Using GIS in Stanley Park for Restoration and Forestry Planning

Michel Desrochers, Vancouver Park Board, 2008

Storyline

Could the Vancouver Park Board – not fully plugged into the GIS world – make good use of GIS in response to a project requiring a rapid response?

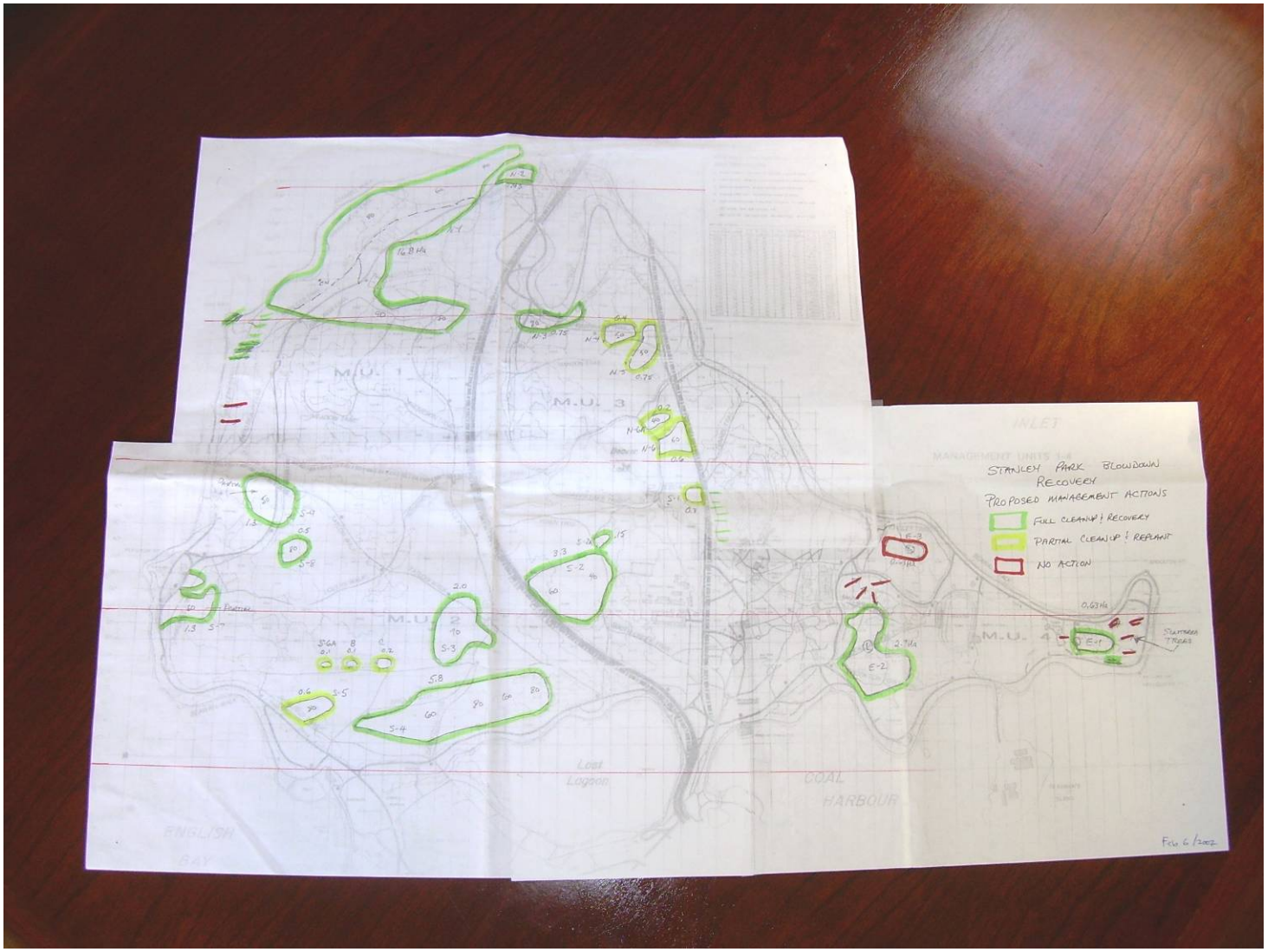
The Windstorms

- 3 storms: the biggest on Dec. 15, 2006
- 10,000+ trees fell
- 15% of forest was severely damaged
- landslides on steep slope above seawall
- structural damage to seawall

The Challenge

- Parks Dept. not GIS savvy
- Only one staff person with GIS software
- Few features in Stanley Park geo-coded
- Some geo-coded data available from City

Our First GIS Map



Motivating Factors

- **Stanley Park forest has few reference points**

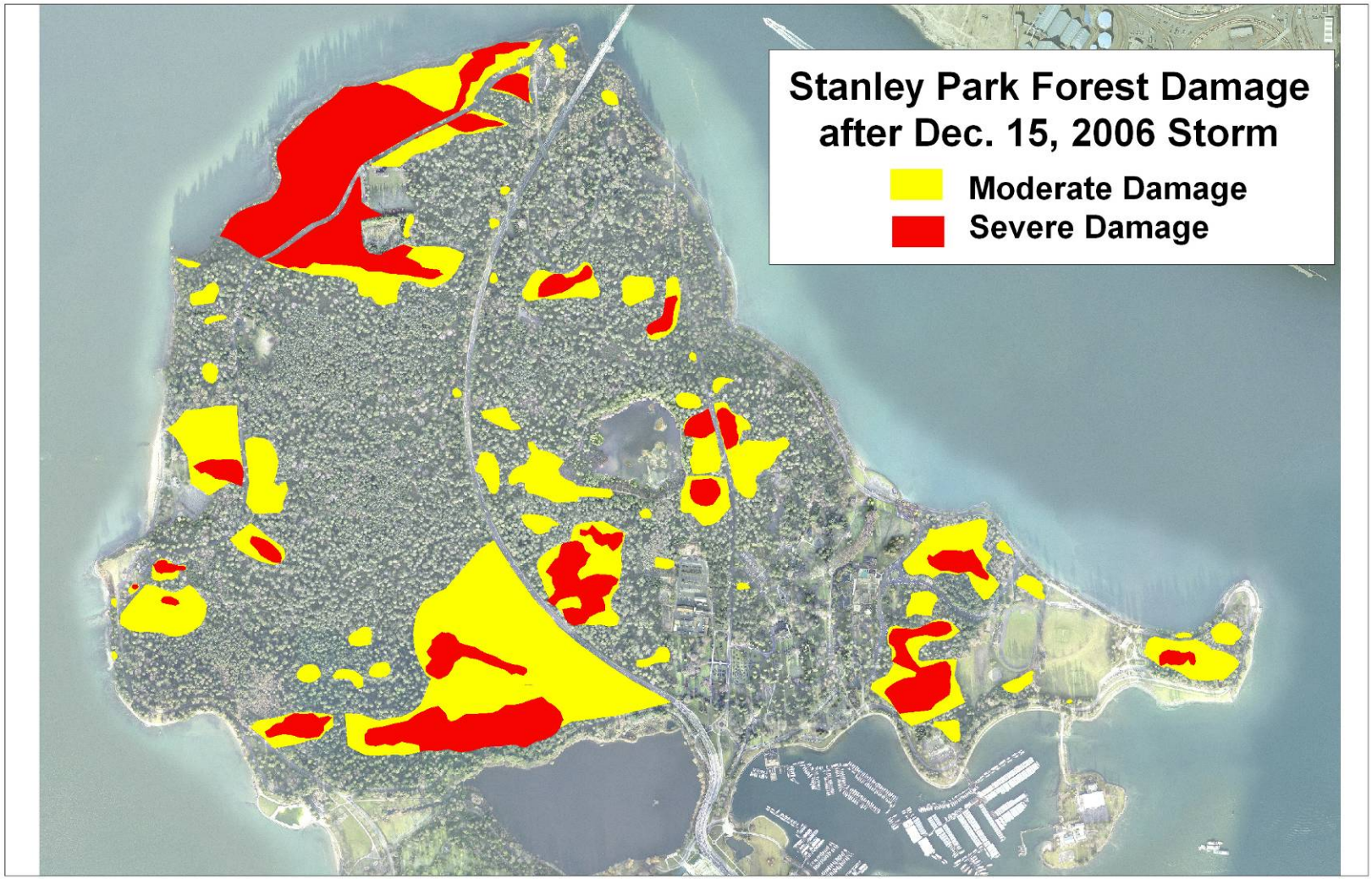
(e.g. Park Drive, forest trails)

- **Project required rapid response**
- **Consultants generated data in GIS format**
- **Consultants expected data in GIS format**
- **Budget was large enough to invest in GIS**

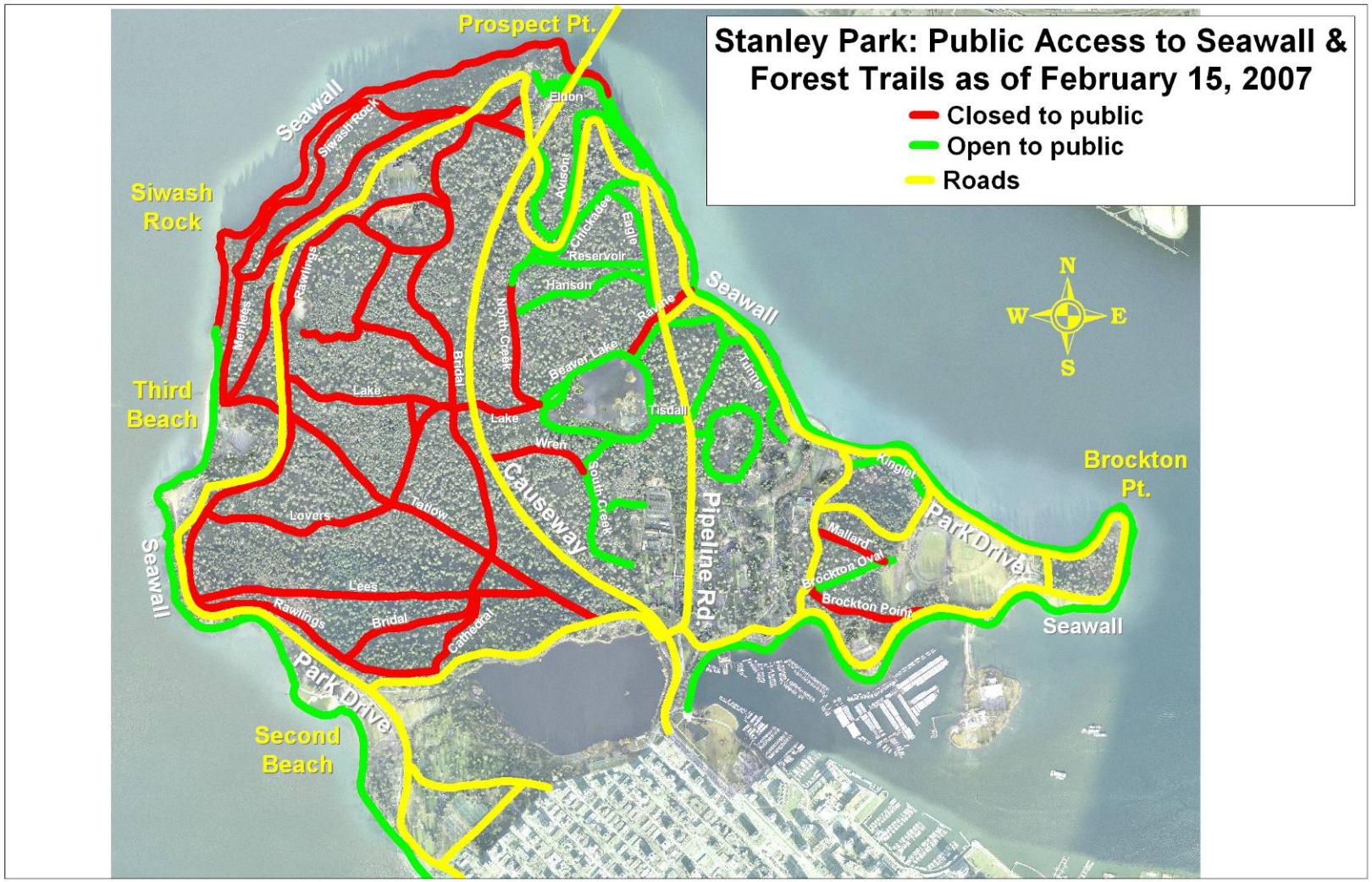
Initial Steps

- Hired a GIS technician
- Obtained additional GIS licenses
- Created GIS folder on network
- Identified data priorities
- Performed data collection and mapping

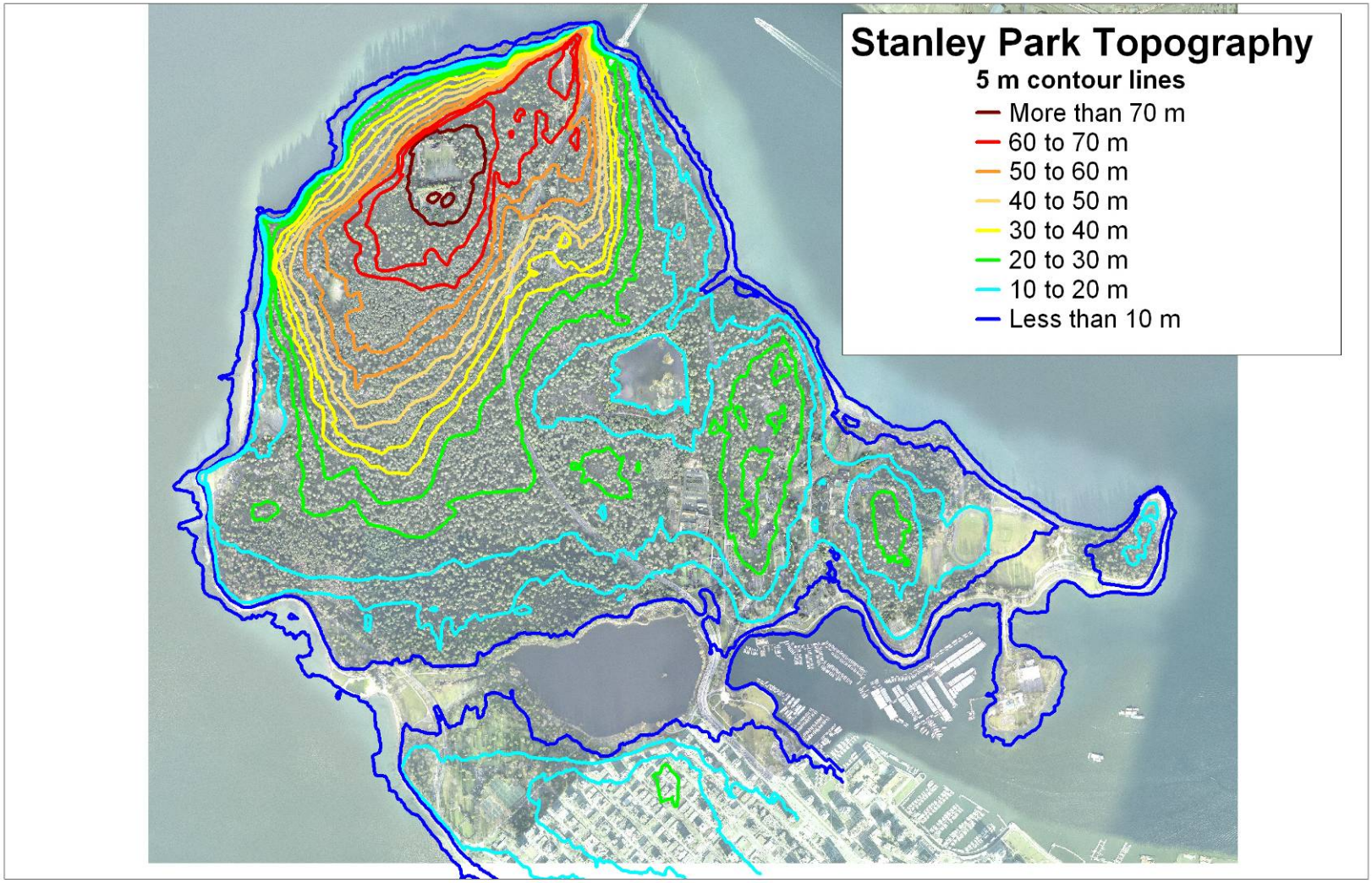
Initial Outcomes



Initial Outcomes



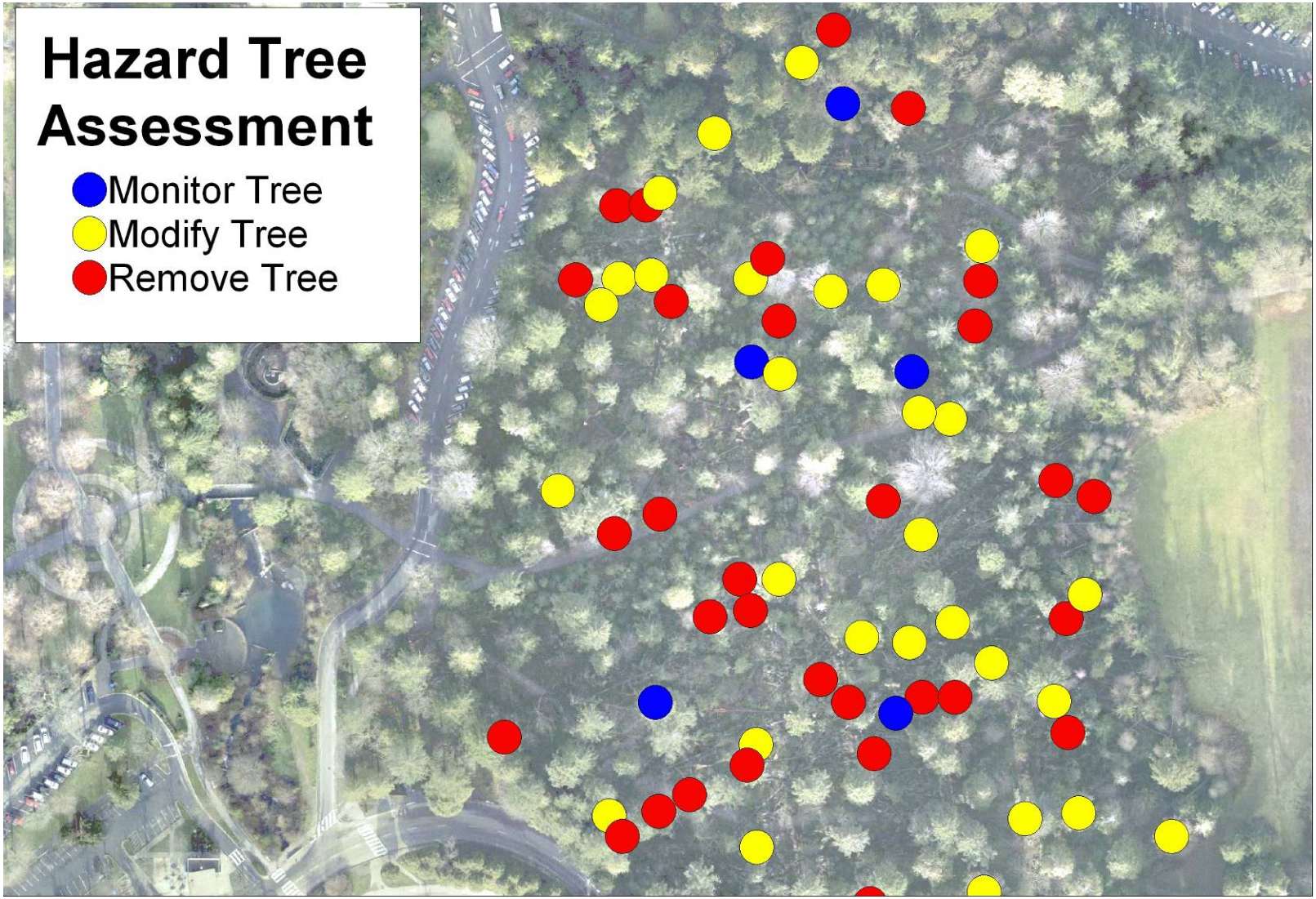
Initial Outcomes



Supporting Restoration Efforts

- Hazard tree work
- Environmental / biological protection
- Forest recovery operation
- Fire prevention
- Infestation prevention (plant, insect)
- Slope stabilization
- Tree planting

Mid-term Outcomes



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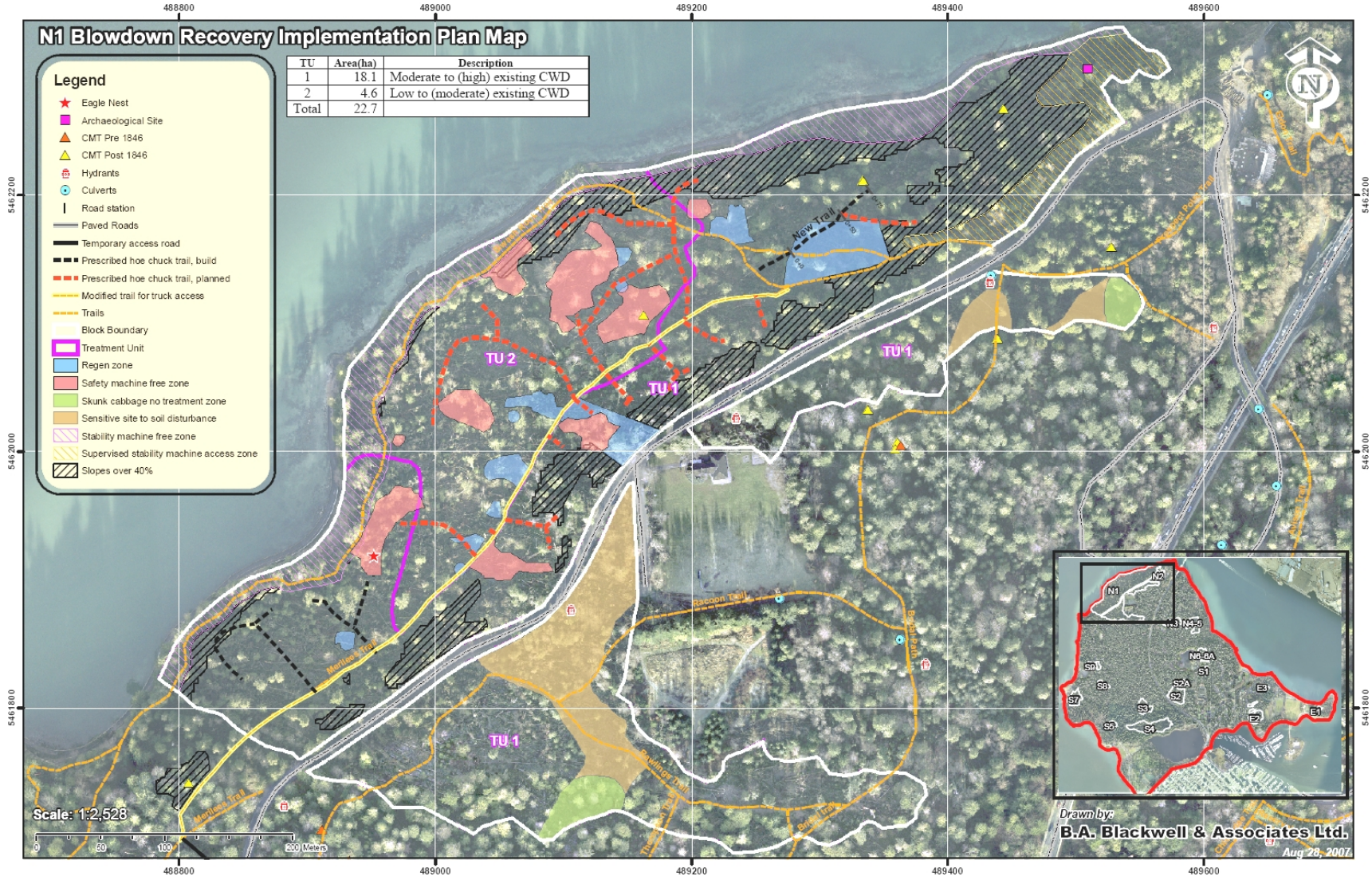

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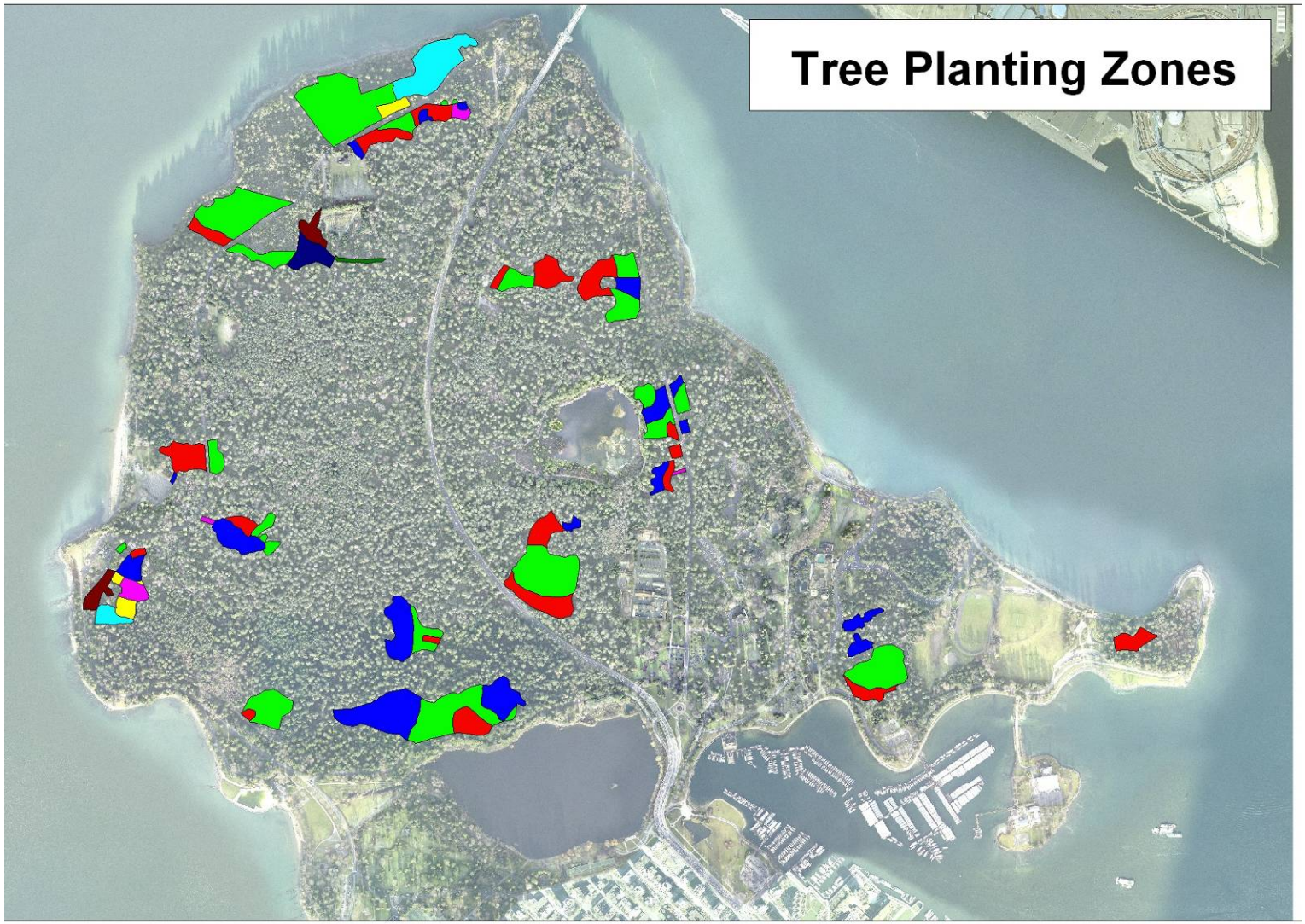

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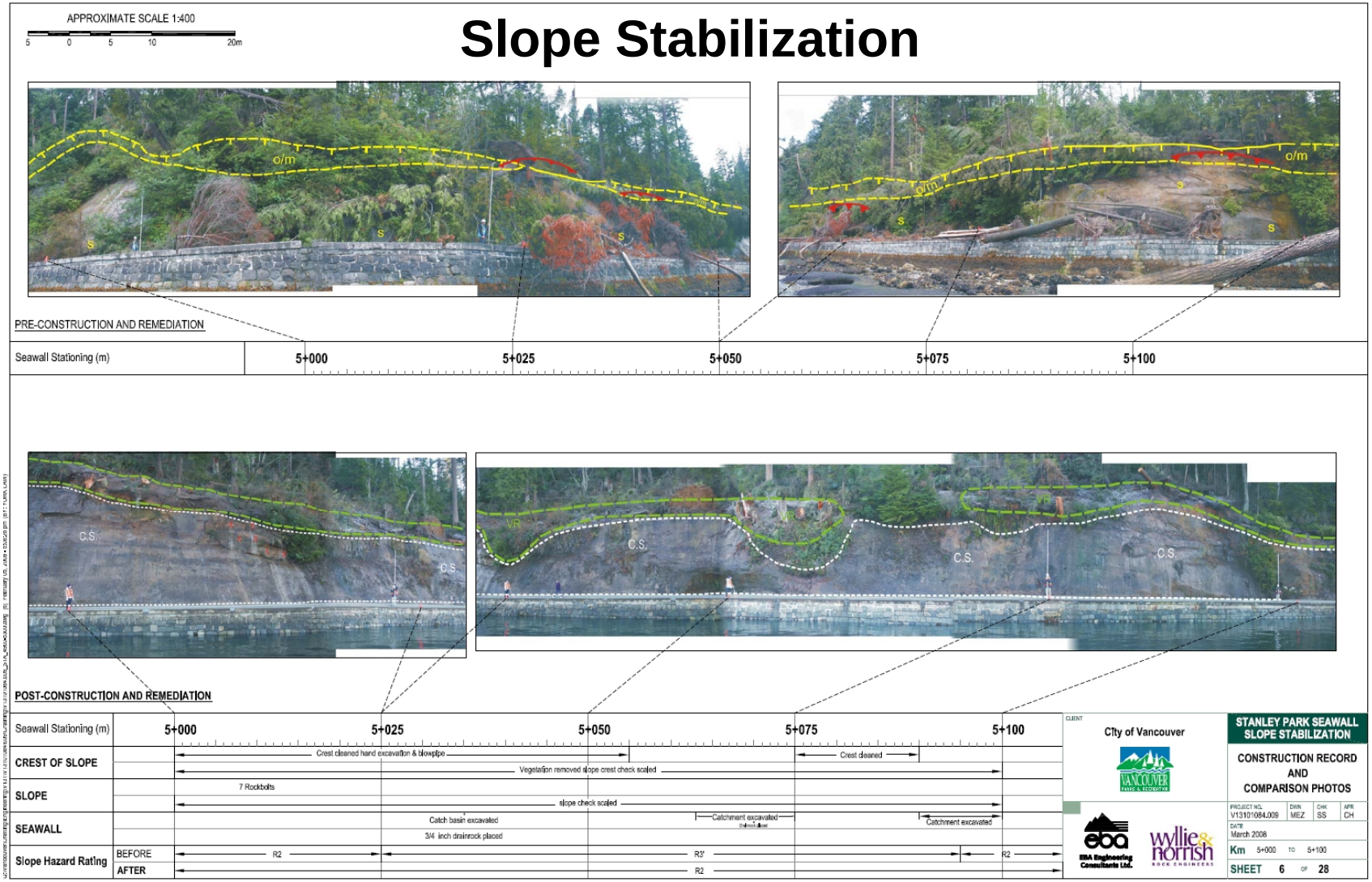


Flagging in the field

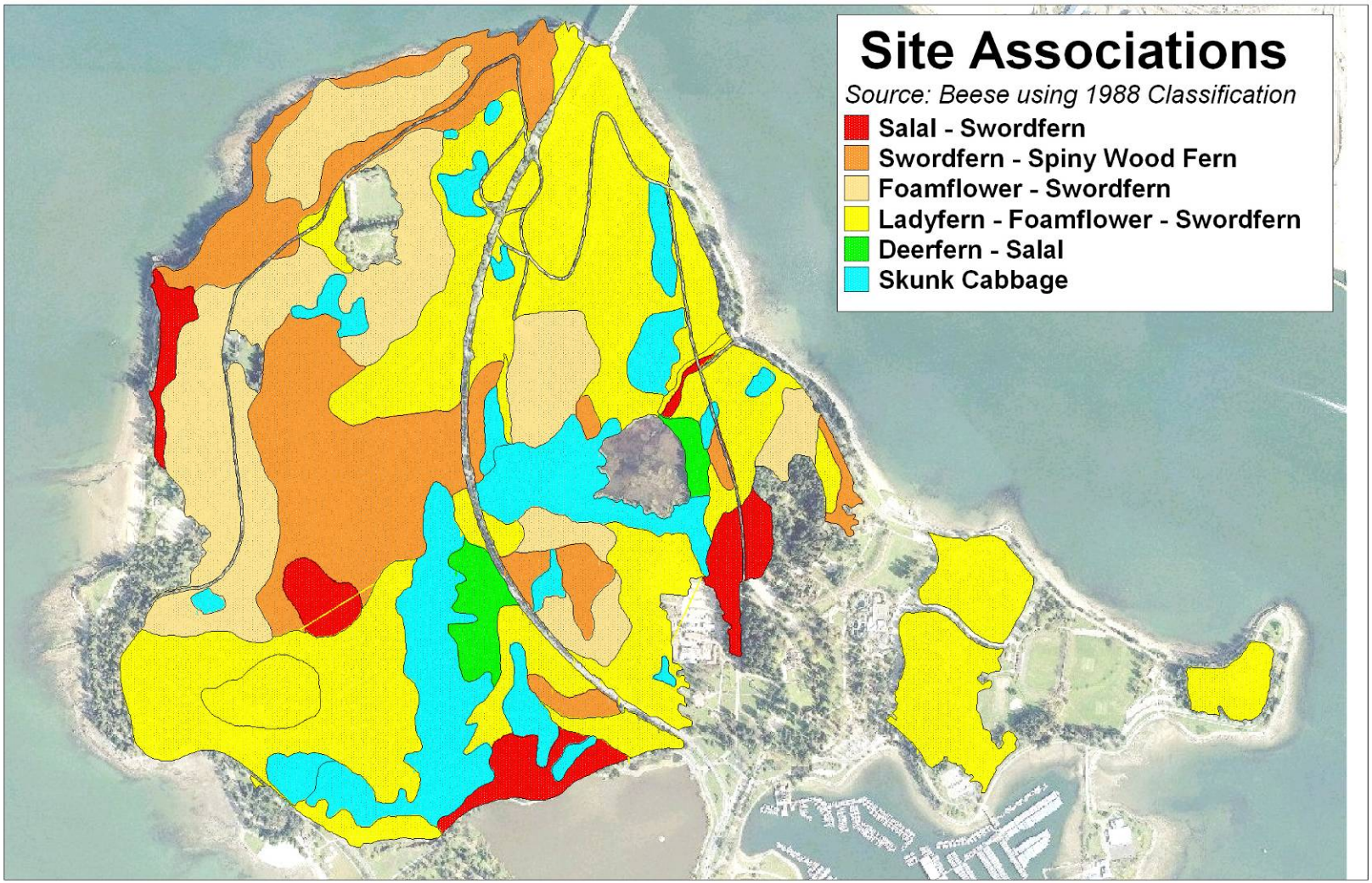
Longer Term Outcomes

- **Implementing a Forest Management Plan**
- **Creating a ‘Stanley Park Atlas’**
- **Posting info on City’s VanMap website**

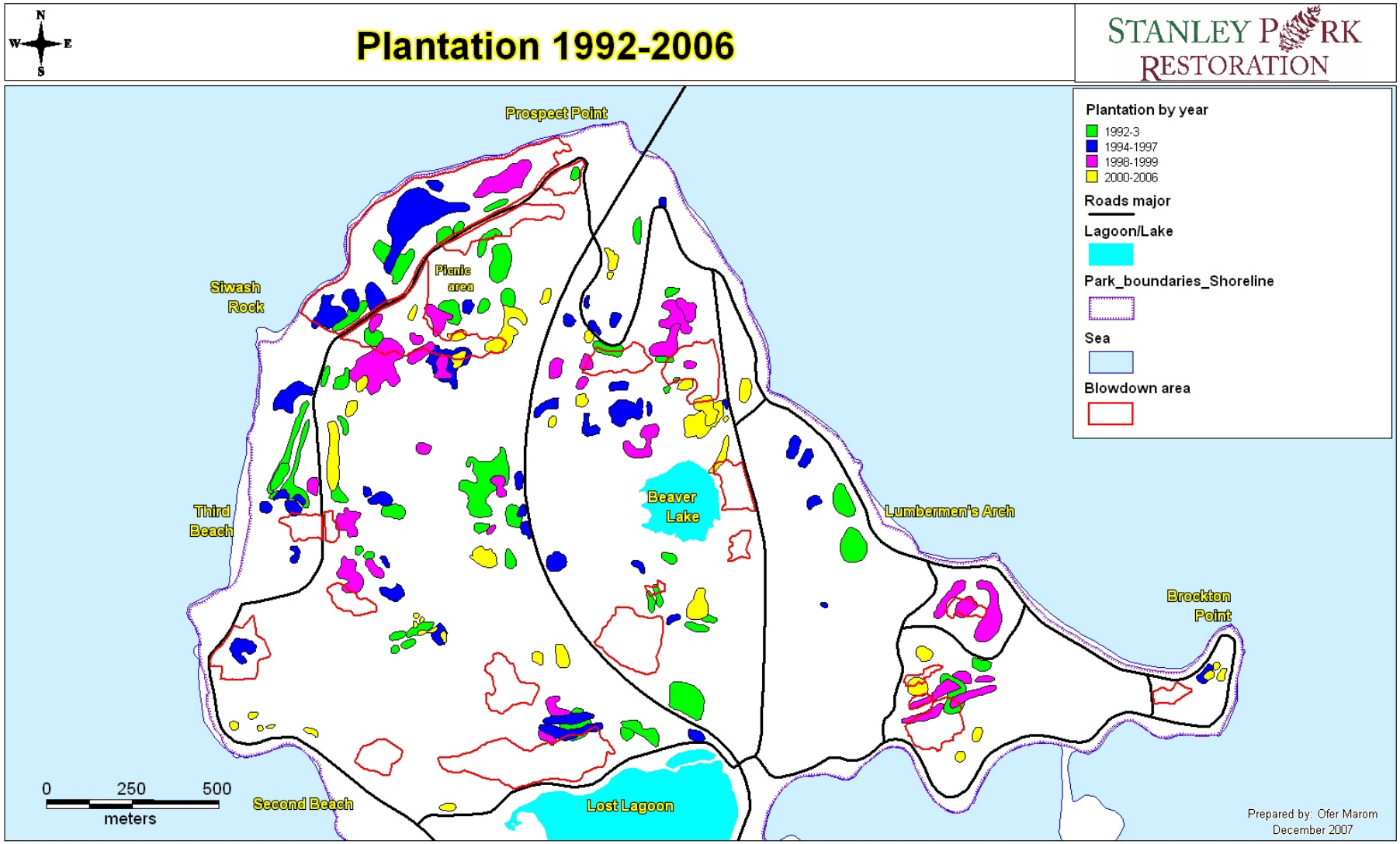
Forest Management Plan

- Plan being prepared during summer / fall
- 20 year time frame
- In collaboration with UBC Forestry

Forest Management Plan



Forest Management Plan



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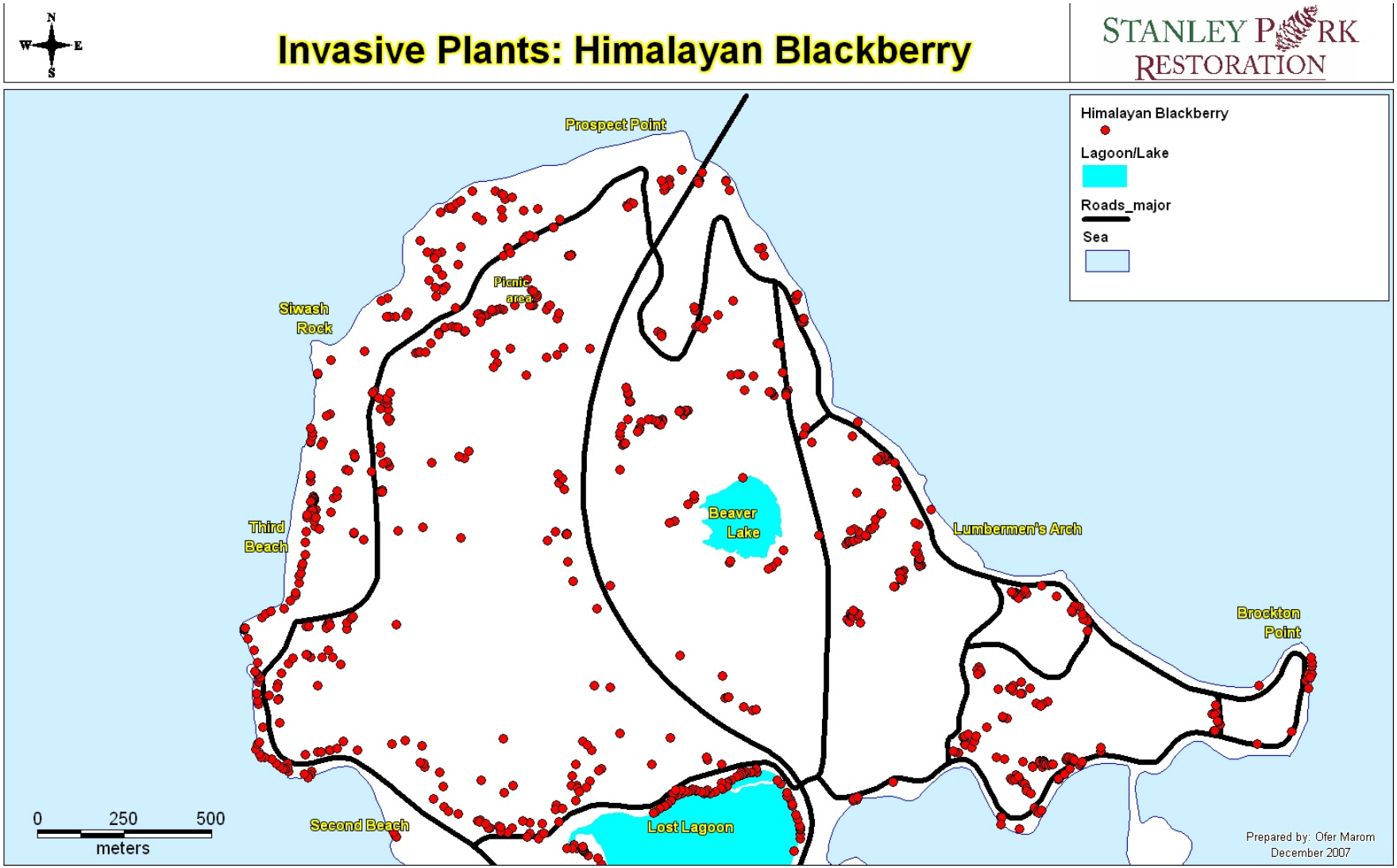
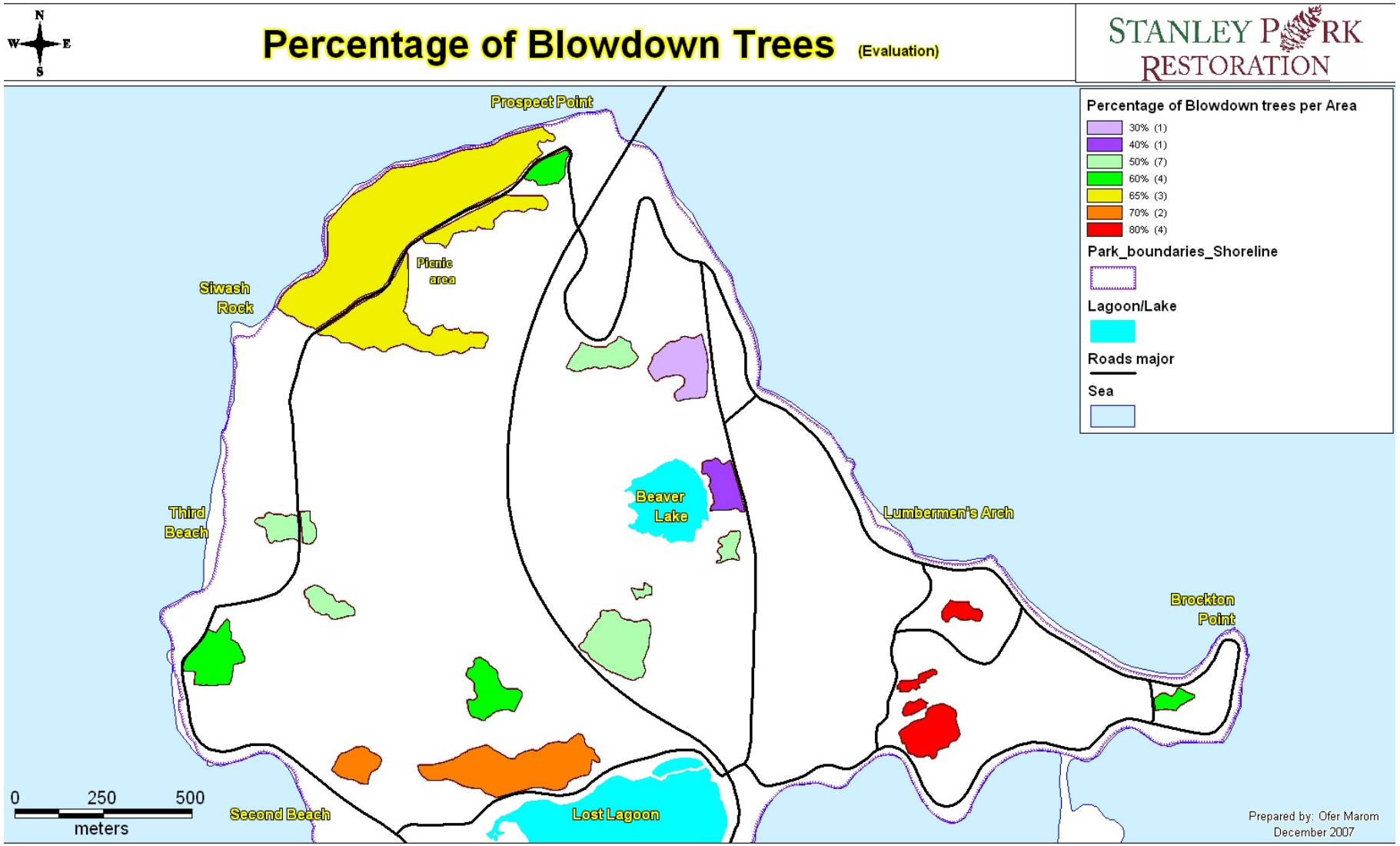


Stanley Park Atlas



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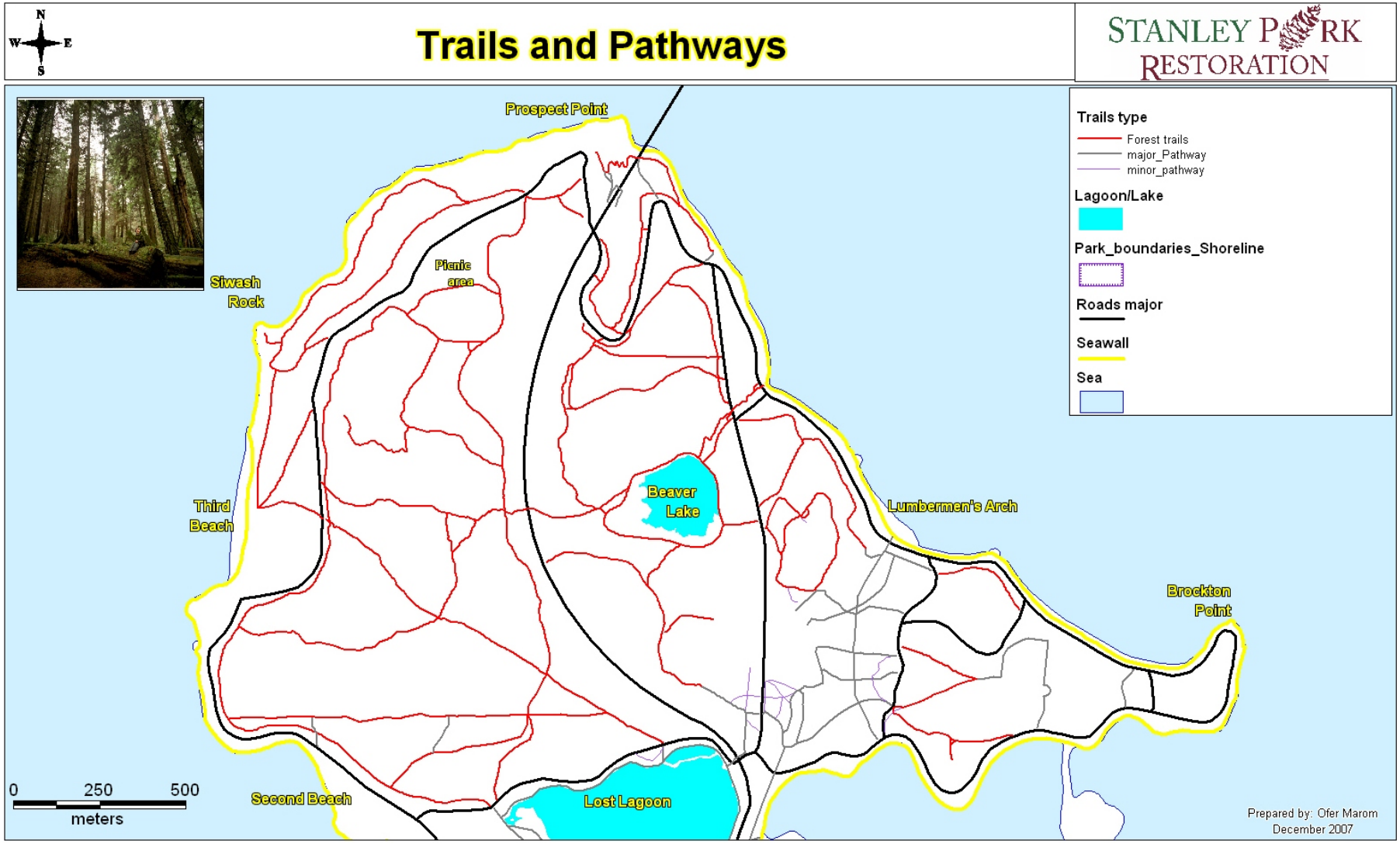

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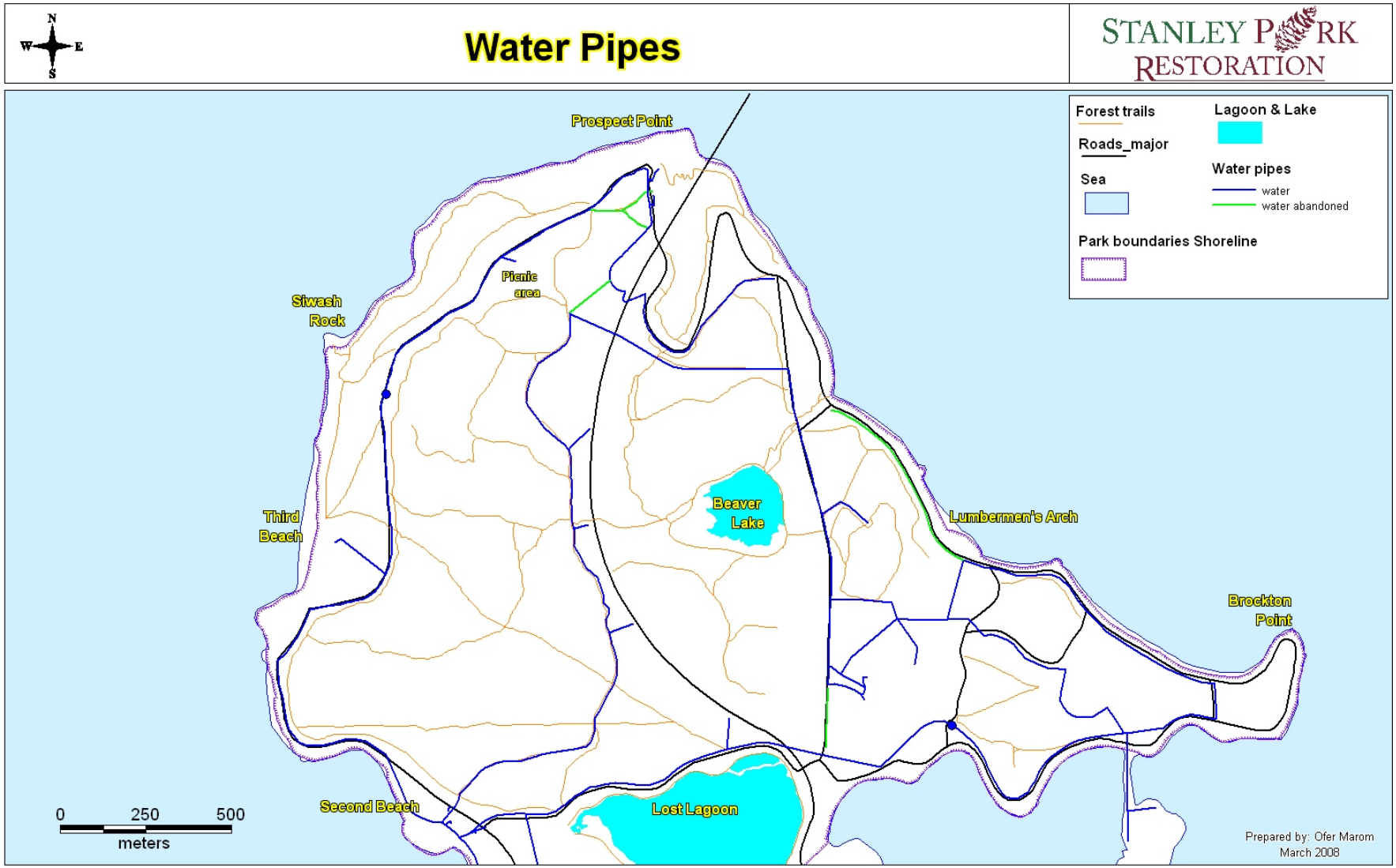

Shortcomings

- **Did not develop robust GIS architecture**
- **Collected insufficient attribute data**
- **Digitized insufficient historical data**
- **Did not use GIS as powerful analytical tool**

What we did right

- **Used GIS for first time for major project**
- **Did not overshoot**
- **Used maps as important communication tool**
- **Collected all geo-coded data from consultants**

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