

Section 6

Implementation

While the Cardwell Branch watershed is predominately undeveloped, this area will be experiencing growth in the coming years. Therefore, it is appropriate to start establishing the foundation for implementing the recommendations outlined in Section 3. Specifically, the following list of items needs to be accomplished following the adoption of the study.

6.1 Policy and Ordinances

- **Drainage Criteria Manual Revisions** - The City's manual will need to be updated to reflect the recommendations outlined in Section 3. These revisions include BMP design criteria to support the integrated detention facility or alternative site design approach. The design criteria would also include the necessary maintenance activities.
- **Ordinances** - The implementation of site-specific structural BMPs and required maintenance activities will require modifications to City ordinances.
- **Opportunity Area Protection** - If parcel acquisition is the desired method to protect the two general planning locations, referred to as Opportunity Areas 1 and 2, coordination efforts between the City, NRD, and the County will be required to define the parcel boundaries.

6.2 Maintenance and Funding

- **Maintenance Agreements** - The drainage standards should be revised to establish uniform criteria for the development of a maintenance plan for stormwater facilities to be submitted with the preliminary plat and referenced in the subdivision agreement. A good maintenance plan will not only provide a guide for future owners but will help ensure that maintenance responsibilities are clear when ownership is transferred from the developer. The facility owner should be required to perform inspections at a specified frequency and submit inspection forms to the regulatory agency. Penalties for breach of agreement should be clearly stated. The City and NRD should obtain legally binding agreements with property owners stating that the stormwater facilities for the site will not be altered and will be maintained as needed to achieve their original design intent.
- **Cost-Share Program** - As discussed in the adopted Stevens Creek Watershed Master Plan, a cost-share program is anticipated to be implemented to address both construction and maintenance of site-specific structural BMPs. The Cardwell Branch Master Plan embodies the same cost-share concept as described in the Stevens Creek Master Plan, which includes a public-private agreement where the City and NRD share in the cost of constructing the BMP portion of the facility, jointly providing funding for \$100 of the \$210 cost estimated per acre of drainage area. City and NRD funding is anticipated to be provided on a first-come, first-serve basis and be contingent upon City and NRD approval of the proposed cost-share program. In addition, the cost-share program would be subject to yearly budget approvals, voter approval of general obligation bonds, and NRD board approval.

6.3 Education Program

- **Water Quality Education** - A proactive education program focusing on water quality issues should be developed to educate homeowners associations and private facility owners. 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; and the proposed new maintenance requirements.
- **Demonstration Project** - The City and NRD are in the process of constructing two demonstration projects that incorporate water quality BMPs into stormwater detention facilities through a partnership with the private sector. Once constructed, an evaluation should be completed to determine benefits and challenges of BMP incorporation into traditional stormwater detention facilities and to provide education on incorporating water quality features into private development in the future.
- **Structural BMP Design Workshop** - A Structural BMP Design workshop could be held to educate engineers and developers on designing and constructing structural BMPs. Providing this education will ensure proper BMP design, which will streamline the plan review process. The workshop would primarily focus on design guidance for extended wet and dry detention basins.
- **Natural Channel 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.

6.4 Coordination Efforts

A cooperative agreement between the City, NRD, and the County needs to be established to guide the implementation of the Master Plan. For example, as roadways are upgraded, the design data developed for stream crossings should be used during the design. In addition, the design, construction, and maintenance of structural BMPs need to be closely monitored and enforced by all agencies to make sure these facilities are properly managed. Lastly, many of the secondary problems can be addressed as part of ongoing County maintenance activities and/or combined with other City department or NRD projects.