

Let's go to the Park  
Allegheny County Parks Re-imagined through Service Design

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A thesis submitted to the School of Design, Carnegie Mellon University,  
for the degree of Master of Design in Interaction Design.

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Peter Scupelli, Ph.D.  
Assistant Professor, School of Design / Advisor

Date



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## Images

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# Abstract

This thesis project analyzes how the principles and methods of service design, design thinking, and human-centered design research can be utilized to re-imagine a county-level parks department, specifically Allegheny County Parks. Allegheny County Parks is a system of nine parks that have suffered for 30+ years from deferred maintenance, funding cuts, and other shortages. Boyce Park, one of the nine County parks, includes a broad range of prototypical park activities. My previous employment and established relationships made Boyce Park an excellent service design case study. To begin the project, I employed exploratory research methods (e.g., literature reviews, observations, participation in services, surveys, and interviews) to understand the design space. Then, generative research methods (e.g., affinity diagrams, personas, stakeholder maps, and service blueprints) led to the identification of key service improvement areas: organizational structure, increase revenue, infrastructure, user-centered park policies and communications. The area of communications was chosen for further exploration, due to its potential as a first step in transforming the parks and affecting the other service improvement areas. Another round of communications-centered exploratory and generative research (e.g., benchmarking and speed dating) was completed, resulting in a new service ecology and communications system proposal for Allegheny County Parks. A portion of the new communications system, specifically a responsive website design for mobile, tablet and desktop platforms, was prototyped. The responsive design, which showcased an activity finder and reservation system, was evaluated through paper prototyping sessions. The feedback from these sessions was implemented within a final HTML prototype.

**Keywords:** service design, service experience, service ecology, servicescapes, service blueprinting, communication systems, county government, parks and recreation, technology in parks



# Introduction

What is Allegheny County Parks? Why do the parks matter? What this project about? Who does it affect and what is the scope of the project?

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**Map of all nine Allegheny County Parks**

## Location, Population Served and Purpose of Allegheny County Parks

Located within the southwest of Pennsylvania, Allegheny County forms the nucleus of the Pittsburgh metropolitan area and is home to approximately 1.3 million people (United 2012).

The County parks aim to serve the entire population. Therefore, the parks system is made up of nine separate parks spread throughout the County.

- Boyce Park, 1,096 acres in the Municipality of Monroeville and Plum Borough
- Deer Lakes Park, 1,180 acres in Frazer and West Deer Townships
- Harrison Hills Park, 500 acres in Harrison Township
- Hartwood Arces Park, 629 acres in Hampton and Indiana Townships

- North Park, 3,075 acres in Hampton, McCandless and Pine Townships
- Round Hill Park, 1,101 acres in Elizabeth Township
- Settlers Cabin Park, 1,610 acres in Collier, North Fayette and Robinson Townships
- South Park, 2,013 acres in Bethel Park Municipality and South Park Township
- White Oak Park, 810 acres in White Oak Borough

These parks are much more than just grass and open space. Through proper execution of the County’s mission statement, the parks are used year round by Allegheny County residents in numerous ways.

“The mission of the Allegheny County Parks is to enhance the quality of life and well being of Allegheny County residents through a regional parks systems that provides quality landscapes, facilities, programs, and special events that meet county-wide needs for leisure and recreation on behalf of the diverse segments of the community; conserves natural and cultural resources while offering education programs and opportunities for hands on experience; forms an integral part of a county-wide system of open spaces, greenways, and trails; and contributes to the economic vitality of the County (“Parks Department” 2012).”

## Challenge Facing the Parks

The parks’ mission has been in jeopardy for many years. During a town hall meeting in April 2007, Chief Executive of Allegheny County Dan Onorato stated that there were “millions of dollars of deferred maintenance in our park system. Over the past 30+ years, our parks have suffered due to budget cuts and neglect. One of the first departments cut during budget troubles, is our parks (“Notes” 2007).”

For instance, malfunctioning cables resulted in approximately 170 Boyce Park ski area patrons being stranded on the ski lift during three separate incidents in January 2011. No patrons were injured in any of the incidents, but some were stranded for over an hour (“Skiers” 2011). The County closed the ski area early and lost revenue due to the aging equipment.

According to the current master plan for the parks, published in 2002, 73.4% of all park facilities have inadequate Americans with Disabilities Act (ADA) accommodations. Also, most playground facilities were installed before 1980, so they do not meet current safety standards. “[Other facility hazards] include trip/fall hazards, parking lots located too close to traveled roads, shelters infested with stinging insects, and pollutant spill and disposal issues (Wallace 2002, 2-6).”

Besides shortcomings with park facilities, the master plan mentions a lack of marketing efforts informing County residents about programs and services, seasonal staffing shortages, the poor condition of maintenance equipment, a lack of signage within the park as well as to the park from the larger community, and organizational structure issues. Also, the plan questions if the programs and services offered by the parks actually match the needs or wants of County residents (Wallace 2002).

Multiple initiatives have been enacted to improve the parks since the publication of the master plan in. A skateboard park was created in Boyce Park to attract younger people. The Allegheny County Parks Foundation was established in 2007 to assist the parks by assembling resources, improving assets, and mobilizing public and private stakeholders. In October 2011, the County and the Allegheny County Parks Foundation accepted a \$750,000 grant from the Pennsylvania Department of Conservation & Natural Resources to fund portions of two projects – the South Park Fairgrounds Improvements and Settlers Cabin Connector Trail (Allegheny 2012). In December 2011, Allegheny County Executive-elect Rich Fitzgerald suggested permitting Marcellus Shale drilling in North Park, in order to generate revenue that could be used to enhance the park (“Shale” 2011).

Even with these improvements and revenue-generating initiatives, funding problems and stagnation of further improvements still plague the parks.

## Goals of the Project

The goal of this project was to utilize the principles and methods of design thinking, human-centered design research and service design in order to understand the current service structure of Allegheny County Parks and its problems, identify opportunities to strengthen the service, then develop a design solution for one opportunity point. A report of the findings (this document) will be shared with Allegheny County Parks as a reference for future initiatives.

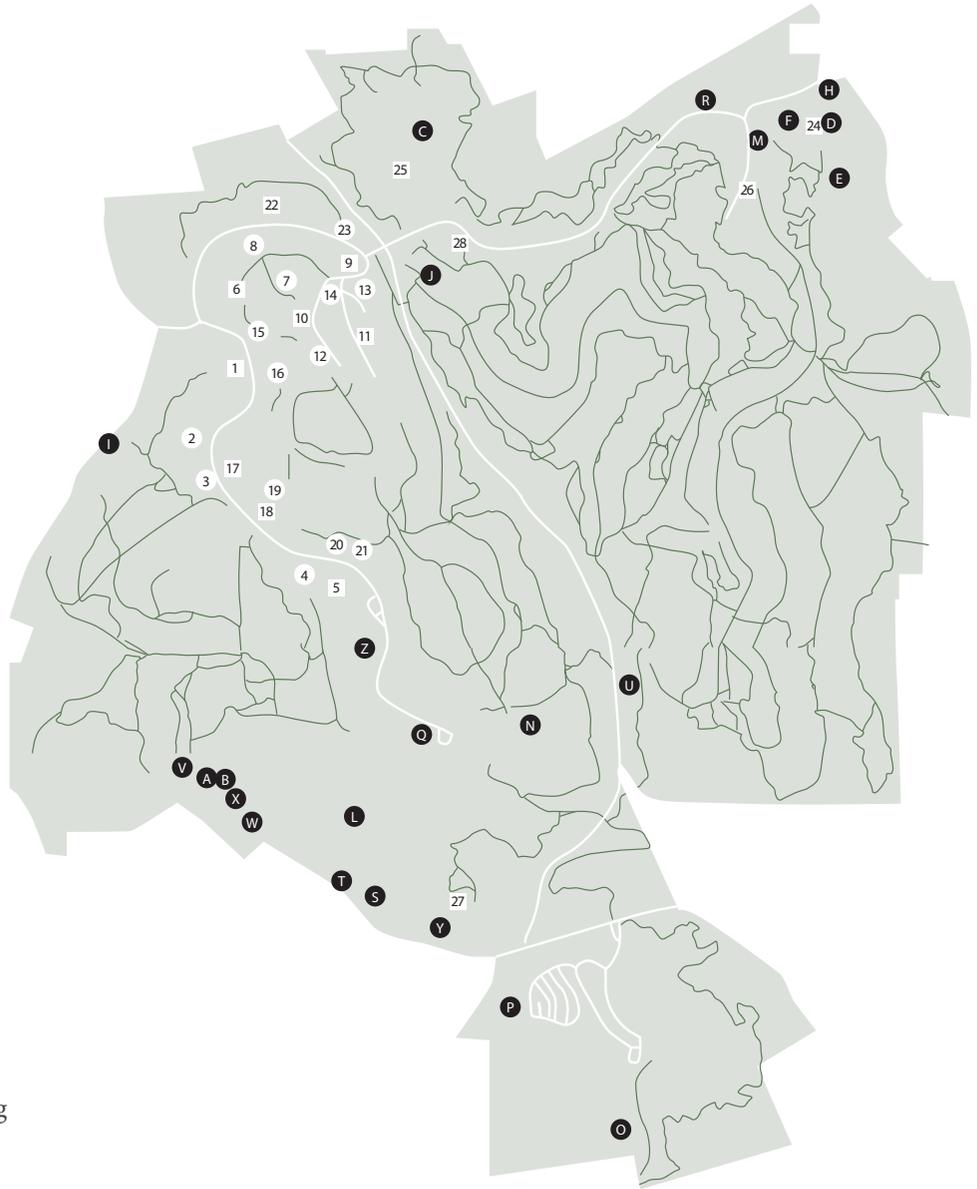
## Scope

An electronic survey and an analysis of internal park documents addressed all nine of the County parks, in order to gain an initial understanding of the service structure. However, all other exploratory design research activities focused on one particular park. Boyce Park was chosen as the service design case study, because it includes a broad range of prototypical park activities. My previous employment and established relationships also made Boyce Park an excellent chose.

# Map of Boyce Park

## Groves and Shelters

- 1 Cub 1
- 2 Cub 2
- 3 Lion
- 4 Tenderfoot
- 5 Bobcat
- 6 Eagle
- 7 Crow
- 8 Hawk
- 9 Tanglewood
- 10 Primrose
- 11 Hillcourt
- 12 Romar
- 13 Baden Powel
- 14 Livingstone
- 15 Brunton
- 16 West
- 17 Den
- 18 Patrol 1
- 19 Patrol 2
- 20 Boyce
- 21 Bear
- 22 Star
- 23 Wolf
- 24 New Dimension
- 25 Soccer Pavilion
- 26 Silver Beaver
- 27 Commissioners
- 28 Pack



## Facilities

- A Administration Building
- B All Purpose Room
- C Soccer Fields 1, 2 & 3
- D Ballfield 1 (Little League Lighted)
- E Ballfield (Adults)
- F Ballfield (Adults Lighted)
- H Basketball Courts (Lighted)
- I O'Block Playground
- J 1st Lt. Santoriello Archery Range
- L Ski Slopes
- M Tennis Courts (Six Lighted)
- N Model Airplane Field
- O Wave Pool
- P 3 B's Action Park
- Q Four Seasons Activity Center
- R Maintenance/Police
- S Ski Slope Maintenance
- T Picnic Hut
- U Carpenter's Log House
- V Nature Center/Greenhouse
- W Pump House
- X Demo Gardens & Arboretum
- Y Nature Center Tree Nursery
- Z Wetlands

## Legend

- Grove
- Shelter
- Facility
- Trails



# Exploring the Design Space

Understanding Allegheny County Parks, particularly Boyce Park, through an exploration of the park system using service design and knowledge from the greater recreation and leisure community.

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# Exploring Service Design

My entire analysis of Allegheny County Parks is based on a service design research approach. What does that mean?

## Key Insights

- Understanding service design was imperative for this project; it was the foundation of this project. It affected what research methodologies were utilized, what questions were asked, and how the results were analyzed.

First, what is service? A service is intangible, perishable, and its production and consumption are inseparable (Vargo 2006, 37-40). It is a complex experience whose quality is difficult to measure, because the experience vacillates each time. The idea of co-creation, building value when organizations and customers work together, is also frequently discussed as a valuable component to employ when providing a service (LSE 2009 & Prahalad and Ramaswamy 2004). (Moritz 2005)

Innovations or improvements can be made to services by understanding their service ecology.

"A service ecology is a system of actors and the relationships between them that form a service. The service ecology takes a systemic view of the service and the context it will operate in. Service ecologies include all actors affected by a service, not only those directly involved in production or use. By analysing service ecologies, it is possible to reveal opportunities for new actors to join the ecology and new relationships between them. Ultimately, sustainable service ecologies depend on a balance where the actors involved exchange value in ways that is mutually beneficial over time (Schott 2009)."

An understanding of a service ecology is developed through service design. This holistic field integrates management, marketing, research and design expertise to make services useful, usable, efficient, desirable for clients, and effective for organizations. As a result, service design is interactive, ongoing and represents the client's perspective (Moritz 2005).

Service design has the potential to generate true understanding of market need, influence changes in organizational culture, provide a new perspective on future developments, create higher effectiveness and better efficiency, connect organizations and clients, differentiate against competition, strengthen brand affinity, increase the service experience quality and produce a higher value with the resources available (Moritz 2005).

The specific service design and design research methods used within this project are explained in later sections of this document. Some of the methods include service blueprinting (see page 53), servicescapes (see page 17), user/non-user personas (see page 48), and stakeholder mapping (see page 52).

# Exploring Parks, Recreation, and Leisure

Besides understanding service design, this project required an understanding of the current topics discussed within the parks, recreation, and leisure field. My general literature review of the field brought forth a few interesting and relevant areas for this thesis project.

## Why do parks exist?

Historically, the need for parks arose out of the Industrial Revolution. As people moved from the country to the city looking for work, they needed an escape, which was provided by urban parks. Technology further aided the expansion and need for parks. Without the railroad providing easy transportation, it is unlikely that the first national parks in the United States of America would have been legislated. Then, the automobile gave the masses an easy transportation method to physically visit parks, so a boom in outdoor recreation was generated and more park systems were created. (Shultis 2001)

Today, the existence of parks is most often discussed in regards to the types of positive benefits they bring to public, including physical health, mental health, social function, youth development, and environmental and economic impact ("Synopsis" 2010). Local parks are known to strengthen a community (Sharpe 2010 & Sherer 2006). Social factors also play a role in promoting park visitation, such as an increase in discretionary time, national affluence, increases in population, the commodification of leisure, and the influence of technology (McLean 2012). A further analysis of technology in parks is described on page 68.

Just as technology can promote park usage, it has also been identified by the national parks in the United States and Canada as one of the reasons for the decreases in visitation that they were experiencing. In particular, these park systems highlighted four "challenges" to visitation: "1) declines in visits by children, primarily due to the increased use of electronic media; 2) the lack of minority and immigrant use of national parks; 3) an aging population; and 4) increasing urbanization and the concomitant loss of green/open space (Shultis and More 2011, 118)." While the national parks planned to increase visitation through new education efforts, other scholars found that the most effective strategies for improving visitation were providing more information about the parks and providing more activities to individuals who reported "they were transportation constrained and who indicated they were dissatisfied with their current level of park visitation (Scott and Mowen 2010, 535)."

Other scholars questioned the goal of increasing visitation by pointing out the benefits of decreased usage, such as environmental and social impacts. (Shultis and More 2011 & McLean 2012).

## Key Insights

- Patrons visit parks for numerous reasons, including health benefits, social functions, environmental factors, and increased discretionary time.
- Providing more information about the park and providing more activities are effective strategies for increasing the visitation of individuals who have trouble finding transportation to the park or who are dissatisfied with their current level of park visitation.

## Parks as a Service

Most often the service structure of specific for-profit or national parks, such as Disney (Gallo 2011) or the U.S. National Park Service (Hof and Lime 1997), are explained as examples to the greater parks community.

### Key Insights

- Any analysis of county-level park systems is noticeably absent from the current scholarly work in the parks, recreation, and leisure field.
- Experience staging and the five phases of the outdoor experience should be utilized as lenses for evaluating and re-imagining Allegheny County Parks.

Other scholars philosophically argue that park service must work in conjunction with the larger park experience. Gary Ellis and J. Robert Rossman suggest that parks are part of the experience economy; parks are in the business of producing sensations and memories. Therefore, the authors state that parks need to view their offerings as more than just a service, so they propose the idea of "experience staging." Experience staging combines service with the engaging, memorable, sometimes transformational, personalized encounters found in an experience. "Presence of an engaging theme, implementation of features that appeal to multiple senses, and provision of memorabilia for guests are meaningless if staff are rude and unresponsive, equipment fails, queues are annoyingly long, and workers lack interest in the needs and wants of guests (2008, 10)." Their model measures success by the following factors: reliability, activity safety, activity security, setting security, tangibles, courtesies, security, assurance, responsiveness, recovery, all five senses, cues, staying in character, performing to form, eliminating negative cues, empathy, surprise and memorabilia. (2008)

Marion Clawson and Jack L. Knetsch developed another fundamental model, cited heavily within this field, of the five phases of the outdoor experience: anticipation, travel to, participation, travel from, and recollection (1971).

# Exploring Allegheny County Parks

A variety of exploratory research methods were utilized, in order to better understand Allegheny County Parks' service ecology and ultimately to inform the problem framing. The particular methods included observations of Boyce Park, participation in Boyce Park services, a review of internal park documents, a survey, interviews with Boyce Park patrons, and interviews and observations of parks employees.

## Observations and Participation

### Method Description

I began my research by spending time within Boyce Park observing and participating in many of the park services. In other words, I started with a review of the servicescape, because the physical environment can lead to certain emotions, beliefs, and physiological sensations, which in turn influence patron behaviors (Bitner 1992).

To collect my observations, I used multiple different techniques. Psychogeography guided the direction of my exploration through the park, thus I actually drifted without a set plan allowing my emotional response to the environment lead me (Debord 1955). When I did stumble upon a particular defined activity area, such as a playground or soccer field, I sat down for an extended period of time and wrote about what all of my senses were experiencing. What did the area look like? What did it smell like? What sounds could I hear? What feelings did I receive from the area? After writing down my observations, I utilized my digital camera to document the area. If it was an area that was being used by other people while I was present, I engaged in people watching. For example, I people watched at the Boyce Park Wave Pool. I made notes about the groups found at the pool, what actions they were participating in, and what items they utilized while at the pool. Once I finished people watching, I drifted to the next location (Smith 2008).

During subsequent visits, I participated in numerous park services, such as swimming at the wave pool with my family and walking through the park. Participating in the activities led to further insights about a patron's perspective of each service touchpoint. I came to understand the park processes more fully as well as identify successful and unsuccessful aspects of each service.

### Summary of Findings

My main observational and participation-based findings for Boyce Park are detailed on the next several pages of this section. Additionally, my participation-based findings influenced many other aspects of this project, including the service blueprint.

## Methods

- Observations of Boyce Park
- Participation in Boyce Park Services
- Review of Internal Park Documents
- Survey  
*(118 Responses)*
- Boyce Park Patron Interviews  
*(21 Participants)*
- Employee Interviews and Observations  
*(11 Participants)*

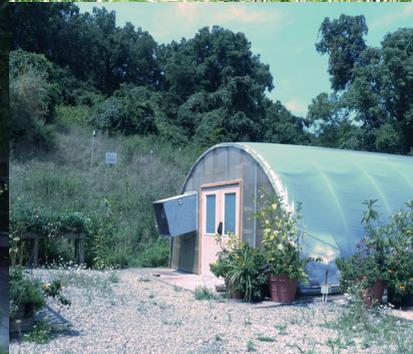


## Key Insights

- There was a nice balance between the active and passive activity options.

### *Recreation Center*

The place was bustling with activity. A baseball game was in progress. Fans were cheering and the crack of the bat when it made contact with the ball could be heard. People were walking dogs throughout the park. The pavilions look well maintained. The tennis and basketball courts looked well used. Many of the fields and courts were equipped with lighting, so they could be utilized at night. There was ample parking available. Signage was found throughout this section of the park highlighting the entrance and each pavilion. Even though the park was busy, there were still spaces to get away. Benches and picnic tables were available to sit and watch the day go by.



### *Nature Center*

The space seemed peaceful and very close to nature. Birds were chirping and the smell of flowers was in the air. However, everything looked overgrown. It didn't seem like the space was utilized heavily. There wasn't an abundance of information easily visible regarding what programs the nature center offers. There were multiple signs designating Eagle Scout projects that were completed on location. Multiple trails with simple signage at the trailhead were found, yet there was no signage directing people to the trails from the main road.

### **Key Insights**

- Signage in the park could be improved.
- Education programs are key in providing an avenue for interactions with the public.
- Overgrowth of the area gives off the impression of deferred maintenance.



## Key Insights

- This newer playground is heavily used.
- A few changes, such as adding shade and a water fountain, could greatly improve the experience patrons have at the playground.

### *O'Block Playground*

Located directly off a busy and noisy main road. The equipment seemed safe and new. The children and adults seemed to be having fun. Laughter and conversations were heard. The groups varied from a single child and adult to multiple children and adults. There was a large parking lot. Porta-potties were located in the parking lot. The playground was incredibly busy especially for a Tuesday morning. There were limited shaded areas for the parents and children to get out of the sun and it was uncomfortably hot on the day of observation. The children and parents were covered in sweat. There were no water fountains. There appeared to be a construction area directly next to the playground, but there were no signs regarding what would be created in the space or how long construction would take. A directional signs to other park locations was positioned at the entrance to the playground.



### *Park Office*

It was not located within the main part of the park. Actually, the only other park activity area near the park office is the nature center. It was located at the bottom of a hill, so it was hard to see the entrance in advance of the turn into the parking lot. The building's appearance was not warm and inviting. The park office looked "sleepy." It didn't look like a hub of activity, which a main office should exude. The air conditioning in the building was broken, so it was uncomfortable to spend anytime within the building. The receptionist was welcoming. She seemed eager to answer my questions. A handful of additional employees were keeping busy, while waiting for walk-ins, phone calls or other work to occur. The trail map offered to patrons in the office was a copy of a copy, so it was hard to read. Some of the trails within the park begin behind the park office, yet there were no signs designating the existence of any trails.

### **Key Insights**

- The office has the potential to be the hub of activity for the park, which it is currently not.



## Key Insights

- A more detailed and unified signage system needs to be developed and implemented throughout the entire park.

### *Main Entrance*

Mismatching signs sat on either side of the main entrance to the park. The entrance felt like an entrance. The entrance was at a curve in the road that was hard to see around. There was no signage inside the entrance directing a patron to a specific location within the park.



### *3 B's Skate Park*

Trash was everywhere directly outside of the skating area. Even though trash and recycling containers were available in prominent locations. Every sign had graffiti on it. The restroom facilities consisted of one porta-potty. The actual interior of the skate park was clean and seemed very usable. The large open plan contained many trick areas. The lone skater seemed to be enjoying himself. He utilized the entire space. The only sounds that you heard were his skateboard wheels moving across the ground. There was only one sign to the skate park from the main road. The road (actually it is a parking lot) to the skate park from the main road was quite long with turns. There were no signs once inside the parking lot.

### **Key Insights**

- Maintenance should reevaluate their cleaning schedules and priorities, so trash and graffiti are minimized.



## Key Insights

- Security is an issue at the pool. Patrons need to feel safe.

### *Wave Pool*

The entrance was hidden by a hill, so a lot of patrons followed other patrons hoping that they were headed in the right direction. There was an overwhelming amount of signage at the entrance. Within the pool, children were laughing and playing. There was a significant amount of shaded space to get out of the sun. There was also ample space on the turf to claim “your space” for the day. People seemed to be enjoying themselves. Adults were reading books on the turf. Teenagers were sunbathing or flirting with other teenagers. Lifeguards seemed professional and on top of things. The smell of pool water and sun tan lotion was in the air. All you could see were floatation tubes and people in the pool, yet the pool was very empty for a weekend. No recycling containers were noticeable. Seemingly, all patrons had cell phones, yet pay phones were located throughout the pool area. The interiors of the bathhouses and snack bar were outdated and felt dirty. The line for food at the snack bar was long and it felt like it took forever to get the food once an order was placed. The trash receptacles were full at the snack bar. The presence of the police at the entrance was comforting, yet unnerving. Due to prior knowledge of shootings at the facility combined with the police presence, a hyperawareness of the surroundings was felt at all times. Most of the groups, except the groups of teenagers, had someone at their space on the turf to watch over their belongings at all times. Trash was everywhere in the open grassy areas. Upon leaving the facility, many patrons were confused about where to exit. The turnstile is difficult to navigate with a stroller and bags, while the open gate is clearly not supposed to serve as the main exit.



### *Abandoned Mine Water Filtration Eco-System*

This eco-system with its plant, water and wildlife was a very beautiful part of the park. Without the signs, the true purpose of the pond and eco-system, naturally purifying the water from the abandon mines under portions of the park, would have been hidden. Besides a small path to a shelter near the pond, this large area seemed to be off limits to patrons. There was only room for one car to pull off next to the signs, so someone could get out and read about the eco-system.

### **Key Insights**

- This serves as a reminder that the parks are not only for recreational use. The parks have a conservational aspect to them. The two purposes must be balanced and considered within all design ideas.



## Key Insights

- An analysis of field integrity during key sporting seasons compared to maintenance schedules is needed in order to make further recommendations (i.e., are the goal mouths devoid of grass during the height of the season?).
- Patrons utilized the large flat fields for other uses than their original intent, such as jogging.

### *Soccer Fields*

The space was large and peaceful. The goalmouths on all three fields were not maintained. They were all dirt and no grass. Granted it was the end of the spring soccer season, so the fields were probably heavily used very recently. The netting on the goals was falling off. Signage from other areas of the park to the fields was excellent. The parking lot was full of potholes. The adjacent playground was newer and well maintained. Multiple people were jogging around the fields. Porta-potties were located within the parking lot. The bleachers were small and seemed to be falling apart. There was an orange construction fence around the fields, which seemed unnecessary. The picnic shelter next to the fields was well maintained. The grass was cut perfectly on the fields. Pick-up soccer was occurring on one of the fields.



### *Archery Range*

Entering the range requires driving or walking down a very steep driveway. Once at the range, it is a secluded and very peaceful area, so it is hard to realize that the range is fairly close to one of the main road through the park. The range is nicely setup for paper targets. The sound of the arrows as they speed to the target is all that you hear. The smell of freshly cut grass was in the air. The memorial park bench was very nice and personal. It seemed like Santoriello's family may be taking care of the area. The potted plants and homemade decor added to this assumption. It adds a warming touch to the area. Bikers came out of a trail close to the target, which could pose a safety hazard. Also, there was no backstop to prohibit missed arrows from flying into the field behind the target.

### **Key Insights**

- The trail close to the targets has the potential to pose as a safety hazard to patrons if an archer accidentally misses the target.
- The area looked well cared for and maintained.



## Key Insights

- Maintaining a feeling of closeness to nature is important.
- Providing well-maintained areas for groups to gather is key to the park's service.

### *Picnic Groves and Shelters*

The majority of the developed part of the park consists of large groves and shelters with numerous picnic tables. While passing certain shelters, the smell of food wafted by. There were open grassy spaces next to each shelter. It was very peaceful. The wind was rustling through the trees. The playground equipment mostly consisted of swing sets and slides with mulch underneath. There was only one water fountain spotted in this entire section of the park. Permanent restroom buildings exist throughout the park; however, they were locked up so no one could enter. Porta-potties, positioned near the main road, were the only bathroom options. The local high school cross-country racecourse was marked with spray paint on the grass. Most grove signs were consistent throughout the park. Adequate parking was found. Some groves were not handicap friendly due to the terrain of the area. No recycling containers were found at each shelter. Numerous individuals walked and jogged along the main road through the park. Roughly half of these walkers had dogs on a lease with them. There were no separate sidewalks. There are also no off-leash dog areas within the park. There were a few trashcans marked as dog dropping drop-offs. There was no signage in the park to direct you to specific groves.



### *Model Aircraft Field*

Multiple rusty nails were coming up from the walkway up to the airfield. It was a simple field with an observation area. The turf in the observation area seemed old and worn. The parking lot for the airfield was massive. There was no handicap access to the field just wooden steps. The hand painted rock for the “Gateway Flyers” was adorable.

### Key Insights

- The perception is that this area of the park is not utilized heavily. Is this perception correct? If so, what can be done to increase usage of the area?



## Key Insights

- Utilizing the area to its fullest potential as true four seasons center is an opportunity point for design ideas.

### *Four Seasons Activity Center*

A huge area with a very nice building that sits completely empty in the summer months (except for wedding and other special event rentals). It is used heavily during the ski and snow tubing winter season. A large recycling drop off was located near the upper ski lodge parking lot. There were ample parking lots for the facility. Empty Pepsi crates and other trash was just sitting outside of the lodge.



### *Carpenter's Log House and Trails*

This remote area of the park seems very close to nature. It was very peaceful. There were both recycling and trash bins. Picnic tables were located all around the log cabin. Multiple Eagle Scout projects were marked on the property around the log cabin. Trail entrances were nicely marked. The signs all seemed to be in good condition, except for one that was broken and falling down. The trails caused a steady stream of traffic with bikers and hikers going to and from the trails. The parking area was an adequate size for the traffic and seemed to be well maintained.

### **Key Insights**

- Bringing more awareness to historic locations within the parks could be an opportunity point for attracting more patrons as well as accessing new funding sources.
- The trails were heavily used and attracted many patrons to the park.



## Key Insights

- Historical information and locations are extremely overlooked. They could serve as an interesting opportunity point for improving the park's service.

### *Historical Markers*

There were a few markers throughout the park highlighting important events or park-specific historical information. Unless a patron walks directly by the marker or knows to look for it, they would go unnoticed. There is nothing calling attention to them.

# Review of Internal Park Documents

## Method Description

After completing observations and participating in park activities, I now wanted to understand how Allegheny County Parks perceives and administers their parks. As a result, I collected and read the following series of internal documents:

- Allegheny County Parks Comprehensive Master Plan (Wallace, 2002)
- Allegheny County Parks Management Research, Memorandum (Wallace 2005)
- Revenue Sources Management Study of the Allegheny County Park System (The American, 2007)
- Allegheny County Parks Master Plan: 5 Year Update (“Allegheny County” 2007)
- Parks, Recreation & Trails, Executive Summary (“Vision Teams” 2013)

## Summary of Allegheny County Parks Comprehensive Master Plan

Wallace Roberts and Todd, LLC (WRT), “a national collaborative practice of city and regional planners, urban designers, landscape architects, and architects headquartered in Philadelphia (“About” 2012),” was contracted to craft the master plan. The final document was published in January 2002. The following summaries highlight topics and content from the master plan that were particularly insightful for this thesis project.

### *Facilities and Activities Impact on User Needs and Perceived Experiences*

A series of public meetings held by WRT indicated that the perception of inadequate maintenance was the top factor affecting user experiences within the parks. Patrons correlated a lack of maintenance with a lack of commitment to the parks by the County. Meanwhile, a survey of park facilities rated approximately 60% of all locations in fair condition or below. Boyce Park rated better with 93% of its facilities rating in good or fair condition. The master plan stated that this reflects the parks mature status. A number of safety and environmental issues were also sighted during this survey, including playgrounds not meeting safety standards, insect infestations and pollutant/disposal issues. Roughly 75% of all facilities had inadequate ADA compliance. At Boyce Park, 19% of the park’s 96 facilities were considered ADA-compliant.

Through a trend analysis, it was concluded “age, income, and employment factors will likely manifest themselves in a slow shift away from demand for younger, active recreational pursuits to more passive activities (Wallace 2002, 2-2).” Active pursuits include running and basketball, while passive activities involve fishing and golf.

A mail survey and public meetings identified various expressed and observed user needs. The following needs received the highest scores using weighted

## Key Insights

- Park user demographics were reported in only one manner: families with small children, families with teenage children, etc. A broader and more extensive user persona exploration could result in identifying other unique user needs.

## Key Insights

- A true year-round hub of park activities is needed in Boyce Park. The Four Seasons Activity Center currently seems like the best location for this hub.
- The master plan doesn't discuss how increased prices could result in the perception of an increased value for the experience.
- The recommended methods for improving communications are limited to traditional print-based solutions, such as brochures or paid advertising. Many other communications solutions exist, especially with the invention of social media and other digital technologies. An analysis focused strictly on communications could result in more appropriate solutions for the parks that would not be as demanding on current resources and personnel.
- Preserving nature must be taken into account when proposing any changes to the parks.

criteria: sport shooting facilities, fishing-related facilities, trail systems, golf courses/driving ranges, outdoor theatres/concerts/amphitheaters, camping areas, soccer complex, conference and meeting facilities, cabins, sports fields, enhanced aquatic park, and indoor multi-purpose arena. Boyce Park specific ideas involved the development of an 18-hole golf course, an off-leash dog park, a defined loop trail, a trail system accommodating mountain bikers, a network of cross-country ski trails throughout the park, an aquatic park at the Wave Pool, and an outdoor concert space at the Four Seasons Activity Center. Moving the park office to the Four Seasons Activity Center was also suggested due to its central location, which could result in an actual year-round hub for park activity.

### *Finances*

The largest portion of the master plan covers the finances of the County. It outlines where the parks funding comes from, how the current budget is derived, how much proposed projects cost and the potential benefits from proposed projects. A key finding was that the County doesn't know the exact activity site cost for each facility. Correctly understanding budgets and planning for future budgets is a goal recommended in the master plan. Activity fees paid by patrons were found to be low and price increases are infrequent. A market value analysis of pricing was suggested as a method for alleviating strain on other funding sources. In short, parks need money; finding new revenue sources is key. Proposed revenue sources in the master plan included new facilities, expanded programming, corporate/institutional grants, corporate sponsors, adopt-a-park programs, and volunteer programs.

### *Maintenance*

The master plan suggests implementing a system that improves the upkeep of the parks by having dedicated crews for each park, outsourcing trades functions, standardizing equipment, and setting uniform standards.

### *Marketing and Technology*

Sharing information with the public was stressed as an area needing improvement. Hiring a professional to oversee all park marketing was also mentioned. Families with young children were identified as the parks' largest demographic group and the group with the most interest in new facilities and programs. General marketing that creates awareness of the parks and targeted marketing to specific user types about certain facilities/events was recommended. Increasing public relations and providing technical support/informational pieces for programs was another suggestion. One technological solution suggested was expanding the use of computerized systems and the Internet in park systems operations.

### *Natural and Historic Resources*

All of the parks contain relatively unhampered habitat areas and users rank preservation as well as maintaining closeness with nature as a priority. As a result, numerous environmental suggestions were made by the master plan, such as the use of native species for park landscaping, storm water drainage, and an improved trail system.

As for historic resources, they are greatly overlooked within the parks system. Even though there are many locations with great histories, guidelines to protect the areas are nonexistent. Boyce Park specific suggestions include formally designating the Piersons Run Biological Zone as an Open Space Reserve and protecting the culturally significant Indian Village located at the recreation complex from future disturbance.

#### *Organization Structure and Employees*

The Department of Parks became a subunit of the Department of Public Works in 1998. While the consolidation of administrative and operational functions resulted in savings, management's focus shifted away from parks due to the two department's conflicting purposes. Changing the organizational structure to separate parks from the Department of Public Works was recommended. A reevaluation of park employee's job descriptions, education and skill requirements was proposed in order to meet current park needs. Implementing ongoing training, competitive wages, and standards for judging work performance was also suggested for all employees. Lastly, training related to recreation was advised for all park managers.

#### *Organized Programs and Events*

Planned programs represent a small portion of the recreation available at the parks, with educational programs housed mainly in the nature centers. The master plan points out that this is an area ripe for expansion. Some specific ideas for Boyce Park are lessons and tournaments at the recreation complex. Additionally, special events are hosted in the parks, yet formal policies do not exist, such as concessionaire fees and the ability to recover manpower costs.

#### *Partnerships and Volunteers*

Interest in helping the parks was discovered through public meetings, yet volunteers are not utilized in the park system. A volunteer and partnership program with individuals, organized groups, and businesses was proposed.

#### *Transportation*

Conflicts exist within the parks between vehicles, bicyclists and pedestrians. At Boyce Park, the conflict is due to a lack of crosswalks, signage and paths along the internal roads. A unified wayfinding system is also missing from parks and public transportation to the parks is limited. While Boyce Park does have a main entrance, directional signage within the park as well as from the greater community is missing.

## **Summary of Allegheny County Parks Management Research, Memorandum**

An excellent summary of this memorandum was written in another County document, *Allegheny County Parks Master Plan: 5 Year Update*.

“The purpose of this research study was to identify factors related to organization and management that have contributed to the success of

## **Key Insights**

- Historic resources should be emphasized. Creating awareness and adding programs about the historic sites could enable the parks to apply for grants and other funding sources that they were not previously eligible for. The sites could become main attractions that draw more patrons to the parks.
- Organized programs and special events have huge potential for bringing more patrons to the parks.
- Partnerships and volunteers are a largely untapped resource for the parks. Utilizing these groups effectively could greatly increase the visibility and productivity of the parks.
- A unified wayfinding system needs to be implemented throughout all locations in each park as well as the greater community.
- Making the parks accessible via public transportation could bring more patrons to the parks, particularly residents of the city of Pittsburgh.

‘park system of excellence’ and to consider implications for the Allegheny County Parks. Ten park and recreation departments from eight states were studied. In this WRT research paper, six factors related to organization were studied. The factor related to the degree of integration of park and recreation functions was found unanimously through out the ten benchmarked departments. All ten park systems have all or nearly all park and recreation functions (planning, programming, operations, maintenance, etc.) integrated within one department. As the only organization and management characteristic shared by all ten systems, this would appear to be the single most important factor for success (“Allegheny County” 2007, 19).”

### **Summary of the Revenue Sources Management Study of the Allegheny County Park System**

The following excerpt from the report summarizes its purpose and findings.

“[This study] identified significant sources of additional revenue that could help supplement the current operational budget, offset much of the annual maintenance costs, and provide capital funding to accomplish many of the projects outlined and identified in the ‘County Park Comprehensive Master Plan’...it became very apparent that the county park system needs to revise and modernize its policies regulating annual fees and charges for park facilities, programs, and services. A 501(c)(3) non-profit organization needs to be established in order to receive funding from the private sector; a county park cost accounting system needs to be established; revenue philosophy and goals need to be developed; and dedicated revenue from fees and charges should be returned to the parks department through the budget process (The American, 2007).”

Boyce Park specific recommendations focused on the possibility of private sector contracts to redevelop the tennis courts and Four Seasons Activity Center as well as operate and maintain the 3 B’s Skate Park and Wave Pool.

### **Summary of Allegheny County Parks Master Plan: 5 Year Update**

The 5 year update, published in 2007, showed that the County is truly addressing and implementing the recommendations in the master plan. The following is a select list of changes mentioned in the 5 year update:

#### *Finances*

The County developed a non-profit foundation for the parks system in 2007, called the Allegheny County Parks Foundation. There has also been a focus on privatizing facilities thru private/public partnerships.

#### *Marketing and Technology*

The parks’ website was updated to include new trail maps, which were developed by volunteers and staff outfitted with Global Positioning System (GPS) units. This project was started at the Carnegie Mellon Robotics Institute.

### *Natural and Historic Resources*

The County acquired 100 acres and created habitat improvement areas in all nine parks. Boyce Park has a new acid mine drainage remediation system. As for historic resources, a "Washington Encampment" event was held in 2008 commemorating the 250<sup>th</sup> Anniversary of the French and Indian War campaign to drive out the French at Fort Duquesne.

### *Organization Structure and Employees*

A formal Parks Department was created. The department was empowered to oversee park administrative and program functions. However, park maintenance and purchasing remained part of the Department of Public Works. Further centralization of the all park function is recommended. A parks director with no less than 10 years experience managing a parks system and a master's degree in parks and recreation administration was hired. A Parks Commission was created in 2002; one of the commission's many goals is to increase citizen involvement in policy-making issues.

### *Partnerships and Volunteers*

Friends of the Parks groups were created for all nine parks. Their responsibilities are to report to/educate the community regarding park changes, communicate with the Director of Parks, and work with County Council members.

## **Summary of the Parks, Recreation & Trails, Executive Summary**

In December 2011, Allegheny County Executive (then-Elect) Rich Fitzgerald created twelve vision teams. The "vision teams were formed to provide a fresh perspective on how government operates, and should operate, and began a process that has resulted in recommendations on operations, efficiencies and policy for Allegheny County moving forward ("Vision Teams" 2013)."

The parks-centric vision team announced the following recommendations in their 2012 executive summary, which I accessed in March 2013:

- Adopt a comprehensive vision of a world-class system of interconnected parks and trails, including a countywide Riverfront Park, serving residents and visitors throughout Allegheny County.
- Develop a unified and accountable management structure, including moving parks maintenance crews from the Department of Public Works to the newly-reconstituted Department of Parks and Recreation.
- Immediately establish a woodland management program.
- Maximize revenue from park operations and protect the dedicated Allegheny Regional Asset District (ARAD) funding designated for the County parks.
- Promote a focus on the "User Experience" including a coordinated universal navigation/information system.
- Implement development of countywide riverfront park and connectors.
- Propose a referendum to add to dedicated funding for parks and trails.

## **Key Insights**

- The organizational structure of the County is holding the parks back. The Department of Public Works has other priorities. As shown through benchmarking other successful park systems, parks function most effectively when all functions of the parks are housed under one department. All Department of Public Works functions within the parks should be transitioned to the Department of Parks.
- The County has made tremendous strides in improving the parks. However, they have only really begun to scratch the surface of what is possible.
- The potential for improving the "User Experience" is much larger and more powerful than the County's current definition of a way-finding system.

## Survey

(118 Responses)

### Method Description

A survey designed with Survey-Monkey was electronically distributed through community groups to residents of the greater Pittsburgh area in order to gain a broader understanding of general parks usage, usage of Allegheny County Parks, and ways to strengthen Allegheny County Parks' service.

### Age of Respondents

18 – 25: 5%  
26 – 31: 20%  
32 – 45: 28%  
46 – 65: 45%  
> 65: 3%

## Summary of Findings

*Have Visited an Allegheny County Park*

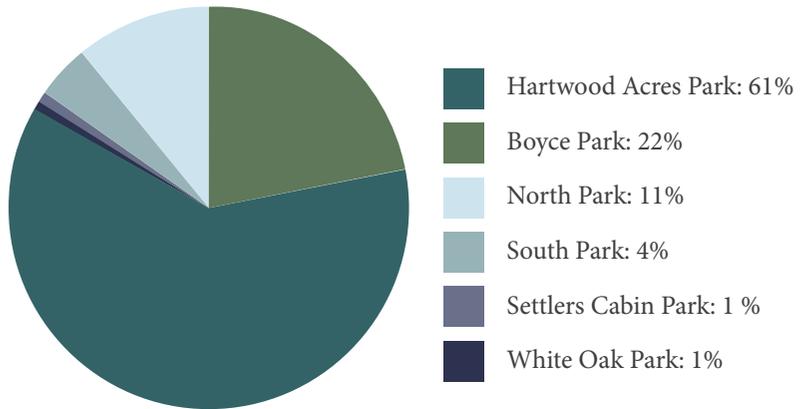
92.4%

*Reasons for Not Visiting Allegheny County Parks*

|                                      |     |
|--------------------------------------|-----|
| Not enough time in the day:          | 78% |
| Too far away from home:              | 67% |
| Lack of transportation to the parks: | 22% |
| Live next to a city/municipal park:  | 1%  |

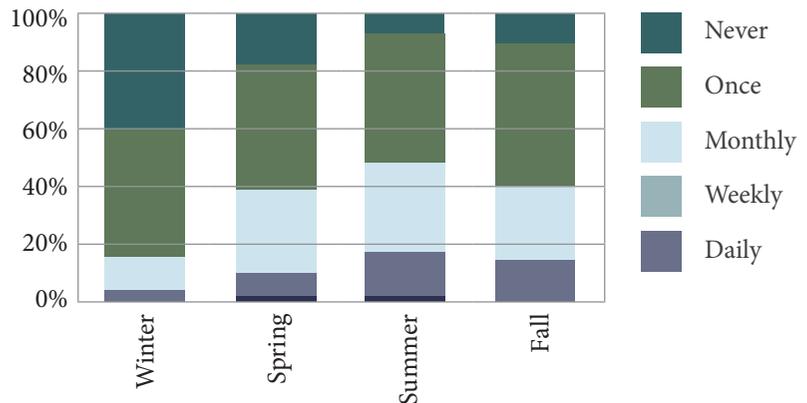
*This question was asked of the respondents (7.6% of total respondents) who replied that they have never visited an Allegheny County Park.*

*Closest Allegheny County Park to Home*

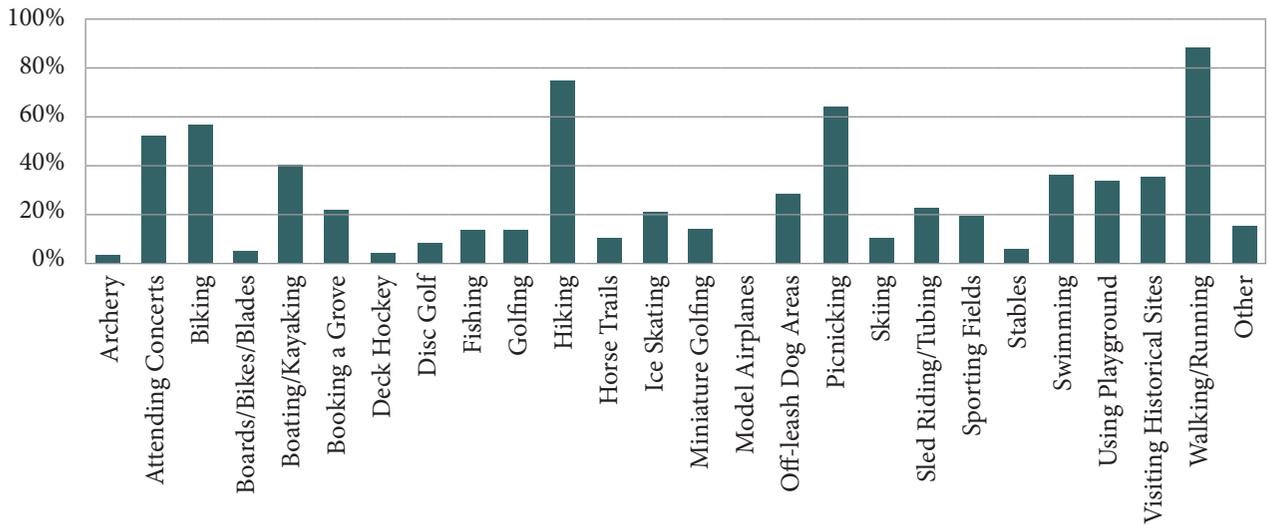


*No respondents selected Deer Lakes Park, Harrison Hills Park and Round Hill.*

*Frequency of Allegheny County Park Visits per Season*



Activities of Interest at Any Park (not just Allegheny County Parks)



The written responses for the “Other” selection include “Nature Study (e.g. Bird Watching/Plant Identification),” “Bringing my lawn chair and reading the Sunday paper with a new view,” “Painting/Bird watching,” “Bird Watching, Cross Country Skiing, Mini Courses or Workshops (i.e. Crafts, Nature & Interpretation),” “Sailing,” “Geocaching,” “Sitting and Reading,” “Playing Frisbee, Softball or Badminton,” “Sitting and Enjoying Nature,” “Inspiration,” “Other Activities with Boy Scouts,” “Enjoying Nature,” and “Inspiration.”

Satisfied with Last Allegheny County Parks Visit  
94.3%

Reasons for Unsatisfaction at Last Visit

“High abundance of exotic and invasive plant species.”

“Didn’t care for park layout. It was boring.”

“North Park Walking/Running Loop pavement is not level. This causes muscle cramps, and could cause a fall while training.”

“Too congested with cars and bikers to enjoy my walk.”

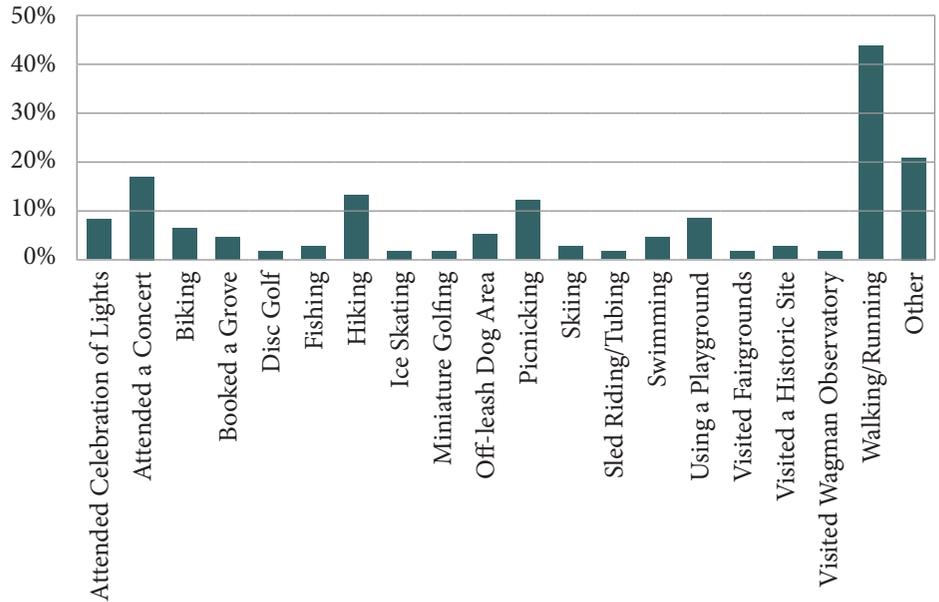
“Poorly marked trails and just a poorly laid trail in general.”

“It was difficult to find the space where the concert was being held.”

Key Insights

- Identification of some non-user types (Non-user personas, page 50). How can non-users become users?
- How can the parks be utilized more throughout all of the seasons?
- The majority of the activities that patrons are interested in using at any park are offered at Allegheny County Parks.

*Activity of Participation at Last Allegheny County Park Visit*



*The written responses for the “Other” selection include “5K Race or Cross County Race,” “Spray Park,” “Employee Picnic,” “Fundraising Event,” “Nature Study,” “Hayride,” “Shoe Expo,” “Pyrofest,” “Geocaching,” “Free Ballet by Pittsburgh Ballet,” “Nature Watching,” “Driving through to See the Leaves,” “Wedding,” “Visiting the Rose Barn,” “Work Event,” “Attended a Poor Yorick’s Players’ Performance,” and “Event at Rented Building.”*

*Allegheny County Parks Reservation Process Quotes*

“Easy.”

“Very easy, but not convenient. Online booking would be better. I found it difficult to get to the park office during available hours.”

“Straightforward. I book for a non-profit and have learned to book early.”

*Favorite Aspects of Allegheny County Parks Quotes*

“Walking and bike trails.”

“Most parks are very clean and family friendly. They also have a variety of different activities available.”

“It’s an escape from suburbia.”

“Being outdoors in nature.”

“I think that it’s really cool that we have a ski run and tubing run at a County park — close to home and cheap!”

“Free, easily accessible.”

“Protected green space.”

“Peaceful — green — less crowded than my city park.”

“Getting away from the sights and sounds of the city.”

“Having a place to go to participate in activities that you may not necessarily be able to do in your neighborhood.”

#### *Least Favorite Aspects of Allegheny County Parks Quotes*

“Lack of electricity to each grove.”

“Lack of signage on trails and walking trails are not separated enough from roads with cars.”

“The distance to travel to the parks.”

“Litter.”

“How it’s difficult to figure out where to go and what to do at [the parks].”

“Lack of organized activities.”

“Some of the areas only have portable restrooms. Those are very unclean.”

“Safety.”

“Too many cars.”

“Improvements done without design/environmental sensitivity.”

“Not enough off leash dog space.”

“It can be crowded.”

“Hartwood is looking ragged sometimes — less well-tended.”

“Information about the parks is not easily accessible.”

*A list of all improvement suggestions can be found in Appendix 1, page 126.*

## Key Insights

- Identification of some user types. (User personas, page 48)
- Busy patrons would welcome a well-structured online reservation system.
- Protecting the integrity of the natural surroundings must be considered when contemplating any changes to the parks. Current projects, facilities and locations could benefit from a conservation-focused review.
- Wayfinding is a problem in the parks.
- The space dedicated to cars and pedestrians are competing within many of the parks.
- Patrons are not well informed about park activities and offerings.
- There are many concerns about the general up-keep, cleanliness, and safety of the parks.
- Dog-specific needs were mentioned often.

## Boyce Park Patron

### Interviews

(21 Participants)

#### Method Description

During several visits to Boyce Park throughout the summer months, I approached patrons participating in various activities. I gave a brief explanation of this thesis project, and then asked if they would answer a few questions.

The questions centered on how often the patron frequented Boyce Park; why they choose Boyce Park for this specific trip; what other parks they visit; why do they choose to visit the other parks; and if they could dream of anything to improve their experience at Boyce Park, what would it be.

Of the patrons who answered my questions, six were playing soccer; five were walking or jogging in a variety of locations in the park (three had their dogs with them); four were at a playground with their children; three were biking on the dirt trails; two were practicing shooting at the archery range; and one was skating at the 3B's Skate Park.

#### Summary of Findings

##### *Frequency of Visits to Boyce Park*

Eight out of the twenty-one patrons interviewed stated that they visit Boyce Park multiple times a week. Another eight patrons visit a few times a month. Five patrons visit a few times a year.

##### *Reasons for Visiting Boyce Park*

Many of the patrons cited that the location of the park was the draw for visiting. It was close to their home, work, relative or friend. Since Boyce Park is close to a place of importance for these patrons, many of them initially found the park or specific facility by stumbling upon it (often as they drove by on their way to another event).

After their first visit to the park, the patrons stated that they liked the park, so they returned. They like the park for numerous reasons, such as the remoteness, quietness, and closeness to nature. Specific facilities within the park were also mentioned as the draw including trails, walking areas, biking trails, updated playground and specialized activity areas (skate park, archery range, and ski area).

One patron mentioned the price (“cheap”) of pay activities as a benefit.

##### *Other Parks that Patrons Visit*

*Multiple patrons mentioned the following parks. They are listed in order of the most to least responses.*

1. North Park
2. Schenley Park
3. Frick Park
4. Municipality/Township-level parks, especially Monroeville and Trafford
5. White Oak Park
6. South Park

*Only one patron mentioned each of the below parks.*

7. Settlers Cabin Park
8. Carrick
9. Imperial
10. Westmoreland County Parks
11. Twin Lakes
12. Saltsburg Trails

##### *Reasons for Visiting Other Parks*

Planned activities offered by other parks or organizations drew visits from patrons. Concerts, in particular, were mentioned. Patrons also went to the parks to participate in activities not available at Boyce Park, such as dog parks and fishing. Just as location is an important reason for patrons visiting Boyce Park, it is an important reason for visiting other parks. The location of family reunions and different events caused patrons to frequent other parks. Even though Boyce Park has updated numerous playground areas, multiple patrons mentioned that they visit other locations with newer playground equipment.

### *Wishes/Improvements for Boyce Park*

- **Improve maintenance.** There were complaints of trash on the ground at multiple different facilities in the park including the Wave Pool, 3 B's Skate Park and shelters. Patrons also wished the general appearance of the park was upgraded. They commented on the locked/abandoned bath houses and deteriorating signage.
- **Bathrooms.** Patrons did not like that there were only port-a-potties within the park. They did not like that actual bathroom buildings existed in the park, yet were locked and sealed off from use. Patrons also wanted more bathroom locations (even if they were port-a-potties) and kid-friendly facilities. One mother stated that she would use O'Block Playground more often if it contained better bathroom facilities. She had a terrible time getting her potty training three-year-old to use the porta-potty on the premises.
- **Wave Pool.** Many patrons commented on the safety problems at the Wave Pool (i.e., the shootings that occurred over the past few years). They didn't feel that the County had taken care of the problem. However, roughly half of the patrons who commented on the lack of safety stated that they visited the Wave Pool anyway. Patrons also made suggestions on improving the buildings within the Wave Pool. They commented on the outdated bathhouse. Many stated that the showers were so old that they were too "gross" to use.
- **More planned/organized activities.** Concerts in the park were an idea brought up by numerous patrons. A Boy Scout leader who was interviewed commented on how he would like to hold more events for his pack in the park, such as an archery competition. However, he didn't know how to go about making his ideas actually happen within the park.
- **Four Seasons Activity Center.** Make the ski lodge an actual year round activity center.
- **Trails.** Patrons stated that they would enjoy more paved trails.
- **Dog-related.** All of the patrons with dogs commented that they would come to the park more often if there was a no leash dog park area.
- **Keep as is.** A few patrons didn't want to see any changes occur at all. They liked the park the way it is.
- **Add water fountains.**
- **Online facility reservation system.** Even though the current system isn't hard to complete, patrons mentioned that moving the reservation process online would make it even easier to book a facility. The current system makes patrons take time off from work to go to the park office to reserve a facility.

*More suggestions mentioned by only one patron can be found in Appendix 2, page 128.*

## Key Insights

- Patrons are generally happy with their experiences at the park.
- Identification of use types (User personas, page 48)
- Patrons visit other parks, because they are also conveniently located or provide activities that Boyce Park does not.
- The parks need to capitalize on specialized activity areas, such as the archery range and skate park. A unique group, who is willing to travel farther distances, frequents these types of facilities.
- Most suggestions for improvements focused on a few key areas, including bathrooms, Wave Pool, and organized activities.

## Employee Interviews and Observations

(11 Participants)

### Method Description

I met with a variety of County employees, whose work affects or takes place at Boyce Park. We discussed the tasks involved in their job; the processes and technology that they encounter on the job; their interactions with patrons; ways to improve their own jobs; and ways to improve patrons' park experience. Following the formal interview, I observed several of the employees as they worked.

Some of the employees interviewed included managers/assistant managers of specific park facilities, seasonal lifeguards, seasonal cashiers, maintenance personnel, park office staff and Department of Parks administration.

### Summary of Findings

#### *Tasks and Processes*

The majority of my time was spent detailing each step of the tasks and processes utilized by the employees. Upon summation, this detailed information served as the basis for the Service Blueprints found on page 53, which led to unbelievably insightful findings.

#### *Employee and Patron Interactions*

Every employee interacted with patrons.

Telephone and in-person conversations were the most common methods for employee-patron interactions. All e-mail and electronic communications are tightly controlled; only employees whose job necessitates a need for such communication are provided access. Some employees with e-mail access include select park office staff and Department of Parks administration.

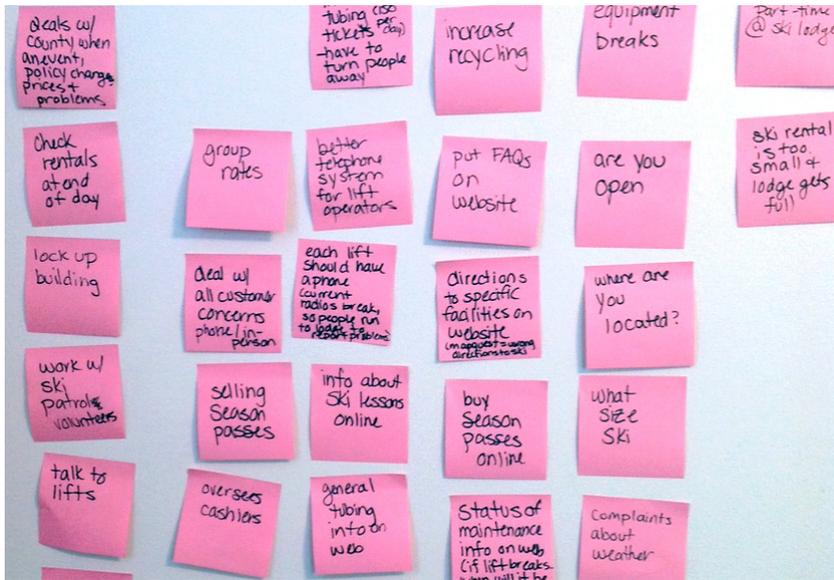
No matter what method facilitated the interaction, the patron was normally the party to initiate the communication. For instance, park office personnel wait until a patron walks through the door to answer questions. The County's response is overwhelming reactionary.

While largely reactionary, the County has created several proactive efforts to communicate to the general public. They oversee a call center in the main downtown Pittsburgh office to handle the public's questions, create seasonal programs of park activities, maintain a website and utilize other public relations techniques; however, much of these proactive efforts do not reach the general public in a transformative way with long-lasting recognition and use. The majority of the public remains unaware of these efforts. Therefore, the employees mainly deal with reactionary inquiries.

Many of the inquiries reported by employees fit into four key categories: general questions, policies, complaints, and praise. General questions include activities offered at the parks, the location of the park, a specific facility's hours of operation, a shelter's availability to be rented, and water/electricity availability at certain shelters. Instructions for obtaining a season pass, understanding group rates, and reviewing policies after one is broken are the most common forms of policy-related communications. Complaint topics include safety at the Wave Pool, broken equipment/bad weather when skiing or snow tubing, and a lack of cleanliness. Not all inquiries take a negative tone. Praise is also received, particularly for new park areas, like the archery range.

#### *Improvement Suggestions*

When I asked the employees about ways to improve Boyce Park, I received numerous public-facing changes with the potential to truly make a lasting impact. A minimal amount of suggestions were mentioned about improving internal processes, practices, or infrastructure for purely the employee's benefit.



*Affinity Diagramming of Employee Interviews and Observations*

The employee suggestions and my observations of the employees at work were analyzed through affinity diagramming, which “is a process used to externalize and meaningfully cluster observations and insights from research (Martin and Hanington 2012, 12).” As a result, the following improvement categories materialized: infrastructure and maintenance (i.e., buildings or facilities), policy, research, and communications. *Specific suggestions within each category are can be found in Appendix 3, page 129.*

## Key Insights

- Based upon the lack of internal improvement suggestions from employees as well as the research that I completed at this time, I realized that the final design solution should not focus on re-imagining internal County structures or processes. This was a tremendous breakthrough, because at the outset of the project I did not know if my final solution would center on helping employees, patrons or both.
- Key service improvements are beginning to solidify, such as infrastructure and maintenance, policy, research and communications.
- Allegheny County Parks needs to become more proactive in communicating with patrons and the general public.



# Making Sense of Allegheny County Parks

Synthesizing all exploratory research methods, in order to identify design improvement areas

|                               |    |
|-------------------------------|----|
| User and Non-user Personas    | 48 |
| Stakeholder Map               | 52 |
| Service Blueprint             | 53 |
| Key Service Improvement Areas | 64 |

# User and Non-user Personas

## Method Description

As described by Alan Cooper and Robert Reimann, personas “are composite archetypes based on behavioral data gathered from many actual users through ethnographic interviews (2003, 55).”

The user personas for Boyce Park were synthesized from all of the exploratory research methods, especially the survey and interviews.

Personas help determine what projects should be done and how resulting products should behave; communicate with stakeholders and project committees; build consensus and commitment to projects; measure effectiveness; and contribute to other project-related efforts, such as marketing and sales plans (Cooper and Reimann 2003).

When evaluating a service system, understanding the non-users can lead to interesting insights as well. The non-user personas for Allegheny County Parks were largely generated from the exploratory research survey and employee interviews.

*All images purchased from istockphoto.com.*

## User Personas



Activity  
Specializer

*Bryan | 20 years old*

Brian loves Boyce Park’s 3 B’s Action Park (Boards/Bikes/Blades) and often tells his skate boarding friends that they should visit the park too. He repeatedly travels from his home in the city to utilize the facility.



Event  
Organizer

*Maria | 50 years old*

Maria is the matriarch of her family, so she coordinates all family reunions. Every year, she interacts with park employees to book a picnic shelter and grove for the event.



Health  
Guru

*Phil | 45 years old*

Phil wants to maintain a healthy lifestyle by utilizing park facilities. He enjoys a challenge while exercising, especially the mountain bike trails. He also enjoys being outdoors while exercising.



Location  
Opportunist

*Brenda | 36 years old*

Brenda brings her daughter to the park due to its proximity to her house.



Nature  
Enthusiast

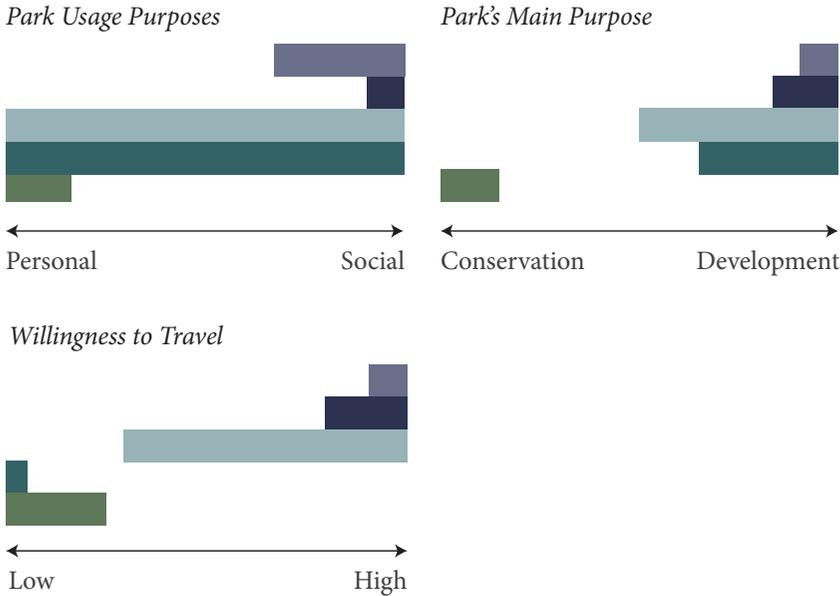
*John | 62 years old*

John enjoys the remoteness and quiet found within Boyce Park. He does not want to see the park become too developed.

When reviewing and comparing the personas, three noticeable trends began to emerge: park usage varied from personal to social activities; defining the park’s main purpose ranged from conservation to development, and a willingness

to travel to the park vacillated greatly. When plotting each persona on the above trend ranges, the results are:

*The colors below map to the color of the persona's name word bubbles.*



The personas were also mapped to Max-Neef's theory of fundamental human needs (1991), because users can have different perceived needs compared to the needs that are actually met by the park. Understanding the shortcomings and strengths of how the current system conforms to user needs can point to innovation areas. As a result, a better service process and system can be developed. (Edvardsson 1997)

*The colors below map to the color of the persona's name word bubbles.*

|               | Being<br>(Qualities)  | Having<br>(Things)          | Doing<br>(Actions)                     | Interacting<br>(Settings)  |
|---------------|-----------------------|-----------------------------|--|----------------------------|
| Subsistence   | Light blue, Dark blue |                             |  | Dark blue, Teal            |
| Protection    | Light blue            |                             | Light blue, Dark blue                  | Dark blue, Teal            |
| Affection     | Light blue            | Dark blue, Green, Dark blue | Dark blue, Light blue, Dark blue       |                            |
| Understanding |                       |                             |  | Dark blue, Teal, Dark blue |
| Participation |                       | Dark blue, Green            | Dark blue, Green, Dark blue, Dark blue | Dark blue, Teal, Dark blue |
| Leisure       | Green                 |                             | Dark blue, Green, Dark blue, Dark blue | Dark blue, Teal, Dark blue |
| Creation      |                       | Light blue, Dark blue       |  |                            |
| Identity      |                       |                             | Dark blue                              |                            |
| Freedom       | Green                 |                             |  |                            |

## Key Insights

- The five types of park patrons (user personas) include the activity specialist, event organizer, health guru, location opportunist, and nature enthusiast.
- Each user persona has different needs and different ways that they can have a satisfying experience in the parks.

## Non-user Personas



Knowledge  
Novice

*Mike | 26 years old*

---

Mike knows nothing about the park, such as its activities, programs and facilities.



Location  
Pessimist

*Joe | 42 years old*

---

Joe will not travel to the park, because it is too far from his home, work, friends or relatives.



Safety  
Worrier

*Jineta | 39 years old*

---

Jineta will not travel to the park due to the shootings that she heard about on the news a few years ago.



Time  
Limiter

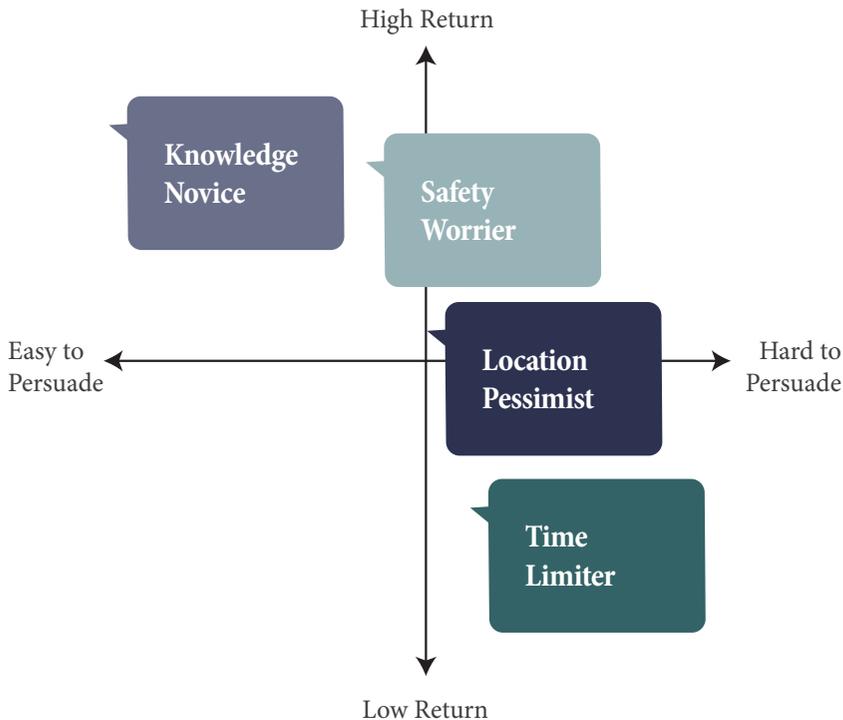
*Tricia | 30 years old*

---

Between her commitments at work, home and graduate school, Tricia only has time for a small amount of other activities that interest her. She does not visit Boyce Park, because the current activities offered at the park do not interest her enough.

*All images purchased from  
istockphoto.com.*

## Mapping Non-users by Rate of Return versus Ease of Persuasion



The above findings mostly match scholarly research. The most effective strategies for improving visitation were providing more information about the parks and providing more activities to individuals who reported "they were transportation constrained and who indicated they were dissatisfied with their current level of park visitation (Scott and Mowen 2010, 535)."

### Key Insights

- The four types of non-users of Allegheny County Parks are the knowledge novice, location pessimist, safety worrier and time limiter.
- All of the non-users have needs, but the parks are not currently meeting their needs.
- The safety worrier is not a typical non-user according to other research studies. However, not all park systems have to deal with shootings such as the one that occurred at the Boyce Park Wave Pool in 2010 (McKinnon 2010). Reaching this non-user group will be a unique challenge for Allegheny County Parks. However, the County has made improvements to the Wave Pool in response to the shootings. Therefore, some of safety worriers may actually be knowledge novices, because they are unaware of the County's improvements.
- The knowledge novice is the first type of non-user that the County should attempt to persuade to become a park patron. The efforts taken by the County to inform this non-user could have high rates of return.

# Stakeholder Map

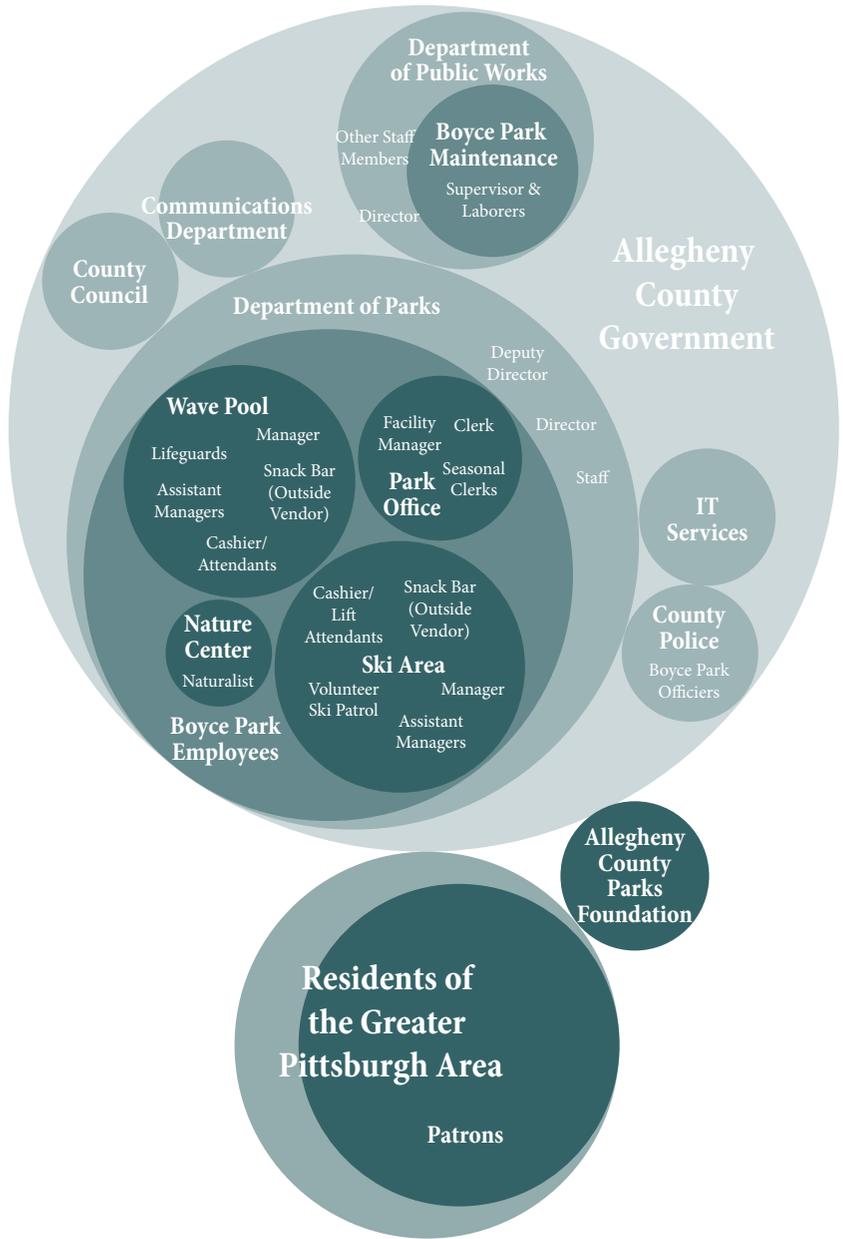
## Method Description

To better understanding the organization of Allegheny County Parks, I created a stakeholder map.

A stakeholder map helps to identify all internal and external stakeholders, who are individuals or organizations that have a particular interest in an organization. The map shows their importance to the overall organization as well as the relationships between stakeholders (Stickdorn and Schneider 2010).

## Key Insights

- Multiple County departments operate in, complete work for, or impact the parks' service ecology. All of these departments need to work together to make the parks be the best parks that they can be.
- Outside vendors and volunteers working in the parks greatly impact the service to patrons. They should be trained in customer relations and communicate a unified message along with internal County employees.



# Service Blueprints

## Method Description

Service blueprinting “is the summation of all the steps, or service encounters, within a service process that is evaluated by the customer and not just individual interactions with service providers (Bitner, Ostrom, and Morgan 2007, 3).” A service blueprint consists of six typical elements: customer actions, onstage contact employee actions, backstage contact employee actions, support processes, physical evidence and failpoints.

“Customer actions” include all of the steps that customers take as part of the service delivery process. Customer actions are depicted chronologically across the top of the blueprint...The next critical component is the “onstage contact employee actions,” separated from the customer by the line of interaction. Those actions of frontline contact employees that occur as part of a face-to-face encounter are depicted as onstage contact employee actions. Every time the line of interaction is crossed via a link from the customer to a contact employee...a moment of truth has occurred. The next significant component of the blueprint is the “backstage contact employee actions,” separated from the onstage actions by the very important line of visibility. Everything that appears above the line of visibility is seen by the customer, while everything below it is invisible. Below the line of visibility, all of the other contact employee actions are described, both those that involve non-visible interaction with customers (e.g., telephone calls) as well as any other activities that contact employees do in order to prepare to serve customers or that are part of their role responsibilities. The fourth critical component of the blueprint is “support processes” separated from contact employees by the internal line of interaction. These are all of the activities carried out by individuals who are not contact employees but that need to happen in order for the service to be delivered. Vertical lines from the support area connecting with other areas of the blueprint show the inter-functional connections and support that are essential to delivering the service to the final customer. Finally, for each customer action, and every moment of truth, the physical evidence that customers come in contact with is described at the very top of the blueprint. These are all the tangibles that customers are exposed to that can influence their quality perceptions (Bitner, Ostrom, and Morgan 2007, 6).”

Failpoints, shown as red dots, are instances where the service breaks down. They provide insight into improvement areas, so innovations can be formulated.

Service blueprints have been developed for the five services available in Boyce Park: visiting an unstructured park activity (groves, walking, etc.), hosting an event at the park, renting a facility or buying a wave pool membership, visiting the ski and snow tube area, and visiting the wave pool. Two additional services, maintenance and police, were identified as park-wide, thus they continuously occur throughout every Boyce Park service.

## Key Insights

- Thirty-seven failpoints were identified within all of the service blueprints for Boyce Park.
- Thirteen of the failpoints were communications-related, such as “general inquires are not always answered on the website.”
- Nine failpoints highlighted park policies that are not user-centered. An example is that the limited number of snow tubing passes often result in patrons being turned away, because the tickets sell out.
- Eight failpoints showcased infrastructure failures, such as the ski lifts breaking.
- Three failpoints dealt with safety-related problems, including the fact that patrons question their safety at the Wave Pool.
- The differing priorities of the Department of Public Works and Department of Parks were even mentioned within the service blueprint.
- Lastly, nothing can really be done to correct a few of the failpoints. For instance, bad weather can close the Wave Pool for the day.

# Maintenance\*

# Police\*

## Physical Evidence

Facilities and grounds

Location of maintenance problem

Phone call

Patrol Car and/or Police Officer

## Patron Action

Visit Boyce Park

Report a maintenance problem via the County Call Center, departmental phone or in-person

Receives written or phone updates or confirmation of correction to complaint

Visit Boyce Park

## Line of Interaction

## Onstage Employee Action

Maintenance work while patrons are around/ potentially talk to patrons

Documents the complaint

Maintenance Parks Dept. or Call Center contacts with updates to complaint

Patrol while patrons are around/ potentially talking to patrons

## Line of Visibility

## Backstage Employee Action

Perform preventive and emergency maintenance

Forwards the message to maintenance supervisor

Patrol the park and monitor security cameras and unlock gates

## Line of Internal Interaction

## Support Processes

Downtown Department of Public Works  
-and-  
County Council and Downtown Parks Office determine new capital projects

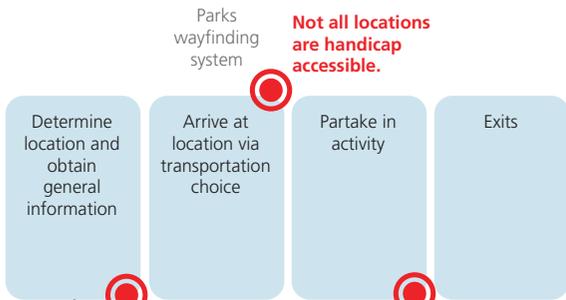
County Police Headquarters  
-and-  
911

**Differing priorities for Public Works and Parks.**

\*Continuously occurring through every service



# Visit an Unstructured Park Activity (Groves, Walking, etc.)



Parks wayfinding system

**Not all locations are handicap accessible.**



**Not all locations are marked on the wayfinding system, maps or online.**



**No visible way of knowing if a facility is rented that day.**

- County website
- or-
- Calls Parks Department
- or-
- Visit Park Office
- or-
- Word-of-Mouth



**General inquiries not always answered by website.**



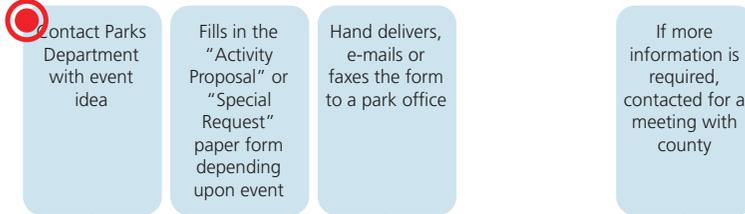
**Park Office does not have a voicemail message.**

# Host an Event at the Park

## Physical Evidence

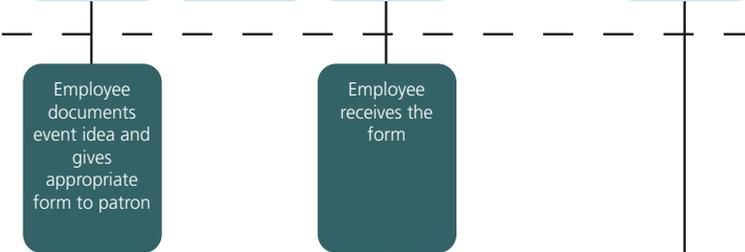
The entire process isn't really documented. Is there a way to provide "How to Plan an Event" instructions for common types of events, so patrons know what is required beforehand?

## Patron Action



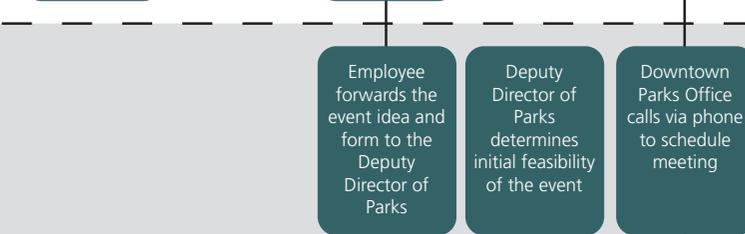
## Line of Interaction

## Onstage Employee Action



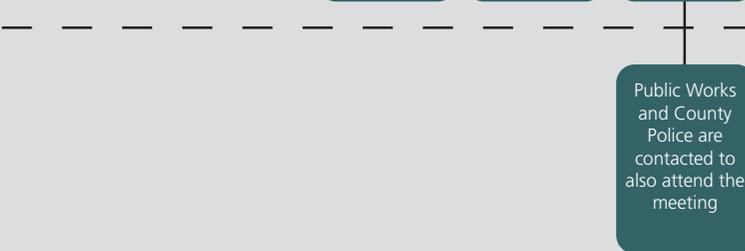
## Line of Visibility

## Backstage Employee Action

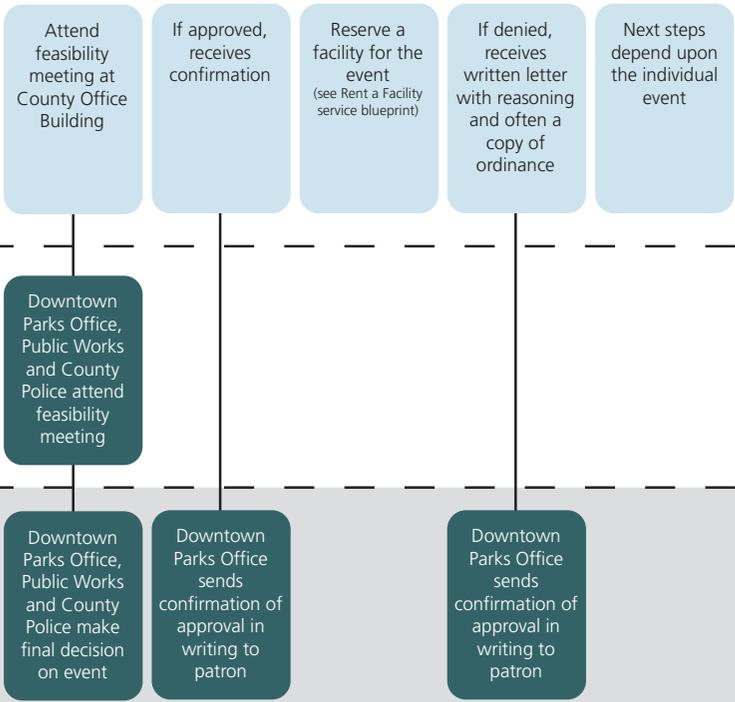


## Line of Internal Interaction

## Support Processes



Failpoint



# Rent a Facility or Buy a Wave Pool Membership

## Physical Evidence

## Patron Action

## Line of Interaction

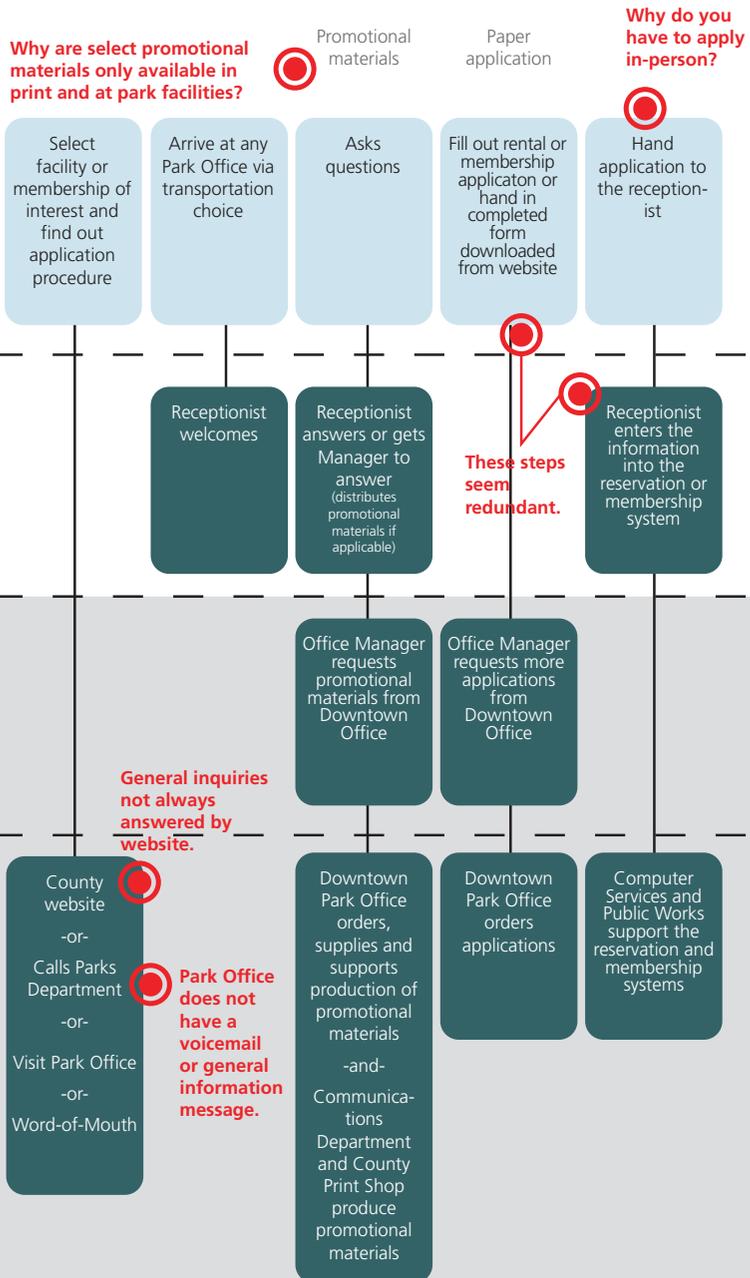
## Onstage Employee Action

## Line of Visibility

## Backstage Employee Action

## Line of Internal Interaction

## Support Processes



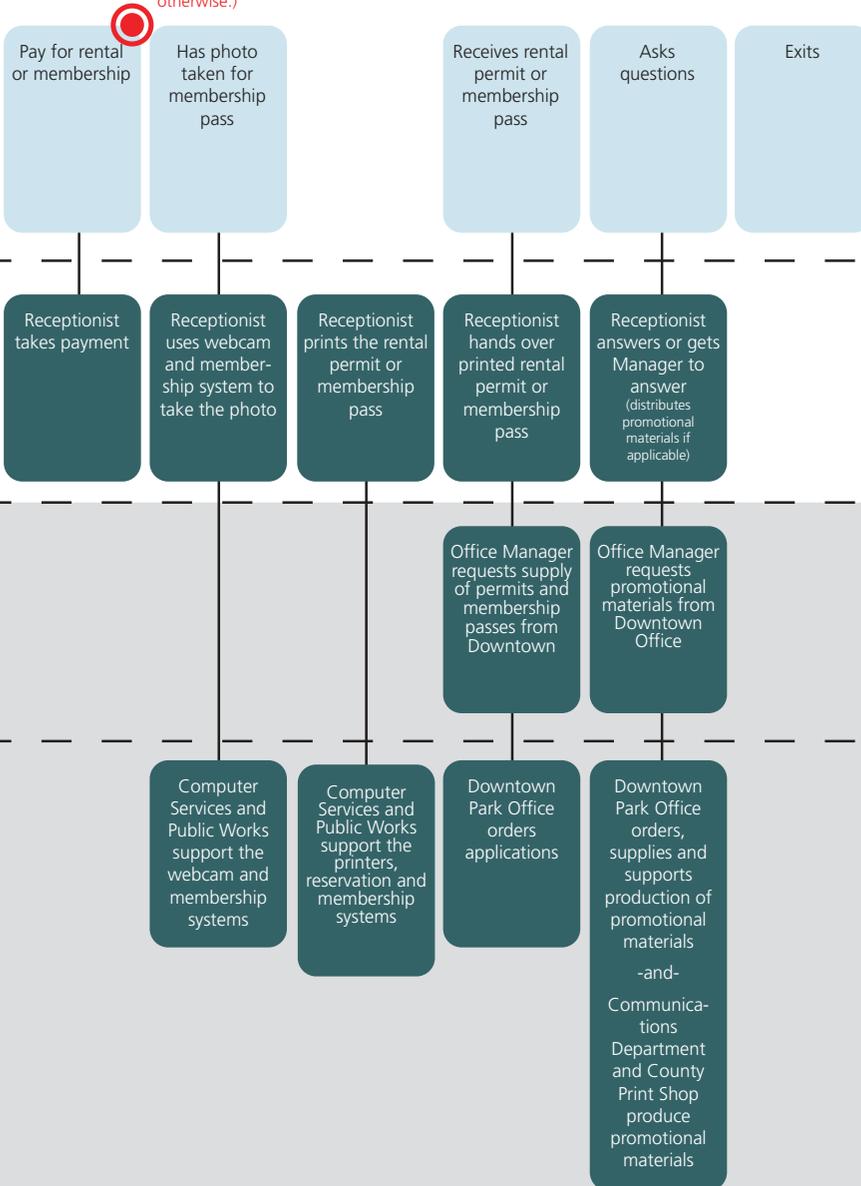
Failpoint

**Why are pool passes only sold at park offices?** (Told by Downtown Park Office that as of 2012 you can buy at Wave Pool too, but Wave Pool and Boyce Park Office told me otherwise.)

Receipt

Rental permit or membership pass

Promotional materials



# Visit the Ski and Snow Tube Area

## Physical Evidence

## Patron Action

## Line of Interaction

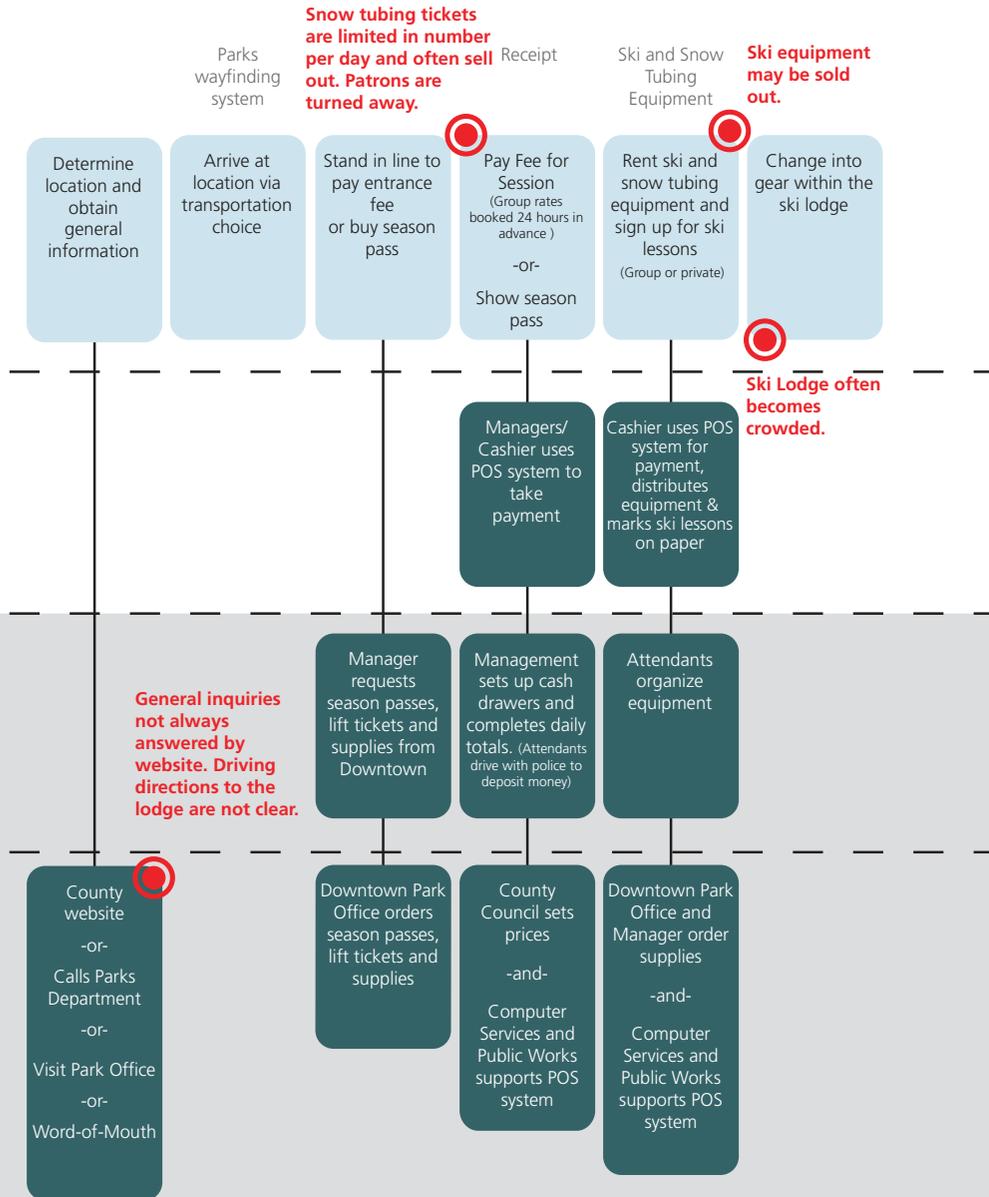
## Onstage Employee Action

## Line of Visibility

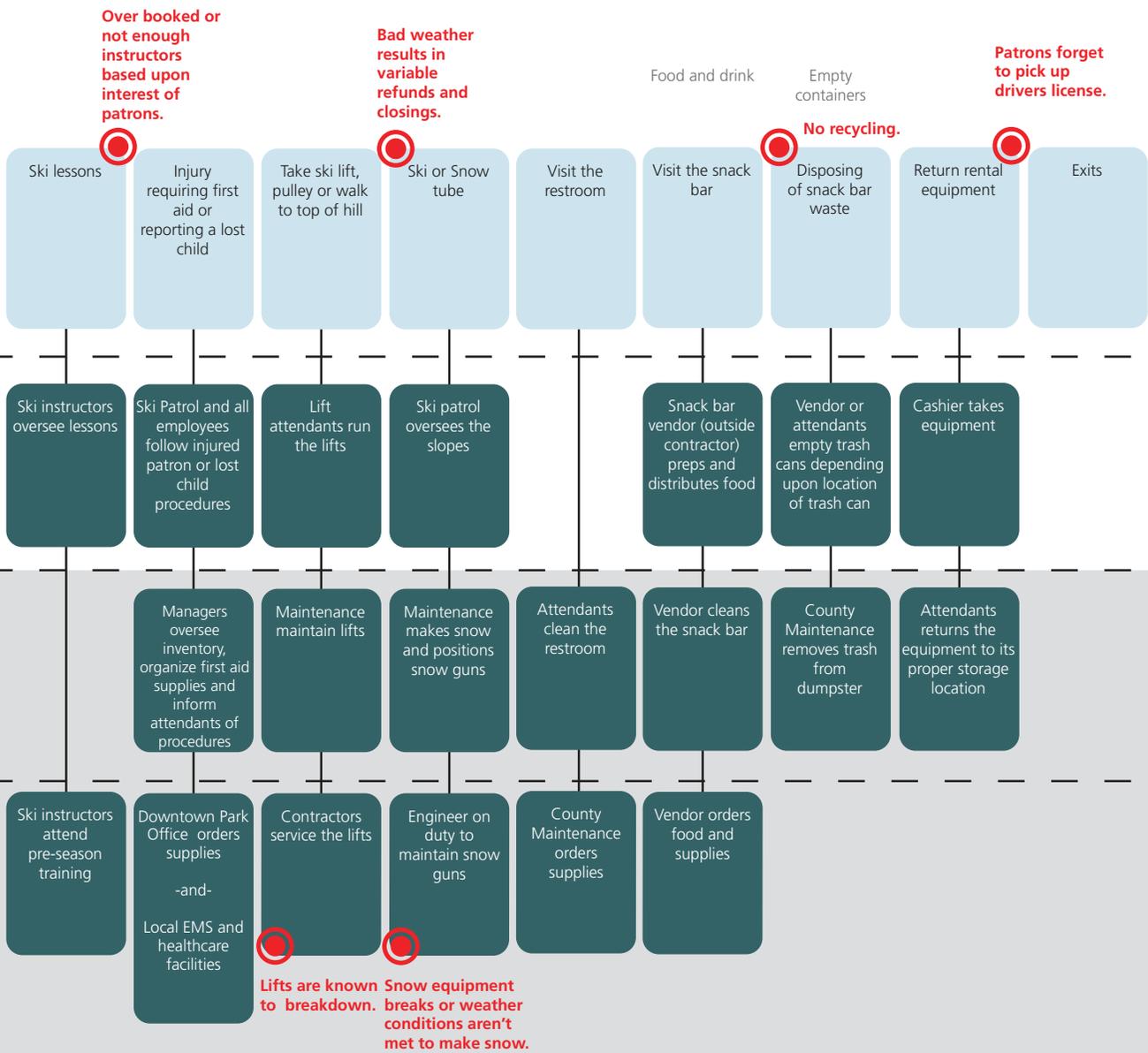
## Backstage Employee Action

## Line of Internal Interaction

## Support Processes



Failpoint



# Visit the Wave Pool

## Physical Evidence

## Patron Action

## Line of Interaction

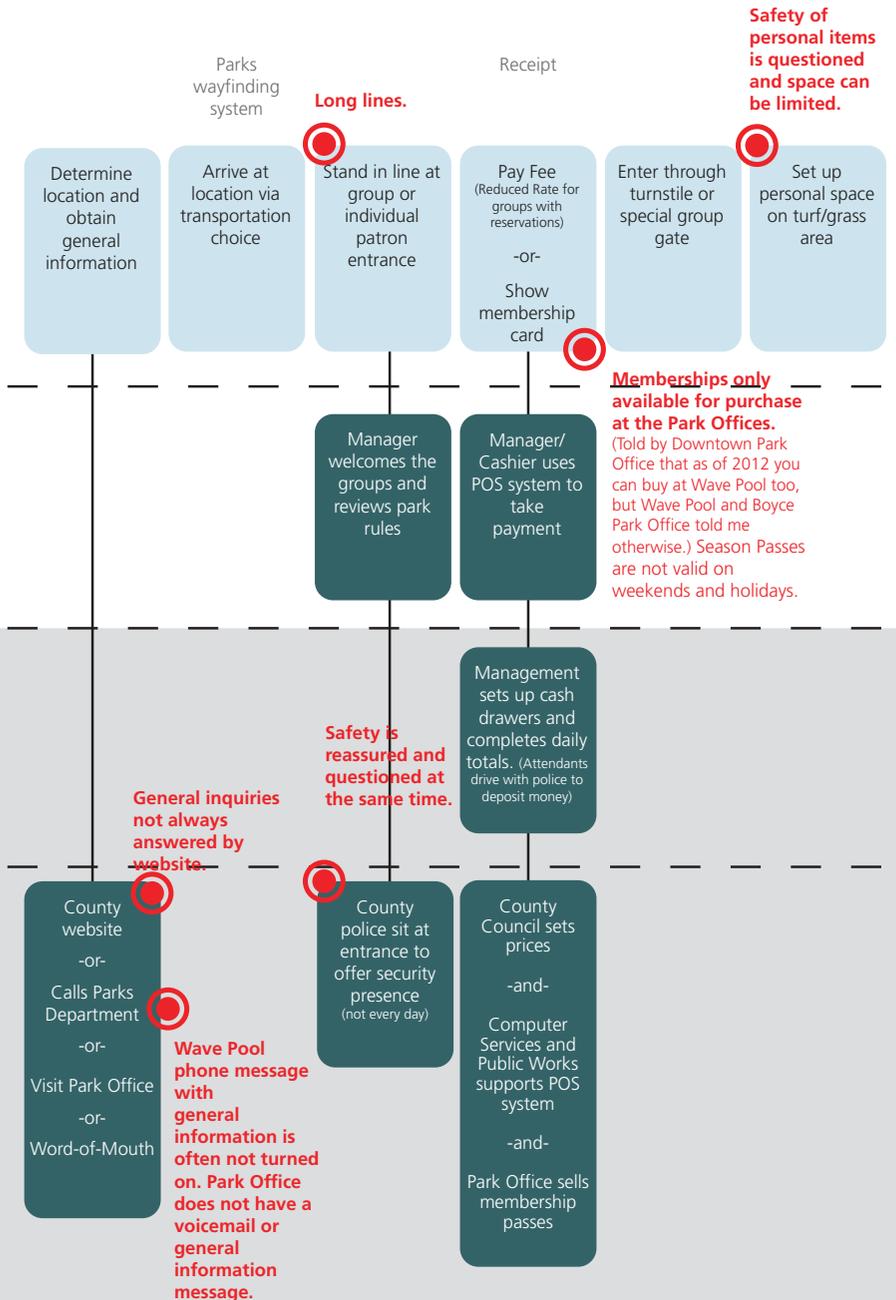
## Onstage Employee Action

## Line of Visibility

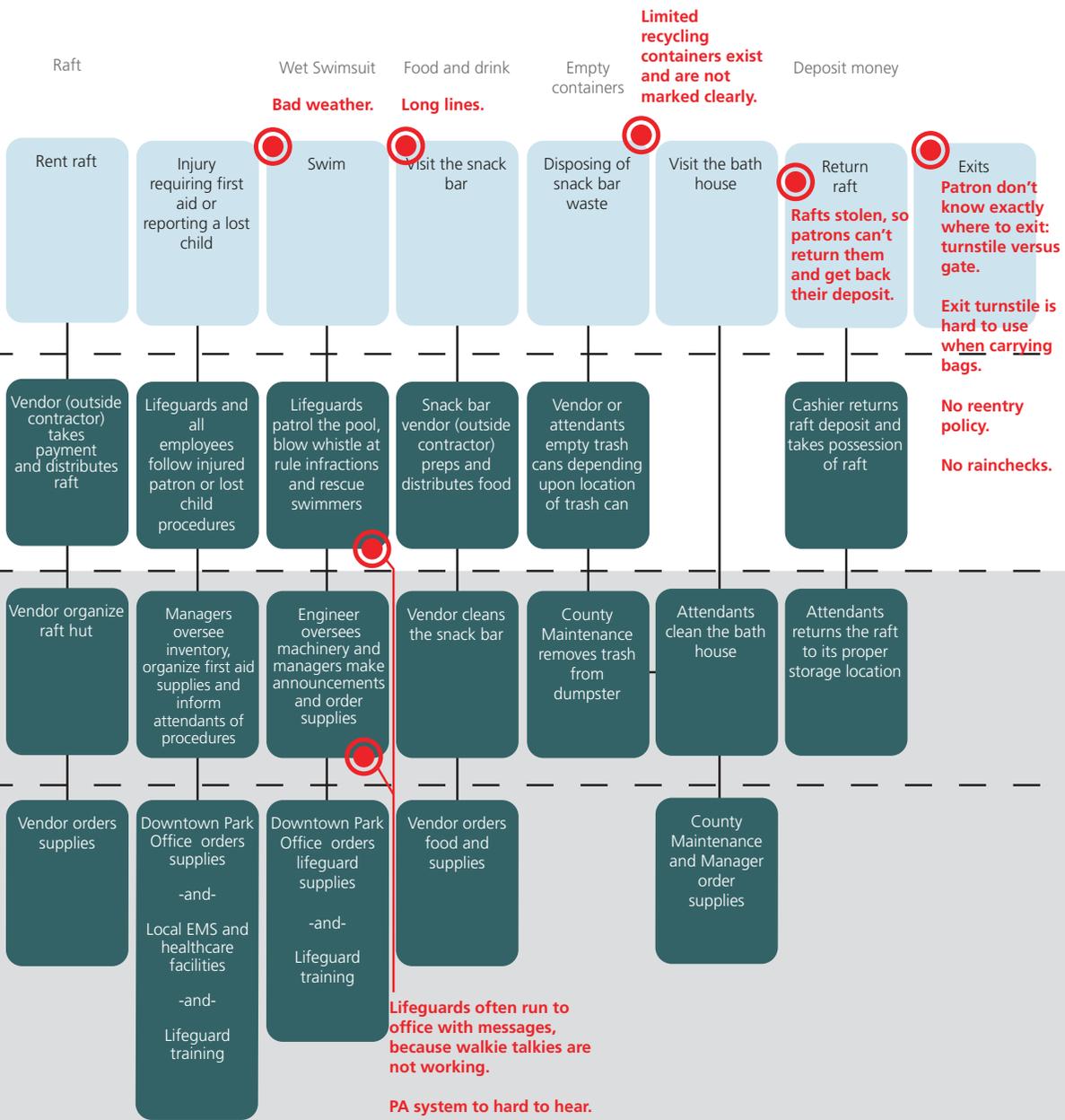
## Backstage Employee Action

## Line of Internal Interaction

## Support Processes



Failpoint



# Key Service Improvement Areas

Upon reviewing all exploratory research and synthesis methods, five key service improvement areas were identified for Allegheny County Parks.

## Key Insights

- Five key service improvements areas were identified: organizational structure, increase revenue, infrastructure, user-centered park policies, and communications.
- Communications was chosen as the service improvement area for further exploration.

## Organizational Structure

Much has been written and proposed regarding the organizational structure of Allegheny County Parks. Many positive changes have already taken place, yet the current structure is not optimal. The Department of Public Works oversees all purchasing for the parks and officially employs the park maintenance workers. Public Works also has many other duties to complete, such as salting County roads in the winter, so their priorities often vary from the Department of Parks resulting in problems within the parks. These varying priorities were especially noted throughout this project during observations, reading internal park documents, and employee interviews.

## Increase Revenue

It takes money to maintain the parks, add new facilities and hire more workers. The Department of Parks is often the first department to have their budget cut. The parks need for increased funding has been well documented within newspaper articles and internal park documents. The County has also in recent years put forth a lot of effort to understand their current finances better, diagram the financial structure of other successful park systems, and propose new ideas for funding sources. A few of these ideas have been implemented, including the development of a non-profit foundation.

## Infrastructure

With years of deferred maintenance, many of the current parks facilities are in varying stages of disrepair. For instance, the Boyce Park ski lifts have broken down numerous times over the past few years and patrons often report that they cannot find their way around a park. Broken equipment and a lack of a universal wayfinding system affect patron experiences in the parks. Repeat business can decrease as a result. The parks' master plan published in 2002 helped to identify maintenance concerns in the parks and the County has taken great effort to systematically address each item noted. Not all of the work is complete and other issues continue to arise.

Not only do current facilities need to be maintained, but also new facilities need to be added to address the changing needs of patrons. Many suggestions for new facilities have been suggested through this project in the survey, internal park documents, patron interviews, and employee interviews. Determining what facilities should be implemented is a complicated task.

## User-centered Park Policies

Park policies help employees run the park, set expectations for patrons, and ensure a level of safety for patrons. While there are many benefits to the

current park policies, not all of them are user-centered. For example, snow tubing passes are restricted to a limited number each session and can't be purchased days in advance. Therefore, many patrons drive all the way to the location to be turned away, because the tickets sell out. The County limits the tickets per session for a good reason, so everyone has an ample amount of turns. However, if tickets could be purchased in advance or a sold out session could be marked online, then patrons could plan accordingly. The Service Blueprints on pages 53-63 were instrumental in summarizing the policies that could benefit from a user-centered review.

## **Communications**

If residents don't know that some of the parks exist, how would they ever visit a park, participate in a program, or utilize a specific facility? This fundamental problem was discussed within many portions of this project, including a survey, internal park documents, patron interviews, and employee interviews. While the County is aware that they should communicate more with the greater community, only a few communication advances have been made. For instance, the County added trail maps to their website. Other ideas suggested within internal park documents mainly focus on traditional print brochures or an improved wayfinding system.

## **Selection of an Improvement Area for Further Exploration**

The County is already addressing three of the service improvement areas (organizational structure, increase revenue, and infrastructure) to varying degrees.

On the other hand, the County has not discussed (at least within written documentation) user-centered park policies. A review of confusing or frustrating policies for patrons could greatly improve the patrons' experience in the parks. Many of these policies have been identified within the Service Blueprints on pages 53-63. Beyond identification, alternate policies could be proposed, but ultimately this improvement area cannot be explored much further without buy-in from the County.

Therefore, the service improvement area of communications is left. The County acknowledged it as an area needing improvement; however, not many proposals have been made. The traditional print-based solutions that have been suggested neglect all of the technological options available today. Communications is also often talked about within internal documents as an expense, but communications can help bring awareness to the greater community, particularly investors. It has the potential to serve as the first step in affecting the other service improvement areas. Communications is a promising area that could benefit from further exploration.

OUTER TRAIL →

← CARPENTER TRAIL

# Refocusing on Communication

An exploration of communication and technology trends in parks, specifically understanding the current system implemented within Allegheny County Parks and other select park systems

|   |    |
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| Park Communication and Technology Studies | 68 |
| Current Communication System              | 69 |
| Benchmarking Communication Channels       | 72 |

# Park Communication and Technology Studies

## Key Insights

- Local and county-level parks should re-evaluate how they discuss communications and technology. This area can provide more benefits than just streamlining business practices.
- Advancements in transportation, comfort, safety, communication, and information have greatly impacted parks in both good and bad ways.
- Besides being continually connected to the outside world and some specific dangers in backcountry areas, communication and information innovations provide mostly benefits to patrons and park administrators. They create awareness, appreciation, share information, and increase opportunities.

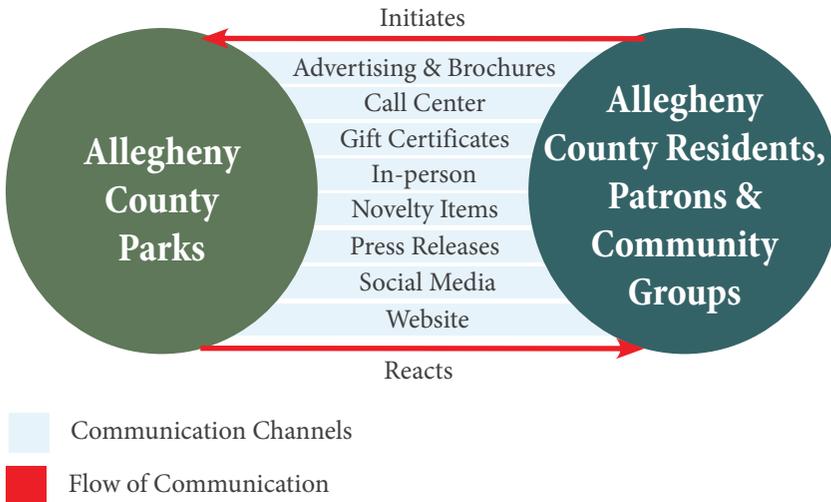
With a new focus on communications, I set out to understand how the parks, recreation, and leisure field discusses communication. Since communication strategies are tied to available technologies, I also searched for journal articles about technologies used in parks and found some interesting information.

Most articles written about local and county-level parks focused on how technology could help administrations streamline their business practices. Many case studies showcased how technology systems (most contained a web-based component) enabled the parks to save money, free up time for staff to complete other tasks, and become more user-friendly by tracking maintenance requests, finances, registrations for classes, and facility rentals. (*Land Between the Lakes* 2005, McColl 2003, *Miami-Dade* 2009 & Urbanowicz 2007)

Other articles discussed the broader impacts (both good and bad) that technology has on parks. Automobile, ATVs, and snowmobiles have resulted in more use and types of users, recreation conflicts, and human-natural environment interactions. Transportation improvements have also caused administrators to deal with capacity issues, environmental impacts, infrastructure development, and a wide set of experience levels for patrons. Synthetic fabrics, lightweight tents, and other comfort innovations have caused longer visits and increased use. In turn, administrators also must pay attention to capacity limits, environmental impacts, and increases in search and rescue. Safety advances increase remote visitation and more risk-taking behavior. Patrons expect to stay connected to the outside world due to communication-based innovations, including radio, cellular phones and GPS. Relying on these devices can be particularly dangerous in backcountry settings with no/little reception. However, providing a GPS-based portable device as a tour guide has been found to decrease interactions between patrons as well as benefit patrons by giving them information that they would have otherwise missed (Rademaker 2004). Lastly, information innovations create awareness, appreciation, and increase options for patrons. (Ewert and Shultis 1999 & Shultis 2001)

# Current Communication System

To better understand Allegheny County Parks current communication system, I extracted pertinent information from my exploratory research methods. I also gathered communication artifacts, such as brochures from the park office and postcards about park events at local restaurants. I reviewed the Department of Parks website and “liked” the County’s Facebook page. To fill in the gaps, I interviewed parks employees. The final communications system is diagrammed below.



## Explaining the System

### Communication Channels

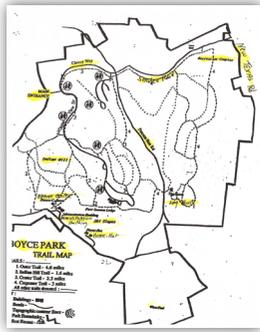
Eight different communication channels (a call center, gift certificates, in-person, novelty items, paid advertising, press releases, social media, and website) disseminate information to Allegheny County residents, park patrons, and community groups. These channels tend to be treated as separate entities and not as a system.

#### *Advertising and Brochures*

Paid traditional advertising is created for select park events, such as the Summer Concert Series, Pyro Fest: America’s Fireworks Festival, and the now discontinued Celebration of Lights. A schedule of programs brochure, called “Naturally,” is available each season as a schedule of programs offered in the parks. Certain park facilities have developed general informational flyers. Lastly, all parks have a map/rules and regulation brochure.

### Key Insights

- Cross branding and sharing of information between communication channels could be improved. All communication channels should function as a system.



The quality of some brochures/maps is very low, because they are photocopies of previously photocopied brochures.



### *Samples of Advertising and Brochures*

#### *Call Center*

The Department of Public Works manages a call center, which any resident of Allegheny County (or park patron) can use. Most of the parks-related phone calls that the call center handles relate to maintenance issues. The call center forwards the maintenance issue to the appropriate park maintenance supervisor, who according to policy must return the phone call within a designated period of time.

#### *Gift Certificates*

Gift certificates are available for select park facilities: ice skating, pools, skiing/snowboarding and golf courses. Certificates must be purchased at park office locations. Nothing is sold online.

#### *In-person*

Of course, parks employees interact with patrons while they are in the park. It is the patron who often begins the conversation. Allegheny County Parks does reach out to the greater community with their Friends of the Parks groups. The Friends of the Parks in turn attend other community events to advocate for the parks. The Department of Parks also attends select events at the request of community groups. The Department of Parks only reacts to these requests.

#### *Novelty Items*

Novelty items like t-shirts and mugs are only sold at the clubhouse on the golf course in the parks.

#### *Press Releases*

When a large event is coming up in the parks or a new project is initiated, the County sends out a press release. A select number of news articles for the departmental website are also written.

## Social Media

Allegheny County does maintain numerous different social media accounts, such as Facebook, Twitter, and YouTube. All accounts contain information for all County departments. As a result, parks information is competing with information from the Health Department.

## Website

The Department of Parks does have a web presence. It is a website maintained within the greater County website. A good amount of information is provided on the website. The County has made strides in adding content and maps, since the publication of the master plan.

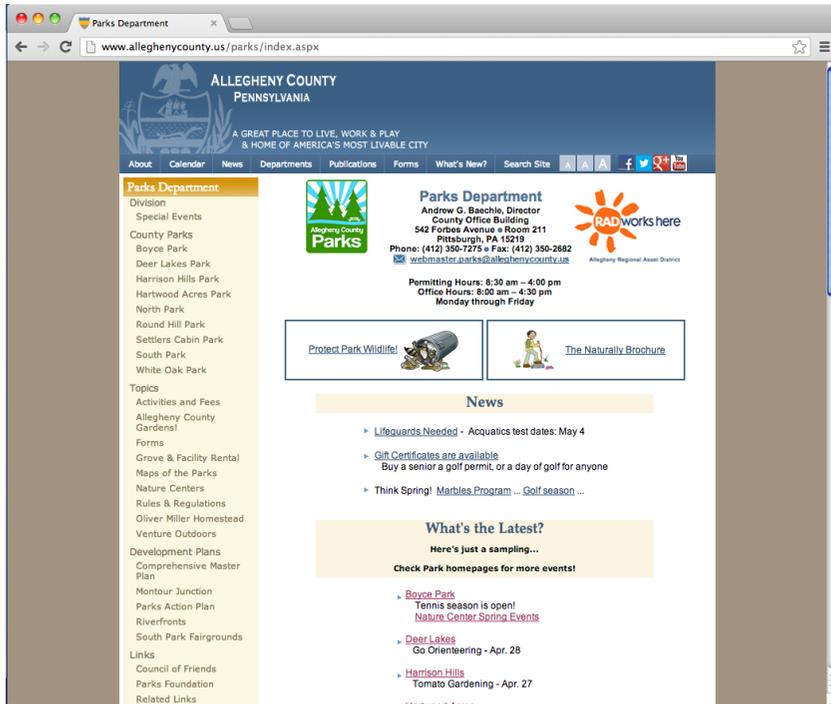


Image of the departmental website.

## Flow of Communication

Even though the County set up and maintains all of these communication channels, current messages through the channels tend to flow in one direction. The patrons or greater community begin the conversation, and then the County reacts.

## Key Insights

- Cross branding and sharing of information between communication channels could be improved. All communication channels should function as a system.
- Parks-specific information is diluted on communication channels controlled by other County departments. For example, more focused social media accounts, in addition to countywide accounts, could result in larger amounts of followers.
- While the parks do have a web presence that provides good information, the design does not appear to have been updated in some time. It does not follow recent trends. A redesign could result in increased usability and more traffic to the site.
- The flow of communication between the parks and the greater community needs to be more of a discussion. The County should shift away from mainly reactionary communications. They should control the message that they are sending out about the parks.

# Benchmarking Communication Channels

After understanding Allegheny County Parks' current communication system, I began to wonder how communications are handled at other park systems. In particular, I was interested in highly ranked park systems, local competitors and park systems similar to Allegheny County. I began by benchmarking the ten park systems highlighted in the earlier County study, *Allegheny County Parks*

Communication Channels

| Parks Systems                     | Paid Advertising and Printed Brochures | All Access Pass | Blogs | Digital Info Displays | Digitized Publications | E-newsletters | Entrance Passes Online | Event Photos Online | Facebook* | Gift Cards | Google+ | Historical Sites Featured Heavily Online | In-person | Interactive Map | Mobile App | News (Press Releases) |
|-----------------------------------|--|-----------------|-------|-----------------------|------------------------|---------------|------------------------|---------------------|-----------|------------|---------|--|-----------|-----------------|------------|-----------------------|
|                                   | Allegheny County Parks                 | •               |       |                       |                        | •             |                        |                     |           | •          | •       | •  | •         | •               |            |                       |
| Charlotte/Mecklenburg County, NC  | •                                      |                 |       |                       | •                      | •             |                        |                     | •         |            |         |  | •         | •               |            | •                     |
| Cincinnati Parks                  | •                                      | •               |       | •                     |                        | •             |                        |                     | •         |            |         |  | •         | •               | •          | •                     |
| Fairfax County Parks              | •                                      |                 | •     | •                     | •                      | •             | •                      | •                   | •         | •          |         | •  | •         |                 | •          | •                     |
| Genesee County Parks              | •                                      |                 | •     |                       | •                      | •             | •                      | •                   | •         | •          |         |  | •         | •               |            | •                     |
| Hamilton County, OH               |  |                 |       |                       |                        | •             | •                      | •                   | •         | •          | •       |  |           | •               |            |                       |
| Indianapolis/Marion County, IN    |  |                 |       |                       | •                      |               |                        |                     | •         |            |         | •  |           |                 |            |                       |
| Louisville/Jefferson County, KY   | •                                      |                 | •     |                       | •                      | •             |                        | •                   | •         |            |         | •  | •         | •               | •          | •                     |
| Minneapolis, MN                   | •                                      |                 |       | •                     | •                      | •             |                        |                     | •         | •          |         | •  | •         | •               |            | •                     |
| Nashville/Davidson County, TN     | •                                      |                 |       |                       | •                      | •             |                        |                     | •         | •          |         | •  | •         | •               |            | •                     |
| Three Rivers Park District, MN    | •                                      |                 |       | •                     |                        | •             |                        | •                   | •         | •          |         |  | •         | •               |            | •                     |
| City of Pittsburgh Parks          | •                                      |                 | •     |                       | •                      | •             |                        | •                   | •         | •          |         | •  | •         | •               |            | •                     |
| Municipality of Monroeville Parks | •                                      |                 |       |                       | •                      |               |                        |                     |           |            |         |  |           | •               |            |                       |
| Plum Borough Parks                |  |                 |       |                       |                        | •             |                        |                     |           |            |         |  |           | •               |            |                       |

\* Often multiple Facebook accounts are maintained.



Communicates via this channel



An overall county/local government level communication channel also shares parks-related information

Management Research, Memorandum, as well as local competitors. In order to obtain information about these parks, I completed an online search for each park's communication channels. Then, I contacted each park and spoke with an employee, most often the Director of Marketing or Communications, to gather more information. The corresponding foundations for each park system (when applicable) were also contacted. The following table is a compilation of my findings from the park systems and their foundations.

| Online Interactive Calendar | Online Program Registration | Online Rentals | Pinterest | Multiple Photos Online of All Facilities | Novelty Items | Parks Only Website | Surveys | Twitter | You Tube | Total | Total Minus Blue |
|-----------------------------|-----------------------------|----------------|-----------|--|---------------|--------------------|---------|---------|----------|-------|------------------|
|                             |                             |                |           |  | •             |                    |         | •       | •        | 11    | 6                |
|                             | •                           |                |           |  | •             |                    | •       |         |          | 10    | 10               |
| •                           | •                           | •              |           |  |               | •                  |         | •       | •        | 15    | 13               |
| •                           | •                           | •              |           |  | •             |                    | •       | •       |          | 19    | 19               |
| •                           | •                           | •              |           |  | •             | •                  | •       | •       | •        | 19    | 19               |
| •                           |                             | •              |           |  | •             | •                  |         | •       | •        | 13    | 13               |
| •                           | •                           |                |           |  |               |                    |         | •       | •        | 7     | 7                |
| •                           |                             | •              |           |  |               | •                  |         | •       |          | 15    | 14               |
|                             | •                           | •              |           |  | •             | •                  | •       | •       |          | 16    | 16               |
|                             |                             |                |           |  | •             |                    | •       |         |          | 11    | 11               |
| •                           | •                           | •              |           | •  | •             | •                  | •       | •       | •        | 18    | 18               |
| •                           | •                           |                | •         | •  | •             | •                  | •       | •       | •        | 20    | 20               |
| •                           | •                           |                |           | •  |               |                    |         |         |          | 6     | 6                |
| •                           |                             |                |           | •  |               |                    |         |         |          | 4     | 3                |

## Key Insights

- Most of the benchmarked parks employed an individual who oversaw marketing and communications. Allegheny County Parks does not have such a position on their staff. A county-level communications department completes all parks communication.
- Most of the park systems have parks only communication channels. Roughly half of Allegheny County Parks' communication channels are controlled at the county-level and share information from all County departments. Changing to parks only communication channels could result in reaching a larger target audience.
- As a whole, Allegheny County does not communicate via as many channels as the highly ranked park systems. Even another local competitor, the City of Pittsburgh Parks communicates via significantly more channels.



# Synthesizing Communication

Synthesizing communication research, in order to identify new communication methods for implementation

|   |    |
|---|----|
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| Speed Dating of Design Ideas                              | 77 |

## Brainstorming Communication Methods for Implementation

### Key Insights

- Focusing on the first steps for improving communications and expanding to new revenue sources, while limiting strain on current park resources was the best strategic decision for developing design solutions.
- The twelve final design ideas were a booth for community events, user experience videos, online activity finder, interactive trail map, online reservation system, historic information, case study and informational document for organizations, interactive trail map, mobile app, e-newsletter, review rewards and novelty items.

When I begin to brainstorm communications methods, I really tried to push the envelope with creative solutions. I ended up generating mostly pop-up event ideas or gorilla marketing tactics. At that point, I took a step back and contemplated if those types of solutions were right for Allegheny County Parks in order to stimulate long-term changes and improvements. I realized that they were definitely not the ideas that Allegheny County Parks needed.

### **I made the strategic decision to develop design solutions that focused on the first steps for improving communications and expanding to new revenue sources, while limiting strain on current parks resources.**

In the end, I came up with twelve design ideas: a booth for community events, user experience videos, online activity finder, interactive trail map, online reservation system, historic information, case study and informational document for organizations, frequent patron program, mobile app, e-newsletter, review rewards and novelty items.

# Speed Dating Design Ideas

(8 Participants: 5 Park Employees and 3 Patrons)

## Method Description

"Speed dating as a research method is inspired by the framework of its dating-scene namesake, but instead of people, researchers rapidly 'speed date' design opportunities with potential users. The power of speed dating lies in exposing people to future design ideas via storyboards and simulated environments before any expensive technical prototypes are built (Martin and Hanington 2012, 164)."

While the original creators of the speed dating technique, Davidoff et al., meant for the method to test for social boundaries, I utilized the method more for needs validation and gauging interest (Davidoff 2007).

I speed dated the twelve design ideas with five parks employees and three patrons in both individual and group sessions. Within each session, I quickly showed the ideas in a scenario followed by a lead-in question. The lead-in questions were different for the parks employees compared to the patrons. While both sets of questions helped to focus the speed daters, the difference in the questions highlighted how the ideas could be beneficial for the patrons and the County. Then, the speed daters discussed the pros, cons, and their general feelings about each idea. Lastly, the speed daters were asked to rank the top three ideas that they would like to have implemented as well as the below one idea that they did not care for.

## Summary of the Findings

None of the ideas were outright rejected. In fact, all of the speed daters (employees and patrons) stated that they could see a benefit from all of the ideas. However, the speed daters did think that different ideas could be more beneficial than others. They also thought that some ideas would be easier to implement than others. The following ratings were compiled after analyzing the speed dating sessions:

### *Extremely Interested*

- Booth for Community Events
- Case Study and Informational Document for Organizations
- E-newsletter
- Interactive Trail Map
- Historic Information
- Mobile App
- Online Activity Finder
- Online Reservation System

### *Interested*

- User Experience Videos

### *Somewhat Interested*

- Frequent Patron Program
- Novelty Items
- Review Rewards

## Key Insights

- This speed dating session validated the need for the County to communicate more with patrons and the greater community, since all of the design ideas were generally accepted.

## Details of the Twelve Communication Ideas

### Key Insights

- A pre-packaged booth can be provided to anyone attending an event on behalf of Allegheny County Parks. Everything from brochures to promotional items should provide a clear message about the parks that was crafted by Allegheny County Parks. All people manning the booth should be trained to communicate the appropriate message.
- All of the Speed Daters saw the benefit provided by the user experience videos; however, they didn't seem overly enthusiastic about concept.

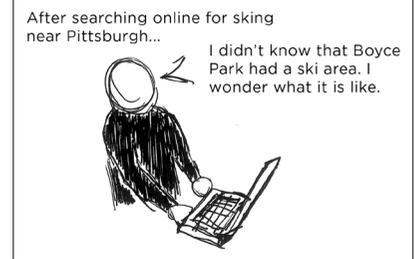
### Idea #1: Booth for Community Events

*Sample Lead-in question:* Have you ever considered raising awareness by engaging with patrons at community events?



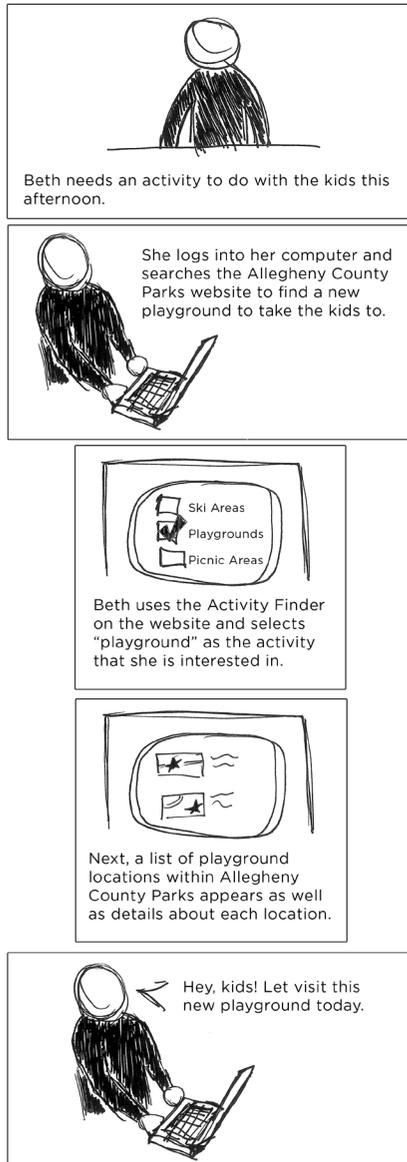
### Idea #2: User Experience Videos

*Sample Lead-in question:* How can online videos raise awareness for the parks?



### Idea #3: Online Activity Finder

*Sample Lead-in question:* How can showcasing all park resources on a website expand patron knowledge?



### Idea #4: Interactive Trail Map

*Sample Lead-in question:* How can an interactive trail map ease barriers for updating new trails and decrease the cost of maintaining signs?



### Key Insights

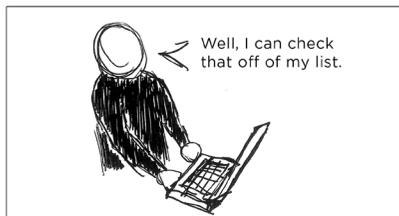
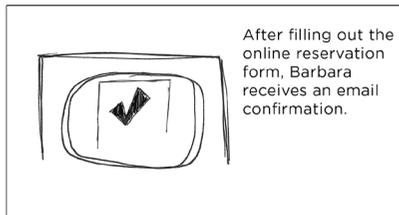
- Many of the patrons commented on how much they would utilize and benefit from an online activity finder.
- A patron with a particular interest in cycling loved the interactive trail map idea. Additionally, the County denoted this idea as one of particular interest.

## Key Insights

- The comment most often made by patrons about the online reservation system was, "Why doesn't the County already have this?"
- Bringing awareness to historic sites and information could make Allegheny County Parks eligible for historically related funding sources, which they were ineligible for before.

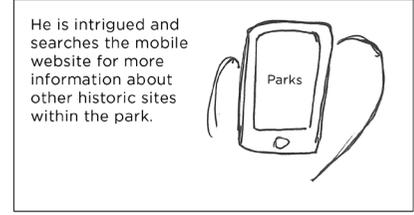
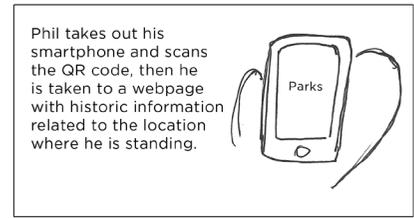
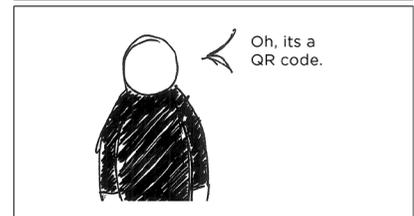
## Idea #5: Online Reservation System

*Sample Lead-in question:* How can an online reservation system streamline the process and cater to patrons with a restricted schedule who can't visit the park office during business hours?



## Idea #6: Historic Information

*Sample Lead-in question:* Have you ever considered utilizing mobile devices to inform patrons of historic sites while in the parks?



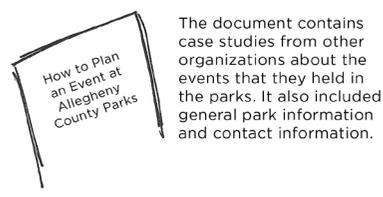
## Idea #7: Case Study and Informational Document for Organizations

*Sample Lead-in question:* How can organizations be proactively informed of park offerings through cost effective means?

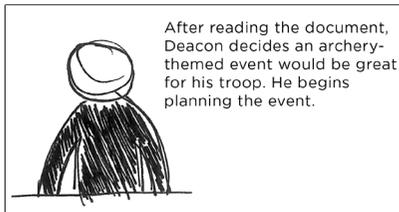


Deacon is a Boy Scout leader. He is interested in holding an event for his troop at Boyce Park.

When discussing possibilities with the regional scouting leader, the leader gave Deacon a document from Allegheny County Parks.



The document contains case studies from other organizations about the events that they held in the parks. It also included general park information and contact information.



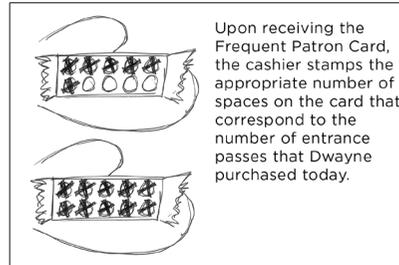
After reading the document, Deacon decides an archery-themed event would be great for his troop. He begins planning the event.

## Idea #8: Frequent Patron Program

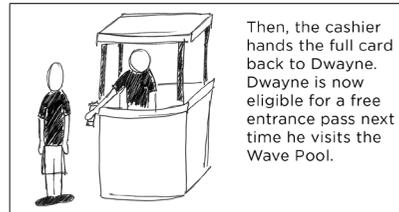
*Sample Lead-in question:* How can the parks increase repeat business and goodwill with patrons?



As Dwayne enters the Wave Pool, he hands his Frequent Patron card to the cashier.



Upon receiving the Frequent Patron Card, the cashier stamps the appropriate number of spaces on the card that correspond to the number of entrance passes that Dwayne purchased today.



Then, the cashier hands the full card back to Dwayne. Dwayne is now eligible for a free entrance pass next time he visits the Wave Pool.

## Key Insights

- The Case Study and Informational Document for Organizations did not rank highly for every speed daters; however, the speed daters, who were leaders of community groups (a Girl Scout leader and preschool teacher) ranked this as their favorite idea.
- While the frequent patron program was overall liked by the Speed Daters, many foresaw problems implementing the program. For instance, patrons worried about losing their card.

## Idea #9: Mobile App

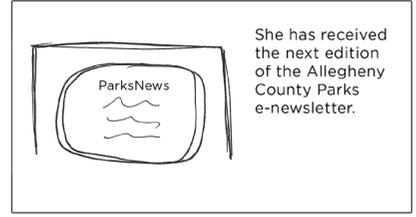
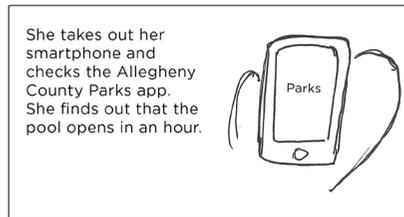
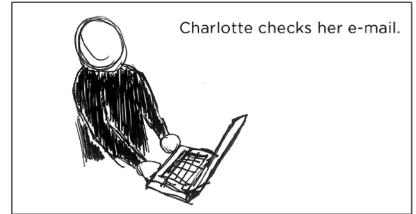
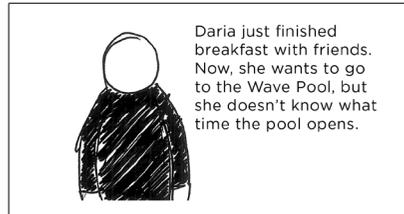
*Sample Lead-in question:* How can the park reach an audience on the go?

## Idea #10: E-newsletter

*Sample Lead-in question:* Have you ever considered reaching an audience in their homes?

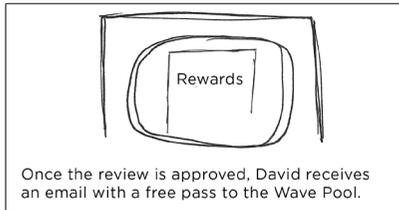
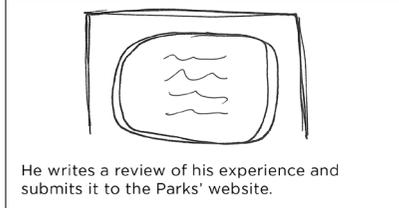
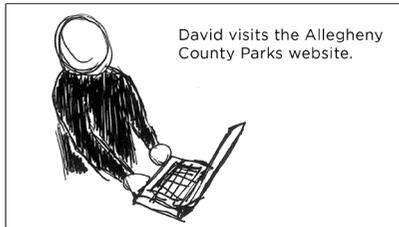
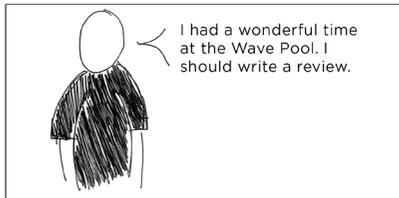
### Key Insights

- The mobile app idea received rave reviews.
- Patrons asked if they would be able to customize the types of parks information that they received within an e-newsletter. For instance, could they get information about only one of the nine parks. However, they liked the general concept of an e-newsletter.



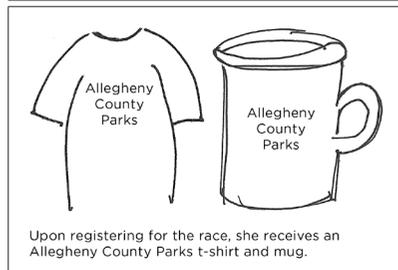
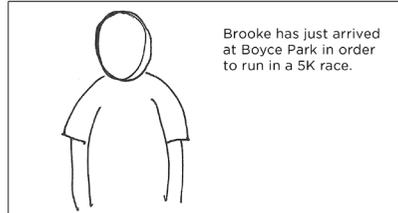
## Idea #11: Review Rewards

*Sample Lead-in question:* Do you wish that word-of-mouth reviews by satisfied patrons could have a farther reach?



## Idea #12: Novelty Items

*Sample Lead-in question:* Do you wish that the parks could be visible in the mall, in a home, etc.?



## Key Insights

- While patrons were very interested in reading reviews, they reported that they probably would not write a review. The County expressed concerns on how to monitor abusers of the review rewards system (i.e., people who write bogus reviews just to get free entrance passes).
- Novelty items did not receive a lot of comments from any speed dating participant besides that they were somewhat interested in the concept.



# Designing a New Communication System

Developing and prototyping a new communications system based upon all research findings

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# The System

Soon after finishing my Speed Dating sessions, the Parks, Recreation & Trails, Executive Summary was published (“Vision Teams” 2013). One of the document's key suggestions for the future of Allegheny County Parks was to promote a focus on the "User Experience," including a coordinated universal navigation/information system. With this document fresh in my mind, I revisited my original idea of concluding this thesis project by prototyping a few of the design ideas that tested in the "extremely interested" category when Speed Dating. I realized that I needed to create the entire communications system for the parks.

## How does the system work?

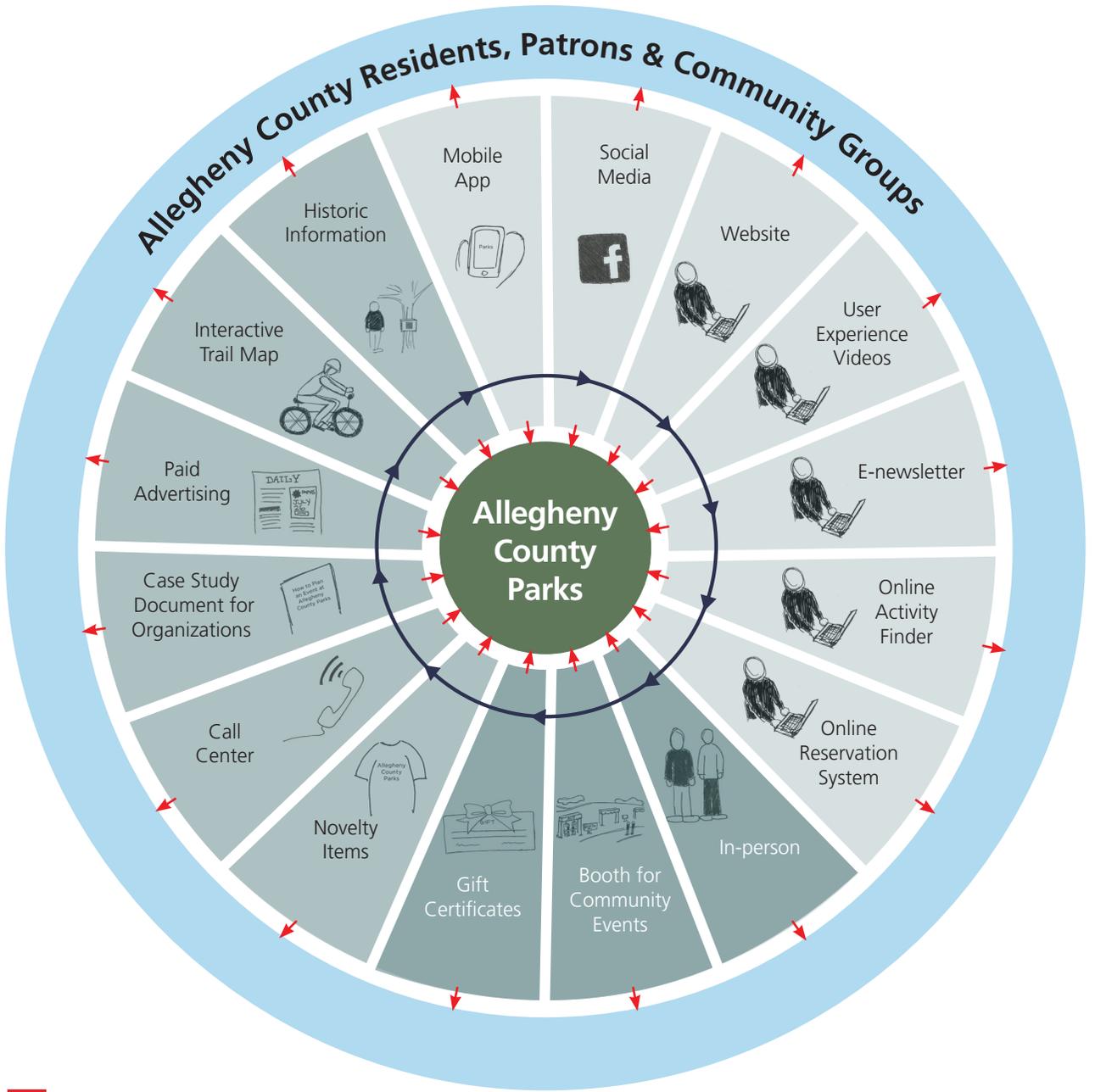
A diagram of the complete system is shown on the next page.

The parks' current communications system is very fractured; each communication channel tends to function as separate entity. This system should function as, and be treated like, a system. Everything should be co-branded; information should be shared and cross-promoted on all channels. Communication channels are methods for the County to talk to the greater community, such as paid advertising, gift certificates and e-newsletter. Each channel, from print brochures and websites to signage and face-to-face discussions, should be implemented across all appropriate locations in the entire park system and not just a few specific locations. The message told through the communication channels must be consistent, easy to understand, utilize similar verbiage, and be expressed in a confident tone.

The number of communication channels should be increased. Compared to other successful county-level park systems as well as other local competitors (particularly the City of Pittsburgh), Allegheny County Parks communicates in far fewer ways. Suggestions for a starting number as well as types of communication channels are shown in the system diagram. The solutions range from strictly physical solutions (i.e., they exist in the park or the greater community) to completely digital solutions. Many of the channels are a hybrid of both physical and digital components.

The flow of information through these communication channels needs to change from the current flow. Currently, the County takes a mostly reactionary stance to communication; they wait for the greater community/patrons to contact them. The County needs to take charge of the message that they send into the world. Taking charge will set expectations for park usage.

While it is true that implementing this system will require changes to be made in the way the Allegheny County Parks operates, the benefits of better communication can result in increased awareness, appreciation, and visitation. Some new communication channels can even open up new revenue sources and provide other benefits to other aspects of the parks.



- Flow of Communication
- Digital Communication Channels
- Digital and Physical Communication Channels
- Physical Communication Channels
- Interconnectivity of Communication Channels

# Comparison of the Current and Proposed Communications System

## Current Communications System

| Communication Channels        | Digital Solution (e.g., online, mobile, social media, etc.) | Physical Solutions (e.g., have a physical presence in the parks or greater community) | Mainly Controlled at the Department of Parks-level | Mainly Controlled at the County-level |
|-------------------------------|---|---|--|---------------------------------------|
|                               | Advertising and Digital Brochures                           | •   | •  |                                       |
| Booth for Community Events    |   |   |  |                                       |
| Call Center                   | •   |   |  | •                                     |
| Case Study Document for Orgs. |   |   |  |                                       |
| E-newsletter                  |   |   |  |                                       |
| Gift Certificates             |   | •   |  | •                                     |
| Historic Information Featured |   |   |  |                                       |
| In-person                     |   | •   | •  |                                       |
| Interactive Trail Map         |   |   |  |                                       |
| Mobile App                    |   |   |  |                                       |
| Novelty Items                 |   | •   | •  |                                       |
| News (Press Releases)         | •   |   |  | •                                     |
| Online Activity Finder        |   |   |  |                                       |
| Online Reservation System     |   |   |  |                                       |
| Social Media                  | •   |   |  | •                                     |
| User Experience Videos        |   |   |  |                                       |
| Website                       | •   |   |  | •                                     |

## Proposed Communications System

| Communication Channels        | Digital Solution (e.g., online, mobile, social media, etc.) | Physical Solutions (e.g., have a physical presence in the parks or greater community) | Mainly Controlled at the Department of Parks-level | Mainly Controlled at the County-level |
|-------------------------------|---|---|--|---------------------------------------|
|                               | Advertising and Digital Brochures                           | •   | •  | •                                     |
| Booth for Community Events    |   | •   | •  |                                       |
| Call Center                   | •   | •   |  | •                                     |
| Case Study Document for Orgs. | •   | •   | •  |                                       |
| E-newsletter                  | •   |   | •  |                                       |
| Gift Certificates             |   | •   | •  |                                       |
| Historic Information Featured | •   | •   | •  |                                       |
| In-person                     |   | •   | •  |                                       |
| Interactive Trail Map         | •   | •   | •  |                                       |
| Mobile App                    | •   |   | •  |                                       |
| Novelty Items                 | •   | •   | •  |                                       |
| News (Press Releases)         | •   |   | •  |                                       |
| Online Activity Finder        | •   |   | •  |                                       |
| Online Reservation System     | •   |   | •  |                                       |
| Social Media                  | •   |   | •  |                                       |
| User Experience Videos        | •   |   | •  |                                       |
| Website                       | •   |   | •  |                                       |

# Prototypes

To show the potential of the new integrated communications system, I prototyped three communication channels: a website, an online activity finder, and an online reservation system. I researched other county-level websites, activity finders, and online reservation systems to get a sense of what is already available as well as for possible design inspiration.



Screenshots from the websites of Hamilton County Park District, Pennsylvania State Parks, Cincinnati Parks, and Three Rivers Park District

## Paper Prototyping Sessions

(4 Participants: 1 Park Employee and 3 Patrons)

Paper prototyping is a great way to begin prototyping an interface. It can "catch design flaws and change directions, and the flexibility and disposability of paper encourages experimentation and speedy iteration (Medero 2007)." User testing with a paper prototype is completed in a similar manner to other prototype testing. Marks are made where participants click or interact with the prototype. Participants are asked what they expect to happen next, confusion points are noted, and improved suggestions are documented. I tested four scenarios for the three communication channels with one park employee and three patrons.

## Scenario #1

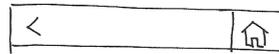
In June 2013, you travel to Boyce Park for an impromptu picnic with your family. You pull up to the sheltered grove called "Den." Before you set up, you want to make sure that your picnic won't be interrupted by anyone who reserved the shelter for the day.

Screen 1-1

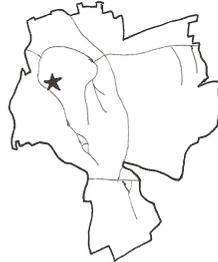
YOU SEE THE FOLLOWING SIGN AT THE ENTRANCE TO THE AREA.



Screen 1-2



DEN



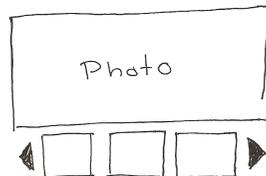
Click on a date to reserve

| JUNE 2013 |     |     |     |     |     |     |
|-----------|-----|-----|-----|-----|-----|-----|
| SUN       | MON | TUE | WED | THU | FRI | SAT |
|           |     |     |     |     |     | 1   |
| 2         | 3   | 4   | 5   | 6   | 7   | 8   |
| 9         | 10  | 11  | 12  | 13  | 14  | 15  |
| 16        | 17  | 18  | 19  | 20  | 21  | 22  |
| 23        | 24  | 25  | 26  | 27  | 28  | 29  |
| 30        |     |     |     |     |     |     |

BOOKED  
  NOT AVAILABLE  
 AVAILABLE  
  CLOSED

Rental Time \_\_\_\_\_ to \_\_\_\_\_  
 Daily Rentals Only  
 Cost: \$ \_\_\_\_\_  
 Description \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Activities



## Key Insights

- The general consensus for this concept was summed up by one particular reviewer, "Great idea."
- Most participants like the QR code on the sign, but many debated what options should be available for non-smartphone users. Suggestions ranged from eliminating everything on the sign except the QR code to stopping by a posted schedule at one specific location in the park to check the schedule.
- One participant shared a story about setting up for their daughter's graduation party in the wrong pavilion, so this reviewer stated they would use this.
- On screen 1-3, some participants wanted more information about the pavilion, such as directions, while others wanted less information. They only wanted to see if the pavilion was available.

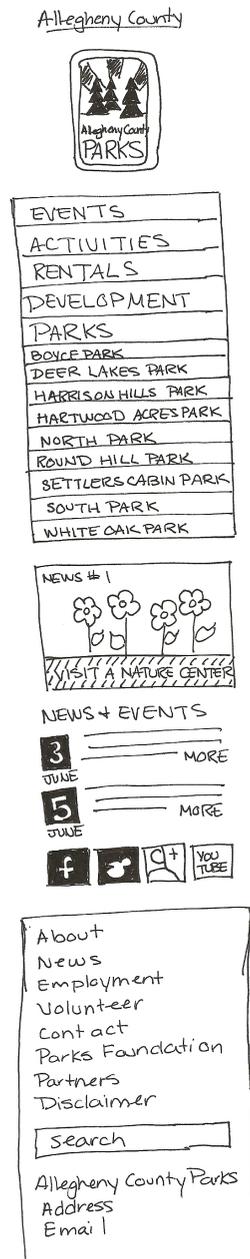
## Key Insights

- Many participants proposed the creation of an interactive map that they could use to search for everything parks-related.

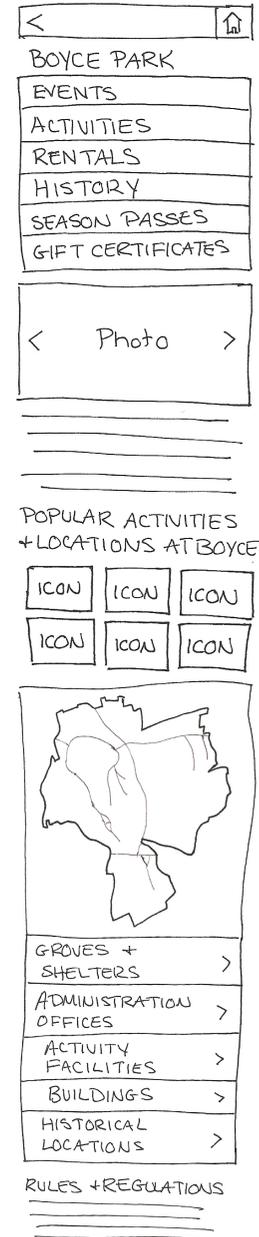
## Scenario #2

You and your friends arrive at Boyce Park with the intention of mountain biking on a trail. However, you haven't figured out which exact trail to follow, so you take out your smartphone and checkout the Allegheny County Parks website to find a moderately difficult trail.

Screen 2-1



Screen 2-2



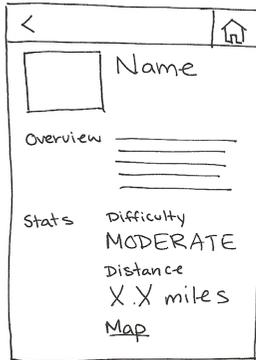
Screen 2-3



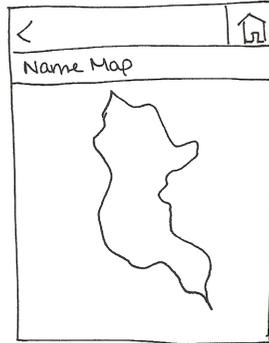
Screen 2-4



Screen 2-5



Screen 2-6



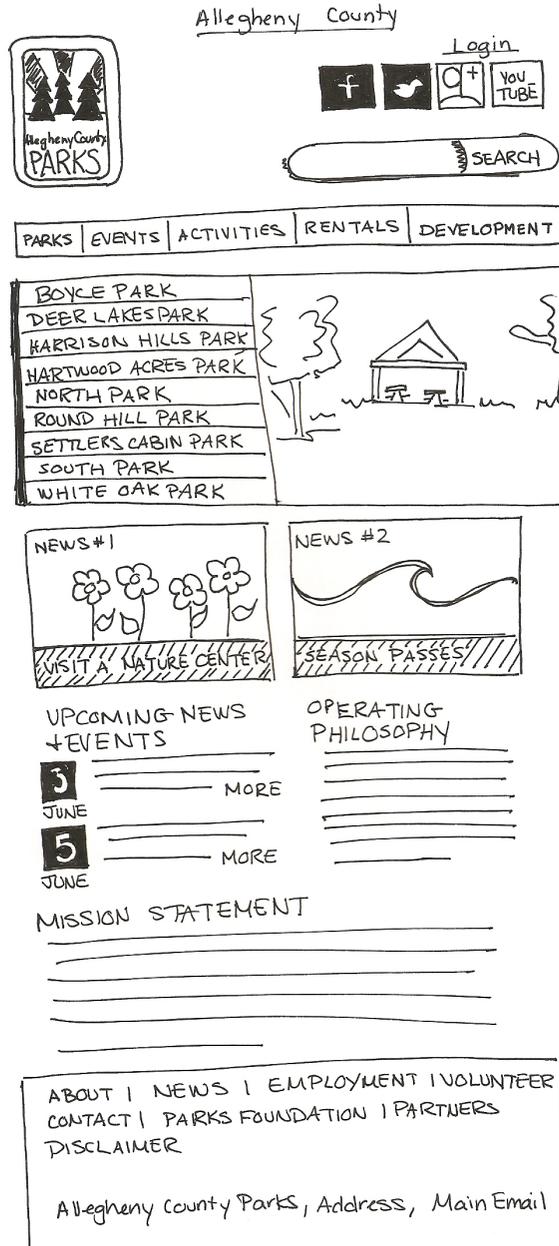
## Key Insights

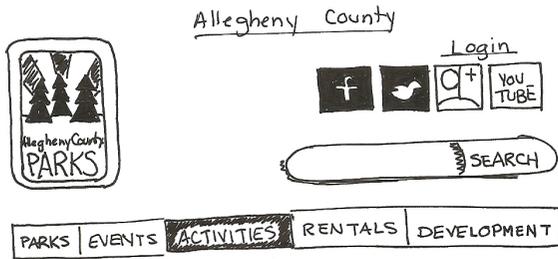
- The concept was received well by all participants. The participant with a particular interest in biking was especially intrigued by the idea.
- Most suggestions were in regards to screens 2-4 and 2-5. Participants wanted more and different types of trail information on these screens. Information suggestions were as follows: highlight the beginning and ending points of the trail; include a description of how difficulty level is determined; show where to park; include GPS enabled directions, so patrons can get from "here" to the trail; add a description of what the trail terrain is like (hills, dirt, paved, how wide, amount of trees); highlight restrooms and water access along the trail; and include a photo of the trail (possibly the entrance).

### Scenario #3

You are interested in snow tubing with your family next weekend, so you visit the Allegheny County Parks website on your iPad to find out the hours of operation and rates at Boyce Park.

Screen 3-1





## ACTIVITIES

Search all activities for location info and more.

- |                               |                             |
|-------------------------------|-----------------------------|
| icon ARCHERY                  | icon MINIATURE GOLF         |
| icon BIKING                   | icon MODEL AIRPLANE FIELD   |
| icon BOARDS/BIKES/BLADES PARK | icon OFF-LEASH DOG AREAS    |
| icon BOATING/KAYAKING         | icon PICNIC AREAS           |
| icon DECK HOCKEY              | icon SKIING                 |
| icon DISC GOLF                | icon SLED RIDING/TUBING     |
| icon FISHING                  | icon SPORTING FIELDS/COURTS |
| icon GOLFING                  | icon STABLES                |
| icon HIKING                   | icon PLAYGROUND EQUIPMENT   |
| icon HORSE TRAIL              | icon WALKING/RUNNING        |
| icon ICE SKATING              |                             |

ABOUT | NEWS | EMPLOYMENT | VOLUNTEER  
 CONTACT | PARKS FOUNDATION | PARTNERS  
 DISCLAIMER

Allegheny County Parks, Address, Main Email

## Key Insights

- The only change mentioned was by the employee, who suggested eliminating "sled riding" from the activities listing, since patrons can sled ride throughout the entire park.
- What about searching for activities using other parameters, such as time expectation (i.e., participation in this activity takes all afternoon). This breakdown could be beneficial for families. Other parameters could be beneficial for other user groups.

## Key Insights

- A participant asked if this was the only option for snow tubing in Allegheny County Parks (which is correct). They were expecting a list of all snow tubing options after clicking on screen 3-2.

Allegheny County



Login






SEARCH

PARKS
EVENTS
ACTIVITIES
RENTALS
DEVELOPMENT

ACTIVITIES: SLED RIDING / TUBING

Photo

OVERVIEW

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PDF BROCHURE

RATES

|                               | SESSION TUBE FEE | GROUP RATE* |
|-------------------------------|------------------|-------------|
| Junior/Adult (12yr. old +)    | \$ 12            | \$ 8        |
| Youth/Child (up to 12yr. old) | \$ 8             | \$ 4        |

\* Group Rates: \_\_\_\_\_

LIFT PASS

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DIRECTIONS

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TODAY (2/3/13)  
SNOW TUBING - CLOSED

LOCATION



724-733-4665  
24-hour Snow condition Recording

724-733-4656  
General Info (~~Business~~)  
(Operating Hours Only)

SEASON

Mid-January to Mid-March  
Weather & Conditions Permitting

HOURS OF OPERATION

**REGULAR 2.5hr Sessions**

Monday - Friday  
3:30 - 6 p.m.  
6:30 - 9 p.m.

Saturday - Sunday  
9:30 a.m. - Noon  
12:30 - 3 p.m.  
3:30 - 6 p.m.  
6:30 - 9 p.m.

**SPECIAL/HOLIDAY**

Christmas Eve  
9:30 a.m. - Noon  
12:30 - 3 p.m.

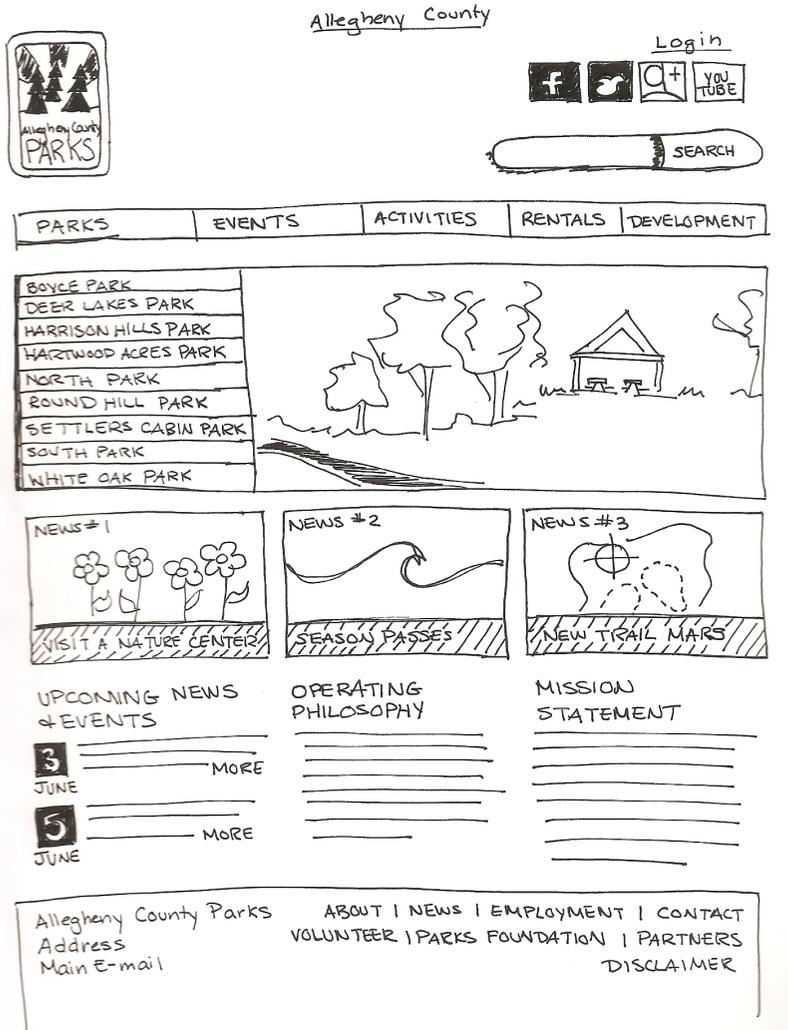
ABOUT | NEWS | EMPLOYMENT | VOLUNTEER  
CONTACT | PARKS FOUNDATION | PARTNERS  
DISCLAIMER

Allegheny County Parks, Address, Main Email

## Scenario #4

You are tasked with planning this year's family reunion. The event is held on the second weekend of July. You are interested in booking a grove for the event at Boyce Park, so you sit down at your home computer and navigate to Allegheny County Parks website. Remember, the grove will need to be handicap accessible for grandma.

Screen 4-1

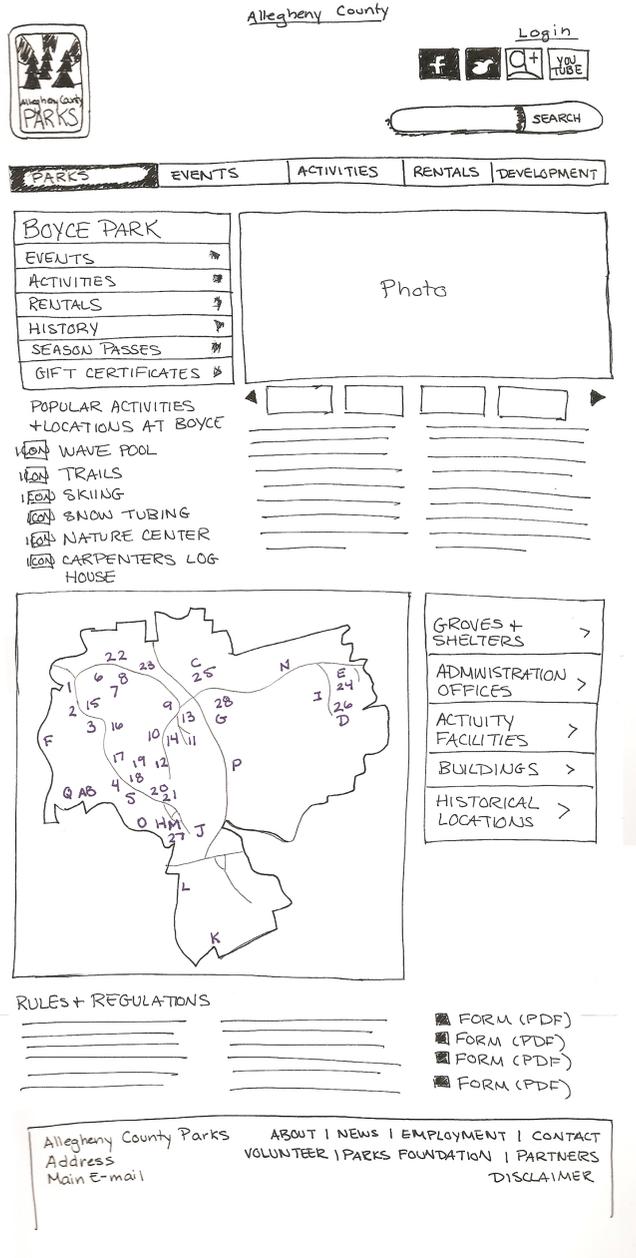


## Key Insights

- I found out when presenting this scenario to the parks employee that the County's IT department, in a decision that was separate from this project, is moving forward with an online reservation system. The IT department already picked a system and has begun discussions with the parks department on the specifics of the system. Therefore, I completed the scenario review with the employee, and then we discussed my findings with the other participants. The employee stated that they would bring up some of the findings within future meetings with the IT department.

## Key Insights

- While most participants clicked on "Rentals" due to the scenario explanation, many again suggested the idea of an interactive map to explore the park and find available shelters.





## Key Insights

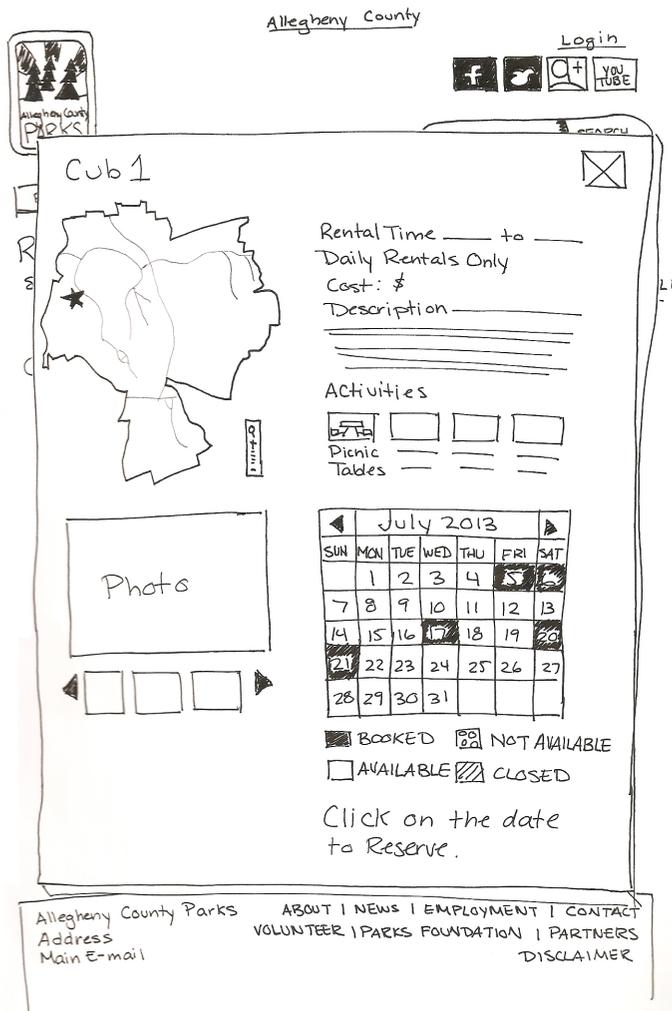
- Participants wanted the ability to choose a range of dates as well as specify a location near a facility, such as a pool.
- Participants would like to be able to search by the capacity of a shelter.





## Key Insights

- Participants would have liked more information on this page, such as what else is near this location, maximum capacity, closest restroom locations, contact information in case of additional question, parking information, and directions on how to pay for the facility (cash, check, credit card policy).



Alleghehy County

Alleghehy County PARKS

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SEARCH

|       |        |            |         |             |
|-------|--------|------------|---------|-------------|
| PARKS | EVENTS | ACTIVITIES | RENTALS | DEVELOPMENT |
|-------|--------|------------|---------|-------------|

### LOGIN

EMAIL

PASSWORD

Forgot Your Password?

### SIGN UP

FIRST NAME

LASTNAME

E-MAIL

RE-ENTER EMAIL

NEW PASSWORD

BIRTHDAY

Why do I need to provide my birthday?

By signing up, you agree to...

Alleghehy County Parks

Address

Main E-mail

ABOUT | NEWS | EMPLOYMENT | CONTACT

VOLUNTEER | PARKS FOUNDATION | PARTNERS

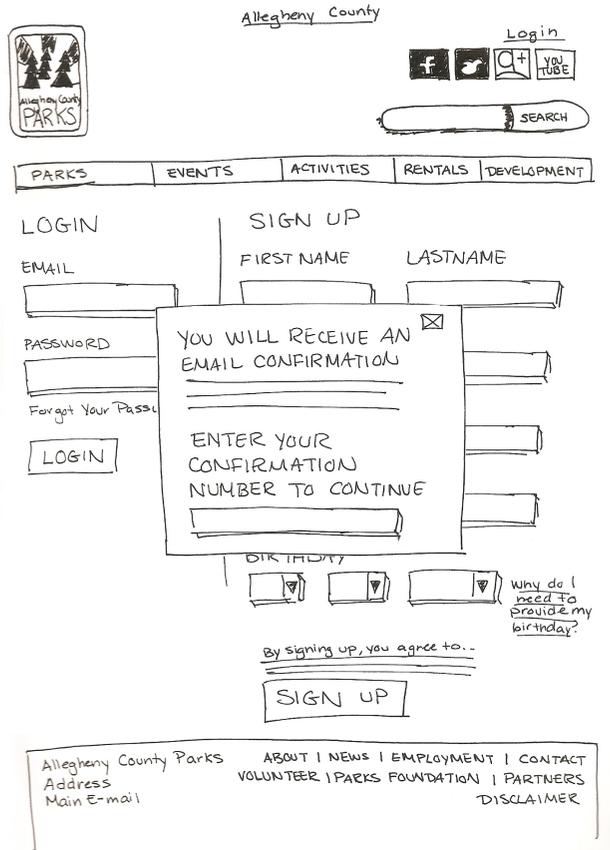
DISCLAIMER

## Key Insights

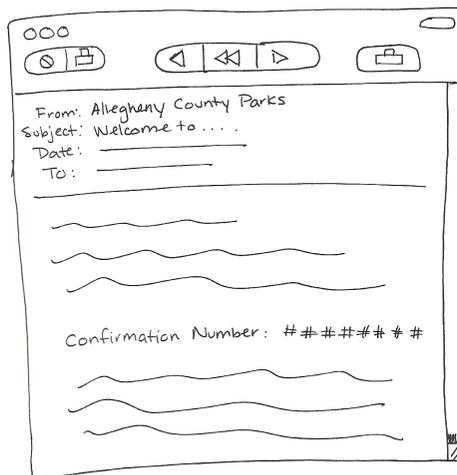
- This screen brought up policy questions, such as an individual would need to be 18 years olds to sign up for an account.

## Key Insights

- Screens 4-8 and 4-9 slightly confused the participants. They wanted wording to let them know that this was confirmation of setting up a County account and not confirmation of a facility rental.



Screen 4-9



Allegheny County



Login






SEARCH

PARKS
EVENTS
ACTIVITIES
RENTALS
DEVELOPMENT

### RENTALS: RESERVATION APPLICATION

Facility Reserved: Boyce Park, Cub 1  
 July 13, 2013

Price: \$

FIRST NAME:

LAST NAME:

TODAY'S DATE:

DATE OF BIRTH:

NAME OF FAMILY / GROUP:

FOR THE PURPOSE OF:

PICNIC

BIRTHDAY

REUNION

OTHER:

GRADUATION

E-MAIL:

ADDRESS:

ADDRESS LINE 2:

CITY:  STATE:

ZIP:

TELEPHONE:

NUMBER EXPECTED TO ATTEND:

WILL ALCOHOLIC BEVERAGES BE SERVED?  
Alcohol permit \$50 each location/date  
 only individuals over 21 can purchase alcohol permits.

Yes  No

NEXT

Allegheny County Parks  
 Address  
 Main e-mail

ABOUT | NEWS | EMPLOYMENT | CONTACT  
 VOLUNTEER | PARKS FOUNDATION | PARTNERS  
 DISCLAIMER

## Key Insights

- Participants had many suggestions on how to make the forms easier to fill out, such as automatically filling in content with information from the overall user account. Participants also wanted to see the payment policy listed on this page as a reminder before they got too far into the reservation process and discovered that their preferred payment method was not accepted.
- The parks employee discussed how this redesign would affect park policies. For instance, how can an online system guarantee that patrons purchasing alcohol permits are over 21 years of age? The County has already decided that alcohol permits will not be sold online.
- The parks employee also discussed how this could affect special events or fundraisers held in the park, because the County needs more information than this before the event is approved.

## Key Insights

- Participants questioned if they would also be able to pay directly from a bank account. They also wanted to know that if they wanted to pay by cash or check, could they use this system to place a 24-hour hold on the shelter. During the 24-hour period, they could then go to a park office and pay for the shelter, thereby confirming the reservation.

Allegheny County



Login






SEARCH

PARKS
EVENTS
ACTIVITIES
RENTALS
DEVELOPMENT

### RENTALS: RENTAL PAYMENT

|                   |     |
|-------------------|-----|
| RENTAL FEE        | \$  |
| BOYCE PARK, CUB 1 |     |
| JULY 13, 2013     |     |
| SECURITY DEPOSIT  | N/A |
| ALCOHOL PERMIT    | \$  |
| TOTAL             |     |
|                   | \$  |

METHOD OF PAYMENT (CASH + CHECKS ARE ONLY ACCEPTED AT PARK OFFICES)

VISA     MASTERCARD  
 American EXPRESS     DISCOVER

CARD NUMBER:

EXP:

CV:  ⓘ

NAME ON THE CARD:

POLICIES + RULES + CANCELLATIONS

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

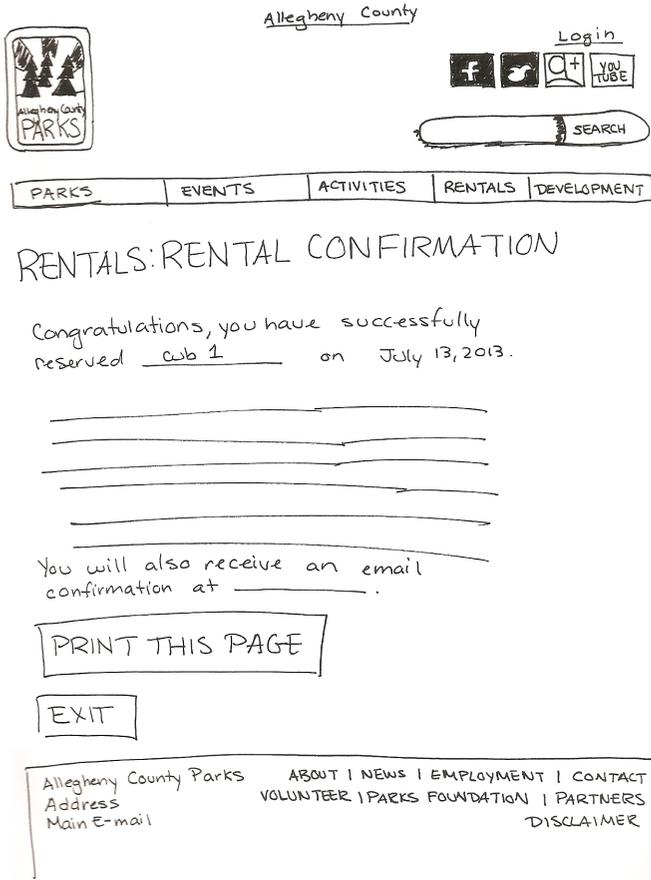
\_\_\_\_\_

I HAVE READ THE POLICIES + RULES + CANCELLATION STATEMENT.

SUBMIT

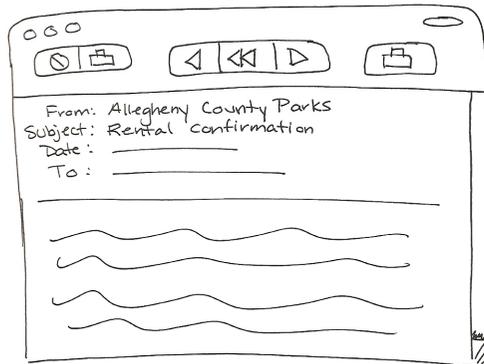
Allegheny County Parks  
Address  
Main e-mail

ABOUT | NEWS | EMPLOYMENT | CONTACT  
VOLUNTEER | PARKS FOUNDATION | PARTNERS  
DISCLAIMER



## Key Insights

- The parks employee again commented on how this would affect policy, because you currently have to have a printed copy of your permit with you in the park on the day of the reservation.
- Participants wanted a reminder on the confirmation about paying within 24-hours if you placed a hold on the facility. They also wanted contact information in case of a problem or emergency.



## Final Prototypes

Taking the feedback from the paper prototyping sessions into consideration, I created HTML prototypes of a new website interface and activity finder. I also more concretely developed the "in the park" component of the reservation system. I stopped any additional prototyping of the online portion of the reservation system, since the IT department is moving forward with a separate solution.

## Website Interface



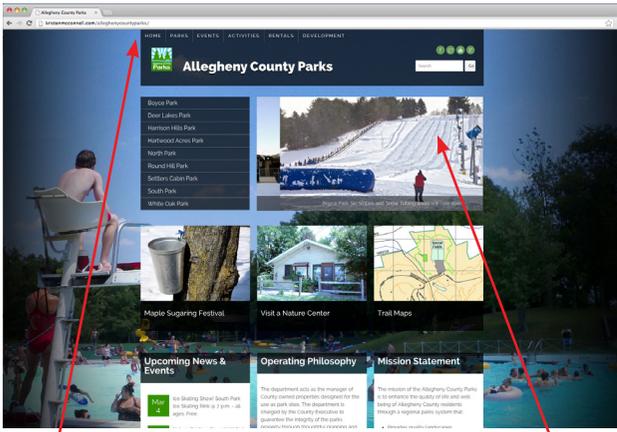
*Examples of the responsive website design on a desktop computer browser, a tablet and a mobile phone.*

I wanted the website to reach as many people as possible on as many devices as possible, so I developed a responsive website design. Responsive design is a combination of all modern web-programming techniques working in conjunction with one another to create a complete web experience regardless of device (i.e., mobile phones, tablets, and desktop computers).

I developed the website using a content management system, which enables maintenance and content edits to take place in one central interface. I chose the open source content management system, WordPress (<http://wordpress.org/>), for numerous reasons: a full featured text editor allowing virtually any employee to post fresh content, a large community support network, and a robust community-driven plug-in library, which would reduce the time needed for future site enhancements. Many companies and organizations heavily utilize WordPress, so it is tested heavily on a daily basis.

*Images in all HTML prototype mock-ups from Allegheny County or Kristen McConnell.*

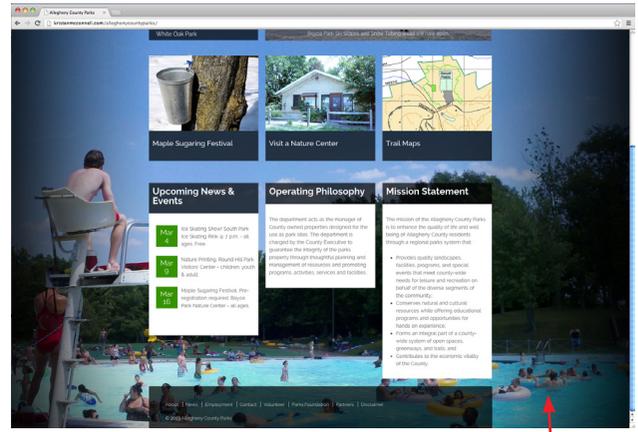
## Homepage: Desktop



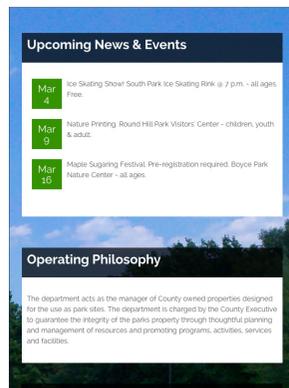
An Allegheny County universal header (similar to the current parks website) can be added to the top of the design.

The images and text rotate within this section.

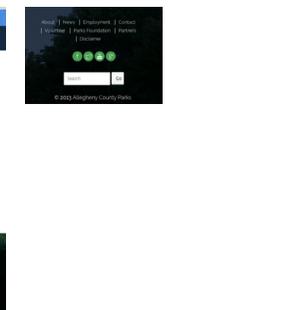
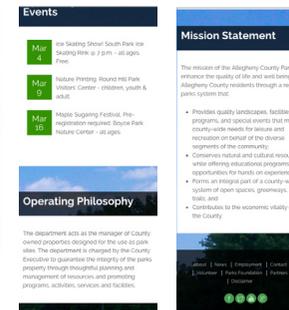
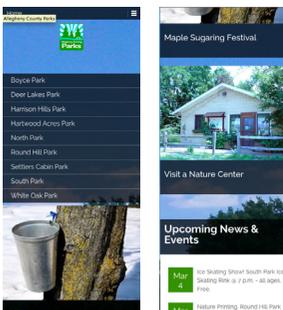
The background image can be easily changed to match the season.

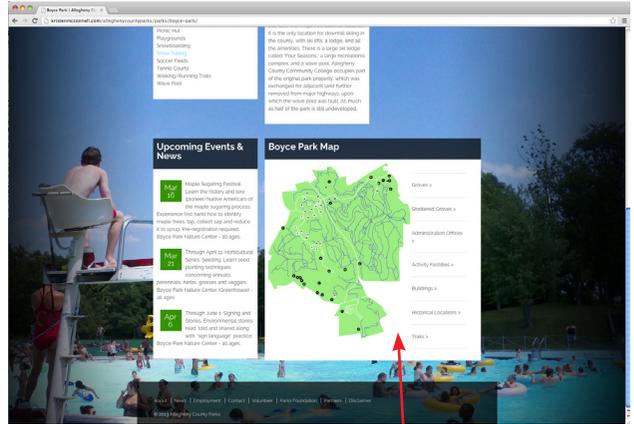
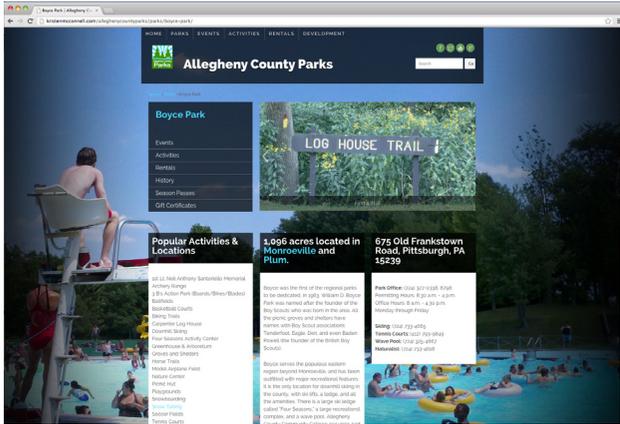


## Homepage: Tablet

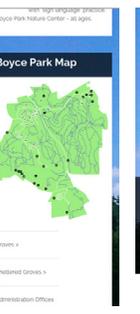
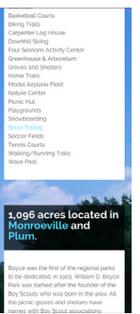
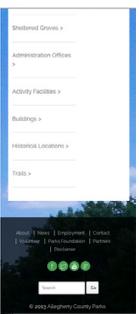
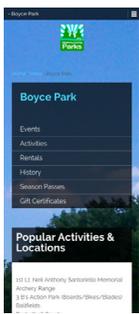
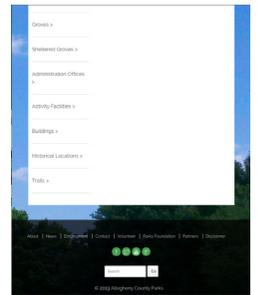
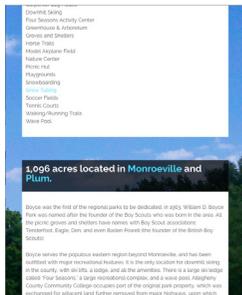


## Homepage: Mobile

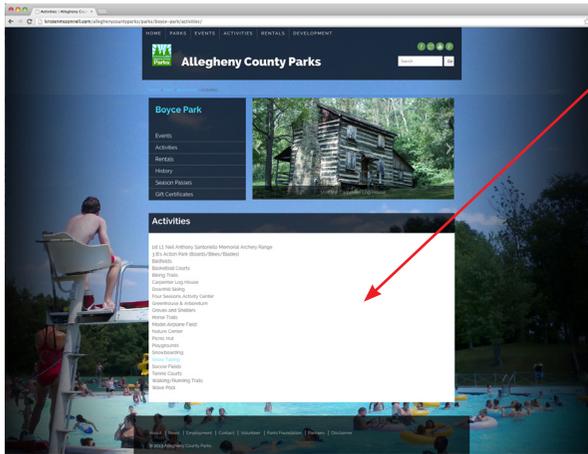




This area could transform into the interactive map that so many participants suggested.

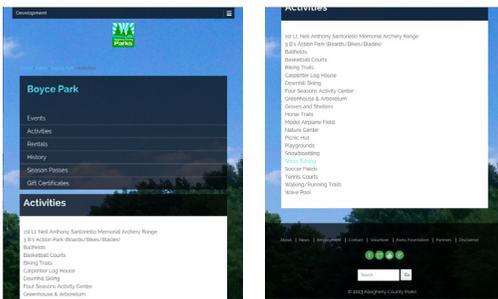


Home > Boyce Park > Activities: Desktop

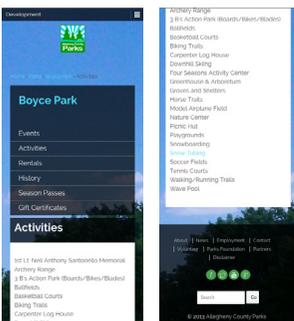


The listing should change into an interactive activity search (at the very least it, should be broken down into a multiple column layout).

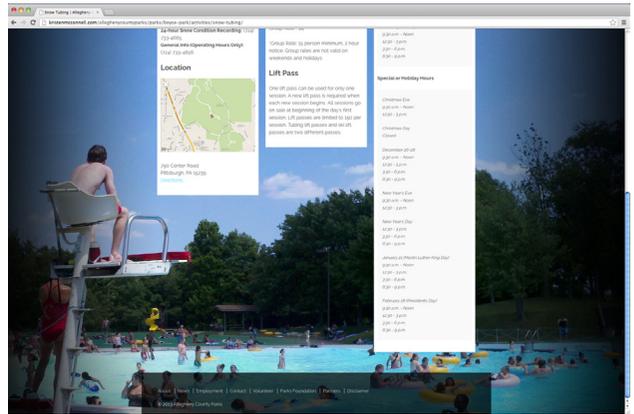
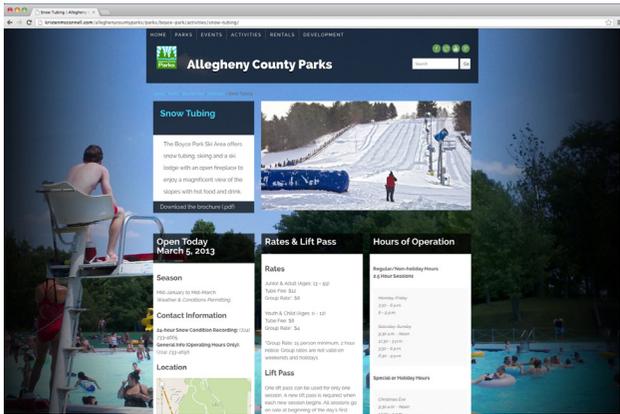
Home > Boyce Park > Activities: Tablet



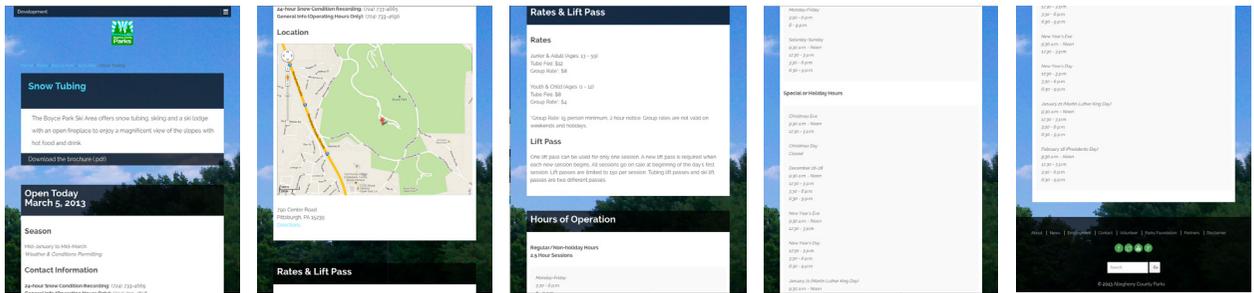
Home > Boyce Park > Activities: Mobile



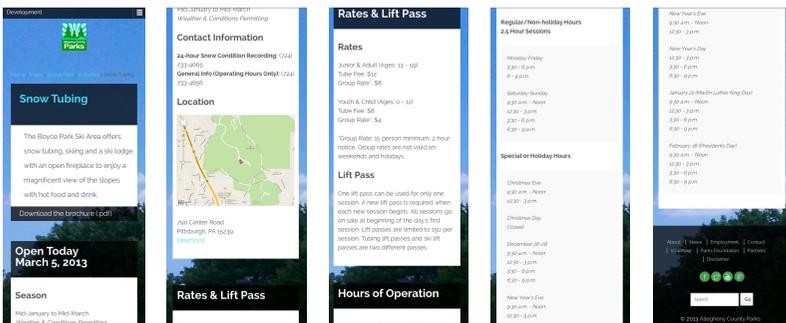
Home > Boyce Park > Activities > Snow Tubing: Desktop



Home > Boyce Park > Activities > Snow Tubing: Tablet



Home > Boyce Park > Activities > Snow Tubing: Mobile





This sign could help close the design loop. Patrons would be able to check shelter reservations that were made online, while they are in the park.

 INDIAN HILL



# Summary and Reflections

Analyzing how successful the project was by recapping key points and explaining areas of the project that can be expanded in the future

Allegheny County Parks currently suffers from trip/fall hazards at shelters, a lack of marketing efforts informing County residents about programs and services, seasonal staffing shortages, the poor condition of maintenance equipment, a lack of signage within the park as well as to the park from the larger community, and organizational structure issues. Also, the parks master plan questions if the programs and services offered by the parks actually match the needs or wants of County residents (Wallace 2002).

## **To counteract these problems, the methods and principles of service design, design thinking, and human-centered design research were used to imagine a brighter future for Allegheny County Parks.**

Literature reviews, observations, participation in services, surveys, and interviews assisted me in understanding the design space, which ultimately led to the identification of key service improvement areas: organizational structure, increase revenue, infrastructure, user-centered park policies and communications. Due to communications' potential as a first step in transforming the parks and affecting the other service improvement areas, park communications was explored further. Benchmarking showed that Allegheny County Parks does not communicate via as many communication channels as other highly ranked park systems and does not employ the same types of communications staff. Therefore, a new service ecology and communications system proposal for Allegheny County Parks was developed.

The system stands to greatly transform the dialogue between the County and the community, resulting in greater awareness, appreciation, visitation, loyalty, and the potential for new revenue sources (i.e., featuring historic sites more could lead to historic site-based grants or increased appreciation could result in a fruitful volunteer program). The system calls for more cross-promoted communication channels, a consistent branded message, and an increase in proactive communication by the County leading to more conversations. The website, activity finder, and reservation system prototypes provided a glimpse into the implementation possibilities of the new communication channels. By implementing this system, Allegheny County Parks will not just match the communication standards of other highly ranked park systems, but they have the opportunity to become a leader in park communications.

If I could continue this thesis, I would love to address some ideas that are not part of the current project scope, such as:

- How could the implementation of this communications system actually be achieved? Should it be a phased approach? If so, what should be phased in first? What should the Allegheny County Parks Foundation oversee and what should the County itself manage? What changes would need to be made to County philosophy and organizational structure (hires, moves, etc.)? I would like to gain access to a few County departments and employees, who I was unable to speak with during this project, to get their feedback.
- What would be the financial implications of this system? How much exactly does everything cost? What can be implemented immediately and how would money be raised for the rest of the system? Could any innovative funding sources, such as Kickstarter, be utilized? Could partnerships with the numerous universities in Pittsburgh assist in completing any of the work/research needed for the new communications system? For instance, the universities could host a "hack-a-thon," where students program a mobile app, or Allegheny County Parks could sponsor a course project, where students develop an interactive trail map.
- What would the details of each communication channel look like? What trends or questions would arise from the investigation into each channel?
- What would actually be the best technology solution for the new website? I chose WordPress for all of the benefits mentioned on page 106; however, WordPress isn't perfect. It has limitations for scalability depending upon site traffic. Many of these limitations can be avoided with proper server environment optimization, including site caching, load balancing, etc. A comparison of all available options, including the County's current web solution, would be beneficial.
- How could this communications system serve as a framework for other park systems? Would it only work for county-level parks or other parks systems as well (local, state, national, for-profit, non-United States)?



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ATTENTION ALL FLYERS  
PROHIBITED AREA  
PRE-FLIGHT  
FLYING

**DANGER**  
**LOW**  
**FLYING**  
**AIRPLANES**



# Appendices

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# Appendix 1

## All Improvement Suggestions from Allegheny County Residents on the Digital Survey

*A quote may be listed more than once if it fit into more than one category.*

### *Infrastructure, Maintenance and Event Ideas*

“Make [the parks] bigger.”

“Street lights so that runners can enjoy north park at night.”

“Better garbage pickup and cleanup.”

“Let natural areas be more natural. Better care of facilities.”

“Repair old benches and shelters.”

“Upgrade maintenance and programming in an integrated manner.”

“Maintain [the parks] better.”

“Improved maintenance.”

“More emphasis on keeping park clean and well marked trails.”

“The inclusion of multiple purpose trails like Presque Isle State Park.”

“More dedicated trails/paths for runners or walkers.”

“Have separate trails for walkers and for bikers. Walkers should be kept away from automobile traffic.”

“Add more Nature Trails.”

“More biking trails! With the cancellation of the Hartwood Festival of Lights, I recommend the County institute some ‘old fashioned family fun’ events throughout the park system....re-institute the Yuletide Log Hunt and Sleigh Rides at Hartwood, institute new programs at North/South/Boyce Park for the holidays like cookie baking contests, kid events, visits from Santa....use all the events as an opportunity to raise funds for Make a Wish or Project Bundle-Up or collect gently used winter clothing/coats.”

“Update some areas, create more walking trails, host more free events, programs, etc.”

“Level the pavement for the Running/Walking Trails. Make sure the Celebration of Lights at Hartwood continue every year.”

“Make walking areas that are designated.”

“Continue to improve walking/biking areas for safety.”

“Provide bait and tackle shop at North Park and maybe canoe rentals. Plant

more rhododendrons/mountain laurel and other native plants.”

“Lakes that are swimmable.”

“Make them more accessible for people without cars.”

“Update some of the park facilities like the pavilions and the restrooms.”

“Supply more bathroom facilities that are accessible through all seasons.”

“Newer restroom facilities and updated playground equipment.”

“Improve restroom maintenance.”

“More bathrooms or cleaner porta-potties.”

“More off leash areas for dogs to run, so that they will be on leash in other areas.”

“I would like more consistent events.”

“No longer going to have the lights at Hartwood-should have at least tried a modified schedule before eliminating it all together.”

#### *Policy and Conservation Ideas*

“Control noise. Slow auto and motorcycle traffic.”

“Increase security.”

“More police presence.”

“Improve the ecological conditions.”

“Let natural areas be more natural. Better care of facilities.”

“Provide bait and tackle shop at North Park and maybe canoe rentals. Plant more rhododendrons/mountain laurel and other native plants.”

“Invasive species management.”

“Let nature be more dominate.”

“Have more wilderness areas.”

“More detail to the landscape.”

“Upgrade maintenance and programming in an integrated manner.”

“Put in recycling bins.”

“Don’t have lights on at night.”

“Education for visitors to respect nature and clean up after themselves.  
Emergency call boxes for safety situations.”

### *Communications Ideas*

“Better website.”

“Better websites, more awareness.”

“[Create a] brochure/website with really good directions for people who didn’t grow up in Pittsburgh.”

“Send out a guide to County residents. I moved here five years ago, and I have never heard of several of the parks in your survey.”

“Send out reminders for events that are going on. I often do not remember they are there for fun activities.”

“Do more to promote the parks - especially the trails, nature activities.”

“Advertise their beauty.”

“Signage wasn’t clear. Got lost.”

“Maps.”

“Better trail maps.”

### *Misc. Ideas*

“Add more when possible.”

“I’m actually am not sure, because I don’t visit enough.”

“I’m not sure. More familiar with city parks.”

## **Appendix 2**

### **More Wishes/Improvement Suggestions Mentioned by Only One Patron during Patron Interviews**

- Add a place to fish.
- Create a water park for kids.
- Change the police presence, rules and permit requirements to make the park more welcoming.
- Stop the skate park from being trashed.
- Stop bikers from popping out of trails near the archery range targets. This is particularly dangerous when the archery range is in use.
- Improve the safety of the Wave Pool.
- Add more shade at O’Block Playground for parents and children.
- At the archery range, add backstops, provide rental equipment, add foam blocks and remove the metal strips around the hay.

## Appendix 3

### All Improvement Suggestions from Employee Interviews and Observations

#### *Infrastructure and Maintenance Ideas*

- Turn the Four Seasons Activity Center into a true all-seasons destination by holding concerts, etc. This could also eliminate the over crowding of the current facility during the ski season.
- Add more recreational activities, such as horseshoes, at the shelters besides the occasional swing and slide. Additionally, improve the quality of the playgrounds at the shelters.
- Have the deck hockey proposal come to fruition.
- Add a football facility.
- Update the bathhouse at the Wave Pool.
- Create a bigger ticket booth at the Wave Pool to ease the flow of patron traffic. Create a clearly identifiable exit.
- Upgrade the Internet connection at the Wave Pool, so the POS system that the County already invested in can be utilized to its fullest potential. This could also cut down on the amount of paperwork currently completed at the pool, which causes stacks and stacks of copies in the pool office. The paperwork flow could be streamlined. The manager said, “If I can find what I’m looking for in a five minutes time period, then I’m good.”
- Improve the safety of the Wave Pool by moving the perimeter fence closer to the pool, so the lifeguards and other employees can see jumpers. Add metal detectors at the entrance. Add cameras to the parking lot, where the shootings have occurred in the past.
- Improve the lighting for the lift stations at the ski area, so the lift attendants can properly do their jobs.
- Deal with the migrating geese that stop at the Wave Pool every July. They create a mess.

#### *Policy Ideas*

- Increase recycling efforts.
- Improve Wave Pool attendance by making the family pool passes be valid seven days a week and on holidays, instead of the current Monday through Friday and not on holidays policy.
- Implement a re-entry policy at the Wave Pool. Hand stamps could be utilized.

- Increase the price of activities within the park, so patrons will value the experience differently.
- Rethink the snow tubing ticket cap, because people are often turned away. If there is this much demand, should the facility be expanded as a result?
- Close the ski and snow tubing area earlier. Many of the employees are in high school and cannot stay until the current closing time. Additionally, ski patrol volunteers and seasonal employees have other jobs to get to in the mornings, so it is hard for them to work until closing during weekdays.

#### *Research Ideas*

- Conduct a competitive analysis on pricing, in order to make adjustments.
- Understand who the park users are to adjust their experience in the park to their needs.
- Conduct a financial analysis of the exact cost to run each facility. For instance, utilities are currently broken down by overall park and not facility.

#### *Communications Ideas*

- Collaborate with local businesses (i.e., mini vacation packages where you ski and stay at a local hotel)
- Improve the content on the website by adding FAQs for the Wave Pool and ski area, providing detailed directions to specific facilities in the park (not just the overall park address), adding ski lesson information, and creating an online reservation system for shelters and shopping cart for the purchasing of entrance or season passes.
- More actively promote and advertise events and facilities to the general public.
- Update the trail maps and trail wayfinding system.
- Update promotional materials.
- Via an electronic sign, social media message or website announcement, alert the public when facilities are closed.
- Improve wayfinding within the park. It is difficult to find your way once in the park. MapQuest, which the County website links to, doesn't accurately show the ski area's location. Add educational program signage.
- Make sure that the phone recording is turned on and updated every day at the Wave Pool. Add general information to recording. The currently messages are only updated when the pool is closed due to the weather and the content of the recording only states the closing.
- Improve the communication between the lifeguard stands and the office at the Wave Pool. The current wireless radios are not reliable. The lifeguards often have to run to the office if there is a problem.

- Update the PA system at the Wave Pool. Patrons and lifeguards have a hard time hearing the important messages.
- Add a phone to each ski lift. The current wireless radios break, so lift attendants have to run to the lodge if there is a problem.