Minnesota Department of Health: Drinking Water Protection, Land Use and Water Supply Planning
12/2/2014

Drinking Water Protection Issue # 1: Community water supply protection needs to be integrated into local land use plans.	
Drinking Water Protection & Land Use Planning	**Activities and Next Steps:**
1. Include MDH approved Wellhead Protection (WHP) Drinking Water Supply Management Area (DWMSA) Maps in your Comprehensive Plan.	➢ Contact your water supply manager for approved WHP DWSMA Map(s) to include in your comprehensive plan. ➢ Include neighboring communities WHP DWSMA map(s) that may extend into your community's jurisdiction. (MDH or Met Council can assist you in obtaining digital copies of WHP Maps.)
2. Consider the vulnerability of your community's DWSMA to contaminant threats and land uses based on the science and geology in the WHP Plan.	➢ Meet with water supply manager to discuss vulnerability and potential contaminant threats to drinking water identified in the WHP Plan. ➢ Evaluate contaminants risks and land use planning tools to minimize threats to PWS wells and aquifer to protect drinking water.
3. Evaluate existing and future land uses and local controls needed to protect drinking water resources.	➢ Local planners and water supply managers consider existing and future land uses and potential threats they pose to the PWS wells and drinking water in your community. ➢ Existing zoning and local controls are evaluated in relation to their effectiveness to protect the public water supply wells and aquifer from contaminant threats and land use based on good science, WHP Plans and planning. ➢ The role of land use planning in minimizing risk of potential contaminant threats to drinking water is considered by local officials in land use planning decisions.

Drinking Water Protection Issue # 1: Community water supply protection needs to be integrated into local land use plans. *(continued)*	
Drinking Water Protection & Land Use Planning	**Activities and Next Steps:**
4. Consider the locations and planning for new well sites in areas with compatible land uses.	➢ Water supply managers and land use planners should identify future drinking water needs and new well locations in areas that are less susceptible to contaminant threats.
5. Identify all community and non-community PWS wells in your jurisdiction that have no land use control authority. (i.e. schools, mobile home parks, industry, etc.).	➢ Assist / support the PWS and MDH staff in the management of contaminants in the Inner Well Management Zone (200' radius) following the State Well Code. ➢ Evaluate land use planning and water supply options to help them protect their source of drinking water and well(s).

Drinking Water Protection Issue # 2: The Mississippi River needs to be identified & protected as a regional drinking water source in local land use plans.	
Drinking Water Protection & Land Use Planning	**Activities and Next Steps:**
6. Include Minneapolis and St. Paul surface water Source Water Protection (SWP) Map in your comprehensive plan.	➢ Identify and consider your community's location in the Minneapolis or St. Paul SWP Area and how existing or new land use activities or redevelopment may impact the quality of the Mississippi as a drinking water source. ➢ As applicable, work with St. Paul and Minneapolis Water Supply Managers to protect the Mississippi River from high risk contaminant threats through land use planning.

Drinking Water Protection Issue # 3: Community water supply emergency response & security need to be integrated into local water supply plans.	
Drinking Water Security & Emergency Response	**Activities and Next Steps:**
7. Promote the development of a spill response plan that addresses high volume railroad corridors, pipelines and other large contaminant threats in relation to the locations of community wells, DWSMA vulnerability and potential impacts to the Mississippi River as a drinking water source.	➢ Use emergency response planning to identify the best alternatives to contain and clean up spills so they do not impact community water supply wells or their recharge area and protects the Mississippi as a regional drinking water source. ➢ Promote critical elements of a full spill response program among water utilities (emergency contact lists, rapid mobilization and formation of incident command, initial spill-impact assessment capabilities, public notification, hazard mitigation, delineation of hazardous waste routes, etc.)
8. During water supply planning, maintain as a high priority the securing of the water sector's critical infrastructure and key resources (CIKR).	➢ Coordinate future water supply planning with necessary physical security measures designed to protect water sector CIKR. ➢ A multi-barrier approach is normally employed which includes such measures as physical hardening, intrusion alarms, controlled site access, site lighting, standoff distance, surveillance, early warning systems and associated cyber security. (*Specific security measures undertaken by a utility remain secure and confidential.)
9. Coordinate and integrate future water sector construction into local water supply plans and land use planning activities.	➢ Sites for future well fields, water storage sites, treatment plants and underground fuel tanks for emergency generators should be identified and reserved by the water utility to the extent land acquisition is feasible so that there are no conflicts with future land use planning, whether it involves parks, new transportation corridors or population growth centers. ➢ As opportunities present themselves, water main projects intended to accommodate regional growth should be consolidated with other utility and transportation projects to streamline planning and construction.