

Emerging Opportunities for Conservation Development

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In a time of rapidly evolving stormwater and wetland ordinances, increasing concerns about groundwater protection, and related "NIMBY" fears in many communities, "conservation development" is emerging as a new approach to development planning and design. Conservation development employs a combination of creative land planning and innovative stormwater management practices to protect water and natural resources, preserve open space, and enhance wildlife habitat.

Conservation development has some significant advantages over traditional "cookie cutter" designs. From a developer's perspective:

- Conservation development saves money. The National Association of Home Builders and the regional Chicago Wilderness consortium have both documented substantial savings in infrastructure and development costs.
- Open space within a conservation development provides a significant marketing advantage and generates the potential for lot premiums.
- Conservation designs can reduce permitting hurdles for wetlands and floodplains, significantly reducing approval times and costs.
- Many communities offer density bonuses as a reward for additional open space and other conservation design elements.

From a community's perspective:

- Conservation development can reduce long-term infrastructure replacement and maintenance costs, particularly related to streets and storm sewers.
- Conservation design techniques reduce stormwater runoff, preserve water quality, and help to recharge local aquifers with "treated" stormwater (and wastewater).
- Preserved and restored open space and natural areas become community amenities at no cost to local taxpayers.

So, what is Conservation Development?

Conservation development starts with a thorough review of the site to evaluate potential development constraints – such as wetlands, streams, woodlands, and steep slopes. But where the traditional land planning process would find ways to minimize and build through these areas, a conservation design seeks out creative approaches to preserve and enhance them. The core tool of residential conservation design is clustering the same number of houses onto smaller lots. The results are less land grading, and associated infrastructure costs, and more functional open space.

Sustainable water management is another key element of conservation development. To counter concerns about groundwater supplies, water quality, and flooding, conservation design provides the tools to put clean water back into the ground rather than flushing it offsite in storm sewers and wastewater pipes. These tools include "bioswales" in lieu of costly storm sewers, depressed medians and landscape islands in roadways and parking lots,

detention ponds graded and landscaped to resemble wetlands and natural lakes, and land application of treated wastewater. A further theme of conservation design is the use of deep-rooted prairie grasses in lieu of turf grass to enhance groundwater infiltration and water quality.

Another key element of good conservation development is going beyond mere avoidance of wetlands and woodlands by performing restoration and enhancement. Plans also are needed for the long-term management of such natural areas, utilizing techniques such as controlled burning. Local land conservancies and park districts increasingly are working with developers to manage these areas. As a tradeoff for smaller lawns to mow, homeowners are asked to provide a revenue stream for this common area management.

Making it Happen

Despite the obvious cost savings and environmental advantages, conservation development is clearly not the norm for new residential projects in northeastern Illinois. One reason is that conventional "cookie-cutter" designs are still accepted and even preferred in most communities' subdivision and zoning ordinances. Municipal engineers, planners, zoning boards, and plan commissions have developed a comfort level with the familiar. So, while conservation development can create cost savings and some unique marketing advantages, most developers may be reluctant to fight city hall.

However, there are some emerging policies that are pushing for more conservation development. Progressive countywide stormwater ordinances in most of northeastern Illinois' collar counties are now requiring evaluation of innovative land planning and stormwater designs. A growing number of local governments are giving preference to conservation design and even offering incentives like density bonuses. For example Kane County has embraced conservation design principles in its "critical growth area" and has approved conservation development projects like the 1600+ unit Mill Creek development. The City of Aurora is promoting conservation development through its award winning Countryside Vision Plan. And the Village of Homer Glen recently adopted a conservation development ordinance that mandates preservation of open space and innovative stormwater best management practices.

There is no absolute prescription for a "perfect" conservation development. Depending on the site characteristics and local ordinances and political sentiment, a range of conservation design techniques may be feasible. Cowhey Gudmundson Leder recently completed engineering, wetlands, and natural resources work on Settler's Ridge, a 1300 acre lifestyle community in Sugar Grove. This community was designed with national award-winning conservation land planner Randall Arendt and has been labeled "eco-friendly." Conservation design elements include preserving more than 40 percent of the site as open space, designing stormwater facilities as naturalized lakes and wetlands, and planting native prairie vegetation in much of the open space.

The groundwork has been laid for a new direction in land development in northeastern Illinois. Astute developers willing to take up the challenge are advised to assemble a project team experienced in creative conservation design approaches. Land planners must work in concert with engineers, landscape architects, and ecologists to thoroughly evaluate a site's natural resource constraints and opportunities. And communities should reevaluate their ordinances to provide more flexibility and encouragement for conservation development. The end product can not only be profitable but can make a positive contribution to a healthy environment and more livable communities.

A good source of information on conservation design principles and techniques is the Northeastern Illinois Planning Commission's *Ecological Planning and Design Directory*:

