



Exhibition Proposal for *Seas of Imagination*

Team 10

## Mission

A drop of water isn't very much on its own, but a rainstorm can bring life, rivers can carve landscapes, and oceans can cradle worlds. Mankind, animals, and the environment as we know it would not exist without water. Water is the world's most valuable resource, and with climate change constantly worsening, understanding the water cycle is more important than ever. *Seas of Imagination's* newest large-scale exhibit, *World of Water* is a technology-driven, interactive, explorative family experience that brings guests through local Canadian ecosystems and an experimental underwater ecology lab to showcase the importance of the water cycle and create fun and inspiration to promote the ultimate message that just like water, if we work together, we can drastically change our world.

## Guest Experience

*World of Water* invites guests to experience the remarkable journey of water through many of the local environments of Vancouver and surrounding British Columbia. Donned honorary "ecologists," guests embark on an expedition starting from the tops of the mountains to the depths of the ocean, following the natural flow of water and seeing how it brings life to its surroundings. As they complete the cycle, they are invited to try out a new experimental vehicle ecologists have created to help them study the water cycle up close.

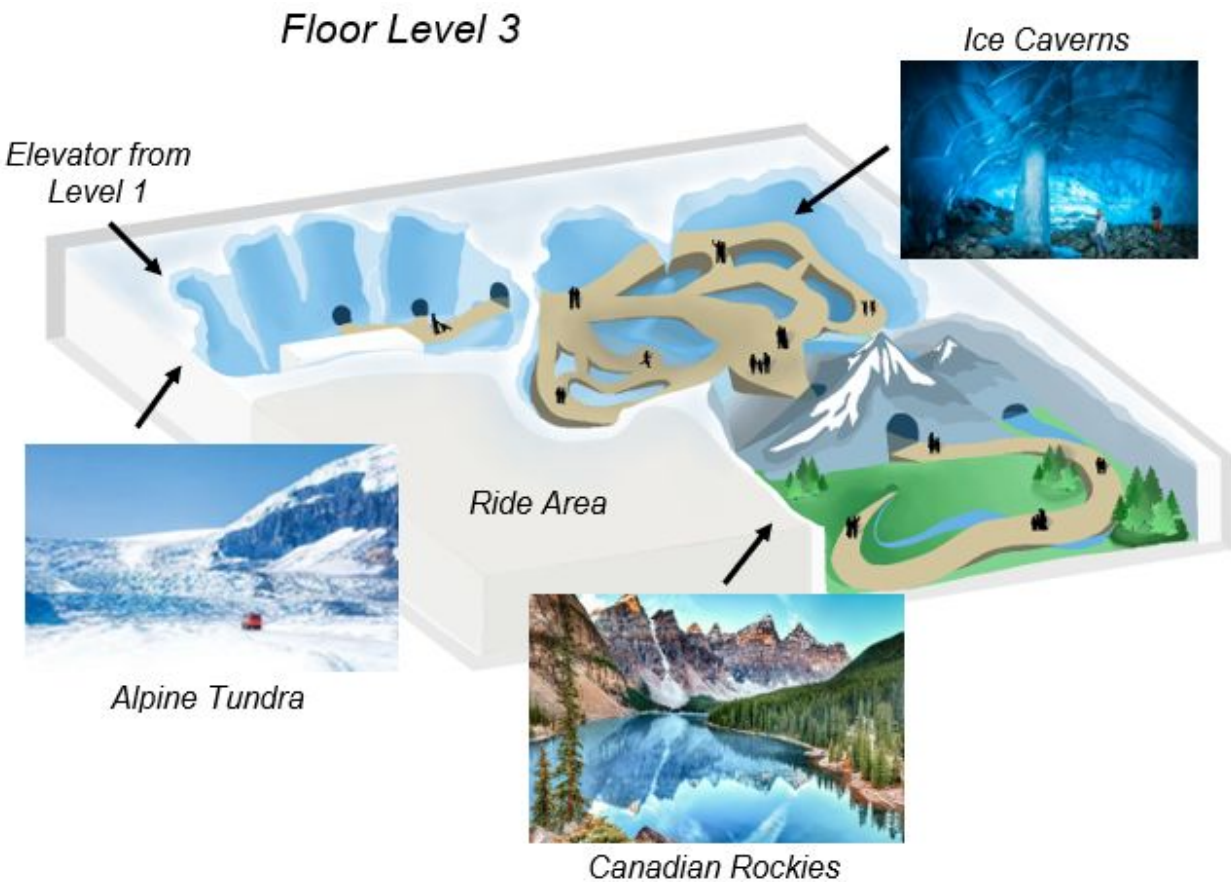
Guests begin their experience with a short orientation. Here, the ecologists are tasked with a mission to document how water provides for each flora/fauna species they encounter on their trip. To help, they are given one of the radio-frequency identification (RFID) queuing devices, appropriately themed as field survey equipment (pictured below).



*Environmental Survey Equipment with Digital Displays and Hidden RFID Tags*

As guests are loaded into a large circular elevator, the elevator rises as 360-degree displays show stunning views of British Columbia. The scenes begin from the ground and rise to the clouds, making the guests feel like they are lifting off into the clouds like evaporation. After exiting the elevator, guests will travel alongside a real indoor “river” of water, going from snowmelt to ocean through 8 replica ecosystems: Tundra → Caves → Mountains → Streams → Rivers → Wetlands → Coasts → Ocean, inspired by real places in British Columbia (pictured below). Along the way, they will encounter animatronics, glaciers, forests, rainstorms, waterfalls, whirlpools, and more, made possible using live physical sets, special effects, and real flowing water.

## Layout





*Floor Level 2*

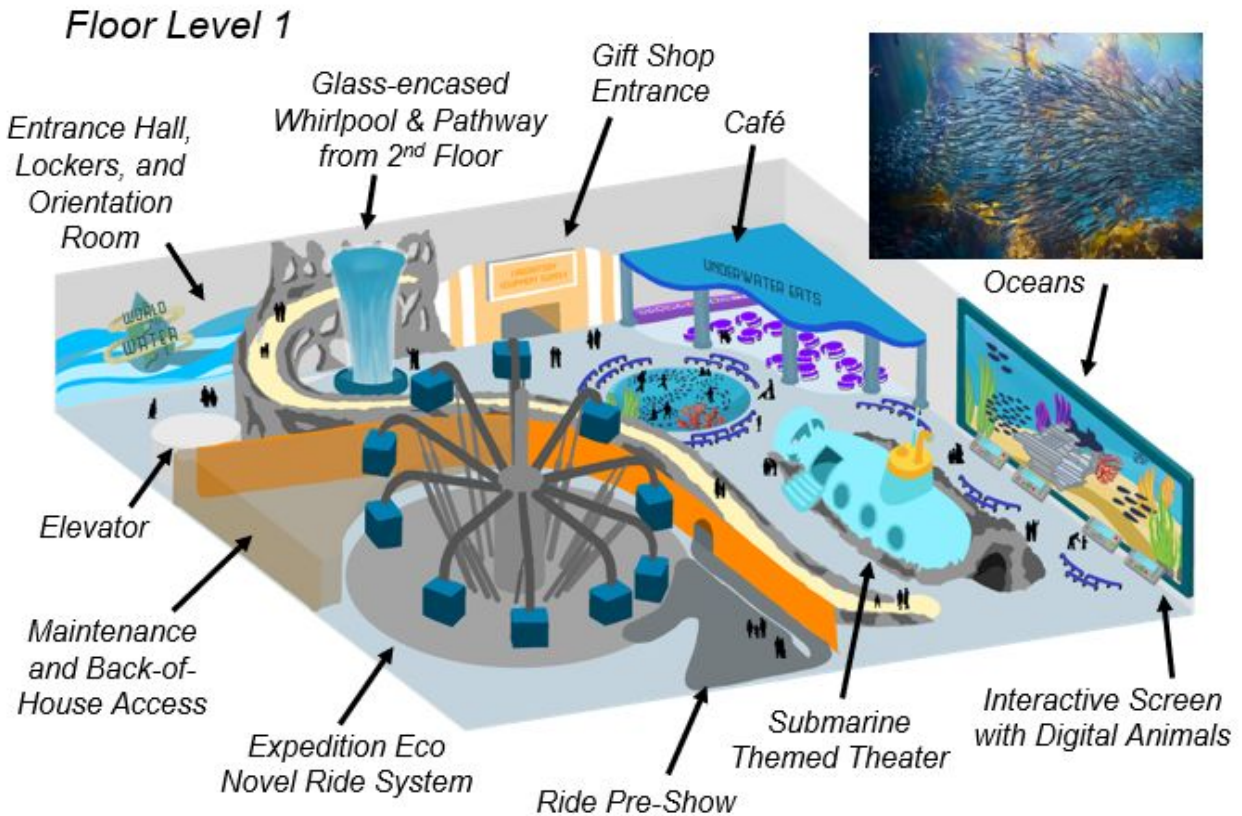


*Forests*



*Wetlands*





## Supporting Elements

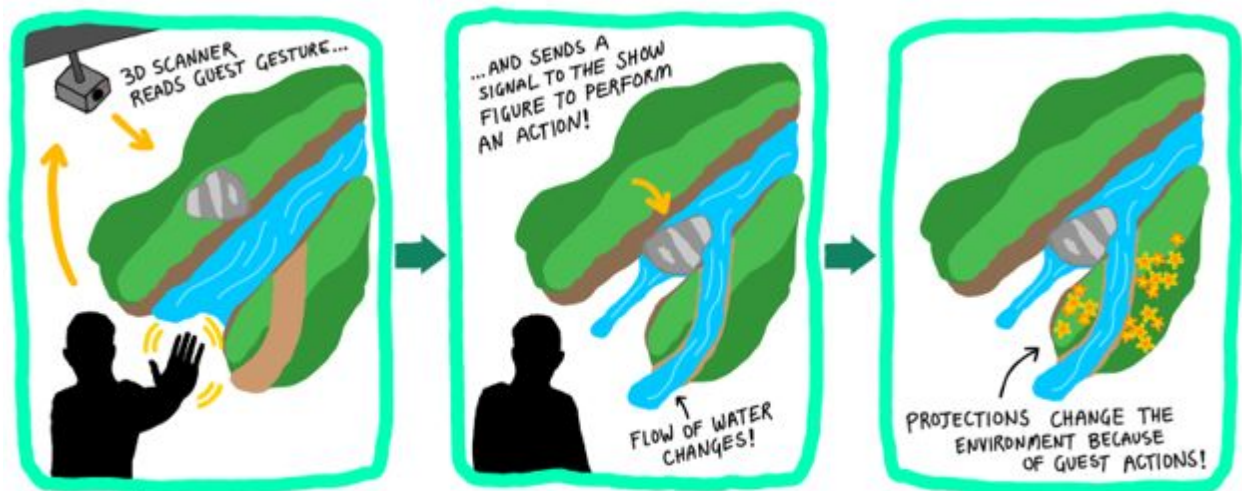
The walkthrough will feature many interactive areas and simple animatronics that utilize RFID and 3D motion tracking. These elements and figures will enhance the experience and liven the atmosphere, with the ultimate goal of showing guests that they have the power to physically change the world around them. This is explored further in the innovation document, but some examples of interactions can be seen below.



*3D Tracking: Creating Shapes With Your Body*



*Motion Tracking: Walking Through Rain Without Getting Wet*



*Motion Tracking: Environmental Interactions and Resulting Impacts*

# Guest Flow and Waitless Queuing

Aquariums are most frequented by families, and it must be acknowledged that waiting in long lines usually doesn't sit well with the younger ones. *World of Water* tackles guest flow issues in two ways. First, the one-way walkthrough greatly helps to create a uniform guest flow and prevents overcrowding or lines for any single experience.

Secondly, the RFID tags hidden in exploration tools are used to track guests' progression and will provide them a remaining ride wait time via a digital interface upon reaching a checkpoint near the walkthrough's end. Guests can roam freely on the bottom floor, which will feature several entertainment, refreshment, and retail options to keep both younger and older ecologists engaged as shown in the layout section above.



*Example of "Fishbowl" Motion Tracking Interactions*



## Interactive Ride

*Expedition Eco* takes guests to an underwater laboratory where they are invited to “shrink” down to the size of a drop of water in a *Magic School Bus*-type vehicle and experience first-hand how water affects each of the environments from the point of view of a drop of water.

The novel ride system places groups of 8 in a gondola in which they are free to sit or roam around. Each side of the gondola features large display screens as windows, immersing the guests in spectacular scenes, like in the waters of a salmon run or rushing over the side of a waterfall. Transitions to physical sets outside the gondola are done using an electric smart-glass material on the outer door window as seen below. In combination with fade-out/fade-in lighting, this creates beautiful and seamless transitions between physical sets and projected experiences.

When passing through physical sets, guests will have the ability to change the gondola’s elevation by gesturing with their arms. This is detailed in the Innovation document.



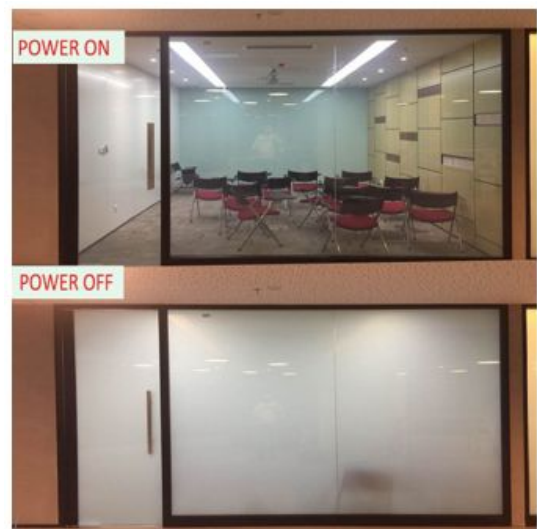
*Novel Ride System for Expedition Eco*



*Intended Atmosphere for Expedition Eco*



*Example of a Gondola, Palm Springs*



*How Electric Switchable Film Works*



# Operations

## *Gift Shop*

To finalize the ecologist theme of *World of Water*, the gift shop is themed to be a laboratory supply shop, where visiting “ecologists” will find relevant souvenirs like environmental survey equipment, stuffed animals, and conservation gear so they can bring their adventure and memories home with them.

## *Throughput*

Throughput of the walkthrough will be largely controlled by the elevator capacity, which will be large enough for a steady stream of people. The ride has ten 8-capacity carriages which board every 36 seconds, resulting in a theoretical hourly capacity of 800 people.

## *Lockers and Storage*

Double-sided lockers and stroller parking are located before the elevator in the orientation room and have doors on the back sides which open out through the laboratory, so guests can access them in most parts of the exhibit.

## *Accessibility and Safety*

The entire walkthrough attraction slowly descends a total of 35 feet over its entire course, allowing for a wheelchair-accessible grade of less than 5 degrees throughout.

Emergency exits will be available throughout the exhibit, via emergency ramps and staircases on the outer bounds of the exhibit.

## *Staffing & Maintenance*

The ride and cafe both have direct back-of-house access through their strategic locations. These access points are fully concealed and will not interfere with guests. Most staff will be located on the bottom floor near the cafe or ride. There is a break room located behind the cafe.