ACTION PLAN *Water & Sediment Quality*

WW-2

Provide Additional Sanitary Sewer Connections to Priority Areas

ACTION:
Provide sanitary sewer connection to a regional wastewater treatment plant to priority areas of Lake Worth Lagoon (LWL) and its watershed now served by septic systems or small domestic wastewater treatment plants.

BACKGROUND:
Many homes constructed around LWL still use septic systems for wastewater treatment and disposal. Many of these homes were built during the 1950's, prior to centralized sanitary sewer availability in the area. Other communities adjacent to the LWL do not have wastewater treatment plants and are not located near central sewer lines, or have elected to remain on septic systems. In addition, several small condominium and homeowner associations operate and maintain private wastewater treatment plants. While septic systems and small wastewater plants provide sewage treatment to a degree, elimination of the effluent streams offers an additional reduction of nutrient and bacteriological loadings to the LWL. While the nitrogen and bacteriological loading associated with domestic wastewater is a concern, so are other chemicals including phosphates and "emerging contaminants" such as pharmaceuticals and metabolites within these waters.

Older septic systems dominate in the largely residential communities bordering the shore of LWL, and efforts to convert portions of these neighborhoods to sanitary sewer service are underway. Several communities are either converting to sanitary sewer or have plans to make the conversion. Conversion from septic to sewer service can be costly, with residential hookup fees as high as $7,000 or more with sewer and water hookups. These fees are even higher for condominiums and homeowner associations looking to connect versus continuing to operate their small wastewater plants. The need for financing options such as interest-free loans, or low cost and cost-sharing grants to assist residents in areas slated for conversion is an issue. PBC Water Utilities Department offered a 20 years low monthly Deferred Payment Plan (DPP) option to property owners for the connection costs in the recently completed Westgate project (Appendix B). Monthly fees range between $27.21 and $46.58 for single family homes. These costs are included in the monthly water and wastewater bill.

Additionally, the availability of regional sewer service can allow higher density development in environmentally sensitive areas, or in municipalities that don't want high-rise condominiums, an issue local governments must consider in their long-term

planning.

Alternatives to traditional septic systems exist and can be put into use when sanitary sewer in the environmentally sensitive area surrounding the LWL cannot be used. Such a program exists within the Florida Keys which requires Performance-Based systems which meet secondary and advanced secondary treatment standards. The Department of Health (DOH) is currently conducting a legislatively mandated study to develop cost-effective, passive strategies for nitrogen reduction for onsite sewage treatment and disposal systems. This project is scheduled to be completed in 2015 and may provide cost-effective nitrogen reduction strategies that will improve environmental and public health protection.

STRATEGY:

STEP 1 Review data from GIS geodatabase for locations of the small wastewater treatment plants, areas with sanitary sewer, and areas with only septic systems in conjunction with a review of the surface water quality data as well as data from Florida's Healthy Beaches program to determine if correlations exist.
Potential Partners: ERM, PBCHD, PBC Utilities, and Municipalities

STEP 2 Utilize the technical working group established by the Palm Beach County Water Resources Task Force to prioritize problem areas for feasibility analysis of conversion from septic to sanitary sewer.
Potential Partners: FDEP, PBC, DOH, HBOI/FAU, FDEP, Municipalities

STEP 3 Monitor progress in the project area and determine whether further research is needed:
a. Track construction of new sanitary sewer lines and service within the LWL area.
b. Assess opportunities for the removal of small wastewater plants or additional connections to these plants from near-by septic systems.
c. Identify areas where additional research is needed to quantify level of impacts, to confirm human fecal contamination, and to trace sources or associated human health risks (hot spots).
d. Obtain funding and conduct studies to confirm impacts.
e. Evaluate alternatives to centralized sanitary sewer systems in environmental sensitive areas.

STEP 4 Identify and secure funding for eliminating septic systems and small wastewater plant systems contributing to poor water quality.
Potential Partners: All Partners.

STEP 5 Increase educational outreach in problem areas to encourage proper operation and maintenance of septic systems, and encourage hook-up to central service where it is available.

SCHEDULE:
PBC to convene working groups as noted above during 2013-2014.

COST:
To be determined.

EXPECTED BENEFITS:
Reduced nutrient and bacteriological loading to the LWL and increased treatment of existing wastewater streams. Ultimately, these sources can be reduced and/or eliminated reducing nutrient and bacteriological input to receiving water bodies thus improving the overall water quality of the LWL and reducing public health risks.

MONITORING ENVIRONMENTAL RESPONSES:
Data will be collected, analyzed and integrated with existing PBC and PBCHD Healthy Beaches water quality monitoring program.

REGULATORY NEEDS:
Not applicable.

FUNDING:
Funding sources need to be identified.

POTENTIAL PARTNERS AND FUNDING SOURCES*:

PBC, FDEP, DOH, HBOI/FAU, EPA, NOAA FACE Program, Local Municipalities, SFWMD.

*Listed Agencies have not committed funds and are subject to Agencies' budget approvals