

Development of Stable Open Channel Design Criteria, Project Number R/CCD-30

Macomb County Storm Water Standards Survey

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Are you familiar with Macomb County's Procedures and Design Standards for Stormwater Management, adopted July 30, 2008?

- Answered: 13
- Skipped: 0

Yes, I use them to desi...

Yes, I use them to revi...

Yes, I have heard of the...

No, Macomb County has...

0%10%20%30%40%50%60%70%80%90%100%

Answer Choices	Responses
— Yes, I use them to design site plans and drain improvements	61.54% 8
— Yes, I use them to review plans for compliance of the standards	15.38% 2
— Yes, I have heard of them but do not use them	23.08% 3
— No, Macomb County has design standards?	0.00% 0

Total

13

Q2

[Export](#)

[Customize](#)

What is your role with using Macomb County's Storm Water Standards? Select all that apply.

- Answered: 13
- Skipped: 0

City/Village/Township Employee

County Employee

Community

Engineering...

Site Design

Engineer

Site Plan

Review Engineer

Contractor/Developer

Landscape

Architect

0%10%20%30%40%50%60%70%80%90%100%

Answer Choices	Responses
— City/Village/Township Employee	23.08% 3
— County Employee	7.69% 1
—	30.77%

Answer Choices –	Responses –
Community Engineering Consultant	4
– Site Design Engineer	53.85% 7
– Site Plan Review Engineer	30.77% 4
– Contractor	0.00% 0
– Developer	0.00% 0
– Landscape Architect	0.00% 0

Total Respondents: 13

Comments(0)

Q3

Export

Customize

Have you ever designed a two-stage open channel cross-section using Macomb County's standards adopted in 2008?

• Answered: 13
• Skipped: 0

YesNoNot Sure

0%10%20%30%40%50%60%70%80%90%100%

Answer Choices –	Responses –
– Yes	30.77% 4
– No	69.23% 9
– Not Sure	0.00% 0

Total 13

Q4

Export

Customize

Which of the following enhancements would assist you in your design/evaluation of stable two-stage open channels in Macomb County?

• Answered: 13
• Skipped: 0

More USGS gage locations
More technical guidance to...
More guidance

on landscapi...
More
information ...
Plan review
checklist/...
Other
012345678910

	Most Useful	Moderately Useful	Least Useful	Not Sure	N/A	Total	Weighted Average
More USGS gage locations	25.00% 3	50.00% 6	0.00% 0	8.33% 1	16.67% 2	12	1.90
More technical guidance to assist in bankfull design	41.67% 5	33.33% 4	0.00% 0	8.33% 1	16.67% 2	12	1.70
More guidance on landscaping and maintenance standards	25.00% 3	41.67% 5	8.33% 1	8.33% 1	16.67% 2	12	2.00
More information on implementing storm water credits	8.33% 1	25.00% 3	41.67% 5	8.33% 1	16.67% 2	12	2.60
Plan review checklist/spreadsheet	61.54% 8	7.69% 1	7.69% 1	7.69% 1	15.38% 2	13	1.55
Other	50.00% 2	0.00% 0	0.00% 0	25.00% 1	25.00% 1	4	2.00

Comments(3)

Q5

Export

What do you find most useful with our current stormwater standards when designing the two-stage open channel?

Answered: 13
Skipped: 0

w Responses (13)

C Text Analysis

z My Categories

D

PRO FEATURE

Use text analysis to search and categorize responses; see frequently-used words and phrases. To use Text Analysis, upgrade to a GOLD or PLATINUM plan.

Upgrade Learn more »

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Categorize as...

Filter by Category

Showing 13 responses

N/A

6/12/2015 11:59 AM [View respondent's answers](#)

Access to MCPWO engineering staff

6/11/2015 8:52 AM [View respondent's answers](#)

N/A

6/10/2015 4:00 PM [View respondent's answers](#)

I haven't had an opportunity to use them.

6/10/2015 3:52 PM [View respondent's answers](#)

N/A

6/10/2015 3:32 PM [View respondent's answers](#)

N/A

6/10/2015 3:31 PM [View respondent's answers](#)

Ref materials

6/10/2015 3:27 PM [View respondent's answers](#)

Geometric requirements (slope)

6/4/2015 10:01 AM [View respondent's answers](#)

n/a

5/11/2015 9:31 AM [View respondent's answers](#)

we do not design two stage channels

5/5/2015 8:37 AM [View respondent's answers](#)

Flexibility to design based on actual drain parameters

5/2/2015 6:55 AM [View respondent's answers](#)

Planting zones.

5/1/2015 1:44 PM [View respondent's answers](#)

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5/1/2015 1:43 PM [View respondent's answers](#)

Q6

Export

What do you find most challenging about implementing our standards?

• Answered: 13
• Skipped: 0

w Responses (13)

C Text Analysis

z My Categories

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Categorize as...

Filter by Category

Showing 13 responses

N/A

6/12/2015 11:59 AM [View respondent's answers](#)

Deriving the design flows

6/11/2015 8:52 AM [View respondent's answers](#)

Consistency

6/10/2015 4:00 PM [View respondent's answers](#)

no comment

6/10/2015 3:52 PM [View respondent's answers](#)

N/A

6/10/2015 3:32 PM [View respondent's answers](#)

From a review stand point, I find that different companies (including the one I work for) interpret the standards differently, sometimes from one end of the company to another! It also seems that the Drain Office has difficulty interpreting their standards and are often vague in their explanations (if any) of what is being asked for. I think a checklist and example designs for detention basin design would help greatly. A detailed, yet simple systematic approach that anyone can understand and the majority could interpret the same would be ideal.

6/10/2015 3:31 PM [View respondent's answers](#)

Calculating bankfull dimensions

6/10/2015 3:27 PM [View respondent's answers](#)

Additional guidance/sample calculations

6/4/2015 10:01 AM [View respondent's answers](#)

not consistent when it needs to be implemented, is this a County standard (for Roads too or just Drain?)

5/11/2015 9:31 AM [View respondent's answers](#)

we do not design two stage channels

5/5/2015 8:37 AM [View respondent's answers](#)

Inconsistent support of rules by county and by many different site designers

5/2/2015 6:55 AM [View respondent's answers](#)

Macomb County Public Works staff isn't always familiar with the standards.

5/1/2015 1:44 PM [View respondent's answers](#)

inconsistency between section of the standards

5/1/2015 1:43 PM [View respondent's answers](#)

Q7

[Export](#)

Do you have any other comments, questions, or concerns?

• Answered: 2
• Skipped: 11

w Responses (2)

C Text Analysis

z My Categories

D

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s

Categorize as...

Filter by Category

Showing 2 responses

All drains in our City are County maintained they review and approve drain related work.

6/12/2015 11:59 AM [View respondent's answers](#)

Rules should apply to all developments within drainage districts, not just to sites directly adjacent to the drains.

5/2/2015 6:55 AM [View respondent's answers](#)

Macomb County Storm Water Standards Survey

Welcome to the Macomb County Public Works Survey

Thank you for participating in our survey. Your feedback is very important. The Macomb County Public Works Office is partnering with Michigan Sea Grant and Wayne State University in efforts to improve our design guidelines for a stable open channel design. The purpose of this survey is to gather input on our current standards in order to improve them as we update and develop our design criteria to improve the functionality of our drains, improve water quality and reduce long term maintenance costs.

*

1. Are you familiar with *Macomb County's Procedures and Design Standards for Stormwater Management*, adopted July 30, 2008?

Are you familiar with *Macomb County's Procedures and Design Standards for Stormwater Management*, adopted July 30, 2008?

*

2. What is your role with using Macomb County's Storm Water Standards? Select all that apply.

- ☐ What is your role with using Macomb County's Storm Water Standards? Select all that apply. City/Village/Township Employee
- ☐ County Employee
- ☐ Community Engineering Consultant
- ☐ Site Design Engineer
- ☐ Site Plan Review Engineer
- ☐ Contractor
- ☐ Developer

☐ Landscape Architect

Other (please specify)

*

3. Have you ever designed a two-stage open channel cross-section using Macomb County's standards adopted in 2008?

Have you ever designed a two-stage open channel cross-section using Macomb County's standards adopted in 2008?

*

4. Which of the following enhancements would assist you in your design/evaluation of stable two-stage open channels in Macomb County?

	Most Useful	Moderately Useful	Least Useful	No
More USGS gage locations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
More technical guidance to assist in bankfull design	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
More guidance on landscaping and maintenance standards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
More information on implementing storm water credits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Plan review checklist/ spreadsheet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

Other (please specify)

*

5. What do you find most useful with our current stormwater standards when designing the two-stage open channel?

What do you find most useful with our current stormwater standards when designing the two-stage open channel?

*

6. What do you find most challenging about implementing our standards?

What do you find most challenging about implementing our standards?

7. Do you have any other comments, questions, or concerns?