

Groundwater Source Management – C.A.P. Program for Rockland County Groundwater

The Chazen Companies

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Rockland County benefits from productive and economical groundwater water supply sources. The capture areas (recharge areas) of many wells extend broadly under populated areas and streams. Some water quality impacts related to land uses have been identified. Chazen recommends adopting C.A.P. strategies to extend the usefulness and optimize allocation of Rockland County's groundwater sources:

C - Conserve – Examples of water conservation strategies include:

Sample conservation strategies for all municipal water customers:

- irrigation efficiency or avoidance,
- low-flow fixture incentives or local laws,
- aggressive leak detection programs,
- hydrant flushing scheduled only during wet periods,
- rainbarrels and cistern programs used for domestic irrigation,
- pricing structures adopted to incentivize water conservation.

Conservation strategies to apply specifically within wellfield recharge areas.

- I&I corrections prioritized to avoid groundwater diversion along sewer trenches,
- Use “no-net change” groundwater recharge standards for new development,
- Identify priority recharge areas for selective open space land acquisitions,
- Use water more than once by releasing wastewater locally:
 - Support on-site septic use and local discharge of treated wastewater.
 - On-site infiltration of graywater.

A – Augment – Augment existing aquifer recharge rates in wellfield recharge areas to increase well yields. Strategies to implement: direct stormwater to designed infiltration areas; re-expose existing impervious surfaces over priority wellfield recharge areas (e.g. strategic corrective actions); maximize infiltration practices on new construction sites to surpass pre-development recharge rates; import and infiltrate treated wastewater; manage existing wetlands to optimize infiltration (e.g. installed wetland outlet controls), and more.

P – Protect – State and Federal programs already provide substantial groundwater protection but have some program gaps. Counties and Towns/Villages can participate in water quality protection in strategic and useful ways.

Villages/Towns – adopt local laws to fill “gaps” in Federal and State protections. A model ordinance endorsed by Chazen and already adopted by several Hudson Valley Towns is available as a free download from Dutchess County or Chazen (e-mail Russell Urban-Mead). Road deicing chemical uses should also be limited in recharge areas.

County – Counties can substantially influence groundwater management policy by championing all C.A.P. strategies listed above, and by including C.A.P. recommendations in their site-specific project reviews (e.g. 239 reviews and other reviews). Counties can fund development of their own model regulations, host negotiating meetings with water service stakeholders, ensure local health department consideration of onsite wastewater infiltration practices, promote and use low-salt road deicing practices, sponsor infiltration design pilot studies, provide C.A.P. education programs, fund geographic studies to identify high-capacity recharge areas currently under paved surfaces, and pay for restoration of pervious surfaces and/or strategic recharge area land purchases.