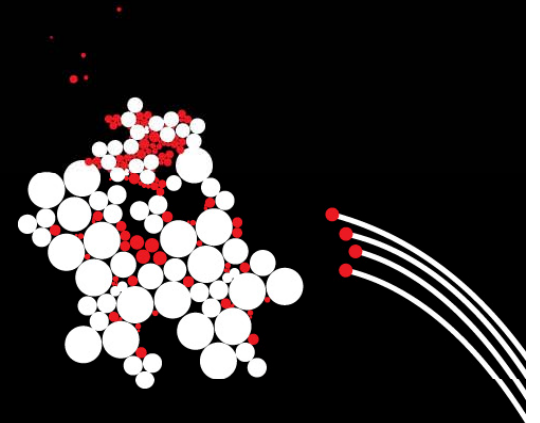
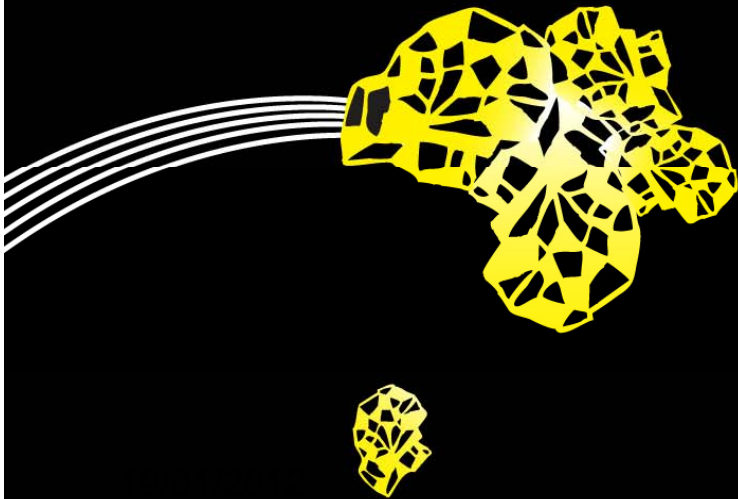


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Risk Considerations in Policy Development: Examples from The Netherlands and Canada



Cheryl de Boer
CSTM, University of Twente The Netherlands



Overview: 3 Main Arguments

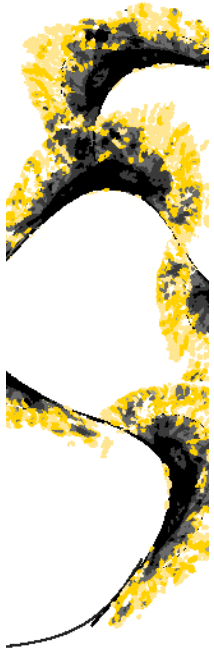
- Uncertainty has many sources
- This is UNavoidable, yet manageable
- Context matters, knowledge is power



(Picture August 2010) Flooding Problems Regge



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Regge Water Retention Areas



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Spatial Planning in the Netherlands

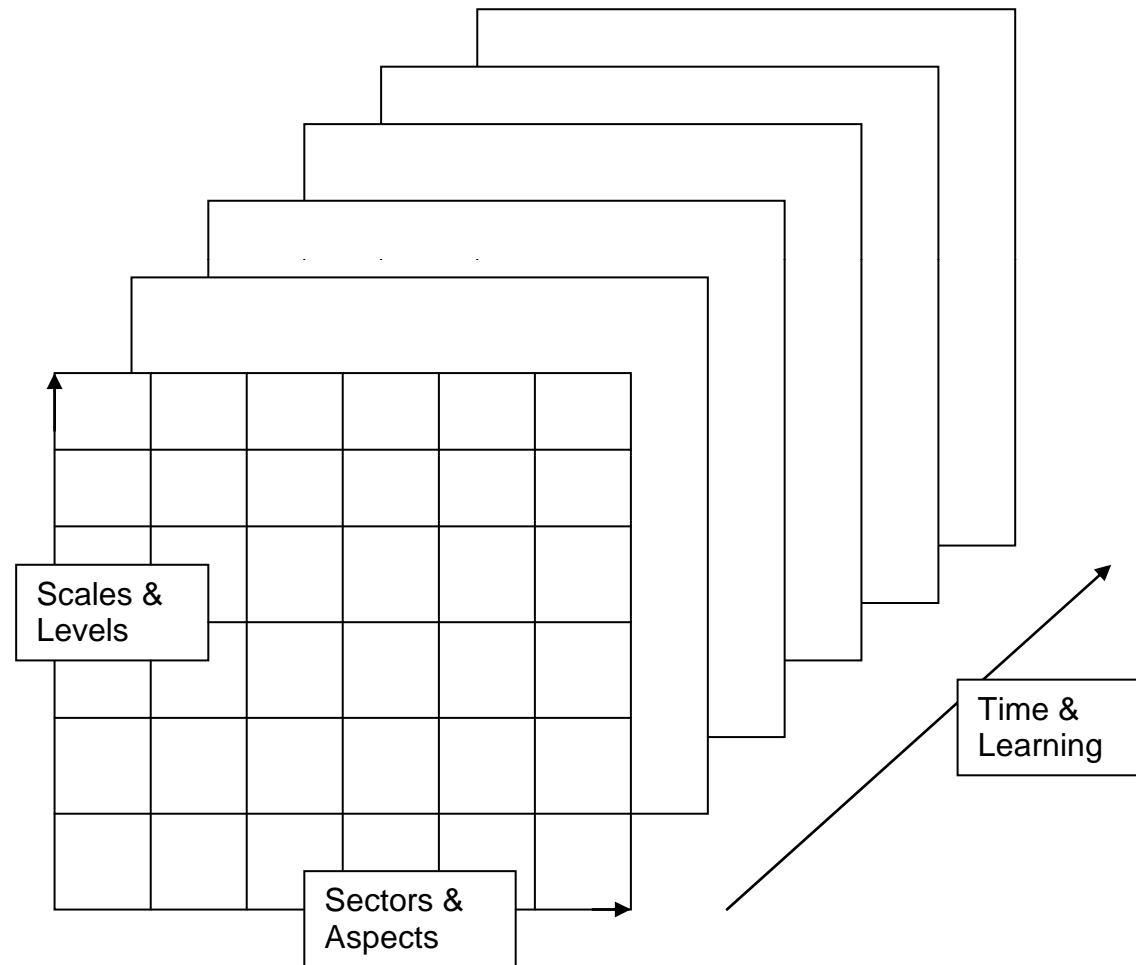
Sharp Urban/Rural Boundaries



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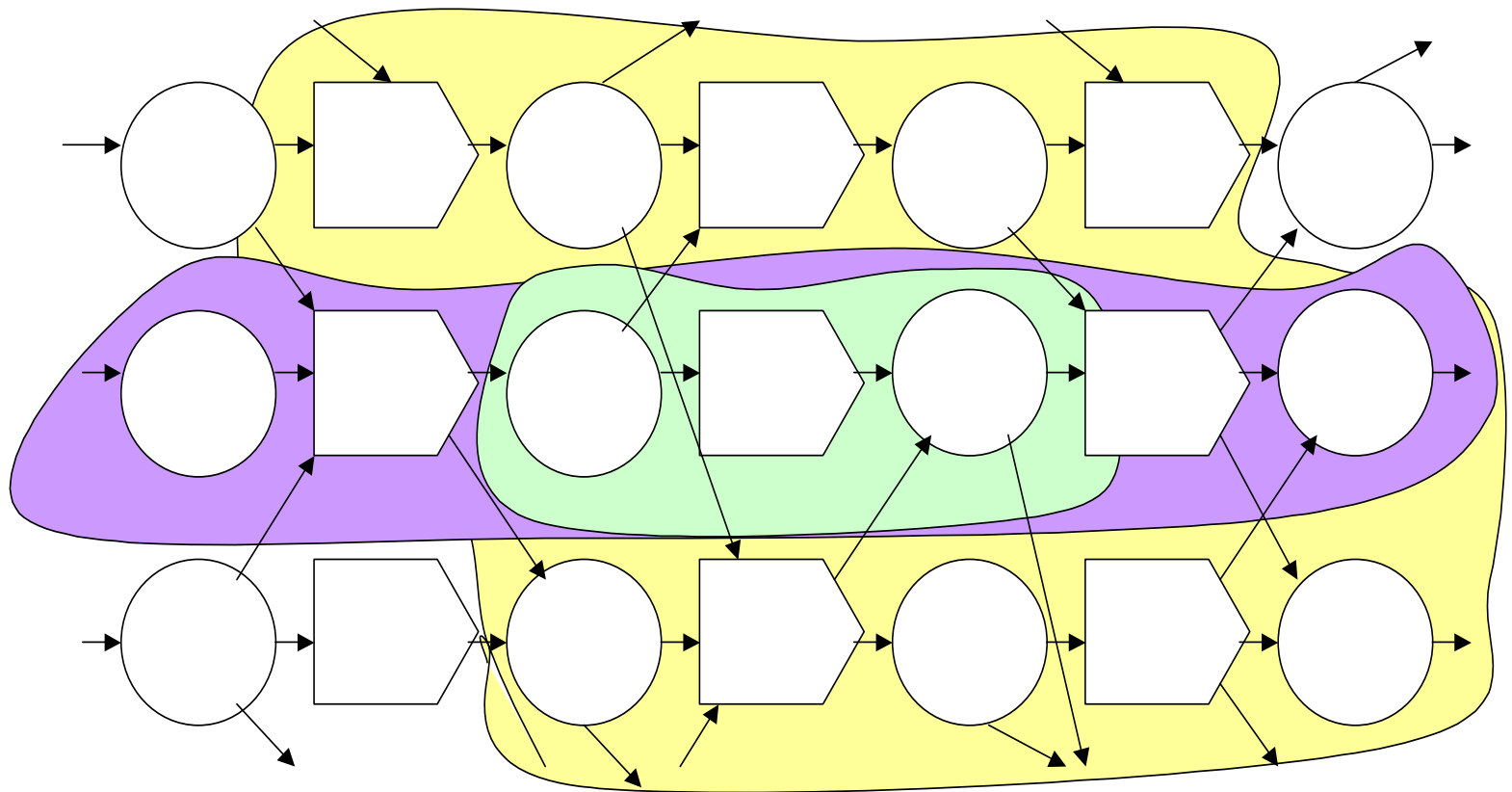


Integration related to Sustainable Development



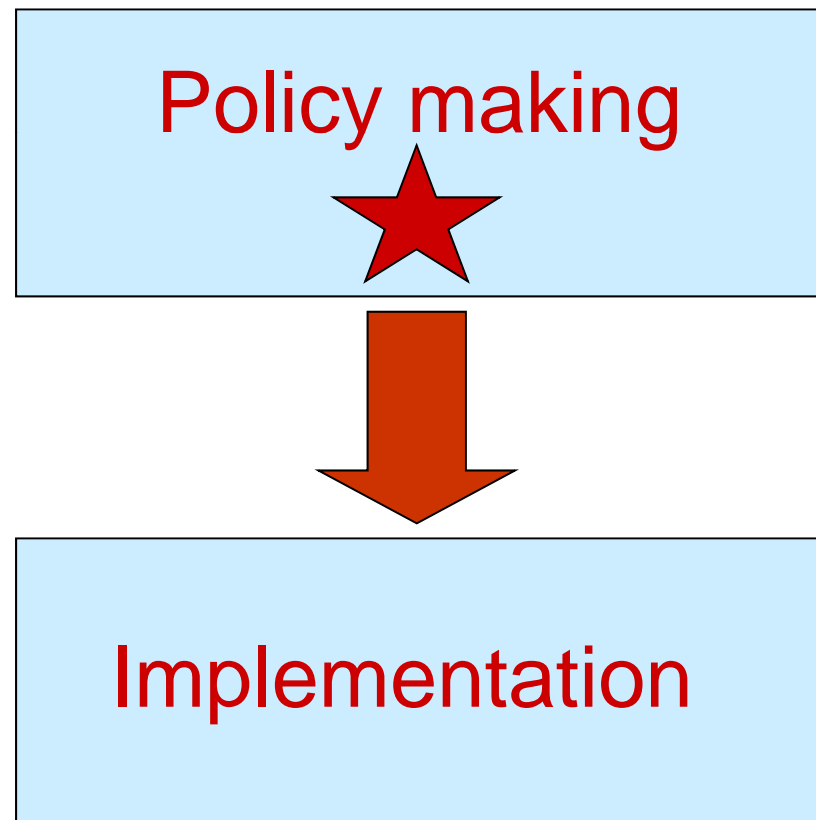
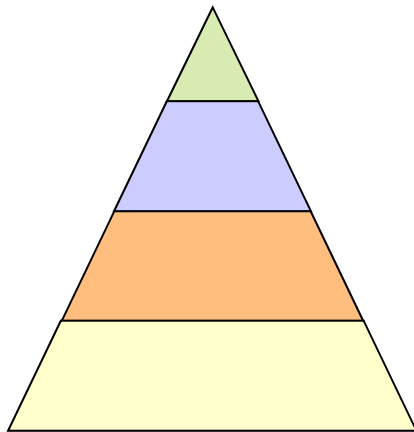


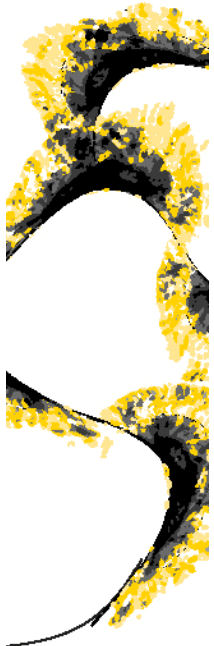
Narrow and broader boundary judgements of relevant processes in the system



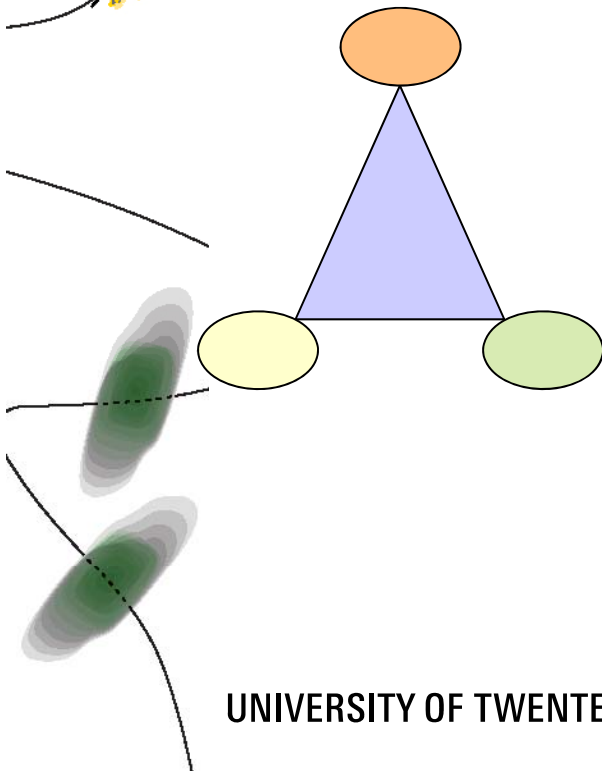


Classic Policy Implementation Approach

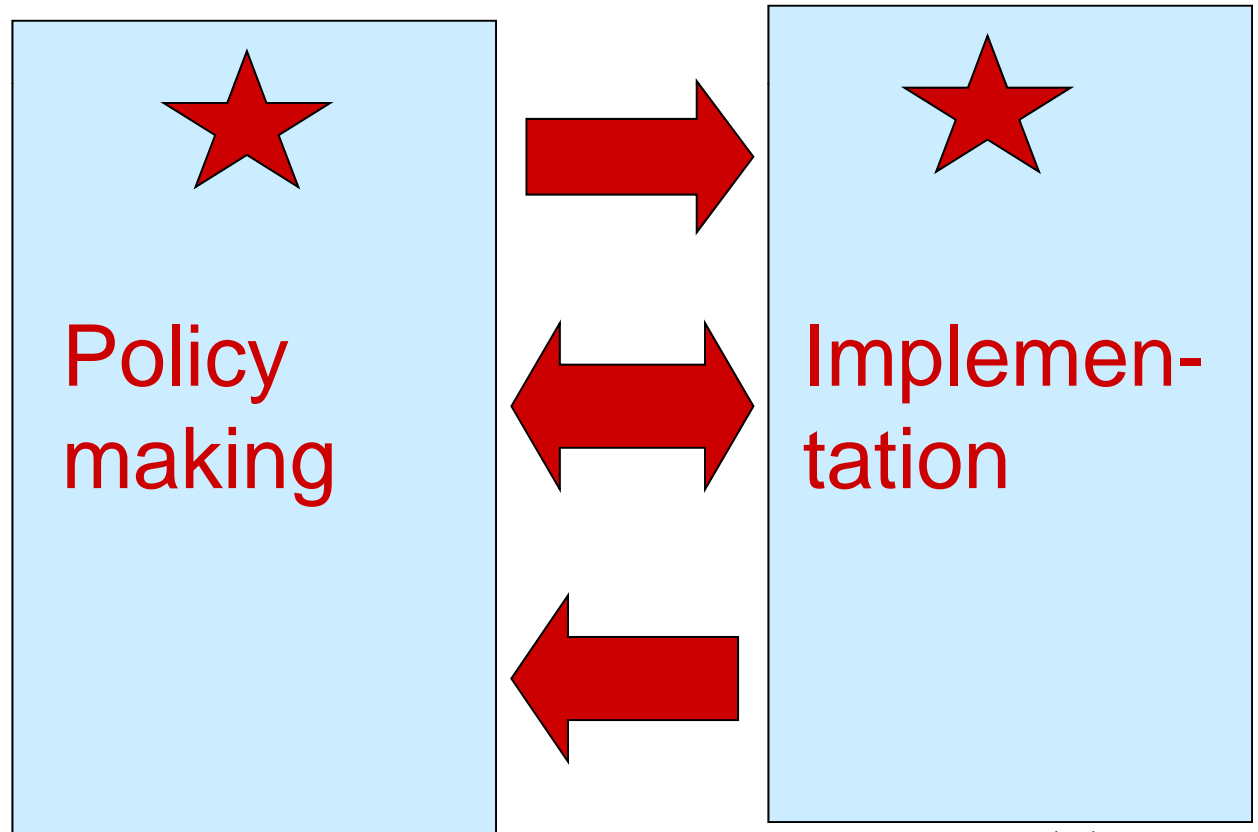




Modern Policy Implementation Approach



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19/01/2012

9



Regge Restoration

- Historically canalized river
- Renaturalization project leader: Waterboard
- Vision document developed with others
- Begin small, develop trust and knowledge
- Increase scope and scale, innovation, more strategic



Regge Restoration

- Combining water, nature, spatial planning, recreation, agriculture, and economic objectives
- International, national, provincial & local policy context
- Dynamic time perspective:
Clear vision, very adaptive implementation

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Creating Linkage Zones





Subproject Velderberg before restoration



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Subproject Velderberg just after restoration



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Subproject Onderland before restoration





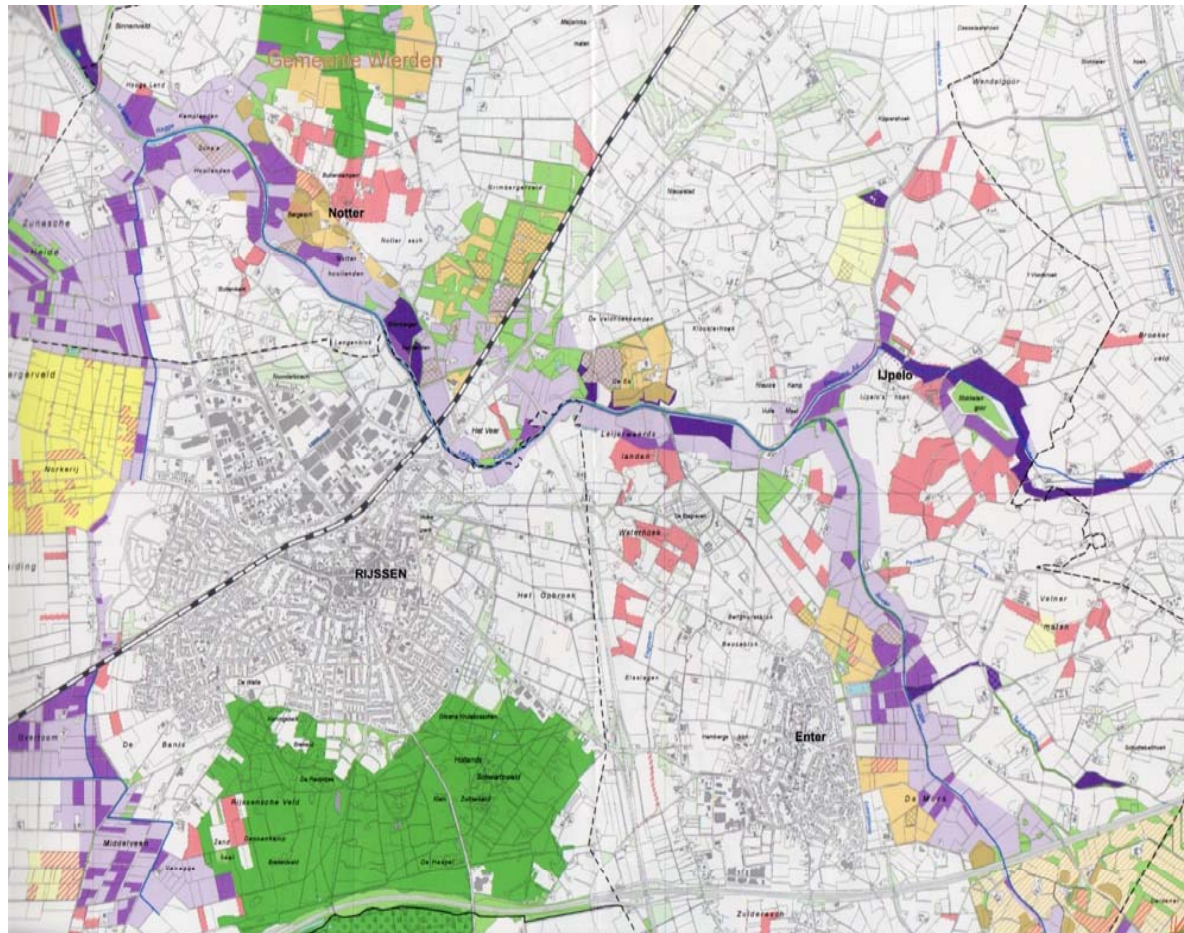
Subproject Onderland after restoration



Subproject Onderland in use for water buffering



Clear Vision, Adaptive Implementation





Governance Regime Analysis

Elements of Public governance:

- Levels and scales
- Actors and networks
- Perspectives and objectives
- Strategies and instruments
- Responsibilities and resources for implementation

Qualities of Governance:

- Extent
- Coherence
- Intensity
- Flexibility

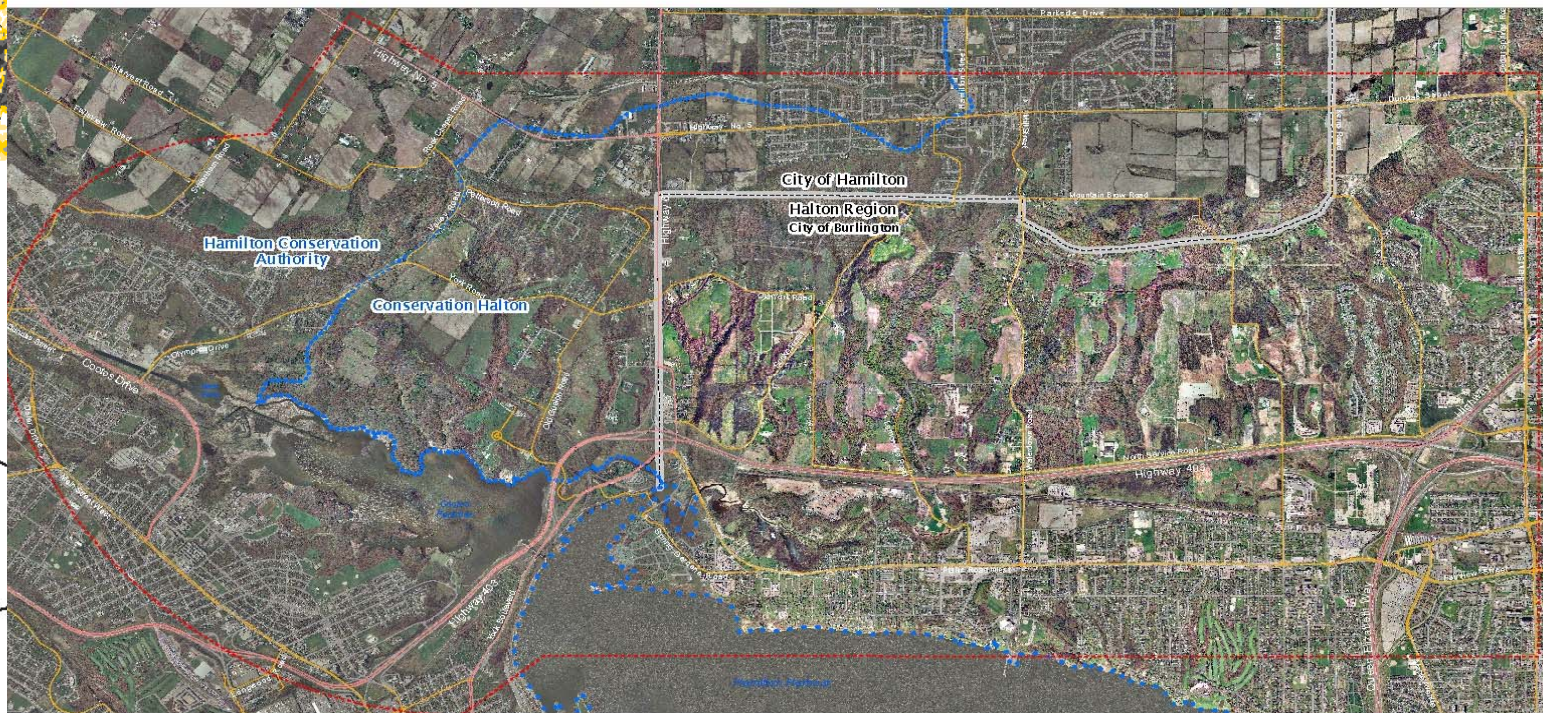


Hamilton, Canada



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Hamilton, Ontario



- Legend
- Study Area
 - Conservation Authority Boundary
 - Lower Tier Municipality
 - Upper Tier Municipality
 - Roads
 - Highway
 - Regional
 - Local

COOTES TO ESCARPMENT Conservation & Land Management Strategy

Royal Botanical Gardens - Conservation Halton - Hamilton Conservation Authority - Hamilton Naturalists' Club
City of Burlington - City of Hamilton - Halton Region - Bruce Trail Conservancy

With generous funding support: Friends of the Greenbelt Foundation

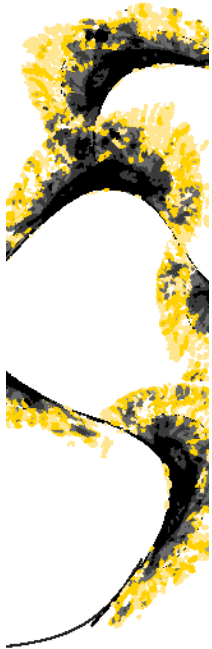
Figure 1 : Study Area



Study Area

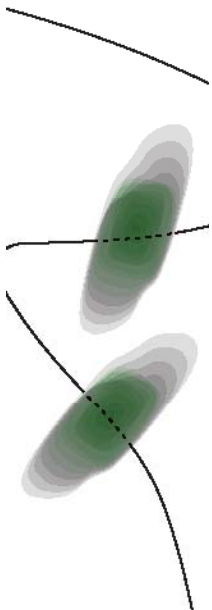


Proj.: UTM WAD 83 Zone 18
Date: December, 2022



Hamilton Conservation Authority

- Long history of watershed management
- Born out of flooding concerns following Hurricane Hazel (1954)
- Constant balance between human and nature needs



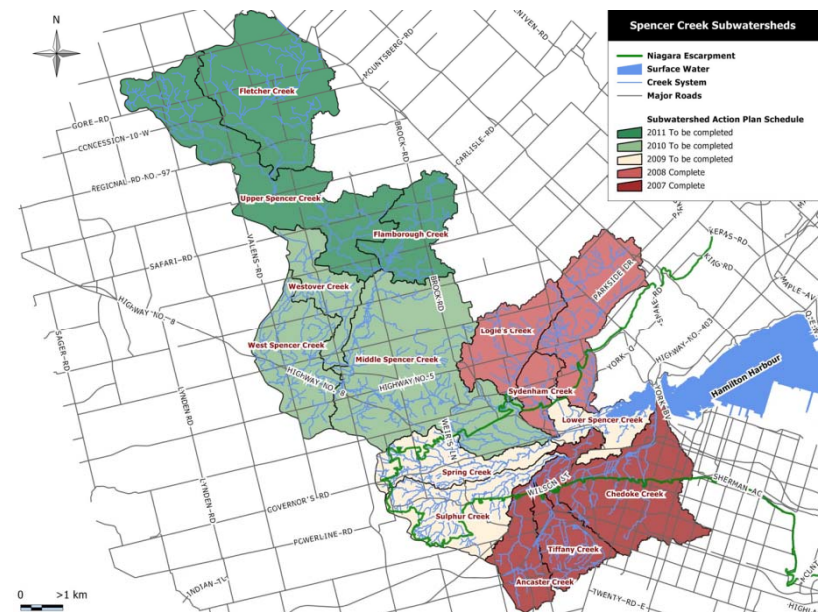


Range of Program Development:

- Community Relations
- Niagara Escarpment
- Erosion Control
- Outdoor Recreation
- Fish & Wildlife Management
- Private Land Extension
 - reforestation
 - soil erosion/sedimentation
- Windbreaks and Shelterbelts
- Flood Control
- Floodplain Management
- Flood Warning
- Forest Management
- Fish & Wildlife Habitat
- Great Lakes Shoreline Management
- Provincial Water Quality Monitoring
 - Ground Water Monitoring
 - Rural Drainage
 - Heritage Conservation
 - Streamflow Monitoring
 - Network Hydro Generation
 - Tourism
 - Municipal Plan Review
 - Urban Stormwater Management
 - Natural Area Preservation
 - Waterfront Development Flow
 - Wetlands
 - Water Supply/Low Flow Augmentation
 - Environmentally Sensitive Areas
 - Watershed Strategies

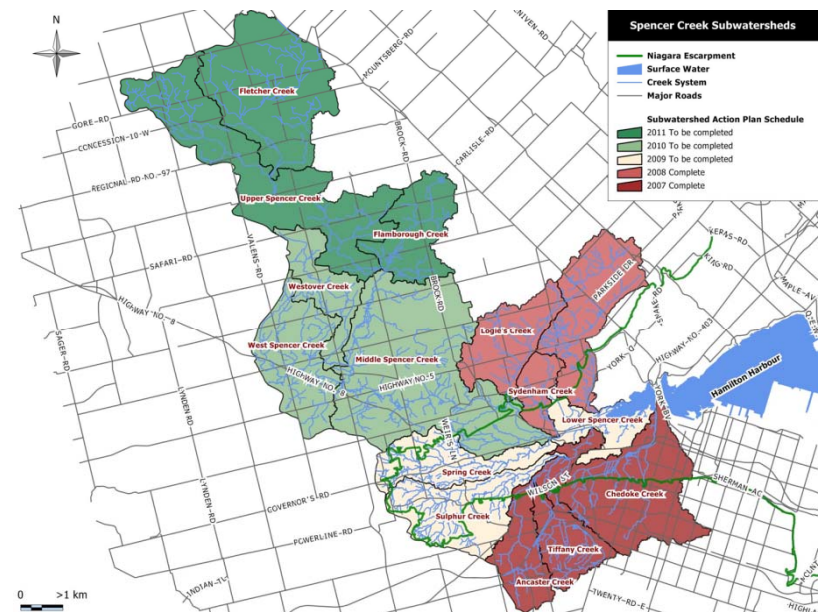
Stewardship Action Plans

- History of degradation: pollution, small scale barriers, poor land management practices
- Increasing tasks and turn-over – lack of basic finance for organization
- In-depth planning process with all stakeholders on river-basin scale to identify issues in the watershed



Stewardship Action Plans

- Voluntary agreements with government and private citizens to alter land use practices
- Lack of commitment from local government
- Difficult to fight development culture
- Fragmented successes
- Lack of trust with farmers





River Restoration



Before



After



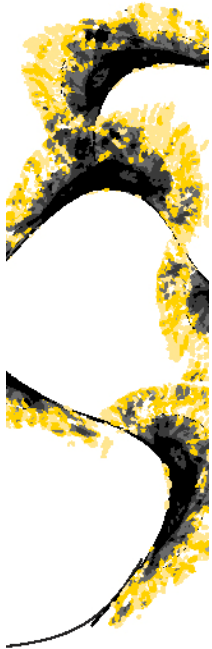
The context determines the strategy

Room for local actors to integrate desired goals within their capacities
Boundary spanning and receptivity is supportive of successfully overcoming regime inflexibilities and incoherence

Integration is supported when resources are distributed and regime is restrictive

Regime characteristics influence the boundary judgements and receptivity of the local actors





Thank-you!

ANALYZING THE RENATURALIZATION OF THE DUTCH REGGE RIVER

Complex and Dynamic Implementation Processes

CHERYL DE BOER AND HANS BRESSERS



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