



**MUNICIPAL DISTRICT OF BIG LAKES  
ECOLOGICAL & CONSERVATION  
RESIDENTIAL DEVELOPMENT STANDARDS**

**March, 2010**

**PREPARED BY NORTH STAR PLANNING & ASSOCIATES**

---

## **INTRODUCTION:**

The purpose and intent of the Municipal District of Big Lakes Ecological and Conservation Design Standards is to provide a mechanism for greater environmental and community sustainability within the MD for future rural residential development.

The design standards presented in this document are to be applied throughout the Municipal District in situations where typical one hectare subdivisions are not desired or appropriate to preserve the unique qualities of a parcel or to emphasise a certain theme or community feature.

## **HISTORICAL:**

During the last few decades most subdivisions in rural areas have resulted in a conversion of a quarter-section of agricultural or forested land to anywhere from 36 to 45 residential lots (in surveyed municipalities) that effectively use up the entire land base of the parcel. The ecological and conservation design standards in this document are intended to assist developers with the creation of new residential communities that better reflect the needs and desires of MD residents.

These standards are a means to help create residential communities that are more responsive to the natural environment, encourages the preservation of agricultural land, lowers housing costs and are more environmentally friendly. They are not in themselves simple solutions to complex problems; instead they are a variety of methods that the MD and developers can use in combination to strike a better balance between land development, environmental protection and community values.

## **INCENTIVE BASED DESIGN STANDARDS**

The design standards presented in this document are incentive based. As a means to reward innovative development, development design credits are awarded based upon the vision expressed by the Developer. The number of credits awarded has a direct relation to the number of residential houses or lots that may be created. This approach has resulted in Developers volunteering features that include the use of green technologies, over-dedication of park land, preservation of farmland and enhanced infrastructure.

Credits are awarded in accordance with the features described below:

- **Landscape Drainage Plans:** To ensure that surface run-off containing suspended solid materials such as manure, solvents and other materials are contained within the lot where they occur and not directed to off-site

---

storm-water facilities. This feature shall be mandatory in all country residential subdivisions that allow livestock and all commercial/industrial developments. A landscape drainage plan is awarded a single credit.

- **Building Pockets:** Building pockets to be established and provided to the MD in digital form. Building pockets to include no more than 40% of the lot area. Building pockets to include land area for driveways and area to include all buildings within the property. On-site waste water disposal areas may be located outside of an approved building pocket. Building pocket plans are awarded a single credit.
- **On-site & District Energy/heating Systems:** The use of geo-exchange, wind and solar energy systems within all major buildings on a lot and all major common area structures within a bare-land condominium. Geo-exchange and solar power/heating shall be the principal energy and heating system within the development.
  - Credits are awarded as one each for geo-exchange heating/cooling, solar energy heating, and solar energy used for electricity production.
- **Built Green Alberta Standard:** All principal structures shall conform to Built Green Alberta standard.
  - Each level of certification (Bronze, Silver, Gold and Platinum) may be applied and is awarded a single credit for a total of four credits on Platinum structures.
- **District Water/Waste-water System:** Low pressure water systems shall be provided to all principal buildings within the parcel. A communal water system is awarded three credits. A communal waste-water system is awarded three credits.
- **Outdoor Lighting Impact Reduction:** Use of solar powered yard lights and street lights throughout the parcel, within common property and/or streets is awarded a single credit.
- **Vegetative Plan:** Re-vegetating arable park land and open spaces within private lots in a sustainable manner is encouraged as follows:
  - Re-establishment of natural vegetation within open space areas, frontages of external roads and open areas within developable lands. Implementation of the plan is awarded a single credit.
  - Establishment of community gardens and/or greenhouses for community/communal use. Implementation is awarded a single credit.

- 
- **Ecological Evaluation:** This feature requires the preparation of a bio-physical analysis to identify areas of environmental significance (i.e., wildlife trails, rare plants and groundwater recharge areas). A single point is awarded for the preparation of a bio-physical study. A single point is awarded for implementation. A bio-physical study may be mandatory where river valley lands are included as part of the development scheme.
  
  - **Building Orientation Plan:**
    - Building placement criteria for the purpose of maximizing sun-angles for solar energy purposes and/or orientations for maximizing scenic view opportunities is awarded a single credit. An implementation and compliance plan is awarded a single credit.
  
  - **Transfer of Park Reserve:** The voluntary transfer of municipal park reserves from one parcel to another parcel within a designated regional park system shall be awarded two credits for each hectare of land that is transferred to a maximum of two credits.
  
  - **Over-dedication of Park Reserve:** Over-dedication of park reserve or the preservation of existing agricultural land within the parcel shall be awarded a single credit for each 4.0 hectares (10 acres).
  
  - **Affordable Housing:** The provision of affordable and/or handicapped housing within a residential community is encouraged. Affordable housing is defined as housing that is accessible by a typical first time home-buyer.
    - Affordable housing within a project shall be awarded two credits.
    - Affordable housing designed and protected for senior's and/or handicapped use shall be awarded an additional two credits.
    - Affordable housing categories shall comprise a minimum of 10% of the total housing units to qualify and shall be distributed through the subdivision.
    - Affordable housing shall be allowed only within a bare-land condominium or on fee simple lands where the housing units are managed solely or jointly by an approved entity.
  
  - **Recycled Pavement:** The use of recycled materials such as recycled pavement within bare-land condominium common properties shall be awarded a single credit.

**SUMMARY TABLE:**

<b>CREDIT ALLOCATION</b>	<b>ENVIRONMENTAL FEATURE</b>
1	Landscaping Drainage Plan
1	Establishment of Building pockets
3	On-site and district energy/heating systems
4	Built Green Standard Alberta
3	District Waste Water System
3	District water system
1	Outdoor Lighting Impact Reduction
2	Vegetative plan
2	Ecological Evaluation Prepared & Implemented
2	Building Orientation plan
2	Transfer of park reserve
*	Over-dedication of park land or preservation of agricultural land. 1 credit/4.0 hectares)
4	Affordable/Seniors/handicapped housing
1	Use of Recycled pavement throughout Bare-land Condominium areas

**Further notes:**

- A minimum of 12 credits are required to be allowed parcel sizes less than one hectare (2.47 acres) in area.
- The amount of lots or housing units allowed is the total credit score multiplied by a credit factor of 4.0.
- The maximum number of residential lots or units that may be created is XX lots/units.
- Multi-unit dwellings are to be distributed throughout the parcel.
- Housing and residential lot maximums may be adjusted where projects are proposed within partial quarter-sections and/or river lots.

Credits Available	ENVIRONMENTAL FEATURE	Credits obtained
1	Landscaping Drainage Plan	
1	Establishment of Building pockets	
3	On-site and district energy/heating systems	
4	Built Green Standard Alberta	
3	District Waste Water System	
3	District water system	
1	Outdoor Lighting Impact Reduction	
2	Vegetative plan	
2	Ecological Evaluation Prepared & Implemented	
2	Building Orientation plan	
2	Transfer of park reserve	
*	Over-dedication of park land or preservation of agricultural land.	
4	Affordable/Seniors/handicapped housing	
1	Use of Recycled pavement throughout Bare-land Condominium areas	