

Integrated Stormwater Management (iSWM) Subcommittee Meeting

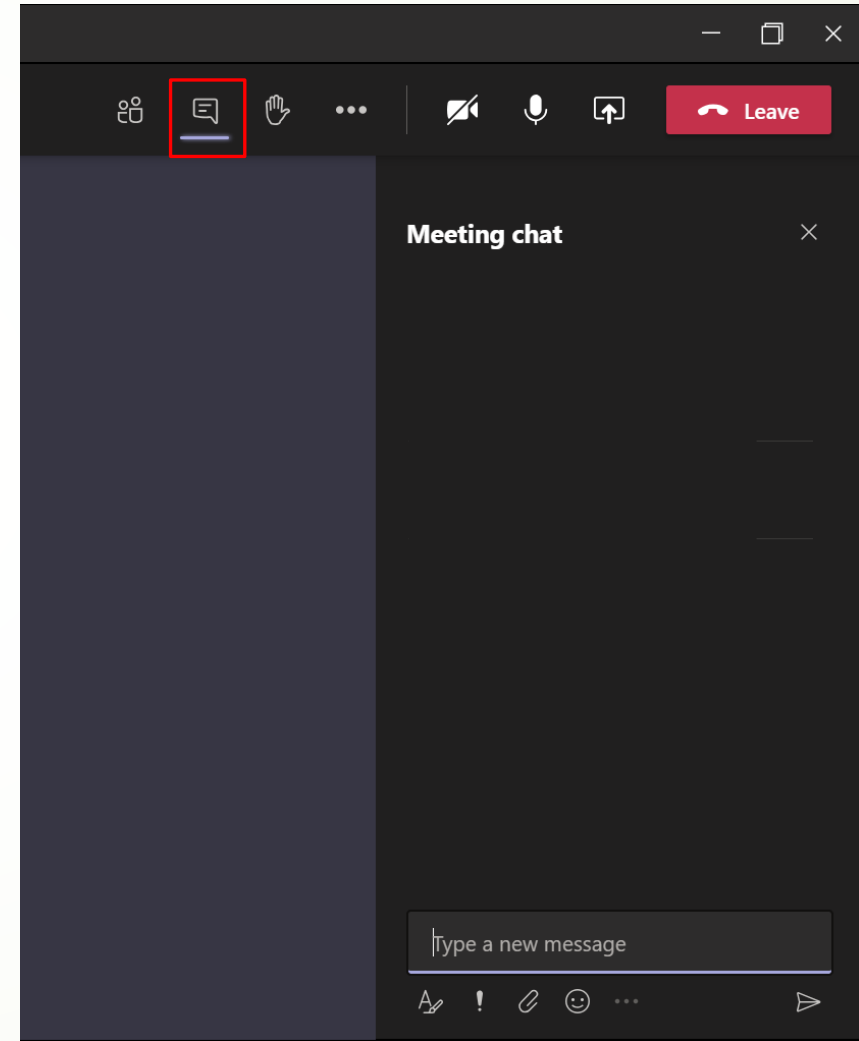
October 7, 2020

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Welcome and Introductions

- Please use the chat box to type your name and organization



Presentation and Action Items



Agenda item 2

Approval of July 8, 2020, Meeting Summary

- The meeting agenda, presentation and handouts are located on the iSWM Subcommittee webpage - <https://www.nctcog.org/envir/committees/public-works-council/iswm-implementation-subcommittee>

Agenda item 3

Task Order 4 updates

- Task 2 - Reorganize/Re-evaluate Site Development Controls
- Task 3 - Guidance on developing a regional detention program
- Task 4 - Detention criteria guidance research
- Task 5 - Re-evaluate 85th Percentile (1.5") Rainfall Requirements
- Task 6 - 5-Year Outreach and Implementation Strategy
- Task 7 - Provide details and specifications for water quality BMPs

TASK 2 – REORGANIZE/RE-EVALUATE SITE DEVELOPMENT CONTROLS

- Task Order 4 Summary Pages

- Planter Boxes
- Infiltration Trench & Soakage Trench
- Stormwater Ponds
- Porous Concrete
- Enhanced Swales
- Grass Channel
- Filter Strip
- Downspout Dry well
- Rainwater Harvesting
- Stormwater Wetlands



Dry Detention Pond

Description

Dry detention ponds are surface storage facilities that provide detention of stormwater runoff to reduce downstream water quality impacts. They temporarily detain stormwater and gradually release it following storm events. In between storm events, the facilities are typically dry.

Design Considerations

- Dry detention ponds are designed for the maximum reduction of peak flows and runoff reduction for larger storm events
- There are no restrictions for drainage area size
- Soil groups 'A' and 'B' may require a pond liner
- Often used as part of a treatment train to meet water quality requirements

Key Advantages

- Since less excavation is required, dry detention ponds are typically less costly than wet ponds for equivalent flood storage
- Dry detention ponds are often used in conjunction with water quality structural control
- In between storm events, there are opportunities for the facility to be used for recreational activities

Limitations

- Extended detention may provide limited water quality treatment and streambank protection
- The area required for dry detention ponds is greater than the area required for other best management practices



Target Constituent	Removal Rate
Total Suspended Solids	75%
Total Phosphorus	50%
Total Nitrogen	25%
Fecal Coliform	75%
Heavy Metals	Insufficient data

Implementation Considerations



Suitability

The ISWM manual has designated that dry detention ponds are suitable for providing:



Maintenance

- Trash, leaf, debris and sediment removal
- Provide removal of vegetation and weeds when overgrowth occurs
- Plant seed or sod in bare or dead spots
- Mow planted vegetation
- Clean inlets

TASK 2 – REORGANIZE/RE-EVALUATE SITE DEVELOPMENT CONTROLS

- Draft Summary pages to be completed late October.
- Draft summary pages will be available for review at the January subcommittee meeting
- Remaining Summary Pages to be updated after Task Order 4
 - Multi-purpose Detention Areas
 - Organic Filter
 - Modular Porous Pavement Systems

TASKS 3, 4, 5 - OVERVIEW

- **Task 3 – Guidance on developing a regional detention program**
 - Provide data on methods to set up a public/private partnership
 - Provide recommendations on when/where regional detention is most appropriate
- **Task 4 – Detention criteria guidance research**
 - Research natural channel and volumetric detention guidance in existing criteria manuals to see where iSWM could be improved.
- **Task 5 – Re-evaluate 85th Percentile (1.5”) Rainfall Requirements**
 - Review rainfall depths and percentiles that other Texas cities are using to treat water quality.
 - Use updated rainfall data to calculate regional percentile storm events.

TASKS 3, 4, 5

- Research for all 3 tasks to begin in October.
- Draft research results should be provided at the subcommittee meeting in January.
- Documentation and final findings of research will be provided at the subcommittee meeting April.

TASK 6 – 5-YEAR IMPLEMENTATION AND OUTREACH STRATEGY

- **Part A** – 2-hour training for design and maintenance of BMPs – Early December 2020
- **Part B** – Outreach & Implementation Strategy
 - Presented to Public Works Council August 2020
 - Working on plan document outline
 - Interviewed David Hunter with the City of Denton, July 2020. The interview will be developed into a Case Study and posted on the iSWM website.

ISWM 5-YEAR OUTREACH PLAN

CURRENT TASK PLAN

- **Step 1** - Engage PWC on feedback regarding this effort
- **Step 2** - Engage local floodplain administrators through surveys, interviews
- **Step 3** - Work with NCTCOG and iSWM Subcommittee to develop strategies, frequency, and topics for future engagement to accomplish goals.
- **Step 4** - Submit 5-year plan to iSWM Subcommittee for review.
- **Step 5** - Provide strategy document to define final vision of the 5-year plan including objectives, key entities for engagement, frequency, and implementation strategies to meet the goals of the 5-year plan.

IMPLEMENTATION STRATEGIES

DATA GATHERING

- Interviews with current iSWM users for feedback
- Develop new case studies for program

EVALUATION STRATEGIES

- Identify sensitive corridors and goals to improve water quality, habitat, etc.
- Identify areas to concentrate natural drainage retrofits to support overtaxed stormwater pipes

OUTREACH IDEAS

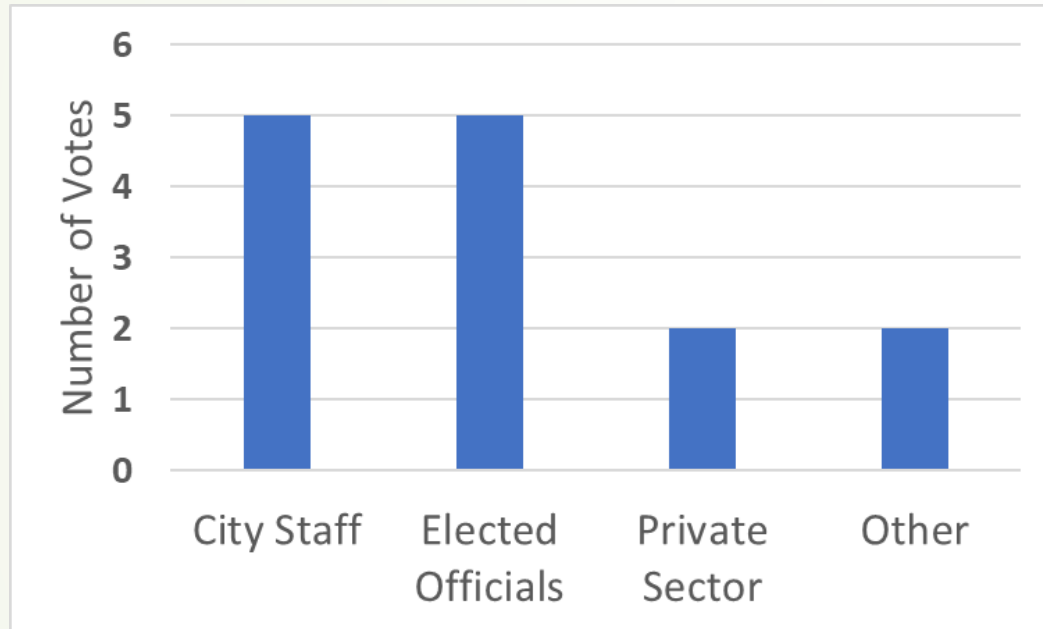
- Target Areas – Community, City staff/elected officials, and Developers/engineers
- Training and iSWM certification
- Signage at construction sites
- iSWM award
- Partnerships with education institutions, non-profits, cultural institutions, and healthy river and stream outreach groups

FEEDBACK FROM PUBLIC WORKS COUNCIL

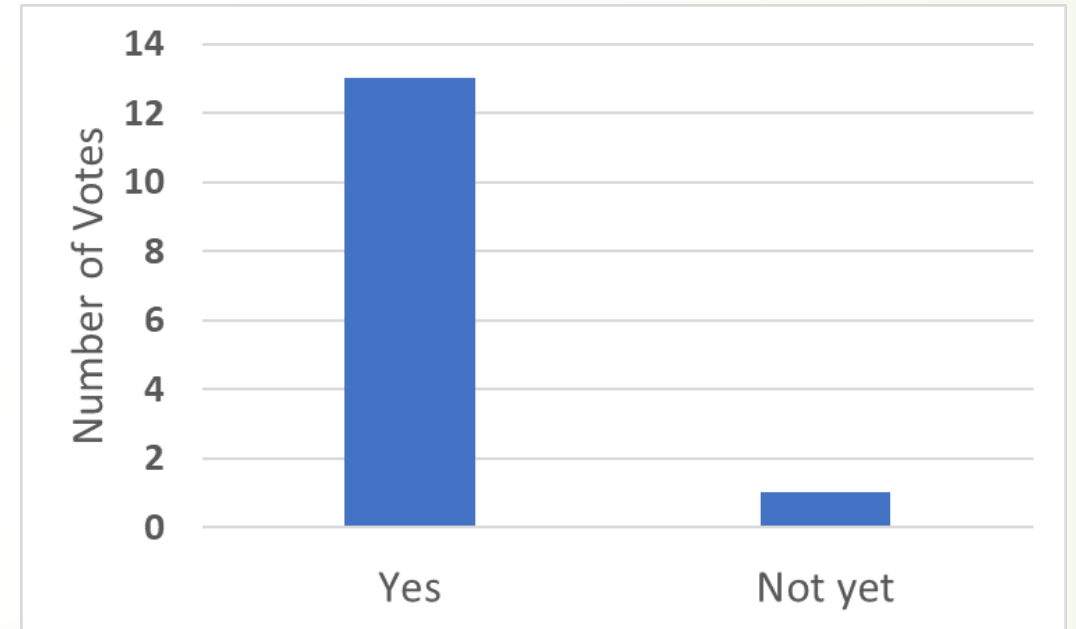
- **What Important outcomes will indicate the success of the iSWM program to the PWC?**
 - More participation and specifically water quality participation
 - Outreach to developers and contractors
 - Involve them in the conversations of implementing the iSWM program
 - Need more focus on standardization across the region to help developers
 - Focus on the benefits to the developers and property owners long-term to counter the concern of initial construction cost

FEEDBACK FROM PUBLIC WORKS COUNCIL

- **Who could be the most impactful ambassadors of the iSWM program?**



- **Are we headed in the right direction with the strategies we've discussed**



TASK 7 – PROVIDE DETAILS AND SPECIFICATIONS FOR WATER QUALITY BMPS

- Provide details and specifications for up to 5 water quality, filtration and infiltration BMPs from the Site Development Controls.
 - Infiltration Trench
 - Planter Boxes
 - Bioretention
 - Enhanced Swales
 - Sand Filter
- Draft details and specifications will be available at the next subcommittee meeting

iSWM Implementation Subcommittee (IIS) Roster Recommendations or Potential Strategies

- Review July survey results
- The current PWC bylaws states that subcommittees shall consist of volunteers.
- Seven subcommittee members are currently listed on the roster.
- Strategies for increasing roster members.
 - Inviting communities that were part of the founding members* to attend IIS meetings or send a representative.
 - Request iSWM Certified Communities join the roster.
 - Have those that attend IIS meetings consistently join the roster.
- Next Step: Discuss growing IIS members before Vice-Chair vote

Informational Items



iSWM Certification Updates

- IIS review board members will update the subcommittee on the status of their review.
 - Ranjan Muttiah - City of Corinth



Agenda item 6

iSWM Website Updates and Analytics

Content has been added to the [iSWM website](#):

Technical Manual

- 2020 Notice of revision highlights changes to following documents.
 - Construction Controls manual – Schematics were added
 - Hydrology Manual – Atlas 14 Memo
- Construction Control Schematics
 - Addendum to iSWM Technical Manual - Construction Controls.

Case Studies

- Bioretention Installation and Maintenance Video added as case study.

Training

- Site Development Controls Workshop #1 and #2

Other Documents

- Proprietary Device Memo

Additional update to come later this year.

iSWM Website Updates and Analytics

FY20 iSWM Website Traffic

- Users – 5,182
- New users – 5,018
- Pageviews – 15,889
- New visitors – 20.8%
- Returning visitors – 79.2%

What pages are users viewing?

Primary Dimension: Page Page Title Other

Plot Rows Secondary dimension Sort Type: Default

Page	Pageviews	Unique Pageviews	Avg. Time on Page
	15,889 % of Total: 100.00% (15,889)	13,319 % of Total: 100.00% (13,319)	00:01:46 Avg for View: 00:01:46 (0.00%)
1. /technical-manual.html	6,411 (40.35%)	5,784 (43.43%)	00:04:02
2. /Homepage	5,164 (32.50%)	3,968 (29.79%)	00:00:56
3. /criteria-manual.html	1,372 (8.63%)	1,211 (9.09%)	00:02:38
4. /resources.html	455 (2.86%)	356 (2.67%)	00:00:20
5. /training.html	316 (1.99%)	274 (2.06%)	00:03:08
6. /participating-cities.html	314 (1.98%)	260 (1.95%)	00:02:28
7. /program-guidance.html	277 (1.74%)	235 (1.76%)	00:02:30
8. /what-is-iswm.html	235 (1.48%)	205 (1.54%)	00:01:35
9. /case-studies/razor-ranch.html	184 (1.16%)	126 (0.95%)	00:02:01
10. /case-studies/merritt-road.html	150 (0.94%)	99 (0.74%)	00:01:07

Regional Public Works FY20 Program Update

- 21st Annual Public Works Roundup was held virtually through Hopin on Sept. 17th.
- Standard Drawings Subcommittee, Oct. 19th.
 - The Subcommittee is reviewing Division 4000: Water Distribution.
 - They are seeking more experts to help review the details either at the meetings or to send in comments.
- Construction Contracts Administration Training, Sept. 22nd 10AM
 - This was instructed by Tim James, PE, CFM and his team at Halff Associates.
- New Inspector's Workshop, Sept. 22nd 1:30PM
 - This was instructed by Tim James, PE, CFM and his team at Halff Associates.
- Sustainable Public Rights-of-Way Subcommittee, Oct. 20
 - SPROW will be reviewing the draft Landscape Planning and Vegetation Maintenance chapter of the Best Management Practices Guidebook SPROW are creating.

Regional Public Works FY21 Work Program

- FY21 Regional Public Works cost-share invoices have been mailed out to every community in our region for an opportunity to participate in the program.
- [FY21 Regional Public Works Work Program](#) was approved at the August 20th meeting.
- **Integrated Stormwater Management (iSWM) Program deliverables:**
 - Conduct quarterly meetings of iSWM Implementation Subcommittee (IIS)
 - Conduct educational trainings and workshops to promote the implementation of iSWM
 - Monitor the iSWM certification process including continued support of the IIS Review Board
 - Assist local governments in the application of the iSWM program
 - Oversee the contract and iSWM consultant
 - FY2021 subcommittee task order 4 activities

Other Business and Roundtable Discussion

8. Future Agenda Items

9. Roundtable Topics/Other Business

NOW, IT'S YOUR TURN...

Upcoming NCTCOG Meetings

Next iSWM Meeting

January 13, 2021 at 1:30 p.m. Location MS Teams

- Public Works Council Standard Drawings Subcommittee, **October 19**
- Public Works Council Sustainable Public Rights of Way, **October 20**
- Post Construction Roundtable, Tentative **November 5**
- Public Works Council Meeting, **November 12**
- Regional Stormwater Management Council, **November 11**

Meeting Information at: <https://www.nctcog.org/envir/committees>

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