FORD CALUMET ENVIRONMENTAL CENTER FEASIBILITY STUDY

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ACKNOWLEDGMENTS

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THE SEARLE FUNDS AT THE CHICAGO COMMUNITY TRUST

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Executive Summary

IN SEPTEMBER 2013 THE MILLENNIUM RESERVE STEERING COMMITTEE (MILLENNIUM RESERVE SC) IDENTIFIED THE FORD CALUMET ENVIRONMENTAL CENTER AS ONE OF FOURTEEN PRIORITY INITIATIVES FOR THE MILLENNIUM RESERVE. FOLLOWING THE ANNOUNCEMENT, THE SEARLE FUNDS AT THE CHICAGO COMMUNITY TRUST OFFERED $35,000 IN FUNDING FOR A FEASIBILITY STUDY FOCUSED ON REVIVING THE PLANS FOR THE SOUTHEAST-SIDE ENVIRONMENTAL CENTER.

The Chicago Park District (CPD) was asked to lead and manage the Feasibility Study process along with a 18-member Working Group representing 12 organizations. In summer 2014, CPD engaged the Lakota Group, Primera Engineers, and Baily Edward Architects (Project Team) to complete the study. At the beginning of the assignment, the Project Team was asked to accomplish the following tasks:

• Assess the need for an environmental center, engaging the community, local public and private schools, community-based organizations, and other organizations that manage environmental programming in the region.
• Facilitate a discussion among partner organizations regarding the potential center’s mission, target audience, programming, and services.
• Review Studio Gang Architects’ 2004 plan for the Ford Calumet Environmental Center and assess its feasibility within the context of existing resources.
• Assess the feasibility of building a center on the southeast side within the context of existing resources.
• Consider and analyze a range of options for the design of the center, and make a recommendation.

The Project Team undertook the assignment in three phases: Engage, Analyze, and Envision.
The Engage phase focused on stakeholder outreach through personal interviews, focus-group discussions, and a public open house engaging regional land owners and manager, implementation partners, potential users, and other project stakeholders. Over a period of 4 months, the Project Team spoke with over 100 different stakeholders, representing a broad range of Calumet-region interests. Conversations with stakeholders revealed:

- There are many interested and engaged stakeholders in the Calumet area.
- There is a general frustration with the delay in creating the FCEC, and a desire to see something built.
- There is a recognized need for partnerships.
- Goals of FCEC should include environmental, economic, and cultural initiatives.
- There is a need to create a gateway that will draw visitors through the region.
- There is no agreement on a single best site.
- Most stakeholders are open to rethinking how the goals of the FCEC can be achieved by adapting the facility’s design and site to work within the framework of existing resources and regional synergies.

During the Engage Phase the Project Team also prepared an existing conditions report, focused on understanding the project history and comparable regional facilities, and identifying the current resources of the Calumet region.

**Project History**

- The FCEC was initially envisioned to cost $6 million in construction plus another $6 million in programming and maintenance. Only $7.6 million was available for capital development at project outset, and by 2008 the construction document (CD) estimate for the award-winning SGA design was over $17 million. The subsequent economic downturn and change in administration further hampered fundraising efforts while construction costs continued to increase.
- The passage of ten years has resulted in the project’s cost quadrupling its original estimate.
- The award-winning SGA design is universally admired and at 39,000 SF, (28,000 sf in the interior of the main building), included the capability to serve many different needs. The private market did not find adequate incentive to fund the shortfall, but the Loop Capital Management (LCM) study suggested the market may be willing to fund only programming-related costs in a downsized facility.

2015 Context

- Many new and promising developments in the area provide opportunities for the FCEC to help realize Millennium Reserve Priority Initiatives. The Big Marsh Bike Park, a Pullman National Monument, new or invigorated National Heritage Areas, and the Cal-Sag Trail will help draw visitors to the region.
- Possible changes in land ownership and use open additional sites for consideration both west and east of Lake Calumet and suggest possibilities for better access and connectivity.
- Growth in active recreation and eco-tourism open new possibilities, as well.

**Potential Sites**

- The recommended site should have numerous environmental and recreational amenities to draw visitors in, and have the ability to accommodate active users that may pose risks to higher quality environmental issues.
- Accessibility in the region is challenging, but will be essential to draw visitors from the disparate communities and the region.

**Comparable Facility Approaches**

- There are a number of environmentally-focused centers within relatively close proximity to the sites evaluated as candidates for the new facility. Despite the quantity of regional facilities, no one center currently serves as a true gateway to the Calumet region.
- Comparable facilities within the Chicagoland region range in size from 2,000 SF to 5,000 SF.
- Partnerships between agencies, not for profit organizations, and even for-profit corporations lend success to these types of facilities.
- Locational synergies, such as proximity to other structured or unstructured recreation resources or proximity to local neighborhoods lend success to these types of facilities.
- Once a site and operator for the new facility are selected, resources should be dedicated to programming and operational planning to help ensure success.
- Design consideration should also be given to the fact that resources for programs and staff may not be available from day one - and that the new facility may need to support unstructured visitor participation in its infancy.

Next, based on the community input and assessment of existing resources, the Project Team and the Working Group developed a draft mission for a new center and a list of target users and programs for a new center. Early identification of a mission, goals, users, and programs was intended - an proved useful - to help guide the eventual vetting of a facility approach and site selection in the Analysis phase.
Center Mission
There is a need, and widespread support, for a recognizable center with an environmental focus in the Calumet region that shares information about the region, fosters environmental stewardship, and encourages visitors to get out and explore greater Calumet. The center’s mission should focus on developing a Calumet-Region Gateway Center to serve local community members, draw in regional visitors, and share the region’s environmental, cultural, historical, and recreational assets. The Project Team and Working Group developed the following draft mission for the Gateway Center:

“To create a gateway and a center point that knits together the Calumet region to serve local communities, draw in regional visitors, and celebrate the region’s environmental, cultural, and recreational assets.”

This definition of the mission statement helped to define the purpose of the project – to answer the question “why?” It also recognizes that while this facility will not single-handedly accomplish all of the goals expressed by stakeholders, it can serve as an important catalyst for change by serving as a gateway to the region.

Target Users
Since the final definition of target user groups will depend largely on the agency or entity who is selected to operate the facility and their ability and willingness to work in partnership with other organizations, for the purposes of this study target user groups are defined generically as regional visitors and local visitors. The needs of regional visitors and local visitors should be considered equally when defining programming and ultimately space needs during the next phase of design.

Target Programs
Since the final definition of program opportunities will also depend largely on the agency or entity who is selected to operate the facility and its ability and willingness to work in partnership with other organizations, for the purposes of this study, target programs are defined as fitting into three categories: education, recreation, and advocacy / community-based programming.
Following the “Engage” phase scope of work, the Project Team began the second phase, “Analyze.” Working closely with a Working Group the Project Team conducted a comprehensive analysis of the data collected, identified alternative strategies for implementation and criteria by which to evaluate each strategy, and evaluated those alternative strategies.

This phase of the project was made particularly complex by the number and variety of stakeholders, and by the hopes and expectations that have grown up around the facility over the past decade or more. Stakeholders from various organizations would like to see the facility address such varied needs as economic development, tourism, job training, environmental restoration, education, and both passive and active recreation. They also hope that the benefit can be felt not only at the facility’s specific location, but also throughout the Calumet Area. Given concerns about limited funding heard from Millennium Reserve SC members and many stakeholders, it was particularly important to create a rigorous process that would lead to the best possible outcome for the region.

Facility Approach Evaluation
To determine a preferred model, each facility approach alternative was passed through three filters: support the mission and goals, meet community expectations, and meet funder expectations. Four different facility approach models were evaluated by the Project Team and Working Group. In the end, a “Single Facility + Approach” was selected as the preferred model.

In the Single Facility + approach, the initial investment would be invested in a single facility at, or in close proximity to, a single site where another activity-generating development with a regional draw is underway. Examples of activity generators suggested by stakeholders that may provide viable synergies include the Bike Park at Big Marsh, the Pullman National Monument, and the terminus of the new Cal-Sag Trail (located near Hegewisch Marsh).

This approach was selected because of its ability to best:
- Support the mission and goals
- Serve target users
- Support target programming
- Have an immediate “Day 1” impact
- Deliver on the original promise made to the community
- Create an independent facility that may directly leverage investment in other Calumet resources / activity generators

Site Evaluation
Similar to the analysis of facility approaches, each of the five sites studied in the existing conditions report was passed through a series of filters in order to determine a preferred site alternative. Again, the filters used evaluation criteria established by the Project Team and Working Group to help select the site best suited to support the mission and goals, meet community expectations, and meet funder expectations. In addition, the site must be able to support the Single Facility + approach. The five sites considered were: Hegewisch Marsh, Big Marsh, Van Vlissingen Prairie, Lake Calumet East, and Lake Calumet West. In the end, Big Marsh was selected as the preferred site.

While, like all of the sites evaluated, there are challenges to overcome in future design phases, Big Marsh was selected because of:
- The relatively low impact of development on the site
- Planned investment to improve access to the site
- The ability to leverage the expected regional draw of the planned Bike Park, and the ability to introduce a potentially disparate user group (of bike park visitors) to the natural, cultural, and historical assets of the Calumet region
- The ability to leverage ongoing investment in both natural area restoration and recreation amenities at the site
- The ability to leverage ongoing investment in infrastructure at the site
- The strong potential for near-term implementation due to an owner (CPD) who is ready to both implement and operate a new Gateway Center
- The strong potential for near-term facility programming due to an owner who is fully committed to development in the near term.
If money from Ford remains available, it will be feasible to build a new center on the southeast-side in the near term. Relying on these resources will require adhering to funder expectations, including the expectations of the grantor, Ford, and the expectations of the fund manager, Chicago’s Environmental Fund.

There is widespread stakeholder support for support for moving forward with constructing a facility using resources that may already be available to fund capital development, programming, and maintenance/operations of a new facility. Given resources available, it is not feasible to move forward with the original SGA design. The inability to move forward with the original SGA plan – a plan that was truly beloved by community members – is very disappointing to many stakeholders. And based on the high-quality and originality of SGA’s plan, there is a high level of community expectation for any alternate plan. However, based input from SGA, it will be possible to incorporate many of the well-liked design features of the original plan into an alternate plan, within the context of existing resources.

Based on stakeholder input, budget realities, and the anticipated site program at Big Marsh, as developed by CPD, a design script was developed for the new Gateway Center.

The new Gateway Center should:
• Be visible
• Be accessible
• Be modest, simple, flexible, and efficient
• Be modular and expandable
• Use locally-sourced and reclaimed materials to the greatest extent possible
• Incorporate bird-safe design
• Use sustainable building technology
• Design the building to complement its immediate context.
• Maintain integrity as a Calumet-region Gateway Center through interpretation of the breadth of Calumet-region natural and cultural resources through forms and materials.
• Be sited such that the Gateway Center may operate independently of, and undisturbed by, the more intensive Bike Park events, but should be connected to the larger trail system at Big Marsh.

A new Gateway Center in the Calumet Region would be a great asset to the people of the region, and would help grow the momentum of positive change that the Calumet region is experiencing today.
Introduction

PROJECT OVERVIEW

IN SEPTEMBER 2013 THE MILLENNIUM RESERVE STEERING COMMITTEE (MILLENNIUM RESERVE SC) IDENTIFIED THE FORD CALUMET ENVIRONMENTAL CENTER (FCEC) AS ONE OF FOURTEEN PRIORITY INITIATIVES FOR THE MILLENNIUM RESERVE. PRIORITY PROJECTS WERE SELECTED FROM MORE THAN 95 SUBMISSIONS AS REGIONALLY-SIGNIFICANT OPPORTUNITIES THAT WOULD HELP TO REALIZE THE FULL PROMISE AND POTENTIAL OF THE REGION.

Following the announcement, the Searle Funds at The Chicago Community Trust made available $35,000 in funding for a Feasibility Study focused on reviving the plans for the southeast-side environmental center. Since it inherited Calumet-area land and associated projects when the City of Chicago Department of Environment (DOE) was dissolved in 2011, and is currently active in developing recreation resources in the Calumet region, the Chicago Park District (CPD) was asked to lead and manage the Feasibility Study process for the Millennium Reserve SC, with input from a Ford Calumet Environmental Center Feasibility Study Working Group (Working Group).

The Working Group is comprised of key stakeholders, some of whom sit on the Millennium Reserve Steering Committee and some who do not. Although this Feasibility Study process is managed by CPD, the Working Group is intended to remain involved in the project through futures phases. The Working Group will help to transition the project from planning to implementation, providing integrative oversight that taps synergies across plans, and seeking public and private resources to fund priority projects. It should be noted that the recommendations of this report do not necessarily represent the opinions of individual Working Group members or their organizations. However, recommendations contained herein were vetted by the Working Group throughout the Feasibility Study process.

Since 2004 - the time of the original design of the FCEC - questions and concerns have arisen related to the building’s purpose and function, as well as its proposed location, architectural design, and management strategy. Through stakeholder engagement, the Project Team has pieced together the project’s history, heard from parties involved with the original project, spoken with people active in the Calumet region today, and examined the building programs and operational models of other regional environmental centers. This information has helped to identify what has changed in the Calumet area since 2004, how Calumet will likely grow in the future, and what is currently needed in the area. This information will be used to develop a renewed mission and achievable vision for the facility, including recommendations for target audience and user groups, a programming and operations strategy, and alternatives for a building space program.
PUBLIC OPEN HOUSE #1: October 24, 2014 at Mann Park Field House
In the spring of 2014, CPD engaged The Lakota Group team to conduct a Feasibility Study process to:

- Facilitate a discussion among partner organizations regarding the potential center’s mission, target audience, and programming/services.
- Review Studio Gang Architects’ (SGA) 2004 plan, and assess its feasibility within the context of existing resources.
- Assess the feasibility of building a Center on the southeast side.
- Conduct a needs assessment for an environmental center, engaging the community, local public and private schools, community based organizations, and other conservation organizations that manage environmental programming in the region.
- Develop the range of options to be considered for the location and design of the Center.

The Project Team undertook the assignment in three phases: Engage, Analyze, and Envision.

The first phase, Engage, focused on data collection as well as the facilitation of discussions with a variety of important community stakeholders and groups. These conversations served two critical functions: first, to gain an understanding of the project history, context, and ideas for next steps; and second, to convey information to stakeholders and community members about the feasibility study process and goals, with an emphasis on the importance of their role in the process.

The second phase, Analyze, involved comprehensive analysis of the data collected, giving way to alternative strategies for implementation and criteria by which to evaluate each strategy.

Finally, in the third phase of this project, Envision, a shared vision for moving the FCEC project forward was created.
Interviewed during the stakeholder outreach process (alphabetical by last name)

Jerry Adeleman Openshaw
Alison Anostasio Volunteer Steward @ Rainbow Beach
Ders Anderson Openshaw
Mike Arak Avon Hardware
Loretta Asby 30AC, Fight Petcoke Chicago
Diane Banta National Park Service
Nancy Baker Save the Dunes
Mitch Barbigo NRDC
Olga Baustita SEFF
Anthony Beale Ward 9 Alderman
George Bellows DNK
Daniel Black Neighborhood Assistance Program
Michael Boss AMLI
Mark Bowman Field Museum
Joy Bowser Gibson Woods Environmental Awareness Center
Lorraine Broszy Fullum Civil Organization
Jack Brunner Tetarchec
Steve Buchtel Trails for IL
Suellen Burns DNK
Louise Clemency USWS
Brette Collins The Field Museum
Brendan Donley Chicago’s Environmental Fund - Officer
Vic DeWitte
David Dee Chicago Neighborhood Initiatives
Molly Dewing UAL, Executive Director
Alkonzo Duslug Benham Park
Aaren Durrbaugh Loyola University
James Elzinga William Powers Conservation Area
William Emmick Studio Gang Architects
Patricia Fisher Knowledge Hookup
Matt Freer Chicago Park District
Jeanne Gang Studio Gang Architects
Vivan Garcia CPD CFO Program and Event Coordinator
Cathy Geraghty Forest Preserve District of Cook County
Anita Galely Area Manager for Calumet
Janel Halpin Chicago State University
David Holbergberg Calumet Area Industrial Commission
Dr. Sheikin House Simmons High School
Michael Howard Edne Place
Teresa F. Haggen Frank E Bennett Elementary School
Lynn Hughes Fullman Porter Museum
Cheryl Johnson People for Community Recovery
Nike Jolly CPD CFO Program Facilitator
Eddie Jones GreenCorps
Erie Joyce Chicago Park District
Heather Kelly Chicago Park District - Rosowan Park
Dwan Klein-Pilota Hegewisch Resident and community activist
Sandra Lloyd CICS Lloyd-Bond
Kim Kruley DNK-Civil Program
Kendy Kuller Forest Preserve District of Cook County
Kevin Kuhn Chicago Park District
Mary Kazmir AMLI
Kate Larson Alliance for the Great Lakes
Cherie Leblanc Fischer National Forest Service, Researcher
John Legge IRWD Coastal Program
Joe Lenox Trainyard Park
Judy Liehota Calumet Ecological Park Association
Susan Loncar Chief of staff for Ald. Pope
Jeanette Louis Sand Ridge Nature Center
Francis Lynam Chicago’s Environmental Fund - Director
Suzanne Maier-Anderson Chicago Wilderness
Rick McGraw
Erin McGuire Chicago Park District - Calumet Park
Laura Milbert The Field Museum
Cynthia Monson Forest Preserve District of Cook County
Kevin Murphy
Dennis Myers Hegewisch Neighborhood
James O’Brien Chicago’s Environmental Fund - Director
Sarah Otter Minnesota Environmental Education Center
Oliver Pergam OLiver Harvey University
John Pateck
Alison Paul The Field Museum
Arthur Pearson Gaylord and Dorothy Donnelley Foundation
Dan Piatt NorthEast Indiana Partnership
Jaana Pohjola
John A. Pope Ward 10 Alderman
Ceceto Prado Chicago’s Environmental Fund - Officer
Arnold Randall Forest Preserve District of Cook County
Jan Raveseck CPD CFO Program and Event Coordinator
Tony Reinhart Chicago’s Environmental Fund - Director, Ford Motor Company
Rob Resland Hitchcock Design Group
John Rogers USWS
Julie Saxo North Park Village Nature Center
Peggy Salazar Southeast Environmental Task Force
Rebecah Sanders Audubon Chicago Region
Mark Schendel Studio Gang Architects
Demitrie Seaton Rustic Square Park
Tom Shephard Southwest Environmental Task Force
Mike Siska Calumet Environmental Science Center and CSI
Kathleen Soiler CPD CFO Program and Event Facilitator
Juan Solisgda Instituto Del Progreso Latino
Grazo Soena CEPA
Albert Soena CEPA
Kristofer Soena CEPA
Nick Stomatus CPD CFO Program Specialist
Patricia Steff
Joe Steff
Zoch Taylor GreenGogs
Michael Taylor Little Calumet River Stewards
Diane Test IRWD Coastal Program
Karmi Tharp The Nature Conservancy
Dr. William Transdale Douglas Saylor Elementary School
James Von North Franklin Park
Barry Walker Williams Powers Conservation Area
Sooon Wielidel Chicago’s Environmental Fund - Officer
Todd Zima Studio Gang Architects
1. Stakeholder Interests

STAKEHOLDER ENGAGEMENT WAS AN IMPORTANT COMPONENT OF THE FIRST PROJECT PHASE. BECAUSE OF THE CALUMET REGION’S SIZE, HISTORY, TRANSPORTATION ASSETS, INDUSTRIAL HERITAGE, AND ECOLOGICAL FEATURES, IT IS HOME TO MANY DIVERSE INTEREST GROUPS.

Since August 2014, the Project Team has made efforts to connect with people representing as many of these interests as possible. The team reached out to over 160 individuals and spoke with over 100 different stakeholders through one-on-one interviews, focus group sessions, and two public open houses. A summary of the first and second open houses are included in the appendix of this document.

Stakeholder Interest Summary:
• There are many interested and engaged stakeholders in the Calumet area.
• There is a general frustration with the delay in creating the FCEC, and a desire to see something built.
• There is a recognized need for partnerships.
• Goals of FCEC should include environmental, economic, and cultural initiatives.
• There is a need to create a gateway that will draw visitors through the region.
• There is no agreement on a single best site.
• Most stakeholders are open to rethinking how the goals of the FCEC can be achieved by adapting the facility’s design and site to work within the framework of existing resources and regional synergies.

1.1 REGIONAL LAND OWNERS AND MANAGERS AND IMPLEMENTATION PARTNERS

1.2 POTENTIAL USER GROUPS

1.3 OTHER PROJECT STAKEHOLDERS

Bowen High School
Growing Power
Bogan Computer Technical
Friends of the Forest Preserve
Sierra Club
Kamper Christian Academy
Morgan Park High School
Natalie Community Academy
Washington High School
Gentle High School
Chicago School for Agricultural Sciences
CICS-Larry Hawkins
Claretian Associates
Jane A Reed Elementary School
Carol Conder Association
Faith In Place
George M Pullman Elementary School
Chicago Vocational Academy
Jane Addams Elementary School
Chicago Public Schools
Chicago Community Trust
Chicago Community Trust
William K New Sullivan Elementary School
Robert A Black Magnet Elementary School
Ninos Heroes Elementary Academy Center
Gallistel Elementary Language Academy
Clay Elementary
Active Transportation Alliance
Arnold Mires Academy
Carver Military Academy
Mt. Vernon Elementary
Southeast Historical Society
AIC, Developing Communities Project
CIC-Longwood
Ascend Metal Foundation
Midlothian Luceco Elementary School
Grossman School
Julian High School
Chicago Jobs Council, Associate Director

Hegewisch Chamber of Commerce
Brooks College Prep
Foster Park
South Shore International
National Forest Service
St. Florian Catholic School
George Washington Elementary

ORGANIZATIONS
Invited, but unavailable to participate
1.1 REGIONAL LAND OWNERS AND MANAGERS AND IMPLEMENTATION PARTNERS

Organizations listed in this category represent the agencies who own, operate, and manage the majority of public open space in the Calumet region. All sites being considered for the new facility as part of this study are currently owned by one of the agencies listed below. Organizations listed in this category may represent potential contributors to the implementation of a new facility by offering partnership.

Chicago Park District

- **Chicago Park District (CPD)** owns, and is developing, three of the sites now being considered as potential locations for the facility. CPD’s mission is recreation-focused, and the organization sees opportunities for both active and passive recreation on all of its sites in the Calumet region.
  - As part of the site development efforts at Big Marsh, CPD is partnering with SRAM to develop a new high-end Bike Park, unique in the Midwest. The facility is expected to draw patrons from around the region. Construction of the Bike Park facility is slated to start in 2016. In addition to the active Bike Park, the site will include “eco-recreation” type of amenities like a ropes course. In addition to the Big Marsh Bike Park, CPD is undertaking significant habitat restoration at the site. Construction of restored habitat started in the summer of 2015. Although the first phase of the project is fully funded, CPD is working with a non-profit partner, Friends of Big Marsh, to secure funding for future phases. Future development phases include a building at the site. CPD feels there are opportunities for positive synergies should the FCEC project be sited at Big Marsh. CPD hopes that revenues generated by large-scale events at the Bike Park will help to fund additional programs in the Calumet region.
  - CPD would like the facility to be developed at Big Marsh, and is willing to operate the facility and work to develop partnerships with other organizations to program the facility. If a new facility is constructed on CPD property, it would be owned and operated by CPD.
  - Generally speaking, space for programming is not an issue for CPD, in fact there is a surplus of building space in the Calumet region. CPD’s Calumet-area programming is most restricted by the lack of funding for programming and staff.

Illinois Department of Natural Resources

- **Illinois Department of Natural Resources (IDNR)** owns one site in the Calumet region – William Powers State Recreation Area and has announced the intention to acquire land at the north end of Lake Calumet, adjacent to Harborside International Golf Course. Many stakeholders mentioned this Lake Calumet site as being well-suited as a location for the FCEC facility, and conceptually IDNR is open to exploring this as an option.
  - IDNR operates a new interpretive facility at the William Powers site. Although programming for that facility is still being planned, IDNR feels there is opportunity for complementary offerings between its facility and the new FCEC facility.
  - IDNR expressed a willingness to explore the opportunity of a ground lease (or similar type of agreement) with another agency or entity should the new facility be sited on IDNR property.
  - IDNR offers funding opportunities through grants for facility and program development in the Calumet region, including opportunities available through its Illinois Coastal Management Program.

Forest Preserve District of Cook County

- **The Forest Preserve District of Cook County (FPDCC)** owns and manages a number of open space resources in the Calumet region, and also operates the Sand Ridge Nature Center, located about five miles south of the Hegewisch Marsh site. FPDCC feels there is opportunity for complementary offerings between its facility and the new FCEC facility.
  - FPDCC has recently been focused on improving recreation facilities on their properties, and is interested in working to build the system of resources in Calumet, which could include the new FCEC facility. FPDCC would also potentially be interested in having a presence, potentially in the form of an office, at the new facility.
Other Agency Partners

• The National Park Service (NPS) funds and otherwise helps to facilitate many projects throughout the Calumet region, including trail system implementation. In addition, NPS sees a potential for the FCEC to be a symbolic and functional representation of the partnerships present in the Calumet region. Similar to FPDC, NPS may be interested in having a presence, potentially in the form of an office, at the new facility.

• Chicago’s Urban Chicago Metro Office of the US Fish and Wildlife Service (USFWS) works in the six-county region on permitting, restoration, and community outreach. USFWS would be eager to partner on things such as programming and outreach. Similar to FPDC and NPS, USFWS may be interested in having a presence, potentially in the form of an office, at the new facility.

Ford Motor Company

• The Ford Motor Company (Ford) donated $6 million toward the FCEC in September 2001. As of 12/31/14 that donation plus interest was $6,604,609.

• Ford and Chicago’s Environmental Fund signed the Ford Contribution Agreement in late 2001. That agreement contemplated an environmental center in the Lake Calumet area consisting of a visitor’s center of approximately 15,000 SF located on approximately 100 acres of land, to be owned by the City and/or State of Illinois. $3 million was to go to construction and $3 million to programming. All interest earned was to go to programming. It was Ford’s understanding that the City would raise a similar amount, but that additional money was not raised.

• Ford’s goal was not to create an environmental center, per se, but rather a place with open/green space for employees and others to enjoy, that had some programming and contributed something significant to the community of Calumet.

• After 10 years Ford has indicated that if its donation is not going to be used, it may reclaim the money. It does not believe the SGA design is feasible, and if so, whether it makes sense to spend those sums on a single building.

• Ford also questions whether Hegewisch is a good location, due to the ecological sensitivity of the site and possibility that building there may conflict with the facility’s mission by harming the wetlands and associated habitat.

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Other Philanthropic Organizations

• The Gaylord and Dorothy Donnelly Foundation (GDDF) has been very involved in funding ecological restoration and conservation in the Calumet region for many years. It works closely with many of the stakeholders in both Illinois and Indiana, and sees an opportunity for a partnership model.

• GDDF questions whether the original SGA design is financially feasible, and if so, whether it makes sense to spend those sums on a single building.

• GDDF also questions whether Hegewisch is a good location, due to the ecological sensitivity of the site and possibility that building there may conflict with the facility’s mission by harming the wetlands and associated habitat.

• GDDF believes FCEC should not be just a destination, but a portal to the entire area.

• GDDF supports strong understanding of programming in advance, to inform building size and to ensure that programming will be funded.

• GDDF cautions that there are many other projects in the region competing for funding, and does not think it is reasonable to rely on additional funding from philanthropic sources in the near term.

Chicago’s Environmental Fund

• Chicago’s Environmental Fund (CEF) still holds the money granted by Ford. Use of the money will be guided by CEF’s charter, and ultimately CEF wants Ford to agree with how the money is used.

• CEF supports the development of a plan more modestly scaled than the original SGA plan, and generally doesn’t feel it will be possible to raise the amount of money needed to implement the SGA plan. CEF doesn’t necessarily want to spend the money on active recreation, but feels it is important to adhere closely to the original concept: investing in an environmental experience that encourages people to get out to Calumet. The project should be less about a building and more about the environment.

• CEF feels the funds can best be used to match other resources for project or program development. CEF is very interested in the ability to use the funds to match or even raise more funds.
Millennium Reserve Steering Committee

- The **Millennium Reserve Steering Committee** (Millennium Reserve SC) sees potential for the FCEC as a hallmark facility and catalyst for the region.
- Millennium Reserve SC would like the facility to serve as a “gateway to Calumet” that functionally and conceptually orients visitors to the region.
- Millennium Reserve SC sees potential for the facility to help support a number of other Millennium Reserve SC priority initiatives.
- Millennium Reserve SC is adamant that the new facility not narrowly interpret the interests of one agency or organization, but rather address and interpret the myriad interests and stories of Calumet, including opening up Lake Calumet.
- Millennium Reserve SC supports the development of a plan more modestly scaled than the original SGA plan, and generally doesn’t feel it will be possible to raise the amount of money needed to implement the SGA plan. Some do not think it would be responsible to spend that amount of money on one facility in the region, with so many other projects in need of support.
- The Millennium Reserve initiative was started by Governor Quinn, and it remains to be seen how the new administration will prioritize the initiative. The Millennium Reserve SC was formed in 2012 to address this issue, operating as an entity independent of administrative affiliation.

City Leadership (Former Aldermen Pope (Ward 10) and Alderman Beale (Ward 9))

- Both aldermen support keeping FCEC in the 10th Ward.
- Hegewisch Marsh is the development site preferred by Alderman Pope.
- Both aldermen support the development of a plan more modestly scaled than the original SGA plan, and a sense that it may not be possible to raise the amount of money needed to implement the SGA plan.
- Both aldermen share a strong desire to see something built, ideally something similar to North Park Village Nature Center.
1.2 POTENTIAL USER GROUPS

Organizations listed in this category represent potential partners who might use space at a new facility or might help to program the use of a new facility.

Local Residents
- Neighborhood residents in Hegewisch and Eastside are eager to see something happen, and many would like to see the original plan implemented. There is a general frustration with the delay in creating the FCEC, and a strong desire to see something built.
- Residents would like an inclusive plan that accommodates local residents, not just regional visitors.
- Residents expressed that access to a new facility via public transportation is critical.
- For neighborhood residents on the west side of I-94, including residents of Pullman and Altgeld Gardens, current access via transit to sites east of the expressway is challenging.

Chicago Public Schools
- Many Chicago Public Schools (CPS), specifically schools located in the region, already voluntarily partake in special environmental programming like Mighty Acorns, Earth Force, and Calumet Is My Backyard. There is interest in continuing to grow these programs, and perceived potential for these programs to use a new off-site facility.
- Schools generally lack funds to provide transportation for field trips or class trips, which would impede their ability to utilize the center.
- Because of the limited feedback received from CPS staff, it is unclear which site would work best for area schools.

Volunteer Stewardship and Educational Organizations
- The Field Museum currently provides a number of educational and volunteer opportunities in the Calumet region, including partnering with schools through their Mighty Acorns, Earth Force, and Calumet Is My Backyard programs. Representatives from these programs believe that an accessible environmental center in this region would help to make schools stronger, and classroom space would be used. However, access from local neighbors is critical, and any new facility should be located close to neighborhoods.

Green Jobs Organizations
- GreenCorps currently conducts some of their job training efforts in the Calumet area, mostly on site restoration projects, including efforts at William Powers and Hegewisch Marsh. GreenCorps would be able to use classroom space at FCEC, if available. GreenCorps is also in need of secure storage for large equipment.
- OAI is another organization supporting workforce development for low-income job seekers, with offices in Chicago and Harvey. OAI would be interested in establishing a job training partnership with a focus on needs in the Calumet region, such as deconstruction, green manufacturing, and green infrastructure (e.g. stormwater management and basement flooding solutions like bioswales and rain gardens). OAI is a partner of the Calumet Green Manufacturing initiative.

Regional Heritage Advocacy Groups
- Calumet Environmental Park Association (CEPA) proposes to establish an urban ecological park in Chicago’s Lake Calumet area and northwest Indiana. This is envisioned to be an entity similar to the Illinois Heritage Corridor, and would include a number of sites located in green corridors, lakes, and waterways. CEPA supports the SGA plan because of its design, sustainable practices, and capability to increase the presence of the Calumet community in the Chicagoland region.
- The Pullman neighborhood has been designated as a National Monument, giving the National Park Service a visible presence in the region. Some stakeholders believe Pullman may have potential as a site location for the FCEC. Calumet-region stakeholders are also seeking recognition from NPS through the nomination of a Calumet National Heritage Area. The Jon Ton Underground Railroad Site, Pullman National Monument Visitor Center, and the Indiana Dunes are other Calumet sites staffed by NPS.

Regional Industrial Advocacy Groups
- The Calumet Area Industrial Commission (CAIC) is a 501(c)3 whose mission is to promote industrial retention and expansion within the Calumet Area Industrial Corridor. CAIC offers a series of services to local manufacturers, including free job placement services, linkage to economic and workforce development resources and forums on health, safety, and environmental issues.
Regional Recreation Advocacy Groups

- **Trails for Illinois** develops trails in the Calumet region, including Cal-Sag. It is also associated with Illinois Trail Corps, an organization that brings in youth conservation groups to learn to build trails. This organization is providing labor to assist with construction at Big Marsh, and could be a potential partner for site development at FCEC.

- **Northwest Indiana Paddling Association** and **Little Calumet River Stewards** are interested in developing a comprehensive system of water trails in the Calumet region. There is interest in recreational access “north of the lock” for paddlers.

- **Friends of Big Marsh Bike Park** is the fundraising arm of CPD dedicated to raising capital for Big Marsh Bike Park, as well as “engaging the community to ensure that both the local and regional communities benefit from the park.” Their goal is to develop programs as well as enhance, monitor, and maintain the park’s natural habitats to allow native inhabitants to return and thrive. They manage a website for Big Marsh bigmarshchicago.com

Environmental Justice Advocacy Groups

- **Southeast Environmental Task Force (SETF)** and **Steelworkers Organization of Active Retirees (SOAR) / Fight Petcoke Chicago** feel strongly that the facility location should remain at the Hegewisch Marsh site. Many feel that the SGA design is still relevant and funding the project is something that should still be pursued.

- **People for Community Recovery** primarily represents the Altgeld Gardens community, west of I-94. They have developed plans for their own facility, the Hazel Johnson Center for Environmental Justice, envisioned to be similar to the Dawson Technical Institute at 30th and Michigan. People for Community Recovery would potentially be interested in access to classroom space and an auditorium for workforce training and other environmental justice related programming, however, it is thought that access via public transportation across the interstate would have to be greatly improved.

Conservation-Focused Organizations

- **Open Lands** sees economy, community, and the environment as the three legs of the stool in Calumet, and encourages an approach to FCEC that acts as an anchor, gateway, and catalyst. FCEC should not exist in isolation. Open Lands sees value in the Lake Calumet location and cites concern about conflicts between FCEC and the Bike Park, if FCEC is located in Big Marsh.

- **The Wetlands Initiative** is dedicated to restoring the wetland resources of the Midwest to improve water quality, increase wildlife habitat and biodiversity, and reduce flood damage. TWI’s scientists are currently serving as consultants to advise CPD on the ecology and hydrology of Hegewisch Marsh and Big Marsh.

Research Institutions

- **Chicago State University** has been an active stakeholder in the Calumet region, convening intellectual discussions and creating an extensive archive of historical, academic and cultural materials on its website, www.csu.edu/cerc.

- **Olive Harvey College** is interested in becoming actively involved in Millennium Reserve initiatives. They manage a +/- 10-acre wetland on their campus, and offer curriculum related to natural area stewardship and restoration. Classes currently use other regional natural area facilities, and would potentially use a new center in the Calumet region as well.

Community Development Organizations

- **Knowledge Hook-Up** provides training to community residents, and is a great source of contact information. The group may or may not be able to use space at FCEC, but is a good community resource.
1.3 OTHER PROJECT STAKEHOLDERS

In addition to explaining their individual interests, project stakeholders were invaluable in helping to piece together the history of the FCEC project – a story that has involved many organizational interests over the past (almost) twenty years.

Project Architect

• Studio Gang Architects (SGA) won the design competition for the FCEC in 2003.
• SGA representatives believe past fundraising efforts were not done well and contend there is still the possibility of fundraising for the construction of the original design. There may be corporate funding available from the Holcim Foundation, however, the effect of the recently announced Lafarge-Holcim merger on this potential funding source is not known at this time. The design received an International Holcim Award for Sustainable Construction acknowledgment prize in 2011.
• SGA was open to the idea that the building, as designed at 28,000 sq. ft., could be scaled down to a smaller footprint. If redesigned, the facility could be drawn with fewer programmed pods and more open flexible space. Expensive-to-build elements such as laboratories could be removed from the building program, and the number of restrooms reduced.
• Costs could be reduced by building a smaller facility, simplifying the building’s program, sourcing material prices, and modifying the plan to fit a more rectangular footprint. SGA understands how, and is willing to work within the financial constraints of CPD.
• SGA believes the building could also be relocated to another site. Hegewisch was selected because it was the least polluted and fairly compact.
• SGA likes the idea of separating the facility into nodes to activate different sites in the area.
2. Project History

In 1997, following the highly-successful launch of the North Park Nature Village Center, DOE released a study evaluating the need for additional visitor centers focused on nature and environment in Chicago.

The study supported a vision for an environmental center on the city’s southeast side, to interpret the relationships between industrial development, geography, residents, and natural resources. The facility would be sited on land that was to be acquired by the city in accordance with the Calumet Open Space Reserve plan. Ultimately, Hegewisch Marsh was selected as the site for the building.

Project funding was managed in part by Chicago’s Environmental Fund (CEF), a 501(c)3 organization that served as a fundraising arm of the DOE. The CEF was created to raise funds for a range of environmental stewardship and education activities in Chicago. In the early 2000s, Ford Motor Company generously gifted $6 million towards environmental programming and facilities in the Calumet region. Initially, half of the money ($3 million) was envisioned to support programming and operations, and half was planned to be used for the construction of a facility. However, there are few detailed formalized partner restrictions related to the money gifted by Ford. Use of the money was to be guided by Ford and the CEF charter.

In addition to the Ford money, city and state funding was secured for the project. At the onset of the project, in 2002, a total of $7.6 million was available for capital development:

| Funding Source A (Chicago's Environmental Fund) | $100,000 |
| Funding Source B (Chicago Department of Environment) | $1,500,000 |
| Funding Source C (Ford Motor Company Gift) | $3,000,000 |
| Funding Source D (Illinois Capital Development Board) | $3,000,000 |

Illinois First Grant for “acquiring land, planning, and beginning construction of a visitor center at Lake Calumet”

During 2001 and 2002 the city hosted a public outreach process to create a vision for the site. In 2003 DOE launched an international design competition for the building, a blind process with three finalists and two semi-finalists, to select an architect for the building. In 2004 SGA was selected as the competition winner, and was contracted to complete construction drawings for their “Best Nest” design.

Project History Summary:
- The passage of ten years has resulted in the project’s cost quadrupling its original estimate.
- The FCEC was initially envisioned to cost $6 million in construction plus another $6 million in programming and maintenance. Only $7.6 million was available for capital development at project outset, and by 2008 the construction document (CD) estimate for the award-winning SGA design was over $17 million. The subsequent economic downturn and change in administration further hampered fundraising efforts while construction costs continued to increase.
- The award-winning SGA design is universally admired and at 39,000 SF, (28,000 sf in the interior of the main building), included the capability to serve many different needs. The private market did not find adequate incentive to fund the shortfall, but the Loop Capital Management (LCM) study suggested the market may be willing to fund only programming-related costs in a downsized facility.
FORD CALUMET ENVIRONMENTAL CENTER
REVISED SITE PLAN
2.1 THE BEST NEST SITE
Hegewisch Marsh is located just southwest of the intersection of Torrence and 130th Street. Although the site has been altered by past deposition of dredge spoils from the Calumet River, resulting in a great deal of upland area, a large tract of wetland area still remains. Hegewisch Marsh provides valuable habitat for a range of creatures, including state-listed threatened and endangered bird species, and has some of the most scenic views in the Calumet region. SGA’s ability to interpret the site – and the Calumet region - in their building was a strong point of their submission. The Best Nest was well-sited:

“Time brings changes to the site and provides opportunities to discover its unique ecologies and habitats. We envision the community actively engaging the site and participating in its transition over time from pioneer cottonwood forest and emergent marsh to mixed hardwood forest and wetland cultivating an ecosystem ethic that embraces habitat dynamics and forest succession. Clues to the past and future are visible on the site, like the thick cottonwood grove on the former river bed or a single eastern red cedar in the center of an open field. Our approach is to identify and magnify these clues in the landscape as well as the gradual change in species composition of the site toward enhanced biodiversity. The succession is reset with a strategy of gradual subtraction and culling of late-stage cottonwood forest. Biomass from the culling is collected to power the building. In twenty years, for example, one resulting pattern will reveal traces of the former Calumet River bed: a field of native switch grass, blue-joint reed grass and winterberry in an attractive habitat for increasingly diverse species of birds, insects, and animals.” - SGA

Functional site design elements included permeable parking areas and the use of recycled slag to increase infiltration of stormwater.
2.2 THE BEST NEST BUILDING

The original vision for the building, as defined in the competition program, included a central building with indoor and outdoor spaces to house a variety of programs and exhibits telling the story of the Calumet area’s ecological, industrial, and social history.

SGA’s submission included an auditorium to house conferences and community meetings, lending to the center’s use as a regional hub of environmental activity. Lab space was to be provided for scientists from a wide range of government agencies conducting research in the area, and was also to contain a Geographic Information Systems (GIS) – dedicated computer network to assist staff and scientists on data collection and synthesis. Flexible classrooms would allow the space to be altered to suit particular programming needs. Classrooms would have access to the outdoors, expanding the opportunities for interpretation and learning. Office space was designed to encourage team building. The full building program is outlined in the appendix of this document.

In addition to the functional building program, the new Ford Calumet Environmental Center was to be a model of sustainable architecture for the nation. Parameters of the design competition required the highest level attainable for green building design (LEED Platinum), incorporating innovative energy-saving and waste reducing features. The structure was intended to be innovative, uniquely and attractively designed to take advantage of its location in a natural yet industrial and urban area. Design features resonated with regional context, including slag and recycled glass made into colorful floor tiles, and steel beams from former local steel mills serving as structural supports for the roof. Sustainable technology included wind turbines to move air into and out of the building based on hourly and seasonal ambient temperature fluctuations, geothermal and earth tube systems to heat and cool the structure naturally, solar power, a biomass boiler to provide heat and electricity by burning invasive shrubs like buckthorn that have been culled from the site, and a rooftop designed to collect stormwater for irrigation and reuse in building systems. An on-site “living machine” wetland was also planned, to allow natural processes to treat greywater and wastewater from the facility, adding to the sustainability of the building.

“Spaces within the building can adapt and change in order to increase the building’s functionality over time; another facet of sustainable reuse. The lateral array of spaces in the plan with movable partitions, divided core elements and multiple entries along the south porch facilitate a variety of uses day and night throughout the years. This flexibility extends building life because it offers the potential for change over time.

Finally, bird protection was a priority. Birds would be protected from colliding with the building by downward-angled windows and the use of recycled steel in the porch design to create a textured visual barrier.

“Birds would be protected from colliding with the building by downward-angled windows and the use of recycled steel in the porch design to create a textured visual barrier.

“The site is located on the Mississippi flyway for migratory birds; bird deaths from window collisions are estimated at 97 million birds per year. Ironically, many visitor centers covered with glass regularly kill the birds the public is coming to see. Bird vision is different from our own; the basket-like screen of the façade and porch is “bird visible,” giving birds time to slow down yet enabling people to see outside. The screen works on multiple levels; it provides shade for the building, structure for the deck, and creates a “blind” for getting close enough to see birds. The façade provides a woven protection from bird collisions with glass and offers a delightful spatial and textural experience for people.” - SGA

In 2008, FCEC was to be the “greenest” building in the Midwest.
2.3 THE BEST NEST PROGRAMMING AND OPERATIONS

Programming at FCEC was to focus conceptually on environmental research and innovation; the coexistence of nature, industry, and community, community engagement with the natural world, attracting new economic resources into the region, and increasing tourism.

DOE expected five full-time staff to be based at the center, including a Director, a Restoration Ecologist, two Education Specialists, and a Receptionist.

At the time of the original design, no formal programming plan was established for FCEC, although DOE was working with regional partners towards the establishment of a programming plan.
2.4 IMPLEMENTATION COSTS & FUNDRAISING EFFORTS

Costs for implementation were tracked at multiple points throughout the design process:

- Competition estimate (2004) $6,882,288
- Schematic design (SD) estimate (May 2007) $12,460,506
- 100% CD estimate (July 2008) $17,359,971

The prices listed above only reflect construction cost. DOE estimated total project cost, including operations, at approximately $40 million. There was a significant gap between funds needed and funds available, which DOE planned to fill through fundraising. Unfortunately, this was the beginning of a significant economic downturn, and the eve of a change in the City’s political administration - the climate for fundraising was challenging.

In late 2010 DOE engaged Loop Capital Management (LCM) to assist in bridging the funding gap for FCEC - $30 million for construction, maintenance, and ongoing operations/programming. LCM envisioned engaging a syndicate of 10–20 corporations each contributing $1 million-$10 million over a ten-year period, through an “innovative public-private partnership” (P3) approach:

“A P3 is an agreement between the public and private sector parties that transfers some or all of the project functions such as design, construction, finance, and operations to the private sector. The primary reasons to consider a P3 include construction and operational efficiencies, risk transfer to the private sector, improved service, and expedited project delivery. Generally, for economic infrastructure projects such as toll roads and water utilities, the private partner is compensated for its efforts by giving it the right to collect user-fee revenues for a certain period of time. On the other hand, for social infrastructure such as courthouses and libraries which do not produce much user-fee based revenues, the private sector is compensated through periodic payments from a municipality's general funds (or other non-project sources). These periodic payments are called “availability payments” and are named such because they are made to the private sector for the facility is not available for a long period of time, or not being maintained in satisfactory condition.” - LCM

Because of the financial crisis and associated economic downturn, the city declined funding an availability payment type of P3 model. Instead, LCM proposed a variation of the P3 approach wherein instead of the right to collect availability payments, the private partner would be offered a value package that would include naming rights, programming rights, potential product placement, and the right to conduct environmentally themed R&D activities. Through their outreach, LCM discovered that the market value of this value package was significantly lower than the funding gap. LCM notes a number of “lessons learned” in their report:

- To the extent possible, mitigate the uncertainties related to the value proposition offered. Further, the perceived value offered and the magnitude of the commitment sought should be in balance.
- To engender a true partnership, the City needs to demonstrate greater commitment especially related to the ongoing operations and programming.
- A project of FCEC’s size and orientation is unlikely to happen without a strong political champion and requires greater certainty about the continuity of the City’s commitment to sustainability and environmental issues.
- Innovative design and concepts have a limited shelf life.

LCM continued marketing the project until the end of 2011, finally concluding:

“Given the current and medium term outlook for the City’s fiscal situation, the FCEC cannot be delivered in its current configuration without substantial private sector funding. One approach could be to downsiz the project so that it can be accomplished with the available CEF funds and requires only programming-related private sector commitments. The City will have to decide whether delivering such a reconfigured facility would meet its environmental and community development objectives. On the other hand, if the City decides to continue its efforts to deliver the project in its current form, then the lessons learned should be incorporated into the new approach for FCEC to stand a better chance for success. The results of our marketing efforts demonstrate the need for a change in strategy across different fronts to respond to the market feedback.”

92 potential sponsors were identified by LCM, to be engaged primarily by LCM, with help from DOE, CEF, and the Public Building Commission of Chicago (PBC). In addition, Studio Gang Architects identified suppliers and vendors who might contribute. The team also produced a brochure and presentation books to help market the project to potential donors.

1 Items excluded from the cost estimate include: Owner’s construction manager, land acquisition fees, legal and accounting fees, design, engineering, and consultant fees, plan check, testing and inspection, fire and all risk insurance, construction contingency, hazardous material mitigation, removal of unforeseen obstructions, loose furniture, fittings, and equipment (FF&E), and any off site roadway or utility improvements outside the project limits.
LCM recommended the following actions:
- Re-engineer / restructure the project with the objective of cost reduction
- Give serious consideration to enhancing the functional aspects of the facility and / or campus to make it more than just a demonstration project
- Complete a comprehensive visitor feasibility study
- Get clarity and firm commitment on advertising and other ancillary value opportunities
- Demonstrate greater commitment by taking responsibility for ongoing operations and programming
- Build support for the project in the new administration and with the incoming mayor, create greater community awareness and grass roots support for the project
- Increase project involvement from various City of Chicago departments and sister agencies
- Complete a programming plan with more institutional involvement from schools, park district, environmental job training, museums, etc.
- Reconfigure the pitch to introduce more unique aspects to the project beyond the building itself.

Despite LCM’s efforts, some still feel that if more resources had been committed to fundraising, the Studio Gang building would have been possible to construct.

Another fundraising study, undertaken by DOE and prepared by Campbell and Company, was not available for review by the Project Team at the time of this study.

2.5 2012 RE-EVALUATION

Following the LCM study, at the beginning of 2012, the Public Building Commission (PBC) of Chicago, with the help of Studio Gang Architects, re-evaluated the cost of building the project.

100% CD estimate (February 2012) 1 $17,987,588

Costs were still too high, and at this time, the City and SGA were unwilling to downsize or modify the original design. Instead, SGA prepared a ten-phased plan to examine how the building might be implemented over time (an assumed four-year horizon), and PBC undertook an analysis of construction cost for building the project in phases.

Phased plan estimate (April 2012) 1 $19,045,798

The 2012 investigation revealed that it would be slightly more expensive to phase the project over four years, and phasing the project may lead to issues related to safety, security/vandalism, problems with the funding agreement, deterioration due to non-tempered building/no supervision/ no maintenance during breaks in construction, and problems with warranty validation.

Following this exercise, PBC prepared a final cost estimate for constructing the building in one phase, this time including all construction costs, including expenses not included in the earlier estimates such as FF&E, land acquisition, etc.

100% CD estimate (April 2012) 2 $25,110,683

Still stymied by a large gap in funding, the project remained on hold, until it was championed by the Millennium Reserve Steering Committee as a priority project for 2014.

1 Items excluded from the cost estimate include: Owner’s construction manager, land acquisition fees, legal and accounting fees, engineering, and consultant fees, plan check, testing and inspection, fire and all risk insurance, construction contingency, hazardous material mitigation, removal of unforeseen obstructions, loose furniture, fittings, and equipment (FF&E), and any off site roadway or utility improvements outside the project limits. Implementation time for the phased plan was assumed at four years for the purposes of the cost estimate.

2 Public Building Commission estimate includes all construction costs from bid documents as well as planning expenses (traffic study, site survey, and LEED registration), land acquisition and site control (utility relocation, legal expenses, fencing and signage, and public right of way), environmental and site preparation (environmental testing and consulting, site preparation and remediation), design (AOR fees and developer service fees / part II fee), Project implementation (project management cost, pre-bid advertising and document reproduction, community outreach, affirmative action consulting, and PBC administration), testing and inspection, IT systems, FF&E, and public artwork.
3. 2015 Context

Whatever programming, operations and management plans may have been developed between 2004 and 2008, much has changed in the Calumet Region over the course of the past ten years.

2015 Context summary:

• Many new and promising developments in the area provide opportunities for the FCEC to help realize Millennium Reserve Priority Initiatives. The Big Marsh Bike Park, a Pullman National Monument, new or invigorated National Heritage Areas, and the Cal-Sag Trail will help draw visitors to the region.

• Changes in land ownership and use open additional sites for consideration both west and east of Lake Calumet and suggest possibilities for better access and connectivity.

• Growth in active recreation and eco-tourism open new possibilities, as well.
The momentum of recreational development in the Calumet region has been growing over the past ten years, including significant multi-use trail development. The Cal-Sag Trail is currently under construction, connecting the Calumet region west to the Des Plaines River. Originally, FCEC was planned to serve as the eastern terminus of the trail. On the Indiana side, the implementation of NIRPC’s Ped and Pedal plan has seen Hammond develop extensive and well-used bike trail facilities, while work continues on the connection between Illinois and Indiana via a recreational trail network. Trail development will benefit the environment and economy and offer new recreation, fitness, and transit choices.

Water trails are also a priority in the region. Openlands provides a brochure and map on current Calumet water trails and access points for area paddlers. There is growing support for the implementation of Improving the Calumet Water Trails: A Vision for Action, authored by Openlands, FPDC, and NPS. NIRPC’s Greenways and Blueways plan also addresses water trails.

Recent and ongoing access and transportation improvements in the region includes:

- Construction of the Cal Sag Trail is underway, with phase one scheduled to open in the summer of 2015.
- Active Transportation Alliance is in the process of authoring an Access Action Plan for the Calumet region. This plan will identify barriers and challenges to pedestrian and bicycle access:

  As plans move forward to bring several new park developments to the Calumet region, including at Big Marsh, ensuring future park visitors will be able to access these areas on foot, by bike, or via public transit will be an important consideration for local community members and public officials. Based on community input, data collection and analysis, the Access Action Plan will identify barriers and challenges to pedestrian, transit, and bicycle access to the Big Marsh and nearby Millennium Reserve sites, as well as lay out concrete recommendations for improving site access by active modes. Upon completion of the project, Active Transportation Alliance will support local community leaders in advocating for the implementation of the Access Action Plan recommendations.

In addition, Recreation-focused Millennium Reserve priority initiatives include:

- Acquire and Build the Strategic Connections Missing in the Calumet Area Trail System: Complete several key connections in what will become an impressive 100-mile regional bike and pedestrian trail system that includes the Burnham Greenway and the American Discovery, Cal-Sag, and Grand Illinois trails.
“The enormous number of birds that inhabit the wetlands was what first attracted naturalists’ interest in the Calumet area. For many decades, birders have visited the region to watch the herons, egrets, ducks, and shorebirds that pause during migration or nest here through warm months... Once more lands are protected and opened to the public, residents and visitors will have the chance to enjoy the natural bounty of the region as never before. They will be able to watch birds in areas previously closed off from view; they will have better access to fish the rivers and lakes; and they will be able to explore the entire area through an extended network of trails.”

CALUMET OPEN SPACE RESERVE PLAN, DECEMBER 2005
Since the adoption of the Calumet Open Space Reserve Plan - one of three plans pertaining to land use in the Calumet Region (a list that also includes the Calumet Area Land Use Plan and the Calumet Design Guidelines) - the Calumet open space network continues to grow with the help of a number of different agencies and organizations.

In January 2011, the Chicago Park District board accepted a transfer of 556 acres of marshland from the city, pending approval from the City Council as part of Mayor Richard Daley’s plan to transform nearly 3,900 acres of the region into Chicago’s largest open-space reserve. In 2012 CPD leased an additional 140 acres from MWRD, and in 2014/2015 CPD plans to acquire or lease the 156-acre Indian Ridge Marsh from the City of Chicago.

The Forest Preserve District of Cook County also has plans to acquire land in Calumet, as outlined in its 2012 Land Acquisition Plan:

“The lowest land costs and the largest acquisition candidates present the greatest opportunities for new holdings and enhancing connections and buffers to current District holdings. The land acquisition strategy for this region should also include working with the multi-agency Millennium Reserve Partnership, and completing projects such as the connection between the District’s Powderhorn Lake Preserve and the Illinois Department of Natural Resources’ Wolf Lake State Park.”

The State of Illinois recently announced the planned purchase of two parcels of land, for $9 million, at the north end of Lake Calumet from the Illinois International Port District to the Illinois Department of Natural Resources. These parcels of land were included as part of the 2005 Calumet Open Space Reserve Plan. This transfer would support the Millennium Reserve priority initiative: Open Public Access to Lake Calumet. This initiative envisions the transformation of underutilized Illinois International Port District property along Lake Calumet into a public amenity featuring open space, wildlife habitat, recreation, small business, and family programming.

There is also a change in approach to how agencies are managing land and working together, as exemplified by the Millennium Reserve priority initiative, Develop and Implement the Millennium Reserve Natural Areas Conservation Compact. This compact would coordinate shared conservation outcomes and undertake site protection and restoration activities for Illinois’ 23 most ecologically important sites – those of highest biodiversity value.
“AS CHICAGO’S LAST FRONTIER, ONLY 30 MINUTES FROM DOWNTOWN, [BIG MARSH BIKE PARK] WILL BE THE PERFECT DESTINATION FOR THOSE LOOKING TO GET CONNECTED WITH ADVENTURE AND NATURE RECREATION.”

MICHAEL KELLY, SUPERINTENDENT CHICAGO PARK DISTRICT, JULY 2014

“GENERATIONS OF SOUTH SIDE RESIDENTS ENJOYED RECREATION AT LAKE CALUMET AND THIS PURCHASE IS THE FIRST STEP IN RESTORING THAT HISTORICAL CONNECTION. LOCATED IN THE HEART OF MILLENNIUM RESERVE, THE NEW EXPANSION WILL PROVIDE AN IMPROVED HOME FOR ILLINOIS’ WILDLIFE WHILE INCREASING ECONOMIC OPPORTUNITIES AND TOURISM TO THE REGION.”

GOVERNOR PAT QUINN, OCTOBER 2014

“The redevelopment of this land [at the north end of Lake Calumet] complements the 278 acres of new parkland in the nearby Calumet area reserve where we are developing the bike park and nature area. The availability of open spaces and recreational opportunities are key features of world-class cities, and I’m pleased to work with Governor Quinn on this and other projects that will increase tourism, protect our environment, and improve the quality of life for all Chicagoans.”

MAYOR RAHM EMANUEL, OCTOBER 2014
The momentum of recreational development in the Calumet region has been growing over the past ten years.

Recent and ongoing recreational development in the region includes:

- IDNR has recently completed construction of a new visitors center at William Powers State Recreation Area, and is working on establishing a program of services.
- The Forest Preserve District of Cook County is completing a new campground at Shabbona Woods near the Sand Ridge Nature Center.
- Construction of the Big Marsh Bike Park is scheduled to begin in the spring of 2016. The new park is unique in this area, and is expected to have a regional draw - attracting visitors from all over the Midwest. CPD sees the potential for both active and passive recreation at each of its Calumet-area sites.

In addition, Recreation-focused Millennium Reserve priority initiatives include:

- **Build the Blue Island Intercollegiate Rowing Center and Marina:** Develop underutilized marina on the Cal-Sag Channel at Fay’s Point in Blue Island into a host site for high-level rowing competitions. Establish revenue-generating operations including rowing center and housing. A feasibility study is being conducted in 2015.
- **Developing a Millennium Reserve Outdoor Recreation Partnership and Framework Plan:** Outline strategies to develop outdoor adventure attractions and eco-tourism opportunities such as paddling, camping, birding, geo-caching, zip lining, and kite boarding that will position the Reserve as a recreation destination. This framework plan is currently being developed by CPD.
The Calumet Region represents a cultural landscape that has been heavily manipulated. Despite over 100 years of industrialization, there are remnants of original topography and watershed, with pockets of native vegetation and traces of American Indian transportation routes. Buffalo trails begat Indian trails, which became stage coach routes and then paved roads for automobiles, and in some instances multi-lane highways...today the region is a mosaic of industry, housing, and commercial centers located along the southern shores of Lake Michigan. Despite this development, numerous significant cultural resources remain in the region.

Calumet Ecological Park Feasibility Study, August 1998
3.4 REGIONAL CULTURAL AND HISTORICAL RESOURCES

The region is home to a number of historic sites as well as cultural institutions such as the Pullman Porter Museum, the Blue Island Historical Museum, Jon Ton Farm (an Underground Railroad historic site), the Southeast Chicago Historical Museum, Wolf Lake NIKE Missile Monument, and the newly dedicated Pullman National Monument.

Each of the proposed project sites, with the exception of Van Vlissingen Prairie, fall within the I&M National Heritage Corridor. The corridor is a 100-mile long cultural park designated to protect and interpret natural and cultural history while fostering economic growth in the region and achieve a successful mixture of preservation, public use, recreation, and industrial activity.

Related Millennium Reserve priority initiatives include:
- **Support and Promote the Proposed Pullman National Monument**: Secure national monument designation in Pullman to further preserve the history of Chicago’s emergence as a transportation and commercial hub. Pullman has a unique place in US history as the first model industrial town and a birthplace of the labor movement – including the first African American labor union.
- **Support National Heritage Designations for Distinctive Regional Landscapes**: Support three distinctive and interlinked National Heritage Areas – the existing I&M Canal National Heritage Corridor along with the proposed Black Metropolis and Calumet National Heritage areas. Leverage these designations to stimulate economic development, cultivate environmental and cultural preservation, and foster education and stewardship of natural and cultural resources.
The Greater Calumet Industrial Area consists of over 500 companies representing over 46 industrial sectors, most notably ones in the chemical, automobile, steel and metal-forging industries. Our corridor consists of well-known national companies such as Method Products, Sherwin-Williams, Ford Motor, ArcelorMittal, BP, and Kellogg’s Snacks. Also, companies such as A. Finkl & Sons, Imperial Zinc, Horsehead Resources, Lafarge, Mead Westvaco, Atlas Tube, Naylor Pipe, Akers Packaging, Mi-Jack Products, Asphalt Operating Services, PPG Industries, Dutch Farms, Polyair Corporation, Flexsol Packaging, Kay Manufacturing, Paket Corporation, and GELITA USA operate manufacturing/processing plants in the corridor. With the excellent availability of interstate highways, river and rail access, a number of logistic companies such as Canadian National, CSX and Midwest Marine Terminals offer their services in the corridor.
3.5 REGIONAL INDUSTRIAL RESOURCES

Unlike other industrial corridors, Calumet has maintained a base of heavy manufacturing uses. Total employment grew from 2001-2011. The City plans to reactivate industrial properties at the east side of Lake Calumet in conjunction with improvements related to the potential privatization of Iroquois Landing, which may increase barge traffic in the immediate study area. In 2013 IIPD pursued a privatization deal with the Denver-based Broe Group to operate the port. The deal was never finalized, but the discussion is ongoing.

TJ O’Brien Lock and Dam is the only commercial access from the Illinois Waterway to Lake Michigan. A barge traffic study is currently being conducted by the City. There are 58 barge facilities in the Calumet Industrial Corridor.

Method Products and Gotham Greens are new additions to the area’s industry and represent the modern face of manufacturing in the region. The Method plant features an eco-friendly design that includes solar and wind power, and Gotham Greens shares the roof of the facility for their greenhouses, establishing the world’s largest rooftop farm.

Related Millennium Reserve priority initiatives include:
- Implement a Millennium Reserve Industrial Jobs Work Plan: Create a competitive workforce while addressing a serious labor/skills mismatch in the manufacturing sector through an expansion of the Calumet Green Manufacturing Partnership. This partnership will increase employer investment and employment opportunities and spur regional economic development.
The Calumet region is home to and served by a number of active community organizations, such as Calumet Area Industrial Commission, Chicago Neighborhoods Initiative (CNI), Knowledge Hook-Up, GreenCorps, OAI, The Field Museum, Quad Communities Development Corporation, South East Chicago Commission, and LISC. Many economic development and community development initiatives have gained momentum since the initial FCEC plan.

Related Millennium Reserve priority initiatives include:

• **Catalyze the Redevelopment of Brownfields:** Secure funding to finance acquisition and predevelopment work for cargo-oriented developments projects and key rail-serviced properties. Address brownfield redevelopment challenges through strategic cooperation between the State and other public agencies.

• **Propose and Fund a Millennium Reserve Land Development Program:** Raise $1.5 Million for capital investment in the nonprofit Southland Community Development Loan Fund

• **Communicate the Assets of the Region:** Organize and catalog extensive GIS information about the Calumet’s natural, community, and economic assets. Use dynamic, web-based visualization tools to promote opportunities to live, work, and recreate.

• **Develop Future Generation of Conservation Leaders:** Identify funding needs and programming gaps for youth-oriented conservation education in the region.

• **Improve Stormwater Management through Investments in and Coordination of Green Infrastructure Solutions:** Coordinate existing green infrastructure practices such as bioswales, rain gardens, and permeable pavement that reduces flooding, improves water quality, enhances habitats, and determine optimal placement of future, large-scale investments with a goal of mitigating 1 billion gallons of stormwater.

Redevelopment of the former US Steel South Works site as Chicago Lakeside could have a significant impact on economic development in the coming decades. Plans call for office buildings, nearly 18 million SF of retail, a marina, an entertainment district, 125 acres of parks and open space, and 13,500 new homes on the 600-acre site.
4. Potential Sites

CHANGES MADE TO THE AVAILABILITY, ENVIRONMENTAL CONDITION, AND SURROUNDING USES OF LAND IN THE CALUMET REGION SINCE 2004 MAKE IT IMPORTANT TO CONSIDER THE FCEC SITE FROM A FRESH PERSPECTIVE.

The Project Team evaluated five sites, as suggested by stakeholders, as potential sites for a new facility: Hegewisch Marsh, Van Vlissingen Prairie, Big Marsh, and the two Lake Calumet sites. The existing conditions of each site were assessed, and then each location’s pros and cons were evaluated with respect to the following criteria:

- Impact on site – What impact would development have on the site itself? Would high quality wetlands or other features be harmed by development?
- Utility access — How difficult and expensive would it be to obtain sewer, water and other utilities?
- Owner ready to implement — is the site’s owner ready to implement a facility?
- Programming potential — is programming available at the site? Is programming planned for the site?
- Visibility — how visible is the site from the highway or other major roadway?
- Regional access — how accessible is the site for regional visitors, either by car or by public transit?
- Local access — how accessible is the site for local visitors, either by car or by public transit?
- Public transportation access — is access available by public transportation?
- Adjacency — What other uses are adjacent to the site, and how would they impact its usability?
- Available or potential recreation amenities — What recreational amenities could the site offer? Would it lend itself to active or passive recreation?
- Trail access — Can the site be linked to the Cal-Sag or other bike or pedestrian trails?
- Water access — Does the site have potential access to water for recreational activities? What regulatory and safety hurdles would recreational water activities face at the site?
- Environmental quality — Is the site of such a high environmental quality that developing it would do more harm than good? Is the site of such low environmental quality that developing or using it would pose hazards or increase costs?
- Scenic quality — Would the site offer as an attraction to visitors either high quality scenery or viewsheds of the city?
- Local synergy — Are there other uses in the area whose visitors would be likely to use the site?
- Regional draw — Are there other uses in the area that will draw visitors to the site?

Site Assessment Summary:

- Accessibility in the region is challenging, but will be essential to draw visitors from the disparate communities and the region.
- The site should have numerous environmental and recreational amenities to draw visitors in, and have the ability to accommodate active users that may pose risks to higher quality environmental sites.
4.1 HEGEWISCH MARSH

Hegewisch Marsh was acquired by the City and slated as the original site of the FCEC. The 127-acre site is one of the sites that was transferred to CPD by the City in 2011. A portion of the land (a parcel west of the proposed FCEC site) was acquired using grant money restricting the land use to habitat projects (restoration and management).
Environmental Issues
Hegewisch Marsh is located adjacent to the Calumet River and has been used in the past as a disposal area for dredge materials. The site has also been impacted by fly ash dumping at numerous locations. Site remediation efforts have been taking place since 2011 to restore marsh and wetland habitats, clear slag, and remove invasive plant species.

Several investigations between 2002 and 2010 were conducted to characterize the nature and extent of site contamination. The results from samples collected identified metals to be above Illinois Environmental Protection Agency Tiered Approach to Corrective Action Objectives (TACO) Tier 1 values for the protection of residential, industrial/commercial worker and construction worker exposures. The metal of most concern was lead, identified to be a significant contaminant in three “hot spot” areas. Additional sampling was conducted in these areas to delineate the extents of the contamination, and remedial actions were conducted to address the hot spots. Based on previous investigations, no additional areas of hazardous waste are expected at that site, therefore, any material removed from the site during building construction will likely be characterized as special waste.

Based on the environmental conditions, the difficulty and cost of development of Hegewisch Marsh is likely low. The Chicago Park District is currently conducting a more detailed review of potential recreational uses at this site and additional information will be available upon conclusion of that review.

Habitat
There’s a mix of habitats on the site. In addition to the marshlands, there are meadows and stands of cottonwoods on higher ground. Hegewisch Marsh is a premiere habitat for wetland birds. A small colony of yellow-headed black birds nest and fledge their young at the site each year. In the years before northeastern Illinois’ wetlands were drained and filled, yellow-headed blackbirds were common residents of Chicago’s marshes. The species is now listed on the endangered species list in Illinois. Hegewisch Marsh also is a nesting site for pied-billed grebes and common moorhen, both of which are threatened species in Illinois. Hegewisch Marsh is listed as an INAI site.2

Wetlands
Hegewisch Marsh contains an approximately 32-acre depressional area at the northern part of the site. The marsh has good water quality capable of supporting aquatic life. In 2008 a water control structure was installed by the City to facilitate wetland habitat management. To avoid depressional areas and ponds, future development should be at the south-east part of the Hegewisch Marsh.

Site Access
An entrance, trail head, and street parking can be found on the east edge of Hegewisch Marsh along S. Torrence Avenue. 134th Street provides access to the southern edge of the site.

Available Utilities
City water is available in the immediate vicinity of the project site. A 16” feeder main and an 8” grid main are located east of the Hegewisch project site on S. Torrence Ave. If sited at Hegewisch Marsh, the FCEC would be able to utilize the 8” main. City sanitary sewer service (combined city sewer) is available at the southeast corner of the site, at the intersection of S. Torrence Ave and 134th Ave. City storm sewer is available in the immediate vicinity of the project site if needed. A 15” storm sewer is located on S. Torrence Ave, however per City of Chicago ordinance, since the site currently drains into the Calumet River, stormwater shall continue to drain to the river.

Power access appears to be available from the overhead ComEd lines along the east access drive. Providing new feeder lines from a pole to a new transformer is the likely option to achieve power. Underground electric lines are also available along 130th Street, but access may not be feasible. Gas service is available in the immediate vicinity of the site. Existing 6” gas pipe is available along east side of the site, on S. Torrence Avenue.

It appears that Comcast telecom lines are available at the north side of the site, along 130th Street.

Ongoing and Planned Improvements
Improvements to the site are ongoing through a Section 506 Great Lakes Fishery and Ecosystem Restoration Grant funded by the US Army Corps of Engineers. In 2014 an environmental assessment was completed. As a result, $3 - 5 million in restoration improvements are planned for the near future. Restoration work will be funded in part by the federal government (65% project total) and in part by a local sponsor (35% project total). Improvements will include habitat restoration, trail improvements, and parking improvements.

In addition, The Wetlands Initiative is undertaking a water-level management plan for the site, which will be completed in the spring of 2015.

1Chicago Habitat Directory 2005
2http://www2.illinois.gov/gov/millennium-reserve/Pages/HegewischMarsh.aspx
Indian Ridge Marsh

Big Marsh Park No. 576

Mann Park

Brainard Ave

Dolton Ave

Torrence Ave

Beaubien Woods

Burnham Prairie

Stony Island Ave

130th St

122nd St

134th St

142nd St

1-MILE RADIUS

BURNHAM GREENWAY

CAL-SAG TRAIL

Recommended Bike Route

Existing Multi-Use Trail

Proposed Multi-Use Trail

Water Trail

Chicago Park District

Illinois International Port District

Forest Preserve

MWRD

ODNR

Other Conservation Land

HEGEWISCH MARSH

Owner: Chicago Park District

Size: 127 acres

Clay Elementary

St. Florian School

Grissom Elementary

EASTSIDE HEGEWISCH

Sand Ridge Nature Center

Shabbona Woods Campground

Hegewisch • Lock and Dam

Burnham Provincial Park

126th St

94th St

94th St

Lake Calumet

Wolf Lake

Lake Calumet

40
HEGEWISCH MARSH SITE EVALUATION

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Utility Access: Fair. City water, sanitary service, storm sewer, and gas service are available from Torrence Ave. Electric service is available along the east access drive. Comcast telecom lines are available from 130th St.</td>
<td>• Visibility: Poor.</td>
</tr>
<tr>
<td>• Programming opportunities: Good.</td>
<td>• Impact of development on the site: High. Building a foundation at this site requires special procedures that would increase construction time and/or costs. An easement restricts facility construction to the southeast corner of site.</td>
</tr>
<tr>
<td>• Owner ready to implement: Fair. The Hegewisch Marsh site is the original chosen project location and has seen recent ecological restoration.</td>
<td>• Public transportation access: Poor.</td>
</tr>
<tr>
<td>• Regional Access is fair.</td>
<td>• Regional draw: Poor.</td>
</tr>
<tr>
<td>• Local Access: Fair.</td>
<td>• Adjacency: Fair.</td>
</tr>
<tr>
<td>• Adjacency: Fair.</td>
<td>• Recreation amenities: Fair.</td>
</tr>
<tr>
<td>• Recreation amenities: Fair.</td>
<td>• Trail access: Good. Hegewisch Marsh will be accessible from the Cal-Sag trail.</td>
</tr>
<tr>
<td>• Trail access: Good. Hegewisch Marsh will be accessible from the Cal-Sag trail.</td>
<td>• Water access: Good.</td>
</tr>
<tr>
<td>• Water access: Good.</td>
<td>• Environmental quality: Good. Site remediation efforts have been taking place since 2011 to restore marsh and wetland habitats, clear slag, and remove invasive plant species.</td>
</tr>
<tr>
<td>• Environmental quality: Good. Site remediation efforts have been taking place since 2011 to restore marsh and wetland habitats, clear slag, and remove invasive plant species.</td>
<td>• Scenic quality: Good.</td>
</tr>
<tr>
<td>• Scenic quality: Good.</td>
<td>• Local synergy: Fair. Hegewisch Marsh is located less than a mile from the Hegewisch neighborhood’s central business district, and is connected by dedicated bike route along 130th Street.</td>
</tr>
<tr>
<td>• Local synergy: Fair. Hegewisch Marsh is located less than a mile from the Hegewisch neighborhood’s central business district, and is connected by dedicated bike route along 130th Street.</td>
<td>• Visibility: Poor.</td>
</tr>
</tbody>
</table>
4.2 BIG MARSH

Owned by CPD, this 300-acre site is one of the sites that was transferred by the City in 2011, and is located in the geographic center of the Calumet Open Space Reserve.
Environmental Issues
Big Marsh is an undeveloped site that has historically been used as a dumping area for waste that included construction/demolition debris, municipal waste, dredge materials, slag, and fly ash. The northwestern portion of the site has been used for disposal of construction debris and dredge material from Lake Calumet and the Calumet River. An auto junkyard was present within the north-central portion of the site. Mining of sand and gravel deposits has also occurred within the northeast portion of the site. From 1968 to approximately 1980, Acme/Interlake Steel deposited slag throughout the east and south portions of the site. Historical slag disposal activities have resulted in highly alkaline soil and groundwater (pH exceeding 12) and surface water and sediment (pH exceeding 11).

More than 30 samples of soil, sediment, surface water, and groundwater samples have been collected in the southwest portion of the site (the area under consideration for environmental center development). The results of the samples identified isolated locations along the northern site boundary and adjacent to Big Marsh Pond where lead concentrations in soil exceeded Calumet Area risk-based screening levels for recreational use. Therefore, areas of high foot traffic may require capping or other measures to protect future recreational users at the site. Also, several soil sampling locations primarily in the north-central portion of the site and areas adjacent to Big Marsh Pond exceeded mercury and lead TACO Tier 1 values for construction workers. Additional soil, sediment, and surface water sampling will likely be required to more fully characterize the site and evaluate potential risks to recreational users. Also, further evaluation of the site pursuant to the Calumet Ecotoxicology Protocol will likely be required. Based on the environmental conditions, the potential difficulty and cost of development of the north-northwest portion of Big Marsh is likely moderate.

Habitat
Up until 1999, Big Marsh was the site of the black-crowned night heron rookery. That year, a blocked culvert forced the water level to rise, and the herons relocated to Indian Ridge Marsh. The wet portions of Big Marsh remain an important site for waterbirds. Hawks and kestrels are frequently seen in the upland area.²

Wetlands
There are many wetlands on the Big Marsh site, therefore it is certain that any portion of the overall project that will infringe upon the existing wetlands will require permitting through the Army Corps of Engineers. This process can take many months depending on the project and thus will require early coordination. Big Marsh is the largest individual wetland in the Calumet Open Space Reserve with approximately 90 acres of open water.¹

Site Access
The site is accessed from Stony Island Avenue, a busy truck route.

Available Utilities
There is no current City water available in the immediate vicinity of the project site. The Department of Water Management water atlas indicates presence of a 16-inch diameter ‘feeder’ water main within the Stony Island Avenue right-of-way, which dead-ends roughly 400 feet south of 116th Street. To obtain water access, a new water main must be extended north to be adjacent to the site. Currently, the extension of a water main to serve the site is being proposed by others. More information may not be available until spring of 2015.

There is no current City sanitary sewer service available in the immediate vicinity of the site. The nearest sanitary sewers are believed to be privately owned forecmain located along Stony Island & 118th St. A gravity sewer is available at Stony Island & 150th Street.

There are no city sewers available in the vicinity of the site. The site currently drains stormwater to existing ponds, and eventually discharges to Lake Calumet. Any new development would continue to do so, and there would be no need for a city storm sewer connection.

The electrical service will be an extension of the existing ComEd service located along 116th Street near Stony Island Avenue. Available power for a new development may be available from a current project on site.

Ongoing and Planned Improvements
Big Marsh is also next to Indian Ridge Marsh - a 156-acre natural area that has been restored. The site underwent a $2 million restoration over the past five years, by the US Army Corps of Engineers. The site is in the process of being acquired by CPD, and there is potential for programming in the near term.

¹ Chicago Habitat Directory 2005
## BIG MARSH SITE EVALUATION

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Impact on Site:</strong> Low. New development on site will occur on the “slag field,” and, since the site is large, the footprint of development will have less of an impact on the site overall.</td>
<td><strong>Utility Access:</strong> Poor. Water access and sanitary sewer improvements at the site will add significant expense to development at this site.</td>
</tr>
<tr>
<td><strong>Owner Ready to Implement:</strong> Good. Big Marsh is the Chicago Park District’s preferred location, as CPD’s restoration and redevelopment of the site as a Bike Park is underway.</td>
<td><strong>Visibility:</strong> Poor.</td>
</tr>
<tr>
<td><strong>Programming:</strong> Good. Big Marsh also has an established advocacy and fundraising organization, Friends of Big Marsh.</td>
<td><strong>Local Access:</strong> Poor.</td>
</tr>
<tr>
<td><strong>Regional Access:</strong> Fair. The site has close access to I-94, and signage improvements planned to occur in conjunction with the bike park will help with wayfinding.</td>
<td><strong>Public Transportation Access:</strong> Poor.</td>
</tr>
<tr>
<td><strong>Adjacency:</strong> Good. Big Marsh is central to CPD’s other Calumet properties, and shares a corner with Indian Ridge Marsh. A trail connection between the two sites is planned as part of restoration.</td>
<td><strong>Water Access:</strong> Poor.</td>
</tr>
<tr>
<td><strong>Recreation Amenities:</strong> Good.</td>
<td></td>
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<tr>
<td><strong>Trail Access:</strong> Fair.</td>
<td></td>
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<tr>
<td><strong>Environmental Quality:</strong> Fair.</td>
<td></td>
</tr>
<tr>
<td><strong>Scenic Quality:</strong> Good.</td>
<td></td>
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<tr>
<td><strong>Local Synergy:</strong> Fair.</td>
<td></td>
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<tr>
<td><strong>Regional Draw:</strong> Good. This could become a synergistic relationship where there are opportunities for shared costs, signage and wayfinding, and appeal to different user groups that may have similar interests.</td>
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</tbody>
</table>
4.3 VAN VLISSINGEN PRAIRIE

Nestled between a residential neighborhood and a railroad yard, the 131-acre site is one of the sites transferred from the City to CPD in 2011.
Environmental Issues

The Van Vlissingen Prairie site is undeveloped; it contains wetlands, open water, and upland habitats. However, the site has been used for dumping of construction debris and general refuse. The western portions of the site have been filled with a variety of materials, including slag from unknown origins.

There were several sampling efforts at the site to characterize the nature and extent of soil, sediment, surface water and groundwater at the site between 2000 and 2006. The data was also compared to Calumet Ecotoxicology Protocol. Overall, the site has been fairly well characterized and the levels of surface soil contamination above industrial/commercial worker levels are limited. Based on the environmental conditions, the potential difficulty and cost of development of Van Vlissingen Prairie is likely low to moderate. The Chicago Park District is currently conducting a more detailed review of potential recreational uses at this site and additional information will be available upon conclusion of that review.

Habitat

Blue flag irises, swamp milkweed, blazing stars, rattlesnake master, New England aster and many other native flowers bloom at Van Vlissingen Prairie, also known as the Marian R. Byrnes Natural Area. This is one of the few prairies within the city that is not a complete start-from-scratch restoration; some of the prairie matrix was already in place when the City of Chicago acquired the land from the Beltway Railroad corporation in 2002.

Despite the name, part of Van Vlissingen Prairie is wooded, and much of it is wet. The prairie’s wetter portions provide significant habitat for birds, including American bitterns and Wilson’s phalaropes during migration. In some sections of Van Vlissingen, the soil is scraped away or covered with fill. Two to three inches under the soil surface is a bluish-colored sand. (It’s not toxic, but it is fill material.) Thin soil and dry conditions have stunted the growth of prairie plants in these areas, and it’s not unusual to see liatris and switchgrass blooming on stalks only one to two-feet high.

Because the prairie has gone for years without prescribed burns, many trees and shrubs are present. Phragmites has taken over some sections of the prairie. Over the coming years, ecological restoration work is expected to greatly improve the quality of this site. The area with the highest quality plants was imported from another site; a prairie that was about to be destroyed in Bedford Park was dug up with its root system and soil microorganisms kept as intact as possible, and was re-established at Van Vlissingen.¹

Wetlands

Van Vlissingen contains approximately 59 acre depressional area at the west part of the site (along the Railroad tracks). To avoid depressional areas and ponds, future development should be at the south part of the Van Vlissingen.

Site Access

A new entrance is easily accessible from the east subdivision, or from the south-east corner of the site. There are no recreational paths on the Van Vlissingen site, however there is a path which appears to be a small road for vehicular use along the west side of the site, and a small path, also probably for vehicular use, along the south side of the site, adjacent to E. 103rd Street.

Available Utilities

City water is in the vicinity of the project site. A 12” water main and an 8” watermain are located along Van Vlissingen Road, east of the project site. Also, a 6 inch main dead end is located at 102nd street near the southeast corner of the site. Access to the city water would require extending a new water service through existing access points along the current residences or extending the watermain along 102nd street. Depending on the potential building site, construction costs and obtaining access easements could be costly.

City storm / sanitary sewer service (combined city sewer) is available in the immediate vicinity of the site. A 12 inch sewer is immediately available at the south portion of the site along 103rd street. 12” and 15” sewers are also available along Van Vlissingen Road, however construction costs and access may be costly. Note: A large 13ft x 10.4ft MWRD sanitary interceptor sewer runs east/west across the site approximately at 100th street. ComEd access appears to be available on the Southeast edge of the site. Overhead power poles may be accessed near 103rd and an existing alley. Gas service is available in the immediate vicinity of the site. Existing 6” gas pipe is available along the east side of the site on Van Vlissingen Road. It appears that Comcast telecom lines are available at the east side of the site, along Van Vlissingen Road.

Ongoing and Planned Improvements

$800,000 has been invested in the removal of invasive vegetation at the site over the past two years. In addition, CPD received a $1.8 million grant for restoration from the US Department of Aviation through its O’Hare mitigation program. In the summer of 2015 a park framework plan will be completed, as well as construction documents for habitat restoration. In the fall of 2015 construction of habitat restoration will commence, including trail improvements, parking improvements, and signage improvements.

¹ Chicago Habitat Directory 2005
## VAN VLISSINGEN PRAIRIE SITE EVALUATION

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Impact on Site:</strong> Low.</td>
<td><strong>Visibility:</strong> Poor.</td>
</tr>
<tr>
<td><strong>Utility Access:</strong> Good. Utilities including water, sewer, gas, and Comcast telecom lines are available on Van Vlissingen Road. However, depending on where development occurs, construction or possible easements could be costly.</td>
<td><strong>Adjacency:</strong> This location is not central to other Calumet area properties, or proximate to Ford Motor Co.</td>
</tr>
<tr>
<td><strong>Owner Ready to Implement:</strong> Good. CPD is currently conducting a more detailed review of potential recreational uses at this site and additional information will be available at the conclusion of that review.</td>
<td><strong>Trail Access:</strong> Poor. Currently, no trails or dedicated bike routes connect to the site. However, a trail through the site is planned as part of the Calumet Open Space Reserve Plan.</td>
</tr>
<tr>
<td><strong>Programming:</strong> Fair. CPD is currently conducting a more detailed review of potential recreational uses at this site and additional information will be available at the conclusion of that review.</td>
<td><strong>Water Access:</strong> Poor.</td>
</tr>
<tr>
<td><strong>Regional Access:</strong> Good. Van Vlissingen Prairie is accessible from 95th Street at the north, access to I-94 is available within two-miles of the site.</td>
<td><strong>Regional Draw:</strong> Poor. Regional appeal and connectivity would be challenging.</td>
</tr>
<tr>
<td><strong>Local Access:</strong> Good. On its east side, Van Vlissingen Prairie abuts a residential neighborhood, and is accessible from 95th Street at the north.</td>
<td></td>
</tr>
</tbody>
</table>
Environmental Issues
Not much information is available. The west shore of Lake Calumet was filled by the Port District with bricks, asphalt, and other construction debris.¹

Habitat
The west shore of Lake Calumet has a sense of wilderness about it, even though it is mostly built on fill. There are wooded areas, meadows, wetlands, and mud flats near the open water of the lake. Over 20 species of fish live in Lake Calumet and the lake itself is a critical component in what makes the region so rich in bird life. The area is large enough that it might sustain significant mammal, amphibian, and reptile populations.

The east shore of Lake Calumet is currently inaccessible to humans, but not to wildlife. It provides an important link in a network of continuous habitat, as it is across Stony Island Avenue from Big Marsh, which abuts Indian Ridge Marsh. Most of Harborside Marsh is open water, with common reed growing along the shore. It is separated from Lake Calumet by a narrow berm. The south berm is the only pier in Lake Calumet that is devoid of industrial development.

Lake Calumet has a series of long peninsulas of dry land that jut out into the water that are used (or were once used) as docking stations for barges.²

Wetlands
Lake Calumet East appears to drain west to Lake Calumet. It also appears that Lake Calumet East area is a wetland and will require permitting through the Army Corps of Engineers.

Site Access
There appears to be an existing access drive to the west site along Doty Ave at 115th Street.

A new entrance to the east site along Stony Island may be unachievable. The ditch elevation is a few feet below the adjacent Stony Island roadway. Within this ditch an active railroad spur is connected to several shipping yards servicing Atlas Tube, Calumet Tank & Equipment, and Calumet Container Corporation. There is no reasonable way to construct an at grade crossing from the road to the site.

Available Utilities
At the west site, there is no current City water available in the immediate vicinity of the project site. The Department of Water Management atlas indicates presence of a 12-inch diameter ‘feeder’ water main within the Stony Island Avenue right-of-way, which dead-ends roughly 400 feet south of 116th Street. To obtain water access, this line would need to be extended over 1,000 ft north. This would necessitate both working with the Department of Water Management and constructing an extension of the existing main along Stony Island. This requires City Council approval, Construction management service by DWM, and CPD to pay for the construction and engineering. This option may be cost prohibitive, as the entire cost may reach above $1 million. There is no current City sanitary sewer service available in the immediate vicinity of the site. The nearest sanitary sewers are believed to be privately owned forcemain located along Stony Island & 118th St. A gravity sewer is available at Stony Island & 130th Street. The site currently drains to Lake Calumet and any new development would continue to do so. There would be no need for a storm sewer connection to any city sewer. There are overhead ComEd power lines along Stony Island Ave. Power could be provided to the site by accessing one of these power poles and providing new feeder lines to a new transformer.

¹ Calumet Open Space Reserve Plan
² Chicago Habitat Directory 2005
Recommended Bike Route
Existing Multi-Use Trail
Proposed Multi-Use Trail

Water Trail

Lake Calumet West
Lake Calumet East

Van Vlissingen Prairie
Owner: Illinois Port District
Size: 92 acres (west) 119 acres (east)

Recommended Bike Route
Existing Multi-Use Trail
Proposed Multi-Use Trail

Water Trail

Chicago Park District
Illinois International Port District
Forest Preserve
IDNR
Other Conservation Land
### LAKE CALUMET - EAST SITE EVALUATION

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Adjacency: The property is adjacent to the anticipated activity and traffic at the Big Marsh bike park, and features a lakefront location.</td>
<td>• Owner Ready to Implement: Poor. As of May 2015 the status of IDNR's potential acquisition of the site is unclear.</td>
</tr>
<tr>
<td>• Trail Access: Fair.</td>
<td>• Impact on Site: High. Lake Calumet East is a very small site.</td>
</tr>
<tr>
<td>• Water Access: Good.</td>
<td>• Utility Access: Poor. Similar to Big Marsh, Lake Calumet East has poor utility access.</td>
</tr>
<tr>
<td>• Scenic Quality: Good.</td>
<td>• Programming: Poor.</td>
</tr>
<tr>
<td>• Local Synergy: Fair.</td>
<td>• Visibility: Poor.</td>
</tr>
<tr>
<td>• Regional Draw: Fair.</td>
<td>• Regional Access: Poor.</td>
</tr>
<tr>
<td>• Owner Ready to Implement: Poor. As of May 2015 the status of IDNR's potential acquisition of the site is unclear.</td>
<td>• Local Access: Poor. Vehicular access from Story Island may not be feasible because of rail line along the road.</td>
</tr>
<tr>
<td>• Impact on Site: High.</td>
<td>• Public Transportation Access: Poor.</td>
</tr>
<tr>
<td>• Utility Access: Fair.</td>
<td>• Recreation Amenities: Poor.</td>
</tr>
<tr>
<td>• Visibility: Good.</td>
<td>• Environmental Quality: Unknown.</td>
</tr>
<tr>
<td>• Regional Access: Good.</td>
<td></td>
</tr>
<tr>
<td>• Adjacency: Good.</td>
<td></td>
</tr>
<tr>
<td>• Local Synergy: Fair.</td>
<td></td>
</tr>
<tr>
<td>• River Access: Poor.</td>
<td></td>
</tr>
<tr>
<td>• Regional Access: Poor.</td>
<td></td>
</tr>
<tr>
<td>• Public Transportation Access: Poor.</td>
<td></td>
</tr>
<tr>
<td>• Recreation Amenities: Poor.</td>
<td></td>
</tr>
<tr>
<td>• Environmental Quality: Unknown.</td>
<td></td>
</tr>
</tbody>
</table>

### LAKE CALUMET - WEST SITE EVALUATION

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Impact on Site: Low.</td>
<td>• Owner Ready to Implement: Poor. As of May 2015 the status of IDNR's potential acquisition of the site is unclear.</td>
</tr>
<tr>
<td>• Utility Access: Fair.</td>
<td>• Programming: Poor.</td>
</tr>
<tr>
<td>• Visibility: Good.</td>
<td>• Local Access: Poor.</td>
</tr>
<tr>
<td>• Regional Access: Good.</td>
<td>• Public Transportation Access: Poor.</td>
</tr>
<tr>
<td>• Adjacency: Good.</td>
<td>• Recreation Amenities: Poor.</td>
</tr>
<tr>
<td>• Local Synergy: Fair.</td>
<td>• Environmental Quality: Unknown.</td>
</tr>
<tr>
<td>The site is close to activity generated by the Pullman neighborhood and National Monument.</td>
<td></td>
</tr>
<tr>
<td>• Trail Access: Fair.</td>
<td></td>
</tr>
<tr>
<td>• Water Access: Good.</td>
<td></td>
</tr>
<tr>
<td>• Scenic Quality: Good.</td>
<td></td>
</tr>
<tr>
<td>• Regional Draw: Fair.</td>
<td></td>
</tr>
</tbody>
</table>
5. Comparable Facility Approaches

In order to better understand the challenges and possibilities of creating a destination center for the Calumet region, it is helpful to look at comparable facilities and programs. Facilities evaluated include existing regional centers.

Each facility evaluated is located in an urban environment. Partnerships, programming, capital funding, building considerations and operations and governance have been evaluated for each center.

Comparable Facility Approach Summary:
- There are a number of environmentally-focused centers within relatively close proximity to the sites evaluated as candidates for the new facility. Despite the quantity of regional facilities, no one center currently serves as a true gateway to the Calumet region.
- Comparable facilities within the Chicagoland region range in size from 2,000 SF to 5,000 SF.
- Partnerships between agencies, not-for-profit organizations, and even for-profit corporations lend success to these types of facilities.
- Locational synergies, such as proximity to other structured or unstructured recreation resources or proximity to local neighborhoods lend success to these types of facilities.
- Once a site and operator for the new facility are selected, resources should be dedicated to programming and operational planning to help ensure success. Design consideration should also be given to the fact that resources for programs and staff may not be available from day one - and that the new facility may need to support unstructured visitor participation.
The Nature Center’s programming is also focused on the natural and cultural history of the Calumet region. Unique at Sand Ridge are a number of guided historical hikes and cultural re-enactments that teach visitors about the early development of the United States and Calumet region, including Native American settlement, French fur trading, the American Revolution, pioneers, and the Civil War. There are also nature camps for youth, interactive lectures, and nature discovery hikes for all ages.

Camp Shabbona Woods opened at a site adjacent to Sand Ridge Nature Center in May 2015.
Although a formal plan for programming is still being developed, IDNR intends to focus efforts on site remediation, interpretation of the natural and industrial history of the site, and existing community youth/environmental groups such as Mighty Acorns, Calumet Is My Backyard, and Earth Force.

The facility’s contemporary design represents the Calumet region’s industrial history, and symbolizes one of the center’s primary objectives: interpreting ecology in an urban and industrial setting. The 2,300 SF facility features permanent educational displays, flexible space for community meetings, and a site interpreter on staff. IDNR staff hope that the new facility and its programming will help to catalyze site remediation efforts, leverage new trail connections, and draw visitors locally and regionally.

### 5.2 WILLIAM POWERS STATE RECREATION AREA - CHICAGO, ILLINOIS

The William Powers Conservation Area Visitor’s Center is sited on the west side of Wolf Lake. Constructed in 2014, the visitor’s center provides a hub for the IDNR’s 580 acre park (419 of which are water). The William Powers site currently brings in 500,000 visitors per year for fishing, picnicking, and hiking.

<table>
<thead>
<tr>
<th>Facility</th>
<th>Facility Size</th>
<th>Site Size</th>
<th>Year Constructed</th>
<th>Construction Cost</th>
<th>Green Building?</th>
</tr>
</thead>
<tbody>
<tr>
<td>William Powers Conservation Area Visitor Center</td>
<td>2,300 SF</td>
<td>580 acres</td>
<td>2014</td>
<td>$1 million</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### Managing Entity
- **Illinois Department of Natural Resources**
  - Annual Operating Cost: Not available
  - Staff: No
  - Volunteers: n/a
  - Board of Directors: n/a

<table>
<thead>
<tr>
<th>Facility</th>
<th>Educational Programs</th>
<th>Interpretive displays / exhibits</th>
<th>Outdoor trails</th>
<th>Research Reference Library</th>
<th>Gift Shop</th>
<th>Permits, supplies, equipment rentals</th>
<th>Meeting / conference space</th>
<th>Visitor information</th>
<th>Rest area</th>
<th>Cafe / food service, kitchen</th>
</tr>
</thead>
<tbody>
<tr>
<td>William Powers Conservation Area Visitor Center</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The 2,500 square foot Environmental Awareness Center displays interpretive exhibits in its main hall, including live reptiles and amphibians, and other educational displays. There is classroom space that accommodates about 40 people, a bird observation room with seating and darkened glass, and a utility room with storage, a sink, and counter space. Restrooms are available to visitors during open hours.

The facility and trails are open to the public and free to access, and there are interpretive tours, programs, and lectures throughout the year. The main users of the Center are K-6 school groups on field trips. Local Wild Ones, Boy Scouts, and Girl Scouts chapters also attend Gibson Woods for nature-based educational activities. The fees associated with educational programming are Gibson Woods’ primary source of revenue. Local 4-H programs, as well as the Dunes/Calumet Audubon Society occasionally utilize the facility for meetings, but there is no established program for facility rentals.

Lake County Parks employs one full-time naturalist and four part-time staff that conduct general operations and programming. A part-time grounds keeper is also on staff. There is a volunteer organization operated by the Parks Department that assists with restoration, seed collection, cleaning, and replanting. Groups of volunteers will occasionally come in offering help, and normally work on weeding, planting, and other small tasks.

Indiana DNR and Lake County Parks collaborate to manage and maintain the land, and outside agencies are typically hired to do major restoration work, invasive species control, selective clearing, and planting.
Formerly a garage re-purposed in 2001, the 5,000-square foot building utilizes a number of recycled, reclaimed, reused, and refurbished materials for finishes and furnishings. Within the facility is a classroom space where educational programs are hosted, the ReUz room, where recycled and donated goods are made available to the community, and an indoor Rainbow Trout stream exhibit.

Programming at the EEC focuses on the environmental impacts created by waste and pollution, and utilizes hands-on interactive exhibits as well as walking tours around Lake George to emphasize the importance of recycling, reuse, conservation and preservation. The primary visitors are K-6 elementary school groups. The EEC’s programming is subsidized by the State of Indiana and is in very high demand by local schools. The Center typically hosts 3-5 school groups per week, accommodating as many as 60 students at a time. Access to local trails, parks, and lakes, and the visual connection to area industry are noted as factors that strengthen the educational program and make it unique. Wolf Lake Initiative occasionally holds meetings and workshops at the EEC, and the space can also be made available for other community organizations on a case by case basis, but there is no established program for facility rentals.

Lake County Solid Waste Management oversees all operations and employs two full-time education coordinators as well as one part-time staffer to manage the ReUz room.
Inside the 5,000 square foot facility are exhibits and interactive displays. A classroom addition was built around the year 2000, which nearly doubled the size of the building. There is also a children’s room for preschool programming, and another space for microscopes and hands-on activities. Although it is not a “green” building, the staff and volunteers have incorporated sustainable practices into operations, including the installation of three rain barrels, vegetable gardens, bee hives, native plantings and landscaping, and a compost pile. The nature preserve includes woodland, wetland, prairie, and savanna habitats with walking trails throughout. North Park Village Nature Center is home to communities of wildlife and is a popular place for urban visitors to see birds, turtles, and deer.

North Park Village Nature Center sees 75,000 visitors per year from all over the Chicagoland region. 15,000 of those visitors are elementary-age school groups on nature-based education field trips. EcoExplorers day camps are hosted during the summer for youth 5-14 years old, and registration fees for those camps are the Center’s primary source of revenue. Other users include Neighborhood Naturalists, a partnership program with Chicago Public Schools that works to train the next generation of environmental stewards. There are also regular activities, events, classes, workshops, concerts, and festivals open to the community.

The Chicago Park District employs four full-time staff at the Nature Center, including two naturalists, a landscape architect, and the facility manager. There is a core group of 125 regular volunteers, 10-12 that help with administrative tasks, and 20-25 that lead field trips and other educational programming. The remainder assist with general labor, from planting to weeding and maintenance. Openlands, the holder of the nature preserve’s conservation easement, provides certified volunteers through its Treekeepers program to monitor, plant, and care for trees on the preserve. Additional volunteering opportunities are also available for individuals and groups.
The Urban Ecology Center is a group of three environmental community centers with the mission of fostering ecological understanding as inspiration for change. Founded on the principles of providing community engagement and education, the Center opened its flagship location at Riverside Park in 2004. Two additional branches have opened since, each engaging and educating the community while also working to protect and restore ecological assets.

The Riverside Park facility is an interpretive activity center situated in a dense and diverse urban neighborhood. The award-winning 20,000 square foot building incorporates and demonstrates sustainable design principles (e.g. one of the largest rooftop solar power stations in Wisconsin, rainwater flush toilets, reclaimed lumber flooring and porch, a library of sustainable and eco-friendly building systems and materials, green-roof garden). The 15-acre site features sculptural art and murals, as well as a habitat-themed playground, 40-foot climbing wall, and observatory tower.

At Washington Park, a 135-acre Frederick Law Olmsted design, the Urban Ecology Center opened its second branch in 2007. The 9,500 square-foot facility is situated on a large lagoon which the Center utilizes for canoeing, fishing, and ice skating. Selected for its prime location and natural features, this branch focuses its effort on facilitating urban environmental education. Within the facility are large learning spaces, including a Native Wisconsin animal room with several live exhibits. On the grounds there are native plant communities, wetlands, and a variety of gardens that have been built by students and volunteers.

The most recent addition to the Urban Ecology Center is a facility in the Menomonee Valley, completed in 2012. Part of the "Menomonee Valley – From the Ground Up" plan, this branch serves as the anchor of the revitalization effort for the riverfront industrial corridor, addressing access to jobs, science education, environmental and public health, and neighborhood vitality. In addition to the construction of the Center, 24 acres of wasteland will be transformed into a living outdoor education area, riverbank and wildlife habitats will be restored, a six-mile extension of the Hank Aaron State Trail will be constructed, and vastly improved pedestrian and bike access will be implemented around Menomonee Valley. The Center supports community, educational, ecological and cultural revitalization and will allow UEC to serve an additional 22 schools through its Neighborhood Environmental Education Project. The 6,500 square foot facility is an adaptive reuse of an old tavern, demonstrating a number of sustainable design features from the use of salvaged materials to a passive-solar air intake system, roof gardens, and geo-thermal heating and cooling.

Programming varies at each of the Urban Ecology Center’s locations, but the primary shared mission is environmental education and community engagement. The Neighborhood Environmental Education Project (NEEP) serves a number of area schools with year-long partnerships to supplement science curricula and is subsidized by private and corporate sponsors. There is also a variety of other family, children’s, teen, and adult programming, including after school programs, summer camps, stewardship education, neighborhood groups, and outdoor recreation.

Memberships at the Urban Ecology Center can be purchased for families, individuals, and students. Membership benefits include program discounts, access to members-only events, and free access any time to the Center’s stock of canoes, kayaks, bikes, camping gear, gardening equipment, and more. Revenue from memberships helps to provide summer camp scholarships, fund restoration projects, and provide membership benefits to families in need.

The Urban Ecology Center is a non-profit organization overseen by a Board of Directors and an Advisory Council. As a whole, the Center employs 63 staff members, primarily educators and naturalists. Regular volunteers assist with educational and recreational programs, conservation and restoration efforts, and administrative tasks on a monthly, weekly, or frequent basis. There are also drop-in volunteering opportunities for corporate groups, other organizations, and those seeking to fulfill required service hours.
6. Facility Mission and Goals

To help guide the development of a preferred implementation strategy the project team and the working group next developed a draft mission and goals for a new center, a list of target users, and a list of target programs for a new center based on the community input and assessment of existing resources.

There is a need, and widespread support, for a recognizable center with an environmental focus in the Calumet region that shares information about the region, fosters environmental stewardship, and encourages visitors to get out and explore greater Calumet. The center’s mission should therefore focus on developing a Calumet-Region Gateway Center to serve local community members, draw in regional visitors, and share the region’s environmental, cultural, historical, and recreational assets.

7.1 Draft Mission and Goals

The mission of the Gateway Center should be:

“To create a gateway and a center point that knits together the Calumet region to serve local communities, draw in regional visitors, and celebrate the region’s environmental, cultural, and recreational assets.”

This definition of the mission statement helped to define the purpose of the project – to answer the question “why?” It also recognizes that while this facility will not single-handedly accomplish all of the goals expressed by stakeholders, it can serve as an important catalyst for change by serving as a gateway to the region.

Goals of the Gateway Center should include:

1. To serve as a gateway to the Calumet region as part of a greater network of Calumet “places.”
2. To serve both local and regional visitors.
3. To engage a spectrum of Calumet-area resources.
4. To celebrate a sense of community identity.

These goals support the mission, and helped the Project Team to shape the criteria that was used to define user groups and targeted programming, as well as evaluate sites and facility approach strategies.
6.2 TARGET USER GROUPS

Based on established mission and goals for a new Gateway Center, the Working Group and Project Team worked toward developing a targeted list of specific facility users and their potential for use of the facility, based on discussions with stakeholders. This list helped to inform the definition of target programs, the facility approach, site selection, and ultimately the recommended building program. Possible user groups identified by stakeholders and refined by the Working Group include:

- **Institutions** - Engaged in programs and research related to education, environmental conservation, and community development.
- **Corporate users** - Seeking office space, event venues, and access to nature for team building.
- **Special event organizers** - Hosting conferences, trade shows, and other large gatherings.
- **Researchers** - Needing access to facilities for data collection and analysis.
- **Green-job trainees** - Seeking opportunities for hands-on training and real-world experience.
- **Passive recreation enthusiasts** - Interested in nature walks and scheduled activities.
- **Active recreation enthusiasts** - Engaged in sports and fitness programs.
- **Birders** - Interested in bird watching and conservation.
- **Regional visitors to Calumet** - Engaged in tourism and related activities.
- **Neighborhood residents** - Seeking amenities and events to improve quality of life.
- **School groups** - Using facilities for educational purposes.
- **Students** - Seeking study spaces and research opportunities.
- **Agencies** - CPD, FPDCD, IDNR and NPS have all indicated interest in having a presence at the facility.

The user groups identified represent a very broad spectrum of interests. As it pertains to building design, it is important to consider that some user groups have very specialized space or facility needs while others have more generic space or facility needs. For example, scientific researchers were identified as a target group in the Best Nest Building, which required laboratory and living space to be included in the design. Certain special needs student user groups would have very specialized space or facility needs while others have more generic space needs during the next phase of design.

Different user groups also have different transit or accessibility requirements. For example, seniors and green job trainees would more likely need access to transit. Regional visitors to Calumet would more likely need access to local facilities.

It is important to consider as well whether some of these needs could possibly be accommodated in other facilities, as stakeholder input has identified that there are facilities that are currently under-utilized in the Calumet area.

Since the final definition of target user groups will depend largely on the agency or entity who is selected to operate the facility and their ability and willingness to work in partnership with other organizations, for the purposes of this study target user groups are defined generically as **regional visitors and local visitors**. The needs of regional visitors and local visitors should be considered equally when defining programming and ultimately space needs during the next phase of design.
Next, the Working Group and Project Team developed a targeted list of facility programs. During stakeholder interviews, the following program opportunities were identified as being potentially appropriate for the facility. Potential programs identified by stakeholders and refined by the Working Group include:

- Green job training
- Senior programs
- School field trips, although there is little or no funding for buses at the moment. Environmental science is an important part of the curriculum in some of the area schools, and there is interest in using what the area offers in the classroom.
- Regional tours
- Birding
- Special recreation
- Canoeing
- Kayaking
- Biking
- Hiking
- Cross-country skiing
- Snowshoeing (equipment rentals)
- Environmental interpretation (ecological, industrial, cultural)
- Virtual learning
- Mighty Acorns / Earth Force / Calumet Is My Backyard (CIMBY)
- Lectures
- Health and fitness classes
- Partnering with a business to provide programming (CPD has done this with REI, where REI provides programming in exchange for use of CPD facilities.)
- Agency meetings
- Community meetings
- Food service/food trucks
- Theater
- Special events (rentals)
- Research
- ESL/GED training
- Preschool
- After-school

A number of potential programming partners were identified as well, including:

- Chicago Public Schools
- Volunteer stewardship and educational organizations
- Green jobs organizations
- Regional heritage advocacy groups
- Regional industrial advocacy groups
- Regional recreation advocacy groups
- Environmental justice advocacy groups
- Conservation-focused organizations
- Research institutions
- Community development organizations

Like the range of target user groups developed, the range of programs suggested by stakeholders represents a very broad spectrum of interests. Each program may also have specialized facility requirements and transit or accessibility needs.

Since the final definition of program opportunities will depend largely on the agency or entity who is selected to operate the facility and its ability and willingness to work in partnership with other organizations, for the purposes of this study, target programs are defined as fitting into three categories: education, recreation, and advocacy / community-based programming.
7. Evaluation of Alternatives


Working closely with the Working Group, the Project Team conducted a comprehensive analysis of the data collected, identified alternative strategies for implementation, and criteria by which to evaluate each strategy, and evaluated those alternative strategies.

This phase of the project was made particularly complex by the number and variety of stakeholders, and by the hopes and expectations that have grown up around the facility over the past decade or more. Stakeholders from various organizations would like to see the facility address such varied needs as economic development, tourism, job training, environmental restoration, education, and both passive and active recreation. They also hope that the benefit can be felt not only at the facility’s specific location, but also throughout the Calumet Area. Given concerns about limited funding heard from Millennium Reserve SC members and many stakeholders, it was particularly important to create a rigorous process that would lead to the best possible outcome for the region.

The Project Team reviewed four different “facility approach” models and five different potential sites for a new Gateway Center.
Nodes
In a Node approach, the initial capital investment would be distributed across two or more sites in the Calumet region, with the nodes linked through paths or wayfinding. Multiple nodes would benefit multiple locations and could encourage additional nodes in future phases. Nodes could be renovated buildings in neighboring towns, places for recreational activities such as boating or climbing, or historic / cultural sights such as industrial artifacts placed along a path.

Single Facility - Existing Building
The single facility approach could occur as new construction, however stakeholder input suggested a surplus of vacant space already available for programming in Calumet. To possibly help activate some of this space, the single facility approach could also be applied to an existing building, like a shuttered school building or an under-utilized park field house.

7.1 FACILITY APPROACH ALTERNATIVES

Rather than assume a single facility in a single stand-alone location, the Project Team, working with the Working Group and based on the input of stakeholders, evaluated a number of facility approach alternatives. The pros and cons of each facility approach were evaluated by the Project Team in conjunction with the Working Group. In the end, the Project Team and Working Group determined that none of the sites could be excluded from consideration by virtue of this first level of evaluation.

<table>
<thead>
<tr>
<th>PROS</th>
<th>CONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activates a greater portion of the Calumet region in Phase 1</td>
<td></td>
</tr>
<tr>
<td>Phasing potential / fundraising potential</td>
<td></td>
</tr>
<tr>
<td>Diffused impact</td>
<td></td>
</tr>
<tr>
<td>May not meet expectations of community / Ford Motor Co.</td>
<td></td>
</tr>
<tr>
<td>Potentially divided ownership</td>
<td></td>
</tr>
<tr>
<td>Greater relative implementation cost</td>
<td></td>
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<tr>
<td>Potentially greater operational cost</td>
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<tr>
<td>Implementation time</td>
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<table>
<thead>
<tr>
<th>PROS</th>
<th>CONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater &quot;presence&quot;</td>
<td></td>
</tr>
<tr>
<td>Occupies and activates unused space</td>
<td></td>
</tr>
<tr>
<td>More efficient to manage</td>
<td></td>
</tr>
<tr>
<td>Adaptive re-use of building has minimal impact on environment</td>
<td></td>
</tr>
<tr>
<td>Potential for better access</td>
<td></td>
</tr>
<tr>
<td>Single owner</td>
<td></td>
</tr>
<tr>
<td>No viable site identified during stakeholder engagement</td>
<td></td>
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<tr>
<td>Activates a smaller portion of Calumet in Phase 1</td>
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<tr>
<td>Potentially less flexibility for users and programs</td>
<td></td>
</tr>
<tr>
<td>May not meet expectations / deliver on original promise</td>
<td></td>
</tr>
<tr>
<td>May not have proximate access to natural area</td>
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</tr>
</tbody>
</table>
**Single Facility - New Construction**

In a Single Facility approach, the initial investment would be invested in a single facility at a single site. This was the original vision and was the approach used in the Best Nest design.

**SINGLE FACILITY - NEW CONSTRUCTION**

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Greater “presence”</td>
<td>• Activates a smaller portion of Calumet in Phase 1</td>
</tr>
<tr>
<td>• More flexibility for users and programs</td>
<td>• No identified demand for space</td>
</tr>
<tr>
<td>• More efficient to manage</td>
<td>• Access challenges (public transit service poor at most sites)</td>
</tr>
<tr>
<td>• Meets expectations / delivers on original promise</td>
<td>• Larger footprint may have a greater impact on the environment</td>
</tr>
<tr>
<td>• Single owner</td>
<td></td>
</tr>
</tbody>
</table>

**Single Facility +**

In this approach, the initial investment would be invested in a single facility at, or in close proximity to, a single site where another activity-generating development with a regional draw is underway. Examples of activity generators suggested by stakeholders that may provide viable synergies include the Bike Park at Big Marsh, the Pullman National Monument, and the terminus of the new Cal-Sag Trail (located near Hegewisch Marsh).
7.2 PREFERRED FACILITY APPROACH

To determine a preferred model, each facility approach alternative was passed through three filters: support the mission and goals, meet community expectations, and meet funder expectations.

In the first, each approach was studied to be sure it:

• Supports the mission and goals,
• Serves target users
• Supports target programming

It was determined that with the exception of the Single Facility – Existing Building approach, each facility approach could be designed to support the mission goals to a greater or lesser degree, provided certain limitations are kept in mind. For one, it was recognized that splitting the funding among different nodes risks reducing the quality and impact of each node. To meet the mission and goals, the primary node would need to be substantial enough to serve as a gateway to the region. Although the idea of activating existing underutilized space was widely supported by stakeholders and the Working Group, no existing facility that could work as a “gateway” was identified, therefore the Single Facility – Existing Building approach was excluded from consideration.

The three remaining facility approach alternatives were then tested against a second filter: their ability to meet community expectations. This filter tested their ability to:

• Have an immediate “Day 1” impact and
• Deliver on the original promise made to the community.

First, it was determined that the Nodes approach could not have an immediate Day 1 impact. Nodes would require future phases of implementation to really impact the region. With only a couple of nodes, it would not have a sense of destination or connection necessary to attract visitors and draw them through the region. Implementation would likely be more expensive and take longer, and could be trouble by different ownership or different site locations. The $6,000,000 would not be able to provide the sort of public gathering space promised to the community when spread over multiple sites. Many stakeholders no longer expect the size and scope of a facility like the Best Nest, but the Nodes approach would be something entirely different, and would constrain the possible user groups and programs. For this reason, the Nodes approach was dropped as a facility approach alternative.

The two remaining facility approach alternatives – Single Facility and Single Facility Plus - were then tested against a third filter: meets funder expectations. The Ford contribution agreement contemplates a stand-alone environmental center of 15,000 SF on 100 acres of land owned by the City of Chicago and / or the State of Illinois, but the Ford representative makes clear that its expectations are less stringent. It anticipates a place with both indoor and outdoor spaces located somewhere in the Calumet region where Ford employees and the general public could peacefully appreciate the environment. Ford does not demand an environmental center per se, however it does not want its contribution to be swallowed up in a larger project.

Chicago’s Environmental Fund would like to see something implemented in the near-term, ideally at a location where a third party is already making substantial investments in such things as habitat restoration, infrastructure, wayfinding, maintenance, and marketing, creating an independent facility that may directly leverage investment in other Calumet resources and activity generators. That way, more of the $6,000,000 will be available for accomplishing the project’s mission and goals. It was an important statement from stakeholders that the facility should benefit the larger Calumet region. Thus, approaches were evaluated in terms of their ability to:

• Create an independent facility that may directly leverage investment in other Calumet resources / activity generators

If the Nodes approach is a more expensive means to accomplish this, the Single Facility Plus approach is a less expensive way. The Single Facility Plus was therefore chosen as the preferred facility approach.

While Big Marsh is site the most obvious “single facility plus” opportunity, there may also be opportunity for this approach at the North End of Lake Calumet – West because of its proximity to Pullman, or even at Hegewisch as a potential terminus of the Cal Sag Trail. The Project Team, together with the Working Group, looked at the facility site alternatives in a similarly rigorous fashion.
SINGLE FACILITY + SINGLE FACILITY

- Supports mission
- Supports goals
- Accommodates target users
- Accommodates target programs

SINGLE FACILITY - NEW CONSTRUCTION

- Day 1 Impact
- Delivers on original promise to community

SINGLE FACILITY

- Ability to create an independent facility that may directly leverage investment in other Calumet Resources / activity generators
7.3 PREFERRED SITE APPROACH

Similar to the analysis of facility approaches, each of the five site alternatives was passed through a series of filters in order to determine a preferred site alternative. Five sites were considered: Hegewisch Marsh, Big Marsh, Van Vlissingen Prairie, Lake Calumet East, and Lake Calumet West.

In the first filter, each site was evaluated to be sure it supports the mission and goals, is able to serve target users and may support target programming. Criteria for what might make a site a good gateway were developed, including:
- Visibility of the site
- Ease of accessing the site
- Regional access
- Local access
- Trail access
- Water access
- Public transportation access
- Proximity to schools
- Regional draw of the site
- Impact on site
- Utility access
- Land available on-site to develop a center without impacting high-quality habitat

Two sites failed to make it past this filter: Van Vlissingen Prairie and Lake Calumet. Van Vlissingen is physically separated from any other regional draw or development and is most distant from Ford and its employees. While Lake Calumet East is just across Stony Island Avenue from Big Marsh Bike Park, it cannot operate in conjunction with the Big Marsh project because it has different ownership and because the road and railroad tracks create a tremendous obstacle to vehicular, pedestrian, and bicycle access.

It was decided that the other three sites could support the mission and goals of the center as a gateway to the Calumet region to a greater or lesser degree, keeping in mind some limitations. For one, today Big Marsh is hindered by poor visibility, and some problems with access. Stony Island Avenue (although a recommended bike route) is a busy truck route, and, although the site is accessed relatively easily from I-94, it lacks the visibility of Lake Calumet West. Planned wayfinding improvements that will be implemented as part of the Bike Park project and the ongoing access and trail plan currently being conducted by Active Transportation Alliance should ameliorate these challenges in the near future. Utility access - namely access to sanitary sewer – is another challenge at the Big Marsh site.

Next, the remaining sites were tested in terms of their ability to meet community expectations. The following criteria were used in this tier of evaluation:
- Environmental quality of the site
- Scenic quality of the site
- Recreation amenity available at the site
- Local synergy of the site

The project team decided that all three sites passed through this filter. Hegewisch Marsh, the original project site and still the preferred site for many local community members, has been the subject of significant restoration investment over the past ten years. And, in terms of the above criteria, Hegewisch Marsh best meets community expectations. Big Marsh also fared well. Natural area restoration – similar to the work performed at Hegewisch over the last ten years - is an important component of CPD’s work at Big Marsh, in addition to the eco-recreation improvements of the Bike Park. Ecological restoration on site will focus on three categories: wildlife habitat improvement, vegetative community improvements, and water quality improvements. All three categories are interrelated and necessary for the long term ecological and environmental health of Big Marsh. Construction of these restoration improvements will begin in the summer of 2015. Big Marsh is the largest individual wetland in
the Calumet Open Space Reserve, with approximately 90 acres of open water. Until 1999, Big Marsh was the site of the black-crowned night heron rookery, and the wet portions of Big Marsh remain an important site for water birds. Up to 260 acres of restored natural areas at Big Marsh, including trail facilities, are expected to be open to the public sometime in 2016.

Next, the three remaining sites were evaluated in terms of their ability to accommodate the Single Facility Plus approach identified as the preferred facility strategy. Criteria for this tier of evaluation included:

- Adjacency

Both Big Marsh and Lake Calumet West offer the potential to accommodate the Single Facility Plus approach. Big Marsh is the site of the Big Marsh Bike Park, to be constructed in the spring of 2016. 40 of a total 300 acres of the Big Marsh site will be occupied by the Bike Park. The Bike Park will be a premier bike facility, with expected visitors from around the country.

Lake Calumet West is at the highway exit to Pullman, recently named as Chicago’s first national park, is highly visible from the highway, and is adjacent to a golf course. The Lake Calumet West site was recommended by participants of the recent “Positioning Pullman” workshop, who contend that positioning the center on the western shore of Lake Calumet, directly across the Bishop Ford from the newly-established Pullman National Park, would anchor a re-branding of the entire gateway to the Calumet – and perhaps the entire southern gateway to the City of Chicago. There may also be opportunities for shared / complementary programming with Pullman National Monument. It is also the site location supported by the Southeast Environmental Task Force.

Although Hegewisch March is near the planned endpoint of the Cal-Sag Trail, and may benefit from the riders that path is hoping to draw, it will not draw regional visitors who come by car.

Next, the three remaining sites were evaluated in terms of their ability to meet funder expectations, focusing on ownership and implementation. Criteria for this tier of evaluation included:

- Owner ready to implement and operate in the near term
- Programming ready to implement

This filter asks whether the site offers an owner ready to develop in the near term, programming ready to implement, and an owner ready to take on facility operations and maintenance in the near term. Big Marsh offers all of these. As a successor to DOE for this project, CPD is fully committed to development, operation, maintenance, and programming in the near term at Big Marsh. CPD’s planned improvements for Hegewisch Marsh do not include the development of any large facility at that site.

IDNR, the potential future owner of Lake Calumet West, is a supportive and engaged stakeholder, but not ready at the moment to commit to moving forward in the near term due to its pending acquisition of the property and the recent change of state-level administration. The uncertainty of land availability and dedicated operator for the Lake Calumet West site was considered to be a major obstacle by the Project Team. Big Marsh was therefore chosen as the preferred facility site.
• Supports mission
• Supports goals
• Accommodates target users
• Accommodates target programs

• Visibility of the site
• Ease of accessing the site
• Regional access
• Local access
• Trail access
• Water access
• Public transportation access
• Proximity to schools
• Regional draw of the site
• Impact on site
• Utility access
• Land available on-site to develop a center without impacting high-quality habitat

Hegewisch Marsh
Van Vlissingen Prairie
Big Marsh
Lk Calumet - East
Lk Calumet - West

Preferred Facility Approach
Preferred Site Approach
8. Design Strategy

The final charge of the Project Team’s assignment was to “develop a range of options to be considered for the design of the center.” While it was not the Project Team’s charge to design a new facility, some parameters for the building’s design are included herein. With the mission and goals in hand, and a good understanding of the target users and programs, a preferred strategy decision process was developed, as shown in flow chart below. Next, a design strategy was developed - this began with understanding the funding available for the facility, programming and maintenance/operations.
Before considering what sort of facility this ought to be, the Project Team took a hard look at the funding parameters. The $6,000,000 Ford donation was originally intended to be approximately half of the cost of the facility, with the other half to come from the State of Illinois. In fact, no other public or private funding has been obtained, despite significant fundraising efforts made over several years.

Although area advocacy groups and SGA felt that additional fundraising should be pursued, nearly all the other stakeholders felt that the project should move ahead with the funding available. There was also a sense that time was running out, and that if the Ford donation were not used for its intended purpose before too much longer, the donation could be withdrawn. Based on this, the Project Team, in close consultation with the Working Group, decided to pursue solutions that could be achieved with the $6,000,000 in available funds. Although these funds may have earned interest over the years, the donation agreement with Ford states that interest should be used for programming, not the facility itself.

It was also determined that not all of the $6,000,000 could be used for capital development; some portion would need to be allocated toward facility programming and toward operations / maintenance of the facility.

Any portion of available funds earmarked for capital development will have to pay for more than just the building. Anticipated project costs associated with capital development will also include:

- **Site improvements**
- **Utility extension or improvement** - this cost is particularly significant at Big Marsh as related to sanitary sewer service. The cost of a installing a gravity flow system at the site will be significant. Alternate, less expensive, tank systems are available, but may not be desirable.
- **Green building upgrades** - the original SGA design included a number of green building elements, many of which are still relevant today, and some of which have come down significantly in cost due to advancements in technology. Some examples used in the original design include:
  - A vertical-flow wetland was recommended to treat waste water in the original design. In this type of system, stormwater is collected from the roof and funneled into a water collection tank, from there it is used in the toilets. The water is then treated in vertical flow wetlands, cleaned by wetland plants. Water is then used for irrigation. Space and budget requirements for this system are not currently accounted for in the suggested building program.
  - A biomass boiler was also included in the SGA design. The biomass boiler is located in a screened enclosure. Boilers are fueled with chips (biomass harvested on site) stored in a hopper which automatically feeds the boiler. Space and budget requirements for this system are not currently accounted for in the suggested building program. An earth-tube system was also included as part of the building mechanicals.
  - **Soft costs** include costs that are not direct constructions costs such as architectural, engineering, financing, and legal fees and other pre- and post-construction expenses.
  - **Construction contingency** is a provision for unforeseen events or circumstances that may occur during construction resulting in additional cost.
  - **Furniture, fixtures, and equipment (FF & E)** includes any movable or other fixtures or other equipment that have no permanent connection to the structure of a building or utilities.
  - **Exhibits and signage** will be an important component of a successful Gateway Center to assist with wayfinding and interpretation.

If funding remains available from Ford, it will be possible to build a new Gateway Center. However, available funds must be used judiciously and address a range of requirements for both initial construction and ongoing operations. Creative, thoughtful design will be paramount.
$6 MILLION POTENTIAL FUNDING

CAPITAL DEVELOPMENT

PROGRAMMING

OPERATIONS AND MAINTENANCE

FUNDING STRATEGY

BUILDING
- CLASSROOMS / COMMUNITY ROOM
- PUBLIC BATHROOMS
- OFFICE / ADMIN SPACE
- OFFICE SUPPORT
- RECEPTION / DISPLAY
- KITCHENETTE
- OUTFITTER CO-OP SPACE
- MECHANICAL
- MAINTENANCE BUILDING
- FURNITURE FIXTURES AND EQUIPMENT
- SIGNAGE, EXHIBIT, AND DISPLAY
- GREEN SYSTEM UPGRADES

SITE
- LANDSCAPE IMPROVEMENTS
- OUTDOOR TERRACE / GATHERING AREA
- LIGHTING
- PARKING
- SERVICE AREA
- SIGNAGE, EXHIBIT, AND DISPLAY
- GREEN SYSTEM UPGRADES

UTILITIES / INFRASTRUCTURE
- WATER CONNECTION
- WATER INFRASTRUCTURE
- SANITARY (FORCED MAIN SYSTEM)
- ELECTRIC
- GREEN SYSTEM UPGRADES

SOFT COSTS
- ARCHITECTURAL, ENGINEERING, FINANCING, AND LEGAL FEES AND OTHER PRE- AND POST-CONSTRUCTION EXPENSES.
8.2 FACILITY DESIGN SCRIPT

Based on stakeholder input, budget realities, and the anticipated site program at Big Marsh as developed by CPD a design script was developed for the new Gateway Center. As a baseline, the new Gateway Center should:

• Be visible
• Be accessible
• Be modest, simple, flexible, and efficient

Concern was expressed by many stakeholders that with a constrained budget, the final facility may end up looking like a shed or just a restroom building. Stakeholders emphasized the importance of constructing a high-quality, architecturally-significant facility, sensitive to its site. To address these concerns, the Project Team took cues from the original facility design for the next set of design parameters. The new Gateway Center should:

• Use locally-sourced and reclaimed materials to the greatest extent possible
• Incorporate bird-safe design
• Use sustainable building technology
• Design the building to complement its immediate context.

Finally, many stakeholders expressed concern that a facility owned and operated by CPD would focus too narrowly on outdoor recreation, neglecting other aspects of Calumet such as environmental and cultural interpretation. And, many stakeholders - including the funder, Ford - do not want to see the new Gateway Center swallowed up by the Bike Park. To address this, the new Gateway Center should:

• Maintain integrity as a Calumet-region Gateway Center through interpretation of the breadth of Calumet-region natural and cultural resources through forms and materials.
• Be sited such that the Gateway Center may operate independently of, and undisturbed by, the more intensive Bike Park events, but should be connected to the larger trail system at Big Marsh.

It is worth noting that a design script for architecture at Big Marsh was loosely described as part of the Big Marsh Master Plan. Recommendations of that plan include:

• Follow CPD standards where possible
• Be modular and expandable
• Incorporate design elements that highlight the industrial history of the site and area
• Be simple, inexpensive, and durable.

These recommendations are fairly generic, and do not necessary conflict with the recommendations of this report.

Some images of existing buildings that represent the concept of the design script are shown on the opposite page.
In cooperation with the Working Group, the Project Team developed a list of “building musts.” The new Gateway Center must have a bathroom, heated area, and flexible interior space. The Gateway Center must be an attractive and special design, and must convey value.

Next, based on building musts, the Project Team developed a list of building program goals:

- Function year-round, with or without staff presence
- Serve regional and local visitors
- Be adaptable and flexible
- Share information and foster stewardship
- Maintain integrity as a Calumet-region Gateway Center while sharing space and support services with the Big Marsh Bike Park.

Building Program

- Reception / display area (900 sf): The primary entry point to the building. It serves as an information dissemination point. Graphic information such as leaflets, posters, special event signage are to be displayed here. This area may accommodate permanent exhibits. The reception area will be multi-functional space with the ability to function as an outdoor classroom, or as break out space for the indoor classroom / meeting space when it is in use. Trails will leave from the reception / display area.
- Meeting space / classrooms (900 sf): Multi-functional classroom with moveable furniture, place for projection screen, whiteboards.
- Public restrooms (700 sf): Toilets and sinks as required by building occupancy. These restrooms will be accessible from both the open-access building space and the controlled-access building space.
- Office (400 sf): Desks and computers for site staff and visiting staff / volunteers. Space will be used only intermittently until there is demand and budget for full-time staff on site.
- Office support (325 sf): Includes storage space and private restrooms for staff. Support space will also include a small kitchenette that will provide flexible space designed for daily need, simple buffet / drink distribution space. Caterers may bring mobile units for events.
- Outdoor outfitter co-op (650 sf): Includes largely unfinished volume space that will accommodate rental facility, possible retail space, training for various Calumet-region activities (may include outdoor recreation-related classroom activities, restoration activities, etc.). May include a shop for bike and equipment repair.
- Mechanical Room (300 sf): Will serve the main building.
- Maintenance facility (ancillary building, 2,500 sf): Shed for storage of tools, parking spots for ATVs and possibly a truck, storage for boots and equipment used by volunteers / students, sink, area for cleaning up. Space will be used intermittently by maintenance staff, volunteers, and students. An enclosure for trash and recycling pick-up and enclosed area for composting is also located at the maintenance facility.

It is worth noting that an architecture program was described as part of the Big Marsh Master Plan. It includes:

- Concessions, restrooms, maintenance, community room, and office.

It is also worth noting that if the Gateway Center is constructed at Big Marsh, it will function to serve the program needs of the Bike Park in addition to its own program needs. Only one facility will be built on site.

8.3 BUILDING PROGRAM

GATEWAY CENTER SCHEMATIC BUILDING PROGRAM

<table>
<thead>
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<th>Area</th>
<th>Size</th>
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</thead>
<tbody>
<tr>
<td>Meeting / classroom space</td>
<td>900 SF</td>
</tr>
<tr>
<td>Display / reception</td>
<td>900 SF</td>
</tr>
<tr>
<td>Outdoor outfitter / co-op space</td>
<td>650 SF</td>
</tr>
<tr>
<td>Offices</td>
<td>400 SF</td>
</tr>
<tr>
<td>Office support (restroom, kitchenette, I.T.)</td>
<td>325 SF</td>
</tr>
<tr>
<td>Mechanical</td>
<td>300 SF</td>
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<tr>
<td>Public restrooms</td>
<td>700 SF</td>
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<td>Subtotal</td>
<td>4,175 SF</td>
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<tr>
<td>Gross factor (20%)</td>
<td>835 SF</td>
</tr>
<tr>
<td>TOTAL BUILDING AREA</td>
<td>5,010 SF</td>
</tr>
</tbody>
</table>

- SGA’s BEST NEST: 28,000 SF
- FPDCC’s SAND RIDGE NATURE CENTER: 7,500 SF
- PROPOSED GATEWAY CENTER: 5,010 SF
Reception / display area (900 sf): The primary entry point to the building. It serves as an information dissemination point. Graphic information such as leaflets, posters, special event signage are to be displayed here. This area may accommodate permanent exhibits. The reception area will be multi-functional space with the ability to function as an outdoor classroom, or as break out space for the indoor classroom / meeting space when it is in use. Trails will leave from the reception / display area.

Meeting space / classrooms (900 sf): Multi-functional classroom with moveable furniture, place for projection screen, whiteboards.

Office / office support (725 sf): Desks and computers for site staff and visiting staff / volunteers. Space will be used only intermittently until there is demand and budget for full-time staff on site. Office support space includes storage space and private restrooms for staff. Support space will also include a small kitchenette that will provide flexible space designed for daily need, simple buffet / drink distribution space. Caterers may bring mobile units or events.

Public restrooms (700 sf): Toilets and sinks as required by building occupancy. These restrooms will be accessible from both the open-access building space and the controlled-access building space.

Outdoor outfitter co-op (650 sf): Includes largely unfinished volume space that will accommodate rental facility, possible retail space, training for various Calumet-region activities (may include outdoor recreation-related classroom activities, restoration activities, etc.), May include a shop for bike and equipment repair.

Maintenance facility (ancillary building, 2,500 sf): Shed for storage of tools, parking spots for ATVs and possibly a truck, storage for boots and equipment used by volunteers / students, sink, area for cleaning up. Space will be used intermittently by maintenance staff, volunteers, and students. An enclosure for trash and recycling pick-up and enclosed area for composting is also located at the maintenance facility.
Because funds may be limited for programming and operations of the building in initial years of operation, the building must be able to operate – to serve visitors year-round – independent of staff presence. To address this challenge, building program elements are categorized as either open-access space or controlled-access space.

- Open-access building space is outdoor, sheltered space that will function as an outdoor pavilion.
- Controlled-access space is interior space that will only be accessible when staff is present on-site.

The National Park Service’s Boston Harbor Islands pavilion (pictured right) designed by Utile, Inc. is a good example of building designed with both open-access and controlled access space.
Site Program Goals:

- Function year-round, with or without staff presence
- Serve regional and local visitors
- Be adaptable and flexible
- Share information and foster stewardship
- Maintain integrity as a Calumet-region Gateway Center while sharing space and support services with the Big Marsh Bike Park.

Big Marsh was selected as the preferred site for development of the new Gateway Center because of its strong potential as a “Single Facility +.” CPD’s plans for Big Marsh include:

- Creating a Bike Park modeled after Valmont Park in Boulder, Colorado - a facility that receives 30,000 visitors each year.
- Preserving and enhancing the site’s natural features
- Incorporating design elements that highlight the industrial history of the site and area
- Developing eco-recreation activities such as trails, fishing facilities, birding facilities, and non-motorized boat launch facilities. Eco-recreation is the mutually beneficial relationship between responsible leisure activities and the natural environment. It is about uniting conservation, local culture, and sustainably developed recreational facilities.

The site is planned as including three main areas, each with a distinctive character and use. At the north, the site features an extensive trail system providing a continuous, accessible trail throughout the park, an observation tower, and fishing / canoe access points. This area will be reserved for passive recreation activities. Active Bike Park activities (occurring on about 40 acres of the site) are concentrated at the south portion of the site, west of the large existing wetland. The “core area” as it is deemed in the Big Marsh Master Plan, will focus exclusively on more active recreation activities. The east portion of the site will be home to an extension of the single track bike trail areas and multi-purpose trails. Construction of the Bike Park will start in the spring of 2016.

Natural area restoration is also an important component of CPD’s work at Big Marsh. Ecological restoration on-site will focus on three categories: wildlife habitat improvements, vegetative community improvements, and water quality improvements. All three categories are interrelated and necessary for the long term ecological and environmental health of Big Marsh. Big Marsh is thought by CPD to have even better ecological potential than Hegewisch Marsh. Construction of habitat will start in the summer of 2015, and the site is expected to be open to the public in 2016.

Planned wildlife habitat improvements will include:

- Preserving select trees, tree trunks, limbs, and fallen trees which to be used as habitat
- Installing structures to improve wildlife habitat such as artificial nesting structures and bat houses
- Removing a section of peninsula to better accommodate bird habitat
- Connecting isolated ponds to create deep water pockets for fish habitat

Vegetative community improvements will include:

- Selective removal of non-native trees
- Pruning or removal of hazardous trees
- Selective removal of non-native under-story plan material
- Enhancement of woodland areas with a diverse mix of trees and under-story plant material
- Removal of debris and litter
- Restoration and enhancement of emergent wetlands, degraded wet meadow and wet meadow areas
- Establishment of hemi-marsh conditions by controlling the ponds’ water level and fish populations

Water quality improvements will include:

- Improvement of the quality of water entering the site from the former Acme Steel Coke Plant through the creation of constructed wetlands and other green infrastructure
- Detailed investigation of surface and groundwater ponds at Big Marsh
- Installation of a water control structure connecting Big Marsh to Lake Calumet
- Restoration of the stream and adjacent wetland to improve the quality of water entering the site from the Norfolk Southern property
- Establishment of a plan for long-term management

A number of grants have been secured for restoration at the site including:

- Great Lakes Fisheries and Ecosystem Restoration Section 506 Habitat Restoration grant, currently in its preliminary phase studying a potential $3 - 6 million habitat restoration project (similar to the work done in previous years at Hegewisch Marsh).
- $475,000 National Fish and Wildlife Foundation grant for habitat restoration.
- $186,000 in private funding for restoration.
- $181,000 grant from the US Forest Service for restoration, phyto-remediation research, and a pilot study.
- And, two grants from the EPA for restoration - $325,000 for the design and installation of a water control structure, and $306,000 for habitat restoration.
Gateway Center Schematic Site Program

- Low-intensity uses: 200 ac
- Mid-intensity uses: 55 ac
- High-intensity uses: 50 ac
- Gateway center site: 1 ac

Total: 300 ac
8.5 SCHEMATIC GATEWAY CENTER CAPITAL DEVELOPMENT BUDGET

The Project Team developed a schematic budget for a Gateway Center based on the design script and building program described herein.

Implementation costs, even for a modest-sized facility, could use a large portion of the potentially-available funds. Using the model assumed by the Project Team, $771,630 of the assumed $6 million available will be available for programming and ongoing maintenance and operations.
### Building Cost

<table>
<thead>
<tr>
<th>Building</th>
<th>SF</th>
<th>Rate (sf)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gateway Center</td>
<td>5,010</td>
<td>$300</td>
<td>$1,503,000</td>
</tr>
<tr>
<td>Maintenance Building</td>
<td>2,500</td>
<td>$100</td>
<td>$250,000</td>
</tr>
</tbody>
</table>

Classrooms / community room
Lobby / display / reception
Tech room / co-op space
Office / admin space
Office support: restroom, kitchenette, storage, I.T.
Building support: public restrooms, mechanical

### Site Improvements (+/- 1 acre)

#### Utilities

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Rate (lump sum)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water connection</td>
<td>1</td>
<td>$300,000</td>
<td>$300,000</td>
</tr>
<tr>
<td>Water infrastructure</td>
<td>1</td>
<td>$200,000</td>
<td>$200,000</td>
</tr>
<tr>
<td>Sanitary (forced main)</td>
<td>1</td>
<td>$1,000,000</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Electric</td>
<td>1</td>
<td>$150,000</td>
<td>$150,000</td>
</tr>
</tbody>
</table>

#### Site

<table>
<thead>
<tr>
<th>Item</th>
<th>SF</th>
<th>Rate (sf)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parking (24 dedicated spaces @ 4 per 1,000 sf)</td>
<td>7,800</td>
<td>$10</td>
<td>$78,000</td>
</tr>
<tr>
<td>Service area</td>
<td>2,500</td>
<td>$8</td>
<td>$20,000</td>
</tr>
<tr>
<td>Landscape improvements</td>
<td>1</td>
<td>$200,000</td>
<td>$200,000</td>
</tr>
<tr>
<td>Outdoor terrace / gathering area</td>
<td>2,500</td>
<td>$20</td>
<td>$50,000</td>
</tr>
</tbody>
</table>

### Contingency (@20% - soft costs (including design fees) and construction contingency)

- Building subtotal: $1,753,000
- FF&E (@7.5%): $131,475
- Interior display (@7.5%): $131,475
- “Green system upgrade” (@5%): $87,650
- Building total: $2,103,600

- Site subtotal: $2,003,000
- Exterior display (@7.5%): $150,225
- “Green system upgrade” (@5%): $100,150
- Site total: $2,253,375

- Project subtotal: $4,356,975
- Contingency: $871,395
- Project total: $5,228,370
Conclusion

AT THE BEGINNING OF THE ASSIGNMENT, THE PROJECT TEAM WAS ASKED TO ACCOMPLISH CERTAIN TASKS. BELOW, BASED ON EXTENSIVE STAKEHOLDER ENGAGEMENT AND A CLOSE WORKING RELATIONSHIP WITH THE WORKING GROUP, ARE OUR CONCLUSIONS.

Based on stakeholder input, there is a need, and widespread support, for a recognizable gateway center with an environmental focus in the Calumet region that shares information about the region and encourages environmental stewardship. The center’s mission should focus on developing a **Calumet-Region Gateway Center** to serve local community members, draw in regional visitors, and share the region’s environmental, cultural, historical, and recreational assets.

If money from Ford remains available, it will be feasible to build a new Gateway Center on the southeast-side. Relying on these resources will require adhering to funder expectations, including the expectations of the grantor, Ford, and the expectations of the fund manager, Chicago’s Environmental Fund. There is support for moving forward with implementing the Gateway Center using resources that may already be available to fund capital development, programming, and maintenance/operations of a new facility. Given resources available, it is not feasible to move forward with the original SGA design.

Following extensive interaction with stakeholders, and a rigorous analysis, the Project Team determine that the best available site for the Gateway Center is Big Marsh.

A new Gateway Center in the Calumet Region would be a great asset to the people of the region, and would help grow the momentum of positive change that the Calumet region is experiencing today.
8.1 PUBLIC OPEN HOUSE #1 ATTENDANCE LIST

Sandra Kloucar
Vic DeWitt
Patricia Stref
Joe Stref
Rick McGraw
Dennis Nyberg Hegewisch Resident
Kevin Murphy
Mary Kuzmin AWLI
Alison Anastasio CPD Volunteer Site Steward @ Rainbow Beach Dunes
Loraine Ashby SOAR, Fight Petcoke Chicago
Kristine Sowa CEPA
Grace Sowa CEPA
Manuel Hernandez Primera
Rob Reuland Hitchcock Design Group
Dawn Klein-Pilota Hegewisch Resident and community activist
Olga Bautista SETF
Michael Boos AWLI
Mark Bouman Field Museum
Judy Lihota Calumet Ecological Park Association
John A. Pope Ward 10 Alderman
Susan Loncar Chief of staff for Ald. Pope
Todd Zima Studio Gang Architects
Joann Podkul
Peggy Salazar Southeast Environmental Task Force
Erin Joyce Chicago Park District
David Holmberg Calumet Area Industrial Commission
Jack Brunner Tetratech
Community Workshop 1 was hosted on October 21st, 2014 at the Mann Park fieldhouse in Hegewisch. 27 people were in attendance, including 10th Ward Alderman John Pope, representatives from local preservation and conservation groups, and other active members of the community.

Participants signed in and were seated in randomly selected table groups. Alderman Pope gave a brief welcome to the group, followed by a project overview presentation by Scott Freres of The Lakota Group. The presentation covered project history, goals, process/timeline, and directions for table discussions.

Each table group was then given about 45 minutes to discuss the following questions:

- What are the greatest challenges facing the Calumet region? What are the greatest opportunities?
- What would be the best way to invest in Calumet region natural environment?
- What recreation opportunities are missing in the Calumet region?
- What would be the best way to invest Calumet region recreation resources?
- Are there any models for environmental or recreation facilities or programs in other communities that you think would be successful in the Calumet region?
- If you were given a large sum of money to invest in the Calumet region, how would you allocate those funds for the best return on your investment?
- What partners are best to solicit and engage to accomplish this project?
- Are there any political, environmental or economic precautionary measures that needs to be considered when moving forward?

Summary of table discussions:

Participants identified the greatest challenges facing the Calumet region as jobs and economic development, transportation and access, safety, and sense of place or neighborhood identity. They emphasized that better access for cyclists and pedestrians, historical and cultural invigoration, and a better climate for local small businesses were key priorities for the area’s future. In addition to investing in those priorities, they felt that community programming was very important, as well as active and educational programming opportunities for youth and seniors. The group was divided on whether or not they would pay to visit an established FCEC. Willingness to pay and frequency of visits would largely depend on programming. Moving forward, the group identified that a key challenge and opportunity the project should address is better connectivity for pedestrians, cyclists and transit in the area that encourages the stability and growth of local small businesses while interpreting and enriching the cultural/historical/environmental/industrial context of the region.

Following table discussions, a representative from each table presented a summary of their conversations and responses to the rest of the group. Afterward, attendees were encouraged to complete the project survey and write any additional comments on cards provided, collected in comment boxes.
<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>David Holmberg</td>
<td>CAIC</td>
</tr>
<tr>
<td>Harmony Piccinca</td>
<td>Greencorps Chicago</td>
</tr>
<tr>
<td>Judith Lihota</td>
<td>CEPA</td>
</tr>
<tr>
<td>Linda Ruxton</td>
<td>CEPA</td>
</tr>
<tr>
<td>Peggy Salazar</td>
<td>SETF</td>
</tr>
<tr>
<td>Dawn Klein Pilota</td>
<td>HOPE4</td>
</tr>
<tr>
<td>Todd Zima</td>
<td>Studio Gang Architects</td>
</tr>
<tr>
<td>Kristine Sowa</td>
<td>CEPA</td>
</tr>
<tr>
<td>Melissa Ruvalcaba</td>
<td>10th Ward</td>
</tr>
<tr>
<td>Susan Loncar</td>
<td>10th Ward</td>
</tr>
<tr>
<td>Tom Shepherd</td>
<td>SETF</td>
</tr>
<tr>
<td>John A Pope</td>
<td>10th Ward Alderman</td>
</tr>
<tr>
<td>Grace + Albert Sowa</td>
<td>CEPA</td>
</tr>
<tr>
<td>Ellen LaRue</td>
<td>CEPA</td>
</tr>
<tr>
<td>Kevin Murphy</td>
<td></td>
</tr>
<tr>
<td>Joann Podkul</td>
<td></td>
</tr>
</tbody>
</table>
Community Workshop 1 was hosted on May 14th, 2014 at the Mann Park field house in Hegewisch. 16 people were in attendance, including 10th Ward Alderman John Pope, representatives from local preservation and conservation groups, and other active members of the community.

1. Introductory presentation
   - Feasibility study process and objectives, and stakeholder outreach
   - Mission and goals, target users and programs
   - Facility approach alternatives and site approach alternatives
   - Preliminary feasibility study conclusions and funding strategy
   - Design script, building program, and site program
   - Concept plan cost opinion
   - Exhibit stations
   - Project timeline
   - Project stakeholders
   - Draft project mission and goals
   - Target users and programming
   - Potential sites for FCEC
   - Hegewisch Marsh site evaluation
   - Big Marsh site evaluation
   - Van Vlissingen Prairie site evaluation
   - Lake Calumet site evaluations (east and west options)
   - Preferred site approach
   - Facility approach evaluation (nodes, single facility – new construction, single facility – existing building, single facility+)
   - Preferred facility approach
   - Overall approach
   - Funding strategy
   - Schematic building program
   - Schematic site program
   - Concept plan cost opinion

2. Group discussion: A question and answer session followed the introductory presentation and group’s review of the project exhibits, and is summarized below.

Would the design of the facility be modular to accommodate future expansion?
   - While the scope of this study does not include a design for the facility, the study recommends in its design script that a future building include flexible space and the ability to accommodate future growth.

Would bike park users share the restrooms at this facility if sited in Big Marsh?
   - Portable toilets will be provided for bike park users.

Does the plan accommodate future development at any of the other potential sites? How would that impact the study’s conclusions?
   - The feasibility study does take into account current and planned development at each of the potential sites. The study recommends constructing a gateway center that would encourage exploration of those sites as well as others in the region.

How does the cost of utilities compare at each potential site, and to what extent does that affect the amount of money available to spend on building construction?
   - The feasibility study takes into account the current availability of utilities at each potential site and the ease or difficulty of developing at each location.

Would Studio Gang Architects design the facility?
   - When and if the project moves forward into the design phase, an architect will be selected to design the facility. There is no existing agreement with SGA, but it is possible that they would be considered.

The original site for the FCEC at Hegewisch Marsh is still strongly supported by the community. It has access to utilities, less truck traffic, connection to the river, and proximity to the Cal Sag Trail. Would the gateway center be feasible at Hegewisch Marsh?
   - In evaluating the range of options and availability of existing resources, it was determined that Big Marsh was the best site for the new facility. CPD, the owner of both Big Marsh and Hegewisch Marsh, supports the development of the facility at Big Marsh.

Following the group discussion, attendees again reviewed the project exhibits and asked any further questions.
### 8.5 COMPETITION BUILDING PROGRAM

#### PUBLIC SPACES

<table>
<thead>
<tr>
<th>Area</th>
<th>Occ.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lobby / reception</td>
<td>600 SF</td>
<td>12 This lobby is located at the main entrance. Here the staff welcomes visitors and assists them with information needs. The space should be large enough to accommodate visiting groups.</td>
</tr>
<tr>
<td>Main exhibit space</td>
<td>2500 SF</td>
<td>40 The main exhibit space is used for the permanent collection also considered as the base exhibit area. There will be hands-on interactive exhibits and demonstration spaces.</td>
</tr>
<tr>
<td>Temporary exhibit space</td>
<td>1000 SF</td>
<td>30 The temporary exhibit space is used for the traveling exhibits. There will be hands-on interactive exhibits and demonstration spaces.</td>
</tr>
<tr>
<td>Media orientation center</td>
<td>800 SF</td>
<td>50 This space is to present a media orientation to the center, its exhibits, and programs.</td>
</tr>
<tr>
<td>Classroom 1</td>
<td>1350 SF</td>
<td>30 This room is for educational classes, arts and crafts, conferences, and gatherings.</td>
</tr>
<tr>
<td>Classroom 2</td>
<td>1350 SF</td>
<td>30 This room is a network-ready learning environment for educational classes, conferences, and gatherings.</td>
</tr>
<tr>
<td>Lunchroom / dining</td>
<td>1000 SF</td>
<td>30 This is a dining area available for public use. Also used by school groups, volunteers, and staff as a lunch area.</td>
</tr>
<tr>
<td>Children's room</td>
<td>1000 SF</td>
<td>20 This room is for parents with small children. A place for reading, doing projects, and playing.</td>
</tr>
<tr>
<td>Auditorium</td>
<td>3900 SF</td>
<td>150 This auditorium serves as a place for lectures and conferences as well as a meeting place for local groups. The room has a flat floor so it can be rearranged for multiple uses but should also have movable tiers to accommodate sight lines for presentations.</td>
</tr>
</tbody>
</table>

#### WORK SPACES

<table>
<thead>
<tr>
<th>Area</th>
<th>Occ.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff offices</td>
<td>1000 SF</td>
<td>10 This work space is for full time staff members. Staff members work on programs and activities of the center and coordinate use of the site.</td>
</tr>
<tr>
<td>Director's office</td>
<td>150 SF</td>
<td>3 Office of the director.</td>
</tr>
<tr>
<td>Conference room</td>
<td>450 SF</td>
<td>14 This room is used for staff meetings and could be used by local groups and conferences.</td>
</tr>
<tr>
<td>Volunteer work space</td>
<td>800 SF</td>
<td>20 This is a place for volunteers to work on projects and prepare for field trips. It also serves as a resource room.</td>
</tr>
<tr>
<td>Lab</td>
<td>600 SF</td>
<td>6 Visiting scientists will use this work space for testing and analyzing biological specimens from the site. Water samples will also be analyzed here.</td>
</tr>
<tr>
<td>Lab office</td>
<td>200 SF</td>
<td>2 Shared work space for visiting scientists</td>
</tr>
</tbody>
</table>

#### ANCILLARY SPACES

<table>
<thead>
<tr>
<th>Area</th>
<th>Occ.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coat room</td>
<td>240 SF</td>
<td>This is a public coat check room</td>
</tr>
<tr>
<td>Kitchenette</td>
<td>200 SF</td>
<td>Kitchenette for staff and volunteers</td>
</tr>
<tr>
<td>Public toilet rooms</td>
<td>500 SF</td>
<td>Toilet rooms for public use</td>
</tr>
<tr>
<td>Staff showers / toilet</td>
<td>150 SF</td>
<td>Toilets and showers for staff use</td>
</tr>
<tr>
<td>Supply room</td>
<td>100 SF</td>
<td>Office supply room</td>
</tr>
<tr>
<td>Server closet</td>
<td>50 SF</td>
<td></td>
</tr>
<tr>
<td>Building maintenance room</td>
<td>150 SF</td>
<td>This room is used by building maintenance personnel to store equipment and supplies</td>
</tr>
<tr>
<td>Classroom 1 storage</td>
<td>200 SF</td>
<td></td>
</tr>
<tr>
<td>Classroom 2 storage</td>
<td>200 SF</td>
<td></td>
</tr>
<tr>
<td>Exhibit storage</td>
<td>750 SF</td>
<td>This space serves as a storage space for collections. It is also used for receiving and temporary storage of traveling exhibits.</td>
</tr>
<tr>
<td>Auditorium storage</td>
<td>900 SF</td>
<td>Used for chair and table storage so that the auditorium can be rearranged. Projection room for auditorium.</td>
</tr>
<tr>
<td>Field trip storage</td>
<td>150 SF</td>
<td>This is a room for storage of equipment used on field trips to the site and for materials needed for student projects.</td>
</tr>
<tr>
<td>Services</td>
<td>2000 SF</td>
<td></td>
</tr>
<tr>
<td>Net area</td>
<td>22,290</td>
<td></td>
</tr>
<tr>
<td>Circulation</td>
<td>3,344</td>
<td></td>
</tr>
<tr>
<td>Gross area</td>
<td>25,634</td>
<td></td>
</tr>
</tbody>
</table>
8.6 SGA BUILDING PROGRAM

PUBLIC SPACES

<table>
<thead>
<tr>
<th>Area</th>
<th>Occ.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lobby</td>
<td>837 SF</td>
<td>The lobby is the primary entry point to the building. It houses the reception desk and serves as an information dissemination point. Graphic information such as leaflets, posters, special event signage are to be displayed here. Ticket sale for special events only, no bookstore. Reception area will also accommodate security needs and infrastructure. Reception has view of main entry / south porch.</td>
</tr>
<tr>
<td>Permanent exhibit</td>
<td>2886 SF</td>
<td>Permanent exhibition space dedicated to the natural / industrial / cultural history of the Calumet region. Visitors introduced to exhibit through media orientation space: watch a movie / get oriented with region, history.</td>
</tr>
<tr>
<td>Temporary exhibit</td>
<td>2079 SF</td>
<td>Temporary exhibit zones on an issue related to industry, nature, or community in the Calumet area; the latest green tech for bioremediation, green business, etc. Exhibits will change quarterly, biosnally, depending on funding. Fluid minimal distinction between exhibits.</td>
</tr>
<tr>
<td>Media orientation room</td>
<td>590 SF</td>
<td>This room functions as a gathering place for viewing media presentations.</td>
</tr>
<tr>
<td>Classroom 1</td>
<td>1420 SF</td>
<td>Multi-functional classroom with moveable furniture, place for projection screen, whiteboards, access to south porch; to be the &quot;messy&quot; classroom.</td>
</tr>
<tr>
<td>Classroom 2</td>
<td>1406 SF</td>
<td>Multi-functional classroom with moveable furniture, place for projection screen, whiteboards, access to north porch; to be the &quot;clean&quot; classroom with more AV, laptop hookups, high-tech, distance learning.</td>
</tr>
<tr>
<td>Pump room</td>
<td>272 SF</td>
<td>Pump room pumps hot water from the biomass boiler into main building, booster pump regulates water pressure within main building and utility shed.</td>
</tr>
<tr>
<td>Electrical room</td>
<td>191 SF</td>
<td>Work space for director of facility</td>
</tr>
<tr>
<td>Staff corridor</td>
<td>118 SF</td>
<td>Staff corridor has access to the recycling / receiving room and temporary kitchen equipment.</td>
</tr>
<tr>
<td>Lobby corridor</td>
<td>112 SF</td>
<td>Provides access to media orientation center, AV room, public cloak room, and access is monitored by receptionist.</td>
</tr>
<tr>
<td>Office corridor</td>
<td>65 SF</td>
<td></td>
</tr>
<tr>
<td>Storage corridor</td>
<td>120 SF</td>
<td></td>
</tr>
<tr>
<td>Auditorium</td>
<td>4296 SF</td>
<td>Multi-functional gathering space for conferences, retreats, meetings. Can also be rented for banquets, receptions, yoga, bingo, etc.</td>
</tr>
</tbody>
</table>

INTERIOR MAIN BUILDING - WORK SPACES

<table>
<thead>
<tr>
<th>Area</th>
<th>Occ.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff offices</td>
<td>1002 SF</td>
<td>Open office work area for resident and visiting personnel with a discernible space for each employee.</td>
</tr>
<tr>
<td>Director's office</td>
<td>166 SF</td>
<td>Work space for director of facility.</td>
</tr>
<tr>
<td>Conference room</td>
<td>407 SF</td>
<td>Meeting room with internet projection capability and teleconferencing equipment.</td>
</tr>
<tr>
<td>Volunteer workspace</td>
<td>802 SF</td>
<td>Desks and computers for volunteers, separate but accessible to staff open office area.</td>
</tr>
<tr>
<td>Lab</td>
<td>512 SF</td>
<td>The lab is a workspace for scientists' use. Will include testing elements from the site such as water and soils.</td>
</tr>
<tr>
<td>Lab offices</td>
<td>165 SF</td>
<td>Work space for scientists adjacent to laboratory.</td>
</tr>
<tr>
<td>Staff/Kitchentheke</td>
<td>142 SF</td>
<td>Use for storage and preparation of staff and volunteer lunches with access to door to north patio for outdoor seating.</td>
</tr>
<tr>
<td>Kitchentheke</td>
<td>177 SF</td>
<td>No server on staff, this will be used as a buffet area for kids lunches and for special events, flexible space so you can also charge during events, but designed for daily need: simple buffet / drink distribution space, caterers bring mobile units for events.</td>
</tr>
<tr>
<td>Bank room</td>
<td>150 SF</td>
<td>Rooms for existing scientists / researchers to sleep when staying overnight at the center. Scientist will come from out of town and require a place to sleep.</td>
</tr>
</tbody>
</table>

MAIN BUILDING - OUTDOOR SPACES

<table>
<thead>
<tr>
<th>Area</th>
<th>Occ.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vertical flow wetlands</td>
<td>385 SF</td>
<td>Stroom water collected on the roof is funneled into the water collection tank, from there it is used in the toilets. This water is treated in the vertical flow wetlands, cleaned by the wetland plants. This water is then used for irrigation.</td>
</tr>
<tr>
<td>South porch</td>
<td>9,185 SF</td>
<td>Multi-functional break-out space for auditorium, exhibition space, and classrooms. Porch can accommodate outdoor classes. Trails will leave from the porch, everyone must view the building, check in before going out on the trails.</td>
</tr>
<tr>
<td>North porch A</td>
<td>560 SF</td>
<td>Multi-functional break-out space for children's rooms, dining area. Porch can accommodate outdoor classes. Porch accommodates deliveries, adjacent to receiving room.</td>
</tr>
<tr>
<td>North porch B</td>
<td>788 SF</td>
<td>Multi-functional break-out space for Classroom 2. Porch can accommodate outdoor classes, area for experiments.</td>
</tr>
<tr>
<td>North porch C</td>
<td>380 SF</td>
<td>Multi-functional break-out space for staff/kitchentheke, staff offices, volunteer workspace</td>
</tr>
</tbody>
</table>

INTERIOR MAIN BUILDING - ANCILLARY SPACES

<table>
<thead>
<tr>
<th>Area</th>
<th>Occ.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public cloak / locker room</td>
<td>167 SF</td>
<td>Storage for coats and bags and lockers for school groups and public, can be seen by receptionist. This room also houses field trip storage. Publicly accessible with alockable Dutch door at entry to room. For large events: extra rolling hangers or bins used.</td>
</tr>
<tr>
<td>Staff/Kitchentheke</td>
<td>142 SF</td>
<td>Use for storage and preparation of staff and volunteer lunches with access to door to north patio for outdoor seating.</td>
</tr>
<tr>
<td>Kitchentheke</td>
<td>177 SF</td>
<td>No server on staff, this will be used as a buffet area for kids lunches and for special events, flexible space so you can also charge during events, but designed for daily need: simple buffet / drink distribution space, caterers bring mobile units for events.</td>
</tr>
<tr>
<td>Pantry</td>
<td>53 SF</td>
<td>Mechanical room serving the exhibit zone of the main building. The air handling unit is fed with hot and cool air by earth tubes and geothermal bore holes.</td>
</tr>
<tr>
<td>Copy / supply room</td>
<td>118 SF</td>
<td>Toilets, sinks as required by building occupancy.</td>
</tr>
<tr>
<td>IT room</td>
<td>75 SF</td>
<td>Toilet, sink, baby changing table for use by families, teachers, and young children. This room provides a comfortable place for nursing.</td>
</tr>
<tr>
<td>All-room</td>
<td>91 SF</td>
<td>Toilet and shower room for staff use only. Communal storage space for two-classrooms (tables, chairs, whiteboards)</td>
</tr>
<tr>
<td>Central-mechanical room</td>
<td>319 SF</td>
<td></td>
</tr>
<tr>
<td>Public toilet (M + W)</td>
<td>386</td>
<td>Communal storage space for two-classrooms (tables, chairs, whiteboards)</td>
</tr>
<tr>
<td>Staff/bathroom (shower) (2)</td>
<td>92 SF</td>
<td></td>
</tr>
<tr>
<td>Table / chair storage</td>
<td>704 SF</td>
<td></td>
</tr>
<tr>
<td>Janitor's storage</td>
<td>196 SF</td>
<td></td>
</tr>
<tr>
<td>Exhibit storage</td>
<td>371 SF</td>
<td></td>
</tr>
<tr>
<td>Media storage</td>
<td>133 SF</td>
<td>This room will also house Harris Loan Boxes, visitor / staff check out boxes.</td>
</tr>
<tr>
<td>Meal prep storage</td>
<td>122 SF</td>
<td>Air handling unit fed by geothermal bore holes</td>
</tr>
<tr>
<td>Receiving / laundry</td>
<td>224 SF</td>
<td></td>
</tr>
<tr>
<td>Wrist mechanical room</td>
<td>220 SF</td>
<td></td>
</tr>
<tr>
<td>Auditorium chair storage</td>
<td>241 SF</td>
<td></td>
</tr>
<tr>
<td>Auditorium corridor</td>
<td>560 SF</td>
<td></td>
</tr>
<tr>
<td>Storage corridor</td>
<td>120 SF</td>
<td></td>
</tr>
<tr>
<td>Staff corridor</td>
<td>118 SF</td>
<td></td>
</tr>
<tr>
<td>Office</td>
<td>65 SF</td>
<td></td>
</tr>
<tr>
<td>Exhibit corridor</td>
<td>116 SF</td>
<td></td>
</tr>
<tr>
<td>Loftery corridor</td>
<td>112 SF</td>
<td></td>
</tr>
<tr>
<td>Classroom corridor</td>
<td>108 SF</td>
<td></td>
</tr>
</tbody>
</table>

UTILITY BUILDINGS

<table>
<thead>
<tr>
<th>Area</th>
<th>Occ.</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utility area</td>
<td>440 SF</td>
<td>Utility shed for storage of tools, two parking spots for AV, boot storage, sink, area for clean up.</td>
</tr>
<tr>
<td>Electrical room</td>
<td>191 SF</td>
<td>Pump room pumps hot water from the biomass boiler into main building, booster pump regulates water pressure within main building and utility shed.</td>
</tr>
<tr>
<td>pump room</td>
<td>272 SF</td>
<td>Biomass boiler is screen enclosed, part of exhibit tour. Two biomass boilers are automatically fed by storage hopper, chips are stored in the hopper.</td>
</tr>
<tr>
<td>Biomass boiler</td>
<td>790 SF</td>
<td></td>
</tr>
<tr>
<td>Teaching / recycling</td>
<td>101 SF</td>
<td></td>
</tr>
<tr>
<td>Intense Main Building</td>
<td>27,461</td>
<td></td>
</tr>
<tr>
<td>Total Main Building</td>
<td>37,770</td>
<td></td>
</tr>
<tr>
<td>Utility Buildings</td>
<td>1,400</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>59,170</td>
<td></td>
</tr>
</tbody>
</table>
101 LOBBY
102 PERMANENT EXHIBIT
103 TEMPORARY EXHIBIT
104 LOBBY CORRIDOR
105 PUBLIC CLOAK/ LOCKER ROOM
106 MEDIA ORIENTATION ROOM
107 CENTRAL MECHANICAL ROOM
108 PUBLIC TOILET M
109 PUBLIC TOILET W
110 FAMILY TOILET
111 CLASSROOM 1
112 EXHIBIT CORRIDOR
113 CLASSROOM CORRIDOR
114 CLASSROOM 2
115 TABLE/ CHAIR STORAGE
116 JANITOR'S STORAGE
117 RECEIVING/ RECYCLING
118 EXHIBIT STORAGE
119 STORAGE CORRIDOR
120 MEDIA STORAGE/ HARRIS LOAN ROOM
121 DINING AREA
122 MEAL PREP
123 MEAL PREP STORAGE
124 WEST MECHANICAL ROOM
125 CHILDREN’S ROOM
126 PUBLIC TOILET M
127 PUBLIC TOILET W
128 FAMILY TOILET
129 AUDITORIUM CHAIR STORAGE
130 AUDITORIUM CORRIDOR
131 AUDITORIUM
132 VOLUNTEER WORK SPACE
133 STAFF OFFICES
134 DIRECTOR’S OFFICE
135 CONFERENCE ROOM
136 LAB OFFICES
137 LABS
138 IT ROOM
139 COPY/ SUPPLY ROOM
140 KITCHENETTE
141 PANTRY
142 BUNK ROOM
143 STAFF TOILET/ SHOWER 1
144 STAFF TOILET/ SHOWER 2
145 STAFF CORRIDOR
146 OFFICE CORRIDOR
147 A/V ROOM
148 VERTICAL FLOW WETLANDS
149 SOUTH PORCH
150 NORTH PORCH A
151 NORTH PORCH B
152 NORTH PORCH C
153 UTILITY SHED
154 ELECTRICAL ROOM
155 PUMP ROOM
156 BIOMASS BOILER
157 TRASH/ RECYCLING