APPLICATION DES PRINCIPES DE GESTION ENVIRONNEMENTALE POUR LA GESTION DURABLE DE BASSIN VERSANT

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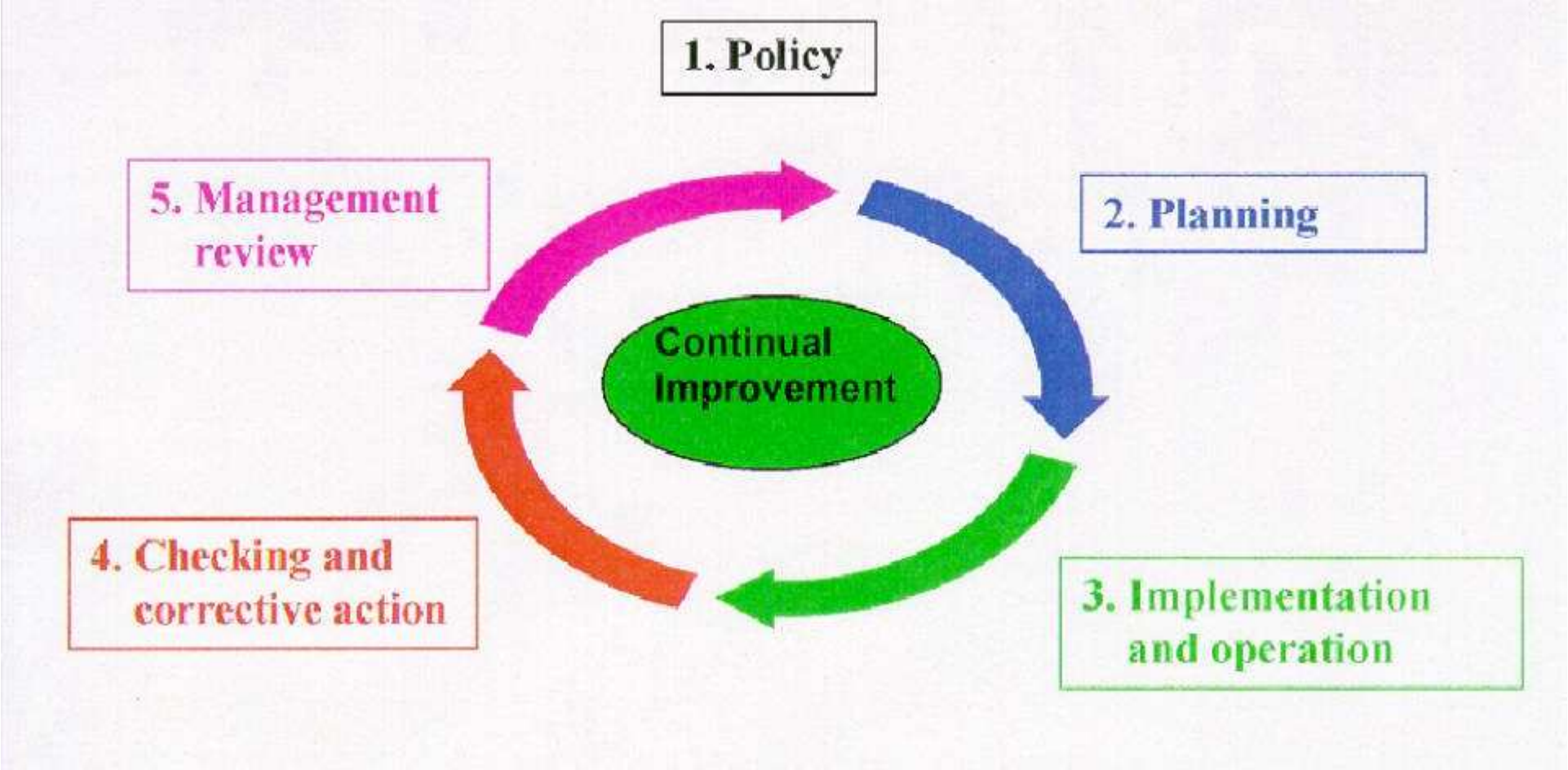
LES PRINCIPES DE LA GESTION ENVIRONNEMENTALE

LA GESTION ENVIRONNEMENTALE:

UNE SYSTEME DE POLITIQUES, DE PLANIFICATION ET D' OPERATIONS



LES CINQS ETAPES DE LA GESTION ENVIRONNEMENTALE


#1ER PROBLEME DU
BASSIN VERSANT

TOUS PEUVENT "BENEFICIER"
MAIS AUCUN
NE "GERE" UN BASSIN VERSANT.

RESULTATS:

- **EUTROPHISATION**
- **PERTE D'HABITAT AQUATIQUE**
- **L'EAU POTABLE INADEQUATE**


POURQUOI DOIT-ON APPLIQUER UNE
GESTION ENVIRONNEMENTALE
AU BASSIN VERSANT?

BENEFICES

- REDUIT LA NECESSITE DE TRAITER LES POLLUANTS.
- PROTECTION DES TERRES AGRICOLES DE L'EROSION DES SOLS.
- RESTAURE L'HABITAT AQUATIQUE.
- ASSURE LA QUALITE DE L'EAU POTABLE.


TROIS EXEMPLES AFIN
D'ILLUSTRER L'APPLICATION DE
LA GESTION
ENVIRONNEMENTALE AUX
BASSINS VERSANTS


North Pole
ARCTIC OCEAN
EUROPE
NORTH AMERICA
AFRICA
ATLANTIC OCEAN
SOUTH AMERICA
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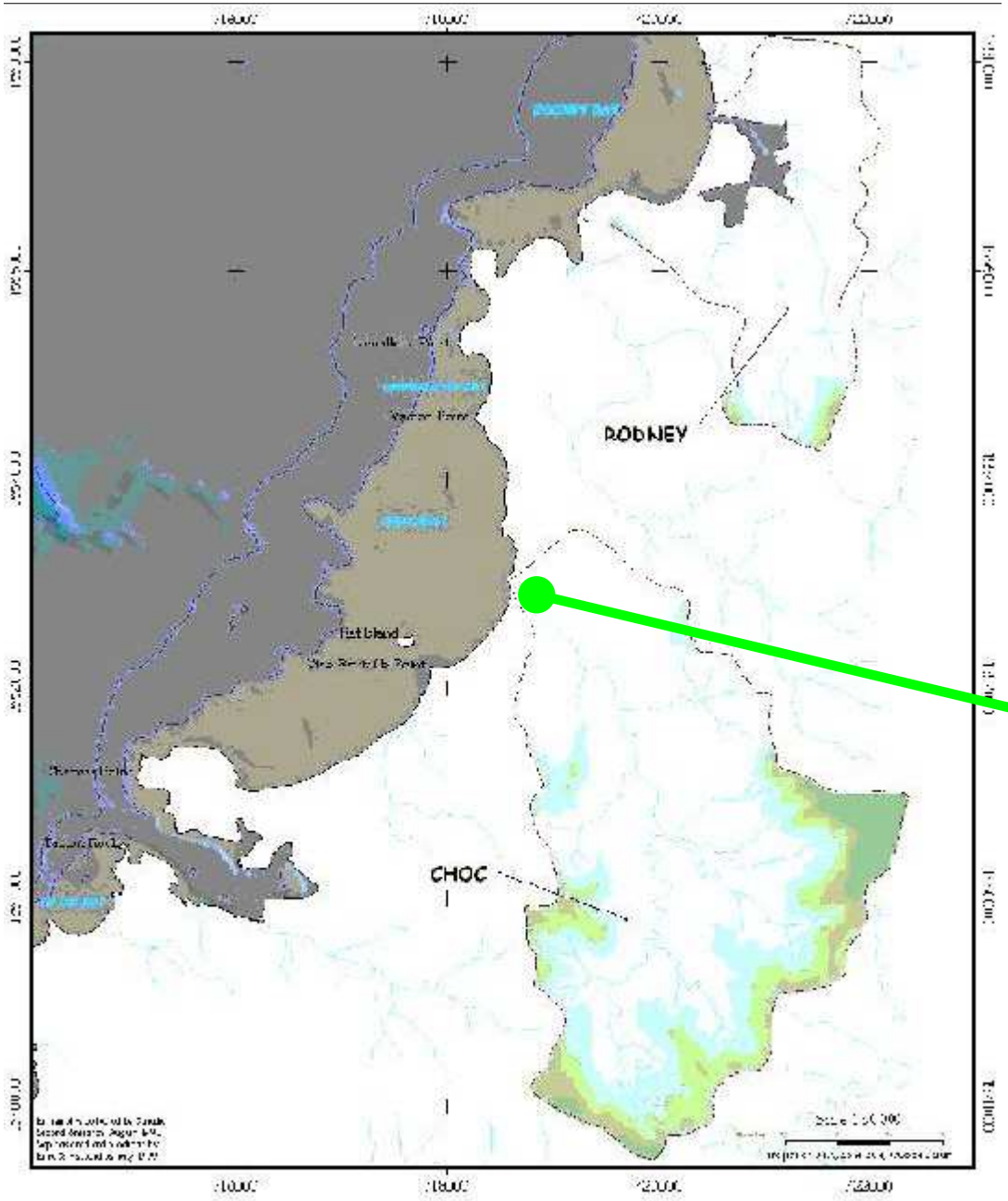
LOCATIONS

CAS #1: SAINTE-LUCIE

BASSIN DE LA RIVIERE CHOC



BASSIN DE LA RIVIERE CHOC

11 KILOMETRES-CARRES

20% RESIDENTIEL/COMMERCIAL

40% AGRICULTURE

40% FORESTIER

LE PROBLEME: LES EXCES DE SUBSTANCES NUTRITIVES ET DES EAUX USEES DEGRADENT LA QUALITE DE L'EAU.

ASPECTS ENVIRONNEMENTAUX

- EAUX USEES RESIDENTIELLES
- EROSION DES TERRES AGRICOLES
- FORTE PRESSION D'AGRANDISSEMENT
- LOI ENVIRONNEMENTALE INEFFICACE

HISTORIQUE

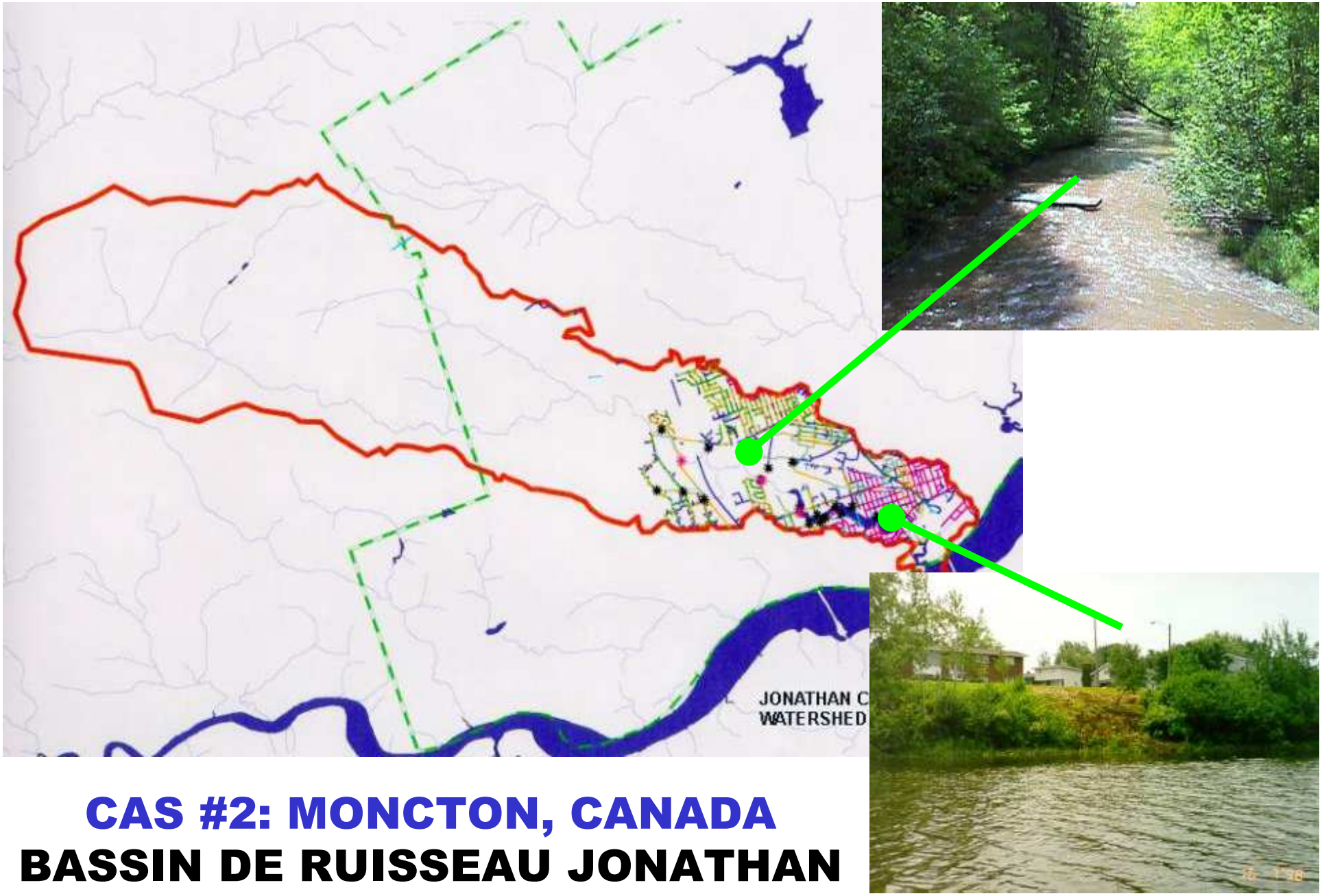
1992-1999

- GOUV'T IDENTIFIE LES PERTES DE PLAGE ET LA QUALITE DES EAUX COTIERES
- DEUX ETUDES ENTREPRISES EN 1993-94 & 1998-99
- PROBLEMES IDENTIFIES.

PLANIFICATION

- GOUV'T ENTREPREND LE BUREAU DE CONSVERVATION DES COTES NORD-OUEST.
- POINTE DE MIRE SUR LA RIVIERE CHOC ET LE BASSIN VERSANT.


MISE EN OEUVRE



CAS #2: MONCTON, CANADA
BASSIN DE RUISSEAU JONATHAN

BASSIN DE RUISSEAU JONATHAN

40 KILOMETRES-CARRES

- 33% RURAL-AGRICOLE
- 33% USAGE VARIES/FORESTIER
- 33% URBAIN

LE PROBLEME: EXCES DE SUBSTANCES NUTRITIVES ET D'EAUX USEES DEGRADENT LA QUALITE DE L'EAU

ASPECTS ENVIRONNEMENTAUX

- ENTRÉE DES EAUX USEES
- SYSTEME HYDOGRAPHIQUE AGRICOLE
- EROSION DES SOLS
- COLLECTION DES EAUX PLUVIALES EN MILIEU URBAIN

HISTORIQUE

1992-1998

- **PEU D'ETUDES; AUCUNE SUR TOUT LE BASSIN VERSANT.**
- **ACTIVITES RECREATIVES LIMITEES DUE AU TAUX DE BACTERIES PROVENANT DES EAUX USEES.**
- **AJOUT SIGNIFICATIF DE BOUE PROVENANT DE CONSTRUCTION ROUTIERE IMPORTANTE.**
- **INSUFFISANCE DE FONDS ET DE SUPPORT TECHNIQUE DU COMITE LOCAL.**

PLANIFICATION PAR LA VILLE DE MONCTON

- ETUDE DE LA QUALITE DES EAUX, 1998
- PREPARATION D'UN PLAN DE GESTION DES EAUX PLUVIALES, 1999
- ETUDE HYDROTECHNIQUE, 2000
- FORMATION DE GESTION ENVIRONNEMENTALE POUR TOUT LE PERSONNEL ET TOUS LES MEMBRES DU CONSEIL MUNICIPAL, 1998-99
- APPUI IMPORTANTE DU CONSEIL MUMNICPAL

MISE EN OEUVRE

LA VILLE DE MONCTON

- IDENTIFICATION ET CORRECTION DE TOUS LES PROBLEMES D'EAUX USEES.
- CONSTRUCTION DE PREMIER MARECAGE POUR LE TRAITEMENT DES EAUX PLUVIALES.
- GROUPE DE CITOYENS RECOIVENT DES FONDS FEDERAUX AFIN DE RESTAURER L'HABITAT AQUATIQUE.
- DEBUT D'UN PROGRAMME CONTINUE DE SURVEILLANCE DE LA QUALITE DE L'EAU.
- UTILISATION DES RESULTATS DU PROGRAMME DE SURVEILLANCE AFIN D'IDENTIFIER D'AUTRES MESURES DE CONTROLE DE POLLUTION.

SUCCES?

OUI !

PROGRES IMPORTANT

CAS #3:
ILE DU PRINCE EDOUARD, CANADA
BASSIN DE LA RIVIERE MILL

BASSIN DE LA RIVIERE MILL

137 KILOMETRES-CARRES

- 47% AGRICOLE (POMMES DE TERRE)
- 50% FORESTIER

PROBLEME: EXCES DE SUBSTANCES NUTRITIVES DEGRADENT LA QUALITE DE L'EAU ET EUTROPHANT ET REDUISANT LA CROISSANCE DES ALGUES (*ULVA LATUCA*).

ASPECTS ENVIRONNEMENTAUX

- EROSION DES TERRES AGRICOLES.
- DEVELOPPEMENT RESIDENTIEL D'ETE.
- SYSTEME HYDROGRAPHIQUE DES LIEUX DE SEJOUR ET TERRAINS DE GOLF.
- CIRCULATION ESTUAIRE REDUITE PARCE QUE DES PONTS.

HISTORIQUE

1989-1999

- PLUSIEURS ETUDES MINEURES; AUCUNE ADRESSANT TOUT LE BASSIN VERSANT.
- PERCEPTION ET SOUVENIR ONT SOUVENT DEFINIS LE BOUT DU PROBLEME.
- GOUVERNEMENT FOURNI PEU DE SUPPORT OU D'ATTENTION.
- INSUFFISANCE DE FONDS ET DE SUPPORT TECHNIQUE DU COMITE LOCAL.

PLANIFICATION

- LA COMMUNAUTE ETABLIE UN COMITE D'AMELIORATION DU BASSIN VERSANT.
- OBTENTION DE FONDS DU CONSEILLER-EXPERT.
- PREPARE LA SOUMISSION AU GOUVERNEMENT.
- RENCONTRE LES AUTORITES GOUVERNEMENTALES.
- DEMANDE DE FINANCEMENT SOUMISE.

MISE EN OEUVRE

- ETABLIR UN “PARTENARIAT DE TABLE RONDE” AFIN DE RAPPROCHER LES AUTORITES GOUVERNEMENTALES ET LES RESIDENTS.
- OBTENIR DU FINANCEMENT.
- ETABLIR DES BUTS ET OBJECTIFS ENVIRONNEMENTAUX.
- DEBUTER UNE ETUDE DE CIRCULATION DE L’ESTUAIRE ET LE CYCLE DES SUBSTANCES NUTRITIVES.
- COMMERCER DES SESSIONS D’INFORMATION POUR LE PUBLIC.

THE PROVINCE

Watershed model for Mill River to help cure environmental ills

The information gathered considers the various pressures impacting the watershed and determines the effectiveness of proposed solutions.

BY MIKE NESBITT
SPECIAL TO THE GUARDIAN

GUARDIAN PHOTO

Blair Horne, left, chairman of the Mill River watershed improvement committee, accepts more than $100,000 in joint funding from Diane Griffin, P.E.I. assistant deputy minister for environment, and Egmont MP Joe McGuire for the development of a hydrologic model of the Mill River estuary. Also attending the presentation is John Lane, right, co-chairman of the Mill River Roundtable Committee.

MILL RIVER — After nearly three decades of stymied individual efforts to improve the Mill River estuary, progress may finally be realized through stakeholder co-operation and government funding of a model watershed.

Egmont MP Joe McGuire and Diane Griffin, P.E.I. assistant deputy minister for environment, recently announced more than $100,000 in joint funding to develop a computerized hydrologic model which would lead to effective and efficient solutions to environmental problems in the Mill River estuary and Cascumpec Bay.

The P.E.I. Dept. of Transportation and Public Works and the Dept. of Fisheries, Aquaculture and Environment have committed $48,000 based on a federal government commitment of approximately $58,000 from the Primary Resources Agreement which is administered by ACOA.

Blair Horne, chairperson of the Mill River Watershed Improvement Committee, hopes the model will finally signal real solutions to the increasingly deteriorating waterway.

"The mandate is to try and improve the quality of the watershed. Committees over 25 years have compiled information but there has always been confrontation between groups and Band-Aid solutions that are no good. Cottage owners and tourists are leaving" because of the situation, he said.

As a farmer and businessman in West Prince, Horne has personal concerns with the future of the estuary, and expressed confidence that the proposed model is the best way to move forward.

He also indicated that it would be a strong step towards ensuring the continued economic impact of 550 cottages in the watershed area, an estimated 1,200 potential lots and the many enterprises that depend on the health of the waterway.

Horne's committee used funding from the P.E.I. ADAPT Council (Adaptation and Development of Agriculture Production Technology) to hire a consultant, oceanographer Scott MacKnight of OCL Group, to help with its understanding of the problems in the watershed. They then encouraged all the private and public interests to form the Mill River roundtable committee so that everyone could share the same frames of reference when discussing the watershed.

The roundtable discussions, co-chaired by John Lane and Brian Thompson in recognition of the many private and government interests, led to the proposal to create a computer model of the Mill River system.

The model, based on available studies as well as new data, would effectively assess the impact of the many users and permit testing of possible solutions before spending money on them.

"The computer modeling is based on research that scientists will conduct in the estuary. It will show them where the water is moving, depths, and what will happen if certain changes are made," said Griffin regarding the attraction of the intent of the project.

"Based on the information, we can carry through to the next steps and develop a more detailed strategy. We have laid out a number of steps, things that we know need to be done, but were stalemated (about the best way to proceed) until we got this model."

A Halifax-based marine technology firm, MARTEC, won the tender for the project and has already begun work by accessing past studies. The firm will carry out further data collection this fall to begin the development of the model.

Project director Jim Warner said, "We hope to define fairly clearly what the hydrodynamics of the river and the bay (Cascumpec) are and integrate that into a nutrient modeling process at the next stage."

The information gathered will permit predictive modeling which considers the various pressures impacting the watershed and determines the effectiveness of proposed solutions.

Committee members and the government are confident the hydrologic model will lead to real solutions but they know that it is only the first stage in a long-term program.

"We want to make the right changes. A lot of money could be spent and not achieve a great deal of benefit if we are not careful as to how we proceed. Different people have different ideas as to what needs to be done and in what order. The model will help us get the whole group focused. With all the energies going in the same direction, I think we can actually achieve some benefit," Griffin stated.

Horne compared the Mill River hydrologic model to an existing provincial erosion model.

"The erosion model has been successful and that is what we are looking for in this model, so that any dollars that are spent are spent very wisely."

The final Mill River model is not expected to be available until late in 2001. MARTEC is now gathering baseline information but it will take until spring to integrate the data. Warner indicated that it will also be important to gather data during the crucial summer period to complete the model.

"There are a lot of steps that still need to be taken," agreed Griffin when acknowledging the long-term requirements of the whole watershed improvement plan.

SUCCES?

UN BON DEPART

CONCLUSIONS

- LA GESTION ENVIRONNEMENTALE PEUT ETRE APPLIQUEE A LA GESTION DU BASSIN VERSANT.
- REQUIERS LE SUPPORT DES OUVERNEMENTS ET DES RESIDENTS DU BASSIN VERSANT.
- DIFFICULTES MAJEURES AUX ETAPES DE POLITIQUES ET DE LA PLANIFICATION.
- INSUFFISANCE DE RECOMMENDATIONS TECHNIQUES FIABLES POUR LES RESIDENTS.
- CHANGEMENT DE “STYLE DE VIE” AFIN “D’AMELIORER” L’ENVIRONNEMENT EST DIFFICILE A ACCOMPLIR.

MERCI