

# Why We Do What We Do, Grading Permits, & Other Highlights– SEC 2019



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# Agenda

- Why We Do This
- Grading Permit basics
- 2018 Highlights
- Questions

# Permit & Plan Reviews – by Jurisdiction

## Grading Permits

| Jurisdiction      | Reviewer         | Email                                                                                    |
|-------------------|------------------|------------------------------------------------------------------------------------------|
| City of Bellevue  | Dean Dunn        | <a href="mailto:dean.dunn@bellevue.net">dean.dunn@bellevue.net</a>                       |
| City of Bellevue  | Matt Knight      | <a href="mailto:matt.knight@bellevue.net">matt.knight@bellevue.net</a>                   |
| City of Gretna    | Greg Perry       | <a href="mailto:GregP@olmstedperry.com">GregP@olmstedperry.com</a>                       |
| City of Gretna    | Steve Perry      | <a href="mailto:stevep@olmstedperry.com">stevep@olmstedperry.com</a>                     |
| City of La Vista  | John Kottman     | <a href="mailto:jkottmann@cityoflavista.org">jkottmann@cityoflavista.org</a>             |
| City of Omaha     | Andy Szatko      | <a href="mailto:andy.szatko@cityofomaha.org">andy.szatko@cityofomaha.org</a>             |
| City of Papillion | Derek Goff       | <a href="mailto:dgoff@papillion.org">dgoff@papillion.org</a>                             |
| City of Ralston   | Jerry Chancellor | <a href="mailto:jchancellor@cityofralston.com">jchancellor@cityofralston.com</a>         |
| Sarpy County      | Art Beccard      | <a href="mailto:abeccard@sarpy.com">abeccard@sarpy.com</a>                               |
| Boys Town         | Scott Kardell    | <a href="mailto:scott.kardell@boystown.org">scott.kardell@boystown.org</a>               |
| Douglas County*   | Stacy Gillman    | <a href="mailto:stacy.gillman@douglascountyne.gov">stacy.gillman@douglascountyne.gov</a> |
| Douglas County*   | Kent Holm        | <a href="mailto:kent.holm@douglascountyne.gov">kent.holm@douglascountyne.gov</a>         |

\*Not part of the Papillion Creek Watershed Partnership & City of Omaha El's do not provide inspection services to Douglas County

## PCSMP

| Jurisdiction      | Reviewer      | Email                                                                                    |
|-------------------|---------------|------------------------------------------------------------------------------------------|
| City of Bellevue  | Lori Laster   | <a href="mailto:llaster@papionrd.org">llaster@papionrd.org</a>                           |
| City of Gretna    | Greg Perry    | <a href="mailto:GregP@olmstedperry.com">GregP@olmstedperry.com</a>                       |
| City of Gretna    | Steve Perry   | <a href="mailto:stevep@olmstedperry.com">stevep@olmstedperry.com</a>                     |
| City of La Vista  | John Kottman  | <a href="mailto:jkottmann@cityoflavista.org">jkottmann@cityoflavista.org</a>             |
| City of Omaha     | Selma Kessler | <a href="mailto:andy.szatko@cityofomaha.org">andy.szatko@cityofomaha.org</a>             |
| City of Papillion | Derek Goff    | <a href="mailto:dgoff@papillion.org">dgoff@papillion.org</a>                             |
| City of Ralston   | Lori Laster   | <a href="mailto:llaster@papionrd.org">llaster@papionrd.org</a>                           |
| Sarpy County      | Lori Laster   | <a href="mailto:llaster@papionrd.org">llaster@papionrd.org</a>                           |
| Boys Town         | Scott Kardell | <a href="mailto:scott.kardell@boystown.org">scott.kardell@boystown.org</a>               |
| Douglas County*   | Stacy Gillman | <a href="mailto:stacy.gillman@douglascountyne.gov">stacy.gillman@douglascountyne.gov</a> |
| Douglas County*   | Kent Holm     | <a href="mailto:kent.holm@douglascountyne.gov">kent.holm@douglascountyne.gov</a>         |

List available on [Permix & OmahaStormwater.org](http://Permix & OmahaStormwater.org)

# City of Omaha Environmental Inspectors

- **Carol Sorensen** – Stormwater
- **Charla Schurter** – Stormwater
- **Eric Grimshaw** – Stormwater
- **Chris Anderson** – Stormwater
- **Mark Ermeling** – Sewer Use
- **Casey Black** – Sewer Use
- **David Nusser** – Sewer Use
- **Christina Tisko** – Fats, Oils & Grease
- **Jeff Ryba** – Air Program
- **Neil Graybil** – Solid Waste
- **Matt Nusser** – Solid Waste
- **Jenny Proescholdt** – Under the Sink

**Contact list available on Permix**

# Why do we manage stormwater?



# Stream Degradation



Puts infrastructure at risk



Plugs up infrastructure,  
causing flooding, back-ups, clean-up costs





Negative impacts on those  
adjacent & downstream

# Reduced Water Quality



# June 19<sup>th</sup>, 2018 Adams Park

1.6" for the day at Eppley



Polluted stormwater runoff up-close

We manage stormwater because  
we need to



# Omaha Stormwater Program

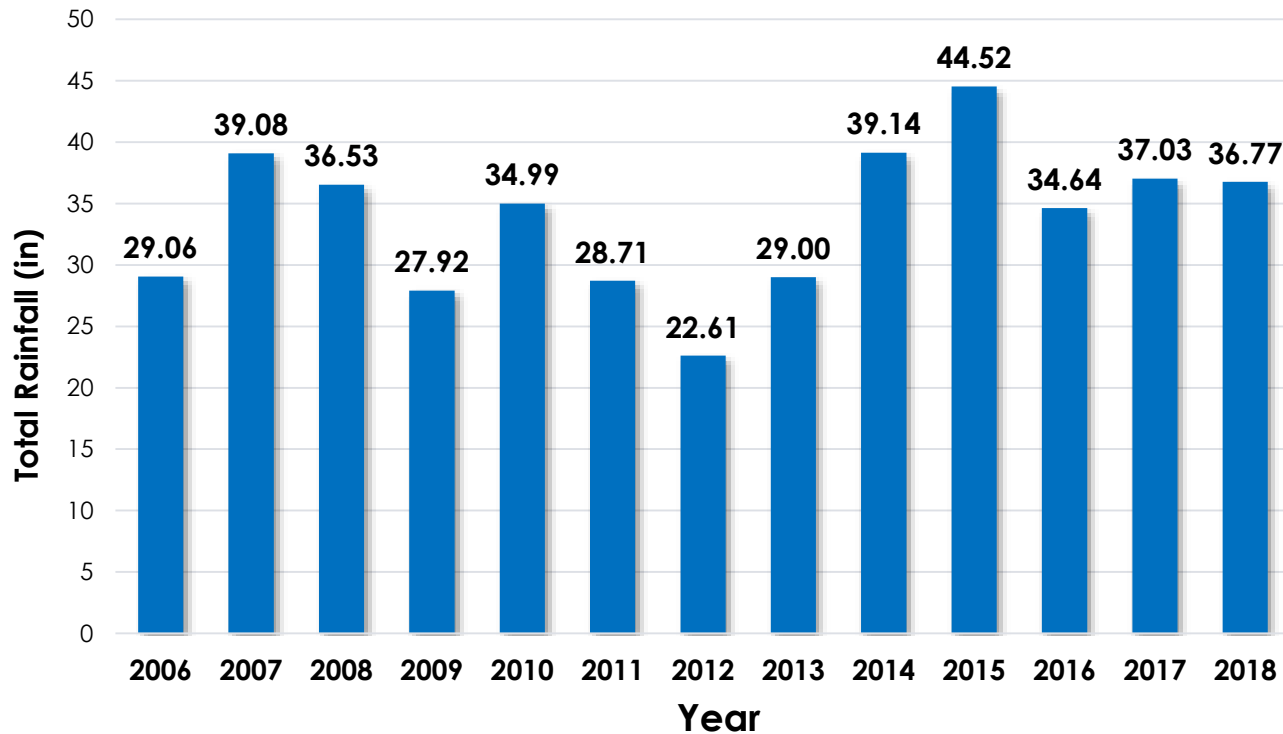
## MS4 Permit (Municipal Separate Storm Sewer System):

- Permit w/NDEQ to manage stormwater discharged by the MS4
- 8 program elements:
  1. Construction
  2. Post-Construction
  3. Education & Outreach
  4. Public Participation
  5. Industrial
  6. Good Housekeeping
  7. Illicit Discharge Detection & Elimination
  8. Monitoring



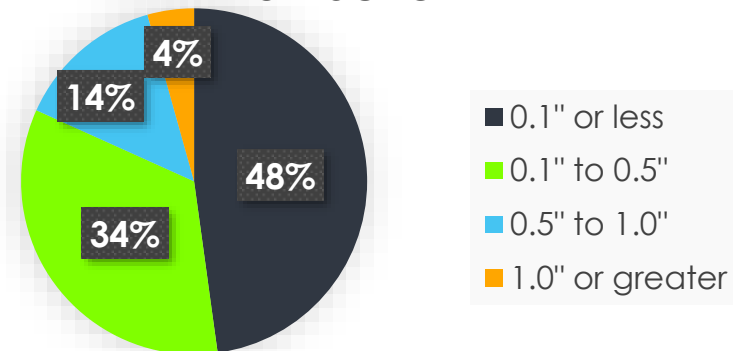
# Rain Events for Omaha – past 12 years

Omaha/Valley NWS Annual Total Rainfall

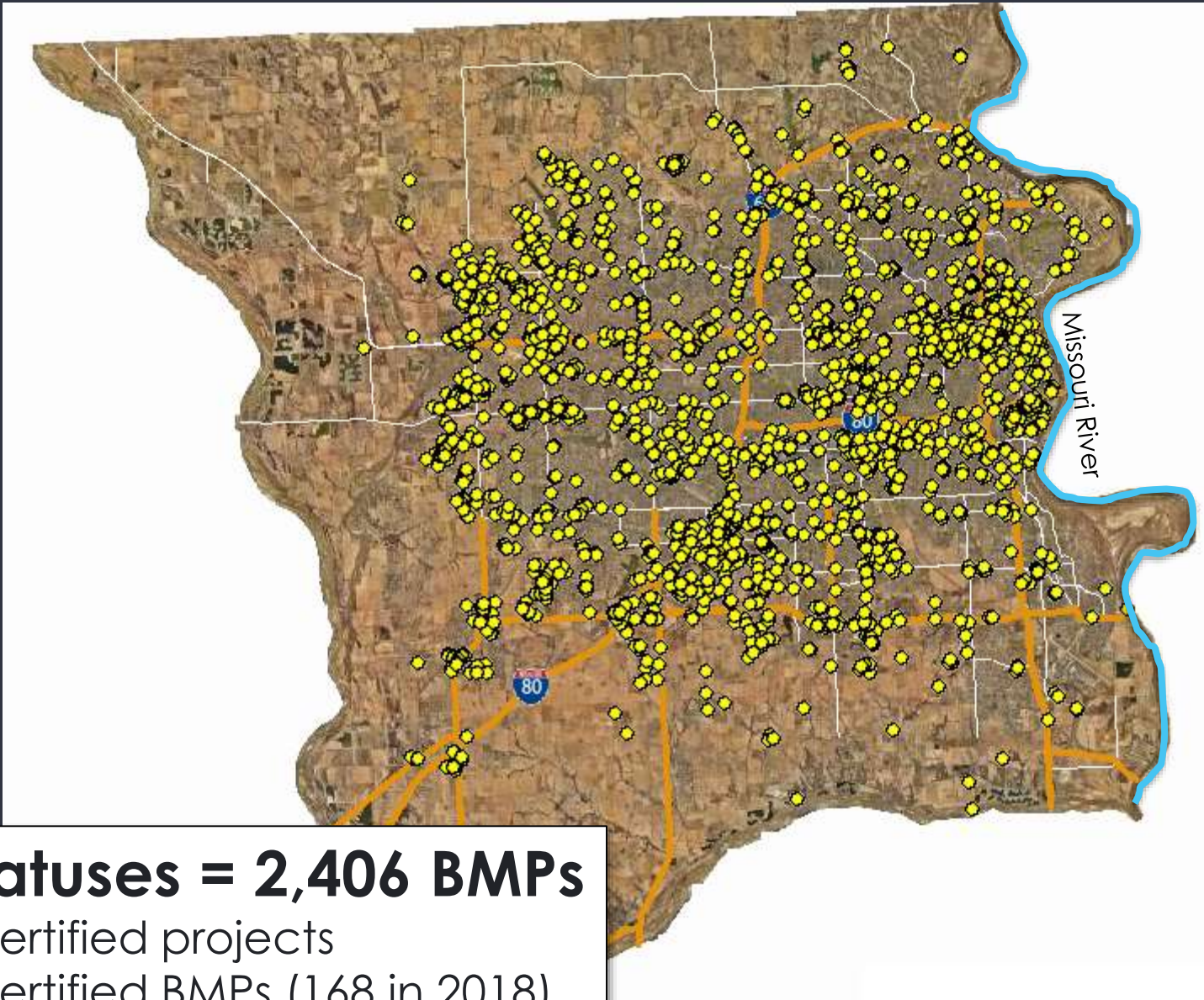


- 30" average annual rainfall
- 21.91" = Total rainfall spread
- 33 = Total event spread
- = you never quite know what you are going to get

2018 Rain Event Depth Distribution



# Post-Construction BMPs in the PCWP as of 1/14/19



## All Statuses = 2,406 BMPs

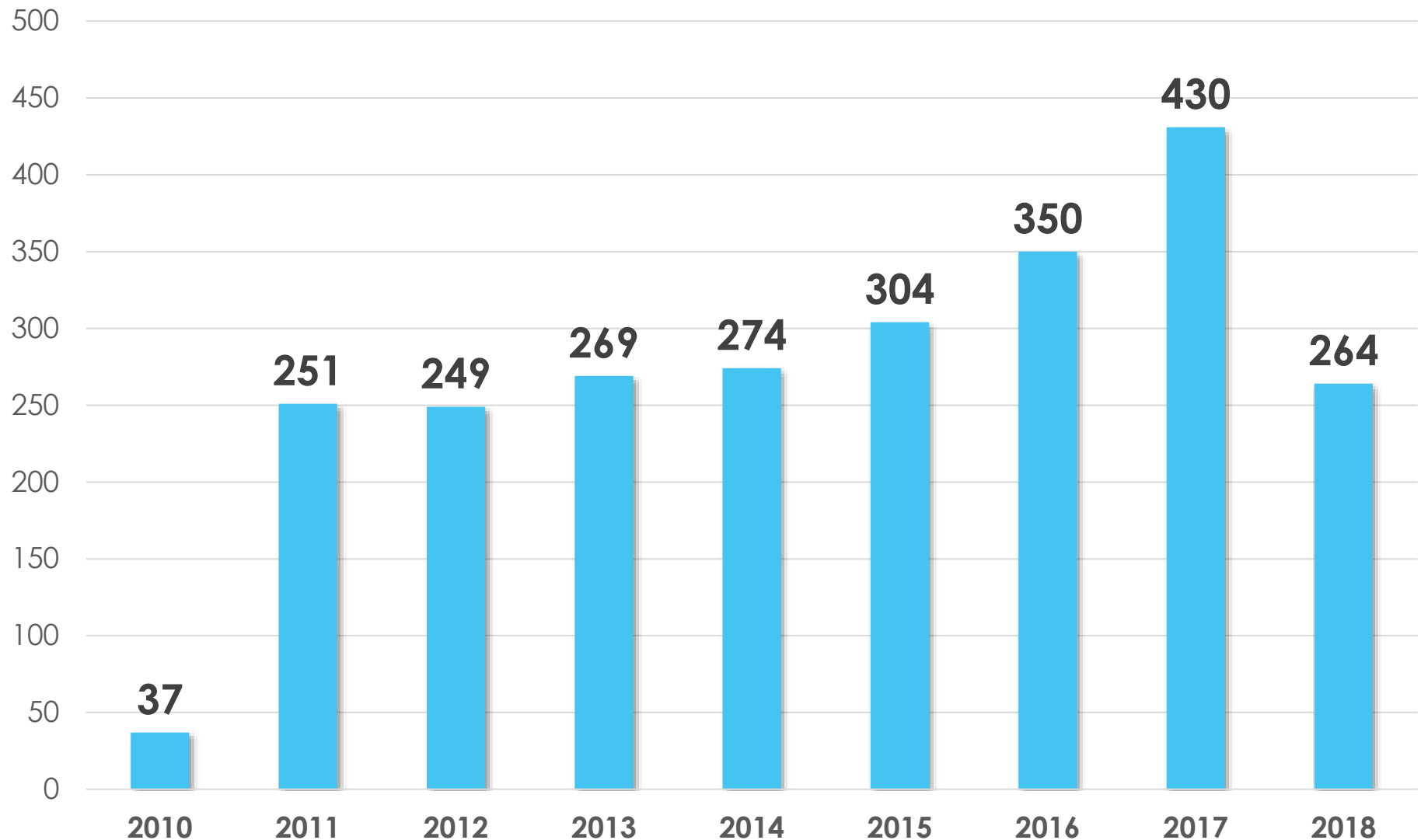
719 certified projects

951 certified BMPs (168 in 2018)

1,253 active BMPs (not yet certified)

# Post-Construction BMPs - PCWP

**# of Post-Construction BMPs Added by Year**

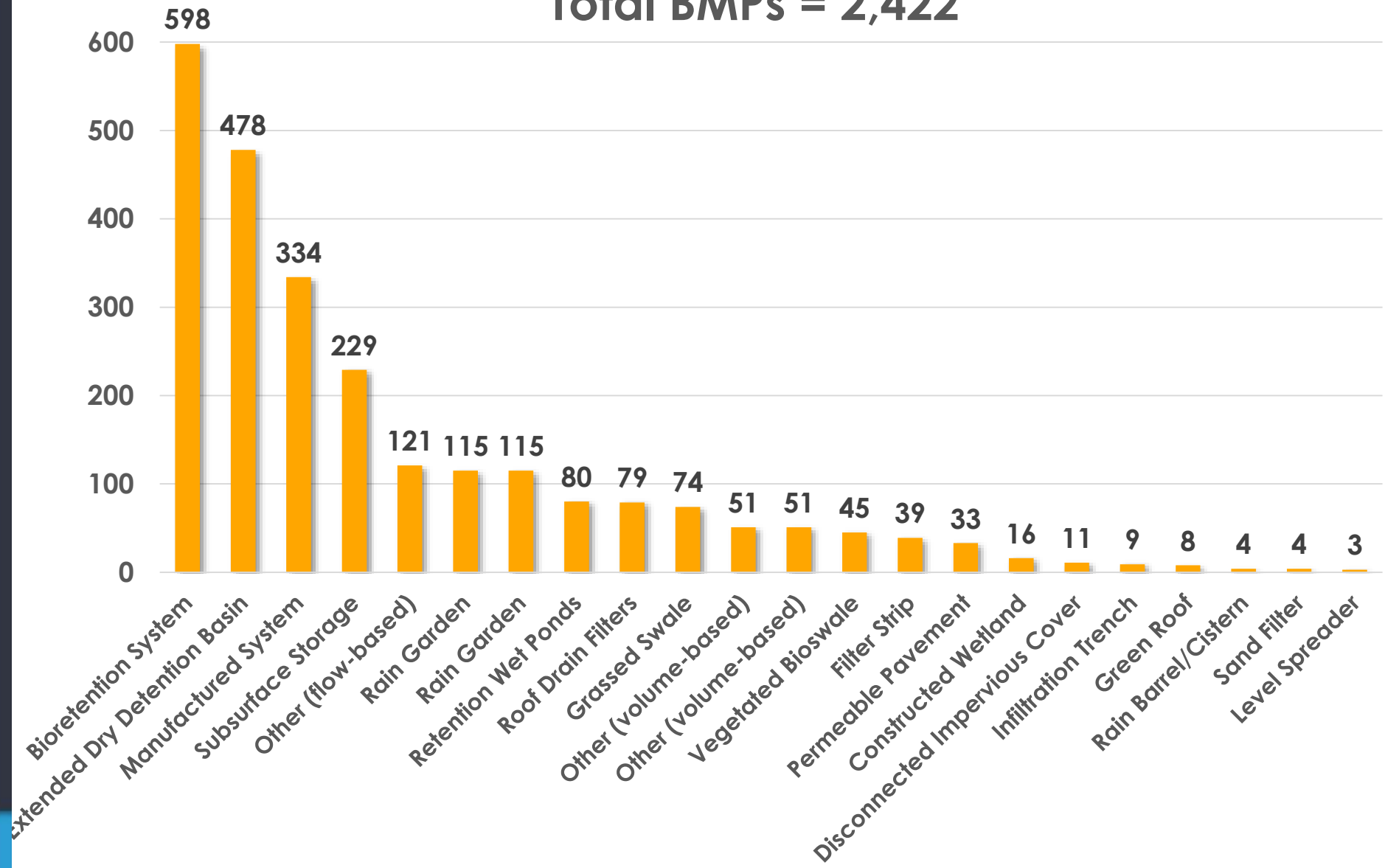


**Total BMPs as of 1/14/19 = 2,406**

# Post-Construction BMPs - Omaha as of 2/5/19

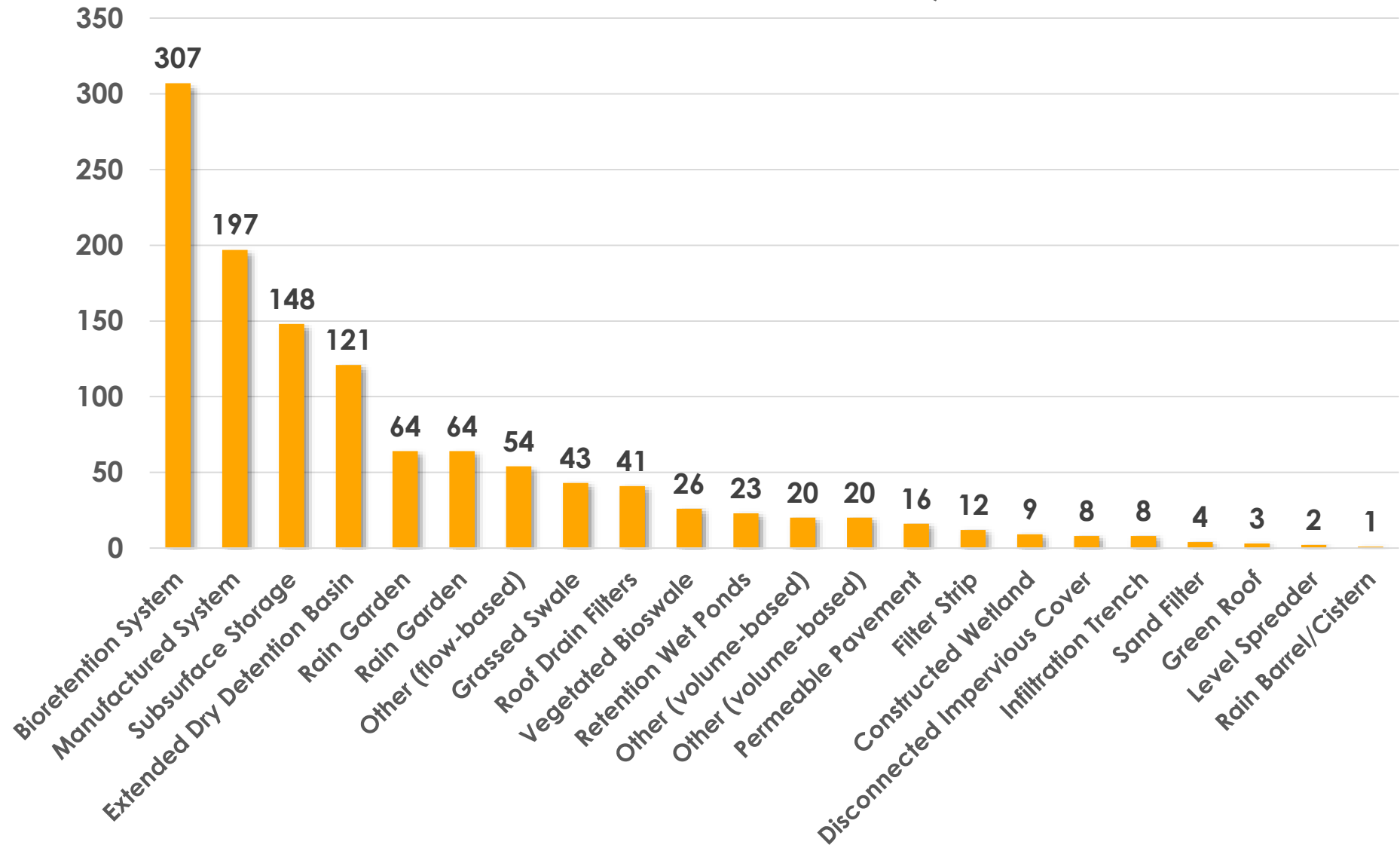
## Distribution by BMP Type

Total BMPs = 2,422

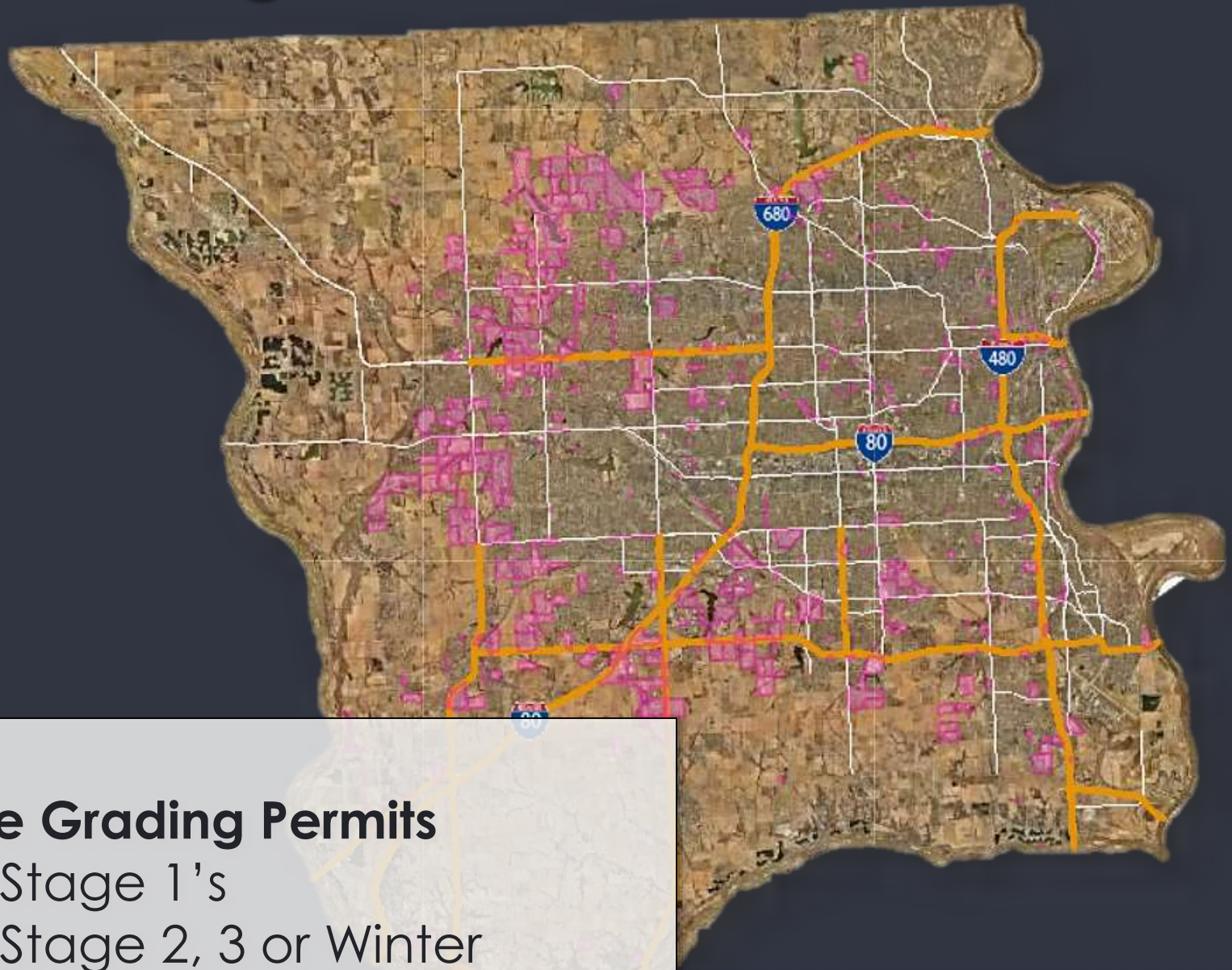


# Post-Construction BMPs - Omaha as of 2/5/19

## Certified BMPs by Type Total Certified BMPs = 1,155



# Grading Permits on Permix



## Currently

### **497 Active Grading Permits**

- **255** Stage 1's
- **242** Stage 2, 3 or Winter

**125** – Application or waiting to start



# PCWP Grading Permit

Understanding the basics &  
clarifying misconceptions

09/05/2017

# Grading Permit Basics

- Sites **>1 acre of disturbance** & smaller sites part of a larger common plan of development
- Requires Stormwater Pollution Prevention Plan (**SWPPP**), includes:
  - **Site Map**
  - **Narrative**
- Goal is to **eliminate/minimize stormwater pollution** leaving the site



# Project Roles

- **Applicant** – the Owner or Property Manager
- **Applicant Representative** – obtaining grading permit for the applicant
- **Permit/Plan Reviewers** – reviewing documents for the jurisdiction
- **Project Inspectors** – doing the regular site inspections
- **City Inspectors** – periodic compliance inspections
- **Contractor** – company doing the site work & following the SWPPP

# Other items to note

- Post-Construction application must be submitted & approved prior to Grading Permit application approval
- Grading Permit is not issued till it is paid for (unless applicant is exempted)
- The SWPPP is not static, must adapt & update
- Grading Permits DO NOT approve how a site is graded



# Grading Permit Basics - **Inspections**

- Weekly AND after ½" rain events (Stage 1)
- File reports on OmahaPermix.com
- Reporting period ends each Saturday, report due by following Friday
- 1 report for all inspections for that period (ex. 3 rain inspections, 1 report)
- Stage 1, 2, 3 & Winter

Next Action

Permit Closed



# Stage Changes

## The Process

- Project inspector submits a Stage Change Request
- City inspector visits site, processes request

The screenshot displays a web-based form for processing a stage change request. At the top, there is an orange header bar with two buttons: 'Back to Checklist' (with a document icon) and 'Submit' (with a green checkmark icon). Below this bar, the title 'STAGE CHANGE REQUEST' is displayed in a grey bar. Underneath, another orange bar contains three buttons: 'Back to Checklist' (with a document icon), 'Accept' (with a green checkmark icon), and 'Decline' (with a red 'X' icon). The main section of the form is titled 'REQUEST STAGE CHANGE REVIEW' in a grey bar, followed by the instruction 'Accept or decline the stage change request.' The form contains several labeled input fields with light green backgrounds: 'Current stage:' with the value 'Stage One', 'Requested stage:' with the value 'Stage Four (Winter conditions)', and 'Reason for change request:' with the value 'site is largely self contained or below grade.' Below these fields is a large, empty text area labeled 'Reason for not accepting the request:'. The form is framed by a thin border, and there are small red and blue decorative elements at the bottom corners.

STAGE CHANGE REQUEST

REQUEST STAGE CHANGE REVIEW

Accept or decline the stage change request.

**Current stage:** Stage One

**Requested stage:** Stage Four (Winter conditions)

**Reason for change request:** site is largely self contained or below grade.

**Reason for not accepting the request:**

# Grading Permit Terms – Stage Changes

Table 3

| STAGE REQUIREMENTS                                                                                                                               |                                                                                                                                          |                                                                                           |                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Stage 1                                                                                                                                          | Stage 2                                                                                                                                  | Stage 3                                                                                   | Stage 4 (winter stage)                                                                                           |
| Sites that do not qualify for Stage 2, 3, or 4                                                                                                   | Compliance with the Stage 1 requirements                                                                                                 | Compliance with the Stage 2 requirements                                                  | Compliance with the Stage 1 requirements                                                                         |
| Permitting Community has issued a Grading Permit for the construction site and a PCWP Stripping and Grading Notification Form has been submitted | All erosion prevention and sediment control measures have been installed and are functioning correctly                                   | All public improvements have been installed                                               | BMPs have been installed and are properly maintained                                                             |
|                                                                                                                                                  | All Inspection Reports are up to date and accurate                                                                                       | The PCWP has allowed the transition to Stage 3 Site inspection and reporting requirements | Stabilization measures have been implemented in areas of environmental sensitivity and higher erosion potential  |
|                                                                                                                                                  | All site grading has been completed in accordance with the SWPPP (note: minimal utility and/or building pad excavation may be conducted) |                                                                                           | Activities involving heavy equipment are limited or stopped                                                      |
|                                                                                                                                                  | Vegetative ground cover has been fully established                                                                                       |                                                                                           | Runoff is unlikely due to winter conditions (e.g., site must be covered with snow, ice, or the ground is frozen) |
|                                                                                                                                                  | The PCWP has allowed the transition to Stage 2 Site inspection and reporting requirements                                                |                                                                                           | The request to transition to a Stage 4 Site has been submitted before December 1                                 |
|                                                                                                                                                  |                                                                                                                                          |                                                                                           | The PCWP has allowed the transition to Stage 4 Site inspection and reporting requirements                        |
|                                                                                                                                                  |                                                                                                                                          |                                                                                           | On March 1, all Stage 4 Sites shall revert to the previously assigned stage                                      |

# Grading Permit Closure\*

To close a grading permit:

1. Submit a Closure Request
  - City Close-out Inspection recommends closure
2. Paperwork is submitted & approved
  - Final SWPPP Map
    1. Indicates temporary BMP's have been removed, site is fully stabilized, & no further ground disturbance
    2. Applicant SWPPP Certification – new signature & date
  - NDEQ NOT – completed
3. Post-construction has been completed

\* - Requirements can be done concurrently

# Final Stabilization Definition

**Final Stabilization:** Condition where all soil disturbing activities at the site have been completed and a uniform perennial vegetative cover with a minimum density of 70 percent of the native background vegetative cover has been established on all non-impervious surfaces and areas not covered by permanent structures unless equivalent permanent stabilization (such as riprap, gabions, or geotextiles) measures have been employed.



A photograph taken from inside a concrete stormwater tunnel. The tunnel has a hexagonal cross-section and is lined with concrete panels. The view is looking out through a large opening at a calm pond. In the background, there is a line of green reeds, a small house with a blue roof, and a dense forest of green trees. The water in the pond reflects the sky and the surrounding greenery. The text "Other 2018 Stormwater Take-Aways & Highlights" is overlaid in white on a dark grey rectangular background in the lower-left corner of the image.

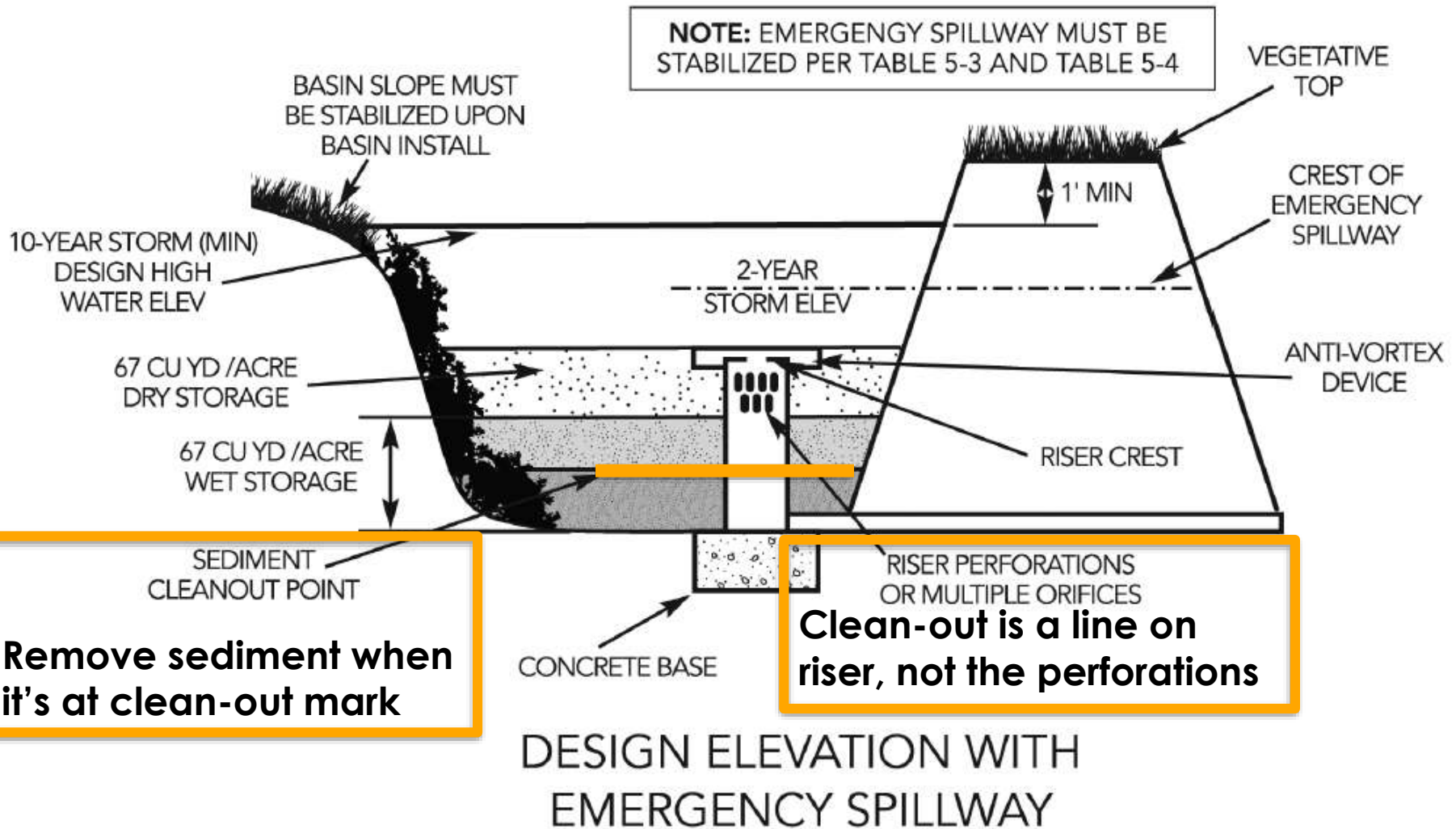
# Other 2018 Stormwater Take-Aways & Highlights

# Temporary Sediment Basins



Install riser & barrel at same time as basin

# Temporary Sediment Basins



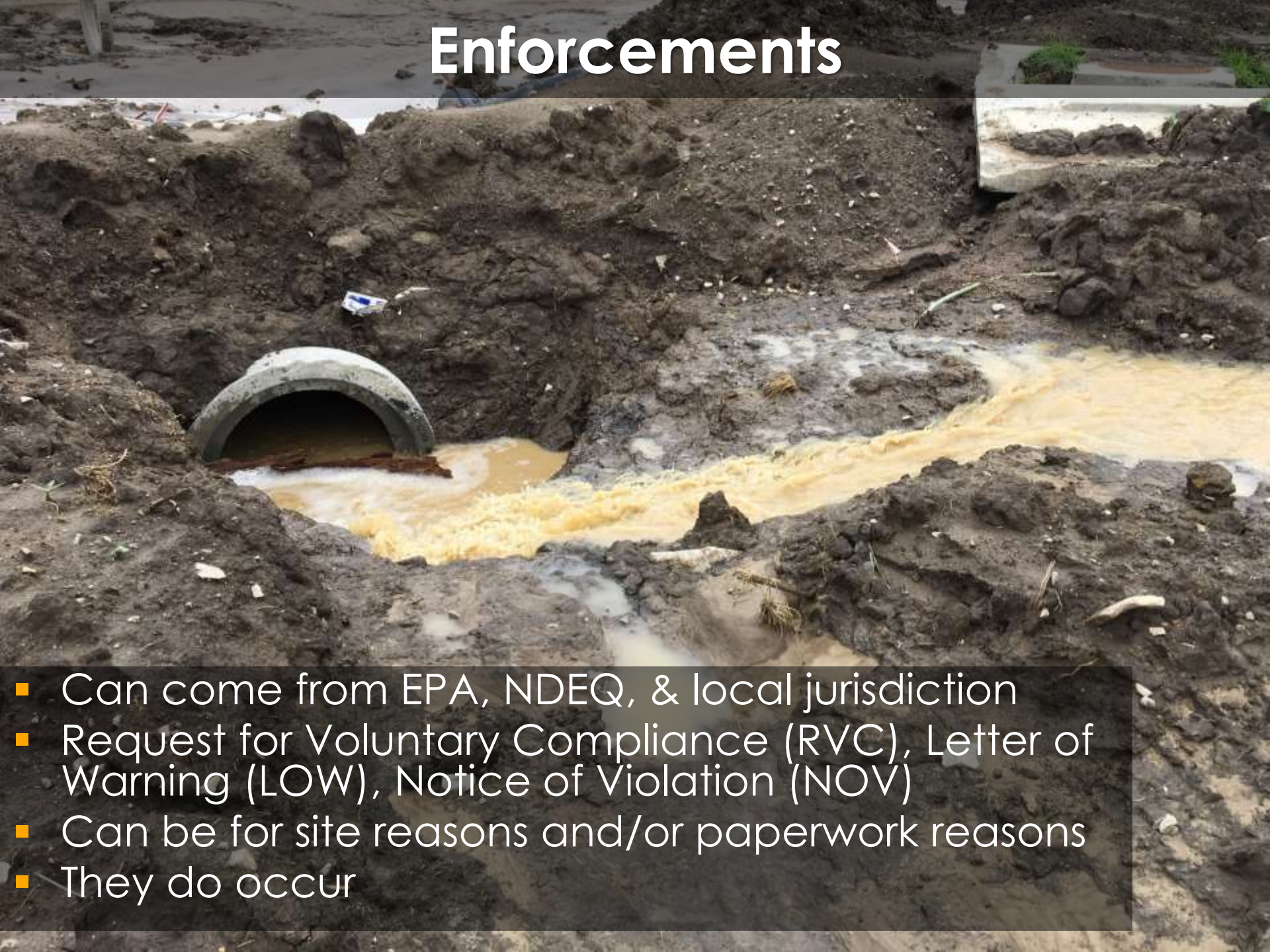
# “Hybrid” Temporary Sediment Basins

Permanent risers in Temporary Sediment Basins must function the same as a temporary riser

- Bioretention  $\neq$  temp sediment basin
- Need to protect Post-Construction BMPs during construction



# Enforcements



- Can come from EPA, NDEQ, & local jurisdiction
- Request for Voluntary Compliance (RVC), Letter of Warning (LOW), Notice of Violation (NOV)
- Can be for site reasons and/or paperwork reasons
- They do occur

# Monitoring – Adams Park



- Inflow & outflow monitored
- Water level sensors installed in 3 locations

# Monitoring – Adams Park

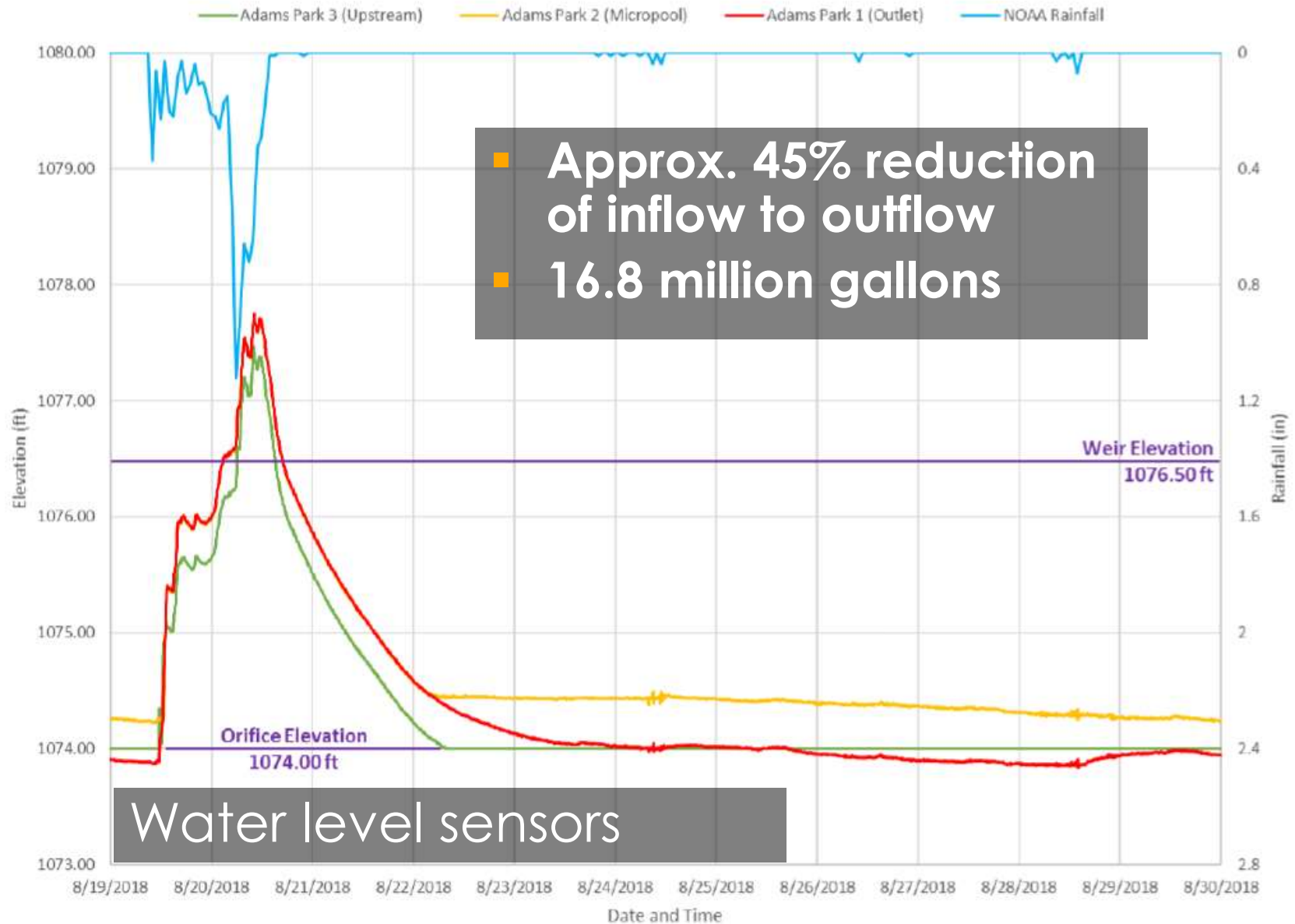


Figure 4-20: Adams Park Event 1 (8.25 inches)

# Monitoring – UNO Welcome Center



- Measuring soil moisture, water level & temperatures
- Time lapse of growing season as well...

# Monitoring – UNO Welcome Center

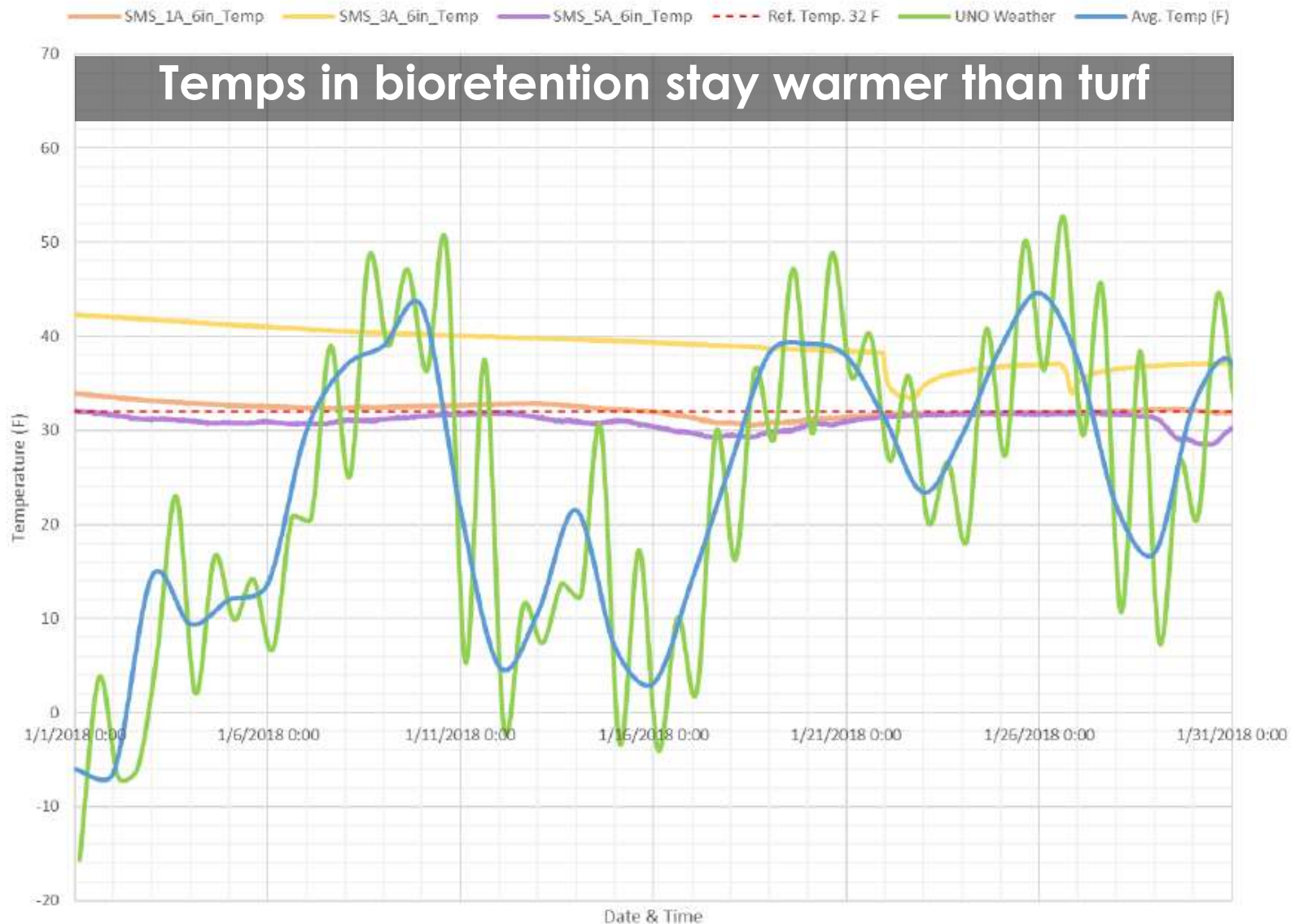


Figure 4-13: January 2018 Subsurface Temperatures

# OmahaPlants.org

# OmahaStormwater.org



## Facebook – Omaha Stormwater Program



If you'd like to set up a presentation with us,  
please contact me to set up

# Thank you!



Andy Szatko

City of Omaha Stormwater Program

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2014. 4.13 10:25