

CREW EXAM

About the Jefferson-Chalmers WATER Project

1. What is the WATER Project?

W	A	T	E	R	Project
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2. What are the THREE Goals of the WATER Project?

KEEP	

Our Water System

3. What are the two agencies that manage our System (abbreviations and spell out)

4. What area of responsibility does each have?

5. What is a

C	S	O
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6. Name the two types of water that flow into our System?

S	And	S
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7. This is referred to as a _____ System?

8. What happens when the System can't handle all that water?

9. When significant amounts of water are mixed in with hazardous chemicals and raw sewage, what rhyming words are used to describe how it solves the problem?

D	is the	S	to	P
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10. a. What is the name of the State regulatory agency that allows CSOs?

b. From what Federal agency do they get the authority to do that?

11. a. What is

N	P	D	E	S
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b. What does that mean?

12. Where is the largest CSO in Michigan?			
13. Where did Grosse Park discharge its CSO?		14. When did that discharge end?	
15. Who discharges into that body of water now?		16. Who is notified when that occurs?	

Water's Impact on the Cost of Your Home

17. What is a

F	I	R	M
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18. a. What Federal agency publishes the FIRMs? (abbreviation)		b. What does that abbreviation stand for?	
19. What does this document determine?			

20. a. When was the most recent FIRM published?		b. When was the last FIRM published?	
21. a. What is a topographical swale?		b. What is another word for a swale?	
21. Where is the topographical swale in our community?		b. Where is the highest risk for flooding in our community?	

22. With the exception of that area, where does water typically settle?

23. How is that piece of infrastructure designed to channel away water?

Reducing Your Cost of Home Ownership

24. What is a

L	O	M	A
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25. What application can a private property owner complete in order to get a LOMA?

26. Who is required to sign and certify that document?

27. Where do you live?		28. What year was your home built?	
29. What style is your home?		30. Do you have a porch?	
31. How many inches is a typical stair?		32. How many stairs to your porch?	
33. How many inches from the grass to your porch?		34. How many stairs from your porch to your first floor?	
35. How many inches from the grass to your first floor?			

36. Why is that important?

Flood Protection

37. Name one of the types of infrastructure that a community can build to protect itself from flooding?

38. What is a Datum?		39. What is the Datum Level required for Fox Creek and Eastern Canals?	
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40. What Federal agency determines the Datum?

41. Why do they have authority to determine the Datum?

42. What State agency oversees compliance with the Datum?

43. What flood protection is missing near Clairpointe and Maheras-Gentry Park?

Basement Back-ups

44. What is a Retention Basin?

45. How does a Basin work?

46. Locate Basins near our community?

47. What eventually happens to the water in your basement?

48. That means DWSD and GLWA your Basement as _____

49. What is the purpose of a back flow preventer?

50. Water will ALWAYS _____

CREW EXAM – ANSWERS

About the Jefferson-Chalmers WATER Project

1. What is the WATER Project?

Water	Access	Technology	Education	Recreation	Project
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2. What are the THREE Goals of the WATER Project?

KEEP	Sewage out of Basements and Canals
	Stormwater out of the System
	Great Lakes out of the Neighborhood

Our Water System

3. What are the two agencies that manage our System (abbreviations and spell out)

Great Lakes Water Authority (GLWA) + Detroit Water and Sewerage Department (DWSD)

4. What area of responsibility does each have? **GLWA – Pumps/Stations/CSO (Above Ground); DWSD – Water+Sewer Lines Horizontal Assets/Conveyance (Below Ground)**

5. What is a

Combined	Sewer	Overflow/Outfall
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When our system discharges into a public body of water.

6. Name the two types of water that flow into our System?

Stormwater	And	Sewage
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7. This is referred to as a **COMBINED** System?

8. What happens when the System can't handle all that water? **It ends up in a public body of water or our basements.**

9. When significant amounts of water are mixed in with hazardous chemicals and raw sewage, what rhyming words are used to describe how it solves the problem?

Dillution	is the	Solution	to	Pollution
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10. a. What is the name of the State regulatory agency that allows CSOs? **EGLE – Environment, Great Lakes & Energy**

b. From what Federal agency do they get the authority to do that? **EPA – Environmental Protection Agency**

11. a. What is

National	Pollutant	Discharge	Elimination	System
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b. What does that mean? **EPA provides a permit to municipalities to discharge into public bodies of water during weather events (heavy rains) and each permit is part of a national "system" of pollution control.**

12. Where is the largest CSO in Michigan?	Conner Creek		
13. Where did Grosse Park discharge its CSO?	Fox Creek	14. When did that discharge end?	2000
15. Who discharges into that body of water now?	GLWA	16. Who is notified when that occurs?	Nobody

Water's Impact on the Cost of Your Home

17. What is a

Flood	Insurance	Rate	Map
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18. a. What Federal agency publishes the FIRMs? (abbreviation)	FEMA	b. What does that abbreviation stand for?	Federal Emergency Management Agency
19. What does this document determine?		Rates for flood insurance based upon your risk for flooding.	

20. a. When was the most recent FIRM published?	2021	b. When was the last FIRM published?	2021
21. a. What is a topographical swale?	Low-lying area	b. What is another word for a swale?	Bathtub
21. Where is the topographical swale in our community?	Along Essex	b. Where is the highest risk for flooding in our community?	Along Essex

22. With the exception of that area, where does water typically settle? **Streets**

23. How is that piece of infrastructure designed to channel away water? **It's curved so that it is higher in the center to channel water away for drivers and to move the water towards catch basins along the curb line.**

Reducing Your Cost of Home Ownership

24. What is a

Letter	Of	Map	Amendment
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Official Amendment to the MAP, the FIRM adjusting insurance rate or removing the property from the MAP, reducing or eliminating Flood Insurance requirements. Just because you can eliminate your insurance, doesn't mean you should!

25. What application can a private property owner complete in order to get a LOMA? **Elevation Certificate**

26. Who is required to sign and certify that document? **Licensed Professionals-Civil Engineer/Landscape Architect/Architect**

27. Where do you live?	_____	28. What year was your home built?	_____
29. What style is your home?	_____	30. Do you have a porch?	_____
31. How many inches is a typical stair?	8"	32. How many stairs to your porch?	Put In the #
33. How many inches from the grass to your porch?	8 X # of stairs	34. How many stairs from your porch to your first floor?	
35. How many inches from the grass to your first floor?	Add # of stairs from porch to grass to # of stairs from porch X 8" =		

36. Why is that important? **Your _____ above your grass (grade) and even higher from the center of the street (where water normally settles), how much flooding would it take to really put your life and most of your property**

Flood Protection

37. Name one of the types of infrastructure that a community can build to protect itself from flooding? **Seawall, Levee, Flood walls, Flood gates**

38. What is a Datum?	The basis of calculating altitude, it is a line, reference point, a line, used by surveys.	39. What is the Datum Level required for Fox Creek and Eastern Canals?	580'
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40. What Federal agency determines the Datum? **US Army Corps of Engineers (The Corps or USACE)**

41. Why do they have authority to determine the Datum? **In order to ensure commerce and national defense is maintained, they must maintain all navigable waters. Just like the Interstate System, was designed to move tanks and troops across the country.**

42. What State agency oversees compliance with the Datum? **EGLE – Environment, Great Lakes & Energy**

43. What flood protection is missing near Clairpointe and Maheras-Gentry Park? **Flood walls along Bay View Yacht Club to continue and extend the Levee.**

Basement Back-ups

44. What is a Retention Basin? **It holds stormwater from parking lots and roof tops, instead of going into the water system.**

45. How does a Basin work? **It fills up with water and then, empties when the system can take or is absorbed into the land.**

46. Locate Basins near our community? **SE Corner of Alter and Mack (Huntington Bank); Kercheval and St. Jean (Chrysler Expansion), Gratiot between Conner and Harper and Devine St, east of French Rd (Leer Industrial)**

47. What eventually happens to the water in your basement? **The water that was standing in it, eventually went down.**

48. That means DWSD and GLWA your Basement as **BASINS.**

49. What is the purpose of a back flow preventer? **It closes when water is coming from street into your basement.**

50. Water will ALWAYS **WINS!!**