



No One's Backyard: A Curriculum for Incorporating Environmental Justice into Our Future Waste Management Plans

Co-developers and co-teachers

- Linn Gould (Just Health Action)
- Michael Lewis (Bellwether Design)
- Carmen Martinez (Duwamish River Cleanup Coalition)
- Paulina Lopez (Duwamish River Cleanup Coalition)
- Vicky Raya (Environmental Coalition of South Seattle)
- Tara Bostock – (University of Washington MPH candidate)
- Dana Canfield (Sea Mar Community Health Centers HealthCorps volunteer)
- Wendy Ewbank (Seattle Girls School)
- John Deichsel
- Katie Bell Schnepf (Antioch University)
- Cari Simson (Urban Systems Design)
- Kyong Soh (Solid Ground - Marra Farm)
- Youth participants

*This product was funded through a grant from Washington State Department of Ecology.
While these materials were reviewed for grant consistency, this does not necessarily
constitute endorsement by the Department of Ecology.*

Introduction

The Washington State Department of Ecology (Ecology) is required by law (RCW 70.95 and 70.105) to develop and update a strategic plan that guides the future management of the state's waste. In 2004, Ecology issued the *Beyond Waste* Plan: a 30-year plan to eliminate wastes and use of toxic substances. It was later updated in 2009 and is currently being updated for release in 2015.

Just Health Action (JHA) received an Ecology Public Participation Grant (PPG) in 2013. The PPG fund is intended for not-for-profit public interest groups to involve and educate Washington residents about environmental issues in Washington State. One of the PPG application areas in Waste Management Projects is to “encourage citizen involvement in eliminating and reducing waste and toxics.” JHA’s PPG grant proposed to develop and teach a new curriculum that would address *Beyond Waste* through an Environmental Justice (EJ) lens. We proposed to teach the lesson plans in at least two multi-cultural secondary school settings and facilitate at least two community environmental action projects. In addition, we agreed that we would make the new EJ curriculum available for free on line.

Environmental Justice and Waste Management

JHA explored whether the term Environmental Justice¹ was mentioned in the 2009 *Beyond Waste* Plan and how EJ was being implemented in Washington state through this plan. EJ was mentioned twice in the document but without guidance for those implementing the Plan. Communications with Ecology *Beyond Waste* experts and on-line research found that EJ is not explicitly a part of the state's current *Beyond Waste* work. However, several Ecology staff members indicated their interest and desire to focus more on EJ, especially since both the state and several counties are actively incorporating race, social justice and equity concepts into strategic plans (<http://www.kingcounty.gov/operations/policies/executive/administration/aco92aeo.aspx>) and ordinances (King County Ordinance 16948). The time is ripe: the 2015 *Beyond Waste* update is in revision and there are multiple opportunities for JHA to provide recommendations on how to include EJ.

Some readers may ask the question: Why should we care about EJ in a state waste management plan? Environmental Justice has multiple origins, but according to Robert Bullard, the “father of environmental justice” (<http://drrobertbullard.com/>), its main foundations come from the civil and human rights movements (<https://www.youtube.com/watch?v=EL1FTRNPU08>). He describes the fight against environmental racism and hence the birth of the EJ movement in 1982 in Warren County, North Carolina. A predominantly African-American, low-income community

¹Environmental Justice (EJ) is defined by the EPA as, “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.” (<http://www.epa.gov/environmentaljustice/>)

was chosen as the construction site of a 19-acre hazardous waste landfill to bury approximately 40,000 cubic yards of soils contaminated with polychlorinated biphenyls (PCBs) (<http://dissidentvoice.org/2007/05/25th-anniversary-of-the-warren-county-pcb-landfill-protests/>). Although lawsuits against the construction of the landfill failed, the protests led by the community and the United Church of Christ (UCC) resulted in national attention and the birth of the EJ movement. UCC published a landmark paper in 1987 documenting a “striking relationship between the location of commercial hazardous waste facilities and race” and the widespread presence of uncontrolled toxic waste sites in racial and ethnic communities throughout the United States” (*Toxic Waste and Race in the United States*. New York: United Church of Christ).

It is also well recognized that people who live in areas with higher toxic and waste exposures also have higher health disparities. Mandates have been established at the federal, state, and local levels to address both of these environmental and health inequalities (<http://healthequity.wa.gov/Portals/9/Doc/Publications/Reports/HDC-Reports-2010-Action-Plan.pdf>). *Beyond Waste* 2015 can help guide WA State into a sustainable future by *both* managing waste and toxics for ALL Washingtonians. Simultaneously, and in the name of equity, the revision can address historic injustices by acknowledging how communities with EJ concerns have been impacted by focusing our *Beyond Waste* solutions in these communities first.

Curriculum Development and Teaching

It is a challenge to teach the *Beyond Waste* Plan through an EJ lens when the document is approximately 100 pages long, quite complex in content, relatively silent on EJ issues, and in the revision process. JHA’s solution was to develop a three-part curriculum that could at a minimum explain EJ and equity concepts (Part 1), provide a Washington State EJ case study example (Part 2), and offer an example of a solution to an identified problem in *Beyond Waste* (managing polluted runoff into our state’s waterways) that could be done equitably to benefit communities with EJ concerns (Part 3).

Part 1: Introduction to Environmental Justice, Equity, and Health

Lesson Plan 1: What Makes a Community Healthy?

Lesson Plan 2: Whose Backyard? Environmental Justice: Toxic Waste Management Meeting

Lesson Plan 3: How are Equity and Equality different?

Lesson Plan 4: Causes of the Causes: What are the Root Causes of this Problem?

Part 2: Environmental Justice Mapping Case Study: Seattle, Washington

Lesson Plan 5: Environmental Justice Matters: Mapping ZIP Codes (Part 1)

Lesson Plan 6: Environmental Justice Matters: Mapping Cumulative Impacts (Part 2)

Part 3: Incorporating Environmental Justice when Reducing Contamination in Stormwater Runoff

Lesson Plan 7: How does Green Infrastructure Help Reduce Stormwater Pollution?

Lesson Plan 8: Equity Impact Review: Green Stormwater Infrastructure in Seattle

JHA developed the lesson plans over a one year period starting in January, 2014. We had the opportunity to test pieces of our lesson plans at Seattle Girls School (Spring, 2014) and Antioch University (Spring, 2014) to gain feedback on our interactive teaching methods with youth and adult learners respectively. We then piloted a Green Infrastructure curriculum with an EJ focus by co-developing and co-teaching at South Park Community Center in a Seattle Parks & Recreation Student Teen Employment Preparation (STEP) program for 16 youth (Summer, 2014). After reviewing our evaluations, we revised the curriculum for the Duwamish River Cleanup Coalition's Duwamish Valley Youth Corps program (Fall, 2014) for 14 youth. The final curriculum reflects another revision based on participant evaluations as well as comments from our reviewers (see below).

JHA Teaching Audience and Methodology

JHA's curriculum is highly interactive. Our exercises are conducted in groups and involve drawing, role play, mapping, and case study analysis. While our main audience for this curriculum is secondary school students, we have found that these interactive techniques appeal to both youth and adults.

JHA's teaching approach also encourages critical analysis and reflection, similar to education for 'critical consciousness' advocated by Paulo Freire (1970). JHA's approach links these empowerment concepts with *critical health literacy*.² We actively teach our students to explore the root causes of a problem. We hypothesize that if we teach participants to understand the social, political, economic, and environmental conditions that affect them, as well as teach the skills to take *action* on these root causes, students' increased empowerment to act will help improve community conditions and promote equity.

Approximately 25% of JHA's EJ curriculum is based on the lesson plans found here. These lessons can be taught in a traditional classroom or afterschool setting. As a standalone curriculum the lessons are meant to raise awareness about EJ. The remaining 75% of the JHA curriculum consists of an action project, developed by youth with the goal of increasing equity in their community. The action component is key to our notion of "critical health literacy." In our evaluations, we ask students about their skills to take action as well as their feelings of confidence and empowerment to improve their community conditions.

² For more information about JHA's critical health literacy approach, please refer to: www.justhealthaction.org and/or read Mogford, E., Gould, L., & DeVoght, A. (Mar, 2011). Teaching critical health literacy as a means to action on the social determinants of health. *Health Promot*, 26(1)4-13; and/or Gould, L., Mogford, E., & DeVoght, A. (May, 2010). Successes and challenges of teaching the social determinants of health in secondary schools: Case examples in Seattle, Washington. *Health Promot Pract*, 11(3 suppl), 26S-33.

The two communities where we piloted the curriculum (South Park Community Center and the Duwamish Valley Youth Corps program) are both multi-cultural communities with EJ concerns. The youth in each program conducted action projects (chosen by the community) to improve the health of the Duwamish Valley. This community has a high percentage of low income residents and one of the city's highest unemployment rates. Given these considerations, the youth were provided stipends to work on community action projects with a secondary goal of promoting "green jobs" as a potential career choice. Their action projects included: installing green stormwater infrastructure (cisterns and rain gardens) to reduce stormwater runoff; maintaining rain gardens; knocking on doors to inform community members about a free tree planting campaign to reduce asthma from air pollution; cleaning up a skate park; and the "Scary Trail" (which included a lesson from Public Health Seattle King County on how to safely pick up and dispose of needles); and other related activities. The following curriculum does not include lesson plans that explain how to implement these action projects. With regard to the action projects, we invited experts from around Seattle and King County to teach the youth, and the rest was experiential.

JHA strongly believes in (and our evaluations confirm) the importance of including community representatives as co-developers and co-educators where we are taking "action." While not always possible, it is ideal for community spokespeople to lead the teaching sessions. In many cases, lesson plans will be revised by the community representative to reflect a situation that directly pertains to the community.

Finally, we recognize that many teachers may review this curriculum and decide that is very Seattle centric and only applicable to participants of King County, WA. We believe that the lessons plans are very adaptable to different settings. We have tested variants of Lesson Plans 1-4 in different parts the country with both youth and adults, including in North Carolina, Kansas, and New Mexico. In addition, the entire EJ curriculum will be piloted in Chicago, Illinois by the Adler Institute on Social Exclusion in the summer of 2015. The Adler Institute has already stated that they believe they can use the Seattle case study (Lesson Plans 5 and 6) and then transition to their own personal case study, which is a coal-fired plant in a community with EJ concerns. JHA and the Adler Institute have an agreement to share both how the curriculum is adapted and the results of the evaluations.

Curriculum Co-developers and Co-teachers

JHA developed and co-taught this curriculum with a host of incredibly talented people. Many thanks to the following people:

- Our extraordinary youth who helped us understand when things did and didn't work
- Tara Bostock – (University of Washington MPH candidate)
- Dana Canfield (Sea Mar Community Health Centers HealthCorps volunteer)
- John Deichsel
- Wendy Ewbank (Seattle Girls School)
- Michael Lewis (Bellwether Design)
- Carmen Martinez (Duwamish River Cleanup Coalition)

- Paulina Lopez (Duwamish River Cleanup Coalition)
- Vicky Raya (Environmental Coalition of South Seattle)
- Katie Bell Schnepf (Antioch University)
- Cari Simson (Urban Systems Design)
- Kyong Soh (Solid Ground - Marra Farm)

Lesson Plan Reviewers

JHA is deeply indebted to its final reviewers; developing and teaching a lesson plan and preparing lesson plans for public use are two different things. JHA continually strives to create products that are both culturally and linguistically appropriate. This curriculum was meaningfully strengthened through the thoughtful contributions of two reviewers who scrutinized the entire curriculum through the EJ lens. Thank you to:

- **Yalonda Sinde** (Executive Director, Association of Environmental Health Academic Programs)
- **Millie Piazza** (WA State Department of Ecology)

JHA has been co-developing and co-teaching lesson plans with one teacher since 2004 and she is always giving us ideas for additional teaching techniques and helping with lesson plan consistency. Thank you to:

- **Wendy Ewbank** (Seattle Girls School)

JHA is so lucky to have had the following experts review specific lesson plans.

- Shanyanika Burton (Seattle Parks & Recreation Good Food program) for Lesson Plans 1-4.
- Belinda Chin (Seattle Parks & Recreation Environmental Learning Center) for Lesson Plans 1 and 3.
- Darlene Flynn (Policy Lead – Race and Social Initiative, Seattle Office for Civil Rights) for Lesson Plan 3.
- Michael Lewis (Bellwether Design) for Lesson Plans 7 and 8
- Tiffany McDowell (Adler Institute on Social Exclusion) for Lesson Plans 1-6
- Vicky Raya (Environmental Coalition of South Seattle) for Lesson Plans 7 and 8
- Arun Sambatoro (King County Office of Equity and Social Justice) for Lesson Plans 3 and 8
- Jo Sullivan (King County Waste Water Treatment Division) for Lesson Plans 7 and 8

Acknowledgements:

JHA also thanks organizations and people who assisted us either in funding or in-kind services:

- Department of Ecology Public Participation Grant
- Duwamish River Cleanup Coalition
- Homegrown Organics (John Coghlan and Ethan Holzer)
- King County Wastewater Treatment Division (Bibiana Ocheke-Ameh)
- Plumb Level Square (Debbie McNeil)
- South Park Community Center (Ramon Franklin) and Seattle Parks & Recreation Student Teen Employment Preparation (STEP) program
- South Park Neighborhood Center for providing the teaching venue