



SCALGO Live - a tool during citizen inquiries

Help me, my land is flooded!

With SCALGO Live, the municipality can easily understand and answer citizen inquiries concerning flooding on their land. The tool contributes to a quick, effective response and a better decision support in order to achieve a good, qualified and solution oriented dialogue with the property owner.

When the property owner contacts the municipality with an experienced flooding problem, it demands for a quick overview and assessment to provide good citizen service. SCALGO Live is a valuable tool to get this overview and provides an insight to the citizen's problems.

When Vejle Municipality was contacted by a property owner, SCALGO Live was used to understand and analyze the problem. The owner experienced regularly problems with water around his house, and thought it gathered from the public road nearby.

Overview of the extent of the problem and the solution options

Paul Landfelt, engineer at Technical & Environment, Vejle Municipality, used SCALGO Live and quickly gained an overview of the extent and origin of the problem. The analyses confirmed that the landowner's problem was related to surface runoff, but the flooded area was primarily related to surface runoff from

the owner's own property and only originated from the road during larger accumulations.

During the dialogue with the owner, Paul was able to suggest ideal solutions to solve the flooding problem on his private property. He also estimated - due to the terrain analysis in SCALGO Live - that elevating the public road by the property would be effective. This meant that Vejle Municipality found a satisfactory solution to the citizen's problem with the help from SCALGO Live.

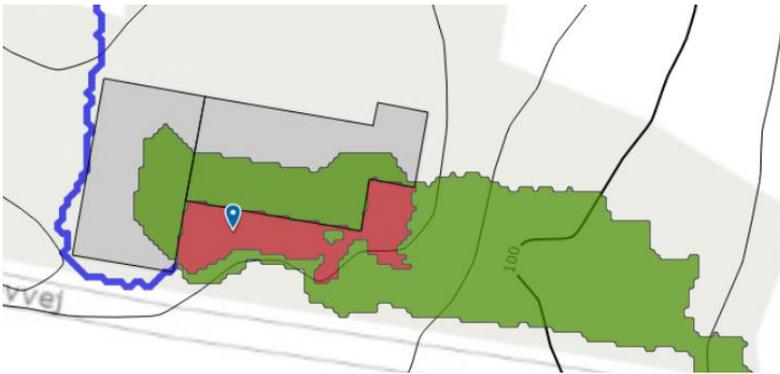
"I use SCALGO Live as a reference tool and as a decision support when examining many different projects"

*Paul Landfelt, Engineer
Technical & Environment,
Vejle Municipality.*



SCALGO Live helped with

- Dialogue with citizen
- Identifying a solution
- Understanding the flooding problem

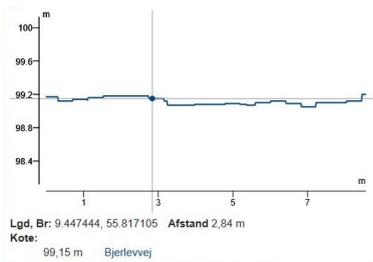


Watersheds

The watersheds analysis in SCALGO Live can determine where potential flooding originates. In this case, Paul was assisted by the watershed tool which showed where the flooding by the building originated. It was evident that the main part of the flooding originated from the owner's own property, and therefore, the owner had the primary responsibility of solving the flooding problem.

The flooded area

By using the flooded area tool, it was verified that the owner's problem was related to surface water. It was clear that the results from SCALGO Live matched the experienced flooding by the house. In the flooded area, SCALGO Live showed that there could be up to 40 cm of water with a volume of 8,5 m³.



The terrain profile

To qualify the assessment of the watersheds and the risk of flooding from the public road, a couple of terrain profiles was drawn across the road towards the land in SCALGO Live. It was evident that it was small terrain differences that determined whether the water ran into the property. Therefore, Vejle Municipality decided to change the slope of the road, so that the water did not gather along the house but on the opposite side of the road. Then the surface runoff of the road did not contribute to the flooding of the property.

Flow paths

By investigating the flow paths, an overview of where the water flowed was established. The illustration shows how the depression is full at 17 mm, and the water keeps flowing along the building to a water hole on the northwest corner of the property. This means that a little ditch or a like would not suffice, since it would only hold a small amount of water during heavy rain. Therefore, the optimal solution would be either a drain or ditches that are lower than the depression, so that the water is guided away from the depression instead of gathering in the depression.

