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OCCURRENCE AND FATE OF ENDOCRINE DISRUPTORS IN THE SAN MARCOS, TEXAS

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ABSTRACT: There is an increased concern about Endocrine Disrupting Compounds (EDCs) in the environment and what effects these chemicals are having on aquatic and human life. Wastewater Treatment Plants (WWTPs) are major potential sources of EDCs to the environment because some compounds are not totally removed or degraded by biological treatment. Since the San Marcos WWTP discharges its effluent approximately two miles downstream of the source of the San Marcos River, a federally listed Critical Habitat for Endangered Species, it provides for an excellent place to investigate the effects of effluent.The purpose of the study is to provide background information about the occurrence of EDCs in the San Marcos River, the effectiveness of the San Marcos WWTP in removing EDCs. Studies have indicated that the WWTP removes most of the compounds. Sampling was done of the influent, effluent and at different stages of treatment through the plant. The EDCs being monitored include: estrogens, pharmaceuticals, Personal Care Products (PCPs), and Polyaromatic Hydrocarbons (PAHs). The compounds under question were chosen based upon several factors: relevance in the San Marcos community, time and cost required in running the analysis and finally which EDCs pose the greatest threat to local fish and wildlife in the San Marcos River.Water samples are also being collected from points upstream and downstream of the San Marcos WWTP in the San Marcos River and in the collection system below a hospital.

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