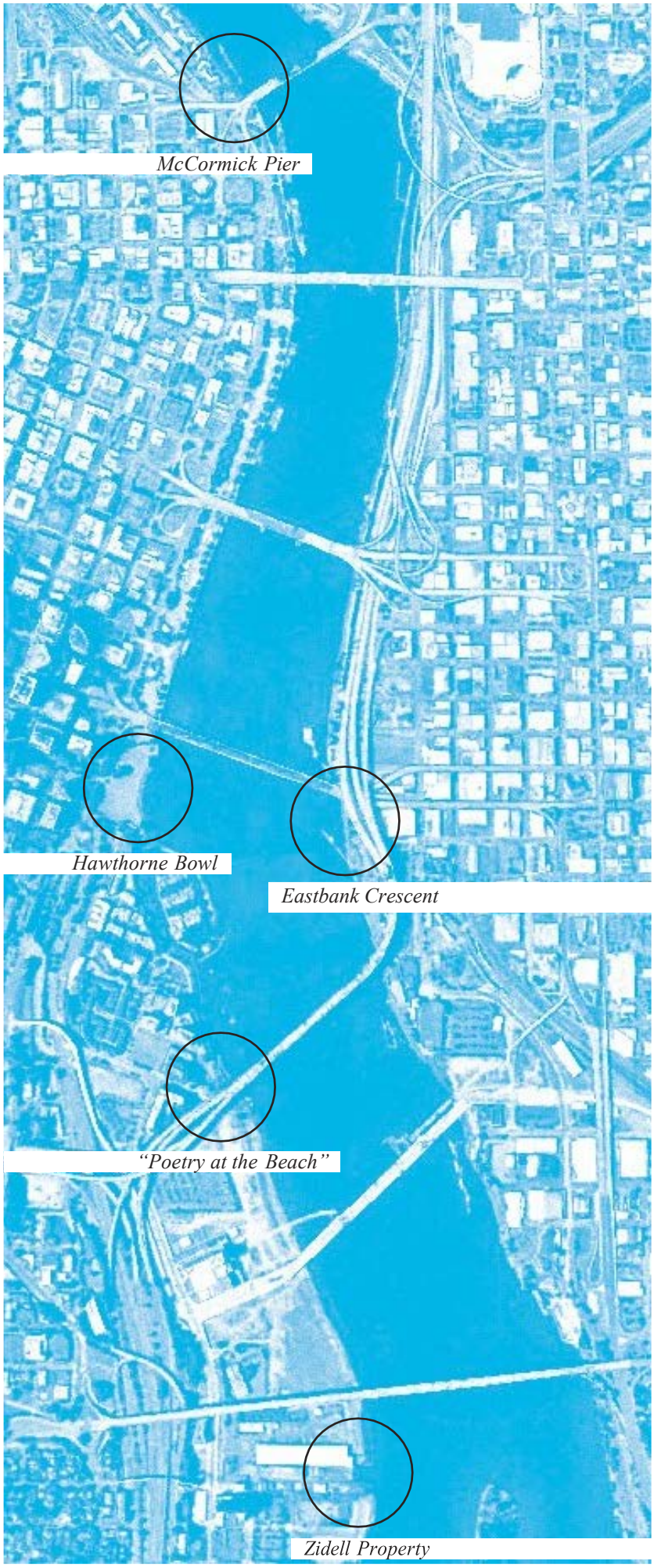
EXHIBIT A



Central City Potential Swimming Beach Sites Study

PORTLAND OR | OCTOBER 5, 2016

Prepared for

Bureau of Planning and Sustainability
Innovation. Collaboration. Practical Solutions.
City of Portland, Oregon

PORTLAND PARKS & RECREATION
Healthy Parks, Healthy Portland

In partnership with

Portland Development Commission
City of Portland-Bureau of Environment Services

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Introduction

The City of Portland has a variety of informal water access points along the Willamette River within the Central City. None of these river access points are specifically designed to welcome the public to the water's edge or address public swimming, but all hold potential for some level of improvements. Historically, swimming in the Willamette River was discouraged due to unsafe water conditions and water quality. Over the years, remediation along the river and the installation of The Big Pipe that addressed the combined sewer overflows into the river have lowered the contamination levels making the river safe for swimming and other recreational uses during most of the year.

This study addresses the increase in the public's desire to have access to the Willamette River for swimming and wading. The objective is to evaluate sites that have a naturally-occurring beach along with landside connection to determine their potential as safe, family-friendly public beaches. Each of these sites may be further studied for improvements and amenities that will meet future demands and encourage swimming as a recreational activity.

Five sites were chosen for study by the City of Portland, Bureau of Planning and Sustainability (BPS) and Portland Parks and Recreation (PP&R). Considerations included:

- Location within the Central City
- Current use as river access
- Presence of shallow water suitable for wading
- Public ownership, or current planning activities for future public recreational uses
- Location outside of and away from industrial areas

The five sites within Portland's Central City study area are not currently developed as formal swimming beaches. However, all of them have a level of defacto use in the summer given the increased demand for wading and swimming in the Willamette River.

The five sites chosen for the study are listed below from south to north. Four are on the west bank and one is on the east bank of the river:

- The Zidell property in South Waterfront
- "Poetry at the Beach" beneath the Marquam Bridge
- Hawthorne Bowl in Governor Tom McCall Waterfront Park
- Eastbank Crescent south of the Hawthorne Bridge
- McCormick Pier north of the Steel Bridge

Methodology

This study began with research of other beaches in the Northwest. The case studies pointed to the fact that most were not necessarily selected or planned as ideal locations for a public beach, but were already being used by the public for river access. In other words, beach activities informally took place prior to the sites being acquired and improved as public beaches to meet public demands.

Research of river beach sites in other jurisdictions was conducted through telephone interviews with city staff to discuss existing conditions, activities, public beach characteristics, safety concerns, and operations and maintenance issues. Cities include Bend, Hood River and Lake Oswego, Oregon; Vancouver, Washington and Boise, Idaho. Research results are found in Appendix C.

The beach evaluation criteria used in this study are based on information gathered from the interviews and relevant reports. The 1990 edition of *Recommended Standards for Bathing Beaches,* a report from the Great Lakes and Mississippi River Board of State Public Health and Environmental Managers, and *Swimming in the Hudson River Estuary,* Feasibility Report on Potential Sites, provide some guidance for safety criteria. Otherwise, there does not appear to be set standards for development of public beaches at the federal, state or local levels.

Public Outreach:

PP&R and BPS developed an outreach plan that targeted current and potential river users. Focused meetings with stakeholders and representatives of local swim groups, non-motorized boaters and environmental interests were held. A survey of potential beach users was conducted by PP&R to understand the desired activities for the Willamette River, as well as characteristics and amenities to enhance safety and the overall experience.

Surveyed groups included diverse youth and young adult communities, traditional, non-traditional and underserved communities, and various age groups and families. Responses were received from Portland Community College's Cascade & Southeast campuses, Matt Dishman Community Center, East Portland Community Center, and the Oregon Museum of Science and Industry. The Public Beach Survey results are found in Appendix B. Survey comments reinforced the importance of evaluation criteria used in the study.

While many people agree that river swimming and wading are generally favorable activities, discussions with river users and environmental representatives agree that safety should be the first priority. Prime factors include low current velocity, accessibility to and into the river, shallow gradients and visibility for policing.

Two areas of potential conflict were also raised. Shallow water areas are rare in the Central Reach of the Willamette River, and all of the sites evaluated are also prime areas for fish habitat enhancement. As future swimming and habitat restoration opportunities are considered at the sites, separation between the two uses are needed to both protect swimmers from underwater hazards and to prevent human encroachment into sensitive habitat areas.

The second potential conflict is between swimmers and boats. Proximity to large vessels and motorboat traffic can be hazardous to swimmers, and docks used by both swimmers and boaters can lead to unsafe conditions and user conflicts. Boaters may not see swimmers and sunbathers on docks can obstruct boat launching. Separation and/or clear demarcation of swimming areas are advisable.

Eighty-seven percent of survey respondents support the idea of a public beaches on the river, although many are concerned about safety of the river and water quality. Preferred locations for a public beach are near other family and cultural activities, and near a revitalized urban area with scenic views. Frequently mentioned characteristics and amenities for a successful public beach include:

- Feel like a natural area
- Shallow, slow water for young children
- Clearly identified swimming area (roped off)
- Access to public transportation
- Access to parking
- Restrooms and showers

Site Evaluation Criteria:

The evaluation criteria, selected based upon research of preferred beach conditions, user feedback and the public survey are:

Safety:

- Visibility
- Gradual bank slopes for wading
- Access
- Distance from outfall and discharge points
- Site remediation
- Limited user conflicts
- River characteristics

Site Characteristics:

- Sun exposure
- Gentle beach slope
- Length of shoreline
- Available upland area
- Available parking / transportation
- Beach surface materials
- Limited ambient sound

The criteria are not weighted, but those related to public safety are categorized separately from those related to other desirable beach attributes.

Site Evaluation:

An analysis of existing conditions was conducted at each of the five sites. Based on these existing condition, each site was then evaluated against the criteria.

Site Ranking:

Based on the evaluations, the sites were ranked relative to one another for each evaluation criterion. The ranking does not reflect a scoring of how well each site meets each criterion, but rather, provides a comparison among the sites as potential public beach sites. For example, the site that receives a 5 is the most desirable and the site that receives a 1 is the least desirable for that specific criterion. Collective rankings for the safety criteria and for the other attributes provide a picture of the comparative desirability of each site as a potential public beach.

Assessment of Needed Improvements:

For each site, an assessment of whether undesirable attributes could be improved and an estimate of general costs for these improvements was also conducted.

Executive Summary

Five Central City sites are compared to each other using evaluation criteria. The highest ranked site recommended for further study as a swimming beach is Hawthorne Bowl followed closely by "Poetry at the Beach" and the future Zidell Property. All three of these beaches have desirable existing attributes that would successfully support swimming as an activity. Eastbank Crescent and McCormick Pier are less desirable sites, ranking significantly lower than the other three. However, the Eastbank Crescent is the only site evaluated on the east side.

Hawthorne Bowl has the most favorable existing conditions. As shown in the site improvements diagram within the Assessment of Needed Improvements section of this report, this site has the greatest potential for improvements without significant modifications due to its current development and urban infrastructure. It has nearby parking in downtown and many connections to public transportation.

Similarly, "Poetry at the Beach" has many favorable existing conditions. It can be improved with minimal modifications to the beach. The future extension of SW River Parkway and the Willamette Greenway Trail will have positive impacts on this river access site. The Zidell Property is highly ranked due to its potential for public improvements with future development of the surrounding area.

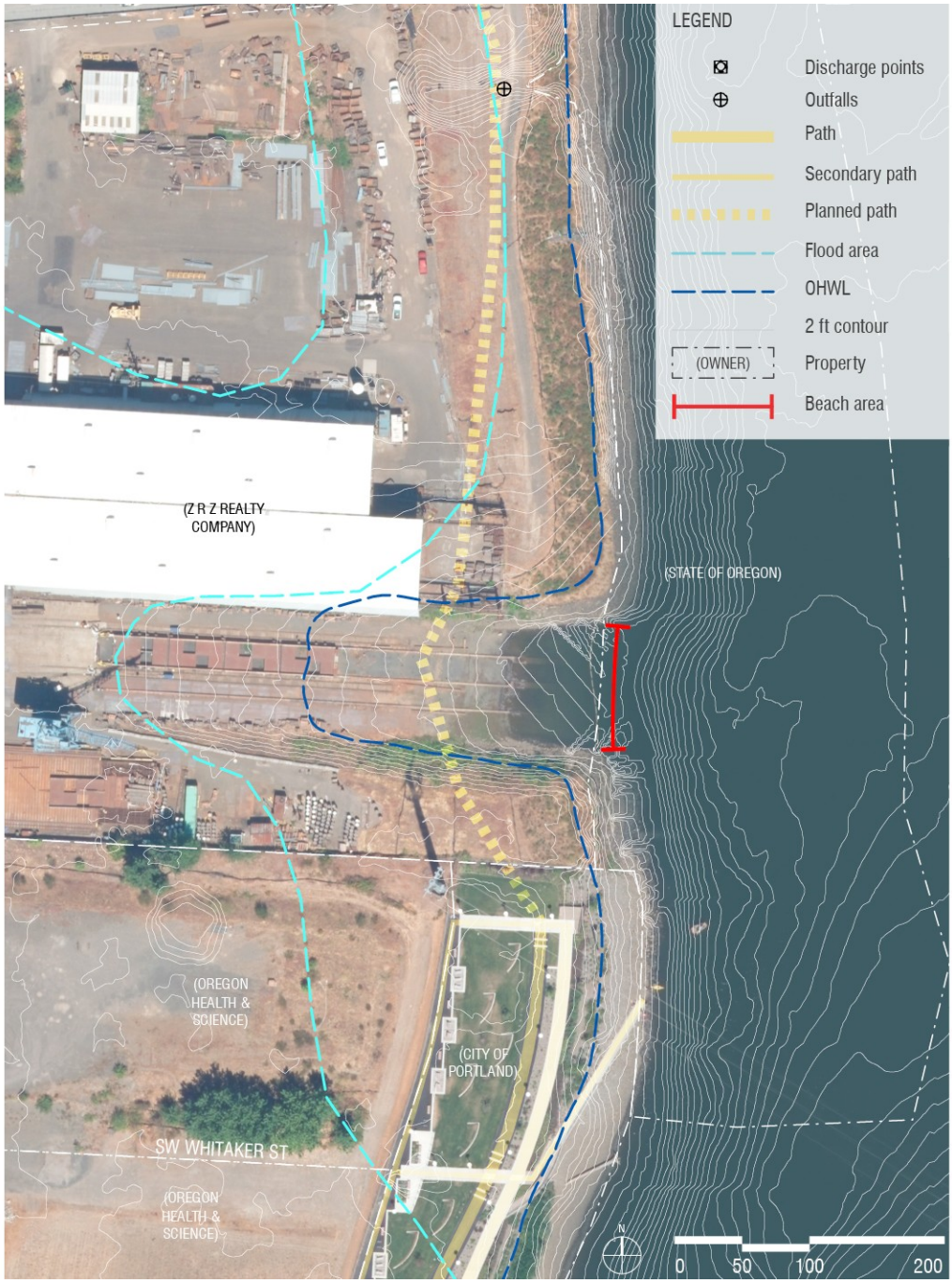
The Eastbank Crescent and McCormick Pier sites ranked lower than the others studied. Although they exhibit some existing favorable conditions for water access and swimming, they are more constrained in size and adjacent land area and would be difficult to improve relative to the others. Public access to the beach at McCormick Pier is further constrained by private ownership of the riverbank.

Site Descriptions

CENTRAL CITY LOCATIONS

ZIDELL PROPERTY

The potential beach on the Zidell Property is located at the existing barge slipway. The property is privately owned by Zidell Marine Corporation as part of an undeveloped 33-acre tract of land on the west side of the river south of the Tilikum Crossing bridge. The largest undeveloped tract of land within the Central City, it is currently being planned for a mixed-use community called Zidell Yards. The length of time for closing the current barge repair industrial use and build-out of the property is unknown at this time. There are improved segments of the existing Willamette Greenway Trail to the north and south; in the future, the trail will connect through the Zidell property. The South Waterfront Greenway Master Plan indicates re-use of the industrial slipway as a potential public swimming beach.



* Flood area is based on the 100-year flood line

Zidell Property – Site Photos

"POETRY AT THE BEACH"

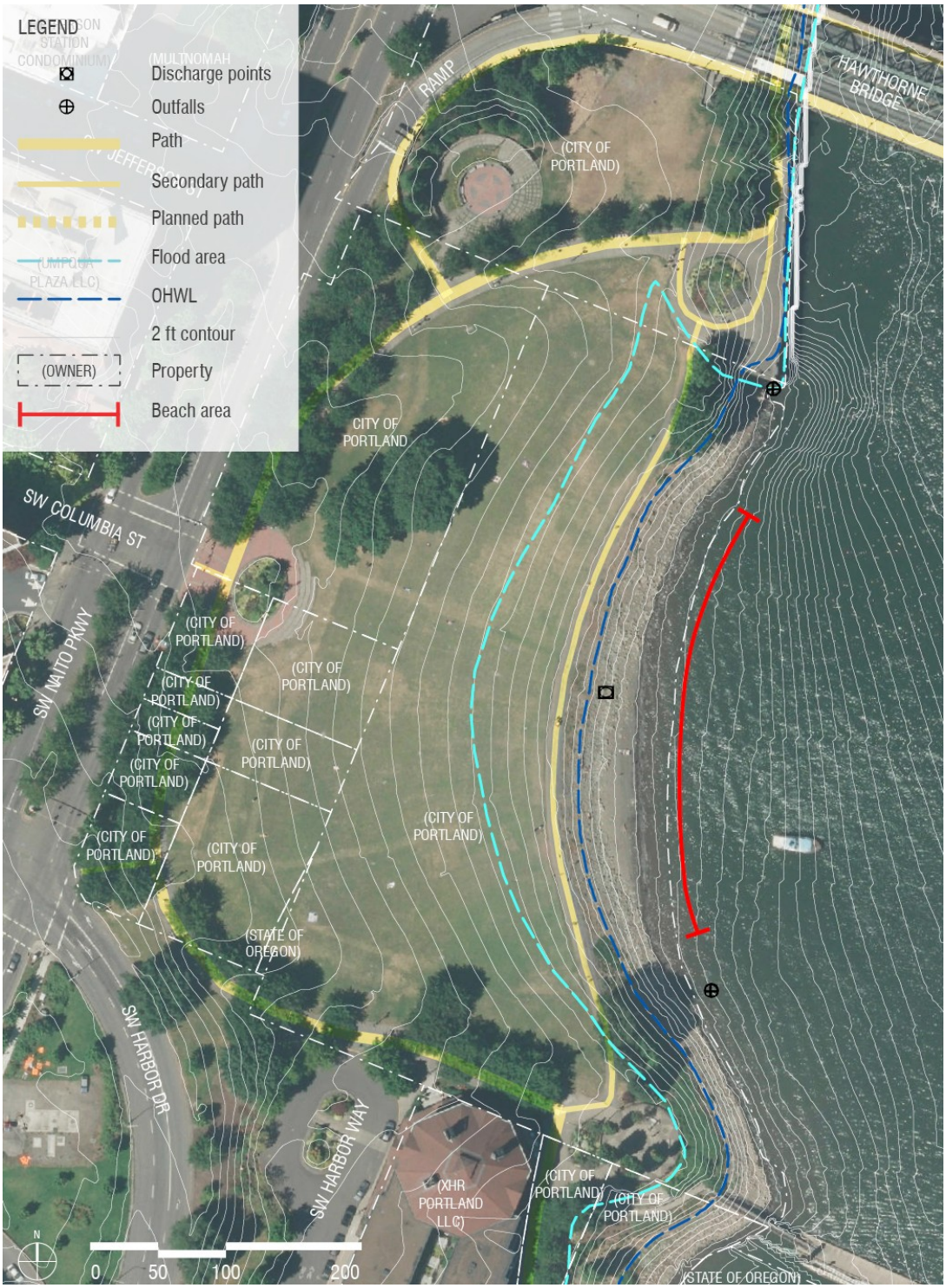
Located under the Marquam Bridge on the river's west side is a site unofficially termed "Poetry at the Beach." This public property at the current terminus of the Willamette Greenway Trail has an improved viewpoint overlooking the river and two paved pathways down to the water. Cleared of riprap, the southern path provides access to a naturally-occurring sandy beach. Approximately 15 ft. of riprap and 45 ft. of steep riparian planting zone separate the beach from the trail.

* Flood Area is based on 100-year flood line

“Poetry at the Beach” – Site Photos

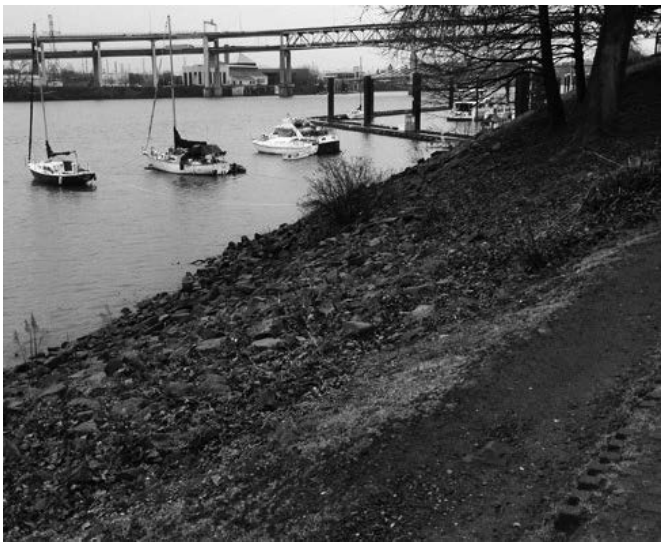
HAWTHORNE BOWL

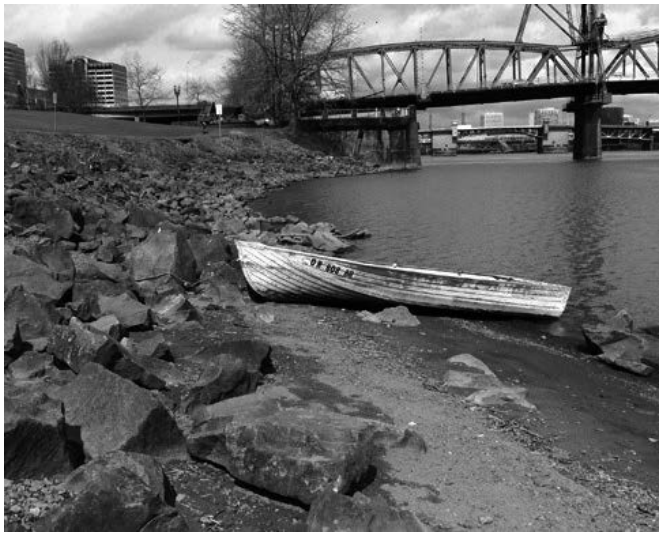
This site is located within Governor Tom McCall Waterfront Park south of the Hawthorne bridge. Access to the beach is provided by an existing eroded pathway at the top of the bank. A large sloping lawn extends west of the waterfront and hosts many events during the summer months. Observation points overlook the river at the north and the south ends.



* Flood Area is based on 1996 flood line

Hawthorne Bowl – Site Photos





EASTBANK CRESCENT

This site is located on the east side of the river at the south end of the Hawthorne Bridge next to the Vera Katz Eastbank Esplanade. Access is possible over an unimproved steep dirt slope down to the water beneath the bridge. The well-used Holman Dock to the south is intended for light water craft, kayakers and crew teams but has become a popular hangout for sun bathers and swimmers on hot summer days resulting in a conflict of uses.

* Flood Area is based on 1996 flood line

Eastbank Crescent – Site Photos

MCCORMICK PIER

An existing unimproved beach is located north of the Steel Bridge on the river's west side. The beach and the surrounding area are privately owned by the McCormick Pier Condominiums. A segment of the Willamette Greenway Trail is located on an easement through the private property. Approximately 15 ft. of riprap separates the beach from the trail. A rough, steep desire path to the beach has been cleared of riprap. A gated pier for private boat parking is northeast of the beach.

* Flood Area is based on 1996 flood line

McCormick Pier – Site Photos

Evaluation Criteria

The general audience of this study is assumed to be families with children. Recreational users are assumed to have a range of abilities, risk factors and desired activities. In other words, a desirable beach experience for young, athletic adults may be very different than other swimmers and families. The evaluation criteria used throughout this study are broken into two main categories: safety and site characteristics:

Safety:

- Visibility
- Gradual bank slopes for wading
- Access
- Distance from outfall and discharge points
- Site remediation
- Limited user conflicts
- River characteristics

Site Characteristics:

- Sun exposure
- Gentle beach slope
- Length of shoreline
- Available upland area
- Available parking / transportation
- Beach surface materials
- Limited ambient sound

After completing analysis of existing conditions at the five sites, each was evaluated against the criteria with safety as the number one priority. Based on this evaluation, the sites were then ranked relative to one another for each evaluation criterion. The results are depicted in a ranking diagram without weighting the criterion to develop an overall score.

Most importantly, the ranking diagram shows the potentials of each site relative to the others. For example, the site that receives a 5 is the most desirable of the five sites for that specific criterion while the site that receives a 1 is the least desirable. It should be noted this is not a scoring of how well each site meets the evaluation criterion, but only a comparison among the sites.

The ranking system applies to the existing conditions of the sites, knowing that all of them will need varying levels of improvements to become a swimming destination suitable for the general public. Two collective ranking summary diagrams, one for each category, follow the discussion of individual evaluation criteria and ranking diagrams.

The design team ranked the sites based on information gathered from GIS, site visits, Memorandum of Findings, and consultant expertise. The Memorandum of Findings in Appendix C summarizes the interviews conducted with other jurisdictions outside the City of Portland that allow river swimming as well as rules and regulations in place.

Evaluation Criteria - Safety

VISIBILITY

Open sightlines from trails or nearby development may enhance public safety by providing "eyes on the site." It is assumed that an urban public beach should be visually connected with active roadways and multi-use trails. In addition, the ability for people to see others enjoying riverside activities will likely increase the popularity. Sites adjacent to established development may be more popular but also more difficult to improve than sites that are currently underdeveloped or planned for future development. Recommendations for changes to transportation, existing development and urban infrastructure to increase visibility are beyond the scope of this study.

Site Specific Information

Zidell Property	The beach has low visibility due to its current location on private property and distance from the nearest public street, Moody Avenue. Views of the beach are blocked by large buildings and industrial equipment to the north and west. The beach is visible from the Willamette Greenway trail to the south. Future development of the Zidell Property and the extension of SW River Parkway and the Willamette Greenway trail will increase the visibility.
"Poetry at the Beach"	The beach site is located at the current terminus of the Willamette Greenway Trail at the end of SW River Parkway. At the fringe of existing development, the site lacks exposure, use and is not highly visible at this time. Some visibility is provided by a few pedestrians, runners and nearby residents. Future development of the Willamette Greenway Trail will increase its visibility and popularity for swimming.
Hawthorne Bowl	The Hawthorne Bowl is the most visible of the five sites given its location in the popular Governor Tom McCall Waterfront Park. Upland is an open lawn frequented by sun bathers, recreational users, and picnickers during the summer months. The beach site is highly visible from SW Naito Parkway, the Hawthorne Bridge, the Eastbank Crescent across the Willamette River, and the Marquam Bridge.
Eastbank Crescent	This site is highly visible from the heavily used Vera Katz Eastbank Esplanade. However, there is low visibility from streets due to its location below the Hawthorne Bridge and distance from Water Avenue. An office building and a parking lot block views from the street. It is very visible from the city's west side.
McCormick Pier	The beach site is located along the Willamette Greenway Trail bringing frequent pedestrians, runners, and cyclists during the day. The proximity to the residential units also increase its visibility. However, its visibility from the adjacent Steel Bridge is somewhat difficult due to the view angle. Views from SW Naito Parkway are blocked by dense vegetation, a parking lot, and residential units. Visibility from the trail is further restricted during the hours of 10:00 pm and 5:00 am when the trail is closed by the company that manages the McCormick Pier Condominiums due to safety concerns potentially related to its low visibility.

Visibility Ranking Diagram

GRADUAL BANK SLOPES FOR WADING

Ideal swimming beaches include a shallow sloping shoreline free of drop offs, where the bottom generally is gradual as one moves into the water from shore. A shallow water area safe for children was deemed to be important in the Public Beach Survey. Submerged drop offs are particularly problematic for non-swimming waders, and ideally the river bottom should be fairly uniform. Submerged rocks, debris and varying water levels can pose challenges for both swimmers and waders. The existing underwater conditions are generally evaluated at a larger scale. Small grade changes or seasonal conditions are difficult to predict or control in a river. Therefore, existing conditions are only general in this evaluation.

Recommended Standards for Bathing Beaches note that for depths up to 4 ft., the slope should not exceed 1:5, and at greater depths, should not exceed 1:3. River sites that meet these requirements in all conditions is unrealistic. When the 4 ft. depth at low water is combined with the seasonal water variation of at least 16 ft., the horizontal area needed to meet the requirement is between 60 ft. and 100 ft. of uniform beach. Beaches on the Willamette do not generally have a uniform slope over the entire section due to seasonal water variations. This particular criterion includes some subjective and generalized interpretations.

Site Specific Information

Zidell Property	This site is currently used for launching new barges on a rail system. The bargeway ramp shallowly slopes to prevent damage to the barge, and the rails extend into water several feet deep. However, the slope drops off quickly at this point because the current in the main river has not allowed filling to occur. Filling into the river to eliminate this drop off is possible; however, a large volume of material may be required to achieve an acceptable underwater slope. It would also require sufficient underwater armor of riprap or other material to resist continual erosion. Cutting back the shoreline to create a shallower submerged slope is possible, however it could potentially affect the brownfield sediment cap issues (see Site Remediation, page 25).
"Poetry at the Beach"	While not specifically designed for public access, this beach has slowly formed ideal underwater conditions of a moderately gentle beach entering the river with generally flattened slope. This allows entry to the water and wading into deeper water over a sandy bottom.
Hawthorne Bowl	The slope and depth in the river appear to be generally favorable to wading and the gradient generally gets flatter as one enters the water. However, at some point, the riverbed does fall away into much deeper water.
Eastbank Crescent	A limited area of shallow underwater riverbed exists adjacent to the site; however, these grades will be extensively changed by a future brownfield sediment capping project. These changes to the underwater contours could significantly impact the existing wading conditions. Selection of the cap material will impact the walking

surface from the naturally formed river contours and bed that has formed and established a general equilibrium of sandy deposits over time.

McCormick Pier — This natural sandy beach is typical of an inside bend of a river. As this beach was formed during higher water flow and is adjacent to deep water, a steep drop-off appears to be just beyond the flatter beach section. River sands accumulate during high water higher on the bank, and are eroded at the toe of slope where river velocity is higher. This beach is established by the balance of the river sand accumulation and erosion cycles that can change over short duration, depending on river flows.

Gradual Bank Slopes for Wading Ranking Diagram

ACCESS

A public beach should be safely accessible to all users, abilities, and emergency personnel. Access to the beach should be open to the public and away from vehicular traffic. Pathways down to the beach should be paved and clear of boulders and riprap. If safe public access is not currently provided, a public universally accessible route should be made available if possible. Public access down to the water's edge is not recommended where steep, difficult or hazardous terrain are present and where available upland space is limited.

Safe public access to the beach will also significantly increase the efficiency and safety of first responders during emergency situations. Although Portland Fire & Rescue does not have authority or standards for access to recreational areas for medical calls or for ambulance parking, it is recommended that a path for 4-wheel all-terrain vehicles is desirable, but is not required. In communication with the River Rescue Program Coordinator at American Medical Response, an ideal access has minimal obstructions for first responders to rescue accident or crime victims. Alternatively, a paved pathway that allows access for emergency personnel carrying heavy bags or an inflated raft and a wheel gurney (averaging a total weight of approximately 240 lbs.) would be beneficial. This criterion does not take into account first responders' access to the site itself, but only within the site.

Site Specific Information

Zidell Property — Currently this site on private property has no public access to the water. Given the proposed beach site within the barge slipway is still being used for marine launch and repair, improvements will be needed to transform this location from its current operations to make it safe for public access. However, the access could be straight-forward and future improvements can be designed with emergency access in mind.

"Poetry at the Beach" — The existing beach has a paved sloped walkway down to the water's edge. Towards the bottom of the sloped walkway, a small undeveloped path is cleared through the boulders and riprap to access the beach. To the north, another sloped

walkway is provided down to the water's edge. This pathway is surrounded by dense vegetation and is not associated with the nearby beach.

The beach does not have direct vehicular access for emergency vehicles, however the extension of the Willamette Greenway Trail to the south could provide vehicular access to the site.

Hawthorne Bowl

The park currently provides access to the water, however access to the water's edge is not necessarily safe or direct. The eroding pathway at the top of the river bank has a steep cross slope made up of coarse concrete block pavers. It does not meet the Americans with Disabilities Act (ADA) criteria and, in its current condition, is not friendly to bicycles or pedestrians. The path is separated from the sandy beach area by an approximately 30 ft. wide slope of riprap. A few desire paths have been cleared through the riprap to provide informal access to the water's edge.

The site has access points for emergency vehicles along the Willamette Greenway Trail and off SW Naito Parkway. The most direct access point for first responders to Governor Tom McCall Waterfront Park is along SW Naito Parkway at SW Columbia St.

Eastbank Crescent

Access down to the water's edge is from the Vera Katz Eastbank Esplanade underneath the Hawthorne Bridge along a steep dirt slope. There are large boulders and stepped conditions prior to reaching the water's edge. Large erosion channels are also present along the sloped access way. Steep terrain, bridge footings and limited space will prevent ADA access to the water's edge. However, ADA access to viewpoints on the bank are possible.

A newly remodeled Portland Fire Bureau station is one block to the north at SE Madison Street. The beach has many access points for emergency vehicles along the Vera Katz Eastbank Esplanade and the adjacent surface parking lots. The current Willamette Greenway Trail has not been improved to the south toward the Oregon Museum of Science and Industry.

McCormick Pier

Public access to the river was assumed to be available at this site as people frequently step off the Willamette Greenway Trail to reach the beach. In evaluating the site, it was discovered the land between the trail and river is private property and public access is not permitted. An undeveloped pathway across this strip of private land traverses steep slopes, boulders, riprap and stepped conditions. The company that manages the McCormick Pier Condominiums patrols public use of the beach during the day in addition to closing the trail to the public from 10:00 pm to 5:00 am.

The beach does not have direct vehicular access down to the beach for emergency vehicles. Emergency vehicles would likely access the site from NW Naito Parkway and first responders would proceed along the Willamette Greenway Trail to the beach.

Access Ranking Diagram

DISTANCE FROM OUTFALLS AND DISCHARGE POINTS

There are a number of outfalls and discharge points located along both banks of the Willamette River. A discharge point is considered to be the end of any drainage pipe. An outfall is a discharge point where municipal stormwater drainage enters the river. Flow from many of these outfall and discharge points has been intercepted by the "Big Pipe" Combined Sewer Overflow (CSO) project, and seasonal overflows of raw sewage is not the issue it was a decade ago. However, stormwater discharges do occur typically during the fall, winter and spring seasons. These discharges can potentially contaminate natural water resources with heavy metals, fertilizer, contaminants from roadways, bacteria, and viruses. As rainwater flows over urban city conditions such as streets and rooftops, it collects in storm drains and eventually flows out to the river. Water near the outfall pipes or discharge points tends to be calm, shallow, and warm but is not necessarily clean. It is not recommended for people to have contact with water from the outfall pipes or discharge points, especially if it has rained in the prior 24 hours. Whether or not an outfall pipe or discharge point is located near the beach, the river should have good circulation and the sites should be tested regularly for contamination.

Site Specific Information

Zidell Property	The nearest outfall pipe is abandoned and should have no flow from it. The next nearest pipe is located approximately 373 ft. downstream of the potential beach location.
"Poetry at the Beach"	A stormwater-only discharge point is located on the beach, directly below the Marquam bridge. An additional controlled CSO outfall pipe is located approximately 163 ft. upstream from the southern edge of the beach.
Hawthorne Bowl	A stormwater-only discharge point is located on the beach. Two additional stormwater-only outfall pipes are located on the northern and southern extents of the beach.
Eastbank Crescent	There are two stormwater-only discharge points located upstream of the beach. One is approximately 82 ft. and the second is approximately 520 ft. measured upstream from the southern end of the beach. Additionally, there are two stormwater-only outfall pipes located nearby. One outfall is located downstream approximately 105 ft. from the northern beach area. The second outfall (OF 33) is located upstream approximately 250 ft. from the southern extent of the beach and is selected for abandonment and stormwater to be rerouted by Portland Bureau of Environmental Services. It was determined that the outfall infrastructure is damaged, resulting in stormwater discharging underground upstream of its terminus, into the riverbank.
McCormick Pier	There are no known outfall pipes or points of discharge in or near the vicinity of the beach. The nearest outfall upstream of the beach is located under the Burnside Bridge and is approximately 1,730 ft. from the southern end. The nearest outfall downstream of the beach is located under the Broadway Bridge and is approximately 1,650 ft. from the northern end.

Distance from Outfalls and Discharge Points Ranking Diagram

SITE REMEDIATION

The Willamette River has a long history of uses which introduced contaminates and sediments to the river over the years. In some areas, contamination of the sediment exceeds human health standards and sometimes the more stringent wildlife health standards. Multiple jurisdictions are involved in evaluating contamination and necessary solutions based on best available science. The Oregon Department of Environmental Quality (DEQ), Clean-up Program, is the lead agency on most site remediation efforts, working closely with the Federal Environmental Protection Agency if the site is located in the lower harbor Super Fund area.

Sediments typically occurring in any given swimming area are below ordinary low water (OLW) and generally on Department of State Lands property. Clean-up and capping of sites is an ongoing process and efforts are based on standards that are updated periodically based on new science, thus details of specific contaminants and public exposure risks are beyond the scope of this document.

This study includes specific constraints that are introduced to address contamination by past and current site remediation efforts. Many of these remediation efforts limit public access, and restrict ability to change bank contours and river bottom conditions.

Site Specific Information

Zidell Property	The Zidell property recently completed an extensive upland and sediment cleanup and capping effort for the entire site, including the area considered for the beach access. If this area is opened for public access portions of the cap may require adjustment and modification.
"Poetry at the Beach"	This site was the previous location of an electrical generation facility and various fuel sources were present at the site over its history. As part of the South Waterfront Park development, the site was cleaned up and rock armor was placed on the bank to cap the shoreline. A demarcation layer and new soil was placed on the upper bank and vegetated with native plants. New clean sand was placed along the lower shoreline to create a beach. This sand also provided a cap over the existing underwater sediments. Some of the sand has moved down stream in the years since this project was constructed.
Hawthorne Bowl	This post-Harbor Drive waterfront park was developed in the 1980s as part of the nearby Riverplace project which included construction of the marina and breakwater. Work was not directly completed as part of any environmental action. No recent development has occurred on the site which would have triggered need for additional investigations.
Eastbank Crescent	This area is subject to an active Record of Decision with DEQ to address and cap contamination at the site. Work includes adding an isolation sand layer, rock armor and habitat gravels over the existing sediment. This work is below ordinary low water, however some sections extend up the shoreline and may impact beach access and surface materials.
McCormick Pier	This site was formerly Portland Gas Manufacturing, simply referred to as PGM. This site was one of the first sites along the river to redevelop from industrial use to housing, and thus standards and techniques for remediation used back in the 1980s were not to the level followed today. The riprap placed on the riverbank was likely only used to retain the shoreline contours and not part of any capping efforts. The sand along the beach has accumulated naturally and is not part of a capping effort.

Site Remediation Ranking Diagram

LIMITED USER CONFLICTS

An urban public swimming beach has the potential to create an environment with user conflicts. Some include, but are not limited to: other swimmers, motorized boats, use of boat docks/piers, light watercraft launches, fishing, and habitat restoration areas. Some potential swimming beach locations could have more foreseeable user conflicts than others due to the size of the area and proximity to other activities. Minimizing these conflicts may directly influence the success of the area especially related to families and safety of children.

Many of the jurisdictions interviewed during the research phase of this study expressed the presence of dogs off leash as a primary conflict on site. Although off leash behaviors can create a major user conflict, they are not necessarily in response to the specific beach location. The presence of dogs on or off leash should be addressed at the policy and programing level of the design phase and is not considered part of the criterion of this study.

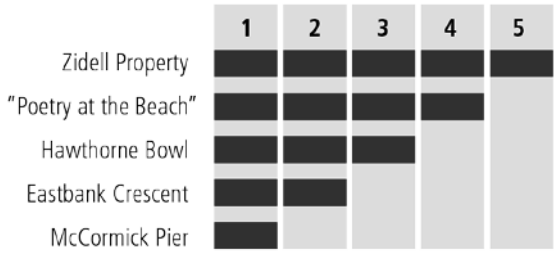
Site Specific Information

Zidell Property	The potential beach site is cut into the bank, creating a swimming node that can be easily roped off from boaters and other light watercraft users. Foreseeable user conflicts might include conflicts between swimmers.
"Poetry at the Beach"	The swimming area is protected from the main navigation channel by columns of the Marquam Bridge. This will add some protection for shallow water swimmers from conflict with boats however, light water craft launching could become a potential user conflict with swimmers.
Hawthorne Bowl	Although the site has generous upland space and a lengthy shoreline to help distribute beach goers and recreational uses, the in-water potential conflicts are still present. A large number of motorized boats come to this beach to park recreationally for the day or for an indefinite amount of time. Numbers increase substantially when large summer events occur at the park or fireworks displays. Many of the boats that moor at this site tie anchor lines back to the beach that can cause conflicts for swimmers. Additional potential user conflicts include swimmers who swim across the river to the Holman Dock or Eastbank Crescent. The public boat dock directly upstream of the beach should minimize the amount of user conflict from light water craft launching.
Eastbank Crescent	This "cove-like" beach is partially protected from large ships by the Holman Dock directly up steam and the columns of the Hawthorne Bridge directly downstream. The main potential user conflict exists between light water craft users on the Holman Dock and swimmers. Swimmer/sunbathers occupy the dock and leave little to no room for the light water craft users. Establishment of a public swimming beach at the Eastbank Crescent site could potentially add to the existing user conflict unless other site improvements or posted regulations at the dock are

addressed. Additional potential user conflicts include swimmers trying to swim across the river to the Hawthorne Bowl.

McCormick Pier — If the beach was to made accessible to the public, the main user conflict at the beach is with the private boat dock. This dock parallels the beach and ranges from 45-65 ft. from the average high water elevation of 10 ft. during mid to late summer. This narrow swimming area, although protected from the large navigational channel by the dock, is heavily used by private motorized boats. User conflicts could arise with swimmers as motorized boats head to and from the dock. Keeping swimmers and sun bathers off the private dock could become an issue as well. Additionally, light watercraft launching at this narrow swimming area could present some user conflicts with the motorized boats and with the swimmers.

Limited User Conflicts Ranking Diagram



RIVER CHARACTERISTICS

Swimming beaches on rivers typically have a combination of changing environmental factors that impact the risks and user experience, especially when compared with more protected swimming areas within lakes. Many of the conditions change with the seasons, however the primary criteria controlling success is water temperature. Generally, the members of the public do not swim when water is too cold, unless wearing a wet or dry suit. Even short periods of contact with cold water can result in hypothermia.

The rivers in Northwest Oregon are fed from flow from Cascade Mountain snow pack, which results in very low water temperatures during spring and early summer. Warm weather and sunny conditions typically begin before water temperatures are suitable for swimming. Water levels are also typically near ordinary high water in the spring and do not begin receding until after early July. Beaches are submerged, drop-offs hidden and currents are higher. High current and cold water creates an inherently dangerous combination. Since all sites in this study share the same river water, water temperature is not used as a comparison criterion.

River turbidity is also an issue for swimming. Turbidity levels are typically high in the fall after heavy rains, and visibility is limited to a few inches or feet until late summer. Poor visibly can impact user experience and safety while wading, swimming and diving from docks. Again, all sites in this study share the same river water so turbidity is not used as comparison criteria.

River stages also vary with the season, directly affecting the available size of a beach and bottom conditions. People generally swim when the water is warmer, which typically occurs after early July and before end of September. The small tidal influence with a range up to 3 ft. also changes river elevations on a daily basis. Tides impact the flow velocities and can cause the river to flow “upstream”. Upstream flow is also possible in some areas due to larger river eddies which also vary with river stage and tides. These factors are common for each site, however they can result in site specific conditions that can be favorable and unfavorable for access.

River velocity can have a direct impact on suitability for swimming. *Recommended Standards for Bathing Beaches* states that new bathing beaches should be prohibited where velocity exceeds 3 ft./second. Swimmers are typically

capable of 1-4 ft./second of velocity, with the higher value being a seasoned swimmer. Some swimmers may not even be capable of 1 ft./second for any sustained period of time. Ensuring that public is warned about areas with velocity faster than an established threshold is critical to the safety of any river access point. Based on river modeling the velocities vary with tide, river stage, proximity to shore and depth. Velocities in summer months commonly range from 0-1 ft./sec with values of 5-7 ft./sec during floods and downstream of major river constrictions, such as bridge footings, sea-walls and other structures.

Any public beach on the Willamette River should include signage to inform the public of potentially hazardous conditions including variations in the river temperature, velocity, current, turbidity, floating or submerged debris and specific bank conditions.

Site Specific Information

Zidell Property	This site is well protected from typical summer prevailing winds, as well as strong south winds. The site is more exposed to vessel generated waves and wakes, but somewhat protected by the flanking walls layout. Current is limited in the bargeway, but quickly increases as a user approaches the main river body.
"Poetry at the Beach"	This site is well protected from typical summer prevailing winds and set back from the main river channel. Limited debris accumulates on the beach and velocities are lower near the shore. Under some conditions, the flow moves upstream at this site.
Hawthorne Bowl	This site is well protected from typical summer prevailing winds, however, it is near the main river channel. Large vessels are typically slow to pass under the bridge and limit large wakes. The proximity to the marina establishes a no-wake area within 200 ft. of the docks, which is generally followed. Flow velocity is generally low near the beach, however, it does increase toward the channel. This site is largely protected from floating debris by the marina, however heavy use of the area leads to litter on the riverbank and beach.
Eastbank Crescent	This site is well protected from typical summer prevailing winds. The site is well away from the main channel, however smaller power boats pass by and do not necessarily stay in the channel. The site is just downstream from the Holman Dock which establishes a 200 ft. no-wake zone and is generally obeyed. Velocity is generally low very close to shore, however it quickly increases near the bridge pier and channel constriction. Some floating debris does accumulate on the beach but it generally not a significant issue.
McCormick Pier	This site is exposed to summer prevailing winds and waves. The long fetch in the north reach of the Willamette can generate waves that are unpleasant to boaters and possibly swimmers at the site. River velocity is lower as evidenced by the accumulation of sand, and protection by the upstream sea-wall. A small eddy is likely during some flow conditions and river stages.

River Characteristics Ranking Diagram

Evaluation Criteria – Site Characteristics

SUN EXPOSURE

Sun exposure is an important factor for users of a swimming beach, given the most popular time of year to visit a beach is likely during the summer on a hot, sunny day. Ideally, a beach should be exposed to the sun for the majority of the day. The peak hours for most visitors are from late morning to late afternoon. Although people typically visit beaches to soak up the sun, beaches should also offer some shade either through vegetation and/or small overhead structures. Increasingly, many users bring their own small lightweight canopies.

Several of the beaches in this study are near bridges or freeway overpasses that cast large shadows on the sites. A beach that does not have much sun and is mostly shaded throughout the day may not be as desirable. Only one site, the Eastbank Crescent, is sloped to the west, while the rest are oriented to the east.

Site Specific Information

Zidell Property	This site is exposed to the sun on all sides. There are no large overhead structures or existing vegetation casting large shadows over this area.
"Poetry at the Beach"	The view point, beach, and nearby water do not receive much sun throughout the day due to large shadows cast by the Marquam Bridge.
Hawthorne Bowl	The beach is exposed to the sun throughout the morning, afternoon, and early evening in summer, making it a very desirable location. The buildings and large trees to the west cast shadows over the park in the evening during the summer months. Trees along the perimeter of the lawn and at the north and south ends of the beach provide shaded seating opportunities.
Eastbank Crescent	The I-5 viaduct directly to the east casts morning shadows over the beach, however, this site receives full afternoon and early evening sun. On sunny days in the shoulder seasons, it provides a protected pocket of warmth.
McCormick Pier	During the peak of summer, the beach receives full sun during the day. However, during the late summer months when the sun is much lower, the Steel Bridge could shadow the southern portion of the beach. Immediately to the west are residential units and trees which cast shadows over the site in the late afternoon and early evening.

Sun Exposure Ranking Diagram

GENTLE BEACH SLOPE

Beaches typically slope towards the water allowing for a zero depth entry. A sloped beach also provides favorable sightlines for observing water activities. According to the *Swimming in the Hudson River E*stuary report, the ideal slope for a beach is 6-8% with a gradual entry to the water. Beaches with a slightly flatter slope of 3-5% or steeper slope of 9-20% may require special design and management considerations. Many of the jurisdictions interviewed for the Memorandum of Findings cited erosion issues on beaches over a 10% slope. They reported the need to import material to the sites regularly to maintain the beach. Flat, poorly drained beaches with slopes of 0-3% or beaches that are too steep with slopes of 20% and greater will require special design and maintenance to accommodate places to sit or recreation opportunities. In any case, a stable surface is important to the success of a beach. Beaches with sharp drop offs, holes, or ledges should be avoided and are considered potentially dangerous.

Site Specific Information

All the beaches are measured to the average high water elevation of 10 ft. during mid to late summer, when the water temperature is most suitable for swimming (Contours are provided by City of Portland GIS data). The beaches at "Poetry at the Beach", Hawthorne Bowl, and McCormick Pier are measured from toe of riprap, the beach at the Zidell Property is measured from the top of the bargeway, and the beach at Eastbank Crescent is measured from the toe of the riverbank.

Zidell Property	The potential beach has a constant slope of approximately 8%.
"Poetry at the Beach"	The existing beach has a constant slope of approximately 8-10%.
Hawthorne Bowl	The existing beach has a constant slope of approximately 10-15%.
Eastbank Crescent	The existing beach slope varies along the water's edge. The average slope is approximately 10%.
McCormick Pier	The existing beach has a constant slope of approximately 10-15%.

Gentle Beach Slope Ranking Diagram

LENGTH OF SHORELINE

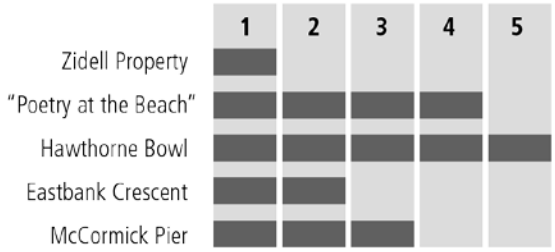
The length of shoreline available for public use affects the number of people able to access the water at once. According to the *Swimming in the Hudson River Estuary* report, a generous shoreline of more than 200 ft. provides plenty of space for water access, shallow water play, and lounging and helps to minimize potential user conflicts. A shoreline between 100 and 200 ft. accommodates a large number of people but during peak swimming days and hours space may be limited. A 50-100 ft. long shoreline can lead to crowded conditions and increased user conflicts including, but not limited to other swimmers, paddle craft, moored motor boats, jet skis and other water sports. A shoreline that is less than 50 ft. may be desirable for informal water access but would be too small to be considered a public beach. It may simply be a point of water access for long-distance swimmers.

Site Specific Information

The length of shoreline for each site is measured on aerial photos along the average high water elevation of 10 ft. during mid to late summer when the water temperate is most suitable for swimming (Contours provided by City of Portland GIS data).

Zidell Property	The length of potential beach available between the vertical walls at the bargeway is approximately 85 ft. wide. This limits the number of people able to access the water's edge at one particular time and also limits the available space for shallow water play.
"Poetry at the Beach"	The existing beach is approximately 250 ft. long. The beach provides space for shallow water play areas and access along the water's edge.
Hawthorne Bowl	The existing beach is approximately 274 ft. long. The beach provides plenty of space for shallow water play areas and access along the water's edge. The beach is bookended by raised observation points. The observation point to the north is retained by a large concrete sea wall. The transition space between the beach and the observation point to the south is made up of steep slopes, riprap, and vegetation.
Eastbank Crescent	The length of beach available is approximately 135 ft. long. The beach is defined on the south end by steep slopes, large rocks, and dense vegetation. To the north, the beach terminates under the Hawthorne Bridge at the bridge columns and footings.
McCormick Pier	The existing beach is approximately 235 ft. long. The beach is defined on both the north and the south ends by riprap slopes. Further south is a raised walkway leading to the private boat ramp and pier.

Length of Shoreline Ranking Diagram



AVAILABLE UPLAND AREA

Beaches with available upland areas accommodate a variety of activities other than swimming or wading. Although people come to the beach to swim and play in the water, they spend most of their time on land near the shore. Many people bring blankets or chairs to sit on, umbrellas, coolers, games, and portable play equipment.

Recommended Standards for Bathing Beaches notes that 35 square feet of land should be available per person. Upland areas above the ordinary high water line may be developed with amenities such as restrooms, changing rooms, showers, rental facilities, information kiosks, concessions, etc. Respondents to the Public Beach Survey overwhelmingly (87%) noted the need for restrooms at the public beach, and the *Recommended Standards for Bathing Beaches* include adequate dressing facilities with one shower per 100 users for each sex, and restrooms within 500 feet of the swimming area. In some cases, there may be festivals, seasonal events or rituals associated with the beach site.

The upland area allows people to spread out and helps relieve some of the congestion at the water's edge and user conflicts throughout the beach.

A site that provides a depth of more than 60 ft. of upland area has space for a variety of activities and user groups as well as site amenities. A site with 30-60 ft. of upland area can accommodate some beach amenities while still providing room for seating on blankets. A site with 10-30 ft. of upland space can accommodate some small beach activities but amenities may need to be located elsewhere. Less than 10 ft. of upland area does not provide enough space for beach amenities or upland recreational activities.

Site Specific Information

The depth of available upland area for each site of the study is measured on aerial photos above the ordinary high water line and, with the exception of the Zidell Property, beginning at the landward edge of the multi-use trail.

Zidell Property	The property is very deep and provides ample space for a variety of upland activities. The top of the bargeway down to the water is approximately 250 ft. with approximately 150 ft. of land from the top of the bargeway to the future SW River Parkway extension. With improvements, the space should be able to accommodate a variety of beach amenities and facilities. The vertical walls will enable views of water activities from both sides of the beach.
"Poetry at the Beach"	Upland of the riverbank and behind the Willamette Greenway Trail is a publically owned space, averaging approximately 100 ft. in depth. If improved, this space could accommodate many beach amenities and activities.
Hawthorne Bowl	Upland of the existing beach is a large open lawn, measuring approximately 200 ft. from the back of the pathway at the top of the riverbank to the crest of the Willamette Greenway Trail as it abuts SW Naito Parkway. This open lawn space provides enough room for a variety of beach activities and amenities. Unless in use for an event, it allows people ample space to spread out away from the water's edge.
Eastbank Crescent	Due to the steep topography, the narrow shoreline, and the proximity to the trail, this beach site does not provide much upland space. A heavily sloped open area, measuring approximately 80 ft. deep is tucked into the curved multi-use ramp leading to the Hawthorne Bridge. This space could be used to accommodate some small beach amenities, however freeway columns and footings may restrict development. The beach itself is not deep enough to accommodate beachfront activities.
McCormick Pier	Based on the average summer water elevation during the summer, the beach is deep enough to accommodate some small group beachfront activities. Upland of the beach and at the top of the river-bank is the Willamette Greenway Trail. To the west of the trail is densely vegetated private property. There is no upland property available to accommodate beach amenities.

Available Upland Area Ranking Diagram

AVAILABLE PARKING / TRANSPORTATION

Each site is located along an existing or future multi-use path for runners, walkers, and cyclists within the Willamette Greenway Boundary (City of Portland Title 33, Planning and Zoning, Chapter 33.440 Greenway Overlay Zones). The Willamette Greenway Overlay Zone requires provisions for a public recreational trail along both sides of the Willamette River within the Central City.

To increase recreational opportunities, ideally parking is provided at or near the beach. Respondents to the Public Beach Survey rated parking and access to transit as important services for a public beach. If a designated motor vehicle parking lot is not possible, then there should at least be nearby street parking and the site should be accessible by public transportation and trails. A successful beach location is connected to a variety of transportation modes. All the sites in this study need bike parking.

Site Specific Information

Zidell Property

There is currently no public motor vehicle parking lot available near this site and very limited on-street parking along Moody Ave. However, future development within this property in the South Waterfront will change access to this area. The streetcar and bus lines 35 and 36 run along SW Moody Ave. The nearest transit stop is approximate 950 ft. from the potential beach site. The MAX Orange line is located to the north on SW Porter St. The multi-use Willamette Greenway Trail will be improved and connected through this property in the future. The aerial tram and the Darlene Hooley Pedestrian Bridge are nearby and connect the community west of I-5 to the riverfront.

The potential beach site is within walking distance to the existing nearby residents and future development. Portland's South Waterfront development includes Meriwether Condominiums, Mirabella Portland and the Emery Apartments that range from 650 ft. to 1,100 ft. away via Moody Avenue.

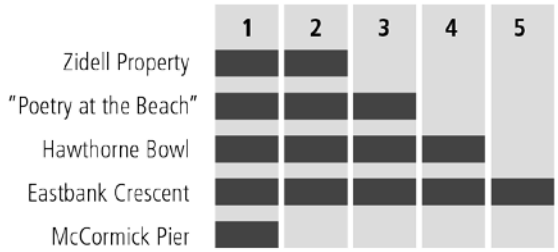
"Poetry at the Beach"

There is currently no public parking lot at this beach, however there are two public parking structures within 750 ft. The beach is located at the end of SW River Parkway, limiting the amount of nearby street parking. The Portland streetcar and bus lines 35 and 36 run along SW Moody Ave and SW River Parkway. The nearest transit stop is approximately 685 ft. to the west of the beach.

The existing beach is within walking distance to nearby residents and hotel visitors. A group of condominiums and apartment units are located to the west of the beach with the closest residential unit approximately 286 ft. The Marriott Residence Inn Portland Downtown/RiverPlace is located approximately 362 ft. from the beach.

Hawthorne Bowl	There is no public parking lot designated specifically for the park, however there are five parking garages, six bus stops servicing a variety of bus lines, and on-street parking within a ¼ mile of the beach. Future transit plans provide additional public transportation options along SW Naito Parkway. The Willamette Greenway Trail provides great pedestrian and bicycle connections. The beach is within close walking distance to a variety of residential units and hotels. The RiverPlace Hotel is approximately 250 ft. directly south of the beach along the Willamette Greenway Trail. The Portland Marriott Downtown Waterfront is approximately 475 ft. west of the beach along Naito Parkway. Nearby apartment and condominium units are located to the south, with the nearest unit approximately 445 ft. away. Additionally, current city planning efforts for the Central City promote more housing along SW Naito Parkway.
Eastbank Crescent	The beach is located west of the Vera Katz Eastbank Esplanade. Branching off of the trail is a multi-use ramp leading up to the Hawthorne Bridge. There are two bus stops servicing a variety of bus lines on the Hawthorne bridge head with the nearest stop approximately 780 ft. east. A half mile south is the OMSI MAX, bus and streetcar stations at the east end of the Tilikum Crossing Bridge. There are a variety of public parking options near the beach including a limited number of visitor parking spaces in the parking lot directly east of the beach, nearby street parking and a paid parking lot north of the Hawthorne Bridge. There are no residential units within the immediately vicinity of the beach. The beach is within walking distance from downtown, over the Hawthorne Bridge. The nearest residential unit is the RiverPlace condominiums located approximately a ½ mile away on the west side of the river. The nearest resident on the east side of the river is approximately 3/4 mile away. Future plans for the Central Eastside focus on employment; however, multi-dwelling housing is anticipated along SE Martin Luther King Boulevard and SE Grand Avenue and possibly within the future OMSI property development.
McCormick Pier	The nearby parking lots are reserved for condominium residents only. Limited parking is available along NW Naito Parkway, north of the Steel Bridge. One bus line runs along NW Naito Parkway, the nearest stop is approximately 640 ft. northwest of the beach. A MAX stop is located approximately a quarter mile southwest of the beach, at NW 1st Ave. and NW Everett St. The path from the MAX station to the beach requires navigation along and across NW Naito Parkway and through the Steel Bridge on-ramp infrastructure. Residential apartments and condominium units are within close walking distance to the beach along the Willamette Greenway Trail. The residential units are located directly to the west and northwest of the beach with the nearest residential unit approximately 50 ft. away. Additionally, the Old Town/China Town and greater Pearl District areas anticipate more urban residents over time.

Available Parking / Transportation Ranking Diagram



BEACH SURFACE MATERIALS

Many swimmers enjoy accessing the river and swimming without water shoes. While this may not be recommended at many beaches, a barefoot, walkable beach is a preferred condition by most people. Keeping shoes on children in full play mode at the beach can be difficult. Conditions other than sand will slow or impede a user from entering the water. Pea gravel sized beach material is generally the limit which starts to require footwear for most people. River cobble and angular rocks typically require some type of shoe, or very slow and strategic walking if the feet are bare.

Sediment and river muck can also be problematic as debris can be submerged greatly increasing the risk of cuts and injury. Standard footwear is also quickly stripped off in these conditions. Muck boots do allow access, but they are not typically compatible with swimming.

Sand could be placed over an existing incompatible surface to make it more friendly to swimmers and waders, however ensuring it would remain during high water and waves could be problematic. In some areas additional beach sands may need to be placed seasonally, though this may be coordinated with dredging nearby as a low cost source.

Site Specific Information

Zidell Property	The existing barge ways are covered by a large gravel cap over existing sediment and rock. This surface is only walkable with footwear. The bargeways are steel beams supported on multiple piling below the surface. The surface will need improvement.
"Poetry at the Beach"	The river sand on the beach was imported from the Columbia River when park improvements were installed in 1999 and are still generally free of debris and rock. This beach has experienced some erosion over the years, but is generally stable. Limited debris has been observed in this area, other than large rocks thrown in by users.
Hawthorne Bowl	This beach is composed of naturally accumulating gravels and some imported fine material that has migrated down from the upper bank protection. Public access was not originally anticipated at this area and riprap was likely placed from the top of slope into the river. Through the years, sands and gravels have accumulated and people have moved and relocated the existing rocks.
Eastbank Crescent	This beach is composed of naturally accumulating gravels and sands. This is likely caused by the slowing of flow by the bridge constriction which allows suspended materials to drop out of transport by the river. Debris and rocks are present below the water surface. These conditions will change with the future PGE contamination cap work. The surface may need imported river sands or fine gravels.

McCormick Pier — Beach surface material is naturally occurring fine river sand. The sand is barefoot friendly and has accumulated downstream of the bridge constriction. An existing marina likely shields the shore from erosion and encourages sand accumulation. Limited debris has been observed.

Beach Surface Materials Ranking Diagram

LIMITED AMBIENT SOUND

All of the beach sites studied have ambient sound from surrounding transportation systems. Noisy urban conditions such as freeways may be objectionable for some beach users and may affect the quality of the experience and length of stay.

Site Specific Information

Zidell Property — This site appeared to be the quietest of the five potential Central City beach location, averaging 73 decibels. The vehicular traffic of I-5 and the public transportation along the Tilikum Crossing Bridge are audible from this location.

"Poetry at the Beach" — Located below the Marquam Bridge, the sound level at this site averages 84 decibels. The I-5 south bound and north bound freeways are stacked at this location causing the sound from the lower deck to bounce off the bottom of the upper deck.

Hawthorne Bowl — The primary sound at this beach comes from the traffic on the Marquam Bridge and the Hawthorne Bridge averaging 74 decibels.

Eastbank Crescent — The beach site has a mosaic of overhead bridges and freeway viaducts. The Hawthorne Bridge spans the northern extent of the beach and the I-5 freeway parallels the beach to the east and spans over the Hawthorne Bridge head. The traffic sounds along the Hawthorne Bridge and I-5 bounce off the layers of infrastructure and create a constant ambient sound averaging 81 decibels.

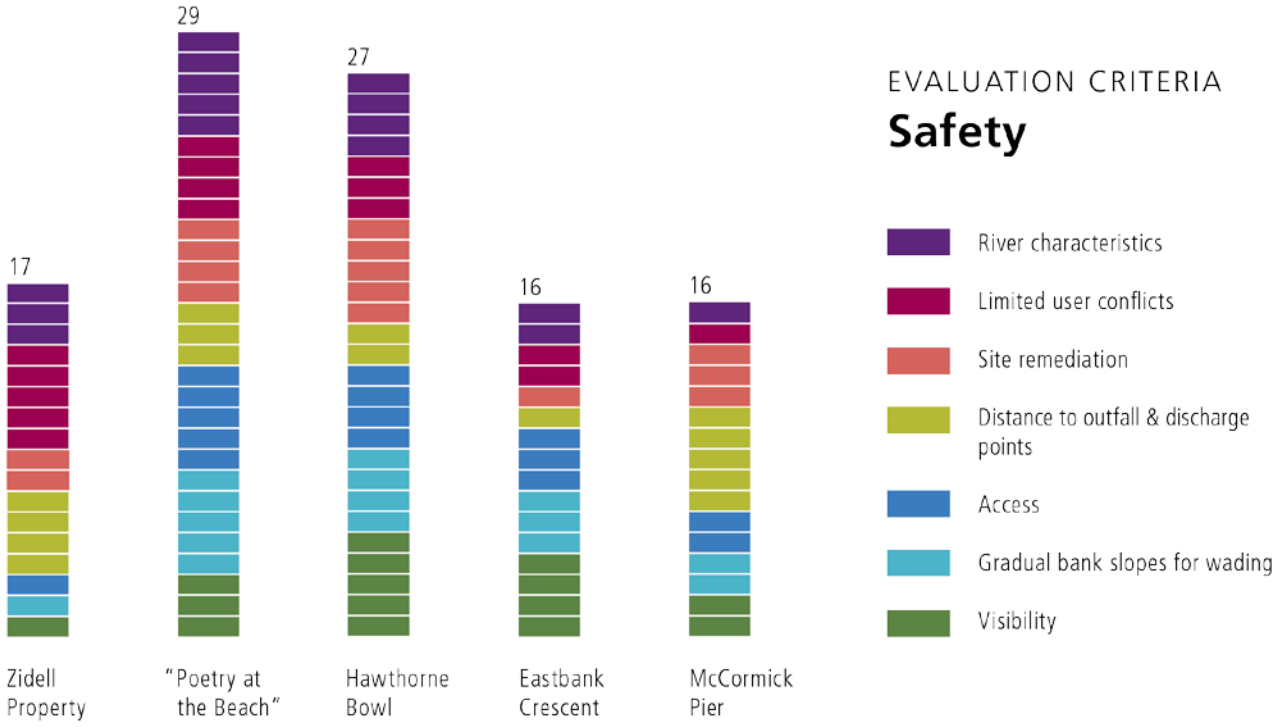
McCormick Pier — The primary sound at this location come from LD Commodities NW across the Willamette and the traffic along the Steel Bridge, including sound from vehicular traffic, the MAX train, and freight trains. The ambient sound at the beach averages 73 decibels however, when the MAX train crosses the bridge the sound level rises to approximately 85 decibels.

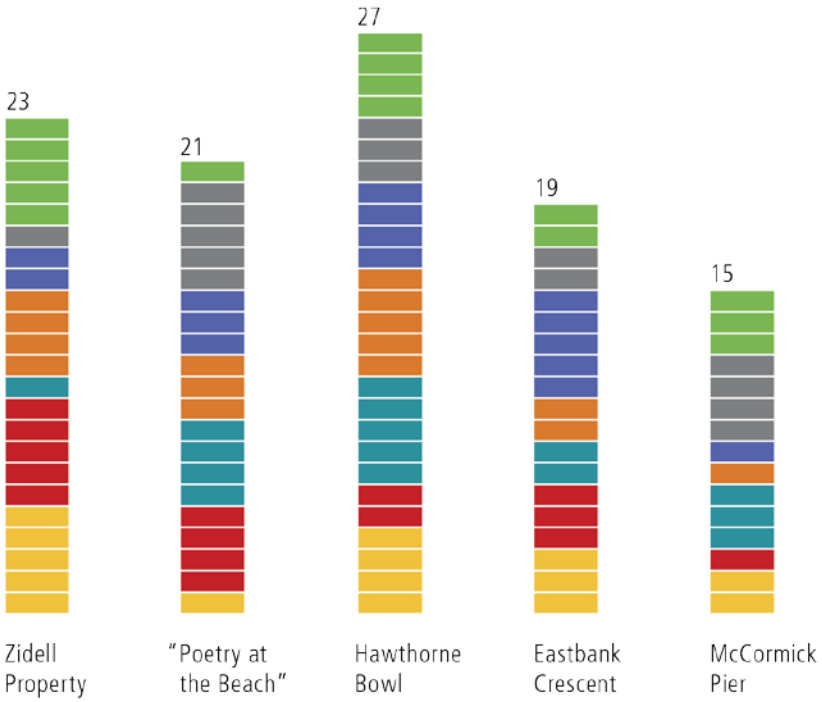
Limited Ambient Sound Ranking Diagram

Collective Ranking Summary

The collective ranking summary combines the individual evaluation criteria into two diagrams. The first diagram is a summary of all the safety related evaluation criteria and the second diagram is a summary of all the site characteristics. Again, all criteria are equally weighted.

The diagram shows the desirability of each site relative to the others. For example, the site that receives a 5 is the most desirable and the site that receives a 1 is the least desirable for that specific criterion. The site with the highest collective ranking score is the most desirable site recommended for further study as a potential public swimming beach. It should be noted this is not a scoring of how well each site meets the evaluation criterion, but a comparison among the sites.





EVALUATION CRITERIA

Site Characteristics

- Limited ambient sound
- Beach surface materials
- Available parking / transportation
- Available upland area
- Length of shoreline
- Gentle beach slope
- Sun exposure

TOTAL EVALUATION CRITERIA SCORE
(SAFETY + SITE CHARACTERISTICS)

Zidell Property	"Poetry at the Beach"	Hawthorne Bowl	Eastbank Crescent	McCormick Pier
40	**50**	**54**	**35**	**31**

Assessment of Needed Improvements

After studying and ranking the five sites based on the evaluation criterion it is clear that each of the sites needs some level of improvement to establish a safe, family-friendly beach. This section discusses more detailed site specific information regarding the major favorable and unfavorable conditions at each beach site. These observations will form the recommended improvements for each site.

The recommended improvements and their estimated costs focus primarily on safety and accessibility. Additional improvements respond to amenity and design feature requests from BPS, PP&R, and the Public Beach Survey. The recommended improvements are limited to safety and access at the beach site only and do not address larger city planning efforts of the area surrounding each site. The evaluation criteria that typically fall into larger city planning efforts include: visibility, available parking/transportation, available upland area, limited ambient sound, site remediation, distance to outfall and discharge points, and length of shoreline. Recommendations regarding the previous list of evaluation criteria will be made on a site level only if appropriate. Many of the evaluation criteria are specific to the beach location and/or environmental conditions and cannot be changed, including length of shoreline, sun exposure, and river characteristics.

Site programming will not be recommended in the assessment of needed improvements, however it should be considered during the design and programming phase of the specific public beach access site. The site programming or amenities, as discussed by the design team with BPS and PP&R as well as suggested in the public beach survey include:

- Dog beach access area
- Presence of lifeguard(s)
- Life jacket rental
- Clearly identified swimming area (roped off area)
- Regular maintenance to keep the site clean
- Boat access
- River monitoring for safe water quality conditions
- Communication methods of water quality conditions
- Information kiosks
- Concessions
- Informative and education signs regarding the Willamette River
- Lap swimming area
- Monitoring the areas for public safety and security and to minimize inhabitation of persons experiencing homelessness
- Separating uses to minimize user conflicts

No design work has been performed for any of the sites and levels of improvement will vary given required permits, use of materials, construction season when work is performed, adjacent conditions, size of site and other factors beyond the scope of this study. The costs provided are very rough order-of-magnitude in the current 2016 construction climate. The cost figures do not include many soft costs, such as permitting, design consultant work, City capital project staff time, contractor overhead and profit, insurance, bonding, and many other costs which will add to these base construction costs. Please note that these numbers are offered only to convey a generalized sense of a budget, especially for the sites relative to each other.

ZIDELL PROPERTY

The Zidell property is privately owned, however future development of the property will significantly change the South Waterfront neighborhood and again, provide public access to the site. The timeline of this development is unknown but it is assumed that future development of the area surrounding the potential public beach access site will enhance many of the safety and site characteristic factors discussed in the evaluation criteria including: visibility, access, available parking/transportation and available upland area.

Due to the site's current use as a bargeway, significant upland and underwater demolition efforts will be required to make the site safe for public access. Demolition would include removal of the bargeway and industrial infrastructure that support the site's operations. Site demolition should be careful not to disturb the recently remediated site. Additionally, cutting back the shoreline to create shallower slopes and more favorable wading conditions is possible, but would require modifications to the sediment cap. The length of the beach as defined by the steep banks could be extended, however, this would require excavation which may also trigger modifications to the existing site remediation efforts. To make the beach more barefoot friendly, additional materials need to be added.

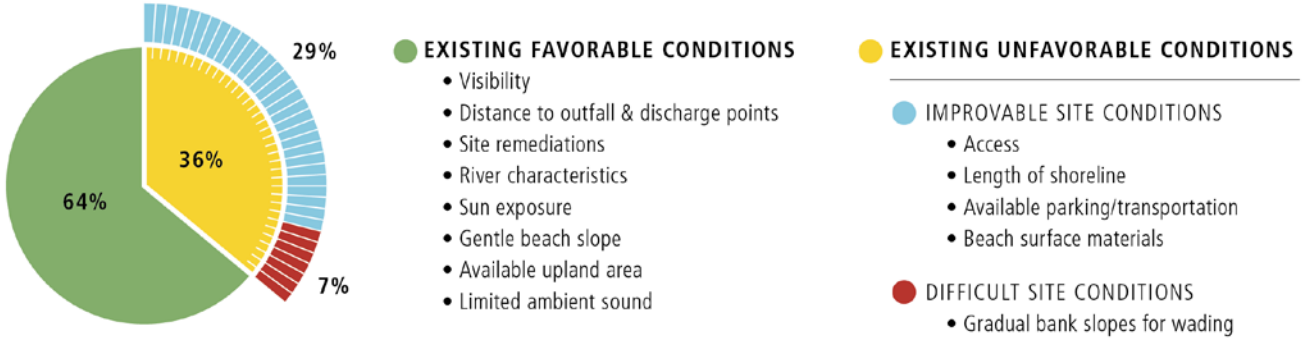
Many of the existing site conditions favor a public access beach. The site currently does not have any tall buildings or bridges casting shadows over the site but this could change in the future as the development calls for more density. Trees or small structures could be added in the final design for an alternate shaded experience. The existing slopes would support a universally accessible pathway down to the beach with minimal site alterations. Future development could provide upland area necessary for alternate beach activities including, but not limited to: lounging, sun bathing, picnicking, and recreating. The potential beach is the quietest of the five sites and has views across the river to Ross Island's densely vegetated landscape and wildlife.

Site Improvement and General Costs:

The site improvements and estimates of general costs for the Zidell Property do not include the acquisition of the property or the future development of the surrounding area.

Site demo Includes removing rails and addressing existing remediation	$500,000
Excavation to extend shoreline	$200,000
Import material to make beach barefoot friendly (100 ft. x 200 ft. x 3 ft. depth) Reimporting material every 7 years	$50,000
Paved path down to the beach (250 ft. length x 10 ft. wide)	$60,000
Restrooms with changing rooms and outside showers	$200,000
Bike parking (10 racks and concrete pad)	$4,000

Site Improvements Diagram:



"POETRY AT THE BEACH"

"Poetry at the Beach" is located at the terminus of the Willamette Greenway Trail. It is assumed that future development of the OHSU Schnitzer Campus and South Waterfront and the extension of the trail to the south of the beach will significantly change the character of the site by enhancing the visibility of the beach and providing more eyes on the site. The site ranked lowest for limited ambient sound and sun exposure; attributes that cannot be reasonably improved. The site does not have space to provide more vehicular parking and would require larger planning efforts; therefore, it is assumed no additional vehicular parking will be included in the recommended site improvements.

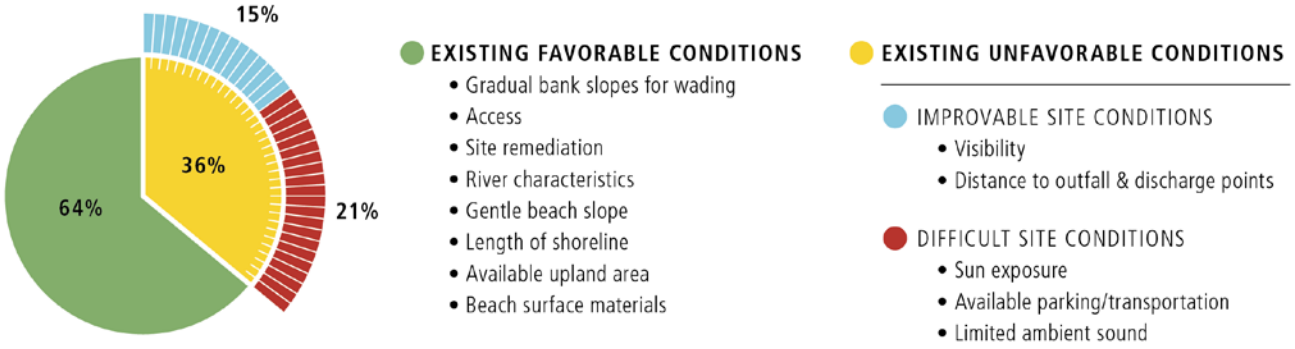
The majority of the improvements necessary for the beach are possible on site with minimal site alterations. Existing access to the site is paved down to the water, however another paved pathway is recommended extending to the beach. The shoreline could be extended to the south with minimal additional material. The stormwater only outfall that is located on the beach should be removed and rerouted to reduce the potential for direct contamination of the beach and the water at the site. The water at the outfalls tend to be calm, shallow, and warm which unfortunately creates less than ideal situations for water contact.

"Poetry at the Beach" has many existing conditions that favor a swimming access beach. The beach was cleaned up through remediation and capping efforts and clean sand was placed along the lower shoreline to create the beach. The imported sand provides gentle beach slopes, safe wading conditions, and a barefoot friendly surface. Environmentally, the site has lower water velocities near the shore, limited debris accumulation, is set back from the main river channel, and is protected from prevailing winds. The length of the shoreline will accommodate a variety of beach activities including, but not limited to: shallow water play, wading, swimming, and sunbathing. The available upland area above the Willamette Greenway Trail will accommodate a variety of active and passive uses as well as site amenities including a restroom with changing rooms and outside showers.

Site Improvements and General Costs:

Paved path from the existing path to the beach (26 ft. length x 10 ft. wide)	$8,000
Imported material to extend the shoreline to the south (600 ft. x 75 ft. x 3 ft. depth) Reimporting material every 7 years	$100,000
Remove and reroute the outfall	$100,000
Restrooms with changing rooms and outside showers	$200,000
Bike parking (10 racks and concrete pad)	$4,000

Site Improvements Diagram:



HAWTHORNE BOWL

As part of Governor Tom McCall Waterfront Park, the Hawthorne Bowl is already a popular and well known destination within the Central City. It is highly visible from surrounding development, roads, bridges, trails, and freeways and is well connected to many of Portland's public transportation options. The upland lawn of Governor Tom McCall Waterfront Park provides opportunities for multiple beach amenities including restrooms with changing rooms and outside showers, concessions, and/or life jacket rental. Additionally, the lawn provides space to accommodate a variety of active and passive activities. The site is sunny throughout the day and into the evening while still providing areas of shade at the park's perimeter.

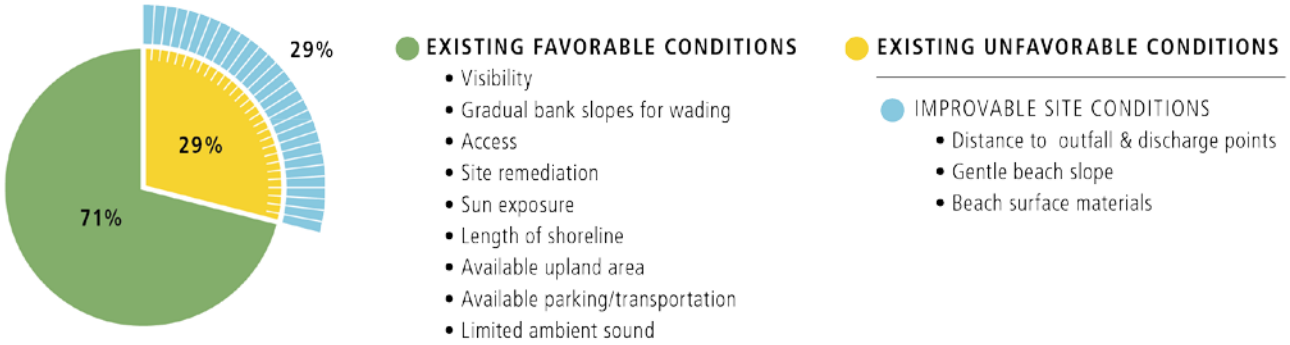
The site has many existing conditions that favor a beach. The shoreline allows for a variety of beach activities. The underwater conditions appear to be stable and favorable to wading. The flow velocity of the water is generally low near the beach; however, the beach is near the main river channel where flow velocities do increase. The nearby marina has an established no-wake zone in its vicinity thereby protecting the beach. The upstream marina also protects the beach from debris accumulation.

All of the major improvements recommended are confined to the site. There are no recommended improvements to this site that would require larger city planning efforts, with the potential exception of removing and rerouting the stormwater only outfall from the beach. This could trigger larger planning efforts. The site improvements include access to the beach, surface material, and slope. It is recommended that the existing pathway at the top of the bank be removed and replaced with a paved universally accessible path that extends down to the beach. Material needs to be imported to the beach to provide a gentler slope and to make the surface more barefoot friendly. It is also recommended that the user conflicts between swimmers and boats be addressed during the programing phase if the site becomes developed.

Site Improvements and General Costs:

Remove path at the top of the bank	$40,000
Paved universally accessible path at the top of the bank (580 ft. length x 12 ft. wide)	$110,000
Paved path down to the beach	$125,000
Imported material to make beach more barefoot friendly (400 ft. x 75 ft. x 3 ft. depth) Reimporting material every 7 years	$75,000
Remove and reroute the outfall	$50,000
Restrooms with changing rooms and outside showers	$200,000
Bike parking (10 racks and concrete pad)	$4,000

Site Improvements Diagram:



EASTBANK CRESCENT

The beach at Eastbank Crescent is constricted by the surrounding slopes, trail, and transportation infrastructure. Many of the low ranking evaluation criteria that would typically inform recommended improvements would require significant city planning efforts and/or are out of the scope of this study due to the existing site conditions. The lower ranking evaluation criteria include available upland area, length of shoreline, gentle beach slope, sun exposure, limited ambient sound, and the river characteristics. Available upland area for beach amenities is limited directly adjacent to the beach site due to the steep slopes, the trail, and the bridge and freeway columns. If amenities cannot be placed at the beach, they could still be located within walking distance or shared with the light watercraft dock.

It is recommended that significant improvements are made to the site in order to make it usable and safe for the public. Improvements include: creating more wadable and barefoot friendly conditions, addressing the site remediation, removing and relocating upstream outfalls, and minimizing user conflicts. Due to the steep slopes and limited space, it is difficult, if not impossible, to provide a universally accessible pathway down to the beach. Current underwater conditions provide a limited area acceptable to wading and are made up of accumulated gravels and sands. Additional material will need to be imported to make the beach more barefoot-friendly. The proposed site remediation work could alter the existing wadable conditions and material. Future site development of the beach will need to further study the site conditions post remediation work. To further clean up the site, it is recommended that the nearest outfall upstream of the beach be removed and rerouted. On a programing level, any future development of the site should address the user conflict issues that are currently being experienced at the site between swimmers/sun bathers and light water craft users.

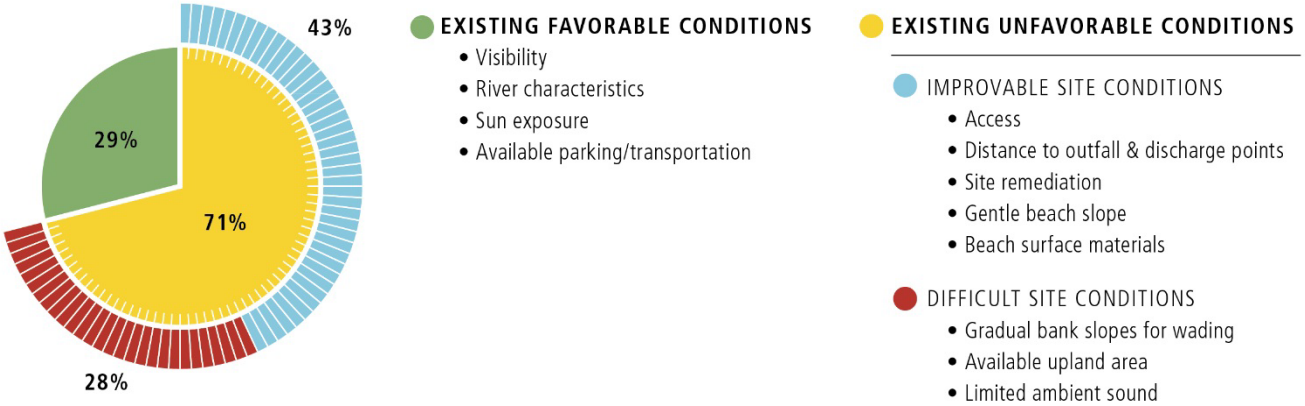
Despite all the improvements recommended for the Eastbank Crescent beach, it does have good visibility and is near public transportation routes and available public parking.

Site Improvements and General Costs:

The site improvements and general costs for the Eastbank Crescent do not include the site remediation work that is scheduled to be complete in 2017 nor the removal and rerouting of outfall 33 (OF 33).

Paved path down to the beach (100 ft. length x 10 ft. wide)	$100,000
Imported material for improved barefoot surface (50 ft. x 100 ft. x 3 ft. depth) Reimporting material every 7 years	$25,000
Remove and reroute 1 stormwater-only discharge	$150,000
Restrooms with changing rooms and outside showers	$200,000
Bike parking (10 racks and concrete pad)	$4,000

Site Improvements Diagram:



MCCORMICK PIER

The McCormick Pier beach is not accessible to the public and is largely surrounded by private development, making many of the improvements to the beach site unlikely. Many of the unfavorable ranking conditions will require large planning efforts and/or are out the of the scope of this study. In addition to first securing public access, these conditions include the ambient sound level, the lack of parking and public transportation routes nearby, the lack of upland area available for site amenities, the late afternoon shaded conditions, and limited visibility from adjacent streets.

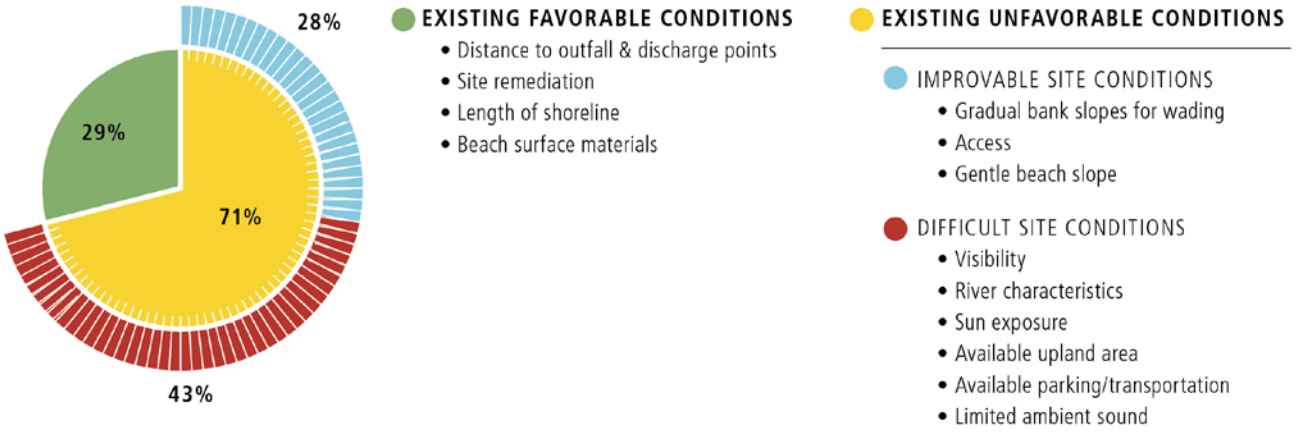
If the site was to be made available for public use, many improvements are recommended to make it safe for public access. A universally accessible pathway is recommended from the trail to the beach. The existing beach slopes will need to be modified to be gentler. The changing accumulating-erosion cycles occurring at the beach will require the underwater conditions to be monitored annually to ensure safe wading conditions. Potential user conflicts between public swimmers/sunbathers and private dock users should be addressed during the programing phase of the project.

The McCormick Pier beach ranked highly for its distance to outfall and discharge points, its naturally occurring barefoot friendly beach material, and the length of shoreline. The shoreline could accommodate a variety of activities, however future use is restricted by the steep slopes, the dock infrastructure and the surrounding private property.

Site Improvements and General Costs:

Paved path down to the beach (40 ft. length x 10 ft. width)	$50,000
Import sand to cover existing riprap slope	$15,000
Restrooms with changing rooms and outside showers	$200,000
Bike parking (10 racks and concrete pad)	$4,000

Site Improvements Diagram:



Resources

"Boating, Swimming on the Willamette River in Portland – How Safe Is It?" State of Oregon: Department of Environmental Quality (http://www.oregon.gov/deq/wq/pages/swimwillametteriver.aspx)

"Learn: Human Health at the Beach", United States Environmental Protection Agency (https://www.epa.gov/beaches/learn-human-health-beach)

"Outfall Memorandum – Outfall feature class description and definitions" City of Portland Bureau of Environmental Services, 2014.

"Recommended Standards for Bathing Beaches – Policies for the review and approval of plans and specifications for public bathing beaches" Health Education Services, 1990

"Summer Swim Time – Staying Healthy at the Pool & Beach", Wellness Council of America - Better Safe. Online Bulletin for your Family's Safety (http://www.lawleyinsurance.com/wp-content/uploads/2014/09/Swim_Safely.pdf)

"Swimming in the Hudson River Estuary – Feasibility Report on Potential Sites" Lawler, Matusky & Skelly Engineers, LLP and The Hudson Group, LLC, 2005

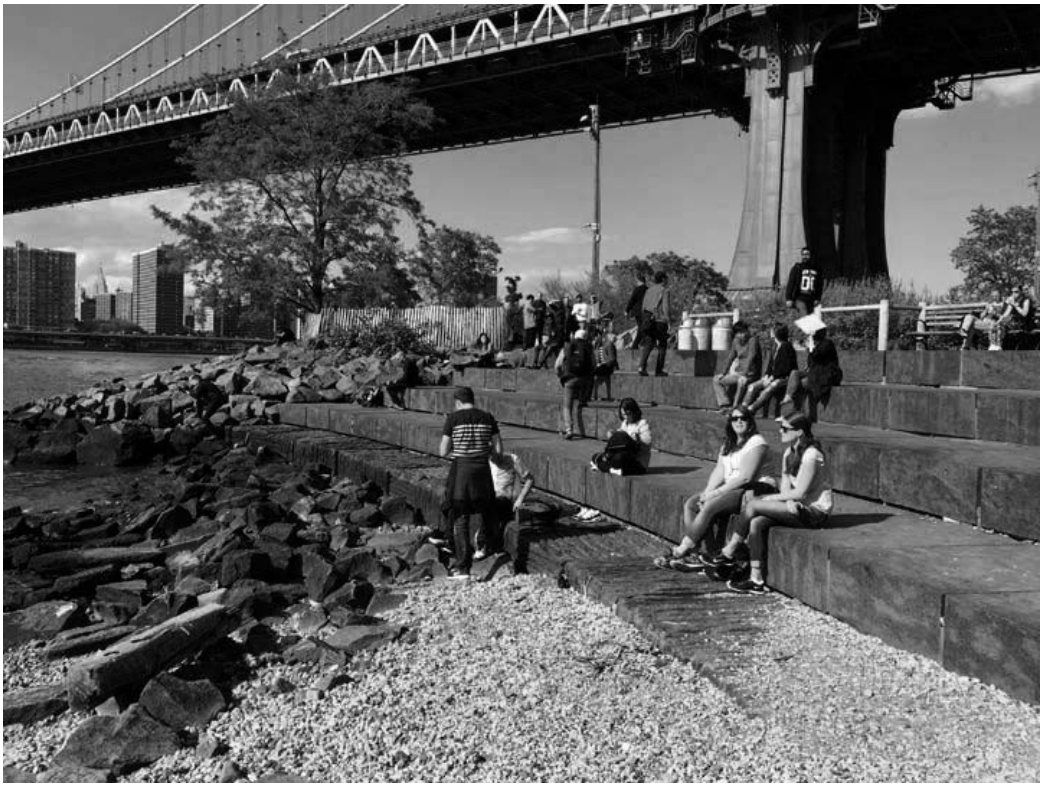
GIS map data sources:

DATA	SOURCE	NOTES
Discharge Points & Outfalls	City of Portland, BES	Selected from collection system data
Paths (Primary, Secondary, Planned)	Metro	
100 Year Flood	City of Portland	Based on 2010 FEMA maps
OHWL	City of Portland	From US Army Corps survey in 2004
1996 Flood Line	Metro	
2 ft. Contours (Topography)	City of Portland	From 2004-2007 LiDAR data, vertical datum: NAVD88
2 ft. Contours (Bathymetry)	City of Portland	From survey and LiDAR 2007-2010
Property Lines	City of Portland	

Information has been provided by the city's GIS group and is a composite from various sources, areas of overlap and blending of data have occurred to create one comprehensive data set. This information should only be used for planning and not construction, navigation, or other purposes without site specific survey updates.

Precedent Images

BROOKLYN BRIDGE PARK – PEBBLE BEACH
Brooklyn, New York



PUBLIC BEACH
Survey Summary
April 2016

Overview

The purpose of the Public Beach Survey is to inform Portland Parks & Recreation (PP&R) and the Bureau of Planning and Sustainability (BPS) about the following:

- Does the community want access along and into the Willamette River?
- What kinds of experiences do people want in a public beach?
- What amenities are necessary to create a good experience?

Background

Portland's Central City has a rich history shaped by abundant natural resources, two working rivers and a temperate climate. From the Native Americans who fished for salmon in the Willamette River centuries ago to the South Waterfront Greenway Trail's visitors today, Portlanders have appreciated this special gathering place. More than any other feature in the regional landscape, the Willamette River is central to the city's identity, image and place in the region.

As the city developed, docks, sea walls, buildings, roads and bridges were constructed in the riverfront area that greatly altered the natural function and habitat values. Portlanders became disconnected from the river – we drove over it, dumped waste into it, and used it as a centerpiece to illustrate the iconic beauty of our city – but we did not touch it.

In the recent past, members of the public have expressed a strong desire to restore physical, social, environmental, economic and historical connections to the river. The Big Pipe project all but eliminated overflow into the river, and the river is cleaner today than it was 30 years ago. Today, the river supports a broad array of uses, including recreation. Increasingly, Portlanders are expressing a desire to be able to swim there.

The summary below, provides insight into how some Portlanders responded to those questions.

Methodology

PP&R partnered with BPS to share to the public the opporunity to create a potential public beach area on the Willamette River.

We develop an outreach plan that targetted diverse youth and young adult communities; traditional, non-traditional and underserved communities; an array of different age groups; and families. We reached out to Portland Community College's Cascade & Southeast locations, Matt Dishman Community Center, East Portland Community Center, and Oregon Museum of Science and Industry (OMSI) to meet our outreach goal.

PP&R and BPS engaged community members about the project, answered questions regarding the project and solicited community members to do the Public Beach survey at those specific sites on March 8 (11am-2pm), March 9 (11am-1pm), March 10 (10am-1pm), March 15 (5pm-7pm), March 23 (10:30am-1:30pm), and March 26 (10am-2pm).

PP&R provided surveys in print form at the outreach events and used iPads for community members to take the survey online. 313 total comments were received.

This summary provides an idea of how those who participated in the survey felt about the opportunity to create a public beach. Not every participant answered each question, so the total number of participants answering each question differs.

We designed questions #2 and #4 as single answer questions. Question #5 requested that respondants limit themselves to three items. 46 participants provided additional responses, and those are tabulated separately and presented in Addendum A.

Total responses from both sources equals 313.

Summary of Findings
313 individuals participated in the Public Beach survey. Below is the summary from the 267 participants who answered questions #2, #4 and #5 consistently. When reviewing these results against the additional 46 responses, there is a high level of consistency between the priorities.

Generally, there is agreement that the idea of a public beach on the Willamette River would be a great idea. Respondents indicated a preference for one that is near other family and cultural activities. Respondents indicated that water quality was a concern and they expressed a need to have further evidence of the cleanliness of the water (testing).

87% of the participants supported the idea of a public beach on the Willamette River. 36% of participants preferred a public beach "near other family and cultural activities." The top three amenities chosen were 87% Restrooms, 61% Parking, and 45% Clearly identified swimming area (roped off).

When asked if participants "have ever gone swimming in the Willamette River," 66% said "No." Reasons were the river is unsafe and dirty, and Downtown area isn't clean. Some participants also said they were new to the area, haven't had the chance to swim in the river or don't swim much.

In the open-ended comment section, participants said the river is unsafe for swimming because of poor quality water, high toxicity levels in the water, issues of trash and debris in the water, and a desire to conduct additional tests and make the results of those tests publically accessible.

Question #1 – Have you ever gone swimming in the Willamette River?
266 individuals responded

- 34% Yes
- 66% No

Question #2 – If you answered "No" in question #1, why not?
186 individuals responded

- 32% I don't think the river is safe
- *32% Other (please specify)
- 15% There is no place to go
- 14% I don't swim
- 7% I prefer pools

***Other please specify**
(number indicates amount of times comments were mentioned)
27 Unsafe

- River dirty; agricultural run-off
- Not for kids; water quality is unsafe
- Downtown area isn't clean; industrial waste
- Willamette River is a superfund site
- Clean the water

21 Doesn't swim frequently in the Willamette

- Haven't had the chance
- Don't swim much
- I swim elsewhere

- I don't live in the area
- New to the city
- I swim in the Columbia River

6 Lack of information
- Uninformed that swimming in the Willamette River was allowed

4 Cold water, too cold

Question #3 – Would you like a public beach on the Willamette River?
261 individuals responded
- 87% Yes
- 13% No

Question #4 – Where would you like to see a public beach?
250 individuals responded
- 36% Near other family and cultural activities
- 28% Near a revitalized urban area with scenic views
- 17% In the heart of downtown near public events and festivals
- 12% Close to restaurants and services
- 7% Close to downtown residential areas

Question #5 – A great public beach on the Willamette needs to have the following: (check THREE only)
263 individuals responded
- 87% Restrooms
- 61% Parking
- 45% Clearly identified swimming area (roped off)
- 45% Shallow, slow water for young children
- 42% Feel like a natural area
- 34% Access to public transportation
- 13% Deep water for more experienced swimmers
- 11% Be close to an urban area
- *10% Other (please specify)

***Other please specify**
(number indicates amount of times comments were mentioned)
19 Safe area for all
- Environmentally safe for all
- Cleanliness
- Clean debris, garbage, and concrete

- Daily river monitor
- Marked deep and shallow areas

5 Yes on public beach
- Access for low income families
  - Urban and natural
  - Informative signs to maintain and clean area

4 Parking
  - Car
  - Bike
  - Boat

3 keep area clean
  - Have a walk area
  - Have a lounge area

2 Area for my dogs to swim
2 Recycling
2 Lifeguards
2 bike access
1 No public beach on Willamette
1 Lifejackets
1 Similar beach to Australia's swimbeach

Question #6 – What else would you like us to know?
(number indicates amount of times comments were mentioned)

24 Willamette is unsafe
- Dirty water; "I wouldn't let my kids swim in it"
- Unsafe toxicity levels
- Polluted river, sewage
- Concerned about trash and needles
- Superfund site

15 Safety
- What are the risks?
- Safe location for families
- Mark undertow area
- Regular water test
- Limit boat speed in area
- Water safety tests that are publicly accessible
- Safe to eat fish?
- Safe for wildlife?

13 Good idea
- Sounds great
- Would love to swim here

10 Location suggestions
- Restaurant area nearby
- Explore area for beach beyond Portland
- Not downtown
- Under Sellwood Bridge
- Maintain natural setting, trees
- Have the beach close to the south

6 Other beach suggestions
- Lifeguards
- Provide recreation materials to play
- Safe for boat ramps
- Free parking
- Large enough for swim laps

6 Concerns
- Littering
- Security
- Dirty, homelessness issue
- Area where people cannot abuse the beach area and trash it

4 Maintenance
- Plenty of trash cans
- Clean area regularly

2 Inclusivity for the proposed beach areas
- Place for all cultures
- More residents to enjoy Portland

1 Subject is unimportant to me
1 No parking for cars; only bikes
1 Research on positive effects of beaches in other major cities such as LA, San Francisco, New York, Chicago
1 How do I get more information update?
1 How will this be paid for?

Question #7 – I am age:

- 6% - Under 16 yrs
- 39% - 16-24 yrs
- 16% - 25-34 yrs
- 20% - 35-44 yrs
- 15% - 45-59 yrs
- 3 % - 60-79 yrs
- Less than 1% - 80 & over

Question #8 – I am:

- 52% - Female
- 47% - Male
- 1% - Other

Question #9 – How many children do you have living with you under the age of 18?

- 60% - No children
- 16% - 1
- 18% - 2
- 3% - 3
- 2% - 4
- 1% - 5 and more

Question #10 – If you answered question #9, what are their age groups? (Please check ALL that apply)
If you selected "No children" in question #9, skip question #10 and proceed to question #11.

- 16% - 0-2 yrs old
- 31% - 3-6 yrs old
- 37% - 7-10 yrs old
- 31% - 11-14 yrs old
- 20% - 15-17 yrs old

Question #11 – Regarding residence, I:

- 35% - Own my own home
- 49% - Rent my home
- 16% - Other

Question #12 – I identify as: (please check ALL that apply)

- 53% White
- 20% Black or African American
- 17% Asian
- 13% Hispanic or Latino
- 7% American Indian/Alaska Native
- 3% Some other race (please specify)
- 2% Recent African Immigrant
- 1% Slavic/Eastern European Immigrant
- Less than 1% Native Hawaiian or Other Pacific Islander

ADDENDUM A

Results from those who responded with multiple answers of more than one for questions #2 and #4 and more than three answers for question #5.

Summary of Findings
46 individuals participated in Addendum A in the Public Beach survey. Below is the summary from the 46 participants who responded with multiple answers of more than one for questions #2 and #4 and more than three answers for question #5.

Generally, there is agreement that the idea of a public beach on the Willamette River would be a great idea that is near other family and cultural activities, but only if the water quality was addressed and cleaned up significantly with transparent and publicly accessible water quality tests.

98% participants supported the idea of a public beach on the Willamette River. 36% participants preferred a public beach should be "near other family and cultural activities." The top three amenities chosen were 87% Restrooms, 70% Clearly identified swimming area (roped off), and 70% Feel like a natural area.

When asked if participants "have ever gone swimming in the Willamette River," 44% said "No." Reasons were the river is unsafe, dirty, and not clean.

In the open-ended comment section, participants desired to have additional tests and make the results of those tests publically accessible.

Question #1 – Have you ever gone swimming in the Willamette River?
46 individuals responded

- 56% Yes
- 44% No

Question #2 – If you answered "No" in question #1, why not?
22 individuals responded

- 41% I don't think the river is safe
- *41% Other (please specify)
- 27% There is no place to go
- 9% I don't swim
- 9% I prefer pools

***Other please specify**
(number indicates amount of times comments were mentioned)
5 Unsafe
- Not clean
- Dirty
- Bad things

1 Swim elsewhere
1 Hanging out at the beach
1 New to the area

Question #3 – Would you like a public beach on the Willamette River?
43 individuals responded
- 98% Yes
- 2% No

Question #4 – Where would you like to see a public beach?
46 individuals responded
- 67% Near a revitalized urban area with scenic views
- 61% Near other family and cultural activities
- 54% Close to restaurants and services
- 48% In the heart of downtown near public events and festivals
- 39% Close to downtown residential areas

Question #5 – A great public beach on the Willamette needs to have the following: (check THREE only)
46 individuals responded
- 84% Restrooms
- 70% Clearly identified swimming area (roped off)
- 70% Feel like a natural area
- 57% Shallow, slow water for young children
- 57% Access to public transportation
- 46% Parking
- 35% Deep water for more experienced swimmers
- 24% Be close to an urban area
- *26% Other (please specify)

***Other please specify**
(number indicates amount of times comments were mentioned)
4 Clean water to swim
3 Safety
- Lifeguards

- Life jackets
- Daily river monitor

1 Lemonade stand
1 Recycling
1Nice walk area
1Environmental benefit
1 Environmental impact

Question #6 – What else would you like us to know?
(number indicates amount of times comments were mentioned)
6 Safety

- Regular water quality reports available to the public
- Toxicity levels of Willamette
- Need eyes on the beach
- Lifeguard

4 Clean water

- River is dirty
- No swimming until it is clean
- Beaches are toxic

2 Need more information

- Need information about the update
- How clean is the water?

1 Maintenance

- Keep clean and safe

1 I would love to swim in the river here
1 Natural setting-clean

Question #7 – I am age:

- 0% - Under 16 yrs
- 18% - 16-24 yrs
- 34% - 25-34 yrs
- 25% - 35-44 yrs
- 9% - 45-59 yrs
- 14 % - 60-79 yrs
- 0% - 80 & over

Question #8 – I am:

- 56% - Female
- 40% - Male
- 4% - Other

Question #9 – How many children do you have living with you under the age of 18?

- 66% - No children
- 15% - 1
- 12% - 2
- 2% - 3
- 5% - 4
- 0% - 5 and more

Question #10 – If you answered question #9, what are their age groups? (Please check ALL that apply)
If you selected "No children" in question #9, skip question #10 and proceed to question #11.

- 17% - 0-2 yrs old
- 42% - 3-6 yrs old
- 25% - 7-10 yrs old
- 25% - 11-14 yrs old
- 25% - 15-17 yrs old

Question #11 – Regarding residence, I:

- 21% - Own my own home
- 65% - Rent my home
- 14% - Other

Question #12 – I identify as: (please check ALL that apply)

- 7% American Indian/Alaska Native
- 7% Asian
- 12% Black or African American
- 12% Hispanic or Latino
- 2% Native Hawaiian or Other Pacific Islander
- 0% Recent African Immigrant
- 0% Slavic/Eastern European Immigrant
- 68% White
- 5% Some other race (please specify)

Memorandum of Findings

PUBLIC SWIMMING BEACH SITE CONDITIONS IN OTHER JURISDICTIONS

The City of Portland has identified river access needs along the Willamette River waterfront in the Central City area. Prior to studying the potential swimming beach locations, identified by the city, Mayer/Reed examined five cities or jurisdictions outside of the City of Portland that allow river swimming and the rules and regulations they have in place. City staff identified the five cities or jurisdictions and their respective parks that were contacted for interviews that include:

- The City of Lake Oswego - George Rogers Park
- The City of Vancouver – Wintler Park
- Bend Parks and Recreation District (BPRD) – Riverbend Park
- The City of Boise – Boise River Park
- The City of Hood River – Waterfront Park.

The interviews were based on a series of questions regarding the following themes:

- Access
- Habitat
- Public safety
- Park design and use
- Public communications
- Facility amenities
- Operations and maintenance

Below is a summary of findings from the interviews conducted broken down into the themes as listed above. Additional information can be found in the following appendixes at the end of this summary.

Appendix B.1: Interview questions
Appendix B.2: Interview meeting notes
Appendix B.3: Park images

Access:
The majority of people visiting the five parks arrive by car and all interviewees expressed the need for more parking. Wintler Park is the only park that currently charges for parking. The City of Hood River is adding metered street parking this year due to the increase of traffic near its waterfront park. BPRD has discussed implementing a parking fee in the future. All the parks are currently dealing with overflow parking spilling into the adjacent streets, many of which are residential. A few bike racks are provided at most of the parks, none of which seem to fill up on a regular basis. George Rogers Park and Riverbend Park provide separate emergency vehicle access ways down to the beach/water. The pedestrian pathways at Riverbend Park and Waterfront Park are designed with the capacity to handle emergency and maintenance vehicle access.

Habitat:
The habitat restoration efforts that were discussed are largely on shore. The presence of in-water habitat restoration efforts are not known, because they are typically conducted by other public agencies. None of the parks expressed particular user conflicts with the habitat restoration areas. Generally, park users are respectful of the habitat restoration areas. Riverbend Park successfully keeps people and dogs out of the restoration area with a two-rail fence backed with woven wire mesh. The mature, dense vegetation within the habitat restoration area at Riverbend Park also keeps people from entering. Temporary fencing and posted signs are effective measures at other parks to protect the restoration areas.

Public Safety:
None of the parks of the interviews have lifeguards on duty; and none have had any significant safety issues. It was found that many of the park users are not entering the water to swim; instead they stand and wade in the water or enter briefly to cool down. To avoid any safety issues, some of the parks do not specifically encourage swimming at the beach. However, they do not discourage it either. Brian Potter, the former Parks Manager for the City of Vancouver and Clark County Park and Rec Department, strongly encourages a beach without lifeguards to be called "a water contact beach" rather than "a swimming beach." He believes that "swimming beach" implies a specific activity that is encouraged and may imply an unintended sense of safety and security.

Riverbend Park is the only park that provides free life vest or personal floatation device to children under 12. In this case, life vests are provided by a rental company at no additional cost. At Riverbend Park and George Rogers Park, life vests are provided with watercraft rentals by the rental company.

Local police drive through each of the parks regularly to check in and keep eyes on the area. Hood River's Waterfront Park, hires a full time summer park ranger to patrol all the parks throughout the city. The park ranger effectively resolves issues, answers questions, and enforces park rules and regulations. All the parks are closed between sunset and sunrise. However, Wintler Park is the only park that has a private security company close a gate leading into the park afterhours and return in early morning to open the park up. The parking fee collector at Wintler Park also provides eyes on the park, answers questions and contacts police or fire department personal if necessary. An additional seasonal employee patrols the park during peak hours to provide crowd control and enforce park rules and regulations. Riverbend Park has a group of stewards that patrol the park and river in the summer during the peak floating season. The stewards try to form relationships with the park and river users. They enforce the no drinking policy on the river and patrol the bridges to minimize the amount of people jumping off the bridges, a hazard to people floating.

User conflicts occur at all the parks on occasion, however most user conflicts tend to resolve themselves. One of the most popular conflicts involves dogs off leash. All of the parks have a dog on-leash policy that is difficult to enforce all the time. Riverbend Park offers an off-leash water access dog park within walking distance of the beach and off-leash dogs are still an issue. Some of the other conflicts reported at the parks include, floaters floating into paddle boarders, bridge jumpers landing on floaters, and motorized boats nearing swimmers. None of the parks have motorized boat ramps near the beach. George Rogers Park closed their motorized boat ramp specifically to minimize conflict between boaters and swimmers.

Park Design and Use:
Metrics were not used to determine an adequate size of beach, park, or parking lot to meet demand in any of the parks. River data (i.e. river dynamics, currents, or bathymetry) was not collected in order to locate the beach at most of the parks. Waterfront Park in Hood River is the exception; an engineering consultant on the design team did collect river data. (The river data was not made available for review for this summary.) George Rogers Park and Wintler Park were created around an existing beach or water access location based on previous public use. People were accessing the river at those beaches long before they became parks. The location and size of the park and beach at Waterfront Park was determined by the available land that was donated by the Port.

The physical characteristics are somewhat different at each of the beaches. George Rogers Park and Wintler Park do not import any sand and have a gradual slope down to the water. These beaches are naturally sandy via river currents and deposition and do not experience much erosion or scour. Boise River Park has more of a rocky shore, with no regularly imported material. The standard beach material used throughout BPRD Parks is a ten-minus aggregate that holds up well to the normal recreational use. It is easy to import as needed to replenish the beaches from naturally occurring erosion and scour and from children digging. The city imports sand to the Waterfront Park beach about every 2 years; gravel is imported on the water access stairs annually or bi-annually, as needed. Both Waterfront Park and Riverbend Park are created beaches with steep slopes down to the water. These steep slopes add to the erosion issues and therefore increase frequency for imported material.

All of the parks provide an ADA accessible route throughout the park and down to the beach. No ADA accessible routes are provided on the beaches. McKay Park in Bend, down river from Riverbend Park, will be reopening in the near future and will be providing an ADA accessible route all the way down into the water.

It was generally found that there is less swimming than wading in the riverfront parks. Most people want to cool off then get out of the water. Beaches are generally used for sunbathing, playing, kids digging, frisbee-throwing, picnicking, etc.

Public Communication:
Signs are posted at all of the parks communicating park rules and regulations. Every park has "Swim at Your Own Risk" signs posted along the beach. Waterfront Park is the only park with a roped off swimming area to keep swimmers from entering the Columbia River and to keep watercraft from entering the swimming beach. Wintler Park has signs facing the water to communicate a watercraft free zone at the beach. Boise River Park posts signs at all of their bridges prohibiting jumping and the dangers and liabilities of landing on river floaters below.

Signs are also posted at many of the parks to inform the public of large events. To minimize user conflict, signed are posted days prior to the event and only a portion of the park is closed for an event, never the entire park.

Alcohol is prohibited by all of the jurisdictions but it is difficult to patrol. After hours partying is difficult to police, particularly at Wintler Park as it is generally isolated.

Most cities post signs regarding the requirement to keep dogs on leashes. Bend has a dog park with access to the water nearby, but there are still use conflicts at Riverbend Park.

None of the cities or jurisdictions test the water quality of the rivers. However when notified of unsafe swimming conditions, each city will post signs closing the beach and/or advising the public not to enter the water. Each city also uses their website as a means of communicating closures to the public.

Facility Amenities:
All of the parks provide restrooms or will provide restrooms upon completion. Some of the parks provide designated changing rooms. Riverbend Park provides individual universally accessible restrooms that many people use as changing rooms. Waterfront Park provides an outdoor rinsing shower.

Private concession companies operate within Riverbend Park and George Rogers Park renting kayaks, paddle boards, floating tubes, and life vests. Riverbend Park offers free life vest rental to children under 12; life vests are provided by the rental company at no additional charge. Riverbend Park is a popular put-in location for floating the Deschutes River. A shuttle service provides rides to floaters between Riverbend Park (put-in) and Drake Park (take-out). At Boise River Park, a private rental company is located within walking distance of the park.

Operations and Maintenance:
Beach and park maintenance is addressed differently at each of the parks. George Rogers Park has one full time and one seasonal maintenance employee at the park. Not much maintenance is done on the beach with the exception garbage collection. Winter Park is maintained by the city, but their efforts are focused on the ground maintenance of the park and restrooms. Maintenance crews do not typically do down to the beach. Instead, the City of Vancouver hires a Clark County corrections crew to pick up litter along the beach during the peak season. Waterfront Park is maintained by the City of Hood River, however the city also hires a private maintenance crew for regular trash collection and restroom maintenance. Waterfront Park does have volunteers who regularly maintain planting areas. Bend Parks and Recreation District will occasionally use a mini excavator to help spread the ten-minus aggregate along the beach.

Interview Questions

Access:

1) How does the public access the beach? (public transportation, bike, bike path, vehicle, etc.)

2) If automobile and bicycle parking are provided or available nearby, how many spaces are there? (Was the quantity of parking based on square footage of beach or other factors?)

3) How close and what sized area would emergency service vehicles need to access the beach and river?

Habitat:

4) Is there a nearby habitat area that is off-limits to public access and use? If yes, how is this area protected?

Safety:

5) Is there a life guard on duty during specific months/days/hours?

6) Are there any security measures on site, and if so, what are they?

7) Have there been any safety incidents that have occurred at the beach?

8) How do you deal with user conflicts, i.e. swimming, fishing, boating (kayaks and large barges), wind surfers, paddle boarders, dogs, habitat, habitat restoration, park events/festivals?

Design:

9) Were any metrics used to determine adequate size of beach to meet demand, or carrying capacity of an existing beach? (metrics based on visitation to the area, local population, river cleanliness, etc.) *What would be the recommended square footage of a successful beach facility?*

10) Are there ADA access issues and if so, were they addressed and how?

11) What are physical characteristics of a successful riverbank public swimming beach (e.g. ideal slope, acceptable soil materials and composition, deposition/scour)?

12) What types of river dynamics (currents, debris, bathymetry, etc.) are best for wading and swimming from shore?

Public communication:

13) What are the specific rules and regulations for public use at the site? Are the rules posted at the site?

14) Are there "swim at your own risk" signs or other safety warnings posted?

15) Is there an area of water roped off to designate the swimming area?

16) If there are habitat protection areas nearby, how is this communicated to the public?

17) Do the beaches issue advisories during sewage overflow events or during events of high algae blooms, with signage or other notifications? If so, how?

Facility amenities:

18) Are there bathrooms/ changing rooms on-site?

19) Are there other support facilities such as small boat/watercraft storage and parking/loading areas, concessions stands, beach storage areas (e.g. for beachgoers personal belongings), rental kiosks (with items such as inner tubes, water boards, or other flotation devices)?

20) Are life vests made available at the site?

Operations:

21) Any volunteer organizations, foundations, or corporations that assist with stewarding the beach?

22) Does the jurisdiction keep a count of beach users? If so, what are the recent summer month counts?

23) Does the jurisdiction charge any fees or request donations of beach users?

24) What is the maintenance regimen at the beach?
    - Whether sand was or is imported to the site, and if so, how often?
    - How is litter removal done and how often is it necessary?
    - Are there or have there been dog or pet use and maintenance issues?
    - What type of maintenance vehicles are needed to maintain the beach and what are the vehicle access needs?
    - What are the annual maintenance staffing needs and cost?

General recap:

25) What has made the beach a success?

26) What are the challenges and how are they best addressed?

M E E T I N G R E C O R D

Project	Central City River Swimming Beach Study	**Meeting Type**	Phone Conversation
Date	2.3.16	**Time**	10:30am
Subject	Boise River Park Interview Notes		
By	Kerry White		

Conversation with Jennifer Tomlinson, Parks Planner with the City of Boise Parks and Recreation Department, phone number: 208.608.7637

- Boise River Park is located along the Boise River. The park is almost exclusively used by kayakers, surfers, and paddle boarders. Phase 1 of the park is complete and includes a viewing area off the Boise Greenbelt Trail and two state-of-the-art adjustable waveshapers within the river. The waveshapers create waves that can be adjusted for conditions favored by kayakers and surfers. Funds for phase 2 of the park are currently underway.
- Not many people enter the water to swim in the river (presumably due to the cold water temps).
- Nearby are two ponds, Quin Pond and Veteran's Pond. People gravitate to those ponds for swimming as well as kayaking, paddle boarding, and fishing. Quin Pond is near the Boise River Park and is part of Esther Park. Esther Park is a 55 acre park (25 acres island) and is currently under construction, it will provide 250 parking spots. Users of Boise River Park will use the parking at Esther Park.
- Park opened in June 2012.

Access:
- Boise River Park is located along the Green Belt. Currently many people access the park via bike along the Green Belt Trail.
- Large boulders are placed between the River and Greenbelt Trail to provide access down to the water.
- Parking is essentially nonexistent now. There are about 10-12 temporary parking spaces available in a dirt/gravel lot in Garden City (across the river from Boise River Park). A couple of spaces are available at Idaho River Sports shop to the east of the river. Most people currently park in the adjacent neighborhoods and walk to the park from there. (Idaho River Sport is a rental shop for outdoor recreation equipment).
- The neighborhood is not in favor of the parking overflowing into their neighborhood.
- Esther Park is adjacent to the Boise River Park. The Park is currently under construction and they are proposing a 250 spot parking lot. Jennifer assumes that will probably still not be enough parking.
- The 250 spot parking lot is based on the use and popularity of parking at Barber Park (the popular floater put-in location).
- There is a bus line that passes near the park however, not many people use public transportation in Boise.

Habitat:
- There is a lot of habitat work along the river, however most of the habitat is done along the banks and would not interfere with users (floaters, swimmers, kayakers, etc.)
- Prior to the opening of floating season every year, the Fire Department and Boise Parks and Rec do Bank re-stabilization that includes cleaning up snags from trees and replanting plugs.
- Fish and Game is doing some fish habitat, but that is up steam from the put-in site for floaters at Barber Park.
- To keep people out of the habitat restoration areas, the parks department uses signs and temporary fencing. This seems to be effective.
- Occasionally they will wrap chicken wire around the plants to protect them from beavers and other wildlife.

Safety:
- No lifeguard on duty.
- Park is closed at night from sun down to sun up.

- Emergency Access: The Fire Department has a nearby boat ramp where they often launch to patrol the river from the water.
- Emergency vehicles do not have a separate access drive. They access the park via a temporary dirt/gravel path; the same path that people use to walk from the Idaho River Sport shop to Boise River Park.
- Jennifer did not think there was a separate emergency access drive designed into the master plan for Esther Park.
- To provide additional eyes on the river The City of Boise has a live webcam of the waveshaper on their website (http://parks.cityofboise.org/boise-river-park-webcam/)

Public communication:

- There are "Swim at Your Own Risk" signs posted in many locations.
- Jumping off the bridges and makeshift rope swings is very popular along the Boise River. The Parks department has addressed the conflict of floaters and 'jumpers' with signs informing jumpers that they are liable for any injuries to floaters.
- At divergence areas (areas with large concrete forms used to divert river water for irrigation) there are "Danger Signs" communicating that all users must exit the river.
- The ponds do not have a formal swimming area. No floating ropes are present to designate a specific swimming area at the ponds.
- Other than jumping, there are no signs addressing user conflicts. Conflicts between floaters, fishermen, swimmers, kayakers, etc. seem to be self-regulating.

Facility amenities:

- There are no bathrooms or changing rooms associated with Boise River Park.
- There will be bathrooms in Esther Park.
- No other support facilities. No tube rental facility.
- No life vests are made available for renting.

Operations:

- City of Boise Parks maintains Boise River Park. There will be one full time maintenance person responsible for maintaining Esther Park and Boise River Park.
- Boise River Park has one wave operator who is responsible for adjusting the flow per user needs. (Kayakers like a different wave intensity than surfers or paddle boarders)
- No user or swimming counts have been conducted at the park.

END

M E E T I N G R E C O R D

Project	Central City River Swimming Beach Study	**Meeting Type**	Phone Conversation
Date	2.3.16	**Time**	3:15pm
Subject	George Rogers Park Interview Notes		
By	Kerry White		

Conversation with Ian Anderholm, Landscape Architect with the City of Lake Oswego Parks and Recreation Department, phone number: 503.675.2548

- George Rogers Park is located in the Old Town district of Lake Oswego, Oregon.
- Park was built in 1945.
- GreenWorks, a landscape architecture firm, did the most recent plan in 2005.

Access:
- Most people access the park by driving, biking, or walking.
- Most bikers access the park via the Willamette Greenway Trail that connects to other nearby parks and green spaces. (Contact Ryan Stee at the City of Lake Oswego for biking counts along the trail near the park; email: rstee@ci.oswego.or.us).
- About 10-15 bike parking spaces are available.
- Pedestrian access is typically from downtown and Old Town Lake Oswego.
- The park is separated into 3 levels. The lower level is near the beach and the memorial lawn, there are 20 parking spaces in that area. The upper levels provide 120 parking spaces. Parking was provided to meet the demand as much as possible. In the summer, these parking lots quickly fill up. Once the parking lots are full, cars overflow into the adjacent neighborhoods. The city does not receive a lot of complaints from adjacent neighborhoods.
- Parking in the park is free.
- Emergency vehicles can access the beach via the (now closed to public) motorized boat ramp and then proceed to drive along the beach if necessary. The boat ramp is on the northern edge of the beach.

Habitat:
- There are habitat restoration efforts along the Willamette River and Oswego Creek including removal of invasive species (spraying ivy) and planting of native plants.
- There appears to be no particular conflicts between users and restoration efforts. Restoration tends to occur in areas where people do not visit.
- When restoration efforts do occur near user areas, the Parks Department puts up signs and fences (if necessary). Park users typically tend to be very respectful of restoration efforts and will call the city inquiring about the restoration work.

Safety:
- No lifeguard on duty.
- The park does not specifically encourage swimming; however it does not discourage it either.
- Police drive through the park occasionally.
- Park is closed from sun down to sun up.
- User conflicts between swimmers and boaters appear to exist.
- There is an old boat ramp at George Rogers Park, however it is now closed to motorized commercial and private boats as well as swimmers. The boat ramp is for kayak and paddle boarding launch only. The boat ramp was closed to motorized boats to reduce parking demands and user conflicts among swimmers, boaters, kayakers, and paddle boarders.

- The top of the boat ramp has a locked gate to prevent use by private and commercial motorized boaters.
- The Police and Fire Department use the boat ramp to put in their boats/rafts.
- Cameras have been attached to the restrooms for security purposes. One of the restrooms is near the beach, along the boat ramp. The other restroom is located near the athletic fields.
- There is one ranger who patrols all the Lake Oswego Parks that cover 650 acres.
- No alcohol is allowed at the park, with the exception of a pavilion reservation.

Design:

- The park was designed in 1945; however people have been swimming in this location since the 1920's.
- The park was designed around the existing water access beach.
- There are three other boat ramps near George Rogers Park:
    - 1) Roehr Park Dock is a commercial dock. It is only five residential properties away from George Rogers Park.
    - 2) Foothills Park located down river has a transient recreational dock for private motorized boats only. No swimmers.
    - 3) Dock at Tryon Cove is a ½ mile downstream of George Rogers Park. Swimming is allowed on the dock. There is also a small beach area and boathouse on the property.
- There are two ADA paths down to the beach. The main path leading down to the beach is a series of ADA accessible switchback ramps with stairs bisecting the switchback. ADA access is also provided at the closed motorized boat ramp.
- ADA access terminates at the sand.
- Dogs are allowed on-leash only. However, rarely is anyone there to patrol this regulation. There is one dog station near the beach for scoop bags and trash.
- Contact Ryan Stee, Park Planner and Designer with City of Lake Oswego, for the slope of the beach, above and below the water. (rstee@ci.oswego.or.us)

Public communication:

- The park does allow space to be rented for events. To minimize conflicts between event and park users, the Parks Department does not allow the entire park to be rented at one time.
- For large events the Parks Department requires advertisement through posted signs at least two weeks prior to the event.
- The Parks Department communicates to the public through social media, city publications (local newspaper), signs, and their website. Because Lake Oswego is a small community, the local newspaper is a very effective means of communicating to the public.
- George Rogers Park does not have issues with algae blooms because of the constant flow of water along the Willamette. If the Parks Department would have to close the beach due to unsafe water conditions, they would rope off the access points and post signs.
- "Swim at Your Own Risk" signs are posted.
- The George Rogers beach is not a formal swimming area. No floating ropes are present to designate a specific swimming area and boating area.
- There are informational signs on the lower level communicating the history of the iron industry and Native American presence in the area.

Facility amenities:

- The park has walking trails, picnic tables, picnic shelters and sports fields.
- There are restrooms close to the beach along the closed motorized boat ramp. No changing room facility or showers.
- There is a private light watercraft company, Alder Creek, operating within the park that rents kayaks, paddleboards, and personal floatation devices. Kayakers and paddle boarders are allowed to launch at the closed motorized boat ramp or directly off the beach.
- Alder Creek rents life vests almost exclusively to kayakers and paddle boarders rather than swimmers.
- There are information kiosks at the beach and the athletic field levels for park information.
- Concessions are available at the athletic field level, but are only open during sporting events.

- The City of Lake Oswego Parks Department does not provide life vests at George Rogers because of the message it sends to the public. By providing life vests to swimmers they feel that the city would be encouraging swimming, along with the message that it is not safe enough to swim without a life vest.
- Henry Hagg Lake, a Washington County facility where several drowning accidents have occurred, has an unofficial area where donated life vests are available for use based on an honor system.

Operations:

- No volunteer organizations assist with the maintenance and upkeep of the park.
- There is one full time maintenance employee and one seasonal maintenance employee staffed at the park during the summer months.
- No fees are collected at the park.
- No user and swimming counts have been conducted at the park. There were bike counts conducted along the Willamette Greenway Trail. Ryan Stee with the City of Lake Oswego Parks Department has that information.
- Very little maintenance is done at the beach.
- No sand is imported.
- Maintenance vehicles very rarely access the beach.
- There has been no particular issue with dogs destroying the beach, only with owners not picking up after their dogs.
- Ivan suggested researching some of the parks within the City of Minneapolis Parks and Recreation Department. They have a lot of parks with beach access for swimming.

END

M E E T I N G R E C O R D

Project	Central City River Swimming Beach Study	**Meeting Type**	Phone Conversation
Date	2.2.16 and 2.3.16	**Time**	1:30 pm and 3:30 pm; 5:00 pm
Subject	Wintler Park Interview Notes		
By	Kerry White		

Conversation with Terry Snyder, Landscape Architect with the City of Vancouver Parks and Recreation Department, phone number: 360.487.8317

- Wintler Park is located in Vancouver, Washington and is the only existing city park with public access to the Columbia River. The 12.5 acre beach park features about 1/4 mile long river access.
- The park was built in 1976.

Access:
- The biggest problem at the park seems to be the lack of parking. With 50-60 parking spaces, the park could easily use 200. Even that would probably not be enough to meet demand.
- The park is located at the end of a narrow street and at the terminus of the 5-mile long Waterfront Renaissance Trail that extends west into downtown.
- Park access is only by vehicle or biking. No public transportation provides access to the park. The nearest bus stop is probably about ½ mile away.
- Currently, no bike parking is provided at the park.
- No separate emergency vehicle access is provided. The parking lot is close enough for emergency vehicles to park and easily access the beach.

Habitat:
- There are no nearby improved river habitat areas.

Safety:
- No lifeguard on duty.
- There is a fee collector who gathers parking fees and provides eyes on the park. No other park ranger patrols the park.
- Police drive through the park occasionally.
- Park is locked at night from sun down to sun up.
- No fires are allowed on the beach.
- There are occasional user conflicts between swimmers and boaters but they are not a huge problem and seem to resolve themselves.
- People do not typically linger in the water or actively swim; most people get into the water to cool down and then get back out.
- Most boating conflicts are from private motorboats and water ski boats.
- Not many kayakers are present at the park. No paddle boaters or wind surfers use the beach.
- Dogs are allowed on leash only; however, no one patrols it.

Design:
- The park was designed around an existing water access beach where a pattern of use was established at this location.
- The ¼ mile long beach area is naturally occurring river sand. The city did not design the water access area or designate the length of the beach area. No sand has to be imported to the site.

- ADA access is provided from the parking lot to the beach. However, the access path terminates once it reaches the sand.
- The grade of the dry beach is assumed to be an average of 3-5% down to the water.

Public communication:
- No site specific rules and regulations are posted for Wintler Park. Only the general park rules are posted.
- "Swim at Your Own Risk" signs are posted.
- This is not a formal swimming area. No floating ropes are present to designate a specific swimming versus boating area.
- Public advisories regarding swimming conditions of the water are rare. Because it is located along the Columbia River, the water is constantly moving and therefor algae blooms are typically not an issue. The Clark County Health Department checks the conditions of the water regularly. If they find the water is not safe for swimming, they contact the Park and Recreation Department. It would be up to the Parks department to then communicate the conditions to the public. The Parks Department would probably post a sign at the park entry notifying the public of the unsafe swimming conditions.
- If people have questions about the park, they typically ask the fee collector.

Facility amenities:
- There are restrooms and changing rooms (with benches) near the beach. No showers.
- No other support facilities are present such as tubes, life vests or light watercraft rentals.

Operations:
- No volunteer organizations assist in the maintenance or upkeep of the park.
- No user and swimming counts have been conducted at the park. The fee program keeps parking counts during the months when fees are collected from Memorial Day weekend through Labor Day weekend. Contact Jen Thomas for more information regarding the Park's Fee Program 360.487.7019.
- For park maintenance questions, contact: Brian Potter 360.487.8323.

General recap:
- What makes the beach a success? The public demand and access to the water. There are very few public beaches along the Columbia that allow people to access the water.
- An additional suggested contact is: Bill Bjurke, Director of the Clark County Parks Department 360.397.6118 ext. 1656 regarding the Frenchman's Bar Park along the Columbia River downstream from Vancouver.

Phone Conversation with Jen Thomas, Systems/Marketing/ Park Operations at the City of Vancouver Park and Recreation Department, phone number 360.487.7019

- Fees are collected May (Memorial Day Weekend) through September (Labor Day Weekend).
- Drinking at the park after hours can be a major problem. The adjacent neighborhood asked the Parks Department to address the after-hours issue. In response, the Parks Department put up a gate to be closed from sun down to sun up. A private security company has been hired to open the park in the morning and close it at night. This seems to help reduce some of people using the park after hours.
- Parking: Once the parking lot is filled up people tend to overflow into the street leading to park. The road leading to the park is sandwiched between a railroad to the north and private properties to the south. The private property owners do not like their street being so heavily used during the summer. The Parks Department is not currently doing anything to address this issue.
- Parking fees go towards the maintenance of City of Vancouver Parks.
- During the summer months (Memorial Day to Labor Day) the park provides two staff people at Wintler Park Wednesday through Sunday. One person collects the parking fees and the other person walks the park patrolling the grounds and providing crowd control. They operate out of an old box van. The two staffing people are only at the park for 8 hrs. of the day, during the peak hours.
- Swimming is not encouraged at the park. However, it is not discouraged.
- There are signs at the water edge designating a no boating zone. Within this zone, the boats must be a certain distance from the shore. If looking at the water, there are signs to the left and right designating that there is no boating in the zone in between.

- The park has a family atmosphere, however according to Jen, "It's a different crowd that goes there."

Phone Conversation with Brian Potter, former Parks Manager for City of Vancouver and Clark County Park and Recreation Department; he currently works for the City of Vancouver Grounds and Maintenance Department, phone number 360.487.8323, cell 360.907.2351

Up to 2014, the City of Vancouver and Clark County Parks Department were run as a joint effort but have now split into their own separate Parks Departments.

- Brian strongly suggested that a new beach be deemed, "a water contact beach" if informal swimming is allowed. He does not recommend calling the beach a "swimming" access beach unless the city is going have lifeguards present.
- Brian has had some bad experiences specifically at Frenchman's Bar Park. This park has a beach but is not a formal swimming area. However, because it was designated as a swimming beach, it was continually put on a list as one of the "worst beaches" because during heavy storm events, Portland's combined wastewater sewer would flow into the Columbia River near the park. This would contaminate the water and create very unsafe swimming conditions. Due to the frequency of the poor water conditions, the beach was listed as a "bad beach." Brian and others at the Parks Department advocated for the beach to not be called a "swimming beach" anymore.
- The only designated swimming beach in Vancouver is Klineline Pond owned and operated by Clark County Parks. It has seasonal lifeguards on duty.
- Bill Bjurke with Clark County Parks will occasionally import new sand to Klineline Pond and Frenchman's Bar Park.
- The County Parks Department has a beach sweeper that sifts sand at a designated depth removing debris including needles, glass, trash, etc.
- Brian agreed the biggest issue with Wintler Park is that it is an overused and undersized park with minimal parking within an urban area.
- Wintler's location at the end of a road with limited access attracts an interesting user group who tend to cause trouble.
- Dogs do not destroy the beach. Brian does not see any issues with dogs, only the dog owners, who do not pick up after their dog.
- The Parks Department hires MetroWatch to open the gates to the park in the morning and lock the gates to the park in the evening. This does seem to address some of the problems with after hour park use.
- Maintenance occurs every day in the summer, including collecting trash. Parks maintenance crews do not go down to the beach.
- The maintenance crew uses a standard truck.
- The Parks Department utilizes a Clark County Collections Crew (jail crew) to maintain the beach. The collections crew goes to the beach daily on summer mornings to pick up litter.
- A temporary seasonal sanitation crewmember visits the park daily in the summer to clean the restrooms.
- The grounds maintenance expense for Wintler Park in 2014 was $18,800. Facility Maintenance expenses in 2014 were $2380.
- Wintler Park is relatively low maintenance because it is an old park that is in need of an overhaul. Brian feels the users also have low expectation of the park experience and facilities.

END

M E E T I N G R E C O R D

Project	Central City River Swimming Beach Study	**Meeting Type**	Phone Conversation
Date	2.8.16	**Time**	3:00pm
Subject	Riverbend Park Interview Notes		
By	Kerry White		

Conversation with Chelsea Schneider, Landscape Architect with the Bend Parks and Recreation District (BPRD), phone number: 541.706.6155

- Riverbend Park is located in Bend, Oregon along the Deschutes River.
- It is located upstream from the Old Mill District and across the river from Farewell Park.
- Riverbend Park is a popular destination for light watercraft (kayakers, paddle boarders, etc.), floating the river, and waders. Not many people swim in the river at this beach.
- The park was built in 2009.
- The park includes a special events venue and public river access, and conserves the native riparian landscape. It features a large open lawn, a sandy beach, public restrooms, a picnic shelter, and fully accessible walking trails.
- Farewell Park also has a beach and is a launch location for paddle boarders, kayaks, and floaters.

Access:

- Most people visit the park for floating and therefore drive to the Park. Riverbend Park is a popular put-in site to float the Deschutes River.
- Riverbend Park has about 120 parking spaces available. However, the park shares a parking lot with the Bend Parks and Recreation District Building. Parking spaces for city employees becomes an issue during the floating season. There are about 50 parking spaces available at the gravel overflow lot located northeast of the established parking lot. Once both parking lots are full, cars will spill out onto the adjacent roads
- Currently there is no parking fee, however BPRD has discussed implementing one.
- Farewell Park also has a beach for swimming and is a less popular put-in site for paddle boarders and floaters. Farewell Park has about 40 parking spaces available. Overflow parking will spill out into the road and adjacent neighborhood.
- Additionally people will park near the take-out location at the Old Mill District.
- Some people who are not floating will bike to the park.
- There are approximately five bike parking racks at the BPRD Building and about eight bike parking racks at the shade structure. (There is designated employee bike parking rack at the BPRD Building as well).
- On a normal floating day, the bike parking racks only have a couple bikes on them. However, during an event, the bike parking racks will easily fill up.
- The Park is located along the Deschutes River Trail.
- All of the paved paths leading down to the beach are designed for maintenance and emergency vehicular access. The main emergency vehicle access is a permeable asphalt path located at the east end of the park. This path has removable bollards at the top of the path to keep private vehicles out.

Habitat:

- Habitat areas include native and adaptive plants along the riverbank. Restoration areas are located between the Deschutes River Trail and the river. (The beach cuts through this riparian area to provide access to the water.) To keep people out of the riparian habitat area, a two rail fence has been installed along the trail. Woven wire mesh fencing is fastened to the back of the fence to keep dogs out.
- The mature, dense vegetation within the riparian area also helps to isolate the riparian area and deter people from cutting through to the water.
- Very few signs are posted educating and informing people of the habitat restoration efforts. However, people generally seem to be very respectful of the habitat restoration areas.

Safety:

- No lifeguard on duty.
- Police drive through the park occasionally.
- No alcohol is allowed at the park.
- There is a stewardship program with the BPRD. The stewardship program has been around for about 3-4 years and has been very effective.
- The stewards try to foster positive relationships with people using the park. They patrol the water in an attempt to minimize drinking of alcohol and patrol the bridges to minimize people jumping into the river. A bridge jumper landing on floaters has been described as a major conflict on the river. (For more stewardship questions contact Jeff Hagler 541-706-6217, Stewardship Manager).
- BPRD has recently hired a private security company to monitor the park off hours. They primarily monitor the BPRD Office Building at night and make sure no one is using the park after hours.
- Due to the popularity of river-related activities, there are a lot of user conflicts at the park and in the river. Most frequently, floaters passively float in the way of paddle boarders. Dogs off leash sometimes disturb beach users. Bridge jumpers occasionally land on floaters. Fishermen tend to occupy other parts of the river, but they sometimes conflict with paddle boarders and floaters.
- BPRD does not have much influence over many of these conflicts since the river is not the city's jurisdiction. BPRD posts signs at all their access locations communicating river etiquette.
- The private rental company also tries to communicate proper river etiquette to users.

Design:

- Construction for the park was completed in 2009.
- The beach is about 100 ft. wide with fenced off riparian habitat areas on both ends of the beach.
- Riverbend Park is the most popular put-in location for floating the river and for light watercraft users including paddle boarders and kayakers.
- Not many people swim in the river at this location. However, many families and children use this beach for wading in the water.
- The beach is made up of ten-minus aggregate, the typical material used at BPRD beaches.
- Riverbend Park and Farewell Park have about a 10% slope down to the river. This seems to be a bit steep, adding to some erosion problems. Material is brought in regularly to replenish the beaches.
- The beaches see a lot of erosions and scour from the natural flow of the river as well as from kids digging in the beach. 10 minus aggregate is an easy and accessible material to replenish the beaches.
- No metrics were used to determine the adequate size of the beach or parking lot to meet demand.
- No river data was collected for locating the beach, including flow velocity, currents, etc. Most of the beaches were probably located based on existing desire lines where people were already accessing the river.
- In hindsight, collecting river data would have been a good idea for Farewell Park. The location of this park is very prone to erosion by the river's natural flows.
- McKay Park is a wading beach downstream from Riverbend Park and Whitewater Park; and it will be reopening soon. BPRD is implementing a stepped beach made up of natural imported sand (not the typical ten-minus aggregate.) McKay Park will provide an ADA accessible path all the way down into the water. The location of McKay Park is more protected from river currents and scour than Riverbend and Farewell Parks. BPRD has designed rock jetties to further protect the beach at McKay Park.
- All of the paths within the Riverbend Park and the Deschutes River Trail are ADA accessible. However the beach is not ADA accessible.

- Dogs are allowed on leash only. However, people commonly let their dogs run off leash. There is a popular water access dog park downstream and adjacent to Riverbend Park that is heavily used during the summer floating season. During the off-season and in the early mornings, people let their dogs off leash at the Riverbend Park beach. Unfortunately the nearby dog park does not resolve all conflicts between Riverbend Park users and dogs.

Public communication:

- The beach does not have lifeguards but does post signs: "Use at Your Own Risk."
- BPRD does not do any testing of the water and does not have the authority to close the river. The Oregon State Marine Board, the public agency with the authority to close the river if necessary, does all water testing. If warranted, BPRD could post signs advising the public not to enter the water.
- Riverbend Park beach is not a formal swimming area. No floating ropes are present to designate a specific swimming area.

Facility amenities:

- ADA accessible restrooms are provided at the park. No designated changing room facilities or showers are provided. The restrooms are single occupancy that many people use as changing rooms; however there are no benches provided in the restroom for changing.
- A third party rental company operates a seasonal "food truck" concession within the park. It rents tubes for floating, paddleboards, and life vests. BPRD requires that the rental company provide a free life vest to anyone under the age of 12 yrs. old, as required by the Oregon State Marine Board. Technically, anyone who is operating a small watercraft must carry a personal flotation device, including paddle boarders and kayakers. Floaters are exempt; however once floaters tie their tubes together they are considered a small watercraft and technically must carry a life vest.
- BPRD puts out a request for proposal every 2 years for response by rental companies.
- A shuttle is provided to bring floaters back and forth between the launch point and take-out locations. A minimal fee of $3.00 is charged. (Not sure if the city or the third party rental company operates this shuttle.)

Operations:

- No volunteer organizations assist with the maintenance and upkeep of the park.
- There is one dedicated park person for Riverbend Park.
- For more information regarding the BPRD maintenance, contact the head of the maintenance crews, Michelle Morell 541.706.6210.
- Maintenance vehicles include a full size pickup and a 4-wheeler for the winter.
- All the pathways within the park and the Deschutes River Trail are designed for vehicular access. Maintenance vehicles can access the beach via the park paths, the Deschutes River Trail, or the designated emergency/maintenance drive along the northeastern portion of the park. The designated emergency/maintenance path is permeable asphalt and is closed to private vehicular access with removable bollards.
- In the winter, during the low season, a couple truckloads of 10 minus aggregate is brought in to level out the beach from naturally occurring erosion and user wear and tear (kids digging). The 10 minus is spread over the beach with shovels or a mini excavator.
- No fees are collected at the park.
- No user and swimming counts have been conducted at the park. However floater counts were conducted at Portage Pass near Colorado Avenue, where floaters used to be required to take out. It was estimated in 2014 that approximately 160,000 people floated the Deschutes.

END

M E E T I N G R E C O R D

Project	Central City River Swimming Beach Study	**Meeting Type**	Phone Conversation
Date	2.9.16	**Time**	10:00am
Subject	Waterfront Park Interview Notes		
By	Kerry White		

Conversation with Steve Wheeler, City Manager with the City of Hood River, phone number: 541.387.5252

- Hood River's Waterfront Park is located along the Columbia River in the city's industrial area.
- The land originally belonged to the Port of Hood River and was intended to be developed. The citizens of Hood River advocated for a park instead. The Port donated the land to the city for the development of the Waterfront Park.

Access:
- Most people access Waterfront Park by vehicle. However, many people bike or walk to the park as it is relatively easy and accessible. The park is about a 10-15 minute walk across I-84 from City Hall.
- The park does not have a designated parking lot since street parking is available. Historically parking in the industrial area has been free; however this July the city will meter the street parking for $1/hr. similar to downtown.
- Metered parking is intended to help resolve some of the parking conflicts that have arisen. Across the street from the park are a brewery, a café, and other restaurants where the customers and visitors to the park compete for available spaces.
- Steve does not have the parking counts for the area near Waterfront Park.
- Bike parking is available at the site. Steve is not sure how many bike parking spaces are available, but feels the amount is sufficient to meet demand.
- Emergency vehicles can drive onto the pathways within the park if necessary. No designated emergency access path is provided onto the beach.

Habitat:
- Steve is not aware of habitat restoration efforts at the park.

Safety:
- No lifeguards are on duty.
- Last summer a full time seasonal park ranger was hired to patrol the City of Hood River Parks. The ranger wore a uniform and was unarmed. He walked the parks and helped resolve issues, answered questions, and enforced park rules and regulations. If necessary he would radio police personnel for serious issues or conflicts within the Park. The park ranger divided his time among all the City of Hood River Parks. The presence of a Park Ranger seemed to be very effective at keeping eyes on the parks.
- Conflicts at the beach are typically among people setting up equipment for watercraft, dogs, and people playing Frisbee. The beach is for swimming only. People should not be using the beach or park as a put-in location or for setting up equipment.
- Occasionally the park is closed due to contaminated water or unsafe swimming conditions due to the outfall of treated sewage into the Columbia River near Waterfront Park. The city is currently making modifications to the outfall location to make it safer for swimmers. The outfall area is going to be moved further downstream of the park.
- In the summer the State Marine Board patrols the Columbia River regularly.

Design:

- No metrics were used to determine the adequate size of the beach to meet demand. The size of the park was designated by the size of the land donated by the Port.
- Steve believes the pathways at Waterfront Park are ADA accessible. The beach itself is not ADA accessible.
- The slope of the beach is fairly steep, but not too steep for beach users.
- The beach is sandy and the sand is likely imported. Frequency or necessity of replenishing sand is unknown.
- The length of the beach was determined by the location of the land donated by the Port of Hood River. It happens to be on a pretty calm part of the river. The beach and swimming area were created by excavating into the dry land and shaping a small cove to achieve calmer water.
- Due to the calm waters in this area, erosion and scour do not seem to be an issue. It is a pretty secluded area and protected from river currents.
- Below the water is a gentle slope with no drop offs below water.
- Steve is not sure of if any river dynamics data was collected for the design of the beach.
- Dogs are allowed at the park, but are not allowed on the beach. There has been talk of a future dog park along the river near Waterfront Park (about a ¼ mile way) with access to the water.
- There is no watercraft launch allowed at the beach. There are plenty of other boat launch locations along the Columbia River.

Public communication:
- With no lifeguard on duty, the city has posted signs: "Swim at Your Own Risk."
- The swimming area is roped off from the Columbia River to suggest a boundary for swimmers and to keep watercraft and sailboards out of the swimming area.
- Rules and regulation signs are posted at the Park.
- In the event that the beach is closed due to contamination or other unsafe swimming conditions the city would post signs at the park and information on the website.

Facility amenities:
- Waterfront Park's features include an amphitheater, playground, beach, picnic area, restrooms, changing rooms, and showers.
- The amphitheater and picnic areas are available for renting.
- No other rental services are provided including tubes, life vests, kayaks, paddle boards, etc.
- No concessions for food are provided. There are nearby restaurants.

Operations:
- Ann Frodel is the main point of contact for the volunteer groups.
- There may be some volunteers included in the maintenance of the park.
- The city maintains the Waterfront Park ground. Trash collection and restroom maintenance is done by a private company.
- The annual budget for parks maintenance is $400,000 to include all the city parks in Hood River. Waterfront Park and Jackson Park are the most popular parks and require the most maintenance.

Email Correspondence with Ann Frodel, gorgeview@gorge.net, (2.8.16)

How did the city choose the location for the beach/park?
The property was always meant to be a waterfront park, and the city had design plans from 10 years back. However a developer from Portland was talking to the Port about developing condos on this property. Suddenly the citizens formed a grass roots group and put up a ballot measure to propose it as open space. It passed by 67%, and eventually the Port donated the 6-acre parcel to the city for use as a public park. The Port made a stipulation that if the park were not developed as a fully functional park with seven required amenities within seven years, it would take the land back. The amenities were landscaping, parking, children's play area, picnic area, picnic shelters and restrooms.

What kind of river dynamics were researched prior to choosing that location for the beach (i.e. river flow velocity, currents, depth of water, bathymetry, etc.)
The engineering was done through GreenWorks with some work contracted out to KPFF Consulting Engineers and Interfluve. Ann was not sure of the specifics, but it was a bit of a learning lesson with a strong stormy spring after the

first season. The combination of heavy wave action, wind and currents and water height was not fully anticipated and damage and erosion occurred on the beach and on the water access stairs. The damage was repaired and some modifications were made. The beach had to have additional groins and large rocks added on both sides. The water access had to have rocks moved as many had been pulled into the river blocking the entrance. Depending on winter storms, maintenance at the water's edge will need to be completed.

How did the research influence the location of the parks?
This was the land available and seemed to be a good location. Generally it is a good location and far enough away from the currents of the Hood River and close to the Event Site (primarily a sailboarding beach) on Port property.

Are there conflicts between user groups, including swimmers, paddle boarders, wind surfers, kayakers, boaters, dogs, etc.? How does the Parks Department deal with these issues?
The city assigned two groups to work on the park, the Park Design Committee (PDC) and the Waterfront Community Park Assoc. as the fund raising group. There was a children's play area design group. The groups worked diligently to come up with a design to accommodate a variety of users. There were several public input meetings to make sure ideas were received. Fund raising had already begun so several park supporters became interested in the project. Maryhill State Park was used as an example of separating the swim beach from the sports launch. The groups worked closely with Michele Mathis from GreenWorks and the PDC to come up with some options.

Were any metrics used to determine an adequate size of beach to meet demand or carrying capacity? (metrics based on visitation to the area, local population, river cleanliness, etc.)?
The metrics were determined by the lot size and the depth of the property and the engineers determined the size and depth based on presumed water levels. To install the beach, sand had to be removed, thus adding to the flood plain, making it much easier to get permitting for the beach. In hindsight the beach is probably too steep; the water levels may not have been accurate since there is no local measurement in the area. Sand has to be added every few years, but creating a gentler slope would have extended the beach area south, taking up more of the park area. Not aware of actual metrics for capacity; however the goal was to create a good sized beach to replace the Marina beach that was now silted in and has become dangerous due to Hood River currents. The water is tested weekly in the summer by Columbia River Keepers and generally is of good quality.

What are the physical characteristics of the swim access beach? (e.g. slope of beach down to the water, slope below the water, soil material/composition, and deposition/scour)
Phase I park design of the beach and water access have been obtained. The water access is gravel with concrete steps. The beach is local sand.

Is there a nearby habitat area that is off-limits to public access and use? If so, how is this area protected and how is it communicated to the public?
There are riparian areas on either side of the beach, east of the stairs and on the west side of the beach for habitat.

What is the maintenance regimen at the beach?
Maintenance is the city's responsibility.

Is the sand imported to the site? How often?
Sand is imported every 2 years, as necessary. Gravel is installed on the stairs, annually or bi-annually, as needed.

How is litter removal done and how often is it necessary?
The city maintains the lawn, garbage, restrooms and major maintenance on a regular basis. Volunteers have assumed maintenance for the planting areas of the park on a regular basis.

Are there or have there been dog or pet use and maintenance issues?
Dogs are supposed to be on leaches in the park because it is a multi-use area. Dogs are allowed to swim from the beach in the winter season.

What type of maintenance vehicles are needed to maintain the beach and what are the vehicle access needs?
A question for public works.

What are the annual maintenance staffing needs and costs?
The same…

Is there a lifeguard on duty? If not, how is this communicated to the public?
There is signage, with no lifeguard is on duty.

How do people access the site? How much vehicular and bike parking is provided?
There is street parking for 66 cars and bike racks on site. There is also parking for the windsurfers and paddle boarders on the east side parking lot at Lurh Jensen. However during the peak season, there is not enough parking.

Are there support facilities such as bathrooms, changing rooms, showers, small boat/ watercraft storage and parking/loading areas, concession stands, beach storage areas (i.e. for beachgoers personal belongings), rental kiosks (with items such as inner tubes, water boards, kayaks, life vests, etc.)?
There are restrooms and an outdoor rinsing shower. There is no watercraft storage, but there is storage for a composting trailer, tools and a wheel barrel for volunteers' use. There are no rentals on the site, as they are just ½ block away at the Event Site beach. Most of the beach users have their own windsurfing or paddleboard or beach equipment, so it is not necessary. There is space for special events kiosks and such but it is not a daily occurrence. The park has been rented out for major events and concerts in the amphitheater area.

END

Beach Images

The photos throughout this appendix were received directly from the city or jurisdiction interviewed, taken during site visits to George Rogers Park and Wintler Park, or collected from the internet.

RIVERBEND PARK
Bend, Oregon

(google.com)

(google.com)

Rules and Regulations

Bend Park & Recreation DISTRICT

Welcome!

Park rules and regulations are in place for the safety and comfort of all park users.

Please enjoy your visit.

Park users are responsible for knowing and following all park rules and regulations.

This is a partial listing of park rules and regulations. For the full rules and regulations text, call 541-388-5435, or visit our website www.bendparksandrec.org.

For police matters, call 541-693-6911.
For emergencies, dial 911.

- Pets must be on leash.
- Pet waste removal is required.
- Do not litter. Trash and recycling receptacles are provided.
- Vehicles must remain on roadways or in parking areas.
- Feeding geese, ducks and other waterfowl is not allowed.
- Smoking and the use of tobacco products is not allowed.
- Glass containers are not allowed.
- Removing vegetation is not allowed.
- Camping is not allowed.
- No parking on district property between 10 PM and 5 AM.
- Metal detectors allowed by permit only.
- Alcoholic beverages allowed by permit only.
- Sales and concessions allowed by permit only.
- Propane cook stoves are allowed.
- Open fires and charcoal grills are not allowed.
- Feeding wildlife is not allowed.
- Discharging fireworks and other explosives is not allowed.
- Hunting is not allowed.
- Airborne projectiles, including in golf and archery, are not allowed.

Park Hours: 5 AM - 10 PM

River Floaters - What You Need to Know

Welcome to Floating the Deschutes River

The Deschutes River is wild and caution should always be exercised. Know your limits. Be prepared. Be safe. Enjoy yourself!

Know Before You Go:
- Children under 12 years of age are required to wear a life jacket.
- The passageway has some turbulence. Observe river characteristics before entering.
- Know your abilities and limits and stay within them.
- **Watch for the boom** (floating in-river barrier) warning of the upcoming passageway. Stay to left side of river. **Do not cross over the boom into whitewater channel.** Dropping into the whitewater channel from upstream is limited to expert paddlers only.
- Float single file down passageway.
- Swimming is allowed at McKay Park beach only.
- The island in the river is for whitewater line-up only.
- Protect plants and wildlife. Put in and take out of river at designated locations.
- Keep the river and parkland clean. Secure your gear to avoid scattering of garbage.
- Practice courtesy and watch out for others along the river.

Recommended Equipment:
- Coast Guard approved life jacket (personal floatation device)
- Whistle or noisemaker
- Cold-water protective clothing and footwear
- Throw rope

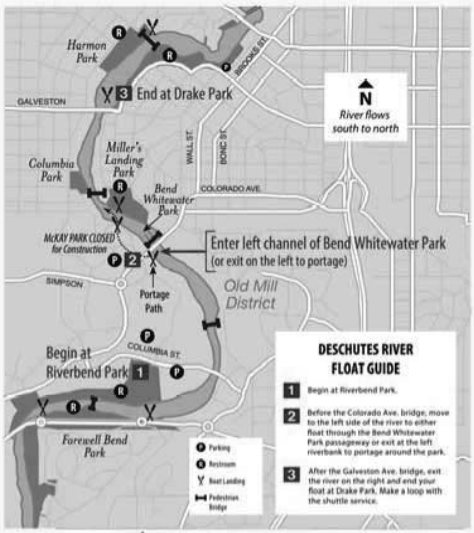
Prohibited:
- Alcohol and tobacco products
- Motorized craft
- Obstructing the passageway or whitewater channel
- Swimming, diving, or jumping within the Whitewater Park

Portage Alternative: If you prefer not to float through the passageway, take out of the river just prior to the Colorado Ave. Bridge to portage around the dam. Re-enter at McKay Park beach.

Shuttle Service: Cascades East Transit operates the Ride the River shuttle from Memorial Day to Labor Day. Go to cascadeseasttransit.com for schedule and fees.

Unsafe or illegal behavior may result in exclusion and/or citation.

Go to bendparksandrec.org for more information on the Bend Whitewater Park.
Emergency: call 911 To report maintenance: 541-388-5435



Bend Park & Recreation DISTRICT

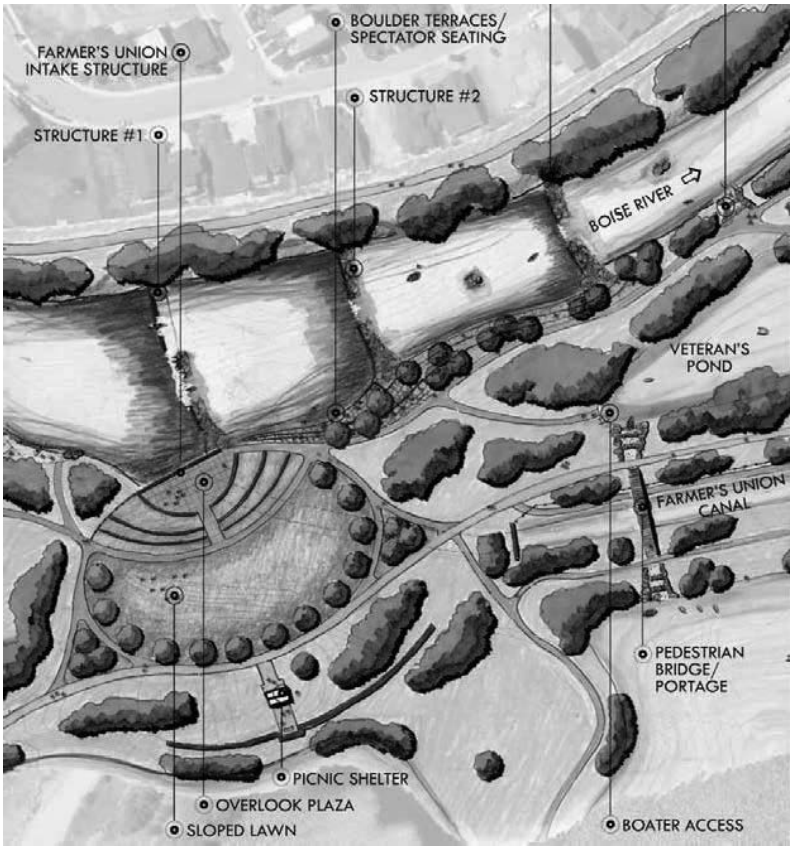
WARNING: Rivers may present hazards not easily recognized such as entrapments, holes, changes in flow, and debris.
River recreation can lead to exposure to cold, injury or drowning. Always exercise caution when recreating in the river. Recreate at your own risk.

GEORGE RODGERS PARK
Lake Oswego, Oregon

(google.com)


WARNING
NO LIFEGUARD ON DUTY
SWIM AT YOUR OWN RISK
ALCOHOLIC BEVERAGES PROHIBITED IN PARK

BOISE RIVER PARK
Boise, Idaho



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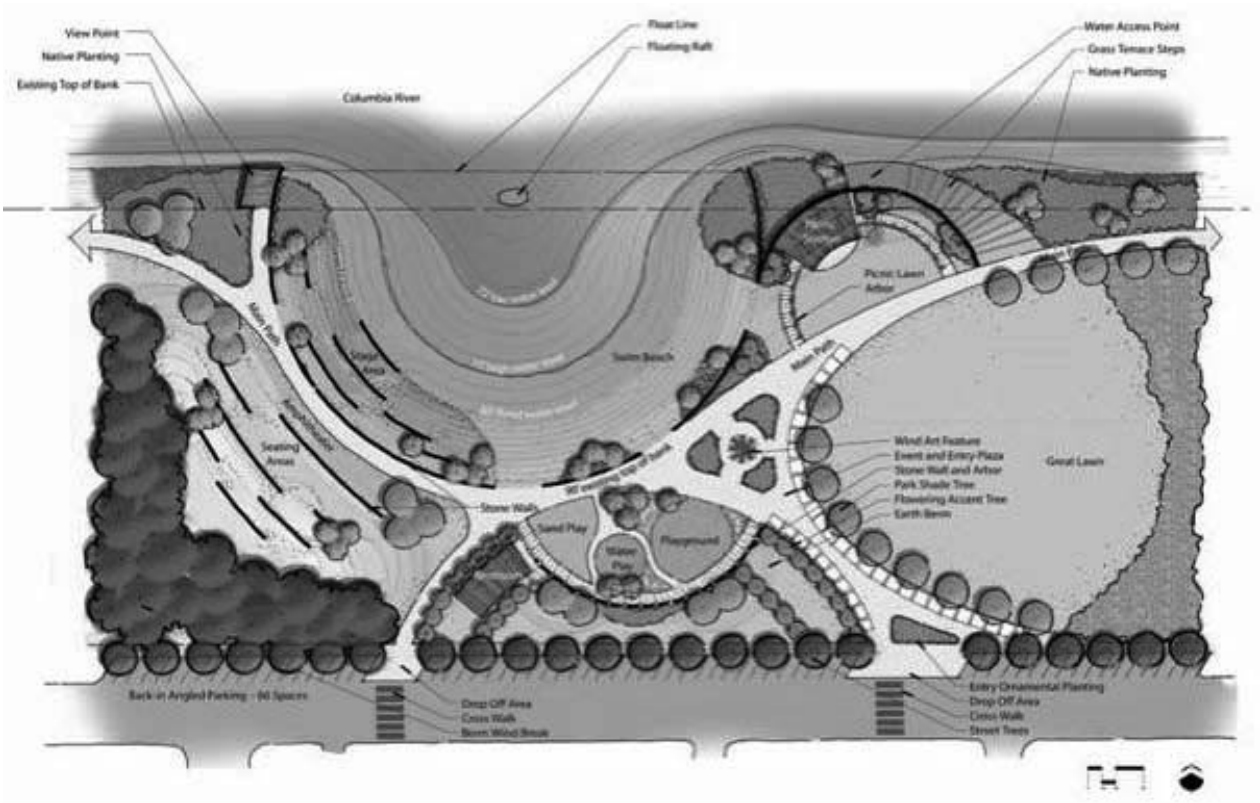
WINTLER PARK
Vancouver, Washington


CAUTION
Drop offs & Strong Current
Swim at your own risk


ATTENTION PARK USERS
THE CITY OF VANCOUVER STRIVES TO MAINTAIN ITS PARKS IN A MANNER WHICH PROVIDES A SAFE AND PLEASANT EXPERIENCE FOR ALL USERS.
THESE GROUNDS ARE PATROLLED BY UNIFORMED AND NON-UNIFORMED POLICE PERSONNEL.
YOUR INVOLVEMENT IS ENCOURAGED TO ASSIST IN AWARENESS OF POTENTIAL PROBLEM AREAS.
IF YOU SHOULD ENCOUNTER OR BECOME AWARE OF ANY SITUATIONS WHICH YOU BELIEVE TO BE ILLEGAL OR VIOLATES YOUR SENSE OF SAFETY PLEASE CALL 696-8292 TO REPORT YOUR CONCERNS TO POLICE OR 911 IN AN EMERGENCY.


WELCOME
TO YOUR PARK
PARK CLOSED: 10 P.M. TO 5 A.M.
PARK RULES
• KEEP DOGS ON LEASH
• REMOVE ANIMAL WASTE
• NOISE ORDINANCE ENFORCED
NOT PERMITTED
• MOTORIZED VEHICLES OFF ROADWAY
• REMOVING OR DESTROYING PLANTS
• FIREWORK OR FIREARM DISCHARGE
• ALCOHOLIC BEVERAGES
• CAMPING OR OPEN FIRES
• LITTERING
• TOBACCO PRODUCTS

WATERFRONT PARK
Hood River, Oregon



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