WATERSHED PLANNING OBJECTIVES

The watershed management approach takes into account the specific water resource (creek, river, lake) and the surrounding land from which the water drains. Land use planning is one of a series of tools which can help to protect, maintain and restore the natural environment by directing development toward areas which can support a particular type of land use and/or density. Planning tools can be used to balance conservation and growth. The majority of planning efforts are directed at the location, design and density of development but in turn, affect the natural environment. Other tools include land conservation, aquatic buffers, better site design, soil analysis, erosion control, stormwater treatment practices, economic analysis and watershed stewardship. These elements will be addressed in subsequent manual chapters.

Protect Economic Resources

- To protect community investment and infrastructure.
- To manage government investments and expenditures as relate to water-related elements (i.e., stormwater management, flood controls and floodplain management).
- To protect, maintain and enhance property values.
- To assess life cycle costs.

Protect Water Resources

- To protect and enhance the water resources of the watershed, including both the quality of the water, and the integrity of normal stream and groundwater.
- To prevent stream degradation resulting from the cumulative impact of land development.
- To maintain and to restore urban water resources.
- To protect natural areas, both plants and wildlife, through watershed planning techniques.

Enhance Land Use Practices

- To balance conservation and growth in the watershed by identifying, protecting and enhancing natural resources, and by encouraging land use and land use patterns protective of those resources.
- To encourage land use practices that protect natural resources and direct future growth to areas that are capable of supporting it.
- To direct careful site selection for development, mitigate the impacts of development, preserve sensitive areas and maintain or reduce the impervious cover within a given watershed through the application of land use planning techniques.

Protect and Enhance Community Character

- To protect, maintain and enhance community character throughout a watershed.

Protect Cultural Resources

- To ensure the long-term social, economic, and environmental health and vitality of the communities in the watershed.

- To protect cultural resources through watershed planning techniques.

One approach would be to directly apply the watershed planning objectives by first cataloguing natural and built features present in watershed and determining the amount and percentage of impervious cover present in the watershed, current and future. Streams could then be categorized based on this percentage of impervious cover and actions could be identified to work toward watershed planning objectives specific to these stream categories. Based on this approach, streams could be classified as sensitive, impacted, non-supporting or restorable.

Stream Classification

Sensitive Streams
Watershed has 0 to 10% impervious cover
Stable channel
Good to excellent biodiversity
Excellent water quality
Goal - Maintain predevelopment biodiversity

Impacted Streams
Watershed has 11 to 25% impervious cover
Channel becoming unstable
Fair to good biodiversity
Fair to good water quality
Goal - Limit degradation of stream habitat and quality

Non-supporting Streams
Watershed has 26% or more impervious cover
Eroding banks
Poor biological diversity
Fair to poor water quality
Goal - Reduce downstream pollutant flows; prevent floods

Restorable Streams
Non-supporting or impacted stream which is a candidate for restoration; based on completion of subwatershed restoration inventory
Goal - Restore stream biodiversity to impacted or sensitive levels

Source: The Practice of Watershed Protection

References

Categories were taken from "Crafting Better Urban Watershed Protection Plans", an article from an edited anthology, The Practice of Watershed Protection, editors Thomas R. Schueler and Heather K. Holland, 2000, Center for Watershed Protection.

"Basic Concepts in Watershed Planning", an article from an edited anthology, The Practice of Watershed Protection, editors Thomas R. Schueler and Heather K. Holland, 2000, Center for Watershed Protection.

"The Eight Tools of Watershed Protection", an article from an edited anthology, The Practice of Watershed Protection, editors Thomas R. Schueler and Heather K. Holland, 2000, Center for Watershed Protection.

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