

VIEWPOINT

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Dumping in the deep blue sea

Waste disposal pipelines in ocean should extend past short coastal area

There's a big difference between the sensitivity of the coast compared to the open ocean, a difference officials should keep in mind when issuing waste disposal permits.

Marine life is concentrated around coastal areas. This is where coral reefs and their cacophony of colorful creatures exist. This is where the sunlight can actually reach the ocean floor, giving rise to the sea grasses that nourish manatees and sea turtles. This is where two-thirds of all edible oceanic fish spend the early stages of their lives.

And, of course, this is where people go for sun, surf and a taste of the sea.

So stretching waste disposal pipes beyond the continental shelf that supports the coastal region makes sense. What's more, it's easy to do here in Puerto Rico.

The descent into open ocean begins a mere mile from shore at the two shortest distances on both the north and south coast, marine geologist Juan Trías of U.S. Geological Survey said.

From Punta El Morro in the north and Punta de Tallaboa in the south, ocean depth doubles from its average of about 115 feet to about 200 feet, and keeps on plunging from there, Trías said.

This sudden drop compares to a length of 150 miles from shore to the end of the continental shelf along much of the U.S. East Coast.

ASA is in the process of constructing a pipeline to pump slightly treated sewage four miles from its Ponce plant to an ocean trench, said Carl-Axel P. Soderberg of the U.S. Environmental Protection Agency's Caribbean field office.

There was some initial resistance to the plan because of the wetlands on which the ASA pipe would run. It stretches along the coast for quite a distance, so scientists and divers should keep an eye out for the leaks for which ASA is famous.

But the agency is on the right track in avoiding shallow coastal waters for disposal.

Certain sea-going creatures actually find human waste delectable, but their thriving on these nutrients can be disruptive to the complex coastal ecosystem that already exists. In contrast, lack of such nutrients as nitrogen — which is teeming in human waste — limits the amount of life that can thrive in the open ocean.

In the past decade, ASA has constructed other pipelines into the ocean: off Carolina, Arecibo, Aguadilla, Barceloneta and Puerto Nuevo, Soderberg said.



STAR photo file

Sewage, which until recently sometimes ran directly into the ocean as at King's Court in Condado, above, is now generally piped further out. But it could be taken even further, to the edge of the continental shelf.



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EcoLogic

However, the EPA hasn't made it a goal for pipes to extend to the end of the continental shelf. For instance, he said the Puerto Nuevo-Bayamón outtake only goes out about 135 feet from El Morro, where it discharges into water that is about 120 feet deep, a typical depth for the coastal region. This seems a shame considering that the shelf drops off only a mile away.

The EPA has denied a similar waiver for the water agency's Mayaguez plant, Soderberg said, a move that prompted ASA to take the case to court.

Possible adverse effects of discharging pollutants and heat into Mayaguez Bay helped defeat Cogentrix-ENDESA's proposal to construct a coal plant there, too. Local environmentalists cited concerns that the acidic, heated water would damage the coastal region.

Kenetech Energy Systems Inc. is trying to create a design that would avoid this issue for its natural gas-powered electricity plant proposed for Guayanilla, project manager Kent J. Morton said.

As of Thursday, engineers were still working on the details, he said. But their plan is to collect cool water for intake, so that upon discharge it will be the same temperature as the surrounding coastal waters. The water would contain no pollutants, Morton said.

If this is true, the concept could work. But if there are any doubts, officials should remember that Guayanilla, too, has one of the shortest continental shelves.

The best plan involving discharge issues so far comes from designers at Applied Energy Services, Inc. Regardless of what one thinks of their idea for using coal to produce electricity, the company deserves kudos for inventing a design to start with wastewater from an ASA plant near their proposed site in Guayama and keep recycling it. In this way, they can avoid interacting with the ocean altogether.

Still, until we get more creative plans along these lines, it's worth remembering that Puerto Rico's coastal region is so short. This makes it all the more precious — certainly worth the effort of going beyond into deeper waters whenever possible.

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