THE ROUGE RIVER PROJECT
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Wetland Assessment and Protection Plans for the Lower One and Middle One Subwatersheds of the Rouge River

A publication of the Wayne County Rouge River National Wet Weather Demonstration Project
Information date: July 2001

Objective

Wetland assessments were performed in the rapidly developing Lower One and Middle One Rouge Subwatersheds in order to provide community planners with information and locations of valuable wetlands in their jurisdiction as well as to provide recommendations for management techniques for protecting these wetlands.

Project Leaders

Middle One Subwatershed Advisory Group
Lower One Subwatershed Advisory Group

Location

Middle One (M1) and Lower One (L1) Rouge Subwatersheds.

Important Dates

M1 Subwatershed completed: March, 1998
L1 Subwatershed completed: February, 2001

Total Project Cost

M1 Subwatershed - $50,000
L1 Subwatershed - $50,000

Demonstration Aspects

- Demonstrated how the wetland Rapid Assessment Method (RAM) could be used as a long-term regional wetland planning tool for local communities.
- Demonstrated that a basic and quick wetland assessment method could provide sufficient and understandable ecological information for key land use decisions.
- Demonstrated subwatershed partnerships working toward protecting wetlands on a subwatershed basis.

Project Highlights

- Emphasized the need for community staff and decision-maker involvement in the assessment method to maximize use of the products. Planners, board members and staff were invited to the RAM training and for field work to better integrate them into the process.
- RAM is based on a method called the Indicator Valuation Method (IVA) which employs the principle that the presence or absence of specific indicators reflects the degree to which a wetland performs a specific function. RAM provides a quicker and easier method appropriate for regional planning.
- Utilized Geographic Information Systems (GIS) technology to identify wetland areas as well as potential restoration areas.

Major Elements

- First, wetlands within the subwatersheds were located by overlaying GIS data and identifying areas where two or more of the following overlapped: hydric soils, National Wetland Inventory wetlands, and/or Michigan Resource Information System (MIRIS) wetlands. A new wetland coverage and map was created using these digital resources.

- Second, the Subwatershed Advisory Groups (SWAGs) convened to identify which wetland functions were most beneficial to stakeholders in their subwatersheds and therefore, should be assessed.
- The priority functions chosen for assessment were floral diversity and wildlife habitat, fishery and herpetile habitat, flood/storm water storage, runoff attenuation, water quality protection, shoreline/streambank protection, aesthetics and recreation. The L1 also added groundwater protection to the list of functions they wanted to assess.
- The next step was to train field workers and project participants in the RAM method for assessing wetlands. A one-day training was conducted with both office and field components. In attendance were community planners, environmental directors, public works staff and others.
- After field workers were trained, collection of data was conducted for about a 12 week period. In the M1, 199 wetlands were assessed. In the L1, 124 wetlands were assessed. Not all wetlands identified were assessed in the field due to lack of access to property, wetlands no longer existed, or other factors.
- After recording the characteristics of each wetland, the ability of each wetland to perform the functions of interest was determined. A GIS database was developed to record the ranked wetlands.
- Finally, a management plan to protect and enhance wetland functions was developed for use by local communities.

Project Results

- A total of 323 wetlands have been assessed for approximately eight functions in the headwaters of the Rouge River watershed.
- Protection plans for these wetlands and their functions have been completed.
- Community staff and local decision-makers have been trained in how to use RAM for future assessments as the need arises.
- Project products, such as full-sized wetland maps with associated wetland assessment results as well as related GIS databases are being used in local communities for wetland planning purposes.
- Wetlands with certain characteristics that were found to be most critical for protection included: those wetlands found to best perform one or more of the wetland functions assessed; wetlands that are over 20 acres; isolated wetlands under 5 acres; wetlands located along river and lake edges.

Acknowledgement

The Rouge River National Wet Weather Demonstration Project is funded, in part, by the United States Environmental Protection Agency (EPA) Grants # XP995743-01,-02, -03, -04, -05, -06, -07 and C-264000-01. The views expressed by the authors of these documents are their own and do not necessarily reflect those of EPA. Mention of trade names, products, or services does not convey, and should not be interpreted as conveying official EPA approval, endorsement, or recommendation.