



## Legislation Text

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**TO:** Mayor Collins and Town Council Members

**FROM:** Kevin Burke, Town Manager  
Paul Mood, P.E., Town Engineer  
Jeremy Knapp, Engineering Services Analyst

**DATE:** March 8, 2018

**DEPARTMENT:** Engineering

**AGENDA TITLE:**  
**Storm Drainage Design Manual Policy Discussion 60 Minutes**

**Town Value(s):**

- Primarily one-acre, residential community
- Limited government
- Creating a sense of community
- Partnerships with existing schools and resorts to enhance recreational opportunities
- Improving aesthetics/creating a brand
- Preserving natural open space

Several sections of the Storm Drain Design Manual require the preservation of washes in their natural state.

**Council Goals or Statutory Requirements:**

For efficient and effective execution, review and seek improvements for the planning, timing, and coordination of infrastructure maintenance and enhancement.

**RECOMMENDATION:**

Receive an update on the Storm Drainage Design Manual and provide direction for adoption.

**SUMMARY STATEMENT:**

At the February 9<sup>th</sup> 2017 Town Council Meeting staff presented the proposed Storm Drainage Design Manual, highlighting some of the updates and changes. The discussion led to several Town Council questions which needed further input as well as Council request for public comment.

After the February 9<sup>th</sup> meeting, the Engineering Department began publicizing the draft document, advertising a public meeting, and soliciting public comment. Staff utilized the town's website, e-mailed the notify me builders list, placed flyers at the Building and Engineering Departments counters, published a noticed in the March 8, 2017 Paradise Valley Independent, and placed ads on

the TV screens at Town Hall. On March 21, 2017 staff held a public meeting in the Community Room to present the draft and receive public input. A summary of the input was presented at the March 23<sup>rd</sup> Council Meeting.

At the March 23<sup>rd</sup> 2017 meeting staff addressed Council's questions regarding what new regulations were included in the document and the cost implications associated with complying. In light of comments received by Council and the addition of a new Town Engineer at the time, it was staff's recommendation to address the outstanding policy issues before the summer recess with Town Council. Since that time staff has continued to address non policy Council comments, text clean up, and final formatting and is presenting an updated version for Council comment prior to bringing forward for adoption. Two versions of the January 23, 2018 Storm Drainage Design Manual are attached, a clean version (Attachment A) and a redlined version (Attachment B).

There were five outstanding policy decisions that Council had provided direction on last spring, they included retention basin and access easements, first flush retention, on-going maintenance approach, natural wash preservation, and parking lot storage. Staff and Dibble Engineering, the consultant on this project, drafted and re-drafted many versions of these policies (especially the Natural Wash Preservation) and circulated it to the folks who participated in the March 21, 2017 public meeting. Below is a summary of the direction received and therefore incorporated into the latest draft:

Retention Basin Easements (Section 7-1):

Eliminate the requirement for retention basin and access easements and utilize a recordable document (Attachment E) that documents storm water facilities on private property that would show up on Schedule B of a title report. A Storm Drainage Facilities Agreement reviewed by the Town Attorney will be included in the final Storm Drainage Design Manual.

First Flush (Section 3-2-B.2):

First flush requirements are now only required in two circumstances:

1. SUP properties; and,
2. Hillside Properties that do not provide any retention due to their building pad slope (above 30%).

On-going maintenance:

The town will continue the status quo of being reactive to drainage complaints but also be more proactive with provided educational materials to residents. The town has developed and mailed out a Residential Drainage Facilities Flyer (Attachment C) to help residents identify these on their property and how to maintain them. This flyer was mailed out in October of 2017 and will continue to be mailed out annually as well as handed out at our service counters.

Natural Wash Preservation (Section 3-6.A.2):

There are currently Town Code sections that require property owners to maintain washes in their natural state as they cross private property to preserve open space and natural character of the town. The proposed Storm Drainage Design Manual furthers these town code sections with additional clarifications on when washes can be altered. Generally speaking, the preservation of natural washes is an important town value, but it is also recognized that sometimes it is necessary to alter certain washes to accommodate private property development. The manual has been updated to include a three tier approach to washes and their alteration.

Tier 1 (Modification to a Minor Wash): Washes that are included in this category:

- Are less than 2 feet deep and/or 5 feet wide as measured at the top of bank, and;
- Have an existing 100-year, 6-hour peak flow rate of less than 50 cfs, and;
- Do not reside in an existing drainage easement.

A Tier 1 modification allows the Developer to:

- Modify the wash, or;
- Relocate the wash, and/or;
- Enclose the wash.

Tier 2 (Modification to a Natural Wash): Washes that are included in this category:

- Meet or exceed the definition of a Minor Wash, and/or;
- Have an existing 100-year, 6-hour peak flow rate equal to or exceeding 50 cfs, and;
- Impacts more than 25% of the buildable area of the site

A Tier 2 modification allows the Developer to:

- Relocate the wash, and/or;
- Enclose the wash.

Tier 3 (Protection of a Natural Wash): Washes that are included in this category:

- Meet or exceed the definition of a Minor Wash, and/or;
- Have an existing 100-year, 6-hour peak flow rate equal to or exceeding 50 cfs, and;
- Impacts less than 25% of the buildable area of the site.

A Tier 3 modification requires the Developer to maintain the wash in its natural condition or restore it in its original location as close to its original condition as practicable, and considering the principals outlined in Appendix 2-A (Low Impact Development Guidelines).

In all cases, wash modifications must maintain the locations of inflow onto the property and outfall from the property and result in no adverse impact on other property owners as documented in a drainage report signed and sealed by a professional engineer.

In all cases except for a Tier 1 modification that modifies a minor wash, an easement for protection and access shall be dedicated to the Town. For single family residential properties, a recorded Storm Drainage Facilities Agreement shall also be required.

Parking Lot Storage (Section 3-2.B.16):

Parking lot storage is now permitted only for SUP properties.

Other edits that are reflected in the latest draft are as follows:

1. Town Seal added to cover sheet
2. Subsections added to the Table of Contents
3. Non-regulatory items were moved to the appendix (Low Impact Development Guidelines)
4. A definitions sections has been added
5. The hillside retention requirements were revised from a step scale to a slide scale, to make interpretation easier
6. Storm Water Pollution Prevention Plans are required for all construction activities that include a grading element that could cause debris to leave the site

Staff will cover the changes to the Storm Drainage Design Manual, answer and questions, and propose a timetable for moving forward for adoption, if it is the wish of the Mayor and Town Council.

**BUDGETARY IMPACT:**

N/A

**ATTACHMENT(S):**

Attachment A - Storm Drainage Design Manual Dated 3.1.18 Clean Version

Attachment B - Storm Drainage Design Manual Dated 3.1.18 Redline Version

Attachment C - Residential Drainage Facilities Flyer

Attachment D - Storm Drainage Design Manual PowerPoint Presentation