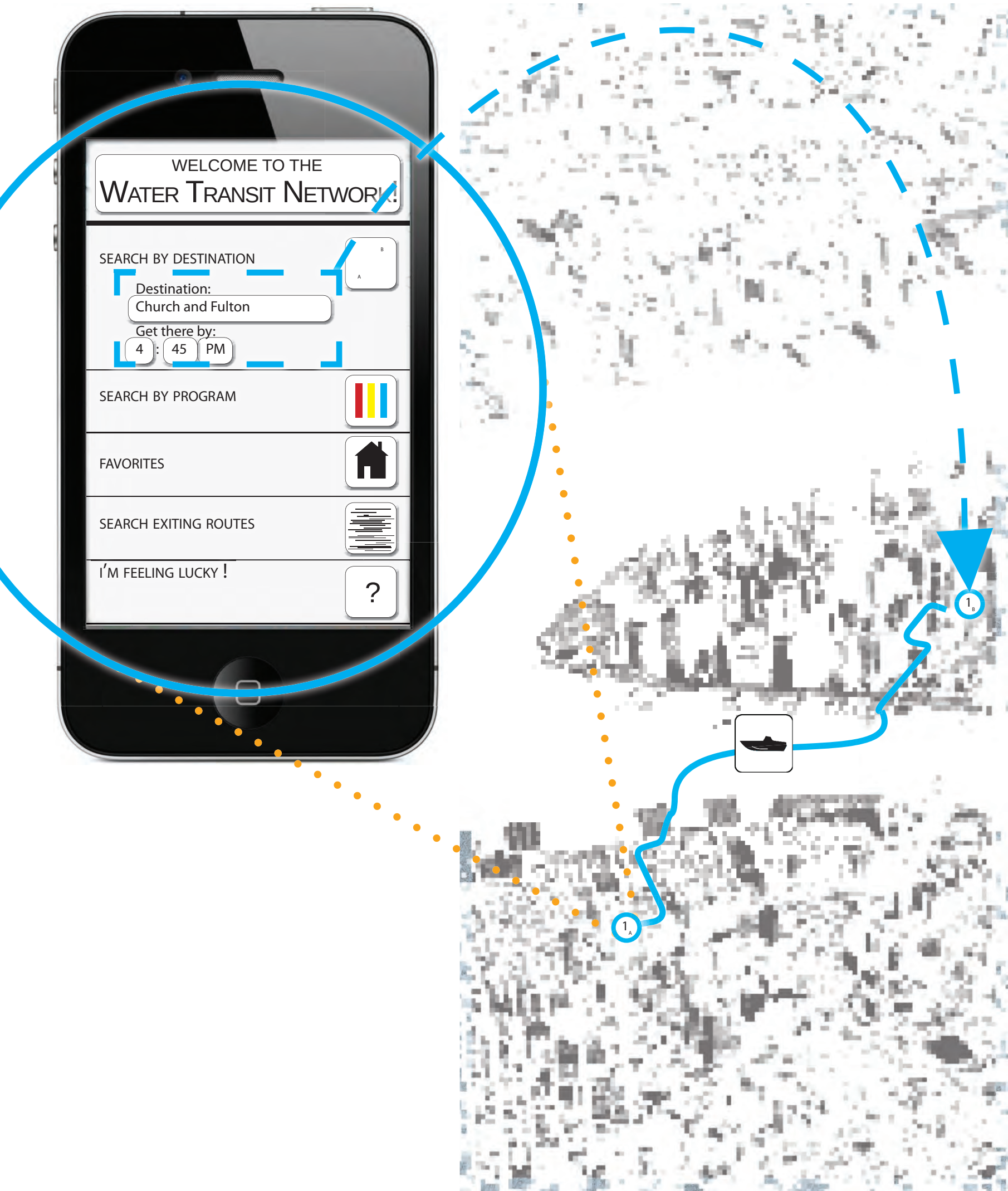


NETWORK URBANISM

IN THIS PROPOSAL, A FLUID TRANSPORTATION NETWORK IS DEVELOPED USING CROWD-SOURCING TECHNOLOGY VIA SMART-PHONES AND DIGITAL KIOSKS THAT REACT AND ADAPT TO INDIVIDUAL USER REQUESTS. USERS BLINDLY COLLABORATE TO FORM USER-GROUPS WHOM STRUCTURE A CHARTERED, WATER-BASED TRANSPORT SYSTEM. THIS INFRASTRUCTURE OF USER-DATA COMMUNICATION EXTRACTS TRANSPORT FROM THE CONSTRUCTIVE INTERIOR CORRIDORS OF THE CITY INTO A DYNAMIC, ANIMATED DOCK-LANDS.

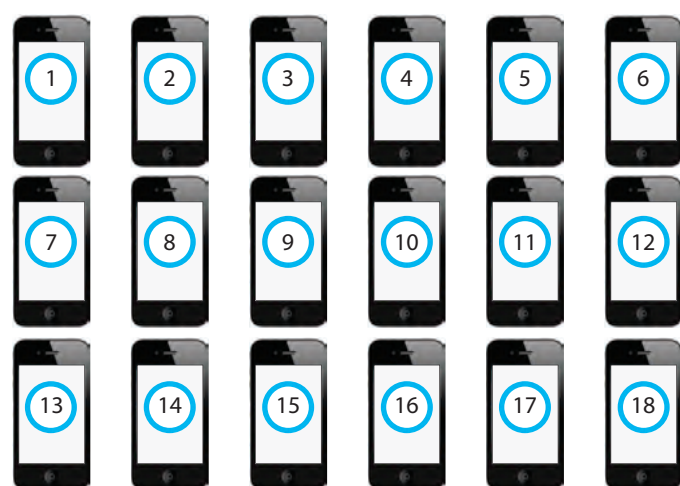
AN OPPORTUNITY EXISTS IN FABRICATING A NETWORK OF PIERS THAT OPERATE AS SHIPPING AND TRANSPORTATION PORTS, WHILE FUNCTIONING AS GATHERING SPACES THAT PRECIPITATE SOCIAL, ECONOMIC, ECOLOGICAL, AND EDUCATIONAL PROGRAMMING. THE PROVISION OF PUBLIC, COMMERCIAL, AND RESIDENTIAL SPACES ACT AS A SPATIAL CATALYST FOR COMPANIES, NON-PROFITS, AND PUBLIC ENTITIES TO WORK TOGETHER, PERPETUATING A DEVELOPMENT CYCLE FOCUSED ON GROWING PUBLIC SPACE AND SOCIALLY DRIVEN PROJECTS ON THE WATERFRONT.

THE PIERS BECOME THE ACTIVE NODES OF A NEW NETWORK URBANISM – A PHYSICAL SUBSTANTIATION OF DIGITAL INFRASTRUCTURE LEADING TO A MULTI-PROGRAMMATIC, PERFORMATIVE URBAN SURFACE.



Individual User Request

INDIVIDUALS CHOOSE THEIR DESTINATION BASED ON A VARIETY OF METHODS INCLUDING: LOCATION SEARCHING, CURRENT LOCAL EVENTS, MASS DESTINATION, DESTINATION TYPE, OR EVEN AT RANDOM IF SO CHOOSES. USING GLOBAL POSITIONING SYSTEM (GPS) TECHNOLOGY, EACH USER'S INITIAL LOCATION AND DESTINATION ARE RECORDED IN A DATABASE.



Simultaneous Adjacent Individual User Requests form User Groups

THE DIGITAL NETWORK WILL COLLECT THIS GPS DATA OF USER-BASED DESTINATION REQUESTS AND LOCATIONS, AND WILL AUTOMATICALLY ANALYZE IT USING A SOFTWARE THAT WILL GROUP USERS WHO ARE RELATIVELY ADJACENT TO ONE ANOTHER IN THEIR CURRENT LOCATION, AND HAVE CONCURRENTLY REQUESTED DESTINATIONS THAT ARE WITHIN CLOSE PROXIMITY TO EACH OTHER. THESE USERS WILL ACTIVELY, YET BLINDLY PRECIPITATE THE CHARTER OF A PUBLIC WATER 'TAXI' FOR THE MOST DIRECT AND EFFICIENT TRANSPORT ROUTE.



Vision 2020 NYC Comprehensive Waterfront Plan Citywide Strategies:

THIS PROJECT IS DEDICATED TO FULFILLING EACH OF NEW YORK CITY'S CURRENT GOALS FOR REGENERATING ITS NATURAL ECOSYSTEMS, EXPANDING AND MAXIMIZING EFFICIENCY OF PUBLIC TRANSPORTATION, AND SIMULTANEOUSLY ENGAGING PEOPLE WITH THE WATERFRONT. THESE ICONS REPRESENT THE (SELECTED) ASPECTS OF OUR DESIGN WHICH FULFILL EACH OF THESE GOALS.



Expand Public Access



Enliven the Waterfront



Support the Working Waterfront



Promote Health and Well Being



Improve Water Quality



Restore the Natural Waterfront



Enhance the Blue Network



Generate Sustainable Energy



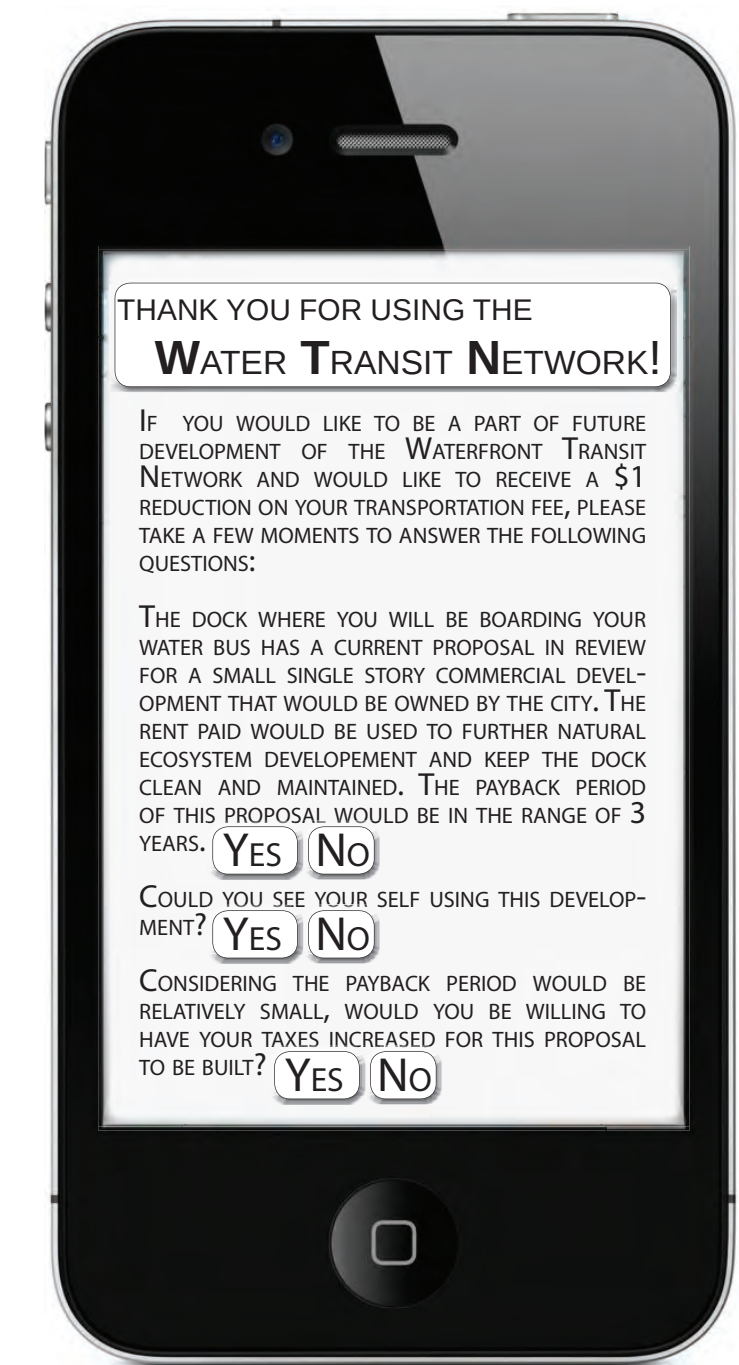
Improve Government Oversight



Increase Climate Resilience

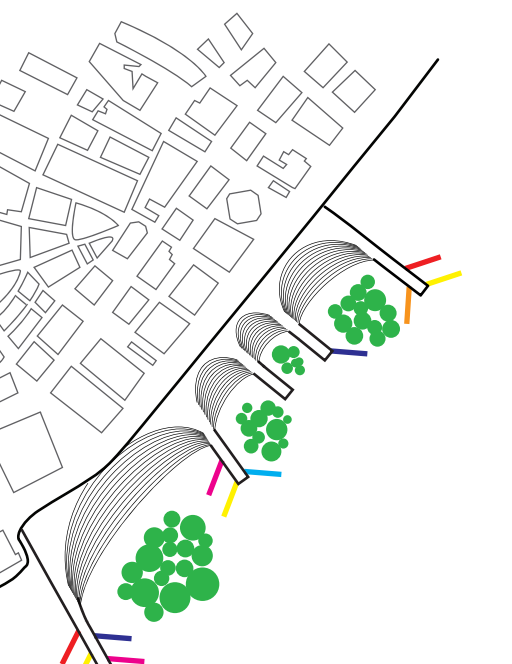
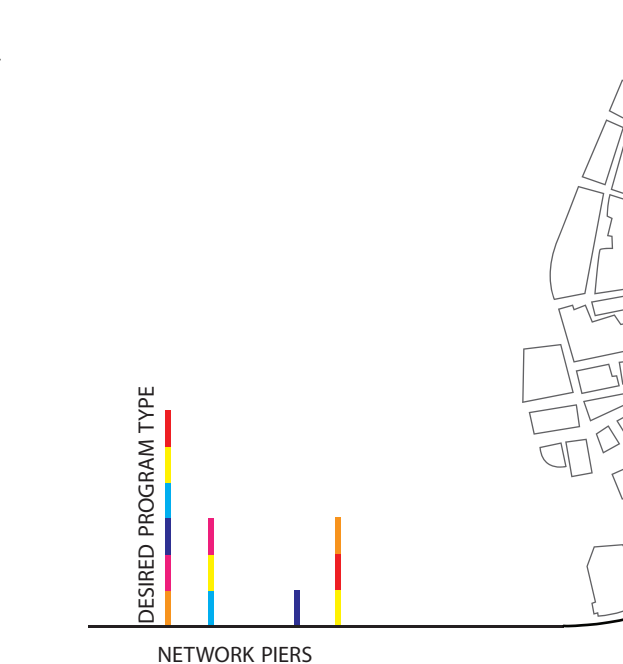
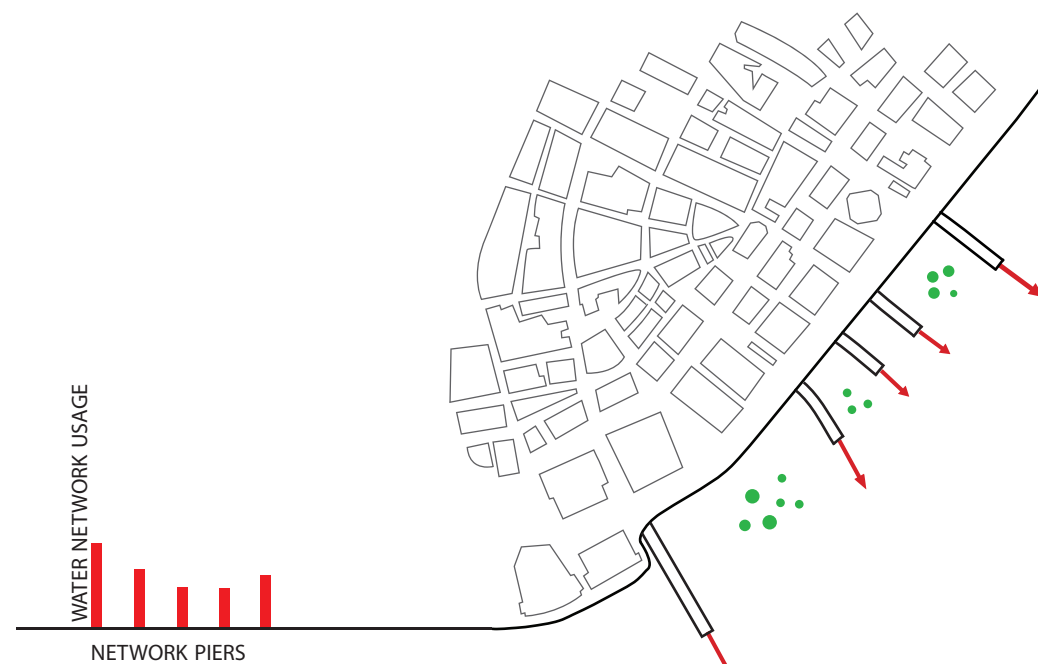
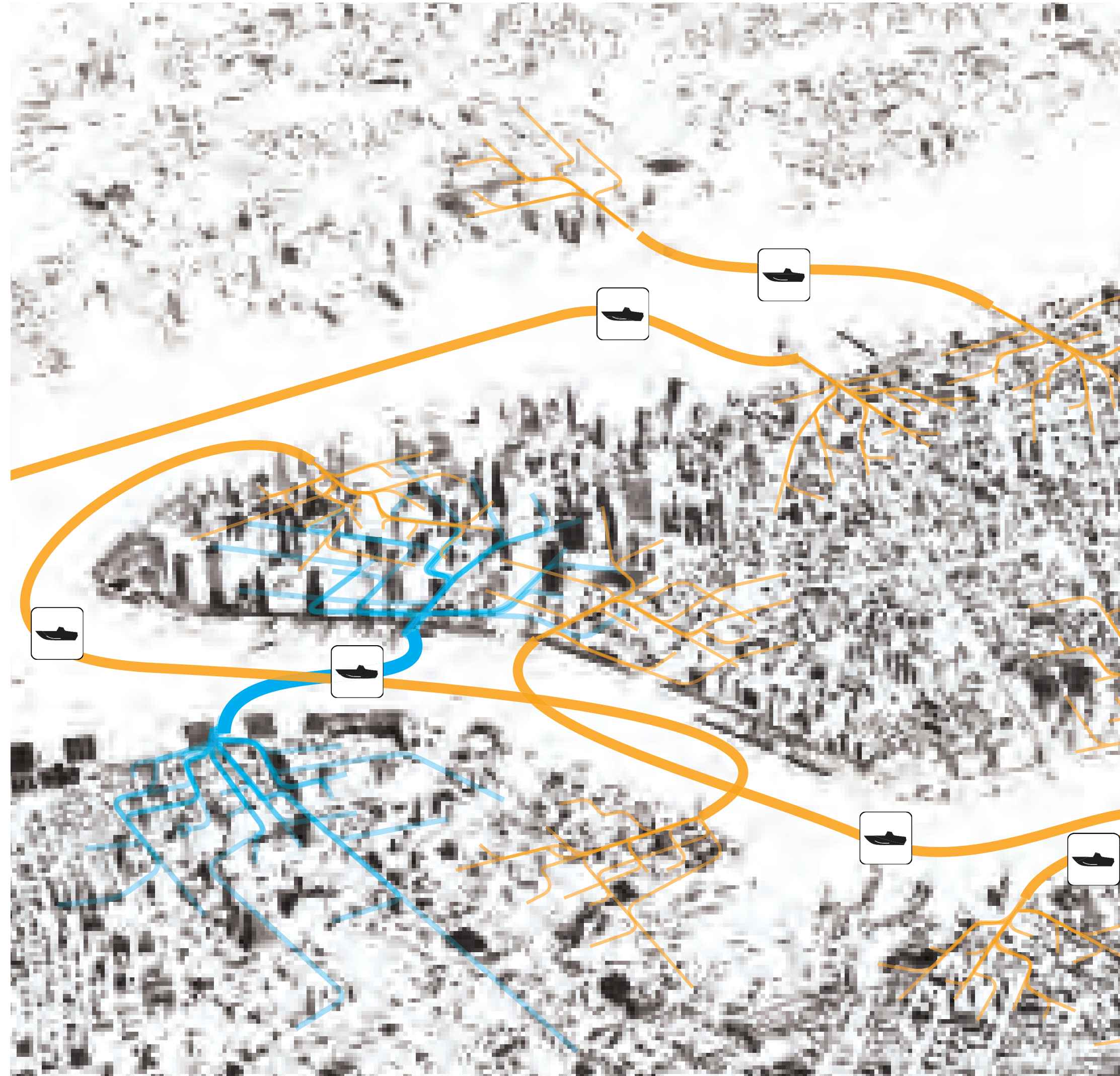


Reduce - Reuse - Recycle



Mass Water Transit System Based on Concurrent Multiple User Group Requests

AS MORE INDIVIDUALS CREATE MORE USER GROUPS, AN ORGANIZED AND EFFICIENT MASS TRANSIT SYSTEM OF USER GROUPS UTILIZING WATER TRANSPORT IS CREATED. THE PIERS BECOME AN ACTIVE HYBRIDIZED SPACE BETWEEN LAND AND WATER. TRANSPORTATION BECOMES THE UNIFYING SOCIAL ELEMENT ALONG THE SHORELINE AND WITH THIS COMES NEW ECONOMY, ACTIVITIES AND LIFESTYLES. THE SHORELINE BECOMES A PLATFORM FOR ORGANIC, BOTTOM-UP GROWTH; A PLATFORM OWNED BY THE PUBLIC AND GROWN BY THE PUBLIC. ADDITIONAL DATA COULD BE COLLECTED VIA SIMPLE SURVEYS WITHIN THE DIGITAL INTERFACE, LIKE THE ONE SHOWN ON THE I-PHONE ABOVE. THIS WOULD CREATE AN EASY WAY FOR USERS TO HAVE DIRECT DEMOCRATIC INPUT OVER THE PUBLIC SPACE THAT THEY FUND AND INHABIT.



EXISTING PEDESTRIAN TRAFFIC IS OBSERVED AND RECORDED FOR EACH CITY STREET THAT REACHES THE WATERFRONT. THAT DATA IS THEN CAREFULLY MAPPED ONTO THE CITY GRID. THIS DATA SEEDS THE INITIAL DEVELOPMENT STAGES.

THIS DATA DIRECTLY INFLUENCES THE SCALE AND PROPORTIONS OF THE INITIAL DEVELOPMENT STAGES; A SERIES OF SIMPLE DOCK STRUCTURES FOR PEDESTRIAN ACTIVITY AND ACCESS TO THE NETWORKED WATER TRANSPORTATION SYSTEM.

●●● THERE IS ALSO A MODEST INTRODUCTION OF FLOATING PHYTOREMEDIATIVE PLANT SPECIES AT THIS TIME. THEY WILL BE LOCATED IN THE SPACE BETWEEN DOCKS, WHERE THE WATER HAS BEEN STRATEGICALLY SLOWED DOWN.

USAGE DATA IS COLLECTED OVER TIME AS MORE AND MORE PEOPLE USE THE WATER TRANSIT NETWORK. THE NUMBER OF PERSONS USING THE DOCK FOR TRANSPORTATION DIRECTLY INFLUENCES THE GROWTH OF THE DOCK, THUS MAKING MORE SPACE FOR BOATS TO LOAD MORE GROUPS OF USERS.

●●● ALONG WITH ANY ADDITIONS MADE TO THE DOCKS MORE FLOATING ECOSYSTEM INSTIGATING PLANT SPECIES ARE DEPLOYED AND LIGHTLY MAINTAINED.

AS THE MICRO ECOSYSTEMS BECOME ESTABLISHED AND THE WATERWAYS SURROUNDING NYC BECOME HEALTHIER, LARGER PROGRAMMABLE SPACES DEVELOP ALONG THE WATERFRONT. ●●● OYSTERS ARE INTRODUCED ONCE THE PROPER AMOUNT OF NUTRIENTS ARE AVAILABLE FROM ECOSYSTEM GROWTH.

AS WATER IS CLEANSSED THROUGH PHYTOREMEDIATIVE ECOLOGICAL PROCESSES, PUBLIC ACCESS TO THE WATER DEVELOPS.

CONTINUED GROWTH OF PUBLIC ACCESS, PROGRAMMABLE SURFACE, AND ECOLOGY.

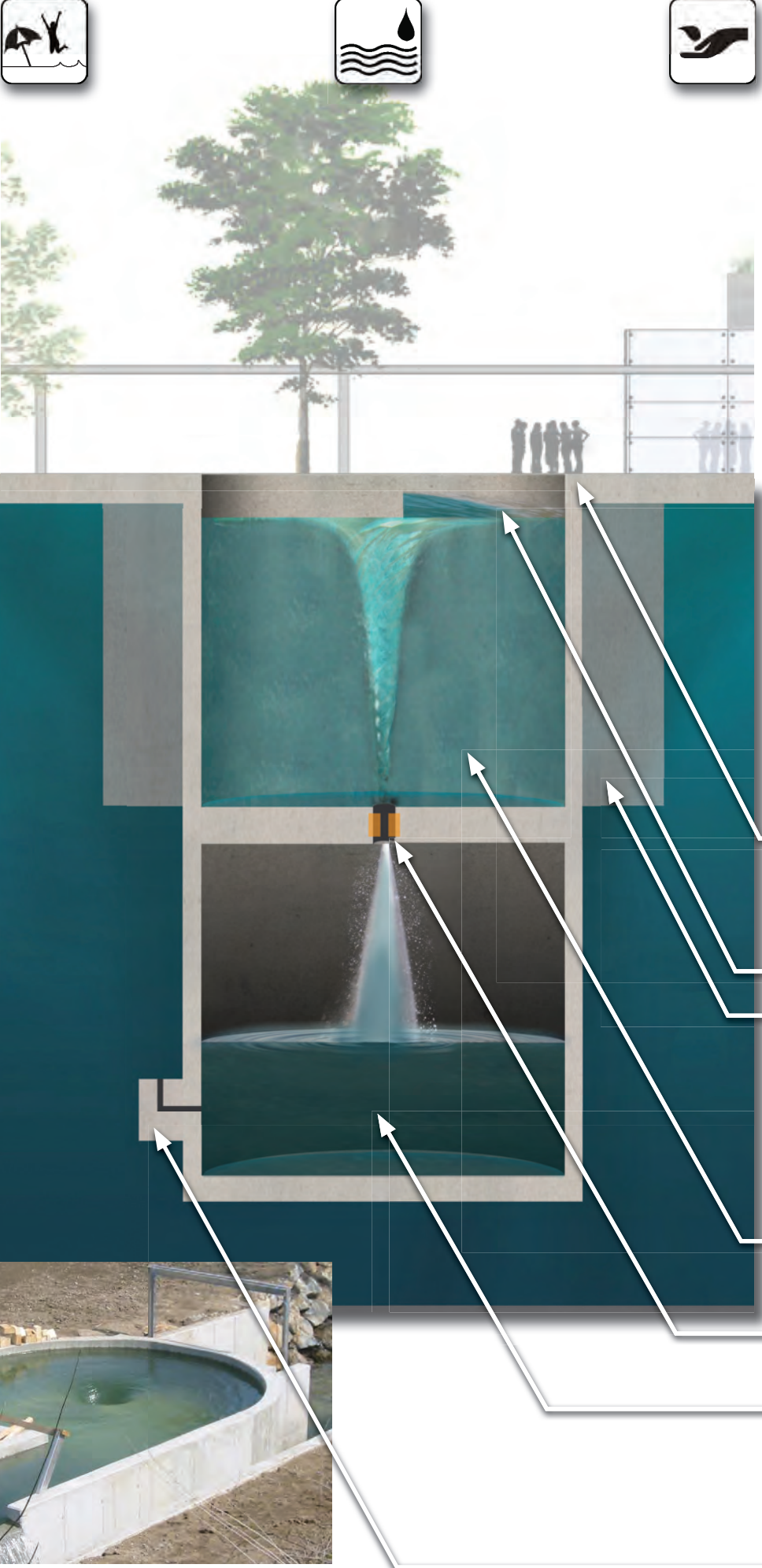
USER DATA IS COLLECTED VIA SURVEYS THAT ARE WITHIN THE DIGITAL INTERFACE. THESE SURVEYS COLLECT INFORMATION ABOUT PROGRAM INTEGRATION AND GROWTH PATTERNS THAT THE USERS DESIRE THEMSELVES. THIS DATA IS THEN DIRECTLY TRANSLATED TO THE TYPES OF DEVELOPMENT IN DIFFERENT AREAS.

THIS IS A SCENARIO FOR A LARGE SCALE, MULTI-PORT WATER TRANSIT NETWORK HUB BASED ON THE CHARACTERISTICS OF THE USAGE DATA THAT HAS BEEN COLLECTED FROM THE DIGITAL APPLICATION. THIS LOCATION EXPERIENCES AN EXORBITANT AMOUNT OF WTN TRAFFIC AND CONTINUALLY EXPANDS AS MORE AND MORE PEOPLE UTILIZE IT, THEREFORE BECOMING A LARGER "HUB."

THE IMAGE BELOW TAKES A GLANCE AT ONE OF THE MANY UNOBTUSIVE URBAN PARK SPACES THAT ALLOW PEOPLE ACCESS TO THE WATER. THESE SPACES INTERLINK EACH PIER CREATING A FLEXIBLE AND PROGRAMMABLE URBAN PLATFORM FOR MARKETS/VENDORS, SHOWS/EVENTS, RECREATION AND RELAXATION BOTH ON LAND AND WATER. AS THE ECOSYSTEMS ARE RESTORED, AND WATER QUALITY INCREASES, ENJOYING THE WATER AROUND NYC IS POSSIBLE ONCE AGAIN.



THE CLEAN TECH WORLD EXPO USES MODIFIED EXISTING PIERS TO HOUSE TENTS AND SIMPLE STRUCTURES FOR VENDORS AND AMENITIES FOR THE INTERNATIONAL PAVILIONS. A NETWORK OF EDUCATIONAL SPACES ARE CREATED IN-BETWEEN THE DOCKS TO BRING GUESTS INTO THE RESTORED WETLAND AREAS THAT HAVE BEEN ESTABLISHED FROM INTRODUCING FLOATING ECOSYSTEM INSTEGATING PODS. THE SPACES WEAVE THROUGH THE REVITALIZED WETLANDS, REVEALING THE ECOLOGICAL PROCESSES THAT TOOK PLACE WHILE RESTORING A DIRTY URBAN ENVIRONMENT TO A CLEAN NATURAL ONE. THERE IS A STRONG EDUCATIONAL ELEMENT IN OBSERVING NEWLY FORMED ECOSYSTEMS AND WILDLIFE HABITAT LIVING SYMBIOTICALLY WITHIN URBAN BOUNDS, WHICH WILL HOPEFULLY SPAWN IDEAS OF BIOMIMICRY FOR FUTURE TECHNOLOGY. EACH SPACE AND PIER CAN BE FLEXIBLY ARRANGED AND PROGRAMMED TO SUIT ANY SCALE OR TYPE OF PLANNING FOR THE EXPO FROM SMALL TENT VENDORS TO LARGE SCALE PRESENTATIONS AND EVENTS. THEY HAVE BEEN MODIFIED TO SUIT WATER TRANSIT TRAFFIC TO LINK THE EXPO TO THE REST OF THE CITY. FURTHERMORE, THERE HAS BEEN A SERIOUS CONSIDERATION OF WHAT THESE SPACES CAN BECOME IN THE FUTURE AFTER THE EXPO IS OVER. THESE OPEN SPACES ARE GEARED TOWARD THE ADJACENT LAND BURROUGH'S PROGRAM-MATIC NEEDS WHILE REMAINING ADAPTIVE TO URBAN AND RECREATIONAL USES.



GAIA - CLEAN TECH EXPO Gateway Icon

THE PHYSICAL AND VISIBLE ACT OF POTENTIAL ENERGY TRANSITIONING TO USABLE SUSTAINABLE KINETIC ENERGY REPRESENTED BY MEANS OF WATER, IS THE WELCOMING ICON AT THE CLEAN TECH EXPO. THE NYC WATERWAYS HOLD AN INCREDIBLE AMOUNT OF POTENTIAL ENERGY THAT CAN BE USED IN A COMPLETELY SUSTAINABLE WAY. THIS STRUCTURE FLOATS INDEPENDENTLY OUT IN THE FLOWING RIVER, COLLECTING WATER THROUGH AN INLET CHANNEL. THE WATER IS DIRECTED INTO A CYLINDRICAL CHAMBER THAT IS OPEN TO VIEW. THIS WATER HAS ALREADY BEEN PUT INTO A STATE OF POTENTIAL ENERGY BY GRAVITY'S PULL, AND WHEN RELEASED INTO A VOLUME BELOW VIA A SMALL DIAMETER PIPE, A VORTEX IS CREATED. THUS THE WATER, NOW IN RAPID MOTION, HAS BEEN TRANSFORMED TO KINETIC ENERGY, WHICH CAN BE HARNESSSED VIA TURBINES IN THE VORTEX SYSTEM. THE SIMPLE TRANSFER OF SLOW MOVING WATER TO FAST MOVING WATER IS LITERALLY THE VISUAL TRANSFORMATION OF POTENTIAL ENERGY TO KINETIC ENERGY. THE WATER IN THE VOLUME BELOW EACH VORTEX IS CONSTANTLY PUMPED BACK INTO THE RIVER USING ELECTRICITY CREATED VIA TURBINES WITHIN THE VORTEX. SIMPLE HORIZONTAL PLATFORMS WOULD SPAN BETWEEN THE VORTEX POOLS FOR VISITORS TO OCCUPY AND WITNESS THE RAW POWER. THE PLATFORMS WOULD ALSO ACT AS THE FLOTATION DEVICE FOR THE POOLS. A SERIES OF TURBINES WITH GENERATORS POWER THE PLATFORM, AND ARE LOCATED AT THE BASE OF THE POOL WHERE THE WATER MOVES THE FASTEST AND WOULD THEREFORE PROVIDE THE MOST POWER. THESE CONSTANTLY CAPTURE ENERGY THAT IS STORED IN BATTERIES AND USED TO PROVIDE CONSISTENT ENERGY AND ENTERTAINMENT FOR THE EXPO ATTENDEES.

PLATFORM - THIS IS THE FLOTATION DEVICE THAT HOLDS THE STRUCTURE AFLOAT. IT CAN ALSO BE A PROGRAMMABLE SURFACE FOR THE VISITORS TO OCCUPY AND WITNESS THE EXTREME FORCE OF WATER IN A VORTEX.

INLET - DIRECTS WATER FROM RIVER INTO VORTEX VOLUME.

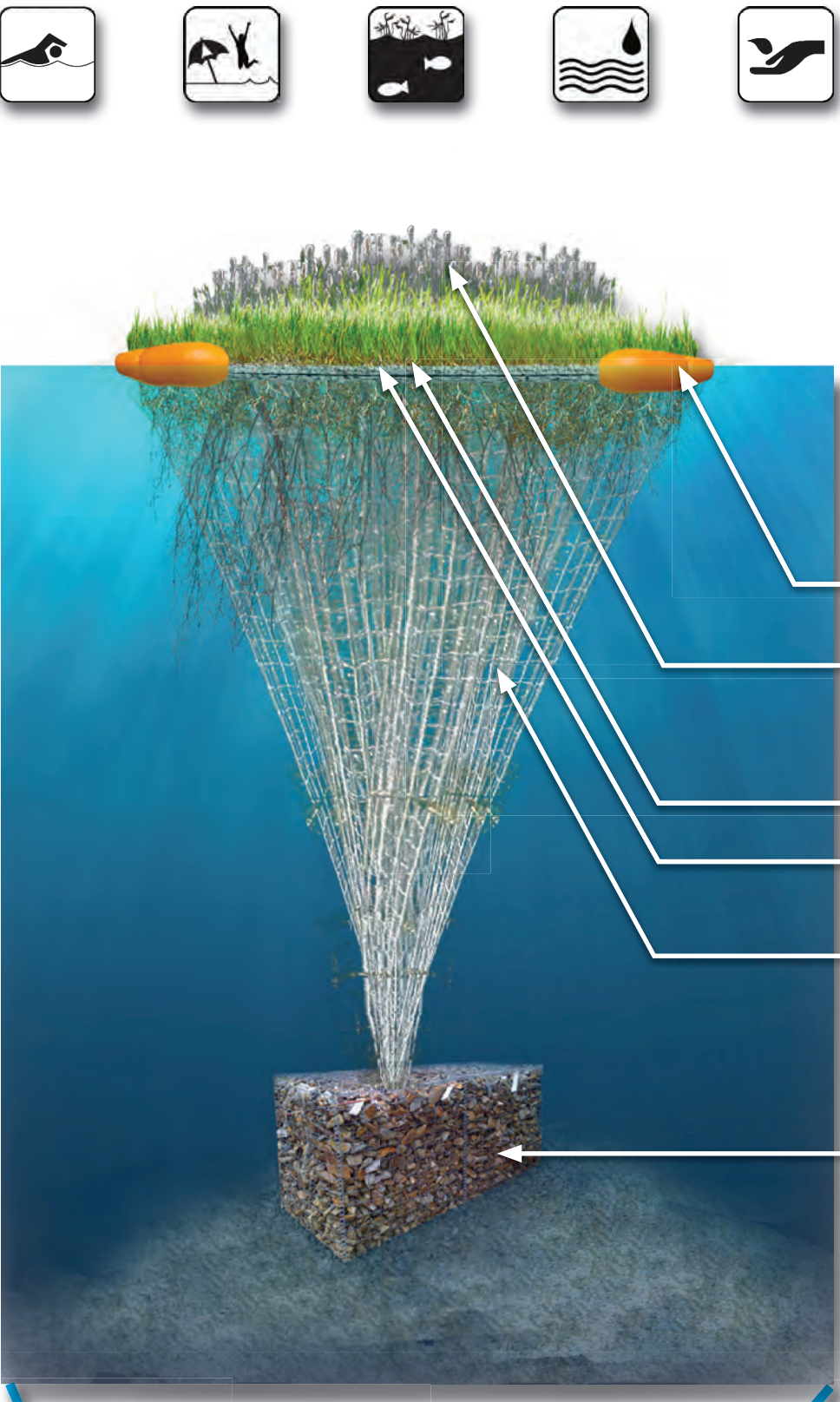
SPIN RESISTOR- BECAUSE THE VORTEX POOL AND STRUCTURE WILL BE FLOATING, THE VORTEX WOULD CAUSE THE ENTIRE PLATFORM TO SPIN, THEREFORE DECREASING THE AMOUNT OF ENERGY CAPTURED. TO REDUCE THE LOSS OF ENERGY AT THE GENERATOR AS WELL AS PREVENTING AN UNCOMFORTABLY FAST MERRY-GO-ROUND EXPERIENCE FOR THE ATTENDEES, THESE FINS ON THE EXTERIOR OF THE POOLS WOULD SLOW THE SPINNING OF THE FLOATING STRUCTURE.

VORTEX POOL - A LARGE OPEN-AIR POOL THAT DISPLAYS THE PHYSICAL GENERATION OF SUSTAINABLE ENERGY THROUGH MEANS OF A VORTEX TO THE VIEWERS ON THE PLATFORM.

TURBINE/GENERATOR - CAPTURES THE RUSHING WATER'S KINETIC ENERGY AND POWERS THE PLATFORM FOR THE EXPO.

TANK/VOLUME - THIS HIDDEN CAVITY BENEATH THE POOL IS WHAT ALLOWS THE VORTEX TO BE CREATED. AS LONG AS IT REMAINS EMPTY THROUGH CONSTANT PUMPING, IT PROVIDES A PLACE FOR THE VORTEX TO DRAIN INTO, TO CREATE A POTENTIAL ENERGY SITUATION FOR THE EXPOSED VORTEX POOLS ABOVE.

PUMP - POWERED BY THE TURBINE IN THE VORTEX ITSELF, THIS PUMP WOULD CONSTANTLY REMOVE WATER FROM THE CAVITY TO CREATE THE CAPACITY FOR THE ICONIC VORTEXES TO EXIST. THIS WATER IS SIMPLY PUMPED BACK INTO THE RIVER.



FLOATING GARDEN PODS

THESE ARE SIMPLE, EASILY-DEPLOYED, LOW-COST BRACKISH WATER ECO-SYSTEM INSTIGATORS THAT ARE DERIVED FROM THE AZTEC FLOATING GARDENS CONCEPT. THEY BEGIN WITH A SERIES OF PHYTOREMEDIATIVE PLANTS WHICH ARE CAPABLE OF ELIMINATING METALS, PESTICIDES, SOLVENTS, EXPLOSIVES, CRUDE OIL, ETC. AS THESE PLANTS FLOURISH, THE PODS ARE CAPABLE OF EASILY TRAPPING DETRITUS (ORGANIC WASTE), GIVING WAY TO PLANKTON. WITH TIME FILTER FEEDERS SUCH AS OYSTERS WILL ATTACH THEMSELVES TO "FUZZY ROPE" (THANK YOU SCAPE'S OYSTERTECTURE) THAT DUALY ACT AS THE LINES FASTENING THE PODS TO THE ANCHORS. THE ANCHORS ALSO SERVE AS A PLATFORM FOR ECO-SYSTEM GROWTH. EVENTUALLY, ENOUGH PODS WILL BE DEPLOYED TO BEGIN TO GROW TOGETHER, FORMING NATURAL WETLAND AREAS AND ALLOWING ECOLOGICAL BIODIVERSITY TO FORM.

BUOYS: RING SHAPED BUOYS SUPPORT FLOATING GARDEN STRUCTURE, ALSO ACTS AS A WAVE BREAK.

LOCALIZED PLANT SPECIES: FILTER WATER AND REMOVE TOXINS, INTRODUCE OXYGEN AND REMOVE CARBON DIOXIDE FROM THE WATER, AND EVEN REDUCE ACIDITY TO HELP ESTABLISH BIODIVERSITY.

STRAW: PROMOTES ALGAL/BACTERIAL GROWTH

MESH: SUPPORTS FLOATING STRAW AND PLANT LAYERS, SPANNING BETWEEN BUOYS.

OYSTER HABITAT: "FUZZY" ROPE (SCAPE'S OYSTERTECTURE), ALSO SECURES FLOATING GARDENS TO ANCHORS. A SINGLE OYSTER CAN FILTER UP TO 50 GALLONS OF WATER IN A SINGLE DAY, PROVIDING PLANT AND WILDLIFE A CLEAN LIVING ENVIRONMENT TO ENCOURAGE INCREASINGLY RAPID GROWTH.

RECLAIMED LOCAL STONE & CONCRETE FRAGMENTS CONTAINED IN STEEL WIRE CAGES: STRATEGICALLY PLACED ALONG THE FLOOR OF THE RIVER TO ANCHOR THE FLOATING WETLANDS, AS WELL AS ACT AS LARGE PARTICLE FILTERS THAT SLOW THE WATER CURRENT AND CREATE A POROUS PLATFORM TO ASSIST IN ESTABLISHING ECOLOGICAL GROWTH.

OYSTER-TECTURE. 2010. SCAPE/LANDSCAPE ARCHITECTURE PLLC. <http://www.scapestudio.com/projects/oyster-tecture/>

ACTIVE WATER "TAXI" PORTS WILL DEVELOP WHEREVER DEMAND IS STRONGEST. ALL WATER TRANSPORT VEHICLES OPERATE USING ALTERNATIVE FUEL SOURCES.

WITH THE DATA COLLECTED FROM THE DIGITAL APPLICATION, THERE WILL BE CLEAR NON-BIAS USAGE STATISTICS OF THE WATER TRANSIT NETWORK. THESE STATS WOULD BE PUBLICLY ACCESSIBLE, ALLOWING FOR MORE INFORMED DECISIONS TO BE MADE BY GOVERNMENT AND CITY OFFICIALS.

"This is a pivotal time for urban regeneration. We must take a long term view." Richard Rogers