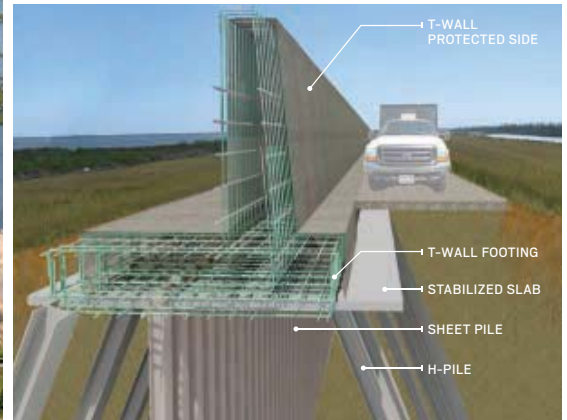




1
YEAR

NEW ORLEANS
The surge barrier currently under construction is composed of 1,271 concrete cylinder piles, each 144 feet long; steel piles (below) brace the T-wall platform.

“The lessons learned—or not learned—in New Orleans can and should be translated elsewhere,” says Wendi Goldsmith.



LANDSCAPE ARCHITECTURE

As climate change threatens to reshape our world, landscape architecture seems poised to play a leading role in creating an environmentally sound and effective response. We’ve asked a landscape designer, a landscape architect, and a Dutch civil engineer to discuss strategies for the future. All are in broad agreement that lasting and sustainable solutions should circle back to the land.

NEW LEVEES

“In New Orleans, the U.S. Army Corps of Engineers is redesigning its approach to hard infrastructure, because we have treated that entire Mississippi River system and its delta wetland complex very poorly. It’s falling apart and not doing all of the work it did in centuries past to buffer wave impact, store sediment, and serve as a natural line of defense. I predict New Orleans will be the classic canary in the coal mine. The lessons learned (or not learned) there as we rebuild the storm surge barrier can and should be translated elsewhere.”

WENDI GOLDSMITH,
president of the Bioengineering Group

FIVE years: CITY SINK

“What I see happening in landscape architecture is a growing understanding of how projects for specific sites work at a macro scale as part of larger environmental systems. I’m working on a project called City Sink that tries to create a new embedded infrastructure for carbon storage within the existing physical and social land uses of the city. It uses fourteen different approaches. One, highway biosound barriers, would retrofit existing concrete barrier walls with a planted ‘drape’ that’s irrigated with highway runoff using solar power.”

DENISE HOFFMAN BRANDT,
professor of landscape architecture at the City College of New York

TEN years: SOFT COASTAL ENGINEERING

“We’ll need to develop a range of approaches to combat rising sea levels, including something we call ‘soft coastal engineering.’ In Holland, we take sand from the deepest parts of the North Sea and put it in front of our coastline. So when you lower the water depths in front of the coast, even if the sea level rises and waves come in, the sandbar breaks the large waves into smaller ones. We also make cuts in the dunes to let seawater enter in safe ways. And perhaps most important, we’ve been giving back certain low-lying areas to the Rhine River, which means the river gets more room to store its overflow during high-water periods. I was in New Orleans in January 2006 and saw some of the devastation. I think certain areas there you should give back to the sea, and other areas, if you want them to stay there, you must protect.”

JAN H. DE JAGER,
founder of Nautilus Eco-Civiel

SPLITTING THE HEIGHT VERTICALLY INTO TWO “DRAPE CELLS” ASSISTS IN EVEN WATER DISTRIBUTION.

SOLAR ARRAYS

HIGHWAY BIOSOUND BARRIERS

This idea adds plantings to the existing concrete infrastructure along expressways.

“DRAPE FOLDS” MAXIMIZE SURFACE AREA AND DIVERSIFY MICROCLIMATE CONDITIONS ACROSS THE WALL.

VARIED SEEDED PLANTING

