

PARK AS LIVING LABORATORY  
a concept for a 21st century park

Goal:

**ENVIRONMENTAL & SOCIAL  
SUSTAINABILITY**

an **experimental** place where new ideas can be investigated and tested

an **evolving** place where issues of our time can be expressed

an **experiential** place where sustainability is made tangible

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# THE ORANGE COUNTY GREAT PARK

## VISION

### **The Sustainable Oasis**

In the middle of Orange County in southern California a new kind of park is being conceived - a sustainable oasis that will be a place that creates a series of bonds between the built environment and the natural world, our history and our current needs and between the varied communities of this area with each other. These bonds will ultimately provide the working connections between our past, the present and the future. The citizens of Orange County will be key participants in making this area a leading force in creating a new paradigm for a sustainable future.

### **The Oasis and Health**

As parks have long been, the Orange County Great Park is an oasis, a place of pleasure, activity and reflection. It will be a place where the senses – the experiences of sight, touch, taste, sound and smell-provide visitors with a visceral connection with their immediate environment. It will be a place where they can come for physical, spiritual and mental renewal. In this sustainable oasis, moreover, these aspects of health are a major focus: the health of the individual becomes a means of understanding the social and ecological health of the region and the world.

### **Sustainability and the Park as Living Laboratory**

A primary concept of the park is that it will be a place of experimentation and change over the years as aspects of social and environmental sustainability are studied. The Great Park is where new ideas and opportunities can be investigated, tested and built over the next 5, 10, 50, or 100 years. The complexity of the issues makes it impossible for representatives of one area of expertise to understand all the problems or imagine the most effective solutions. For this reason, from its inception the Great Park has been developed through collaboration. This mode of working will remain at the core of the Park's vision. Artists and designers will work in collaboration with scientists, historians, hydrologists and others to implement The Park as a Living Laboratory.

The role of the artists and designers will be to make sustainability a tangible experience, to arouse the interest and curiosity of visitors - and more, to invite their participation in finding solutions for the pressing problems of the 21st century. Instead of signboards full of dull facts, the Great Park will pioneer a new experiential form of interpretation. Together, artists, performers, scientists, and educators will collaborate to tell the stories of cultural heritage, the site's history, ecological restoration, and building a sustainable future in a new way. Orange County is composed of many communities of diverse cultural backgrounds. Park programs will celebrate the different histories and experiences of these groups, and explore how aspects of each culture can help build a healthier and more sustainable future.

### **Sustainability Goals**

To help the park succeed in its goal of creating a new balance between meeting human needs and promoting environmental health we must come to understand the consequences of our actions and the effectiveness of potential solutions. Is it possible to grapple with the negative consequences of development in a rapidly growing region such as Orange County at least in part by restoring and linking disappearing natural habitats? What are the best ways to design buildings in this region that do not degrade the land? Are there better ways to deal with our trash or treat our sewage? The park becomes a lens focusing on problems of our times and their solutions. In this way it has the potential to affect the whole region by exporting new ideas to surrounding communities. In order to accomplish these goals the park will implement and embrace a set of sustainability indicators, which will be tracked by a series of performance standards. This will make it possible to understand the effectiveness of the projects and programs that are undertaken.

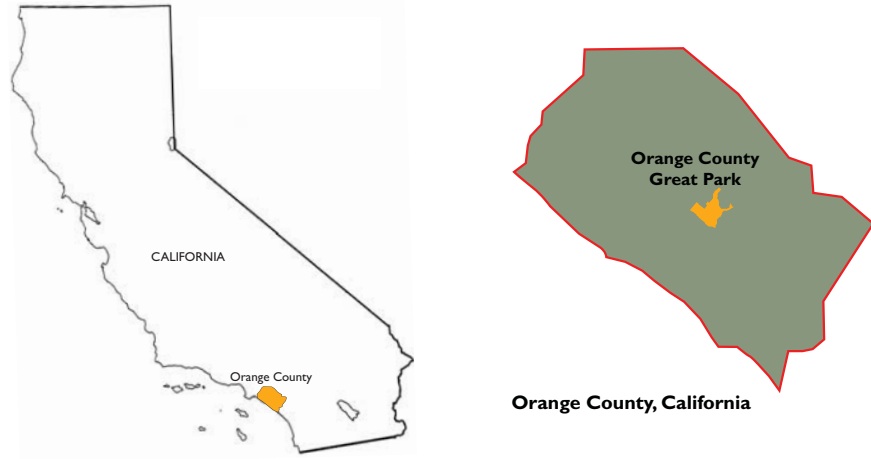
### **Conclusion**

The most important component of the Great Park will be the people who come here. It is in their direct experience of the place – what they see, touch, feel, and come to understand – that the possibility of transformation lives. The park will be a place where individuals are encouraged to reflect on the great issues of our times and to participate actively in the creation of a healthier future. It will draw attention to our immediate environment, its problems and pleasures. Only a place and present tense of great richness can allow individual visitors to become conduits toward a future of great optimism. The transformation of this former airbase into a beautiful space - a sustainable oasis - can be the beginning of a new vision that restores the balance between ourselves and our environment.



# CONTEXT

The Orange County Great Park is located in southern California near the center of Orange County in the city of Irvine. The park will be developed at the site that was most recently (1942 - 1999) the El Toro Marine Corp Air Station.



Orange County Great Park Boundary and Context

Orange County Great Park



## PARK AS LIVING LABORATORY - WHAT IS IT?

The Park as Living Laboratory is a vision for the Great Park - a place where new ideas about environmental and social sustainability can be investigated, tested and built as the park is developed over the next 5, 10, 20, or 50 years.

### SUSTAINABILITY MADE TANGIBLE

Our goal is to create a place where sustainability becomes a *tangible* experience. Through the Park as Living Laboratory concept, sustainability can be explored in many ways, not only technological but also experiential, educational and interpretive. To turn this goal into a reality, artists and designers will create projects which address critical issues of our time - such as water or energy - reveal the site's history or provide meaningful social spaces within and beyond the park. These projects are intended to arouse visitors' interest and curiosity to make these pressing issues of the 21st Century accessible to all.

### EDUCATION

Educating the public about environmental and social sustainability is an important part of the park's mission. Whether focusing on environmental issues or learning about the history of the site, the citizens of Orange County will be able to enjoy a kind of public space where education is approached in a very unique way. Rather than the conventional use of interpretive signage, the park will provide educational experiences by engaging visitors with the creative work of artists and designers. This work will cover a broad range of topics - Who were the earliest occupants of the area? How can the Veterans who used ElToro be acknowledged? How do we acknowledge the Native Americans who once occupied the site? The Park as Living Laboratory forges new ways of thinking about how to address these questions and many more.

### COLLABORATION

This Park as Living Laboratory will be implemented through the establishment of a Research and Residency Center. This will be a place where artists and designers can collaborate with scientists (ecologists, botanists, hydrologists, biologists etc.) and social scientists (historians, sociologists, anthropologists etc.). Through these collaborations artists will have the opportunity to investigate and research in detail an issue such as storm water run-off or alternative energy uses within the park; social projects might involve making connections between the park and its surrounding neighborhoods; other opportunities include investigating the archaeology of the area, major structures in the park, hydrological systems or communications. The work might take the form of prototypes, temporary installations, permanent works or theoretical investigations. The idea is to design a process to engage artists as thinkers to address these important issues that will define our future.

## EXPERIENTIAL EDUCATIONAL INTERPRETIVE

### ARTISTS & DESIGNERS

The ongoing presence of artists and designers in the park over the years will create a place where something new is always expected. Their work will invite the public to look at the natural environment in new ways or use sensory experiences such as sound, sight, taste, touch and smell to inspire visitors to engage with otherwise abstract issues about energy or the environment. The Park as Living Laboratory will ensure that the Great Park is a place rich with visual experiences and where a new awareness of the relationship between the built environment and the natural world is forged.

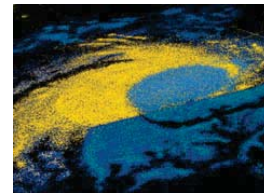
### MICRO TO MACRO

Rather than acting only as a relief to the built environment, the park will generate new ways of thinking about sustainability that have the potential to affect the whole region. At the local scale, the relationship between individuals and the park is the immediate focus, where personal health and well-being is encouraged and ties between humans and their natural environment are revealed or intensified. These ideas can then be exported to a macro level through regional scale projects involving mass transit, stormwater infrastructure, schools etc.

### ADDRESSING CRISES

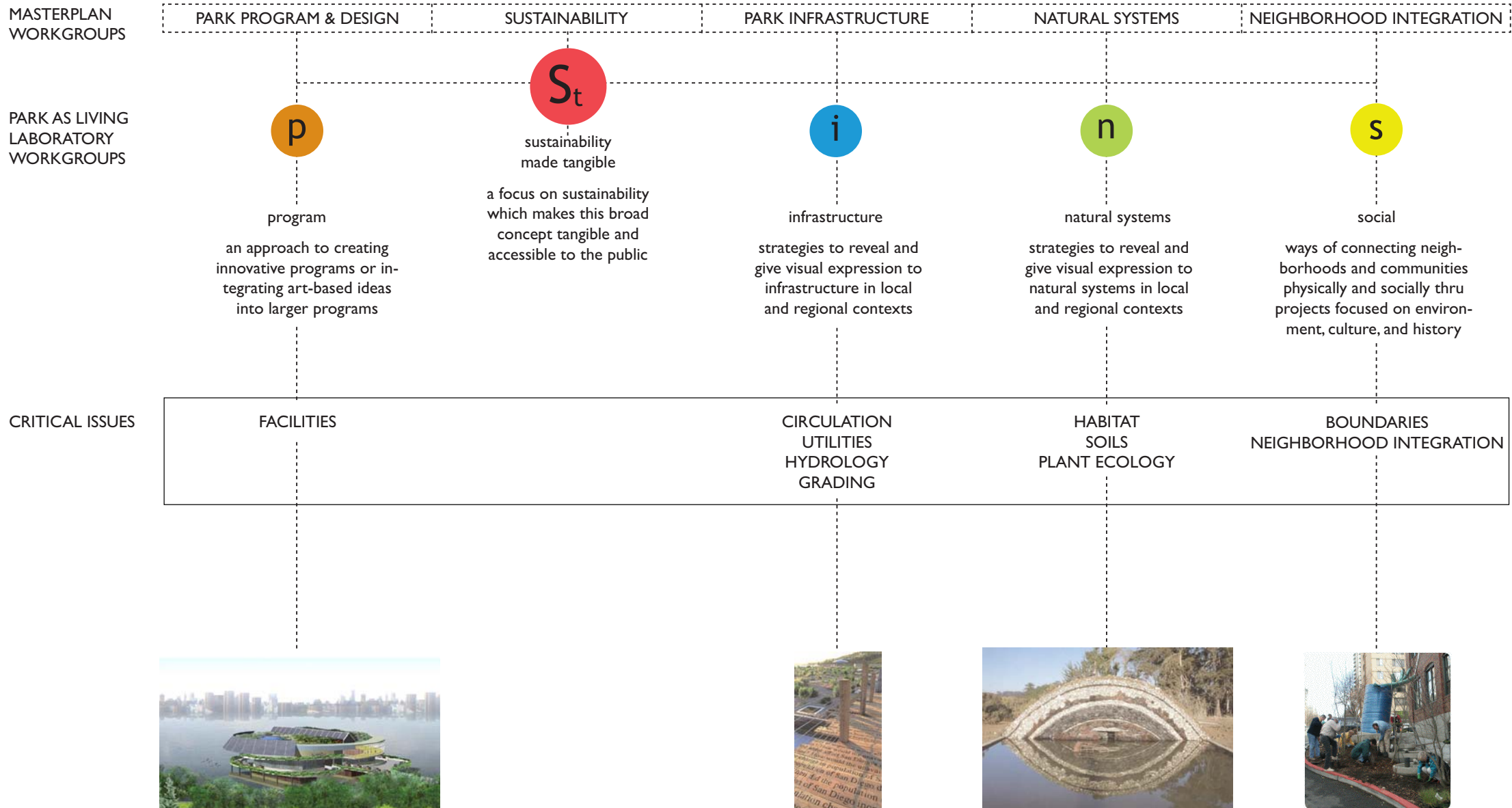
Through the Park as Living Laboratory, the park can also serve as a place where current day crises can be addressed, educating citizens about how to deal with the unexpected, whether it be severe water shortages, an energy crisis, flooding, fires or hurricanes; it can become a testing ground for innovative solutions to problems that have been occurring more frequently in recent times as a result of the unsustainable practices that have taken a toll on our urban environments. The Great Park can be a place to turn when crises arise.

## SOUND SIGHT TASTE TOUCH SMELL



# WORKGROUP ORGANIZATION

As an organizational strategy, various components of the research for the Park as Living Laboratory (such as precedent studies and identifying opportunities) have been structured around a series of workgroups: *Program, Infrastructure, Natural Systems and Social*, all of which fall under the heading *Sustainability Made Tangible*. These categories are based on the workgroups established for the masterplan design. The following chart maps out the organization of these workgroups in relation to the critical issues categories upon which this preliminary masterplan document is based.



# OPPORTUNITIES - IDENTIFYING POSSIBILITIES

Based on the overall goals for the park and the current work being undertaken, we have identified a number of opportunities for artists and designers. Many of these would be collaborative projects involving a wide range of groups and individuals with varying fields of expertise. The projects, while focused on the Great Park, could take place within the park itself or beyond its boundaries. These opportunities have been organized according to the five workgroups we have established for the park masterplan, with *sustainability made tangible* being the main heading under which the others fall. This list is intended only as a point of departure - to present examples of issues that might be addressed. In the future, the list will expand in scope, ideas and type of project beyond the framework of the current masterplan.



sustainability made tangible



program

- 1. Vital Signs Kiosks** – Distinctive structures designed to provide personal health and nutrition information (heart rate, calories burned, nutritional needs).
- 2. Acute Care Spaces** – Relaxation and exercise areas dedicated to those with special needs.
- 3. Get Well in the Park** - A series of indoor and outdoor rehabilitation areas allowing patients to progress through different levels of fitness as they recover.
- 4. People Power** – Exercise bikes and treadmills that convert human energy into electricity which is then used to light up surfaces revealing fitness/health facts.
- 5. Pedal & Pump** – Great Park bikes which charge batteries used to pump water for cooling stations along bike path.
- 6. Lights on Bikes** – Great Park bikes that power their own lights at night using a generator.
- 7. Sports Center Info Stations** - Kiosks used to see scheduled game times and reserve sports fields; these could also be installed in community centers outside the park.
- 8. Story Telling Rooms** – Distinctive spaces throughout the park used for scheduled storytellers including historians, poets, ecologists etc.
- 9. Audio Tours** – Listening devices (or Ipod downloads) that tell stories or provide information about the park or particular installations within it.
- 10. Harvest Cafe** – Eating places within the park which celebrate harvest season by serving foods grown and harvested in the park.



infrastructure

- 1. Agua Chinon Storm Water Lab** – Exposed waterways with added vegetation to study its effects on storm water runoff within its own sub-watershed
- 2. Agua Chinon Observation Stations** – Spaces designed to observe and experience the restored creek, vegetation and habitat changes over time.
- 3. Alternative Energy Display** – An exhibit of PV panels, solar disks, wind turbines, etc. to show energy production on a large scale and how the energy is used throughout the park.
- 4. Energy Measuring Devices** - Instruments which measure the amount of energy used for specific functions, making people aware of energy consumption throughout park.
- 5. Energy Meter** – Oversized electrical meter measuring amount of energy created and its source (wind, pv, disk, biomass etc.).
- 6. Windmill Trails** – Show connection/effect that off-site windmill farm has with/on the park through a series of trails along power line right-of-way.
- 7. Sustainable Habitat Surveillance** – Solar powered cameras used to document ecological change throughout the park or areas off limits to humans (wildlife corridor); images obtained could be used to create artwork.
- 8. Solar Comfort Stations** – Notable display of PV panels or disks on the roof of shade structures for comfort stations and other public buildings.



natural systems

- 1. Park as Non-Static Entity** – Collaborative project with scientist to reveal ongoing physical changes of the park and relationships between the changes.
- 2. Run away Runway** – A strip of vegetation along runway left to remain and grow unaltered and unmanaged to see what happens.
- 3. Plant & People Growth Monitoring Project** - Designated area where camera takes photos at scheduled intervals to document park plant growth; park users can get into the photos and print copies to follow growth of family from one year to next.
- 4. California Friendly** – Plant exhibit featuring California Friendly plants.
- 5. Native Species Patches** – Experimental planting zones using native species to create specific habitats throughout park; public viewing areas allow visitors to observe habitats.
- 6. Fisheries at Agua Chinon** – Fisheries as visual features.
- 7. Soil Microscope** – A series of lenses (windows) along a path to visually amplify the microscopic world of soils.
- 8. Materials of the Earth** – An installation of different structures which can be made from the earth (brick, stone etc.)
- 9. Wetland as Habitat** – Visual strategies to show water cleansing properties of wetlands and reveal life forms within.



social

- 1. Community Kiosks** - Kiosks located in underserved communities where public transportation is inadequate; users would be able to review park activities and request pick-ups.
- 2. Recycling Suction** – Recycling bins w/vacuum system take the material in and send it through clear pipes to the proper site for recycling in the park.
- 3. Transplanted Gardens** – Wetland gardens, wildlife habitats and edible gardens seen at the Great Park become features at local schools.
- 4. Seed Sharing** – Project based on seed share program where partnerships with home gardeners and community gardens are created throughout Orange County for exchanging seeds.
- 5. Seed Bank** - A repository of seeds for the future located in a public area of the park; people collect seeds for developing native plants in the park.
- 6. Learning Gardens** - A series of educational gardens based on various programs: Harvest to Home – project to inform gardeners about proper vegetable preservation techniques (canning, preserves etc.), Master Gardener Program and Nursery Certificate Program.
- 7. Vertical Gardens** – Project showing gardening in small spaces, using climbing vines to grow vegetables on the sides of buildings, fences etc.
- 8. Casitas** – Casitas designed within community gardens to create social spaces.
- 9. Casita Kitchens** – Special kitchens designed for cooking demonstrations in garden area to promote good health and improved nutritional options.



# OPPORTUNITIES - IDENTIFYING POSSIBILITIES



sustainability made tangible

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program

- 11. Kitchen Garden Restaurant** – A restaurant within an organic garden which supplies kitchen with food used in dishes; spaces for cooking demonstrations and food events are integrated into the garden.
- 12. Agriculture at Your Doorstep** - Visual materials (such as packaging or graphics on vehicles) for home delivery service of fresh crops sent weekly to 'subscribers' for a monthly fee.
- 13. Organic Vegetable Garden Pavilions** – Spaces created within organic vegetable gardens to generate public interest in this type of gardening with activities such as recipe exchanges and tasting hours.
- 14. Edible Landscape Room** – A series of landscape rooms, each featuring different edible plants; food events take place in rooms when plants are in season.
- 15. Fresh Food Stands** – Rest stops throughout park where fruits and vegetables grown in park and fresh squeezed juice can be purchased.
- 16. Solar Smoothies** – Blended fruit drinks made using blenders powered by photovoltaic panels on a cart that can be wheeled around the park.
- 17. Ethnic Learning Gardens** - Gardens featuring plants associated with particular cultures including visual displays/installations about how those plants are used within each culture.
- 18. Historic Agriculture** – Project exploring Orange County's agricultural history.
- 19. Moving Information** - Text/images on moving electrical carts making visitors aware of the use of renewable energy.
- 20. Cell Carts** - Electric carts designed with photovoltaic cells on top.

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infrastructure

- 10. Bioswale Section** – Sectional cut along a bioswale to create a space for experiencing storm water from below grade.
- 11. Wetland Features** – Strategies to call out and make connections between the wetlands throughout the park and other parks in the community.
- 12. Natural Treatment Tower** – A vertical structure for visitors to experience areas adjacent to wetlands from above, below ground and at eye level.
- 13. Storm Water Revealed** – Water pipes become large scale devices measuring different aspects of water (flow rates, linear feet traveled from origin, quality).
- 14. Hydro Hiking Trails** – A system of trails exposing the many hydrologic systems of the park and how they are linked through a system of trails
- 15. Pipes and Paths** – Exercise/hiking paths along water piping systems with distance markers (big rulers) to show how far the user (and the water) have traveled.
- 16. Pumping Power** – Visually engaging measuring devices to show how much energy is needed to pump potable water into the park.
- 17. Purple Pipes** – Strategies to show the origins of purple water and its movement through the system to its final use (home-treatment center-park-irrigation)
- 18. Potable Water Tracker** – Water features throughout park to show where multiple sources of potable water originate.

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natural systems

- 10. Phytoremediation Gardens** – Landscape revealing how plants remove different pollutants.
- 11. Map the Soils** – Ground markers and/or plantings revealing the different soils in the park.
- 12. Soils Section** - A sectional cut through an area of soil to reveal depth, horizons and percolation rate; changes monitored and documented.
- 13. Stormwater Habitat Creation** – Strategy to monitor and reveal habitat created in areas of the park where storm water would be treated.
- 14. Wildlife Viewing Areas** – Camouflaged wildlife viewing 'pavilions' or towers for non-invasive viewing experience.
- 15. Wildlife Kiosk** – Interpretive kiosks designed for identifying wildlife habitat, vegetation and animals.
- 16. Vegetated Timeline** – A physical timeline to show growth rates in meadows planted and observed yearly; new meadows planted every year for five years.
- 17. Seasonal Celebrations** – Events celebrating the seasons, migration patterns, harvest, changes in weather (for instance, rainy season) throughout the year.
- 18. Migration Markers** – Areas in the park marked as appropriate to draw attention to where insect or animal migration occurs.
- 19. Micro climatic Rooms** – A series of outdoor rooms of varying micro climates to produce different habitats; monitoring devices designed to make people aware of relationships between micro climates and habitats.

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social

- 10. Soils Sample Station** - Area designed to conduct soil sample analysis for homeowners; alternatives to fertilizers and chemicals for soils amendments provided.
- 11. Recycled Material Sculpture** – Artworks by artists and park visitors created using recyclable items.
- 12. Cultural Exchange Program** – Festivals, cultural events, performances, workshops, holiday celebrations etc. to create cultural awareness.
- 13. Native Communities** - Project exploring Native American communities - which ones were present, how they functioned, their experiences, systems (agriculture, land use, dwellings etc.), sustainable practices and respect for the ecosystem.
- 14. GP documentary** - Project that documents the transformation from air base to park.
- 15. Youth Engaged in Sustainability (YES)** - Project to get young people involved in the environment through collaborative projects involving gardens, sustainability and technology.
- 16. GP in Your Park** - Project about making connections between Great Park and natural areas to the west and surrounding neighborhoods.
- 17. Trail Connectors** - Distinctive trail markers to make connections from park to regional trail systems.
- 18. Composting Education Area** - Public viewing area for composting plant located within park or adjacent to it.
- 19. Composting Sites** - A series of distinctive community composting sites.

# OPPORTUNITIES - IDENTIFYING POSSIBILITIES



sustainability made tangible



program

- 21. **Sustainable Circulation** - A series of installations along main circulation route through park designed to reveal issues of sustainability.
- 22. **Permeable Pathways** - Paths of varying scales and purposes designed to call attention to methods of decreasing runoff.
- 23. **Bike and Burn** - Calorie counting devices on bikes calculate mileage and calories burned; bike rental and food discounts the more you burn/ride
- 24. **Mass transit** - Shuttle buses designed with movable displays/artwork to promote the use of mass transit as well as direct visitors to Park and Ride facilities and sustainable points of interest.
- 25. **Recycle & Ride** - Recycling stations where public can bring recyclable goods in exchange for public transit tokens.
- 26. **Sustainable Transportation** - Visually distinctive bicycles, pedal carts, pedal boats, and rowboats available at various points throughout the park.
- 27. **Ecological Footprint** - A demarcated area showing spatially the amount of resources used annually by a person based on certain lifestyles.
- 28. **Walkable Historic Diagram** - A physical time line informing users of the historic context of Orange County from past to the present to possible futures (one sustainable, the other would be based on the current pattern of resource use)
- 29. **Alternative Energy Rooms** - Spaces in park which highlight methods of using alternative energy and display data in visually engaging ways.



infrastructure

- 19. **Aquifer Action** - Sectional cut through a portion of the site showing the actions of the aquifer.
- 20. **Geology of Place** - Installation to show the geology of the park at a condensed scale.
- 21. **Water in the Park** - Strategies to reveal and make notable water requirements in different areas of the park (canyon, the ball fields, agricultural fields etc.).
- 22. **Rain water Structures** - Structures designed to capture rain and show use of rain water for irrigation.
- 23. **Moisture Measuring Posts** - Visually engaging measuring devices to monitor soil moisture throughout park.
- 24. **Bridges of the Elements** - A series of bridge designs that reveal aspects of the elements and different weather conditions in Southern CA. For instance, a fog bridge, wind bridge or fire bridge.



natural systems

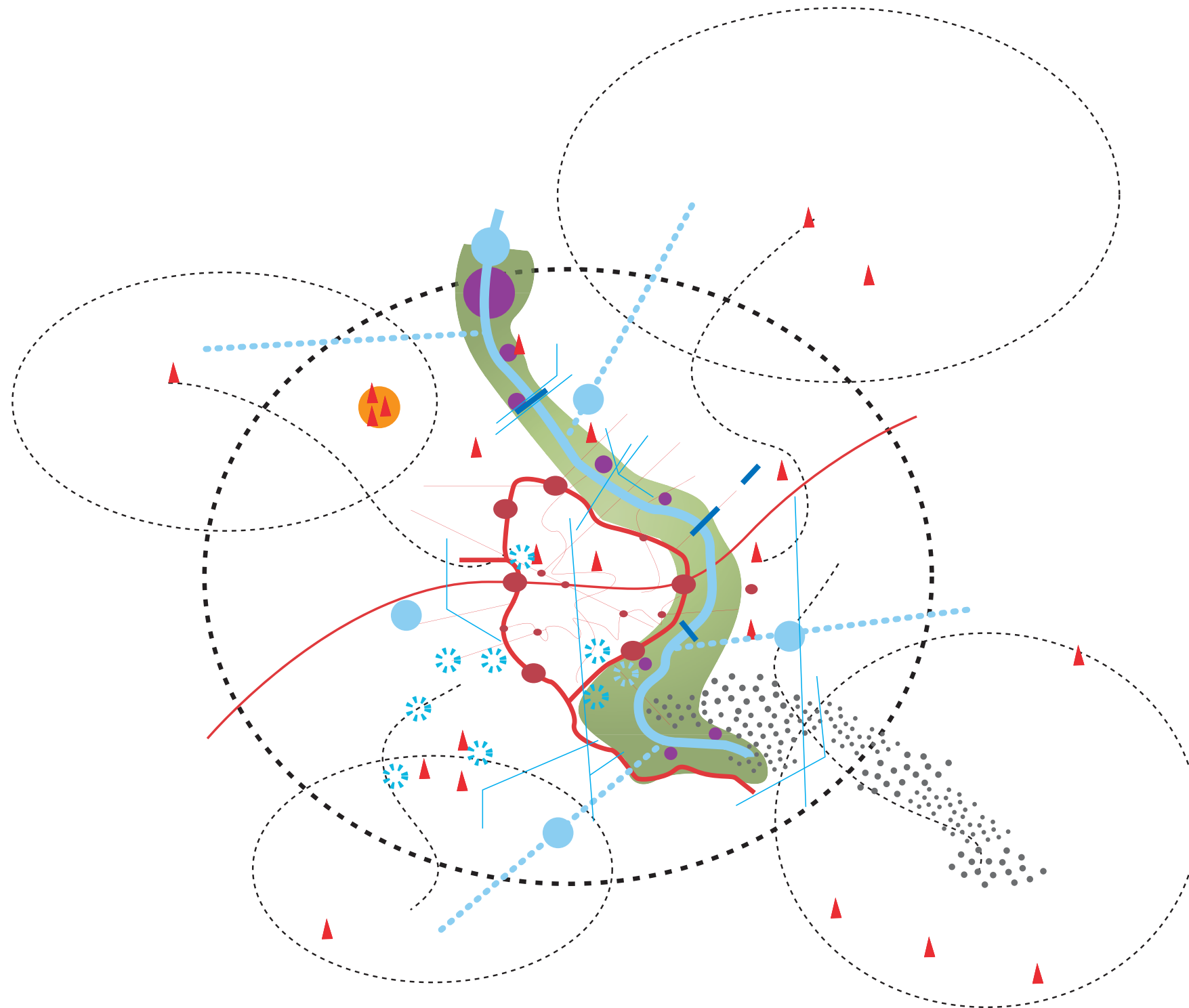
- 20. **Medicinal Gardens** - Installations showing the use of plants with medicinal purposes throughout history (Native Americans-Settlers-Today)
- 21. **Craft Plants** - Plant and craft exhibit revealing direct relationship between plants and their functional uses, for instance, palm fronds for baskets, fibers for cloth and gourds for musical instruments.
- 22. **Historic Plant Installation** - Installation featuring California plants from past to present (a landscape timeline)
- 23. **Roaming Nursery** - Plant carts designed as floats or mobile gardens featuring plants from the Botanic Garden for sale.
- 24. **Plant Personalities** - An installation featuring plants that humans can interact with (the sensitive plant, plants that open and close based on sun or shade etc.)
- 25. **Rare Collection** - An installation of rare threatened and endangered California plant species
- 26. **Low Maintenance Plant Plots** - An experimental area featuring plants that require low maintenance, less water, no fertilizer or organic fertilizer options
- 27. **CA Local Plots** - An area featuring plants that support local plant communities, wildlife and ecology designed at the scale of a home garden.
- 28. **Sensory gardens** - Gardens that engage all senses and create awareness of the human/natural system connections.
- 29. **Exotics** - Visual display of exotic plant materials with a focus on the dangers of their use.



social

- 20. **Park Nursery** - A place where the public can buy plants that grow in the park.
- 21. **Food Bank** - A food bank in the park to supply those in need, designed to bring awareness to global food problems; could also be used in crisis situations in the case of a catastrophic event.
- 22. **Living Lab Classrooms** - A series of mobile and permanent spaces in park to serve as classrooms for educational programs, youth groups and science clubs.
- 23. **Neighborhood-Park Transitions** - Interventions which create connections between park and surrounding neighborhood (blurring boundaries), as well as elements that clarify transition between private and public space (creating distinct boundaries).
- 24. **Light of Southern CA** - Project to bring awareness to the quality of light in Southern CA.
- 25. **Runway Mirage** - Create an optical phenomenon on the runway.
- 26. **Reflections** - A project about creating reflections to draw attention to ephemeral qualities of the site.
- 27. **Marking Time** - A project exploring the marking of time by following the development of the Great Park.
- 28. **Extreme Weather Pavilions** - A series of spaces which allow visitor direct experience of weather conditions found in Southern CA.

# OPPORTUNITIES - ART INTERVENTIONS



## ART INTERVENTIONS LEGEND

A Boundaries  
Neighborhood  
& Park Permeability



B Circulation  
heirarchy & usage



C Utilities  
Hydrology and Energy



D Canyon  
Microclimate & Biofiltration



E Wildlife Corridors/Ecosystems

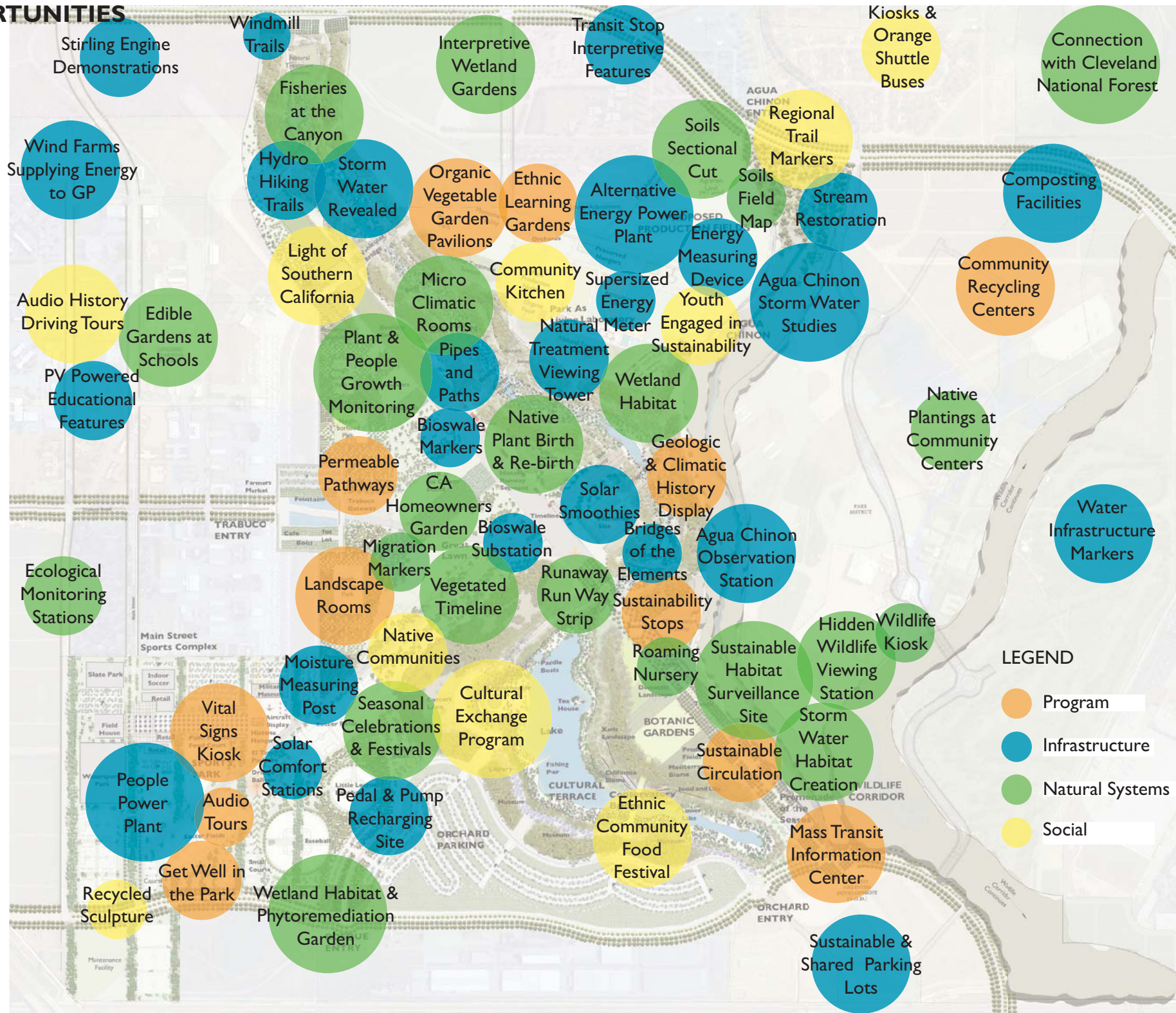


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# OPPORTUNITIES



**LEGEND**

- Program
- Infrastructure
- Natural Systems
- Social



# OPPORTUNITIES - CIRCULATION

## Hydro Hiking Trails

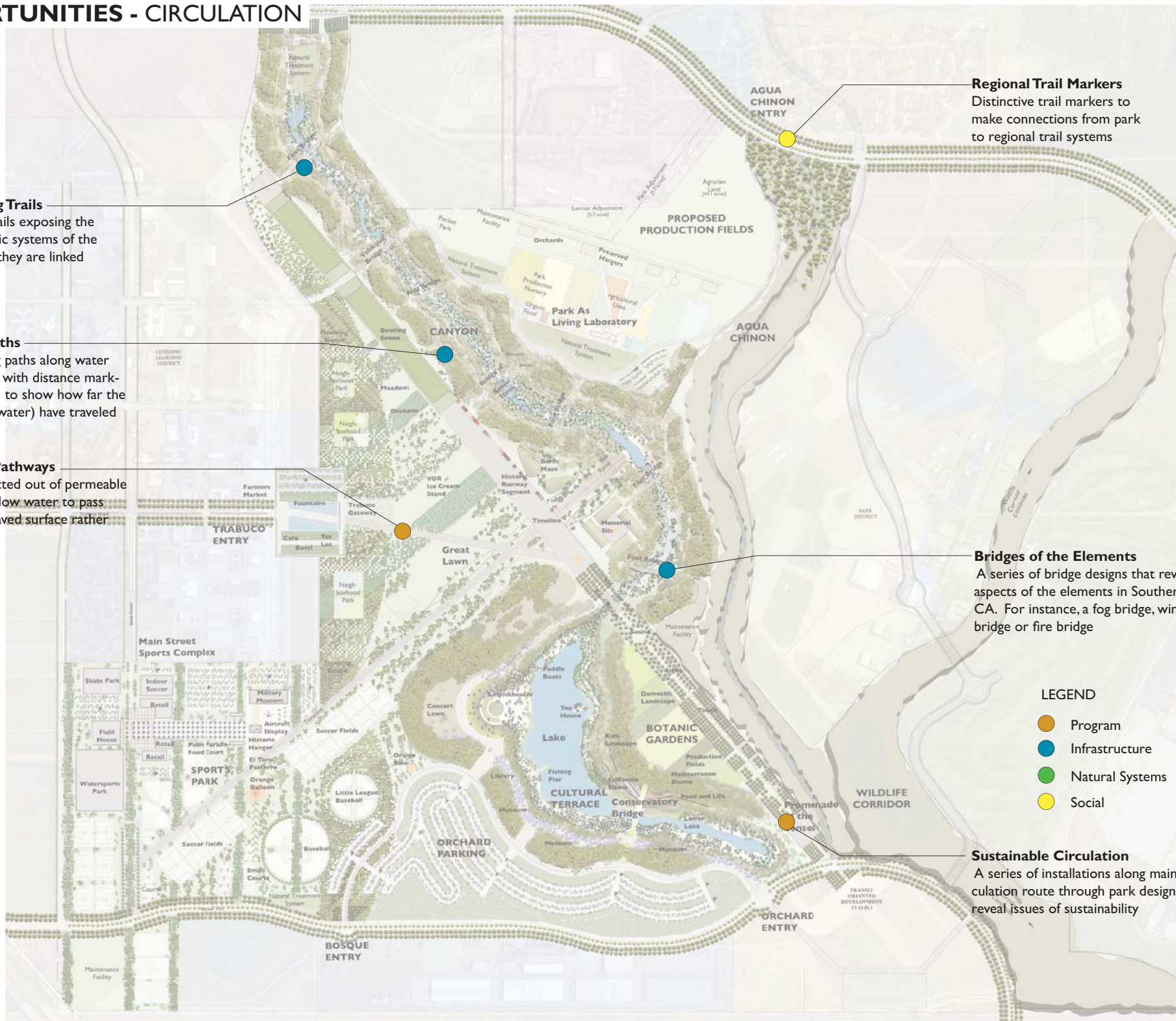
A system of trails exposing the many hydrologic systems of the park and how they are linked

## Pipes and Paths

Exercise/hiking paths along water piping systems with distance markers (big rulers) to show how far the user (and the water) have traveled

## Permeable Pathways

Paths constructed out of permeable materials to allow water to pass through the paved surface rather than run off



## Regional Trail Markers

Distinctive trail markers to make connections from park to regional trail systems

## Bridges of the Elements

A series of bridge designs that reveal aspects of the elements in Southern CA. For instance, a fog bridge, wind bridge or fire bridge

## Sustainable Circulation

A series of installations along main circulation route through park designed to reveal issues of sustainability

### LEGEND

- Program
- Infrastructure
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# OPPORTUNITIES - ENERGY

## Windmill Trails

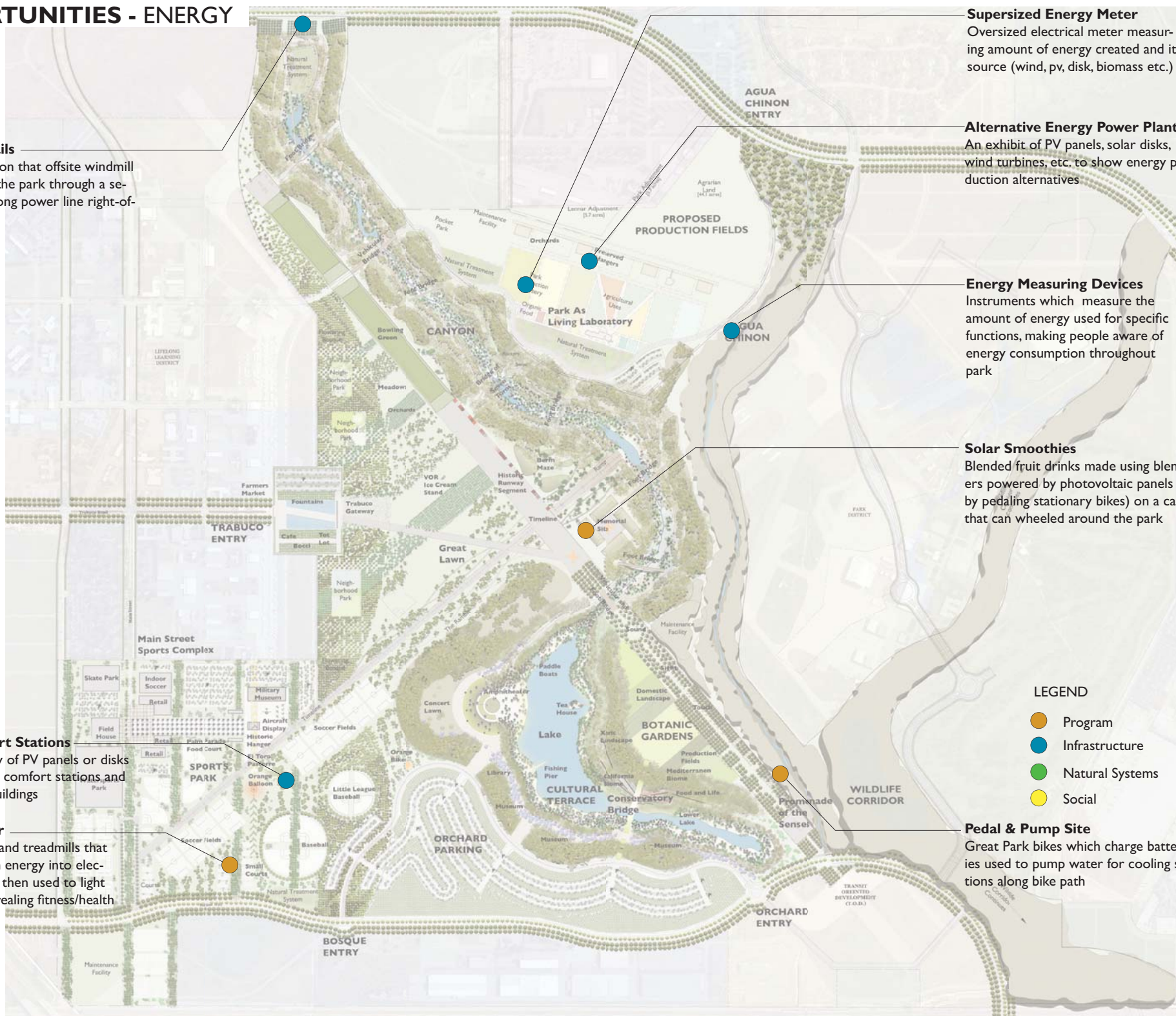
Show connection that offsite windmill farm has with the park through a series of trails along power line right-of-way

## Solar Comfort Stations

Notable display of PV panels or disks on the roof of comfort stations and other public buildings

## People Power

Exercise bikes and treadmills that convert human energy into electricity which is then used to light up surfaces revealing fitness/health facts



## Supersized Energy Meter

Oversized electrical meter measuring amount of energy created and its source (wind, pv, disk, biomass etc.)

## Alternative Energy Power Plant

An exhibit of PV panels, solar disks, wind turbines, etc. to show energy production alternatives

## Energy Measuring Devices

Instruments which measure the amount of energy used for specific functions, making people aware of energy consumption throughout park

## Solar Smoothies

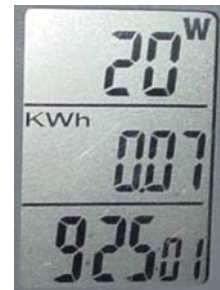
Blended fruit drinks made using blenders powered by photovoltaic panels (or by pedaling stationary bikes) on a cart that can wheeled around the park

## Pedal & Pump Site

Great Park bikes which charge batteries used to pump water for cooling stations along bike path

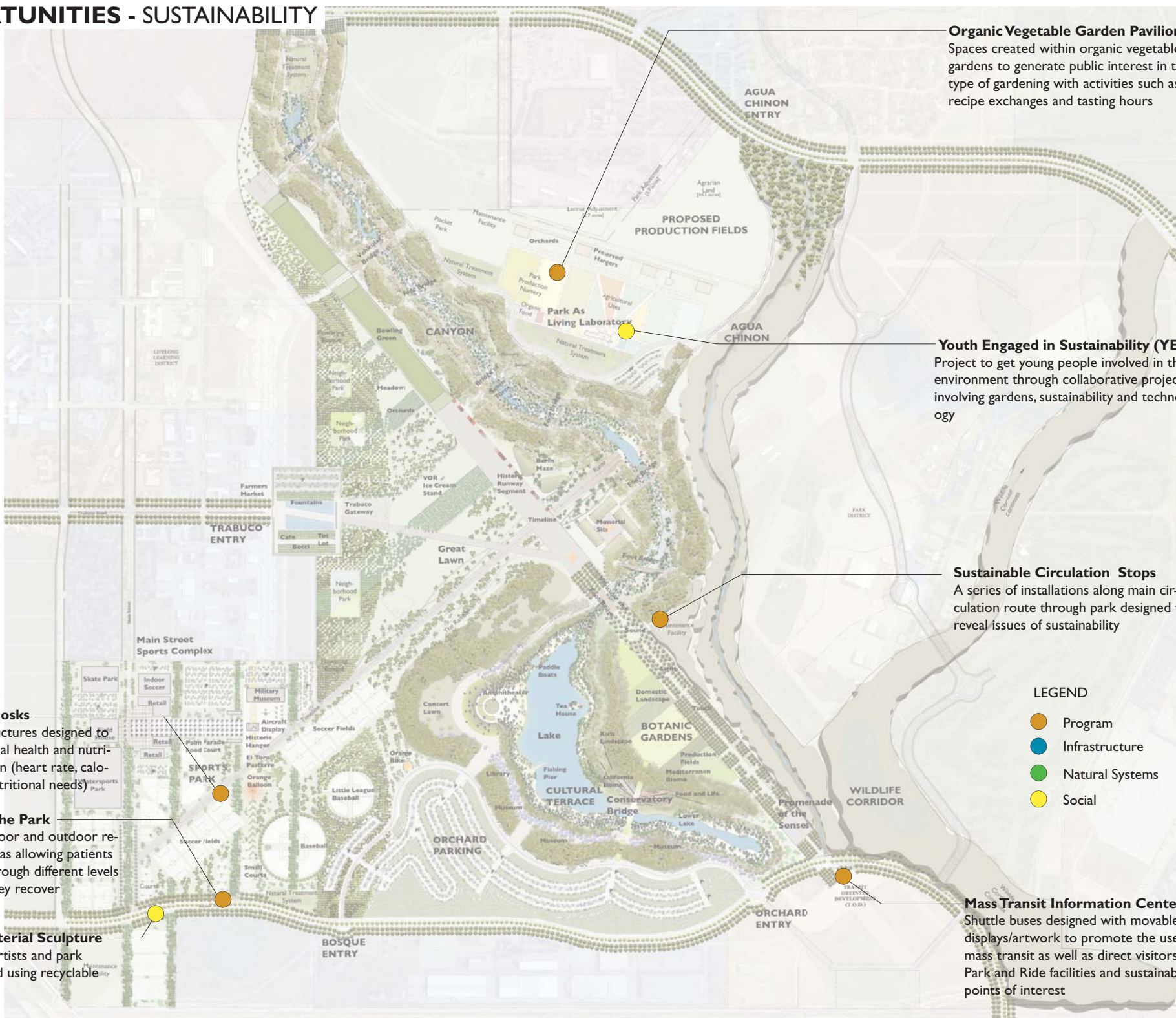
### LEGEND

- Program
- Infrastructure
- Natural Systems
- Social





# OPPORTUNITIES - SUSTAINABILITY



**Organic Vegetable Garden Pavilions**  
 Spaces created within organic vegetable gardens to generate public interest in this type of gardening with activities such as recipe exchanges and tasting hours



**Youth Engaged in Sustainability (YES)**  
 Project to get young people involved in the environment through collaborative projects involving gardens, sustainability and technology



**Sustainable Circulation Stops**  
 A series of installations along main circulation route through park designed to reveal issues of sustainability



## LEGEND

- Program
- Infrastructure
- Natural Systems
- Social

### Vital Signs Kiosks

Distinctive structures designed to provide personal health and nutrition information (heart rate, calories burned, nutritional needs)

### Get Well in the Park

A series of indoor and outdoor rehabilitation areas allowing patients to progress through different levels of fitness as they recover

### Recycled Material Sculpture

Artworks by artists and park visitors created using recyclable items

### Mass Transit Information Center

Shuttle buses designed with movable displays/artwork to promote the use of mass transit as well as direct visitors to Park and Ride facilities and sustainable points of interest





# OPPORTUNITIES - HABITAT & WILDLIFE

## LEGEND

- Program
- Infrastructure
- Natural Systems
- Social

### Fisheries at the Canyon

Fisheries habitat development as a visual feature

### Migration Markers

Areas in the park marked as appropriate to draw attention to where insect or animal migration occurs

### Wetland as Habitat

Visual strategies to show water cleansing properties of wetlands and reveal life forms within

### Wildlife Kiosk

Interpretive kiosks designed for identifying wildlife habitat, vegetation and animals

### Wildlife Viewing Pavilion

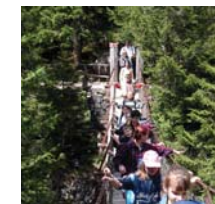
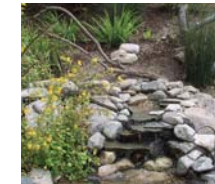
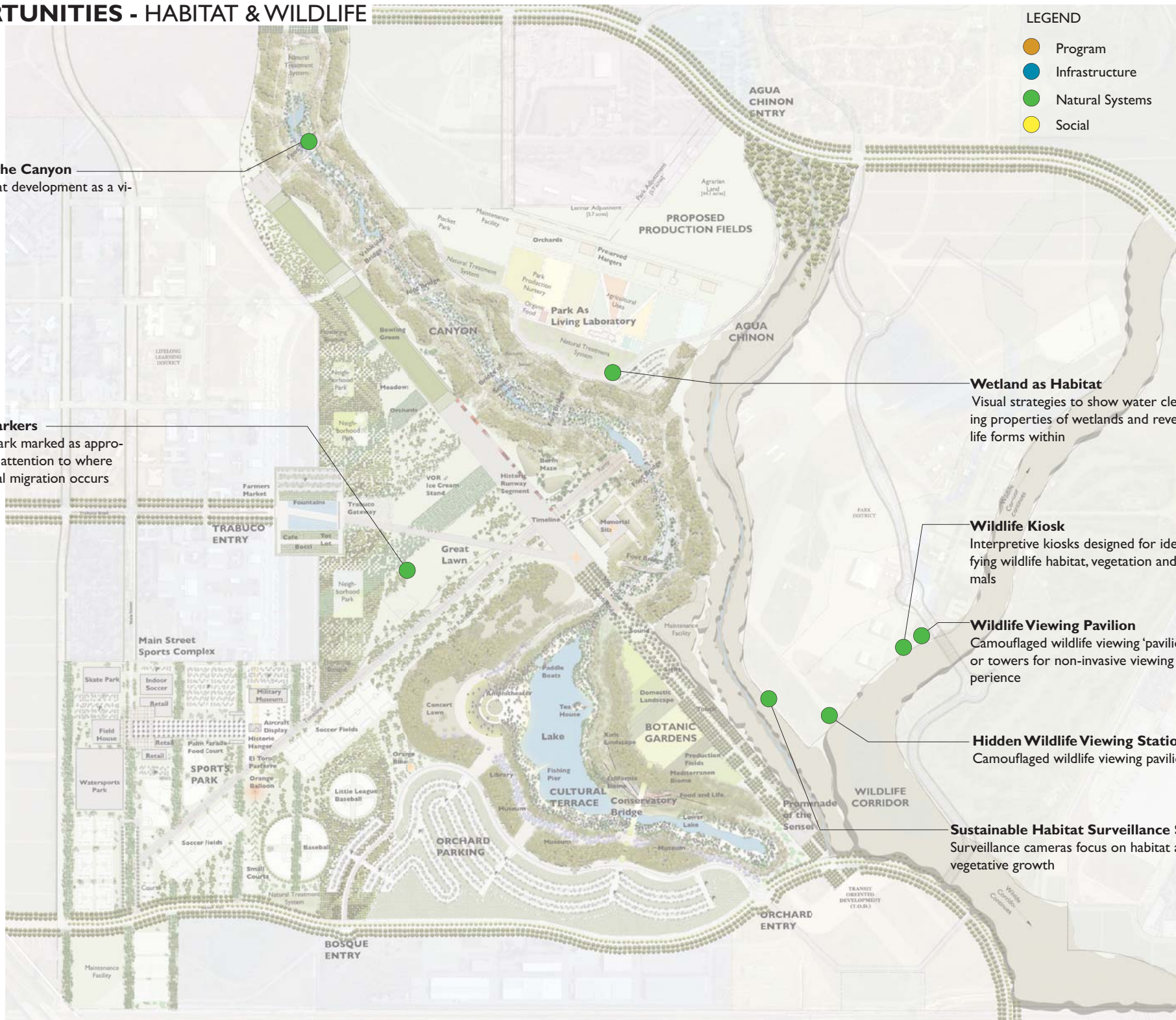
Camouflaged wildlife viewing 'pavilions' or towers for non-invasive viewing experience

### Hidden Wildlife Viewing Station

Camouflaged wildlife viewing pavilions

### Sustainable Habitat Surveillance Site

Surveillance cameras focus on habitat and vegetative growth





# OPPORTUNITIES - MAJOR VEGETATION

## Micro climatic Rooms

A series of outdoor rooms of varying micro climates to produce different habitats; monitoring devices designed to make people aware of relationships between micro climates and habitats

## Plant & People Growth Monitoring Project

Designated area where camera takes photos at scheduled intervals to document park plant growth; park users can get into the photos and print copies to follow growth of family from one year to next

## CA Local Plots

An area featuring plants that support local plant communities, wildlife and ecology designed at the scale of a home garden

## Vegetated Timeline

A physical timeline to show growth rates in meadows planted and observed yearly; new meadows planted every year for five years

## Map the Soils

Ground markers and/or plantings revealing the different soils in the park

## Soils Section

A sectional cut through an area of soil to reveal depth, horizons and percolation rate; changes monitored and documented

## Native Plant Birth & Re-birth Garden

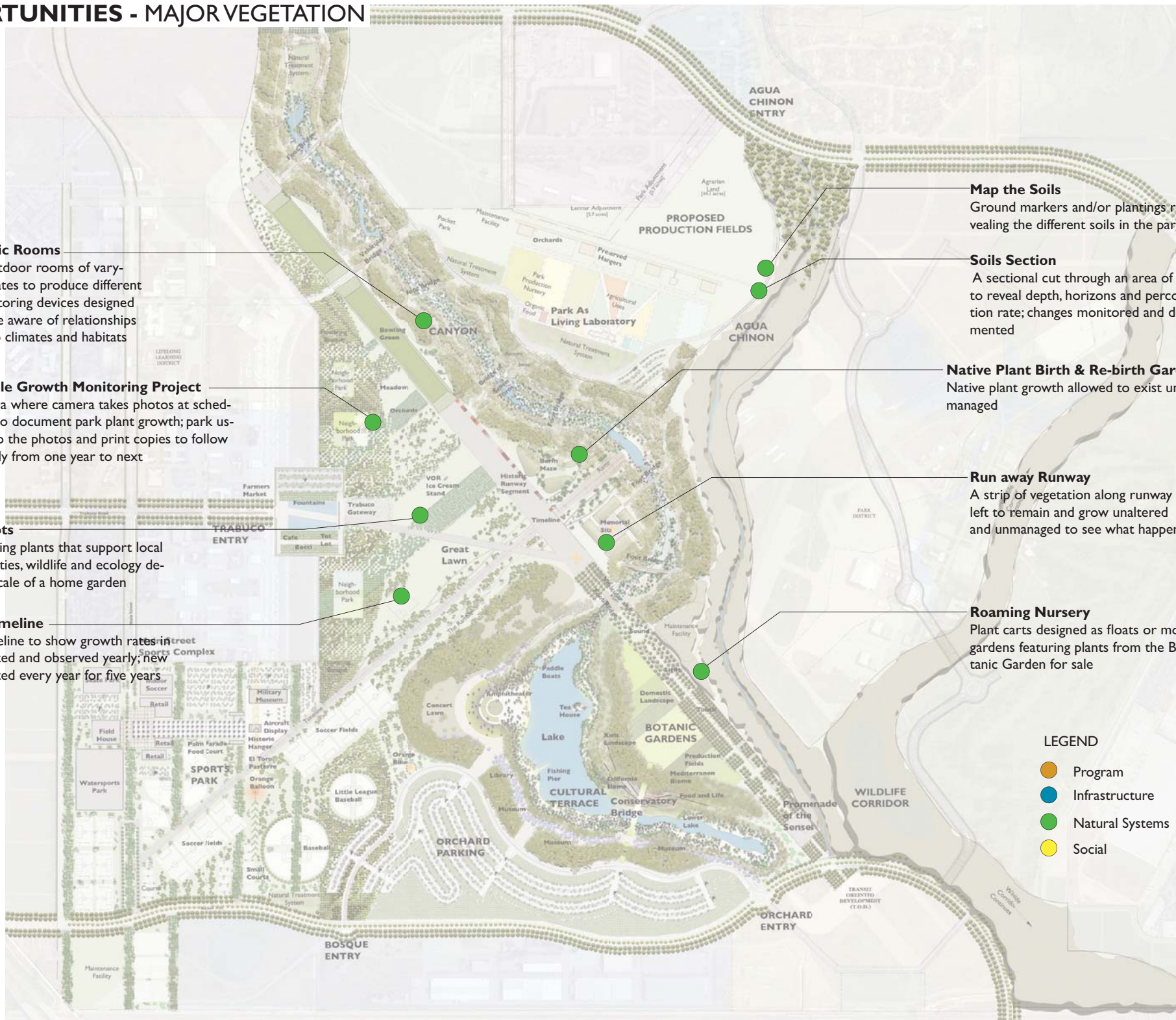
Native plant growth allowed to exist unmanaged

## Run away Runway

A strip of vegetation along runway left to remain and grow unaltered and unmanaged to see what happens

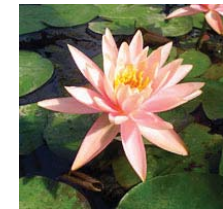
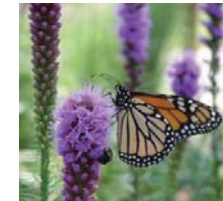
## Roaming Nursery

Plant carts designed as floats or mobile gardens featuring plants from the Botanic Garden for sale



### LEGEND

- Program
- Infrastructure
- Natural Systems
- Social





# OPPORTUNITIES - HYDROLOGY

## Storm Water Revealed

Water pipes become large scale devices measuring different aspects of water (flow rates, linear feet traveled from origin, quality)

## Natural Treatment Tower

A vertical structure for visitors to experience areas adjacent to wetlands from above, below ground and at eye level

## Bioswale Section

Sectional cut along a bioswale to create a space for experiencing storm water from below grade

## Bioswale Markers

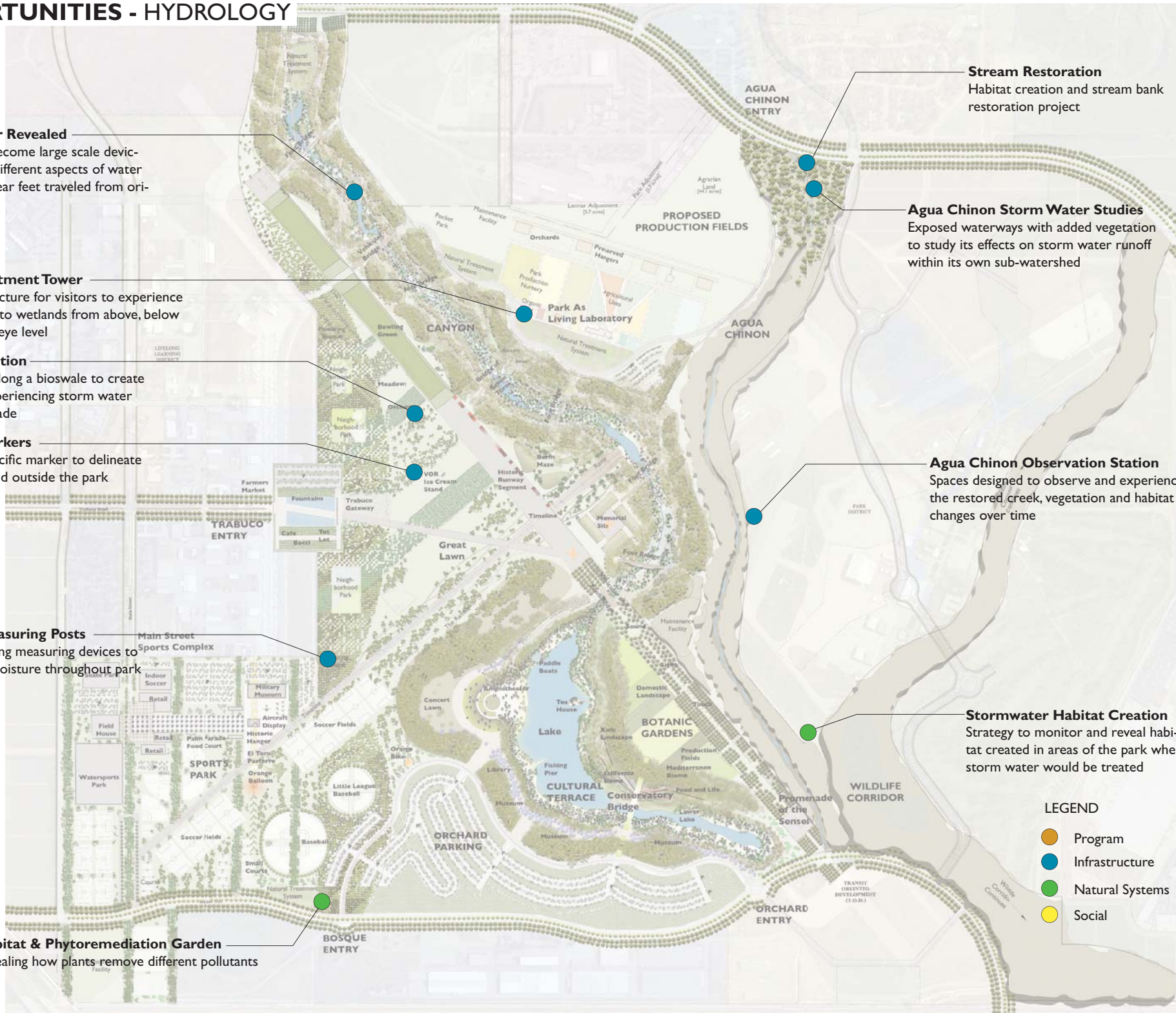
The use of specific marker to delineate bioswales in and outside the park

## Moisture Measuring Posts

Visually engaging measuring devices to monitor soil moisture throughout park

## Wetland Habitat & Phytoremediation Garden

Landscape revealing how plants remove different pollutants



## Stream Restoration

Habitat creation and stream bank restoration project

## Agua Chinon Storm Water Studies

Exposed waterways with added vegetation to study its effects on storm water runoff within its own sub-watershed

## Agua Chinon Observation Station

Spaces designed to observe and experience the restored creek, vegetation and habitat changes over time

## Stormwater Habitat Creation

Strategy to monitor and reveal habitat created in areas of the park where storm water would be treated

### LEGEND

- Program
- Infrastructure
- Natural Systems
- Social





# OPPORTUNITIES - MICRO PROGRAM

## Light of Southern CA

Project to bring awareness to the quality of light in Southern CA

## Landscape Rooms

A series of designed spaces within the park to provide a wide range of experiences

## Native Communities

Project exploring Native American communities - which ones were present, how they functioned, their experiences, systems (agriculture, land use, dwellings etc.), sustainable practices and respect for the ecosystem

## Cultural Exchange Program

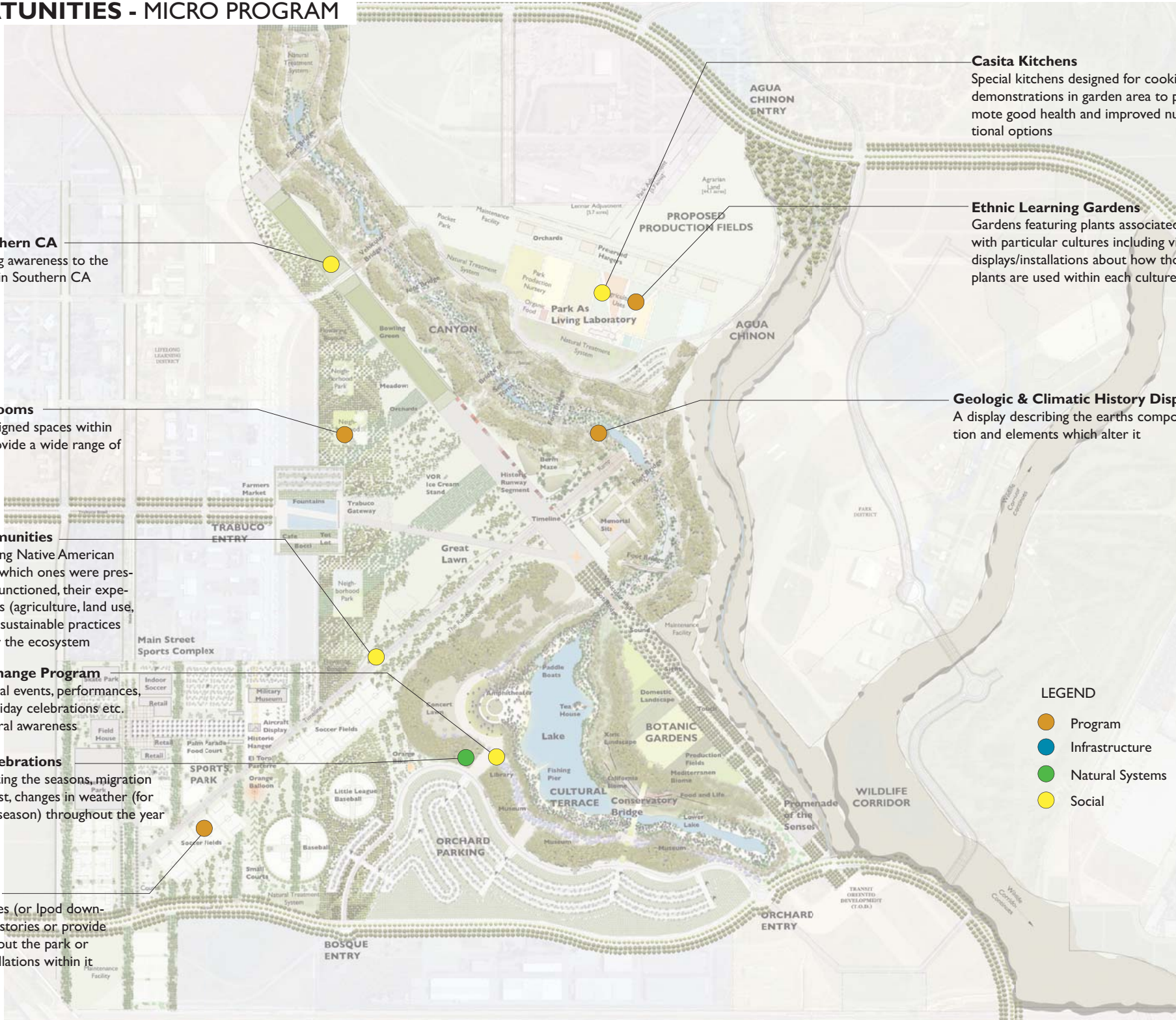
Festivals, cultural events, performances, workshops, holiday celebrations etc. to create cultural awareness

## Seasonal Celebrations

Events celebrating the seasons, migration patterns, harvest, changes in weather (for instance, rainy season) throughout the year

## Audio Tours

Listening devices (or Ipod downloads) that tell stories or provide information about the park or particular installations within it



## Casita Kitchens

Special kitchens designed for cooking demonstrations in garden area to promote good health and improved nutritional options

## Ethnic Learning Gardens

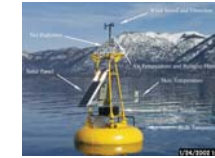
Gardens featuring plants associated with particular cultures including visual displays/installations about how those plants are used within each culture

## Geologic & Climatic History Display

A display describing the earth's composition and elements which alter it

### LEGEND

- Program
- Infrastructure
- Natural Systems
- Social





# OPPORTUNITIES - MACRO PROGRAM

## PV Powered Educational Features

Interpretive and experiential projects to engage young people

## Stirling Engine Demonstrations

Solar energy creation

## Ecological Monitoring Stations

Monitoring stations used to document water quality

## Audio History Driving Tours

File downloads for learning history of Orange County

## Edible Gardens at Schools

Vegetable gardens at schools provided with curriculum on nutrition

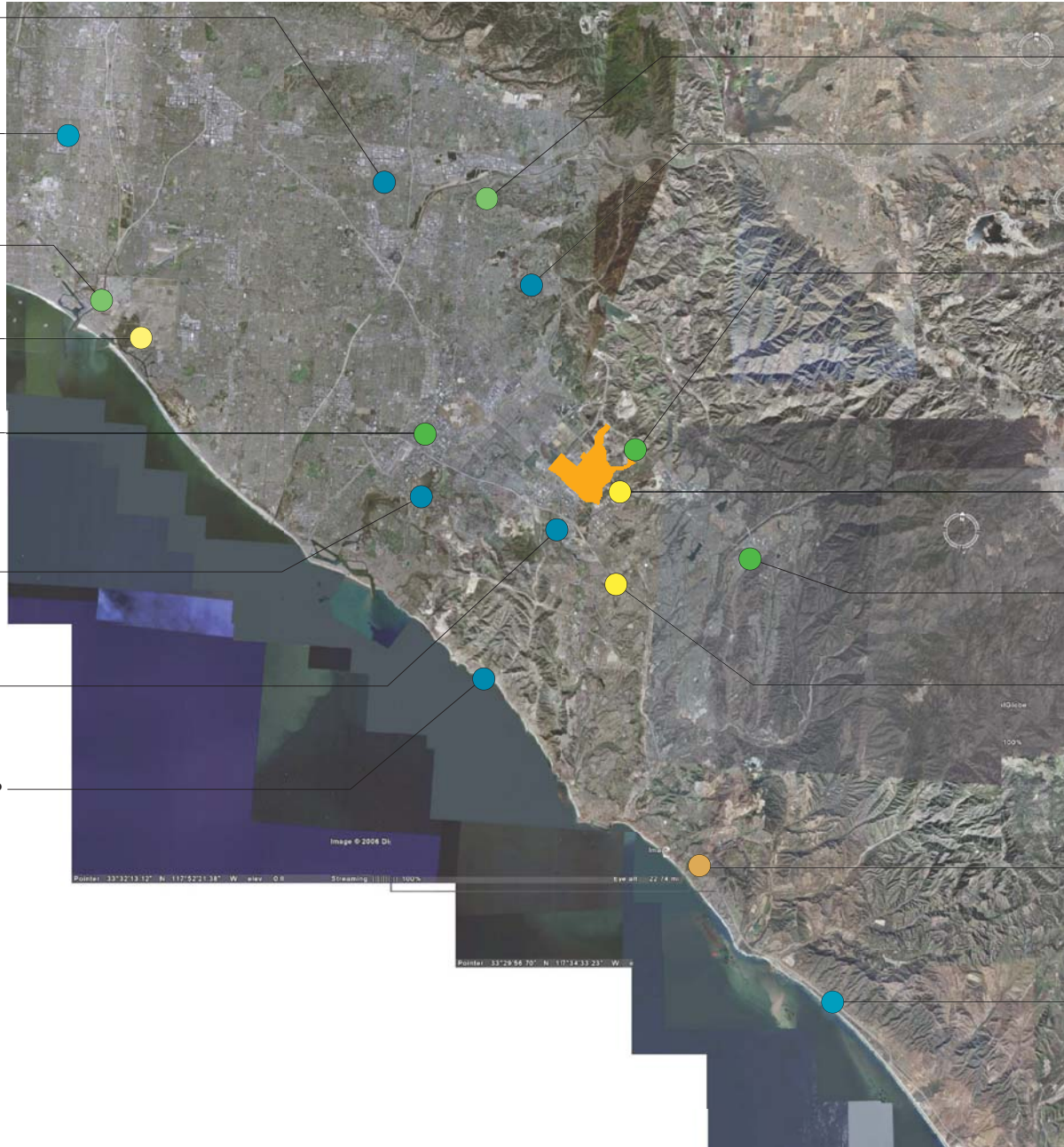
## Water Infrastructure Markers

Reveal the location of water throughout the region

## Shared Sustainable Parking Lots

Using permeable paving and sharing parking lots of local businesses

## Wind Farms Supplying Energy to GP



## Native Plantings at Community Centers

## Composting Facilities

Green materials used for compost can be sold to gardeners as a soil amendment

## Connections - Cleveland National Forest

Trails from the Great Park will link to larger systems

## Ethnic Community Food Festival

Celebration of diversity through the expression of food

## Interpretive Wetland Gardens

Visually engaging display of functional wetlands

## Kiosks & Orange Shuttle Buses

Used to transport people to the Great Park in communities underserved by public transportation

## Community Recycling Centers

Local recycling stations for easy access located throughout the county

## Transit Stop Interpretive Features

Sustainability information provided at transit stops



## LEGEND

- Program
- Infrastructure
- Natural Systems
- Social

# OPPORTUNITIES - MATRIX

Program	Infrastructure	Natural Systems	Social	Opportunity	Project Type		Scale		Sustainability					Critical Issues								Project Description				
					Installation	Education/Outreach Program	Event	Research	Regional (Macro)	Local (Micro)	Energy	Water	Materials	Nature	People	Boundaries	Circulation	Neighborhood Integration	Utilities Plan	Hydrology	Wildlife & Habitat		Soils Plan	Grading Plan	Major Vegetation	Facilities
●				Vital Signs Kiosks	●									●												Distinctive structures designed to provide personal health information
●				Permeable pathways	●								●													Paths of varying scales and purposes designed to call attention to stormwater runoff
●				Landscape Rooms	●																					A series of designed spaces within the park to provide a wide range of experiences
●				Audio Trours	●																					Listening devices that tell stories and provide information about the park
●				Organic Vegetables Garden Pavilions	●																					Spaces for community located within organic vegetable gardens
●				Sustainable Circulation	●																					Several modes of transportation made available to park users(bike, cart, boat)
●				Community Recycling Centers	●	●																				Recycling centers located throughout the community
●				Mass Transit Information Center	●	●																				Mass transit and shuttle bus information provided in movable displays
●				Ethnic Learning Gardens	●	●																				Gardens featuring plants associated with particular cultures with visual displays
●				Sustainability Stops	●																					A series of installations in the park along circulation routes
●				Get Well in the Park	●																					Indoor and outdoor rehabilitation areas allowing patients to work towards recovery
●				Solar Smoothies	●																					Portable smoothie stations using solar power
●				Pedal and Pump Recharge Site	●																					The use of bikes to charge batteries which are used to power park amenities
●				Geologic & Climatic History Display	●																					A display describing the earths composition and elements which alter it
	●			Hydro Hiking Trails	●																					A series of exposing the many hydrologic systems throughout the park and beyond
	●			Natural Treatment Viewing Tower	●																					A structure for visitors to experience wetlands at several levels
	●			Pipes and Paths	●																					Exercise/hiking paths along water pipes with distance markers showing distance
	●			Wind Farms Supplying Energy to GP	●																					A windmill farm located off site providing energy to the Great Park
	●			Stirling Engine Demonstrations	●																					Energy saving demonstration projects throughout the community
	●			Windmill Trails	●																					Trail off site leading to the Great Park along utility corridors
	●			Bioswale Substation	●																					A sectional cut along a bioswale to reveal its functions
	●			Bioswale Markers	●																					The use of specific marker to delineate bioswales in and outside the park
	●			Moisture Measuring Posts	●																					Visually engaging moisture measuring devices throughout the park
	●			Solar Comfort Stations	●																					Public buildings outfitted with pv panels in engaging ways
	●			Stream Restoration	●																					Daylighting of previously channelized stream
	●			Agua Chion Stormwater Studies			●																			Addition of vegetation to newly restored stream, study its effects on runoff
	●			Supersized Energy Meter	●																					Oversized electrical meter measuring amount of energy created by alternative sources
	●			Alternative Energy Power Plant	●																					Solar disks, pv panels, wind turbines etc. to show energy production
	●			Energy Measuring Device	●																					Devices to measure the amounts of energy used for specific functions
	●			Agua Chion Observation Station	●																					Spaces designed to observe and experience the restored creek and habitat
	●			Bridges of the Elements	●																					A series of bridges designed to reveal aspects of Southern California weather
	●			Transit Stop Interpretive Features	●																					A series of visually engaging informative elements at transit stops



# OPPORTUNITIES - MATRIX

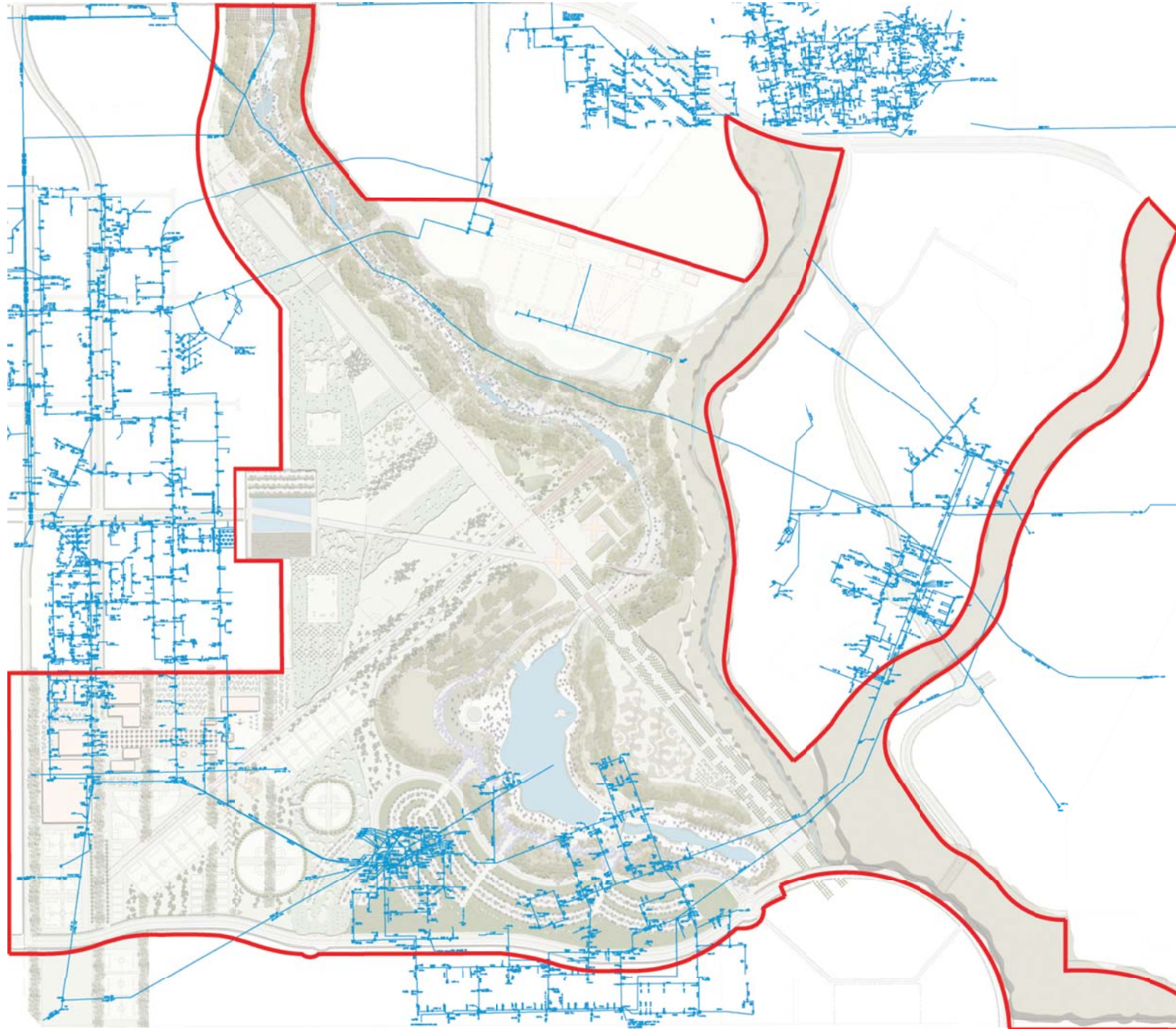
Program	Infrastructure	Natural Systems	Social	Opportunity	Project Type				Scale	Sustainability					Critical Issues								Project Description				
					Installation	Education/Outreach Program	Event	Research		Regional (Macro)	Local (Micro)	Energy	Water	Materials	Nature	People	Boundaries	Circulation	Neighborhood Integration	Utilities Plan	Hydrology	Wildlife & Habitat		Soils Plan	Grading Plan	Major Vegetation	Facilities
	●			Sustainable/Shared Parking Lots	●	●			●																		Parking lots using 'Green Streets' principles beyond the parks borders
	●			Composting Facilites	●	●			●				●														Composting facilities located within the community
	●			People Power Plant	●					●																	Exercise facilities using staionary bikes and tread mills to supply energy
		●		Seasonal Celebration Festivals	●	●			●																		Festivals and celebrations coordinated with seasonal changes
		●		Ecological Monitoring Stations	●	●			●																		Stations throughout the community used to monitor air and water quality
		●		Edible Gardens at Schools	●	●			●																		Vegetable gardens at school focusing onenvironmental stewardship
		●		Connection with Cleveland National Forest	●				●																		Wildlife habitat and vegetation extended to the national forest
		●		Interpretive Wetland Gardens	●				●																		Wetland habitat gardensat schools to create outdoor classrooms
		●		Fisheries at the Canyon	●				●																		Fish habitat developed in watercourse throughout the canyon
		●		Migration Makers	●				●																		Areas in the park where migration of animals and insects occur
		●		Wetland as Habitat	●				●																		Visual strategies to show cleansing properties of wetlands & wildlife
		●		Wildlife Kisok	●				●																		Interpretive kiosks designed for identifying wildlife, vegetation & animals
		●		Wildlife Viewing Pavillion	●				●																		A structure dedicated to the inconspicuous viewing of wildlife
		●		Hidden Wildlife Viewing Station	●				●																		Camouflaged wildlife viewing pavilions
		●		Sustainable Habitat Survallence Site	●				●																		Survallence camaeras focus on habitat and vegetative growth
		●		Mico Climatic Rooms	●				●																		Varying micro climatic rooms with different habitats
		●		Plant & People Growth Moniotoring Project	●				●																		Photo project to document vegetative growth as well as human changes
		●		CA Homeowners Gardens	●				●																		Gardens of local plants homeowners can easily grow
		●		Vegetated Timeline	●				●																		Plots grown over a period of time to show changes in growth paterns
		●		Soils Fieled Map	●				●																		Markers to deliniate the different types of soils and their locations
		●		Soils Sectional Cut	●				●																		A sectional cut in soils to expose the differing horizons
		●		Native Plant Birth & Re-Birth Garden	●				●																		Native plant growth allowed to exist unmanaged
		●		Runaway Run Way Strip Preservation	●				●																		Preserve a strip of land next to runway and let it grow un-altered
		●		Roaming Nursery	●				●																		Plant carts designed as floats or mobile gardens with plants fpr sale
		●		Storm water Habitat Creation	●				●																		Create habitat based on storm water
		●		Wetland Habitat Phytoremediation Garden	●				●																		Wetland plants used for water cleansing properties
		●		Regional Trail Markers	●				●																		Distinctive trail markers to make visual connections to larger systems
		●		Recycled Sculpture	●				●																		Artworks by artists andpark visitors using recycled materials
		●		Youth Engaged in Sustainability	●	●			●																		Project to get youth involved in sustainable parctices
		●		Light of Southern California	●				●																		A project to bring awareness to the quality of light in Southern Cal
		●		Native Communities	●				●																		Project exploring Native American communities and their practices
		●		Cultural Exchange Program	●	●			●																		Festivals and cultural events, performances and workshops
		●		Community Kitchen	●	●			●																		Kitchens designed for cooking demonstrations





## MAPPING STUDIES - MICRO

In the future GIS studies will be developed at macro and micro scales to reveal information about existing conditions, points of interest and possible areas of study.



Water systems in the Great Park

## HOW CAN THE MOVEMENT OF WATER THROUGH THE PARK BE REVEALED?



Give visual expression to natural treatment systems and to exposed infrastructure.

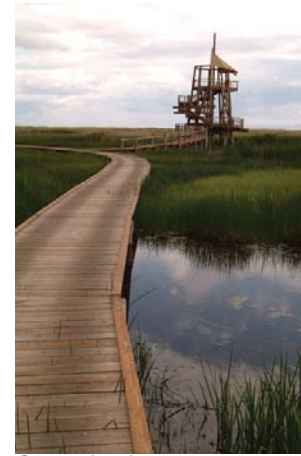


## MAPPING STUDIES - MICRO



Habitat zones in the Great Park

## HOW CAN PARK VISITORS VIEW WILDLIFE HABITAT?



Canyon headwaters



Canyon headwaters



Agua Chinon



Agua Chinon



Wildlife Corridor



Wildlife Corridor

Through a series of camouflage viewing stations, observation towers and walkways.

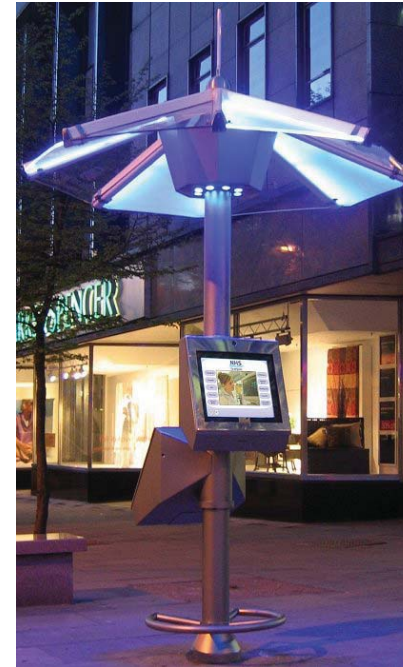


## MAPPING STUDIES - MACRO



Population Density and Transportation Systems

## HOW CAN THE GREAT PARK BE MADE MORE ACCESSIBLE IN AREAS UNDER-SERVED BY PUBLIC TRANSPORTATION?



Artist designed kiosks will be placed in neighborhoods where visitors can get information about events in the park, and request a shuttle bus ride.

## MAPPING STUDIES - MACRO



- Legend**
- Water\_Linear\_LosAngeles\_2005
  - Water\_Polygons\_LosAngeles\_2005
  - Institutions\_LosAngeles\_2005
  - tgr06059msa00
  - Great Park

Orange County Schools

## HOW CAN ORANGE COUNTY SCHOOLS BECOME AN EXTENSION OF THE PARK AS LIVING LABORATORY?

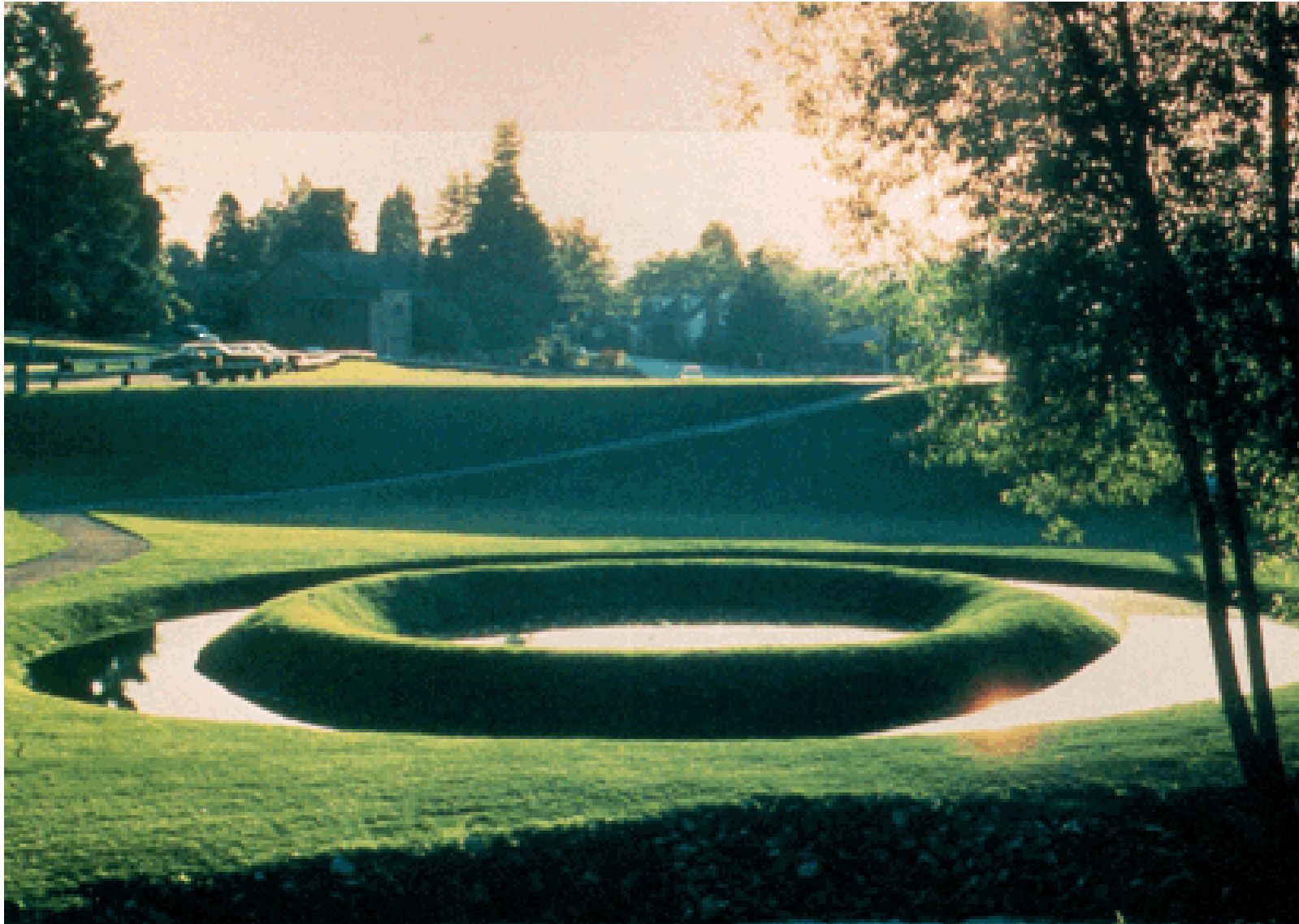


By exporting projects throughout the region with a focus on edible schoolyards, composting projects, and wetland projects.



## PRECEDENTS - ARTIST AND DESIGNERS, SELECTED PROJECTS

The following are examples of a wide range of projects that explore the nature of our physical and social environment.



MILL CREEK CANYON EARTHWORKS, Seattle, WA (1982)  
Herbert Bayer

This project was commissioned by the King County Arts Council and the Kent Parks Department as a solution to urban runoff problems in a storm water retention basin in suburban Seattle. Bayer's design includes a high berm to prevent erosion and a series of five geometric earth forms to control runoff into Mill Creek Canyon. The earthen forms include a round mound, an oblong mound, a cone supporting a bridge over the creek, a ring mound and pond (see Figure 1), and a ring mound bisected by the creek. During the dry seasons the forms provide a grassy park for community recreation. The project continues to be maintained and is a popular local park.

## PRECEDENTS - SELECTED PROJECTS



WATERWORKS, San Jose, CA (2005)  
Doug Hollis and Anna Murch

As part of the development of the new San José City Hall, the City's Public Art Program commissioned artists Anna Valentina Murch and Douglas Hollis to design artwork for the plaza. The artists' design is a water sculpture inspired by the natural geological and artesian conditions underlying the San José region. Equally important is the intent to create a symbol for the future, one that celebrates innovation and change as an ephemeral experience. The specific design of Waterscape is composed of two dimensional topographic fields of monumental granite slabs. The fields slope from Santa Clara Street toward the new City Hall plaza. Water flowing down the surface of the field laps onto the plaza in subtle ripples, and flows over the vertical stone on the fountain edges, disappearing beneath the plaza, creating walls of water that define the perimeter along Santa Clara Street. The water within the field is programmed to respond to changes in time of day, temperature, season and/or availability of water to create different visual, sonic and atmospheric qualities.



## PRECEDENTS - SELECTED PROJECTS



MOVING POEMS, Tempe, AZ (2005)  
Diana Cripe

Moving Poems connects poetry to campus through a collaboration commissioned by the Arizona State University Office of Public Art. Regents Professor Alberto Rios and his creative writing students submitted short poems or phrases with themes suggesting movement or transportation. Winning selections were "published" on a new, mobile medium -- campus utility carts. Each work is accompanied by an image of the poet. It's not uncommon to see poetry such as "Do not let the desert bloom without you," and "The slower you go, the less you lose," displayed on the sides of the white carts, which will be refreshed periodically.

## PRECEDENTS - SELECTED PROJECTS



BECKONING CISTERN, Seattle, WA (2003)  
Buster Simpson

The cistern collects roof watershed from the 81 Vine Street building. Water is directed from the roof via downspout then through the extended index finger of an outstretched hand and into the 6'x10' tank "cuff" before eventually making its way down Vine Street to the Cistern Steps. While the sculpture is symbolic, it is also functional. Roof runoff flows from the downspout to the outstretched index finger and divides, some cascading over the thumb into a water garden and series of pools, and some flowing into the cistern to be stored for later use, such as watering the garden. The Beckoning Cistern is a 10-foot high, 6-foot diameter blue corrugated cylinder constructed of galvanized aluminum (the sleeve) with a green metal hand emerging from its top. The entire structure is placed on a tilted concrete slab set in the water garden. The water garden with its three cascading planters is, in turn, set in lush native plantings of ferns, shrubs, and woodland plants. A smaller, companion garden nestles against the building; the sidewalk passes between the two.



## PRECEDENTS - SELECTED PROJECTS



ISLAND OF THE HUMMINGBIRDS, Moss Landing, CA (1989)  
Heather McGill and John Roloff

In this project, the artists create sculptures that enhance habitats for hummingbirds. The title *Isla de Umunnum* derives from the Ohlone Indian words for “Island of the hummingbirds”; it is located near Moss Landing at Elkhorn Slough National Estuarine Research Reserve, one of California’s last remaining wetlands. The artists wanted to use art to encourage the survival of native plants and animals. They collaborated with the Elkhorn Slough Foundation and sanctuary park rangers in order to determine how to best realize this goal. Inspiration came during an early visit to the site, where the artists witnessed the mating of two hummingbirds during an elaborate aerial dance. After researching the natural and archeological history of the site, they found that the birds, native only to the Americas, were revered by native peoples, who believed they were part bird and part insect. Fascinated by the scientific and mythological significance of the hummingbird, the artists dedicated their project to its preservation. One of the sculptures in the project is the Mound, conceived as a half-excavated Native American refuse mound with a semicircular pond. The side of the mound facing the pond is sliced open to reveal multiple strata of oyster shells, lava, and coal. From the opposite side, the sculpture disappears into the landscape as a small hill covered with native grasses and California poppies - bright orange flowers that bloom through the spring and summer months.



## PRECEDENTS - SELECTED PROJECTS



WETLANDS LISTENING POST Atlanta, GA (1997)  
Seth Rogers and Evan Levy

A science and art project utilizing an 8' parabolic disc made of aluminum and stainless steel. Park visitors are encouraged to sit on the "x" shaped bench in front of the disc. Wind driven obsidian chimes suspended inside a US Navy fog horn broadcast from the top of a 20' radio tower in a small wetland bog a hundred yards away. If viewers listen carefully or have a conversation sitting on the bench the parabolic disc captures and resculpts the sound.



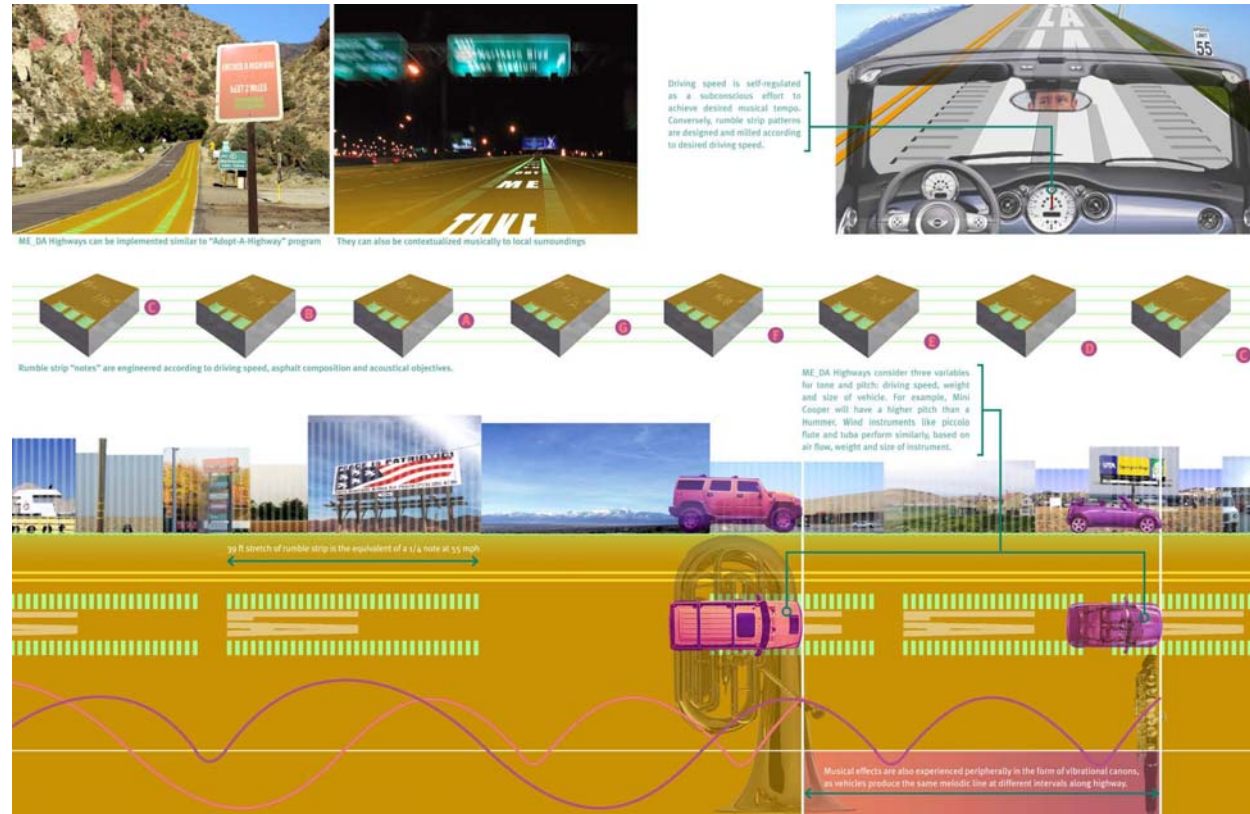
## PRECEDENTS - SELECTED PROJECTS



GREENWOOD POND: DOUBLE SITE, Des Moines, Iowa (1989-1996)  
Mary Miss

Paths lead the viewer to multiple ways of seeing this place. A walkway overhanging the edge of the pond makes it possible to move out over the water. Proceeding around the water's edge a ramp disappears into the water after getting the visitor down to the level of the pond. The line of this ramp extends in a long arc across the pond marked first by wood pilings and then by a concrete-lined trough cut into the water. Adjacent to this arc, on the land the walkway continues around the edge of the pond past a series of structures, including a pavilion, a mound and a curving wood trellis to form the other side of the ellipse. A large leaf shaped space is outlined by these structures affirming and making palpable the connection between the land and water. The covered pavilion with a seating area inside is built up against the curving mound, which rises almost to the height of the pavilion and seems to wrap it into the landscape. Continuing around the edge of the pond a small bridge pavilion allows the viewer to descend to the water once again in an area filled with water lilies. Proceeding further there is an entrance down into a concrete trough where one is able to sit at eye level with the surface of the water; having been kept to the edge, at a distance, the visitor is able to actually enter the pond. One feels the protection of the concrete walls holding back the pressure of the surrounding water. Above the trough, on the other side of the path, is a series of stone terraces, on a hillside filled with prairie grass. The limestone used for this terracing is seen regularly in walls and buildings around the museum as well as in the landscape of the area. This interweaving in the project of elements from the surroundings as well as remembered images and uses that surfaced in conversations about the place. These images have been preserved, added to and altered to be accessible to future generations who use this park. Next to the terraced hill different types of wetland grasses are planted along the edge of the pond. Further on at the far side of the pond, the path steps down to a steel grate walkway that moves over shallow water through tall grasses to a platform where it is possible to ascend to an elevated view over the wetland. Here in this wood and screen pavilion one can sit and observe birds and other wildlife without being noticed.

# PRECEDENTS - SELECTED PROJECTS



RUMBLE STRIP TRIP, New York, NY (2005)  
Petia Morosov

Innovative road-surface milling system that adapts existing CNC technology and used for grinding highway rumble strips to engrave musically-encoded, acoustically-precise strip patterns in driving lanes. There are three main objectives: to improve highway safety, to enhance driving experiences and to orient drivers to their surroundings.

The latest techno-savvy vehicles promise to keep us safe, entertained and on the go as we zip along our nation's vast roadway network. With GPS systems, lane-changing sensors, surround-sound AV, and smart dashboards, nature comes televised in a back seat console, automated voices bark safety warnings, and getting lost is practically impossible. These advanced systems also disconnect us from the surroundings through which we move, pulling our senses inward and injecting an unsettling form of domestic comfort into our driving experiences. The automobile's technologically overloaded interior invariably deprives us of a spatially engaged driving experience, rendering our driving spaces meaningless and, ultimately, our will to cultivate them trivial. Collaborators on the project represent the fields of urban design, industrial design, acoustics, cognitive sciences, musicology and transportation planning. This network of disciplines explores the implications of one scale of inquiry with another to tighten the feedback loop between rumble strip, driving experience and environment.



## PRECEDENTS - SELECTED PROJECTS

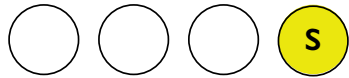


WEEDS OR WILDFLOWERS, Cleveland, OH (1990)  
Mel Ziegler and Kate Ericson

Cocoa mat was cut in the shape of leaves taken from different plants found in the Cleveland Flats historic industrial area. The railroad that passed through the area spread seed from a wide range of locals, causing an unusual diversity of plants to grow there. These plants were considered invasive weeds by local botanists. The artists stenciled the scientific names of the plants onto the mats. Seeds collected from these plants were planted in Ericson and Ziegler's Viaduct Gateway Park project, also in Cleveland.

## PRECEDENTS - ARTISTS & DESIGNERS

The following is an expanded list of projects that explore the nature of our physical and social environment.



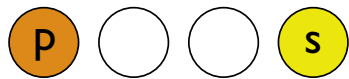
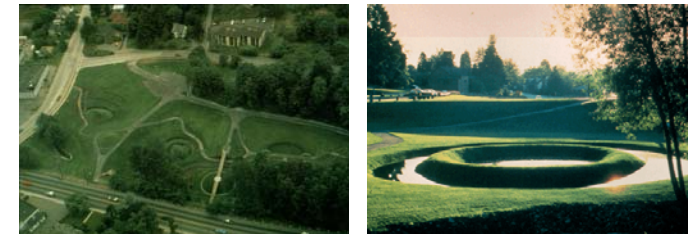
INVISIBLE 5 | Interstate-5 between San Francisco and Los Angeles, CA | Amy Balkin, Kim Stringfellow, Tim Halbur | 2005 | invisible5.org

Invisible-5 is a self-guided critical audio tour along Interstate 5 between San Francisco and Los Angeles. It uses the format of a museum audio tour to guide the listener along the highway landscape. Invisible-5 investigates the stories of people and communities fighting for environmental justice along the I-5 corridor, through oral histories, field recordings, found sound, recorded music, and archival audio documents. The project also traces natural, social, and economic histories along the route.



MILL CREEK CANYON EARTHWORKS | Seattle, WA | Herbert Bayer | 1982

This project was commissioned by the King County Arts Council and the Kent Parks Department as a solution to urban runoff problems in a storm water retention basin in suburban Seattle. Bayer's design includes a high berm to prevent erosion and a series of five geometric earth forms to control runoff into Mill Creek Canyon. The earthen forms include a round mound, an oblong mound, a cone supporting a bridge over the creek, a ring mound and pond (see Figure 1), and a ring mound bisected by the creek. During the dry seasons the forms provide a grassy park for community recreation. The project continues to be maintained and is a popular local park.



THE LAGUNA CANYON PROJECT - THE CONTINUOUS DOCUMENT | Laguna Canyon, CA | Jerry Burchfield and Mark Chamberlain | 1980- | jerryburchfield.com

In 1980, Mark Chamberlain and Jerry Burchfield initiated an on-going, multi-faceted project in Laguna Canyon, to provide documentation of change over time and to create a broader awareness of both regional and global environmental issues. Laguna Canyon is the last natural corridor to the Pacific Ocean in Orange County and one of the largest natural open spaces in Southern California. Local residents see it as a greenbelt buffer, while others view it as virgin territory ripe for development. Burchfield and Chamberlain felt it imperative to call into question prevailing conceptions of progress and used photography, video, sculpture, performance, installations, and collaborative events address their concerns.

The first Phase of the project took place in 1980 with the contiguous "daylight" and "nightlight" photographic documentation of both sides of the entire nine-mile length of Laguna Canyon Road from Interstate V to the Pacific Ocean. Since then, a total of fifteen separate Phases have been completed, including redoing the "daylight" and "nightlight" documentations of Laguna Canyon road in 1990 and 2000. The largest and most dramatic Phase of the project was Phase VIII, The Tell Mural, a 366 foot long site-specific sculpture comprised of over 100,000 photographs. The Tell became a catalyst for community interaction, environmental activity, and served as the inspiration for a walk of 11,000 concerned citizens on November 11, 1989 to the Tell site in protest of a major housing development and toll road planned for the area. As a result of these efforts, the housing development was abandoned and the area was subsequently saved as a wilderness park.

Realizing the need to be ever vigilant, Burchfield and Chamberlain have continued the project, protesting the development of the San Joaquin Tollroad, documenting the flora and fauna, and continuing to work in the Laguna Wilderness to address quality of life and environmental issues.





## PRECEDENTS - ARTISTS & DESIGNERS



OCEAN LANDMARK PROJECT | continental shelf 50 miles from New York City, NY | Betty Beaumont | 1980

Beaumont created an underwater sculpture reef for fish in her Ocean Landmark Project, an artwork that helps to counter the damaging effects of over fishing the oceans and dumping waste into coastal waters. The artist investigated a variety of reef-building methods used in Japanese fish harvesting that could be incorporated in her sculpture. When bricks are placed on the ocean floor, their open spaces attract particular species of fish according to the size and shape of the brick. As a result of this research, she fabricated 17,000 blocks from 500 tons of recycled coal ash to construct an artificial reef. Each solid block measures 8x8x16 inches. This stabilized fly ash is now part of a thriving 150-foot-long ecosystem colonized by vegetation and fish. Submerged under 70 feet of water and invisible to the public, the reef and the new life it has attracted have been recorded by the artist in underwater photography and acoustic imaging. In order to execute this project, Beaumont collaborated with many people - scuba divers, biologists, chemists, oceanographers, engineers - at Columbia University, the State University of New York at Stony Brook, and Bell Laboratories in New Jersey over a period of two years.



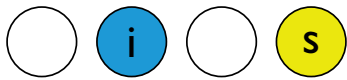
THE GIFT OF WATER | Grossenhain, Germany | Jackie Brookner | 2001

Brookner's Biosculptures™ are sculpted wetland ecosystems that function ecologically, aesthetically, and metaphorically to filter water as parts of natural water remediation systems for wetlands, rivers, and urban stormwater runoff. Brookner works on site analysis in collaboration with ecologists, bioengineers, hydrologists, and landscape architects to ensure that ecological function is optimized. This biosculpture™ was commissioned by the town of Grossenhain, near Dresden, Germany. Water, as a symbol of renewal, figured prominently in the town plan to build a remarkable new municipal swimming complex where the water is filtered entirely by wetland plants, without the use of chlorine or any other chemicals. It is used by 1500 people a day. The Gift of Water is part of this constructed wetland filtration system and helps people understand the filtration processes. Two mossy cupped hands reach from the bank into the pond. As water flows into the hands a misting fountain aerates it and moistens the mosses which, in turn, purify the water. The intimacy of the mosses growing over the hands immersed in water exemplifies how all life is interconnected.



REVIVAL FIELD | St. Paul, MN | Mel Chin | 1990

Mel Chin's first ecological artwork, this project is an attempt to demonstrate a safe, natural means to clean up toxic waste from the soil of the Pig's Eye landfill in St. Paul. The project's success depends upon the capacity of a unique group of plants to absorb heavy metals through their vascular system. Chin became involved in the process of using plants to detoxify waste sites after researching the work of Rufus L. Chaney, Senior Research Scientist at the U.S. Department of Agriculture. For over ten years, Dr. Chaney has been collecting seeds and determining their potential in the laboratory; none of his work, however, had been tested in the field. Chin contacted the agronomist and inquired whether he would be interested in testing his work on a large scale. After months of negotiations with public officials, the artist, supported by the Walker Art Center, was granted permission to implement his artwork on a 300-acre landfill that has been designated a state superfund priority.

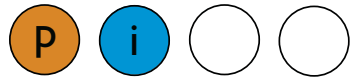


FOOTBRIDGE-TUNNEL | Lancy, Switzerland | Georges Descombes | 1988

Located on the outskirts of Geneva, the Tunnel-Footbridge serves as a hybrid solution for linking an existing renovated park with an adjacent residential area. Both had been separated by a recently widened heavily trafficked road and a small brook running beneath it. By creating a tunnel beneath the road and a footbridge over the brook, Descombes created a pedestrian infrastructure that makes reference to the ecology and topography of the historical landscape. The previously rural area of groves, brooks, marshes and winding lanes has now been transformed into an industrialized market-gardening region. Any variation in topography that had once existed in the landscape has been erased by massive drainage, leveling and sanitation of the land, resulting in water buried in concrete pipes. His intervention maps the preexisting landscape, such as the buried brook, and recalls traces of its formation by identifying and measuring a territory, engaging visitors within a context where pedestrians have not been considered. Light filters into the tunnel through a circular skylight that projects up through the area between two roads. The length of the bridge and the diameter of the tunnel are intentionally oversized to stimulate an awareness of scale that is normally non-existent in most suburban landscapes. The purpose of the overscaled elements is also to recall a personal childhood past of hiding and traversing through a hidden tunnel below the ground.

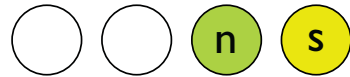


## PRECEDENTS - ARTISTS & DESIGNERS



SUNNYSLOPE CANAL DEMONSTRATION PROJECT | Phoenix, AZ | Jackie Ferrara and M Paul Friedberg | 2000

The trail and landscape improvements of the Sunnyslope Canal Demonstration Project enhance the comfort and accessibility of the Arizona Canal banks as a recreational amenity for the Sunnyslope community and provide a model for canal improvements in other areas of Phoenix. Key elements of the project include new landscaping and irrigation along the north and south banks of a 1.5-mile section of the canal; and open-air “rooms,” or small plazas where trail users can rest and enjoy the canal environment. These plazas, crafted from indigenous Arizona stone, conform to the character of the canal.



THE GREAT PARK PROJECT | Irvine, CA | FutureFarmers | 2004 | www.futurefarmers.com

This project provides a platform to imagine a 21st century space for people to interact with the natural environment on a piece of land laden with history, politics and the possibility to be a model for sustainable land use. It is a critical enquiry into the future land use of this former military base. The project was conceived for the 2004 California Biennial at the Orange County Museum of Art and Orange Lounge. The Great Park Project Field Guide to Surveying Open Space in Urban Areas invites artists, inventors, architects, urban planners, gardeners and citizens to contribute



L.A. RIVER PROJECT | Los Angeles, CA | Wilson High School students and Cheri Gaulke | 1989

This multi-disciplinary art installation was created by students in their senior year in the Humanitas program (sponsored by the Los Angeles Educational Partnership). Working with video artist, Gaulke, students studied and filmed the life along the Los Angeles River and the dramatic collision between humans and nature. The video documents the river flowing through an artificial concrete channel constructed in the 1930's to prevent flooding of new developments nearby. Despite stretches of barren wasteland where the river is reduced to a mere trickle or polluted by garbage and debris, there are oases where plant and animal life tenaciously thrive. The video installation consists of a twelve-monitor “video river” that poetically reveals a section of the river with a bottle drifting in the rapid flow of water, accompanied by natural sounds. A separate monitor, showing the “River Chronicle” traces the students’ explorations along the river’s course and features interviews with local politicians and activists who envision and advocate an alternative future for the river. The L.A. River Project provided students the opportunity to become involved in regional issues through an interdisciplinary approach that integrated history, literature, politics, natural science, and art. The program and the art that evolved is a prototype for other educational institutions that seek to stimulate creative and critical thinking.



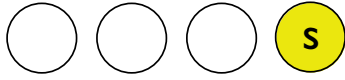
WATERWORKS AT ARIZONA FALLS | Phoenix, AZ | Mags Harries & Lajos Héder | 2003

This project addresses the re-use of an old hydropower station on the Arizona Canal. The Canals of Phoenix are a public utility providing essential water supply and irrigation. The Generator Room was the site of the generator for the power plant. A new exterior Water room has been created. Some of the water is diverted from the canal into two new aqueducts framing each side of the Water Room. The aqueducts release the water back into the canal on both sides of the Room creating a pair of waterfalls. At the rear of the room a curtain of water falls over the remaining gears and shafts from the old generator. At the sides of the room a concrete and stone wall releases small trickles of water that flow down the wall, run into a pool and drain back into the canal. The path leading into the Water Room takes visitors directly under the waterfalls, then continues across the island, ramping up among the riparian terraces to a new pedestrian bridge that crosses to the north bank. The Water Room is a magical space, lined with desert-stone walls and water, a Generator Room for water sensations, ideas and community energy. The entry is through a 10' water pipe flanked by pillars topped by a water scupper and an electric insulator. Along Indian School Road a series of entrances to the canal bank are marked by the Eyes on the Canal to announce the water that cannot be seen directly.





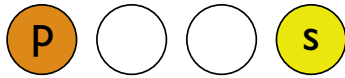
## PRECEDENTS - ARTISTS & DESIGNERS



MOVING POEMS | Tempe, AZ | Herberger College of Fine Arts, Arizona State University | 2005

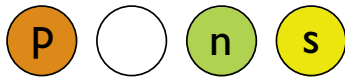
Moving Poems connects poetry to campus through a collaboration commissioned by the Arizona State University Office of Public Art, Regents Professor Alberto Rios and his creative writing students submitted short poems or phrases with themes suggesting movement or transportation. Winning selections were “published” on a new, mobile medium -- campus utility carts. Each work is accompanied by an image of the poet.

It's not uncommon to see poetry such as “Do not let the desert bloom without you,” and “The slower you go, the less you lose,” displayed on the sides of the white carts, which will be refreshed periodically.



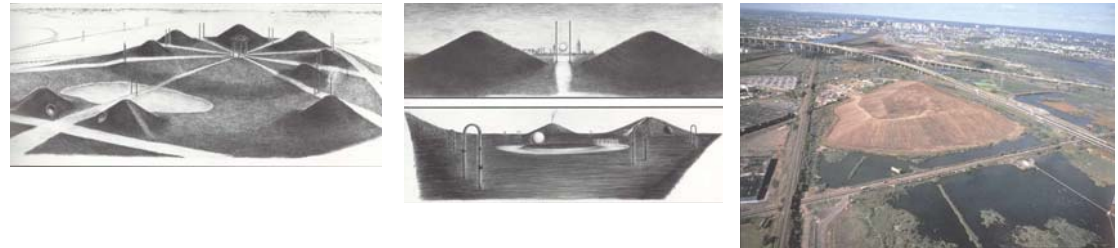
WATERSCAPE | San Jose, CA | Doug Hollis & Anna Murch | 2005 | [www.sanjoseca.gov/newCityHall/waterscape.asp](http://www.sanjoseca.gov/newCityHall/waterscape.asp)

As part of the development of the new San José City Hall, the City's Public Art Program commissioned artists Anna Valentina Murch and Douglas Hollis to design artwork for the plaza. The artists' design is a water sculpture inspired by the natural geological and artesian conditions underlying the San José region. Equally important is the intent to create a symbol for the future, one that celebrates innovation and change as an ephemeral experience. The specific design of Waterscape is composed of two dimensional topographic fields of monumental granite slabs. The fields slope from Santa Clara Street toward the new City Hall plaza. Water flowing down the surface of the field laps onto the plaza in subtle ripples, and flows over the vertical stone on the fountain edges, disappearing beneath the plaza, creating walls of water that define the perimeter along Santa Clara Street. The water within the field is programmed to respond to changes in time of day, temperature, season and/or availability of water to create different visual, sonic and atmospheric qualities.



SKY MOUND | Hackensack, NJ | Nancy Holt | 1985

Transforming an entire landfill in the Meadowlands of New Jersey into a public park and naked-eye observatory, Holt is also creating a habitat for plants and some of the 250 species of migratory birds that visit the area seasonally. At carefully calculated locations on the site, earth mounds and steel poles will be placed to align the viewer's vision with the sun rising and setting on the spring and fall equinoxes and summer and winter solstices. The landfill has been sealed using state-of-the-art technology to ensure safety and efficiency. In order to eliminate the possibility of toxic leachate from seeping into the groundwater, a 30-foot deep slurry wall has been constructed, a leachate collection system installed, and the top of the landfill has been covered with a specially designed plastic liner made partially from recyclable bottles. As methane gas recovery system, which is integrated into the artwork, has been built as a means to harness energy for the community. By the end of the century, most landfills will be closed. In the future, they will be seen as the pathetic monuments of our generation. Sky Mound demonstrates that we can reclaim civilization's trash heaps into socially useful spaces.



WATERWORKS GARDEN | Renton, WA | Lorna Jordan | 1996

Waterworks Gardens is an 8-acre public garden that naturally funnels, captures and releases filtered stormwater collected from more than 40 acres of impervious surface at the South Treatment Plant through the use of 11 ponds and enhanced existing wetlands. The plant opened in 1965 and now serves a population of more than 600,000 people in south and east King County. Built by Metro, the agency that handles water treatment for the Seattle region, the project was part of an ongoing expansion of the regional sewage treatment plant. The garden demonstrates a level of in-depth research into the fields of gardens and indigenous plant material, water treatment technology and recycled materials. Five garden “rooms” tell the story of water's cycle through the chain of human use and disposal. Stormwater flows under a grate below “The Knoll,” a paved overlook dominated by a basalt column colonnade. “The Funnel” consists of a series of terraced leaf-shaped ponds connected by the path, or stem. At the bottom of a hill, stormwater cascades into “The Grotto,” which is shaped as a seed pod. Undulating shotcrete walls covered with a richly patterned mosaic provide a place for repose. “The Passage” provides a calming experience as the path passes by a row of Lombardy poplars and three circular ponds that symbolize the fruit of the plant. In “The Release,” cleansed water flows from the last stormwater treatment pond to the ribbonlike islands and channels of a wetland and then to Springbrook Creek. A path meanders through all and connects to a regional trail system. When Jordan joined the project through Metro's 1-percent-for-art program, she helped to convince the community that “it would be good for people to understand why the plant was there and take responsibility for it.” Although the project started with a small budget, the artist strategically brought part of the storm water treatment design budget into the “art” budget.

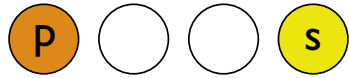


# PRECEDENTS - ARTISTS & DESIGNERS



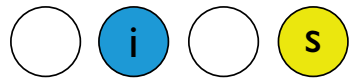
PLEASE, PLEASE, PLEASED TO MEET'CHA | Bronx, NY | Nina Katchadourian | 2006

Please, Please, Pleased to Meet'cha consists of sound systems, installed into six trees on the Wave Hill grounds, with human voices vocalizing birdsong. In choosing the human voices, two things became important. The artist wanted to work with people who knew nothing about birds. She also wanted them to have a deep engagement with translation, so she put out a "Call for Participants" to the translators and interpreters at the United Nations. None of the "voices" she worked with had previously heard the particular birds they were vocalizing. Their performances were interpretive, generative acts: spot translations that were performed without previous familiarity with the materials. A birding guide, available at each tree, reproduced the materials that the voices had worked from so that a listener could compare interpretations.



BIRD NEWS & ECHO WALL | Vashon Island, WA | Deborah Mersky | 1999

The artist worked with a design team to integrate artwork into the Vashon Transfer/Recycling Station at two locations: the scale house and the recycling area. The latter uses porcelain enamel for the scale house and the second is an aluminum frieze for the recycling area. In the scale house, porcelain enamel on steel panels, patterned with plant, bird and vessel forms was overlaid with newspaper text. This was the process used to create *Bird News*. This juxtaposition of newsprint over images is a brief and decorative comment on the overlay of humankind on the natural world. Through the artwork, the artist is asking what parts of our world are untouched by human contact, a question that resonates for Vashon Island. The title of the recycling area artwork, *Echo Wall*, refers to the after-life of plants, animals and refuse. The artist explains, "Whether it is through continued use, re-use, abandonment, or decay - everything possesses an echo." The artwork features imagery from the Vashon Island environment, including kelp crab, starfish, anemone, black-tailed deer and raccoon. In an effort to represent the community cosmologically, the artist incorporated images from the water, land and sky. The vessels portrayed in the work speak about containment, a core aspect of the Transfer/Recycling Station.



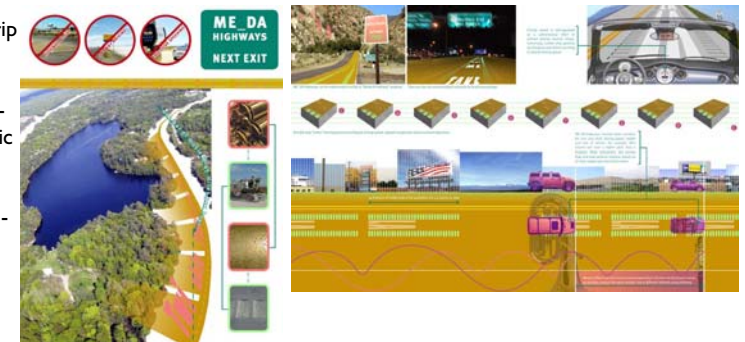
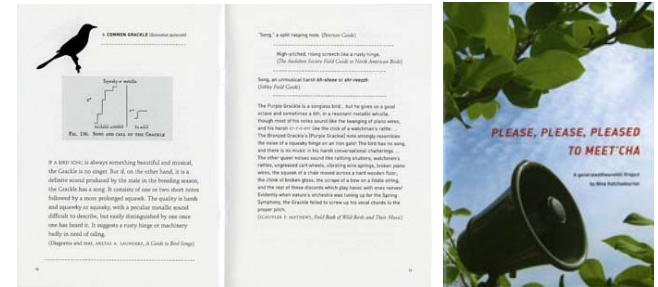
RUMBLE STRIPTRIP | New York NY | Petia Morosov | 2005

Innovative road-surface milling system that adapts existing CNC technology used for grinding highway rumble strips to engrave musically-encoded, acoustically-precise strip patterns in driving lanes. There are three main objectives: to improve highway safety, to enhance driving experiences and to orient drivers to their surroundings. The latest techno-savvy vehicles promise to keep us safe, entertained and on the go as we zip along our nation's vast roadway network. With GPS systems, lane-changing sensors, surround-sound AV, and smart dashboards, nature comes televised in a back seat console, automated voices bark safety warnings, and getting lost is practically impossible. These advanced systems also disconnect us from the surroundings through which we move, pulling our senses inward and injecting an unsettling form of domestic comfort into our driving experiences. The automobile's technologically overloaded interior invariably deprives us of a spatially engaged driving experience, rendering our driving spaces meaningless and, ultimately, our will to cultivate them trivial. Collaborators on the project represent the fields of urban design, industrial design, acoustics, cognitive sciences, musicology and transportation planning. This network of disciplines explores the implications of one scale of inquiry with another to tighten the feedback loop between rumble strip, driving experience and environment.



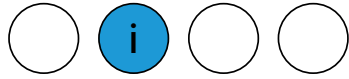
ISLA DE UMUNNUM | Moss Landing, CA | Heather McGill and John Roloff | 1989

In this project, the artists create sculptures that enhance habitats for hummingbirds. The title Isla de Umunnum derives from the Ohlone Indian words for "Island of the hummingbirds"; it is located near Moss Landing at Elkhorn Slough National Estuarine Research Reserve, one of California's last remaining wetlands. The artists wanted to use art to encourage the survival of native plants and animals. They collaborated with the Elkhorn Slough Foundation and sanctuary park rangers in order to determine how to best realize this goal. Inspiration came during an early visit to the site, where the artists witnessed the mating of two hummingbirds during an elaborate aerial dance. After researching the natural and archeological history of the site, they found that the birds, native only to the Americas, were revered by native peoples, who believed they were part bird and part insect. Fascinated by the scientific and mythological significance of the hummingbird, the artists dedicated their project to its preservation. One of the sculptures in the project is the Mound, conceived as a half-excavated Native American refuse mound with a semicircular pond. The side of the mound facing the pond is sliced open to reveal multiple strata of oyster shells, lava, and coal. From the opposite side, the sculpture disappears into the landscape as a small hill covered with native grasses and California poppies - bright orange flowers that bloom through the spring and summer months.



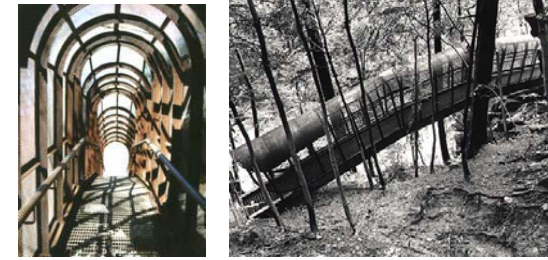


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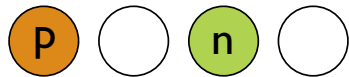
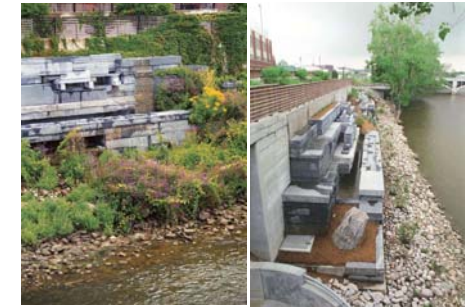
FINGERSPAN | Philadelphia, PA | Jody Pinto | 1987

The Fairmount Park Art Association commissioned a sculpture by internationally renowned artist Jody Pinto in collaboration with KieranTimberlake Associates which functions as a pedestrian bridge. When a span over the gorge south of Livezey Dam deteriorated the Park Commission retrofitted and installed a staircase from an old ship. To replace the stairs, the artist designed "Fingerspan," an outgrowth of the Fairmount Park Art Association's Form and Function project. The span was fabricated in sections and installed by helicopter. A grant from the Art in Public Places Program of the National Endowment for the Arts supplemented funds from the Fairmount Park Art Association, and the work was donated to the City of Philadelphia.



GRAND RAPIDS RIVERWALK FLOODWALL | Grand Rapids, MI | Michael Singer | 1988-1995

The city of Grand Rapids invited Michael Singer to propose a public artwork in a site of his choice within the city. Singer chose 600 feet of riverbank between the Pedestrian Bridge and Fulton Street as an alternative to an Army Corps of Engineers' proposal for a sheer concrete floodwall and destruction of the old cottonwood trees along the bank. With the aid of Varusian Hagopian, Sasaki Associates' Civil Engineer, and the City Planner, Steve Pierpoint, Singer was able to realize a reclamation, preservation and sculptural project that focuses citizen attention on a natural and historic place central to Grand Rapids. A 300-foot granite sculptural element functions as a flood wall and fully accessible walkway to the river's edge. The sculptural flood wall is reminiscent of stone foundations from an earlier time, emerging through the steep side of the riverbank. Indigenous plantings as well as the patina of the stone encourage associations with the past. The Riverwalk Floodwall became the precedent for further development of the river's edge and walkways in Grand Rapids.



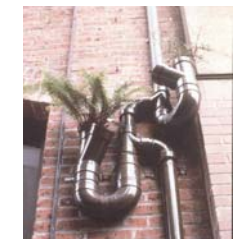
BECKONING CISTERN | Seattle, WA | Buster Simpson | bustersimpson.net | 2003

The cistern collects roof watershed from the 81 Vine Street building. Water is directed from the roof via downspout then through the extended index finger of an outstretched hand and into the 6'x10' tank "cuff" before eventually making its way down Vine Street to the Cistern Steps. The gesture of the outreaching finger can be compared to the ceiling of the Sistine Chapel, with Adam reaching to touch the hand of God. While the sculpture is symbolic, it is also functional. Roof runoff flows from the downspout to the outstretched index finger and divides, some cascading over the thumb into a water garden and series of pools, and some flowing into the cistern to be stored for later use, such as watering the garden. The Beckoning Cistern is a 10-foot high, 6-foot diameter blue corrugated cylinder constructed of galvanized aluminum (the sleeve) with a green metal hand emerging from its top. The entire structure is placed on a tilted concrete slab set in the water garden. The water garden with its three cascading planters is, in turn, set in lush native plantings of ferns, shrubs, and woodland plants. A smaller, companion garden nestles against the building; the sidewalk passes between the two.



DOWNSPOUT - PLANT LIFE MONITORING SYSTEM | Seattle, WA | Buster Simpson | 1978

In this project Simpson modified the typical downspouts that run along a building exterior. A downspout carries rain-water from the roof through vertical pipes and releases the water into a garden, to the sidewalk, or into a storm-pipe system below the street. At the Pike Place Market in downtown Seattle, Simpson grew ferns in plumbing pipes attached to the side of a building. These "vertical landscapes" functioned as a water-retention system for rain runoff from city rooftops. They also improved the water, which had become increasingly acidic from industrial pollutants, before it entered the storm-sewer system. After rain was trapped in the elbows of the pipe, Simpson sweetened it with limestone to neutralize its acidity. While enhancing water quality, Downspout provided an ideal habitat for plants and a cost-effective means to solve the problems of storm-water overflow. However, one modification of one pipe on one building won't significantly impact the municipal storm-water discharge, but if Simpson's rather low-cost idea was implemented for a city-block or a neighborhood, the reduction in water overflow into a storm system may be significant.

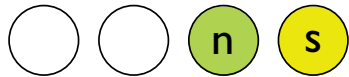


## PRECEDENTS - ARTISTS & DESIGNERS



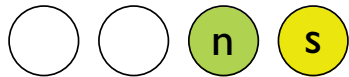
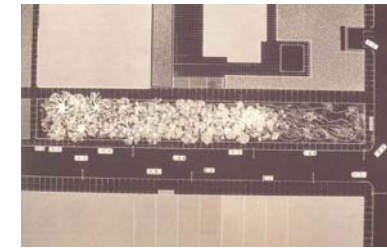
### WAVEWALL IN GREEN | Brooklyn, NY | Ned Smyth | 1995

Wavewall in Green is an art project which functions on three levels. First, it is a sculpture that is a symbol of the relationship between water, life, and the life of our planet. Directly influenced by the function of this site, the artist felt very strongly that the content of this environmental work should relate to the important role that this plant performs: the cleaning and protection of our water and environment. Second, this art piece forms the perimeter of the Coney Island Water Treatment Plant. As the perimeter of the plant, Wavewall in Green, serves the important function of security. It is made up of gates and fences ranging from 10 to 25 feet in height, which control access to the building as well as keep the building free from graffiti. Third, Wavewall in Green was designed to soften and landscape this industrial complex situated in a residential area. The problems of a large sewage treatment plant in a residential area are obvious. This design uses lower cost, industrial chain link fence, but at the same time, disguises it through form and planting. The fence, where visible, always takes on the narrative image of water. Otherwise, plants obscure the fence as natural landscaping, islands or vine covered water forms. The idea is that if the observer drives, walks, or lives in front of the sewage treatment plant, he will see green: growing trees, bushes, grasses, flowers, and vines. The project protects and gives meaning to the complex, while serving as a buffer between this invaluable industrial mechanism and the surrounding population.



### TIME LANDSCAPE: GREENWICH VILLAGE, NEW YORK | New York, NY | Alan Sonfist | 1978

In this project, Sonfist reclaimed an urban wasteland, the site of a tenement building reduced to rubble and engulfed by garbage and weeds. In its place grows a tangle of unspoiled vegetation, a glimpse of Manhattan before Europeans arrived on the continent. The location is La Guardia Place between Houston and Bleeker Streets. Sonfist's research at the New York Public Library and New York Botanical Gardens helped him to determine how the site might have appeared over 300 years ago. His findings led him to select indigenous species of oak, sassafras, wild roses, red cedars, grey birches, among others. But Sonfist does not simply attempt to create an idealized ecological model of a forest; instead, he creates a historical, living artwork, a monument to nature's cycles of growth and decay. The work focuses on the process of nature rebuilding itself, which ultimately asserts control over the project's design and appearance.



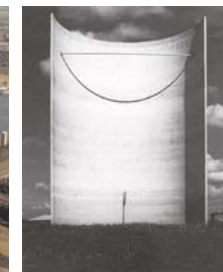
### WETLAND LISTENING POST | Atlanta, GA | Sound Collective (Seth Rogers & Evan Levy) | 1997

A science and art project utilizing an 8' parabolic disc made of aluminum and stainless steel. Park visitors are encouraged to sit on the "x" shaped bench in front of the disc. Wind driven obsidian chimes suspended inside a US Navy fog horn broadcast from the top of a 20' radio tower in a small wetland bog a hundred yards away. If viewers listen carefully or have a conversation sitting on the bench the parabolic disc captures and re-sculpts the sound.



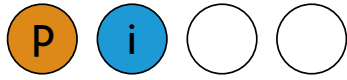
### WIND SCREEN | Rotterdam, the Netherlands | Maarten Struijs | 1985

The Wind Screen is a piece of infrastructure designed as both sculpture and landscape. It is composed of a system of freestanding concrete slabs and earthen dikes that enables navigation on the Caland Canal in the harbor of Rotterdam's Brittaniehaven. The Caland Canal serves to transport container shipments from the outer sea into the port of Rotterdam. The long and narrow site borders the canal on its western, windward, side. A bridge for rail and automobile traffic stands perpendicular to the site at its midpoint. South of the bridge, the site is a narrow spit of land containing mostly access roads to piers along the shore; north of the bridge, the site forms the edge of a field of oil storage tanks protected from the surrounding waterways by dikes along its perimeter. The high winds on the site exert a lateral force on the ships that can cause them to crash against the vertical supports of the bridge. Working within wind tunnel research calculations which determined an optimum screen height of 81 feet and a permeability of 25%, Struijs figured his Wind Screen as a composition of concrete forms creating three distinct segments. South of the bridge, the wind screen takes the form of 80-foot-high semicircular shells; at the bridge itself, the wind screen changes to slim, pier-like semicircular shells, 6.5 feet in diameter; north of the bridge, the slabs are combined with a windbreaking earth dike, 33-foot square concrete slabs resting on top of a 49 foot high grass embankment. While varying in proportion, spacing and scale the three segments are also offset from each other and overlap. These aesthetic moves reassert the pieces as sculptural elements broken free from technical criteria despite the highly technical function of the infrastructure.





## PRECEDENTS - ARTISTS & DESIGNERS



BLUE PARK | New York, NY | Till Landscape Architecture | 2006

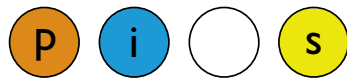
The Western Rail Yard Project goal is to create a viable southern expansion of the Javits Convention Center as well as, to create a catalyst for the development of the entire Hells Kitchen South area. There are five parts to this design concept:

1) Blue Park connecting the High Line to Hudson River Park - The park is structured in zones of alternating passive and reflective program such as a Frisbee Field (with school and greenhouses), Reading Forest (with library), Fountain Ridge (with Theater and Bay Keeper Field Station) and Kite Slope (with grand views to the Hudson River and Palisades of New Jersey). Underlying and permeating these programs is a flow of water. The source is the fountain ridge that discharges 200,000 gallons of water a day. 2) Blue Roof Water Management - The Blue Park is a functioning watershed, an adaptive ecological system and a place for quiet engagement of the sky, river, neighborhood, trade, transportation and plant systems. 3) Blue Infrastructure - The Blue Park is accessible from multiple points with the most prominent being a multi branching suspension bridge. The Vigor Bridge, which harnesses pedestrian flow toward generating energy, touches the ground at the East Rail Yard Plaza, the High Line, Hudson River Park and the Blue Park. 4) Blue Tower Vertical Watershed - The Blue Park water is sourced from the three neighborhood towers, two hotel and office towers and the convention center below. The new watershed boundary directs flow away from the river toward Midtown, as well as toward the river into the kite slope and a waterfront garden. Outflow water is directed back into the building system and to irrigate the High Line. 5) Convention Blues - The Blue Park provides a new type of built landscape for Manhattan - building on the water management landscape strategies of Frederick Law Olmstead and the infrastructural inventiveness of Robert Moses as well as the singular identity of the High Line Park.



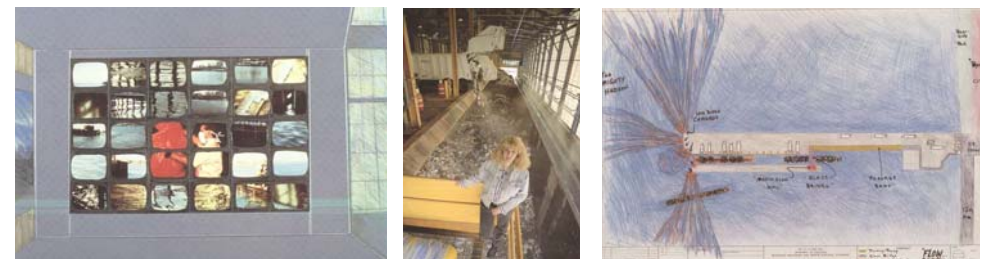
Santa Monica Urban Runoff Reclamation Facility (SMURRF) | Santa Monica, CA | Richard Turner | 2001

Commissioned by City of Santa Monica Cultural Affairs Division, the project is a water reclamation facility designed to educate the public about water use. The city wanted to showcase the process rather than hide it away as most communities do. The artist combined architecture, equipment staging, development of educational program and landscaping in collaboration with CH2M Hill and Adolfo Miralles, Architects. Visitors have a complete view of all of the equipment and processes that are used to purify the urban runoff. The siting of the equipment and the technology used was considered equally with the need to make the process of runoff treatment understandable to visitors. The equipment is arranged in sequential order and oriented towards the viewer so that visitors can follow the technology and the process visually. In several locations, the water moving through the system will be "daylighted", or exposed to the open air to allow visitors to clearly see the water treatment process. The design also conveys other messages to visitors by placing the facility in the larger context of the Santa Monica urban watershed, and informing citizens as to what they can do to decrease or eliminate pollution in urban runoff and from the Santa Monica Bay, and increase or maximize the recharge of rainfall stored in underground deposits or aquifers. Programs like this are a strong reflection of the city's commitment to sustainability, as well as an effective synthesis of progressive ecology and public education.

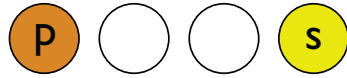


FLOW CITY | New York, NY | Merle Laderman Ukeles | 1983

Located at West 59th Street and the Hudson River, in midtown Manhattan, Flow City is an installation housed within the New York City Department of Sanitation Marine Transfer Station, where trucks deliver garbage for barging to Fresh Kills Landfill in Staten Island. Ukeles layers her refuse strata by material, color, and texture and incorporates moving mechanical parts from sanitation trucks. From the passage tunnel, the visitor approaches "Glass Bridge," which offers rarely seen views of the disposal process - the transfer of garbage from truck to barge. "Media Flow Wall" is a 24-monitor video bank "floating" in a sculpted wall of glass, connecting the building and its activities to the world beyond. The primary source of imagery magnifies the connections between the flow of the mighty Hudson River and the flow of waste. Views up, down, and beneath the river reconnect visitors with this body of water that has shaped the destiny of New York City. Flow City heightens our consciousness about materials; and this is the first stage in effectively reducing urban waste, one of our most critical environmental problems.

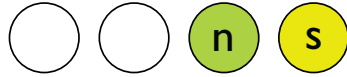


## PRECEDENTS - ARTISTS & DESIGNERS



THE SOCIAL MIRROR | New York, NY | Merle Laderman Ukeles | 1983

In this project, Ukeles focuses on sanitation workers who she feels are stigmatized because we - the public - are generally unwilling to recognize that the individuals who take the garbage don't make the garbage. In order to address this issue, she covered a sanitation truck with mirrored glass. As the vehicle moved through the streets of Manhattan, the reflection of city residents were beamed back to them. The people responsible for making garbage were cast squarely in the limelight.



CAR PARK | Vancouver, BC | Vancouver Design Nerds | 2005

The use of cars as garden spaces brings together two powerful symbols: car space and garden space. It also raises important questions. What should we do with our urban spaces? What are our land use priorities, and how do they reflect our values? Should we transform more urban space into car infrastructure, or should we infuse it with food production? Yet the primary response to the garden cars will be laughter. Humour is a remarkable tool for carrying people to new levels of consciousness in the blink of an eye.

Coinciding with the City of Vancouver's Car Free Day, the Car Park attracted a great deal of attention. The designers gutted the car of all of its foams and liners, pulled out the engine and transmission, and removed the glass (to be remanufactured into a lamp). The roof became the engine compartment's lining, the trunk lid turned upside down to elevate the bottom of the trunk compartment, and the hood raised the bed of the passenger compartment. The whole thing was then lined with chicken wire and landscape cloth and filled with soil. A Master Gardener planted the car with kale, chard, a blueberry bush, strawberries, and an array of other ornamentals and edibles.



SHOP CREEK PARK | Aurora, CO | William E. Wenk | 1989

This project sets out to restructure an eroded and unstable river bed. The original plan was to channelize a stream in concrete, but the neighborhood protested, so other options were considered. Wenk Associates proposed a softer, ecologically friendly approach incorporating what have now become more conventional ideas: widening and deepening the channel, vegetating the slopes, and installing check dams that stabilize the streambed. The new plan met engineering criteria, and the neighborhood was happy with the final result. A succession of crescent shaped, soil cement drop structures mark the channel bed, the original meandering course of which has been preserved. These contoured drop structures also slowed the flow of water, creating better habitat, improving water quality, and controlling bank erosion. The residual sludge of the channel itself was used as the raw material for the soil cement, allowing visual integration of the new structures with the natural materials of the channel bed and, at the same time, preventing the growth of undesired vegetation. The ultimate effect is one of a strange visual combination in the prairie landscape: extensive areas of wetlands between sloping "craters" - semi-natural dams - which will create a new, significant wild-life habitat.



WEEDS OR WILDFLOWERS | Cleveland OH | Mel Ziegler and Kate Ericson | 1990

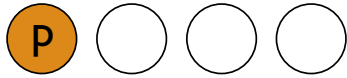
Cocoa mat was cut in the shape of leaves taken from different plants found in the Cleveland Flats historic industrial area. The railroad that passed through the area spread seed from a wide range of locals, causing an unusual diversity of plants to grow there. These plants were considered invasive weeds by local botanists. The artists stenciled the scientific names of the plants onto the mats. Seeds collected from these plants were planted in Ericson and Ziegler's Viaduct Gateway Park project, also in Cleveland.





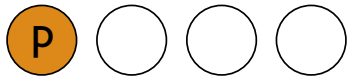
## PRECEDENTS - PLACES

The following are precedents for **places** with residency programs for artists; this research is important as we begin to figure out how programs within the proposed Research Center might be structured.



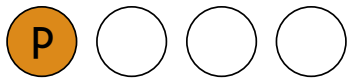
ARTSPACE | San Antonio, TX | [artspace.org](http://artspace.org)

ArtSpace serves as an advocate for contemporary art and a catalyst for production: it is a residency program as well as a site of exchange. It does this primarily through its International Artist-in-Residence program which annually invites nine artists to live and work in San Antonio for two months to conceive and create pivotal art projects. For each residency a guest curator invites three artists—one from Texas, one from elsewhere in the United States, and one from abroad—to live and work in the ArtSpace studios. ArtSpace provides each artist with a two-month residency, which includes a materials budget, a weekly living stipend, an apartment, and studio/exhibition space, as well as fully equipped wood, metal, and computer facilities, complete with technical and administrative support. The goal is to give artists a space in which to imagine new ways to work. The residency is followed by a two-month exhibition of the project created, which is fully documented and accompanied by a full-color exhibition brochure.



THE ASPEN INSTITUTE | Aspen, CO | [aspeninstitute.org](http://aspeninstitute.org)

Aspen's seminars, programs and leadership initiatives offer a chance for restorative reflection on the meaning of the good life, leadership, and sound public policy based on nonpartisan principles and timeless ideas. The endeavor is particularly relevant today. Having passed through a period in the 1990s when they saw the consequences, in both the business and political arenas, of becoming unhinged from underlying values. Today the biggest threat, to nations and to communities, is a lack of tolerance and understanding. The core mission is to foster enlightened leadership and open-minded dialogue. Through seminars, policy programs, conferences and leadership development initiatives, the Institute and its international partners seek to promote nonpartisan inquiry and an appreciation for timeless values.



HEADLANDS CENTER FOR THE ARTS | Marin Headlands, CA | [headlands.org](http://headlands.org)

Located in the coastal wilderness of the Marin Headlands 15 minutes from San Francisco, Headlands Center for the Arts was conceived through a planning process conducted by the Golden Gate National Recreation Area after the transfer of former military property to the National Park Service. The Park Service engaged a number of nonprofit organizations as "Park Partners", to assist them in restoring the historic buildings and developing interpretive programs for the public. Headlands was incorporated in 1982 by a founding Board of Directors comprised primarily of local artists. In 1994 they secured a long-term Cooperative Agreement for use of the buildings within the Golden Gate National Recreation Area. In creating Headlands Center for the Arts, the founders sought to re-configure the role of the artist from a marginalized position to that of a central participant in our society. Since 1987, Headlands has developed this idea into an array of dynamic programs for artists and the public, including residencies, lectures and performances, Open Houses, community-based projects, publications and commissions.



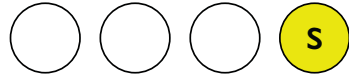
MONTALVO ARTS CENTER | Saratoga, CA | [villamontalvo.org](http://villamontalvo.org)

Montalvo is a non-profit organization dedicated to inspiring a love for the arts by presenting the best of the literary, performing and visual arts, supporting practicing artists in the major disciplines and providing significant arts experiences for children. Montalvo occupies a Mediterranean-style villa and the surrounding 175 acres, which were left as a gift to the people of California by Senator James Phelan in 1930 for the encouragement of art, music, literature and architecture. Established in 1939, Montalvo Artist Residency is the third oldest artist residency program in the United States and the oldest in the West. Collaboration is not only a cornerstone of the residency programs, but was key to the creation of the recently constructed new facilities themselves. Comprised of ten live/work studios and a commons building, the campus was designed by six distinct artist/architect teams who coordinated to build live/work spaces unique to the specific needs of artists.



# PRECEDENTS - PROGRAMS

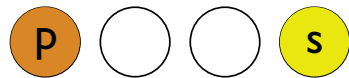
The following are precedents for **programs** such as artist residencies, programs within institutions or community/school initiatives which serve as case studies for programs that might be affiliated with the Park as Living Laboratory.



INSITE | San Diego-Tijuana border | 1992 | [insite05.org](http://insite05.org)

inSite is a network of contemporary art programs and commissioned projects that map the liminal border zone of San Diego-Tijuana. Established in 1992, inSite is dedicated to the realization of binational collaborative arts partnerships among nonprofit and public institutions in the San Diego-Tijuana region. Operating through a unique collaborative structure that is based on the active participation of cultural and educational institutions in the US and Mexico, inSite is focused on promoting artistic investigation and activation of urban space. The distinctive character of inSite, understood as a cultural practice of intervention in the urban social weave, stems from a commitment to facilitate new works developed through a long-term engagement with the artists. The project revolves around a process of two-year periodic residencies that culminate in the realization of works sited in the public domain throughout the two cities. The flexibility to respond to the shifting interests of artists and institutions and, in turn, to test new structures of collaboration and venues for the presentation of innovative work, has been a fundamental characteristic of this project.

The fifth and most recent exhibition, inSite\_05, seeks to interweave situations of flux, mobility, and experiences of interconnectedness. inSite\_05 will initiate processes intended to encourage novel, informal, and unexpected experiences and alternative modes of citizenship. Given that local sustainability depends as much on the region's more subtle flows as on its more obvious forms of exchange, inSite\_05 will attempt to stimulate urban situations that explore and unravel the social weave of the area.



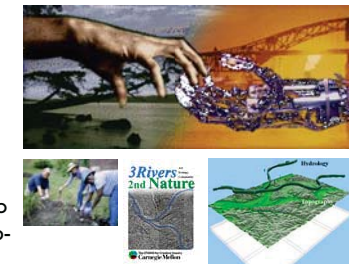
JOHN MICHAEL KOHLER ARTS CENTER ARTS/INDUSTRY | Sheboygan, WI | 1974 | [jmkac.org/arts\\_industry/](http://jmkac.org/arts_industry/)

Arts/Industry is an ongoing collaboration between art and industry. Conceived and administered by the John Michael Kohler Arts Center of Sheboygan, Wisconsin, the program makes industrial technologies and facilities available to artists through long-term residencies, short-term workshops, tours, and other programming so that they may further their artistic explorations. Major funding is provided by Kohler Co. and the National Endowment for the Arts. The primary component of Arts/Industry is a residency program at Kohler Co., the nation's leading manufacturer of plumbingware. Artists have the opportunity to spend two to six months creating works of art utilizing the industrial materials and equipment. Participants are exposed to a body of technical knowledge that enables them to explore forms and concepts not possible in their own studios as well as new ways of thinking and working. The Arts/Industry residency program operates year-round to support approximately sixteen artists annually, usually four in residence at a time. Participants may work in the Kohler Co. Pottery, Iron and Brass Foundries, and Enamel Shop to develop a wide variety of work in clay, enameled cast iron, and brass including but not limited to murals and reliefs, temporary or permanent site-specific installations, and functional and sculptural forms. Artists-in-residence are provided with studio space in the factory which is accessible to them 24 hours a day, seven days a week. In addition, they receive free materials, use of equipment, technical assistance, photographic services, housing, round-trip transportation within the continental United States from their homes to the site, and weekly honoraria. Hundreds of emerging and established visual artists have benefited from the Arts/Industry program at Kohler Co. since its inception in 1974.



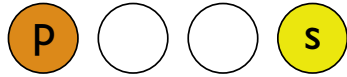
STUDIO FOR CREATIVE INQUIRY | Carnegie Mellon College of Fine Arts, Pittsburgh, PA | 1989 | [cmu.edu/studio/overview/index.html](http://cmu.edu/studio/overview/index.html)

The STUDIO is a center for experimental and interdisciplinary arts in the College of Fine Arts at Carnegie Mellon University. Founded in 1989, the STUDIO connects artistic enterprises to academic disciplines across the Carnegie Mellon campus, to the community of Pittsburgh and beyond. The STUDIO's mission is to support creation and exploration in the arts, especially interdisciplinary projects that bring together the arts, sciences, technology, and the humanities, and impact local and global communities. It achieves this through artist residencies with stipends, commissions and facilities, maintaining a work environment populated by a broad range of practitioners, including resident fellows, Carnegie Mellon faculty and students, and other associates. The STUDIO also facilitates access to human and technical resources at Carnegie Mellon and throughout the Pittsburgh community and develops public venues for presenting innovative work. Within the broad framework of the STUDIO, a locus of activity has emerged which includes work in three interrelated areas: biology, ecology and robotics. Artists in the 21st Century operate in a fascinating environment, unlike that of their predecessors. Advances in technology and science have made previously unimaginable concepts wholly possible. The STUDIO serves as a home to artists whose practices encompass this developing interdisciplinary approach--artists who imagine the future, who question the direction of humanity, who are able to synthesize the constantly changing technology, viewpoints and culture into their artistic vision. Artists who are STUDIO fellows frequently are risk-takers--challenging commonly held beliefs. With the support of the STUDIO, these artists are able to pursue their vision, communicate with targeted audiences and impact the global community. The STUDIO exists in the zone between academia and the community. It provides individual artists access to the extraordinary resources and technology of the university, enables them to operate at the highest level of effectiveness and insures that their work impacts the most important issues of our time.





## PRECEDENTS - PROGRAMS



SF RECYCLING & DISPOSAL ARTIST IN RESIDENCE | San Francisco, CA | 1990 | [sfrecycling.com/AIR/index.htm](http://sfrecycling.com/AIR/index.htm)

The goal of the Artist-in-Residence Program at SF Recycling & Disposal, Inc. is to use art to inspire people to recycle more and conserve natural resources. The company provides selected local artists with the opportunity to create art using materials they gather from San Francisco's refuse. This includes 24 hour access to a well-equipped studio, a monthly stipend, and an exhibit at the end of their residency, but artists seem most excited about having 24 hour access to the materials. The 2,000-square-foot art studio is located at SF Recycling & Disposal, Inc.'s Solid Waste Transfer and Recycling Center. The 44-acre site is where most of San Francisco's garbage and recyclables are temporarily dumped before going to a landfill or recycling plant. Recyclable items are sorted before being shipped to recycling plants and manufacturing facilities. Throughout a residency, each artist talks to young students and adult tour groups about the experience of turning trash into treasures. At the conclusion of their residency, the company holds a reception for the artists, to show the artist's work and invites the public. Many pieces of art from the program are exhibited in office building entries and public spaces in San Francisco. Many artists have made a permanent piece for the sculpture garden adjacent to the SF Recycling & Disposal, Inc. Transfer Station and the garden is a key stop for students on recycling tours.



THE EDIBLE SCHOOLYARD | Berkeley, CA | 1997 | [edibleschoolyard.org](http://edibleschoolyard.org)

The Edible Schoolyard is a non-profit cooking and gardening program initiated by chef and author Alice Waters and former school principal Neil Smith. More than an acre of asphalt parking lot had been cleared, a cover crop was planted to enrich the soil and the school's unused cafeteria kitchen was refurbished to house the kitchen classroom. Garden classes teach the Principles of Ecology, the origins of food, and respect for all living systems. Students work together to shape and plant bed, amend soil, turn compost, and harvest flowers, fruits and vegetables.



THE CENTER FOR LAND USE INTERPRETATION | Culver City, CA | 1994 | [clui.org](http://clui.org)

CLUI is dedicated to the increase and diffusion of information about how the nation's lands are apportioned, utilized, and perceived.

The Center for Land Use Interpretation is a research organization interested in understanding the nature and extent of human interaction with the earth's surface. The Center embraces a multidisciplinary approach to fulfilling the stated mission, employing conventional research and information processing methodology as well as nontraditional interpretive tools. The organization was founded in 1994, and since that time it has produced over 30 exhibits on land use themes and regions, for public institutions all over the United States, as well as overseas. Public tours have been conducted in several states, and over ten books have been published by the CLUI. CLUI Archive photographs illustrate journals, popular magazines, and books by other publishers, and have been used in non-CLUI exhibitions, and acquired by art collectors.

The CLUI exists to stimulate discussion, thought, and general interest in the contemporary landscape. Neither an environmental group nor an industry affiliated organization, the work of the Center integrates the many approaches to land use - the many perspectives of the landscape - into a single vision that illustrates the common ground in "land use" debates. At the very least, the Center attempts to emphasize the multiplicity of points of view regarding the utilization of terrestrial and geographic resources.



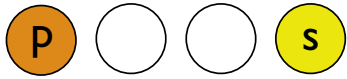
## PRECEDENTS - EVENTS

The following are precedent **events** such as conferences, expos, and exhibitions which serve as case studies for events that might take place in the proposed Research Center.



AICHI EXPO | Nagoya Eastern Hills, Japan | 2005 | expo2005.or.jp

The theme of the expo is nature's wisdom, a discovery that we must alter the relationship between humanity and technology as well as the social relations among people themselves. Japan in particular is acutely aware of this imperative, for the contradictions of modern civilization are especially apparent in Japan. Thus it is that Japan wants to host this grand experiment in eco-compatible living and offers this modest site as a global laboratory. If all of humankind will show their experiments for the future here, we should be able to devise answers to our shared concerns. We want to embark upon wide ranging research here. We want to free technology from the unthinking pursuit of efficiency and economic rationality and from rigid social systematic constraints - to awaken the wisdom embedded in the technology and to enable technology to once again interact sensitively with life and nature. Technology is not inherently eco-destructive, and at its best it exists in a creatively complementary relationship with nature. This effort encompasses everything that humanity needs in the 21st century.



BEYOND GREEN: TOWARD A SUSTAINABLE ART | 2 Feb. to 7 May 2006 | New York, NY | metropolismag.com/cda/story.php?artid=1883

Sustainable design, which balances environmental, social, economic and aesthetic concerns, has the potential to transform everyday life and is already reshaping the fields of architecture and product design. Beyond Green: Toward a Sustainable Art at New York's Museum of Arts and Design brought together 13 artists and artist groups from North America and Europe, all of whom use sustainable design strategies for metaphoric, practical, critical or even playful ends. It has become increasingly commonplace for architecture and design fields to consider environmentally and socially sensitive structures and objects, however, the idea of sustainability is relatively new to the fine art world. While "green" architecture has been widely explored, this is one of the first exhibitions to focus exclusively on sustainability in art and design. With projects ranging from whimsical to utopian, it is clear that each artist carefully considered the environmental, social, and aesthetic impacts of their piece. While "green" architecture has been widely explored, this is one of the first exhibitions to focus exclusively on sustainability in art and design.



Michael Rakowitz's paraSITE (pictured, Bill S.) provides private and comfortable dwellings for the urban homeless; each paraSITE is cheaply produced using materials such as trash bags and packing tape and easily inflated by attaching to a building's external exhaust fan. Courtesy Lombard-Freid Projects, New York



Allora & Calzadilla's video Under Discussion, follows a resident of the environmentally devastated island of Vieques as he navigates the surrounding waters using a large table that has been recycled into a motorboat. Courtesy Galerie Chantal Crousel, Paris; Lisson Gallery, London



"Do you know how long this orange has been off the tree?" asks Free Soil's cheerful cartoon orange logo. If you don't, Free Soil is happy to help you calculate just how far your fruit has traveled. Commission, Smart Museum of Art, University of Chicago



PARADIGMS ON THE MOVE: THE GROUNDWORKS MONONGAHELA CONFERENCE | Pittsburgh, PA | 2005 | communityarts.net/readingroom/archivefiles/2005/12/paradigms

The conference and exhibit concept began three years ago when artist Tim Collins arranged commissions for several artist residency projects to take place in the Pittsburgh area. Set on the Pittsburgh campus of Carnegie Mellon University in the Regina Gouger Miller Gallery, the environmental art weekend, October 15-16, 2005, featured a full schedule of artists' presentations describing community-specific projects. Can artists create or manifest social change? The evidence presented in the exhibit answered that question quite clearly with a resounding yes. These artists have indeed demonstrated through their work that it is possible to inspire and incite changes in social visions. Much of the work represented is grounded in redefining relationships between communities and their respective built environments, including industrial waste, water-pollution, land-reclamation and common-green-space issues.



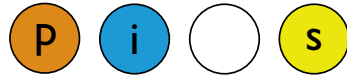
Connie & Tom Merriman's installation "Hays Woods Project"



CMU students try Laurie Palmer's "Oxygen Bar"



## PRECEDENTS - EVENTS



FORUM BARCELONA 2004 | Barcelona, Spain | 9 May to 26 Sept. 2004 | [barcelona2004.org/eng/forum2004.htm](http://barcelona2004.org/eng/forum2004.htm)

For exactly 141 days, Barcelona hosted a giant event consisting of exhibitions, dialogues, workshops and performances with topics ranging from cultural cooking practices to global water issues to debates about the digital revolution. The Forum was based on three themes: cultural diversity, sustainable development and prerequisites for peace. 'Understanding other cultures is an essential prerequisite for any constructive dialogue between peoples,' the web site states. And : 'Creating a culture of peace must be based on respect for other cultures, on social and political justice and the protection of human rights, and on living in a manner that is in harmony with the environment.' The colorful Forum 2004 bus, an auditorium on wheels, toured the Barcelona and the Catalonia region for several months prior to the Forum's opening to draw the attention of the general public to the large-scale event, for which preparations started in 1997. The event attracted thousands of artists, scientists, politicians and activists to the Spanish port city to 'reflect' on 'the major cultural and social conflicts that humanity faces at the beginning of the 21st century'.

As part of the sustainable development agenda, the Forum featured a wide range of on-site environmental measures in four arenas: waste, water, energy and materials. Some examples include: reducing and preventing creation of waste by requiring that food services use ceramic crockery and reusable metal cutlery, providing free cold-water dispensers throughout site, selectively collecting cooking oils used in kitchens of the Forum's food establishments to manufacture biodiesel used to run the small trains operating on site, and providing biodegradable shopping bags made from cornstarch. One notable feature that came about as a result of a student industrial design competition was the reusable Forum cup. When visitors buy a drink they pay a deposit of 0.5 euros for the cup; when they have finished with the cup they may return it to get their deposit back or take it home as a souvenir. The attractively designed cups have different logos and colors. Large-scale features include a structure covered with photovoltaic cells capturing 10,500 m<sup>2</sup> of solar energy and delivering it to the electric public utility system. Also, the Forum Plaza is the roof of the main water treatment plant for this area of metropolitan Barcelona, demonstrating an efficient means of creating hybrid spaces in dense urban settings.



Forum site



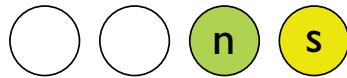
Reusable Forum cup



Exhibit: Water Talks



Cooking with the elements: fire, earth, air, water



SUSTAINABILITY & CONTEMPORARY ART INTERNATIONAL SYMPOSIUM | CEU Budapest, Hungary | 2006 | [translocal.org/sustainability/index.htm](http://translocal.org/sustainability/index.htm)

The symposium aims to create a transdisciplinary space for discussion of the fundamental issues bridging the fields of art and environment, and an opportunity to be inspired by the response of leading international artists to the challenge of sustainability. Presentations by artists will show how contemporary art might engage with the full implications of sustainability beyond visualizing ecological disasters and illustrating environmental campaigns. The innovative practices featured range from finding ways to foster cultural diversity, exploring new environmental notions such as sustainable pleasure, developing alternative concepts of wealth, and finding out new ecological uses of space.



David Haley, River Life



Heath Bunting & Kayle Brandon



Harrison, Future Gardens

# PRECEDENTS - ARTISTS & DESIGNERS

The following are artists whose work provide precedents for the Great Park. This is an ongoing list and will be regularly added to and updated.

Artist/Designer		Project Title	Project Description	Project Location	Images	Source
Last Name	First Name					
Acconci	Vito	Edge of Plant/Edge of Neighborhood	perimeter fencing/vest pocket park for Newton Creek WPCP	Brooklyn, NY		J.Riddell
Adel	Simone					
Albuquerque	Lita (with Mitchell De Jarnett)	Golden State	plaza design, celestial history	Sacramento, CA		
Baca	Judy		Works with at risk youth, murals			
Baca	Julie (DIRT)	Litmus Garden				
Bartels	Marlo					
Bayer	Herbert				y	
Beaumont	Betty	Ocean Landmark Project	underwater sculpture reef for fish	continental shelf 50 mi from NYC	RT to scan	Fragile Ecologies
Beccera	Raymundo					
Berk	Barbara					
Berlant	Tony					
Bray	Angie					
Britto	Remero	Bus Wrap	decorating buses			
Brookner	Jackie					
Brown	Laurie					
Burchfield	Jerry (The Legacy Group)	The Great Picture		Irvine, CA	get image of photo	
Chamberlain	Mark					
Chin	Mel	Revival Field		St. Paul, Mn	need better image	Fragile Ecologies
Chin	Mel	S.W.I.N.G.	Sustainable Works Involving Neighborhood Groups	Detroit, MI		J.Riddell
Ching	Carl					
Cripe	Diane(Administrator)	Moving Poems	ASU students' poetry on carts	Tempe, AZ		
Compton	Allan Campton					
Coolidge	Mathew Coolidge					
Damon	Betsy					
Deutsch	Richard					
Dreiseit	Herbert		Wetland	Portland		
Felson	Alex		EDAW		y	
Garnier	Jaques(Legacy Project)	The Legacy Project				
Gill	Larry					
Green	Renee					
Guyton	Tyree	Heidlborg Project				
Harries/Héder	Mags/Lajos	Drawn Water	public art for Cambridge Water Purification Plant	Cambridge, MA		J.Riddell
Harrison	Helen & Newton			Santa Monica		
Hesketh	John					
Hollis	Doug /Anna Murch				y	
Holt	Nancy	Sky Mound	landfill related to cosmos	Meadowlands, NJ	RT to scan	Fragile Ecologies
Hood	Walter					
Hung	Su-Chen	WATER Spells	wastewater treatment installations for 23rd Ave. WTP	Phoenix, AZ		J.Riddell
Irwin	Robert					
Iserman	Jim					
Johanson	Patricia					
Johnson	Robert (Legacy Project)					
Kahn	Ned	Wind Silos	shimmering plates hiding garage			
Lacey	Suzanne					
La Duke	Tom					
Lamb	Tom		aerial photography of area			
Lundquist	Laurie			Phoenix		
Levy	Evan /Seth Rogers	Atlanta Wetland Listening			will send	
Marshall	Victoria	Blue Roof			y	
McCulloh	Doug (Legacy Project)	El Toro Photography	photo documentation project	Irvine, CA		
McGee	Michael					
Millar	Robert	Alvarado Advanced Water Treatment Plant		San Diego, CA		J.Riddell



## PRECEDENTS - ARTISTS & DESIGNERS

Artist/Designer		Project Title	Project Description	Project Location	Images	Source
Last Name	First Name					
Morosov	Petia		sound project		y	
Orta	Jorge	light projectors				
Paielement	Paul					
Park	Kyong					
Perry	Sean	Marking River		Indianapolis		
Pinkel	Sheila					
Pinto	Jody					
Pollak	Linda					
Ray	Charles					
Richards	Peter					
Roloff	John (with Heather McGill)	Isla de Umunnum (Island of the Hummingbirds)	ecological sculpture that enhances habitats for hummingbirds	Moss Landing, CA	need better image RT to scan	Fragile Ecologies
Rosenquerall	Jann			Arlington		
Rotundi	Michael					
Ruben	Nancy					
Christie		pier design for Coney Island WPCP	Brooklyn, NY			J.Riddell
Ruddick	Margie					
Savitz	Bryan					
Siegal	Steven					
Simpson	Buster	Beckoning Cistern		Seattle, WA	need better images	
Singer	Michael				y	
Smith	Elizabeth					
Smyth	Ned	Wave Wall in Green	fence and landscape design for Coney Island WPCP	Brooklyn, NY		J.Riddell
Solnit	Rebecca		Berkeley or Oakland?			
Sonfist	Alan	Time Landscape	Greenwich Vill. community planting	New York, NY	RT to scan	Fragile Ecologies
Spada	Clayton	From Zero:Infinity	art/science project			
Taylor	Kathy	dumpster garden				
Trakas	George	Waterfront Nature Walk	waterfront esplanade	Jackson Heights, Queens, NY		J.Riddell
Triravanija	Rirkrit	the land	a rice field as lab for self sustainable environment			
Turner	Richard	Inland Empire Utility Agency				
Ukeles	Merle	The Social Mirror	mirrored garbage truck	New York, NY	y + RT to scan	Fragile Ecologies
Vega	Rudy					
Ward	Nari					
Wenk	Bill		Wetland from transfer station	Denver		
Willey	Claude (Legacy Group)	Moisture	Water garden & retention project	Mojave Desert, NW of Hinkley, CA		
Wilson	Fred					
Woods	Lebbeus					
Zeittel	Andrea					
Ziegler	Mel					

## PRECEDENTS - PLACES

Places				
Name	website	location	founded	description
Artpace	artpace.org	San Antonio, TX	1995	residency program and site of exchange resulting in annual exhibition
Headlands Center for the Arts	headlands.org	Marin Headlands (north of SF), CA	1985	residency studios in former army barracks, part of Golden Gate National Recreation Area; relationship between human and natural systems explored through creative investigations
Montalvo	villamontalvo.org	Saratoga, CA	1930	nonprofit organization dedicated to forging connections between art, artists and communities; occupies a villa on 175 acres, donated by Senator James Phelan; residency program on architect-designed campus with 10 live/work studios
Pond	mucketymuck.org	San Francisco, CA	2001	educational nonprofit organization dedicated to providing a forum through which experimental artists may share ideas and foster a mutually beneficial relationship with the larger community
The Aspen Institute	aspeninstitute.org	Aspen, CO	1950	a gathering place for leaders from around the globe and across many disciplines to engage in discussion of ideas and issues of our time
The Banff Centre	banffcentre.ca	Banff, Alberta	1933	arts, cultural and educational institution and conference facility; a catalyst for creative thought, lifelong learning, the development and showcasing of new work, and advancement of applied research; thematic residency programs
The LAB	thelab.org	San Francisco, CA	1984	interdisciplinary arts organization which supports development and presentation of new visual, performing, media and literary art; interested in experimental art; focus on culture & community of Bay Area
The Lab Art + Ideas	belmarlab.org	Lakewood, CO	2004	collaboration formed between developers, City of Lakewood and Denver Art Museum to envision how contemporary art could be integrated as a major feature in the new Belmar District, a mixed-use, residential and commercial urban neighborhood
The Living City Campus	trca.on.ca/living_city	Toronto, ON		facilities and programs designed to help the Toronto region become one of the most sustainable in the world; goal is to become one of the largest concentrations of green buildings in North America
The MacDowell Colony	macdowellcolony.org			
Yerba Buena Center for the Arts	ybca.org	San Francisco, CA	1993	nonprofit multidisciplinary arts organization for multidisciplinary art; artist-in-residence program supports artists in developing unusual projects, and cultivate collaboration with other artists
Polyforum Siqueiros	polyforumsiqueiros.com			Polyforum means multiple forum in which several cultural, political and social activities take place. It has a theatre, galleries, offices and the Universal Forum. "Polyforum Siqueiros" is a museum in itself. The purpose is to promote, diffuse and preserve the sculpture and pictorial work of David Alfaro Siqueiros.



## PRECEDENTS - GROUPS & ORGANIZATIONS

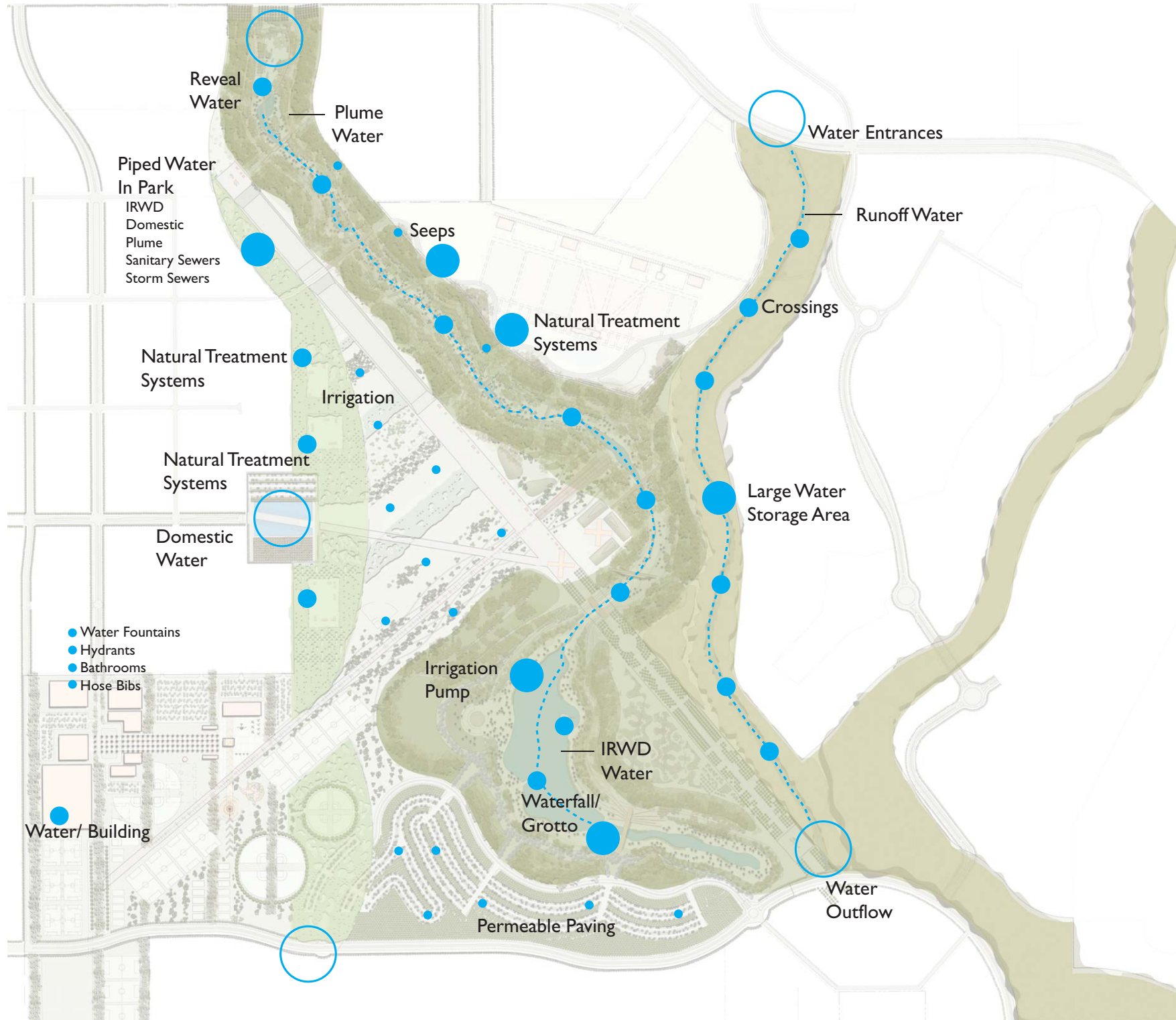
Groups/Organizations/Initiatives	Website	Project Title	Project Description	Project Location	Images	Source
Futurefarmers	futurefarmers.com	The Great Park Project	artists using El Toro site as a research platform	Irvine, CA	website	
Gardenlab	gardenlab.org	Edible Estates	replacing front lawns of suburban homes with edible landscapes	Los Angeles, CA	website	
Invisible-5	invisible5.org	Invisible-5 Audio Project	interstate audio tour SF to LA	I-5, CA	website	
Rebar Collective	rebargroup.org	PARK(ing)	transformation of parking space into temporary urban park	San Francisco, CA	website	
Students in LA		L.A. River Project	"video river" installation			Fragile Ecologies
Urban Alchemy	urban_alchemy.tripod.com	Urban Alchemy Gardens	organic backyard gardens for urban residents	Portland, OR	none	
Vancouver Design Nerds	designnerds.ca	Car Park	rolling vegetable garden in car	Vancouver, BC	website	

## PRECEDENTS - EVENTS

<b>Events/Conferences</b>			
<b>Name</b>	<b>website</b>	<b>location</b>	<b>dates</b>
Aichi Expo 2005	<a href="http://expo2005.or.jp">expo2005.or.jp</a>	Nagoya Eastern Hills, Japan	March 25-Sept. 25, 2005
Beyond Green: Toward a Sustainable Art	<a href="http://ici-exhibitions.org/Exhibitions/BeyondGreen/BeyondGreen.htm">ici-exhibitions.org /Exhibitions/ BeyondGreen/ BeyondGreen.htm</a>	Museum of Arts and Design, New York, NY	NYC February 2 - May 7, 2005 Long Beach, CA
Paradigms on the Move: The Groundworks Monongahel	<a href="http://www.communityarts.net/readingroom/archivefiles/2005/12/paradigms_on_th.php">www.communityarts.net/readingroom/archivefiles/2005/12/paradigms_on_th.php</a>	Carnegie Mellon University, Pittsburgh, PA	Oct. 15-15, 2005
Sustainability and Contemporary Art International Symposium	<a href="http://translocal.org/sustainability">translocal.org/sustainability</a>	CEU Budapest	March 30-31, 2006
Material Exchange	<a href="http://www.mcachicago.org/exhibitions/exh_detail.php?id=100">http://www.mcachicago.org/exhibitions/exh_detail.php?id=100</a>	Museum of Contemporary Art, Chicago	Nov. 03- 26, 2006
Massive Change: The Future of Global Design	<a href="http://www.mcachicago.org/exhibitions/exh_detail.php?id=53">http://www.mcachicago.org/exhibitions/exh_detail.php?id=53</a>	Museum of Contemporary Art, Chicago	Sept.16, 2006—Dec.31, 2006











# PRECEDENTS - PROTOTYPES BY MARY MISS THAT RANGE FROM INTERPRETIVE TO EXPERIENTIAL PROJECTS

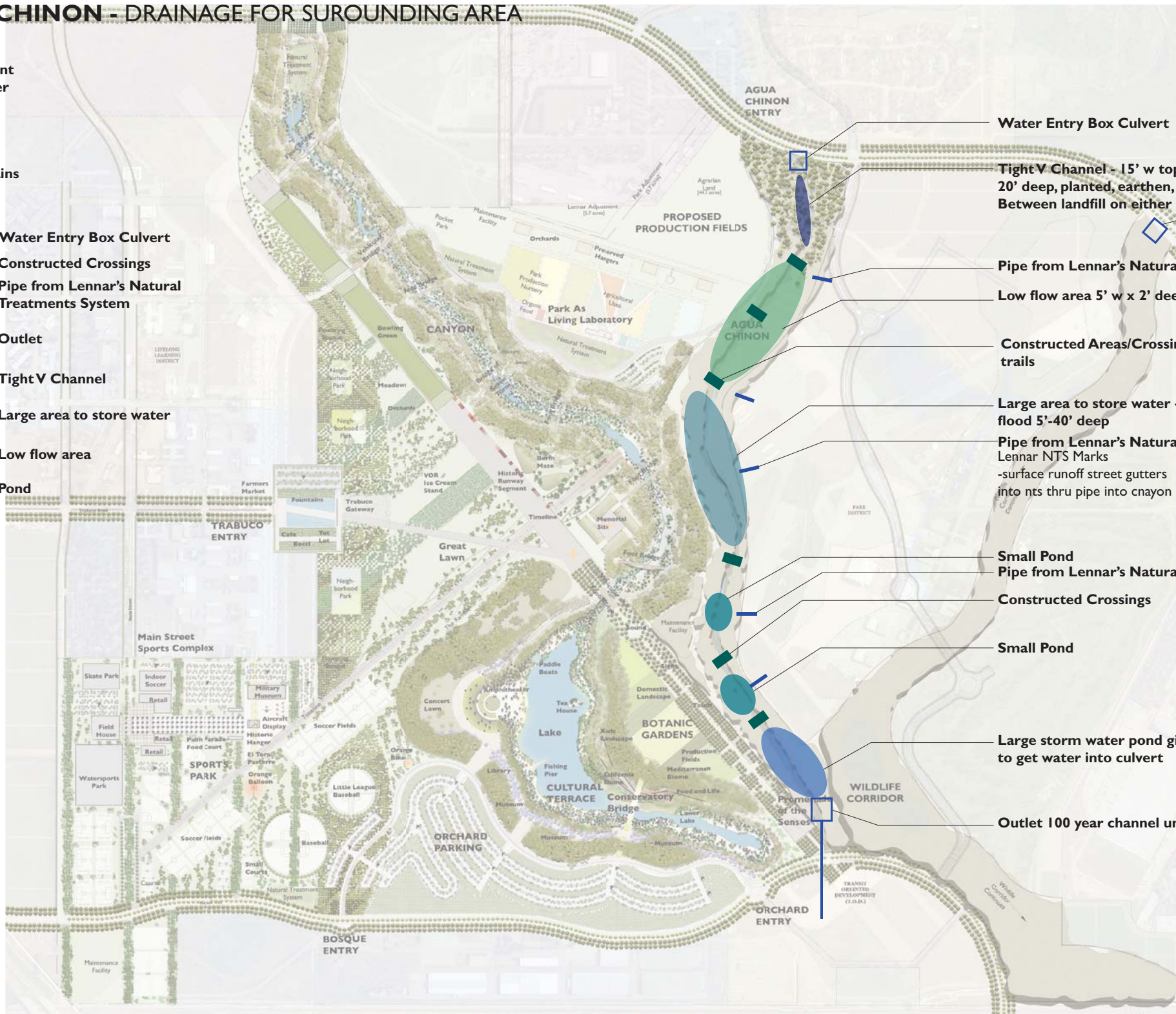




# AGUA CHINON - DRAINAGE FOR SURROUNDING AREA

Show Different types of water  
 IRWD  
 Domestic  
 Plume  
 Sanitary  
 Storm Drains

-  Water Entry Box Culvert
-  Constructed Crossings
-  Pipe from Lennar's Natural Treatments System
-  Outlet
-  Tight V Channel
-  Large area to store water
-  Low flow area
-  Pond



Water Entry Box Culvert

Tight V Channel - 15' w top 5' w bottom, 20' deep, planted, earthen, usually dry. Between landfill on either side

Water Entry Box Culvert

Pipe from Lennar's Natural Treatments System

Low flow area 5' w x 2' deep Trails on flats

Constructed Areas/Crossings connecting trails

Large area to store water - 100 year flood 5'-40' deep

Pipe from Lennar's Natural Treatments System Lennar NTS Marks -surface runoff street gutters into nts thru pipe into canyon

Small Pond  
 Pipe from Lennar's Natural Treatments System

Constructed Crossings

Small Pond

Large storm water pond gives pressure to get water into culvert

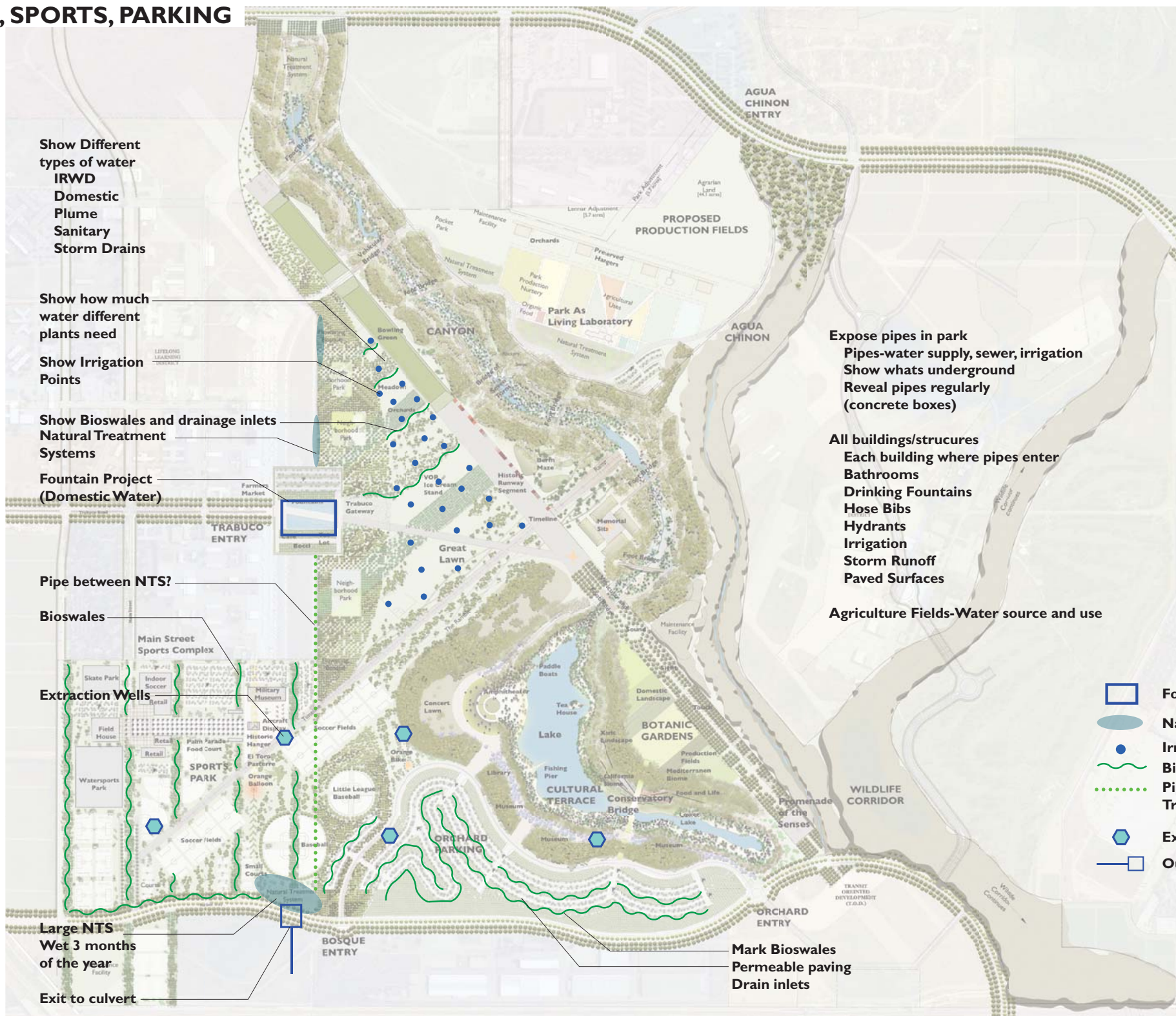
Outlet 100 year channel under TOD







# FIELDS, SPORTS, PARKING



Show Different types of water  
**IRWD**  
**Domestic**  
**Plume**  
**Sanitary**  
**Storm Drains**

Show how much water different plants need

Show Irrigation Points

Show Bioswales and drainage inlets  
**Natural Treatment Systems**

Fountain Project  
**(Domestic Water)**

Pipe between NTS?

Bioswales

Extraction Wells

Large NTS  
**Wet 3 months of the year**








Exit to culvert

Mark Bioswales  
**Permeable paving**  
**Drain inlets**

Expose pipes in park  
**Pipes-water supply, sewer, irrigation**  
**Show whats underground**  
**Reveal pipes regularly (concrete boxes)**

All buildings/structures  
**Each building where pipes enter**  
**Bathrooms**  
**Drinking Fountains**  
**Hose Bibs**  
**Hydrants**  
**Irrigation**  
**Storm Runoff**  
**Paved Surfaces**

Agriculture Fields-Water source and use

-  Fountain
-  Natural Treatment System
-  Irrigation Line Connection
-  Bioswales
-  Pipe Connection to Natural Treatment System
-  Extraction Wells
-  Outlet



## PROCESS - HOW DO WE MAKE IT HAPPEN?

The Park as Living Laboratory is a vision for the park which will gradually evolve over an extended period of time. At this preliminary masterplan phase, we are beginning to design our *process*. This task will involve four types of work: *research*, *outreach*, *catalysts*, and *prototypes*. Each of these is detailed in the chart below.

RESEARCH	OUTREACH	CATALYSTS	PROTOTYPES
<p><u>1. Precedents</u> Research case study projects, places, programs and events.. This includes contacting artists for images and project descriptions. Research will be documented and organized on an ongoing basis.</p> <p><u>2. Site Data</u> Collect and document various findings about the site and its surroundings: historical, demographic, cultural, and ecological etc. as a resource for future use.</p> <p><u>3. Maps</u> Create a series of maps using GIS. These will show various combinations of data about the park and its surrounding region. The purpose is to expand our understanding of the site so that opportunities for intervention can be revealed. These maps will eventually become part of an information base for artists' use.</p>	<p><u>1. Website</u> Initially, a location on Mary Miss' website will describe the Park as Living Laboratory project in detail. Contact information of interested individuals and their input will be solicited via email. In the future a dedicated website will be created and linked to Great Park website.</p> <p><u>2. Symposia</u> Develop ideas about how the proposed Research Center may be structured and funded. Organize a series of symposia to initiate dialogue about art, design, sustainability, and interdisciplinary collaborations. Obtain feedback about the Park as Living Laboratory concept.</p> <p><u>3. Press and Publications</u> As the project develops, press releases and publications about the Park as Living Laboratory program should occur regularly. Graphic material for this purpose will be prepared and updated on an ongoing basis.</p> <p><u>4. Public Exhibition</u> Display work in progress in a temporary on-site studio. Explore different possibilities for engaging people with the future park and ideas about sustainability. Examples: large-scale 3D models, video, exhibition of precedents of artists' and designers' work as well as current student work, monthly forums, lectures, presentations etc.</p> <p><u>5. Compiling Resources</u> Contact individuals, institutions, and groups who may be interested in the Park as Living Laboratory project. Compile a resource list of people that can be contacted for various purposes (e.g. symposium participant, researcher, professor, people with knowledge about site, local artists etc. ) as the project develops.</p> <p><u>6. Develop Artist Database</u> Create a database of artists/designers interested in participating in the Living Laboratory Programs.</p>	<p><u>1. Institutional Partnerships</u> Establish partnerships with college and university professors who may be interested in supporting the Park as Living Laboratory idea through their teaching curriculum or academic research.</p> <p><u>2. Organizations and Businesses</u> Establish connections with organizations and businesses who may be interested in supporting the Park as Living Laboratory idea through community programs, projects, or business ventures.</p> <p><u>3. Community Connections</u> Identify cultural groups, their organization and leaders to serve as a local resource for potential collaborative projects between artists and various cultural communities within Orange County.</p> <p><u>4. Individual Expertise</u> Identify individuals with specific areas of expertise or knowledge who may be interested in supporting or contributing to the Park as Living Laboratory in some way.</p>	<p><u>1. Prototype Projects</u> Identify possible projects by artists, designers, individuals, or organizations that can help launch and support the Park as Living Laboratory idea (e.g. The Legacy Group's Great Picture or research at the Center for Land Use Interpretation).</p> <p><u>1. Mary Miss Projects</u> Mary Miss will develop a series of projects in the Great Park to be incorporated into the masterplan and implemented as part of Phase I construction. They are intended to serve as prototype projects which demonstrate how collaborations between artists and scientists (e.g. ecologist or hydrologist on GP team) will work. As permanent installations in the park, these projects will serve as precedents for future work by other artists.</p>

# RESEARCH CENTER

**WHO** will be using the center?

Artists/designers working in collaboration with scientists, social scientists and others.  
Academics, students and professionals participating in symposiums, lectures or presentations.  
School and community groups conducting educational programs.  
General public visiting exhibitions on display at the center.

**WHAT** is the purpose of the center?

To serve as an engine to generate collaborative experimental projects in the park as it evolves over time.  
To be a growing repository of documentation about the Great Park and its development.  
To provide resources for artists and others to fuel their research.  
To provide studio and work spaces for researchers who will participate in the Center's program.

**WHERE** will the center be located?

The Control Tower located within the Great Park.

**WHY** a center?

To promote the overall vision of the Great Park where environmental and social sustainability are given a notable form of expression  
To make the concept of "Park as Living Laboratory" concrete as an ongoing endeavor.  
To create an institutional activity node directly affiliated with the park.

**HOW** will the center be implemented?

1. Make local contacts with arts groups, organizations, artists, academics and others
2. Set up temporary on-site studio
3. Organize a series of symposia to initiate dialogue
4. Investigate institutions with similar mandates
5. Initiate catalyst projects involving artists and designers
6. Find collaborators and appropriate people to run the center
7. Identify long term funding sources
8. Develop organizational structure i.e. relationship of center to Great Park, how projects will be incorporated into the park, how a residency program might work etc.



# TIMELINE

Park as Living Laboratory 2-year plan

GREAT PARK MILESTONES		YEAR ONE	YEAR TWO
GP Preliminary Masterplan	●	september 2006	september 2007
		october	october
		november	november
		december	december
Masterplan approval	●	january 2007	january 2008
		february	february
Phasing Plan	●	march	march
		april	april
		may	may
Phase One Schematic	●	june	june
		july	july
		august	august
		september	september
		october	october

Framework definition, tasks outlined  
Cal Poly students Park as Living Lab architecture studio begins  
Create resource list from interested academic institutions

Continue research & outreach  
Initiate catalyst projects (e.g. documentation of pre-construction site) with invited artists and designers

Add Park as Living Lab project to MM website  
Acquire building for temporary studio

**SYMPOSIUM #1 - structure of Research Center, relationship to park**  
Exhibition of student work

Ongoing Design of MM/GP team prototype projects as part of GP Phasing Plan

Building of large regional 3D model in studio  
Initiate Park as Living Lab projects with professors & their students

Begin monthly forums open to the public with invited speakers

**SYMPOSIUM #2 - identify potential participants in Research Center planning**  
Exhibition of student work, presentation of academic research  
Collect & archive work in Living Lab Sourcebook

Proceed with development of Phase One MM/GP team prototypes  
Create dedicated website for Park as Living Lab project

**Research Center** executive committee members identified

Exhibition of large regional 3D model & MM/GP team prototypes  
Park as Living Lab projects with professors & students continue

Research Center executive committee established  
Continue research, & outreach

Initiate catalyst projects (e.g. documentation of construction site) with artists and designers

**SYMPOSIUM #3 - setting up & running the Research Center**

**Research Center** building acquired & setup begins

Construction documents for Phase One MM/GP team prototypes

**SYMPOSIUM #4 - long term vision for Research Center**  
Exhibition of student work, presentation of academic research  
Collect & archive work in Park as Living Lab sourcebook

First artists for Research Center residency invited  
Phase One MM/GP team prototypes begin construction

**Research Center** opens & artists begin work

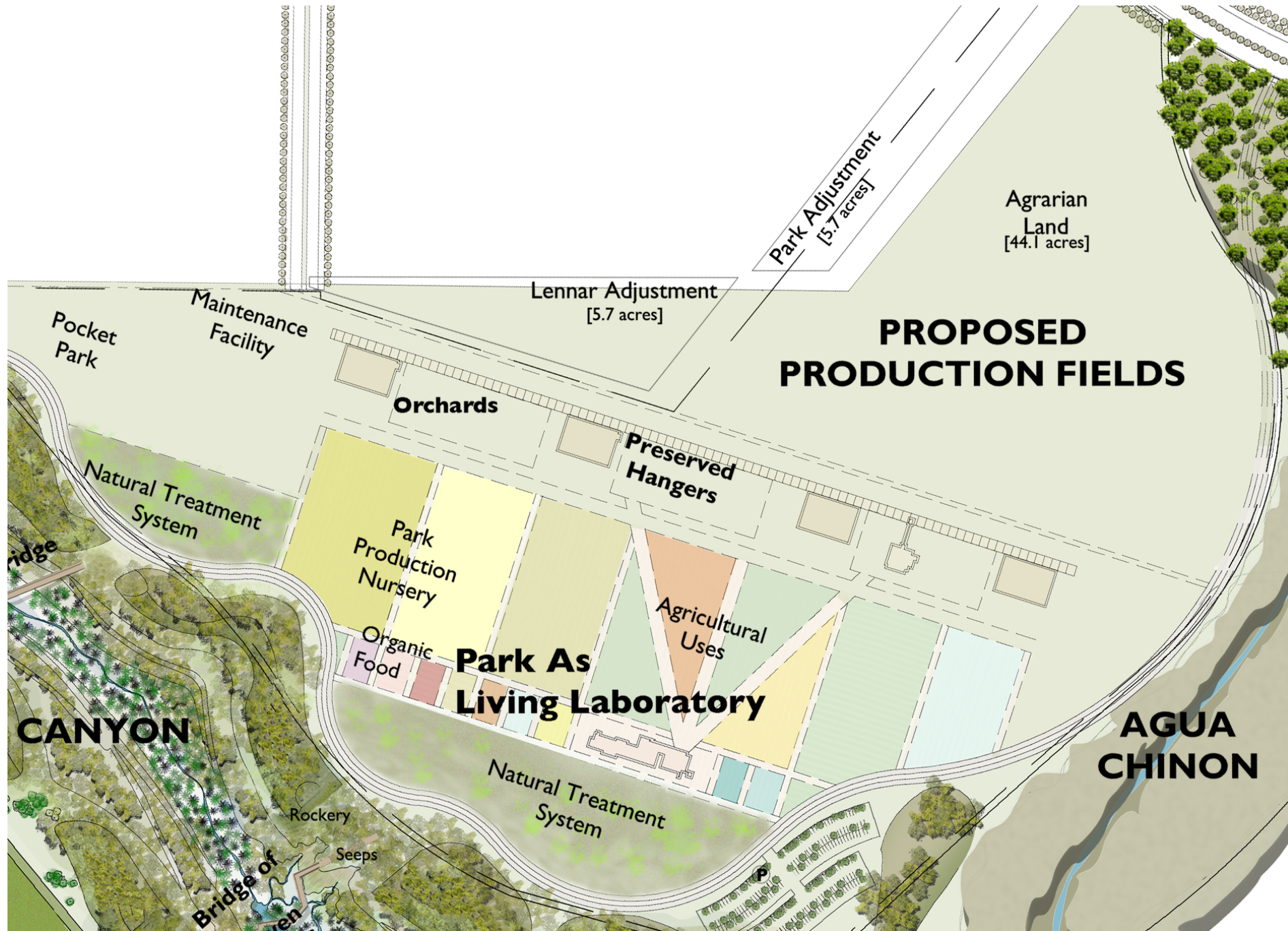
# ORANGE COUNTY GREAT PARK



NORTH



# RESEARCH CENTER - LOCATION IN PARK





## RESEARCH CENTER - RENDERING OF TRANSFORMED CONTROL TOWER





## ACKNOWLEDGEMENTS

The concept of the Park as Living laboratory has been developed by Mary Miss in collaboration with the Orange County Great Park Design Team and Rennie Tang and Charles Cross.

We are appreciative of the contributions made by the following:

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Rachel Heiman

Walter Hood

Robert Irwin

Richard Koshalek

Tom Lamb

Lucy Lippard

Victoria Marshall

Jennifer McGregor

Karen Moss

Tony Pang

Kyong Park

Marc Palley

Nancy Rubin

Michael Sorkin

Acva Stein

Richard Turner

Fabian Wagnmister

Ed Wall