

CONNECTING ENVIRONMENTAL JUSTICE AND PRISONS
A CRITICAL LOOK AT SOCIAL MOVEMENTS,
ENVIRONMENT AND MASS INCARCERATION

by

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ABSTRACT

Connecting Environmental Justice and Prisons:
A critical look at social movements, environment and mass incarceration

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This thesis research, the final product of my Master's of Environmental Studies (M.E.S.) graduate degree at The Evergreen State College, connected environmental justice, environmental programs in prisons, and prison ecology. As part of this work, I shared results from statistical analyses of five years of lecture series participant surveys that highlight the impacts of the SPP Science and Sustainability Lecture Series and the perspectives of incarcerated students at Washington Corrections Center for Women and Stafford Creek Corrections Center. Lecture series students who completed surveys showed increased understanding of and positive attitudes toward the environment, lecture topics, and discussing the two with other prisoners. This study also explored incarceration rates in Washington State as they relate to race and distributional justice and found higher rates of incarceration of the Black population and lower rates of incarceration of the White population (compared to the national average). Qualitative findings in this study uncover cases of ecological pollution and potential greenwashing in state prisons across Washington. My research pulled from and connected environmental justice, mass incarceration, sustainability, environmental education, anti-racism and anti-capitalism scholarship and concluded with an argument for the environmental rights of prisoners and significance of EJ within environmental education programs in prisons.

KEYWORDS

environmental justice, environmental racism, prisons, prisoner rights, greenwashing, whitewashing, social movements, academia, grassroots, activism, community, accessibility, institutional racism, government agencies, prison ecology, justice, mass incarceration, environmental education, green jobs, prison programs, just sustainability, systems of oppression, critical studies, survey data and analysis, interdisciplinary studies, feminist geography, Critical Race Theory, criminal justice system, green prison paradox

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CHAPTER 1—INTRODUCTION

Recent reports have shown ecological damage from Washington prison operations and construction. Environmental impacts of the state's prisons overlap with racial disparities in rates of incarceration, which I argue demands prison programs, particularly those with an environmental focus, center marginalized people and promote justice if they are to exist within the larger context of WA prisons. Environmental justice activists argue that "all people, regardless of race, ethnicity, or income should enjoy access to a safe and healthy environment" (Principles of Environmental Justice 1991); yet, incarcerated people are often disconnected from environmental justice programs, opportunities, or resources because they are not commonly offered within prisons. Even facilities that have environmentally-focused programs like those in Washington do not center environmental justice. Braz and Gilmore (2006, 45) argue that environmental justice can potentially act as "an integrative and empowering framework for a variety of movements and concerns," and this paper explores its intersections with campaigns against mass incarceration and prisons. Instead of creating rigid conceptual boundaries within environmental justice, scholars say this field should instead embrace the flexibility that has always been inherent in grassroots EJ (Schlosberg 2013). Environmental justice has developed a "vocabulary of political opportunity" and significant ways of drawing attention to previously neglected inequalities which play into people's "health, well-being and quality of life" (Walker 2012, 1). Environmental and social injustices are intertwined, and it is important to explore and address this interrelationship through justice-centered work and scholarship. This study also opens the discussion around potential complicity of

higher education institutions in perpetuating oppressive structures, particularly when these structures are ignored or rendered invisible in efforts to bring classrooms to prisons.

I argue the need for an expansion of the environmental justice discussion while addressing overlapping concerns of injustice unique to incarcerated populations and prisons. The goal is to broaden the scope of existing conceptual, theoretical and empirical frameworks of EJ scholarship to include prisoners and the environments they occupy and are exposed to through incarceration and the criminal justice system. The overarching research question asks how environmental justice and prisons are connected, and this paper answers sub-questions to find these connections. The sub-questions explore how SPP programs, such as the Science and Sustainability Lecture Series, functions within carceral settings; attitudes, interests and knowledge of prisoners who participate in this program; and the relationship between SPP programs and the potential for EJ inside of prisons. Further sub-questions examine incarceration rates in Washington State and cases of environmental degradation and human rights violations linked to WA prisons. These questions are considered through a case study and mixed methods critique of Washington prisons and the broader context of the Prison Industrial Complex and greenwashing.

Specifically, I examine a state program called the Sustainability in Prisons Project juxtaposed with the broader context of Washington incarceration demographics, ecological pollution and greenwashing. These dynamics are examined through an EJ lens. By investigating the overlaps between environment, incarceration, and social justice, this paper highlights a gap in research, policy and action related to the environmental rights of prisoners. Including but also moving beyond issues of injustice (environmental bads) and critiques of greenwashing within a racist criminal justice system, this research examines

the issue of access to EJ perspectives (environmental goods) for environmental education programs inside prisons. Community participation and perspective is important to environmental justice research, therefore, this study highlights the voices of incarcerated people as they relate to environment, environmental topics, and peer-to-peer discussion of the two. By analyzing SPP surveys completed by incarcerated students at WCCW and SCCC (Washington state prisons) for the first time, findings reveal some impacts these programs have for involved prisoners interested in environmental opportunities, education and resources. Survey results also offer insight to the environmental interests, attitudes, and education of incarcerated people. These findings simultaneously act to eliminate stereotypes of prisoners as ‘uneducated’, ‘uninterested’ and ‘unsustainable’, and highlight the perspective of a community that is often neglected in the white-dominated, mainstream discussion of sustainability and environment.

In Chapter 2—Literature Review, I provide a review of the pertinent literature including the conceptualization of environmental justice and social movement connections between EJ and prisons. I then connect this to a review of literature on incarcerated populations, mass incarceration, education programs in prisons and the ‘Green Prison Paradox’. Chapter 3—Methodology discusses the detailed survey design for the SPP case study and the documents I examined for the qualitative textual analysis. Chapter 4—Results and Discussion focuses on the quantitative analysis of SPP survey data along with the critical analysis of Washington prisons. In Chapter 5—Conclusion, I conclude with the assertion that programs in prisons should center justice in order to address larger systems of oppression and power dynamics within prisons.

REFLEXIVE STATEMENT

This research is interdisciplinary in nature and draws on feminist methods and methodologies. Feminist geographers often work to expose the “complexities of power, privilege, oppression and representation” and share “the political and intellectual goal of socially and politically changing the world they seek to understand” (England 2014, 365). Although this study does not focus on gender, I do attempt a feminist approach to research methods and for that reason and the ones outlined in Chapter 3, I want to be as transparent as possible about my positionality in this research.

I am speaking as a graduate student, previous program coordinator of the Sustainability in Prisons Project’s (SPP) Science and Sustainability Lecture Series, and prison abolitionist/social justice activist, using an environmental justice lens. I hold a B.S. in Earth System Science (Climate Change) with a focus in Human Dimensions and Social Impacts. I have conducted socio-environmental research with academic institutions, NGOs, and government agencies including the University of Alabama in Huntsville, Water Center for the Humid Tropics of Latin America and the Caribbean (CATHALAC), and NASA DEVELOP. Some of my research includes a UAH sustainability assessment and suggestions report, climate change vulnerability mapping in Nepal to support aid organizations providing resources to climate-impacted communities, tracking impacts of climate change for local sugarcane growers in Panama through GIS and satellite data, and the intrinsic connections between capitalism and socio-environmental degradation/exploitation. I have also worked briefly with the Washington State Department

of Ecology, and more recently the Washington Department of Corrections through my position with SPP.

This is my first research experience to engage deeply with Critical Race Theory and addressing larger systems of oppression outside of capitalism. I must credit much of this to the past few years of Black Lives Matter activism and the knowledge they have spread through their own acts of liberation and empowerment. Throughout this research and my time working in an education program in prisons, I found myself having to continuously check and process my privilege as a white person in the U.S. and as a white scholar in this field; however, I could not ignore the clear racialization state agencies are participating in, the violence people of color are experiencing on multiple fronts, and the voices inside telling me to speak up as an ally. I thank the many voices across the country who have helped and continue to teach me.

By engaging with systems of oppression, I've found a deeper understanding of my own intersections of privilege and oppression. I realized that these systems intersect and weigh differently on everyone. There are some experiences I will never know or understand, especially when it comes to racism in the United States. But I will try my best to share what I witness when appropriate, and speak up the best way I know how. I'm continuously learning how to decolonize my perspective and address the world with anti-racism/anti-oppression at the forefront. I don't always succeed and admit this part of me created many walls in the process of writing this thesis. There were times where I felt conflicted, times I needed to step away, times I was openly angry, and times I felt the world in front of me crumbling.

It should also be mentioned that I found much of who I am and a solid voice for myself throughout this process. I am a non-binary queer scholar, activist, and survivor. I am a first generation college graduate who chose debt and education in order to get out of homelessness and poverty. I am a product of the prison system myself. My father was incarcerated when I was born and he died of a massive stroke and heart attack a few years after he was released. I grew up in Deep South poverty with my momma, single and working multiple jobs. It wasn't until I began speaking to prisoners through my work with SPP and WA-DOC that I realized I had neglected to see how my own life has been tied to the criminal justice system. These identities influence my day-to-day and my experiences cannot be disconnected from my academic work, nor do I think they should be.

CHAPTER 2—LITERATURE REVIEW

THE RISE OF ENVIRONMENTAL JUSTICE AND CONTEMPORARY MOVEMENTS

The Environmental Justice Movement: grassroots activism and communities of color

The concept, movement, and act of environmental justice arose as a response from communities of color against environmental racism and inequity. Over time, environmental justice movements and scholarship have expanded to include issues that not only disproportionately impact people of color, but are also linked to class, gender and other intersections of oppression, marginalization and identity-based violence. The

movement has grown into a multicultural network of community groups that calls on racial, class, and gender justice necessary to *just* solutions to environmental crises.

With the globalization of environmental justice came a new wave of climate justice activism that has continued to explore the intersections of environmental justice to include the disproportionate impacts climate change and environmental inequity have on people of color and working poor across the globe. Most recent intersections have begun to call attention to environmental injustice cases such as incarcerated populations being employed at low wages by state agencies to fight increasing wildfires due to climate change (Klein 2015).

While environmental injustice in the United States can be traced back as far as colonial land grabs from Indigenous people, the emergence of the Environmental Justice Movement is characterized by the convergence of civil rights and environmental activism in the 1980s (Walker 2012). It is important to note that prior movements, including the Red Power Movement (origins of the American Indian Movement) and the Chicano Movement, constitute environmental justice struggles. However, environmental justice did not hit mainstream consciousness and conversation until the 1982 case of Warren County, North Carolina, described below, and subsequent research and activism. Since then scholars and activists have explored environmental justice movement connections with several other justice coalitions including anti-toxics, Indigenous rights, labor rights, occupational health and safety, traditional environmentalists (Cole and Foster 2001), solidarity, general social and economic justice movements (Faber and McCarthy 2003), immigrant rights, local food and food justice, just energy movements (Schlosberg 2013), frontline community movements and—more recently anti-prison movements.

The case of Warren County, North Carolina is seen as a galvanizing moment in the conceptualization of a solution to environmental racism and injustice now known as *environmental justice*. In 1982, activists from civil rights organizations partnered with locals to fight against the dumping of 120 million pounds of PCB-contaminated soil in the state's county with the highest proportion of African Americans (Mohai 2009). This movement brought about national attention to issues that mainstream middle-class white environmentalists had long been ignoring, and in many cases continue to ignore. At its root, the case showed that people of color and poor people in the United States deal with ecological risks far greater than what middle-class white environmentalism had acknowledged.

Following the Warren County case, two major studies came out in 1983 and 1987. The U.S. General Accounting Office (GAO) conducted a study of siting locations of hazardous materials in southern states, confirming what many communities had already noted: black communities were host to a disproportionate amount of waste facilities (Mohai 2009). The United Church of Christ Commission for Racial Justice (CRJ) followed the GAO research with a national study showing that this disproportionate impact was not just a trend in southern states, but was happening nationally. The CRJ's study, *Toxic Wastes and Race in the United States*, showed that race was the most significant factor influencing the siting of hazardous waste facilities across the United States (Mohai 2009). These early report findings sparked more awareness and momentum in the early Environmental Justice Movement.

In 2007, twenty years after the CRJ's study, contemporary research followed up with an analysis of toxic waste and race in the U.S. between 1987 and 2007. The study

revealed that nationally “racial disparities in the distribution of hazardous wastes are greater than previously reported” (Bullard, Maohai, Saha and Wright 2007, 45). Racial disparities were found for people of color as a whole within 9 out of 10 EPA regions, 90% of states with hazardous waste facilities have disproportionately more people of color in surrounding host neighborhoods, and further racial disparities in environment. The report outlined “states with the 10 largest differences” in percentages of people of color in host neighborhoods (communities that are host to nearby hazardous facilities) versus in non-host neighborhoods. Washington State ranked #6 in the nation (53% vs. 20%) following Michigan, Nevada, Kentucky, Illinois, Alabama and Tennessee (Bullard et al 2007).

The contemporary Environmental Justice Movement has been broadly characterized as “efforts by people of color, poor people, and Third World peoples to address issues of access to and control over the environment, *broadly defined*” (see section ‘Environment and Environmentalism: the EJ frame’ for EJ definition of environment) (Turner & Pei Wu 2002, 1). Schlosberg (2013) says the term has expanded with time: horizontally to include a wider range of environmental issues, vertically into “examinations of the global nature of environmental injustice...and conceptually to the human relationship with the non-human world” (37). Expansion and inclusion has been a long-running component of the Environmental Justice Movement, and this continues today. Schlosberg explains that while fighting the disproportionate distribution of toxins and environmental bads is still at the root of environmental justice, contemporary environmental justice not only targets issues of environmental bads, but has added

demands for providing opportunities and resources (environmental goods) within communities.

This expansion has set the stage for understanding environment and nature as intrinsically linked to and determinant of conditions for social justice (Schlosberg 2013). People and communities who face the impact of environmental injustice commonly face additional, overlapping inequities. By creating justice-oriented environmental landscapes, space is also created for addressing the issues of social injustice within that environment. For example, adding public transportation lines that connect poor neighborhoods to other areas of the city might contribute to more sustainable transportation options and provide a public service many wealthy communities already have; simultaneously, it may also open up economic and social opportunities for those living in poor neighborhoods. Affordable transportation could expand economic options for people who previously could not access job opportunities across town because of lack of accessible transport. Seeing the connection between just environments and just societies is important to the current environmental solutions discussion.

Environmental Justice: academia & government

In the United States, activists and movements of frontline communities are at the root of struggles for environmental justice, but academia and government have become increasingly involved in this realm of EJ work. Since the rise of the EJ Movement, environmental justice has emerged as a strong field of study within post-secondary institutions and has even made its way into government policies.

Academia has also expanded the EJ term (Table 1) and its use in mainstream; I suggest the addition of prison environments, operation, construction and prisoners who “live, work, learn...” in these spaces. In 1990, Robert Bullard published *Dumping in Dixie*, the first major study to address historical patterns of segregation that contributed to environmental racism. Since then, subsequent research and academia has proven what Warren County brought up in 1982: there is a connection between environmental contamination, race and socioeconomic status (Brown 1995; Szasz and Meuser 1997; Evans and Kantrowitz 2002; Mohai, Lanz, Morenoff, House, and Mero 2009; Mohai

Academic Expansion of Environmental Justice	
SOCIAL	ENVIRONMENTAL
race, ethnicity, class, income, deprivation, gender, single parent families, households in social housing, older people, children, Indigenous peoples, disability, deafness, special needs, future generations, labor suggested additions: + INCARCERATED POPULATIONS + MASS INCARCERATION	air pollution, accidental hazardous releases, waste landfills, waste incinerators, contaminated land, brownfield land, urban dereliction, lead in paint and pipes, flooding, noise, drinking water quality, river water quality, transport, forest fires, whaling, wildlife reserves, agriculture, greenspace, outdoor recreation, mineral extraction, hog industry, emissions trading, oil drilling and extraction, access to healthy food, fuel poverty, wind farms, nuclear power stations, climate change, trade agreements, alcohol retail outlets, biodiversity and genetic resources, genomics, land reform suggested additions: + ENVIRONMENTAL ISSUES SPECIFIC TO PRISON ENVIRONMENTS, PRISONERS, AND LOCAL HABITATS
<i>TABLE 1. Academic expansion of environmental justice</i> Walker 2012, emphasis added (potentially significant to prisons and prisoners)	

2009). During the same year Bullard's book was published, the University of Michigan hosted the Conference on Race and the Incidence of Environmental Hazards. Researchers from across the U.S. who studied "racial and socioeconomic disparities in the distribution of environmental contaminants" conducted a scientific analysis that corroborated the previous GAO and UCC studies from the 1980s (Mohai 2009, 409). Conference findings were forwarded to the United States Environmental Protection Agency (EPA), encouraging the agency to follow up with its own examination of these environmental problems and implement policies to address them.

In 1992, the EPA published their report titled *Environmental Equity: Reducing Risks for All Communities* and environmental justice policies followed publication (Mohai 2009). This study was the first time federal government had acknowledged environmental inequalities in the United States as well as the importance of addressing them. The EPA created the Office of Environmental Equity which was later renamed the Office of Environmental Justice. In 1994, the office issued Executive Order 12898 demanding all federal agencies, including but not limited to the EPA, take into account environmental justice concerns in their decision-making (Mohai 2009).

Follow-up studies have explored the EPA's connection to environmental injustice and the findings are discouraging. Cole and Foster document unequal enforcement of environmental laws that are supposed to protect people from toxic waste facilities. They found that white populations are more vigorously protected by environmental law enforcement than communities of color (Cole and Foster 2001, 57). This includes seeing faster action to address contamination/exposure, better results and penalties against polluters, and shorter wait times to be listed as clean up priorities under SUPERFUND

regulations (Cole et al. 2001). So, not only are people of color disproportionately exposed to toxic sites, but also experience unequal protection when it comes to environmental laws being enforced by government agencies.

The EJ Movement and Anti-prisons Movements “Joining Forces”

Activists from environmental justice movements and anti-prisons movements have recently begun “joining forces” to address overlapping social and environmental concerns. In the early 2000s at the Central California Environmental Justice Network annual conference, activists and community members organized around the three most pressing environmental community hazards. This was the first statewide gathering specifically focused on exploring the place for prisons within the EJ Movement. The threats were outlined by a group of youth from San Joaquin Valley during a conference workshop and their decision surprised many at the conference. They said the “three P’s” are the biggest hazards in their communities: police, pollution and prisons (Braz and Gilmore, 2006). The discussion and work around these overlapping threats contributed to the growing awareness of the similarities between anti-prisons activism and environmental justice activism. Braz et. al. (2006) say “the environmental justice movement primarily fights against racial and class discrimination in environmental policy making, the selective enforcement of environmental laws and the targeting of communities of color and poor communities for environmentally disastrous land uses, such as toxic waste disposal sites” (ibid, 96).

Related disparities in the criminal justice system are similar to those already discussed: class and race inequalities, differential enforcement of laws, and targeting of communities of color and poor communities. The dialogue around environmental threats produced a clear area of collaboration between the two movements. This continued with the *Joining Forces: Environmental Justice and the Fight against Prison Expansion* Conference bringing together farmers, farmworkers, activists from civil rights, environmental, and anti-prisons movements, among others connected to prisons and EJ. In conference workshops and discussions, the recognition arose that “poor people of California’s prison towns are not so different from the poor Californians who fill our prisons” (Braz et al 2006).

These connections demand the definition of environment be expanded to include prisons because they are “part of the landscape of everyday life” for many people (ibid, 106). Prisons are part of environment and have their own environmental concerns; they are not “out there” and removed as they are often suggested to be. Throughout the history of environmentalism and movements in the United States, environmental activists have insisted that toxic emissions, development and destroyed habitat do not occur in a “vacuum” (ibid, 107). Planning, building and operating prisons should be reviewed not as single projects, but within the context of cumulative impacts both current and projected.

Braz and Gilmore (2006, 107) argue that “during the remarkable prison buildup of the past quarter of a century, policy debates on crime and safety have become increasingly one dimensional, focusing on the individual ‘criminal’.” They go on to say that the public safety debate has become singularly focused on crime and has paid less attention to environmental factors such as healthcare, adequate wages, affordable housing

and accessible and quality education. Braz and Gilmore demand an articulation of crime and punishment within broader social, political and economic frameworks in order to properly address this issue. For example, they mention that crime prevention, when looked at within broader frameworks, could be linked to better wages, housing, and job programs. Braz et. al. (2006) consider “environmental factors” as all the conditions within which one finds oneself, and claim all are significant to the wider discussion of criminal justice. Reallocating public funding and resources away from prisons and towards community education, healthcare, housing and social services is seen as a criminal justice solution that takes on frameworks beyond the singular ‘criminal’.

As Kurtz (2009, 8 emphasis added) states, “the processes that have proceeded environmental injustice have simultaneously produced uneven development, marginalized landscapes, *increased criminalization of poor people and people of color*, and the social movements that work to transform them.” Their publication, *Acknowledging the Racial State: An Agenda for Environmental Justice Research*, emphasizes the need to consider the state’s role in shaping ideas of race and racism through Critical Race Theory. For example, Omi et. al. (1994, 78) demonstrate that the EJ movement itself emerged from recognition of state institutions’ role in structuring and enforcing “a racially unjust social order.” Additionally, scholars say it is important to situate analysis and discussion around the intersections of racism and capitalism because the two are inextricably linked to social relations (Morello-Frosch 2002; Pulido 1996, 2000). In fact, “a host of EJ scholarship in this vein identifies intersecting manifestations of *racism* and *capitalism*, such as racialized labor markets (Morello-Frosch 2002; Pulido, Sidawi and Vos 1996); job blackmail (Bullard 1990); and racialized land markets” (Lord

and Shutkin 1994; Pulido 2000; Pulido et al 1996). Since research often implies but fails to problematize the state's role in processes that create disparate conditions for people along categories of race and through capitalist dynamics, I work to bring this perspective to my own research as it relates to state prisons and environment.

CONCEPTUALIZING ENVIRONMENTAL JUSTICE

Environmental Injustice: racism, capitalism, and systems of oppression

In order to understand the concept of environmental justice, we must first understand the causes and manifestations of environmental injustice since EJ is a response to this national and global trend. Early activism of the Environmental Justice Movement focused on the disproportionate siting of waste and toxic facilities in communities of color; however, in the two decades that followed Warren County, activists and scholars have expanded the geography and scope of environmental justice. The expansion includes a global recognition of environmental justice now called climate justice. This paper will restrict the discussion to environmental justice in the U.S., but future research could expand this vertically into the realm of climate.

The main focus of early environmental justice in the U.S. was the unequal distribution of environmental “bads”, but since the 1980s, more environmental justice organizations have taken to addressing issues of unequal distribution of and other areas of injustice related to environmental “goods” too. That's not to say that the EJ Movement didn't encompass other issues in its early days, just that maldistribution of environmental

toxins took center stage. More recently, recognizing environmental bads as “simply another example of social injustice” (Schlosberg 2013, 38), activists and community organizations began to focus on a range of environmental bads *and goods* in their communities.

Environmental bads are harmful inputs into the community, such as toxic pollution from industry and waste facilities, which are strongly associated with health risks. The EJ Movement targeted projects that threatened greater ecological and health risks in poor neighborhoods and communities of color and attempted to block new projects since that avenue was usually more successful than shutting down existing facilities. Over time environmental justice movements have expanded to include actions against farmworker pesticide exposure and a range of contamination and negative environmental inputs in communities of color and poor communities. Environmental goods are beneficial inputs into the community such as parks, clean air standards, environmental education programs, and green jobs. Moving from community defense against environmental bads, the EJ Movement began and continues to focus attention on policies and practices that bring about more environmental goods for communities often neglected or harmed by sustainability policies.

Environmental injustice manifests in ecological and social disadvantages for some people and privileges for others. Environmental justice recognizes the inextricable link between ecological and social systems and functioning. Drawing on EJ scholarship that applies Critical Race Theory (CRT) and examines racialized components of inequity, environmental burdens such as toxic pollution and waste facilities are disproportionately found in communities of color. At the same time, white communities bear a lower risk of

exposure and ill effects from these hazards. Environmental goods such as community gardens and parks are also unfairly divided along lines of race. Fewer of these environmental and social amenities are present in black and brown communities, yet more common in white communities. Studies have shown that even in cities known for their sustainability efforts, Seattle, Washington for example, green goods are found in neighborhoods with higher concentrations of white folks than in neighborhoods with higher concentrations of people of color (Abel and White 2011). In a 2011 study, Abel et al. found that gentrification connected to environmental injustice and “how Seattle de-industrialized, but also saw the burdens of its remaining industrial facilities fall disproportionately on some of the city’s most socially vulnerable populations” (Abel et al 2011, 5252).

This trend is linked to historical discrimination in policies and city planning as well as current practices of environmental racism. As racism has evolved in the United States, blatant acknowledged racism has become taboo in mainstream culture and people are less willing to admit or openly state racist actions or intentions. CRT helps to identify areas of racism that are institutional, systemic, separate from intention, and part of everyday experience for people of color. This perspective helps in analyzing unintentional racist outcomes of environmental actions and sustainability policies. CRT has expanded our understanding of the causes and effects of racism linked to environmental goods and bads; Kurtz (2009) argues it is necessary within environmental justice research.

Racism, also within the context of environment, expands beyond intentional acts and includes institutionalized, state-sanctioned and structural discrimination and inequity.

Cole and Foster (2001) argue that the “prevailing understanding of ‘racism’ molded by judicial constructions, is myopic in its failure to accommodate for the fact that the nature of racism has become appreciably more subtle and structural” (Cole et al 2001, 63). Judicially constructed ideas of racism involve an individual actor and purposeful actions, however, this only touches the surface of racism in the United States as racism exists with or without intention. In the past, racism could be somewhat easily traced to racist motivations, but as racial discrimination on the part of decision makers and government became punishable and forbidden by law, racism has become more structural and people are less likely to claim overtly racist views and stances (ibid, 65). They go on to say that historical spatial segregation has had “profound consequences in the distribution of social goods” (ibid, 66)

Additionally, a political economy approach to understanding environmental disadvantages and privileges has reinforced this ecological and social divide along economic boundaries. Similar to how CRT has exposed the complexities of disproportionate environmental bads and goods along racialized categories (Kurtz 2009), political economy has exposed similar trends based on class and economic power. Using the same basic examples from above, environmental bads are disproportionately found in poor communities while environmental goods are more abundant in wealthy communities. Political economists have exhaustively explored important links between capitalist systems and ecological, social, and racial inequity, highlighting causes and manifestations of environmental injustice linked to class (Faber and McCarthy 2003). Applying an intersectional approach, it is clear that poor people of color are most at risk of being exposed to environmental bads in their communities and a lack of environmental

goods. At the other end of the spectrum, wealthy white people disproportionately hold the privilege of fewer environmental burdens and more environmental benefits. The EJ Movement's focus on addressing environmental racism reflects many of the aforementioned power dynamics and structures of discrimination.

Environment and Environmentalism: the EJ frame

As described earlier, the Environmental Justice Movement has played an important role in expanding and reframing what is considered 'environment' and thus what constitutes an environmental issue. Mainstream environmentalism has long reinforced white privilege and contributed to environmental racism, but EJ has branched out to address this issue and redefine environment along more inclusive and less oppressive lines (Turner and Pei Wu 2002). For the EJ Movement, environment is not something separate from humans, narrowed to ecological components worthy of protection or conservation. In fact, early environmentalism and the concept of environment in the U.S. was strongly rooted in the experience wealthy, white males had with nature. The common narrative was that of an 'environmental other', untouched and pristine natural spaces, being conquered (colonialism), experienced and appreciated by those with the resources or ability to find themselves in view of these spaces. Similarly, the privilege these individuals held and the positions they took around environment reinforced environmental racism, benefiting wealthy, white males while people of color, poor people, women, children and other marginalized populations received environmental harms. Green spaces, wilderness and wildlife were protected but in areas

often separate from where most people commonly came into contact with environment (Taylor 2000). Environmental justice has been able to deconstruct these ideas and reinvigorate environmental movement perspectives and experiences.

Early EJ Movement advocates defined environment as “where we live, work, learn and play,” dismantling the notion that environment and nature is somehow pure and separate from humans and everyday experience. This definition of environment continues today and has influenced the way EJ activists frame environmental problems. By re-framing environment, the EJ Movement began to dismantle the privilege held in older definitions and work towards justice-oriented solutions based on their own experiences and perspectives. It is interesting to compare the environmental justice frame to older environmental frames, specifically if you ask the following questions: “what and whom do these frames include and leave out?”; “where do these frames originate?”; “how are these frames used in differing contexts and locations?”; and “who becomes more or less powerful and relevant within these frames?” (Walker 2012, 5).

To say that environmental justice is a “new” paradigm slights the important history of the concept. In 2000, Dorceta E. Taylor of Michigan University published a paper titled *The Rise of the Environmental Justice Paradigm: Injustice Framing and the Social Construction of Environmental Discourses*. Fifteen years later, ideas she outlined can be seen in the push for global climate and environmental justice. The Environmental Justice Paradigm has been central to past movements in the U.S. and globally and is linked to Indigenous values and lifestyles; however, many academics point to the 1990s as an emergent time of environmental justice thought “as a major part of the environmental discourse” (Taylor 2000). The 1990s brought about a strong EJ presence

through the establishment of an academic field, exploration and sharing of best research practices, national conferences that helped strengthen the movement as a whole, an Executive Order that attempted to institutionalize EJ in government agencies, and a powerful environmental movement centered on justice. This time period represents an amplification of environmental justice rhetoric that had previously been characterized as fringe compared to the mainstream environmental movement.

As Taylor points out, mainstream environmental activists and environmental justice activists often find themselves in very different social locations. These differential social settings impact and influence experiences and perceptions of environmental issues, how the groups address those issues, the type and availability of movement resources, and the overarching strategy and kind of movement being constructed. For example, “mainstream environmentalists who might count lawmakers among their personal, political or professional networks are more likely to use lobbying as an activist strategy, whereas environmental justice activists, with much less access to Congress and other powerful political bodies in the country, are more likely to use direct-action strategies such as protests and rallies as part of their campaigns” (Taylor 2000, 509-510).

The role of identity, not just location, is also an important component of understanding the emergence of the EJ Movement and how it differs from mainstream environmental movements. In general, social movements seek to connect “individual activist goals and identities” with those of mainstream society and cultural systems. They accomplish this by expanding the social movement identity into a realm that overlaps with society’s dominant cultural identity, making it comfortable for more people to identify with and therefore join the movement. Unlike the mainstream environmental

movement which was and is largely composed of relatively affluent white males, the Environmental Justice Movement recruited people of color and poor people and focused on finding the connections between their personal identities and their environmental justice identities (ibid, 512-513).

Mainstream environmentalists and activists often use images related to wilderness and wildlife protection to motivate supporters. The images and perspectives can be traced back to 19th century Transcendentalist environmental ideology linked to frontier experiences (i.e. colonial conquests) and has proven popular with upper and middle-class white environmentalists. However, the 19th century presented vastly different environmental experiences/connections to land for people of color, including “forced relocations, living on reservations, appropriation of land, slavery, and sharecropping.” For this reason, environmental justice activists instead evoke images rooted in social justice struggles of the civil rights movement and other struggles particular to people of color in the 1960s and 1970s, including those of “racism, appropriation of land, and the destruction of communities and cultures” (ibid, 513).

Taylor (2000) outlines paradigms as social constructions, or “ideological packages expressing bodies of thought that change over time and according to the actors developing the paradigms.” Often the actors are social movement activists trying to push discourse on the topic; sometimes they can be mainstream news sources that find a way to produce a cultural norm around the ideas they present; plus anything in between. Their research focuses on how social movements influence paradigms. They assert that the United States has experienced four major waves of environmental mobilization: the pre-movement era (1820-1913), the post-Hetch Hetchy era (1914-1959), the post-Carson era

(1960-1979), and the post-Love Canal/Three Mile Island era (1980-present). These eras of mobilization encouraged different shifts in mainstream environmental perspective, thus creating new paradigms. The pre-movement era was characterized by preservationist and conservationist ideologies. The post-Hetch Hetchy by wildlife conservation and a focus on dams (wilderness destruction and control at the hands of machinery). The post-(Rachel) Carson era by environmental issues affecting humans, and then the era that we currently find ourselves in. This last era, the post-Love Canal/Three Mile Island era, is characterized by toxic contamination in local communities and is strongly connected to issues of climate change.

Out of the waves of mobilization and coalescing of ideologies over time, Taylor (2000) finds three major social-environmental paradigms to have emerged in the United States since the mid-1800s. These paradigms are the Exploitative Capitalist Paradigm (ECP), the Romantic Environmental Paradigm (REP) and the New Environmental Paradigm (NEP). As Kuhn (1970) has written much on paradigms and his definition further emphasizes the power and relevance of paradigms: a “body of ideas, major assumptions, concepts, propositions, values and goals of a substantive area that influences the way people view the world, conduct scientific inquiry and accept theoretical formulations.” He states that paradigms are “the basis of ‘normal’ or day-to-day science. However, normal science produces anomalies that cannot be resolved within the existing paradigm. When this occurs, there is a disjuncture that creates an opening for a new paradigm to emerge to replace the old paradigm.” Taylor (2000) outlines this disjuncture within socio-environmental movements and pointed to the emergence of a new paradigm as something that occurred in relation to the Exploitative Capitalist

Paradigm, Romantic Environmental Paradigm and New Environmental Paradigm, thus creating a new, expanded paradigm—the Environmental Justice Paradigm (EJP).

The Environmental Justice Movement has helped promote the Environmental Justice Paradigm on a broad scale. Taylor (2000) explains the connection and importance of the EJP to framing environmentalism in the following excerpt:

“The Environmental Justice Paradigm (EJP), which is built on some of the core values of the New Environmental Paradigm (NEP), uses an *injustice frame* to effectively reframe and transform the environmental discourse... The EJP has accomplished this by linking environment, labor and social justice into a master frame. The Environmental Justice Movement (EJM) used the EJP to amplify or clarify the connection between environment and social justice and to emphasize the idea that these concepts are inseparable. The EJP extends the environmental frame by targeting people not normally recruited by reform environmental organizations—people of color and progressive whites from working- and middle-class backgrounds.”

They go on to say that the environmental justice frame as a master frame “uses discourse about injustice as an effective mobilizing tool” (also linked to social movement building, a principle of EJ [Table 2. Principles of Environmental Justice]). This has lent a hand in strengthening the movement and pushing the ideology into mainstream spaces. By saying the EJ Movement has created an injustice master frame, Taylor is simply recognizing that the EJP is explicitly *centered on justice* and attempts to bridge injustice, environmental concerns, and systems of oppression (particularly linked to racism and capitalism).

Taylor (2000) lists the following environmental justice components that differ greatly from the focus of the early mobilizations and paradigms mentioned earlier:

- 1) ecological principles
- 2) justice and environmental rights
- 3) autonomy/self-determination
- 4) corporate-community relations
- 5) policy/politics/economic processes
- 6) social movement building

These components promote rhetorical focus on human-human and human-nature relations through the lens of race, class, gender, and other identities. By bridging these frames and centering justice as a master frame, the EJP highlights the intersectionality of environmental and social inequalities and new areas of just solutions.

Justice: distribution, participation, procedure and human rights

While justice can be broadly defined in many contexts and holds its own paradigms, this paper will focus briefly on justice-oriented frameworks commonly found within environmental justice activism, academia and government. These frameworks are distributive justice, participatory/procedural justice, and entitlements/rights-based justice (Cutter 1995, Heiman 1996, Low and Gleeson 1998). Distributional justice within environmental justice is strongly connected to past, present and continued cases of disproportionate contaminant facility siting in black and brown communities. It directly relates to how harms and benefits are distributed over a population and focuses on equity as a solution. Procedural justice targets the process of environmental decision-making, centering on two issues: “procedural fairness and the effective ability of groups to participate in ostensibly fair processes,” especially concerning decisions that directly impact them (frontline communities) (Turner et al 2002). An entitlement/rights-based approach to justice is based on individual and community access to environmental goods and services necessary for their well-being and health (Leach, Mearns, and Scoones 1999; Sen 1981). Montauge (1998) says entitlement/rights-based justice is compatible with the precautionary principle of decision making that limits exposure instead of

relying on post-contamination fixes, which is strongly referenced in the seventeen Principles of Environmental Justice developed at the People of Color Environmental Leadership Summit in 1991 (Table 2). Synthesizing components of the defined terms of justice above, Schlosberg (2013) and Romm (2002) present a fairly broad definition of justice within EJ: “the justice of environmental justice encompasses not only equity, recognition, and participation, but more broadly, the needs and functioning of individuals and communities.” These areas of environmental justice have not been applied to incarcerated people within the United States prison system. Before considering justice within prison environments and the criminal justice system, we must define environmental justice and concepts of just sustainability as they have developed around terms of *justice and environment* within the EJ Movement.

Principles of Environmental Justice and ‘Just Sustainability’

Environmental justice is similar to sustainability in its difficulty to be precisely defined because of its many uses, complexities, and ever-evolving nature. The Principles of Environmental Justice (Table 2) is the early document that outlined environmental justice and has been used broadly as an organizing tool for environmental justice movements to apply across the U.S. and internationally. These principles are the root of environmental justice struggles and solutions. Table 2 includes the Principles of Environmental Justice

PRINCIPLES OF ENVIRONMENTAL JUSTICE

PREAMBLE: We the people of color, gathered at this multinational People of Color Environmental Leadership Summit, to begin to build a national and international movement of all peoples of color to fight the destruction and taking of our lands and communities, do hereby re-establish our spiritual interdependence to the sacredness of our Mother Earth; to respect and celebrate each of our cultures, languages and beliefs about the natural world and our roles in healing ourselves; to insure environmental justice; to promote economic alternatives which would contribute to the development of environmentally safe livelihoods; and, to secure our political, economic and cultural liberation that has been denied for over 500 years of colonization and oppression, resulting in the poisoning of our communities and land and the genocide of our peoples, do affirm and adopt these Principles of Environmental Justice:

1. *Environmental justice* affirms the sacredness of Mother Earth, ecological unity and the interdependence of all species, and the right to be free from ecological destruction.

2. Environmental justice demands that public policy be based on mutual respect and justice for all peoples, free from any form of discrimination or bias.

3. Environmental justice mandates the right to ethical, balanced and responsible uses of land and renewable resources in the interest of a sustainable planet for humans and other living things.

4. Environmental justice calls for universal protection from nuclear testing, extraction, production and disposal of toxic/hazardous wastes and poisons and nuclear testing that threatens fundamental right to clean air, land, water, and food.

5. Environmental justice affirms the fundamental right to political, economic, cultural and environmental self-determination of all peoples.

6. Environmental justice demands the cessation of the production of all toxins, hazardous wastes, and radioactive materials, and that all past and current producers be held strictly accountable to the people for detoxification and the containment at the point of production.

7. Environmental justice demands the right to participate as equal partners at every level of decision-making including needs assessment, planning, implementation, enforcement and evaluation.

8. Environmental justice affirms the right of all workers to a safe and healthy work environment, without being forced to choose between an unsafe livelihood and unemployment. It also affirms the right of those who work at home to be free from environmental hazards.

9. Environmental justice protects the right of victims of environmental injustice to receive full compensation and reparations for damages as well as quality health care.
10. Environmental justice considers governmental acts of environmental injustice a violation of international law, the Universal Declaration of Human Rights, and the United Nations Convention on Genocide.
11. Environmental justice must recognize a special legal and natural relationship of Native Peoples to the U.S. government through treaties, agreements, compacts, and covenants affirming sovereignty and self-determination.
12. Environmental justice affirms the need for urban and rural ecological policies to clean up and rebuild our cities and rural areas in balance with nature, honoring the cultural integrity of all our communities, and providing fair access for all to the full range of resources.
13. Environmental justice calls for the strict enforcement of principles of informed consent, and a halt to the testing of experimental reproductive and medical procedures and vaccinations on people of color.
14. Environmental justice opposes the destructive operations of multi-national corporations.
15. Environmental justice opposes military occupation, repression and exploitation of lands, peoples and cultures, and other life-forms.
16. Environmental justice calls for the education of present and future generations which emphasizes social and environmental issues, based on our experience and appreciation of our diverse cultural perspective.
17. Environmental justice requires that we, as individuals, make personal and consumer choices to consume as little of Mother Earth's resources and to produce as little waste as possible; and make the conscious decision to challenge and re-prioritize our lifestyles to insure the health of the natural world for present and future generations.
Adopted today, October 27, 1991, in Washington, D.C.
<i>TABLE 2. Principles of Environmental Justice</i>

with emphasis added to areas that have particular significance to carceral spaces and people who are incarcerated. For example, the second principle demands “mutual respect and justice for all people” and policy that is “free of discrimination or bias.” The seventh

principle speaks to participatory and rights-based justice linked to decision-making at all levels. Principle 10 strongly states that government acts of environmental injustice are violations of international human rights laws. See Table 2 for all seventeen EJ principles.

Over time, environmental justice research has deeply explored ways to define and understand the concept, and government agencies have adopted their own definitions. For example, the U.S. Environmental Protection Agency adopted the following definition of environmental justice, which is limited to distributional and procedural justice:

“Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations, and policies. Fair treatment means that no groups of people, including a racial ethnic, or socioeconomic group, should bear disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local and tribal programs and policies” (US-EPA 2002).

Cutter (1995) writes that the principles of EJ guarantee (1) protection from environmental degradation, (2) prevention of adverse health impacts from deteriorating environmental conditions before the harm occurs not after (precautionary principle), (3) mechanisms for assigning culpability and shifting the burden of proof of contamination to polluters, not residents, and (4) redressing the impacts with targeted remedial action and resources (Turner and Pei Wu 2002). These principles include a social justice focus and bridge a broad spectrum of environmental concerns (Schlosberg 2013; Agyeman 2003, 2004).

In order to create a *just* environment, Romm (2002) argues the requirement of “social and ecological relations in which all groups of people have equal opportunity for benefit and influence.” This is based on notions of “*just sustainability*” which has been highlighted as a convergence of sustainability and environmental justice ideas emerging

out of NGOs and government agencies in the UK (Agyeman 2004, 155). Agyeman divides environmental justice into two dimensions: local/activist level and government level. At the local and activist level of EJ application, they point to a common framework and vocabulary for “political opportunity, mobilization and action,” whereas government dimensions of environmental justice act as policy principles so that “no public action will disproportionately disadvantage any particular social groups” (Agyeman 2004, 154-56). They argue the necessity of placing the discourse of environmental justice within the framework of sustainability for the sake of political, policy and academic analysis and application.

Sustainability is part of a historical evolution of early mainstream environmentalism, accompanied by all of the previous inequities and privileges outlined earlier. The concept of sustainability developed along a similar timeline as environmental justice, and reflected similar paradigm shifts. Often sustainability is synonymous to ‘sustainable development’, but over time it has also incorporated some components of social and environmental justice. Agyeman (2003) stresses the importance of these components of sustainability when stating, “A truly sustainable society is one where wider questions of social needs and welfare, and economic opportunity are integrally related to environmental limits imposed by supporting ecosystems” (ibid, 157).

CONNECTING ENVIRONMENTAL JUSTICE AND MASS INCARCERATION

Disproportionate Impacts of Incarceration: contemporary racism

“... to [put] the matter starkly: The current system of control permanently locks a huge percentage of the African American community out of the mainstream society and economy. The system operates through our criminal justice institutions, it functions more like a caste system than a system of crime control. Viewed from this perspective, the so-called underclass is understood as an undercaste—a lower caste of individuals who are permanently barred by law and custom from mainstream society. Although this new system of racialized social control purports to be colorblind, it creates and maintains racial hierarchy much as earlier systems of control did. Like Jim Crow (and slavery), mass incarceration operates as a tightly networked system of laws, policies, customs, and institutions that operate collectively to ensure the subordinate status of a group defined largely by race.” (Alexander 2010, 10)

Michelle Alexander’s book *The New Jim Crow* has identified the U.S. Prison Industrial Complex as an evolving mechanism of racism, particularly reflecting racialization in the criminal justice system, rooted in a history of slavery and Jim Crow policies. This system is based on a “prison label” that does not necessarily end when “prison time” is served (Alexander 2010, 11-14). Alexander describes this as one manifestation of backlash from Civil Rights Movement successes, or racism reinforcing/reinventing itself. Mass incarceration is the criminal justice system and beyond, including laws, rules, policies, customs of control, regulations, and criminal characterization/classification in and outside of prison. Once people are released from prison, they carry the impacts for a lifetime. This includes legally denying previously incarcerated people the right to vote and participate in juries, as well as regulations and laws that reinforce stigmas and obstruct the ability to obtain employment, housing and public services. Alexander (2010) compares this to the similarities African Americans faced when forced into a segregated, second-class citizenship in the Jim Crow era:

“The popular narrative that emphasizes the death of slavery and Jim Crow and celebrates the nation’s ‘triumph over race’ with the election of Barack Obama, is dangerously misguided. The colorblind public consensus that prevails in America today—i.e. the widespread belief that race no longer matters—has blinded us to

the realities of race in our society and facilitated the emergence of a new caste system” (Alexander 2010, 11-12).

Mass incarceration has become a major social justice issue in the United States. The U.S. has the highest incarceration rate and imprisons more racial and ethnic minorities than any other country in the world (6-10x greater than that of other industrialized countries). Most of the increase in incarceration from the 1980s to present is attributed to the War on Drugs (i.e. drug convictions) which led to the prison population expanding from 300,000 to more than 2 million in the span of a few decades.

Some interpret the increasing incarceration rates of people of color as a “consequence of poverty, racial segregation, unequal educational opportunities, and the presumed realities of the drug market, including the mistaken belief that most drug dealers are black or brown”, however, this fails to recognize the role of government in racialized practices and policies (Alexander 2010, 4-5). The fact that the United States rolled out the War on Drugs (including dramatized and racist publicity to encourage national support for the campaign) during a time when illegal drug use was in decline cannot be explained by any of the above interpretations (Alexander 2010). Additionally, sociology research has observed frequent government use of punishment as a “tool of social control,” meaning that punishment is often disconnected from crime (ibid, 7). Intentional or unintentional, this is an aspect of systemic and institutionalized racism against black and brown people similar to environmental injustices discussed earlier.

The following findings uncover a few ways incarceration disproportionately impacts people of color and as Alexander states, is not a symptom of poverty or poor choices, but rather, evidence of a new racial caste system at work:

- More than half of the young black men in any large American city are currently under the control of the criminal justice system (or hold criminal records) (Alexander 2010, 16).
- Since the 1970's, the prison and jail population in the U.S. has increased by ~ 500%. Black and brown people are disproportionately impacted by incarceration, with African Americans constituting 900,000 of the total of 2.2. Million people incarcerated (Mauer and King 2007).
- The Bureau of Justice Statistics documents 1 in 6 black men were incarcerated in 2001 with predictions of a rate of 1 in 3 if trends continue. Black women are also more likely to be incarcerated than white women (Mauer et al 2007).
- In 2005, Hispanic people comprised 20% of the state and federal prison population— more than double the rates of white counterparts (Mauer and King 2007).
- African Americans are incarcerated at nearly six times (5.6x) the rate of whites (Mauer et al 2007). While criminal justice data often excludes rates of incarceration for Indigenous people, research has shown the rates to be similar to those of black people in the United States.
- Breaking down rates of incarceration, we find that the national rate for whites is 412 per 100,000, compared to 2290 for African Americans and 742 for Hispanics (/Latinx) (Mauer et al 2007).
- “Moreover, the uneven geographic distribution of incarceration in communities of color means that the effects of this situation radiate beyond the individual to the broader community” (Mauer et al 2007, 4-5).

The racial disparities of incarceration are oddly reflective of the disparities in healthy, green resources and community toxins. People of color are not only facing the health risks associated with environmental bads, the lost opportunities and second-class citizenship related to environmental goods and services, and the overarching impacts of systems of oppression that reinforce environmental racism in their communities, they are simultaneously fighting these issues as they relate to the criminal justice system. In order to expand the interdisciplinary discussion around mass incarceration and environmental injustice, I examine a few environmental impacts and components of prisons (Chapter 4—Results and Discussion). This begins to clarify some overlap between EJ and marginalized people outside of and within prison institutions.

Environmental Education Programs and the ‘Paradox of Green Prisons’

Education programs are now offered in many state prisons as a rehabilitative service and studies have found that, on average, incarcerated people are less (institutionally) educated than the general population. A high percentage of prisoners in state facilities have not completed high school and for that reason, GED courses are the most common form of education offered. Education programs in prisons are sometimes the strongest connection people have to secondary and post-secondary education. In general, research has shown that people involved in education programs while incarcerated are less at risk of returning to prison after released (43% lower odds of recidivating). According to a Rand Corporation study, participating in education programs correlated with higher odds of obtaining employment after release (Davis, Bozick, Steele, Saunders and Miles 2013), even in the face of challenges and stigmas presented by a criminal record.

Past research by Sustainability in Prisons Project's program coordinators (all in recent years have also been Evergreen graduate students) has explored the impact and significance of environmental education programs within prisons. Specifically, Gallagher (2013) surveyed incarcerated people who participated in environmental programs in order to evaluate SPP-style programming. Their findings and prior studies showed that participation in education-intensive SPP jobs programs was linked to strong pro-environmental attitudes. From a review of the literature, they found that pro-environmental attitudes and behaviors were correlated with pro-social attitudes (Bamberg and Möser 2007; Hines, Hungerford and Tomera 1987; Milfont and Gouveia 2006; Van

Vugt & Samuelson, 1999). This can also be linked to successful re-entry for previously incarcerated people (Bucklen and Zajac 2009). Gallagher claims that providing programs that support pro-social behavior could potentially reduce recidivism rates. As it relates to SPP, their research states

“Given the correlation between pro-environmental and pro-social attitudes and behaviors noted by previous researchers (Milfont et al 2006), the positive relationships found in this study... suggests that providing more offenders with the opportunity to engage in jobs [and programs] with higher levels of education/training, work with living things, and community contribution opportunities may translate into more pro-environmental and pro-social behaviors. As many people in prison are there precisely for demonstrating anti-social behavior, the potential for encouraging the development of pro-social attitudes through environmental and social- sustainability-related programming shows great promise. [The findings of this research] suggests that expanding SPP program offerings in prisons may give more offenders the opportunity to develop pro-environmental (and pro-social) attitudes through meaningful work [and education] experiences” (Gallagher 2013).

While Gallagher’s (2013) synthesis makes an important argument about the potential of programming for reducing recidivism, some of the study’s cited sources neglect to address overarching issues within the criminal justice system that place people in prisons (not just anti-social behavior). Past studies of recidivism have focused on the connection between pro-social behavior and reduced rates of returning to prison. Intentionally or not, some of these studies create false generalizations and stereotypes (through inference) that incarcerated people are anti-social. Studies commonly make the argument that anti-social behavior contributes to incarceration while also ignoring broader issues of injustice within the U.S. prison system. Having said that, Gallagher puts forward an important argument for reducing recidivism through environmental education programs and green jobs.

Recently, Weber et. al. (2015) published a connected SPP study comparing the effectiveness of different teaching methods inside prisons. Their findings showed that people at Washington Corrections Center for Women preferred workshop style lectures while Stafford Creek Corrections Center preferred lecture style sessions. There was little difference in the levels of engagement from people at men's prisons and women's prisons. Their research argues that while environmental education opportunities do not exist in many prisons to date, the programs SPP offers provide evidence that "a desire and a need exist for such opportunities" for prisoners and correctional facilities as a whole (Weber, Hayes, Webb, and Leroy 2015, 282). Weber argues that SPP's environmental education programs are able to reach people who are often underrepresented and marginalized in science education and exposure to nature. My thesis is a follow-up to these previous studies.

Jewkes et. al. (2015) make the case that mass incarceration is being marketed through greenwashing practices and language. Within their study, they examined the Sustainability in Prisons Project and argued that Washington State is taking an uncommonly "holistic approach to sustainability" by supplementing green building projects with efforts "to provide green-collar training and nature-based therapy to prisoners" and may have real benefits to prisoners. However, at the same time, they argue that greening prisons fuels mass incarceration and contributes to prison expansion through capitalist marketing/rebranding and corporate interests (e.g. construction, design, and management of prisons). They claim that since mass incarceration is a recognized social problem, language from environmental movements around efficiency and 'greening' is attractive to "politicians, prison designers, constructors, charitable

reformists and the public, who are united in moral certitude that sustainability is the way forward in corrections.” This point is particularly significant to Washington as the state has prided itself on sustainability measures.

There has been much silence around changing the size and scale of prisons, but opening this discussion is key to addressing mass incarceration situated within the Prison Industrial Complex. Jewkes et. al. (2015) state that green prisons are marketed perfectly between political hegemonies of environmentalism and mass incarceration, and play into U.S. politics:

“To those on the political right, sustainability is a way of making the carceral estate more efficient, more competitive, more productive and, when green-collar training is offered, more reparative to the society wronged by the offender’s actions. To those on the political left, who may hold views that lean towards decarceration, the green prison promises a ‘healthier’, more ‘nurturing’ and rehabilitative experience for offenders, while also, in some cases, being showcases for environmental policies in action.”

Within this context it is important that we question what is being sustained when sustainability is introduced to prisons and actively work against this ‘silence’. They claim that “the most effective way to reduce the environmental impact of the correctional system might be to reduce the numbers of people being incarcerated... [and] if the claims of saving costs to individual facilities through implementation of environmental policies have any validity, they make the entire correctional system [itself] more sustainable” making those goals harder to achieve.

Their study highlighted how even politically progressive and liberal policies contribute to expanding the Prison Industrial Complex. Within the context of SPP, they claim that research around green programs in prisons has focused on evaluation and not problematization within larger contexts. For example, they claim that government,

popular media, academics, and groups that deliver these types of programs tend to lend favor to the rehabilitative components of programming, and fail to address counteracting evidence of the psychological harms perpetuated by prisons (Jewkes et al 2015). Some might argue that therapeutic nature programs offer space to counteract those harms within prisons, but at what scale? The authors point out political contradictions that create situations for individuals and communities who would “claim antipathy towards prison[s]... [to] actually come to embrace mass incarceration if they believe it to be environmentally positive.” Ultimately, they argue that the greenest prison is still, after all, a prison. The conversation around improving prisons distracts from solutions to mass incarceration, makes it more difficult to challenge fundamental issues of injustice within the PIC, and marginalizes abolitionist arguments in a way that sustains prison operations (ibid).

It is important to situate studies that evaluate SPP programming within the larger discussion of the Prison Industrial Complex and doing so helps identify connections to institutional racism and inequity. In *The Paradox of the ‘Green’ Prison: Sustaining the Environment or Sustaining the Penal Complex?*, Jewkes and Moran (2015) break down sustainability discourses within the context of prisons and mass incarceration. Their study critically interrogated the practices of “building new prisons to ‘green’ industry standards; making existing prison buildings less environmentally harmful; incorporating processes such as renewable energy initiatives, offering ‘green-collar’ work and training to prisoners; and providing ‘green care’ [therapeutic/rehabilitative focus] in an effort to reduce recidivism.... [as] evidence of ‘green’ strategies that shape the experience of prisoners, prison staff and the communities in which prisons are located.” They also

argue that green discourses are becoming symbolic, material structures, and with or without intention, are working to support and sustain mass incarceration and the larger Prison Industrial Complex. Because sustainability language has been incorporated (some would say co-opted) within carceral settings, they argue for more critical research that moves beyond evaluating program successes (Graham and White 2015) to problematizing ‘green’ or ‘sustainability’ within the broader context of prisons. They point to green criminology as a useful field for this discussion, but claim research is limited at this time. This is a research gap my thesis directly addresses. My interdisciplinary research builds bridges connecting insights in disparate fields of academic study. I hope this work encourages future researchers to expand this critical research focus.

CHAPTER 3—METHODOLOGY

This study explored overlap between environmental justice and prisons through a mixed methods analysis of Washington State. First, I completed a brief case study of the Sustainability in Prisons Project through an environmental justice lens. Within this case study, I also highlighted the quantitative findings of several years of participant surveys from an environmental education program in prisons (the SPP Science and Sustainability Lecture Series). Qualitative textual analysis supplemented the statistical survey findings and placed this case study within the broader dialogue of prisons, ecology, greenwashing

and environmental justice. The overarching research question (how is environmental justice connected to prisons?) was addressed by exploring the following sub-questions:

- How do SPP programs such as the Science and Sustainability Lecture Series function in carceral settings?
- What do SPP participant surveys reveal about the attitudes, interests, and knowledge of prisoners?
- What can we learn from surveys completed by incarcerated students about SPP's programs and the EJ potential inside of prisons?
- Do incarceration rates in Washington reflect the national trend of mass incarceration in the United States?
- Are there cases of environmental degradation and environmental injustice linked to Washington prisons?

QUANTITATIVE SURVEY ANALYSIS

Through the use of primary survey data, the statistical component of this study uncovered a deeper understanding of the impacts and effectiveness of SPP's Science and Sustainability Lecture Series, as well as prisoner attitudes, interests, and knowledge related to environment, environmental lecture topics, and peer-to-peer discussion of the two. Prisoners who voluntarily attend the lecture series program have the option of completing brief pre- and post-lecture surveys. This study shared a quantitative analysis of lecture series participant surveys at WCCW and SCCC completed within the program between 2009 and 2014. I explored how these surveys act as a way for prisoners to voice their wants and needs in environmental education programs and how this contributes to the broader discussion of environmental rights of prisoners.

It should be mentioned that SPP surveys for the lecture series were created prior to this environmental justice research and I conducted the quantitative analysis while still employed as the SPP Lecture Series Coordinator; therefore survey methodologies are

limited in their EJ scope. This is supplemented by textual analysis of primary SPP documents (see Qualitative Textual Analysis and Critical Methods). Statistical analysis was based on past SPP evaluation and research methodologies. The surveys were exempt from Human Subjects Review (HSR) since they were created to evaluate SPP's programming. This thesis research was the first study to analyze the lecture surveys and connect the findings to the environmental justice discussion.

Every survey began with three true and false questions provided by the guest lecturer. For any lecture, the same questions appeared on both pre and post surveys (see Appendix). SPP created this survey style in order to gauge changes in participants' content knowledge, attitudes and interests related to attending the lecture series program. Due to this formatting, past SPP evaluation methodologies and software, the statistical analysis of content knowledge within this study rested on the following hypotheses:

Ho= Lecture attendance has no influence on participant knowledge related to environmental content of the lecture.

Ha= Lecture attendance influences environmental content knowledge of participants.

In order to test the significance of lecture attendance on content knowledge, I compared the number of correct answers prior to lecture attendance and after lecture attendance by calculating Chi-Squared statistics. This both helped identify the effectiveness of SPP's education program on content knowledge as well as prisoner knowledge of environmental topics.

Environmental interests and attitudes were analyzed through survey responses to four questions. Every survey included questions about environmental interests and a Likert scale answer form (Appendix). The questions asked participating prisoners to

select a score that best represented their likelihood to (Question1) seek information about the environment and (Q2) about lecture topics, and to (Q3) talk to other prisoners about the environment and (Q4) about lecture topics. Participating prisoners selected a score on a Likert scale of 1 to 5, 1 being 'very unlikely' and 5 being 'very likely'. For any lecture, the same questions were present on both pre- and post-lecture surveys. These questions were the same for every lecture, regardless of the topic.

Ho= Lecture attendance has no influence on participants' environmental attitudes and interest.

Ha= Lecture attendance influences environmental attitudes and interests of participants.

In order to test the significance of lecture attendance on environmental attitudes and interests, I first ran a nonparametric T-Test to check for normality. The data was non-normal, therefore I conducted a Wilcoxon Signed Rank test using JMP statistical software. Hypothesis testing for the Likert portion of analysis is outlined above.

QUALITATIVE TEXTUAL ANALYSIS AND CRITICAL METHODS

This study, particularly the textual analysis, was based in feminist geography and critical methodologies and methods. In *Producing Feminist Geographies: Theory, Methodologies and Research Strategies*, England (2014, 287) argues that feminist methodologies are committed to "progressive research practices" and challenge "conventional wisdom that 'good research' requires impartiality and 'scientific objectivity'." Within this context, I included my own perspective and experience as the 'SPP Education and Evaluation Coordinator', a position that later changed to the 'SPP

Lecture Series Coordinator' (2013-2015). See Reflexive Statement in Chapter 1— Introduction for transparency around my personal connections to some of the topics discussed within this research.

Many feminist geographers state that no research can ever be completely objective, whether positivist or feminist or otherwise, because no research is ever completely disconnected from ideologies, politics and values (even 'hard science' research). Feminist methods seek "to decipher experiences within broader webs of meaning and within sets of social structures and processes," including normalized, dominant ideologies, politics and values that perpetuate oppression (England 2014, 291). This study drew particularly on post-structural feminist theorizing which demands sensitivity to and reflection on power relations within critical studies. Related to prisoner surveys and the case study, I continuously found webs of power and privilege between myself as a researcher/scholar and people who are imprisoned as well as between myself and the institutions within which this research is based. I tried to deconstruct those noticeable and subtle dynamics within this study. Because feminist theory demands analytical focus on structures of power and oppression, this research critiqued Washington prisons and a sustainability organization as they function within the larger Prison Industrial Complex.

Utilizing an environmental justice, anti-racism, feminist lens, qualitative analysis within this thesis involved systematic examination of relevant texts throughout both the SPP-specific case study and within the larger study of Washington prisons and mass incarceration. This approach draws on frameworks outlined by Kurtz (2009) and Braz et. al. (2006) within Chapter 2—Literature Review. The anti-racism praxis of this study is

particularly influenced by Critical Race Theory. Critical Race Theory (CRT) offers much to the study of environmental justice because the root of this transdisciplinary, iterative methodology is race-equity and social justice (Ford and Airihenbuwa 2008). Ford et. al. (2008) suggests it is particularly relevant in understanding and combatting systems of oppression, power dynamics and institutional racism through experiential knowledge and critical consciousness. CRT seeks to uncover “contemporary racial phenomena, expand the vocabulary with which to discuss complex racial concepts and challenge racial hierarchies” within intersections of inequity (Ford et al 2008). An important feature of Critical Race Theory is the act of centering the margins, i.e. shifting discourse from mainstream perspectives to that of uniquely marginalized groups (Ford et al 2008). This was an important component of study within the SPP case study as it centered prisoners instead of being limited to broader program evaluation. CRT also posits that community engagement and critical self-reflection enhances research, and for this reason along with the ones outlined above, I have included a reflexive statement (Chapter 1).

Texts from SPP’s main websites, foundational documents, and recent reports were used to supplement the statistical survey analysis. These documents were chosen as relevant to the overall structure of SPP, literature review discussion of environmental education programs in prisons, and the broader EJ field. In order to connect the discussion of environmental justice to Washington prisons, I focused on a range of secondary data. First, I reviewed incarceration rates and reports on racism in the WA criminal justice system. Data included a 2007 publication by the Sentencing Project titled *Uneven Justice: State Rates of Incarceration by Race and Ethnicity*; a 2015 Sentencing Project report titled *Black Lives Matter: Eliminating Racial Inequalities in the Criminal*

Justice System; and the 2011 *Preliminary Report on Race and Washington's Criminal Justice System* from the Task Force on Race and Criminal Justice c/o Fred T. Korematsu Center for Law and Equality (Seattle University of Law). I also connected insight from Angela Davis, activist and scholar, and Critical Resistance, a Prison Industrial Complex abolition movement, in order to problematize connections to capitalism and the overarching Prison Industrial Complex.

Diving into deeper discussion of environment and Washington prisons, I analyzed documents from the Prison Ecology Project, Prison Legal News, and Prison Book Collective. Documents included *Greenwashing Washington State's Prison System in a River of Sewage*, *Environmental Justice for Prisoners; Panel Explores Prisons, Ecology, and Police*; and a recent petition to EPA demanding prisoners be included within their EJ policies and practice. This Human Rights Defense Center (HRDC) petition is particularly relevant to Washington as many environmental and social justice groups in the state endorsed it (Got Green?, TWAC [Trans and Women Action Camp] Cascadia, Bill of Rights Defense Committee, Columbia Legal Services) as well as others including the National Lawyers Guild, Rising Tide North America, and the Southern Poverty Law Center. The third document listed above led to a detailed packet from the aforementioned 2015 panel at the Public Interest Environmental Law Conference hosted by University of Oregon. The panel was titled 'Ecology of the Police State' and included folks with perspectives from the Prison Ecology Project. The panel packet that was shared from the conference included an additional 2007 article for analysis: *Prison Drinking Water and Wastewater Pollution Threaten Environmental Safety Nationwide*. For this critical study, I included articles that connected ideas outlined by the Prison Ecology Project and

relevant issues like greenwashing, prison ecology, and environmental and human rights of prisoners.

CHAPTER 4—RESULTS AND DISCUSSION

This chapter analyzes disparities in incarceration based on race and environmental injustice specific to Washington State prisons. I discuss ecological pollution, greenwashing, and the EJ potential of environmental education programs inside prisons such as the ones offered by the Sustainability in Prisons Project (SPP).

First, I explore the rise of the Sustainability in Prisons Project in Washington and the organization's relationship to WA Department of Corrections, The Evergreen State College, and sustainability. This paper focuses particularly on environmental education programs, specifically SPP's Science and Sustainability Lecture Series. These education programs are for incarcerated people across Washington, and I explore how they offer space for addressing environmental justice within prisons while simultaneously providing social goods to a uniquely disadvantaged population. It is important to center the livelihoods and humanity of people currently living in prisons. For that reason, this case study explores the environmental knowledge, attitudes, and interests of incarcerated people who attend the SPP lecture series.

CASE STUDY—SUSTAINABILITY IN PRISONS PROJECT

SPP Origins in Washington

The Sustainability in Prisons Project (SPP) is a partnership founded by the Evergreen State College (TESC) and the Washington State Department of Corrections (WA-DOC), but since its conception in 2003 it has expanded across the state, nation and internationally. SPP began with a few environmental pilot projects in a state prison located near the Evergreen campus, Cedar Creek Corrections Center (CCCC). These activities drew the attention of multiple corrections staff, incarcerated people and Evergreen faculty, students and staff and became a means of collaboration between the two state agencies. Faculty and students were able to make visits to the pilot location to offer education, training, support, and resources for successful environmental programs which also benefit the prisoners and staff involved. Early programs began in 2003 at Cedar Creek Corrections Center (CCCC) and included a water catchment system and composting.

From there, SPP began to emerge in more concrete ways. They did so by crafting Essential Components, a Vision and Mission Statement, and implementing these components into programs across and within prisons (Table 3). The Essential Components are 1) partnership and collaborations with multiple benefits; 2) bringing nature “inside”; 3) engagement and education; 4) safe and sustainable operations; and 5) evaluation, tracking, and dissemination. These components have been a driving factor in all SPP programs, and were published in the 2013 SPP Handbook: Protocols for the SPP Network to share beyond WA State prisons (Sustainability in Prisons Project 2016). For the sake of this research, the scope of SPP explored is limited to education programming.

SUSTAINABILITY IN PRISONS PROJECT OVERVIEW

SUSTAINABILITY FOCUS: environmental, social, and economic

VISION *“This union of ideas and activities – and people inside and outside prison walls – creates a collaborative, intellectually stimulating environment in which incarcerated men and women play key roles in conservation and advancing scientific knowledge. We encourage teamwork, mutual respect and a stewardship ethic among individuals who typically have little or no access to nature or opportunities in science and sustainability. Our vision is not only to save tax dollars and natural resources, but also to help offenders rebuild their lives for the benefit of all.”*
(sustainabilityinprisons.org)

ESSENTIAL COMPONENTS	Partnerships and collaborations with multiple benefits	Bringing nature “inside”	Engagement and education	Safe and sustainable operations	Evaluation, tracking and dissemination
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PROGRAM AREAS	EDUCATION AND TRAINING	conservation and scientific research	sustainable operations	community contribution	evaluation
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Education and Training

“In today’s economy, green-collar workers—people with expertise in ecology, energy efficiency and Earth-friendly development—are in increasingly high demand for their skills. This includes vocational and trade-level workers: carpenters who construct green buildings, weatherization specialists, installers of solar panels and wind turbines, ecological research assistants, organic farmers, beekeepers, and others.

The Sustainability in Prisons Project inspires and trains inmates and correctional staff through guest lectures, an environmental literacy program, and hands-on workshops. Activities are geared toward improving prison sustainability while connecting participants to the larger world of scientific research and conservation. Topics have included plant and wildlife ecology, sustainable agriculture, urban horticulture, alternative energy, and building with recycled materials. We introduce inmates to educational and employment opportunities that they may pursue after release, a critical factor for reducing recidivism...”
(sustainabilityinprisons.org)

Education Programs

Education is integral to SPP's programs; our aim is to make the most of formal and informal opportunities for education, and to offer new knowledge and new practice to inmates, staff, and all partners. SPP programs dedicated to education as a central focus include our Science and Sustainability Lecture Series, an environmental literacy course called Roots of Success, and those community college programs related to nature and/or sustainability. (Fiscal Year 2015 SPP Report)

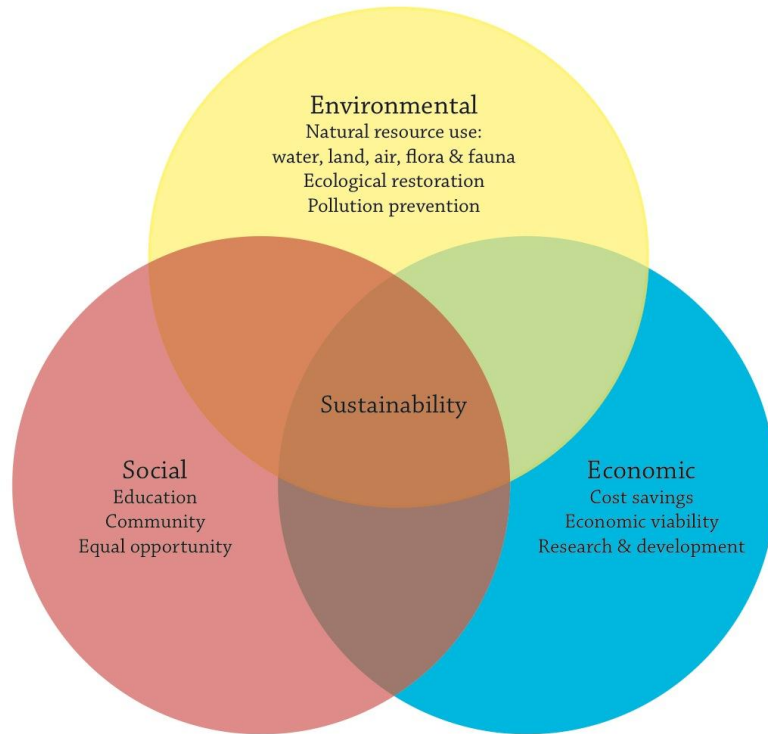
TABLE 3. Sustainability in Prisons Project (SPP) overview
Fiscal year 2015 report and sustainabilityinprisons.org

In 2009, the partnership between Evergreen and WA-DOC became official with an inter-agency agreement. Today, SPP offers a range of environmental programs in all twelve Washington prisons (see Appendix). In 2014, after over a decade of collaboration between the two agencies, the WA Department of Corrections also established the state's first sustainability policy specific to corrections and prisons (you can view the policy here: <http://sustainabilityinprisons.org/wp-content/uploads/2015/02/Sustainability-Policy-12-22-14-290055.pdf>).

SPP programming and activities focus on many areas of sustainability: the organization aims to meet environmental, economic, and social sustainability needs and resulting programming encompasses many of these components (Sustainability in Prisons Project 2016). They are a collaboration between a college and state agency with one of the main goals of the project being to bring science and environmental education, training, and opportunities to incarcerated populations. As such, it is important to consider the organization's relationship with DOC and sustainability. As WA-DOC acts in a co-director role within the SPP organization, SPP programs also seek to implement programs that benefit all involved, including prison administration, officers and staff.

This also stems from SPP’s use of a collaborative economic, ecology and social approach to sustainability (Table 3).

The Three Spheres of Sustainability



Adapted from the 2002 University of Michigan Sustainability Assessment

FIGURE 1. SPP three spheres of sustainability

The organization bases their programming on “Three Spheres of Sustainability” adopted from the 2002 University of Michigan Sustainability Assessment. These spheres include environmental: natural resource use, ecological restoration, and pollution prevention; economic: cost savings, economic viability, and research/development; and social: education, community and equal opportunity. These components of sustainability

are considered within all SPP programs, although the strength of environmental, economic and social focus varies. Some programs are led by DOC staff and SPP staff have more of a hands-off approach. Programs that utilize all components of this sustainability definition are often led and coordinated by SPP staff and graduate research assistants.

SPP Science and Sustainability Lecture Series

This thesis analyzes one of SPP's programs most focused on education: the Science and Sustainability Lecture Series. The Sustainability in Prisons Project (SPP) offers education in prisons through guest lectures, hands-on workshops, and a popular education course on environmental literacy called Roots of Success (Roots of Success 2009-2016). SPP aims to reduce the ecological impact of prisons and connect participants to the larger world of scientific research, conservation, and green jobs. The SPP Science and Sustainability Lecture Series is one program that works towards these goals. Education programs in prison introduce educational and employment opportunities to pursue after prisoners are released from state facilities. SPP encourages a mindset of engagement and ownership and supports prisoners applying their knowledge and classroom experience to submit sustainability proposals at their facility.

SPP-sponsored science and sustainability lecture series are underway at Stafford Creek Corrections Center (SCCC in Aberdeen, WA), the Washington Corrections Center for Women (WCCW in Gig Harbor, WA), and in pilot phase at Washington Corrections Center (WCC in Shelton, WA) and Monroe Correctional Complex (MCC in Monroe,

WA). This study will focus on surveys completed by participants at SCCC and WCCW. Twice a month at each prison, scientists and community members of various sustainability expertise share their passion and knowledge on wide-ranging topics. Past topics include wildlife biology, hydrology, innovations in composting, urban horticulture, alternative energy, native plant identification, environmental justice, and EJ activism.

Incarcerated students attend the lecture series on a voluntary basis and complete pre- and post-lecture surveys if they so choose. As part of these surveys, students have space for open-ended comments on how to improve lectures and future topics they'd like presentations to cover. Guest lecturers are encouraged to bring handouts and resources for students who attend and would like more information and opportunities as they relate to the lecture topic. On the other side of the experience, guest lecturers enter prison classrooms and work with a diverse population, often for the first time. In this way, the lecture series program coordinates communication between people on the inside and outside of prisons. Lecturers have included business owners/entrepreneurs, government employees, non-profit staff, grassroots activists, previously incarcerated people now holding green jobs, academics, and more. The lecture series is SPP's most widely-available program, reaching more than 2000 prisoners and 100 guest lecturers from 2009-2014. The program brings opportunities to people currently incarcerated, and also provides an outlet for the public, academics, institutions, and community groups to engage with and advocate for prisoners—something not many programs inside prisons offer at this scale.

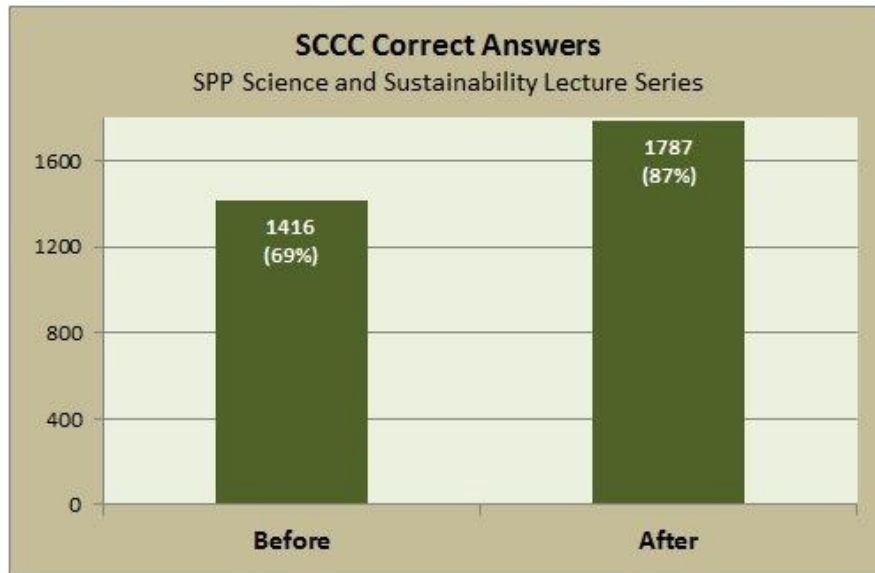
It is also important to further describe SPP's Roots of Success program as many students who attend the lecture series also participate in this popular/experiential

education course. In fact, lecture series attendance has increased every year since Roots of Success first began at SCCC in 2013. The Science and Sustainability Lecture Series is hosted every month and presentations/workshops usually last 90 minutes with time for questions; for students interested in deeper environmental education opportunities, Roots of Success offers a full course with modules including environmental justice and green jobs. On the Roots of Success website, they describe their program as “an empowering educational program that prepares youth and adults who come from communities heavily impacted by poverty, unemployment, and environmental injustice for environmental careers and to improve conditions in their communities” (Roots of Success 2009-2016). The course is taught by incarcerated people trained and certified to lead the course and typically no DOC staff are present in the classroom. Some students sign up for training and certification as Roots instructors in order to offer more classes since the program is in demand. This program, in collaboration with the lecture series, is expanding educational and environmental space inside prisons and accommodating more decision-making and ownership at the prisoner level (see Appendix).

Survey Results: environmental content knowledge

This portion of the study looked at the relationship between lecture attendance and environmental content knowledge using a chi-square test of independence. The relation between these variables was significant at both prisons—lecture participants were more likely to answer lecture topic questions correctly *after* attending a lecture, with WCCW displaying a 23% increase in correct answers and SCCC an 18% increase post-

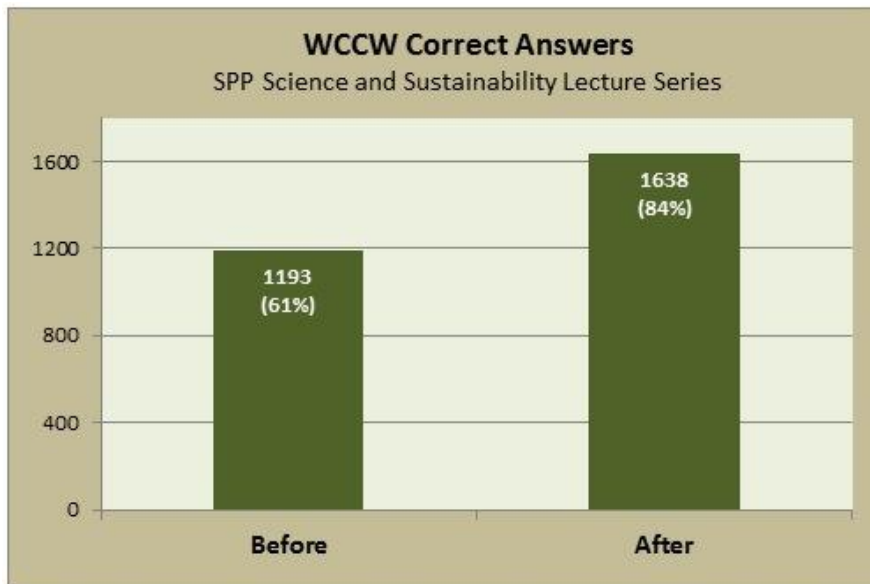
lecture (Figures 2 and 3). This supports the hypothesis that incarcerated people who attend lectures leave with more environmental knowledge than they had prior to attending.



$$\chi^2(1, N = 1961) = 251.46,$$
$$p < 0.001^*$$

Following lecture attendance, 23% increase in correct answers at WCCW.

FIGURE 2. WCCW survey results: content knowledge



χ^2 (1, N=2045)
 = 200.89,
 p < 0.001*

Following lecture attendance, 18% increase in correct answers at SCCC.

FIGURE 3. SCCC survey results: content knowledge

Additionally worth noting is that a large percentage of incarcerated students came into the lecture (*before*) with a high level of environmental content knowledge (WCCW: 61%, SCCC: 69% of questions answered correctly pre-lecture). This trend is seen consistently in the data (Figure 4), and could be the result of participation in the lecture series and other SPP programs prior to and since 2009. Anecdotally supporting the data, many of the guest lecturers mention the incredibly insightful and thought-provoking questions and ideas people in the lecture series shared.

I then compared the percentage of correct answers before and after lectures for each of the six years the lecture series has been offered (Figure 4) and found the same trend mentioned above. Every year incarcerated students showed an increase in environmental content knowledge after attending the lectures; often over 80% of lecture survey participants answered survey questions correctly post-lecture. This shows that nearly all lecture participants grasped the intended subject—a consistent trend and an important success for SPP’s lecture series style of environmental education. It also stresses the knowledge that incarcerated students have when it comes to green jobs and educations.

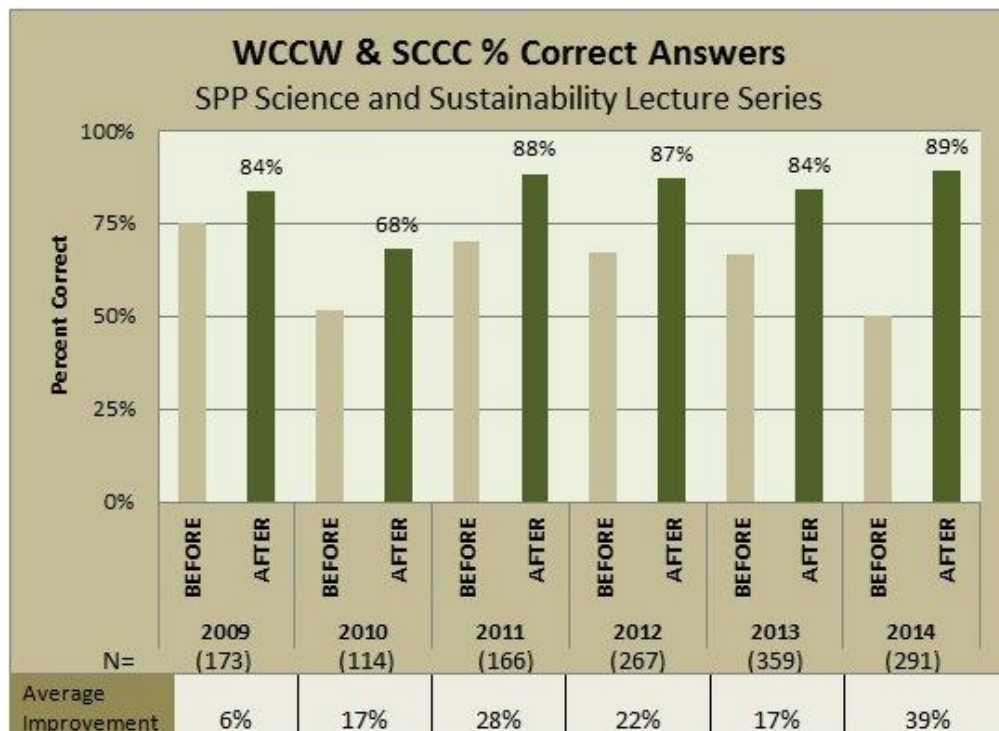


FIGURE 4. Overall content knowledge 2009-2014

Survey Results: environmental attitudes, interests and peer-to-peer

The majority of incarcerated students showed no change in attitude in response to attending an individual lecture (Figure 5); however, the average Likert score before the lecture was 4 (on a scale of 1-5), which still represents a pro-environmental attitude. This means that even when not displaying any shift in attitude, many prisoners are coming into and leaving lectures with pro-environmental attitudes.

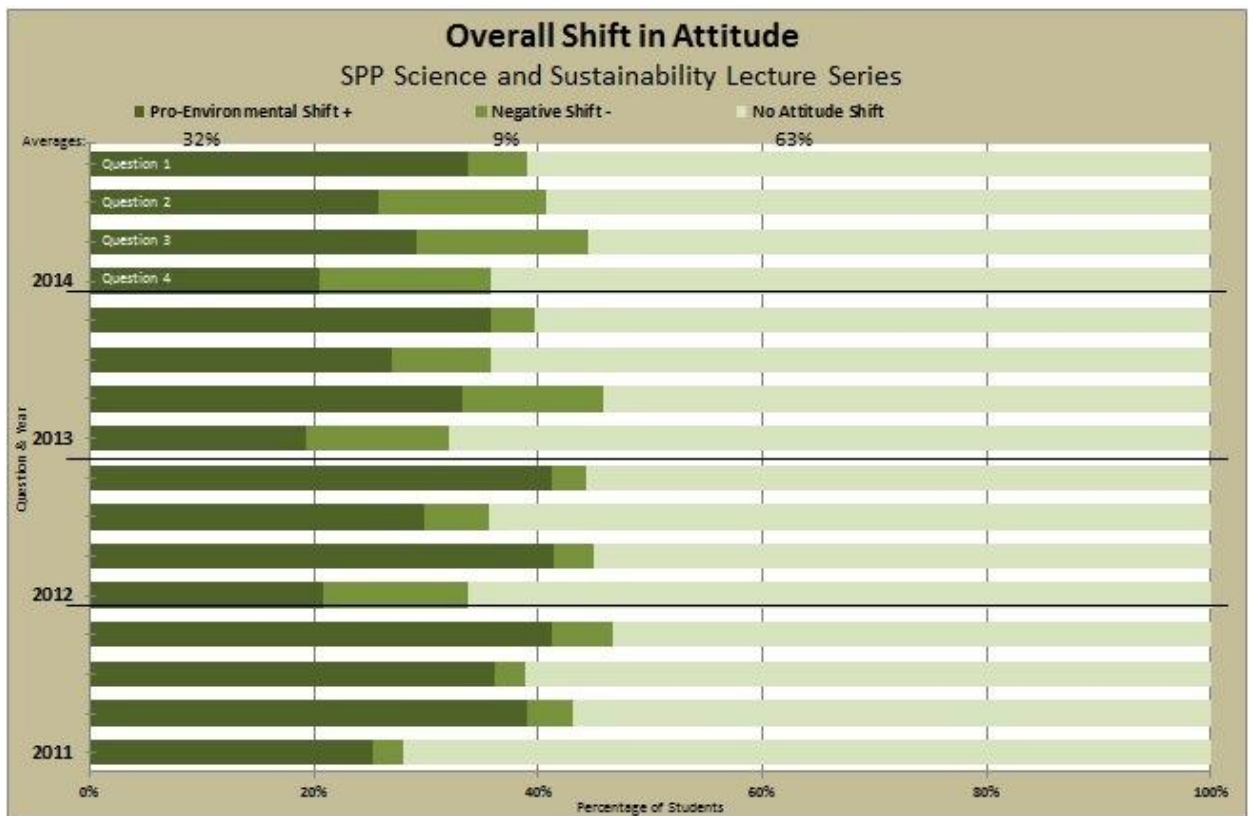


FIGURE 5. Overall shift in attitude 2011-2014

The second largest trend is people coming into the classroom with interest in environmental topics, and their interest increasing further once they have engaged in the

sustainability classroom. For those that display a shift in attitude, it is consistently more likely to be a shift towards 5 on the Likert scale or “pro-environmental” (average, 32% of participants) instead of a negative shift (9% of participants) (Figures 5 & 6). Less than one in ten participants reflected a negative shift.

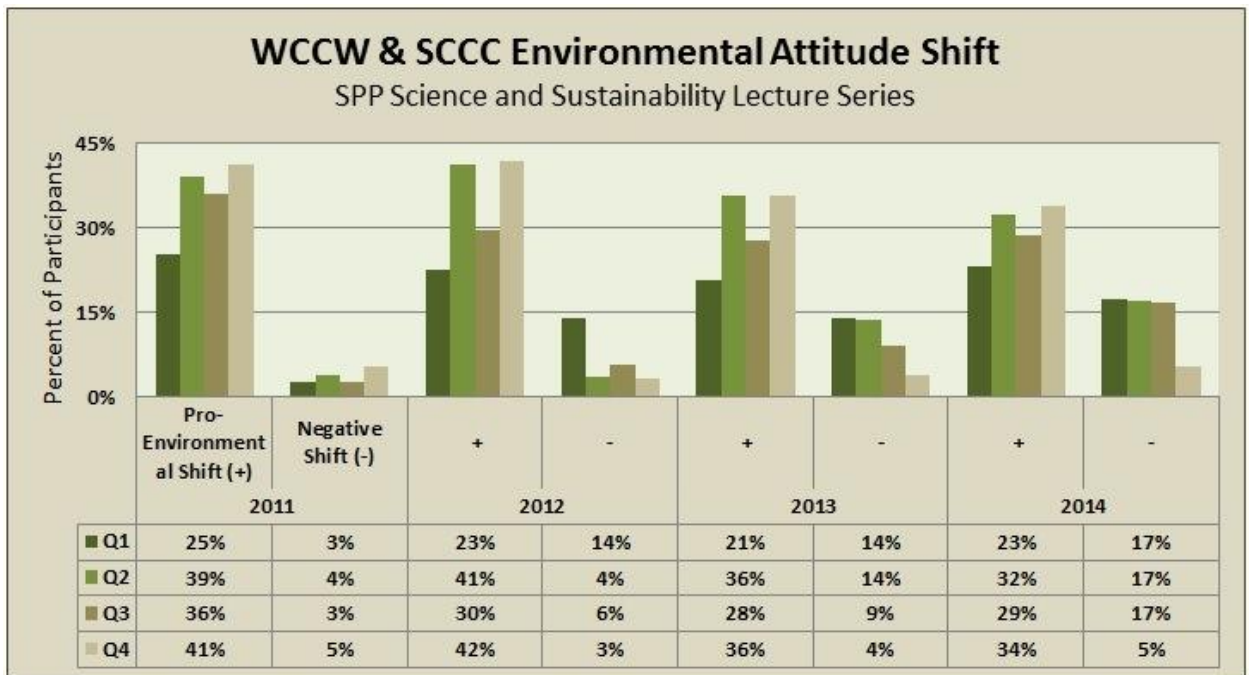


FIGURE 6. Pro-environmental attitude shifts

This trend was evident for all Likert questions (Figure 6 & Table 4). Figure 6 displays the positive shift towards “very likely” (pro-environmental shift) and the negative shift towards “very unlikely”. For all four survey questions over the years 2011-2014, incarcerated students were more likely to shift towards a pro-environmental attitude—positive interests/attitudes around seeking information on the environment, lecture topics and discussing the two with their peers. The questions that showed the

largest positive shift in attitude were consistently questions 2 and 4 (30-45% of lecture survey participants). These two questions represent interest in seeking more information on and talking to other prisoners about specific lecture topics (Table 4).

Facility	QUESTION 1	Q2	Q3	Q4
WCCW , Signed-Rank =	5244, p < 0.0001**	9457, p < 0.0001**	7741, p < 0.0001**	10060.5, p < 0.0001**
SCCC , Signed-Rank =	1231.5, p < 0.0001**	6565.5, p < 0.0001**	2960.5, p < 0.0001**	6381.5, p < 0.0001**

TABLE 4. Statistical survey findings: attitudes and interests

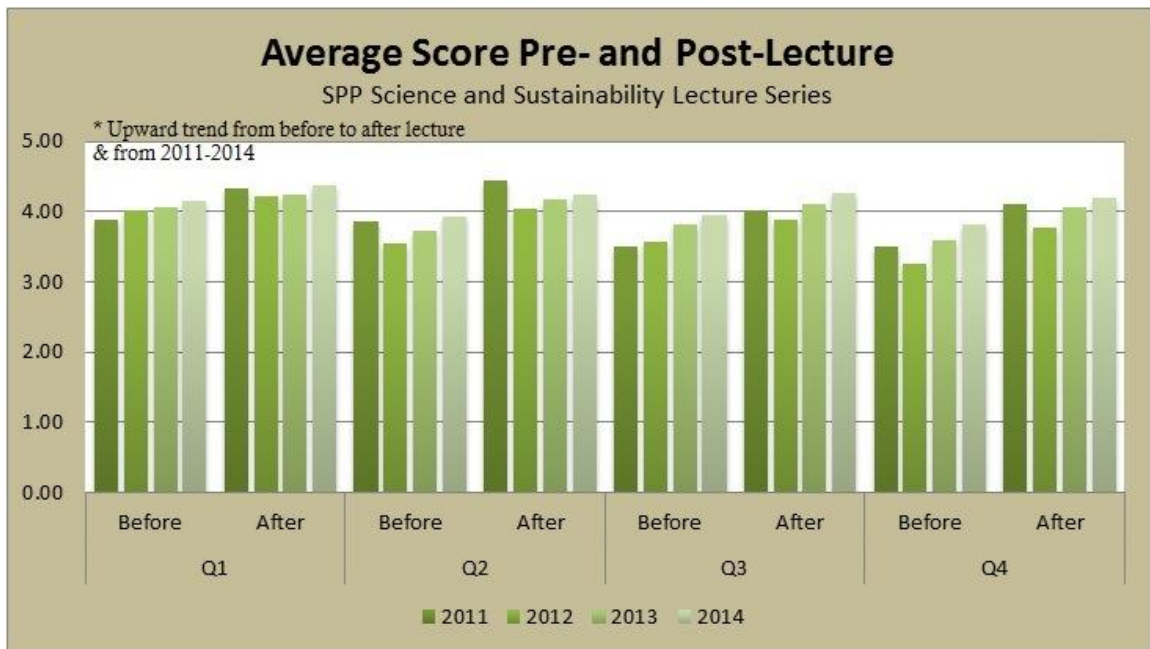


FIGURE 7. Overall pre- and post-lecture Likert scores

I then compared the average scores (Figure 7) for each question pre- and post-lecture for years 2011, 2012, 2013, and 2014 and found a clear trend towards more pro-environmental attitudes over the years. Figure 7 shows the average Likert scores for each question pre- and post-lecture, and the progressive shades of green represent the consecutive years. For all four survey questions, you can see a trend in the average pre-lecture (before) scores: they increase from 2011-2014. This displays increasing interest in environmental topics over the timespan of SPP's lecture series and the implementation of other sustainability programs.

Connecting EJ and SPP

SPP's working definition of sustainability differs from that of Agyeman's just sustainability outlined earlier (Chapter 2). Instead of centering justice within sustainability, justice is a tangential component of programming. SPP focuses on bringing environmental programming to a uniquely marginalized population, but they are not centered on addressing injustice within that population's social context. In particular, SPP does not actively address racial or economic injustice or discriminatory power dynamics within the criminal justice system; however, some programs do provide unintentional and intentional justice components. These components include but may not be limited to intellectual space inside prisons, input and feedback for programming, and interaction with outside advocates.

SPP is rooted within an academic institution and promotes an educational component for all of their programs. They also offer specific classroom experience,

certification and higher education programming for incarcerated students. SPP claims that offering education as a part of programming distinguishes it from other green prison programs. It is important to note here that institutional racism is not just limited to the criminal justice system but is also linked to liberal higher education structures. For this reason, colleges must carefully consider power dynamics created through state partnerships and operations. For example, Evergreen is known to be partnered with Aramark, a food service company that has been linked to prison labor for profit and health violations around in-prison food services. If the college is looking to bring real justice and opportunity to prisoners, being invested in prisons and companies that make profit off prison labor (i.e. Aramark) certainly doesn't work towards that goal.

CONNECTING EJ AND WASHINGTON PRISONS

For this portion of the study, I examine Washington justice statistics in order to gauge the presence of racial disparities in rates of incarceration. I then critically assess the relationship between Washington Department of Corrections, ecology and greenwashing.

Washington and the Criminal Justice System

The Sentencing Project's 2007 report can be referenced in Table 5. The Sentencing Project found that more than 1% of African Americans are incarcerated in 49 states; while not a single state in the country has a rate that high for the white population

(Mauer and King 2007, 7). Justice statistics revealed that at a national level, white people are more likely to be incarcerated in local jails than prisons. Since time in jail is usually much shorter than prison sentences, the Sentencing Project argues that the ‘collateral consequences’ of jail incarceration is generally less severe than consequences associated with time in state prisons (Mauer et al 2007, 15).

Prison and Jail Inmates at Midyear 2005			
	White	Black	Hispanic
National Incarceration Rate (rate of incarceration per 100,000 population)	412	2290	742
Washington Incarceration Rate (rate of incarceration per 100,000 population)	393 *lower than national rate	2522 *higher than national rate	527 *lower than national rate
Percentage of Incarcerated Population (for total population)	0.3%	2.5%	0.5%
Washington black incarceration rate is higher than the national average	24th highest rate in nation		

Washington white incarceration rate is lower than the national average	wider disparity between white and black incarceration than nationally
Washington Black-to-white ratio of incarceration	6.4 = for every 1 white person incarcerated, there are 6.4 black people (23rd highest ratio nationally)
<p><i>TABLE 5. Rates of incarceration</i></p> <p>Data: Bureau of Justice Statistics, The Sentencing Project Mauer & King 2007 (data unavailable for other populations, population descriptors from 2007 report)</p>	

They argue that this is not just a reflection of crime rates, but is linked to a variety of policies and practices inside and outside of the criminal justice system. Racial disparities in incarceration rates can be linked to these policies and practices; for example, drug offenses are often prosecuted more harshly in communities of color than the same or similar offenses in areas largely populated by white folks (ibid 2007, 17). A briefing report from The Sentencing Project, *Black Lives Matter: Eliminating Racial Inequalities in the Criminal Justice System*, identifies a few key features of criminal justice that “contribute to disparate racial impact[s]...:

- Many ostensibly race-neutral policies and laws have a disparate racial impact.
- Criminal justice practitioners’ use of discretion is—often unintentionally— influenced by racial bias.
- Key segments of the criminal justice system are underfunded, putting blacks and Latinos—who are disproportionately low-income—at a disadvantage.
- Criminal justice policies exacerbate socioeconomic inequalities by imposing collateral consequences on those with criminal records and by diverting public spending” Ghandnoosh (2015).

While the United States’ prison population has slightly declined (2.4%) since 2009, the decline is minor compared to the huge boom in population initiated in the

1980s and many people have simply been shifted to parole (still monitored by DOC). Racial disparities also continue to exist. In Washington, for example, between the state's peak years of incarceration (2010 and 2013), rates of incarceration decreased by 1.5%. But deconstructing incarceration rates has shown a huge gap between rates of imprisonment based on race in Washington (Table 5). For every 1 white person incarcerated, there are 6.4 black people in prison (23rd highest ratio nationally). The state's black incarceration rate is higher than the national average, while the white incarceration rate is lower (24th highest incarceration rate of black people in the country). This data emphasizes a wider gap in the Black-to-White ratio than national averages and that in Washington, black people are incarcerated at over six times the rate of white people. Washington did show a lower incarceration rate of Hispanic people than the national average, but 0.5% of the Hispanic population is still incarcerated compared to 0.3% of the white population in the state. Black people are still disproportionately impacted, with 2.5% of the population incarcerated. The presence of disproportionate incarceration rates based on race makes a compelling argument for the need to address anti-racism within Washington prisons and the larger criminal justice system that contributes to these disparities. This factor also links to earlier discussion of environmental justice struggles against racism, specifically within the context of mass incarceration (Chapter 2).

A 2011 *Preliminary Report on Race and Washington's Criminal Justice System* from the Task Force on Race and the Criminal Justice System at Seattle University's School of Law supplements the national and state study outlined above. This report found that

“[I]n 1980, of all states, Washington had the highest rate of disproportionate minority representation in its prisons. Today, minority racial and ethnic groups remain disproportionately represented in Washington State’s court, prison, and jail populations, relative to their share of the state’s general population. The fact of racial and ethnic disproportionality in our criminal justice system is indisputable... [and that] much of the disproportionality is explained by facially neutral policies that have racially disparate effects” (Beckett, Chang, Debro, Fitzgerald, Flevaris, Gillmer, Harris, McCurley, Perez, Reasons, Whisner, and Wilson 2011, 1).

Beyond ‘neutral’ policies that produce unintentional inequalities, the disproportionality in Washington’s rates of incarceration can also be explained by the “prevalence of racial bias—whether explicit or implicit” (Beckett 2011, 2). Because race, particularly racial stereotypes, play into the judgements and decisions made by human actors within the criminal justice system, it is important to recognize the ways racial bias (often subtle) has impacts that translate to observable social problems with time. This bias plays into the many decision-making roles people fill within the context of the Prison Industrial Complex (PIC).

Critical Resistance, a prison abolition movement, outlines the ‘Prison Industrial Complex’ as a more accurate term for the criminal justice system, especially as ‘criminal’ and ‘justice’ are loaded terms within the U.S. context and State’s role in producing injustice. This term also highlights the foundational relationship between punishment and commerce (i.e. exploitation and capitalism). Funding towards prisons divert social and economic issues to areas of punishment instead of dismantling root causes of these problems. To this point, Herzing (2005) states that

“[S]evere cuts have been made to social safety nets, job markets are shrinking, and many of this country's neediest people are facing increasingly limited access to resources. This environment, combined with increasing surveillance and social control of political dissidents and non-citizens and immigrants, a media feeding-frenzy on crime and punishment, and continued prison construction, for example,

create the perfect conditions for more of the targeted populations to get swept up in the net of the prison industrial complex.”

Core components (alluded to within the above quote) of the PIC are criminalization, media, surveillance, policing, courts, and most notably, prisons. Criminalization contributes to who and what is categorized as ‘criminals’ and ‘crime’, reinforced through use of media and government policy, and often reflects the problem of punishment as a response to structural inequalities and a component of economic systems. Often those painted as ‘criminal’ are poor people, people of color, people with mental illnesses, queer people, political dissidents, and people without citizenship. For example, during the prison boom that occurred since the 1980s, the number of women in U.S. prisons tripled. Herzing (2005) says that prisons are the “ultimate expression of the Prison Industrial Complex.”

Connecting racially disparate impacts of incarceration to functions of capitalism, Angela Davis (1998) says that private capital has increasingly been tied to the ‘industry of punishment’ and over time has become an important component of the U.S. economy. This issue reflects much of what Michelle Alexander outlines as ‘the New Jim Crow’ and how racist institutions are also tied to capitalist exploitation of workers and cheap labor. While Davis emphasizes the significance of the for-profit prison industry and its visibility in the mainstream, she also holds government contracts, the construction industry, architectural designers, and military technology as significant components of the Prison Industrial Complex. Some companies that use prison labor include IBM, Motorola, Compaq, Texas Instruments, Honeywell, Microsoft, and Boeing, but she also argues that many consumer products are tied to prison labor—specifically because global

corporations have realized cheap prison labor can be “as profitable as third world labor exploited by U.S.-based companies” (Davis 1998).

Environmental Rights, Prisons and ‘Greenwashing’

A striking overlap between environmental justice and prisons can be seen in examples including the State Correctional Institute-Fayette in Pennsylvania, state and federal prisons in Colorado, New York’s Rikers Island Jail, and the Northwest Detention Center in Washington State (Kirchner 2015). The first facility was built near an abandoned coal mine ash dump—similar to environmental justice issues in neighborhoods and the health risks associated with particulate matter in the air (toxic exposure). Thirteen state and federal prisons in Colorado were built near wells with radioactive waste contamination from uranium mining—posing health risks associated with contaminated water. New York’s Rikers Island Jail is built on top of toxic soil, contaminated by a waste landfill—echoing early environmental justice struggles in low-income communities of color. And lastly, the Northwest Detention Center in Washington which is located in a volcano hazard zone—a reflection of ‘sacrifice zones’ specific to incarceration. Aside from the exposure prisoners and prison staff face from contaminated locations, there are also ecological impacts of prison construction and operation. It is useful to think about the relationship between prisons and prisoners as similar to rural and urban communities. All communities have some level of ecological impact and exchange, and this is no different for prisons and the people who live within their walls (Wright 2015).

In 2015, the Human Rights Defense Center (HRDC), publisher of Prison Legal News, launched the Prison Ecology Project. The Prison Ecology Project seeks to report and explore environmental issues linked to the construction and use of prison facilities. This includes ecological and social impacts of constructing new facilities and operating existing prisons, as well as environmental rights of incarcerated people. In a Prison Legal News publication, Paul Wright touches on the clear connection between environmental injustice in outside communities and in carceral spaces:

“If we recognize the problem with forcing people to live in close proximity to toxic and hazardous environmental conditions, then why are we ignoring prisoners who are forced to live in detention facilities impacted by such conditions?” (Wright 2015).

While the inclusion of EJ within federal government can be seen as a success in itself—a ‘trickle-up’ effect from the grassroots—the EPA and other groups have recently been criticized for their ineffective use and implementation of EJ policies (Chapter 2). They are also being called to expand their coverage to include protections for prisoners. To date, prisoners hold essentially no environmental rights. No environmental rights means there is no monitoring or regulation of potentially deadly contamination through prison environments, jobs, and other areas of exposure. A prison sentence may also encompass a sentence for poor health depending on the prison. EJ and social justice groups, individuals, and emerging coalitions are petitioning the EPA’s Interagency Working Group on Environmental Justice to include incarcerated people in their Environmental Impact Statements (Figure 8). This EJ petition, endorsed by over 90 social justice groups across the U.S., is the beginning of a national discussion around criminal justice, ecology, and human rights.

Oddly, prison populations are included and excluded by various government agencies. For example, the Prison Policy Initiative’s “Prison Gerrymandering Project” has uncovered how the Census bureau includes prisoners in local town population numbers. In these cases, even though prisoners hold no rights to vote (in almost all states), the town received more representation based on population totals as well as district benefits, while offering no real benefit to prisoners for this inclusion. Outside of legislative and school district inclusion, agencies like the EPA do not include prison populations in their work, therefore incarcerated people have been excluded from EPA protection. The Prison Ecology Project has begun asking why these differences exist between agencies and which populations are really benefitting or being excluded (Kirchner 2015, Wright 2015).

While it is encouraging to see the EPA attempting to increase the effectiveness of Executive Order 12898 and Title VI of the Civil Rights Act in protecting communities that have been overburdened by industrial pollution, we also find that there is a significant piece missing to the dialogue thus far: recognition of the vast number of prisoners and their families as an extremely and uniquely overburdened population.¹

The need for EJ 2020 comes from the unfortunate reality that many of the environmental permit approvals that have taken place in recent decades, and continue today, fall into a category of poverty discrimination policies which almost exclusively impact poor communities, with a disproportionate impact on poor communities of color. Few industrial sectors exemplify this more clearly than the prison industry.²

¹ HRDC uses the term “prisoner” to refer to people held in prisons, jails, detention facilities, civil commitment centers and other facilities that hold people against their will as punishment or while awaiting court-related proceedings, i.e. trial, sentencing, deportation, etc.

² On July 9, 2015, Prison Policy Initiative released a new report on prisoner income: “Using an underutilized data set from the Bureau of Justice Statistics, this report provides hard numbers on the low incomes of incarcerated men and women from before they were locked up.... The American prison system is bursting at the seams with people who have been shut out of the economy and who had neither a quality education nor access to good jobs. We found that, in 2014 dollars, incarcerated people had a median annual income of \$19,185 prior to their incarceration, which is 41% less than non-incarcerated people of similar ages.” Source: <http://www.prisonpolicy.org/reports/income.html>

FIGURE 8. Excerpt: EJ petition to EPA

HDRC and the Prison Ecology Project are among those currently pushing the Environmental Protection Agency to include prisoners in environmental impact statements of new prisons. Prisoners are not included in the EPA's assessment of potential environmental impacts, even though they are the most likely to be exposed to impacts within the prison. And while prison construction projects have been appealing to small town and rural communities in the past, the promises of local economic benefits associated with new prisons have been realized as myths (Braz et al 2006). Many neighborhoods never see the so-called economic opportunities that are often presented by those pushing for new prisons. More and more groups are addressing these overlapping issues of economic, environmental, social justice and the criminal justice system (Kirchner 2015).

The Prison Ecology Project is citing Title VI of the Civil Rights Act, which “forbids a government agency to use federal funds for anything that would result in racial or ethnic discrimination” and assumes “pervasive discrimination and segregation in American society, [and] measure[s] success by the eradication of the consequences of racism regardless of individual motive” (Colopy 1994, 188). Justice statistics suggest that WA-DOC is breaking Title VI laws with their above national average disparities in incarceration rates of the black population in Washington (see WA Criminal Justice Statistics). Panagioti Tsolkas, Director of the Prison Ecology Project, has argued the EPA consider the environmental rights of prisoners and goes further to say that, according to law, “you can't construct something specifically using federal dollars if constructing that would be an act of discrimination against a certain population.... which I think would apply to every prison in the country” (Kirchner 2015). At the federal level, statistics show

that black and brown people are disproportionately impacted by every aspect of the criminal justice system. These trends occur at the state level too and reinforce Tsolkas's argument.

At a recent panel, *Ecology of the Police State*, ideas around above mentioned topics and the Prison Ecology Project were discussed in detail. The panel focused on how prisons are linked to oppression, but also “to direct and indirect environmental degradation and environmental racism, and are now being rebranded as part of a ‘green economy’.” Within this panel, Paul Wright, editor and executive director of Prison Legal News and Human Rights Defense Center (HRDC) and formerly incarcerated person, spoke directly to this issue as it relates to Stafford Creek Corrections Center in Washington. He stated that prisons are often built in areas that have a history of environmental exploitation such as mining and logging (Aberdeen, where SCCC is located), and that once the trees and jobs are gone, prisons are proposed as a next option for development and economic revitalization. He also backs early claims (Chapter 2) that prison systems have begun co-opting rhetoric from the environmental movement and considers this a component of greenwashing prisons. He used the earlier example of the Department of Corrections showcasing LEED buildings and composting programs, but presented this in simple terms: “exploiting 10 prisoners paid 10 cents an hour to compost.”

The Ecology of a Police State panel focused their attention on the intersections between “mass incarceration and the environmental degradation which occurs, directly and indirectly, as a result of it, including

- the immediate impacts of pollution from these often-overpopulated human warehouses,

- the environmental racism of where prisons are built and how they operate,
- the re-branding of prisons as part of a ‘green’ economy, and
- the use of prison as a tool for repressing ecological movements aimed at changing the current political/economic system” (‘Ecology of the Police State 2015).

Primary Topics of Interest, Ecology of the Police State panel
Environmental justice (health and safety) for those incarcerated and those in surrounding communities, prisons built on toxic waste sites, with contaminated water supplies, etc.
General impact of prisons on water quality and quantity
Contamination due to sewage discharges from prisons
Impacts of prison construction, expansion and operation on plant and animal species listed for protection
Prisoners’ participation in the environmental movement
Greenwashing of prisons via LEED certifications
<i>TABLE 6. Primary topics of interest, panel on ‘Ecology of the Police State’</i>

Recent reports have shown ecological damage from Washington State prison operations and construction. A publication in Prison Legal News, titled *Greenwashing WA State’s Prison System in a River of Sewage* (Anderson 2015), outlines several cases of environmental pollution associated with state prisons. The publication focuses particularly on waste spills at Monroe Correctional Complex in Monroe, Washington dating back to the late 1990s. State records obtained by the Human Rights Defense Center (HRDC) show that this one prison has dumped approximately half a million gallons of sewage water and other contaminants into waterways and fields (Anderson 2015). Although the extent is unknown because even reports obtained by HRDC do not disclose all instances of contamination, the prison has polluted surrounding rivers and wetlands including the Skykomish River. This river is habitat for endangered salmon, an

important cultural connection for local Indigenous communities. It should also be noted that DOC had no permits to release wastewater into the Skykomish, but were only permitted to discharge to a local city's sanitary sewer (ibid). The following excerpt discusses overlapping social and ecological concerns related to this particular case, but this brings up questions about similar issues as they relate to other Washington prisons, the prisoners who reside in these facilities, and the conditions of human and non-human residents in surrounding habitats:

“... In 2002, the EPA advised [the Washington Department of] Ecology it should do something about a toilet facility on MCC's Big Yard that was dumping human waste directly into the Skykomish River. 'Maintenance supervisors at Monroe Correctional Center have been aware of this situation for some time and have not chosen to comply with [the law],' the EPA said in an advisory... Also, in 2006, the EPA passed along this tip: 'For the past 20 plus years the Monroe Correctional Complex has had a firing range above the river and farm land. The military and other law enforcement agencies use this also. Water runs down from this site into the river and farmland below. The hillside that is shot into is full of lead [toxic], not to mention new housing going in nearby this site.' An Ecology inspector, responding to his manager's request to look into the lead threat, said it was something they were unlikely to inspect until the range ceases operations, 'or at such time as 'off-site' impacts are identified...' Little if any of this has been reported by the local media. The general public may not care, or it simply might not know...

Correctional institutions, the EPA said in an overview of prison ecology issues, 'have many environmental matters to consider in order to protect the health of the inmates, employees and the community where the prison is located. Some prisons resemble small towns or cities with their attendant industries, population and infrastructure. Supporting these populations, including their buildings and grounds, requires heating and cooling, wastewater treatment, hazardous waste and trash disposal, asbestos management, drinking water supply, pesticide use, vehicle maintenance and power production, to name a few potential environmental hazards.' The EPA 'has been inspecting correctional facilities to see how they are faring. From the inspections, it is clear many prisons have room for improvement.'"

Although EPA calls attention to these concerns above, they admitted "in 2015, when HRDC requested inspection documents from the EPA... 'We haven't done a prison inspection in several years now'" (Anderson 2015).

The Washington State Department of Ecology (referred to as WA-ECY or Ecology) has investigated several spills and issued warnings or notices of violation, but because they do not hold much enforcement power, have not charged the Department of Corrections for all cases of ecological damage (Anderson 2015). Anderson (2015) and Dannenburg (2007) does take note of a few cases where the WA-DOC was fined for misconduct related to pollution, but argues that financial penalties does not necessarily mean that the problem was then solved. For example, in 2004, DOC was fined by Ecology for falsifying 20 of 36 water pollution reports (1999-2002) at the now closed McNeil Island Corrections Center. The prison facility released illegal amounts of contaminated wastewater into Puget Sound and falsified documents to cover up the extent of pollution (ibid). Additionally, the Department of Ecology has issued air and water pollution violations at Walla Walla State Penitentiary. Inspectors found that prison waste discharges had affected 17 groundwater wells serving 10,000 citizens in surrounding communities. The Prison Legal News article about these cases of ecological damage and contamination of surrounding water supplies also bring up a concerning issue of enforcement between the Department of Ecology and WA State Department of Corrections and issues of transparency. A 2012 email from an ECY official states, “I was told it wouldn’t look good for a state agency to enforce on another state agency. I think it makes us look pretty bad when we overlook the environmental issues for them and enforce on others...”

While this thesis specifically focuses on prisons in Washington State, issues of overlapping ecological and human impacts of prisons are found across the country. In a 2007 article, Prison Legal News said “crumbling, overcrowded prisons and jails

nationwide were leaking environmentally dangerous effluents not just inside the facilities, but into local rivers, water tables and community water supplies.” Examples include prisons across California, in Georgia, New York, and Massachusetts. Some contamination has led to cases of disease among prisoners subjected to these conditions either in their living units or work areas (Anderson 2015). What are the impacts for people inside prisons (an often non-transparent space of environmental injustice where people are uniquely marginalized)?

Another environmental issue recently brought to attention surrounding Washington prisons is greenwashing. Greenwashing is “when an agency or company spends more [money, time, energy, etc...] on marketing and public relations to promote the *perception* they are environmentally conscious than they spend on implementing environmentally conscious practices and policies” (Anderson 2015, emphasis added). The ‘Green Prison Paradox’ expands the argument against greenwashing to co-optation of green movement language and marginalization of abolitionist arguments. Bringing attention to greenwashing, Anderson (2015) cites cases of WA-DOC promoting Leadership in Energy and Environmental Design (LEED) Gold certified construction and practices while also polluting local ecosystems with little to no accountability (a few examples earlier). They also mention several overlapping issues of human rights. One particularly significant case being the continued use of solitary confinement, *despite it being considered cruel and unusual punishment*, within prisons that go ignored while the DOC promotes ‘green’ practices in those very same prisons. An April 2008 Prison Legal News article reported, “rain-fed toilets or not, IMU [Intensive Management Unit or solitary confinement] prisoners were still being ‘locked in their 8-by-12 foot cells 24

hours a day, with a nominal one hour of ‘recreation’ outside the cell five days a week. They are allowed 15-minute showers three times a week. Prisoners are observed 24 hours a day from an elevated, hi-tech control room and the 172 security cameras, placed throughout the 77,000 square foot building. Prisoners are limited to six months in the segregation unit, but can stay in IMU indefinitely” (ibid). According to a Prison Legal News article, Washington developed a \$500 million prison expansion program all while greening buildings across the state over a span of four years.

CHAPTER 5—CONCLUSION

Throughout this thesis study, I outlined basic connections between environmental justice and prisons through a review of scholarly literature and a mixed methods, critical analysis. Survey analysis from a case study of SPP found that some components of their environmental education programs offer space for environmental justice as it relates to incarcerated people. Prisoners who completed surveys showed high capacities of learning, knowledge retention, and pro-environmental interests related to the environment, environmental topics, and discussing the two with their peers. Justice statistics revealed disproportionate incarceration rates in Washington—black people are incarcerated at a higher rate than white people—and actually showed an even wider gap between rates of imprisonment than national averages. Recent reports have also addressed environmental agencies’ lack of protection for prisoners, ecological damage from prison operation and construction, and attempts to greenwash prisons. Groups

including the Prison Ecology Project, EJ and anti-prisons coalitions, are petitioning EPA to include prisoner protections and prison environmental regulations while simultaneously exposing contamination and human rights violations. Future studies could dive deeper into studying the environmental impacts of prisons operated by the Washington Department of Corrections within the larger context of the Prison Industrial Complex. It is also important for critical scholars to address and problematize injustices within mass incarceration. Kurtz argues that the State's use of racial categories truncates the everyday, lived experiences of people of color—an important point for consideration related to criminal justice and mass incarceration statistics and 'hard data'.

Textual analysis of Prison Legal News and the Prison Ecology Project suggest greenwashing to be an important phenomenon for consideration. It would be worthwhile for future researchers to ask whether this phenomenon is applicable to the Sustainability in Prisons Project. In some ways, SPP's environmental education programs address distributional justice (environmental programs/goods for marginalized populations), procedural and participatory justice (feedback and decision-making within programs), and rights-based justice (access to education and resources); however, within the context of mass incarceration, SPP is limited by not being a justice-centered organization and not all of their programs offer the EJ components mentioned above. I argue that SPP is building potential for environmental justice inside prisons, but also has room for critique and improvement within the larger context of mass incarceration and the Prison Industrial Complex. If studies are to look further into greenwashing, it is important to do so through an EJ lens by also considering how co-opting grassroots ideas may be a way of "EJ-

washing” (a mixture of greenwashing and whitewashing, co-opting both environmental and anti-racist language without substantive follow-through) within oppressive systems.

In order to gauge potential for environmental justice in prisons, I discussed an environmental education program offered through SPP at multiple WA prisons. Survey results found that prisoners arrived at lectures with a relatively high level of environmental knowledge, and left the classroom having gained additional knowledge on the specific lecture topics. Lecture topics are different each month, and thus incarcerated students are acquiring broad and diverse environmental content knowledge. These findings apply to all years of the Lecture Series from 2009-2014. Most people in prison who attend a lecture report a fairly high level of environmental interest before the lecture even starts, and most of them do not shift in that attitude after one day of attendance. For incarcerated students who do report a shift after the lecture, it is far more likely to be a pro-environmental shift. Pro-environmental shifts are strongest in relation to the lecture topic itself, rather than environmental issues in general. More broadly, from 2011 to 2014 attitudes steadily shifted towards the pro-environmental end of the scale; this potentially points to the cumulative impact of the lecture series, Roots of Success, and other sustainability programs WCCW and SCCC began offering throughout their facilities over the years. This study is the first to support SPP’s subjective sense that prisons with SPP programs are developing an environmentally-positive culture. This multi-year trend towards greater environmental interest and engagement suggests a shift in prison culture that coincides with the push for sustainability programming at WCCW and SCCC. As a collaborative, reform-oriented state agency, this trend support’s SPP’s theory of change

and broad focus on long-term goals of making prisons less harmful to people and the environment.

By including guest lecturers within SPP's educational style, the lecture series works towards the goal of offering more opportunities for prisoners in the process of breaking down harmful stereotypes of prisoners as unaware, uneducated and/or unsustainable. Data support the idea that prisoners, particularly those who attend the SPP lecture series, are generally aware of and literate in environmental basics within a wide range of topics. Since lectures are different each month and lecturers come from diverse professions and experiences, material includes a spectrum of introductory to advanced education, including graduate level lectures. Surveys suggest that lecture topics encourage prisoners to learn more and discuss ideas with their peers. This addresses harmful stereotypes of prisoners as anti-social reflected in other discourse. There is much more complexity to people who are incarcerated than what is commonly portrayed in public discussions and decision-making. Programs in prisons should reflect this by offering diverse program opportunities for environmental engagement, participation, decision-making and future interests.

SPP functions similarly to a non-profit, but is a sustainability-focused state agency—a partnership between two state agencies (Washington Department of Corrections and the Evergreen State College). For this reason and others explored within this research, it is important to consider ways of bringing more grassroots environmental justice focus to their programming. It is also important for them to address racial, economic and social injustice within the prison system, lack of accountability between state agencies, and how programming for and by prisoners can counteract those impacts

while progressive criminal justice reform and/or abolition goals move forward. As Richard Ford states, “race-neutral policy could be expected to entrench segregation and socio-economic stratification in a society with a history of racism” (Cole and Foster 2001, 67). Cole and Foster add to this, “Unfortunately we do not live in a colorblind world, nor one in which legal rules and social actions have eliminated either the vestiges of historical racism or even all of the current manifestations of racism.” They say this is “just the beginning of understanding environmental injustice or racism” and I hope this thesis helps to expand that discussion (Cole et al, 79).

Just sustainability offers an existing alternative to current government agencies and policies that work with limited definitions of sustainability and environmental justice. As outlined earlier (Chapter 2), a justice-oriented framework is called for in order to address overlapping ecological and social issues; therefore government agencies that are already encouraged to consider environmental justice in their decision-making and functioning under Executive Order 12898, could take this approach when providing public services and goods. Even though, as Agyeman and others point out, there have been historical and geographical differences in the origins and use of the New Environmental Paradigm (NEP) and the Environmental Justice Paradigm (NJP), there is overlapping compatibility between the two along areas of theory, conceptualization and practice (Agyeman et al 2004).

Agyeman et. al. (2004) calls the overlap between these two paradigms ‘just sustainability’. They claim just sustainability is an evolving cooperation between environmental justice and sustainability and has far-reaching use within current sustainability work, particularly in NGOs and government agencies. This calls for equal

focus on equity, justice, fair policy and environment broadly defined (ibid 2004, 160-163). In the European Union (EU), just sustainability is seen as a top-down approach that is compatible with the local, bottom-up nature of environmental justice. Agyeman et. al. (2004) says that this complementary relationship is helping to create a ‘policy architecture’ that supports ecological sustainability and broader areas of “justice, equity and governance” simultaneously. This may be a helpful concept for the WA State Sustainability in Prisons Project, a government organization; but just sustainability’s top-down focus should be emphasized as it is not compatible with environmental justice *unless* bottom-up practices and grassroots people are included and justice is central.

Future research could explore EJ related to other SPP programs, the organization’s structure and procedures, and various other aspects of the organization. As one of few programs that offers environmental programs inside prisons, they play an important role in creating change within the criminal justice system. Researchers could also explore more EJ-focused questions, but for the sake of this study, I was limited to those questions already provided on the SPP surveys. It is also worth mentioning that prisoner surveys must go through Human Subjects Review since incarcerated people are a uniquely marginalized and vulnerable community. Justice-centered analysis should also consider how prisoners benefit from surveys and should not just be used to extract knowledge about people or evaluate programs in prison. This analysis was also limited to SPP evaluation strategies and future research could compare surveys in different ways (outside of pre-/post-lecture, quantitative analysis). Survey bias may also play into the survey results, as some prisoners may respond to questions based on what they speculate SPP to consider as the ‘correct’ answer. This is important to the discussion of power

dynamics, as SPP researchers and staff hold privilege and power in their relationships with incarcerated people, within carceral spaces.

Seeing how environmental justice applies beyond this study would help further develop the connection between prisons and justice-centered environmentalism. While this thesis focuses on the unique opportunity just sustainability offers to government agencies, future research should explore limitations through an abolitionist lens. For example, within Agyeman's description of just sustainability, one must also question the placement of environmental justice within a sustainability framework. Why not the other way around? Is government use of grassroots language/movements simply co-optation of marginalized struggles? How can government agencies that participate in marginalization and violence against people of color and poor people substantially address injustice? On multiple levels, it is crucial to address the question of what exactly is being sustained.

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Appendix

SURVEY SAMPLES

A. True or False. Please answer the questions below by circling the best answer.

1. Since its beginning, the conservation nursery has successfully cultivated over 1 million plants.

TRUE

FALSE

UNSURE

2. We are restoring the Taylor’s checkerspot butterfly population in Washington because it is pretty to look at.

TRUE

FALSE

UNSURE

3. Amphibians are an indicator species and one reason is that they take in their surrounding water by breathing through their skin.

TRUE

FALSE

UNSURE

B. How likely are you to...					
	Very Unlikely	Unlikely	Neutral	Likely	Very Likely
Seek information on the environment?	1	2	3	4	5
Seek information on [the lecture topic]?	1	2	3	4	5
Talk to another inmate about issues related to the environment?	1	2	3	4	5

Talk to another inmate about [the lecture topic]?	1	2	3	4	5
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SURVEY/ ANALYSIS KEY	
Term/Acronym	Definition
WCCW	Washington Corrections Center for Women (Gig Harbor, WA)
SCCC	Stafford Creek Corrections Center (Aberdeen, WA)
BEFORE	Answers from pre-lecture survey
AFTER	Answers from post-lecture survey
Q1 = Question 1	How likely are you to... seek information on the environment?
Q2 = Question 2	How likely are you to... seek information on the lecture topic?
Q3 = Question 3	How likely are you to... talk to another inmate about issues related to the environment?
Q4 = Question 4	How likely are you to... talk to another inmate about issues related to the lecture topic?
Likert Scale	Attitude scale common to survey-based research. In response to Q1, Q2, Q3, and Q4, the scale of 1 to 5 represents likelihood: 1 = very unlikely 2 = unlikely 3 = neutral 4 = likely 5 = very likely
Negative Shift = Anti-Environmental Shift	Comparing pre-and post-lecture surveys shows a shift in attitude towards 1 on Likert Scale.
Positive Shift = Pro-Environmental Shift	Comparing pre-and post-lecture surveys shows a shift in attitude towards 5 on Likert Scale.

No Attitude Shift	Reported same attitude on Likert pre- and post-lecture surveys
Asterisk (*)	Represents statistical significance

SUSTAINABILITY IN PRISONS PROJECT: WA STATE PROGRAMS (sustainabilityinprisons.org 2016)	
AIRWAY HEIGHTS CORRECTIONS CENTER	<ul style="list-style-type: none"> • Roots of Success, environmental literacy course • Gardens – 60-70 inmate gardeners, 34,000 lbs grown for the kitchen in 2013, 1000 lbs grown for Second Harvest Food Bank in the summer of 2015 • Pawsitive dog training – prison program: dog training and adoption, partnering with Diamonds in the Ruff and SpokAnimal • Waste sorting and recycling • Workshops • Master Gardening classes • Food waste composting (shipped offsite to commercial composter); developing a bark composting program • Firewood donation program – partnering with SNAP Spokane; cut and delivered 303 cords of wood to low income and senior citizens last cold season (2012-2013); on track to donate 800 cords this cold season • LEED Silver certification for two buildings • Nature imagery in maximum security mental health area • Computer refurbishing: fixing up donated computers for non-profits
CEDAR CREEK CORRECTIONS CENTER	<ul style="list-style-type: none"> • Beekeeping: bee colony collapse research, honey collection, manufacturing lotion and lip balms from beeswax, one-time beekeeping certification for staff and inmates • Large-scale, in-vessel composting; inmate’s story on composting • Vermicomposting • Endangered species conservation and certificate program: western pond turtle rehabilitation, partnership with Washington Department of Fish and Wildlife, Woodland Park Zoo, and PAWS • Prairie restoration crew, partnership with Center for Natural Lands Management, Joint Base Lewis-McChord, Washington Department of Natural Resources,

	<p>Washington Department of Fish and Wildlife, U.S. Fish and Wildlife Service, Oregon Zoo, Pacific Rim Institute for Environmental Stewardship, Whidbey-Camano Land Trust, Friends of Puget Prairies, Wolf Haven International, and City of Steilacoom</p> <ul style="list-style-type: none"> • Gardens • Horticulture program with vocational college credits, partnership with Centralia College • Pet program: dog training for veterans, dog training and adoption, partnership with Brigadoon Service Dogs • Waste sorting and recycling • Tilapia and aquaponics • Water reduction and catchment • LEED certified Perimeter Control Office, new construction • Workshops • Woodshop projects with reclaimed wood, partnership with DNR Urban & Community Forestry Program
<p>CLALLAM BAY CORRECTIONS CENTER</p>	<ul style="list-style-type: none"> • Gardens: growing for the prison kitchen • Dog training and adoption, partnership with Welfare for Animals Guild (WAG!) • Composting: developing in-vessel system on site • Waste sorting and recycling • Roots of Success, environmental literacy course • Developing waste water heat recapture program, partnership with the Center for Sustainable Infrastructure • Green Building and Carpentry, partnership with Peninsula College
<p>COYOTE RIDGE CORRECTIONS CENTER</p>	<ul style="list-style-type: none"> • Gardens • Dog training and adoption: Ridge Dogs, partnership with Benton Franklin Humane Society, Adams County Pet Rescue and Forgotten Dogs Rescue; new kitten program! • Food waste composting (shipped offsite to commercial composter; large-scale in vessel system in development) • Waste sorting and recycling • LEED Gold certified campus • Craft (teddy bear) donations, made from salvaged materials • Roots of Success, environmental literacy course

	<ul style="list-style-type: none"> • Conservation nursery for native sagebrush, partnership with the Bureau of Land Management and the Institute for Applied Ecology
LARCH CORRECTIONS CENTER	<ul style="list-style-type: none"> • Gardens • Food bank crop donations, partnership with Clark County Food Bank • Wood Craft donations, from donated and salvaged wood • Larch Cat Adoption Program, partnership with West Columbia Gorge Humane Society and Humane Society for Southwest Washington • Large-scale, in-vessel composting • Waste sorting and recycling • House plants in living units, in cells and in dorm windows • First Washington State prison to eliminate trash can liners • Waste reduction led by kitchen staff • Endangered species conservation and certificate program: Western pond turtle rehabilitation (brand new!), partnership with Washington Department of Fish and Wildlife, Oregon Zoo, and PAWS
MISSION CREEK CORRECTIONS CENTER FOR WOMEN	<ul style="list-style-type: none"> • Endangered species conservation and certificate program: Taylor's checkerspot butterfly rearing and release, partnership with U.S. Fish and Wildlife Service, Washington Department of Fish and Wildlife, Joint Base Lewis-McChord, and the Oregon Zoo • Gardens; grew 2,500 pounds of vegetables for the prison kitchen in 2015! • Small-scale composting • Waste sorting and recycling • Water use reduction & water catchment • Pawsitive Prison Project: cat adoption program, partnership with Kitsap Humane Society • Workshops • Project Feeder Watch: bird identification and data collection • LEED Silver Certified living unit, new construction • Salmon habitat restoration, partnership with Hood Canal Salmon Enhancement Group
MONROE CORRECTIONAL COMPLEX	<ul style="list-style-type: none"> • Vermiculture and vermicomposting, partnership with City of Monroe, supply worm program start up at other prisons and Fircrest Residential Habilitation Center

	<ul style="list-style-type: none"> • Developing Sustainable Practices Lab, to include: bike repair, wheelchair repair, and woodshop • Science and Sustainability Lecture Series • Gardens & greenhouses • Pet program: dog program in partnership with Summit Assistance Dogs; cat training and adoption in partnership with Purrfect Pals • Composting • Waste sorting and recycling: large-scale with pick-line • Recycling and repurposing wood, donations to Monroe Senior Center • Water use reduction and water catchment • Bicycle repair, partnership with Snohomish County Sheriff's Office • Medical equipment refurbishment • LEED-Certified Buildings: Three buildings at Monroe Correctional Complex are either rated gold or silver
<p>OLYMPIC CORRECTIONS CENTER</p>	<ul style="list-style-type: none"> • Gardens • Horticulture program, partnership with Peninsula College • Pet program: dog training and adoption, partnership with Olympic Peninsula Humane Society • Large-scale, in-vessel composting (including waste from Clallam Bay Corrections Center) • Waste sorting and recycling • Green Building and Carpentry, partnership with Peninsula College • Wood recycling and repurposing, partnership with Westport Shipyard and donations benefiting Quillayute Valley School District • Water use reduction and water catchment • Ponds for every living unit!
<p>STAFFORD CREEK CORRECTIONS CENTER</p>	<ul style="list-style-type: none"> • Beekeeping • Birdhouses • Large-scale, in-vessel composting • SPP's first Conservation nursery for rare and endangered prairie plants, partnership with Center for Natural Lands Management, Joint Base Lewis-McChord, Washington Department of Natural Resources, Washington Department of Fish and Wildlife, U.S. Fish and Wildlife Service, Oregon Zoo, Pacific Rim Institute for Environmental Stewardship, Whidbey-Camano Land Trust, Friends of Puget Prairies, and Wolf Haven International

	<ul style="list-style-type: none"> • Gardens • Greenhouses • Pet programs: Freedom Tails, partnership with Harbor Association of Volunteers for Animals (HAVA); and dog training for veterans, partnership with Brigadoon Service Dogs • Waste sorting and recycling: large-scale with pick-line • Water use reduction and water catchment • Bicycle repair, partnership with local Lions Club • Science and Sustainability lecture series • Medical equipment refurbishment, partnership with Joni and Friends: Wheels for the World • Roots of Success, environmental literacy course
WASHINGTON CORRECTIONS CENTER	<ul style="list-style-type: none"> • Large-scale, in-vessel composting • Extensive gardens • Food bank crop donations, partnerships with Thurston County Food Bank, The Saint’s Pantry Food Bank, The City Reach Food Bank, and The Shelton Community Kitchen • Waste sorting and recycling • House plants in nearly every common area • Shoe and clothing re-purposing and recycling, partnership with Correctional Industries • Conservation nursery for seed production of rare and endangered prairie plants and horticultural program, partnership with Centralia College, Center for Natural Lands Management, and Joint Base Lewis-McChord • Horticulture program, partnership with Centralia College • Nature Imagery program in the Skill Building Unit (in development for the Intensive Management Unit) • Science and Sustainability Lecture Series
WASHINGTON CORRECTIONS CENTER FOR WOMEN	<ul style="list-style-type: none"> • Conservation nursery for rare and endangered prairie plants, partnership with Center for Natural Lands Management, Joint Base Lewis-McChord, Washington Department of Natural Resources, Washington Department of Fish and Wildlife, U.S. Fish and Wildlife Service, Oregon Zoo, Pacific Rim Institute for Environmental Stewardship, Whidbey-Camano Land Trust, Friends of Puget Prairies, and Wolf Haven International • Gardens – partnership with WSU Extension, Pierce County

	<ul style="list-style-type: none"> • Horticulture program with vocational college credits, partnership with Tacoma Community College • Pet Program: Prison Pet Partnership • Bee keeping, including certification process for inmate beekeepers, partnership with Mother Earth Farm • Chickens! • Large-scale, in-vessel composting • Waste sorting and recycling • Science and Sustainability lecture series
<p>WASHINGTON STATE PENITENTIARY</p>	<ul style="list-style-type: none"> • Rare species conservation program: Pacific Northwest Monarch butterfly captive rearing, release, and tracking, partnership with Washington State University Department of Entomology • Gardens • Rental garden boxes (for inmates' personal use) • Beekeeping • Pet Program: dog training and adoption and cat training and adoption (Kittens in the Klink), both in partnership with the Blue Mountain Humane Society • Waste sorting and recycling: large-scale with pick-line • Hazardous waste reduction by 95% • Sustainable Practices Lab: furniture repair, vermicomposting, bicycle and medical equipment refurbishment, fabric and wood re-use, cultural crafts, quilt and teddy bear creations, sign shop, and TED talk videos • Roots of Success, environmental literacy course

SUSTAINABILITY IN PRISONS PROJECT
FISCAL YEAR 2015 REPORT HIGHLIGHTS

SUSTAINABILITY FOCUS: ecological social economic					
ESSENTIAL COMPONENTS	Partnerships and collaborations with multiple benefits	Bringing nature “inside”	Engagement and education	Safe and sustainable operations	Evaluation, tracking and dissemination
PROGRAM AREAS	<i>education and training</i>	conservation and scientific research	sustainable operations	community contributions	evaluation

Education and Training (sustainabilityinprisons.org)

In today’s economy, green-collar workers—people with expertise in ecology, energy efficiency and Earth-friendly development—are in increasingly high demand for their skills. This includes vocational and trade-level workers: carpenters who construct green buildings, weatherization specialists, installers of solar panels and wind turbines, ecological research assistants, organic farmers, beekeepers, and others.

The Sustainability in Prisons Project inspires and trains inmates and correctional staff through guest lectures, an environmental literacy program, and hands-on workshops. Activities are geared toward improving prison sustainability while connecting participants to the larger world of scientific research and conservation. Topics have included plant and wildlife ecology, sustainable agriculture, urban horticulture, alternative energy, and building with recycled materials. We introduce inmates to educational and employment opportunities that they may pursue after release, a critical factor for reducing recidivism according to the [Washington State Institute for Public Policy](#).

Education Programs

Education is integral to SPP's programs; our aim is to make the most of formal and informal opportunities for education, and to offer new knowledge and new practice to inmates, staff, and all partners. SPP programs dedicated to education as a central focus include our Science and Sustainability Lecture Series, an environmental literacy course called Roots of Success, and those community college programs related to nature and/or sustainability.

Community College Courses

CCCC, MCC, WCC, and WCCW offer vocational horticultural classes, and those students gain access to classroom instruction and hands-on work in those prisons extensive gardens. At CCCC, horticulture graduates may be hired as Teaching Assistants who largely oversee the greenhouses, aquaculture program, and many fields. At MCC, the students interface with the vermicomposting program which has a robust scientific basis. At WCC, the students also participate in SPP's conservation nursery, producing seeds of a prairie violet essential to rare and endangered butterflies in the region. WCCW's students have access to diverse specialties such as flower arrangements, house plants, and farming.

Through a partnership with Peninsula College, CBCC and OCC recently started offering Green Building and Carpentry. Other facilities also have vocational building programs that include green building modules.

In FY15, SPP met with Brian Walsh, former instructor at CBCC, and now the Policy Associate for Corrections Education at Washington State Board for Community and Technical Colleges. We share interest in creating more sustainability-related vocational programs. Planning is in progress for an arboriculture education program, leveraging the expertise of DNR's Community Forestry program.

SPP Staff and Organization

There are many corrections, academic, conservation, and community organization staff contributing the success of SPP; however this chart is limited to core staff at WDOC and Evergreen. For the majority of FY15, SPP was co-directed by Dr. Carri LeRoy from Evergreen and Mr. Dan Pacholke from WDOC. In April 2015, Mr. Steve Sinclair assumed the Director role for the WDOC side of the partnership. SPP Co-Founder Dan Pacholke transitioned from his role as Director to SPP Senior Advisor for Corrections. The organization currently includes three Senior Advisors, four staff, and nine program coordinators.

Program Coordinator positions are staffed by Evergreen students working 19 hours per week. Student-staff are typically recruited from the Evergreen Master of Environmental Studies graduate program and work for two year terms. Each summer several students complete their work with SPP and new students begin. Two individuals not named on the chart below worked in conservation nursery coordinator positions for SPP during FY15.

Partnerships

Partnerships and collaboration are an essential component of SPP work and nearly every SPP program. We continually work to identify new potential partners and mutually beneficial programs. A working list of SPP partnerships is included as Appendix 3; during FY15 at least 60 different organizations contributed to SPP programs in WA.

Funding

The WDOC contract made up approximately 40% of SPP funding in FY15. The percentage of SPP funding provided by WDOC varies from month to month as other funding sources become available or close. In FY15, SPP had just under \$500,000 in funds from 11 different sources, including our WDOC contract.

Roots of Success

Roots of Success is an environmental literacy curriculum developed by Dr. Raquel Pinderhughes, Professor of Urban Studies & Planning at San Francisco State University (more at rootsofsuccess.org). WDOC began offering the program in July 2013, and interest and availability of the program has grown steadily since. Staff and offender responses to the program content have been very positive. Inmate-instructors have successfully delivered the full curriculum (10 modules, minimum of 50 hours) with minimal staff supervision. Thus far, a total of 406 inmate-students have received certification for all ten modules of the curriculum. Eighteen (18) CI inmate-students have been certified for the condensed curriculum.

Since the last reporting period, 173 inmate students have graduated. Washington Corrections Center graduated 9 inmate students from the abbreviated version of the curriculum, Expanded Fundamentals.

All students complete a Roots of Success-created survey at the conclusion of the class; highlights shared by the organization:

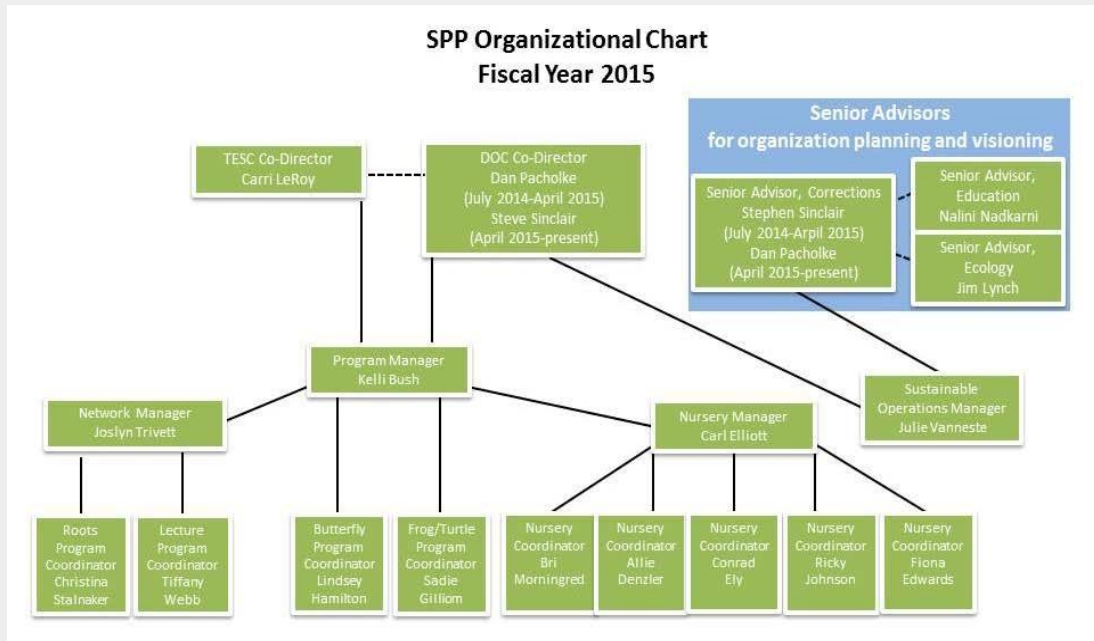
Survey Results from Roots of Success Students
95.71% - Would recommend to others
71.81% - Improved their academic skills
83.01% - Feel more comfortable working in teams
96.53% - Know more about green jobs and career pathways
86.49% - Feel more prepared for a job interview with an employer

Figure 4. Sample Survey Results

In FY15, 25 offenders and 6 staff members were certified as Roots of Success instructors. Six existing instructors were promoted to Master Trainers, a certification that allows them to certify other Instructors. At the close of the

reporting period, plans were in motion to provide Roots at 11 of the 12 prisons in WA.

The primary challenge to the Roots of Success program was the per student cost incurred by host facilities. SPP staff explored options for reducing that cost, and those efforts continue in FY 16.



LECTURE SERIES

During fiscal year 2015, highlights from SPP'S Science and Sustainability Lecture Series include:

- Early development for a lecture series in the Intensive Management Unit (IMU) at Monroe Correctional Complex with the help of Mike Walker, IMU and ITU Program Manager
- Development underway for a lecture series at Washington Corrections Center; Associate Superintendent Dean Mason created a lecture series DOC staff-team who visited the lecture series program at SCCC and met with staff; program expected to begin fall 2015
- Lecture series certificates now recommend transfer credits for enrolled students at The Evergreen State College (Evergreen)
- Met high demand for scientific nature drawing with two workshops on that topic
- Held the first live animal presentation at SCCC
- In response to high demand and limited classroom space at SCCC, updated lecture series sign up to first-come-first serve
- First presentation by previously incarcerated lecturers (SCCC 5/25/2015)
- Overall attendance of the Lecture Series for FY15 continued to increase, and was up 11% at SCCC and 7% at WCCW compared to FY14. This is likely due to no cancelled lectures this year; for the first time, a lecture was held at both WCCW and SCCC every month for the first time—no emergent security situations interfered, and no lecturers canceled at the last minute!

Since the lecture series became a consistent offering in 2009, we have recorded 4,000 inmate-attendees at the two main facilities, 3,062 at SCCC and 1,886 at WCCW. Counting individual students who have attended the lecture (removing repeat attendance), we have recorded 1,749 inmate-students, 969 from SCCC and 780 from WCCW. Adding known inmate-students from other facilities and years, we estimate at least ~2000 inmate-students have attended the lecture series.

As reflected in participant surveys and anecdotal shares, inmate-students respond very positively to the lecture series. Workshops and lectures with an interactive component appear to generate the highest levels of student engagement. Students also frequently request lectures that cover job opportunities and offer resources; Lecture Series Program Coordinator, Tiffany Webb, prioritized lectures from experts willing to bring green jobs information from their respective field.

The lecture series continued to offer three levels of certification recognizing attendance of 5 lectures, 10 lectures, and 20 or more. Level 3 certificates were updated to recommend consideration as transfer credit for admitted students at The Evergreen State College, a potential academic benefit to the many incarcerated students without other access to higher education credits. Certificate recipients showed very strong, positive emotional response to the updated certificates, suggesting social-emotional benefits as well. Since certificates have

started to recommend credit, interest in the lecture series has increased at both facilities. Next year, we plan to also offer certification to DOC staff members that attend lectures. Lecture series certificates awarded are detailed in Table 16 below.

Table 16. Summary of Students Eligible for Lecture Series Certification

Facility	Certificate	# Awarded
SCCC	Level 1 – 5 or more lectures	25
	Level 2 – 10 or more lectures	14
	Level 3 – 20 of more lectures	2
WCCW	Level 1 – 5 or more lectures	52
	Level 2 – 10 or more lectures	3
	Level 3 – 20 of more lectures	1
Total		64