

Wastewater Treatment

Start of Block: Default Question Block

We greatly appreciate you helping us learn more about the impact of low influent flows on wastewater treatment facilities. This questionnaire should take no more than 10 minutes to complete. If you leave this site before completing the questionnaire, your answers will be automatically saved and appear in the questionnaire when you return to complete it.

Responses to this survey will be aggregated and made anonymous. No information that can identify your agency or facility will be shared or reported outside the project team.

To begin, please tell us the name of your agency and your treatment facility.

Agency Name _____

Facility Name _____

As we proceed with our work, we will likely have follow-up questions and hope to continue to communicate with you. As such, please provide your name, email address, and telephone number.

Contact Name _____

Email Address _____

Telephone Number _____

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Since 2011, has your wastewater treatment facility experienced any challenges related to low influent flows or high influent concentrations that required operational changes or modification to your system?

Yes

No

Skip To: Q4 If Since 2011, has your wastewater treatment facility experienced any challenges related to low infl... = No

If an item listed below was not a challenge, mark “none”. For “major” or “minor”, we are interested in your general assessment. A challenge that was widespread or happened frequently or required significant changes in your workload/costs is “major”. A “minor” challenge is one that could not be ignored, but could be mostly handled as a normal part of your operations.

Challenges associated with the following influent conditions

	None	Minor	Major
Constituent concentrations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flow patterns (e.g. surges, more variability)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Load patterns (e.g. surges, more variability)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Odor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pumping trouble (at the plant, not the collection system)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increased corrosion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (indicate what):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Challenges involving treatment processes

	None	Minor	Major
Grit inflows or accumulation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Primary settling efficiency	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aeration requirements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biological process stability or efficiency	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biosolids processing or biogas production.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Filtration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Disinfection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nutrient Removal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (indicate what):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Challenges associated with meeting regulatory requirements?

	None	Minor	Major
Difficulty meeting discharge permit requirements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (indicate what):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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For the challenges your system experienced related to lower influent flows (or higher **influent** concentrations), please answer the following questions.

What changes in operations and maintenance did you make to address the challenges? Select all that apply.

- Purchased more or different chemicals
- Used more electricity (or other energy sources)
- Used more staff/ hired labor
- Employed more outside technical consultants or specialized services
- Purchased replacement equipment sooner than expected
- Other (please describe): _____

In what processes were capital improvements implemented (or planned) to address the challenges? Select all that apply.

- Headworks/pretreatment
- Primary sedimentation
- Biological system and/or secondary sedimentation
- Disinfection system
- Filtration System
- Blower/Diffuser
- Other (please describe): _____

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In the future, given current capacity of your systems, over what range would low influent flows require remediation actions?

- Less than 5% flow reduction
- Between 5% and 10% flow reduction
- Between 10% and 20% flow reduction
- Greater than 20% flow reduction
- Not Sure

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Please provide, in the space below, any details that would help us understand the remediation actions needed to respond to future low influent flows (for example, particular challenges they will cause in your system, or particular challenges you expect in responding to them)

End of Block: Default Question Block

Thank you for your time! This completes the questions for wastewater treatment. If you are completing the survey for wastewater collection or recycled water, please select those links from the original email.