

Framework for a 21st Century City
Made Tangible Through The Arts

CITY

AS

LIVING

LABORATORY

FLOW *(Can You See The River?)*

Mary Miss
Eco Arts Connections
Indianapolis Museum of Art
+ Partners

December 15, 2009

FLOW (Can You See The River?)

White River, Indianapolis, Indiana

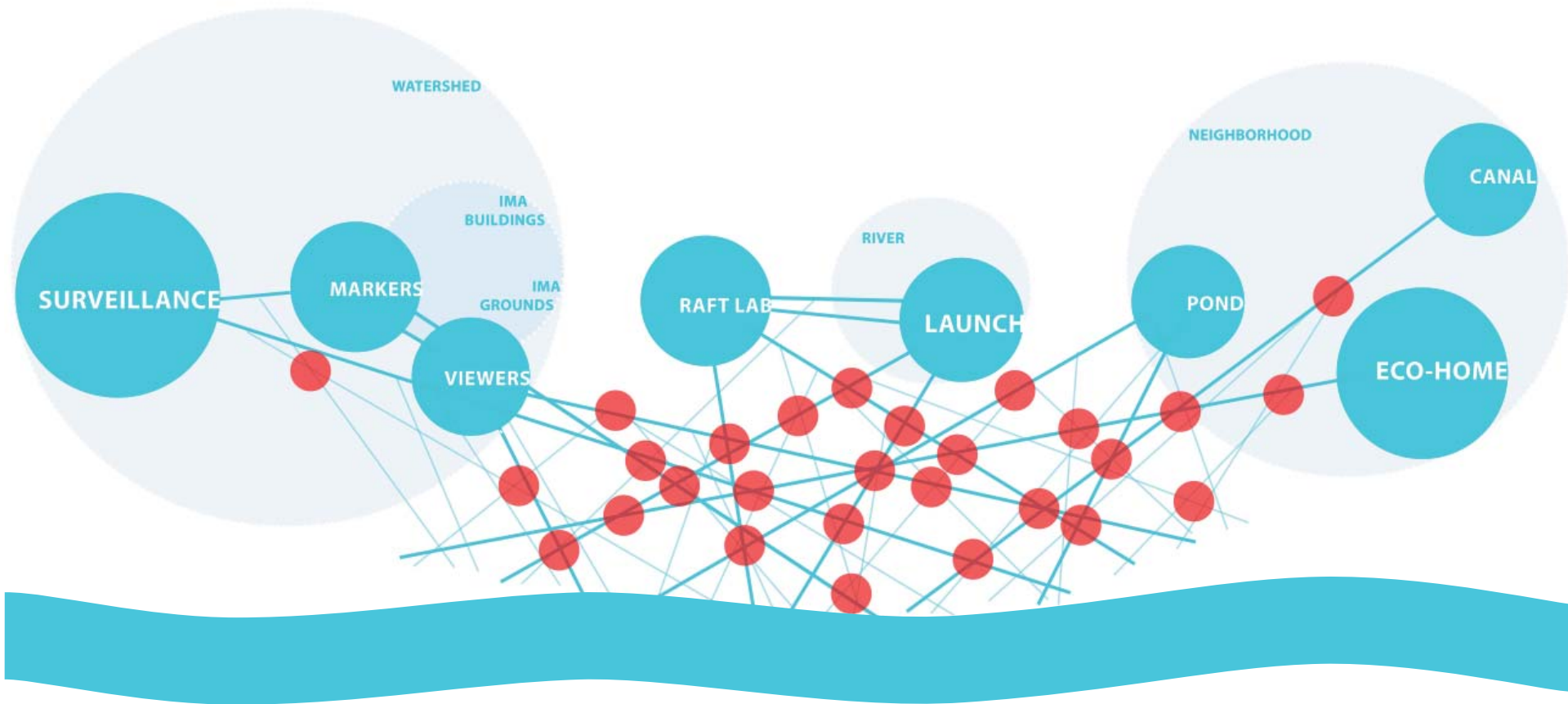


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FLOW (Can You See The River?)

SUMMARY

City as Living Laboratory: Sustainability Made Tangible Through the Arts is a new initiative developed by artist Mary Miss and Marda Kirn, of Eco Arts Connections for making issues of sustainability compelling to the public. Miss and Kirn envision the city as a laboratory, where collaboration amongst planners, scientists, artists and designers can make a city's sustainability plans tangible to citizens.

FLOW (Can You See The River?) is an implementation of the City as Living Laboratory framework which starts with the assumption that "the river starts at your front door -- all property is riverfront property". This project seeks to viscerally engage the citizens of Indianapolis, and make them aware that the watershed provides their drinking water and supports their lives. The project is made up of several parts: First, a series of sites along the White River between the start of the canal and White River State Park will be used to reveal the complexity of the river system piece by piece. Second, the grounds of the IMA will be marked to highlight water infrastructure. Third, web cams will focus on the multiple aspects of the river from as far upstream as at the top of the watershed and as far downstream as the Gulf of Mexico. Finally, a digital interface will be developed to allow citizens to add to the city's map of water infrastructure by recording green infrastructure improvements in their neighborhoods.

ALL PROPERTY IS RIVERFRONT PROPERTY

The Indianapolis Museum of Art is currently working with Mary Miss to implement a project demonstrating how artists can work with cities to deal with issues of sustainability. In Indianapolis, Miss is focusing on the White River, which runs through the heart of the city. Working with scientists from the US Geological Survey and others, she will do a series of installations between the start of the City's canal and White River State Park, miles to the south. One of the primary goals will be to help visualize the movement of water, from its sources to its destinations. The installations are intended to engage people's interest in the complexity of this familiar feature of the landscape that may be taken for granted.

As people move along the 10-mile stretch of bike paths, parklands, and trails along the White River from Broad Ripple to White River State Park, they will come across a series of stopping points. At each point another aspect of the river will be the focus of attention. The river's history, ecology, and origins will be revealed piece by piece. Visitors may go no farther than having the topic named or they may choose to get in depth information on the issues of most interest to them. This information will be available virtually through dial up, smart phones and website. These stopping places are like acupuncture points that will access different aspects of this circulatory system that is the White River.

In addition, Miss is engaging several other institutions and organizations throughout the city to participate in a variety of ways specific to their expertise and resources. They may have an installation on their property, host a lecture or participate in the research. The intention is that these projects will be seen as the initiation of the "City as Living Lab" program within Indianapolis. In the future it is hoped that each of these institutions would go on to work with another artist to implement their own project concerning an issue that is important to them. Through such initiatives, the City would have new resources at its disposal to address pressing issues of our times. Artists, as specialists in innovative thinking, can be engaged with other experts to create projects that educate, inspire, encourage and motivate citizens to think about how they can lead their lives in new ways. Creating an economically viable city with a strong identity as an ecologically engaged community is the goal of this initiative.

FLOW (Can You See The River?)

GOALS

GOALS OF THE CITY AS LIVING LABORATORY FRAMEWORK:

To link culture and sustainability to create a new vision for cities and city dwelling.

To educate and engage the public in environmental, social and economic sustainability.

To build on existing resources (such as scientific, cultural and governmental institutions and initiatives) through innovative collaboration.

PROJECT-SPECIFIC GOALS FOR INDIANAPOLIS:

Expand public awareness of the White River watershed: what it is, how it functions, what it means to Indianapolis citizens environmentally, socially, and economically.

Help each citizen to viscerally experience his or her actions – at home, at work, in school, at play -- in direct relationship to the river upstream and downstream.

Provide new ways for citizens to improve the health and sustainability of the City and their own lives through research, mapping, and linkages to existing resources.

Inspire new learning and collaborations among individuals, institutions, and agencies through a wide variety of engaging events that can lay the foundation for future activities.

RIVER SURVEILLANCE *via twenty webcams placed around watershed
from the head waters of the White River to the Gulf of Mexico*

RIVER SURVEILLANCE SCREEN *with twenty video feeds shown together*

WALKABLE MAP *to show the river in relationship to the city*

RIVERSIDE SITES *where multiple aspects of the river system are revealed.*

MARKERS *noting key aspects of river locations:*

Museum Inside/Outside and Grounds

Along River

Throughout Neighborhoods

AUDIO AND WEB CONTENT *available at each stopping place*

PUBLIC ACCESS POINTS *marked along river*

RAFT / LAB *brings people onto the river for learning opportunities*

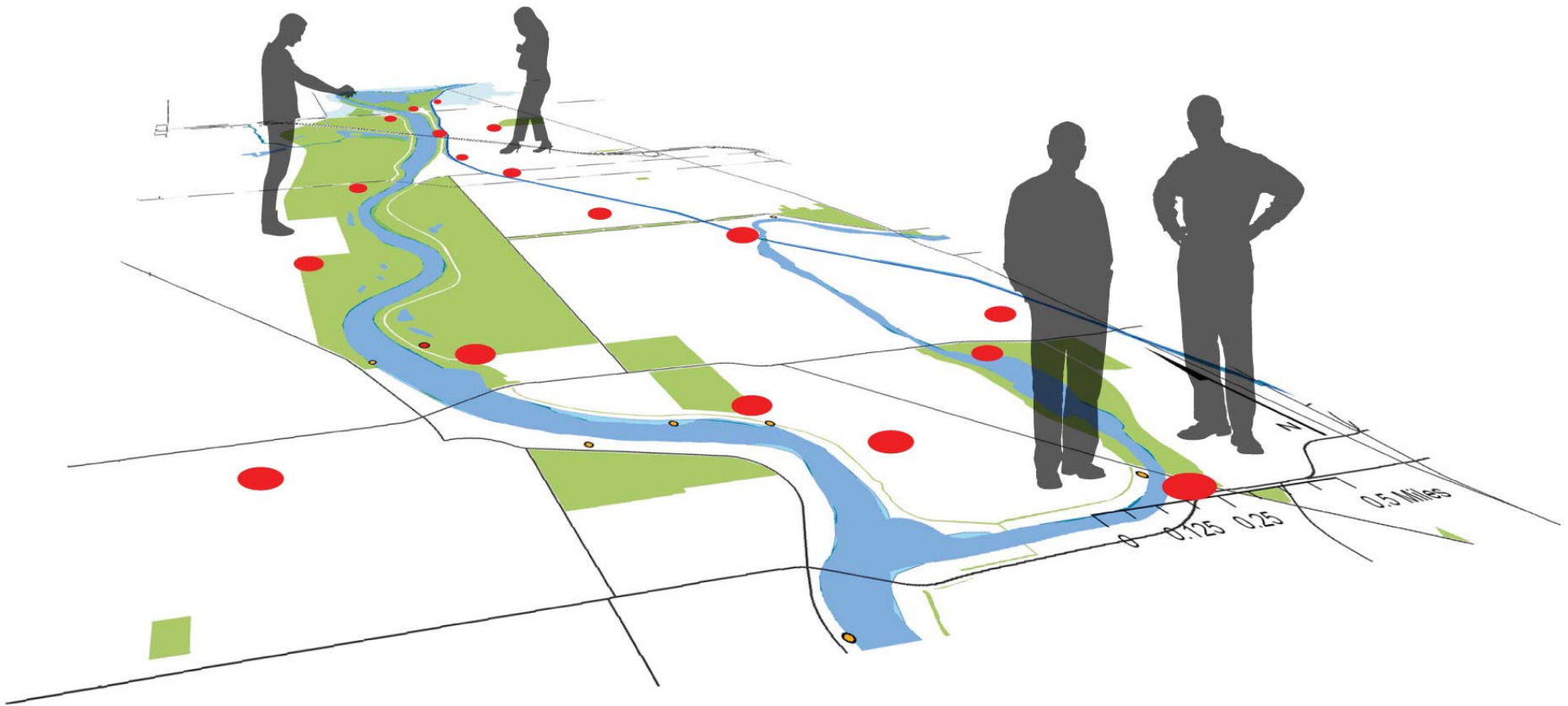
NEIGHBORHOOD WATER INFRASTRUCTURE *identified in a residential area*

HOME ECO-CONVERSION *connects individual domestic actions to watershed
Work with someone to eco-upgrade private home, have scheduled tours*

LAUNCH EVENT *opens the project*

FLOW (Can You See The River?)

ELEMENTS



WALKABLE MAP

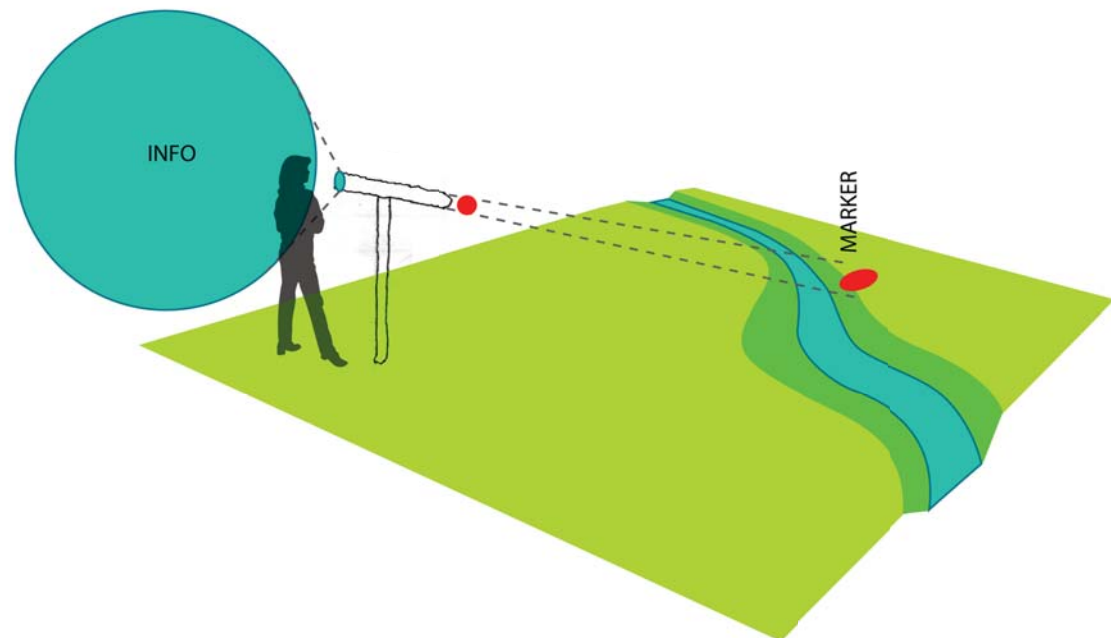
Install a large-scale walkable map of the city that allows visitors to note the marked sites and find locations of the webcams. It also enables one to locate one's own home in relation to the river, thus illustrating that all property is "riverfront" property.

FLOW (Can You See The River?)

ELEMENTS

Topics

- Watershed
- Circulation
- Wetlands
- Floodplains
- Flora of river
- Fauna
- History
- Climate change
- Citizen action



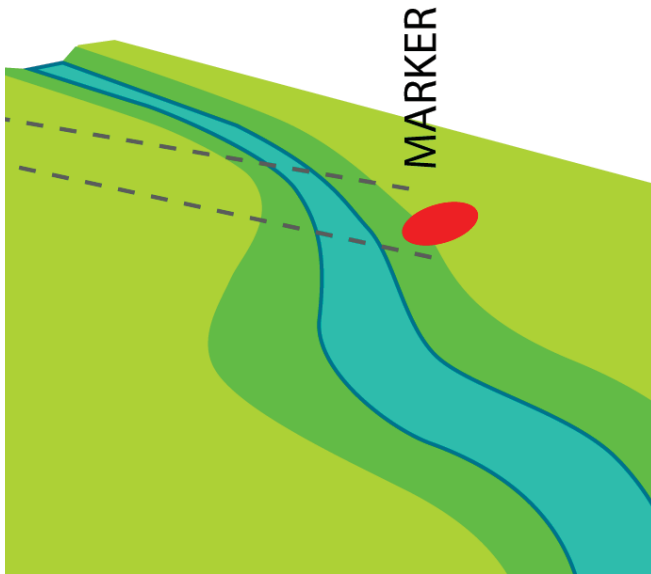
RIVERSIDE SITES: see appendix A

Create a series of stopping places along the river where an audio / virtual source will provide detailed information about aspects of the river.

FLOW (Can You See The River?) ELEMENTS

Marker locations

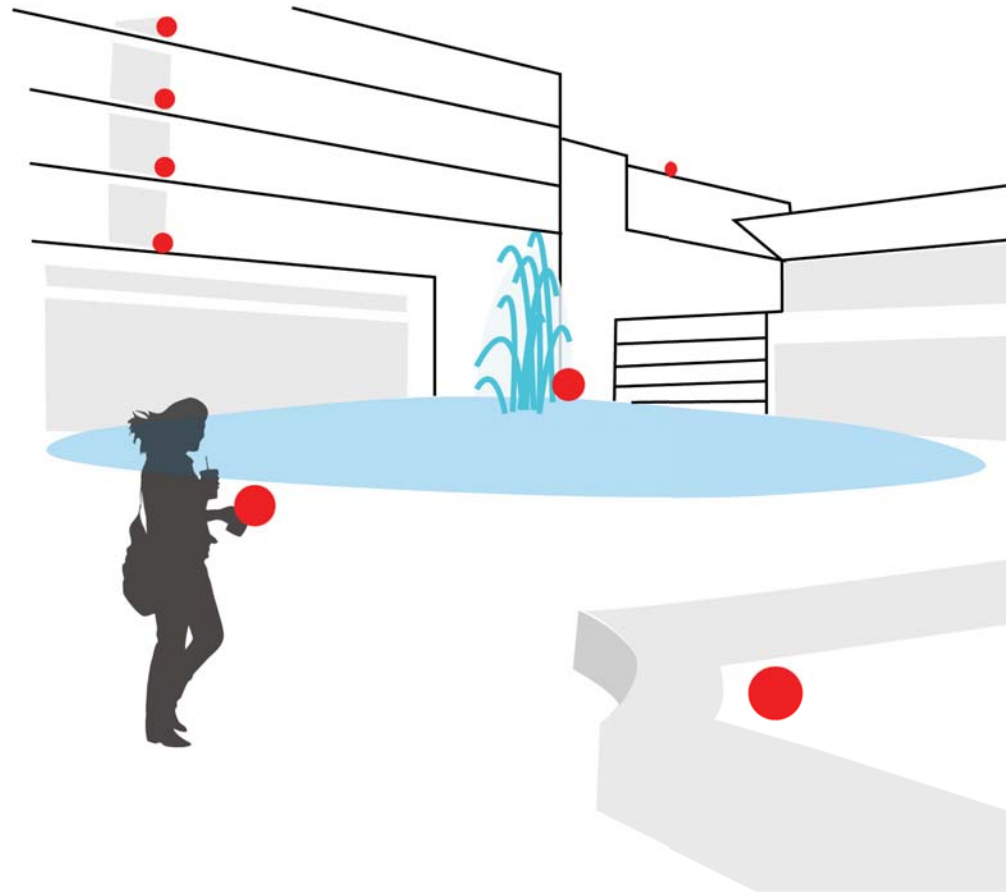
- Rain gardens
- Stream gauges
- Ground-water monitoring well
- Pervious pavement
- Pharmacy education on drug disposal
- IUPUI-CEES Starkey Farms BMP demo area
- Pike high school pond/wetland area
- Marion College Wetland – monitor water quality improvement through wetland
- Pogues Run Wetland
- Levee, helping flooding but keeping nutrients and sediment for floodplain
- Wastewater plant



Place markers noting water infrastructure or identifying topics that appear along the river adjacent to stopping places.

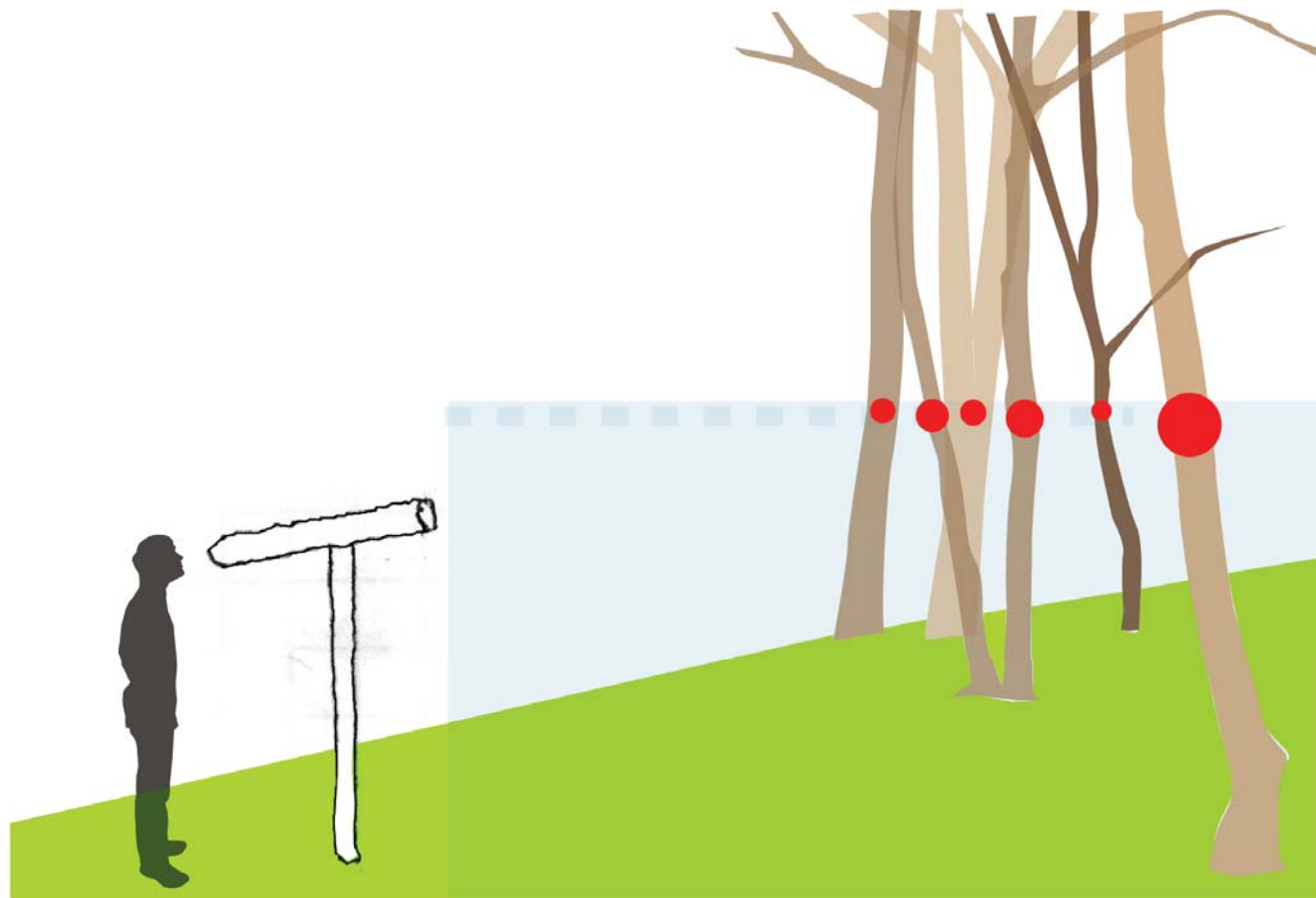
FLOW (Can You See The River?)

ELEMENTS



MUSEUM INSIDE / OUT

Locate a series of markers at the Museum that trace how water supports the function of the city noting the path of water through, over, and around the Museum and grounds through the demarcation of water faucets, water bottles, piping, cooling vents on roof, roof gut-tering, wells, run-off, collection etc.

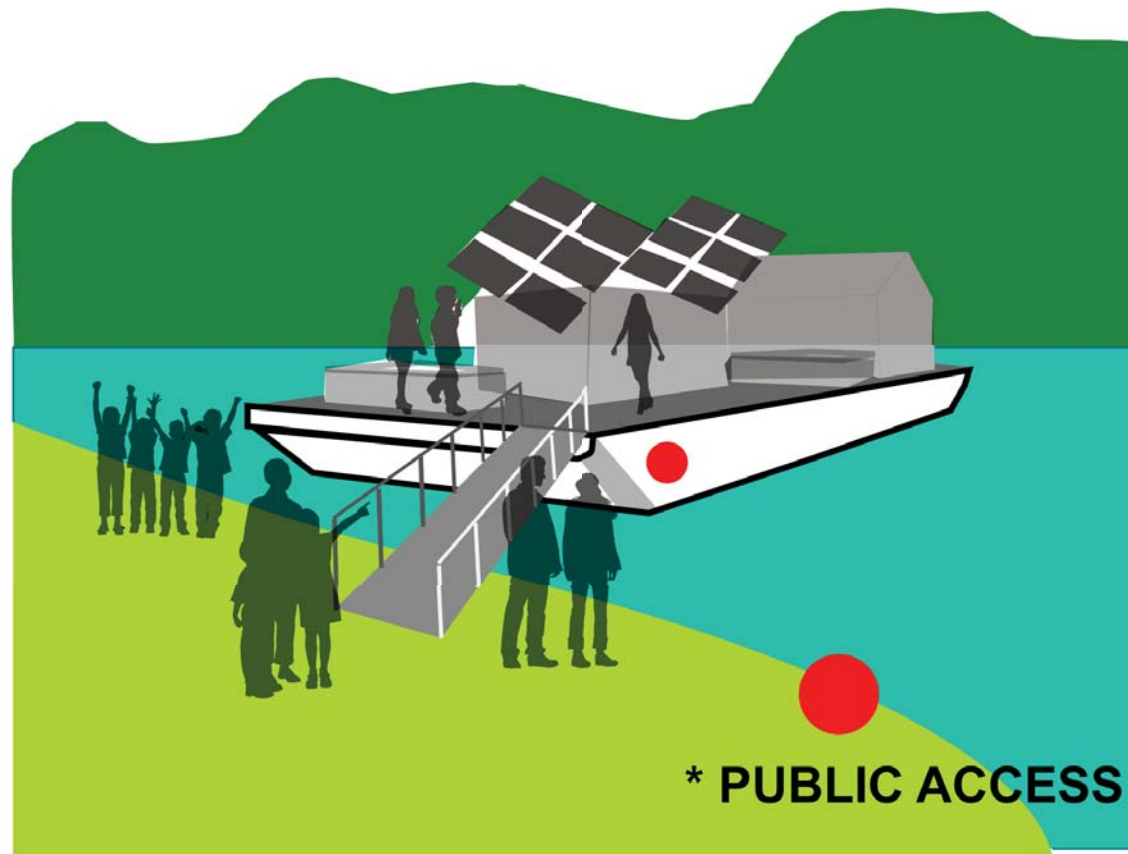


MUSEUM - ART AND NATURE PARK

Reveal detailed information about flooding in the grounds of the Art and Nature Park, as well as showing the relationship between the river, the lake and groundwater.

FLOW (Can You See The River?)

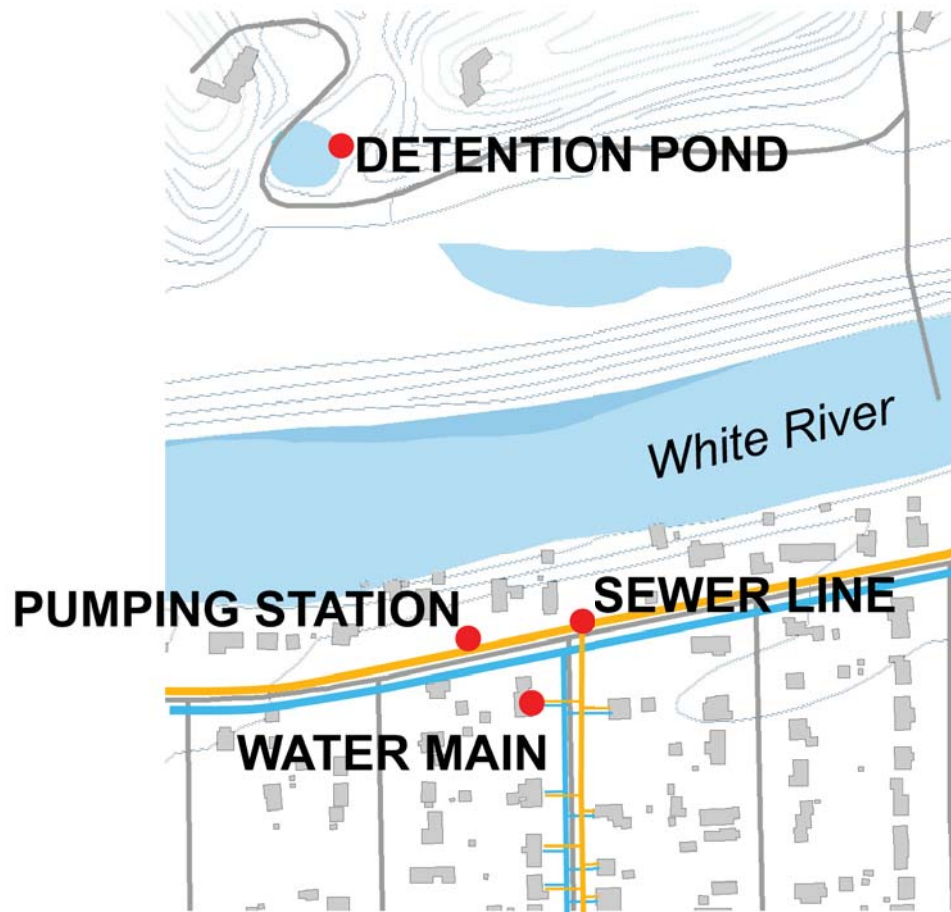
ELEMENTS



RAFT “River Action For Transformation” LAB and PUBLIC ACCESS

Get people onto the river to offer a shift in perspective and the opportunity to experience ongoing scientific research on the state of water in the White River.

Mark and publicize existing points of access all along the river.



NEIGHBORHOOD WATER INFRASTRUCTURE

Make the river visible at your front door and on your block through the identification of pumping stations, observation wells, sub-watersheds, detention ponds, retention ponds, etc. Marking the water infrastructure of the Near Eastside neighborhood could happen during the City's redevelopment of this area.

FLOW (Can You See The River?)

ELEMENTS



VOLUNTEER HOME CONVERSION

Identify homeowner to take advantage of all possible eco-upgrades to a typical Indianapolis-style single-family dwelling. An 'open house' several times a year would enable visitors to understand how their own home could be transformed.

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MEANS

COMMUNITY NETWORK

EVENTS

VIRTUAL LAYER

MAPPING

FLOW (Can You See The River?)

MEANS

THE COMMUNITY NETWORK

The events put on by our community partners are a visible and tangible manifestation of the existing “human ecological infrastructure” in Indianapolis. This term was adopted to refer to the established organizations that are already working to safeguard and improve the environment of greater Indianapolis. Government agencies, scientific institutions or cultural organizations are all counted here.

The City as Living Laboratory framework invites diverse pairings of organizations to work together to create public events. Collaborations between scientific and cultural partners are ideal for generating new work for a general audience. Translations of scientific language and models of current theoretical understanding are examples of the type of important technical content that can benefit from the expertise of artists, who as specialists in translation, can expand perception and create emotional resonance at the level of the individual.

The following examples demonstrate the types of events that might be developed.

EVENTS: PERFORMANCES

Performances communicate and express complex, challenging scientific truths in an accessible and engaging way.

- STORY TELLING - Native American and/or Anglo storytellers on land or boat tell creation and other stories of the river
- PLAYS - 10-minute plays written by youth playwrights, acted by adult professional actors co-inspired and vetted by drama teachers and scientists.
- DANCE PERFORMANCES – Butler University dance program or other dance program create 10-minute dance works based on water or using historical choreography of great choreographers that refers to water.
- MUSIC PERFORMANCES – Local and/or visiting artists perform existing musical selections (from songs to symphonies) inspired by nature / water.

EVENTS: PANELS

Open, public dialogue between passionate individuals from diverse backgrounds provides the opportunity to cross-fertilize silos of knowledge, and the possibility for the audience to experience “A-ha” moments.

- A behavior scientist, health official, artist, and hydrologist discuss the health consequences of polluted water, the challenges and benefits of cleaning it up, and the role of the arts in shifting attitudes and actions.
- A Native American, economist, recreationalist, scientist, and historian discuss their understandings and usages of the river and its attributes and services.
- A city official talks about its sustainability plan with additional panelists including an historian, a climate scientist, and an engineer talking about past infrastructure changes in Indianapolis since its founding (railroad, water lines, etc.).

EVENTS: FILM PROGRAMS

Popular grasp of scientific concepts beyond the high school level is largely derived from the movies. These events can bring in experts to decode and discuss well-known screen scenes.

- HOLLYWOOD SCIENCE -- A festive evening of film clips highlighting the most extreme portrayals of water in movies from the last 100 years, narrated by scientists who separate Hollywood science from reality
- DANCE FILMS AND WATER – Excerpts of concert dance choreography and ethnographic dance based on the theme of water in ballet, modern dance, jazz, tap, African, Hawaiian, Asian, Latin American, Native American dance styles, introduced and explained by a dance historian

EVENTS: TOURS

First-hand experiences of the river are revealing. Tours offer a wealth of opportunities for bringing people into direct contact with the subject matter of the FLOW project.

- Guided float trips get people onto the water and help them understand and experience various topics and aspects of the river. FLOW sites can also be visited from the water.
- A progressive dinner with a culinary theme related to the river (in people’s houses, in restaurants) with local produce raised along the river.

EVENTS: EXHIBITS

Natural and cultural artifacts reveal the dynamic qualities of the river and related human culture.

- A comparison of flora and fauna on the river then (10, 50, 100 years ago) and now
- Photos and other information provided by historical society, USGS, Eiteljorg, etc.
- An exhibition of Native American canoes
- A survey of Pomo baskets used to hold water.

THE VIRTUAL LAYER

An audio component is envisioned to accompany the physically marked sites along the White River. Using existing services for guided cell phone tours already familiar to the IMA staff, this system will provide an optional, user-directed way to access additional voices, stories and information when experiencing sites along the river.

The audio content also provides an opportunity to feature the individuals and projects of partnering institutions. Whether scientists are discussing storm surge dynamics or the best place to watch baby turtles, being able to call in to hear a snippet of a real conversation on river events will be engaging to the visitors.

Using this system will only require that a general phone number be displayed on or near each marker, along with a specific site ID. This feature is not smart phone dependent.

MOBILE APPS

Mobile applications create opportunities for the project to expand out into the greater city.

There are currently three primary ideas:

1. **HYDROCACHING:**

visually tag existing city water infrastructure.
The name “hydrocaching” was coined to express a scavenger hunt-like experience for discovering existing City water infrastructure nearby. This app supports citizens who want to continue the systemic markings that have been started along the river’s edge into their own neighborhoods and routes.

2. **GREEN MY INDY:**

map your green infrastructure improvements.
This app is designed for citizens to contribute their own green infrastructure improvements -- such as rainbarrels, native planting or porous paving -- to a city database in a structured manner. The City can use this information to fine-tune its stormwater models and reflect information back to the citizens

3. **RAINDROP:**

This is an idea for an advanced application that calculates -- from the user’s current position -- the path that a raindrop would take through the urban environment to the river and displays it on a map.

SOCIAL WEB PRESENCE

The FLOW website and presence on social media such as Facebook and Twitter aspire to make this project visible and accessible to the Indianapolis community and beyond.

The FLOW website may be its own domain, or may be a page on IMA’s site.

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MEANS

MAPPING

Mary Miss Studio is developing a GIS base map with excellent resources provided by the City of Indianapolis. This base map will be used to inform site selection through overlaying and referencing additional information collected on site.

Specifically, the water infrastructure data is also envisioned to support the HYDROCACHING app, which will enable citizens to easily identify components of nearby water infrastructure.

WATER INFRASTRUCTURE

BUILT

INSTITUTIONAL

- CSOs
- Detention basins
- Detention ponds
- Observation wells
- Pharmaceutical effects
- Rain barrels
- Rain gardens
- Sewer lines
- Sewer sheds
- Sewer treatment plants
- Storm sewers
- Sub-watersheds
- Wells
- Water lines
- Watershed
- Water treatment plants

INDIVIDUAL

- Rain gardens
- Rain barrels
- Porous paving
- Native plantings

ECOLOGICAL

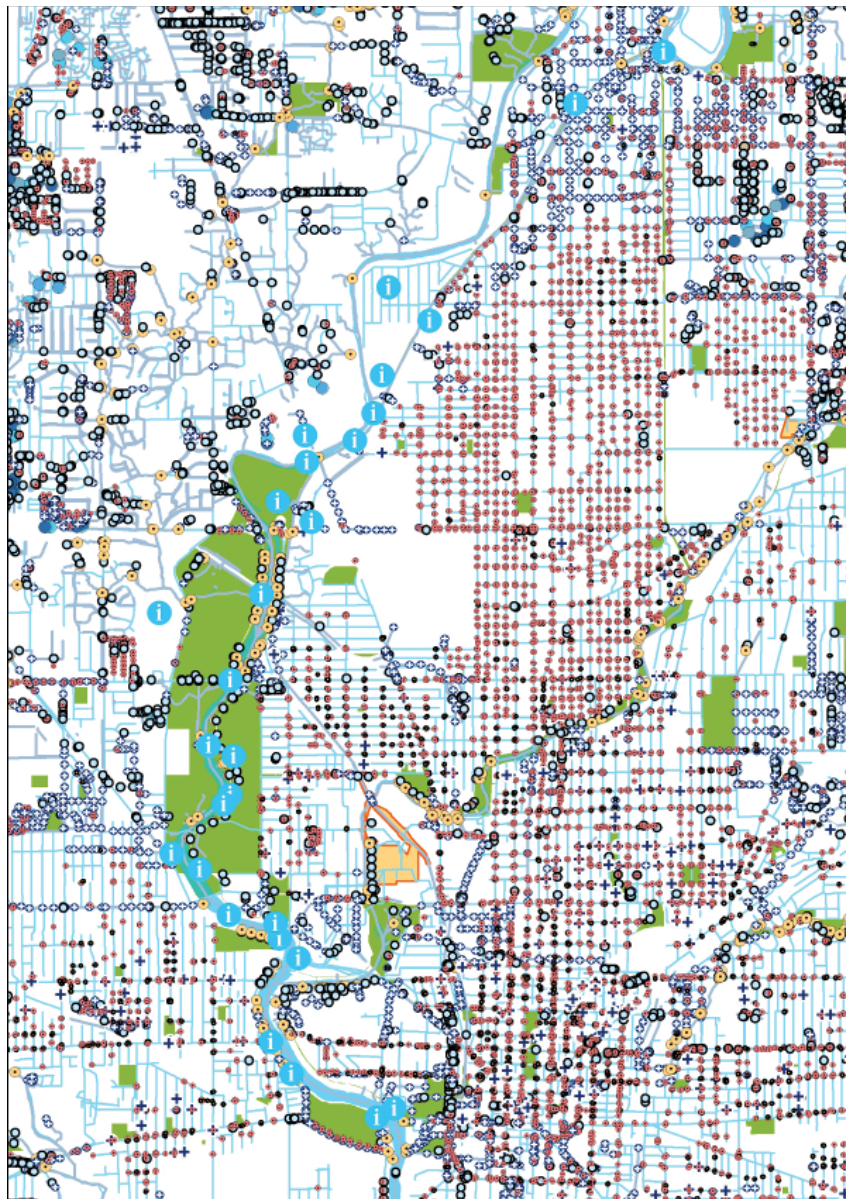
- Floodplains
- Ponds
- Streams
- Wetlands

HISTORY OF THE RIVER

- Native American settlements
- Levees, levee equipment
- Remnant structures (bridges, etc)
- Water control equipment
- Water treatment areas
- Water storage

KEY SITES THAT AFFECT THE RIVER

- Factories
- Homes
- Offices
- Pharmacies



Legend

- i Mary Miss Sites
- Storm Sewer lines
- Veolia Water Mains
- Fall_Creek_Water_Treatment_Plant
- WhiteRiverTreatmentPlant
- Parks

Manholes_Inlets_Outfalls

- Catch Basin Inlet
- Catch Basin Manhole
- Head Wall
- Inlet Structure
- Manhole
- Manhole Inlet Structure
- Outfall
- Rubber Gate (Duck Bill Gate)
- Sedimentation Manhole
- Weir Manhole

Detention or Retention Ponds / Structures

- <all other values>
- Detention Pond
- Detention Pond Inlet
- Detention Pond Outlet
- Detention Pond Outlet Structure
- Retention Pond

FLOW (Can You See The River?)

TOPICS

The following are a series of general topics upon which this project will build. Working in collaboration with our partners -- scientists, historians, community groups -- these topics will be prioritized, located and developed.

TOPICS

What is a watershed?

- What is the White River's relationship to the watershed?
- How does it work?
- What is your relationship to the watershed?

What is a river?

- Where does it begin?
- How does it change -- shape, size, content, current, velocity, seasonal or temporal variation.
- What are the physiographic features of a river's course? (examples: meanders, pools, riffles)

How does water circulate?

- Is there any new water?
- How is the cycle of water revealed-- sea, atmosphere, land?
- How does the use of land affect the hydrological cycle?

How does the river shape the landscape and the landscape shape the river?

- What processes are involved?

What are floods and how do they happen?

- How often do they occur?
- What is the history of flooding in Indianapolis?
- How do you measure them?
- How deep can floodwaters get?
- How do you monitor for floods?
- How do you protect the city from flooding?

What makes up the water infrastructure of the city?

- What are the components, either naturally occurring or constructed?
- How do they work together or antagonistically?

What is the ecology of the River?

- What are the habitat zones of flora and fauna in the river itself and along the banks?
- What is here now?
- What used to be here?
- What is natural about the city's constructed infrastructure?
- What is not natural about "natural" areas?

What is the history of the River?

- What is the natural history of the river and its formation?
- What is the history of Native American habitation and uses of the river?
- Settlement of the river by Anglo Americans
- Development of the land in the watershed
 - primary forest
 - clearing
 - agriculture
 - urbanization
- Events that have taken place along the river
- Music and images that relate to the river
- History of flooding and the City's responses

Who has the stories about the river?

- Collect descriptions, memories, stories about the river from different groups

What are the greatest problems or threats to the river?

- Non-point source pollution
- Herbicides, fertilizer and other chemicals
- Combined Sewer Overflow (CSO) points

What affect will climate change have on the River?

- Availability of water and how it affects the city
 - Drought: agriculture, consumption limit
 - Heavy Rains: flooding, stress on infrastructure

How can individual actions affect the river?

- All property is riverfront property
 - Behavioral changes
 - Limit water use
 - Use nontoxic fertilizers
 - Clean up after pets
 - Pick up plastic
 - TBD

EXAMPLES

10 HYDROLOGIC POINTS OF INTEREST
LOCATION: IMA ART & NATURE PRESERVE

- Existing stream gauge
- Combined Lake/River/GW monitoring station (would require new station or could combine existing gauge with lake level and shallow well gauge)
- Floodplain and IMA lake as flood storage
- Channel bottom and bank as filtering mechanisms.
- Water filtration over and under the floodplain (note: filtering mechanisms occurring in floodplain and channel result in reduction of Gulf Hypoxia)
- Interchange between river and groundwater through the channel bank and bottom (the same resource in different locations)
- Flow of water through lake at high stage
- Water-quality monitoring of rain garden/storm runoff
- Historic flood highwater marks
- Runoff/erosion area sediment and contaminants bound to sediment.

FLOW (Can You See The River?)

SITES

STOPPING POINTS

NODES

Major locations such as the grounds of the Indianapolis Museum of Art, The White River State Park and the Marion College EcoLab are identified as nodes. Nodes are where other audiences may be engaged with the project. These stopping places present the fully developed manifestations of the tangible expression of water, and provide multiple types of opportunities for the public to get involved.

COMPLEX SITES

Key sites along the river will be developed with partnering institutions or agencies who have identified issues of critical interest. These sites will feature specially-fabricated installation elements, and include a relevant subset of elements found at the nodes.

SIMPLE SITES

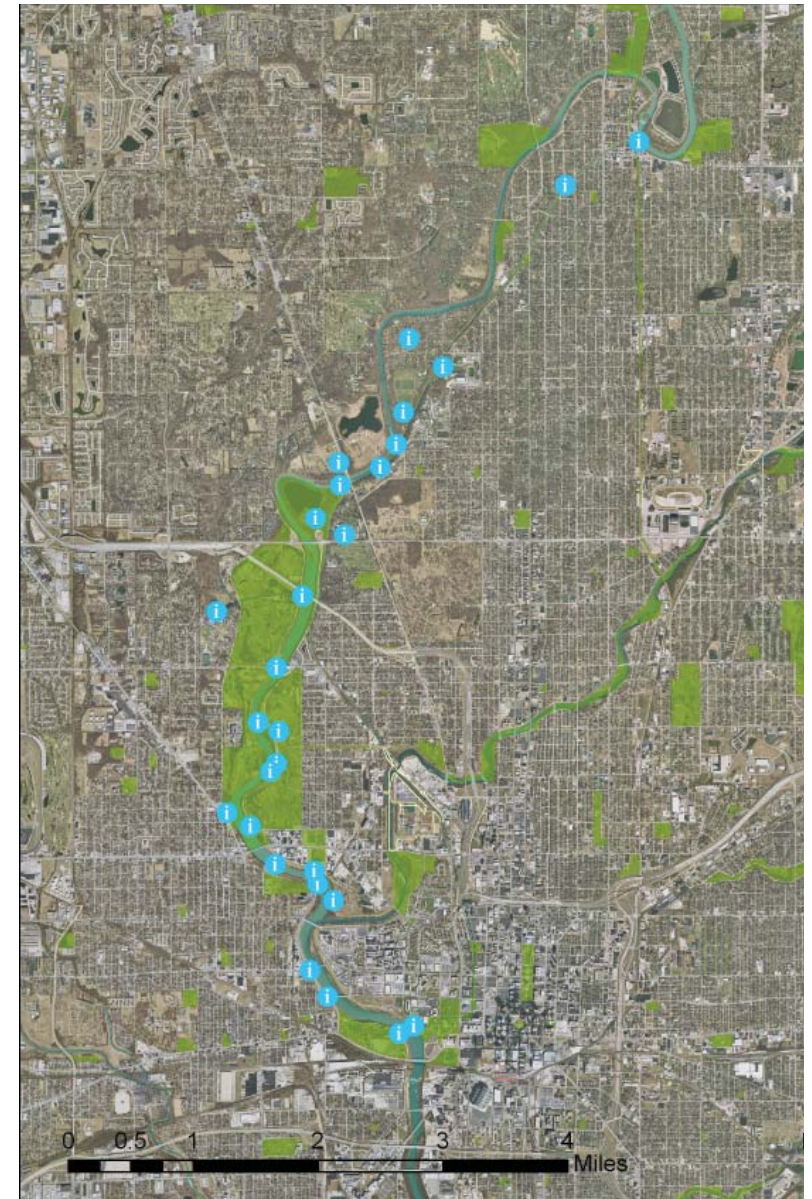
At intervals along the bike path and canal there will be simple sites to alert passers-by to specific aspects of the river or to be on the lookout for the larger project occurring along the White River.

MARKERS

Simple, single markers first occur along the river. These markers will also be made available for pick up at the IMA for the public to use with the HYDROCACHING app. The instructions for making the markers oneself will also be published on the FLOW website. In this way, markers can be distributed throughout Indianapolis.

SEE APPENDIX B FOR OVERVIEW OF SITES

Approximately 30 sites have been located between Broad Ripple and White River State Park.



PHYSICAL SITE SELECTION

Each site will have:

- A connection to the watershed
- Topic area
- Collaborating institution
- Audio, including
 1. Info about the topic specific to site
 2. Citizen mapping efforts across city
 - a. existing water infrastructure
 - b. new green infrastructure
 - c. app
 3. Actions to be taken

The following are examples of such sites:

NODES (NORTH TO SOUTH)

PLACES TO INTERSECT OTHER GROUPS

- Start of Monon bike path (Broad Ripple)
- Holiday Park
- Holcomb Gardens
- IMA
- EcoLab - Marian
- White River State Park

BIKE PATH SITES

- Surface markings
- Stopping places
(bring people off path to adjacent sites)
- Access points (boating)
- USGS gauges
- Bridges
- 30th Street Bridge steps
- Fragments in river (bridge abutments, etc)
- CSO outfalls
- Fall Creek joins River
- 16th Street dam

SITES ADJACENT TO RIVER

- Rocky Ripple Park
- Butler University Prairie
- Butler Holcomb Gardens
- Repaired Breach
(near Christian Theological Seminary)
- Canal
- Floodplain adjacent to breach
- Floodplain IMA
- Marian University wetland
- IUPUI planted edge - native plants
- Community Center, west side of river
- Native American sites
- Location of historical events
- White River State Park
 - State History Museum
 - Zoo
 - Eiteljorg

DISPERSED SITES

- Eagle Creek Reservoir
- Pagues Run park/wetland
- Near East side
(redevelopment for superbowl, good place to mark neighborhood infrastructure)
- Extreme Green home site

FLOW (Can You See The River?)

PARTICIPANTS

CURRENT PARTNERS

Art Department, IUPUI
Center for Earth & Environmental Science,
IUPUI
Center for Urban Ecology, Butler University
City of Indianapolis
EcoLab, Marion University
Indianapolis Museum of Art
International School
USGS
White River State Park

- Eiteljorg Museum of Western & American Indian Art
- Indianapolis Zoo
- State History Museum

RELEVANT ORGANIZATIONS, INSTITUTIONS

Association of State Floodplain Managers
Bethel Church
Central Indiana Community Foundation (Cult. Trail)
Central Indiana Corp. Partnership
Children's Museum
Christian Theological Seminary
Clean Stream Team
Cold Spring School
Community Museum Lab
Creative Community Builders Handbook
Environmental America / Waterways newspaper
Friends of the White River
Girl Scouts, Boy Scouts
Hoosier Canoe Club -- Eagle Creek
Hoosier Environmental Council
Hoosier River Watch
Indiana Convention and Business Association (ICBA)
Indiana Department of Environmental Management
Indiana Department of Natural Resources (IDNR)
Indiana Environmental Institute, Inc.
Indiana Wildlife Federation
IndyHub
Keep Indianapolis Beautiful
Key School
Lights Out Indy
Nature Conservancy
National Water Quality Assessment Program (NAWQA)
SustainIndy
Upper White River Alliance
United Water
US Fish and Wildlife Service (USFWS)
Veolia Water Indianapolis
White River Restoration Funds
WYFI Radio

RELATED EVENTS

Spirit & Place Festival
Fringe Festival
River Clean Up Day

FLOW (Can You See The River?)

PLANNING & LOGISTICS

FLOW (Can You See The River?)

PLANNING / LOGISTICS

PROJECT SPONSOR

Indianapolis Museum of Art
Max Anderson - Director
Lisa Freiman - Curator
David Hunt - Project Manager

DEVELOPMENT OF CONCEPT

Mary Miss Studio + partners

SITE SELECTION

Mary Miss Studio

DEVELOPMENT OF CONTENT

Mary Miss Studio
USGS
Scott Morlock
IUPUI Center for Earth & Env. Science
Lenore Tedesco
Butler University Center for Urban Ecology
Tim Carter
Marion University Eco Lab
David Benson
City of Indianapolis, Office of Sustainability
Koren Haley
AMEC Earth & Environment
Heather Williams
Empower Results
Jill Hoffmann
Eiterjorg Museum
Indiana State History Museum
Indianapolis Zoo
Heather Grisham

RESOURCE DEVELOPMENT INFORMATION & DOCUMENT COLLECTION

Mary Miss Studio
City of Indianapolis
USGS
IUPUI
Butler University
Marion University
Partner Institutions + organizations

PROGRAMMING DEVELOPMENT

LECTURES, EXHIBITIONS, PERFORMANCES

Marda Kirn, EcoArts Connections
IMA
Ann Laker
Meg Liffert
Partner Institutions + organizations

FUNDRAISING

IMA
Aubrey DeZago
Partner Organizations + Institutions

COMMUNITY OUTREACH & SOCIAL NETWORKING

Mary Miss Studio
Marda Kirn, EcoArts Connections
IMA
Meg Liffert
City of Indianapolis
Partner Institutions + organizations

DEVELOPMENT OF DIGITAL RESOURCES

Mary Miss Studio
IMA
Rob Stein
Ed Bachta
Daniel Incandela
Butler University
Tim Carter

DESIGN DEVELOPMENT

Mary Miss Studio + partners

CONSTRUCTION DOCUMENTS

Mary Miss Studio
Architect
Engineer

BID PROCESS

Mary Miss Studio
IMA

FABRICATION & INSTALLATION

Mary Miss Studio
IMA

MARKETING

IMA + partner organizations

FLOW (Can You See The River?)

TIMELINE

ABBREVIATIONS: Indianapolis Museum of Art = **IMA**; Mary Miss = **MM**; Mary Miss Studio = **MMS**; Marda Kirn = **MK**; Partnering Organizations = **Collaborators**.

←-----2010-----→							
January	February	March	April	May	June	July	August
MMS: Concept Development ----->		MMS: Design Development ----->		MMS & Architect, Engineer: Construction Documents			
MMS: Site Selection ----->							
		MK & Collaborators: Programming development ----->				MK & Collaborators: Marketing &	
		MMS & Collaborators: Resource development ----->					
						MMS & MK & Collaborators: Community Outreach & Social Networking	
IMA & Collaborators: Fundraising ----->							
	<p>Week 1 Marda Kirn proposal sent to partnering orgs to stimulate ideas for collaborative programming</p> <p>Week 2 & 3 Marda Kirn Communication/meetings with partnering orgs about collaborative programming content, format, dates for presentation, marketing possibilities</p> <p>Week 4 Marda Kirn Collaborative programming concepts, locations, and dates finalized</p>	<p>Week 2 MM - MK - IMA Website conceptualized and mapped (including science, environmental, and marketing partners in discussions)</p>			<p>1. 10 Mary Miss Paragraph, images to IMA for website (preview to include with launch)</p> <p>19 - 20 IMA Art and Nature Park opens</p>	<p>Week 1 Collaborators Collaborator materials sent to IMA for website and national press release</p> <p>Week 3 IMA review and reformatting of collaborator's materials for press release</p>	<p>Week 1 Collaborators Press release approved by collaborators</p> <p>Week 2 IMA National publicity / marketing materials sent to national media</p> <p>20 - 29 Fringe Festival</p>

TIMELINE

2010				2011				TBD
September	October	November	December	January	February	March	April	TBD
→ <i>MMS & IMA</i> : BID Process		→ <i>MMS & IMA</i> : Fabrication		Installation				
<i>MMS & IMA & Butler</i> : Digital Resource Development			Iteration					
PR								
<p>11 <i>River Clean Up Day</i></p> <p>18 <i>IMA IT</i> Begin implementing website</p>	<p>Week 1 Collaborators Collaborator images submitted for website</p> <p>Week 2 IMA Marketing taglines created, approved by and distributed to collaborators for their use</p>	<p>5-14 <i>Spirit & Place Festival</i></p>	<p>Week 1 Collaborators Collaborator text submitted to IMA for umbrella print marketing collateral</p>	<p>Week 2 Collaborators Print collateral designed</p>	<p>Week 2 IMA Bulk mail print collateral mailed</p>			<p>TBD Marketing for collaborator events</p> <p>TBD Collaborator events held</p> <p>TBD Evaluation</p> <p>TBD Final Reports</p> <p>TBD Next steps for future collaborator events</p>
							<p>Week 4 <i>Mary Miss</i> FLOW Launch event</p>	

FLOW (Can You See The River?)

BUDGET

EXPENSES					
PERSONNEL					
CATEGORY	RATE	WEEKLY	DURATION	TOTAL	
Artist Fees					
Mary Miss	\$50,000				\$50,000
Marda Kim	\$8,000				\$8,000
Studio Staffing	\$50,000				\$50,000
Architect / Engineer Fees					\$25,000
Research, in-kind by collaborating organizations (not counted here)					
Eiteljorg Museum					\$3,000
ZOO					\$3,000
Butler					\$3,000
State History Museum					\$3,000
IUPUI, Lenore's group					\$3,000
Marion, David Benson					\$3,000
					\$133,000
TRAVEL					
TYPE	RATE	QUANTITY	NUMBER OF TRIPS	TOTAL	
EcoArts -- 4 trips: February Programming mtgs, March Marketing meeting, June 2011 FLOW opening, one other misc.					
airfare	\$300	1	4		\$1,200
ground transportation	\$50	4	4		\$800
lodging*		3	4		\$0
*assumes lodging in IMA visiting artist/scholar residence hall					
Mary Miss					
airfare	\$300	1	12		\$3,600
ground transportation	\$250	1	12		\$3,000
lodging*		3	12		\$0
*assumes lodging in IMA visiting artist/scholar residence hall					
					\$8,600
MARKETING					
TYPE	COMPONENTS	UNIT COST	QUANTITY	TOTAL	
Print Collateral					
	Mary Miss piece postcards				\$3,000
	FLOW Festival/Series Brochure				\$10,000
	Poster				\$1,500
	Mini-cards				\$1,000
Display Ads					
	Press Kits				\$10,000
					\$3,000
					\$28,500
EVENTS					
TYPE	UNIT COST	QUANTITY	TOTAL		
Programming Fees (Collaborators)	\$2,500	20			\$50,000
					\$50,000

COST ESTIMATES

MATERIALS			
	COST	QUANTITY	TOTAL
ELEMENT			
Node	\$40,000	5	\$200,000
Complex Site	\$20,000	10	\$200,000
Simple Site	\$3,000	15	\$45,000
Markers	\$50	500	\$25,000
River Surveillance Screen:			
screens	\$4,000	20	\$80,000
additional wiring	\$750	20	\$15,000
labor	\$30	50	\$1,500
Web Cams:			
outdoor webcam	\$3,000	20	\$60,000
power supply/ generation and storage			
satellite broadband connection			
installation			
Walkable Map			\$40,000
RAFTLab:			
Barge	\$10,000	1	\$10,000
Barge retrofitting	\$8,000	1	\$8,000
Scientific Equipment			\$15,000
Extreme Green Home Makeover (EGHM)			\$25,000
Neighborhood Infrastructure Mapping			\$25,000
			\$749,500

TECHNOLOGY		TOTAL
TYPE		
Audio accompaniment		\$5,000
FLOW website (page on IMA?)		\$5,000
Hydrocaching app		\$10,000
Your Green Indy		\$20,000
Raindrop		\$20,000
		\$60,000

EXPENSES	\$1,029,600
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FLOW (Can You See The River?)

PERMITS

PERMITS

Butler University
City of Indianapolis
 Parks Department
 Department of Transportation
 Department of Public Works
IMA
IUPUI
Marian University
International School
Veolia Water Co.
White River State Park

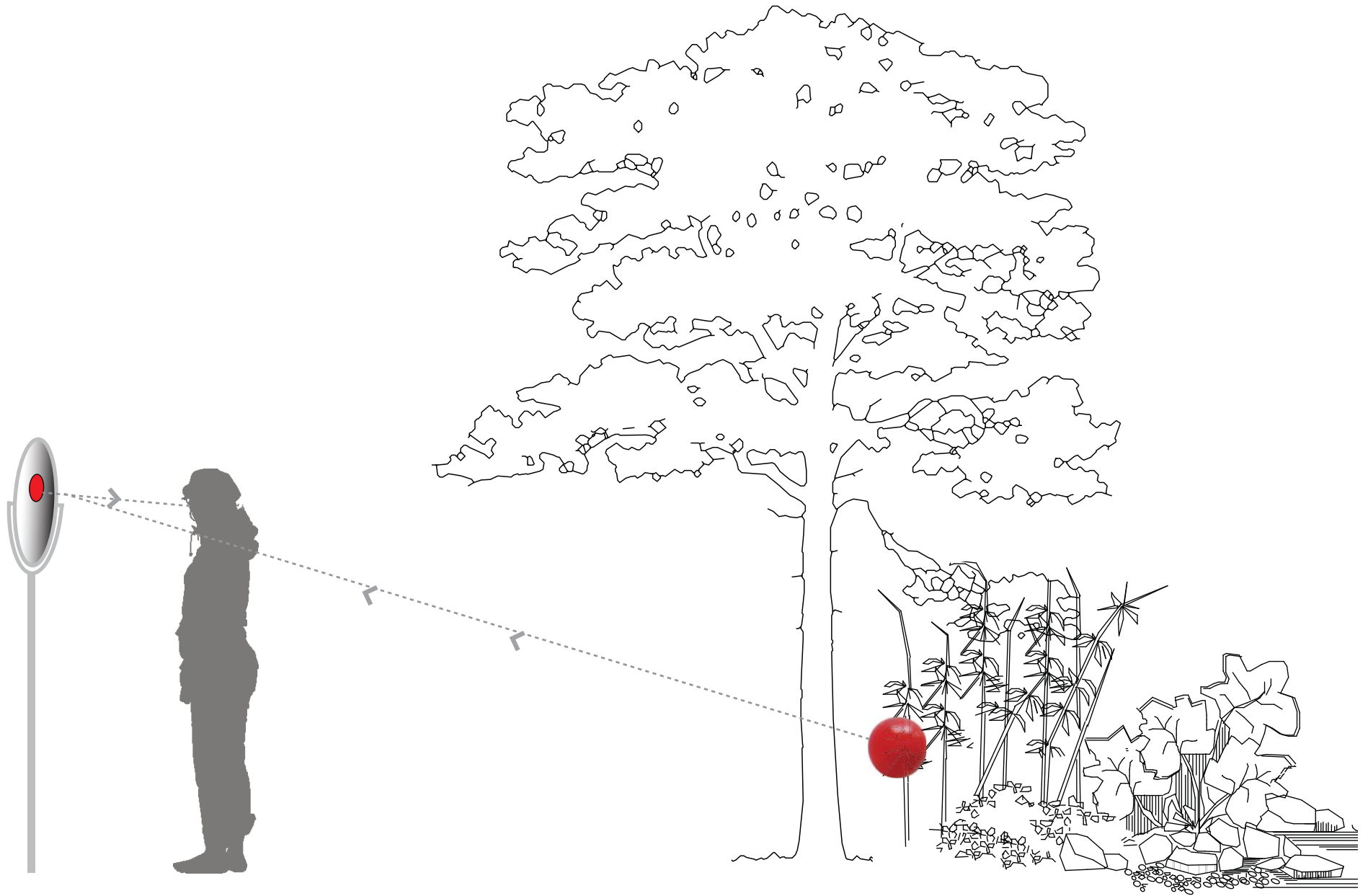
APPENDIX A: RIVERSIDE SITES

Description Of First Prototype: Locator

A circular stainless steel mirror attached to a pole is positioned to reflect the point of focus—the river, a tree or the wetlands, etc. A red sphere/ marker like an enlarged marker pin on a map is placed on that location. A red mark is placed on the surface of the mirror. As the viewer aligns the very evident red marks, the viewer's point of focus vibrates back and forth between the surface mark and the reflected sphere/marker (a difficult experience to reproduce two-dimensionally). A text etched on the mirror surface identifies the point of focus, for instance a sewer outfall. These mirrors may occur singly or in clusters and in a variety of sizes. Seeing their own reflections, viewers are reminded of their role in making their own relationship to the river.

On the back surface of the stainless steel disc, a text is etched with a brief description of the content of that site and a web address/phone number is given where more can be read or heard about the topic and how the individual can participate, learn more or implement some version of the issue addressed themselves or in their community.

MARKER REFLECTED IN MIRROR





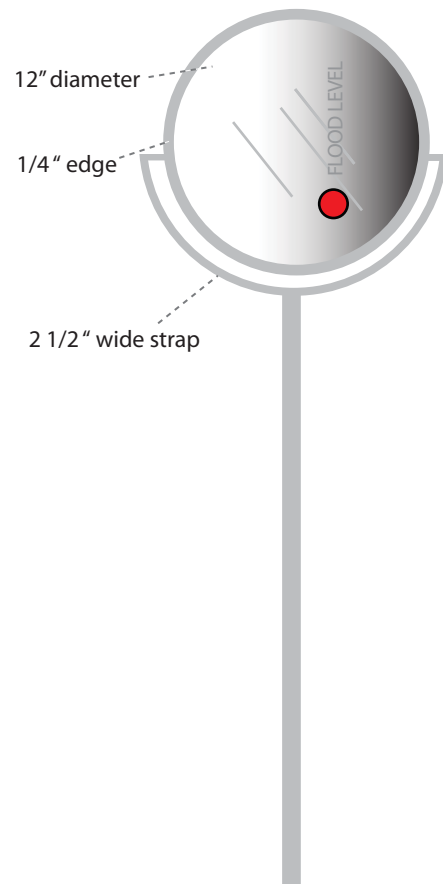
COMBINED SEWER OUTFALL



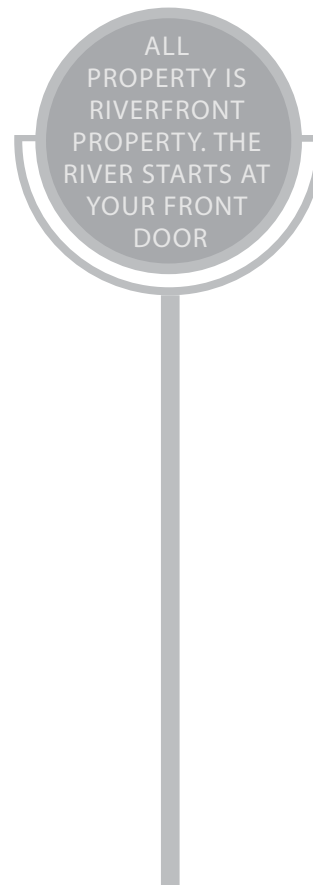
DETAIL OF SINGLE MIRROR ATTACHED TO POST

Note: Variable sizes

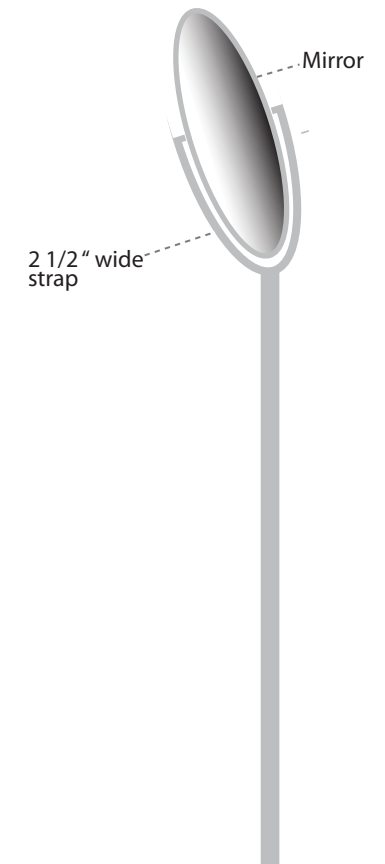
Side 1:
Mirror finish stainless steel with red dots attached and etched text

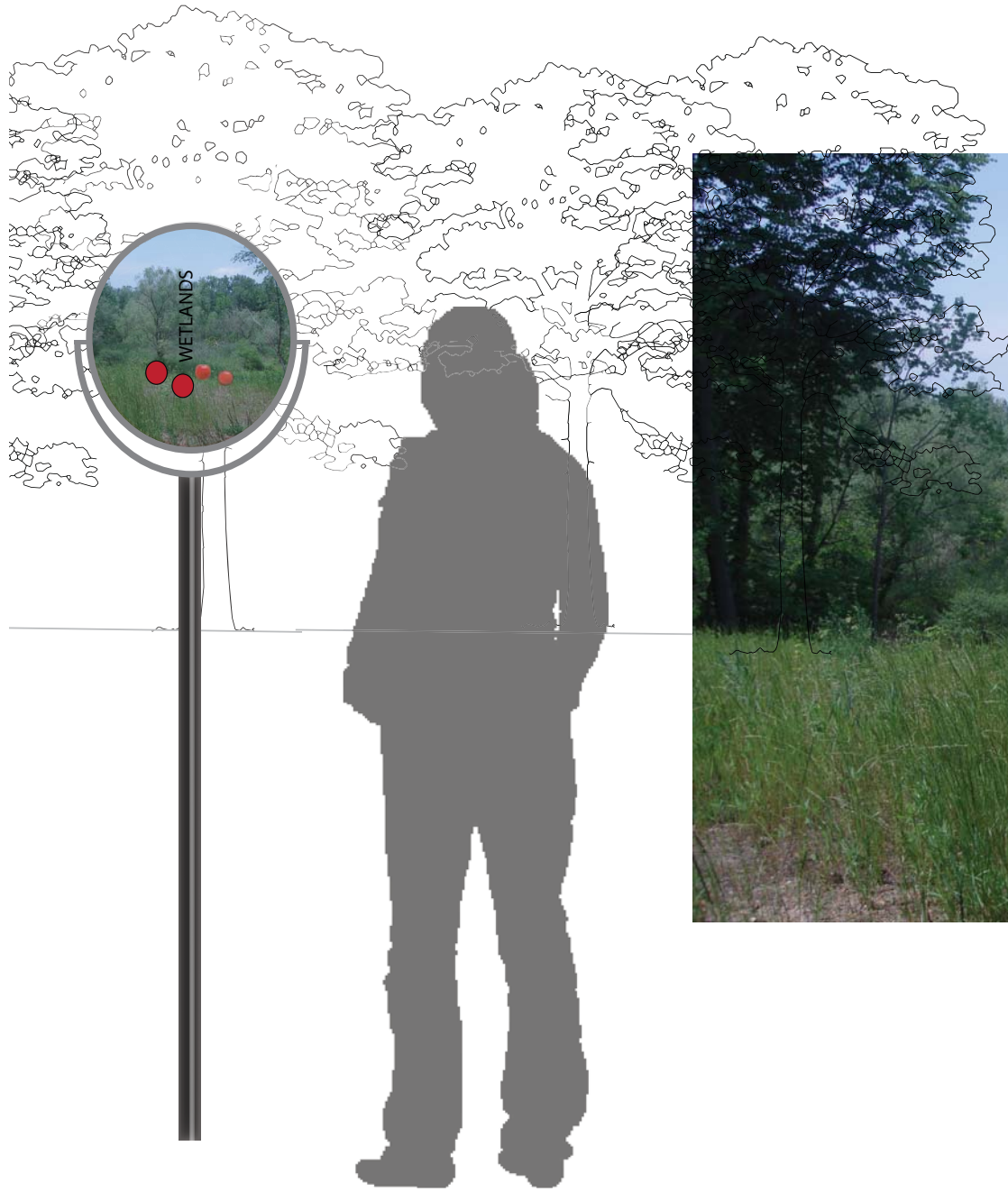


Side 2:
Content: text etched lightly onto brushed stainless steel



Side View:
Adjustable angle

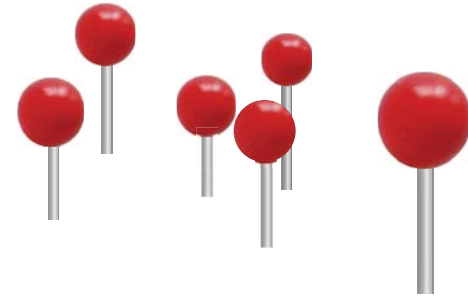




MARKERS



4"-20" D sphere on post of variable heights



May appear at single points, in clusters of variable sizes, in an array over a field or in a line



6" red sphere marker

1 1/4" 'silver' post

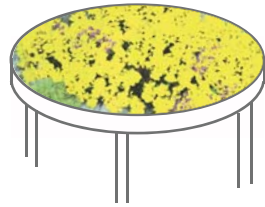


POSSIBLE SITE ELEMENTS:

The following elements may appear singly or in clusters at some point at the Riverside Sites.

GREEN ROOF

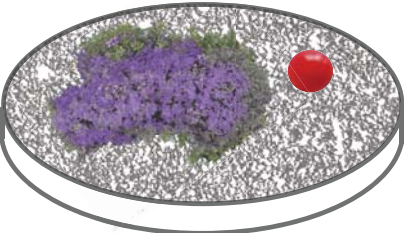
A series of elevated surfaces showing different plants that may be used on green roofs
4'D



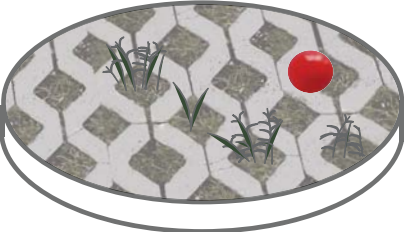
A raised surface to show green roof planting
6'-10'D

POROUS PAVING

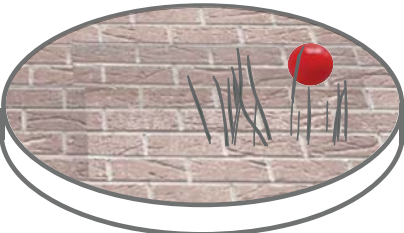
Rings of various materials to show variety of porous surfaces



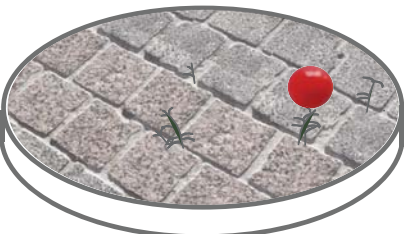
gravel



grass-crete



bricks

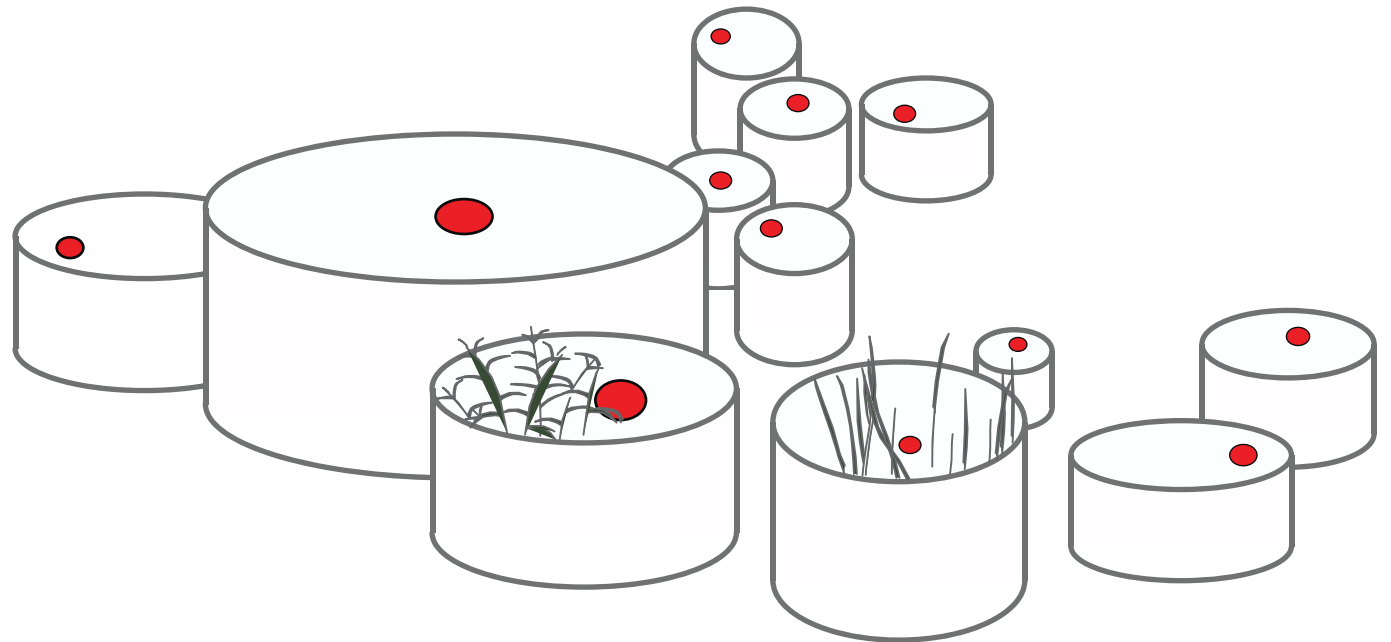


granite/cement pavers

RAIN GARDEN

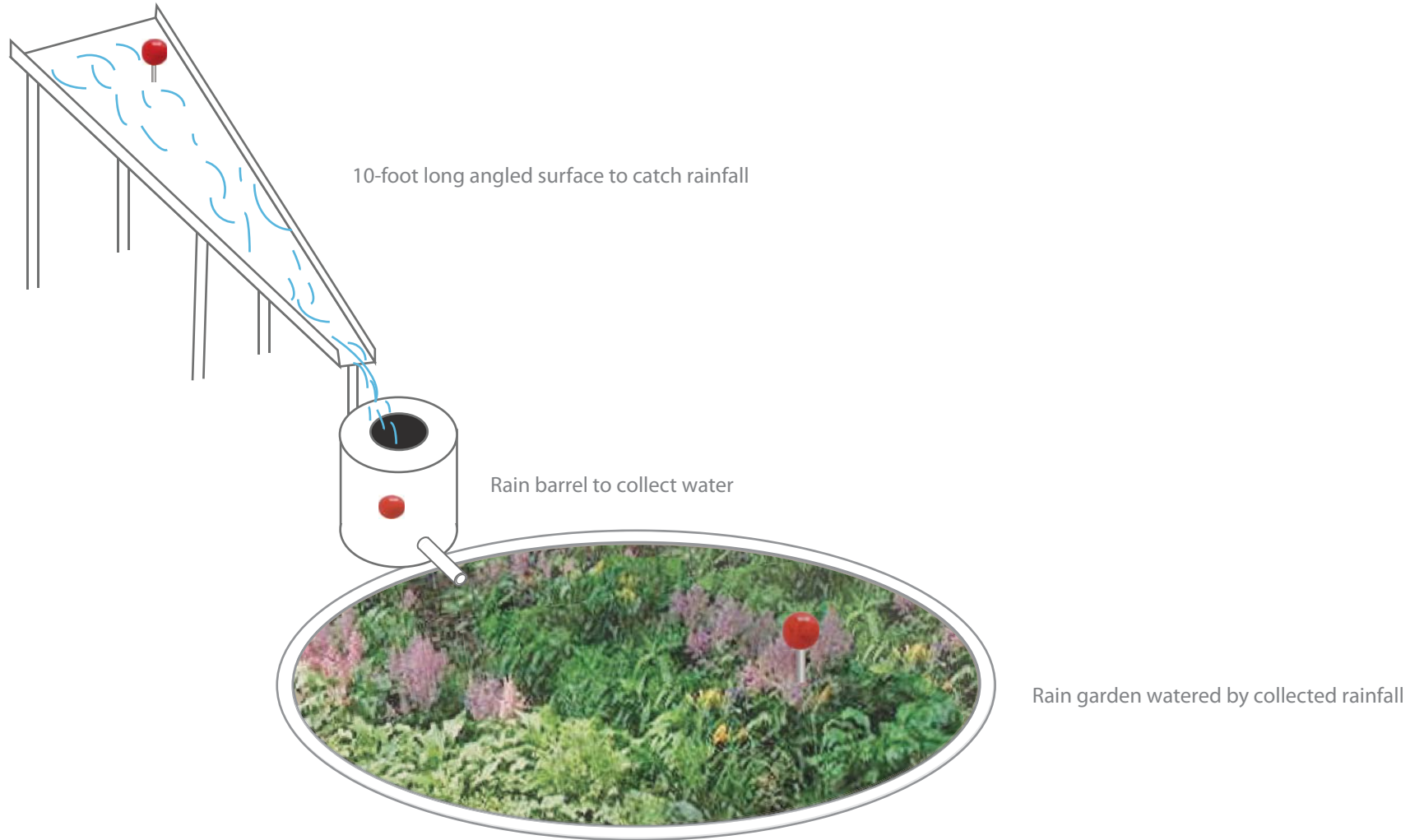


A ring showing a rain garden and describing function



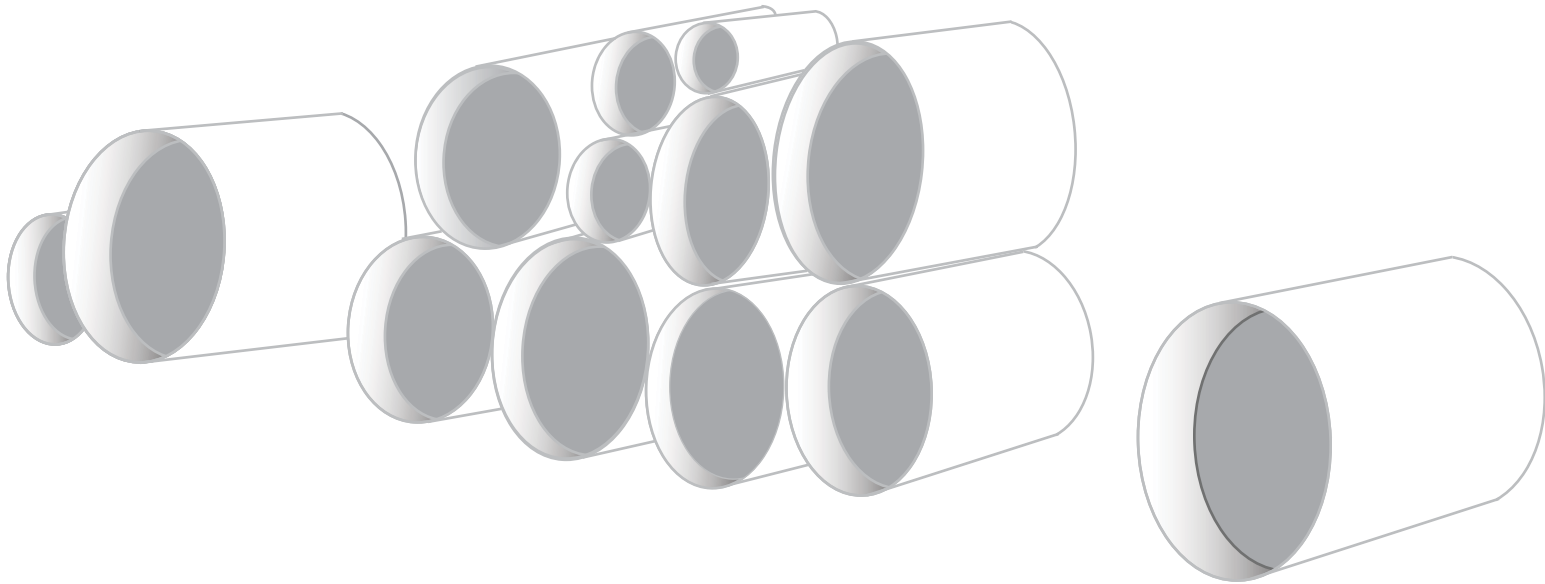
A cluster of containers showing the individual plants that may be used in a rain garden. Name plants.

RAIN BARREL



CONTENT: HISTORY

Glass enclosed pipe segments in various configurations
with historical images inside

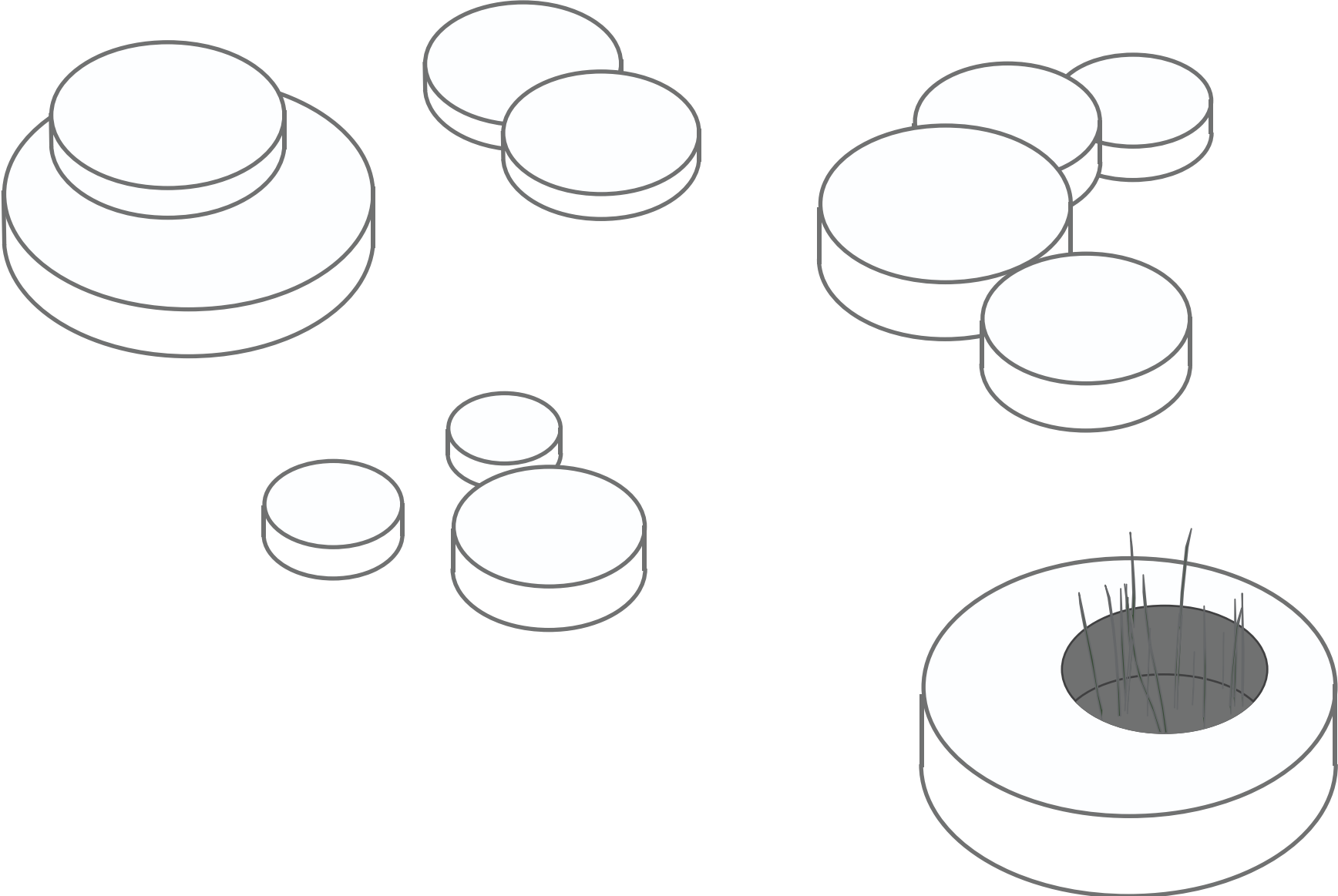


Example: images of Native American water baskets



SEATING

At some sites: various clusters of seating/planting



VARIATIONS ON MIRROR CONFIGURATIONS

