

# POWERS & PRACTICES TO ACHIEVE WATER & ENERGY CONSERVATION IN DEVELOPMENTS

THE CANADIAN PERSPECTIVE

BY ALYSSA BRADLEY  
YOUNG, ANDERSON



YOUNG, ANDERSON





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# INTRODUCTION



- Municipalities in British Columbia have broad powers to require and encourage water and energy conservation in new developments.

# ENERGY CONSERVATION OBJECTIVES



- Wind power
- Solar electrical heating and cooling
- Maximum daylight in design
- Maximum natural ventilation and cooling
- Insulating buildings



# ENERGY CONSERVATION OBJECTIVES



- Planting of trees for shade, protection and temperature control
- Solar/ground thermal water heating
- Bike paths and free community bikes
- Walking distance to commercial services

# WATER CONSERVATION OBJECTIVES



- Water run-off retention
- On-site rainwater capture and reuse
- Water efficient toilets, fixtures and appliances

# B.C. BUILDING CODE



- Mandatory building standards in B.C.
- Province is “greening” Code:
  - Amendments regarding energy and water efficiency:
    - Insulation standards
    - Heating, refrigeration and air condition standards
    - Low flow toilets and water saving plumbing fixtures



# IMPOSE REQUIREMENTS FOR ALL DEVELOPMENTS



- Official Community Plan
  - Statement of objectives and policies to achieve water and energy conservation
  - Development permit areas
  - Development approval information areas

# DEVELOPMENT PERMIT AREAS



- Designate in OCP to promote water and energy conservation
  - owner must obtain permit before
    - Land can be subdivided
    - Land can be altered
    - Building can be constructed or altered

# DEVELOPMENT PERMIT AREAS



- Issuance of permit may include requirements and conditions respecting:
  - Landscaping
  - Siting of buildings
  - Form and exterior design of buildings
  - Specific features in the development
  - Machinery, equipment and systems external to buildings



# Development Approval Information Areas



- Designate areas in OCP
- Require developer to provide information on the anticipated impact of the development on the community

# IMPOSE REQUIREMENTS AT “TRIGGER STAGES”



- Subdivision
  - Approving officer can require study on the subdivision in respect of anticipated energy and water consumption
  - Approving officer can refuse subdivision plan if does not conform to OCP or other bylaws

# IMPOSE REQUIREMENTS AT “TRIGGER STAGES”



- Rezoning
  - Discretionary power
  - Require developer to achieve certain standards such as LEED



# IMPOSE REQUIREMENTS AT “TRIGGER STAGES”



- Covenants
  - Require at subdivision or rezoning
  - Imposes on-going commitment
  - Register on title to land

# IMPOSE REQUIREMENTS AT “TRIGGER STAGES”



- Covenants
  - Restrictions or obligations regarding:
    - The use of land or a building
    - The construction of a building
    - The subdivision of land
- Useful to monitor and ensure continued effectiveness of program

# INCENTIVE BASED



- Phased Development Agreements
  - Enter into agreement with developer
  - Terms and conditions agreed to by developer including:
    - Specific features of the development
    - The registration of covenants



# INCENTIVE BASED



- Development Cost Charges
  - Impose on a person who obtains approval of subdivision or building permit
  - Help pay for costs of services
  - May waive or reduce for developments designed to result in a low environmental impact

# INCENTIVE BASED



- Fast Tracking
  - Fast-track certain types of development permit and building permit applications based on energy and water conservation features
- Off-Street Parking
  - Reduce parking spaces required based on energy and water conservation features

# CONCLUSION



- Broad powers in B.C. to require or encourage water and energy conservation in developments
- Mandatory or incentive based
- Fairly new powers just starting to be used by municipalities