

©2017

Amber Lynn Betances

ALL RIGHTS RESERVED

URBAN REFUGE PARTNERSHIP:

A CASE STUDY IN RE-CONNECTING AN URBAN COMMUNITY TO NATURE

By

AMBER LYNN BETANCES

A thesis submitted to the

Graduate School-New Brunswick

Rutgers, The State University of New Jersey

In partial fulfillment of the requirements

For the degree of

Master of Landscape Architecture

Graduate Program in the Landscape Architecture Department

Written Under the direction of

Holly Grace Nelson

And approved by

New Brunswick, New Jersey

May, 2017

ABSTRACT OF THE THESIS

URBAN REFUGE PARTNERSHIP:

A CASE STUDY IN RE-CONNECTING AN URBAN COMMUNITY TO NATURE

by AMBER LYNN BETANCES

Thesis Director:
Holly Grace Nelson

This study is largely based on the new Fish and Wildlife Service Urban Initiative and the responsibilities they have undertaken to reach populations most detached from wildlife and the great outdoors. It emphasizes the lack of exposure to nature in underrepresented populations and the ways in which the federal government can influence these relations. This paper broadly seeks to understand the history of the Fish and Wildlife Service and the impact it has had on the conservation of American landscapes while distinguishing the political forces that have caused the disassociation of minorities from these landscapes. The case of this research is derived from the historical narrative of an urban community in Philadelphia, Eastwick, revealing layers of environmental racism and injustice. The use of archival research and residential interviews helped in identifying the strengths and barriers of this community and its relationship to the Urban Wildlife Refuge adjacent to it. John Heinz National Wildlife Refuge has assumed responsibility in reestablishing a relationship between the surrounding community and the natural federal landscape. As America's first Urban Refuge, John Heinz, has begun to implement programs that are specific to the surrounding communities. This paper highlights the two-prong approach of engaging and reaching outside of the refuge in order to gain the attention and trust of underrepresented populations to bring them back into the refuge.

Acknowledgments:

To the Almighty, for giving me strength and perseverance to complete this project. For never leaving my side throughout my college experience and for providing me with the tools and opportunities to showcase what you've given me. I've written this paper in your name and will continue to follow the light you lead for me.

To my mother and all the sacrifices she has made to provide me with the opportunity to receive higher education. To her patience, strength and time in dealing with all of my rollercoasters of emotions. My brother who took the responsibility of providing me with the resources and advice I needed to get through this, his honesty and words of encouragement allowed me to believe in myself.

To my dear friends, Stacy and Breanna, who stuck with me through the end and inspired me every day to step out of my comfort zone. Especially, for their honest advice from schoolwork to life struggles.

To all the beautiful women in Omega Phi Beta Sorority, Inc. who were my escape from Blake. Especially, Zaikale, for changing my life and helping me to discover who I am and always being there whether it was for a good cry or a place to take a nap.

To Jeremy, thank you for being my best friend and for being there whenever I called, for keeping my belly full and my heart happy. You've been such a blessing this past year, thank you for being a light in my life.

To the Landscape Architecture Department for providing me with the resources and the opportunities to network and exceed in all my endeavors. To Gail McKenzie because without her I would of never found this internship. Most specifically to Holly Grace Nelson, for never leaving me alone or allowing me to fall short. Thank you for standing by my side throughout this entire process and for believing in me. For seeing in me all the things I could not see in myself and for pushing me to excel in all my work. I appreciate your dedication to your students and your work. I would not have been able to do this without you.

Table of contents:

Abstract	ii
Acknowledgment	iii
List of Illustrations	v
Introduction	1-4
United States Department of Interior	5-22
U.S. Department of the Interior	5-7
U.S. Fish and Wildlife Service	8-11
Urban Constituencies	12-18
Urban Refuges	19-20
Urban Partnerships	20-21
Timeline	
U.S. Fish and Wildlife Service	22-24
African American History	22-24
Philadelphia	25-27
Eastwick	
History	28-33
Present	34-39
Eastwick Demographics	
Population: Age, Sex, Race	40
Housing: Homeowner, Rental	41-42
Income and Employment	42
Poverty: Age, Race, Sex	43
Education	43-44
John Heinz National Wildlife Refuge	
Urban Partnerships	45-49
Conclusion	50-51
Thesis Boards	52-65
Appendix	64-65
Bibliography	66-69

List of Illustrations

Figure 1: Department of the Interior Organizational Chart	5
Figure 2: Land owned by the Department of the Interior and managed by the U.S. Fish and Wildlife Service	7
Figure 3: Visitor Demographics	11
Figure 4: Participation in outdoor recreation by Age and Ethnicity	12
Figure 5: African American Great Migration Map	17
Figure 6: Map of Philadelphia 18 Districts	25
Figure 7: Home Owner's Loan Corporation: Redlining in Philadelphia	26
Figure 8: Eastwick Neighborhood, Phila2035 Focus Area – Lower Eastwick	27
Figure 9: 1890-1910 Topo Map – Lower Southwest District, Elmwood Neighborhood	28
Figure 10: Eastwick, Philadelphia 100 Year-Floodplain	34
Figure 11: Eastwick Population: Sex	35
Figure 12: Eastwick Population: Race	35
Figure 13: Eastwick Population: Age	35
Figure 14: Eastwick Housing Char	35
Figure 15: Eastwick Poverty Characteristics	35
Figure 16: Design Concept	35

Introduction

How can federal agencies help to better connect urban populations to nature? This case study of the John Heinz National Wildlife Refuge, America's First Urban Refuge, and its relationship to Eastwick, a predominantly African American neighborhood abutting the refuge, is derived from my summer internship with the Fish and Wildlife Service. If you are like me, born and raised in a city you might not know what the Fish and Wildlife Service is. Besides working at the Refuge, I did not have a deep understanding of what it really was before I began this research.

The Fish and Wildlife Service is a federal agency under the federal executive department of the United States Department of the Interior. Historically, this department was known as the Department of Everything Else. It was an amalgamation of different sectors of the federal government. It had a wide variety of responsibilities from the construction of the national capital water system to the colonization of freed slaves in Haiti to the management of public parks and public lands and basic responsibilities for Indians.¹ Today, the mission of the Department of the Interior focuses primarily on the management and protection of the nation's natural resources and cultural heritages and honors its trust responsibilities or special commitments to American Indians, Alaska Native, and affiliated island communities.² The focus is being the greatest good for the greatest number for the longest run. The mission statement of the Department of the Interior made me question who their audience is. Historically, the Department of the Interior has not fully honored their mission, especially dealing with American Indians. The department still has not resolved how to deal with different cultures and ethnicities in an equitable fashion, especially at the federal level.

The following chapters will discuss the relationship of the Fish and Wildlife Service to issues of race and space. Historically, the service has focused on their overarching responsibility to the region, specifically pertaining to the land and animals for the benefit of the American people. The service owns 560 refuges, which amounts to 150 million acres of land. Annually, refuges host most then 47 million visitors. As I will describe in later chapters, the Fish and Wildlife Service has not always practiced methods of inclusion which guaranteed that all Americans experience the American great outdoors. In *Outside Magazine* over a ten-year period from 1991 to 2001, out of 4,602 pictures with people, only 103 were African-Americans.³ Innate biases of minorities come through with economic mechanisms. The magazine did not target minorities and inner cities because not only did they not have economic resources but also they did not have access to the outdoors.

In order to organize the discussion I wanted to understand why African Americans, a group of people with roots dating back to the creation of America, have a harder time connecting with the outdoors then most races and ethnicities. African Americans have the lowest participation rates in the Fish and Wildlife Service, compared to Hispanics and Asians. In order to organize my thoughts, I created a timeline that points to the race relations of African Americans and the federal government. The timeline shows that African Americans have been fighting for rights of equal opportunity and access for as long as the service has existed. Comparatively, the service has existed for 146 years; African Americans have been on American soil for 398 years, and within the last 9 years, there has been a shift to begin to include them in the conversation of conservation. As described in later chapters, the American government has taken strides

in controlling the use of land and whom it belongs too, legislating laws that limited movement and accessibility for non-whites, continuing to position blacks and other minorities as inferior.

The election of the first African American president is what officially began to initiate change. In 2010, Barack Obama announced America's Great Outdoor Initiative, designed to protect natural resources and create accessibility for underrepresented populations. Secretary of the Interior Kenneth "Ken" Lee Salazar, the second Hispanic Interior Secretary, headed the initiative to increase access to recreational natural spaces for minority and tribal populations of America, finally making the federal government more responsible for reaching ALL Americans. One of the most important attributes of this initiative is the focus on empowerment at the grassroots and community levels in order to generate interest in conservation and stewardship.

This case study analyzes the demographics and community's history of the town of Eastwick which is adjacent to John Heinz National Wildlife Refuge an urban refuge in Philadelphia, Pennsylvania. This refuge is located on the southwest-most area of Philadelphia. Its property extends into Darby County, Philadelphia. The neighborhoods around the refuge are exposed to a high presence of EPA Superfund sites, air pollution sources from highway, airport and oil refineries. Eastwick is located on a 100-year flood plain, and has experienced redlining and urban renewal within the last 60 years.

I will describe how John Heinz National Wildlife Refuge, America's first Urban Refuge, can be a catalyst for change. Although John Heinz opened as a refuge in 1972, with the Urban Refuge title comes a responsibility to create programs and partnerships

with organizations and community members to reach different audiences. The refuge urban initiative focuses on education, engagement and connecting with local communities, extending its boundaries into neighborhoods and providing them with the resources and tools to connect with nature without leaving their neighborhoods.

United States Department of the Interior

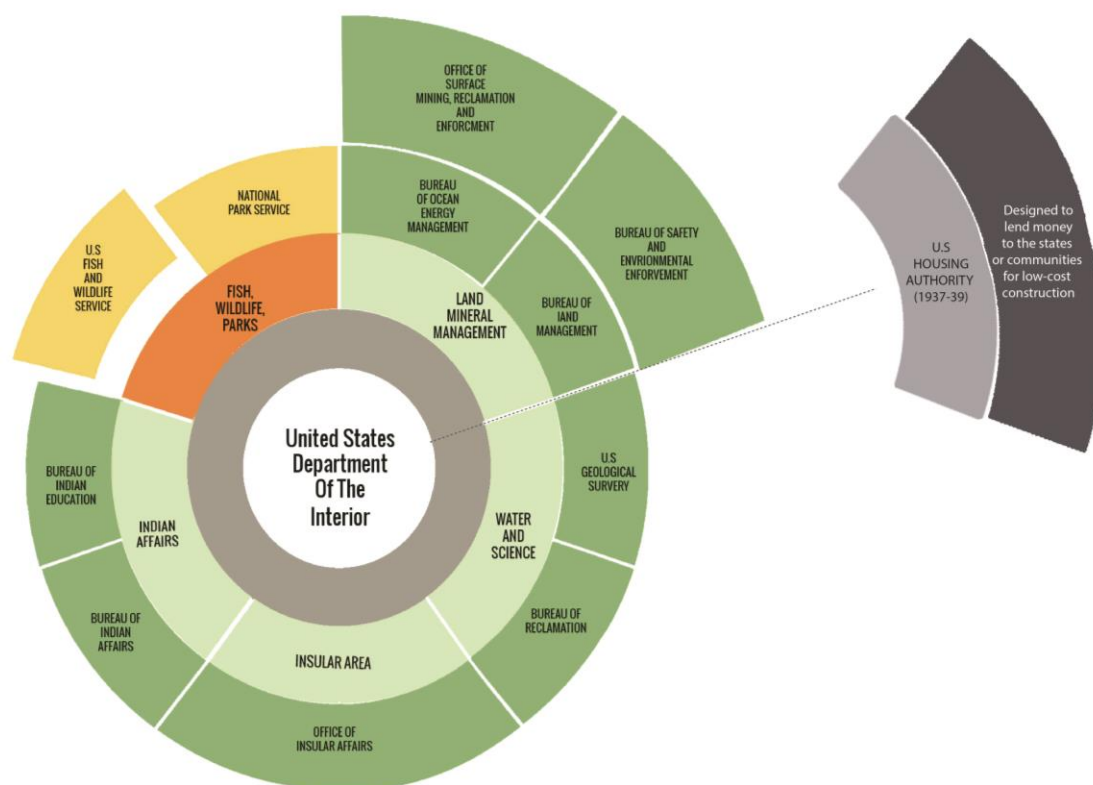


Figure 1: Department of the Interior Organizational Chart
 Source: <https://www.doi.gov/whoweare/orgchart>

Before it was the Department of the Interior, in 1789 the United States Congress created three Executive Departments: Foreign Affairs, Treasury and War. As the country began to grow the number of executive departments also grew.⁴ In 1849, during the formative years, the Department of the Interior was known as Home Department and was created to take charge of the Nation's internal affairs. It was also known as the Department of Everything Else.⁵ Under the Home Department was the Department of Treasury responsible for consolidation of the general land office, the Department of State responsible for the patent office, War Department responsible for the Indian affairs office and the War and Navy Departments responsible for military pension offices.⁶ From its

founding, the Department of the Interior had a wide variety of responsibilities: the construction of the national capital water system; the colonization of freed slaves in Haiti; exploration of the western wilderness; oversight of the District of Columbia jail; regulation of the territorial governments; management of hospitals and universities; management of public parks and public lands and basic responsibilities for Indians.⁷ Such wide and increasingly complex associations of jurisdictional responsibilities were reflective of a country growing rapidly on the strengths of its commonly held natural resources.

The Department was an amalgamation of bureaus, and for the first 50 years, it faced political corruption.⁸ The first Secretary of the Interior, appointed by President Taylor, Thomas Ewing began the legacy of corruption by replacing government officials with people who he owed political patronage.⁹ Ewing's management left the Department in such disarray it took 20 years to change the course of the Department of the Interior (DOI). As the conservation movement began to take form, the Department of the Interior focused its attention on the forceful removal of Native Americans.

The Department played a significant role in the expansion of the western frontier and the welfare of the American people. Through the Homestead Act, the DOI helped to arrange for over 1.8 million homesteaders to obtain 160 acres of land and 94 million acres for railroads through the Railroad Act.¹⁰ For many years, one of the Department's primary objectives was to give away land; becoming the stewards of the land was a definite paradigm shift. As years passed, the department focused more on public works and national parks. It is interesting to note that the U.S housing authority was influential

in the Housing act of 1936 which provided subsidies to be paid from the U.S, government to improve living conditions for low-income families.

Today, as one of the United States federal executive departments, the Department of the Interior (DOI) is responsible for the management and conservation of most federal land, natural resources, and the administration of programs relating to fish, wildlife, parks, Indian affairs, land and mineral management, water and science and insular affairs. (See Figure 1) Known as the major conservation agency for the federal government, the DOI manages about 507 million acres of public land, about 20% of all the land of the United States, and has jurisdiction over 700 million acres of underwater mineral rights. (See Figure 2) Not only does the DOI protect national parks, historic sites, recreational areas, and the cultural and natural resources they encompass; it also serve as the largest supplier and manager of water in seventeen western states. ¹¹



Figure 2 Land owned by the Department of the Interior and managed by the U.S. Fish and Wildlife Service
Source: Gapanalysis.usgs.gov/padus/data

United States Department of Interior Fish and Wildlife Service

The timeline, at the end of this chapter, depicts the chronological sequence of events that were influential in the creation of the United States Fish and Wildlife Service. Nature conservation was a movement that began with many elitists that understood the importance of wildlife and the life pleasures that coincided with birding and observing wildlife in natural habitats. Wealthy conservationists that possessed the fortunes to travel, were among the first individuals to discuss conservation in America. Conservation organizations such as the Audubon Society, the Boone and Crockett Club, the American Ornithological Union, and the American Bison Society were some of the very first conservation organizations in America, although today we correlate the conservation movement to the protection and security of natural resources. Early conservationist believed in the rational, planned and orderly use of resources. Their goals were to monitor, regulate and facilitate wise development under government standards,¹² thereby allowing power and irrigation sites to be leased to private enterprise and development according to government ordinances. The government used lease systems to monitor mineral deposits and permits for forest logging and grazing on grasslands.¹³

The policies and legislation many of the conservation organizations worked to pass helped to indirectly shape the history of the Fish and Wildlife service. In the late 1860's, many laws were passed that restricted the possession and selling of select birds and wildlife. These laws focused on the excessive hunting in several states, which placed many citizens in court or fined. Conservationists worked to educate themselves and the public about wildlife slaughter, identify and target the criminals, and develop laws and

enforcement mechanisms to stop wildlife destruction. Conservationists did not distinguish between large-scale market hunters and poor rural hunters. Large-scale market hunters killed in excess to sell across state lines and poor rural hunters killed only a few animals per week for sustenance and sold extra meat for cash. This was troublesome for many poor residents in cities that hunted to eat and/or make a living.¹⁴ Although these laws were for the protection of wildlife in certain areas, subsistence hunters and market hunters were largely blamed for destroying wildlife.¹⁵ Subsistence hunting was one of the many ways blacks in the south connected with nature, using hunting as a means of nourishment and income.

Fish conservation during the early eighteenth century was also a topic of concern for many civic leaders, specifically as cities grew. Fish protection laws were passed in many cities and states petitioned to halt destructive commercial fishing practices. For example, in 1822, Daniel Webster introduced a bill in Massachusetts to regulate how trout was caught, with only a hook and a line.¹⁶ Studies were done to determine the reason for fish decline, which was caused by overfishing, angling during the spawning season, water pollution from sawmills, deforestation, and erosion that polluted and clogged streams. By 1869, local authorities dedicated hundreds of laws to fish conservation. In 1870, the federal government took an interest in fisheries, and in 1871 created the U.S. Commission of Fish and Fisheries.¹⁷ In 1903, the U.S. Commission of Fish and Fisheries was reorganized as the United States Bureau of Fish. In 1885-1886, the Division of the Economic Ornithology and Mammalogy was created and placed under the United States Department of Agriculture, and in 1896 it became the Division of Biological Survey which, focused on the effects of birds, controlling of agricultural pests,

and the geographical distribution of plants and animals.¹⁸

As the number of laws focused on game animals in states grew, Congress passed comprehensive legislation on hunting and the trade of birds and wildlife.¹⁹ In 1900, the Lacey Act was passed, with the help of conservation organizations and Congressman Lacey. It was the first federal bird protection legislation. The bill gave authority to the Secretary of Agriculture to approve restoration of game, and song and insectivorous birds species that were endangered. Second, it prevented the introduction of foreign birds or animals, and third, it supplemented state bird protection laws.²⁰ The act specified that imported bird, fish or game was subject to game laws of the state.²¹ Under the legislation, violators could be fined up to two hundred dollars. It also gave implementation, jurisdiction and authority to wardens to arrest and confiscate illegal game and birds.

While the Public Trust Doctrine had codified within the United States Constitution's Magna Carta that the state had management authority/responsibility over fish and wildlife, by 1911, thirty-four states created statutory regulations and required hunting licenses.²² The licenses generated revenue that was used for game commissioners' offices and salaries for wardens. This shifted the power to elite sportsmen who were willing to buy hunting licenses and farmers with enough property to charge hunters to hunt on their property. The game laws made it almost impossible to kill and sell wildlife on the market. Laws eliminated the profits poor and rich market hunters received and placed state and private landowners with the power to generate cash from hunting and fishing.²³ These laws were troublesome to those that did not own property at the time and could not afford to pay property owners to hunt on their lands. The

American Game Protective Association and other wildlife organizations tried to push a game refuge bill that would permit hunting on public lands in the early 1920s.

John Burnham from the American Game Protective Association and E.W. Nelson of the Biological Survey, the federal bureau overseeing wildlife issues, later renamed the Fish and Wildlife Service, drafted a bill that proposed the development of refuges located along the flyways of duck, geese, and other migratory waterfowl.²⁴ The Biological Survey would be in control of the refuges which were to be used as hunting grounds. A one dollar a year hunting license was used to fund the refuge land and cover the administrative cost. Congress, opposing the use of hunting on federal refuges, turned down the bill. In 1940, the United States Fish and Wildlife Service was created by merging the Bureaus of Fisheries and Biological Survey.²⁵

Historically, whites made up the majority of Fish and Wildlife visitors and staff and the impact race relations played in American history, reflects strongly in minorities' attendance and participation. The history of the fish and wildlife service and its advocates did not practice methods of inclusion to guarantee that all Americans experienced the American great outdoors. Refuges host more than 47 million visitors annually, predominantly U.S. citizens with above-average income and education. According to the 2011, National Wildlife Refuge Survey, the visitor demographics were 98% white male.²⁶

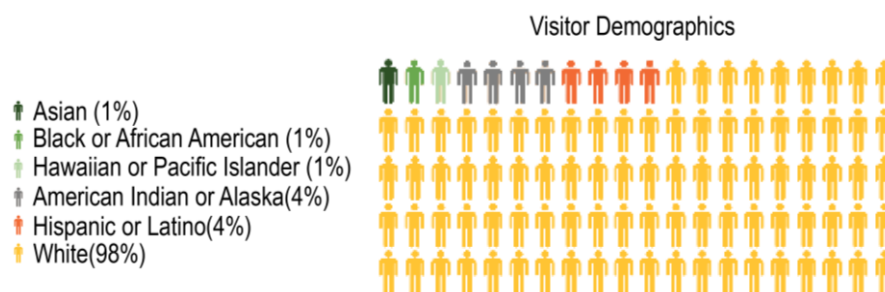


Figure 3 Visitor Demographics

Source: Dietsch, Alia M., Natalie R. Sexton, Andrew W. Don Carlos, Holly M. Miller, Lynne Koontz, and Adam N. Solomon. "National Wildlife Refuge Visitor Survey Results." National Fish and Wildlife Service, 2011.

Urban Constituencies:

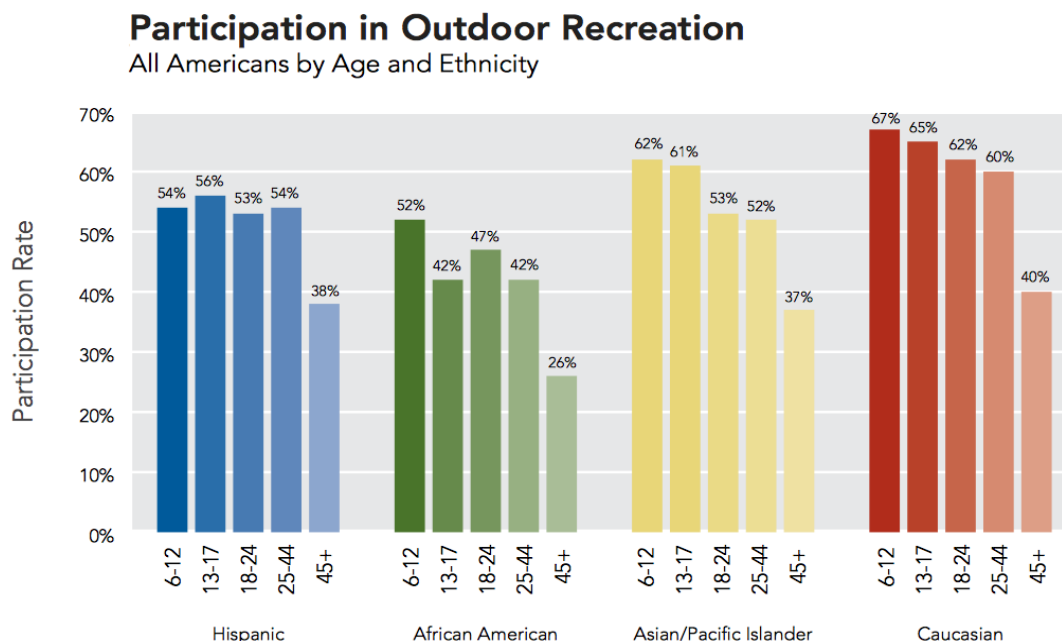


Figure 4 Participation in outdoor recreation by Age and Ethnicity

Source: Outdoor Foundation- 2016 Outdoor Recreation Participation Report

Before observing the Fish and Wildlife Service new urban initiative, comprehending the history of urban constituencies' specifically urban minorities is essential. Nature conservation organizations have begun to focus their attentions on minority populations considering the low participation rate in outdoor recreation activities among racial and ethnic minority groups.²⁷ As indicated in the image above and the study provided by the Outdoor Foundation, comparatively, Caucasians and African Americans have the largest participation gap, followed by Hispanics. According to the study, the leading cause of lack of outdoor recreation was a lack of interest. (See Figure 4) The focus of this study is attributed to minorities living in urban environments and their connection to natural outdoor recreation. The Fish and Wildlife Service's new Urban Initiative has a strong focus on cities and the need to create interest in natural

spaces from minorities living in high density and urban environments. There has also been a high influx of Americans moving to cities, so much so that 80% of Americans live in cities. Being that African Americans are among the lowest participants in outdoor recreations, understanding the patterns of settlement will help to identify some of the social and physical issues they have faced historically and continue to face.

In 1865, slavery was abolished, setting African Americans free after centuries of oppression. Westward expansion and the ideologies that the frontier possessed set whites and blacks running for the possibilities of landownership. “The Emancipation Proclamation and the Homestead Act would initially allow approximately forty thousand freedmen to receive four hundred thousand acres of abandoned Confederate land and two million European immigrants to lay claim to 160-acre parcels of land, respectively.”²⁸ Due to their history of oppression and labor, African Americans understood land better than their European American counterparts. Land and the ability to cultivate land gave them an advantage, more so than plantation-owning whites. Whites were fearful of black landownership, afraid of their abilities and the possibilities of them accumulating more power and wealth.²⁹

During America’s Reconstruction era, there was an opportunity for the American government to alter the course of race relations and turn the 4 million freed slaves into self-sufficient United States citizens. Under the Freedmen’s Bureau Act, the United States provided food, housing and medical aid, established schools and offered legal assistance. The act settled former slaves in Confederate lands confiscated or abandoned during the war. The “forty acres and a mule” portion of the Act was created by Union General William T. Sherman, Secretary of War, Edwin M. Stanton and 20 leaders of the

black community in Savannah, Ga. The black leaders were made up of Baptist and Methodist ministers. Eleven of the 20 were born free in slave states and the other nine became contraband of the Union Army.³⁰ The Secretary of War was under the Home Department which was the first iteration of the Department of the Interior. The congregation of government officials and African Americans was unprecedented in American history. The Union General and Secretary of War allowed the ministers to state the terms of the reparations they felt the freemen deserved. The leaders requested the full control of land from Charleston to Florida for the settlement of Negroes. They understood the necessity of land ownership. They ordered that the communities govern themselves and no white person settle on the land to avoid prejudices, knowing it would take years for white Americans to overcome those prejudices. Sherman issued the Field Order No. 15, and 4 days later President Lincoln approved it. Andrew Jackson, President Lincoln's successor, overturned the Order in the Fall of 1865 and returned the land to previous plantation owners.³¹ This removal of land added to the collective trauma of African Americans' historical narrative. White Americans understood the importance that land carried and the ways in which it possessed lucrative powers, and sought to continue to dehumanize and devalue the lives of blacks.

In congruence with the Homestead Act in 1862, environmentalist began to proclaim the need to protect lands. National Parks are integral to the American landscape in their environmental and ecological attributes. The arrival of the Jim Crow shifted the relationship between African Americans and the wilderness. The conservation of land and wilderness was held at a higher importance while blacks were denied the opportunity to own land and receive proper reparations. The American government took strides in

controlling the use of land and whom it belonged too, legislating laws that limited movement and accessibility for non-whites and continuing to position blacks as inferior. There are written works to describe how the federal organizations like the Department of the Interior have participated in the segregation of those deemed unworthy of protected natural landscapes. Black experiences in National Parks depict the racial tension at this point in American history. In 1933, The Emergency Conservation Work Act created the Civilian Conservation Corps (CCC), and from 1935 to 1942 it was highly segregated. Three million young men enrolled in the CCC, and there were 150 all black CCC companies that amounted to 250,000 African Americans. The young men were responsible for the protection, conservation and development of the countries environmental resources such as planting trees, fighting fires and pest eradication projects. This organization was influential in providing jobs for men, education, recreation and job training opportunities during the great depression. Black membership was 10 percent of the overall membership, even though the economic strife many African Americans faced during the great depression was far worse than that of whites. Enrolled African American faced race-based prejudices while performing their duties, such as hostile local communities, and racist attitudes of Army and Forest Service supervisors and from administrative officials. The segregation of the Civilian Conservation Corps Act serves as another example that may have exacerbated the negative views of many African Americans and their connection to nature. Redirecting the attention to urban constituencies indirectly means to repair a connection to nature for minority populations who have been emotionally and physically removed from nature for centuries.

After being denied their reparations, many of the freed slaves became sharecroppers, which was not a substantial difference from being a slave; only a few were able to break free and own their own farms and equipment. As blacks began to gain private property, there was heightened mechanisms of intimidation such as lynching. Land ownership was equated to success in African American communities and was celebrated by newspapers, but they also faced many difficulties and backlash from many whites. During the late 1890s, the woods represented a place for anti-black violence. Blacks were being hunted for being contributing members of society such as owning property and paying taxes. The Great Migration consisted of the voluntary relocation of more than 6 million African Americans from the South to Northern cities, the Midwest and the West from 1916 to 1970.³² The denial of true freedom, forced many black to head north, "... when a people are denied their freedom, their relationship to the natural world is distorted and impaired."³³ For those that succeeded in escaping the south and making it to the city, many were met with drastic changes in landscapes. From being surrounded by natural landscapes of forest and plantation, to factories and segregated housing. Although, many blacks left behind open racism, they entered into a world of hidden racism and oppression such as northern discrimination and ghettoization. The heavy influx of people and industry from the Great Migration took a toll on cities, making them crowded and polluted. Black populations of Northern cities grew by large percentages: New York 66%, Chicago 148%, Philadelphia 500% and Detroit 611%.³⁴ Cities like Philadelphia still feel the impacts of the great migration with a population of 1.567 million people, 43.4% African Americans, 41.0% White, Hispanic/Latino 12.3%, American Indian and Alaska Native 0.5%, Asian 6.3, Other race 5.9%, Two or more races 2.8%.³⁵

The social construction of the identity of African Americans and their correlation to urban or inner cities, started during the twentieth century. From the seventeenth to the nineteenth centuries the identity of African Americans were perceived as domesticated and rural considering the majority of the imported slaves were placed in the rural south. Up until the twentieth century, “urban” and “black” became synonymous with one another due in part to the heavy concentration of African Americans moving into cities for economic and social prosperity.

Migrants found works in factories and slaughterhouses, working conditions were unsafe and unhealthy, but workers were paid triple their salary compared to sharecroppers. The use of segregated housing, such as redlining, prohibited African Americans from purchasing in white neighborhoods and further exacerbated the racism and prejudice towards blacks. After the emancipation of slaves, Jim Crow and Black Codes did not allow African Americans many options for housing location in the South.

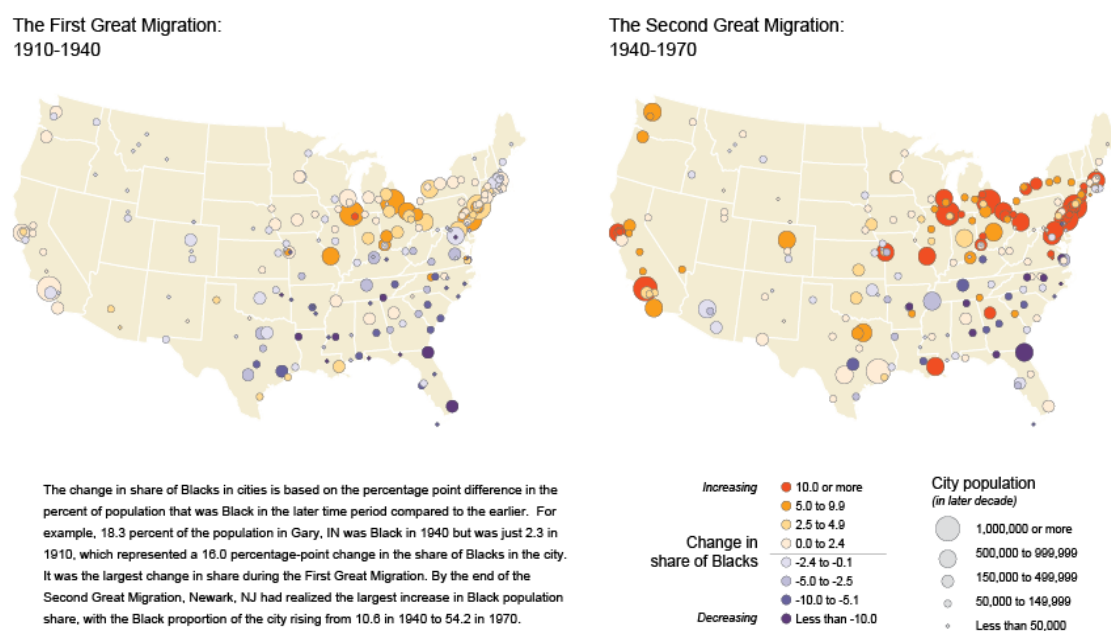


Figure 5 African American Great Migration Map
Source: <http://www.census.gov/dataviz/visualizations/020/>

White communities used racially restrictive covenants and overt intimidation and violence to drive out African Americans from neighborhoods and keep them out. Racially restricted covenants regulated the use and development of properties and who lived on the property. During the Industrial Revolution, political social and economic forces fabricated segregated housing patterns that have had a lasting impact on communities today. Public housing for low income residents was commonly situated in segregated areas and built on marginal lands near waterfronts, highways, industrial sites or railroad tracks.

In 2009, Barack Hussein Obama, the first African American president in American history, was elected as the 44th president of the United States. In 2010, he announced the America's Great Outdoor Initiative designed to protect natural resources and create accessibility for underrepresented populations. Secretary of the Interior Ken Salazar, the second Hispanic Interior Secretary, headed the initiative to increase access to recreational natural spaces to minority and tribal populations of America. Salazar released a 50-state America's Great Outdoors report that outlined the need to protect spaces and increase access to outdoor spaces for city residents.³⁶ The community based agenda emphasized conservation, recreation, and reconnection. One of the most important attributes of this initiative is the focus on empowerment at the grassroots and community level in order to generate interest in conservation and stewardship. The Department of the Interior organized support with state and communities in coordination with its key bureaus: National Park Service, the Bureau of Land Management, the Bureau of Reclamation, and the U.S. Fish and Wildlife Service, to advance in projects that protect open space, educate young people and connect individuals to nature.

United State Fish and Wildlife Service Urban Refuges

The Fish and Wildlife Service's new initiative draws attention to the importance of focusing on urban areas that are impacted by physical and social barriers that prevent access to natural spaces. The history of the Fish and Wildlife Service is one that, although campaigning inclusion for all, has only been appealing to a certain group of people. Historically uncovering the ways in which it excluded people of color from the conversation of conservation can have a strong impact on the audience it is just beginning to seek.³⁷ With 80% of Americans moving to cities, Urban Refuges are acting on ways to not only bring communities in, but also find ways to meet them where they are.

The United States Fish and Wildlife System has over 562 refuges, amounting to more than 150,000,000 acres. Within that number, 14 refuges residing within 25 miles of 250,000+ people have declared themselves Urban Refuges.³⁸ The Urban Wildlife Conservation Program started in 2015, in order to engage with communities that live in urban areas to enable them to gain access and knowledge of conservation and wildlife. The program focuses on creating a connection with urban dwellers to educate on the importance of stewardship and protection of the land. The Urban Wildlife Conservation Program wants to bring the knowledge of ecosystems to the urban setting through environmental education programs. The goals of the Urban Wildlife Conservation Program is to create a network between urban constituencies and conservation, the end goal being a "connected conservation constituency."³⁹ Some target areas include:

- A. "Ensuring that people who are engaged in wildlife conservation reflect the demographics of America;

- B. Encouraging a better understanding by urban residents of the importance of protecting and conserving habitat for wildlife by connecting them in ways that are relevant to their lives;
- C. Involving urban communities through environmental education and nature-based experiences that move participants up a spectrum of engagement from nature awareness and comfort to conservation action;
- D. Embracing traditional and new collaborations with the urban community to develop meaningful, lifelong connections to wildlife; and
- E. Becoming a community asset, collaboratively working to help strengthen the urban community as a whole.”⁴⁰

The director of a refuge designates Urban Wildlife Refuges on conditions that they are able to achieve proper engagement and connections with urban audiences, while also developing environmental awareness through urban outreach and increasing support of fish and wildlife conservation.

United States Fish and Wildlife Service Urban Partnerships

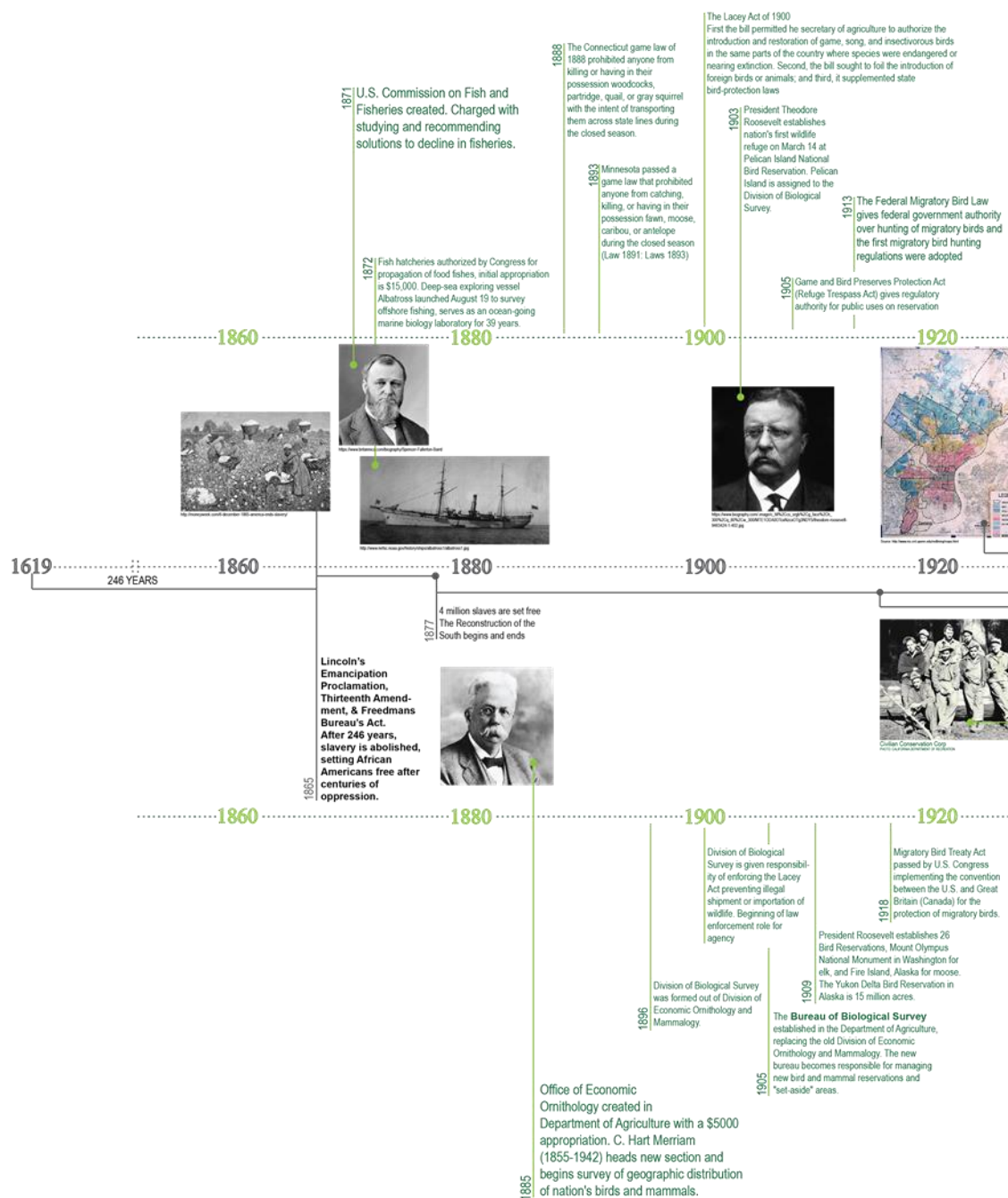
Fish and Wildlife Urban Partnerships involve working with non-governmental organization (NGOs); municipalities; the private sector and other state and federal agencies to help build a connection between people and conservation. These partnerships add another network of individuals working towards the same goal in helping understand the service mission. The service is working toward making meaningful partnerships with organizations outside of the refuge, specifically on non-refuge lands, in order to extend their presence within the community. These partnerships are created to make known the

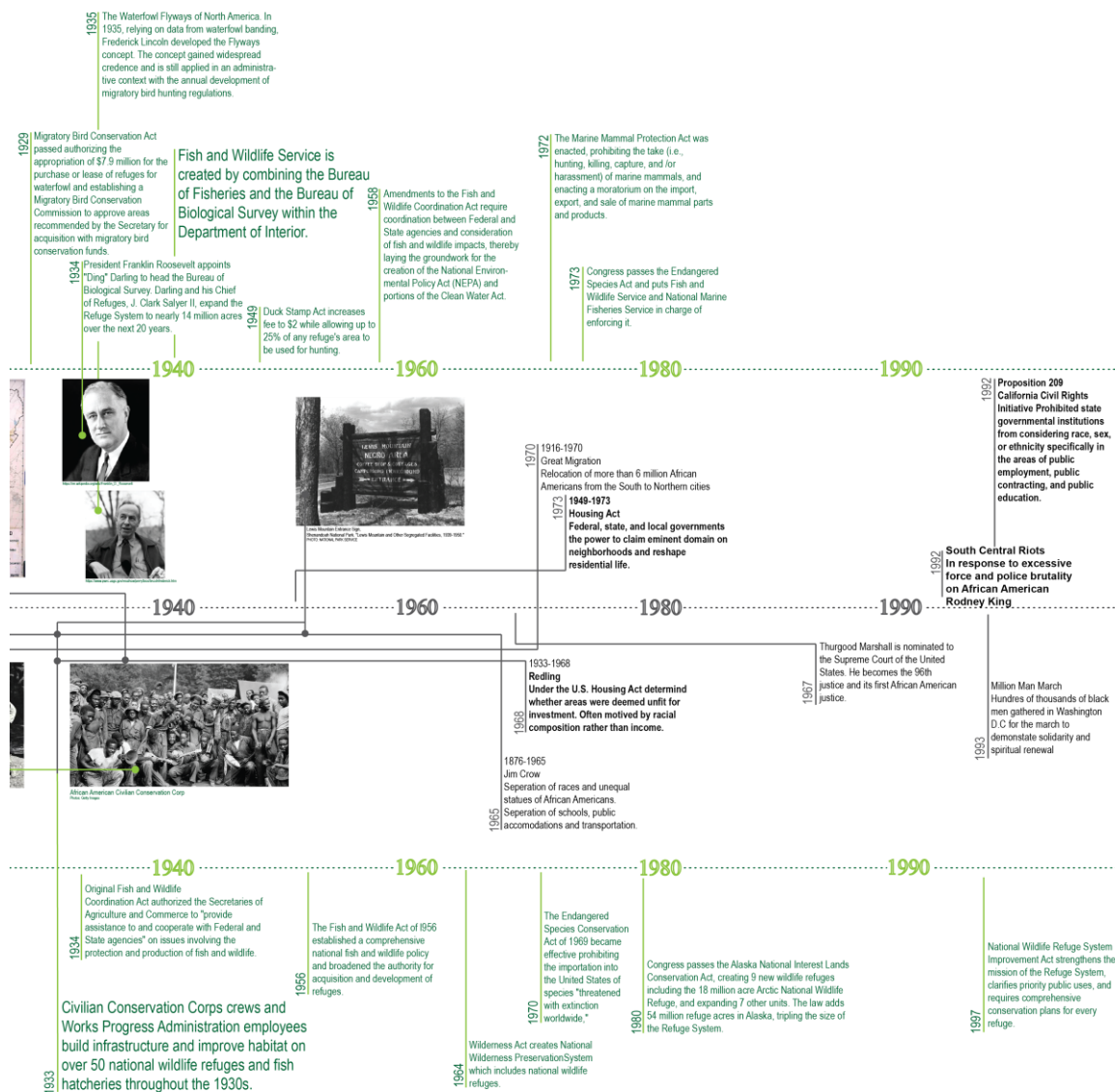
presence of the Fish and Wildlife service and help to spread their mission with the help of a more trusted organization within the community. These partnerships are an integral part in reaching different audiences, and building trust within urban communities.

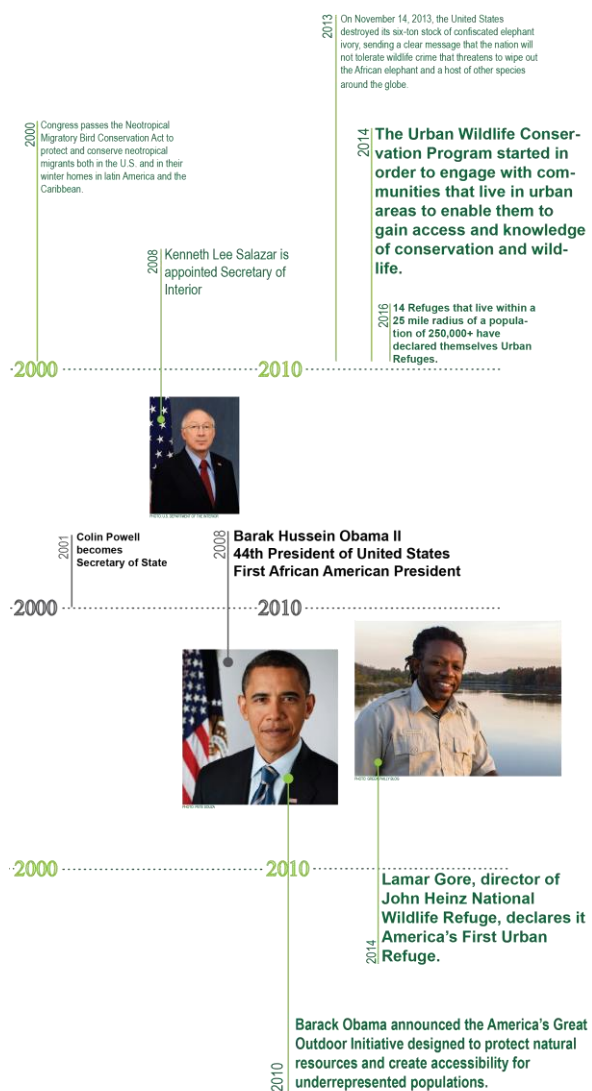
Timeline

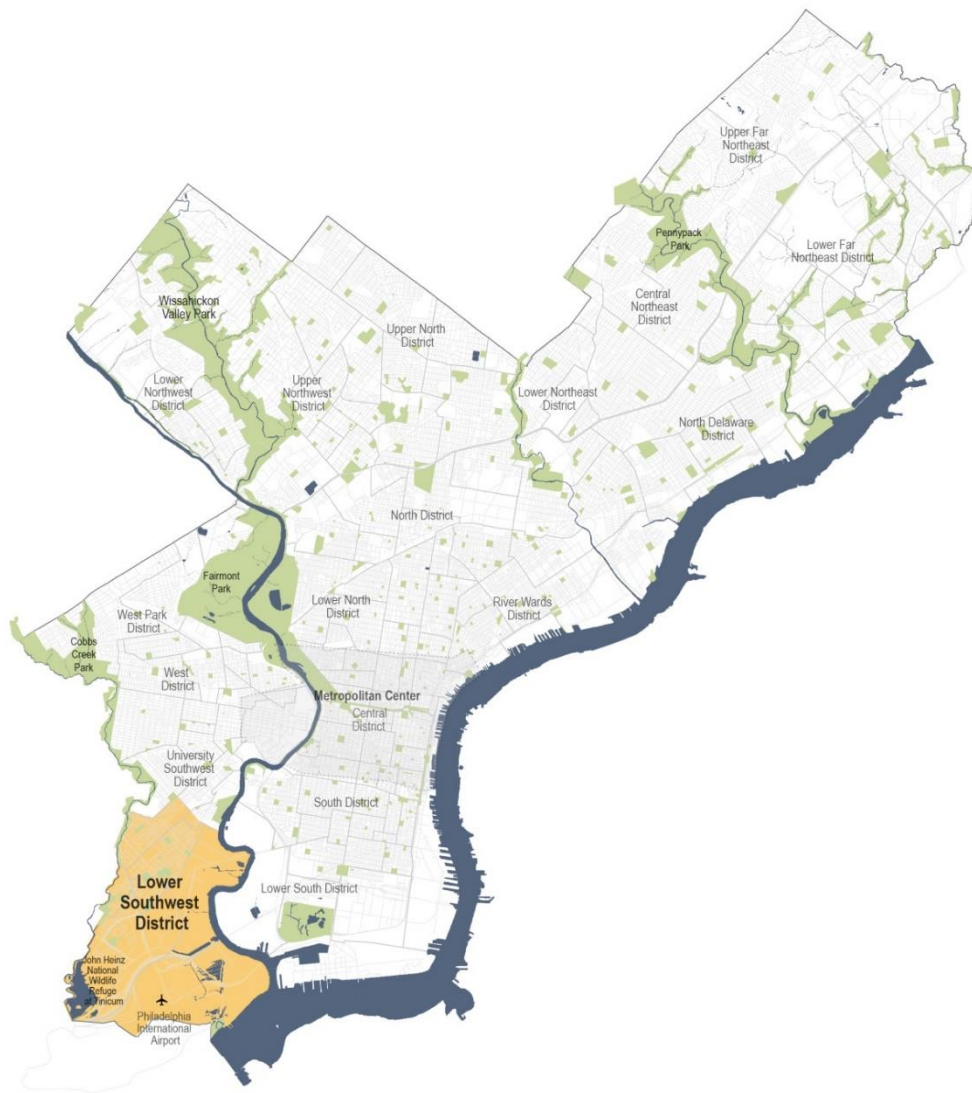
History of Fish and Wildlife Service

History of African Americans









Philadelphia

Figure 6 Map of Philadelphia 18 Districts

Source: Philadelphia Spatial Data Access – The Pennsylvania Geospatial Data Clearinghouse

Over the years, Philadelphia has prided itself in becoming a thriving economic engine and one of the nation's most walkable cities. A hub of strong diversity and inclusivity, it has gained positive recognition for its walkable streets and public art displays. The districts and neighborhoods in Philadelphia each distinguish their own identity and unique characteristics, buzzing with culture and opportunities. In 2011, The Philadelphia City Planning Commission created a comprehensive plan, Phila2035, dividing the 136 square-mile city into 18 districts. Phila2035 creates specific development plans for the

districts and neighborhoods throughout Philly. The planning commission has taken extensive measures to create a more livable, healthy and economically viable city, collaborating with the Mayor, city councils, government agencies and community partners. The 18 districts include Central, Central Northeast, Lower Far Northeast, Lower Northwest, Lower South, Lower Southwest, North, North Delaware, River Wards, South, University Southwest, Upper North, Upper Northwest, Upper Far Northeast, West, and West Park.⁴¹ The Philadelphia Planning Commission is adamant that the development conversation be extended to developers and community members. Before Phila2035, this was not the case; the planning commission took divisive measures in racially segregating

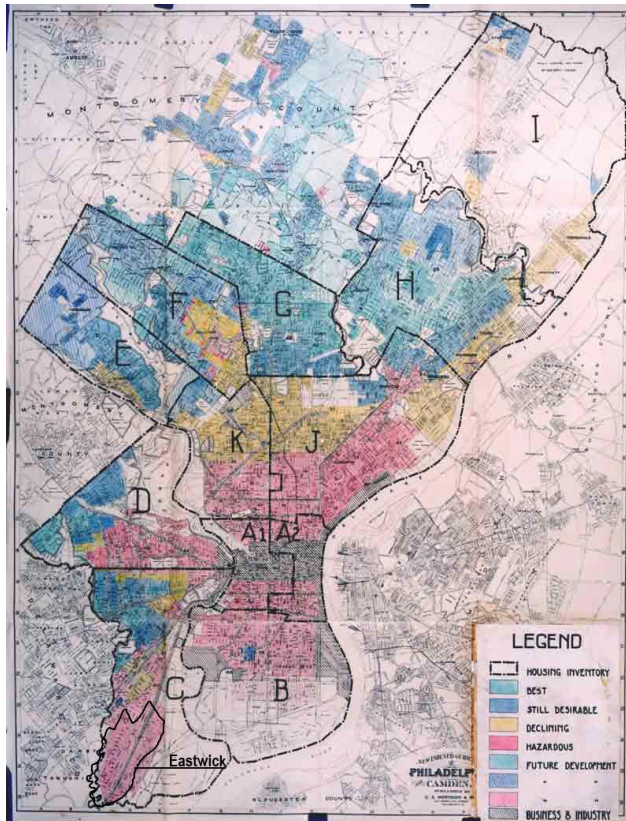


Figure 7 Home Owner's Loan Corporation: Redlining in Philadelphia

Source: http://www.nis.cml.upenn.edu/redlining/HOLC_1936.html

new comprehensive plan for Philadelphia can benefit many of these neighborhoods, but the question lies in the willingness to invest in these neighborhoods.

communities using, redlining and harmful descriptions of communities throughout Philadelphia.

Today, there are lasting effects of the racial division in many neighborhoods. The effects can be seen in the demographics and in the physical degradation of the neighborhoods, such as lack of street trees, crumbling sidewalks and lack

of developed green spaces. This

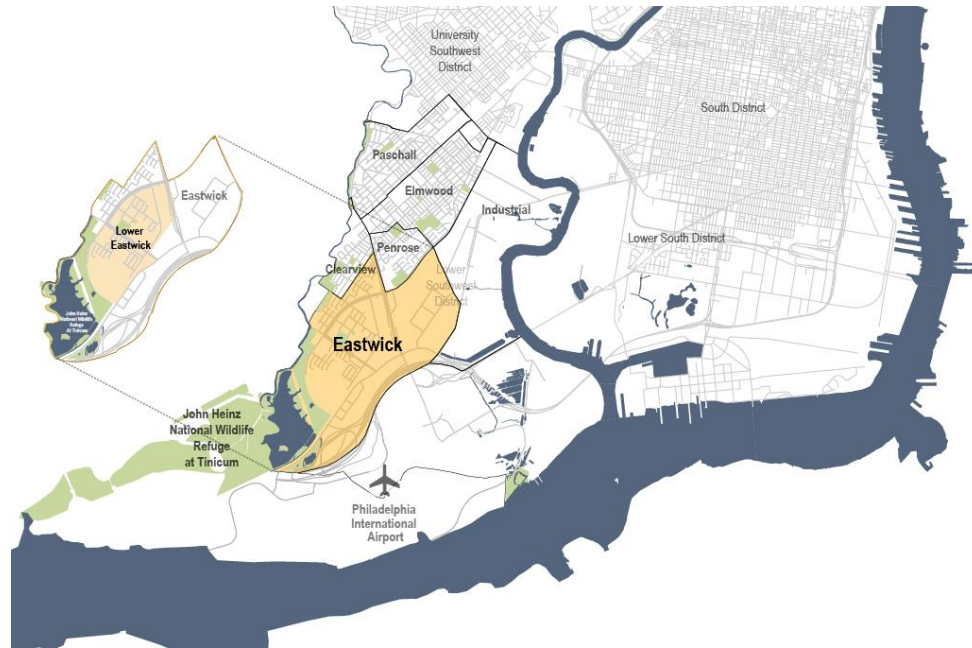


Figure 8 Eastwick Neighborhood, Phila2035 Focus Area – Lower Eastwick

Source: Philadelphia Spatial Data Access – The Pennsylvania Geospatial Data Clearinghouse

The focus of this case study is in the Lower Southwest Philadelphia zone of Phila2035. There are several focus areas in the new development plan in the Lower Eastwick zone.⁴² The location of Eastwick has historically been a prime location for industrial and commercial intervention. This southwestern-most area of Philadelphia is also in the 100-year flood zone. Eastwick is surrounded by natural habitats and highly industrial and commercial land. On its western border is Cobbs and Darby Creek, which creates a separation between the neighborhood and Delaware County. John Heinz National Wildlife Refuge rests on the southwest portion of Eastwick. The estuary extends into the neighborhoods in Delaware County, and to the east is the Schuylkill River. With the Philadelphia Airport looming on its southern end, Eastwick is often overlooked by visitors and investors. The history of Eastwick is one that illustrates many of the racial tensions and exclusionary forces in American history.

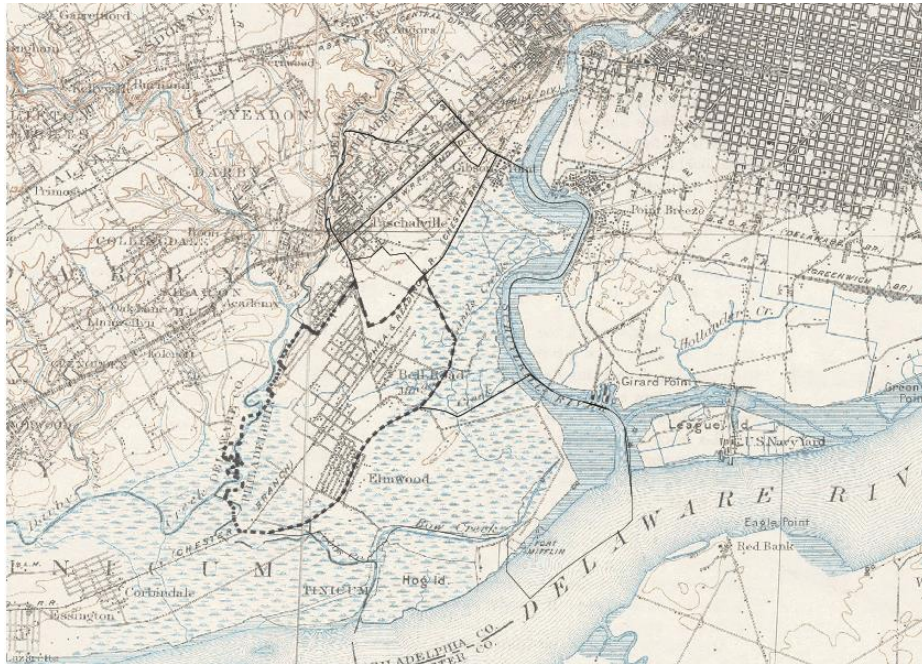


Figure 9 1890-1910 Topo Map – Lower Southwest District, Elmwood Neighborhood

Source: Philageohistory.org – Greater Philadelphia GeoHistory Network

History of Eastwick

The neighborhood of Eastwick was built on marshlands that were dredged, drained and filled in order to be reclaimed by settlers.⁴³ In 1634 Swedish, Dutch, and eventually English drained 5,700 acres of Tinicum Marsh for grazing animals.⁴⁴ Historically, wetlandscapes like Eastwick were drained to create private property on which agricultural and urban development could then take place or they were polluted by cities and dams to produce the dead black waters of a modern waste-wetland.⁴⁵ The draining, filling, and construction of industrial technology increase the degradation and destruction of wetlands.⁴⁶ During the early 1900s, before the name Eastwick, the neighborhood was known as “The Meadows,” “Clearview,” and “Elmwood,” all names for the marshlands that Darby Creek flowed through on its way to the Delaware River. Eastwick was once a sparsely populated community with open space and areas for farming.⁴⁷

“Eastwick (Elmwood) in the early twentieth century was possibly the only integrated neighborhood in the City of Philadelphia at the time. A Home Owners’ Loan Corporation survey of Southwest Philadelphia from 1936, prepared in conjunction with the HOLC redlining security maps, describes the area now called Eastwick as occupied by ‘Negros and Orthodox Jews.’ The HOLC survey from the following year calculates the population as 80% ‘Negro’ and 15% ‘Foreign born,’ specifically ‘Polish-Italian.’ By the 1950s, white and nonwhite residents coexisted as children attended integrated public elementary schools and businesses served a multiracial clientele.”⁴⁸

The location of Eastwick (Elmwood) in Philadelphia in relation to the rest of the city provided a prime location for an airport, oil refineries, auto junkyards, burning dumps, while also siting twelve feet below sea level.⁴⁹ In the late 1930s, Philadelphia began its plans to build an airport on the southern end of Elmwood. Much of it was built on dredge from Darby Creek.⁵⁰ At the time, Elmwood was made up of vast wetlands and meadows. The dredge was used to fill many of these wetlands to provide what developers thought would be structural soil for housing developments. Historian Guian A. McKee describes Elmwood as “a sparsely populated, semirural area featuring small farms, trailers, scattered housing developments, and, by the mid-twentieth century, an assortment of auto junkyards and burning garbage dumps, even in the 1950s.”⁵¹ Even with the infrastructure concerns and flooding, many residents enjoyed living in Eastwick. As Elmwood began to grow, residents faced issues of flooding, improper sewage management, the need for paved streets, proper storm water management and sewage infrastructure. The Elmwood neighborhood was a fond memory for all who lived in the area. Elmwood represented an integrated commercial and residential neighborhood, with “commercial corridors and corner stores.”⁵² The residents were prideful and established strong community connections, residents enjoyed the open fields, marshlands, gardens, integration of businesses and residences and the diversity. Racial integration during this time in

American history was notably one of the most beautiful things about the community of Elmwood. As the rest of America underwent racial turmoil, a racially integrated community on the farthest southern tip of Philadelphia was living without friction.⁵³ Although Elmwood was 60% predominantly open land, in 1951, it housed 19,300 low- and moderate-income residents (72% homeowners), 278 commercial businesses and eleven factories of various sizes.⁵⁴ Local industries and commercial businesses created jobs for residents of Elmwood, and created beneficial connection between community and work.

In the late 1940s, city planners gained interest in Elmwood's open space, and envisioned it as a solution to the residential displacement redevelopment projects slated for largely black sections of North and West Philadelphia.⁵⁵ In 1949, the Philadelphia Redevelopment Authority, under the direction of reformers' Republican city leaders, argued that low-income blacks in these areas could be relocated to a new planned community in Eastwick (Elmwood). In the words of one commentator this, "would not only siphon off the black overflow but would be a low visibility cul-de-sac into which the burgeoning Negro population could be stuffed."⁵⁶ In 1953, Elmwood's open spaces and "deteriorating old infrastructure" were sought after for major urban renewal plans, headed by the Philadelphia Redevelopment Authority.⁵⁷ In 1949, President Harry Truman signed the Housing Act, which gave federal, state, and local governments the power to claim eminent domain on neighborhoods and reshape residential life.⁵⁸ Cities across America were publically characterized as slums and blighted, which gave legitimacy to "urban renewal," from 1949 to 1973 when the urban renewal program officially ended. On a national scale, urban renewal destroyed over 2,000 communities on one thousand square

miles of urban land, demolishing roughly six hundred housing units and forcing nearly two million inhabitants to move.⁵⁹ Overall, about half of urban renewal victims were black, a reality that led to James Baldwin's famous quip, "urban renewal means Negro removal."⁶⁰

As the city of Philadelphia changed political parties, the Democratic administration envisioned a new future for Eastwick's development, and the plan underwent drastic transformation. According to the Philadelphia Redevelopment Authority (PRA) between the years of 1950-1959, it was responsible for 28 major projects, totaling \$84.67 million and affecting 2,648 acres of land.⁶¹ A strong influencer of Philadelphia's urban renewal project was the popularity of the suburbs, and the necessity to retain white urban residents in urban centers.⁶² At the time, The Philadelphia Redevelopment Authority plan for Eastwick was the largest urban renewal project in America. The original racially integrated PRA plan proposed homes for 45,000 residents in 4,100 apartments and 8,470 single-family homes.⁶³ The plan included the integration of low- and moderate-income populations, setting a new standard for community building and housing development in Philadelphia, (even if Elmwood, prior to urban renewal housed mixed incomes and a fully integrated community). This plan wanted to distinguish itself as a suburban plan for the city of Philadelphia, with commercial corridors and shopping centers, roads that celebrated the car and allowed residents to commute freely throughout the city, suburban style parks and jobs, all concentrated in the same area. As the massive integration plan developed, city planners were forced to rely on white housing demand to ensure the success of the project, creating a contradiction that led to limiting African American access to housing.

The discussion being held in the planning and city council office was very different from what was happening in Elmwood. Before the development began, city planners were calling the neighborhood of Elmwood, Eastwick, which many of the neighbors did not identify with. Elmwood did not succumb to the wishes of the PRA without a fight. Eastwick residents were not in agreement with these new plans, especially in a place they so fondly called home. Before the beginning phases of development and the reconstruction of Eastwick, residents refused real estate assessors into their homes.⁶⁴ “By the fall of that year, community members presented 4,500 signatures to the City Council, declaring that their neighborhood was not blighted, just in need of services, and imploring councilmembers to reconsider demolition”⁶⁵ Even with the opposition and representation of the community, the Urban Renewal Plan passed with support from City Council. By December 1958, the Philadelphia Redevelopment Authority(PRA) had the titles to 6,500 properties, receiving rent directly from the residents.⁶⁶ PRA condemned certain areas of Eastwick and “offered the highest prices to the first owners on the block to sell.”⁶⁷ Like many Urban Renewal Plans, the displaced populations were barely compensated for their property. The PRA inadequacy for compensation left many with offers way under their property values,

“Resident Cheyney H. Thomas sent a letter to the editor of the Philadelphia Daily News, entitled ‘Eastwick Plea,’ writing that he had ‘shunned the protest groups,’ thinking that redevelopment represented progress, until he received a \$6,625 offer for his brand new eight-room home. ‘I am a little man,’ Thomas wrote, ‘fighting for man’s most sacred possession, his home.’”⁶⁸

Under eminent domain, the city obtained more than 2,000 acres and displaced 8,636 residents.⁶⁹ As construction of Eastwick began, the New Eastwick Corporation focused on a racially and economically integrated community. Unfortunately, fears that

white demand would fall caused the NEC to raise the prices of the new homes, reducing the number of low-income families, specifically blacks. Two thirds of white customers lost interest upon learning that Eastwick would be integrated. In 1963, when the first black family moved in, three white purchasers immediately withdrew their deposits.⁷⁰ In order to establish a white population, NEC requested African American customers to delay moving into their homes for a year and insisted that the black population stay at a 20 percent.⁷¹ Throughout the development, African American civil rights group organized demonstrations, and worked with the Commission on Human Relations to file discrimination complaints against developers.⁷²

In the 1970s, Interstate 95 was to be built on Eastwick's southern end, initially intended for industry and residences.⁷³ The construction of the highway was originally intended to be built on the estuary, in June 1972 the Fish and Wildlife Service adopted the land to protect the wetland. The redevelopment plan took much longer than anticipated but by 1982, Eastwick's population had risen to more than 18,000 when 4,022 new housing units, three shopping centers, two schools, a library and a pedestrian greenway were completed.⁷⁴ Developers ended the construction of housing by the early 1980s, and left large clearings undeveloped, such as the 128 acres on the south end of Eastwick, areas that once had homes and business. The Eastwick project succeeded in producing mixed low and middle income housing. It "constituted as one of only three sections of Philadelphia that experienced population growth between 1970 and 1990"⁷⁵ As for racial integration, 1975 African Americans constituted 20.8 percent of Eastwick's population but by 1980 it rose to 52 percent and by 1990 it remained at 54 percent.⁷⁶



Figure 10 Eastwick, Philadelphia 100 Year-Floodplain

Source: Federal Emergency Management Administration (FEMA) data clipped to Philadelphia

Eastwick: Present

Eastwick in Philadelphia is a community that has undergone the affects of environmental injustices correlated to environmental racism. According to Dorceta E. Taylor, the author of *Toxic Communities: Environmental Racism, Industrial Pollution, and Residential Mobility* about 80% of minority communities are victims of hazardous facilities resulting from racially motivated decisions in zoning laws, eminent domain, government regulations and urban renewal. “Two of the most controversial claims of the environmental justice movement (EJM) are the assertions that hazardous facilities are concentrated in minority and low-income communities in the United States and that those communities are exposed to inordinate amounts of environmental hazards.”⁷⁷ Eastwick

provides a case study that exemplifies the hazardous waste and toxic dumping in communities of color while also including housing segregation, zoning ordinance and displacement, all of which are defined as environmental injustices.

Current residents are still facing the aftershock of the Redevelopment Plan. In 2012, Eastwick was being considered for a proposed \$100-million dollar project– “fifty-one, two story buildings, for a total of 722 apartments development project.”⁷⁸ Although the proposed land that the developers had chosen was vacant, residents understood the struggles that this new project would cause, such as “an increase in traffic, the impact upon the nearby refuge, and fear that the apartments would increase frequent flooding.”⁷⁹ Eastwick is faced with constant catastrophic flooding and storm water runoff issues. Much of the area is located on 500-year and 100-year flood plains. (Figure 10)⁸⁰ The neighborhood is subject to tidal flows from the Darby and Cobbs Creek that once covered 5,000 acres of the Lower Darby Creek. The tidal wetlands in the southwestern region of



Figure 11 Tinicum Marsh Historic Wetlands: 5,700 Acres and Tinicum Marsh Today: 200 Acres

Source: Mindy Fullilove, Bishop Land Design LLC



Figure 12 Philadelphia Regional Watershed Map. The area in pink represents Eastwick
 Source: Philadelphia Spatial Data Access – Philadelphia Regional Watershed

Philadelphia have been reduced to fewer than 300 acres, and have destroyed a large wetland that once functioned as flood storage.⁸¹ The Philadelphia Inquirer reported on May 7, 2012 that Darby Creek “is one of the country’s most flood prone streams, a significant drain on the National Flood Insurance Program, and a national lesson on what can go wrong along a developed waterway.”⁸² The watershed map reveals the location of Eastwick in relations to the large watersheds that funnel water into the nearby streams to be released into the Delaware River. This proves the need for more pervious surfaces and areas for water retention especially in the community of Eastwick. The community refused to dismiss the outcome of the development project and made sure that city council was aware of how they felt, finally leading to a dismissal of the project. Residents here worried about increasing floods for good reason. Faced with worsening flood damage and rising flood insurance, some don’t even know if their homes will last another year. Some of the homes built during the renewal project were places on unstable silt dredged from the Schuylkill, and are beginning to sink, as much as 12 inches.⁸³ The redevelopment plan still affects many of the residents that currently live in Eastwick. Residents are beginning to form community groups to solve issues that resulted from redevelopment and neglect.

Due to large vacant lands in the wake of redevelopment, there have been reports of illegal dumping of hazardous substances that seep into the ground and contaminate the soil.⁸⁴ Eastwick is also undergoing clean-up plans for a Superfund site, behind many of

the residential homes. The superfund site was created by un-permitted dumping of industrial waste from the 1950's-1970's and again in the 1990's. "The Lower Darby Creek Area (LDCA) site consists of a release of hazardous substances from multiple sources into the waters of Darby Creek and other nearby streams. Hazardous substances of concern include heavy metals, polycyclic aromatic hydrocarbons, polychlorinated biphenyls and dioxin."⁸⁵ The sources of the waste disposed in these areas consisted of municipal, demolition and hospital wastes. The landfill has contaminated soil, groundwater and fish tissue with hazardous chemicals. According to the Eastwick Friends and Neighbors Coalition, there have been attempts by the EPA to clean up the soil and the groundwater due to the high level of contamination the landfills left behind. The superfund sites are located in flood-prone areas that may or may not spread the contaminants into the homes of many of the residents. Although the clean-up is beneficial to the community, there are varying concerns of trust between the community and federal agencies, such as the Environmental Protection Agency. Because the community has undergone several injustices, EPA intervention in the backyards of the residents may be difficult for the federal organization. There are also concerns that community members feel their property values may fall even more due to the clean-ups. Many of these residents are struggling to keep their property values high, but are threatened by the repercussions such a clean-up may cause. The clean-up will require an 'Evotranspiration Cover' placed overtop the landfill.⁸⁶ "This is a thin layer of soil planted with dense vegetation and native, fast growing trees. Tree roots absorb water, preventing it from entering landfill and carrying contaminants off-site"⁸⁷

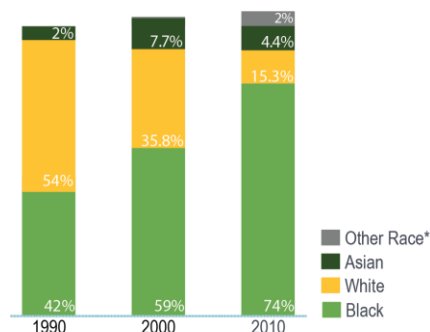
Eastwick is on the road to recovery from the massive Urban Renewal plan that severely affected the communities' framework and connectedness. According to the blog *Philadelphia Speaks*, people categorize the area of Eastwick as an industrial/commercial zone, that doesn't strike any fear and can be a bit "boring." It is categorized as a safe neighborhood, even though it struggles with the resolution to all its environmental injustices. It has a strong suburban feel, compared to many other areas of Philadelphia. The Eastwick neighborhood is now 76% African American. It also has a higher level of average education and homeownership rates, in relation to many other neighborhoods in Southwest.⁸⁸ Although home ownership is the majority, home values in the community continue to fall tremendously. This could be in part due to the location of many of the houses, being in flood prone areas, and also to the local schools closing. Due to many of the homes being on areas of fill, reports have been made of homes sinking and cracking. "Despite the city-led redevelopment, Eastwick's blight certification was renewed in March 2006 under the Street administration. The recertification cites evidence of three of the seven criteria used to define blight: 1) unsafe, unsanitary, inadequate, or overcrowded conditions; 2) faulty street and lot layout; and 3) 'economically or socially undesirable' land use."⁸⁹ The leading cause of the blight designation is due in part to the 162 acres of vacant land owned by the Philadelphia Redevelopment Authority, that is inducive to illegal dumping and the industrial activity that surrounds Eastwick. Due to its history, residents of Eastwick understand the severity and implication that blight designations bring to neighborhoods, and are currently working on ways to remove the designation.⁹⁰

After years of neglect, new eyes are taking a closer look at Eastwick. Philadelphia City Planning Commission's (PCPC) new comprehensive district plan, Philadelphia2035, created designs based on the needs and the recommendations of the people and the city. In the plan, Eastwick is one of the two Focus Areas, where a more "intensive planning study" has been called for.⁹¹ The goals included in the plan: "Preserve and create natural resources and community amenities, reduce flooding, provide commercial/light industrial development opportunities, and create better pedestrian and transit connections to surrounding neighborhood and job centers."⁹² Phila2035 proposed preserving portions of open land to allow for new amenities such as urban agriculture, community gardens, and passive recreational spaces. The preservation of these spaces can help mitigate runoff and provide new access to areas such as John Heinz.⁹³ The plan is currently being revised, after being reviewed and edited by the public. This plan could mean proper reparations for not only the residents of Eastwick that underwent the process of Urban renewal, but the overall community and all the environmental injustices that followed.

Eastwick Demographics

Population: Age, Race, Sex

Population Trends by Race, 1990 - 2010



Latino Percentage Population, 1990 - 2010



Figure 14 Eastwick Population: Race

Source: U.S. Census Bureau, 2010

Sex

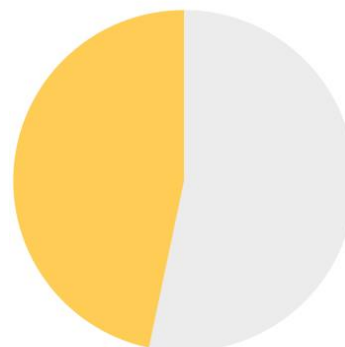


Figure 13 Eastwick Population: Sex

Source: U.S. Census Bureau, 2010

The current population of Eastwick is 12,259, according to the 2015 Demographic profile. Of the 12,259 residents that reside in Eastwick, 2,195 are of foreign-born populations. The census data shows there is a high concentration of African Americans in the area. The medium age of Eastwick is 41.5, according to the 2010-2014 American Community Survey. The highest percentage of the population are between the ages of 35 to 54, followed by the second largest (20.90%) between the ages of 20 to 34.

Total Population by Age

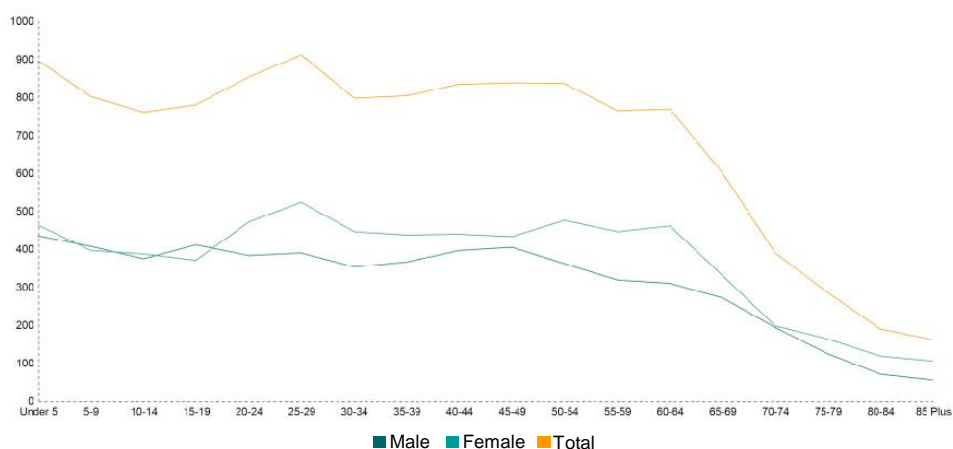


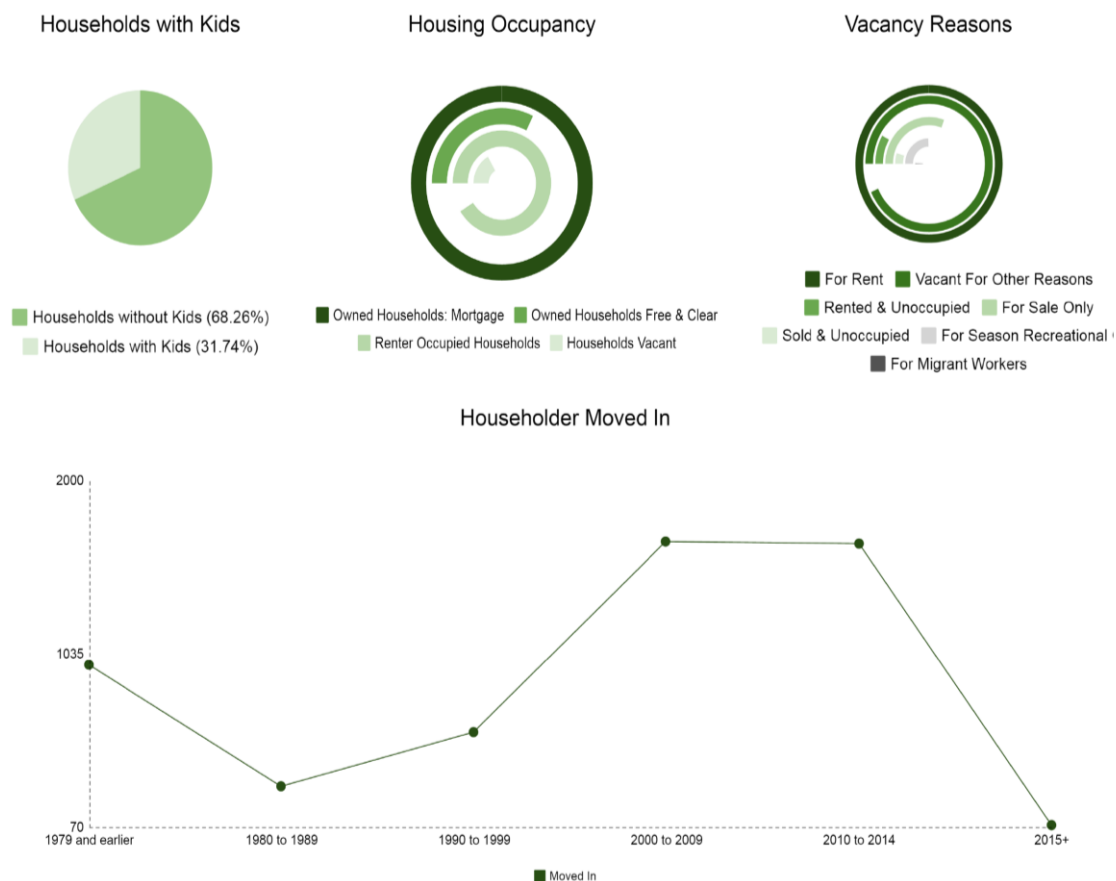
Figure 15 Eastwick Population: Age

Source: U.S. Census Bureau, 2010

Eastwick Demographics

Housing: Homeowners, Rentals

The face of Eastwick changed vastly during the redevelopment years. Eastwick provides 5,584 housing units, according to the American community survey 5-year estimates. The data provided by the survey depicts a spike in homeownership between 1960-1979, during the years of the redevelopment project. Although during the years of the project there was a vast amount of displacement in the community, 92% of these housing units are occupied. A majority of the households were occupied in 2000 to 2009. Similar to the row house architecture of Philadelphia, more than 50% of the housing structures are attached. After reviewing the real estate listing, the housing company that



financed the redevelopment has a strong hand in the community's rental units, but more than 50% of the community own their homes.

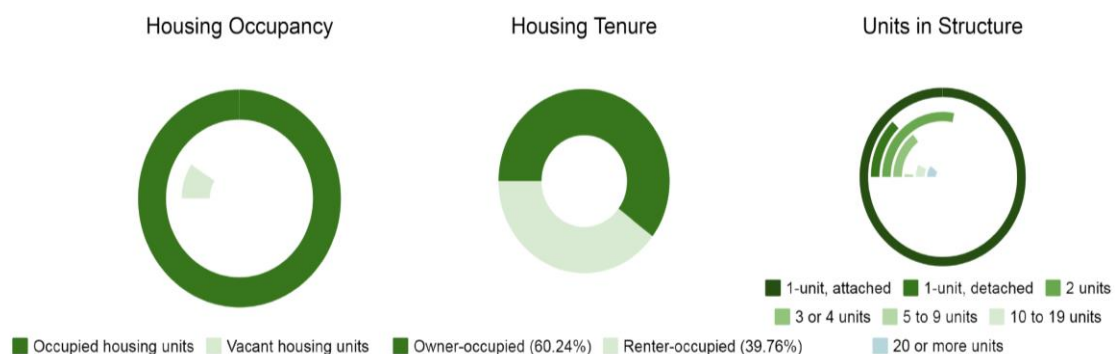


Figure 16 Eastwick Housing Characteristics

Source: https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml?src=bkmk

Eastwick Demographics

Income and Employment

The average income for Eastwick is \$44,118 according to the 2010-2014 American community survey 5-year estimate. The median household income is about \$10,000 higher than the average of Philadelphia. The employment status is at 84% in Eastwick, and more than half of those employed work in the labor force.

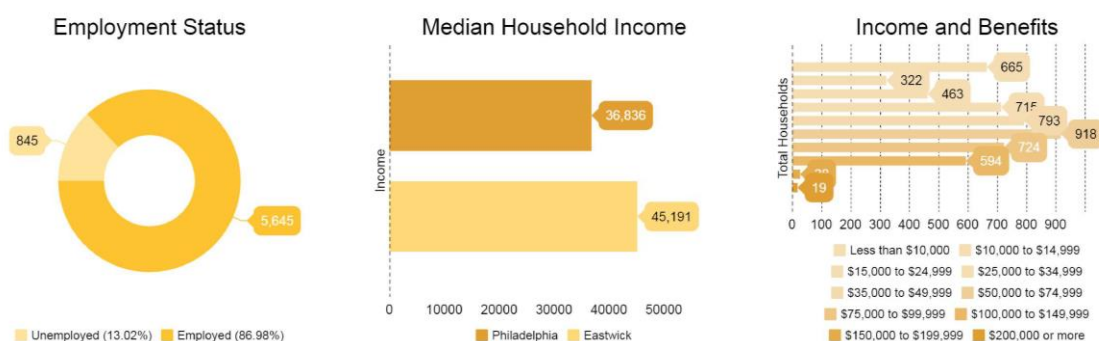


Figure 17 Eastwick Income and Employment

Source: https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml?src=bkmk

Eastwick Demographics

Poverty: Age, Race, Sex

The individuals below the poverty level is 17.5%, according to the 2010-2014 American community survey 5- year estimate. The poverty rate in Eastwick is highly mixed among age groups and race. The data for poverty shows that age and race are strong determinates of poverty. The age that represents the highest residents under the poverty level is 18 to 64 years of age, which is also the age group of a majority of the population. Poverty levels also indicated that race played a significant role in Eastwick.

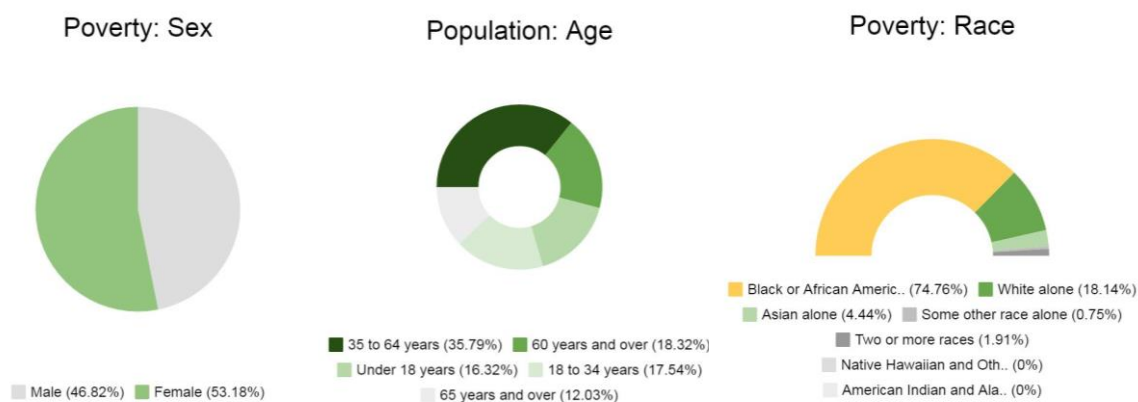


Figure 18 Eastwick Poverty Age, Sex, Race

Source: https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml?src=bkmk

African Americans, which are represented as more than half of the population in Eastwick, also represent more than half of those in poverty. Where the poverty level is represented by sex, females also represent more than half of the poverty level.

Eastwick Demographics

Education

Education among the residents of Eastwick varies from elementary level to college. For residents of Eastwick that are 25, a majority are high school graduates followed by some college level education. Education is an important contributor to the

advancement of a community, and although a majority of students are high school graduates, one must consider the proficiency of the schools in the area. Poverty rate determined by education level exhibits the effects that education plays on the poverty level, and the majority of those residents classified as under poverty have education levels less than high school graduate.

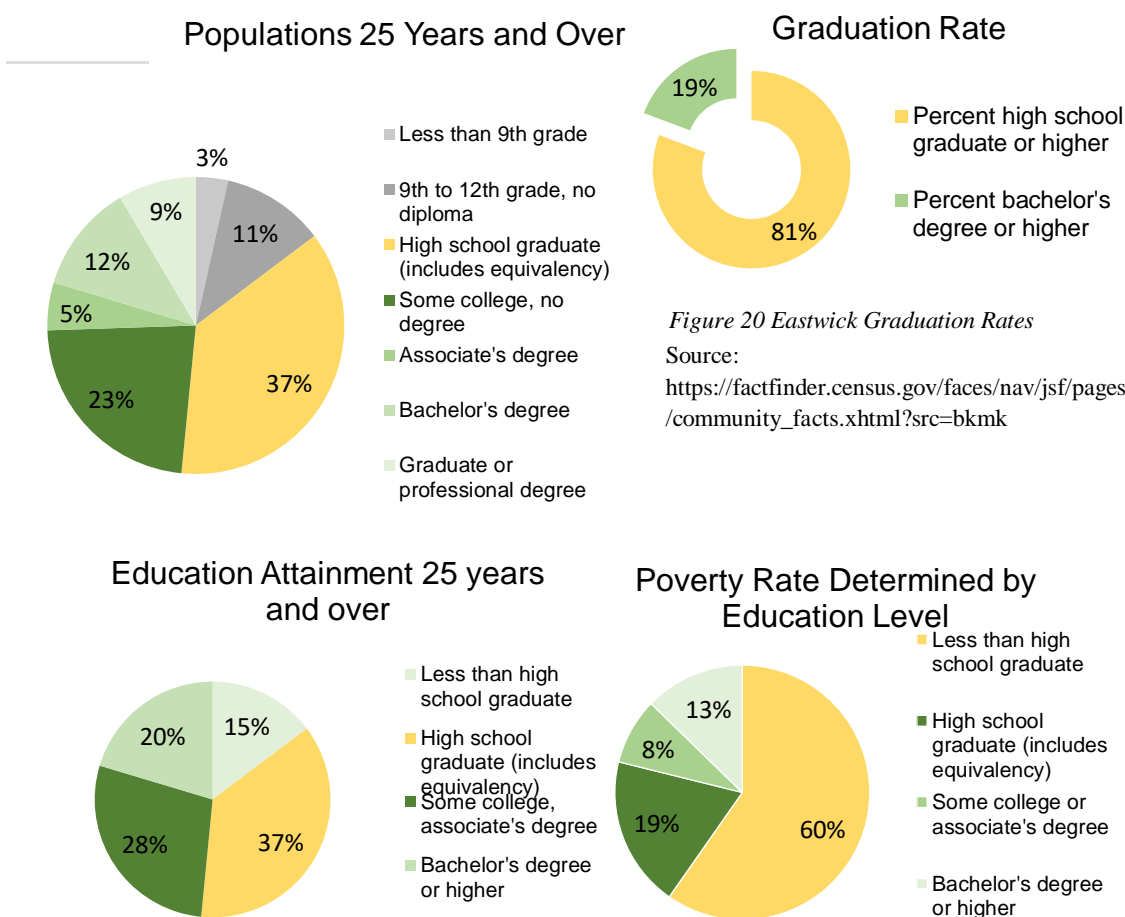


Figure 19 Eastwick Poverty Characteristics

Source: https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml?src=bkmk

Figure 20 Eastwick Graduation Rates

Source:

https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml?src=bkmk

John Heinz National Wildlife Refuge

Urban Partnership

The intersectionality of minority populations in American history has had a large impact on their cultural beliefs and how they view spaces and organizations. It is very common for people of color to feel unsafe in certain settings and around certain groups of people. People naturally gravitate to people that are more like them, or settings they are most familiar with. The context of John Heinz National Wildlife Refuge makes it one of the most urban refuges in the nation, providing over a million people within a 10-mile radius with a natural spaces and wildlife to observe for free. As all-encompassing as it may seem to those who are nature and foul enthusiasts, the refuge struggles to gain the interest of the surrounding communities. It struggles with barriers such as lack of awareness, fear, lack of connection to nature, poor public transportation, education, negative cultural stigmas, lack of staff and lack of staff diversity. The lack of education that emphasizes the importance of spaces such as the refuge is a major barrier in many of these communities which adds to lack of funds for transportation, and lack of opportunities to address curriculum requirements.⁹⁴

One of the most valuable parts of the Fish and Wildlife Service Urban Wildlife Conservation Program is their ability to work with non-governmental organizations to help create a connection between the community and conservation. These partnerships are vital in increasing the network of individuals working towards helping a larger audience understand the service mission and the benefits it can provide to all Americans. They have extended their reach to organizations outside of the refuge, specifically to community affiliated organizations, to make their presence known and offer up the

resources they may have available. Community partnerships and outreach are one of the most influential approaches in obtaining the attention of the community. Refuge staff stepping outside of the refuges and extending their services within local communities, by not only providing attendance but also working closely with recreation centers, churches, YMCAs, and local government agencies.

Since 2014, John Heinz National Wildlife Refuge (JHNWR) has used the input received by local community members to increase their capacity to connect with the surrounding community. Through clearly defining their mission and goals and establishing a trusting relationship with local community leaders and organizations, they have begun to slowly overcome their barriers. John Heinz has clearly oriented their partnerships around the principles of education, engaging and connecting the community to conservation-partnerships. With hopes of increasing the levels of education to create appreciation of nature and develop environmental ethic through playing, learning serving and working in the neighborhood through summer camps and hands on lessons that teach the importance of conservation and the protection of natural landscapes and all that they contribute. JHNWR is working to create physical connections to corridors to nature within communities and improve infrastructure by providing safe spaces and inclusive atmospheres.

Philly Nature Kids educational program at John Heinz National Wildlife Refuge has strived to reach students within their schools to create connections. They have focused on bringing nature to their communities by providing lessons to six different classes within three different schools only a few miles from the refuge. They have managed to reach 150 students with a program that teaches environmental education

twice a month in their classroom. The lessons range from habitats and ecosystems, to the study of wetlands and forest habitat, and hands-on research. Students are able to touch and identify animal pelts, hold live crayfish, create wetland models and terrariums with live organisms.⁹⁵ These programs allow the students to understand and experience the realities of nature and how it can impact their lives. These connections can play a substantial role in acquainting the students with conservation and increasing their awareness of the environment.

The ability of the refuge to engage with the community, *in the community* will increase community participation in programs and activities. The refuge has focused on providing resources and programs for the community such as John Heinz Junior Ranger Camp, Darby Creek Clean up, and Student Conservation Crews. The staff at John Heinz has increased attendance at community meetings to better understand the needs and goals of the community to help in extending its resources to benefit the community. They have engaged with other organizations such as the Audubon Society, Empower Community Development Corporation and Southwest Community Development Corporation, African Cultural Alliance of North American and Eastwick Friends and Neighbors Coalition to create programs that facilitate education and stewardship and can add a layer of trust between communities throughout Southwest Philadelphia and the refuge, engaging in goal-oriented solutions that the community has already established in order to establish relationships and trust.

The connection back to the refuge with beautification projects throughout communities has increased attention to the resources that the refuge can provide to the community. Programs such as Student Conservation Organizations hire local youth to do

work inside and outside the refuge, having a strong impact on the larger community and the ways the students view their surroundings. These projects add a layer of depth to the connection, making them physical and accessible to all.

The two-prong approach created by the refuge focuses on reaching out to the community in order to bring them in. The refuge has devoted its resources to creating physical forms of outreach, by installing sustainable landscapes in communities. JHNWR is currently working with Philadelphia University landscape architecture studio to create designs in vacant lots using the input and the needs of the community. The university partnered with the refuge to walk around the community and speak to several residents on the changes they would like to see in their community, and used that to create designs based on those needs. The designs were then accessible to residents to allow them to decide what they would like to see as a final design in their vacant lots. This engagement and outreach began to establish a relationship and a level of trust between John Heinz and the community, understanding what they wanted and providing funding to create change. The refuge physically reached into the neighborhood and had many discussions in order to introduce them to what the refuge stood for. The presence of the refuge in the community will ultimately lead the residents back to the refuge to continue the conversation.

John Heinz National Wildlife Refuge's various programs have created a ripple in the community to gain interest and attention and place the refuge in a positive light. Although the staff is very small, they have managed to use relationships and partnerships to extend their reach into communities and participate in important conversations. The partnerships with important community leaders and organizations that have roots deep within their community have added a layer of trust with community members and the

refuge. The trust will only continue to progress as the relationships develop and the projects and programs continue to thrive and become realities.

Conclusion:

This case study inspired a design intervention that can make a large impact on the community. This intervention will reconnect Eastwick with the refuge by extending the marsh into the neighborhood. The design connects the community with nature by extending its streets as boardwalks into the constructed marsh. The boardwalk creates a connection between the train station to the John Heinz Visitor Center with a marshland pedestrian walkway, with small outposts where people can stop and enjoy the scenery. The extension of the marsh will also provide the residents in the surrounding community with flood mitigation, as the marsh will absorb storm water.

John Heinz Urban Wildlife Refuge has made great inroads with programmatic connections to surrounding communities, but it does not create a physical connection between nature and the community. Physically reconnecting the neighborhood with the marsh would have a large impact on the community because it could bring it back to what it used to be. Terry Williams, Eastwick Friends and Neighbors President and long time resident of Eastwick, reminisced about the time before urban renewal,

“In my backyard there was a great field, and I could go into my back yard into the Heinz. As boys we used to explore. Kinda like Huckleberry Finn, we used to explore and go all the way into the refuge. A lot of the immigrants that came used to fish and even my dad, they used to trap turtles. This was their supermarket. Carp, snapping turtles, pheasants, rabbits, raccoons, possums, all kinds of fruit trees, apple cherries, black berries and strawberries.”

Eastwick is one example of the vital underrepresented neighborhoods where policies and institutions have destroyed the connection that people of color once had to nature. In order to fully understand the disconnect, one must thread the historical narratives of nature, and come to terms with all the forces that have restricted African

Americans from full participation in natural environments. Federal agencies such as the Fish and Wildlife Service Urban Initiative can begin to mend the relationship between people of color and nature. When I worked at John Heinz I witnessed many kids that did not have access to any of the things Terry described, and this connection back to nature can have a tremendous impact on their future and the future of the Earth.



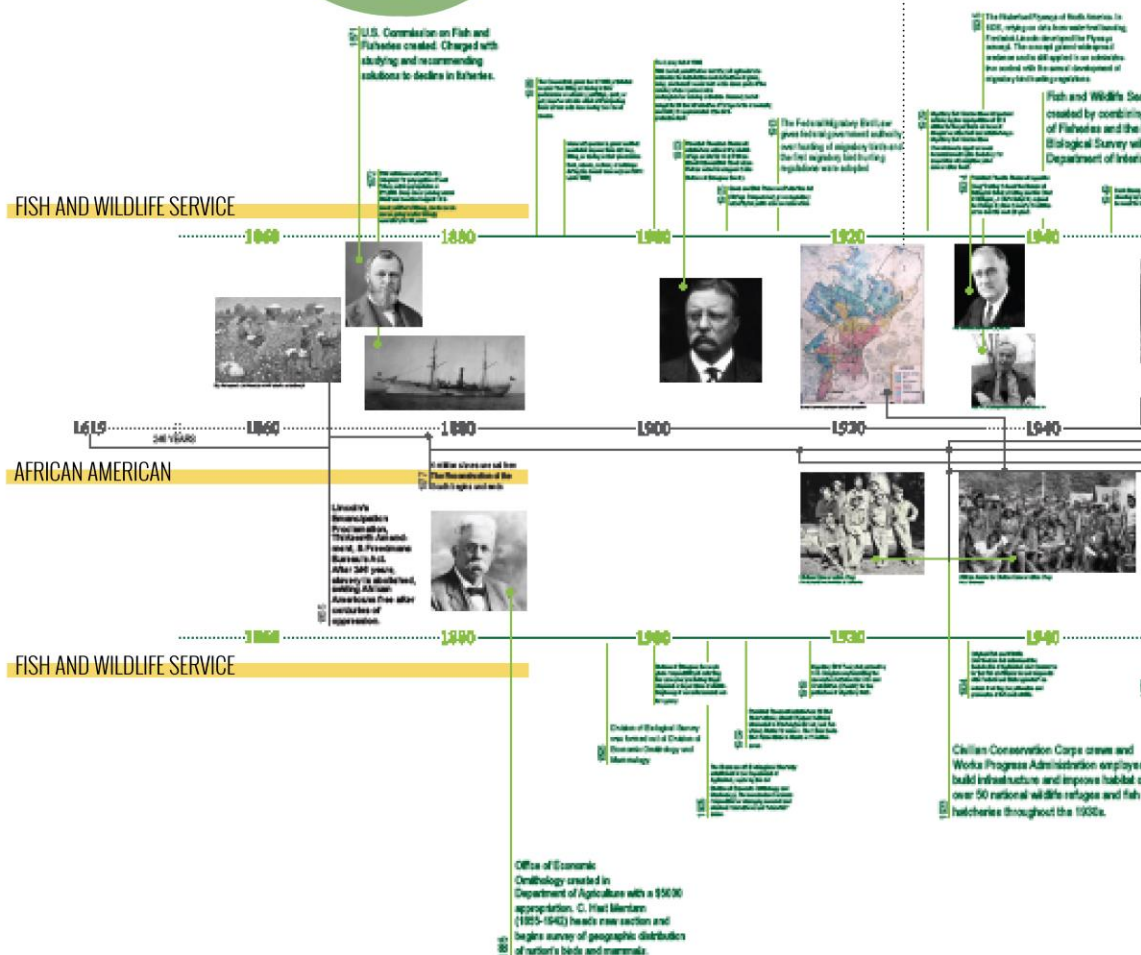
Figure 21 Design Concept

DEPARTMENT OF THE INTERIOR ORGANIZATIONAL CHART



The Department of the Interior protects and manages the Nation's natural and cultural heritage; provides other information about those resources; and honors its trust responsibilities and commitments to American Indian, Alaska Natives, and affiliated island communities. DOI.GOV

"The U.S. Fish and Wildlife Service, along with others, to conserve, protect and manage the nation's plants and their habitats for the benefit and enjoyment of the American people."



RIOIR MISSION

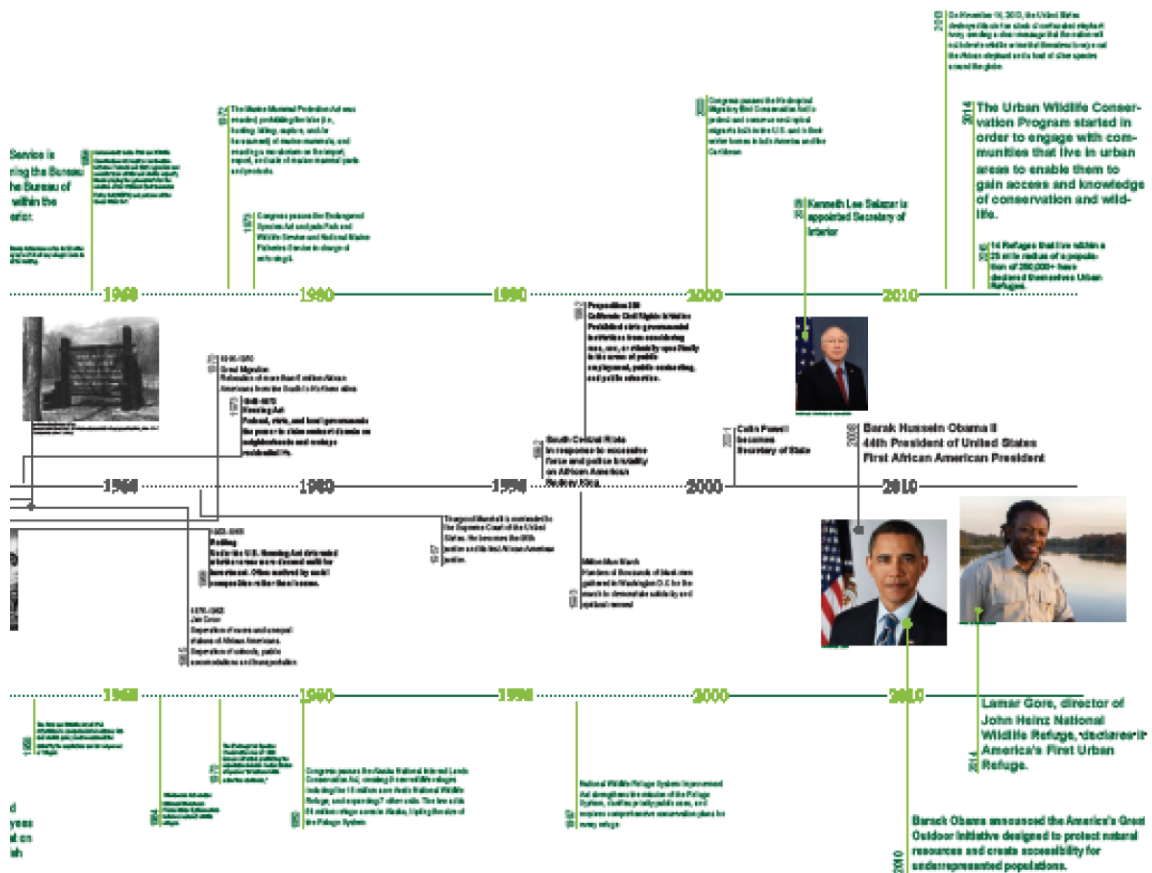
protects
 natural resources
 ides scientific and
 ose resources:
 lities or special
 ians,
 sland

CE MISSION

Service's mission is, working with
 and enhance fish, wildlife, and
 r the continuing benefit of the

Visitor Demographics

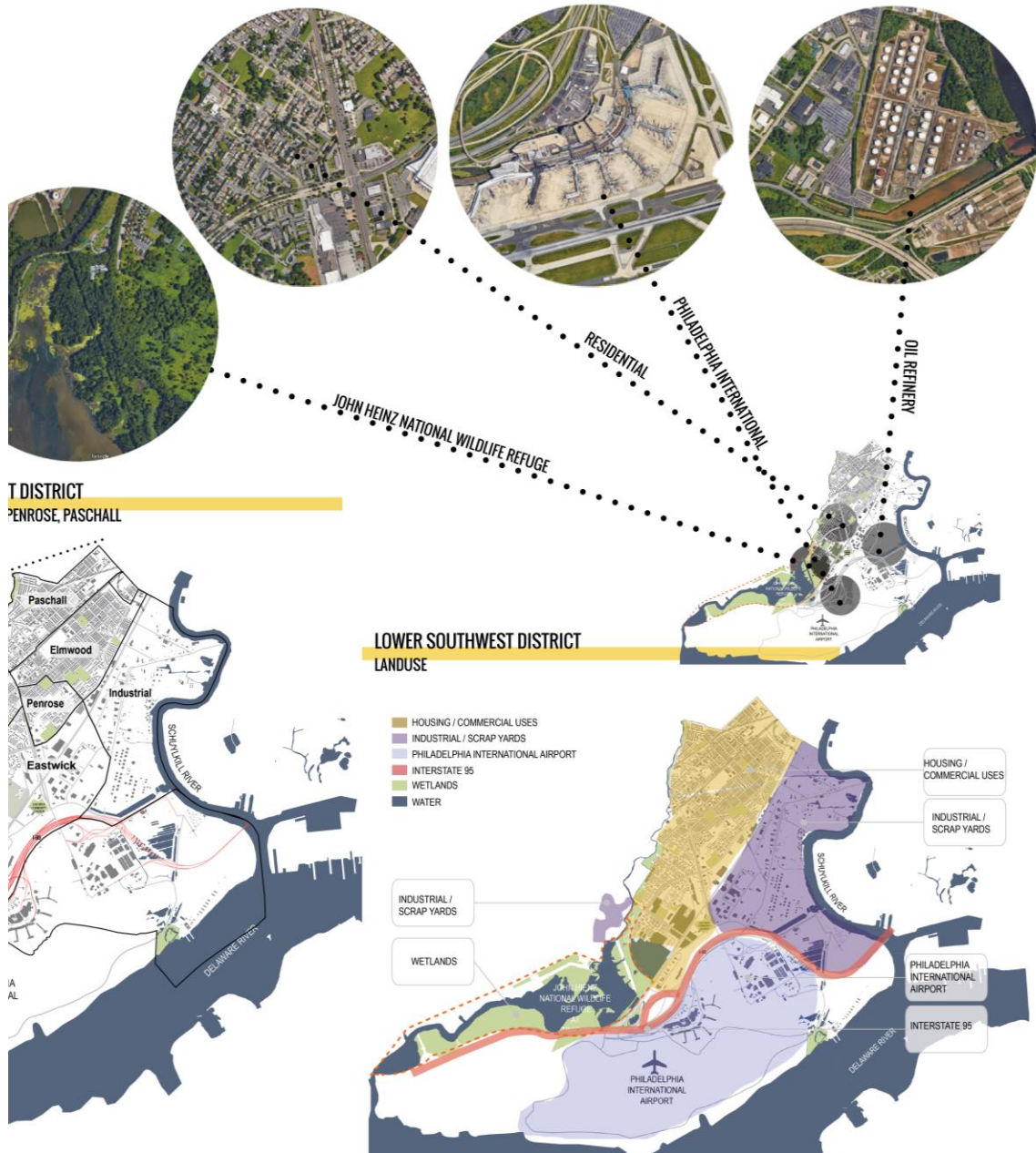
- Asian (1%)
- Black or African American (1%)
- Hawaiian or Pacific Islander (1%)
- American Indian or Alaska(4%)
- Hispanic or Latino(4%)
- White(98%)



URBAN WILDLIFE REFUGE PARTNERSHIP: A CASE STUDY IN RECONNECTING AN URBAN COMMUNITY TO NATURE

PHILADELPHIA SITE CONTEXT





URBAN WILDLIFE REFUGE PARTNERSHIP: A CASE STUDY IN RECONNECTING AN URBAN COMMUNITY TO NATURE

JOHN HEINZ NATIONAL WILDLIFE REFUGE URBAN INITIATIVE

AMERICA'S FIRST URBAN REFUGE

- Established in 1972 for the purpose of **preserving, restoring, and developing the natural** area known as Tinicum Marsh and promoting environmental education.
- John Heinz Refuge has **1.1 Million people living within 10 miles** of the Refuge.

The U.S. Fish and Wildlife Service defines urban refuges as having a population of 250,000 people within a 25 mile radius.



"With 80% of the U.S. population currently residing in urban communities, the challenge to ensure our natural resources are conserved and valued by American people has become complex. To garner broad support for conservation, the U.S. Fish & Wildlife Service must provide a reason, and opportunities for urban residents to find, appreciate, and care for nature in their cities and communities. Therefore, engaging our urban neighbors, and fostering a sense of stewardship, reflects the heart of the Urban Wildlife Conservation Program. U.S. Fish and Wildlife Service

URBAN WILDLIFE REFUGE PARTNERSHIPS

- Facilitating relationships with organizations and community members to **reach different audiences**. Supporting community events and meetings to **establish trust** with residents.
- Working with organizations to give jobs to local youth to increase **stewardship and jobs** that are accessible through the Fish and Wildlife Service
- Create programs with partners and community leaders that provide resources for **beautification projects** in the surrounding communities

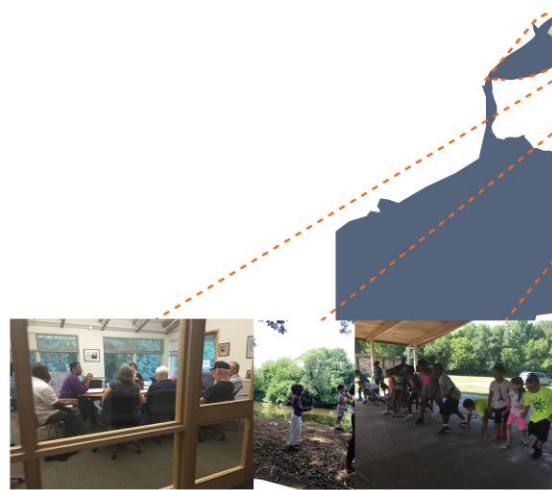
JOHN HEINZ NATIONAL WILDLIFE REFUGE GOALS

EDUCATE-ENGAGE-CONNECT

EDUCATE: to nurture an appreciation of nature and develop an environmental ethic through playing, learning, serving and working outside neighborhoods.

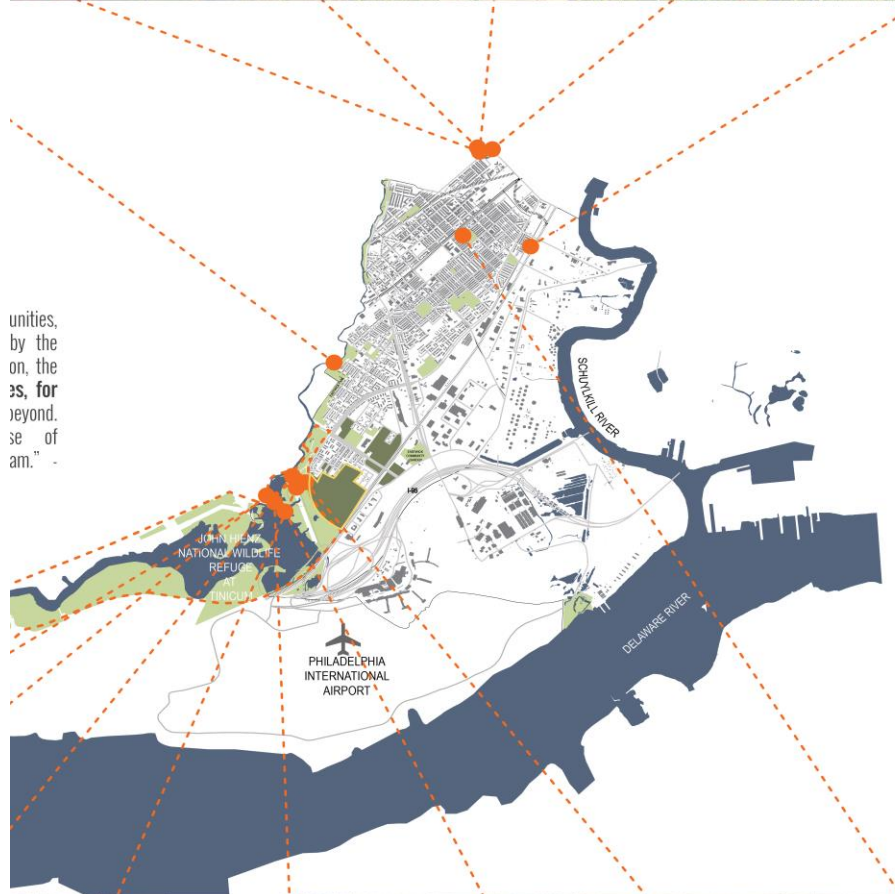
ENGAGE: communities to promote environmental, economic, and socially sustainable communities.

CONNECT: by working with partners to create corridors to nature and improving infrastructure to provide safe access and a welcoming atmosphere



Phase 1: Outreach - Install sustainable landscapes in communities

AMBER LYNN BETANCES
 RUTGERS UNIVERSITY LANDSCAPE ARCHITECTURE DEPARTMENT
 HOLLY GRACE NELSON, FRANK GALLAGHER, LAURA LAWSON
 MARCH 2017
 PHILADELPHIA, PENNSYLVANIA



unities, and create & steward community trust ● —————> **Phase 2:** Bring communities into the urban refuge

URBAN WILDLIFE REFUGE PARTNERSHIP: A CASE STUDY IN RECONNECTING AN URBAN COMMUNITY TO NATURE

JOHN HEINZ NATIONAL REFUGE: GETTING THERE.

JOHN HEINZ NATIONAL WILDLIFE REFUGE RADIUS: CITY SCALE

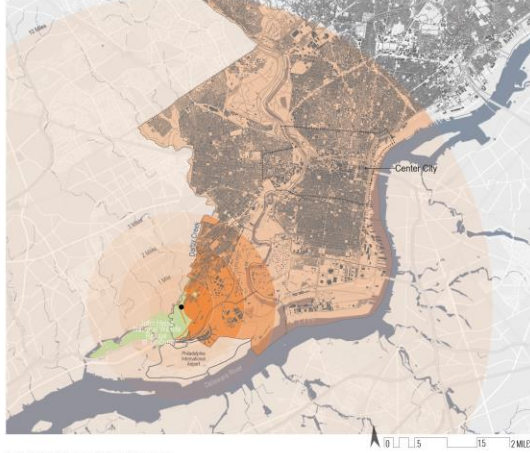


FIGURE GROUND, GREEN SPACES, WATER, SACRED SPACES

All residents live within a 1/2 mile walk to a park or other open space.

EASTV
1990-

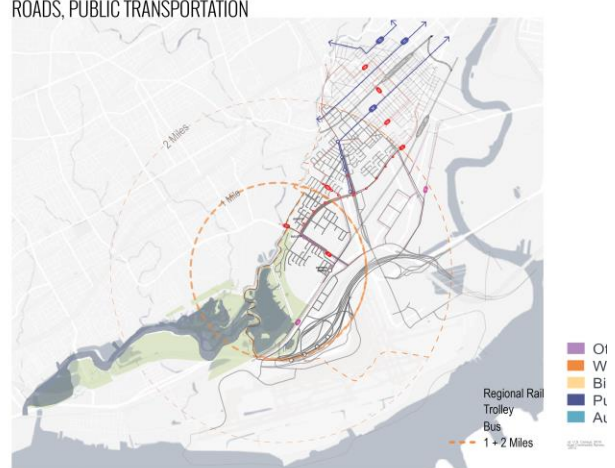
EASTV
1990-

HOW

NEIGHBORHOOD SCALE



ROADS, PUBLIC TRANSPORTATION



HOW DO YOU GET THERE BY TRAIN SCENIC ROUTE



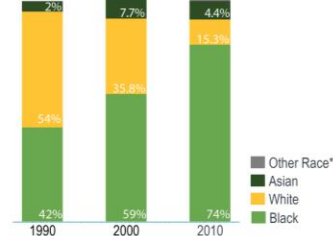
TRAIN STOP: 85TH ST.

PRIVATE PROPERTY

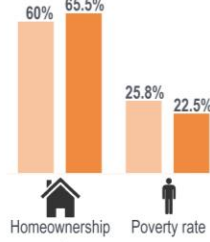
PRIVATE PROPERTY

RESIDENTIAL STREET

VICK POPULATION TRENDS BY RACE, 2010



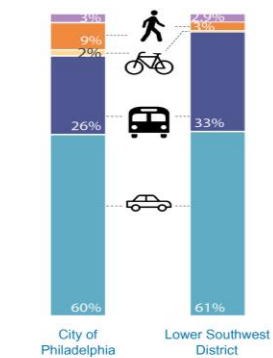
KEY COMPARISONS BETWEEN EASTWICK AND THE CITY OF PHILADELPHIA, 2013



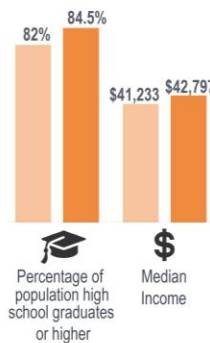
VICK LATINO POPULATION, 2010



RESIDENTS GET TO WORK



Public Transit
Bike
Car
Walk
Other



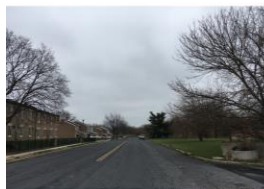
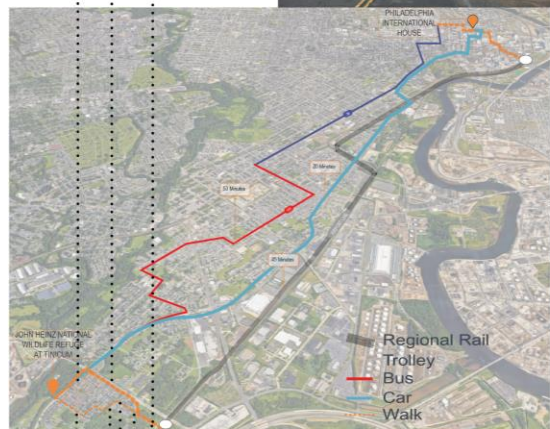
City of Philadelphia
Eastwick

ARRIVAL BY TRAIN
VIA GOOGLE MAPS:
LINDBERGH BLVD.



84TH ST.

TRAIN STOP - 85TH ST.



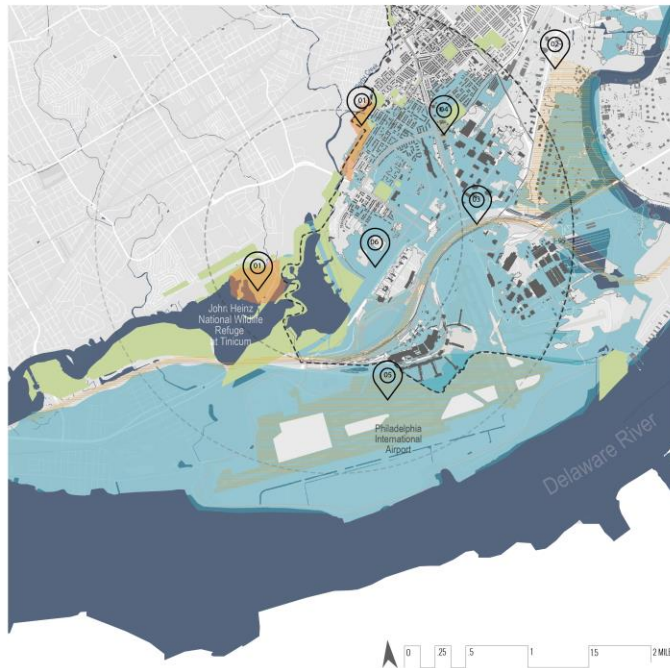
RESIDENTIAL STREET

BARRIERS TO PEDESTRIAN ARRIVAL

1. No sense of arrival
2. No way finding assistance
3. Dangerous road crossing
4. Entry not pedestrian friendly

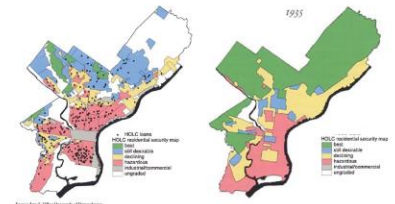
URBAN WILDLIFE REFUGE PARTNERSHIP: A CASE STUDY IN RECONNECTING AN URBAN COMMUNITY TO NATURE

EASTWICK: ENVIRONMENTAL INJUSTICE

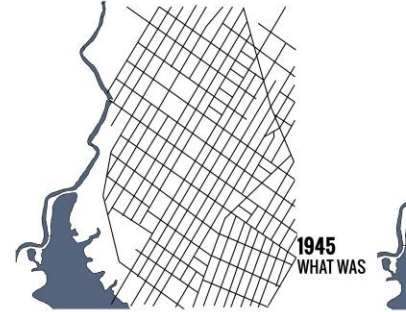


REDLINING

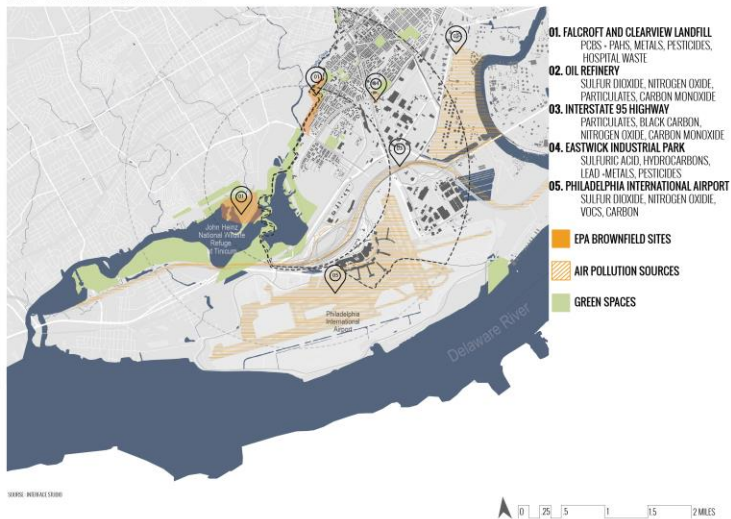
"In 1949, the (Philadelphia Redevelopment Authority) could be relocated to a new, planned community in I would not only siphon off the black overflow but we burgeoning Negro population could be stuffed." (MC)



URBAN RENEWAL



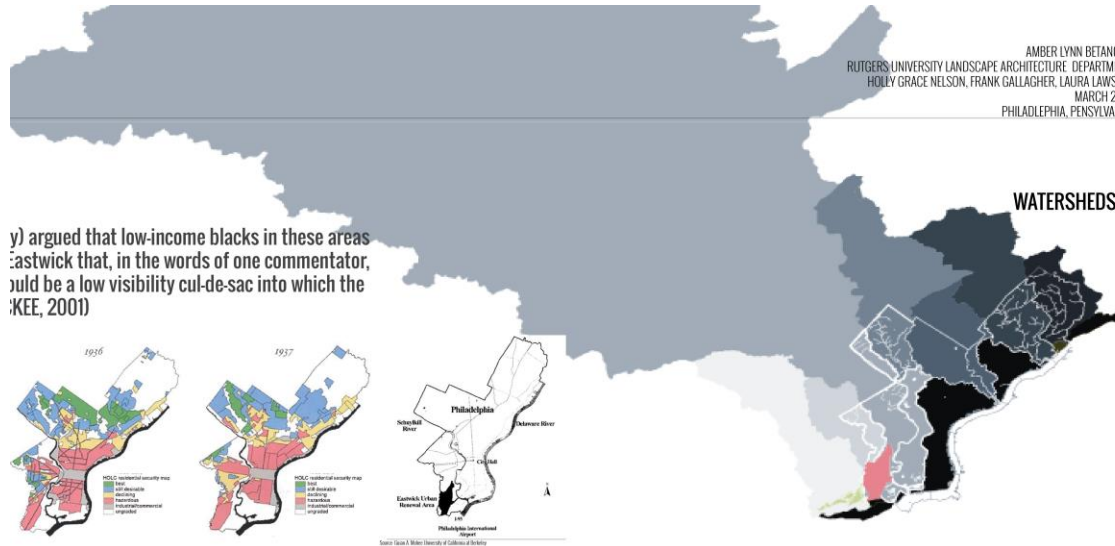
AIR • WATER POLLUTANTS



HISTORIC WETLANDS



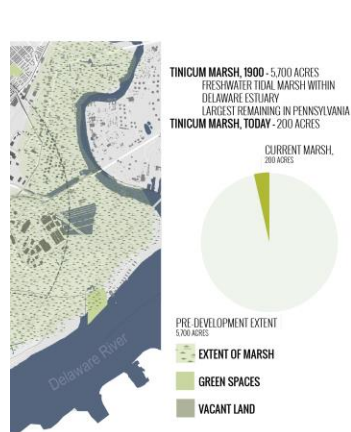
AMBER LYNN BETANCES
RUTGERS UNIVERSITY LANDSCAPE ARCHITECTURE DEPARTMENT
HOLLY GRACE NELSON, FRANK GALLAGHER, LAURA LAWSON
MARCH 2017
PHILADELPHIA, PENNSYLVANIA



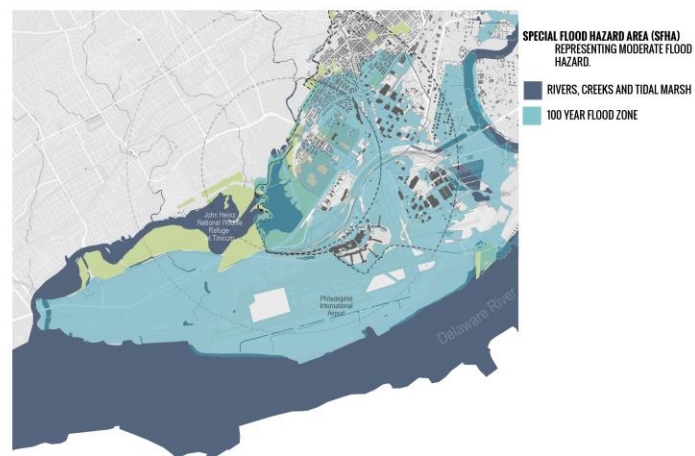
y) argued that low-income blacks in these areas
Eastwick that, in the words of one commentator,
ould be a low visibility cul-de-sac into which the
(KEE, 2001)



"As a small boy i could see there were some changes, they were bringing in trucks filled with soil. We didn't know what was going. It looked like **World War II**, bomb out, because all the houses were torn and destroyed, we were one of the last families to leave and it was *traumatizing*. As a kid, I woke up one morning walked outside and saw all the houses destroyed and thats when it really hit me that Elmwood (Eastwick) was **gone**." Terry Williams, Eastwick Friends and Neighbors Coalition President



FLOODING

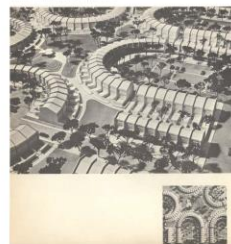


0 25 5 1 15 2 MILES

0 25 5 1 15 2 MILES

URBAN WILDLIFE REFUGE PARTNERSHIP: A CASE STUDY IN RECONNECTING AN URBAN COMMUNITY TO NATURE

EASTWICK DESIGN CONCEPT



SOURCE: WEST BETHLEHEM, ILLUSTRATION: ROSS/STREIBER



In my backyard there was a great way into the refuge. A lot of the animals, rabbits, raccoons, possums, all kinds of



1. CAPTURE STORM WATER
2. REDUCE FLOODING
3. CONNECT WITH REFUGE
4. RECREATIONAL OPPORTUNITIES
5. NATURE RESPIRE

field, and I could go into my back yard into the Heinz. As boys we used to explore, Kinda like Huckleberry Fin, we used to explore and go all the migrants that came used to fish and even my dad, they used to trap turtles. This was their supermarket. Carp, snapping turtles, pheasants, nds of fruit trees, apple cherries, black berries and strawberries. Terry William, Eastwick Friends and Neighbors Coalition President



Appendix

Interview Consent Form with Audio/Visual Recording

I am Amber Betances in the department of Landscape Architecture at Rutgers University, and I am conducting interviews for my thesis. I am studying research on the historic connections between John Heinz and the community of Eastwick.

During this study, you will be asked to answer some questions as to how whether or not you used the federal landscape growing up in Eastwick. This interview was designed to be approximately a half hour. However, please feel free to expand on the topic or talk about related ideas. Also, if there are any questions you would rather not answer or that you do not feel comfortable answering, please say so and we will stop the interview or move on to the next question, whichever you prefer.

This research is confidential. Confidential means that the research records will include some information about you and this information will be stored in such a manner that some linkage between your identity and the response in the research exists. Some of the information collected about you includes your name and the area in Eastwick that you grew up. Please note that we will keep this information confidential by limiting individual's access to the research data and keeping it in a secure location on my password secured laptop. The data gathered in this study are confidential with respect to your personal identity unless you specify otherwise.

The research team and the Institutional Review Board at Rutgers University are the only parties that will be allowed to see the data, except as may be required by law. If a report of this study is published, or the results are presented at a professional conference, you will be notified and I will express the format in which I will present. All study data will be kept until the publication of my thesis which is scheduled for the end of summer.

You are aware that your participation in this interview is voluntary. You understand the intent and purpose of this research. If, for any reason, at any time, you wish to stop the interview, you may do so without having to give an explanation.

The risks of participation include: Memories of the neighborhood may cause you grief or discomfort.

You have been told that the benefits of taking part in this study may be: Increase connection and participation in John Heinz for future generations. However, you may receive no direct benefit from taking part in this study.

The recording(s) will be used for analysis by the research team or possible use as a teaching tool to those who are not members of the research staff.

The recording(s) will include a full facial picture and your name and the duration of your residency in Eastwick, unless specified otherwise. If you say anything that you believe at a later point may be hurtful and/or damage your reputation, then you can ask the interviewer to rewind the recording and record over such information OR you can ask that certain text be removed from the dataset/transcripts.

The recording(s) will be stored in a password secured computer, labeled with name or other identifiable information. The recordings will be kept destroyed upon publication of study results.

For IRB Use Only. This section should be included on the consent form and cannot be altered except for updates to the version date.

IRB Stamp Box



IRB Stamp Box



Version Date: v1.0
Page 1

"This informed consent form was approved by the Rutgers University Institutional Review Board for the Protection of Human Subjects on October 16, 2016. Currently, there is no expiration on the approval of this form".

If you have any questions about the study or study procedures, you may contact myself at:

Amber Betances
Amber.Betances@gmail.com
201.360.1543
Blake Hall
93 Lipman Drive
New Brunswick, NJ 07013

You may also contact my faculty advisor:
Holly Nelson
Hgrace@rci.rutgers.edu
848.932.9317
Blake Hall
93 Lipman Drive
New Brunswick, NJ 07013

If you have any questions about your rights as a research participant, you can contact the Institutional Review Board at Rutgers (which is a committee that reviews research studies in order to protect research participants).

Institutional Review Board
Rutgers University, the State University of New Jersey
Liberty Plaza / Suite 3200
335 George Street, 3rd Floor
New Brunswick, NJ 08901
Phone: 732-235-5806
Email: humansubjects@crsp.rutgers.edu

You will be offered a copy of this consent form that you may keep for your own reference.

Once you have read the above form and, with the understanding that you can withdraw at any time and for whatever reason, you need to let me know your decision to participate in today's interview.

Your signature on this form grants the investigator named above permission to record you as described above during participation in the above-referenced study. The investigator will not use the recording(s) for any other reason than that/those stated in the consent form without your written permission.

Subject (Print) Leah Williams
Subject Signature [Signature] Date 11/18/16
Principal Investigator Signature [Signature] Date 11/18/16

For IRB the only. This Section must be included on the Consent Form and cannot be altered except per updates to the Version Date.



Version Date: v1.0
Page 2

"This informed consent form was approved by the Rutgers University Institutional Review Board for the Protection of Human Subjects on October 16, 2016; Currently, there is no expiration on the approval of this form".

Bibliography

- Cahn, Amy Laura. "On Retiring Blight as Policy and Making Eastwick Whole." *Harvard Civil Rights - Civil Liberties Law Review*, 2014. (Accessed on September 30, 2016)
- City of Philadelphia. "Philadelphia Redevelopment Authority History." *Philadelphia Redevelopment Authority*, 2016.
<https://www.philadelphiaredevelopmentauthority.org/about-us/history>.
- "Community Engaged in Clearview Landfill Cleanup Process." *Eastwick Friends & Neighbors Coalition: Eastwick Community Coalition in Southwest Philadelphia.*, October 23, 2014.
<https://eastwickfriends.wordpress.com/2013/08/23/epareleasesclearviewcleanup/>
 (Accessed October 26, 2017)
- Department of the Interior. "AMERICA'S GREAT OUTDOORS: Salazar Releases 50 State Report Highlighting Projects to Promote Conservation, Outdoor Recreation." *DOI.Gov*, 2011. <https://www.doi.gov/news/pressreleases/AMERICAS-GREAT-OUTDOORS-Salazar-Releases-50-State-Report-Highlighting-Projects-to-Promote-Conservation-Outdoor-Recreation>. (Accessed February 27, 2017)
- Dietsch, Alia M., Natalie R. Sexton, Andrew W. Don Carlos, Holly M. Miller, Lynne Koontz, and Adam N. Solomon. "National Wildlife Refuge Visitor Survey Results." National Fish and Wildlife Service, 2011.
- Dungy, Camille T. *Black Nature: Four Centuries of African American Nature Poetry*. University of Georgia Press, 2009.
- "Eliminating 'Blight' in Modern Urban Planning." *Eastwick Community Coalition in Southwest Philadelphia*, August 4, 2016.
<https://eastwickfriends.wordpress.com/2016/08/15/eliminating-blight-in-modern-urban-planning/>.
- Epstein, Jim. "The Tragedy of Urban Renewal." *Reason.com*, September 28, 2011.
<http://reason.com/reasontv/2011/09/28/urban-renewal>.
- Finney, Carolyn. "Black Faces, White Spaces: African-Americans and the Great Outdoors." University of California Berkeley, n.d.
- Finney, Carolyn. *Black Faces, White Spaces: Reimagining the Relationship of African Americans to the Great Outdoors*. University of North Carolina Press, 2014.
- Floyd, Myron, Danielle Ross-Winslow, Eric Thompson, Natalie Sexton, Alia Dietsch, and Katharine Conlon. "Barriers and Strategies to Connecting Urban Audiences to Wildlife and Nature: Results from a Multi-Method Research Project." *North Carolina State University*, n.d.

- Gates, Henry Louis Jr. "The Truth Behind '40 Acres and Mule.'" *PBS*, 2013.
<http://www.pbs.org/wnet/african-americans-many-rivers-to-cross/history/the-truth-behind-40-acres-and-a-mule/>. (Accessed February 21, 2017)
- Giblett, Rob. *Postmodern Wetlands Culture, History, Ecology*. Edinburgh University Press, 1996.
- Guertin, Stephen. "Chapter 1 Urban Wildlife Conservation Program Policy." United States Fish and Wildlife Service, 2015.
- Heavans, Alan J. "Town By Town: Eastwick Conveniently Located but Feeling Overlooked." *Philly.com*, August 4, 2013.
http://www.philly.com/philly/business/real_estate/town-by-town/20130804_Town_By_Town_Eastwick_conveniently_located_but_feeling_overlooked.html.
- "History of the Department of the Interior." *Outside Magazine*, n.d.
<https://www.outsideonline.com/1859351/history-department-interior#slide-1>. (Accessed on January 24, 2017)
- "History of the Interior." *U.S. Department of the Interior*, 2016.
<https://www.doi.gov/whowere/history>. (Accessed on September 30, 2016)
- John Heinz National Wildlife Refuge. "Understanding Urban Audiences Community Workshop Results for John Heinz NWR at Tinicum." *United States Fish and Wildlife Service*, November 2014.
- Mapping Inequality. "Philadelphia Redlining in New Deal America," n.d.
<https://dsl.richmond.edu/panorama/redlining/#loc=10/40.0150/-75.1375&opacity=0.8&text=bibliograph>. (Accessed on September 30, 2016)
- Maule, R. Bradley. "Southwest Philly Neighborhood: Eastwick." *Phillyskyline.com*, 200, 200–200, 2009AD. <http://phillyskyline.com/legal.htm>. (Accessed on September 30, 2016)
- Mckee, Guian A. "Liberal Ends Through Illiberal Means: Race, Urban Renewal, and Community in the Eastwick Section of Philadelphia." *Sage* 27, no. 5 (July 2001): 547–83. <http://journals.sagepub.com/doi/pdf/10.1177/009614420102700501>.
- Philadelphia 2035. "Lower Southwest City Planning," n.d
http://www.phila.gov/CityPlanning/plans/District%20Plans%20Libra/LSW_ALL_06142016_reduced.pdf. (Accessed on September 30, 2016)
- Philadelphia Speaks. September 26, 2012
<http://www.philadelphiaspeaks.com/threads/not-sure-where-to-put-this-is-this-a-safe-area.32908/#post-535527> (Accessed on September 30, 2016)
- Russell, Edmund, and Sally K. Fairfax. *Guide to U.S. Environmental Policy*. Thousand

Oaks, California: CQ Press, 2014.

Staff, History.com. "Great Migration." *History.com*, 2010.
<http://www.history.com/topics/black-history/great-migration>. (Accessed February 21, 2017)

Taylor, Dorceta E. *The Rise of the American Conservation Movement. Power Privilege, and the Environmental Protection*. Durham and London: Duke University Press, Kindle Cloud Reader E-Book. 2016.

Taylor, Katherine. "Discovering Nature With Philly's Public Schools" USFWSNORTHEAST.WORDPRESS.COM May 1, 2015
<https://usfwsnortheast.wordpress.com/2015/05/01/discovering-nature-with-phillys-public-schools/> (Accessed on April 5, 2017)

———. *Toxic Communities: Environmental Racism, Industrial Pollution and Residential Mobility*. New York and London: New York University Press, 2014.

Thomson, Gale. "Department of the Interior Established." *Encyclopedia.com*, 2006.
<http://www.encyclopedia.com/environment/energy-government-and-defense-magazines/department-interior-established>. (Accessed January 24, 2017)

United States Census. "Philadelphia, PA." *Census.gov*, 2016.
<http://www.census.gov/quickfacts/table/PST045216/00>. (Accessed February 21, 2017)

"Urban Redevelopment." Dictionary of American History. *Encyclopedia.com*. (Accessed February 22, 2017) <http://www.encyclopedia.com/history/dictionaries-thesauruses-pictures-and-press-releases/urban-redevelopment>

Urban Wildlife Refuge. "Urban Standards of Excellence." Fish and Wildlife Service, October 2014.

Utley, Robert M., and Barry Mackintosh. *The Department of Everything Else. Highlights of Interior History*. National Park Service, 1989.
https://www.nps.gov/parkhistory/online_books/utly-mackintosh/index.htm. (Accessed on January 24, 2017)

———. "The Department of Everything Else: Highlights of Interior History." National Park Service, 1989.
https://www.nps.gov/parkhistory/online_books/utly-mackintosh/index.htm.

Wren, Emily. "The Riches of Eastwick." *Grid Magazine*, September 7, 2012.
<http://www.gridphilly.com/grid-magazine/2012/9/7/the-riches-of-eastwick.html>.

Warren, Karen, Nina S. Roberts, Mary Breunig, and M. Antonia(Tony) G.

Alvarez "Social Justice in Outdoor Experiential Education: A State of Knowledge Review." *SAGE Publication* 37(1) (2014): 89–103.

-
- ¹ History of the Interior.” *U.S. Department of the Interior*, 2016.
<https://www.doi.gov/whoweare/history>. (Accessed on September 30, 2016)
- ² History of the Interior.” *U.S. Department of the Interior*, 2016.
<https://www.doi.gov/whoweare/history>. (Accessed on September 30, 2016)
- ³ Finney, Carolyn. “Black Faces, White Spaces: African-Americans and the Great Outdoors.” University of California Berkeley, n.d.
- ⁴ “History of the Interior.” *U.S. Department of the Interior*, 2016.
<https://www.doi.gov/whoweare/history>. (Accessed on September 30, 2016)
- ⁵ Utley, Robert M., and Barry Mackintosh. *The Department of Everything Else. Highlights of Interior History*. National Park Service, 1989.
https://www.nps.gov/parkhistory/online_books/utly-mackintosh/index.htm. (Accessed on January 24, 2017)
 from https://www.nps.gov/parkhistory/online_books/utley-mackintosh/index.htm
- ⁶ “History of the Interior.” *U.S. Department of the Interior*, 2016.
<https://www.doi.gov/whoweare/history>. (Accessed on September 30, 2016)
- ⁷ Utley, Robert M., and Barry Mackintosh. *The Department of Everything Else. Highlights of Interior History*. National Park Service, 1989.
https://www.nps.gov/parkhistory/online_books/utly-mackintosh/index.htm. (Accessed on January 24, 2017)
- ⁸ “History of the Department of the Interior.” *Outside Magazine*, n.d.
<https://www.outsideonline.com/1859351/history-department-interior#slide-1>. (Accessed on January 24, 2017)
- ⁹ History of the Department of the Interior.” *Outside Magazine*, n.d.
<https://www.outsideonline.com/1859351/history-department-interior#slide-1>. (Accessed on January 24, 2017)
- ¹⁰ Thomson, G. (2006). Department of the Interior Established. In *Encyclopedia.com* (Environmental Issues: Essential Primary Sources.). Retrieved from <http://www.encyclopedia.com/environment/energy-government-and-defense-magazines/departement-interior-established>
- ¹¹ Thomson, Gale. “Department of the Interior Established.” *Encyclopedia.com*, 2006.
<http://www.encyclopedia.com/environment/energy-government-and-defense-magazines/departement-interior-established>. (Accessed January 24, 2017)
- ¹² Utley, Robert M., and Barry Mackintosh. *The Department of Everything Else. Highlights of Interior History*. National Park Service, 1989.
https://www.nps.gov/parkhistory/online_books/utly-mackintosh/index.htm. (Accessed on January 24, 2017)
- ¹³ Ibid.
- ¹⁴ Taylor, D. E. (2016). *The Rise of the American Conservation Movement. Power Privilege, and the Environmental Protection*. Durham and London: Duke University Press. Kindle Cloud Reader E-Book, 4179.
- ¹⁵ Ibid., 4179
- ¹⁶ Ibid, 4179
- ¹⁷ Utley, Robert M., and Barry Mackintosh. *The Department of Everything Else. Highlights of Interior History*. National Park Service, 1989.
https://www.nps.gov/parkhistory/online_books/utly-mackintosh/index.htm. (Accessed on January 24, 2017)
- ¹⁸ Ibid.
- ¹⁹ Ibid.

-
- ²⁰ Taylor, D. E. (2016). *The Rise of the American Conservation Movement. Power Privilege, and the Environmental Protection*. Durham and London: Duke University Press. Kindle Cloud Reader E-book, 4517.
- ²¹ Ibid., 4671.
- ²² Ibid., 4713.
- ²³ Ibid., 4713.
- ²⁴ Ibid., 5020.
- ²⁵ Utley, Robert M., and Barry Mackintosh. *The Department of Everything Else. Highlights of Interior History*. National Park Service, 1989.
https://www.nps.gov/parkhistory/online_books/utly-mackintosh/index.htm. (Accessed on January 24, 2017)
- ²⁶ Dietsch, Alia M., Natalie R. Sexton, Andrew W. Don Carlos, Holly M. Miller, Lynne Koontz, and Adam N. Solomon. "National Wildlife Refuge Visitor Survey Results." National Fish and Wildlife Service, 2011.
- ²⁷ Floyd, Myron, Danielle Ross-Winslow, Eric Thompson, Natalie Sexton, Alia Dietsch, and Katharine Conlon. "Barriers and Strategies to Connecting Urban Audiences to Wildlife and Nature: Results from a Multi-Method Research Project." *North Carolina State University*, n.d.
- ²⁸ Finney, C. (2014). *Black Faces, White Spaces: Reimagining the Relationship of African Americans to the Great Outdoors*. University of North Carolina Press.
- ²⁹ Finney, Carolyn. *Black Faces, White Spaces: Reimagining the Relationship of African Americans to the Great Outdoors*. University of North Carolina Press, 2014, 36.
- ³⁰ Gates, Henry Louis Jr. "The Truth Behind '40 Acres and Mule.'" *PBS*, 2013.
<http://www.pbs.org/wnet/african-americans-many-rivers-to-cross/history/the-truth-behind-40-acres-and-a-mule/>. (Accessed February 21, 2017)
- ³¹ Ibid.
- ³² Staff, History.com. "Great Migration." *History.com*, 2010.
<http://www.history.com/topics/black-history/great-migration>. (Accessed February 21, 2017)
- ³³ Finney, Carolyn. *Black Faces, White Spaces: Reimagining the Relationship of African Americans to the Great Outdoors*. University of North Carolina Press, 2014, 38.
- ³⁴ Ibid.
- ³⁵ United States Census. "Philadelphia, PA." *Census.gov*, 2016.
<http://www.census.gov/quickfacts/table/PST045216/00>. (February 21, 2017)
- ³⁶ Department of the Interior. "AMERICA'S GREAT OUTDOORS: Salazar Releases 50 State Report Highlighting Projects to Promote Conservation, Outdoor Recreation." *DOI.Gov*, 2011. <https://www.doi.gov/news/pressreleases/AMERICAS-GREAT-OUTDOORS-Salazar-Releases-50-State-Report-Highlighting-Projects-to-Promote-Conservation-Outdoor-Recreation>.
- ³⁷ Floyd, Myron, Danielle Ross-Winslow, Eric Thompson, Natalie Sexton, Alia Dietsch, and Katharine Conlon. "Barriers and Strategies to Connecting Urban Audiences to Wildlife and Nature: Results from a Multi-Method Research Project." *North Carolina State University*, n.d.
- ³⁸ Guertin, Stephen. "Chapter 1: Urban Wildlife Conservation Program Policy." United States Fish and Wildlife Service, 2015.
- ³⁹ Ibid.
- ⁴⁰ Ibid.
- ⁴¹ Philadelphia 2035. "Lower Southwest City Planning," n.d.(Accessed on September 30, 2016)
- ⁴² Ibid.
- ⁴³ Giblett, R. (1996). *Postmodern Wetlands Culture, History, Ecology*. Edinburgh University Press.
- ⁴⁴ *Lower Southwest- Philadelphia 2035*. City Planning Commission. 2016

http://www.phila.gov/CityPlanning/plans/District%20Plans%20Library/LSW_ALL_06142016_reduced.pdf (Accessed on September 30, 2016)

⁴⁵ Giblett, Rob. *Postmodern Wetlands Culture, History, Ecology*. Edinburgh University Press, 1996.

⁴⁶ Ibid.

⁴⁷ Maule, R. Bradley. "Southwest Philly Neighborhood: Eastwick." *Phillyskyline.com*, 200, 200–200, 2009AD. <http://phillyskyline.com/legal.htm>. (Accessed on September 30, 2016)

⁴⁸ Cahn, Amy Laura. "On Retiring Blight as Policy and Making Eastwick Whole." *Harvard Civil Rights - Civil Liberties Law Reveiw*, 2014. (Accessed on September 30, 2016)

⁴⁹ Mckee, Guian A. "Liberal Ends Through Illiberal Means: Race, Urban Renewal, and Community in the Eastwick Section of Philadelphia." *Sage* 27, no. 5 (July 2001): 547- 83. <http://journals.sagepub.com/doi/pdf/10.1177/009614420102700501>.

⁵⁰ Maule, R. Bradley. "Southwest Philly Neighborhood: Eastwick." *Phillyskyline.com*, 200, 200–200, 2009AD. <http://phillyskyline.com/legal.htm>. (Accessed on September 30, 2016)

⁵¹ Cahn, Amy Laura. "On Retiring Blight as Policy and Making Eastwick Whole." *Harvard Civil Rights - Civil Liberties Law Reveiw*, 2014, 455. (Accessed on September 30, 2016)

⁵² Ibid., 454.

⁵³ Mckee, Guian A. "Liberal Ends Through Illiberal Means: Race, Urban Renewal, and Community in the Eastwick Section of Philadelphia." *Sage* 27, no. 5 (July 2001): 547- 83. <http://journals.sagepub.com/doi/pdf/10.1177/009614420102700501>.

⁵⁴ Cahn, Amy Laura. "On Retiring Blight as Policy and Making Eastwick Whole." *Harvard Civil Rights - Civil Liberties Law Reveiw*, 2014, 454. (Accessed on September 30, 2016)

⁵⁵ Mckee, Guian A. "Liberal Ends Through Illiberal Means: Race, Urban Renewal, and Community in the Eastwick Section of Philadelphia." *Sage* 27, no. 5 (July 2001): 547- 83. <http://journals.sagepub.com/doi/pdf/10.1177/009614420102700501>.

⁵⁶ Ibid.

⁵⁷ Cahn, Amy Laura. "On Retiring Blight as Policy and Making Eastwick Whole." *Harvard Civil Rights - Civil Liberties Law Reveiw*, 2014. (Accessed on September 30, 2016)

⁵⁸ Epstein, Jim. "The Tragedy of Urban Renewal." *Reason.com*, September 28, 2011. <http://reason.com/reasontv/2011/09/28/urbanrenewal>.

⁵⁹ "Urban Redevelopment." Dictionary of American History. . Encyclopedia.com. (Accessed February 22, 2017)

<http://www.encyclopedia.com/history/dictionaries-thesauruses-pictures-and-press-releases/urban-redevelopment>

⁶⁰ Epstein, Jim. "The Tragedy of Urban Renewal." *Reason.com*, September 28, 2011. <http://reason.com/reasontv/2011/09/28/urbanrenewal>.

⁶¹ Philadelphia Redevelopment Authority. 2014

<https://www.philadelphiaredevelopmentauthority.org/about-us/history> (Accessed on September 30, 2016)

⁶² Mckee, Guian A. "Liberal Ends Through Illiberal Means: Race, Urban Renewal, and Community in the Eastwick Section of Philadelphia." *Sage* 27, no. 5 (July 2001): 547- 83. <http://journals.sagepub.com/doi/pdf/10.1177/009614420102700501>.

⁶³ Ibid.

⁶⁴ Ibid.

⁶⁵ Ibid.

⁶⁶ Ibid.

⁶⁷ Cahn, Amy Laura. "On Retiring Blight as Policy and Making Eastwick Whole." *Harvard Civil Rights - Civil Liberties Law Reveiw*, 2014. (Accessed on September 30, 2016)

⁶⁸ Ibid.

⁶⁹ Wren, Emily. "The Riches of Eastwick." *Grid Magazine*, September 7, 2012.

<http://www.gridphilly.com/grid-magazine/2012/9/7/the-riches-of-eastwick.html>. (Accessed February 27, 2017)

⁷⁰ Mckee, Guian A. "Liberal Ends Through Illiberal Means: Race, Urban Renewal, and Community in the Eastwick Section of Philadelphia." *Sage* 27, no. 5 (July 2001): 547- 83. <http://journals.sagepub.com/doi/pdf/10.1177/009614420102700501>.

⁷¹ Ibid.

⁷² Ibid.

⁷³ Wren, Emily. "The Riches of Eastwick." *Grid Magazine*, September 7, 2012.

<http://www.gridphilly.com/grid-magazine/2012/9/7/the-riches-of-eastwick.html>. (Accessed February 27, 2017)

⁷⁴ Mckee, Guian A. "Liberal Ends Through Illiberal Means: Race, Urban Renewal, and Community in the Eastwick Section of Philadelphia." *Sage* 27, no. 5 (July 2001): 547- 83. <http://journals.sagepub.com/doi/pdf/10.1177/009614420102700501>.

⁷⁵ Ibid.

⁷⁶ Ibid.

⁷⁷ ———. *Toxic Communities: Environmental Racism, Industrial Pollution and Residential Mobility*. New York and London: New York University Press, 2014, 1.

⁷⁸ Philadelphia 2035. "Lower Southwest City Planning," n.d. .(Accessed on September 30, 2016)

⁷⁹ Ibid.

⁸⁰ Cahn, Amy Laura. "On Retiring Blight as Policy and Making Eastwick Whole." *Harvard Civil Rights - Civil Liberties Law Reveiw*, 2014, 471. (Accessed on September 30, 2016)

⁸¹ Ibid., 471.

⁸² Ibid., 471.

⁸³ Heavens, Alan J. "Town By Town: Eastwick Conveniently Located but Feeling Overlooked." *Philly.com*, August 4, 2013.

http://www.philly.com/philly/business/real_estate/town-by-town/20130804_Town_By_Town_Eastwick_conveniently_located_but_feeling_overlooked.htm

1.

⁸⁴ *Community Engaged in Clearview Landfill Cleanup Process* " Eastwick Friends & Neighbors Coalition: Eastwick Community Coalition in Southwest Philadelphia., October 23, 2014. <https://eastwickfriends.wordpress.com/2013/08/23/epareleasesclearviewcleanup/> (Accessed October 26, 2017)

⁸⁵ Ibid.

⁸⁶ Ibid.

⁸⁷ Philadelphia Speaks. September 26, 2012 <http://www.philadelphiaspeaks.com/threads/not-sure-where-to-put-this-is-this-a-safe-area.32908/#post-535527> (Accessed on September 30, 2016)

⁸⁸ *Community Engaged in Clearview Landfill Cleanup Process* " Eastwick Friends & Neighbors Coalition: Eastwick Community Coalition in Southwest Philadelphia., October 23, 2014. <https://eastwickfriends.wordpress.com/2013/08/23/epareleasesclearviewcleanup/> (Accessed October 26, 2017)

⁸⁹ "Eliminating 'Blight' in Modern Urban Planning." *Eastwick Community Coalition in Southwest Philadelphia*, August 4, 2016.

<https://eastwickfriends.wordpress.com/2016/08/15/eliminating-blight-in-modern-urban-planning/>. (Accessed on January 28, 2017)

⁹⁰ Ibid.

⁹¹ Philadelphia 2035. "Lower Southwest City Planning," n.d. .

http://www.phila.gov/CityPlanning/plans/District%20Plans%20Library/LSW_ALL_06142016_reduced.pdf (Accessed on September 30, 2016)

⁹² Ibid.

⁹³ Ibid.

⁹⁴ John Heinz National Wildlife Refuge. “Understanding Urban Audiences Community Workshop Results for John Heinz NWR at Tinicum.” *United States Fish and Wildlife Service*, November 2014.

⁹⁵ Taylor, Katherine. “Discovering Nature With Philly’s Public Schools”
USFWSNORTHEAST.WORDPRESS.COM May 1, 2015 (Accessed on April 5, 2017)