Department of Public Health (DPH) Environmental Engineering Program (EEP) comments on the November 28, 2012 Department of Energy and Environmental Protection (DEEP) meeting on Public Act No. 12-155 and the proposed statewide response to phosphorus nonpoint source (NPS) pollution in state waters.

Septic systems are a source of phosphorus, however based on the meeting it's my understanding that septic systems only produce a small percentage of the phosphorus load to inland nontidal waters, and the bigger pollution sources of phosphorus are sewage treatment plants, agricultural areas and stormwater runoff. It would be helpful to include estimates of phosphorus loads from various point and NPS pollution sources. The power point slides note that phosphorus from septic systems is not an issue as long as the systems are properly designed, installed, operated and maintained. Comprehensive management of decentralized sewage systems (septic systems, alternative treatment systems, cluster systems) would ensure the systems are properly designed, installed, operated and maintained. It is recommended that the state-wide strategy to reduce phosphorus loading in inland nontidal waters that is to be developed in accordance with P.A. No. 12-155 include recommendations about comprehensive management of decentralized sewage systems in accordance with EPA guidance documents (*Voluntary National Guidelines for Management of Onsite and Clustered (Decentralized) Wastewater Treatment Systems, Handbook for Managing Onsite and Clustered (Decentralized) Wastewater Treatment Systems*).

Based on presentation, phosphorus loading from public sewer systems seems to dwarf phosphorus loading from on-site sewage systems even though on-site systems serve 40% of the state's population. As such, it would appear use of decentralized sewage systems should be encouraged and public sewer expansions discouraged unless they are needed to address health and environmental problems that can't be addressed with on-site technology. The draft 2013-2018 Conservation & Development Plan includes recommendations that an objective public sewer need assessment protocol be developed, and this would help to reduce phosphorus loading by utilizing on-site sewage systems whenever possible.

The statewide NPS Management Program Plan is to be updated in 2013. Decentralized sewage system stakeholder organizations should be invited to participate in the update. DPH has a Code Advisory Committee (CAC) of decentralized sewage system stakeholder organizations, and DPH can distribute information on the plan update to the CAC members.

The statewide response to NPS phosphorus pollution reduction has a strong emphasis on stormwater best management practices (BMPs) and low impact development strategies (LIDS). It is critical that such practices and strategies be implemented with due consideration of on-site sewage disposal facilities and needs. Typical LIDS include on-site stormwater disposal, which in certain cases can hydraulically overload the receiving soil that the proper operation of the on-site sewage disposal system is dependent upon. Low impact development storm system retrofits on existing sites would be an activity that requires review and approval by the local director of health to ensure proper separation from the on-site sewage disposal system, and to confirm compliance with Public Health Code Section 19-13-B100a (B100a), which requires preservation of sewage disposal areas. In order to be approved by the local director of health, it would need to be demonstrated that the stormwater system does not eliminate a code complying septic area or potential septic repair area. It is recommended that the state-wide

strategy to reduce phosphorus loading in inland nontidal waters include a discussion about proper coordination with decentralized sewage system regulators on stormwater BMPS and LIDS.

A green infrastructure/LID conference is planned for 2013. DPH would like to be consulted in advance of the conference to ensure decentralized matters are properly addressed.

Phosphorus loading from antiquated on-site sewage systems in lakeside communities with small lots can be a concern, and it is recommended that the state-wide strategy to reduce phosphorus loading in inland nontidal waters include recommendations that the extent of the impairment from on-site sewage systems be further evaluated along with a review of pro-active pollution prevention techniques.

Comments prepared by Robert Scully, December 28, 2012