

SCHEDULE "C"

to the Agreement between the Crown in right of Ontario and **Conservation Ontario** incorporated under the laws of Ontario having its head office in the City of Newmarket, in the Province of Ontario

Demonstration Project:

"Access to Information Related to Water Quality for the Rural Community"

Key Partners - Roles and Responsibilities:

Sponsoring Partner	Role	Responsibilities
Maitland Valley Conservation Authority	Lead Partner Chair of the Project Task Team Member of the Watershed Management Pilot Working Group	<ul style="list-style-type: none"> • administer project and manage budget • provide regular updates on project progress • lead and co-ordinate project to ensure timely completion of deliverables • develop and deliver products for the Maitland watershed • co-ordinate development and delivery of "Transfer Plan" for deliverables/products • provide technical advice as it relates to the final scoping and definition of the specific terms of reference • participate in review of draft products/ deliverables from other demonstration projects within the Watershed Management Pilot • participate in the development, review and implementation of the "Transfer Plan" for Phase 2 deliverables/products • provide on-going review/comment, guidance, and endorsement through to the final transfer of the Phase 2 project deliverables (Feb 2003 to August 2004)
Saugeen Valley Conservation Authority	Contributing Partner	<ul style="list-style-type: none"> • liaise with SVCA Water Response Team • participate in the development of, and deliver products in the Saugeen watershed • participate in review of draft products/ deliverables from other demonstration projects within the Watershed Management Pilot • participate in the development and delivery of "Transfer Plan" for deliverables/products

Brief Description:

- "Access to Information Related to Water Quality for the Rural Community" is a pilot project that focuses on improving access to information for rural and agricultural landowners and municipalities in the Maitland and Saugeen watersheds. For these types of watersheds, individual landowners will have a key role in protecting water, and they need to utilize water information for decision making as well as in the development of documents such as farm water protection plans and nutrient management plans.
- For source protection planning to be successful in rural watersheds, an understanding of how the rural community prefers to be communicated with is essential. Related to the communication method is an understanding of the type of supporting information they require, the effectiveness of different communication methods including other potential transfer methods (local forums, workshops, etc.), the effort, and necessary skills to deliver the information. This project will assess the following three methods of information delivery to ensure that the information is accessible to everyone:
 - ◆ over the internet
 - ◆ at designated terminals located in the MVCA and SVCA offices
 - ◆ MVCA/SVCA extension person available to visit the farm operation
- Background Information will include mapping of potential areas for overland runoff potential (based on soil erosion modelling related to rural land use as well as information on soil, slope and geology. This will include the potential for transport of contaminants to surface water. The project will build on previous and ongoing efforts of the municipal groundwater studies in Perth, Huron, Grey and Bruce and will include the Intrinsic Susceptibility Index mapping. Recent (1999-2000) aerial photography for MVCA and NRVIS data for the SVCA will serve as a basemap to the information.
- Currently, the Threat Assessment Working Group established by the province will establish the definitions of threats and their relative risks to water sources that will be inventoried in all watersheds. This group will also develop the initial definition of "vulnerable area" and "sensitive water resources" to be used in all planning areas. This pilot project recognizes the development of this provincial approach to threat assessment and will provide sight specific insights to that process as appropriate. Both the MOE and OMAF task team members are also on the provincial Threat Assessment Working Group.
- This combination of technical information and training combined with the support of the 26 partner organizations that form the MVCA Water Action Team and SVCA Water Response Team will build the capacity of the two watersheds to effectively implement source protection planning.

Rationale:

Support for Source Protection:

- ◆ Seventy-two percent of the combined watershed areas are in agricultural production with 51% of the population serviced by individual water systems. The population serviced by municipal water is divided into 26 settlements, the largest having 7,500 people. The watersheds could be considered "fully developed" since the majority of the landscape is most likely in its final land use. The rate of lot creation through subdivisions is no more than 150 lots in total for three to four separate applications per year. The major "land use" change is the intensification of existing agricultural operations.

- Based on the distribution of land use and people and due to the fact that the municipal capture zones are relatively small and land use change under the Planning Act is not occurring, actions to protect and improve water for all people are going to occur at the property/farm scale. Therefore, source protection planning should be focused on land management and the methods required to engage, inform and assist property owners in adopting appropriate practices.
- A challenge is to get good attendance at “regional” meetings for water protection. The population density of the rural area does not make it possible (feasible) for small group implementation. Therefore, this pilot could be considered the first step by raising the awareness for the potential of water contamination and serve as a precursor to workshops and “regional” meetings. Landowners within areas of higher potential are likely to respond to “regional” meetings and participate in the process.

Support for Source Protection Planning Framework:

Linkage to Source Protection	Description
<ul style="list-style-type: none"> • Project takes steps toward achieving the source protection recommendations of Justice O’Connor • #2 The MOE should ensure that draft source protection plans are prepared through an inclusive process of local consultation. Where appropriate... • # 5 Where the potential for a significant direct threat to drinking water sources, municipal official plans and decisions must be consistent with the applicable source protection plan • # 8 Conservation Authorities (or in their absence, the Ministry of the Environment) should be responsible for implementing local initiatives to educate landowners, industry, and the public about the requirements and importance of drinking water source protection. • #13 All large or intensive farms in areas designated as sensitive or high-risk by the applicable source protection plan, should be required to develop binding individual water protection plans consistent with the source protection plan. 	<ul style="list-style-type: none"> • for an inclusive process, we have learned that people will only become involved when they feel they will be affected. The mapping and its ease of access will make it possible to engage the necessary involvement and may even allow for self-screening by landowners • providing accessible and understandable rating information that municipalities can use for interim planning • ensure information is accessible to all rural landowners, agricultural consultants and municipalities in the watersheds. This information will highlight those areas where source protection activities should likely occur • preferences of access to information delivery determined by this project will help define future education and extension services • for farms located within an area that may be required to develop a farm water protection plan, farmers will be provided with information that may be required for the preparation of a farm water protection plan.

<ul style="list-style-type: none"> • Project takes steps toward achieving the source protection recommendations of the Advisory Committee on Watershed-Based Source Protection Planning • # 3 ...protect human health through the protection of current and future sources of water... • # 31 ...technical information – where source protection issues exist... 	<ul style="list-style-type: none"> • landowner scale information is necessary to protect drinking water for all people • an overlay system using existing information will be developed, taking into account local information needs • overlay mapping categories will provide an indication of possible locations where farm water protection plans could be required • ease of access will make it possible for landowners to self-screen for their participation in source protection
<ul style="list-style-type: none"> • Project supports locally developed source protection plans 	<ul style="list-style-type: none"> • this pilot will help landowners identify their role in source protection • overlay mapping categories and ease of access will make it possible to reduce the target audience and narrow the geographic area for source protection planning
<ul style="list-style-type: none"> • Project contributes to a monitoring network and information management system which provides data and information needed for the development, implementation and maintenance of local source protection plans • Build on current information management, monitoring and reporting initiatives and programs such as: Water Resources Information Project (WRIP); Land Information Ontario; Provincial Groundwater Monitoring Network; and Surface Quality and Quantity Monitoring Networks 	<ul style="list-style-type: none"> • project will provide mapping which could identify those geographic areas where source protection is a priority • identify those landowners that may have a role during the plan preparation and implementation • identify those regions where water quality monitoring should occur based on the ratings • project will make it possible to identify missing information in provincial data as individuals access the information • PGMN and PWQMN stations can be assigned a code based on the overlay category and used as a check for the rating system • Recommendations on data requirements, gaps, issues and improvements will be provided back through the WRIP • Metadata descriptions will be captured using the Land Information Ontario OLID
<ul style="list-style-type: none"> • Project helps identify threats to water resources with the aim of protecting those surface water and groundwater resources 	<ul style="list-style-type: none"> • the project aims to protect water resources by making landowners aware of physical limitations that may make water contamination more likely on their property

Co-ordinated with on-going and Planned Government Initiatives:

- This project is in-line with current and planned government activities. Provincial representatives on the project team will share in the responsibility of informing the project team of existing and or future government initiatives related to the project.
- The information provided by this pilot will assist farmers to incorporate risk information when developing nutrient management plans to ensure compatible best management practices are being implemented. These regulations also have a mapping component that could be daunting. This project will provide the necessary mapping and could aid MOE and OMAF with the approval process through the use of consistent and credible mapping/data.
- The project supports source protection and has links to other Provincial initiatives including “Managing the Environment”, Municipal Groundwater Studies and Water Resources Information Project (WRIP).
- The Threat Assessment Working Group established by the province will establish the definitions of threats and their relative risks to water resources that will be inventoried in all watersheds. This group will also develop the initial definition of “vulnerable area” and “sensitive water resource” to be used in all planning areas. This pilot project recognizes the development of this provincial approach to threat assessment and will provide sight specific insights to that process as appropriate. Both the MOE and OMAF task team members are also on the provincial Threat Assessment Working Group.

Project can be implemented under existing legislation:

- The project will demonstrate practices and approaches that can be implemented under existing legislation, such as the Conservation Authorities Act, Planning Act, Oak Ridges Moraine Conservation Act, Nutrient Management Act, and Safe Drinking Water Act.

Cost vs. Benefit Analysis:

- As part of the project we will examine what it takes in terms of financial requirements, time and technical expertise required to produce the deliverables demonstrated in this project.
- Additionally, a cost vs. benefit analysis will be undertaken demonstrating the benefit (or not) of using this model to improve watershed management decision-making.

Benefits:

Landowners

- information that can be used for developing water protection plans and nutrient management plans
- informs them if they will need to consider management changes for source protection
- will assist in engaging their input to source protection
- provide information to be used in land management decision making
- reduce the hardship of complying with nutrient management act

Local Source Protection Committee

- rating mapping focuses discussion
- easier to have an inclusive process if affected individuals are known

Conservation Authorities

- understanding of how the rural audience likes to receive this type of information
- rating method using readily available information and simple GIS modelling
- method of making information available over the internet
- details and costs associated with developing a GIS and rating mapping from scratch
- process to evaluate the applicability of existing information for source protection

Provincial Government

- understanding of the rural audience and the best communication method
- consistent and credible information included with nutrient management plans and farm water protection plans that should streamline review
- how quickly a rural CA can develop basic information required for source protection
- landowner reaction to water rating information and their response to choices such as, would they choose to fund a study to confirm or challenge a groundwater or surface water rating for their property or would they prefer to spend their resources on implementing best management practices

Context/Background:

- The MVCA and SVCA watersheds are primarily agricultural and the majority of land is privately owned. There will be large areas in each watershed that will not be part of a municipal well capture zone. The majority of the population (51%) in the rural area of each watershed obtains their water from private wells. Therefore, actions to protect water will need to occur at the farm scale.
- The two watersheds have similar farming operations with a focus on livestock production.
- Since the two CA's are at different levels of development, and partnering is necessary for source protection based on the Advisory Board's report, it can be demonstrated how roles and responsibilities can be shared.

Partner Capabilities:

- The two Conservation Authorities are at varying levels of ability in terms of watershed management and planning and in their readiness to undertake work relating to source protection. This project will build capacity within each of the CAs in terms of source protection and watershed management.
- The MVCA has a well developed GIS and simple model operational knowledge.
- The SVCA has expertise in project management and the public process for large projects.
- The MVCA brings experience from the Maitland Watershed Partnerships in terms of community approaches and consensus building

Project Management Details

Budget:

- The project budget is anticipated to be \$260,000.00, based on provincial seed funding of \$130K with in-kind partner contribution equal to a minimum of 1:1 leveraged funding.
- \$130,000 partner contribution (\$21,000 cash, \$38,000 in-kind, \$71,000 pre-investment)
- See attached table of specific products, deliverables, activities, milestone dates and budgets.

Schedule:

- The project will be completed by the end of August 2004, with draft products prepared by October of 2003.
- Transfer process will be completed November 2004, and will include presentations/workshop, copies of maps/reports will be provided to other CAs and interested groups, and participation in the Latornell symposium in fall of 2003 & 2004.
- See attached table of specific products, deliverables, activities, milestone dates and budgets.

Project Location:

- The project will take place in the entire Maitland and Saugeen Valley watersheds. Both of these watersheds drain to Lake Huron and have a combined watershed area of 7 900 square kilometres.

Project Target:

- The outcome of the project will be aimed at practitioners and staff who work small to mid-sized rural based Conservation Authorities, who struggle with providing sound watershed management and source protection planning on a limited budget.
- The outcomes will also potentially provide value for those areas of the province not covered by Conservation Authorities.

Project Linkages:

- The table below outlines how this project links with other projects and initiatives:

Project Title	Description of Linkage
Managing the Environment	<ul style="list-style-type: none"> • This initiative defined place-based environmental management and indicated that resources are best managed by the groups that live there. • This pilot project is based on providing farmers with the information they need to protect water.
Municipal Groundwater Studies	<ul style="list-style-type: none"> • Information developed will include results of the Municipal Groundwater Studies being undertaken in Perth, Huron, Grey and Bruce Counties
Water Resources Information Project	<ul style="list-style-type: none"> • Two goals of this project are to provide access to water information and tools necessary to assess Ontario's water resources. • The pilot project will address both technical and social implications for wide access to data as well as a screening tool by any water managers for setting water priorities. • Supports the Information Model (Design, Data Collection, Data Storage, Data Analysis, Reporting) by recognizing that the user of the data defines the information needed and therefore the required data

Watershed Management Pilot – Phase I	<ul style="list-style-type: none"> The LSEMS web based pilot has made recommendations that we intend to evaluate, adopt and/or test
Maitland Watershed Partnerships	<ul style="list-style-type: none"> Since 1999, the MVCA has been working towards building the capacity of watershed resource groups and agencies to improve natural resources. This pilot will expand on this work and develop the cultural component of watershed management
“Map your Farm”, Oxford County	<ul style="list-style-type: none"> Lessons learned from the “Map Your Farm” project will be incorporated into this project.

Reporting and Communications:

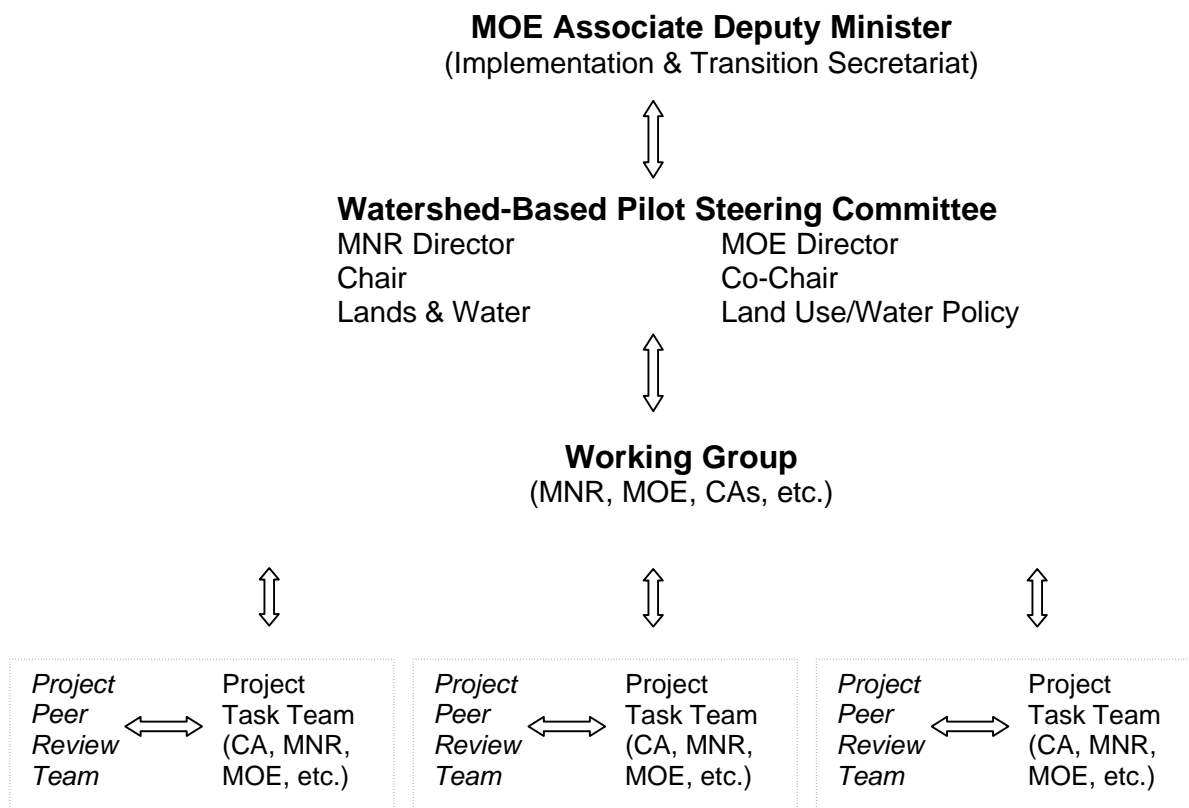
- Quarterly reporting of the progress of the project tracking progress on deliverables and activities of the project team will be completed (based on an October 1st start date). A quarterly reporting template will be provided to project leads.
- Four short written summary updates (approximately ½ page in length) will be provided outlining project status. This will be compiled with other Phase 2 Project updates and be available to use as a communication tool for updating government staff on Phase 2 project progress.
- A final project report will be submitted at the completion of the project that includes a detailed financial statement and summary of project team activities:
- Throughout the implementation of the project, the project team will participate regularly providing feedback and direction, which will be documented in form of meeting minutes that will be included in the final project report.

Project Review, Assessment & Evaluation:

- A review process will support the transformation of project deliverables into transferable products. Once project task teams have completed the project deliverables, a peer review process will provide guidance to the project team for refining their deliverables and preparing documents for transfer (*See diagram below for an outline of review and approval process*):
 - The project peer review team will conduct the first review of the project deliverables and documents.
 - The inter-ministerial working group (as identified by the Steering Committee) will then review and comment on the deliverables and documents.
 - The Phase 2 Transfer team will provide the follow co-ordination and review before the deliverables and documents are sent for final approval by the Steering Committee and Associate Deputy Minister (*See Project Completion*)
- At the conclusion of the transfer process, an assessment and evaluation of effectiveness of Phase 2 will be completed. A template and further guidance will be provided to project leads and partners.

Review, Evaluation, and Approval Structure

- Project Task Teams will participate in the development, review and approval of the products and background information prior to peer review.
- Based on the decision structure outlined in Schedule A, this project will be led by Steering Committee that reports to Associate Deputy Minister.
- Steering Committee, supported by the Working Group will be responsible for ensuring integration with its' own Ministry, Branch and Division program/policies, identifying where changes need to be made and implementing changes.
- Peer review will provide comment and direction for further refinement of deliverables during peer review process.



Project Completion:

- Project leads, as identified on the project task team, will ensure all terms outlined in this agreement are satisfied including the completion of all deliverables and that all transfer responsibilities have been met.
- Project deliverables and documents will be final once they are approval by the Steering Committee and Associate Deputy Minister, MOE.
- Completion of the assessment and evaluation process will mark the completion of Phase 2.

Specific Products & Deliverables, Activities, Milestone Dates and Budgets:

Background, Products/Deliverables	Activity	Milestone Dates (Interim and Final)	Project Budget (\$'000s)	
			Seed Funding	Anticipated Partner Contribution (total \$ value)
1. Background -Local Mapping Evaluation	<ul style="list-style-type: none"> Task Team meets to confirm target audiences, project goals and steps. Evaluate existing mapping and document process and factors to be considered. Resource Experts prepare background overlay documents including overland runoff index for rural landowners for surface water and local groundwater considerations Peer review approach. 	November - mid December, 2003	4.0	14.0 (2.0 cash 12.0 pre-investment)
2. Background – Data Acquisition and Overlay Mapping Preparation (for Maitland and Saugeen Watersheds)	<ul style="list-style-type: none"> Define data model and standards and acquire data. Refine base data and overlay mapping categories. Verify data with known field mapping and resource information. Correct and refine where necessary. Task Team meets to review surface water and groundwater overlay categories, plan interface and supporting materials 	November, 2003 - end January, 2004	25.0	40.5 (3.5 in-kind 37.0 pre-investment)
3. Deliverable - Data Access Methodology – Technological	<ul style="list-style-type: none"> Develop GIS internet application, design server system and communication method. Included software (GIS, security, routing), hardware (server) and internet connection. Design internet interface and test. Pilot interface with MVCA Water Action Team, SVCA Water Response Team. Evaluate terminology, information available, and ease of use. Refine interface based on comments from pilot run. Pilot interface with key landowner, municipal and consultant representatives. Evaluate terminology, information available, and ease of use. Refine interface based on comments from second pilot run. 	December, 2003 – end March, 2004	20.0	23.0 (10.0 cash 13.0 in-kind)

Background, Products/Deliverables	Activity	Milestone Dates (Interim and Final)	Project Budget (\$'000s)	
			Seed Funding	Anticipated Partner Contribution (total \$ value)
4. Deliverable – Data Access – Communication and Extension Advice	<ul style="list-style-type: none"> Conduct performance evaluation interviews with a representative sampling of system users. Set up a computer station in the MVCA and Saugeen offices for use by a test group of landowners. Train extension staff on how to use the information and provide practical advice to landowners. Conduct in-field trials and evaluate effectiveness. MVCA Water Action Team, SVCA Water Response Team and Task Team meet to evaluate response and findings, make refinements and rate performance. 	April – May, 2004	36.0	32.0 (4.0 cash 6.0 in-kind 22.0 pre-investment)
5. Deliverable - Evaluation of Public Response and Communication Methods	<ul style="list-style-type: none"> Review responses based on communication method. Examine landowners' response to information and document factors influencing response. Ask landowners' opinions on other communication options. Document additional information that landowners' require to understand / support the findings Evaluate responses relative to type of contamination potential (surface water, groundwater, low – high) 	June – mid August, 2004	30.0	9.0 (5.0 cash 4.0 in-kind)
6. Deliverable – Case Example – Documenting Local Experience	<ul style="list-style-type: none"> Contains each of the following: acknowledgements section, glossary, case study, executive summary, references, additional sources. Clearly articulate who, what, why, where, when and how project should be implemented 	mid August – mid September, 2004	11.0	5.75 (5.75 in-kind)
7. Transfer	<ul style="list-style-type: none"> Provide Case Example & supporting material to CO, Ministries, government staff, and practitioners. Submit final project and financial reports. Work with Transfer team to create final products 	mid September – end September, 2004 October, 2004 - end January, 2005	4.0	5.75 (5.75 in-kind)
Project Totals			130	130

Transferability:

The transferability of information from this pilot project to other Conservation Authorities and government agencies will be ensured through:

Background/Deliverable	Transferability (including target audiences, timing, next steps)
1. Background - Local Mapping Overlays	<ul style="list-style-type: none"> The considerations and process used in developing the background overlays including the overland runoff index for surface water will be part of the background report for information purposes to support the deliverables of the project. Potential groundwater and surface water contamination mapping will be shared with municipalities in hard copy and digital form
2. Deliverable - Data Access Methodology - Technological	<ul style="list-style-type: none"> Lessons learned for developing a web-based interface that provides access to technical and mapped information will be shared with other CA's via the Guide and presentation at A.D. Latornell (Fall 2004). The level of effort and cost for a CA to acquire, compile and deliver basic information for source protection planning will be shared with other CA's via the Guide and presentation at A.D. Latornell (Fall 2004).
3. Deliverable - Data Access Methodology – Extension Services	<ul style="list-style-type: none"> Information on how people prefer to be communicated with and the type of supporting documentation required when providing technical information at the farm scale will be shared with other CA's via the Guide and presentation at A.D. Latornell (Fall 2004).
4. Deliverable - Evaluation of Public Response	<ul style="list-style-type: none"> Response and opinion of landowners' will be documented and a determination of factors that contribute to the reaction will be shared with other CA's via the Guide and presentation at A.D. Latornell (Fall 2004). Suggestions from landowners for other forms of communication will be documented.
5. Deliverable - Case Example – Documenting Local Experience	<ul style="list-style-type: none"> This project will be shared with other Conservation Authorities, Ministries, government staff, practitioners, and other interested groups through participation in the Latornell Symposium (2004) and a transfer workshop.

Proposed Project Task Team Membership:

Project Task Team <i>(Responsible for guiding project development and implementation)</i>		
Name	Agency	Expertise
Phil Beard	Maitland Valley CA	Project Management / Social Marketing
Rick Steele	Maitland Valley CA	Project Coordinator, Member of Pilot Working Group (Project Lead)
Brian Luinstra	Maitland Valley CA	Coordinate Rating Methodology
Don Smith	Saugeen Valley CA	Project Lead in SVCA (Alternate Lead & Delegate to Working Group)
Martha Nicol	Saugeen Valley CA	Rating Methodology
Doug Hocking	Maitland Valley CA	Extension Program Development
Jayne Thompson	Maitland Valley CA	Communications
Hugh Simpson	Ministry of Agriculture and Food	Hydrogeology
Bob Worsell	Huron County Health Unit	Public Health Protection
Rick Vantfoort	Ministry of Environment	Hydrogeology
Ted Briggs	Conservation Ontario - WRIP	Information Management / Structure
Additional Resources <i>(Provides expert and/or technical support to project team)</i>		
Name	Agency	Expertise
Jack MacPherson	Consultant	Hydrology
John FitzGibbon	University of Guelph - Director, School of Rural Planning and Landscape Architecture	Social Marketing, Public Process
Esther Buck	Maitland Valley CA	Community Education Technician
To be confirmed	Maitland Valley CA	GIS Technician
To be confirmed	Consultant	Social Evaluator
To be confirmed	Consultant	Interface Designer
John Gaiot	Ministry of Natural Resources	GIS / Programming
To be confirmed	Ministry of Environment	Surface Water
Jennifer McLellan	Consultant	Hydrogeology
John FitzSimons	University of Guelph – School of Rural Planning & Landscape Arch.	Runoff, Erosion and GIS

Peer Review Committee <i>(Evaluates project deliverables during peer review process)</i>		
MVCA Water Action Team	Varies (see partners list)	Varies (see partners list)
SVCA Water Response Team	Varies (see partners list)	Varies (see partners list)
Brent Taylor	Ministry of Environment	Policy and Planning
Jim Myslik	Ministry of Agriculture and Food	Agricultural Systems
Frank Kenny	Ministry of Natural Resources	Information Management (WRIP)
Mike Robertson	Ministry of Natural Resources	LIO (OGDE)

List of Team Partners: (Peer Review)

MVCA Water Action Team Members	SVCA Water Response Team
B.M. Ross and Associates Ltd. County of Huron Ducks Unlimited Fisheries and Oceans Canada Huron Farm Environmental Coalition Huron Stewardship Council Maitland Engineering Services Ltd. Maitland Valley Conservation Authority Ministry of the Environment Ontario Ministry of Agriculture and Food Ontario Ministry of Natural Resources Town of North Perth Wellington Stewardship Council Wescast Industries Inc.	Bruce County Federation of Agriculture Campground Operator Golf Course Owner Grey County Federation of Agriculture Interforest Micro-Hydro Producer Ministry of the Environment Ontario Clean Water Agency Ontario Ministry of Agriculture and Food Ontario Ministry of Natural Resources Rural Municipality Saugeen Field Naturalists Saugeen Valley Conservation Authority Urban Municipality Water Bottling Company

We the undersigned agree to implement the project described above:

To be signed once finalised _____

Richard D. Hunter
General Manager
Conservation Ontario

_____ Date

To be signed once finalised _____

Phil Beard
General Manager
Maitland Valley Conservation Authority

_____ Date

To be signed once finalised _____

Jim Coffey
General Manager
Saugeen Valley Conservation Authority

_____ Date

To be signed once finalised _____

Leslie Demal
Project Manager/Program Co-ordinator
Ministry of Natural Resources

_____ Date