# Using GIS Technology to Protect Our Oceans
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On a planet where 71 percent of the surface is covered by water, the ocean is critical for life. But all is not well. The ocean holds five times more pollution than it did in 1960, and less than 2 percent of the ocean is legally protected in parks and reserves, as compared to 12 percent of global land areas. And there is a general lack of understanding that what we do to the land ultimately affects the ocean.

How do we raise such awareness—not to mention create a call to action? One key way is by embracing the power of whole Earth observation and the data it provides. Such observations can produce maps that are becoming increasingly intelligent. These maps can send alerts to a computer or mobile device if something enters an area of interest, or help design marine protected areas. They are changing how we measure, analyze, predict, plan, design, evaluate, and ultimately how we manage.

But it's not just smart maps that can spread the word about the importance of oceans. Pairing these maps with storytelling, something we've relied on for communication for millennia, to create "story maps" is important for delivering the messages all those underlying data are telling us. The visual stories we create with maps help scientists communicate among themselves and with policymakers who have the power to make decisions that affect the entire Earth.



*GIS is helping us reach a deeper understanding of our oceans. The [GIS for the Oceans](#) story map explores the impact of climate change on gray whale feeding grounds, tracked using GIS. Photo courtesy of Esri.*

If it is true that we will love and protect only what we understand, we need to start using these technologies we have more effectively to help us understand our oceans. Noted oceanographer and citizen of the planet Sylvia Earle has said, "now we know that our lives depend on the ocean." It's time to start using the technology we have to protect it. *To explore the world of intelligent maps even more, check out Esri Story Maps and Intelligent Web Maps*