



Harmony Creek subwatershed



Farewell Creek subwatershed

**BLACK/HARMONY/FAREWELL CREEK WATERSHED
EXISTING CONDITIONS REPORT
CHAPTER 1 – STUDY AREA**

Draft
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1.0 STUDY AREA

The Black/Harmony/Farewell Creek Watershed is located in the mid-south of Central Lake Ontario Conservation’s jurisdiction. The Black/Harmony/Farewell Creek and its tributaries drain an area of approximately 108 km² (Figure 1). The northwest and western parts of this watershed abut the Oshawa Creek watershed, while the northeast portion of the watershed lies adjacent to Bowmanville Creek Watershed. The south east side of the watershed borders along the Darlington, Robinson, and Tooley Creek Watersheds. The watershed is located entirely within the Regional Municipality of Durham and traverses two local municipalities (City of Oshawa and Municipality of Clarington).

The watershed drains southerly towards Lake Ontario, from its headwaters in the south slope till plain of the Oak Ridges Moraine (ORM) and empties into Lake Ontario through a diversion channel adjacent to Oshawa Second Marsh, a Provincially Significant coastal wetland. Cutting through the middle of this watershed is the shoreline of glacial Lake Iroquois. This shoreline deposit is predominantly comprised of sand and gravel, and is referred to as the Lake Iroquois Beach. Both the Lake Iroquois Beach and the ORM are dominant features within the watershed playing a role in some of the natural features and functions that exist within the watershed.

While the provincial Greenbelt Plan includes lands within the ORM, for the purpose of the discussion within this chapter, lands within the Greenbelt exclude those within the ORM (see Chapter 4 – Land use and Policy, for more detail).

the Black/Harmony/Farewell Creek and its tributaries drain an area of approximately 108 km²



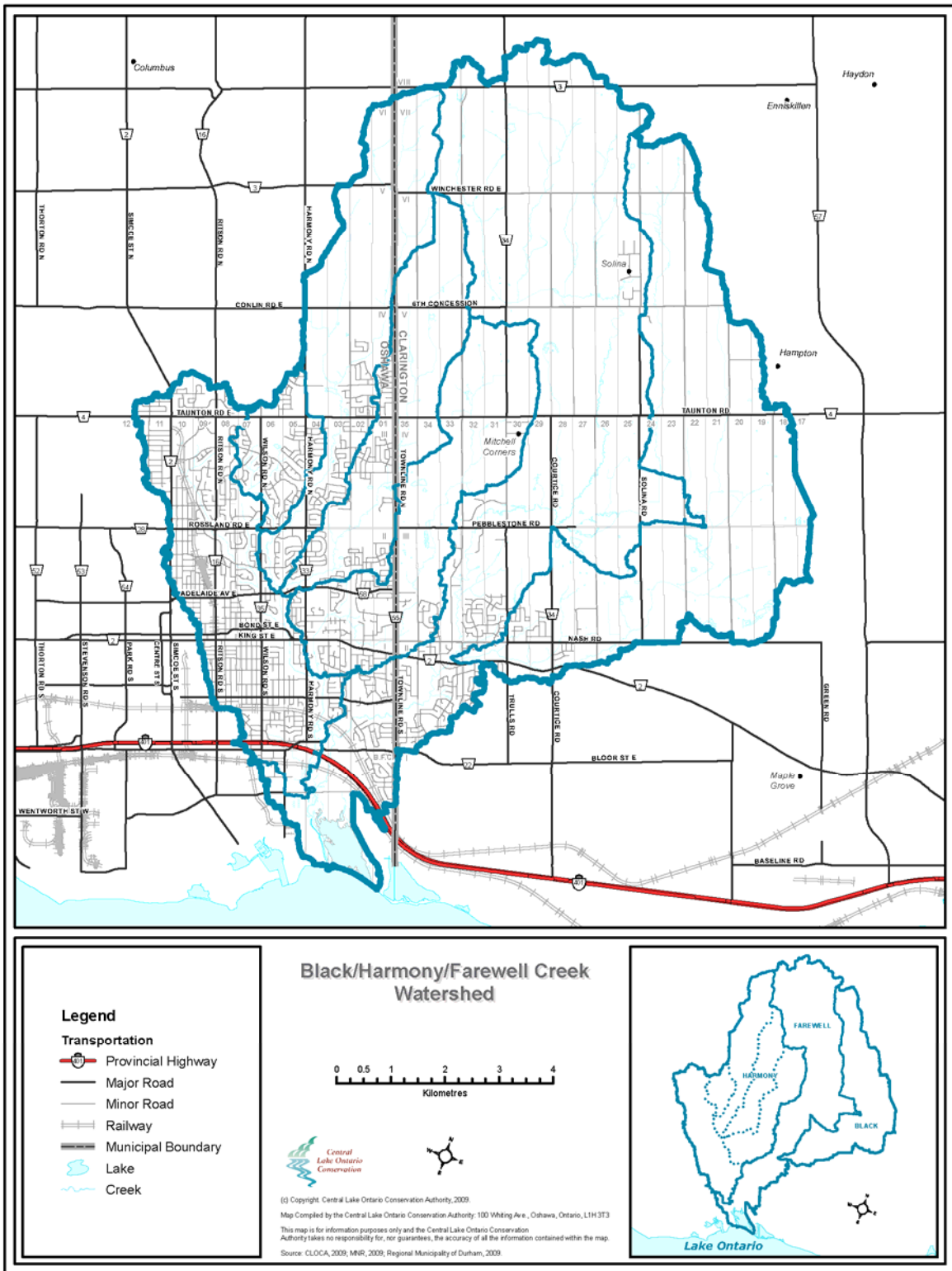


Figure 1: Black/Harmony/Farewell Creek watershed

The Black/Harmony/Farewell Creek watershed highlights two significant wetland features which dominate the middle and southern parts of the watershed. A large portion of the mid-eastern section of the watershed is covered by the Harmony-Farewell Iroquois Provincially Significant Wetland Complex which lies on the Lake Iroquois Beach, representing important groundwater and natural heritage resources. Meanwhile, the majority of the southern tip of the watershed contains the Oshawa Second Marsh, a Provincially significant coastal wetland complex, and a unique feature within the urban setting of the City of Oshawa.

A diverse landscape exists within the Black/Harmony/Farewell Creek watershed which includes urban settlements, rural settlements, agriculture, and natural areas, all having various and different influences and impacts on the watershed. The urban areas of the City of Oshawa and Courtice in Clarington occupy most of the south, while the northern part of the watershed is dominated by agricultural land uses. The watershed encompasses three hamlets within its boundaries. Mitchell Corners is located in the middle of the watershed, while Solina is located within the north east portion of the watershed. A small part of the Hampton hamlet is captured within the north west boundary of the subwatershed. Also of note, the small community of Taunton is situated in the middle of the watershed. Generally, within the rural area, agricultural activities are prevalent. The Black/Harmony/Farewell watersheds consists of the 5 subwatersheds of Harmony Creek (Ritson, Wilson, Grandview, Taunton, and Mitchell), plus the main subwatersheds of the Farewell and Black Creeks.

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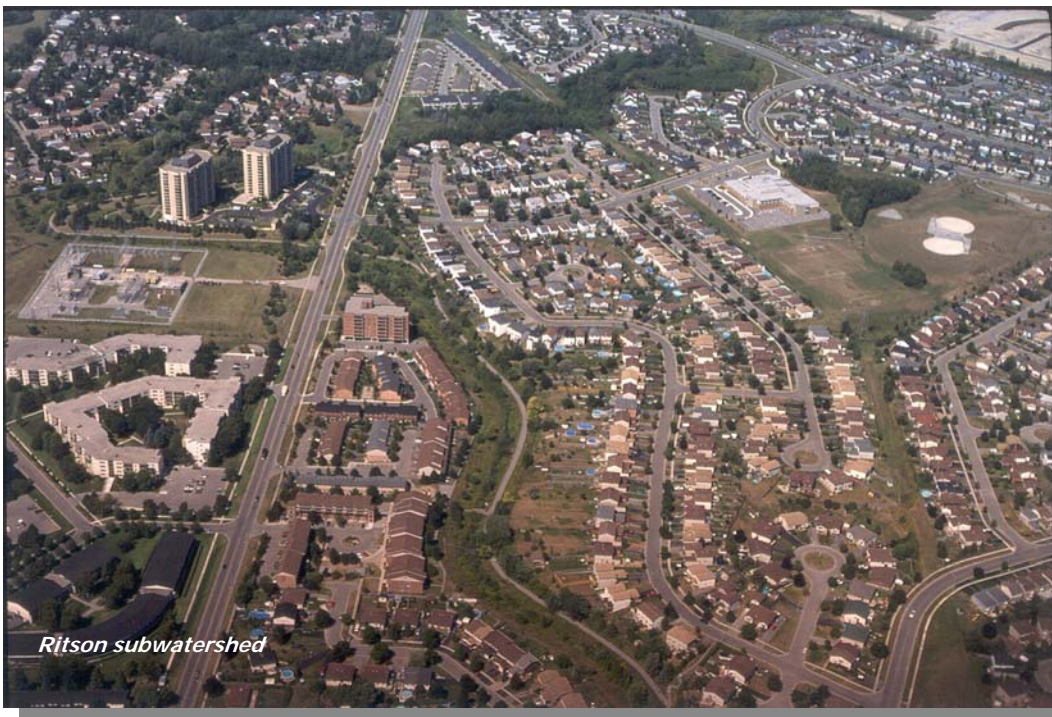


Harmony Creek subwatershed

1.1 Harmony Creek Subwatershed

1.1.1 Ritson Subwatershed

The Ritson subwatershed (Figure 2) drains an area of almost 1285 ha (12.85 km²). Located at the western boundary of the Black/Harmony/Farewell Creek watershed, this subwatershed is entirely within the urban boundary of the City of Oshawa. It is characteristic of a developed urban subwatershed with predominantly residential land use. There are no Oak Ridges Moraine or Greenbelt designated lands within this subwatershed. The Lake Iroquois Beach comprises approximately 27% of the area. A small conservation lands area, Simcoe Hall Valleylands, is located within this subwatershed, representing only <0.06%.



“ the Ritson subwatershed drains an area of almost 1,285 ha...”

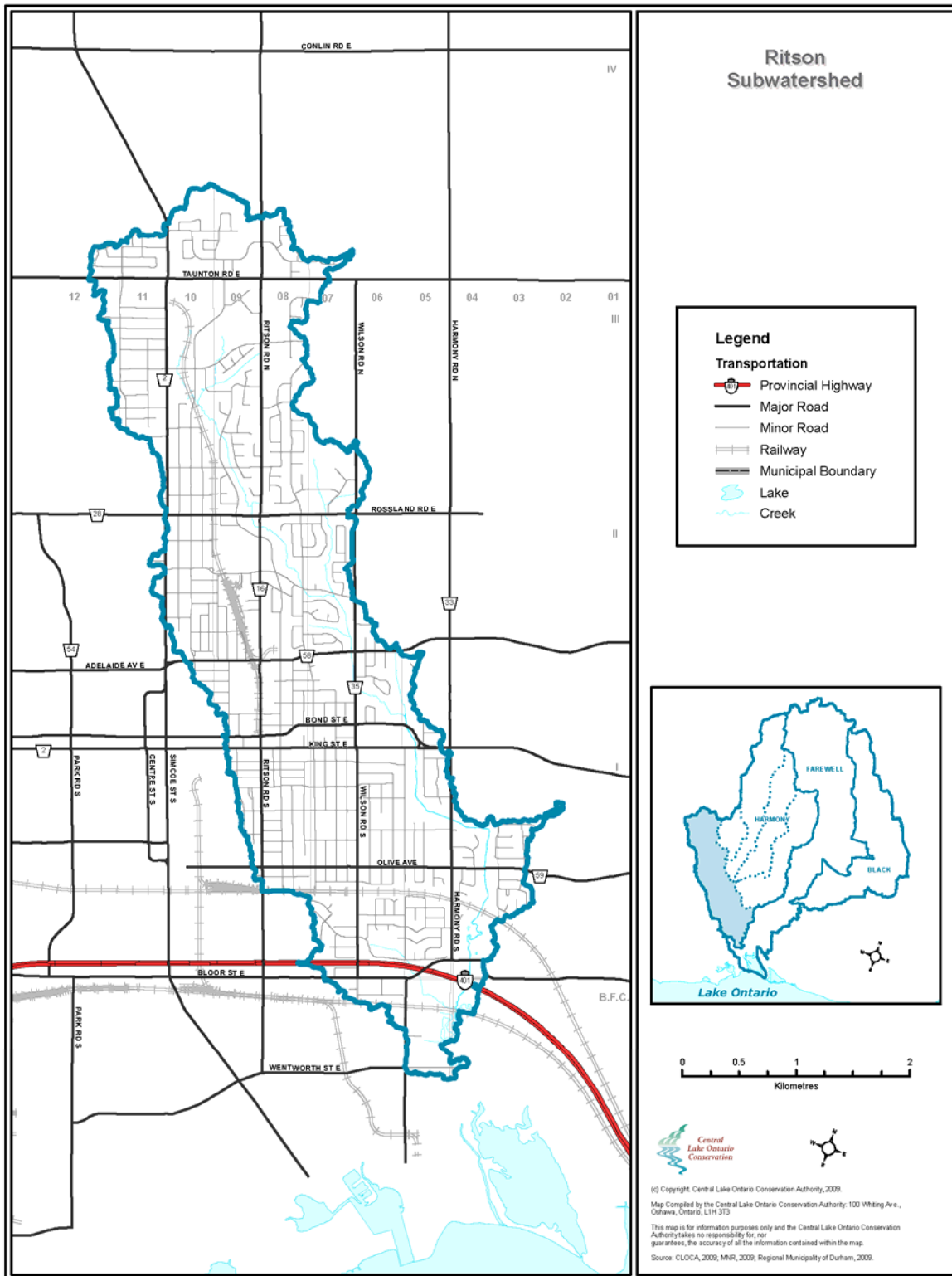


Figure 2: Ritson subwatershed

1.1.2 Wilson Subwatershed

The Wilson subwatershed ([Figure3](#)) is the smallest subwatershed of the Black/Harmony/Farewell system, draining an area of approximately 298 ha (2.98 km²). Located immediately east of the Ritson subwatershed, this subwatershed is also entirely within the urban boundary of the City of Oshawa. It is a developed urban subwatershed dominated by residential land use and contains a portion of commercial lands at its northwest corner. There are no Oak Ridges Moraine or Greenbelt designated lands within this subwatershed. The Lake Iroquois Beach encompasses approximately 56% of the area.



'the Wilson subwatershed drains an area of approximately 298 ha'

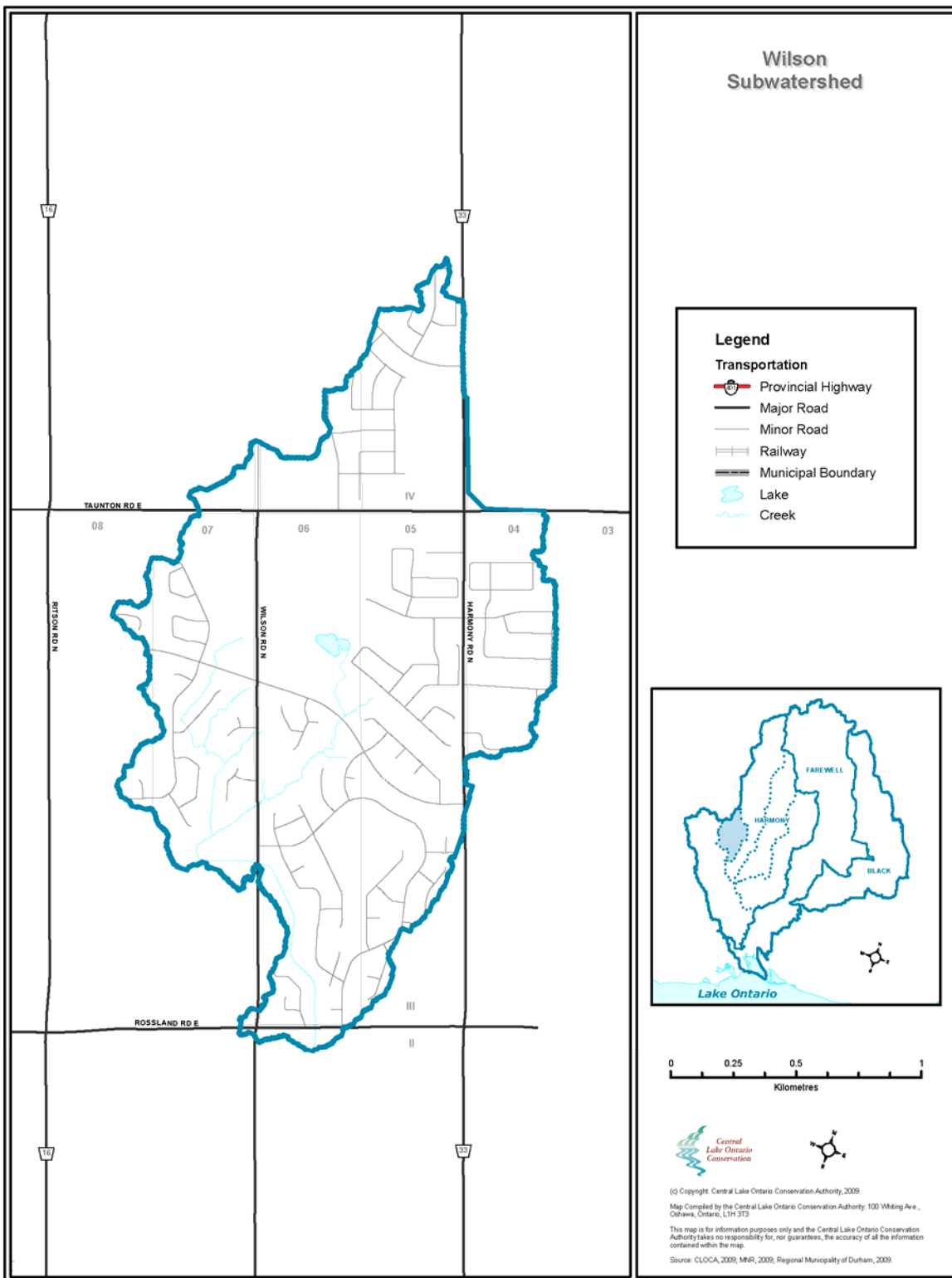


Figure 3: Wilson subwatershed

1.1.3 Grandview Subwatershed

The Grandview subwatershed (Figure 4) drains an area of almost 1125 ha (11.25 km²). Located at the northern portion of the Harmony watershed, Grandview's headwaters are fed by the south slope till plain of the Oak Ridges Moraine (ORM) and drains into the Ritson subwatershed at the Lake Iroquois Shoreline at its southern end. The majority of the area is within the City of Oshawa, while the northeast part of the subwatershed is located in the Municipality of Clarington. The northern portion of the Grandview subwatershed is characterized by agricultural lands uses, mainly active crop fields and pastures. The lower southern portion contains residential development representing the northeast section of Oshawa. There are no hamlets in this subwatershed. The amount of Lake Iroquois Beach within this subwatershed is 10%. About 10% of this subwatershed is situated within the Greenbelt and approximately 15% is within the ORM.

'the Grandview subwatershed drains an area of almost 1,125 ha'



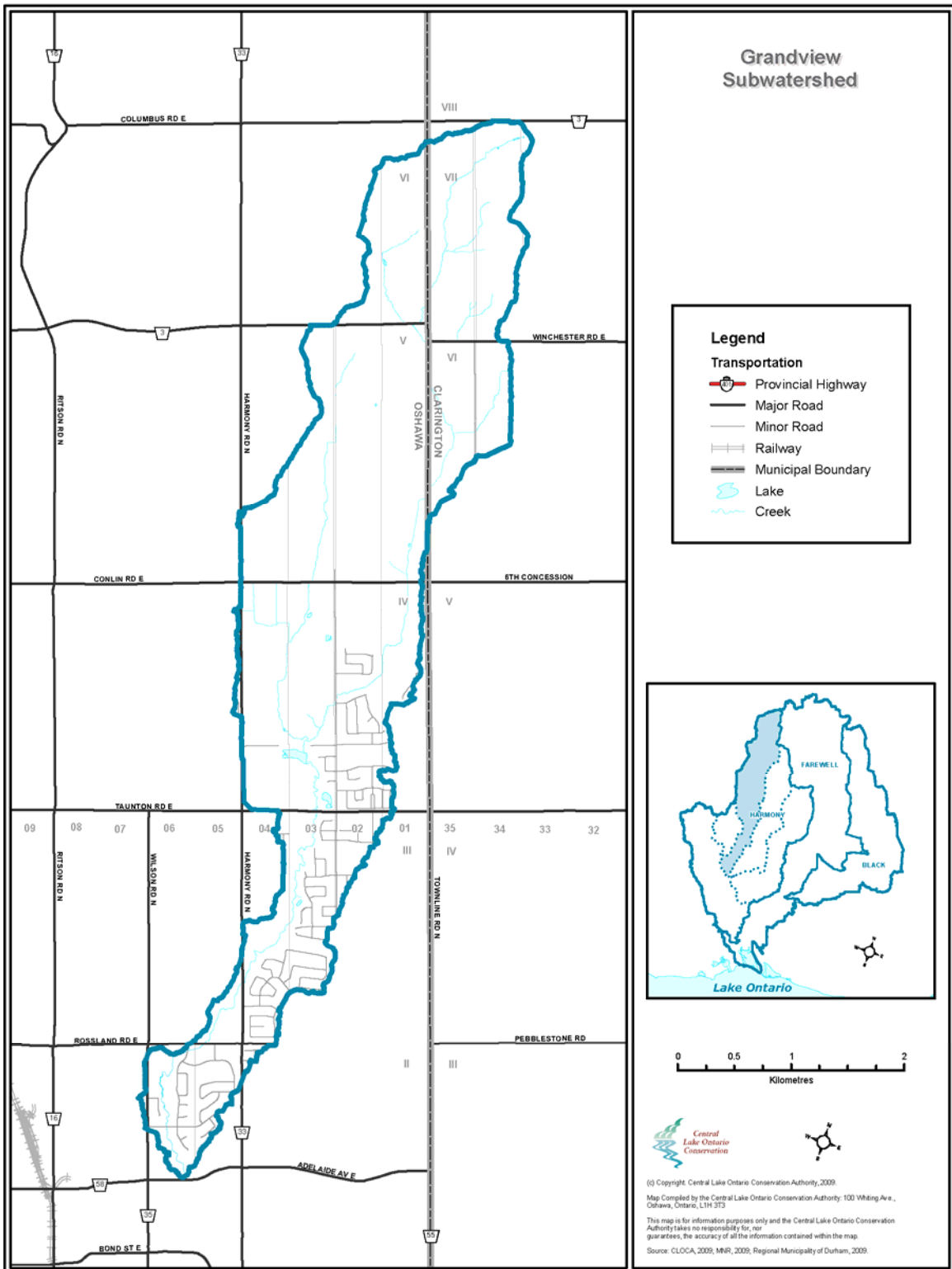


Figure 4: Grandview subwatershed

1.1.4 Taunton Subwatershed

Taunton subwatershed ([Figure5](#)) drains an area of approximately 872 ha (8.72 km²). This subwatershed straddles the Municipality of Clarington on its northeast side and the City of Oshawa on the southwest side. Taunton is dominated by agricultural lands within Clarington in the north and is dramatically split in the middle by the sharp urban line representing Oshawa's north-eastern urban boundary which contains some built up urban residential areas mixed with agricultural use and natural areas. About half of the subwatershed is contained within designated Greenbelt lands representing approximately 55%. There is only a very small amount of Oak Ridges Moraine designated lands in this subwatershed, being slightly >0%. Just over 21% of this subwatershed is within the Lake Iroquois Beach. The small community of Taunton is situated within this subwatershed.



Taunton subwatershed drains an area of approximately 872 ha'

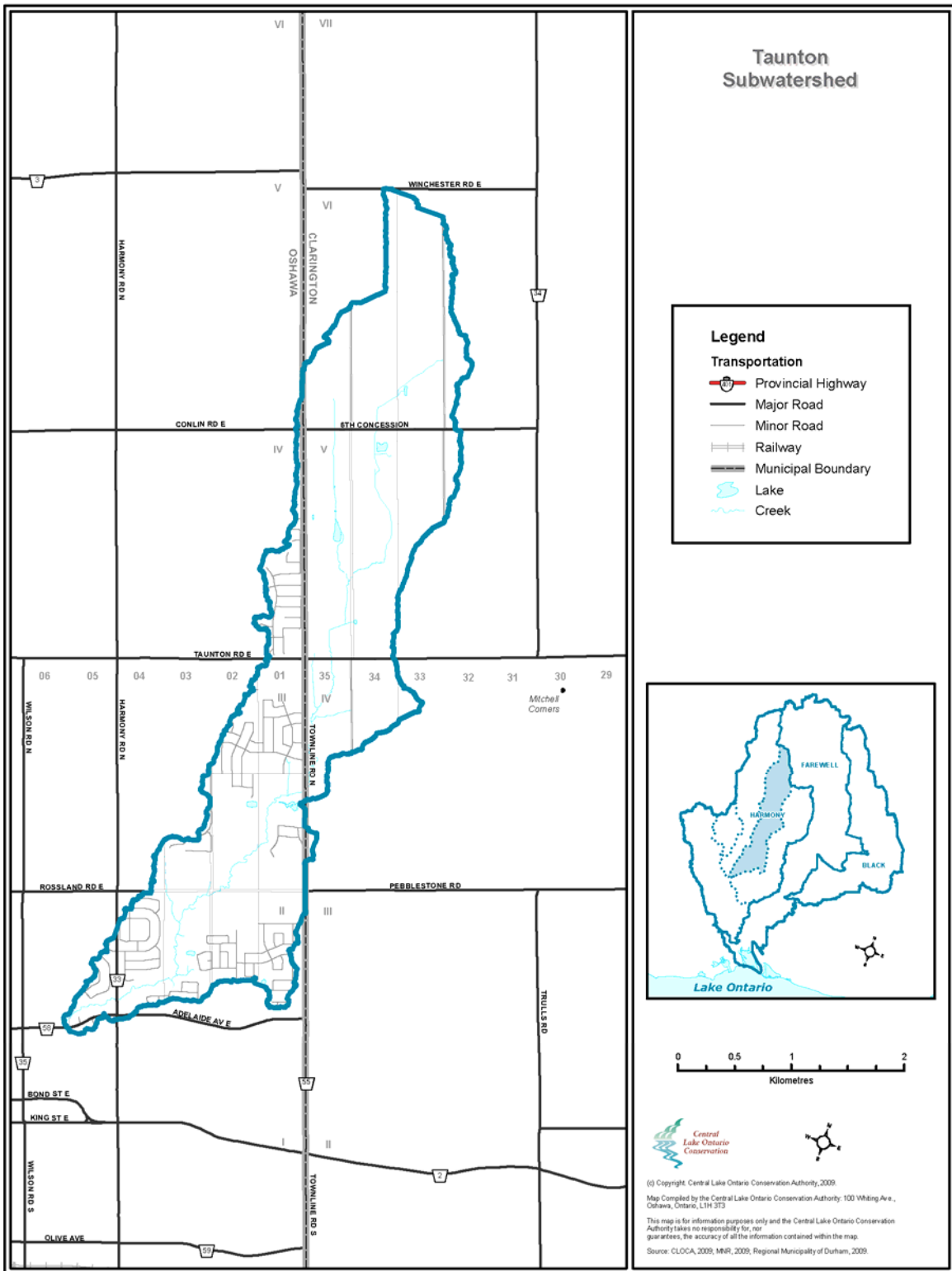


Figure 5: Taunton subwatershed

1.1.5 Mitchell Subwatershed

The Mitchell subwatershed (Figure 6) drains an area of approximately 1087 ha (10.87 km²). Located at the eastern limits of the Harmony Creek subwatershed boundary, the majority of the Mitchell subwatershed falls within the Municipality of Clarington and its southern lobe is contained within the City of Oshawa. In the Clarington portion, agricultural land use dominates the landscape mixed with natural areas. In the Oshawa portion, residential development is prevalent. Most of the subwatershed is contained within the Greenbelt, being 63%. There are no Oak Ridges Moraine lands within this subwatershed. Approximately over 18% of the subwatershed area is within the Lake Iroquois Beach. The hamlet of Mitchell Corners is located at the northeast portion of the subwatershed, predominantly south of Taunton Road.



'the Mitchell subwatershed drains an area of almost 1,087 ha'

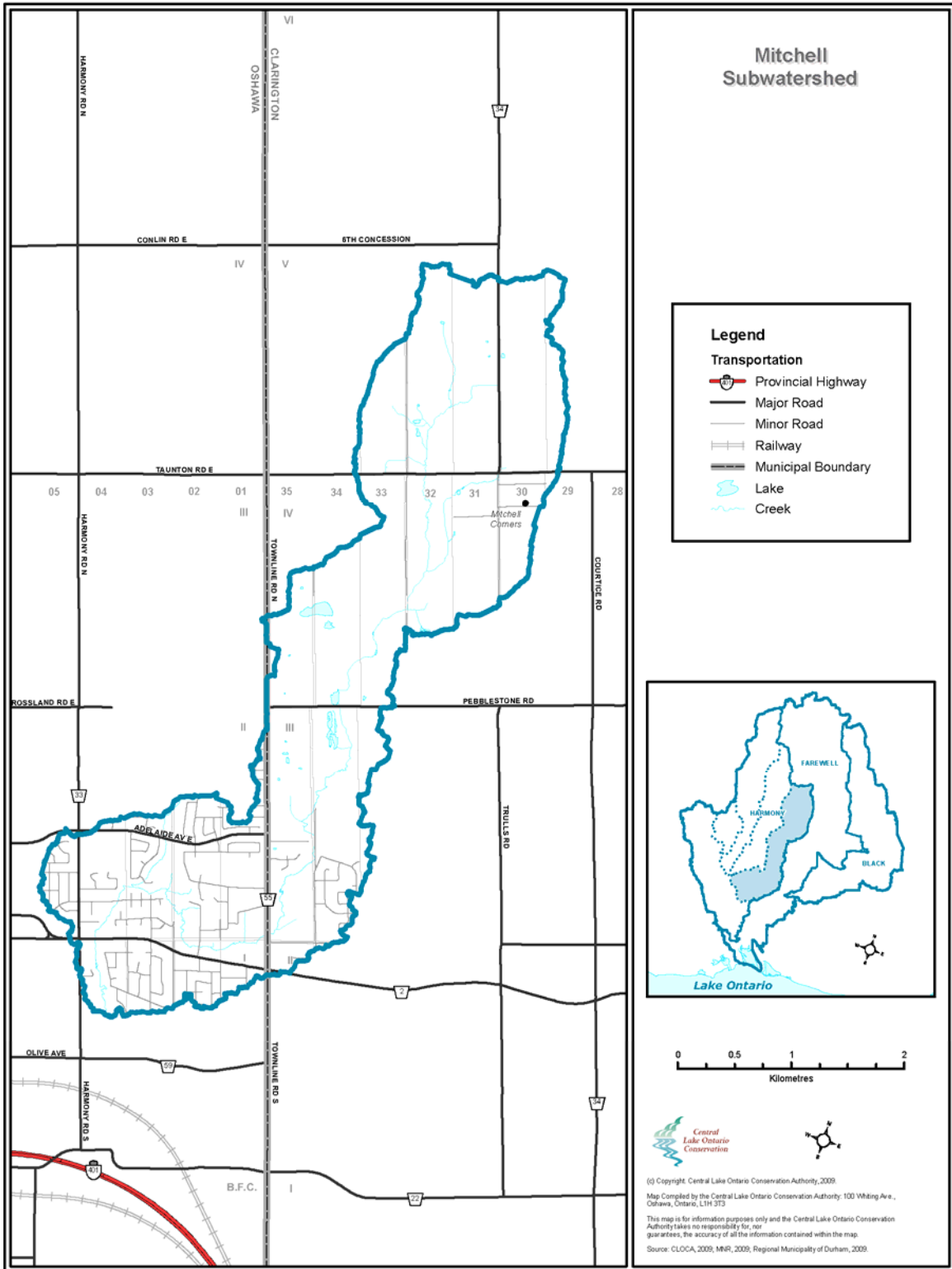


Figure 6: Mitchell subwatershed

1.2 Farewell Creek Subwatershed

The Farewell Creek subwatershed (Figure 7) is the largest subwatershed in the Black/Harmony/Farewell system and drains an area of approximately 3771 ha (37.71 km²). It is the only subwatershed within this system to stretch from its headwaters in the Oak Ridges Moraine lands and reach further downstream to the Oshawa Second Marsh before outletting to Lake Ontario. This area encompasses the Municipality of Clarington, its rural lands and the northeast portion of Courtice, and the southeast portion of Oshawa. Most of the subwatershed is within agricultural use including all of the northern lands to the north end of Courtice. The remainder of the lands contain the urbanized residential portions of Courtice and Oshawa, and natural areas including the Oshawa Second Marsh. The majority of the watershed is within the Greenbelt (54%), with another 20% situated in the ORM. Approximately 20% is within the Lake Iroquois Beach. The hamlet of Solina is located just north of Concession Road 6. The Toad Hollow Valleylands are conservation lands owned by the Authority and represent <0.3% of lands in this subwatershed. Of note, the Oshawa Second Marsh (also referred to as the Second Marsh Wildlife Area) represents <4% of the subwatershed, however for the purposes of this discussion is not considered a conservation area as it is owned by the City of Oshawa and managed by the Friends of Second Marsh.

'the Farewell Creek subwatershed drains about 3,771 ha (37.71 km²) of land'



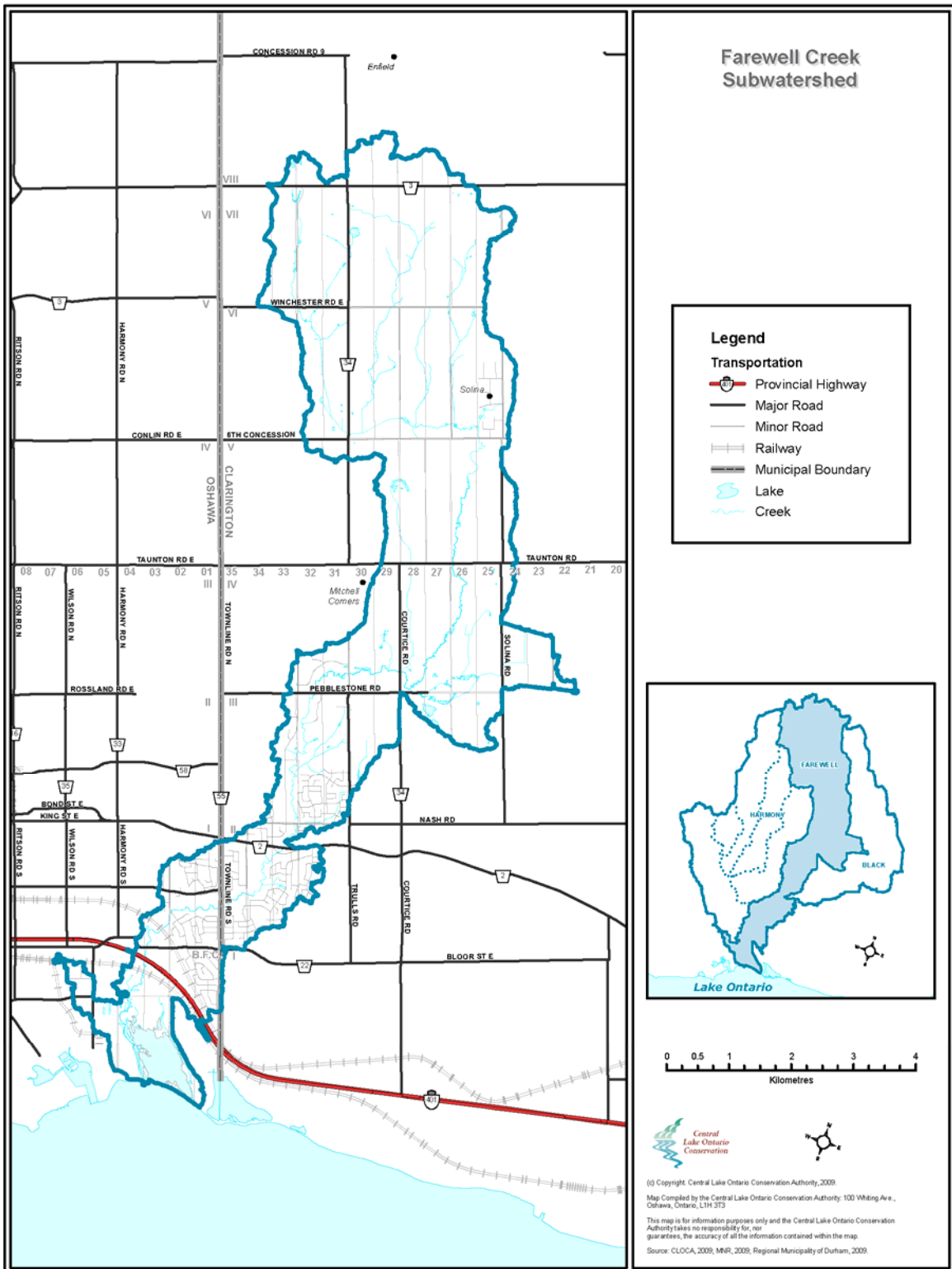


Figure 7: Farewell Creek subwatershed

1.3 Black Creek Subwatershed

The Black Creek subwatershed is the second largest subwatershed draining an area of 2356 ha (23.56 km²). Being located on the eastern most limit of the Black/Harmony/Farewell watershed system ([Figure 8](#)), this subwatershed is entirely within the Municipality of Clarington. The majority of the subwatershed is dominated by agricultural use mixed with natural areas. Only the subwatershed's southern tip contains urban residential development located within the north-eastern part of Courtice. Most of the subwatershed is located within the Greenbelt (83%). A small portion is in the Oak Ridges Moraine (approximately 4%). The Lake Iroquois Beach traverses 54% of the area. The southern portion of the hamlet of Hampton and a part of Courtice is found within the Black Creek subwatershed.



'the Black Creek subwatershed is the second largest subwatershed draining an area of 2356 ha'

WHAT WE DO ON THE LAND IS MIRRORED IN THE WATER

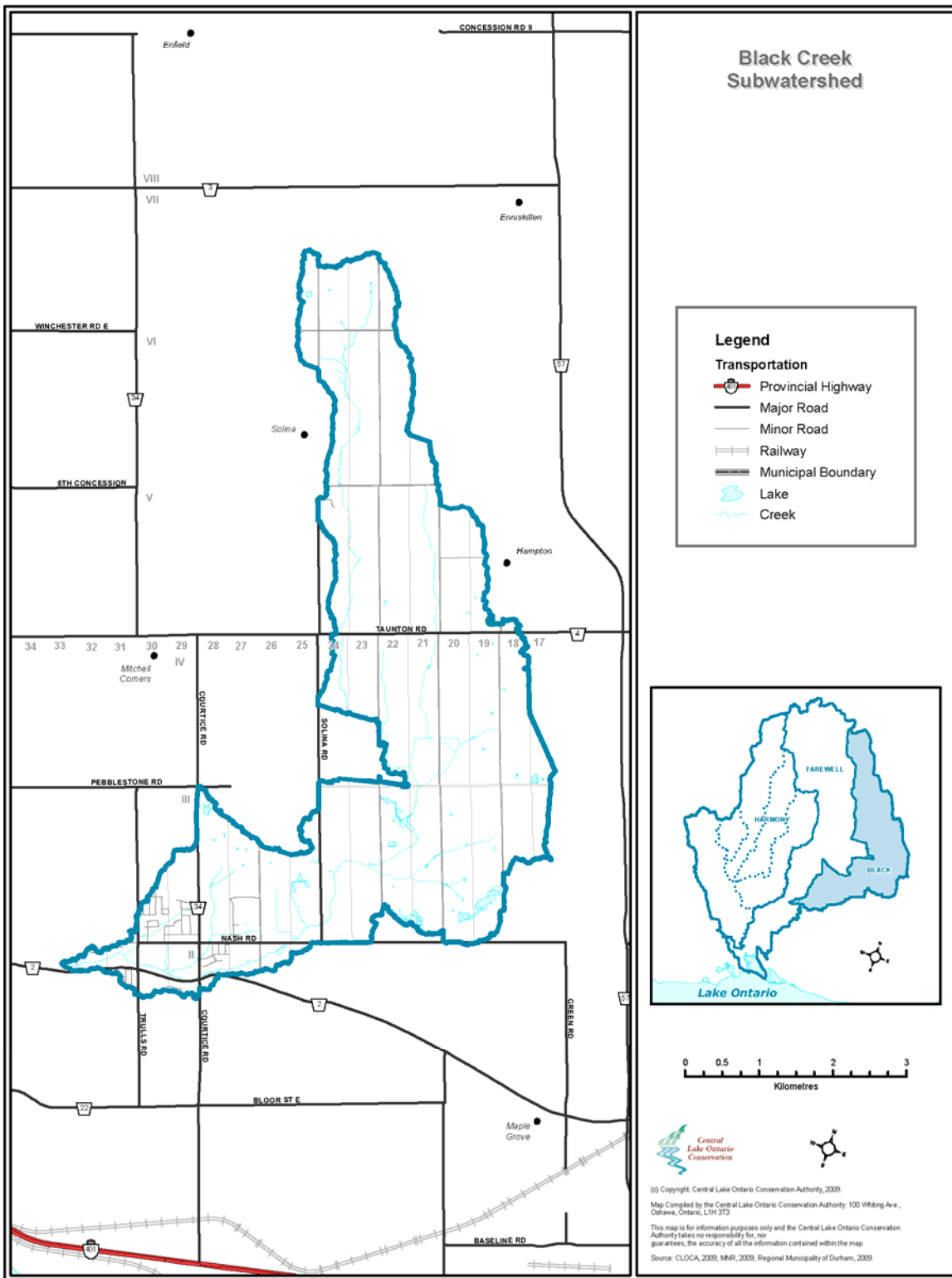


Figure 8: Black Creek subwatershed