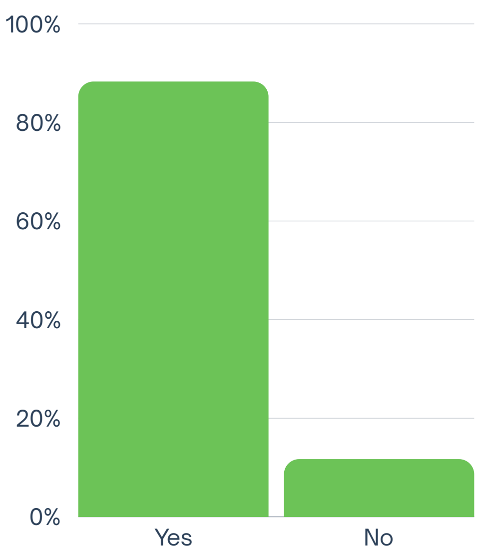
STORMWATER MANAGEMENT FEEDBACK FROM IOWA ENGINEERS

In the fall of 2023 Iowa State University Center for Survey Statistics & Methodology* was contracted to conduct an anonymous online survey of licensed Iowa engineers on stormwater management for the Iowa Storm Water Education Partnership (ISWEP). The goal was to gather information on the use of statewide design guidance, design approaches, concerns, and topsoil management. Results were provided by Iowa State University and are summarized below.

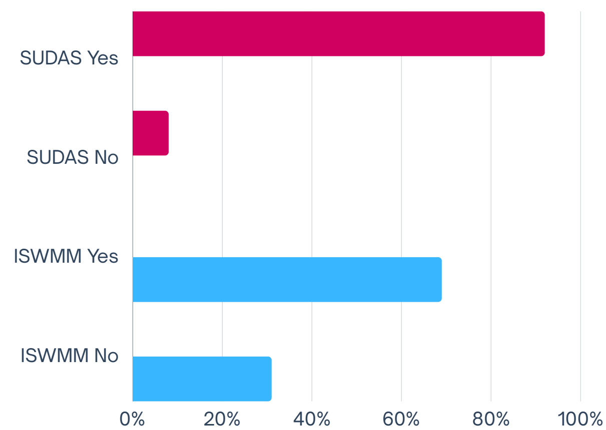
- Responses were received from 225 engineers that work across the state of Iowa.
- More than 80% of the engineers work for both private and public clients.

88% have seen negative stormwater impacts from flooding, erosion, property damage, and pollution.

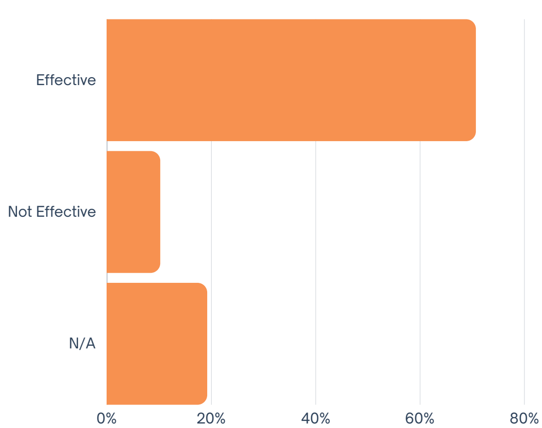


Iowa Statewide Urban Design &. Specifications (SUDAS) & Iowa Stormwater Management Manual (ISWMM) are design guidelines used by engineers. Technical committees oversee updates to the guidelines.

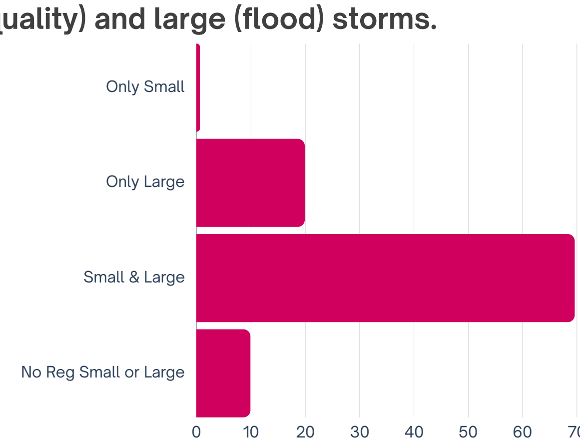
92% use SUDAS and 69% use ISWMM design guidance and find both helpful.



70% indicated that municipalities communicate effectively with them.



70% responded that municipalities that regulate stormwater manage both small (water quality) and large (flood) storms.



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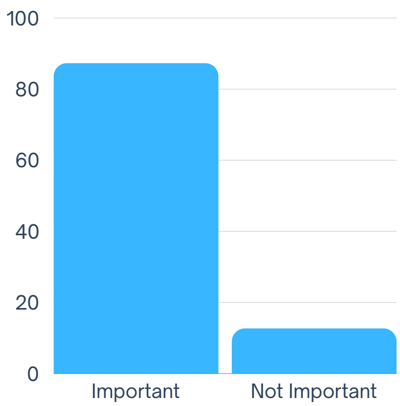
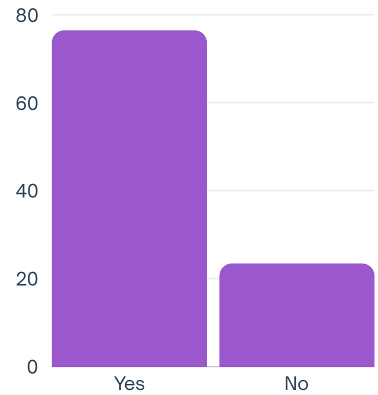
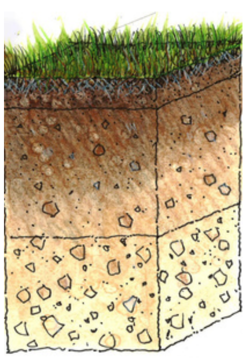
87% find it important for new projects to manage small storms for improving water quality and minimizing downstream erosion.



75% indicated that the municipalities they work with don't require them to size a detention basin to control flow rates from an upstream development (pass through).



Topsoil and Decompaction



- **80%** responded that topsoil helps sustain lawn turf and gardens, **73%** indicated that it helps reduce rainfall runoff, **0%** found no benefit from topsoil.
- **75%** responded that decompaction helps soil absorb more water and benefits turf and tree roots, only **2%** indicated that there was no benefit.
- **45%** thought that decompaction of soils after construction was affordable and **45%** had no opinion. **10%** did not think it was affordable.
- **40%** of engineers did not know that they could potentially downsize a stormwater basin by using topsoil and decompaction methods in turf or green space areas, **47%** knew this and **13%** had no opinion..
- **21%** of engineers have applied soil improvement to downsize a basin. **79%** have not.

About the Iowa Stormwater Education Partnership (ISWEP)
ISWEP is a non-profit organization that supports cities in Iowa with regulated stormwater programs. It creates educational and technical resources to support members and conducts training and certification programs to support those impacted by stormwater regulations in Iowa.

*Iowa State University's Center for Survey Statistics & Methodology – Survey Research Services (CSSM-SRS)