

Fair and Just Facilities – Being a Good Neighbor to All Communities

King County's Wastewater Treatment Division operates a regional sewer utility that serves 1.6 million people in the central Puget Sound region each day, protecting public health and safeguarding our natural resources for the benefit of all ratepayers.

In 2010, Executive Dow Constantine signed an ordinance that requires the principles of equity and social justice to be included in the King County Strategic Plan as well as all comprehensive planning and policy decisions. The Equity & Social Justice ordinance establishes definitions and identifies the specific approaches necessary to implement and achieve the "fair and just" principle that is embedded as a core element of countywide goals, objectives and strategies.

One of the ways WTD responded to the ordinance was to look at our wastewater facility locations and analyze them through an equity lens.

Specifically, we focused on how we site, build, operate and maintain our facilities in relation to the neighborhood demographics in our service area.

We first began with a mapping/location analysis back in 2010 in which we sought to determine whether there was a link between the location of our facilities and the race and income level of nearby community members. We did so to evaluate whether minority and low income communities were disproportionately burdened by hosting a wastewater treatment facility.

That research helped inform the first study in 2013, which included an equity assessment to review the existing design, mitigation measures and maintenance at our wastewater treatment facilities and to identify whether there were inequities in our practices among neighborhoods across the service area.

In the second study in 2014, we assessed pump stations in residential neighborhoods (30 in total) to evaluate the consistency of our service standards, determine whether there was any service quality variation in relation to the income of nearby residents, and correct any discrepancies identified. Our goal was to have all of the facilities in this group to meet or surpass an overall consistent standard systemwide.

Ultimately, these studies did not show a link between neighborhood demographics and facility location or design and service quality. In addition, this work proves valuable in improving our business practices so we continue to ensure all facilities will be sited, designed, built, operated and maintained to a consistently high standard, for all ratepayers in our service area.

Location: Siting Facilities – Where We Are

Water naturally flows downhill, and this law of gravity is the basis of our wastewater system design. Letting gravity do as much work as possible is the most cost-effective and energy-efficient approach. It's also the reason so much of our infrastructure is in low-lying areas (valleys and waterfronts) in a variety of different types of neighborhoods – urban, suburban, industrial, and residential.

A demographic mapping analysis demonstrated that our facilities are not concentrated in low income or minority neighborhoods. In fact, many of our low-point facilities are often located in more affluent waterfront neighborhoods. Facilities are also found in more modest income areas, which are inland or along the Duwamish River.

Because topography and proximity to current infrastructure drives where a facility is needed, we will need to continue building and upgrading facilities in neighborhoods across this wide range of demographic characteristics.

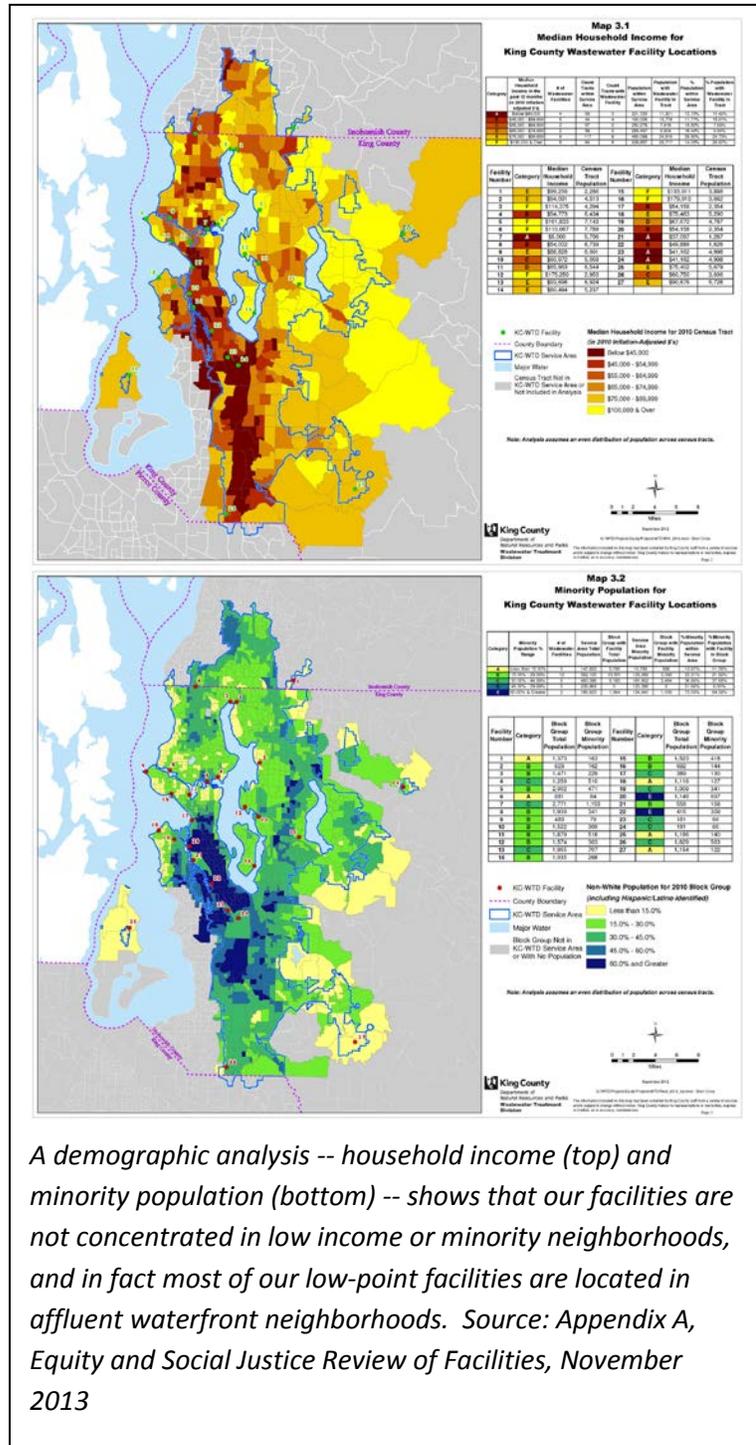
To ensure fairness in our system planning and expansion, for future facilities, equity and social justice is part of our siting criteria and will be evaluated along with cost and engineering in designing and locating new facilities. King County will continue to provide meaningful opportunities for community members to be engaged in siting and design processes.

Equity Across the Region: Minimizing Impacts, Blending In

Because our facilities are often located in neighborhoods where people live and work, King County has long made it a priority to design, build and operate facilities that are good neighbors to the surrounding community.

Odor control, landscaping, and attractive design are common features that help facilities blend in and minimize impacts associated with a wastewater facility.

In response to our equity goals, we sought to determine whether there were inequities in our practices that unfairly impact minority and low income communities with more nuisance impacts such as odor, noise, unkempt landscaping, blocked views and other design problems.



The study conducted in 2013 evaluated a cross-section of our facilities (27 in total), which included treatment plants, pump stations and regulator stations spread out over our entire service area, on criteria that included aesthetics and art, building and architecture, facility and odor control, effect on surroundings and overall site view.

Staff reviewed engineering records, visited and photographed sites, developed a scoring system, and applied a basic statistical test to compare quality ratings for design, maintenance and odor control with neighborhood demographics. This study did not find a correlation between the percentage of minorities in the nearby community and the quality ratings.

However, we could not completely rule out any correlation between income and the rating factors. The fact that there might be any correlation is what prompted the third study summarized below.

The 2013 study also found that larger facilities, which overall pose greater visual and operational impacts to a community, tended to have higher quality ratings in terms of design or maintenance. Design and maintenance scores were also higher in residential neighborhoods as opposed to commercial areas.

King County will continue to work to actively engage residential and business communities in designing new facilities and maintaining existing ones to ensure impacts associated with hosting facilities are mitigated.

We will also continue to emphasize outreach to low income residents as well as people with limited English proficiency to ensure their priorities are reflected in decisions about siting, design and mitigation.

Equity in Action: Consistent Service Quality and Standards

Because we could not rule out the possibility of a correlation between facility quality and host area income, in 2014, we followed up on our 2013 study to further analyze our maintenance and operational practices in residential areas. This work was intended to confirm whether there was a correlation between quality standards and the income level of a facility's host community.

For this last study, we focused only on the type of facilities that tend to be most integrated with host communities -- pump stations in residential neighborhoods. We therefore evaluated all pump stations that reside in residential neighborhoods, all 30, to reapply the methods used in our second study to assess whether there truly was a correlation between income and facility quality or not. And the other goals of this work were to: 1) Identify and correct service or quality gaps anywhere in our service area; and 2) Establish an evaluation method and performance metrics to set quality standards for all existing and new facilities.

Employees visited all residential area pump stations, closely rating the design, maintenance and odor control. Like the 2013 study, the focus was on aesthetics and art, building and architecture, facility and odor control, effect on surroundings and overall site view. Employees used criteria to thoroughly and fairly judge in detail each pump station's characteristics.

This work confirmed that there was in fact no correlation between income level and quality of design and maintenance.

However, we did find seven pump stations across the service area that fell below others on their overall rating:

- Juanita Bay (Kirkland)
- Yarrow Bay (Kirkland)
- Hollywood (Redmond)
- Bunker Trail (Vashon Island)
- Sunset (Bellevue)
- Wilburton (Bellevue)
- Lakeland Hills (Auburn)

Issues identified at these pump stations that contributed to low scores include noise emission, noticeable odors, below standard landscaping maintenance, invasive plants, aesthetic damage, and need of new paint. Some of the pump stations, such as Lakeland Hills and Hollywood, are particularly close to heavily used trails, and potentially impact neighbors and passersby.

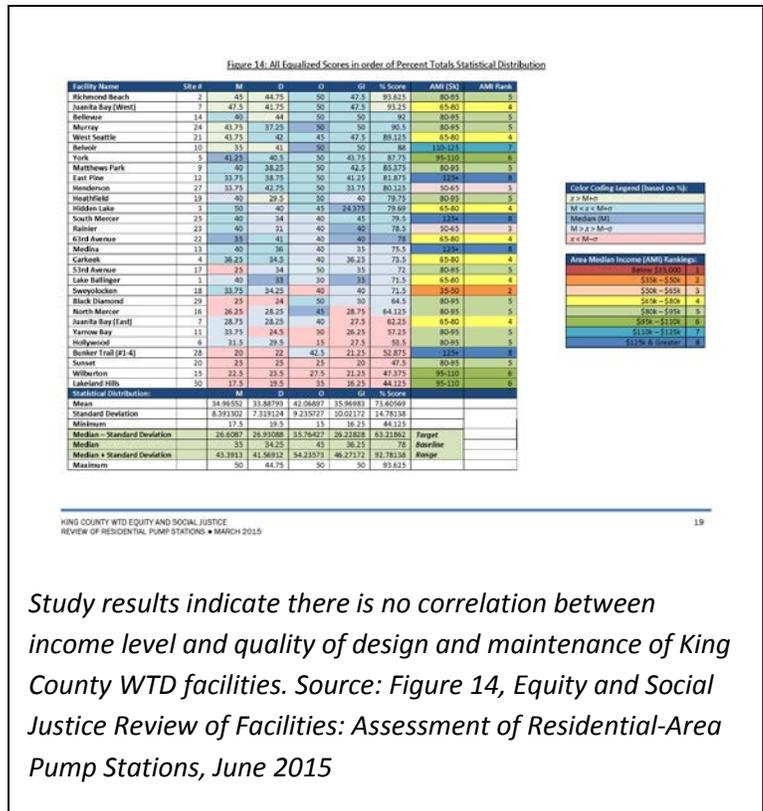
The relatively modest level of investment needed to correct issues identified at these seven facilities will result in noticeable improvement to surrounding community members who live, work or recreate nearby. The improvements will also enable the facilities to attain a quality standard consistent with that of all facilities identified by the study.

Conclusion

King County’s Wastewater Treatment Division operates 24/7 to ensure all of our ratepayers have access to healthy, viable waterways, regardless of their income, race, or neighborhood.

While our recent study findings don’t link our facilities to unfair burdens in low income and minority communities, the studies highlighted the importance of viewing our everyday work as well as future system planning and expansion through an equity lens.

Building and siting facilities that are good neighbors to their host communities, giving people meaningful opportunity for public participation, and ongoing efforts at inclusiveness in how we communicate news and information will remain a priority as we upgrade and improve our infrastructure to support King County’s increasingly growing and diverse population.



Study results indicate there is no correlation between income level and quality of design and maintenance of King County WTD facilities. Source: Figure 14, Equity and Social Justice Review of Facilities: Assessment of Residential-Area Pump Stations, June 2015

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