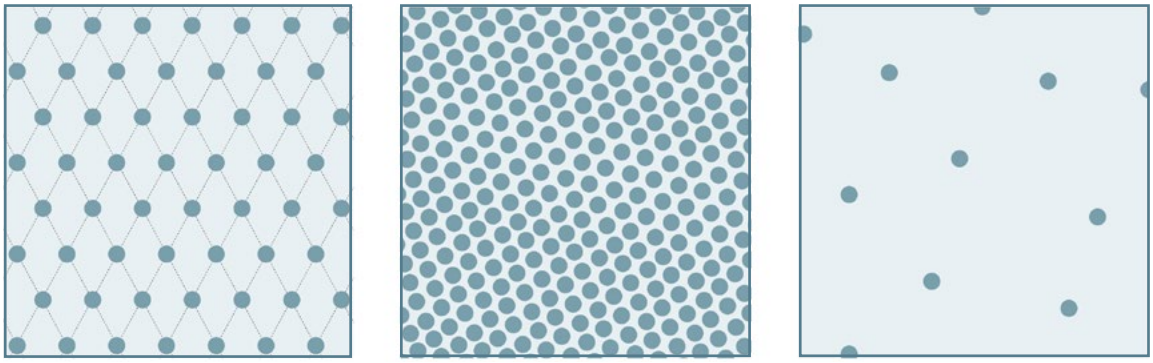
water in the landscape



site analysis

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intro.

Welcome to the "Water in the Landscape" Site Analysis Guidebook. This tool is composed of three main parts: ***Background Research***, which is intended to be completed prior to visiting the site; ***Site Visit***, which is intended to be completed on site; and ***Ecosystem Specifics*** (downloadable separately), completed both prior to and during the site visit. To find out which Ecosystem Specifics section should be downloaded, first determine what major water-based ecosystem types are present, if any, and then access the specific file(s) from the Site Analysis Tool page on the Water in the Landscape blog (https://blogs.ubc.ca/waterinthelandscape/site-analysis/). An additional resource mentioned throughout these pages is the iNaturalist app which can be accessed here: https://www.inaturalist.org/

It is recommended that you take the filled-out Background Research portion of the tool with you on your visits to site. Note any connections between what you learned from research and what you see on site. Briefly returning to research after visiting the site may also help close some gaps and guide you to the most important findings from your site analysis.

We hope that this document is a helpful catalyst for thoughtful water-focused site analysis, and that it provides a space to organize your findings to refer to through the design process. As this is a first draft, we would greatly appreciate any feedback you have after using this tool. Please send us an email via the contact page on the blog (https://blogs.ubc.ca/waterinthelandscape/contact/). We look forward to hearing from you and working to further develop this resource!

background research.

PAST

physical.

Were waterbodies once present on site? Are they here now? Have they been changed, removed, or hidden?

What was the natural watershed condition of the site and how has it been altered?

What geological (large timescale) history shaped the flow and presence of water on site?

What is the relationship between the historic ecology of the site and water?

Are there any historic events or land uses on or near the site that may have contributed to contamination of water and soil?

PRESENT

Is the site coastal, riparian, urban, rural, or wetland?

What climatic zone is the site in?

What is the average annual precipitation?

What are the wet months? Dry months?

Topography | Where does the water come from and where does it go based on available topographic information?

What are the geological conditions of the site and how do they impact the presence and characteristics of the water on site?

Are there any current events or land uses on or near the site that may actively contribute to contamination of water, soil, and air?

How does existing architecture respond to rainfall and runoff?

Using iNaturalist, review the organisms that have been spotted at or near the site. What water requirements do these organisms have?

: FUTURE :

Does sea level rise impact this site?

How are climate change projections expecting impacts on the water regime on and around the site?

Is the site at risk of flooding, storm surge, or washouts?

contextual.

: PAST :

Who has lived, worked, and played here before? What was their relationship to water?

How was water historically stewarded on site or nearby?

Has anyone been prevented actively or systemically from accessing water in the past? What systems contributed to this injustice?

PRESENT

Who lives, works, and plays here now? What is their relationship to water?

How is water currently stewarded on site?

What jurisdictional laws and bylaws inform the presence and condition of water on site?

How do the site's legal boundaries interact with bodies of water (if applicable)?

How just is access to water on or near the site? Is anyone being prevented actively or systemically from accessing water?

FUTURE

To the best of your knowledge, who will live, work, and play here in the future? What is their relationship to water?

Are there population and demographic changes occurring or projected to occur nearby?

Are there any plans to develop on or near the site? If so, how do these new developments respond to bodies of water and rainwater?

Are there water-related laws, bylaws, or recommendations that are changing in the near future?

notes here.

on-site analysis.

physical.

What types of waterbodies or water channels are present on the site? How does it change over time (tides, waves, seasonal changes)?

What type of soil is present on site? Is the soil compact? Can you observe how this impacts drainage?

What are the different types of materials on site? How much of the site is impervious to water (paved surfaces, buildings, etc.)?

What types of drainage systems are on the site? Are there any drainage problems (ex. on paths/plazas, around buildings/walls)?

Note the presence of black water or grey water. What systems appear to be in place to manage these? Is there septic fields or municipal sewers? Is water entering combined storm sewer systems?

Where does the runoff from buildings/ impermeable surfaces go?

Where does water leave the site? Where does it go?

Visit on a rainy day - where is water pooling, flowing, dripping, or soaking?
- What features in the landscape help absorb rainfall?
- What features move/transfer water?

Visit on a dry day - is there evidence of the presence of water in dry places?

Are there plant communities on site that are responding to moisture conditions?
Are there plants that are suffering from too much or too little water?

Are there any plants, especially trees and shrubs, that have impacted the moisture regime at their root zone, either through shade, shelter, or uptake?

drawing & mapping.

Map or use the cube method (see Axo Demystified blog) to show where the water flows or is expected to flow over the site given the existing topography.

Diagram the way you see or predict water to interact with existing infrastructure on or around the site.

site interactions.

Can you observe people interacting with water on site or nearby?

Age Group	Location	Weather	Activity	Experience

Is there wildlife on site? Identify and list. Are they interacting with water, and how?

Species	Location	Weather	Activity	Frequency

multisensorial experience.

Based on "Multisensory Landscape Design: A Designer's Guide for Seeing" (2022)

SIGHT

How does water on site play with the quality of light?

What are puddles or bodies of water on site reflecting?

Does water influence the aesthetic qualities of the space?

How do the visual aspects of water make you feel in the space?

SMELL

Visit the site after rain. What does the air smell like? Compare this to a visit on a dry day.

Do the smells of surfaces and plants change with moisture?

Does the smell of the air change around bodies of water or damp spaces?

Is there a wet ecosystem that has a specific smell on or near the site (ex. intertidal zone, wetland)?

Is there water on site that can be safely touched? Is interacting with water in a tactile manner encouraged or discouraged? Do you feel comfortable touching water here?

Is there moving water? If possible, hold your hand in the stream of water or under falling water. What does it feel like to interact with it?

Is there still water? If possible, move your hands slowly through the water or splash around. Note how this feels.

What are the temperatures of the water that you are able to touch?

Do you feel moisture in the air or does it feel dry? Are there places you feel more moisture in the air than others? Does this moisture make the air feel cooler or hotter?

Can you feel moisture in the way the soil moves underfoot or the way hard surfaces feel to walk on?

Are there tactile, damp surfaces around?

Is there precipitation? How does it feel on your skin?

Find a place near the middle of your site. (For larger sites, repeat this exercise in different areas as needed). Close your eyes and listen. Are there any watery sounds that you can hear?

On a rainy day, is there dripping water on site? Note the different dripping patterns around the site and how the sound makes you feel.

On a rainy day, are there dry spaces on the site (ex. in a building, under a shelter, or under the boughs of a tree)? What does the rain sound like in these spaces and how does that contribute to their atmosphere?

Is there flowing, splashing, spraying, or cascading water on site? Describe the sound. How does this contribute to the atmosphere of the place?

How do sounds of water change as you move around the site?

Can you maipulate water in a way that makes sound? Is there anyone else on site doing this, human or non-human?

Is there water on site that is safe to drink? What does it taste like?

**While drinking, try drawing air through your teeth to aerate the water and accentuate its flavours*

Is there water on site that is unsafe to drink? Can you imagine what it would taste like?

**Smell is often indicative of taste*

Are there any fruits or edible plants on site? Is there correlation between moisture in the plant/fruit and the wetness of the surrounding landscape?

Rank the intensity of the senses at one or more locations within the site. Use the chart below to fill in your experiences.

sense ranking	sensory experiences

insert a site map here and record your sensory experiences over the site.