A decorative graphic consisting of a thin yellow circle on the left side. A horizontal bar with a green-to-white gradient is positioned across the middle of the circle. A large black left square bracket is on the left side of the bar, and a large yellow right square bracket is on the right side of the bar.

GIS in Peel Planning

March 8, 2007

[Overview]

- Peel Planning's GIS Context
- GIS Use Within Planning
 - Responding to Policy
 - Service Planning
 - Education and Outreach
- Future Directions

Peel Planning's GIS Context

[GIS in Peel: A One-Slide History]

- 1987 – First Planning GIS: ESRI
- 2000 – First Corporate GIS: Intergraph
- Peel Planning kept ESRI



The planning department got GIS before Corporate GIS was invented. We had ESRI Workstation ArcInfo on a Unix server.

Corporate GIS came around in 2000 with GeoMedia, though they had been using microstation since the late 80s / early 90s

The Planning department got to keep ESRI because the CIO realized that different departments had different business needs, and that Intergraph and ESRI products could work together

[GIS in Peel Today]

- Planning maintains data sets related to the Official Plan
- Corporate GIS maintains all other data sets



Planning data sets cover things like environmental features, policy areas and analysis areas. We also have some base data (Peel boundary, airport, etc)

Planning data sets for corporate use are stored as coverages on a network server.

IT uses GeoMedia and Oracle to manage their data sets.

[The Technical Details]

- Currently using ArcGIS, Version 9.1
- 3 floating ArcInfo licenses
- 6 floating ArcView licenses
- Coverages, shapefiles and metadata



All desktops have ArcGIS 9.1 installed - using a corporate Unix server

Only certain people are allowed to use ArcInfo licenses

GIS Use Within Planning: Responding to Policy

[PeelScan Overview]

- Used for commenting on development applications
- 1996 – First version at a Unix terminal
- Today – Accessible everywhere

PeelScan is used by people in our DPS division to comment on subdivision applications.

The first instance of PeelScan was on a Unix terminal

Today everyone can access PeelScan from their own computer – it's essentially a customized ArcMap project.

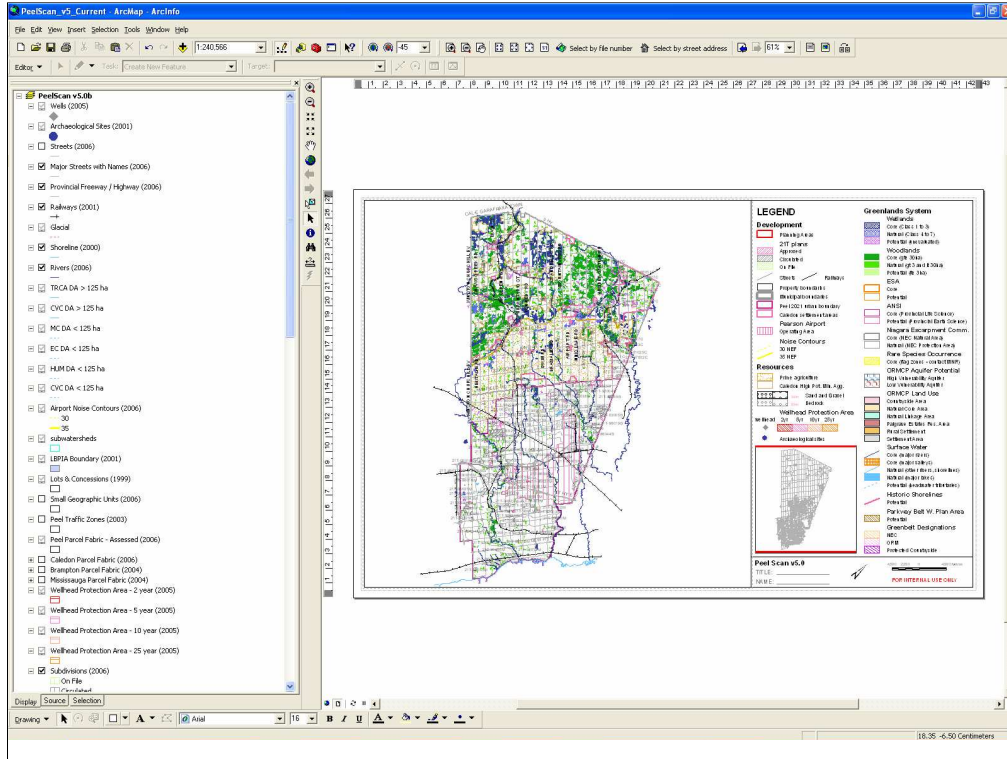
[PeelScan Functions]

- View many layers at once
- Search for locations by file number or street address
- Label and print maps
- Learn about GIS

Some layers are scale dependent

Includes a place for your name and a title for your map, you can also add in various features

PeelScan doesn't really look any different than a typical ArcMap document, and it's accompanied by a manual that teaches users about basic GIS functions



This is what it looks like – opens in layout view, here are the select by street address and file number buttons...

[Managing Growth – WhatIf?]

- Growth model
- Used for:
 - Upcoming Official Plan review
 - Informing changes to development charges
 - Infrastructure planning

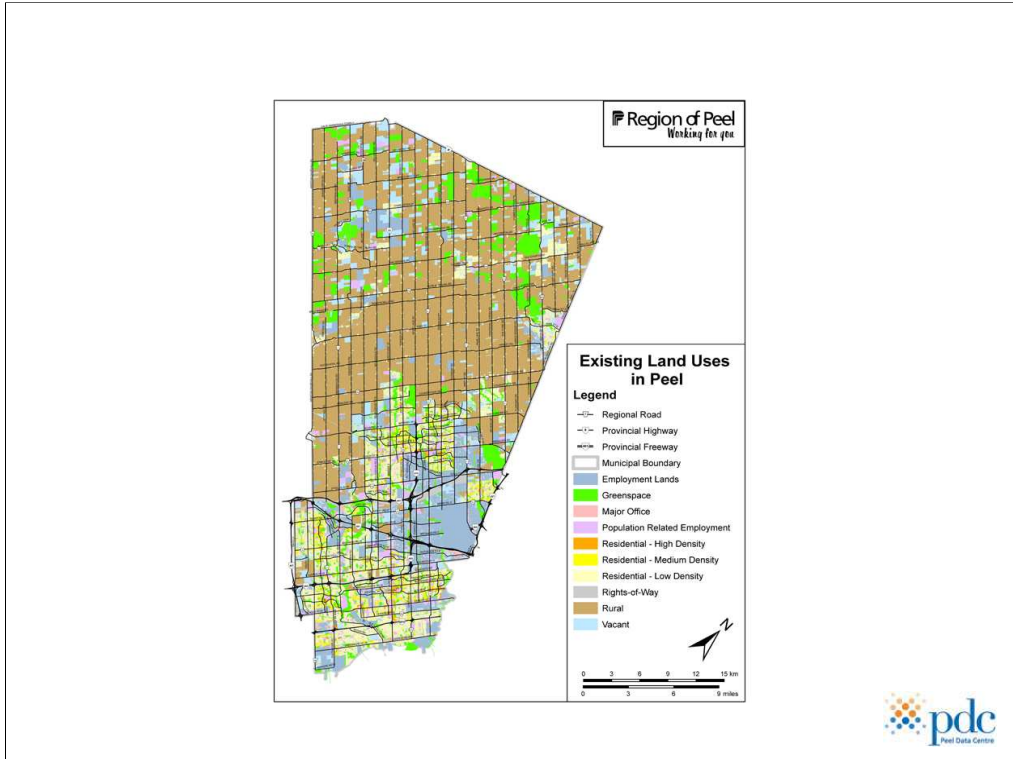
WhatIf? Uses GIS technology along with a model to plan for growth

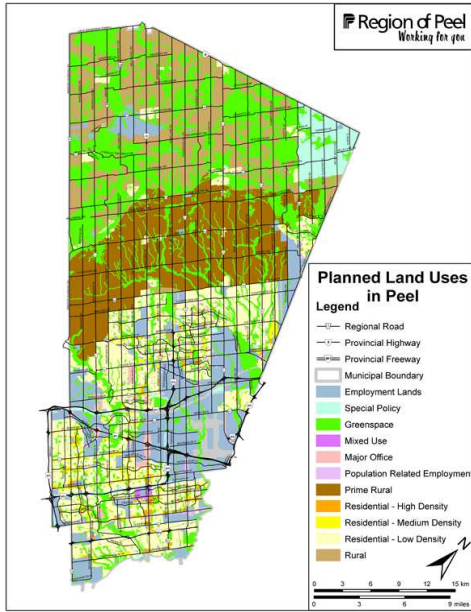
[Managing Growth – WhatIf?]

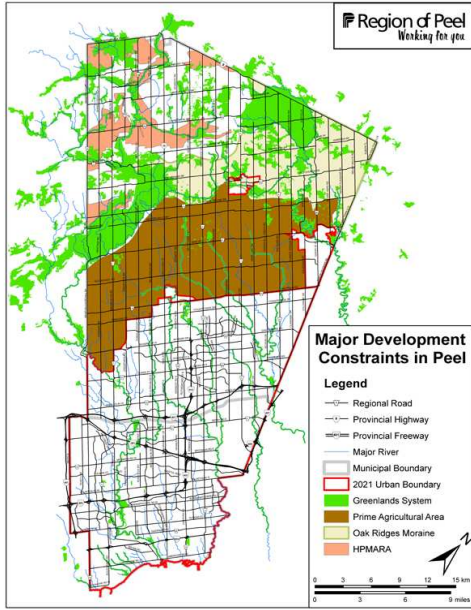
- Some WhatIf? model inputs:
 - Existing small area population, dwelling and employment figures
 - Existing and planned land uses
 - Municipal and secondary plan forecasts
 - Development priorities

We use Small Geographic Units to do this

A lot of these things have a spatial component - obviously that's where GIS comes in handy!

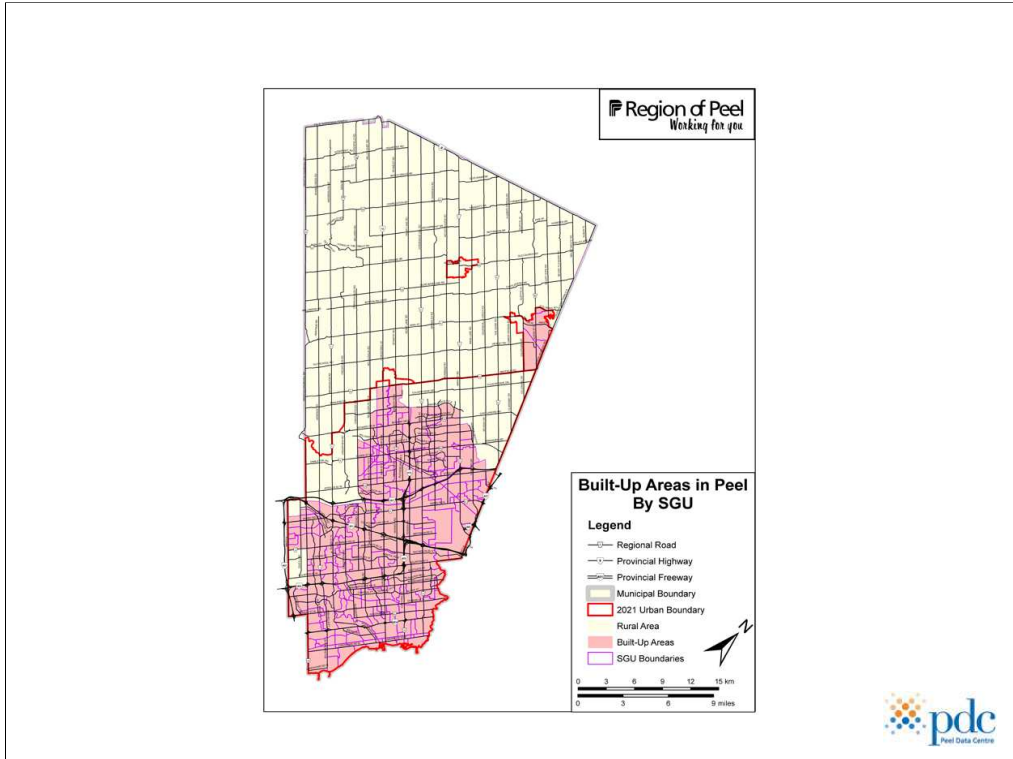






[Managing Growth – WhatIf?]

- WhatIf? calculations can also be used for:
 - Growth Plan
 - Places to Grow



[Updating Policy – Greenlands]

- Protecting natural features through the Official Plan
- Classifying natural features
- Mapping natural features



Chapter 2 of our OP relates to protecting the natural environment. Part of it outlines the Greenlands System in Peel, which is essentially protected greenspace in the Region and includes core areas, natural areas and corridors and potential natural areas and corridors. Core Areas are mapped in schedule A

We wanted to update Schedule A, and now here we are, more than 5 years later...

[Updating Policy – Greenlands]

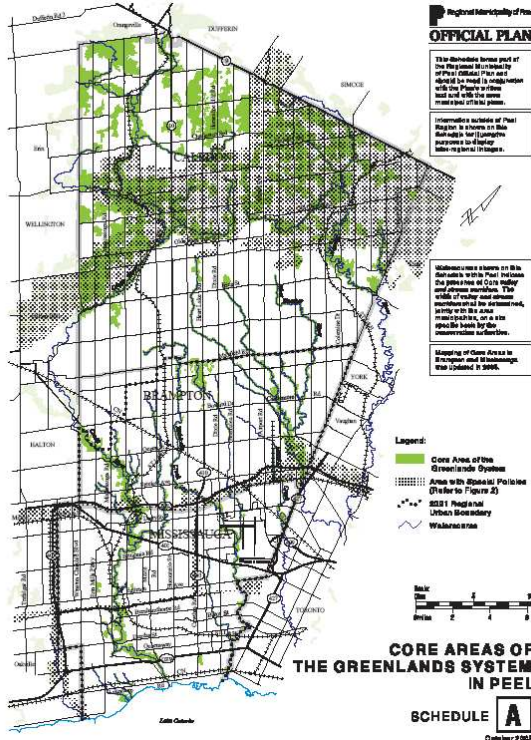
- GIS is needed to perform:
 - Complex queries
 - Area calculations
 - Managing data
 - Making maps



The policies outline what is core, nacs and pnacs and what is not.

For example: Life Science Areas of Natural and Scientific Interest are included if they are provincially significant. Woodlands are included if they are a minimum of 30 hectares (or 75 acres) in size.

May have to calculate area in Peel if a feature extends beyond Peel's boundary



GIS Use Within Planning: Service Planning

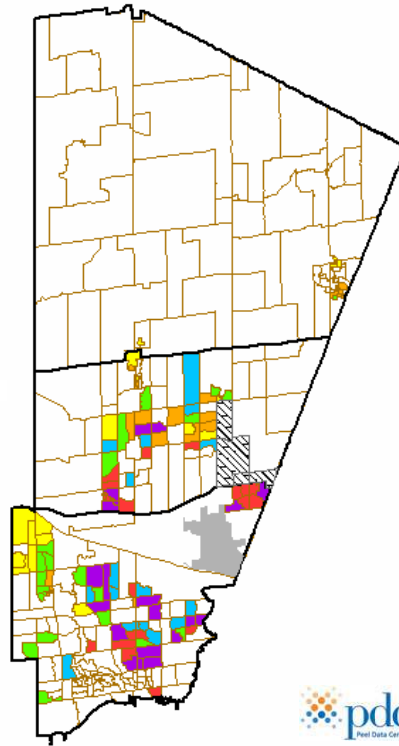


[Best Start – Finding Spaces]

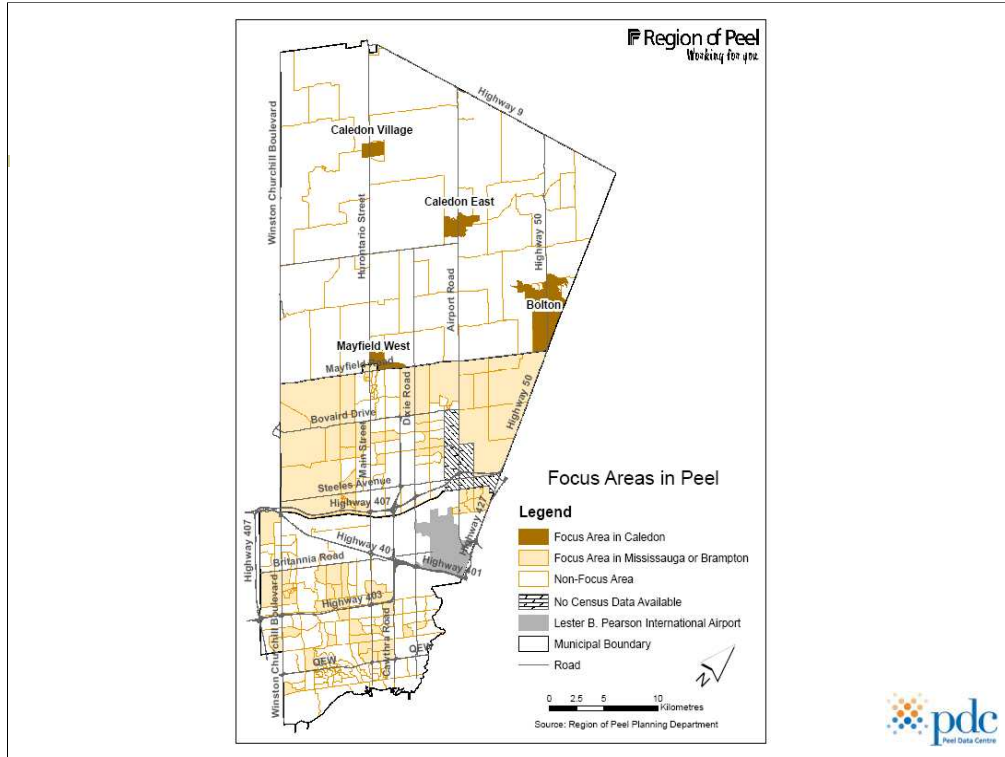
- Used 2001 Census data and locations of services
- Identified high incidence areas
- Identified focus areas
- Identified available spaces

High Incidence Areas

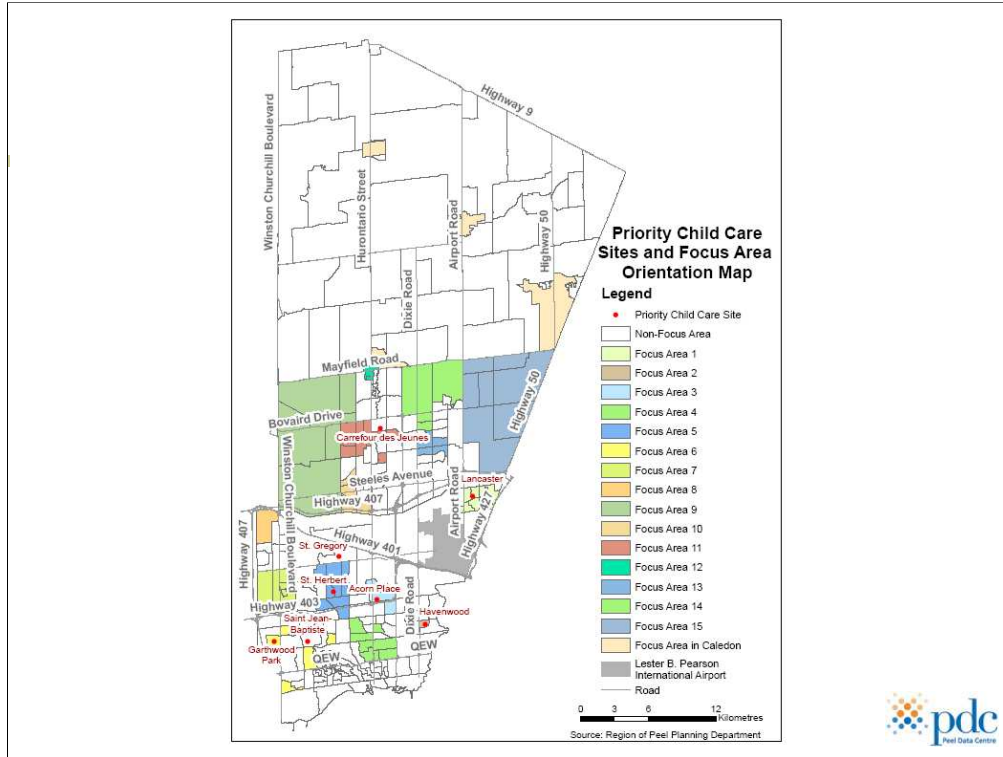
- Number of Children Per Square Kilometre
- Number of Children Per Square Kilometre plus One Other Census Variable
- Number of Children Per Square Kilometre plus Two Other Census Variables
- Number of Children Per Square Kilometre plus Three Other Census Variables
- Number of Children Per Square Kilometre plus Four Other Census Variables
- Number of Children Per Square Kilometre plus Five Other Census Variables



There is not much happening in Caledon or the East and West ends of Brampton, so we had to use our own knowledge in these areas (because we know that there are people that need services in these areas).



We ended up flagging all of the areas in the East and West parts of Brampton because we know these are high growth areas. In Caledon, we flagged Mayfield West, Bolton, and Caledon East (these are settlement areas as defined by Peel's Official Plan). We also flagged Caledon Village so that we could potentially serve people in the Northwest corner of Caledon. Often these people go to Orangeville for services.



Determined based on which schools had space available, needed to give the impression that we were being “fair”. Chose 9 sites in total – 7 in Mississauga, 2 in Brampton, 0 in Caledon.

- Chose 3 public schools (Havenwood, Lancaster and Garthwood Park)
- Chose 3 Catholic schools (St. Philip, St. Herbert and St. Isaac Jogues)
- Chose 1 French public school (Carrefour Des Jeunes)
- Chose 1 French Catholic school (St. Jean Baptiste)
- Chose 1 non-school site (Acorn Place)

[Socio-Economic Study of the Credit Valley Watershed]

- Western half of Peel
- Credit Valley Conservation wanted to engage watershed users
- Mapped several demographic variables

[

]

- Interesting map from that study...

Credit Valley Watershed Population Calculations

- Used census tract data and orthoimagery

Look! Invisible pictures that show how we did this!!!

[Neighbourhoods – in Progress]

- No defined neighbourhoods for Peel
- Urban and rural split
- Growth
- Neighbourhoods are easily identifiable

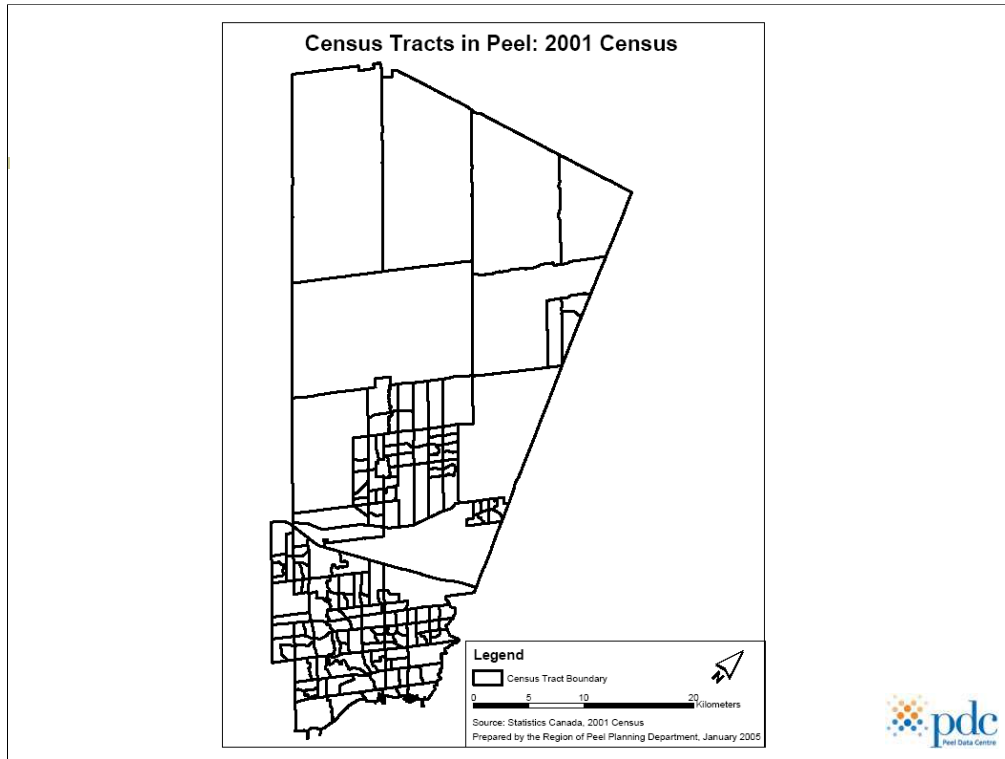


There are currently no defined neighbourhoods for Peel that are used by social agencies and government alike. Edmonton does.

We are currently working on defining Peel neighbourhoods with a group of social agencies in Peel. This will be followed by a consultation process

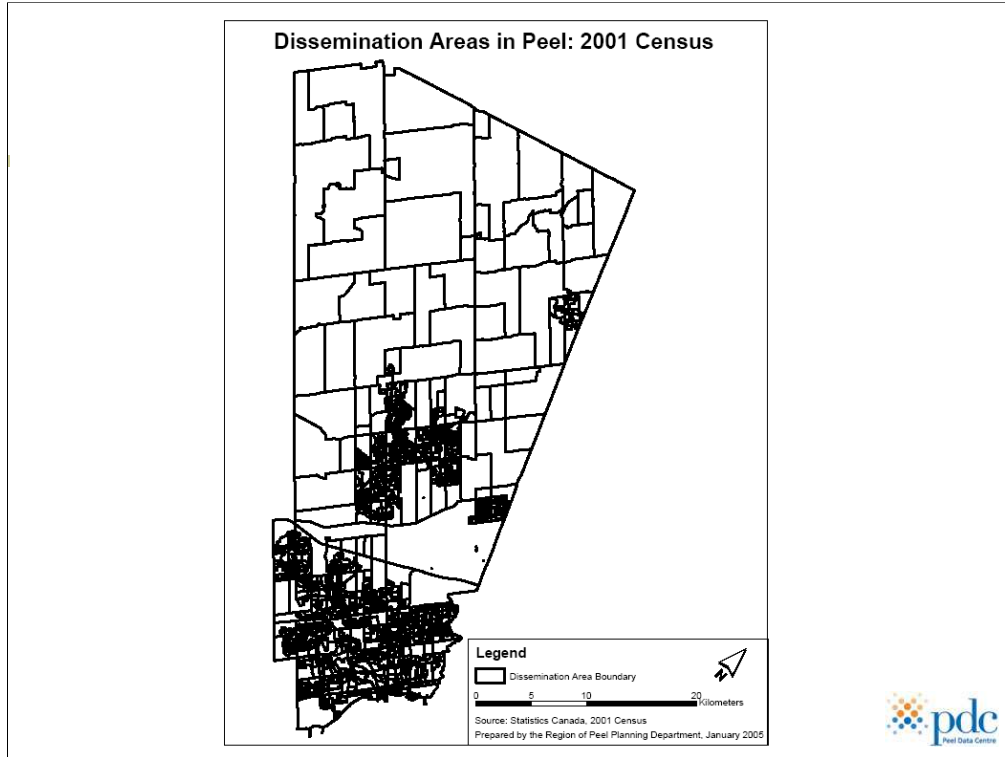
Defining neighbourhoods in Peel can be a difficult task because of the urban and rural split and growth

But defined neighbourhoods are a good thing – the public can identify with them and it could simplify data orders and reporting.



These maps illustrate some of the issues with defining neighbourhoods. You can see there are only 8 CTs in Caledon – for 2006 there will be 11.

The Census is not our only data source, but it sure is a good one!



Dissemination areas are really small in some cases.

From our preliminary discussions, we think we'll be building our neighbourhoods out of census tracts and dissemination areas, which is what we did for Best Start.

GIS Use Within Planning: Education and Outreach



[Introducing GIS...]

- Peel Children's Water Festival
 - The World Around Me
 - Liveable City
- GIS Day
 - Tie-in with high school curriculum
 - Student demonstrations

[Providing an Education...]

- Maps at Open Houses
- Providing Reference Maps
- Co-op students



Maps are a big feature of our open houses – the maps tell a story

The Peel Data Centre web site has a section on maps of analysis areas, so people can find out what a census tract is and see where they are in Peel

We get lots of requests for information from

[We Take Requests...]

- Demographics in my neighbourhood
- Developed areas in a watershed
- Properties owned by faith groups

Future Directions



[Up and Coming...]

- Migration to geodatabases
- New Corporate GIS Strategy
- Exploring interactivity on the Internet

[Questions?]