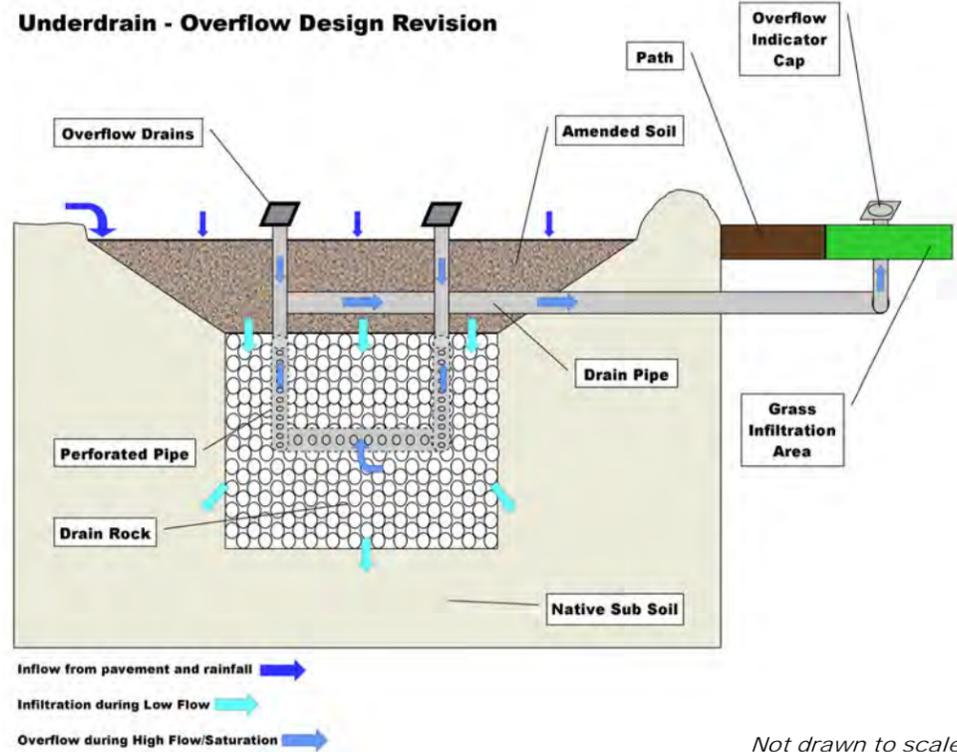


# Try, Try Again

Despite initial plans, the southern rain garden at this site did not succeed at first. Heavy rains arrived just after installation but the water was not infiltrating properly. Emergency trenches were dug as a temporary measure to allow the water to flood across the path, soaking into the adjacent lawn rather than overtopping the berm. Plants were salvaged to minimize die-off from extended submersion and troubleshooting efforts began. Meanwhile, the northern rain garden was performing well. A fix was needed - and fast with the rainy season underway.

More extensive testing of the native subsoil at the south rain garden revealed a layer of impermeable soil too deep to bypass. It is not uncommon for soils in our region to be highly variable even in close proximity.

Review of the original design revealed some fatal flaws:



- Sizing - These rain gardens are only 2% of the total collection area, instead of the recommended range of 6 to 13%.
- Soil Mix - The amended soil first installed in the southern rain garden was mostly compost instead of the recommended ratio of 60% sand to 40% compost.
- Overflow - No overflow feature was included to accommodate heavy rainfall when soils are saturated.

Enlarging the southern rain garden would have caused too much site disturbance. Instead, the amended soil was removed and replaced with the recommended mix, an underdrain feature with drain rock, perforated pipe and an overflow was added, and native vegetation replanted. More heavy rainfall arrived just after this fix was installed and revealed the solution worked!

## Lessons Learned

- Evaluate your site thoroughly
- Soils can vary greatly even in close proximity
- Follow recommended guidelines
- Tailor design to site conditions
- Calculate rain garden size carefully
- Ensure your amended soil mix will both infiltrate and still support plant growth
- Salvage materials for reuse
- Don't give up - make it right!