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Got Water?

 Clean water availability is a top concern for most people and with that the worry of possible contaminates and pollution from sources such as agricultural runoff and industrial wastes. In a survey by the University of Georgia Extension Office, Georgia residents believe that there are some problems with water quality and water quantity. Specifically, respondents “consider clean drinking water (94%), clean rivers and lakes (76%), and clean groundwater (75%) as very important.” (Evans) The survey also states that “respondents have a greater confidence in the quality of of groundwater than they do in the quality of surface waters and ocean waters.” (Evans) An excerpt from Georgia Water Coalition’s Clean 13 publication says “saving Georgia’s water can only be done one stream at a time.” (Colation) However an important idea mentioned is that the health of the individual water bodies depends on the the cumulative health of them all.

 With that in mind “every two years states are required to submit Water Quality Assessment Reports…and an analysis of the extent to which waters are meeting water quality standards” to the environmental protection agency. (Waters) To answer the question, what is the state of the waterways in Georgia, a 2011 EPA report on waters assessed as impaired due to nutrient related causes shows much of the state of Georgia’s rivers, lakes and reservoirs, bays and estuaries to have some to all listed impairments. The factors assessed in the report are the levels of “nutrients, algal growth, ammonia, noxious aquatic plants, and organic enrichment/ oxygen depletion.” (Waters) What the report shows about Georgia is this: 19% of Georgia’s rivers have reached a 78% level of impairment, 82% of Georgia’s lakes and reservoirs have reached 20% impairment, and 7% of Georgia’s bays and estuaries have reached a 100% impairment. Moreover, an Environment Georgia.Org news release from 2014 describes “Georgia’s waterways the 8th worst in the nation…” (Gayer) This is truly shocking information.

 In another EPA report that details specific waterways that have been assessed, just four miles from my home, a section of Pachitla Creek (which runs through at least three counties) has been assessed as polluted and impaired for containing fecal coliform in 2012 and in 2014. (Hows My Waterway?) More recent data is not available; however, for both years the report lists probable sources contributing to this impairment as being non-point source/ unspecified non-point source. The ‘plain english’ report for this area classifies the fecal coliform as pathogens which “are potentially disease-causing organisms from human or animal wastes that enter waters through septic tank leaks or sewage discharges, farm and feedlot manure runoff after rain, boat discharges, and pet and wildlife waste,” (Pathogens) to name a few. In addition, “pathogens are the most commonly reported cause of water pollution nationwide, with over 10,600 waters identified as of 2015.” (Pathogens)

 In this case pathogens can pose some health concerns, and “the amount of bacteria and other microbes present, and thus the health risks they represent, can change rapidly due to factors such as rainfall and runoff from the sources mentioned above.” (Pathogens) Furthermore, “serious but rarely life-threatening illnesses are caused mainly by swallowing pathogen-contaminated water during swimming or other recreation, but can also come from skin contact with the water or eating contaminated fish or shellfish.” (Pathogens) Not only can humans become infected but other animals including fish. Some early suggestions to correct the problem might be to further investigate the source and try to eliminate it. However, if the source turns out to be an agricultural operation, further action may be halted by the need for new local regulations which in-turn may cause higher cost to the producer and the consumer at least in the short run. Obviously the cost to producer, consumer and wildlife in the long run is potential so high that change is needed now, not later. Clean up and restoration efforts that are required by the EPA are describe as “a total maximum daily load (TMDL) or alternative restoration plan to reduce pollutant loadings and restore the waterbody.” (Waters) Detailed TMDL reports were not available from the EPA website to show what processes and progress the government and other organizations have taken to restore Pachitla Creek. This seems hardly enough action in the effort to restore and prevent contaminates and pollution.

 All is not lost, the Clean 13 publication details the efforts of various entities working hard to clean up and prevent waterway pollution. The United Parcel Service, Storm Water Systems, South Fork Conservancy, Solar Crowdsource, Scott Bridge Company, Georgia Department of Natural Resources, Macon Water Authority, Ladybug Farms, Rep. John Meadows, Georgia Tech, Cox Enterprises, and the City of Atlanta, are all team players working hard to combat pollution and restore Georgia’s waterways. Clean 13 states the ACF rather, Apalachicola, Chattahoochee and Flint rivers, of which Pachitla Creek flows into the Flint river, “is a basin defined by an arguably unmatched diversity of water use and stakeholder interest.” The publication shows Albany State University’s involvement in clean up and prevention efforts, specifically researcher and SWMP plan developer Mark Masters. The SWMP plan is “Sustainable Water Management Plan (SWMP), a plan that provides a template… to improve management of the river system to meet the needs of all water users from the mountains of Georgia to Apalachicola Bay.” (Colation) Unfortunately, the publication reveals that the SWMP plan “never received an endorsement” by the state of Georgia, Florida and others.

 Undoubtedly, there are many more individuals and organizations working to combat water pollution and restore the quality to safe levels, not just for humans basic drinking water needs but also for the fact that waterways provide a food resource, and energy resource and a recreation resource.

Works Cited

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