansion, modification or removal of a fence **should not**:
 - Prevent the passage of wild animals along a wildlife corridor
 - Be carried out within 10 feet (3 metres) of a water body
 - Involve the likely release of a polluting substance into a water body and
 - Be constructed across a water body.

Site Preparation

- Prepare the site according to the project plan including the erosion and sediment controls.
- Keep site clearing to a minimum and minimize disturbance to ground surface and vegetation, especially those that affect infiltration and runoff characteristics.
- All topsoil stripped and disturbed during the project should be salvaged and replaced as quickly as possible to encourage revegetation.
- Stabilize slopes as appropriate for local site conditions.

Construction

- Avoid work activities during excessively wet site conditions.

- Reduce vehicle emissions from heavy equipment by reducing/eliminating idling and also by properly maintaining/servicing the heavy equipment.
- Fuelling and/or servicing of mobile construction equipment and the storage of fuel and hazardous materials are not to occur within 100m of a surface water body.
- In the event that any cultural or heritage resources (bones, pottery) are discovered, construction must cease and the Ministry of Culture should be notified immediately. (Please contact Neil Chisholm at the Ministry of Culture at (416) 314-7148 who will direct you to the responsible Heritage Planner for the area.) If this occurs, construction will occur as directed by the Ministry of Culture.

Post Construction

- Restore or re-vegetate all disturbed areas, including riparian areas, to pre-construction conditions, as soon as possible and to the fullest extent possible. All re-vegetation should be done with species that existed prior to construction or suitable species as planned (preferably native).
- Remove and dispose of wastes and hazardous waste materials from site properly and in accordance with all relevant municipal, provincial, and federal legislation as planned.