



# STORM DRAINAGE DESIGN MANUAL UPDATE

March 8<sup>th</sup>, 2018



## WHERE WE LEFT OFF

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- Review and revise Manual consistent with policy direction given in June;
- Incorporate new Town Engineer's comments;
- Address non-policy edits from Council;
- Clean up text;
- Eliminate redundancies and consolidate where possible; and
- Improve formatting.



# KEY QUESTIONS

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We had previously asked five policy questions:

1. Does Mayor and Council favor requiring a retention easement? With or without access easement and/or clear zone requirement?
2. Does Mayor and Council favor adding a first flush requirement as presented or modified?
3. Does Mayor and Council prefer a proactive or reactive approach to maintenance of stormwater facilities?
4. Does Mayor and Council prefer to leave the preservation of natural wash language or change more to an entry and exit point?
5. Does Mayor and Council prefer to allow parking lot storage or not?



## RETENTION BASINS / ACCESS EASEMENTS

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**Issue:** Notifying owners in the change of possession of real property that a retention basin exists on the property and has to remain in its location and be maintained

**Direction:** Continue to acquire easements for washes that cross private property but do not acquire easements for retention basins or other stormwater facilities (i.e. drywells, culverts, etc.) or require easements for access. Instead, utilize a recordable document that identifies said storm water drainage facilities.



## FIRST FLUSH REQUIREMENT

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**Issue:** First Flush is the first ½” of rain on a property that often collects and transports oil, grease, gas and other pollutants into the storm drainage system.

**Direction:** Require first flush for SUP properties.

Furthermore, staff is recommended requiring first flush for Hillside Properties with a slope greater than 30%, as they will not be providing any retention per the proposed manual.





# MAINTENANCE OF STORMWATER FACILITIES

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**Issues:** Property owners don't know its their responsibility to maintain washes, basins, culverts, etc. that are on their property

- More recently, staff has been proactively providing this information
- Town has been approving more drywells and underground retention facilities

**Direction:** Continue the status quo, but better. In addition to continue on-going efforts, staff designed and distributed a Residential Drainage Facilities Flyer and will do this annually, as well as hand out to residents at our service counters.



## PRESERVATION OF NATURAL WASHES

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**Issue:** Allow private property owners to modify washes or require them to be protected.

**Direction:** General consensus was it is a town value to protect natural character of washes but recognize private property development rights.

Staff is recommending adding a tiered approach to wash modification in latest SDDM.



# PRESERVATION OF NATURAL WASHES

## Tier 1 – Modification to Minor Wash

Less than 2 feet deep/5 feet wide or 50 CFS

Allow developer to modify, relocate, or enclose the wash

## Tier 2 – Modification to Natural Wash

Greater than 2 feet deep/5 feet wide or 50 CFS

Impacts more than 25% buildable area

Allow developer to relocate or enclose the wash to accommodate development

## Tier 3 – Protection of Natural Wash

Greater than 2 feet deep/5 feet wide or 50 CFS

Impacts less than 25% buildable area

Unable to modify, relocate, or enclose unless necessary to access property

**All washes must maintain the location of entry and outfall on the property with no adverse impact to adjacent property owners.**

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# PRESERVATION OF NATURAL WASHES

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## Examples



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# STORMWATER STORAGE ON PARKING LOTS

**Issue:** Allowing stormwater storage on parking lot surfaces.

**Direction:** Acceptable on SUP properties, SDDM updated to reflect this.



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## OTHER CHANGES

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- Standard clean up items such as adding town seal or subsections to the table of contents
- Non-regulatory items, such as the Low Impact Development Guidelines, were moved to an appendix. Redundant sections consolidated or eliminated.
- A definitions sections was added
- Hillside retention requirements changed to a sliding scale
- Storm Water Pollution Prevention Plan requirement for all grading activities

## PUBLIC COMMENT

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- **Sent out revised Storm Drainage Design Manual to those that commented on the previous draft**
  - **Generally, step in right direction from last draft**
  - **Clarification on pool barriers**
  - **Clarification on storm return size (24 vs 6 hour)**
  - **Addition of a SWPPP Requirement for demolition**



## MOVING FORWARD

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**Bring forward final version incorporating any comments received tonight for council action?**

- 1. Resolution adopting the amended Storm Drainage Design Manual**
- 2. Ordinance to change the text of Town Code Section 5-10-3 Storm Drainage Design**



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## Questions/Directions



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