

# Your property is in an Intake Protection Zone

## What is an Intake Protection Zone?

Intake Protection Zones are the areas of land and water around municipal water intakes where special care must be taken in the use and handling of potential contaminants.

A spill or a leak in this area may threaten the drinking water supply so quickly that there may not be enough time to warn the system's operator to shut down the water intake.

## West Elgin Water Treatment Plant

An intake at West Lorne on Lake Erie provides raw water to the West Elgin Water Treatment Plant (WTP). This plant supplies treated water to the Municipalities of Dutton-Dunwich and Southwest Middlesex, the community of Bothwell in Chatham-Kent, and the Village of Newbury in Middlesex County. The West Elgin WTP serves a population of 9,985 and has a maximum capacity of 6,829 m<sup>3</sup>/day.

## Open House

Monday, November 16, 2009  
3:00 p.m. - 7:00 p.m.  
Royal Canadian Legion Branch 221  
142 John Street, West Lorne, On

Plan to attend this Open House to learn more about your local Intake Protection Zone and see detailed maps showing what properties are within the zone.

## What is a Drinking Water Threat?

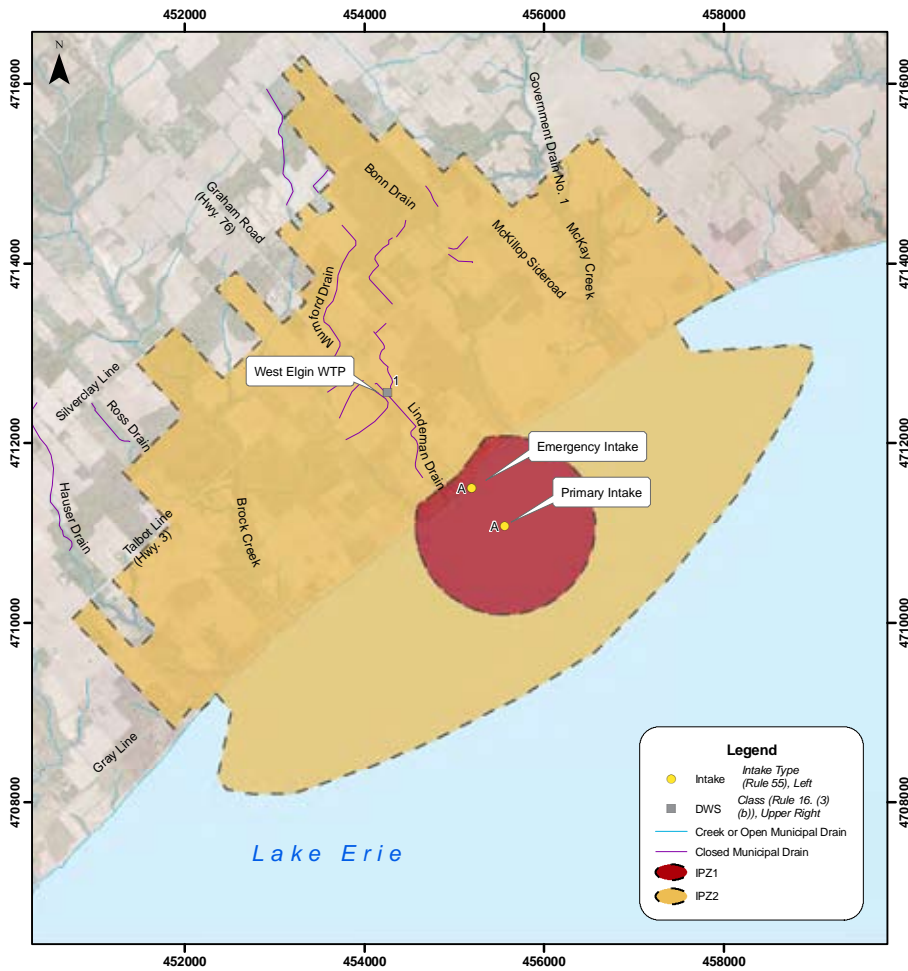
A drinking water threat is an "activity or condition that adversely affects or has the potential to adversely affect the quality or quantity of any water that is or may be used as source of drinking water". As part of the study of the West Elgin Intake Protection Zone, specific threats and areas where potential threats could occur were identified. It was found that there were no significant threats. Only low and moderate threats were identified in the vulnerable areas for these intakes. The tables below indicate the number of potential threats identified. Note that there are two intakes at West Elgin: the primary intake and the emergency intake, used during frazzle ice conditions.

| West Elgin Water Treatment Plant – <b>Primary Intake</b> | Significant Threats | Moderate Threats | Low Threats |
|--|---------------------|------------------|-------------|
| Intake Protection Zone 1                                 | 0                   | 25               | 1211        |
| Intake Protection Zone 2                                 | 0                   | 0                | 52          |

| West Elgin Water Treatment Plant – <b>Emergency Intake</b> | Significant Threats | Moderate Threats | Low Threats |
|--|---------------------|------------------|-------------|
| Intake Protection Zone 1                                   | 0                   | 368              | 1207        |
| Intake Protection Zone 2                                   | To be determined    |                  |             |

## What is a Drinking Water Issue?

Under the Clean Water Act, drinking water quality issues must be identified. A drinking water quality issue is defined to be a physical, chemical, radioactive or microbial (eg. bacteria) parameter or other pathogenic (disease causing) organisms shown to deteriorate, or trends towards a deterioration, of raw (untreated) water quality for the purposes of drinking. The parameters which can be considered are identified in the Safe Drinking Water Act. The area and the activity contributing to a drinking water quality issue must also be identified. Identifying issues is a key step in the overall process of protecting drinking water quality. Should an issue be identified, the activities that contribute to this issue become a significant risk and must be dealt with through the source protection plan. Identifying issues involves a review of raw (untreated) water quality data, consideration of existing water treatment plant capabilities to deal with any potential problems and discussions with the plant operating authority. At the West Elgin Water Treatment Plant, turbidity was identified as a potential drinking water quality issue. The causes of turbidity may be natural or man made.



Notes:  
 Imagery courtesy of Municipality of West Elgin.  
 Topographic data used under license with  
 the Ontario Ministry of Natural Resources.  
 Copyright © 2009 by Stantec Consulting Ltd.  
 Projection: UTM Zone 17N, NAD 1983



Project  
 Municipality of West Elgin  
 Source Protection Planning  
 Technical Study

| Figure No. | Revision No. | Date      |
|------------|--------------|-----------|
| 8          | 3            | Oct. 2009 |

Title  
 West Elgin WTP  
 Primary Intake  
 Vulnerable Areas

## Intake Protection Zone 1 (red)

Intake Protection Zone 1 (IPZ1) is considered the most vulnerable to any contaminant of concern that may be released, because of its close proximity to the intake. Any contaminants released in this zone have the greatest likelihood of adversely affecting the raw (untreated) water and the intake.

## Intake Protection Zone 2 (yellow)

Intake Protection Zone 2 (IPZ2) accounts for the influence of shore, streams, and rivers that are known or have the potential to directly impact the water quality at the intake. This area is considered high risk as any contaminant that is spilled in this zone has a high probability of reaching the intake and adversely affecting the water quality. This zone was determined based on a two-hour travel time. This means that a contaminant could reach the intake in two hours should a spill or leak occur in this zone.



For more information contact your local Conservation Authority or visit our website



519-354-7310



519-245-3710



519-451-2800



Made possible through the support of the Government of Ontario.

[www.sourcewaterprotection.on.ca](http://www.sourcewaterprotection.on.ca)