

CHAPTER 1

INTRODUCTION

1.1 General

Various types of drainage facilities are required to convey both subsurface and surface water under, along, or away from the highway. These facilities must be economical and efficient, and they must convey the discharge without damaging the highway or endangering the public.

This manual provides hydrologic and hydraulic analysis procedures for most situations encountered in highway design. The project hydraulics engineer should be contacted for assistance when a user encounters a situation that is not described in this manual. Users are encouraged to request assistance as soon as questions or problems arise. This will reduce the amount of redesign and it provides the time needed to develop a satisfactory solution.

Users should always keep in mind the legal and ethical obligations of the facility owner concerning hydraulic issues. The final project design should be carefully examined to determine if the project causes any significant changes to stormwater quantity and quality, or changes to runoff patterns both upstream and downstream of the project. Care must be taken to ensure that the construction does not interfere with or damage any adjacent or nearby drainage facilities and conforms to applicable environmental regulations.

Updating this manual is a continuing process and revisions are issued as required to enhance content clarity and reflect changes in the regulatory landscape. Technical bulletins may be issued between official chapter updates that address content clarity or errors, and changes in regulations. Future manual updates would supersede outstanding technical bulletins. Users should continually consult Geo-Environmental's website to ensure the most current guidance is being used to design ODOT drainage facilities.

Questions or suggestions for revisions should be addressed to the Hydraulics Engineer in the Engineering and Asset Management Unit of the Geo-Environmental Section, (503) 986-3365.