

**Lake of Bays
Northern Pike
Spawning Observations 2006**

**For:
The Andrew Daniels Fish Stewardship Program
Ontario Ministry of Natural Resources
The Township of Lake of Bays**

Released June 2006

**By:
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Introduction

Northern pike is a recent introduction to Lake of Bays and no information exists on the status of the population. A northern pike (*Esox lucius*) spawning survey was conducted on Lake of Bays in the spring of 2006, through a partnership involving The Andrew Daniels Fish Stewardship Program (ADFSP), the Ontario Ministry of Natural Resources (OMNR) and the Township of Lake of Bays. The objective of this study was to document locations that have suitable habitat for northern pike and record evidence of spawning fish.

The Andrew Daniels Fish Stewardship Program is a stewardship organization founded in 2004 with the mission of "Helping protect fish habitat, fish regeneration and components of the Lake of Bays aquatic system". The organization is a memorial to Andrew Daniels who was an avid fisherman on Lake of Bays. Bob Ransom and R. Bruce Montgomery Jr. coordinate this stewardship organization with the assistance of Ben Boivin (District Councillor for Lake of Bays), and George Daniels.

The OMNR representative, Steve Scholten, Fisheries Biologist, has agreed to provide technical advice and recommendations to the ADFSP committee. The Township of Lake of Bays has agreed to financially assist the ADFSP using funds received from an environmental infraction settlement which are to be used for the promotion of water quality and fish habitat on Lake of Bays.

Methodology

On May 27, 2006 an aerial survey of Lake of Bays was conducted to locate shallow weedy areas that could be potential spawning sites for northern pike. George Daniels (Commercial Pilot Lic. # CA22467) piloted his plane (C-FQEK a Cessna Cardinal 177) with Steve Sholten and Stanley Sutey as passengers observing. These areas were then visited by boat during the hours of 0800 to 1500 on April 28th, May 1st, 2nd, 3rd, and 5th 2006. Polarized sunglasses were used to assist in identifying fish and substrate.

A licence to collect Fish for Scientific Purposes (see Appendix A, Scientific Collectors Licence) was obtained from the Ontario Ministry of Natural Resources and attempts were made to angle northern pike to determine the reproductive status of the population. Angling efforts included trolling and casting with spoons, dead rainbow smelt (*Osmerus mordax*) and minnow imitating lures.

The following information was recorded for each site: date, time, weather, water temperature, UTM coordinates of fish or eggs observed, description of spawning substrate and general notes of other fish species observed.

Results

A total of 25 areas were identified from the aerial survey as potential spawning locations (See Appendix B, Lake of Bays Northern Pike Spawning Survey Areas 2006). The surface water temperatures ranged from 6 to 13 degrees Celsius ($^{\circ}\text{C}$) and air temperatures varied from 11 to 23 $^{\circ}\text{C}$ with no precipitation and generally calm waters for easy viewing fish and substrates.

Of the 25 areas visited; 14 had sand with sparse to no vegetation present, 3 had sand, cattails (*Typha* spp.), water lily (*Nymphaea* or *Nuphar* spp.), and grasses, 2 had silt and water lily, 5 had sand, water lily, horsetail (*Equisetum* spp.), muskgrass (*Chara* spp.) or water milfoil (*Hyriophyllum* spp.), and 1 had sand with large mats of muskgrass or water milfoil. Northern Pike were observed in five areas (see Table #1, Lake of Bays Northern Pike Spawning Observations 2006) that had a combination of sand and water lily, horsetail or mats of submerged vegetation.

Of the five areas northern pike were observed (See Appendix C, Lake of Bays Northern Pike Spawning Locations 2006) only location #14 had fish exhibiting spawning behavior. In area #23, four fish were observed singularly and not interacting. In areas #10, #11, and #22 single fish were observed. Water temperatures ranged between 8-13 $^{\circ}\text{C}$ when the fish were observed.

An attempt to angle all northern pike observed was made and only one fish was caught but unsuccessfully landed. All of the fish observed were not startled easily and many attempts were made with different presentations of lures and baits. Spoons and minnow imitating lures were trolled from the mouth of the Oxtongue River to Marsh Falls and in deeper water near the areas observed to catch fish staging near potential spawning areas.

Discussion

Northern Pike has been a recent introduction to Lake of Bays from an unknown source approximately 10 years ago as reported by local anglers. This survey was conducted to document the status, size and spawning habitat of this population. It is assumed that this survey was conducted during the period spawning was likely to occur and all fish observed were involved in spawning.

The status of the population of northern pike in Lake of Bays as determined by this survey can be described as reproducing and likely increasing. At location #14, two fish were observed paired and swimming together which is a typical spawning behavior prior to the release of eggs. This confirms northern pike are attempting to reproduce. The small size (likely less than 10 years old) of the one fish at this location suggests that reproduction in the lake was successful or there is a migration of small fish into the lake possibly via St. Mary's Creek from Paint Lake that is known to also have a population of northern pike.

Table #1, Lake of Bays Northern Pike Spawning Observations 2006

Area	Date	Time HRS	Temp. C	Observations	Habitat and Substrate
12	25-Apr-06	1200-1500	6	No fish seen	Sand, cattails, water lily, grasses
11	28-Apr-06	1300-1400	10	One 60cm northern pike	Sand, silt, water lily
10	28-Apr-06	1400-1500	10	One 60cm northern pike	Sand, water lily
12	28-Apr-06	1530-1630	9	No fish seen	Sand, cattails, water lily, grasses
10	1-May-06	0900-1000	10	No fish seen	Sand, water lily
11	1-May-06	1000-1100	10	No fish seen	Sand, silt, water lily
7	1-May-06	1120	10	No fish seen	Sand and sparse vegetation
8	1-May-06	1130	9	No fish seen	Sand, no vegetation
9	1-May-06	1135	10	No fish seen	Sand, no vegetation
14	1-May-06	1150-1300	8	Two northern pike swimming paired, one 40cm, one 60cm	Water depth 1m, Sand and submerged vegetation
13	1-May-06	1300-1320	8	No fish seen	Sand, deep water
12	1-May-06	1400-1600	9	No fish seen	Sand, cattails, water lily, grasses
6	2-May-06	1000	9	No fish seen	Sand, detritus, sparse vegetation
5	2-May-06	1100	10	No fish seen	Sand, detritus, sparse vegetation
4	2-May-06	1200	10	No fish seen	Silt, detritus, sparse vegetation
3	2-May-06	1230	12	No fish seen	Silt, detritus, dense water lily
2	2-May-06	1300-1430	11	No fish seen	Sand, detritus, logs, water lily
1	2-May-06	1445-1545	10	No fish seen	Silt, detritus, sparse vegetation
22	3-May-06	0930-1200	8	One northern pike 80cm	Dredged out boat docking facilities at trailer park, mouth of Hollow River and south shore of Trading Bay has large mats of submerged vegetation over sand
23	3-May-06	1231-1430	13	Four northern pike, 50-100cm, not paired	Fish laying in horsetail and water lily over sand
21	3-May-06	1500-1545	8	No fish seen	Sand, detritus, sparse vegetation
15	5-May-06	0930	8	No fish seen	Sand, detritus, sparse vegetation
16	5-May-06	1000	8	No fish seen	Sand, cattails, water lily, grasses
17	5-May-06	1030	9	No fish seen	Sand and sparse vegetation
18	5-May-06	1100	10	No fish seen	Sand and sparse vegetation
19	5-May-06	1115	10	No fish seen	Sand, detritus, sparse vegetation
20	5-May-06	1135	11	No fish seen	Sand, detritus, sparse vegetation
24	5-May-06	1230	8	No fish seen	Sand and sparse vegetation
25	5-May-06	1330-1445	10	No fish seen	Sand, cattails, water lily, grasses

The size of the population of northern pike in Lake of Bays can be described as very limited from the observations during this survey. A total of nine northern pike were observed during this survey, which is quite low compared to other lakes with an abundant population. It is possible that this survey was conducted outside of the peak time for this population. Future observations should use location #23 to identify when spawning has started as it had the greatest concentration of fish and the warmest water temperatures.

The spawning habitat for northern pike in Lake of Bays appears to be limited. The shoreline is very rocky and steep with a few beaches and tributary mouths that could be used as spawning habitat. Of the 25 areas surveyed only 10 had sand and water lily, horsetail or submerged vegetation combinations which could be considered as spawning habitat. These are areas #10, 11, 14, 22, 23 ^{which} were fish were observed and areas #2, 3, 12, 16, and 25. Future observations should include these areas.

Acknowledgments

The Andrew Daniels Fish Stewardship Program initiated this survey in cooperation with the Ontario Ministry of Natural Resources and with the financial support of the Township of Lake of Bays. A special thank you to George Daniels for his assistance piloting his plane (Cessna C-FQEK) to conduct the aerial survey. The Township of Lake of Bays also assisted the Accipiter Fish & Wildlife Service by placing notices and with articles in a local newspaper advising landowners of the nature of the survey (See Appendix D, Excerpts from the Huntsville Forester).

Appendix A
Scientific Collectors Licence



Ontario

Ministry of Natural Resources

Ministère des Richesses naturelles

Licence to Collect Fish for Scientific Purposes

Permis pour faire la collecte de poissons à des fins scientifiques

Licence No. N° de permis	1031680
Local Reference No. N° de référence local	Bracebridge
Issuer Account No. N° de compte du détenteur de permis	10001107

This licence is issued under Part I of the Fish Licensing Regulation made under the Fish and Wildlife Conservation Act, 1997 to:

Ce permis est délivré en vertu de la Partie I du règlement sur la délivrance de permis de pêche formulé conformément à la Loi sur la protection de poisson et de la faune de 1997 à:

Name of Licensee Nom du titulaire du permis	Last Name / Nom de famille Mr. Suley	First Name / Prénom Stan	Middle Name / Second Prénom
Name of Business/Organization/Association (if applicable) / Nom de l'entreprise/organisme/association (le cas échéant) Accipiter Fish and Wildlife Service			
Mailing address of Licensee Adresse postale du titulaire de permis R. R. #8, Camel Lake Road			
City/Town/Village/Localité / Ville/Village/Localité Bracebridge		Province/State ON	Postal Code/Zip Code P1L 1X4

to collect the species, size and quantities of fish from the waters as set out below.
Pour faire la collecte des espèces suivantes (spèce et nombre indiqués ci-dessous):

Species Espèces	Eggs Oufs	Juvenile Jeunes	Adults Adultes	Numbers Nombre	Name of Waterbody Nom de l'étendue d'eau
Smelt	X	X	X		Lake of Bays and Tributaries
Northern Pike			X		Lake of Bays and Tributaries

Yes/Oui Additional species/Waterbody not stated / Liste d'espèces/Etendue d'eau additionnelles ci-jointe

Purpose of collection
But de la collecte
Locate and identify Spawning Habitat. All fish to be released at site of capture.

Gear Used: Angling - Dip Net - Trap Net

Licence Dates Dates du permis	Effective Date / Date d'entrée en vigueur (YYYY-MM-DD) 2006-04-12	Expiry Date / Date d'expiration (YYYY-MM-DD) 2006-05-18
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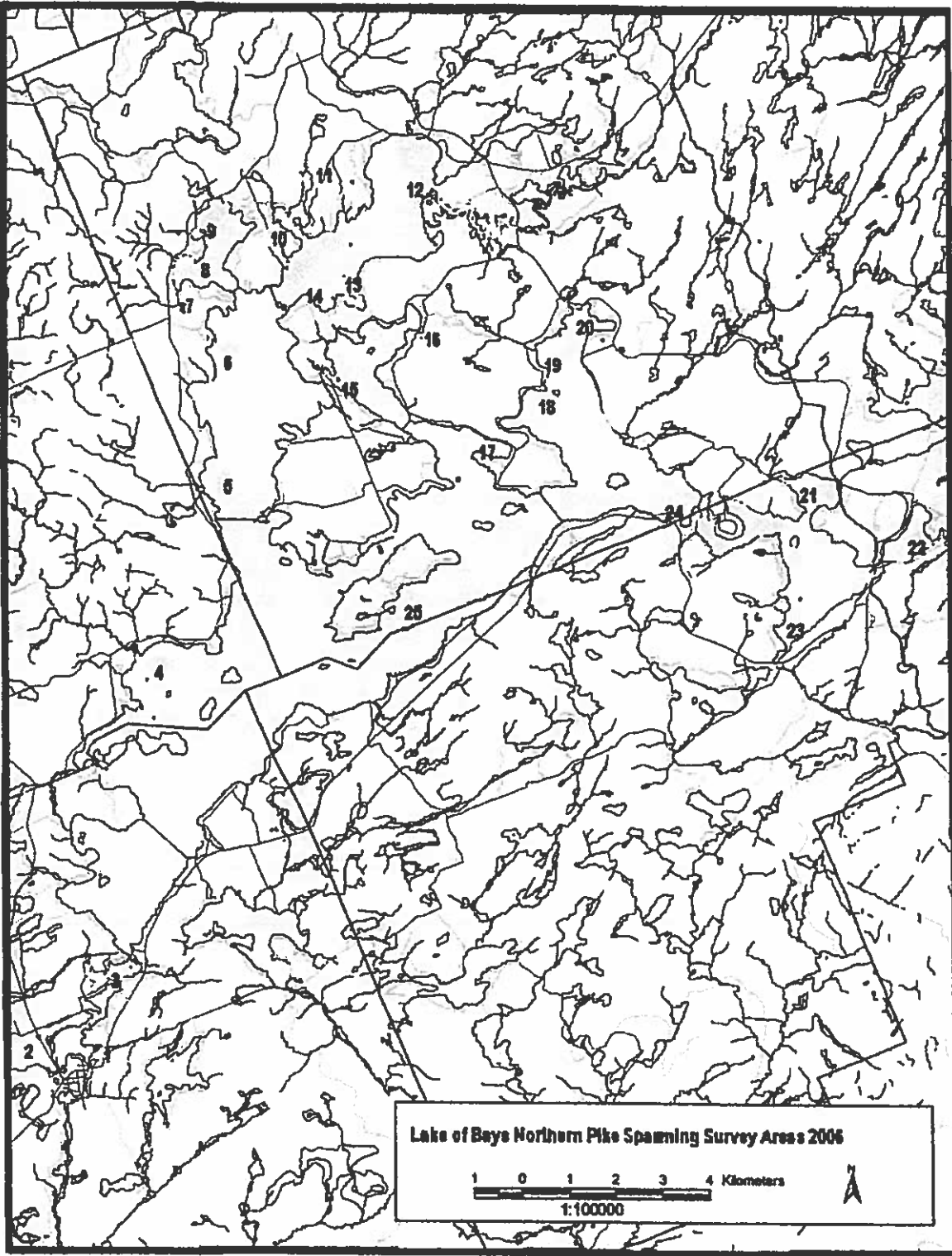
Licence conditions This licence is subject to the conditions contained in Schedule A if included. / Ce permis doit respecter les conditions de l'annexe A si celle-ci est jointe.

Conditions de permis
Yes/Oui No/Non Schedule A included / Annexe A ci-jointe

Issued by (please print) Délivré par (veuillez écrire en caractères d'imprimerie) Rob Viejou, Area Supervisor	Signature of issuer / Signature du détenteur 	Date of issue / Date de délivrance (YYYY-MM-DD) 2006-04-12
Signature of Licensee / Signature du titulaire de permis 		Date (YYYY-MM-DD) 2006-04-12

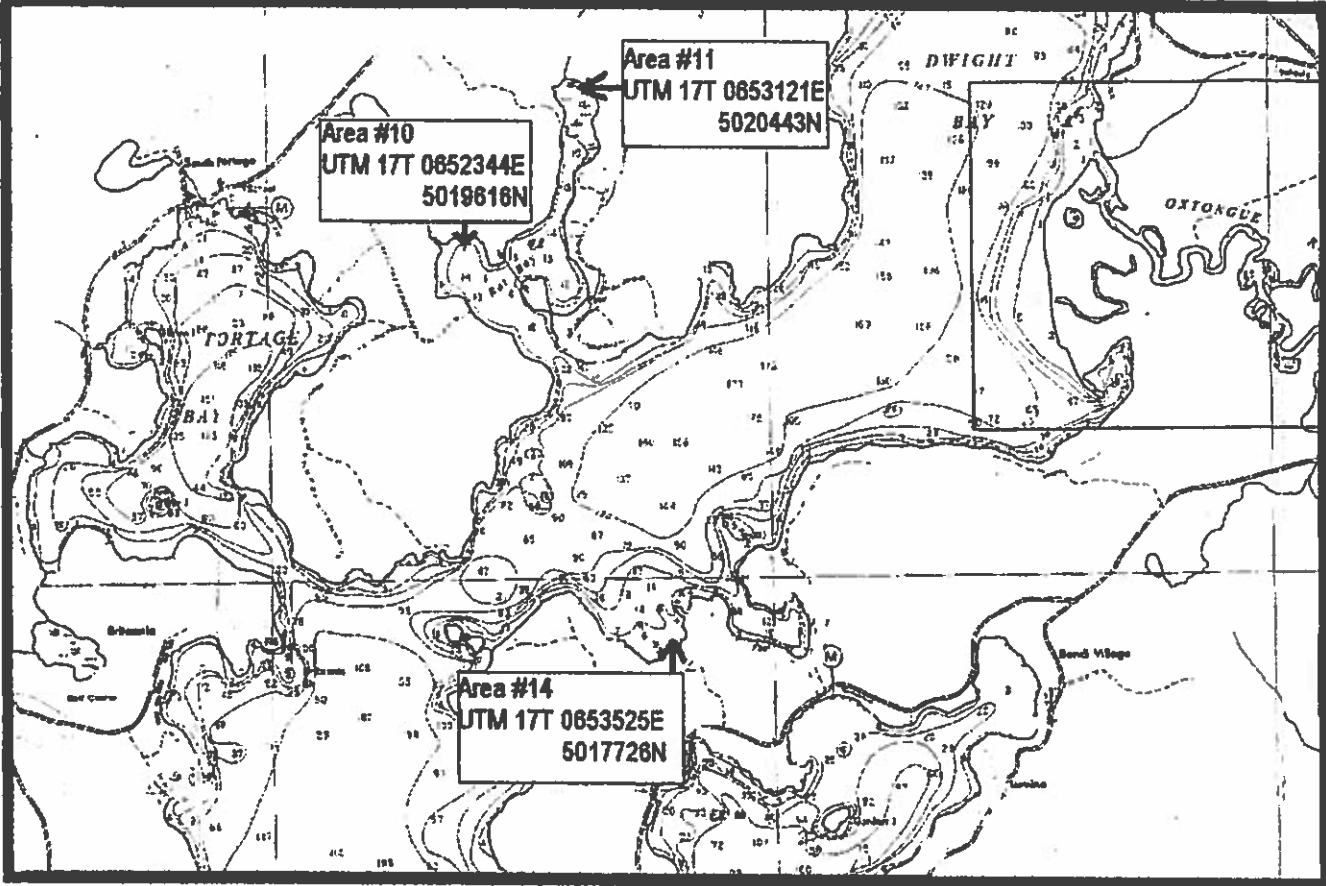
Personal information contained on this form is collected under the authority of the Fish and Wildlife Conservation Act, 1997 and will be used for the purpose of licensing, monitoring, enforcement, resource management and other related services. Please direct further requests to the Chief Manager of the FWCA mailing list. Les renseignements personnels dans ce formulaire sont recueillis conformément à la Loi sur la protection du poisson et de la faune, 1997, et ils seront utilisés aux fins de délivrance de permis, d'inspection, d'application des règlements, de gestion des ressources et de services liés à la pêche. Veuillez communiquer avec le chef du bureau de correspondance de la FWCA si vous avez des questions.

Appendix B
Lake of Bays Northern Pike Spawning Survey Areas 2006

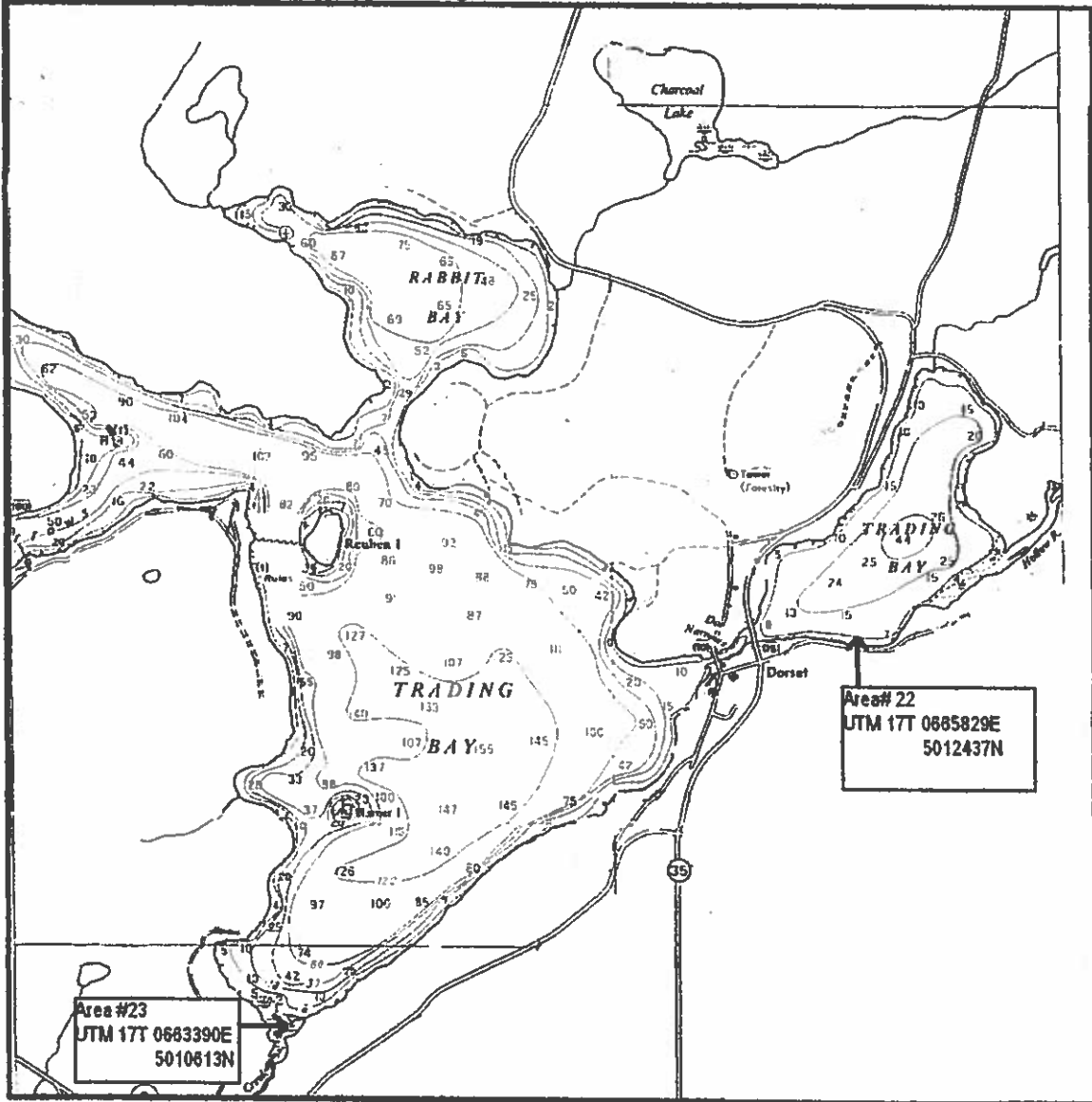


Appendix C
Lake of Bays Northern Pike Spawning Locations 2006

Lake of Bays Northern Pike Spawning Locations 2006



Lake of Bays Northern Pike Spawning Locations 2006 cont'd



Appendix D
Excerpts from the Huntsville Forester

PUBLIC NOTICE BOARD



1012 Dwight Beach Road, RR#1
Dwight, Ontario POA 1H0
phone: 705-635-2272 fax: 705-635-2132
Hours of operation: Monday to Friday from 8:30 a.m. to 4:00 p.m.



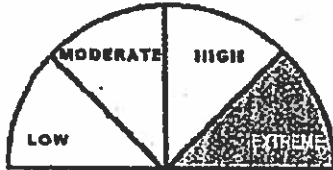
MEETINGS CANCELLED

HERITAGE COMMITTEE
May 18, 2006 at 4:00 p.m. - Cancelled
**FINANCE & CORPORATE
SERVICES COMMITTEE**
May 23, 2006 at 1:00 p.m. - Cancelled

Muskoka Fire Danger Rating
1-877-847-1577



Provided by the
Muskoka Association of Fire Chiefs



There is a **TOTAL BAN** on all fires until further notice.

No fires of any type are permitted. **No** fires are permitted for cooking or warmth and **no** fire-works are allowed.

For inquiries about the MFFDR or to be added to the list contact:

Fire Chief Steve Hernen,
Huntsville Fire Department,
705-789-5201

SPECIAL COUNCIL MEETING PORT CUNNINGTON WATER ACCESS POINT

The Council of the Corporation of the Township of Lake of Bays has scheduled a special Council meeting for the purpose of receiving comments from the public and stakeholders on a proposal to redesign the Port Cunningham Water Access Point.

Interested parties are welcome to attend.

Date: Saturday, May 13th, 2006 at 9:30 a.m.

Place: Council Chambers of the Municipal Office, 1012 Dwight Beach Road, Dwight, ON, POA 1H0

Items to be addressed in the proposal:

- Reducing the impacts of usage at the site with respect to noise, traffic and safety,
- Docking access for boats and material loading,
- Mitigate shoreline erosion and storm water impacts at the site,
- Reasonable lake and property access for adjacent property owners,
- Creation of a portion of the site for recreational use.



Lake of Bays Fish Surveys

Accipiter Fish and Wildlife Service will be conducting surveys of smelt and northern pike spawning activity in May. The work is being supported by the MNR and Andrew Daniels Fish Stewardship Program. The surveys are funded through the Bigwin Reserve Fund, held by the Township. Landowners may be contacted requesting access to stream mouths on their property. For more information please call Stephen Schoten, MNR Fisheries Biologist (646-5523).

EMPLOYMENT OPPORTUNITY THE CORPORATION OF THE TOWNSHIP OF LAKE OF BAYS

Requests applications for a
RESEARCH ASSISTANT
Contract Position (35 hours per week)
May 23 - August 11, 2006

Responsibilities:

- To provide administrative support and attend meetings as required.
- To conduct research.
- To assemble and organize information.
- To compile various municipal calendars.
- To perform other duties or responsibilities as assigned.

Qualifications:

- Education is required at the level of Grade 11 or equivalent.
- General knowledge of the Township of Lake of Bays area an asset.
- General knowledge of modern office equipment in a computerized environment. (e.g. Word, Excel, Access, Outlook, copier, fax, etc)
- Proven ability to communicate clearly and accurately, in oral and in written forms.
- Proven organizational, analytical and interpersonal skills are essential.
- Minimum G2 licence and provide own vehicle with proof of insurance. (Mileage will be reimbursed).

Applicants are invited to submit a resume outlining appropriate education and experience, ~~together with references.~~, by 4:00 p.m. on Friday, May 12th, 2006 to:

Township of Lake of Bays • Attention: Carrie Sykes
1012 Dwight Beach Rd., Dwight, Ont. POA 1H0
Fax: (705) 635-2132

E-mail: clerkasst@lakeofbays.on.ca

PLEASE NO PHONE CALLS

We thank all applicants who apply, but only those candidates selected for an interview will be contacted. Personal information is collected under the authority of the *Municipal Freedom of Information and Protection of Privacy Act* for the purpose of job selection.

"Visit us at www.lakeofbays.on.ca"