MUSKEGON

West Michigan's Shoreline City
www.shorelinecity.com

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Great Lakes and St. Lawrence Initiative

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RE: Wege Small Cities Sustainability Best Practices Award- City of Muskegon
Ryerson Creek Fish and Wildlife Habitat Restoration Project

April 27, 2011

The City of Muskegon appreciates this opportunity to demonstrate how our community has evolved in the last decade as a model for sustainability, by investing in programs that are improving ecologically sensitive natural features and resulting in significant socio-economic benefits. The City of Muskegon is a leader in the West Michigan region's efforts to sustain, revitalize and improve quality of life, sense of place, and the ecosystem in which we live.

The Wege Award would be an excellent opportunity to showcase the goals established and projects completed or underway by the City of Muskegon and it's partners. It would highlight our City as a quality environment, with an increasingly healthier economy and exceptional quality of life, which we have come to expect in West Michigan. The Ryerson Creek Fish and Wildlife Habitat Restoration Project is one of the City of Muskegon's most vital projects in this regard.

BENEFITS

As of 1994, Ryerson Creek was named the *priority subwatershed* of Muskegon Lake by the Muskegon Lake Watershed Partnership (MLWP). Ryerson Creek may be just one tributary that runs into Muskegon Lake, but with the completion of this project, it will be a major contributor in restoring fish and wildlife habitat and water quality to the area. After the damage that resulted from the sawmill and industrial eras, Muskegon Lake was only 73% its original size, 27% of it being comprised of waste. Ryerson Creek became known as "stink creek" to local community members. Current efforts to restore it will

prevent further degradation of Muskegon Lake, improve fisheries, instill community pride and a stewardship ethic that will improve the area's image and sustain the improvements for future generations.

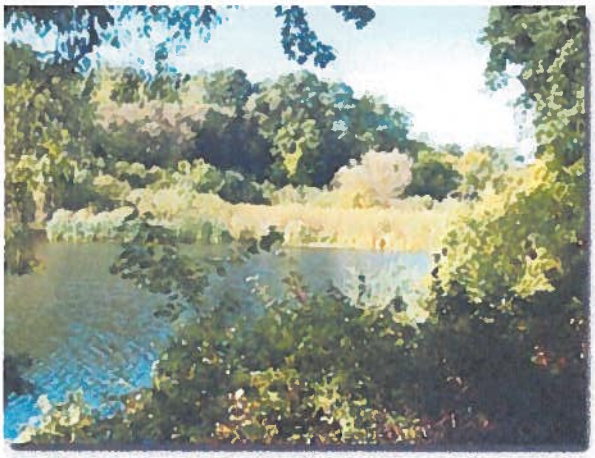
There are countless benefits of which we hope to accomplish from the completion of this project:

- ✓ The beneficial uses and ecological impairments that are keeping Ryerson Creek on the Muskegon Lake Area of Concern (AOC) list will be restored and removed, bringing Muskegon Lake one step closer to delisting as a Great Lakes AOC. This will certainly be an overall benefit to the Great Lakes-St. Lawrence water resources.
- ✓ The Muskegon River Watershed will improve, thus advancing the protection and restoration of Muskegon Lake, Lake Michigan and the Great Lakes-St. Lawrence water resources.
- ✓ Water quality will improve for recreational use. This is important for residents of Muskegon, as well as the tourism industry.
- ✓ The gateway to Muskegon and scenic views will improve from community areas such as: the City of Muskegon's Farmers' Market, Green Acres Park, Lakeshore Trail (bike path), United Way of the Lakeshore's new community center, and the US Business 31 corridor.
- ✓ Fish passage will no longer be blocked between Muskegon Lake and Ryerson Creek, resulting in improved fishing opportunities for a densely populated, diverse community neighborhood.
- ✓ Fish and wildlife habitat will be restored, thus increasing fishing and boating opportunities within the community.

FUNDING

The Ryerson Creek project is a part of an extensive aquatic habitat restoration project, with a regional goal of restoring Muskegon Lake, in which the City of Muskegon has partnered with the Muskegon Lake Watershed Partnership (MLWP), the West Michigan Shoreline Regional Development Commission (WMSRDC), and NOAA Great Lakes Habitat Restoration Program.

The construction costs for the Ryerson Creek project will be approximately $1,626,079 (see budget attached). These costs cover the fish passage restoration, riparian corridor habitat restoration, daylighting of Ryerson Creek, and general costs (soil study, construction supervision, engineering design, and mobilization, insurance).



A majority of the funding is from NOAA's Coastal and Marine Habitat Restoration and ARRA Program and NOAA's Great Lakes Habitat Restoration Program. In addition, the City of

Muskegon has received funding from the Ice Mountain Grant (Fremont Community Foundation) for $27,446, and from the Community Foundation for Muskegon County for $40,000. The City is matching $40,000.

Cover Sheet

Many years ago, the City of Muskegon was known as *the Lumber Capital of the World* with over 90 sawmills along the Muskegon Lake coastline. As the trees were depleted, the sawmills were replaced with factories, blocking the view of Muskegon's beautiful lakes and tributaries and creating widespread pollution. By the 1960's and 70's, many of the factories closed, as they manufactured products for automobiles or war. At that point, the City of Muskegon began to restore its' habitat, by first removing the vacant manufacturing buildings and redeveloping the land with parks, marinas, research facilities and other more appropriate lakeshore uses. Muskegon has been successful in improving its economy, while at the same time, restoring and preserving its valuable water sources such as the Ryerson Creek.

The Ryerson Creek project is a great demonstration of economic vitality, social equity, and environmental stewardship. The benefits that will result from the project will create a better environment, by improving the natural habitat, and will improve the community which surrounds it. The economic development associated with fishing will be enhanced and those living in the area will benefit by having fish available for their own consumption. In addition, it will further improve the overall water system through Ryerson Creek, Muskegon Lake, Lake Michigan and beyond.

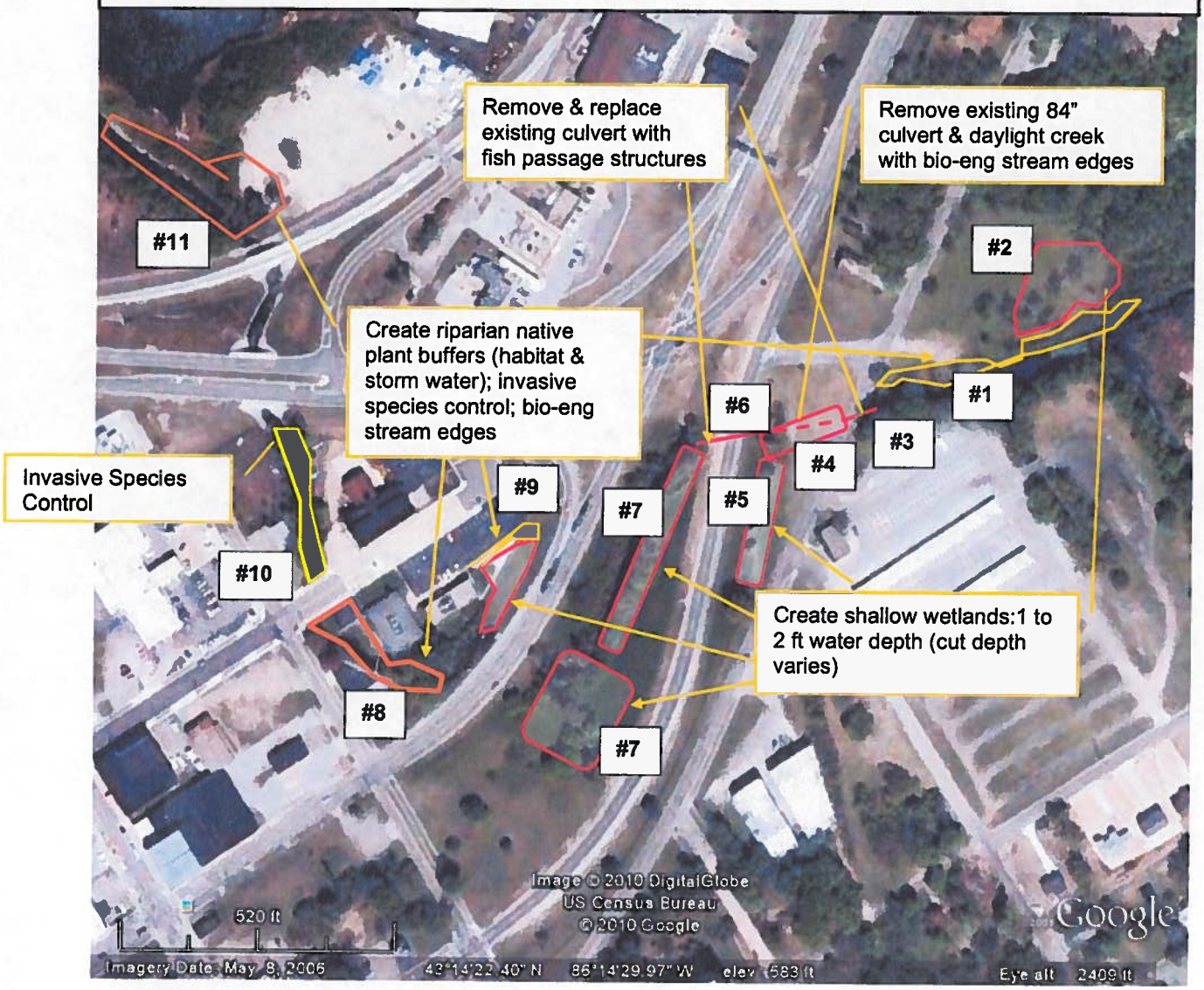
The actual project consists of the following project elements: Restoration of the riparian corridor of Ryerson Creek. This is done by eliminating the unnatural fill materials along the 400ft. length of creek that runs along Green Acres Park. These fill materials have caused the in-stream habitat to degrade, and require the barrier to be restored. Native plants will be planted on 282-ft of the stream barrier, along United Way property. These native plants will reduce the soil erosion by absorbing storm water runoff. Fill materials will be removed from the 100-ft of riparian corridor along the North side of Ryerson Creek, and replaced with native trees along the stream. The trees will provide cooling, shading, and bank stabilization. Between Moses Jones and Yuba Street, 140-ft of Ryerson Creek will be restored, as well. Green Acres Park, a wetland along Ryerson Creek, will be conserved and a 150-ft box drain will be constructed to allow the free flow of the stream under existing streets.

The Ryerson Creek Fish and Wildlife Habitat Restoration Project should be considered for the Wege Small Cities Sustainability Best Practices Award, as it is an example of "best" practices" and a project that exemplifies the triple bottom line. The project can be replicated in other areas of the Great Lakes and St. Lawrence River. The project could not have come to fruition without the strong partnerships between groups such as the West Michigan Shoreline Regional Development Commission, the City of Muskegon, NOAA and the Muskegon and Fremont Community Foundations. These resources are available in many communities throughout the Great Lakes and St. Lawrence River. A project can start with an identified need, such as the restoration of Ryerson Creek, and then discussions with various potential partners. In

Muskegon's case, all partners contributed to grant writing, funding, design implementation and other elements. With strong leadership and passion, a project such as the Ryerson Creek Fish and Wildlife Habitat Restoration Project can occur almost anywhere.

If the City of Muskegon receives the Wege Small Cities Sustainability Best Practices Award, the $5,000 will be used to construct a walkway connecting Green Acres Park with the Farmers' Market for those visiting the area to take advantage of the newly restored wetlands, as well as the produce and other goods available at the Market. With the additional funds remaining, interpretive signage for the Ryerson project will be designed, prepared and installed. Through signage, the importance of the triple bottom line aspects of economic vitality, social equity and environmental stewardship will be revealed. The environmental and the socio-economic benefits of the Muskegon Lake cleanup and restoration projects will be emphasized, and before and after photos will be included. The signage will include information on the successful partnerships that allowed this project to occur, including the Wege Award! This will be particularly beneficial since other funding sources did not allow for interpretive signage in their grant budgets. If any dollars remain, they will be used to install more native plantings on site.

Site # 1 - Ryerson Creek Fish and Wildlife Habitat Restoration - Fish Passage, Wetland and Riparian Corridor Restoration



Individual Sites

1) Green Acres Stream; 2) Green Acres Wetland; 3) Yuba Culvert; 4) Ryerson Creek Daylight & Wetland; 5) Yuba/N. Bound Seaway Drive Shallow Wetland; 6) Seaway Culvert; 7) Seaway Wetlands; 8) United Way Stream; 9) United Way Wetland; 10) Havit Stream; 11) Belmont Riparian

7500 NOAA ARRA:			WMSRDC FUNDS		CASH MATCH SOURCES					Habitat Restored	
Task			NOAA ARRA	NOAA GLHRP	City of Muskegon Budget	City CFFMC Grant	City Ice Mtn Grant	WMSRDC Match	Total	Acres Wetland	LF Stream
Construction Type:	**Project Number**	**Project Name**									
A. Culvert/Fish	6	Seaway Culvert	566,288	0	26,641			0	592,929		150
	3	Yuba Culvert	224,420		0			0	224,420		40
B. Daylighting	4	Ryerson Creek	163,560						163,560	0	300
		Subtotal	***954,268***	***0***	***26,641***	***0***	***0***	***0***	***980,909***	**0**	**490**
7502 NOAA Partnership GLHRP:											
C. Riparian	1	Green Acres Stream		16,000	1,554				17,554		400
Wetland Restoration	2	Green Acres Wetland		74,200	1,554		27,446		103,200	1	
	5	W/ ARRA daylighting							0	0	
	7	Seaway Wetland		111,675		40,000			151,675	1	775
	8	United Way Stream		51,400					51,400	0	564
	9	United Way Wetland		75,000					75,000	0	
	10	Belmont Riparian		20,000					20,000	0	300
	11	Havit Stream		20,251					20,251	0	640
		Subtotal	***0***	***368,526***	***3,108***	***40,000***	***27,446***	***0***	***439,080***	**4**	**2,679**
Subtotal		**TOTAL**	**954,268**	**368,526**	**29,749**	**40,000**	**27,446**	**0**	**1,419,989**	**4**	**3,169**
Engineering:											
A. Permits and Soil Analysis			10,000	10,000					20,000		
B. Engineering Design			35,000	9,749	10,251				55,000		
C. Construction Oversight			20,000	19,655					39,655		
D. Mobilization and Insurance				29,000					29,000		
Subtotal			**65,000**	**68,404**	**10,251**	**0**	**0**	**0**	**143,655**		
Total			**1,019,268**	**436,930**	**40,000**	**40,000**	**27,446**	**0**	**1,563,644**		
WMSRDC Mgt			**0**	**53,070**	**0**	**0**	**0**	**9,365**	**62,435**		
Grand Total			**1,019,268**	**490,000**	**40,000**	**40,000**	**27,446**	**9,365**	**1,626,079**		