



*Parks Director Sue Black surveying Bradford Beach project*

## Design and Function Blend at Bradford Beach

*By Susan Bence*

May 20, 2008 | WUWM | Milwaukee, WI

If you've driven past Bradford Beach in Milwaukee lately, you've noticed orange storm fences encircling large holes in the sand. A series of gardens are being installed along the beach and the adjacent parking lot. The plots are more than decorative, they'll absorb and filter water that spills onto the beach during storms.

Right now, you have to imagine clumps of Purple Prairie Clover or Blue Flag Iris, but Sue Black says before you know it, Bradford Beach is to be a mass of colorful native plants and grasses. And the Milwaukee County Parks Director has one word for it, cool.

"It's really trying to take care of the lakefront cause it is one of the biggest assets of the park system," Black says.

Years ago a drainage system was installed to carry storm water from the bluffs and surrounding park land to the beach. The new gardens are designed to absorb that water. Black says it's taken a few years to make it happen, but six plots will take root along the beach.

"Right now we're not facing the water, we're facing the bluff here and we're looking at a retaining wall, that's going to be kind of a ledge, That's where the outfalls are. The outfalls for people who don't know, it's just a pipe and it's at the end of the pipe, where does the water go. You've got all the storm run off that comes from the bluff on the top of the hill. And when they built it, it actually goes under Lincoln Memorial Drive and then it just stops in the middle of the beach," Black explains, "This is the old system, so we're not gonna go rip up Lincoln Memorial Drive and the bluff and everything. But the point is, instead of just letting that water drain into the sand and just sit there and turn into a science project."

Actually, this has been an eight year project for Sandra McLellan. She's a scientist with the Great Lakes Water Institute. Over the years McLellan and her students have been gathering and testing rain water that puddles up on Bradford Beach.

"What we found is, it's true in the rivers that lead to Lake Michigan and also along the shoreline, any rainwater that hits the pavement and impervious surfaces and washes into the water, carries with it all this pollution that accumulates on these surfaces," McLellan says.

McLellan says bacteria thrive in the standing water.

"That's when we start to get these high bacteria readings, so definitely at the beach whenever you see parking lots and a lot of roadways and a lot of development, what you're going to get is all the pollutants that accumulate on those surfaces, washing in every time it rains," McLellan says.

She says years ago beach areas were designed to send storm water across the sand into lakes.

"Now, we're finding out it's better to kind of keep it infiltrated in the grassy areas and the park areas and not let it get into the swimming area at all," McLellan says.

McLellan says she and her students will continue to monitor the beach after heavy rain falls. She

says the research represents one piece of the ecological puzzle in dissecting every aspect of Lake Michigan's water quality.

"I think the important thing to remember it's all types of pollution, it's the storm water run off, it's the sewage overflows, and then also in the agricultural run off, not so much in our area, but there's other areas around the Great Lakes, you know, a lot of agricultural land use," McLellan says.

McLellan says part of the mission of the Bradford Beach program is to show the benefits of containing storm water in rain gardens. She hopes people are inspired to create their own at home or neighborhood projects.

Parks Director Sue Black says the scientific research paved the way to Milwaukee's lakefront improvement and keeping the beach open for business.

"The whole idea is that it becomes this filtration system, but at the same time that it's aesthetically pleasing to the people driving by. You know, I should have taken pictures five years ago when I got here to what we're doing now. And then take a picture of it this summer when it's full of people and the big volley ball tournaments and all the stuff that's coming to town. I think it's going to be pretty cool," Black says.

She says there are twenty big events scheduled at Bradford Beach this summer.

Sue Black is expecting people to be impressed.

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