

Clark shares \$1.4M grant to study two watersheds

Woods Hole lab, UNH taking part in NSF research

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WORCESTER— Colin D. Polsky has studied drought in dry parts of the country, so when he arrived in Massachusetts, an area that “gets a heck of a lot of rain,” he was surprised to see water-ban signs spring up like perennial gardens.

“The reason is that the water management system is so splintered, that it’s difficult to fund a system at the local scale that will keep up with the demands of suburbia,” said Mr. Polsky, an assistant professor of geography at Clark University. In other words, it’s easy for neighborhoods of meticulously watered lawns to outpace their local water supply.

Mr. Polsky and a team of researchers from Clark, the Marine Biological Laboratory in Woods Hole, and the University of New Hampshire have just received a grant for \$1.4 million from the National Science Foundation to study suburbia’s effects on coastal watersheds. They will look at the Ipswich River watershed and its neighbor to the north, the Parker River watershed, and consider the situation from ecological, social science and geographic points of view.

For instance, they will look at the geographic patterns of suburbia and how those patterns affect such things as shellfish productivity and nitrogen levels in the water. They will also consider factors such as residents’ income, demographics, land use zoning and culture, “where culture basically refers to ... people’s interest in a golf course lawn, and that interest really does vary across the region,” Mr. Polsky said.

When they’re done, they hope to have a computer model that will let them predict the effects of future land use decisions. Ultimately, they hope it will be a model for coastal watersheds nationwide.

The rest of the research team includes R. Gil Pontius Jr., who, like Mr. Polsky, is an associate professor in Clark’s Graduate School of Geography and George Perkins Marsh Institute. Mr. Pontius is also a member of the Department of International Development, Community & Environment. The other researchers include Charles S. Hopkinson of the Marine Biological Laboratory, and Wilfred Wollheim and Charles J. Vorosmarty, both of UNH. The research will also include work by Clark and UNH students.

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