



Saginaw Bay Watershed Initiative Network
Conservation Development
Recognition Program

Prepared by the Recognition Committee of SBWSI:

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Section 1

Background Information

The Saginaw Bay Watershed Initiative Network (WIN) is a collaborative effort of community leaders, businesses, nonprofit organizations, farmers, representatives of federal, state, county, and municipal government, foundations and unaffiliated individuals. This Network of more than 90 committed organizations and individuals has established a partnership to enhance quality of life in the Saginaw Bay watershed.

A group, comprised of members of WIN commonly known as “The Land Use Task Group,” recognized that many conventional developments have a tendency to destroy natural features and remove open space from the landscape. This tends to have a significant effect on water quality, aesthetic values, wildlife preservation and the overall quality of life of a community.

The general public has put a great deal of emphasis on creating more “environmentally friendly” developments. In order to increase public awareness concerning the types of development that can have a positive impact on communities and the environment, the Land Use Task Group initiated a program that recognizes developers for their efforts in conservation development. WIN is of the opinion that successful conservation techniques employed by developers should be showcased and recognized by the public. Ultimately this will increase the public’s awareness and influence public demands within the real estate market that leads to more projects of these types being undertaken.

During a Land Use Task Group meeting, several members brought up the fact that the group should focus some effort toward recognizing developers that utilize conservation techniques within their projects. Discussion ensued and a committee was appointed by the group, charged with the responsibility of developing a recognition system that could be easily used by WIN in analyzing the effectiveness of a conservation project.

The committee met on several occasions to discuss the manner in which the recognition system should be implemented. One goal that immediately surfaced, was the need to develop a system that is relatively simple and easy to use. As WIN members will inevitably change, the committee recognized the importance of designing the evaluation system so that it can be used by individuals who may not have much technical knowledge on the subject of conservation development. Furthermore, it was the committee’s opinion that a complicated system would discourage members from participating in the recognition process.

Based on current development practices, it will be exceedingly difficult to find conservation projects that fully employ techniques that sustain and enhance the environment. Therefore, the committee suggests that the evaluation system be

designed to recognize small achievements or efforts made by the developers. These efforts could be as simple as incorporating a unique detention pond into the site plan of a development or providing the capability of linking open space with adjoining properties.

Members must keep in mind that it may be necessary to make changes to this document in order for it to remain effective. The system has been designed to evolve with time. The committee recommends that it be reviewed and updated on a yearly basis to ensure its continued success.

Section 2

Benefits of Conservation Development

The Land Use Task Group has identified several benefits of protecting and conserving natural features, open space and agricultural lands. They are listed below:

- Pure supplies of ground water for municipal and private drinking water systems.
- Ground water recharge and purification, flood control, pollution prevention and the support of unique plant and wildlife habitats.
- Recreational opportunities, including hunting, fishing, bird watching, snowmobiling, skiing, skating , swimming, sledding, hiking, nature study, photography and related pursuits.
- Aesthetics (views, serenity, rural character, etc.)
- Educational opportunities (natural history, biology, geology, ecology, etc.)
- Preservation of agricultural land as a resource for the production of food, feed and fiber for future generations.
- Preservation of wetlands and floodplain areas.

Cities, townships, developers and builders must work together to ensure that citizens can be homeowners far into the future, while still preserving much of the natural environment as possible. This consideration is imperative to everyone's quality of life. It is important to educate and inform society of the long-term benefits that conservation developments can have on local communities and its residents. The WIN realizes that it will take some time to change people's attitudes on traditional developments. Therefore, WIN has taken the initiative to highlight and showcase projects completed by developers that have utilized these techniques.

Section 3

Eligibility Requirements

In order to be eligible for recognition from WIN as a conservation development, projects must meet the following standards.

- Located within the boundaries of the Saginaw Bay Watershed.
- Size of development must be at least 10 acres for sanitary sewer projects and at least 20 acres for unsewered projects.
- A minimum of twenty (20%) of the gross land area shall be designated as open space or recreation areas. Recreation areas are considered to be passive. An example would be a trail. Tennis courts, soccer fields and similar improvements are not considered passive recreation areas.
- Major infrastructure items such as roadways, water, sewer and street lighting must be installed prior to being nominated.
- Miscellaneous special projects which is consistent with sustainable growth and conservation development.

Section 4

Overview of Evaluation System

WIN would like to acknowledge that these evaluation criteria have been based in part upon The Conservation Fund's Conservation Development Evaluations System (CeDES). For more information about CeDES, visit www.conservationfund.org/conservation/sustain/gloindex.html.

The criteria is designed for rating new residential or commercial conservation developments. It recognizes that each development has site-specific limitations that are taken into consideration during the planning and design phase. Furthermore, each criterion to be evaluated may not apply to every development.

The criteria are feature-oriented; points are awarded or deducted for satisfying a specified criterion. Ideally, each criterion will be related to an accepted industry standard. The scoring system is based on the premise that developments should meet certain basic standards. Positive points will be awarded to developments that employ practices that go beyond basic standards to minimize impacts on water quality and natural resources. Negative points will be assessed for aspects of developments that do not meet basic standards. Examples of negative practices include encroachments into wetlands or 100-year floodplains with fill or structures.

A total of 26 points are available under the Evaluation Criteria, with four categories of recognition.

Platinum Conservation Development – 21 – 26 Points
Gold Conservation Development - 19 – 21 Points
Silver Conservation Development – 16 – 18 Points
Bronze Conservation Development – 13 - 15 Points

The committee has identified 4 critical areas that need to be considered in developing a project that protects the environment and enhances the overall quality of life. WIN members will rate each development based on its ability to achieve open space and conservation standards. The areas to be evaluated are as follows:

- Site Design/Innovation
- Storm Water Management
- Preservation of Open Space
- Protection of Natural Resources

The evaluation criteria is intended to provide a tool that WIN and its members can use in determining the extent that a development protects and enhances the

watershed and its habitat. It shall be maintained and updated by the Land Use Task Group. The process of certifying acceptable developments will be managed by the SBSWI Network.

The criteria does not address all of the issues that are important to achieving sustainable development. Although WIN supports infill development and the redevelopment of brownfield sites, these criteria have not been designed to achieve these broader goals.

Section 5

Nomination of Developments

Each year beginning in July, the WIN, through its Land Use Task Group, will begin soliciting potential applicants by contacting local engineering firms, home building associations, and local governments asking them to nominate a residential development that complies with the eligibility requirements stated in section 3.

A. Selection Committee

Each year, the Land Use Task Group shall appoint a nominating committee charged with the responsibility of reviewing potential open space conservation developments for compliance with the applicable standards. The committee will provide the Land Use Task Group with an award recommendation no later than December 15th of the current year.

The selection committee shall consist of 7 members. One member shall be a member of WIN's steering committee, the second member shall be a representative of a local Home-Builder's Association and the third member shall be a local environmental interest group appointed by WIN. The remaining individuals shall possess skills in field of civil engineering, planning, architecture and/or natural resource management.

Members shall be appointed at one of the regular meetings of the Land Use Task Group.

B. Time Frame for Nomination

Nominating Committee Appointments	October
Solicitation of potential applicants	October – November
Deadline to receive nominations	December
Committee Review & Recommendation	January - February
Award	April Meeting

Section 6

Recognition

There are several avenues available for the WIN to utilize in recognizing the achievements made by developers in preserving natural resources and employing conservation techniques. It is extremely important that WIN be cognizant of the developer's perception of what is important to the marketing success of a project. The program should emphasize attracting the public to the development being recognized so that people can see and understand the differences between a conventional residential development and a conservation development.

Initially, recognition can be in the form of inviting recipients to WIN's Spring meeting to show case their development to the group. WIN could present the award in a special ceremony following its business meeting. The group could present the recipient with a plaque showing the appreciation of WIN for the commitment the developer has made to the viability of the community.

Other forms of recognition that should be explored are:

- Articles in the Saginaw, Bay and Midland newspapers.
- Local television and radio stations.
- Delta College public broadcasting – possible video presentation on development by cinematography class.
- Developments highlighted in professional journals
 - A. HBA Magazine
 - B. Realtor publication – buy a page to plug development.
 - C. Planning publications
- The Land Use Task Group should work hand in hand with the Communication Task Group in developing a recognition plan.
- Web site.

Section 7

Evaluation Criteria

In order to obtain recognition as a Conservation Development, applicants must satisfy all of the eligibility requirements and earn a minimum of 13 points. The applicant's development will be rated according to its degree of compliance (on a percentage basis) with the scoring system listed below.

Each development will be judged on the following core criteria. Please circle the appropriate response. Use the comment section after each criterion to elaborate on your response. If a criterion does not apply, explain why.

1. Site Design and Construction Practices

A. Amount of Impervious Surfaces Relative to Conventional Development.

Rationale – The greater the area of impervious surface, the greater the volume and level of contamination of water runoff and the lower the infiltration for natural replenishment of groundwater.

Measurement – The percent decrease in street, sidewalk, and driveway surfaces compared to local conventional designed developments. The conventional design impervious rating for residential and commercial developments within the Tri-County area is 30% and 50% respectively. (Note: Heavily turf grass areas like ball fields and golf courses are virtually impervious in most parts of the region. Because of our heavy clay soils, the combination of the compaction from the grading and the shallow roots of the grass mean that very little water actually soaks into the ground in these areas.

Impervious Surface – A surface which does not easily allow the infiltration or penetration of water. During rainstorm events a large percentage of water will runoff. (i.e. roof tops, paved walks, roadways, driveways, sidewalks, etc.)

Pervious Surface – A surface which allows infiltration or penetration of water. During rainstorm events a percentage of water will infiltrate into the surface with the remaining storm water running off. The percentage of runoff is dependent on the type, slope, percent saturation, etc. of the surface. (i.e. lawns, farm fields, parks, wooded areas, golf courses, etc.)

Typical design standards for the Tri-County Area are as follows:

- 1) Street widths – 27 feet
- 2) Cul-de-sac radius – 75 feet
- 3) Sidewalk widths – 5 feet
- 4) Unshared driveways – 9 feet one lane; 18 feet two lane

<u>Points</u>	<u>Determination</u>
-2	No decrease
-1	5% decrease
0	10% decrease
+1	15% decrease
+2	25% decrease
X	Does not apply

Comments: _____

Calculation: (Total acres deemed impervious / Total acreage of site)

B. **Wastewater Treatment**

Rationale – Sewage treatment systems can be major contributors of nutrients and flow volumes to surrounding bodies of water.

Measurement – Relative impact based on sewage treatment approach.

<u>Points</u>	<u>Determination</u>
-2	Package plant with stream discharge
-1	Individual septic systems on each lot
0	Public sewer
+1	Community Septic system, inground discharge.(Public or Private)
+2	Community systems involving spray irrigation, constructed wetlands, solar aquatic greenhouse (either public or private)
X	Does not apply.

Comments: _____

C. Preservation of Natural Features/Land Form Change

Rationale – Generally, the less disturbance there is, the lower the impact of the project on water quality and natural resources. This criterion is intended to measure the disturbance of the land during construction.

Measurement – Relative levels of cutting and filling.

<u>Points</u>	<u>Determination</u>
-2	Mass disturbance/grading, more than 80% of site.
-1	Significant/large contiguous areas of grading, 50% - 80% of site.
0	Minimum cut and fill
+1	Cut and fill only foundation area for structures
+2	No cut and fill, grading only of foundation and streets
X	Does not apply

Comments: _____

D. Sediment and Erosion Control

Rationale – Minimizing erosion and other sediment transport during and immediately after construction minimizes a major source of damage to water quality, watersheds and ecological health.

Measurement – Relative to use of sediment and erosion controls. The local soil erosion agency will be consulted by WIN members to evaluate this criterion.

<u>Points</u>	<u>Determination</u>
-2	Ineffective application of soil erosion control measures
-1	Required construction erosion controls in place but failing
0	Required construction controls in place, monitored, and in compliance
+1	Required construction controls exceeded
+2	No visible measurable soil loss
X	Does not apply

Comments: _____

*Expertise required to evaluate this criterion.

+2 points talk to Jim Thews about measurable soil loss.

2. Storm Water Management

A. Runoff Rate

Rationale – Reducing the velocity of runoff from a development site by retaining more on-site and allowing it to infiltrate, naturally allows more runoff to infiltrate, and reduces erosion.

Measurement – Peak rate of runoff as compared to pre-development land use conditions. Pre development land use is defined as the use immediately preceding development, not pre-settlement conditions. (Reduction in runoff rate may be attained by many methods including grass swales, buffers, reduction of impervious surfaces).

<u>Points</u>	<u>Determination</u>
-2	> 15% increase in runoff rate
-1	0 – 15% increase in runoff rate
0	No increase in rate of runoff
+1	0 – 5% decrease in runoff rate
+2	> 5% decrease in runoff rate
X	Does not apply

Comments: _____

*Expertise required to evaluate this criterion.

B. Runoff Volume

Rationale – Reducing the total volume of runoff from a development site, by retaining more on-site and allowing it to infiltrate, reduces erosion, sedimentation, and other impacts in surrounding bodies of water.

Measurement – Volume of runoff as compared to pre-development land use conditions. Pre development land use is defined as the use immediately preceding development, not pre-settlement conditions.

<u>Points</u>	<u>Determination</u>
-2	> 15% increase in runoff volume
-1	0 – 15% increase in runoff volume
0	No increase volume of runoff
+1	0 – 5% decrease in runoff volume
+2	> 5% decrease in runoff volume
X	Does not apply

Comments: _____

*Expertise required to evaluate this criterion.

C. Storm Water Collection System

Rationale – How storm water is captured, conveyed, stored and treated before it is released affects water quality and infiltration.

Measurement – General design parameters of storm water collection, detention, and treatment systems.

<u>Points</u>	<u>Determination</u>
-2	Curb and gutter, conventional dry detention pond
-1	Curb and gutter and wet detention pond
0	Vegetated open channels (grass swales or ditches) and created wetland detention pond. (Note: created wetland shall be 18 inches deep or less.)
+1	Vegetated open channels (grass swales or ditches) and created wetland ponds with vegetated filters
+2	Vegetated open channels, (grass swales or ditches) infiltration devices, multiple created wetland treatment ponds
X	Does not apply

Comments: _____

3. Preservation of Open Space

A. Design of Contiguous Open Space

Rationale – Generally speaking, a project’s impact on the environment is minimized if the preserved open space within the development is contiguous – both within the development and with planned or existing open space outside the development. (Note: Open space is defined as property under common ownership by a homeowners or condominium association or by conservation easement.)

Measurement – Level of effort made toward linking and preserving open space within and adjacent to development.

<u>Points</u>	<u>Determination</u>
-2	There has not been any effort made in developing contiguous open space within the development.
-1	Development does capitalize on the opportunity to link open space to adjacent properties.
0	Preserved open space is linked together within the development.
+1	Open space within the project is designed to link with open space on adjacent properties and the project’s open space is protected by restrictive covenants and a homeowner’s association.
+2	Open space within a project is designed to link with open space on adjacent properties and the project’s open space is protected by a conservation easement.

Comments: _____

B. Environmentally Significant Open Space

Rationale – There should be no building in certain areas including wetlands, flood prone areas, and steep slopes. The criterion recognizes development that protects these sensitive areas beyond current legal requirements.

Measurement – Level of effort made toward preserving regulated floodplain and wetland areas. (Note: Construction within these areas is punished, even if it is mitigated. The goal is not to have people building in wetlands or floodplains, even if they create new ones to replace them.)

<u>Points</u>	<u>Determined</u>
-2	A significant amount of construction (i.e. homes, roads) has taken place in designated floodplain and/or wetland areas.
-1	A small portion of construction (i.e. homes, roads) has taken place in designated floodplain and/or wetland areas.
0	Existing floodplain and wetland areas have not been disturbed, but no formal protection is in place.
+1	Existing floodplain and wetland areas have not been disturbed and are protected by a homeowners association.
+2	Existing floodplain and wetland areas have not been disturbed and are protected by a conservation easement.
X	Does not apply

Comments: _____

4. Protection of Natural Resources

A. Development of Natural Resources Protection Plan

Rationale – A site’s entire set of resources needs to be considered holistically and protected in an integrated manner.

Measurement – Degree of natural resource-based site planning and long term protection.

<u>Points</u>	<u>Determined</u>
-2	No natural resource inventory or management protection plan.
-1	Natural resource inventory conducted, but no significant linkage to site design.
0	Natural resource inventory conducted, natural areas linked into continuous open space system.
+1	Natural resource inventory conducted, natural areas linked, permanent protection of natural areas/open spaces (e.g., easements, restrictive covenants).
+2	Natural resource inventory conducted, natural areas linked, permanent protection of natural areas and adjacent open spaces (e.g., conservation easement), long-term ecological/water quality monitoring and homeowner education program in place.
X	Does not apply.

Comments: _____

B. Buffering of Streams, Wetlands, Streambeds, Mature Forest and Other Sensitive Features, if applicable.

Rational – Generally, buffering surface waters and other sensitive features on a site minimizes the environmental impact of a development on those features.

Measurement – Extent and type of buffer used at site.

<u>Points</u>	<u>Determined</u>
-2	Permanent building on stream banks, lake shores, or filled wetlands.
-1	Significant disturbance during construction without restrictions.
0	Buffer meets local minimum standards.
+1	Minimum 50 foot buffer designed to maximize protection (e.g., planted with appropriate native vegetation).
+2	Minimum 50 foot buffer, with buffer maintenance and ecological management part of homeowner's association requirements.
X	Does not apply.

Comments: _____

C. Tree and Native Plant Conservation, if applicable

Rationale – Generally, if mature trees and/or other native plantings exist on the site, preserving them lowers the impact of the project on local ecosystems.

Measurement – Loss of mature trees or other native plants.

(Prior to development, an analysis will need to be undertaken to determine the percentage of the site that is covered by existing foliage. After the infrastructure has been installed and homes constructed another analysis will need to be made to ascertain how much of the existing foliage remains. Loss of foliage means loss of mature tree cover or prairie, not low quality brush.)

Existing Tree/Native Plant Cover on Site

Points	10 – 35%	35 – 50%	50 – 75%	75-100%
-2	loss > 10%	loss > 30%	loss > 50%	loss > 70%
-1	loss 0—10%	loss 20-30%	loss 30-50%	loss 60-70%
0	no net loss	loss 0-20%	loss 10-30%	loss 50-60%
+1	no absol. Loss	no net loss	loss 0-10%	loss 40-50%
+2	No absol. Loss & add'l planting	no absol. loss	no net loss	loss < 40%
X	Does not apply			

Comments: _____

D. Other Landscaping

Rationale – The amount and type of vegetation designed into a site’s landscaping greatly influences the land’s ability to catch, filter and infiltrate storm water. Generally, the larger the percentage of vegetation on the site, the more positive the ecological and water quality benefits to the environment. Native vegetation is desired in most instances.

Measurement – Use of different type of vegetation.

<u>Points</u>	<u>Determined</u>
-2	Plant turf grass
-1	Use of native vegetation only in buffer areas
0	Use native vegetation in 50% of open space
+1	Provision in homeowner’s association rules to encourage use of native vegetation on individual lots
+2	Use of native vegetation greater than 50% in open spaces, native vegetation encouraged or required in homeowner covenants/deed restrictions.
X	Does not apply.

Comments: _____

Section 8

Calculation Sheet

Site Design and Construction Practices

1 (A) _____

1 (B) _____

1 (C) _____

1 (D) _____

Total Points: _____

Storm Water Management

2 (A) _____

2 (B) _____

2 (C) _____

Total Points: _____

Preservation of Open Space

3 (A) _____

3 (B) _____

Total Points: _____

Protection of Natural Resources

4 (A) _____

4 (B) _____

4 (C) _____

4 (D) _____

Total Points: _____

Grand Total Points: _____

Total points available = 26

The Conservation Development Recognition Program was authored by Jim Koski, Daniel Morgan and Rob Grose.

Rob Grose