

Appraisals and Contaminated Properties



Harold Kenny
Ludger Management
And
Scott MacKnight
OCL Services Ltd.

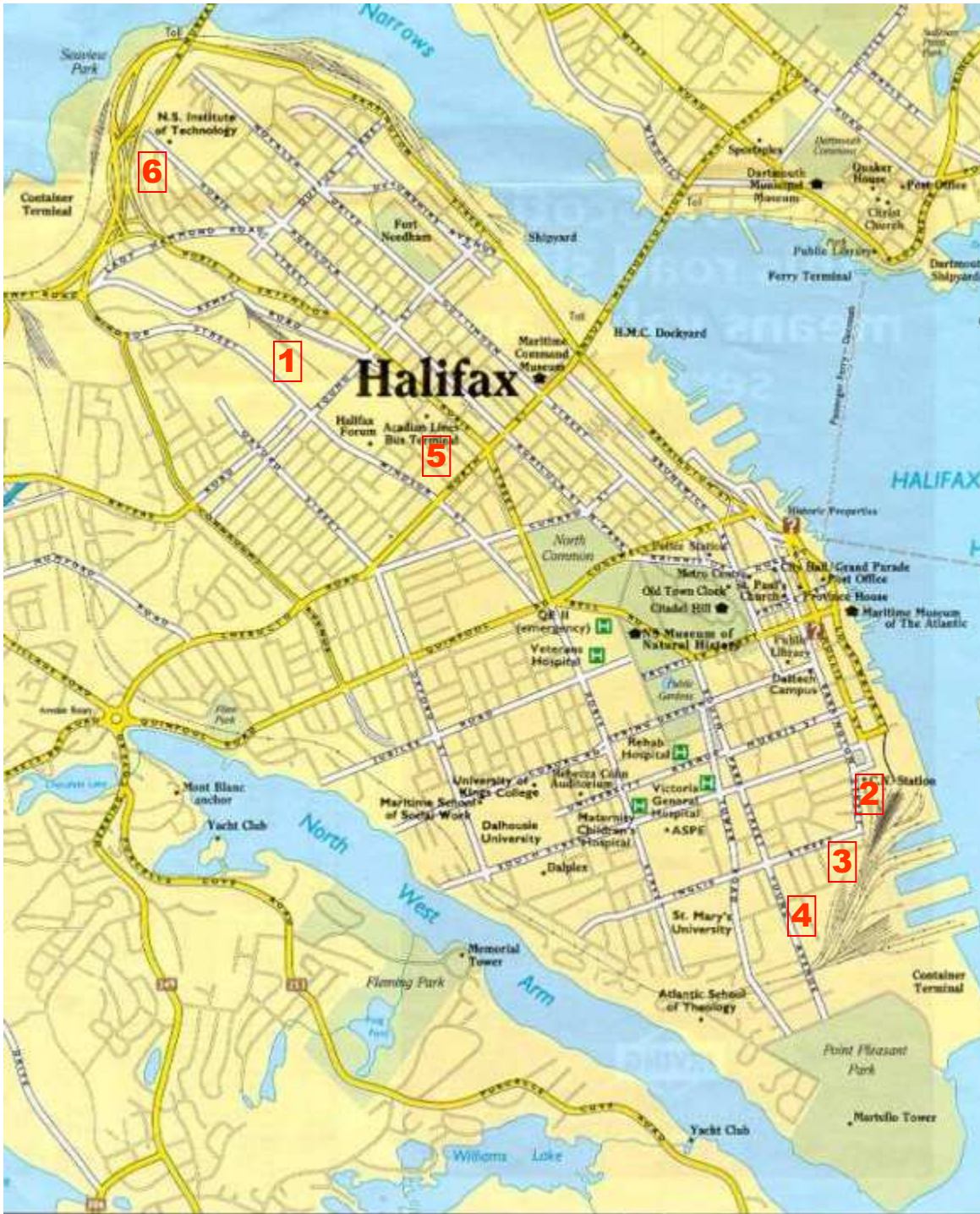


Introduction

Our purpose is to share some personal experiences with taking contaminated de-valued properties through clean-up to re-development with associated value implications.

WHAT IS BROWNFIELD DEVELOPMENT?

- **Inner city/urban location**
- **Access to all city services and amenities**
- **Large size property**
- **Former industrial or heavy commercial use**
- **Actual or perceived property contamination**
- **Diminished property value**
- **Good to excellent potential for re-development with greatly increased value.**

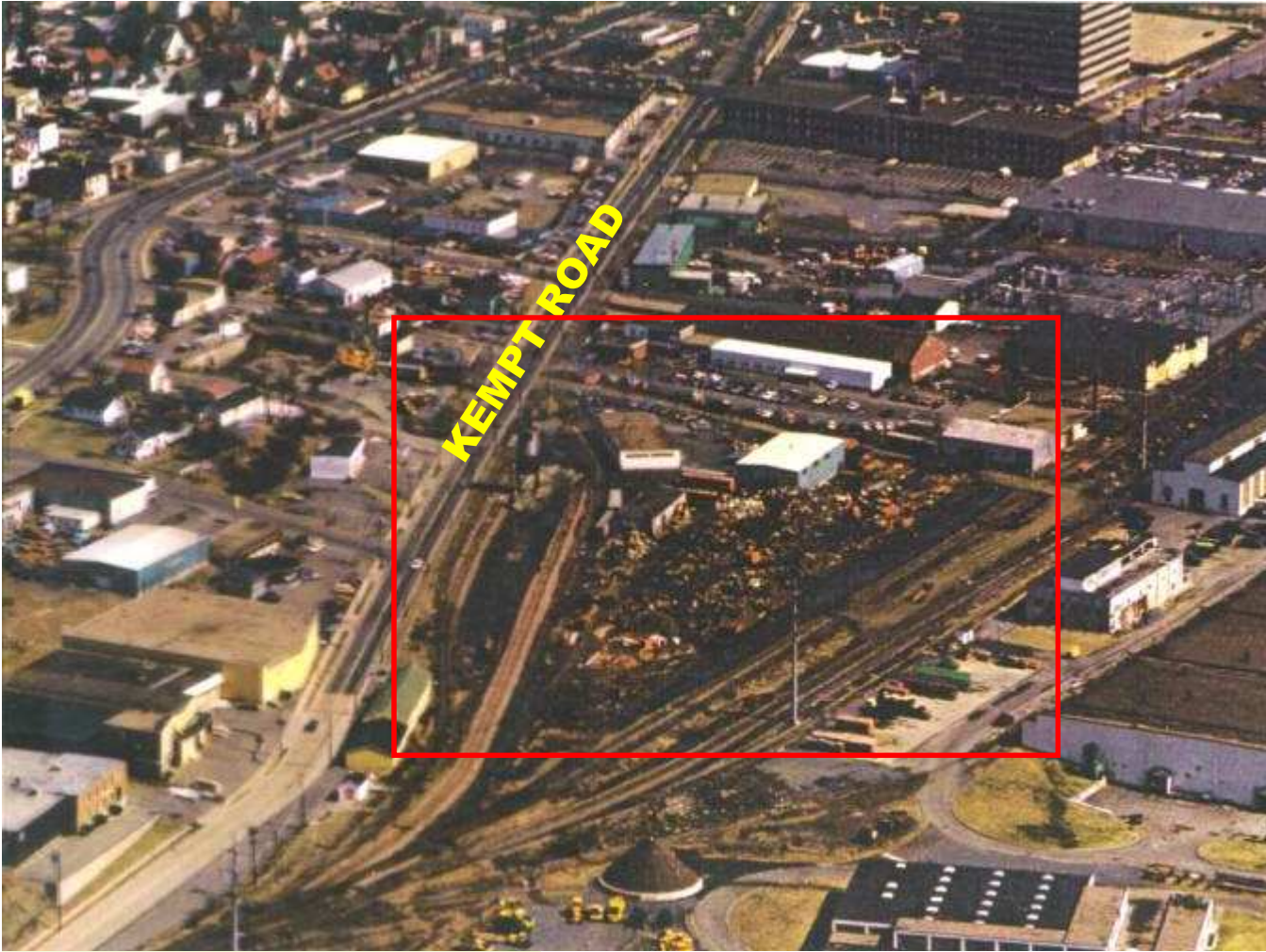


EXAMPLES OF BROWNFIELD DEVELOPMENTS IN HALIFAX

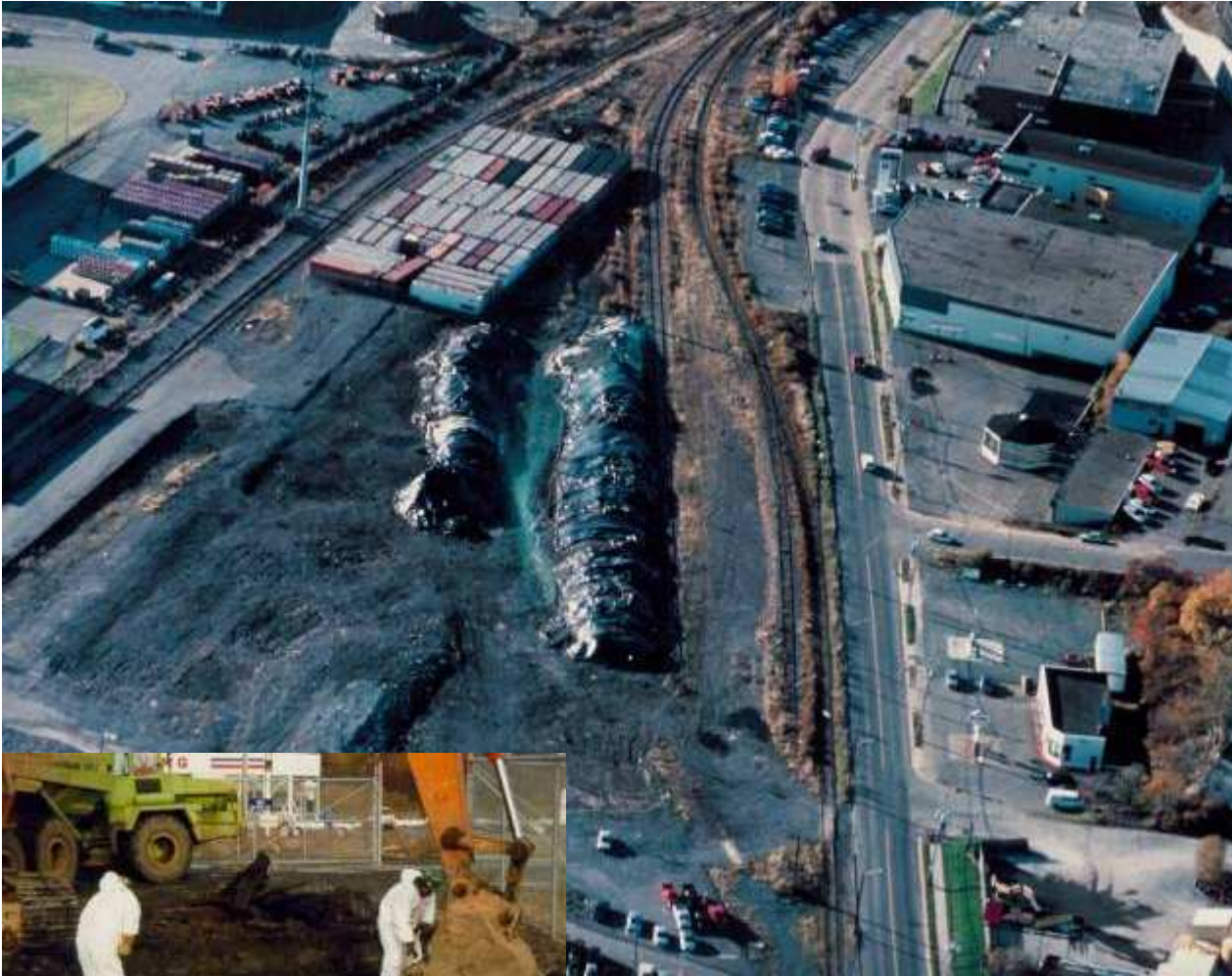
1. Kempt Rd.
2. Barrington St.
3. South Bland St.
4. McLean St.
5. Gladstone St.
6. Memorial Dr.

Kempt Road, Halifax

- **10-acre occupied by a scrap metal operation, recycled electrical transformers, etc.**
- **Soil impacted with PCB, lead, zinc, copper**
- **Excavated 3,000 tons of PCB contaminated soil; 18,000 tons of metal-contaminated soil**
- **Total remediation cost of approx. \$7M**
- **Commercial/retail re-development.**



1925-1986: SCRAP YARD, RAIL SIDINGS, COAL STORAGE YARD



**1986-1992: 6 YEARS OF ASSESSMENT,
NEGOTIATION, EXCAVATION AND STORAGE OF
CONTAMINATED SOIL**



NOVEMBER 1996: 4 ADDITIONAL YEARS OF NEGOTIATION, FINAL CLEARANCE SURVEYS
“READY FOR SALE”

TODAY



Barrington St., Halifax

- **6-acre site**
- **Land reclaimed from harbour in 1913-1915**
- **Leased to rail customers (petroleum service station, ice making plant)**
- **Risk Base Corrective Action (RBCA)**
- **Northern end contaminated by adjacent service station (gasoline and diesel)**
- **6000 tonnes of soil removed (hydrocarbons and lead)**
- **Re-developed – Atlantic Superstore (Barrington Market), Tim Horton's, Peninsula Apartments**



**1995: CN FREIGHT SHED, SERVICE STATION,
VARIOUS INDUSTRIAL TENANTS**

TODAY, VIEW SOUTH





TODAY, VIEW NORTHEAST

McLean St., Halifax

- **7-acre CN service facility, vehicle fleet, etc.**
- **Soil heavily contaminated with approx. 4,500 tons of hydrocarbon due to former fuel tanks.**
- **Largest new residential subdivision Halifax south-end in 50 years.**
- **32 single-family homes**



1996: Service garage and rental buildings

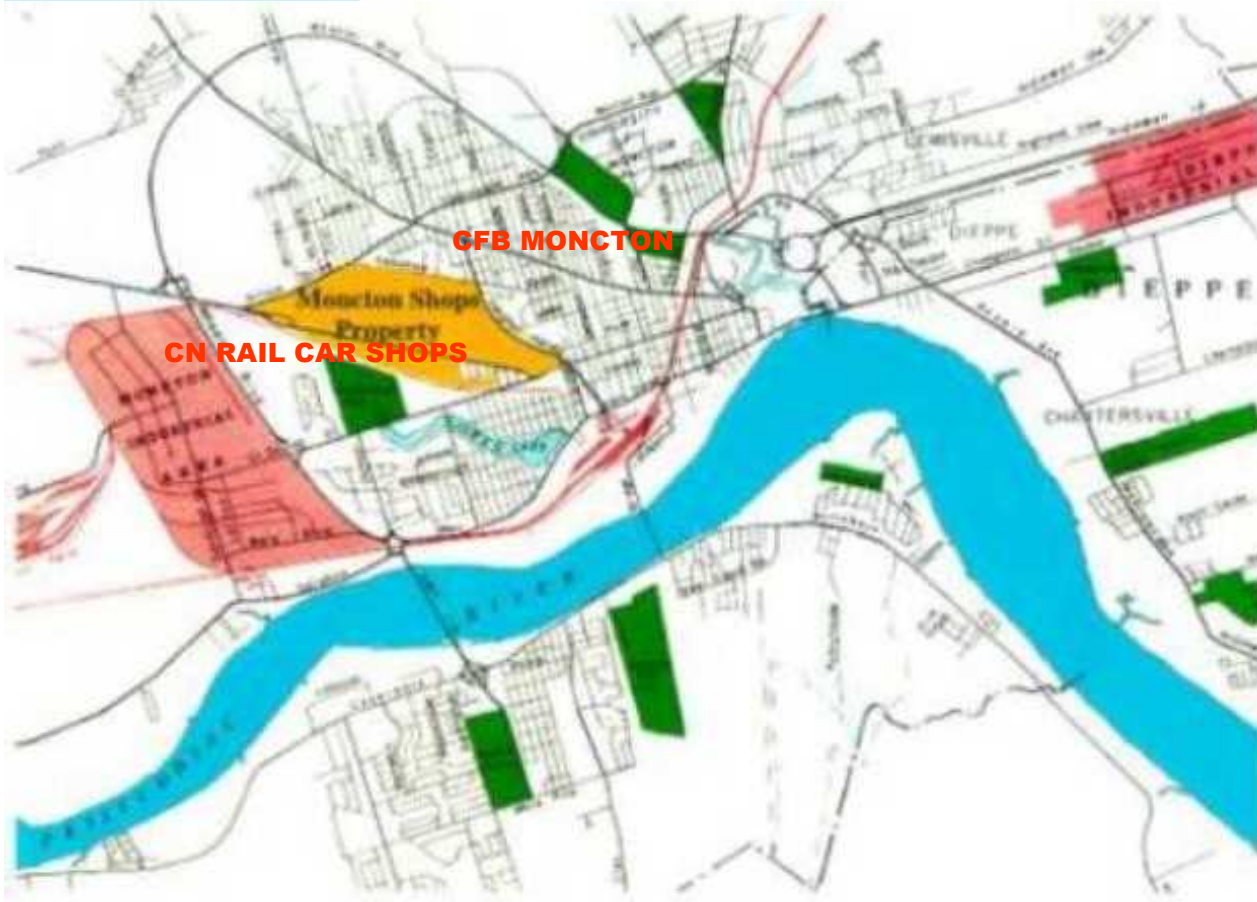


1997-1998: Site Remediation (Dig and Truck)

TODAY



EXAMPLES OF BROWNFIELD DEVELOPMENTS IN MONCTON



- CFB MONCTON
- CN RAIL SHOPS

CFB Garrison, Moncton

- **20-acre Canadian Forces Base**
- **Excavated 2,500 tons of contaminated soil**
- **Building demolition - asbestos, construction waste and debris**
- **Now occupied by YMCA (new building), Royal Canadian Legion (former officers' mess), Special Care Veteran's facility & apartment building.**



CFB Moncton: Garrison Grounds

CN Car Repair Shops, Moncton

- **280-acre combination of Repair Shops, Waste Holding Area and Franklin Marshalling Yard (1906 -1987)**
- **Employed up to 5,000**
- **Referred to as the largest Brownsfield in Canada**
- **Expected cost and time - \$60-\$80M, 10-15 years**
- **Employing RBCA Environmental Stewardship and Sustainable Development.**
- **Project completed in 36 mos. for \$12M**
- **GIS management tool, thermo absorption and RBCA technologies contributed to success**



1945



The Main Repair Shop 1946

1995





**Concrete
infrastructure and
building foundations**



**Oil-contaminated
soil**



**Buried scrap metal
and residues**



Metal-contaminated soils



Waste wood



Operations wastes

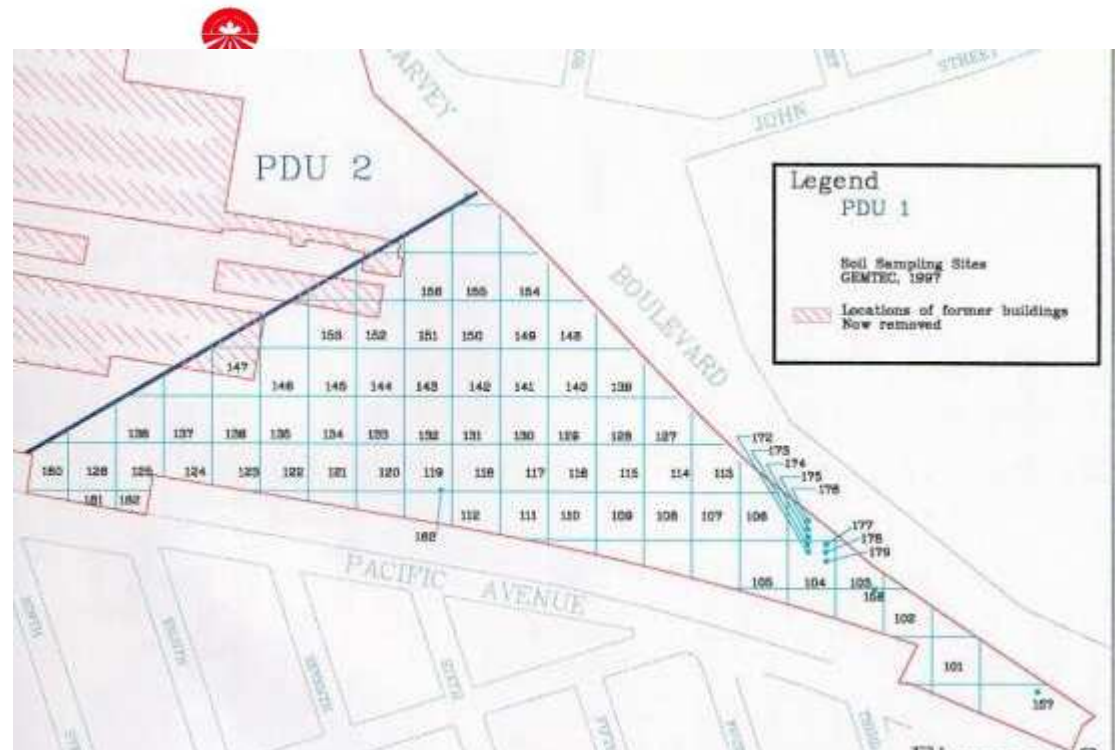
PDU Boundaries



Divide into Property Development Units

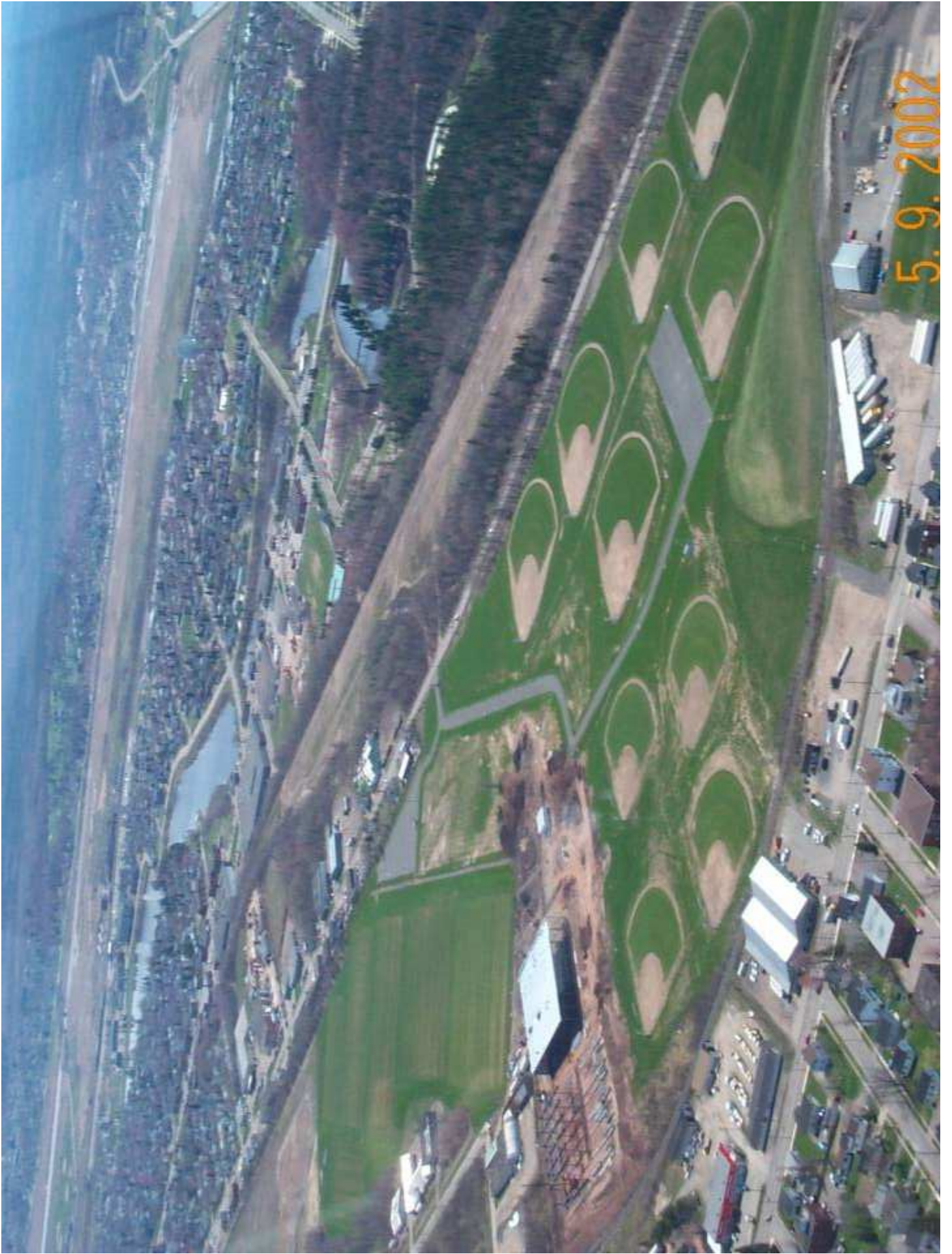
500 0 500 1000 Meters

Use GIS and statistical software to plan sampling, testing, use of analyses for clean-up



CN Shops, Moncton - 2003

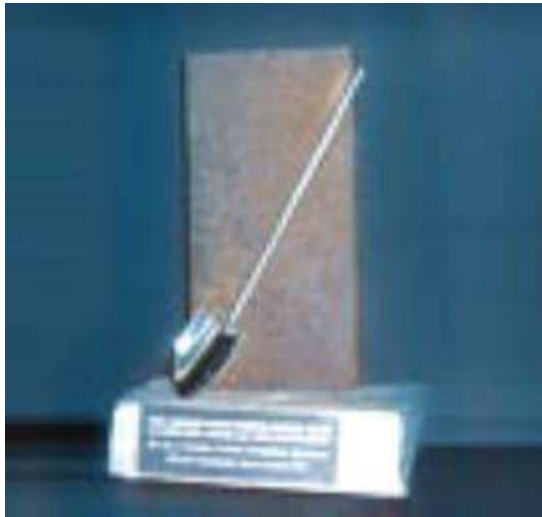
- **125-acre Moncton Commons (recreational facility)**
- **70-acre Emmerson Park - information technology park (one building completed, with another to start shortly)**
- **70-acre residential subdivision (proposed)**
- **15-acre - road allowances, etc.**



5.9.2007

2002 Canadian Urban Institute Brownie Awards

- **Sustainability in Community Building**
- **Best Overall Project in Canada**



- Recognizes outstanding efforts in promoting sustainability through the use or communication of innovative benchmarking techniques, community participation, stakeholder collaboration or public-private partnerships

- Committee impressed with openness with public, innovative use of GIS, and partnerships with several local universities

Sustainability in Community Building



Best Overall Project in Canada

- **Commended for role in helping to establish and then implementing a vision for rejuvenating this key site in Moncton.**
- **Acknowledged true community achievement, involving full participation and commitment of local citizens.**
- **Ability to overcome long-term negative opinions about feasibility of productive use of site.**
- **Text book example of how to marry extensive multi-disciplinary professional expertise with human ingenuity**

THE RESTORATION ECONOMY

THE
GREATEST
NEW GROWTH FRONTIER

IMMEDIATE & EMERGING
OPPORTUNITIES FOR BUSINESSES,
COMMUNITIES & INVESTORS

STORM COUNNINGHAM

The Trimodal Development Perspective

- New Development
- Maintenance and Conservation
- Restorative Development
- We are now in the “RE- Century”