

Section 9

Implementation

9.1 Introduction

The successful implementation of the Master Plan recommendations will involve addressing multiple issues, including identifying physical constraints, avoiding downstream impacts, coordinating with property owners and other government agencies, maintenance, funding, and education programs. The following paragraphs provide a discussion of these various issues.

9.2 Capital Improvement Project Implementation

The Capital Improvement Projects outlined in Section 8 of this report are stream stability projects. The recommended Capital Improvement Projects were categorized using the Prioritization Methodology Report for Watershed Master Planning Projects, City of Lincoln, Nebraska, 2006 and each were given a project ranking based on their priority score. It is anticipated that the stream stability projects will be constructed in order of the priority established in Section 8.

9.3 Education Program

- **Water Quality Education** – Continue a proactive education program focusing on water quality issues to educate homeowners associations, private facility owners, developers and home builders. The program may include a water quality seminar to address the primary sources of stormwater pollution; the methods for pollution reduction and removal, including both nonstructural and structural BMPs.
- **Stream Stabilization Design Workshop** – A Natural Channel Design workshop could be held for engineers and developers focused on using bioengineering and geomorphic techniques for stream stabilization. The workshop would include proper design techniques for grade control structures and streambank stabilization materials. The workshop will be beneficial for the preservation of streams in developing areas and the restoration of streams in developed and redevelopment areas.
- **Grade Control Workshop for Agricultural Landowners** – A Grade Control workshop could be held for agricultural landowners to teach them how to grade control headwater streams through the landowner's agricultural fields and property. The workshop would focus on using bioengineering and geomorphic techniques for grade controlling incising headwater streams. The workshop would include sizing and construction techniques for grade control structures, as well as, covering appropriate materials to use and required permits. The workshop will be beneficial by providing landowners a way to successfully manage stream erosion on their property. This is particularly beneficial in headwater areas where channel degradation is still in the early stages. Implementation by landowners will prevent the subsequent advances from incision to widening and plan form adjustment and enhance water quality in the watershed by preventing the liberation of sediment from channel erosion.

9.4 Project Funding

Funding for these Capital Improvement Projects may include, but not be limited to, City stormwater bonds, Lower Platte South Natural Resource District (NRD) funds, and where deemed appropriate by the involved agencies, Lancaster County and Nebraska Department of Transportation (NDOT) funds. Funding for State, Other Agencies, and Private projects are typically the responsibility of the respective entities.

9.5 Coordination Efforts

A coordinated effort between the City and NRD (and County and NDOT where appropriate) needs to be established to guide the implementation of the Master Plan. For example, as roadways are upgraded, the channel design recommendations within the Master Plan associated with or in close proximity to the particular stream crossing should be designed and constructed as part of the road upgrade. Some of the identified CIP's are partially located within state right of way with will require joint City, NRD and State (NDOT) project participation and coordination.

9.6 Additional Studies

Additional studies should be conducted to achieve the following objectives:

- **City Guidelines and Ordinance Recommendations** – Review current City Guidelines and Ordinances and consider recommendations and guidelines for future development of the watershed based on master plan hydrology, hydraulic, water quality, geomorphic analysis , minimum corridor and additional studies findings.
- **Hydrology and Hydraulic Recommendations** – Develop pre-development runoff rates in Tier I priority growth areas and other areas under development pressure.
- **Zone A Flood Hazard Area Analysis** – Revise the Zone A Flood Hazard Areas in regions under development pressure by projecting the historic normal flow depths onto current topographic data.