

PART 3: INCOPORATING ENVIRONMENTAL JUSTICE WHEN REDUCING POLLUTION IN STORMWATER¹

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

Goal: Using an equity impact review tool, participants will consider equity in making a decision to install green stormwater infrastructure (GSI) in two Seattle neighborhoods.

Learning Objectives:

By the end of this lesson plan, participants will be able to:

- Compare the socioeconomic and race/ethnicity characteristics of two Seattle neighborhoods
- Analyze the difference between two Seattle neighborhoods with respect to equitable distribution of environmental benefits and burdens
- Formulate recommendations to start a GSI program in two Seattle neighborhoods based on equity considerations

Materials:

- Equity Impact Review Worksheet (below)
- Colored maps from Lesson Plan 4 OR Duwamish Valley Cumulative Health Analysis maps (these maps could be downloaded and printed out or put onto an LCD projector) <http://justhealthaction.org/wp-content/uploads/2013/03/Duwamish-Valley-Cumulative-Health-Impacts-Analysis-Seattle-WA.pdf> .

Time required: 50 minutes

Background:

On October 11, 2010, King County passed Ordinance 16948, otherwise known as the *Equity and Social Justice (ESJ) Ordinance*. The ordinance calls for King County to “consider equity and social justice impacts in all decision-making so that decisions increase fairness and opportunity for all people, particularly for people of color, low-income communities, and people with limited English proficiency or, when decisions that have a negative impact on fairness and opportunity are unavoidable, steps are implemented that mitigate negative impact”

(<http://www.kingcounty.gov/elected/executive/equity-social-justice/vision.aspx>).

An Equity Impact Review (EIR) tool has been developed by King County to identify, evaluate, and communicate issues of equity when making a decision. JHA has adapted the EIR in this lesson plan for making a green stormwater infrastructure (GSI) decision and providing recommendations in two different neighborhoods in Seattle, both of which were designated for GSI development.

Note: The EIR tool is currently in revision as our EJ curriculum goes to press. As a result, this lesson plan may not follow the exact format that is spelled out on the King County

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ESJ website. Nonetheless, the intent is the same; for participants to understand that methods exist to make policy decisions based on equity considerations.

This exercise can be done individually, in pairs, and/or in groups.

Suggested Preparation for Teacher/Facilitator²

- King County Executive Equity and Social Justice website:
<http://www.kingcounty.gov/elected/executive/equity-social-justice/vision.aspx>
- Equity Impact Review Tool (Note: this tool is in revision):
<http://www.kingcounty.gov/elected/executive/equity-social-justice/tools-resources.aspx>
- RainWise program:
<https://rainwise.seattle.gov/city/seattle/overview>;
<http://www.kingcounty.gov/environment/wastewater/CSO/BeRainwise.aspx>

Word Wall

- Review from earlier lesson plans:
 - *Equity* (Lesson Plan 3)
 - *Equality* (Lesson Plan 3)
 - *Green stormwater infrastructure (GSI)* (Lesson Plan 7)
 - *Rain garden* (Lesson Plan 7)
 - *Cistern* (Lesson Plan 7)
- New term:
 - *Rebate*: “a partial refund of the cost of an item. It acts as an incentive to help sell the product” (<http://www.vocabulary.com/dictionary/rebate>). For example, people who buy Energy Star LED light bulbs instead of traditional light bulbs can receive rebates of as much as 30% off. This motivates people to buy the LED light bulb that is normally more expensive but uses less energy than traditional light bulbs.

Activity Instructions: Use this opportunity to remind participants of vocabulary and previous lesson plans (e.g., Environmental Justice maps).

1) *Prompt:*

You are a member of the Seattle and King County Equity team. Both the City of Seattle and King County have decided that they are going to start a GSI program, called *RainWise*, to reduce stormwater pollution. There are two neighborhoods where starting *RainWise* would be perfect. You have been approached by the *RainWise* program to help conduct an Equity Impact Review (EIR) to decide how to implement the program in both neighborhoods to ensure fairness.

²Note: Both King County and the City of Seattle (located in King County) have social justice initiatives. Both collaborate on their green infrastructure programs called *RainWise*. This GSI example has been simplified. In reality, both the City and County have different responsibilities for managing stormwater runoff in different areas but in this example we assume a joint responsibility.

Some general information that the *RainWise* program gave you:

The *RainWise* program thinks they want to start in Ballard (ZIP code 98107) because:

- a) There are more homes eligible for the program;
- b) The community seems receptive to installing cisterns and rain gardens;
- c) Community members are excited about the rebates (refund) they will receive for the installations (free rain gardens and cisterns).

The other area to conduct the program is in Beacon Hill/Georgetown/South Park (ZIP code 98108). The *RainWise* program is not as confident about conducting the program in this area because:

- a) There are not as many homes eligible for the program as in Ballard;
- b) People didn't seem as interested when *RainWise* staff held meetings to explain the program;
- c) The community has expressed concerns about the rebates.

Note to teacher/facilitator: The reasons here might seem "insensitive" to you. The point of the exercise is for the participants to ask questions to identify whether there are equity issues and how to address them.

- 2) Equity Impact Review (EIR)³: The EIR is conducted in five phases (see worksheet below):
 - a) Phase 1: Scope. Identify who will be affected and where
 - b) Phase 2: Assess the current equity picture and community perspectives
 - c) Phase 3: Analyze your options using the analyses to inform your decisions
 - d) Phase 4: Implement. Are you staying connected with the community?
 - e) Phase 5: Ongoing Learning: Listen, adjust, and co-learn with the community

³ Note: We have adapted and simplified the EIR for teaching purposes.

Equity Impact Review Process

- 1) Phase 1: Scope. Identify who is affected and where
 - a) Go to the Duwamish Valley Cumulative Health Impacts Analysis maps (Figures 2, 3, 4, and 7) and fill in the matrix below, then compare Ballard to Beacon Hill/Georgetown/South Park⁴.

Duwamish Valley Cumulative Health Impacts Analysis	Places Affected	
	Ballard (ZIP code 98107)	Beacon Hill/Georgetown/South Park (ZIP code 98108)
People affected		
Figure 2 (Percent adults 25 and older without a college degree)		
Figure 3 (Percent below 200% poverty level)		
Figure 4 (Percent non-white)		
Figure 7 (Percent foreign born)		

- b) Thinking about the information in this table and the reasons you heard about entering one community versus the other, what would be some challenges to implementing GSI in one ZIP code over another?

Think about:

- i) Number of people who don't speak English as their first language
 - ii) Access to computers and the internet to learn about the program
 - iii) Homeownership versus rentals
- c) What is your initial assessment of the two neighborhoods in terms of how to implement GSI? How would implementation be different and/or the same?

⁴We have simplified this exercise: The data that we have provided here is by ZIP code but the decisions that *RainWise* has made for considering GSI has some engineering constraints that makes South Park the best alternative for cisterns and rain gardens in the 98108 ZIP code.

2) Phase 2: Assess the current equity picture and community perspectives

Prompt: Identify which of the people are affected in each neighborhood for your GSI projects. Then, compare the two neighborhoods in order to determine how the benefits and burdens should be distributed. You decide that additional research is needed, which has emerged from information gathered at past community meetings. This data is presented in the matrix below.

Duwamish Valley Cumulative Health Impacts Analysis	Ballard (ZIP code 98107)	Beacon Hill/Georgetown/South Park (98108)
Figure 8 (Annual average diesel particulate matter in human breathing zone)		
Figure 11 (Percent tree canopy)		
Figure 12 (Square feet per resident of park area)		
Figure 13 (Number of toxic release inventory sites)		
Figure 15 (Childhood asthma hospitalization rate per 100,000)		

a) How do these two neighborhoods compare in terms of burdens and benefits?

b) How has your assessment changed now that you have this additional information?

c) The list below is called “Determinants (factors) of Equity.” Making a decision to use GSI in ZIP 98108 could have intended and unintended outcomes or consequences. Review each determinant below and indicate whether you believe that the presence of GSI in the 98108 community will make the community conditions better, the same, or worse, and briefly explain why. Note: some of these determinants may not apply to this GSI case. If not applicable, write NA.

Determinants of Equity	Unintended outcomes – Better, same, worse because....
<u>Equity practices</u> : There is no discrimination	
<u>Job training and jobs</u> : Everyone makes enough income for basic necessities	
<u>Community economic development</u> : Everyone has fair access to opportunities (local ownership of assets, homes, businesses)	
<u>Housing</u> : There are affordable and safe options for all residents	
<u>Education</u> : Each student has the opportunity to reach his/her full learning potential	
<u>Early childhood development</u> : Everyone enjoys affordable childcare and school readiness (preparation to learn).	
<u>Healthy built and natural environment</u> : There are ample trees; clean air, water, soil, sediment (healthy neighborhood)	
<u>Community and public safety</u> : Everyone has a safe place to live, work, and play	
<u>Law and justice</u> : Everyone enjoys access to those in power and is treated fairly under the laws	
<u>Neighborhood support</u> : There is trust and community cohesion	
<u>Transportation</u> : There is safe, efficient, affordable, convenient, and reliable public transit, walking, car pooling, and biking	
<u>Food</u> : Everyone has access to affordable, healthy, and culturally appropriate food	
<u>Parks and natural resources</u> : Everyone has access to safe, clean, and high quality activities in indoor and outdoor spaces	
<u>Health and human services</u> : Everyone can access high quality, affordable, and culturally appropriate services (e.g., health care)	

- 3) Phase 3. Analyze your options using the analyses to inform your decisions
- a) Write down the facts as you know them about ZIP 98108:
 - i) Who is the community?
 - ii) What are some community concerns?
 - iii) Why might the community “seem” less interested in GSI at meetings?
 - iv) Why might the community be concerned about rebates?
 - v) Determinants of equity: Using the determinants of equity list above, how can GSI be additionally beneficial to the community?
 - vi) Other considerations?

 - b) Based on what you have learned, what are some recommendations you would make to the *RainWise* program in order to implement GSI in ZIP code 98018? For example, job training and jobs; could members of the community be trained and hired to install cisterns and rain gardens?

 - c) How would you prioritize your recommendations and why? You may have several ideas but some are easier to implement than others.

 - d) What are some ways you can engage with the community based on these recommendations? Be sure to think about the languages that people speak as well.

4) Phase 4: Implement and stay connected with the community

- a) What do you think success would look like for the community?

- b) One unintended impact of installing rain gardens in both communities is maintenance (rain gardens needs regular weeding and sometimes plants die and need to be replaced). How would you recommend dealing with maintenance in an equitable way?

Phase 5: Ongoing learning. Listen, adjust, and co-learn with the community.

- a) What are some ways that the *RainWise* program can determine whether their projects are working properly?

- b) What suggestions do you have for how the *RainWise* program could include community feedback in revising their GSI projects?

Reflection

What did you learn from this exercise in terms of equality versus equity (both ZIP codes, 98107 and 98108 are going to get GSI but the programs might look completely different)?