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In Fashion Island, a high-fashion pollution filter

- March 10, 2009 - Fashion Island's name speaks for itself, and buried in the parking lot is the height of fashion in pollution control: a device that removes contamination from stormwater before it reaches the ocean.

Installing the device is part of an effort by the landowner, the [Irvine Co.](#), to retrofit the famed shopping mall's parking lots to reduce pollution in the water flowing beneath them.

"It's a whole water quality system, a comprehensive, integrated scheme for the way water runs through everything," said Robyn Uptegraff, the company's senior vice president of environmental affairs.

When it was hoisted by crane into its hole east of Macy's last week, the device looked like a giant box, nearly the size of a boxcar. Stormwater — the stuff that rolls down stormdrains toward the ocean loaded with contaminants — passes through a series of filters inside the box.

These capture trash, solid particles, heavy metals, oil, grease and phosphates before the water emerges from the other side of the device to continue its journey to the sea. Manholes allow access for periodic cleaning and filter replacement.

The box itself is made of "green" concrete: partly recycled material, such as fly ash, a byproduct of coal-fired power plants, which vastly cuts down on the amount of greenhouse gases needed to make regular concrete.

The green concrete requires less energy to manufacture, reducing carbon dioxide emissions.

It also should last longer — at least 125 years, double the lifespan of regular concrete. If it lasts 100 years, it could reduce carbon dioxide emissions by as much as 14 tons below what might be emitted using regular cement that would be replaced sooner, said David Sinclair, president of [Clean Water Resources](#) in Connecticut.

The concrete, called 2X Green, is made by Clean Water Resources; the filters were designed by [Contech Stormwater Solutions Inc.](#), based in Ohio.

Images courtesy Irvine Co.

