

WATER ISSUES IN THE U.S.-MEXICAN BORDER REGION

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INTRODUCTION

Admiral Watkins and distinguished members of the commission, ladies and gentlemen, Good Afternoon! I am Rick Van Schoik, Professor of Environmental Security at San Diego State University and Managing Director of SCERP, a consortium of five U.S. and five Mexican universities that does applied research and policy work in the U.S.-Mexican border region. We have conducted extensive terrestrial, much estuarine, and some near-shore marine work in the border region since 1989. We predate NAFTA by several years.

I have been asked to comment on the binational context of ocean issues here in the Californias. However, it is impossible to discuss such concerns without telling you about population and water issues on the border first.

OVERVIEW

The U.S.-Mexican border region, for numerous reasons, is the fastest growing region on the continent - the growth rate is twice the Mexican national average and three times the U.S. average. As you can guess, most of that growth is in the cities and faster on the Mexican side than the U.S. side. The 13 million located within 100 km of the international border will be joined by another 13 million by 2025. So much of what has and is happening there can happen to the rest of the U.S..

Just as a rough comparison of density, about a thousand people live in the watershed of the Mediterranean for every cubic mile of sea water in that body of water. The Baltic Sea has an order of magnitude denser watershed than the Med and the Chesapeake an order of magnitude more than that. The Sea of Cortez and the Tijuana Estuary are denser yet with have millions of people per cubic mile of water.

It is also worth remembering the economic asymmetry that persists not only between the U.S. and Mexico but between the incomes and tax coffers of border municipalities and the rest of the country. Nine of the poorest counties in the U.S. are in the border region. They have few resources to address the serious environmental problems they have.

While impossible to tell sitting in this aquarium today, we live in a desert and a desert which is experiencing faster climate change, as measured by temperature change, than other areas. Higher temperatures mean the already scarce and highly contested water resources are disappearing faster than ever via evapo-transpiration. Combine the two, population and global

change, manifested here as drought, and you get a unique situation.

ISSUES AND CONSEQUENCES

Often surface water only reaches the ocean when it rains. When this happens much more pollution reaches the ocean as well. Every drop of the Rio Grande and Rio Colorado is allocated. Occasionally those rivers never get to the sea. When they do dump their rain-driven flows into the ocean, the toxin, heavy metal, nutrient, and pathogen loading, from both dry and wet deposition, is immense. In the case of the Tijuana River at the U.S.-Mexican border south of here, the loading exceeds that of the Hyperion Wastewater Treatment Plant here in Los Angeles Bay.

I don't have to remind you that no water means no wetlands which means no seafood. The California coast has lost 91% of its wetlands. Nor do I have to remind you of the immense risk to human health from water-borne diseases. Nor finally do I have to remind you that unregulated non-point pollution from farms and urban runoff remains, as far as we know, a permanent contribution to the contaminations of near-shore sediments and coastlines.

REASONS

But let me instead comment on why this situation has been able to exist and persist.

First, we have the classic tragedy of the commons. Not only does no one take responsibility for the oceans but no one, until recently, was even monitoring the border waters.

Second, what does reach the ocean tends to far exceed U.S. standards. This is because the environmental infrastructure in the border region suffers a severe deficit from decades of marginalization and over-population. We estimate it at over \$8 billion. So only partially treated sewage is often dumped into these binational rivers which makes it way to the ocean.

Third, governance is focused on other issues. The century-old International Boundary and Water Commission, the NAFTA-created Border Environmental Cooperation Commission, North American Development Bank and tri-national Commission for Environmental Cooperation have only the resources to look at terrestrial contributions to human health issues.

Fourth, so many of these issues require multiple attentions: multi-disciplinary expertise on multi-media pollutants, at multiple temporal and spatial scales, and with multiple objectives.

RECOMMENDATIONS

I have several brief recommendations. As a conservation ecologist I urge you to apply the principles of conservation design and begin all ocean protection measures well upstream on land.

Secondly, I urge transboundary environmental impacts be assessed, minimized and mitigated. The delineation between the ocean and land is just one of the boundaries crossed. Most ocean influences from the land cross many layers of jurisdictions.

Third, I ask you to remind agencies and contractors who develop models, indices, tests, etc, that the arid and less rainy parts of the country cannot use their tools if developed only by and for temperate zones. We have fewer tools to work with here in the west.

Remembering the “disconnects” and “discontinuities” between water quality people (typically federal, state and tribal EPAs), water quantity people (usually Department of Interior and the States), and water-borne health people (HHS, CDC, et alia), I imagine it’s worse when it comes to ocean matters. Someone in Washington, D. C. needs to coordinate those efforts. My next recommendation is then for a newly energized federal effort to address these complex and often bi- or multi-national issues. I am sure the concerns of Texans, New Englanders, and Washingtonians are similar to us Californias and they would agree that some issues can only be addressed by pro-active, leadership involvement by the federal government.

A related final recommendation would be endorsement of a new world environmental agency and court to make sense of the hundreds of laws, treaties, and disputes over ocean issues.

Thanks you for coming to California and for your time today.