

# Drainage Programs

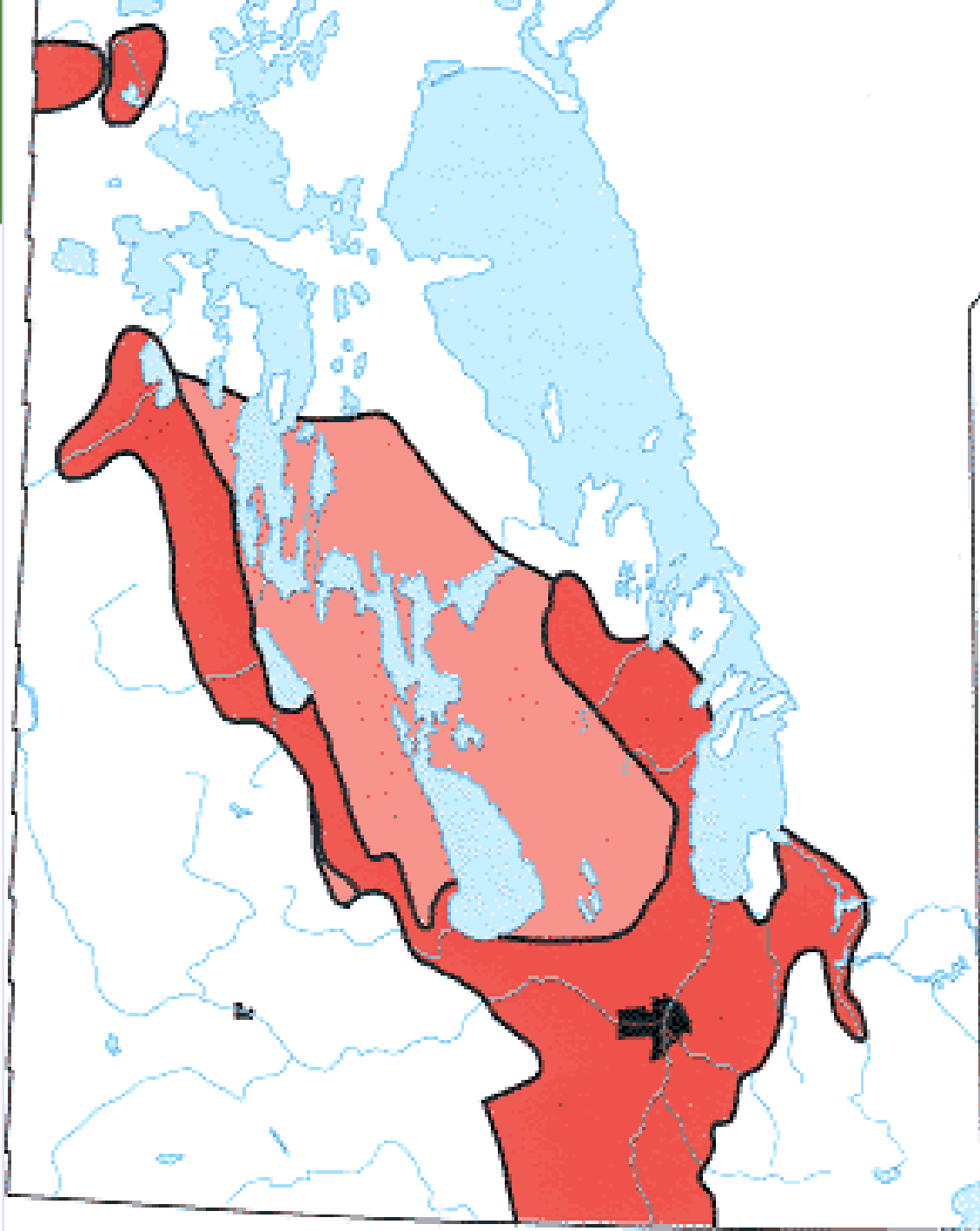
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Steve Topping

November 26, 2007



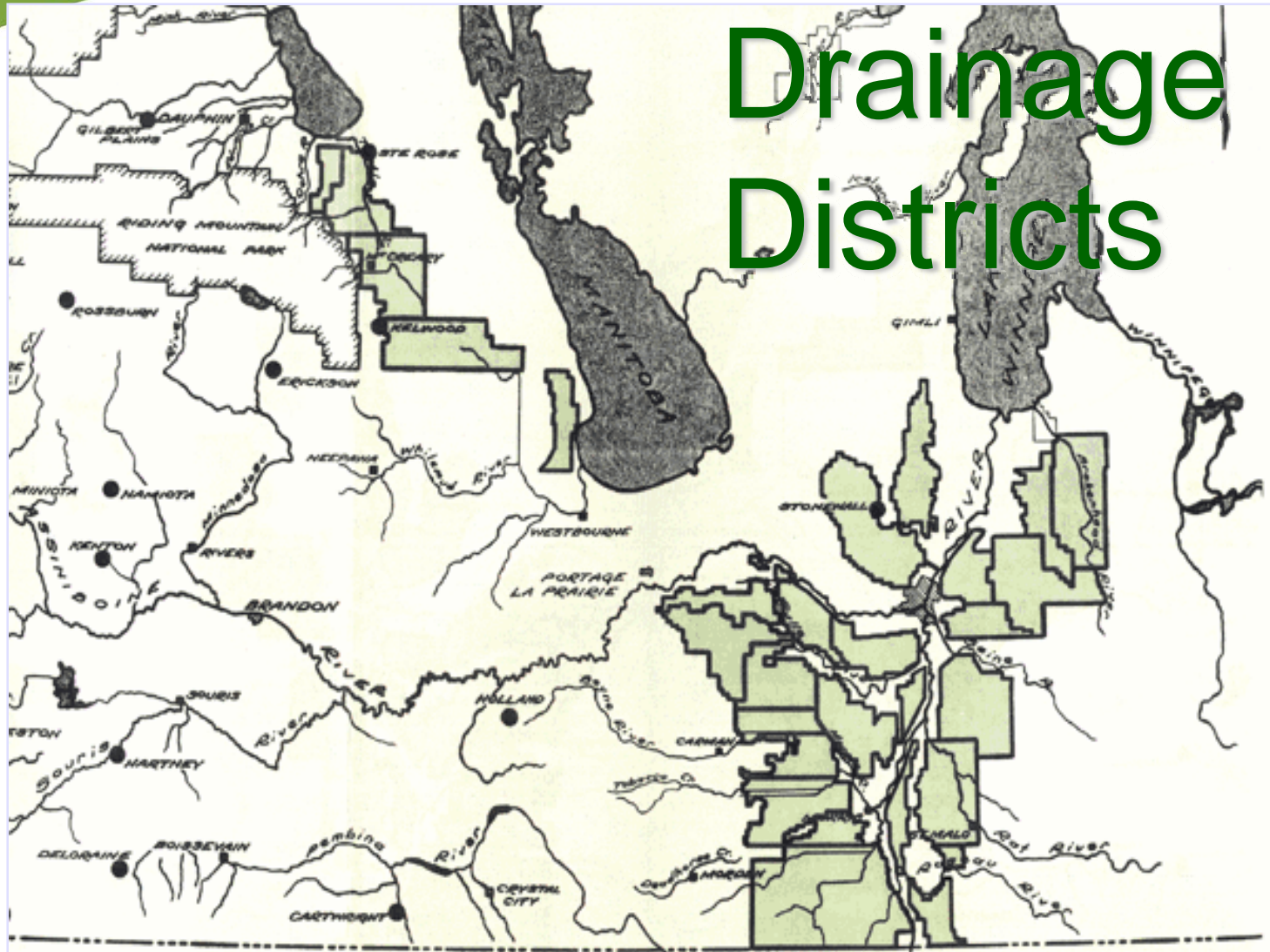
# Areas Requiring Artificial Drainage

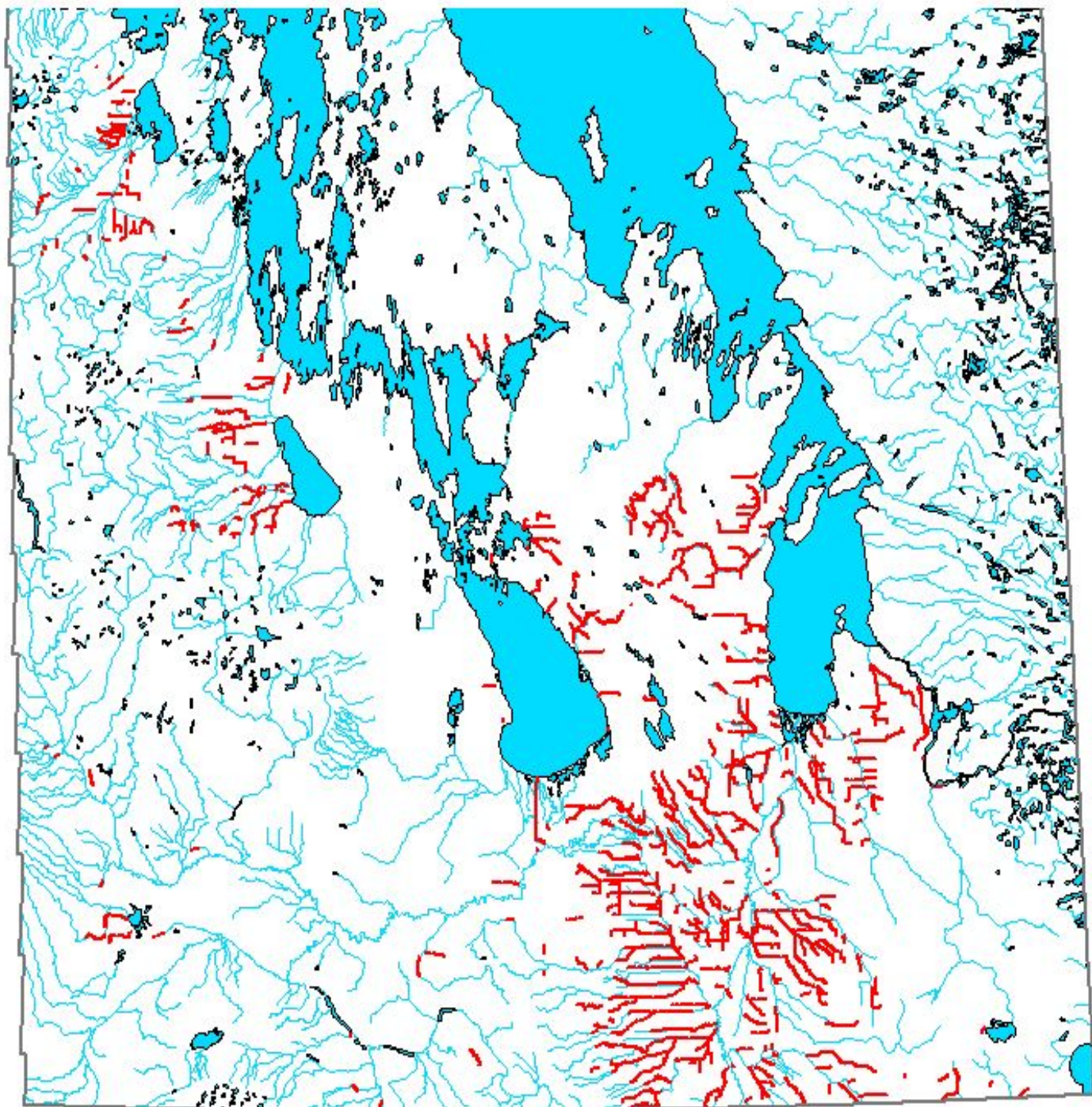






# Drainage Districts

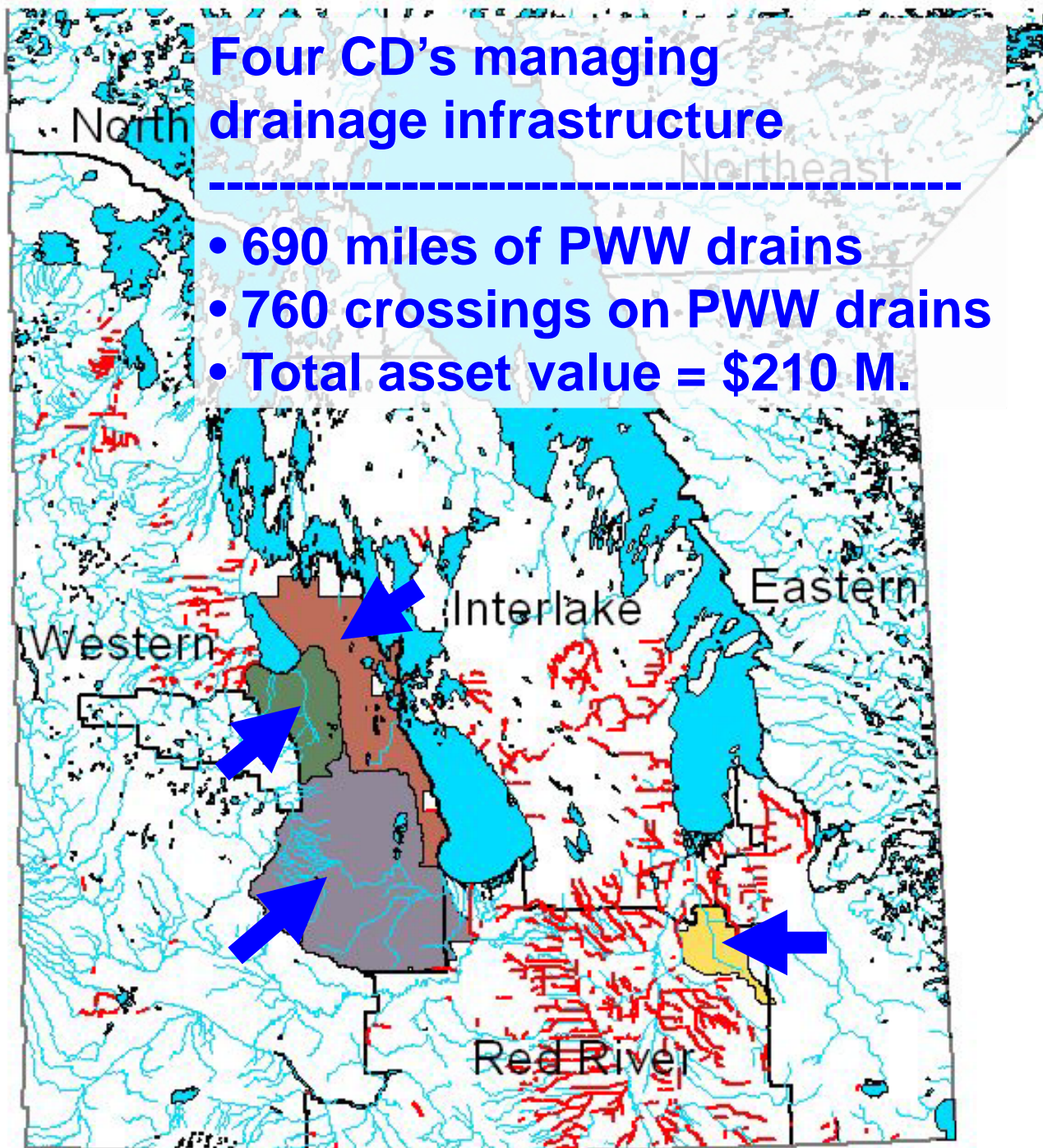




- 2,750 miles of Provincial Waterway drains
- 600 bridge crossings
- 1,500 large culvert crossings
- Total asset value = \$2.5 B.

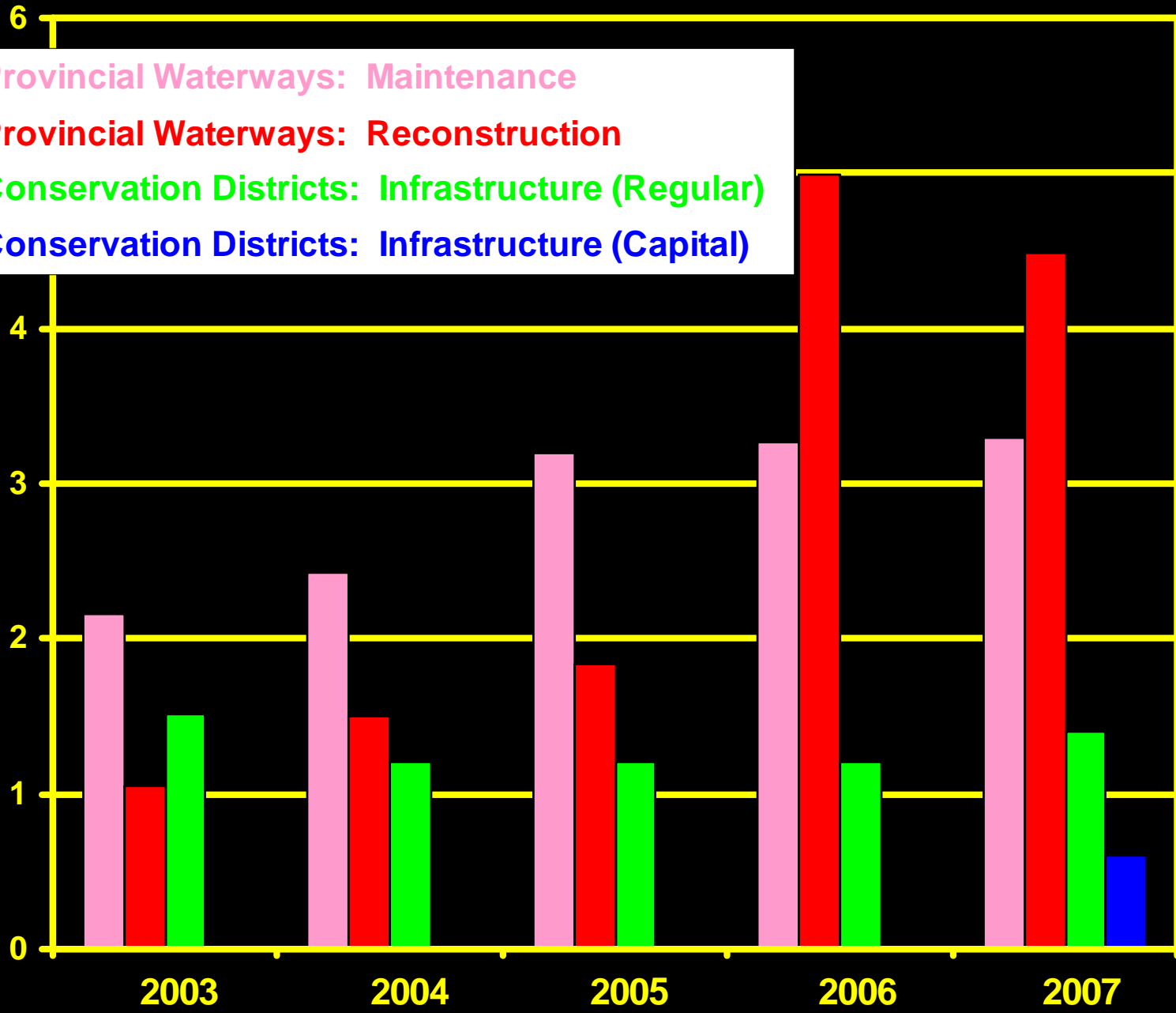
## Four CD's managing drainage infrastructure

- 690 miles of PWW drains
- 760 crossings on PWW drains
- Total asset value = \$210 M.



- Provincial Waterways: Maintenance
- Provincial Waterways: Reconstruction
- Conservation Districts: Infrastructure (Regular)
- Conservation Districts: Infrastructure (Capital)

Million dollars



## Maintenance

- mowing vegetation within channel
- removing heavy stands of vegetation, like willows
- removing silt and debris in channel bottom
- re-shaping short reaches of slumping and sliding channel side slopes
- repairing damaged culverts
- repairing eroded road grades at culvert crossings
- repairing or replacing damaged planks or other elements of bridge crossings

## Reconstruction

- enlarging channel size
- re-shaping of channel's side slopes
- removing soil from caved-in and sliding side slopes
- replacing very badly deteriorated culverts and bridges
- increasing capacity of culvert crossings, by adding new culverts or installing larger culverts
- increasing capacity of bridge crossings, by lengthening span of bridge, installing a new bridge, or installing culverts with high capacity

## 2006 re-organization

- MIT assumes direct ownership of the Provincial Waterway network
- MIT responsible for undertaking surveys, engineering designs, maintenance works, reconstruction/rehabilitation works, and capital construction projects
- MIT provides survey services to conservation districts

## 2006 re-organization (cont'd)

- WSD responsible for planning studies, multi-year capital plans, policy development, setting standards, conservation district support  
(assume these responsibilities on a 'ramping up' basis, as old responsibilities for design etc. are transitioned to MIT)
- WSD undertakes regulatory functions, such as permitting of utilities on Provincial Waterways, and issuing licenses for drainage and other water control works

# Roles within Water Stewardship

- Watershed Planning and Programs:
  - oversee conservation district program
  - oversee development of Watershed Management Plans (IWMP's) & Surface Water Management Plans (SWMP's)
  - assist conservation districts with IWMP's & (SWMP's)
  - assist cd's with program management & administration functions, like development of annual & 5-year work plans and budgets

## Roles within Water Stewardship (cont'd)

- Water Control System Management:
  - develops annual and 5-year Provincial Waterway reconstruction programs
  - oversight role for PWW maintenance programs
  - undertakes feasibility studies
  - develops and maintains PWW inventory
  - sets standards for water control works
  - provides technical services to CD's
  - technical lead for development of SWMP's
  - provides input to IWMP's

## Roles within Water Stewardship (cont'd)

- Water Control Works and Drainage Licensing:
  - licenses landowner and municipal drainage works
  - licenses landowner and municipal water control works, such as dikes and small detention dams
  - enforcement for unauthorized water control works
  - provides input to IWMP's and SWMP's

# The End