APPENDIX F

JULY 9, 1993

PUBLIC INFORMATION SESSION HANDOUT

MUNICIPALITY OF DYSART ET AL

"PUBLIC INFORMATION SESSION"

FOR

HALIBURTON SEWAGE TREATMENT PLANT EXPANSION

JULY 9, 1993

TABLE OF CONTENTS

INVITATION

PUBLIC INFORMATION SHEET

MEETING PLACE:	HALIBURTON LEGION HALL
TIME:	4:00 P.M. TO 9:00 P.M. FRIDAY, JULY 9, 1993
RE:	PROPOSED DYSART et al's HALIBURTON SEWAGE TREATMENT PLANT EXPANSION

IN ACCORDANCE WITH ONTARIO MINISTRY OF ENVIRONMENT AND ENERGY (MOEE), ENVIRONMENTAL ASSESSMENT (EA) PROCESS AND THE MUNICIPAL ENGINEERS ASSOCIATION (MEA) CLASS EA SESSION IS BEING HELD TO INFORM YOU OF THE PROPOSED UNDERTAKING.

- **PROJECT OBJECTIVE**

  THE PROJECT WILL ACCOMMODATE PROJECTED FUTURE SEWAGE FLOWS BY THE PROPOSED EXPANSION OF THE SEWAGE TREATMENT PLANT (S.T.P.) AND TO ADDRESS THE ASSIMILATIVE CAPACITY OF THE DRAG RIVER SYSTEM.

- **PUBLIC INFORMATION SESSION**

  THE PURPOSE IS TO MAKE ALL INTERESTED PARTIES AWARE OF THE PROBLEM AND THE ALTERNATIVE SOLUTIONS BEING CONSIDERED, THEIR IMPACT ON THE ENVIRONMENT AND TO SOLICIT PUBLIC COMMENT AND INPUT. THIS IS YOUR OPPORTUNITY TO EXPRESS YOUR VIEWS AND TO LEARN ABOUT THE ENVIRONMENTAL ASSESSMENT (EA) PROCESS. PROJECT STAFF WILL BE PRESENT TO ANSWER QUESTIONS AND DISCUSS THE ASPECTS OF THIS PROJECT.

IF YOU HAVE ANY QUESTIONS ABOUT THIS INFORMATION SESSION, OR THE PROJECT ITSELF, PLEASE FILL OUT THE ATTACHED GUEST COMMENT SHEET OR CONTACT THE FOLLOWING:

MR. CHRIS HODGSON
REEVE
MUNICIPALITY OF DYSART et al
BOX 389
MAPLE AVENUE
HALIBURTON, ONTARIO K0M 1S0
(705)457-1740

MR. RON SCHWARK OR
MR. ED ROBERTS
CONESTOGA-ROVERS & ASSOCIATES
CONSULTING ENGINEERS
651 COLBY DRIVE
WATERLOO, ONTARIO N2V 1C2
(519)884-0510

GUEST COMMENT SHEET

PUBLIC INFORMATION SESSION

PROPOSED HALIBURTON
SEWAGE TREATMENT PLANT EXPANSION

WE WELCOME YOUR INPUT DURING THIS INFORMATION SESSION. YOUR INPUT AND COMMENTS WILL BE FILED AND USED DURING THE DEVELOPMENT OF THE FINAL SOLUTION.

PLEASE PROVIDE YOUR NAME, ADDRESS AND TELEPHONE NUMBER BELOW. THIS INFORMATION WILL ASSIST US SHOULD WE NEED TO CONTACT YOU IN THE FUTURE. **(PLEASE PRINT)**

NAME: _____

ADDRESS: _____

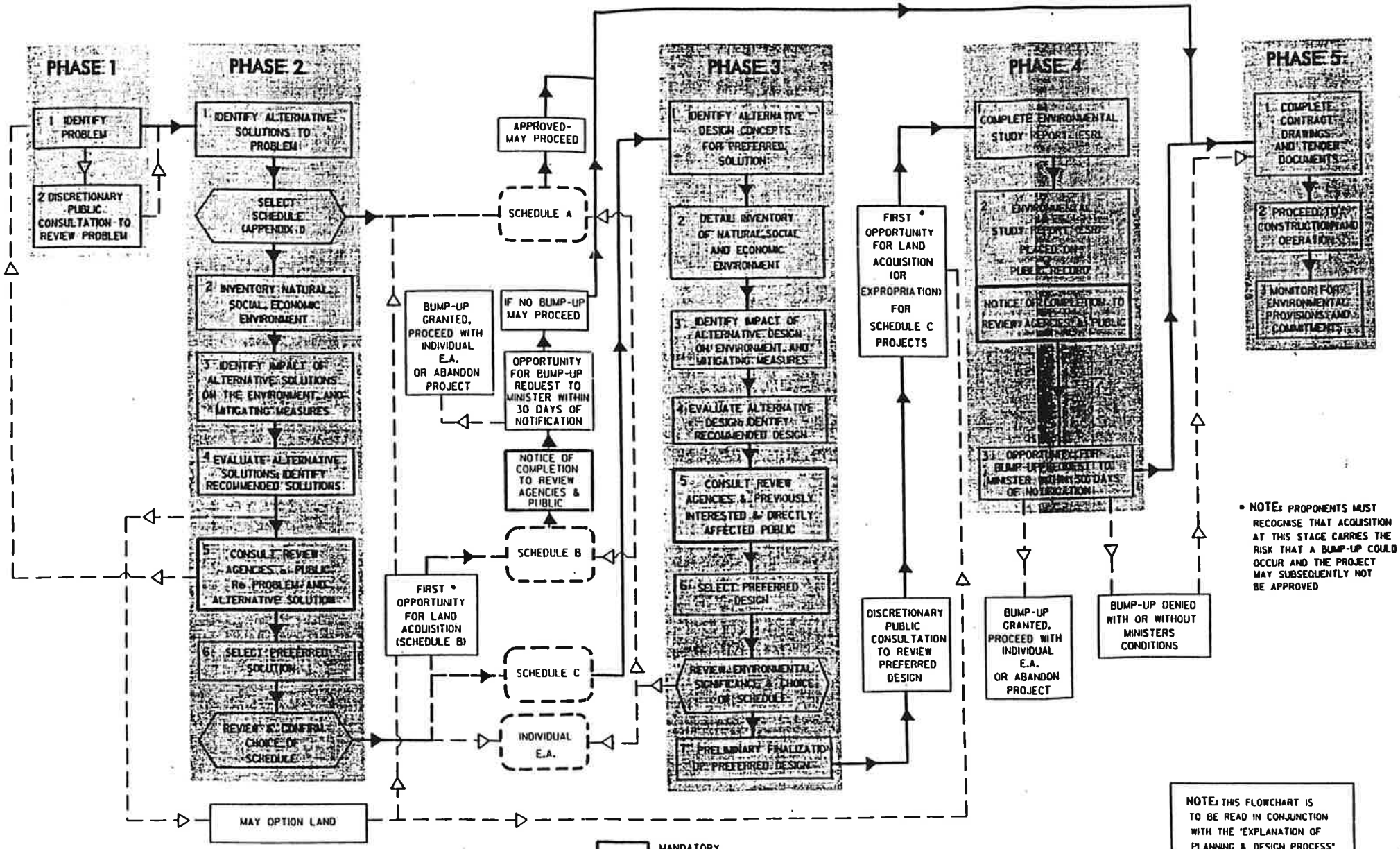
_____

_____

TELEPHONE NO. _____

PLEASE LEAVE THIS SHEET ON YOUR WAY OUT/OR MAIL IT TO THE MUNICIPALITY OF DYSART BOX 389, HALIBURTON, ONT. K0M 1S0.

PLANNING AND DESIGN PROCESS FOR MUNICIPAL SEWAGE AND WATER PROJECTS



* NOTE: PROPONENTS MUST RECOGNISE THAT ACQUISITION AT THIS STAGE CARRIES THE RISK THAT A BUMP-UP COULD OCCUR AND THE PROJECT MAY SUBSEQUENTLY NOT BE APPROVED

NOTE: THIS FLOWCHART IS TO BE READ IN CONJUNCTION WITH THE "EXPLANATION OF PLANNING & DESIGN PROCESS" ON THE FOLLOWING PAGES.

MUNICIPALITY OF DYSART et al

HALIBURTON SEWAGE TREATMENT PLANT EXPANSION

MOEE DIRECT GRANT SEWAGE WORKS PROJECT NO. 3-0706

CLASS ENVIRONMENTAL ASSESSMENT

ENVIRONMENTAL STUDY REPORT

TOTTEN SIMS HUBICKI ASSOCIATES

OCTOBER, 1989

PROJECT OBJECTIVES

THE MUNICIPALITY OF DYSART et al PROPOSES

TO DETERMINE THE ASSIMILATIVE CAPACITY OF

OF THE DRAG RIVER SYSTEM TO ACCEPT ADDITIONAL

LOADINGS AND IN VIEW OF THIS ASSIMILATIVE

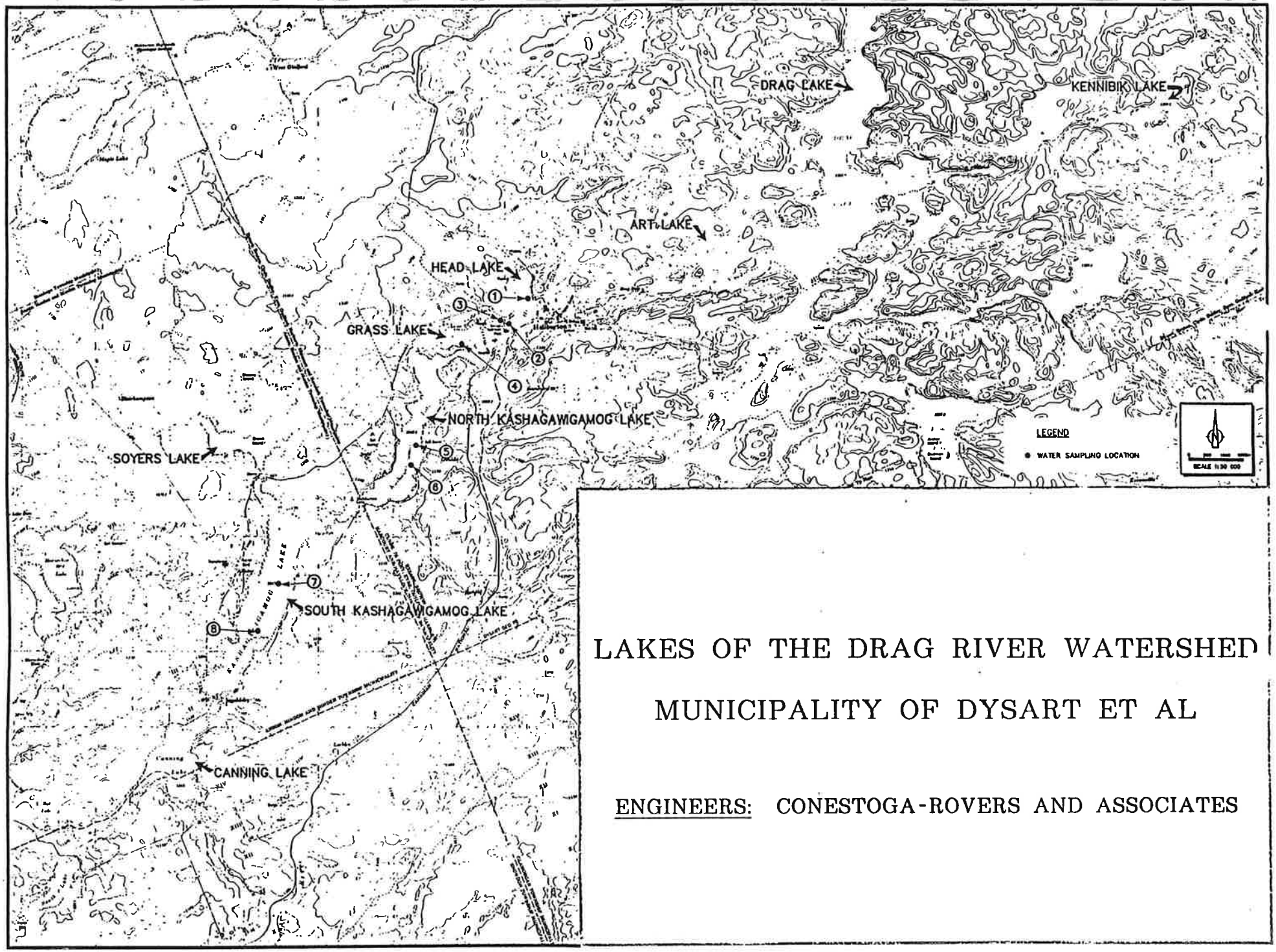
CAPACITY CONSIDER AN EXPANSION TO THE

EXISTING TREATMENT WORKS TO PROVIDE FOR

THE CONNECTION OF THE KASHAGAWIGAMOG

SEWER EXTENSION AND GROWTH WITHIN THE

VILLAGE OF HALIBURTON.



LAKES OF THE DRAG RIVER WATERSHED

MUNICIPALITY OF DYSART ET AL

ENGINEERS: CONESTOGA-ROVERS AND ASSOCIATES

PROJECT No. 4881 (1) JULY 08/93 (M) REV.0

PROJECT CHRONOLOGY

OCT. 1989	ENVIRONMENTAL STUDY REPORT (ESR) WAS FILED FOR A 30 DAY REVIEW PERIOD
NOV. 1989	A BUMP-UP REQUEST WAS SUBMITTED TO THE MINISTER BY MR. & MRS. COOPER
DEC. 1989	COMMENTS WERE RECEIVED REGARDING WATER QUALITY FROM CANNING LAKE COTTAGERS ASSOCIATION
APR. 1990	MINISTER RESPONDED DENYING A BUMP-UP BUT INDICATED THAT FURTHER WATER QUALITY ASSESSMENTS WOULD BE UNDERTAKEN
JAN. 1991	MINISTER PROVIDED DIRECTION TO DYSART et al TO PROCEED WITH AN ADDENDUM TO THE ESR TO ADDRESS THE ASSIMILATIVE CAPACITY OF THE DRAG RIVER SYSTEM TO ACCEPT THE PROPOSED ADDITIONAL LOADINGS, AND TO ESTABLISH BASELINE WATER QUALITY
MAR. 1991	MOEE LETTER TO DYSART et al OUTLINING OF PROJECT TASKS TO BE COMPLETED: 1. MOEE TO DO A COMPLETE PHOSPHORUS MODELLING OF DRAG RIVER SYSTEM 2. M. MICHALSKI TO DO A WATER QUALITY SAMPLING PROGRAM OF DRAG RIVER SYSTEM
OCT. 1992	MOEE LIMNOLOGY SECTION DRAFT REPORT
FEB. 1993	M. MICHALSKI DRAFT REPORT
JULY 1993	PUBLIC INFORMATION SESSION
JULY/AUG. 1993	PREPARATION OF ADDENDUM REPORT TO ESR
AUG. 1993	PREPARATION OF FINAL MOEE AND M. MICHALSKI REPORT
AUG. 1993	PUBLIC PARTICIPATION
AUG/SEPT. 1993	FILING OF ADDENDUM REPORT TO ESR FOR 30 DAY REVIEW PERIOD

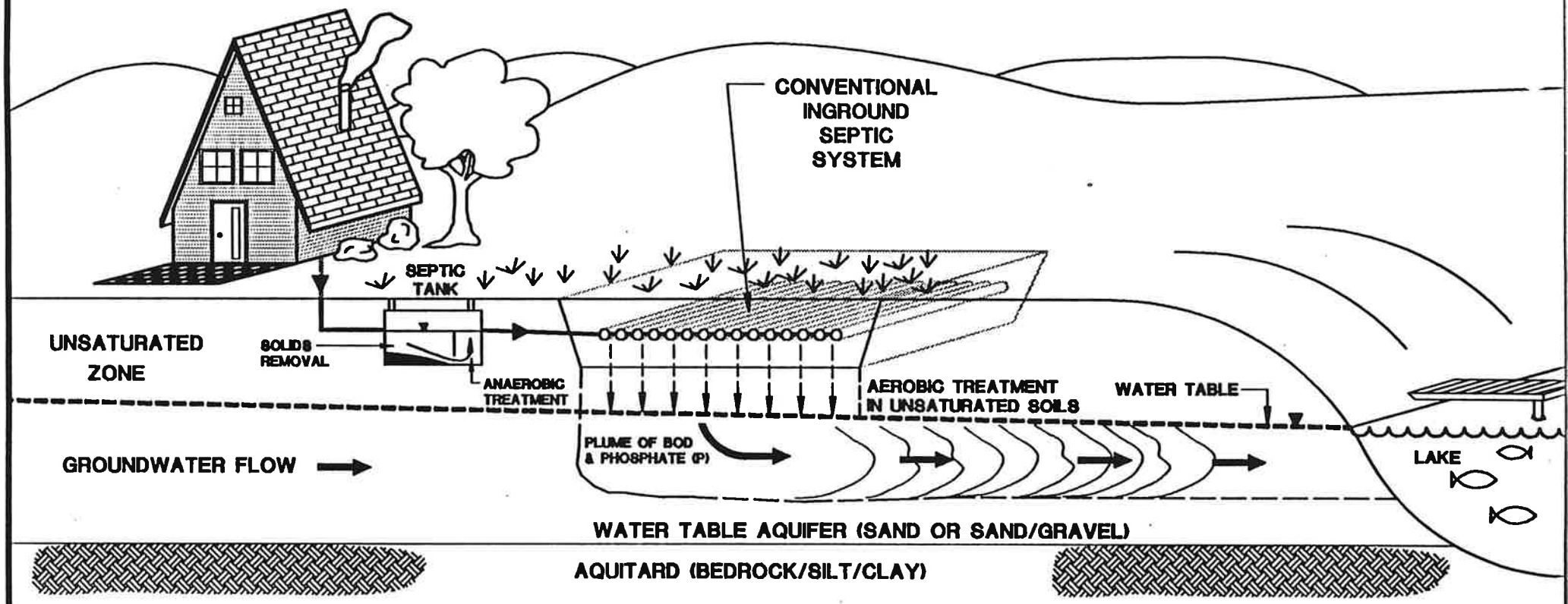
MOEE ASSIMILATIVE CAPACITY EVALUATION CONCLUSIONS

- THE DRAG RIVER CHAIN OF LAKES WILL SHOW SIGNIFICANT DETERIORATION IN WATER QUALITY OVER THE NEXT 30 YEARS IF THE PHOSPHORUS RETENTION CAPACITY OF SHORELINE SOILS FROM SEPTIC TILE BEDS BECOMES BECOMES EXHAUSTED.

- THE EXPANSION OF THE SEWAGE TREATMENT PLANT (STP) SERVICING ALL DEVELOPMENTS ON GRASS, HEAD AND KASHAGAWIGAMOG LAKES WOULD BE REQUIRED TO MAINTAIN WATER QUALITY IN THESE LAKES AND IMPROVE CONDITIONS DOWNSTREAM.

- A REDUCTION IN THE PHOSPHORUS CONCENTRATION FROM 0.3 mg/l to 0.2 mg/l IN THE EXPANDED STP EFFLUENT WOULD FURTHER ASSIST IN MAINTAINING THE WATER QUALITY IN GRASS LAKE.

CONVENTIONAL INGROUND SEPTIC SYSTEM



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SEPTIC SYSTEM OVERVIEW

WATER QUALITY PARAMETERS

IN M. MICHALSKI ASSOCIATES WATER QUALITY SAMPLING PROGRAM THE FOLLOWING PARAMETERS HAVE BEEN ANALYZED (IN ACCORDANCE WITH MOEE REQUIREMENTS):

- TEMPERATURE (AT ONE METRE INTERVALS FROM THE SURFACE OF WATER TO TWO METRES ABOVE BOTTOM)
- TOTAL PHOSPHORUS
- TOTAL NITROGEN (KJELDAHL METHOD)
- TOTAL AMMONIA
- CHLOROPHYLL A (IN EUPHOTIC ZONE)
- NITRATES
- NITRITES
- pH
- HYDROGEN SULPHATE

Phosphorus concentration in water
from different sampling stations.

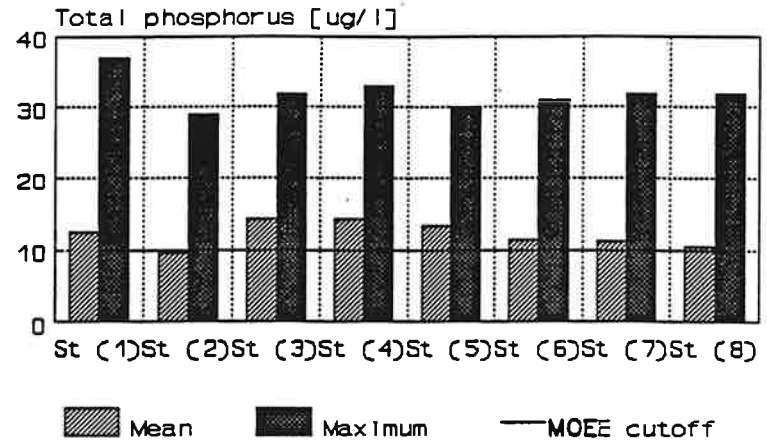

Figure 1

Chlorophyll a concentration in water
from different sampling stations.

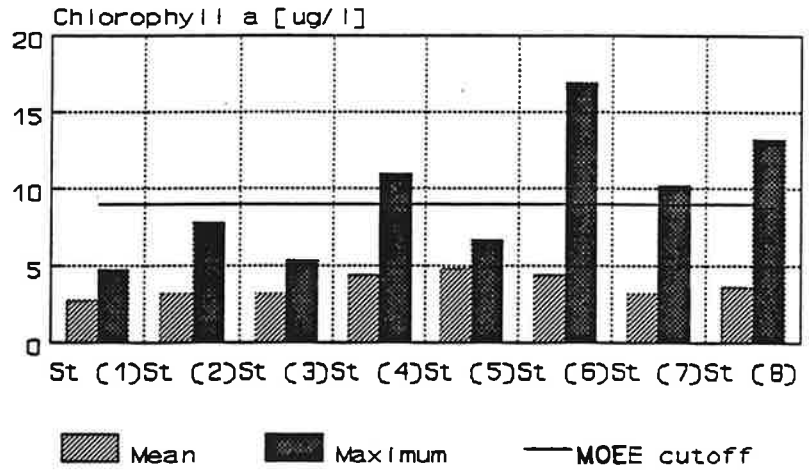

Figure 2

WATER QUALITY DATA OBSERVATIONS

SAMPLING STATIONS WERE LOCATED AS FOLLOWS:

ST (1) - HEAD LAKE;

ST (2) - DRAG RIVER ABOVE STP OUTFALL;

ST (3) - DRAG RIVER BELOW STP OUTFALL;

ST (4) - GRASS LAKE;

ST (5) & (6) - N. KASHAGAWIGAMOG;

ST (7) & (8) - S. KASHAGAWIGAMOG

WHEN LOOKING AT FIGURES 1 AND 2, THE FOLLOWING CONCLUSIONS CAN BE DRAWN:

1) THE MEAN OF TOTAL PHOSPHORUS CONCENTRATION EXCEEDS MOEE CUTOFF 10 UG/L VALUE FOR HIGH LEVEL PROTECTION.

2) THE HIGHEST VALUES OF TOTAL PHOSPHORUS CONCENTRATION WERE FOUND IN HEAD LAKE (ST (1)), FAR ABOVE THE OUTFALL FROM STP. THIS MEANS THAT A CONSIDERABLE AMOUNT OF PHOSPHORUS FROM HEAD LAKE CAN ENTER THE KASHAGAWIGAMOG BASIN.

3) THE MAXIMA OF PHOSPHORUS CONCENTRATIONS IN SOUTH KASHAGAWIGAMOG LAKE (FAR DOWNSTREAM FROM STP OUTFALL). WERE CLOSE TO THOSE IN GRASS LAKE JUST BELOW THE STP OUTFALL. THE RETENTION OF PHOSPHORUS IN THE SOIL AROUND THIS LAKE SEEMS TO BE POOR.

4) THE MEAN OF CHLOROPHYLL A CONCENTRATIONS AT ALL SAMPLING STATIONS WAS BELOW MOE CUTOFF (9.5 UG/L) BUT THE HIGHEST MAXIMUM VALUES WERE FOUND IN THE SOUTHERN PARTS OF N. KASHAGAWIGAMOG (16.9 UG/L) AND S. KASHAGAWIGAMOG (13.2 UG/L) LAKE. THIS INDICATES A CONSIDERABLE PRODUCTIVE AQUATIC ENVIRONMENT IN THOSE LAKES.

THE ABOVE SUGGESTS THAT THE MAIN SOURCE OF NUTRIENTS IN THE NORTH AND SOUTH KASHAGAWIGAMOG LAKES ARE THE PHOSPHATES LEACHING FROM THE SHORELINE DEVELOPMENTS.