

APPENDIX A: STORMWATER MASTER PLAN

Like many other communities, the City of Pleasant Hill faces the challenges of how to manage its storm water. As urban centers and rural communities continue to expand, the challenge of storm water management expands with the population and corporate boundaries. The City of Pleasant Hill is poised for growth into the northern and eastern areas of the City that are now relatively undeveloped, giving Pleasant Hill a prime opportunity to manage the growth proactively.

In 2002, the City developed a storm water management plan that effectively manages storm water and controls flooding while protecting the existing positive attributes of the natural systems that exist, therefore protecting the quality of the water and the perceived quality of life. The main objectives of the Plan and the Policy Statement discussed therein are listed below. The complete report can be obtained from the City Administrator.

Discussion of the Policy Statement

As the growth of Pleasant Hill has occurred, the existing drainage systems have been burdened with increased capacity demands. Some of the existing systems do not have sufficient capacity to meet these demands. As growth continues, anticipating the future storm drainage requirements becomes a critical concern for the community development planning and capital improvement budgets.

The infrastructure of Pleasant Hill is of concern to residents as well as to public officials. The more visible and more commonly used components of the City's infrastructure include the street and highway systems, the water distribution system, and the wastewater collection and treatment system. A vital, yet often forgotten, component is the storm water collection and conveyance system throughout the City. This system is made up of sewers, ditches, and drainage channels that wind their way through the City, providing the essential service of collecting storm water runoff and ultimately conveying it to major streams such as Big Creek or Duncan Branch. Although the existing facilities were designed to operate efficiently, many of its elements are now deteriorating or have become inadequate for present storm water flows. This is causing local and regional nuisances and flood hazards.

There are numerous reasons behind the continued degradation and present inadequacies of the existing storm water conveyance system.

- Increased flows beyond the system's initial design capacity due to increased runoff from new development
- Construction-related erosion
- Siltation within the conveyance system
- Channel bank erosion
- Structural failures due to age, flooding, etc.
- Inadequate or improper component maintenance due to limited funding

Many of the aspects of the storm water plan are inter-related; therefore, correcting one problem may alleviate several system inadequacies. Conversely, making improvements with no specific plan may improve the conveyance in some drainage systems by moving the flooding downstream.

In addition to concerns over flooding and aging infrastructure, regulations addressing water quality have been imposed on the City. The EPA, under the authority of the Clean Water Act, has promulgated regulations addressing storm water and non-point source pollution under the NPDES program. The regulations require numerous best management practices to address non-point source pollution.

The City of Pleasant Hill is in the process of instituting a Storm Water Master Plan to identify and address storm water related problems throughout the City. The following four goals have been established to address these problems:

1. Identify and Quantify Storm Water Problems
2. Identify and Evaluate Potential Solutions
3. Develop and Implement Strategy and Identify Issues
4. Develop Storm Water Management Tools

The successful management and maintenance of storm water requires a complex interaction of policies, planning, administration, regulations, engineering, operations, and enforcement. The successful program depends on the support of the public and business community. An effective program must include the administrative structure to carry out the entire program, and a set of policies, municipal storm water practices, and development of storm water practices to provide direction, and a funding mechanism to enable the completion of the program. The policies of a storm water master plan establish an overall framework for storm water management, reflecting the plan and intent of the City and are the standards by which the municipal and development practices are established, interpreted, and revised.

The City of Pleasant Hill has taken a positive step toward preserving its natural resources. The Storm Water Master Plan and policies associated therewith are meant to direct the community's vision of the future of water resource management and thus its development guidelines.

Pleasant Hill faces many challenges. There is pressure to continue development on the northern and eastern portions of the City. Public sentiment supports storm water management to preserve or enhance property value. The challenge is to balance economic and environmental concerns, recognizing the benefit of natural creeks, habitat and biodiversity as an integral part of quality development. Perhaps the most important movement of storm water management is the education of local citizens about the complexities associated with comprehensive, proactive practices.

The management of storm water requires a system-based approach toward its municipal storm water policies and programs. The policies, therefore, rightly find their basis in the vision that the community has of itself and in its concepts of quality of life. The City must, then, balance the environmental concerns and needs with economic vitality. The following are the principal policies and/or programs that the City will implement to achieve storm water management within the community.

- 1) The City of Pleasant Hill will operate and maintain storm drainage infrastructure.

CITY OF PLEASANT HILL COMPREHENSIVE PLAN

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- 2) The City of Pleasant Hill will require construction controls to preserve water quality.
- 3) The municipal departments operated by the City of Pleasant Hill will practice good housekeeping to preserve water quality.
- 4) The City of Pleasant Hill will encourage development design using best management practices for post construction preservation of water quality.
- 5) The City of Pleasant Hill will identify and correct the causes of flooding in the existing system.
- 6) The City of Pleasant Hill will require the use of best management practices in public improvement planning and design.

Objectives

This study was conducted to develop a Storm Water Management Plan for the City of Pleasant Hill for inclusion into the City's Comprehensive Plan. The management plan was to meet the criteria of the National Pollution Discharge Elimination System (NPDES) Phase II requirements established for all small municipalities. The study identified the following six objectives for the storm water management program:

- Manage the storm water holistically as a complete watershed system.
- Provide a funding source to support a staff dedicated to the operation, maintenance, and management of the storm water system and provide the necessary public education.
- Manage the storm water runoff to preserve, and even enhance, water quality.
- Manage storm water runoff and have programs to meet the requirements of the Federal National Pollution Discharge Elimination System (NPDES) Phase II and the Total Maximum Daily Load (TMDL) programs.
- Manage storm water to protect, and possibly restore, natural areas valued by the citizens of Pleasant Hill.
- Develop a program with community participation and support.

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