

Sink or Swim?

Who will pay and who will benefit from DC Water's \$2.6 billion Clean Rivers Project?



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DC Water's \$2.6 billion Clean Rivers Project?**

by

Thomas Cafcas

Good Jobs First

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Any errors or omissions are ours, not theirs.

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About the Organization

Good Jobs First is a non-profit, non-partisan resource center founded in 1998 to promote accountability in economic development and smart growth for working families. It is based in Washington, DC and includes Good Jobs New York in New York City. Good Jobs First publications and research have been featured in the Wall Street Journal, The New York Times, The Washington Post, The Chicago Tribune, The Associated Press, and National Public Radio. Good Jobs First has been called upon by numerous state commerce agencies to assist them in improving economic development in their states. In recent years, we have worked with Tennessee and Maryland to make improvements to their economic development systems. The organization is funded primarily by contributions from major philanthropic foundations.

Our reports are available free to the public online at: www.goodjobsfirst.org

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Executive Summary

Over the course of the next 15 years, DC Water will undertake \$2.6 billion in needed water infrastructure improvements resulting in less pollution entering the Potomac and Anacostia rivers. These necessary upgrades are known as the Clean Rivers Project. Simultaneously, District residents have noticed rising fees on their DC Water bills labeled as the “Clean Rivers IAC.” Such fees, based upon the impervious surfaces of the property they live or work in, pay for these infrastructure projects.

Over the course of the next 8 years, DC Water plans to triple Impervious Area Charges (IAC), driving water and sewer bills ever higher. A typical single-family residential property is currently charged \$115 per year in IAC fees alone. By 2021, those single-family residential ratepayers will end up paying \$368 per year in IAC fees alone. Researchers at the Brookings Institution have already pointed out how burdensome overall DC Water bills will become for low income residents by 2021, primarily as a result of Clean Rivers Project IAC.

Sink or Swim? uses original research to analyze how DC Water will pay for the Clean Rivers Project and how it could benefit District residents. We conclude that:

- The DC Water Clean Rivers IAC is a highly regressive fee that will have a disproportionate impact on low-income residents and communities. The impact of the IAC – measured as a share of 2013 property taxes – will be four- to five-times greater for homeowners in poor neighborhoods than for those in affluent neighborhoods. The disparities are even greater among renters and business owners.
- The two-thirds of single-family homeowners in the District whose properties are worth \$500,000 or less have already seen the equivalent of a five-percent 2013 property tax increase. By 2021, it will rise to 15 percent relative to 2013 property tax bills due to the IAC.
- Middle-class neighborhoods across the District will feel the impact of rising fees. For example, single-family homeowners in Michigan Park are already experiencing an effective six-percent property tax increase due to the IAC. By 2021, the IAC will be equivalent to a 19-percent property tax hike (based on 2013 tax rates).

- Single-family homes in Anacostia are already subject to the equivalent of a 10-percent property tax increase due to the IAC. By 2021, the fee will be equivalent to a 30 percent property tax hike, relative to 2013 levels.
- Small businesses, especially those east of the river, will feel a heavy burden from IAC fees. Most will be forced to pass costs onto consumers. Large businesses in commercial office buildings on K Street will feel little impact from IAC rate hikes.
- There is no indication that District residents will benefit in proportion to their burden. Contractors on major DC Water projects employ more North Carolinians than residents from Wards 7 & 8 combined. More than half of the contractor workforce on these projects lives outside Washington, D.C. and its immediate surroundings.
- Continued failure to hire local residents will result in a massive transfer of wealth out of the District. We estimate that over the Clean Rivers Project debt repayment period, D.C. ratepayers will be billed \$4.2 billion in Impervious Area Charges including \$1.1 billion from Wards 7 and 8 alone.

The disparate impact of a regressive fee on low-income residents could be reduced or eliminated entirely if DC Water made serious efforts to hire local residents. The impact could also be mitigated somewhat by expanding the low-income Customer Assistance Program (CAP) to cover renters and Impervious Area Charges.

As we documented in our December 2012 report, *Taxation Without Employment*, the District's rising economic tide has not lifted all boats. District residents are caught in a cycle that prevents them from ever entering the workforce. But once given an opportunity, District residents have shown the capacity to work on major construction projects like the Marriot Marquis hotel and the Washington Nationals' Baseball Stadium.

As DC Water continues to move forward with the Clean Rivers Project, District officials are presented with an enormous opportunity to leverage water infrastructure projects to create jobs in neighborhoods that struggle with chronic poverty and underemployment. In theory, local leaders agree. Mayor Gray and the D.C. City Council have strengthened First Source hiring requirements for contractors working on District-funded projects. DC Water General Manager George Hawkins and City Administrator Allen Lew, who chairs DC Water's Board of Directors, both say that more must be done to put District residents on the job. But the devil is in the details.

Past opportunities to leverage District investments have fallen short of expectations. A recent National Public Radio investigation into how the District spent \$1.7 billion worth of economic subsidies over the past ten years showed that goals went unmet because rigorous standards were not set and enforced from the start. For years, contractors have been allowed to pay lip service to local hiring by setting up “job opportunity trailers” without offering true career opportunities. DC Water’s Clean Rivers Project represents a larger, \$2.6 billion investment over the next ten years. As such, it represents an enormous opportunity to ameliorate past oversights on public investments.

It is heartening to see the City Administrator, Allen Lew, citing the Washington Nationals’ Baseball Stadium as a model. District residents accounted for the majority of new hires and 34 percent of work hours performed. Our report documented a similar recent success on the Marriott Marquis hotel project, where District residents accounted for 64 percent of new hires and 42 percent of the hours worked.

In April 2013, hundreds of activists from the Washington Interfaith Network (WIN) and City Council members Jack Evans, Muriel Bowser, Tommy Wells, Phil Mendelson, and Marion Barry called on DC Water to enter into a proposed Community Benefits Agreement (CBA). Like the District’s amended First Source Law, the proposed CBA would establish a minimum percentage of work hours that must be performed by District residents, starting at 30% and increasing to 50% over the next nine years. It also calls for increased use of apprentices, from the current 5 percent to 15 percent.

With at least \$2.6 billion being spent by DC Water on Clean Rivers Projects over the next decade, it is important that the District maximize its return on investment. Local hiring requirements and apprenticeship utilization have proven effective tools for putting local residents to work. Moreover, a CBA that puts District residents to work reduces the harm done by a regressive fee. If the Clean Rivers CBA were successfully implemented, and it moved 500 residents from Southeast into long-term construction careers, it could generate over \$900 million in construction payroll over the next three decades and offset the billion dollars that residents of Wards 7 and 8 would pay in IAC fees over the next 30 years.

Introduction

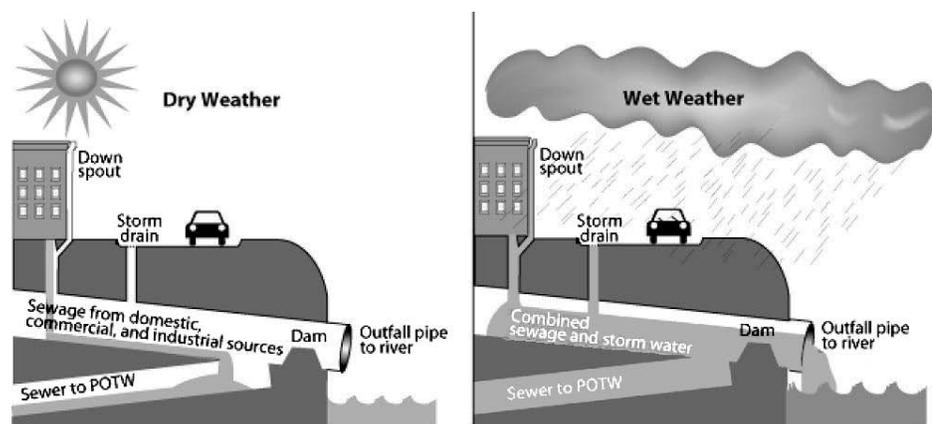
Despite an influx of new residents and business activity in the District, many District neighborhoods continue to struggle with chronic poverty and underemployment. As we documented in our December 2012 report, *Taxation Without Employment*, the District's rising economic tide has not lifted all boats. Thriving sectors of the local economy, such as the construction industry, are not hiring enough District residents.¹ Too many are simultaneously shut out of decent-paying construction jobs and priced out of their own neighborhoods by urban redevelopment. Living costs are rising faster than the colorful new condos popping up on every corner, and many District residents, who remained through good years and bad, are swimming against the economic current.

The purpose of this report is to consider how another critical development on the horizon – DC Water's plans to raise and spend \$2.6 billion on infrastructure improvements – will impact these families and neighborhoods. The agency's Clean Rivers Project will create hundreds if not thousands of new jobs over the next decade on DC Water construction projects – work that will largely be funded by District ratepayers and property owners. This report examines the work that will be funded, who will pay, how planned rate increases will affect ratepayers, and who will benefit from new construction employment opportunities. We hope to answer the question: will the Clean Rivers Project lift prospects for poor and middle-class families in District neighborhoods by creating new pathways to employment; or drag them further down by transferring millions of ratepayer dollars to out-of-state contractors and workers?

A Mandate for Clean Water

Aging water infrastructure in urban areas throughout the U.S., including the District of Columbia, is a costly and growing problem. A majority of the sewers in the District were constructed over 100 years ago and are still in operation.² Beginning in 1972, with the passage of the Clean Water Act, units of government that own combined storm water and sewer systems were

required to take additional steps to prevent discharge of untreated sewage into waterways. When rain overwhelms the capacity of the District's aging sewer



system, a mix of stormwater and raw sewage is released near the Blue Plains Water Treatment facility or at other locations along a 1,350-mile network of sewer pipes. This is referred to as a Combined Sewer Overflow (CSO) event.

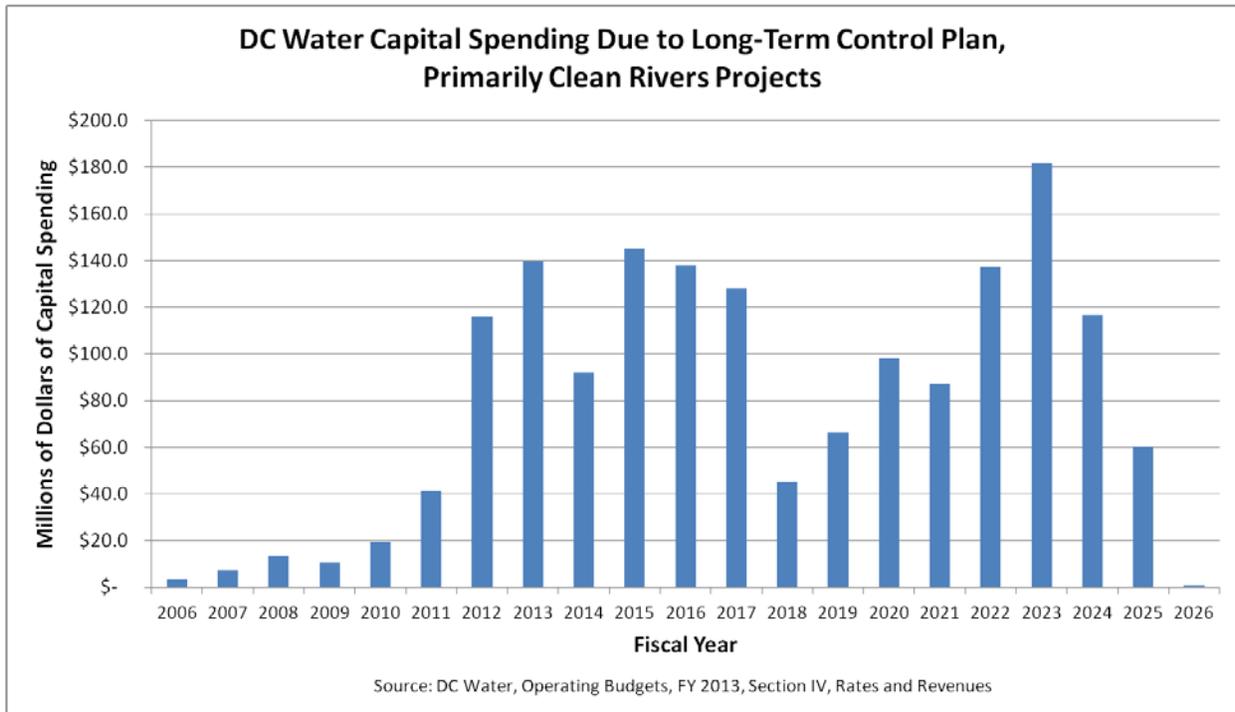
CSO events contribute significantly to degraded water quality in our local watershed. During major storms, CSO events let untreated sewage from domestic, commercial and industrial sources mix with pollutants found in stormwater runoff such as petroleum products from vehicles, fertilizers, pesticides, and detergents. With nowhere else for the untreated sewage and stormwater to go, these pollutants spill over engineered dams and enter our watershed. Some of these pollutants promote growth of algae which consume all of the available oxygen in the water, thereby killing most living species, especially fish. Others promote rampant bacterial growth.

The 1972 Clean Water Act requires places like the District of Columbia to obtain permits for discharging untreated water, to monitor the number of CSO events, and to implement a long-term control plan to minimize water degradation. After years of failing to adequately reduce water pollution, the District of Columbia Water and Sewer Authority (since rebranded as DC Water) was forced to enter into a legal agreement, known as a “consent decree,” with the U.S. Environmental Protection Agency (EPA) in which DC Water committed to complete major infrastructure upgrades by 2025. DC Water’s compliance with the consent decree will be measured not only in terms of progress in its infrastructure overhaul, but also in terms of reductions in the pollutant loads. If DC Water fails to hit pollution reduction targets, the agency will have to go back to the drawing board to develop supplemental approaches. Fortunately, the Clean Rivers Project as it is currently designed is projected to reduce CSO events by 96 percent.³

The Clean Rivers Project: A Costly Investment

Upgrades to DC Water’s aging infrastructure as a result of the Consent Decree are known as the Clean Rivers Project. The scope of these projects is vast and ranges from minor upgrades to sewer lines that run beneath streets to the construction of retention tunnels to the expansion of the treatment units at Blue Plains. These projects will increase the Blue Plains Treatment Facility’s capacity to capture and eventually process sewage and storm water runoff during and after heavy rain events, thereby reducing the frequency of CSO events.

The estimated cost for the Clean Rivers Project is \$2.6 billion – a figure that does not include other types of capital expenditures related to routine maintenance and upgrades to drinking water infrastructure. As the graph below demonstrates, much of this spending will happen over the next decade.



DC Water will finance these large capital investments with the proceeds of bonds sold to investors and backed by revenues the agency expects to collect. The bond financing documents indicate that DC Water officials expect the agency’s debt load to more than double between FY 2012 and FY 2021, largely due to costs incurred by the Clean Rivers Project.⁴ The current Operating Budget appears to indicate that this additional debt won’t be retired until 2044.⁵ So, while most of the construction will be completed within ten years, ratepayers will continue to pay the bill for the next thirty years.

DC Water proposes to pay back the bonds sold to finance the Clean Rivers Project and other needed infrastructure upgrades by sharply increasing the rates that the agency charges retail and wholesale customers. While the agency plans to hike per-gallon charges for water and sewer services, the largest increases will be made to the recently implemented Impervious Area Charge (IAC).

The Impervious Area Charge is not based on the volume of water delivered or sewage removed from a property, but instead on the property’s total impervious surface. The IAC is based on the notion that property owners should pay for the cost of managing the rainwater that runs off

| | Units | FY 2013 |
|--|-------|-----------------|
| DC Water Retail Rates (1) | Ccf | \$ 50.84 |
| DC Water Clean Rivers IAC | ERU | 9.57 |
| DC Water Customer Metering Fee | | 3.86 |
| Subtotal DC Water Rates & Charges | | \$ 64.27 |
| Increase / Decrease | | \$ 5.60 |
| District of Columbia PILOT (1) | Ccf | 3.35 |
| District of Columbia Right of Way Fee (1) | Ccf | 1.07 |
| District of Columbia PILOT/ROW Fee | Ccf | 4.42 |
| District of Columbia Stormwater Fee (2) | ERU | 2.67 |
| Subtotal District of Columbia Charges | | \$ 7.09 |
| Total Amount Appearing on DC Water Bill Before Rebate | | \$ 71.36 |
| Consumption Rebate = 6.69 Ccf x \$0.10 x 12 months (3) | Ccf | (\$8.03) |
| CRIAC Rebate = 1 ERU x \$1.00 (3) | ERU | (\$1.00) |
| Total Amount Appearing on DC Water Bill After Rebate | | \$ 62.33 |

their sidewalks, driveways, parking lots, and roofs into storm sewers. Impervious Area Charges appear on customers’ monthly DC Water bills but are more akin to a property tax than to a typical utility charge. Even properties without DC Water utility hookups, like parking lots, are required to make IAC payments.

The yearly charge for a typical single-family home was just \$15 when the IAC was first implemented in 2009, and the increase was offset by a reduction in volume charges.⁶ Since then, however, the annual cost has shot up to \$115, and within the next decade, DC Water plans to raise that amount to \$368 – a more than 20-fold increase. The table below describes rate increases implemented and proposed by the DC Water Board in its FY 2012-2021 plan.⁷ Last year’s Board Adopted Plan actually called for higher rate hikes than those listed in the table below, but the plan was not approved by the board.

Monthly and Annual IAC Rate Structure per ERU, 2009-2021

| Fiscal Year | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|-----------------------|---------|--------|--------|--------|--------|-----------|---------|---------|---------|---------|---------|---------|---------|
| | ←Actual | | | | | Proposed→ | | | | | | | |
| Monthly (1 ERU) | \$1.24 | \$2.20 | \$3.45 | \$6.64 | \$9.57 | \$12.77 | \$16.79 | \$20.68 | \$23.12 | \$24.52 | \$26.08 | \$28.32 | \$30.67 |
| Yearly (1 ERU) | \$15 | \$26 | \$41 | \$80 | \$115 | \$153 | \$201 | \$248 | \$277 | \$294 | \$313 | \$340 | \$368 |
| Yearly Change (1 ERU) | | +\$11 | +\$15 | +\$39 | +\$35 | +\$38 | +\$48 | +\$47 | +\$29 | +\$17 | +\$19 | +\$27 | +\$28 |

* 1 ERU is an Equivalent Residential Unit or the charge per 1,000 square feet of impervious surface.

Despite the fact that the DC Water IAC is levied exclusively on District residential and commercial property owners, D.C. government has no direct role in setting the fee or managing IAC revenues. When DC Water was established as an independent agency in 1996, local ratepayers’ elected representatives lost direct oversight over the water utility. Decision-making power for DC Water, including rate setting, rests with the agency’s Board of Directors. While D.C. elected officials do not directly control the actions of DC Water, however, Mayor Vincent Gray wields considerable influence through the exercise of his power to appoint a majority of the DC Water board members, who must also be confirmed by City Council.⁸

The Unmet Promise of Jobs

Drivers traveling south on Interstate 295 may be surprised to see multiple construction cranes dotting the landscape of Southeast D.C. where unemployment runs over 15 percent. The source of the activity is the District’s Blue Plains Treatment Facility where hundreds of new construction jobs have been created and work is expected to continue through 2025.

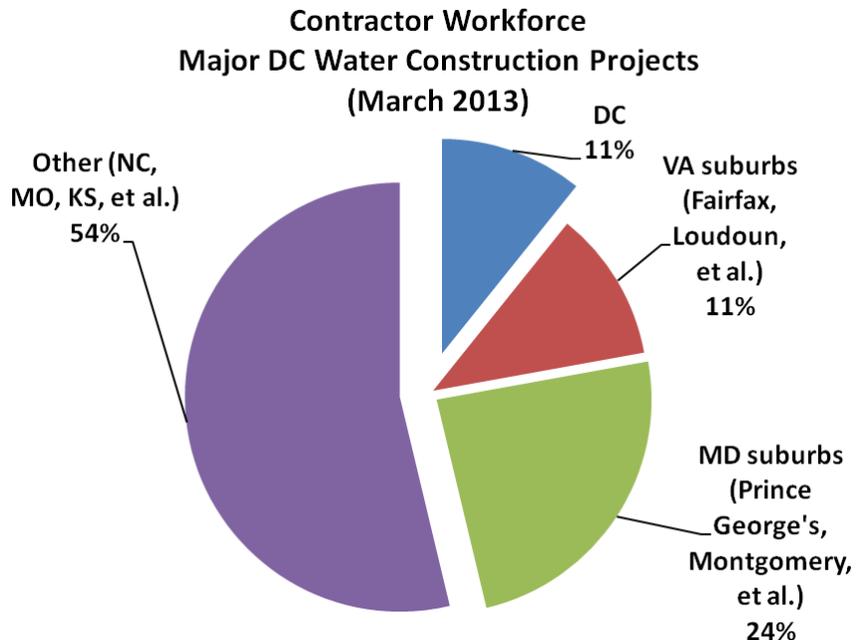
The link between high rates of unemployment in Anacostia, the neighborhood adjacent to Blue Plains, and the job creation potential of water infrastructure investment is not lost on DC Water General Manager George Hawkins. When Hawkins testified before Congress in 2010, he argued that DC Water investments could have a transformative effect on D.C. neighborhoods that suffer from chronic unemployment.⁹

*“Nonetheless, it is no exaggeration to say that once all the projects are complete, we will have created or retained hundreds of jobs. **In a city where some entire neighborhoods have unemployment rates approaching 40 percent, the value of putting people to work cannot be underestimated**... These jobs offer opportunities for entry into the workforce and future advancement to populations who traditionally have low rates of labor market participation.”*

*- **George S. Hawkins**, DC Water General Manager during Congressional Testimony*

Last summer, in July of 2012, DC Water reported that contractors had put 550 people to work on major water infrastructure projects connected to Blue Plains. By November, the contractor workforce had grown to 1,200 and it remains at roughly the same level according to the most recently available figures.

Unfortunately, just a small fraction of those 1,200 jobs are currently held by District residents. Over the past year, District residents accounted for between nine and 11 percent of the contractor workforce. In fact, North Carolina is better represented in the Blue Plains contractor workforce than Wards 7 & 8 combined.¹⁰



This is a lost opportunity for the District. As documented in our December 2012 report *Taxation Without Employment*, District residents are underrepresented in construction employment – a trend that sets D.C. apart from other cities along the Eastern seaboard and has cost the city an estimated 10,000

decent-paying construction jobs. ¹¹ Those familiar with the challenge of integrating District residents into the construction industry point out that job seekers are unable to get a job primarily because they have limited access to the social networks that contractors typically use to find employees.

Mayor Vincent Gray and the D.C. City Council recognized the need for the city to take action to break down these barriers to employment when they worked together to strengthen First Source hiring requirements for contractors working on District-funded construction projects. But DC Water is not bound by the District's new First Source law, and instead employs a policy that effectively makes local hiring optional for contractors.

One contractor has taken steps in the right direction: Traylor Brothers, which won the first phase of the Anacostia Tunnel, has put 80 District residents to work out of a workforce of 381 (21 percent) as of March 2013. One of the secrets to Traylor Brothers' success is participation in an apprenticeship program that prepares District residents for construction employment. Unfortunately, the Traylor Brothers story is the exception, not the rule: among the other general contractors working at Blue Plains, the average District resident share of the workforce was just six percent.

Impervious Area Charges: "Polluter Pays" Or a Regressive Fee?

The case for financing the District of Columbia's Long-Term Control Plan through an Impervious Area Charge (IAC) is that it assigns the cost of fixing the problem (too much untreated sewer and stormwater runoff entering waterways) to the owners of the properties that generate stormwater runoff, in keeping with the "polluter pays" principle. But there are problems with this approach. First, the system lets the primary users of the leading source of stormwater runoff in the District – streets and roadways – off the hook. By excluding public roadways from the IAC, DC Water is effectively subsidizing suburban commuters at the expense of District property owners who are forced to shoulder the entire burden of managing local runoff.

The second issue is that the IAC does not account for the distribution of benefits among property owners or their respective ability to bear the burden of planned rate increases. When the District collects property taxes, collections are based on property value. The owner of an office tower on K Street pays a much higher property tax bill than a small business owner in Southeast. The tax policy rationale for assessing property based on its value is two-fold: not only does the office tower owner have a greater ability to pay, but he or she also derives greater benefit from the infrastructure and services that are funded by property taxes than a homeowner or small business owner.

The IAC rate structure turns these principles on its head. By charging the same rate per impervious square foot regardless of property value, the IAC effectively assigns the highest marginal costs to residents and commercial property owners in the District’s poorest neighborhoods.

The IAC shifts the burden of financing infrastructure improvements on poor- and middle-class District residents to a far greater extent than our existing income or property tax systems do. Whether intentional or not, this revenue mechanism provides a massive subsidy to owners of high-rise commercial real estate who will derive disproportionate benefits from the cleanup of the District’s waterways.

Single-Family Residential Properties

The typical residential property in the District includes roughly 1,000 square feet of impervious surfaces, which is defined as one “Equivalent Residential Unit” (ERU). Monthly costs in the table below are calculated by multiplying the number of ERUs assessed by the fixed monthly ERU charge. While commercial properties are assessed based on total impervious square feet rounded to the hundred square feet, residential properties are divided into a six-tier scale (shown below). In 2013, the monthly charge for a Tier 2 residential property was \$9.57 (1 * \$9.57 = \$9.57). For a Tier 4 residential property in 2013, the monthly charge is \$36.37 (3.8 * \$9.57 = \$36.37).

| Residential Impervious Area Charge Rates | | | | | | | |
|---|--|--|-------------|--------------------------|-------------------------|---|---|
| Tier | Min SQFT of Impervious Surfaces | Max SQFT of Impervious Surfaces | ERUs | 2013 Monthly Cost | 2013 Annual Cost | Number of Residential Properties | Theoretical 2013 Revenue Generated |
| 1 | 100 | 600 | 0.6 | \$5.74 | \$68.90 | 18,563 | \$1,279,065 |
| 2 | 700 | 2,000 | 1 | \$9.57 | \$114.84 | 77,514 | \$8,901,708 |
| 3 | 2,100 | 3,000 | 2.4 | \$22.97 | \$275.62 | 5,736 | \$1,580,933 |
| 4 | 3,100 | 7,000 | 3.8 | \$36.37 | \$436.39 | 2,499 | \$1,090,544 |
| 5 | 7,100 | 11,000 | 8.6 | \$82.30 | \$987.62 | 124 | \$122,465 |
| 6 | 11,000 | ∞ | 13.5 | \$129.20 | \$1,550.34 | 47 | \$72,866 |

*Monthly Impervious Area Charge = Tier ERU * Monthly IAC Rate for 1 ERU (\$9.57 in 2013)*

Some residents are given a significant discount on the IAC fees because of this tiered rate structure. For example, a large home in Chevy Chase with 2,000 square feet of impervious surfaces will be charged \$9.57 per month because it falls within Tier 2. However, a much smaller row house in Anacostia with 700 square feet of impervious surface will also be charged \$9.57 per month because it also falls at the bottom of the Tier 2 range. Many of the thousands of property owners with fewer than 600 square feet of impervious surface will end up “overpaying” because they are charged under the assumption that they utilize 600 square feet of impervious surfaces or 0.6 ERUs.

Finally, there is a loophole for large multifamily properties which are currently assessed under a residential rate structure that is capped at 13.5 ERUs. Recently, DC Water has proposed to close the loophole by requiring that multi-family properties pay commercial rates. The full details of the proposal were not available at the publication time of this report.

Good Jobs First developed a computer model to estimate the IAC fee for each and every property in the District of Columbia in order to assess the impact of IAC collections on local residents, business owners, and neighborhoods. The model was developed utilizing publicly available data from DC Geographic Information System (GIS).¹² Property assessment data was matched to impervious surface calculations for each parcel in the District.¹³

The results of our analysis show a sharp disparity in how the IAC will impact families in poor, middle-income, and affluent neighborhoods (see table below). In Chevy Chase or Capitol Hill, where the average single family home is worth more than \$700,000, this year’s IAC is equivalent to a two percent increase in the property tax bill. On the other end of the spectrum, for homeowners in Anacostia, Deanwood and Hillcrest, where the average home is worth less than half that amount, the IAC effectively represents a roughly 10 percent property tax hike.

Neighborhood Impact of IAC on Single-Family Homes in 2013

| Neighborhood | Average Home Assessment Value | Average 2013 IAC | Average ERUs | Average 2013 Tax Bill | Number of Single Family Homes | Effective Property Tax Increase |
|-------------------------|-------------------------------|------------------|--------------|-----------------------|-------------------------------|---------------------------------|
| Chevy Chase | \$880,781 | \$156 | 1.37 | \$6,476 | 4,767 | 2.4% |
| Capitol Hill | \$739,436 | \$109 | 0.95 | \$5,223 | 1,931 | 2.1% |
| Columbia Heights | \$501,338 | \$118 | 1.04 | \$3,411 | 4,761 | 3.5% |
| Michigan Park | \$351,618 | \$124 | 1.08 | \$2,059 | 906 | 6.0% |
| Hillcrest | \$271,296 | \$139 | 1.22 | \$1,584 | 2,547 | 8.8% |
| Deanwood | \$180,113 | \$113 | 0.99 | \$1,032 | 5,247 | 10.9% |
| Anacostia | \$177,726 | \$115 | 1.00 | \$1,144 | 1,446 | 10.1% |

The disparity will become more pronounced over time as rates rise to fund DC Water’s \$2.6 billion infrastructure plan. By 2021, while the IAC will remain well under 10 percent of the current average property tax in Chevy Chase and Capitol Hill, homeowners in Anacostia and Deanwood will see the equivalent of a one-third increase relative to their 2013 property taxes from the IAC alone. Even residents of middle-class neighborhoods like Michigan Park will be looking at effective property tax increases of nearly 20 percent. The table below presents the proposed IAC rate for 2021 and calculates it as a fraction of 2013 property taxes.¹⁴ As these figures demonstrate, the cost of proposed rate hikes will fall much harder on poor and middle-class households than on affluent households.

Neighborhood Impact of IAC on Single-Family Homes in 2021

| Neighborhood | Average Home Assessment Value | Average 2021 IAC | Average ERUs | Average 2013 Tax Bill | Number of Single Family Homes | Effective Property Tax Increase (from 2013 levels) |
|------------------|-------------------------------|------------------|--------------|-----------------------|-------------------------------|--|
| Chevy Chase | \$880,781 | \$501 | 1.37 | \$6,476 | 4,767 | 7.7% |
| Capitol Hill | \$739,436 | \$349 | 0.95 | \$5,223 | 1,931 | 6.7% |
| Columbia Heights | \$501,338 | \$380 | 1.04 | \$3,411 | 4,761 | 11.1% |
| Michigan Park | \$351,618 | \$399 | 1.08 | \$2,059 | 906 | 19.4% |
| Hillcrest | \$271,296 | \$447 | 1.22 | \$1,584 | 2,547 | 28.2% |
| Deanwood | \$180,113 | \$361 | 0.99 | \$1,032 | 5,247 | 35.0% |
| Anacostia | \$177,726 | \$368 | 1.00 | \$1,144 | 1,446 | 32.2% |

Some neighborhoods will clearly be hit harder than others by proposed increases, but the impacts will be felt citywide. The table below looks at how single-family properties across the District, divided into six assessment categories, will experience the impact of the IAC.

Two-thirds of single-family homes in the District have an assessed value of less than \$500,000 (see map on following page). For these residents, the 2013 IAC will be typically be equivalent to a five percent increase in property taxes. But for the top 10 percent of property owners whose homes are worth more than \$1 million, IAC will represent less than a two percent increase in their average property tax burden. The level of the disparity will only grow over time as rates rise.

Impact of IAC on Single-Family Homes Across Assessment Values in 2013

| Assessment Ranges | Average Assessment Value | Average 2013 IAC | Average ERUs | Average 2013 Tax Bill | Number of Single Family Homes | Effective Property Tax Increase (from 2013 levels) |
|---------------------------|--------------------------|------------------|--------------|-----------------------|-------------------------------|--|
| \$250,000 or less | \$188,223 | \$135 | 1.20 | \$2,771 | 27,849 | 4.9% |
| \$250,000 – \$500,000 | \$344,711 | \$118 | 1.02 | \$2,147 | 35,226 | 5.5% |
| \$500,000 – \$750,000 | \$623,776 | \$125 | 1.09 | \$4,382 | 14,810 | 2.9% |
| \$750,000 – \$1,000,000 | \$854,412 | \$139 | 1.21 | \$6,358 | 8,577 | 2.2% |
| \$1,000,000 – \$2,000,000 | \$1,322,078 | \$207 | 1.82 | \$10,156 | 7,518 | 2.0% |
| \$2,000,000 + | \$3,965,757 | \$383 | 3.58 | \$30,333 | 1,861 | 1.3% |

Single-Family Residential
Homes Assessed at
Less than \$500,000



Impact of IAC on Single-Family Homes Across Assessment Values in 2021

| Assessment Ranges | Average Assessment Value | Average 2021 IAC | Average ERUs | Average 2013 Tax Bill | Number of Single Family Homes | Effective Property Tax Increase (from 2013 levels) |
|---------------------------|--------------------------|------------------|--------------|-----------------------|-------------------------------|--|
| \$250,000 or less | \$188,223 | \$432 | 1.20 | \$2,771 | 27,849 | 15.7% |
| \$250,000 – \$500,000 | \$344,711 | \$378 | 1.02 | \$2,147 | 35,226 | 17.6% |
| \$500,000 – \$750,000 | \$623,776 | \$400 | 1.09 | \$4,382 | 14,810 | 9.3% |
| \$750,000 – \$1,000,000 | \$854,412 | \$445 | 1.21 | \$6,358 | 8,577 | 7.0% |
| \$1,000,000 – \$2,000,000 | \$1,322,078 | \$662 | 1.82 | \$10,156 | 7,518 | 6.4% |
| \$2,000,000 + | \$3,965,757 | \$1,226 | 3.58 | \$30,333 | 1,861 | 4.2% |

Multi-Family Properties

The same pressures put on single-family home occupants will also be felt by residents of multi-family properties. In fact, it is likely that the disparities will be even greater among residents of multi-family housing. The structure of the IAC contains a built-in subsidy for high-rise buildings – commercial and residential – because a roof of a given size is charged at the same rate no matter how many floors are below it. High-rise buildings in the District tend to be located in affluent areas of downtown and the Connecticut Avenue corridor, while most of the multi-family residences in less affluent neighborhoods such as Anacostia are two- and three-story walk-ups.

The typical resident of a high-end downtown condominium may never notice the new charge on their water bill, but for poor families the story will be very different. The IAC will represent an additional burden for those already struggling to afford the area’s high rents. For many, the costs of the Clean Rivers Program may remain invisible because most low-income District residents are not direct customers of DC Water. Three in four low-income District residents live in buildings where the landlord pays the DC Water bill and typically passes the cost along to his or her tenants in the form of higher rent or utility charges.¹⁵

Commercial Properties

Commercial properties account for a majority of anticipated IAC revenues.¹⁶ Commercial properties pay according to a different formula than residential properties. The amount of impervious surfaces on a property is rounded to the nearest 100 square feet, divided by 1,000, and then multiplied by the base ERU rate, which in 2013 was \$9.57.

The commercial IAC rates make no distinction between an international corporate law firm on K Street and a struggling small business east of the river. Small businesses with surface parking lots will pay a great deal more than office buildings with large underground parking structures, even though the office building may provide space for hundreds of cars which contribute indirectly to the largest single source of runoff – area roads.



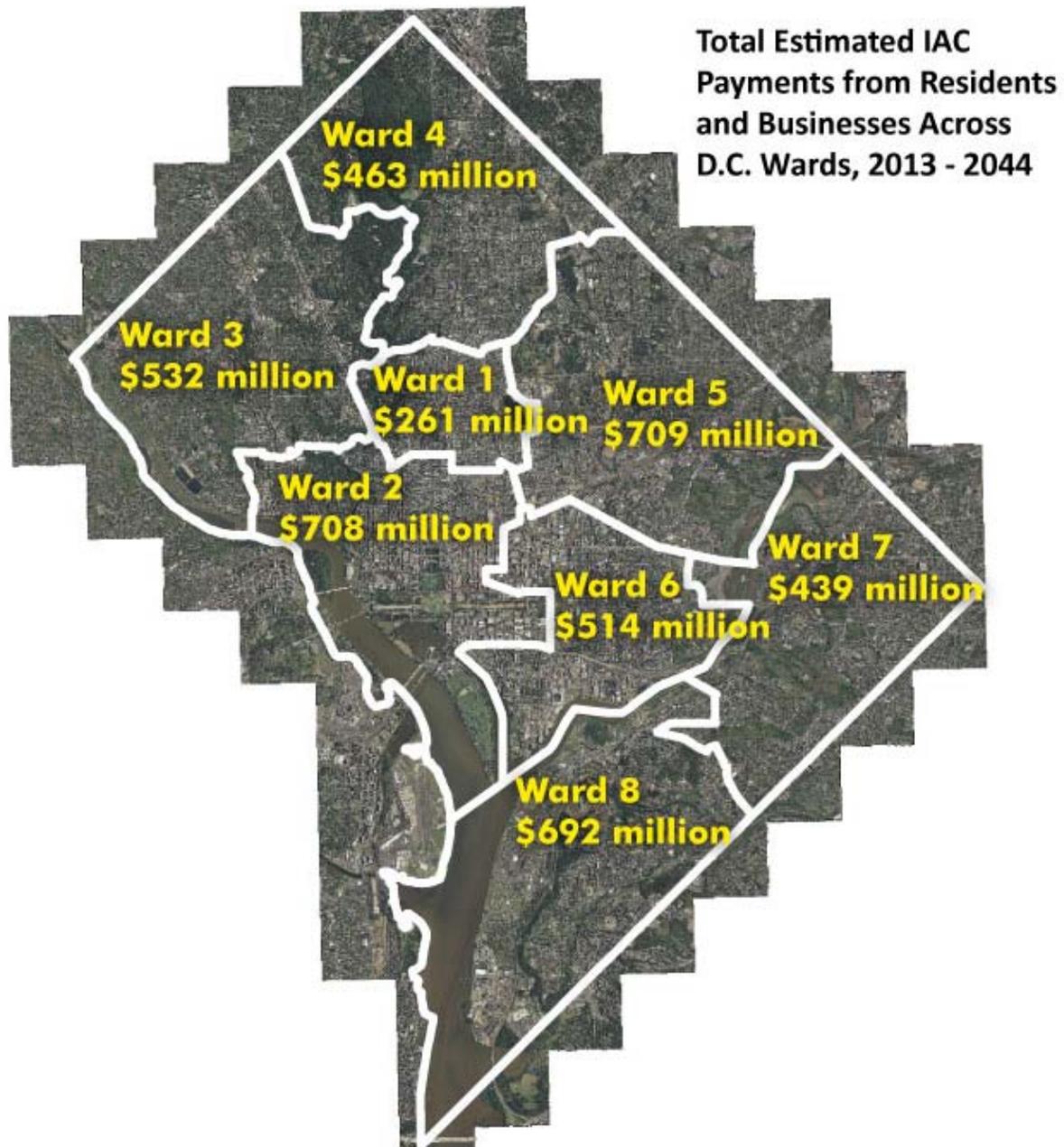
Take a commercial property on the main thoroughfare in Anacostia, Martin Luther King Jr. Avenue. The property is 50 feet wide and 150 feet deep, with 10,000 square feet of impervious surfaces, including a parking lot in the rear of the building. The 2013 IAC portion of the DC Water bill for the property is \$1,150.

By way of comparison, a typical commercial office building on K Street has similar dimensions but underground rather than surface parking, for a total of 7,500 impervious square feet. The 2013 IAC portion of the DC Water bill for the entire building is \$850 per year -- less than a single month's rent on an office cubicle.



The \$1,150 charge for the property on MLK Jr. Avenue will likely be borne by one or two small businesses, while the owner of the K Street office tower will be able to spread the \$850 charge across many high-rent clients who are unlikely to notice it. The disparate impact of the IAC on commercial property owners will grow rapidly as rates increase. By 2021, the small business in Anacostia will have a bill of \$3,680.

Relative to commercial property tax bills, the disparity is enormous. For a business in Anacostia, such IAC fees are equivalent to about 5 percent of their annual tax bill. But for a commercial property off K Street, the IAC fees are equivalent to less than a half of a percent of the tax bill.



Assessing Affordability: The Effect of Regressive Rates on Household Budgets

According to EPA guidelines, water and sewer bills combined should not exceed between two and four percent of the median household income. Looking just at a median household income, as recommended by the EPA, misses so many of our most vulnerable District residents. In 2013, the typical single-family IAC assessment (\$115 per year) was equivalent to nearly two full days' wages for a minimum-wage worker.¹⁷ By 2021, a worker earning the current Federal minimum wage and employed full-time would have to work more than a week just to pay the IAC let alone the rest of the water and sewer bill.

The impact of proposed DC Water rate increases on low-income District residents has not gone unnoticed. A May 2012 report from the Metropolitan Policy Project at Brookings found that, “affordability is a real concern in the District... DC Water bill burden will double,” for the poorest 20 percent by 2019.¹⁸ In 2008, before the IAC fees went into effect, overall payments to DC Water represented less than 2 percent of the District median household income for ¾ of District residents.

DC Water currently provides subsidies to some 6,200 low-income customers – six percent of ratepayers – who qualify for the utility’s Customer Assistance Program (CAP). The program reduced the average bill for eligible households by an average of \$225 in 2011.¹⁹ But CAP subsidies do not cover Impervious Area Charges, nor is the program available to the roughly 75 percent of DC Water’s low-income customers who are not billed directly by DC Water because they pay their water bill through their landlords. While the program could be expanded to cover IAC assessments and renters, the costs would be substantial and would grow with each proposed rate hike. DC Water analyzed implementing a CAP program designed for the IAC fees, but has not yet implemented such a program.

Neighborhood Reinvestment or a Wealth Drain for the District?

With District residents spending billions on these projects, it’s reasonable to ask how much of that benefit will accrue to the District’s economy. As we identified in *Taxation Without Employment*, the crux of the economic development problem for neighborhoods with high unemployment and poverty is not that there are too few jobs. Indeed, construction is booming in the District. Unemployed District residents have long been locked out of the local construction labor market. But given the opportunity to compete in the workplace, District residents have shown that they can enter construction careers.

If DC Water’s infrastructure investments were leveraged to bridge the divide between District residents and the construction industry, the dividends would far exceed payroll, health benefits, and retirement benefits from the Clean Rivers construction projects. District residents employed on DC Water projects would gain skills, experience and perhaps most importantly connections that can serve as the foundation for a life-long career in the construction industry.

It is difficult to put a number on the work hours required to produce a “construction career opportunity” but a survey of industry information suggests that three to four years is typical. Therefore, the Clean Rivers Project has the potential to provide construction career opportunities to three or four cohorts of District residents over a 12-year period. After a successful apprenticeship, workers could go on to work on other construction sites throughout the region. A significant majority of construction projects throughout the region are funded by private, not public money, meaning these workers could regain a foothold in the private sector economy.

The IAC is anticipated to cost District ratepayers an estimated \$1.5 billion between 2014 and 2025, and \$2.8 billion more between 2026 and 2044, even if there are no further rate increases after 2021. According to analysis from the Laborers' International Union, construction work generated by the Clean Rivers Project is worth roughly \$800 million to \$1 billion in direct wages, health and retirement benefits – at least half of which will likely go to non-residents. But if those direct economic impacts were leveraged into additional secondary benefits, the Clean Rivers Project would produce stronger local economic impacts instead of letting those dollars slip away to North Carolina, Missouri, or Kansas.

Consider for a moment the difference in impacts in how those \$800 million to \$1 billion in direct payroll gets divided among resident workers. Currently, just eleven percent of District residents work on DC Water projects. LIUNA projects that under this “business as usual” scenario, the resultant wages and benefits going to District residents could be just over \$500 million over the next three decades. This includes the spinoff benefits from those District workers finding permanent employment in the construction industry. This “business as usual” scenario could do little to alleviate the regressive transfer of wealth out of Wards 7 and 8. These two wards alone could contribute close to \$1.1 billion in IAC payments in exchange for fewer than 150 projected new long-term construction career opportunities.

The economic impact under a “community benefits” scenario in which the District resident share of jobs begins at 30% in 2014 and rises to 50% in 2022 as proposed by the Washington Interfaith Network (WIN) could create four-times more construction jobs and career opportunities for these residents than “business as usual”. Citywide, the resulting new construction employment opportunities could generate an estimated \$2 billion in payroll and benefits by 2044, substantially mitigating the impact of the IAC on the local economy. Equally important, the resulting construction employment has the potential to almost completely offset the cost of the IAC in Southeast by generating over \$900 million in construction payroll and benefits to neighborhoods that currently suffer from poverty, unemployment, and social disconnection.

These estimates do not include any of the potentially significant ancillary benefits of increasing construction employment in the District, such as reduced dependency on government services, stronger families and neighborhoods, and lower incidence of social problems associated with poverty and unemployment.

Conclusion:

Will the Clean Rivers Project be a Net Positive or Negative for the District?

Now is a critical moment for the District's future. The DC Water Clean Rivers Project represents a necessary, federally-mandated improvement to our water infrastructure system. But the improvements will come at a significant cost. District ratepayers – including homeowners, renters, and business owners – can expect to see their DC Water bill rise quickly over the next several years and remain high for at least the next 30 years.

From an economic perspective, these investments will create jobs, but will also place new burdens on District ratepayers. DC Water has not yet implemented a system to ensure that the most vulnerable residents will not bear an undue burden from IAC rate increases. DC Water should target these investments for District residents harmed most by the regressive fee through a Community Benefit Agreement. While DC Water General Manager George Hawkins recognizes the potential to leverage Clean Rivers Project investments to create construction career opportunities for District residents, the promise has not yet been met.

This is far from a unique problem: a recent Good Jobs First report, *Taxation Without Employment: The Case for the District's Strong Local Hiring Rules* looked at the need for strong local hiring policies that leverage taxpayer money into jobs for residents denied opportunity to work on construction projects.²⁰ District ratepayers, who will collectively spend at least \$2.6 billion of dollars on water infrastructure improvements, deserve greater accountability and renewed efforts to ensure that the benefits of these investments return to struggling neighborhoods.

According to a recent investigation by local National Public Radio affiliate WAMU, the District has spent \$1.7 billion on economic development subsidies for developers that promised to work with local contractors, hire local residents, pay living wages, create affordable housing, and deliver other public benefits.²¹ Too often, these promises have not been met. The Clean Rivers Project represents a larger investment of taxpayer money than all economic development deals done over the last decade. The District cannot afford another multi-billion dollar missed opportunity.

With IAC rate increases creating a heavy burden on middle- and low-income District residents and small business owners, it is only reasonable to target job creation toward DC Water ratepayers. The choice we face is whether we allow jobs and resident dollars to flow out of the region or reinvest those dollars into jobs and paychecks at home. If the Clean Rivers Project were used to provide underemployed residents with a foothold in the construction industry, the resulting benefits could more than offset those costs and create a healthy and sustainable environment for all the District's residents.

Endnotes

¹ Available online at: <http://www.goodjobsfirst.org/taxationwoutemployment>

² See DC Water testimony: http://www.dewater.com/news/testimony/Performance_Oversight_FY2014.cfm

³ See DC Water document: <http://www.dewater.com/news/publications/DCRWSR%20Package%2003-27-12.pdf>

⁴ DC Water Operating Budgets. Section IV. Rates and Revenues. Revised FY 2013 Approved FY 2014. Page 24.

⁵ Page 11 of DC Water's 2013 Capital Financing Cash and Debt. Online at:

http://www.dewater.com/investor_relations/budget_sections/2013/Capital_Financing_Cash_and_Debt.pdf

⁶ Ann Postgate, "The Scoop on D.C.'s New Wet Weather Fee." *The Washington Post, Capital Weather Gang Blog*. May 20th, 2009. Online at:

http://voices.washingtonpost.com/capitalweathergang/2009/05/new_dc_stormwater_fee_begins.html

⁷ DC Water Operating Budgets. Section IV. Rates and Revenues. Revised FY 2013 Approved FY 2014. Page 15.

⁸ Although the DC Council's Committee on Transportation and the Environment has oversight over DC Water, IAC rate decisions ultimately rest with DC Water Board members who are appointed by the Mayor and approved by the DC Council. Fees assessed on District residents are only voted on by District appointees to the board. The law explicitly states that the District may not interfere in DC Water's rate setting activities or conduct its own oversight on the agency other than appointing board members.

⁹ General Manager George Hawkins' Testimony is online at:

http://www.dewater.com/news/testimony/2010_infrastructure_investment.cfm

¹⁰ DC Water Board of Directors Governance Committee Documents from March 13th, 2013. Available online at:

<http://www.dewater.com/news/publications/Governance%20Committee%20Package%2003-13-13rev2.pdf>

¹¹ Online at: http://goodjobsfirst.org/sites/default/files/docs/pdf/taxation_without_employment_dec_2012.pdf

¹² According to the DCGIS shapefile, there are 134,670 parcels in the District of Columbia. We calculated an impervious surface fee for each, although in some instances, the property type classification was unclear. In these instances, we assumed that such a parcel would be classified under the commercial IAC rate system as these were likely vacant lots or properties in transition.

¹³ To check the accuracy of the model, we conducted numerous checks against DC Water documents describing basic details about the IAC. Our model estimate appears to be relatively accurate with some cautions. DC Water documents states that as of September 30th, 2012, DC Water had 125,751 active, metered water and wastewater accounts with 9,232 separate accounts billed only for IACs for a total of 134,983 accounts (See DC Water Operating Budgets. Section IV. Rates and Revenues. Revised FY 2013 Approved FY 2014). Our model, which uses assessment data from DCGIS collected on March 3rd, 2013, identified 134,669 separate properties for water bills. DC Water states that there are 103,887 residential accounts, 7,373 multifamily accounts, 11,863 commercial accounts, 1,435 DC Housing Authority accounts, and 605 DC Government accounts. It should be noted that municipal accounts will not be charged IAC fees.

Our model identified 95,828 single family residential properties, 3,664 multifamily properties, 13,046 flats or conversions, 11,029 commercial properties, 10,347 garages/unimproved land properties, 366 hotels or motels, and 389 unclassified land use properties. Flats and conversions predominantly account for the shortfall in multifamily properties, but not all flats or conversions are billed by DC Water as multifamily accounts. Some accounts are also billed to the DC government or the federal government. When analyzing the impact on properties, District owned properties were excluded from the analysis. Federal properties were included because as a fee, federal properties are required to pay the IAC.

Because the categories of land use classifications do not match perfectly with how DC Water classifies DC Water account types, the data about the types of properties will not match up perfectly. For this reason, and because residential and commercial buildings are charged based upon different formulas, we conducted separate analyses of residential and other types of properties. Our model assumes that land uses labeled single family residential, multifamily residential, and flats or conversions will be billed based upon the residential rate structure. All other land use types are assumed to follow the commercial fee formula.

Knowing the exact amount of impervious surfaces allowed us to calculate the expected IAC fee on each property owner now and into the future. Our GIS computer software then grouped these estimates according to neighborhoods and wards.

¹⁴ Estimating the change in assessment values and property taxes for all single family District properties is an impossible task. Although a number of variables will change between now and 2021, assessing how those fees would impact a homeowner if imposed today is, in our view, the fairest way to properly gauge the future impact.

¹⁵ Carol O’Cleireacain, “Clean Rivers for the National Capital Region: Sharing the Cost.” Metropolitan Policy Program at Brookings. May 2012. Online at:

<http://www.brookings.edu/~media/research/files/papers/2012/5/23%20washington%20dc%20clean%20water%20ocleireacain/0523%20washington%20dc%20clean%20water%20ocleireacain.pdf>

In Portland, OR, after its water authority raised rates, residents were surprised to learn that their landlords were passing the costs of increased water bills onto tenants. According to the article, a number of states have banned this practice. “Apartment complex has right to pass water bills on to renters.” *The Oregonian*. March 23, 2008.

In Texas, landlords were reported to have passed costs onto tenants as well after water bills went up. Andrea Jares, “More landlords passing water bills to tenants.” *Star-Telegram*. July 27, 2001.

In California, landlords passing increased costs of doing business onto consumers became such a problem that the state passed a law banning the practice of non-refundable deposits or fees. The District allows such fees. Maitland Zane, “Landlord faces charges over move-in fees; DA seeks refund for thousands of tenants.” *The San Francisco Chronicle*. April 7, 1994.

¹⁶ Commercial properties, in our analysis, included federally owned property that might not pay property taxes or payments in lieu of taxes but will be required to pay IAC fees.

¹⁷ The District of Columbia’s minimum wage is currently set at \$1.00 per hour above the federal minimum wage which is currently \$7.25 an hour. This assumes that a typical DC Water ratepayer will end up paying about 1 ERU worth of IAC.

¹⁸ Carol O’Cleireacain, “Clean Rivers for the National Capital Region: Sharing the Cost.” Metropolitan Policy Program at Brookings. May 2012. Online at:

<http://www.brookings.edu/~media/research/files/papers/2012/5/23%20washington%20dc%20clean%20water%20ocleireacain/0523%20washington%20dc%20clean%20water%20ocleireacain.pdf>

¹⁹ \$1.4 million / 6,200 = \$225

²⁰ Available online at: <http://www.goodjobsfirst.org/taxationwoutemployment>

²¹ Julie Patel, “Empty Promises: Developers Often Don’t Deliver.” *WAMU 88.5*. May 22, 2013. Online at: http://wamu.org/news/13/05/22/empty_promises_developers_often_dont_deliver

Appendix:

Estimate of potential impact of proposed DC Water Community Benefits Agreement on District resident construction employment

Kevin Pranis, Construction Industry Analyst, Laborers' International Union of North America

DC Water can impact District resident participation in the construction workforce in two ways. First, DC Water construction projects can be a direct source of employment to District residents. Estimates of the job creation associated with infrastructure investment vary greatly, but data from U.S. Economic Census (2007) indicate that general contractors in the heavy/highway industry directly employ an average 2.7 construction workers and indirectly employ an additional 1.9 workers through subcontractors for each \$1 million of construction work performed.¹ Using these conservative figures, which do not fully account for independent contractors or the use of temporary labor, we estimate that DC Water's \$2.6 billion Clean Rivers Project could create 12,000 job-years of construction work – some portion of which will be performed by District residents.

Second, employment on DC Water projects can impact District residents by providing skills, experience and connections that can serve as the foundation for a life-long career in the construction industry. In Washington D.C., the problem is not a lack of construction jobs but the fact that unemployed District residents cannot access the jobs that exist.² If DC Water's infrastructure investments were leveraged to bridge the divide between District residents and the construction industry, the dividends would far exceed direct payroll from DC Water construction projects. The scale of the impact would depend on the number of District residents who are able to use short-term work on DC Water construction projects to launch or restart a career in the construction industry.

It is difficult to put a number on the work hours required to create a "construction career opportunity." The necessary skills, experience, and connections are generally not acquired in a day, a week, or even a month on the job. A quick survey of industry information suggests that three to four years may be more typical. Most construction craft apprenticeships last two to four years, while the median job tenure for a construction worker is 4.3 years according to the most recent data from the Bureau of Labor Statistics.^{3 4} Based on these fairly conservative assumptions, the Clean Rivers Project has the potential to provide significant construction career opportunities to three or four "waves" of District residents over a 12-year period.

¹ U.S. Census Bureau 2007 Economic Census: Construction Industry Series: Preliminary Detailed Statistics for Establishment (http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2007_US_2311&prodType=table). The Census Bureau reports that heavy and civil engineering contractors performed \$292 billion worth of construction in 2007, directly employing 777,000 construction workers and spending an additional \$62 billion on subcontractors. The bulk of subcontracted work is performed by specialty contractors – a sector that employed 3.6 million construction workers to perform \$400 million worth of value-added construction for a ratio of 8.9 workers per \$1 million of construction work. Based on these figures, we estimate that subcontractors to heavy and civil engineering contractors employed an additional 550,000 construction workers for total of 1.3 million workers: 4.6 per \$1 million worth of heavy and civil construction.

² Cafcas, Thomas. *Taxation Without Employment: The Case for the District's Strong Local Hiring Rules*. Washington DC: Good Jobs First. December 2012. ¹ Available online at: <http://www.goodjobsfirst.org/taxationwoutemployment>

³ The U.S. Department of Labor indicates that four years is a typical length for an apprenticeship (<http://www.doleta.gov/oa/apprentices.cfm>), but among construction laborers, two years is more common according to the LIUNA Training & Education Fund.

⁴ Bureau of Labor Statistics News Release: "Employee Tenure in 2012." (<http://www.bls.gov/news.release/pdf/tenure.pdf>)

For example, a construction apprentice might graduate as a journeyman after working three years on the Blue Plains Tunnel and then go on to other public or private construction projects. An unemployed construction worker who has become disconnected from the industry might spend a couple of years working for a utility contractor on DC Water sewer rehabilitation and be recruited by a new employer who specializes in highway or building construction. As one group of workers moves on to new projects and employers, further openings are created for new apprentices and construction workers.

Using these assumptions, we have attempted to roughly estimate the potential direct impact of the jobs created on IAC-funded construction projects, along with the potential indirect impact of these jobs on the ability of District residents to pursue middle-class construction careers. The analysis is not based on an input-output model, nor is it a comprehensive cost-benefit analysis. Its sole purpose is to consider how employment opportunities on DC Water construction projects might be used to move District residents into long-term construction careers and bring construction payrolls into the District. We have used fairly conservative assumptions to arrive at these numbers, but recognizes that reality could look very different. Our analysis paints a picture of what we believe could be accomplished through a local hire program, not necessarily what will happen.

Our analysis explores two scenarios: a “business as usual” scenario in which just 11% of jobs on DC Water projects go to District residents; and a “community benefits” scenario in which the District resident share of jobs begins at 30% in 2014 and rises to 50% in 2022 as proposed by the Washington Interfaith Network (WIN). Under the “business as usual” scenario, our analysis found potential for short- and long-term job gains, but these gains (a little over \$500 million in pay and benefits) appear to be heavily outweighed by the costs of the IAC payments (\$4.3 billion) over the next three decades. The pain would be particularly acute in Southeast D.C. where ratepayers – most struggling homeowners, renters and small business owners – will contribute \$1.1 billion in IAC payments in exchange for fewer than 150 projected new long-term construction career opportunities.

The picture is very different under the “community benefits” scenario, which would create four-times more construction jobs and career opportunities than “business as usual”. Citywide, the resulting new construction employment opportunities could potentially generate an estimated \$2 billion in payroll and benefits by 2044, substantially mitigating the impact of the IAC on the local economy.

Equally important, the resulting construction employment has the potential to almost completely offset the cost of the IAC in Southeast by generating over \$900 million in construction payroll and benefits to neighborhoods that currently suffer from poverty, unemployment, and social disconnection. These estimates do not include any of the potentially significant ancillary benefits of increasing construction employment in the District, such as improved access to employment networks, reduced dependency on government services, stronger families and neighborhoods, and lower incidence of social problems associated with poverty and unemployment.

Community benefits scenario

Citywide: \$4.3 billion of IAC payments over three decades yields:

- Over 5,000 job-years of direct employment on DC Water projects
- 1,000-1,200 residents complete apprenticeship or gain equivalent work experience (3-4 years on job... calculated as 3.5 job-years of employment on DC Water projects)
- \$350 million in direct payroll (including health and retirement benefits) within the next 15 years.
- Additional \$1.6 billion in potential payroll over the next three decades from residents who use DC Water project work as a springboard to a construction career

Southeast D.C.: \$1.1 billion of IAC payments over three decades yields:

- Over 2,500 job-years of direct employment on DC Water projects
- 500 to 600 residents complete apprenticeship or gain equivalent work experience (3-4 years on job... calculated as 3.5 job-years of employment on DC Water projects)
- \$170 million in direct payroll (including health and retirement benefits) within the next 15 years.
- Additional \$750 million in potential payroll over next 30 years from residents who use DC Water project work as a springboard to a construction career

Business as usual scenario

Citywide: \$4.3 billion of IAC payments over three decades yields:

- 1,300 job-years of direct employment on DC Water projects
- 250-300 residents complete apprenticeship or gain equivalent work experience (3-4 years on job... calculated as 3.5 job-years of employment on DC Water projects)
- \$90 million in direct payroll (including health and retirement benefits) within the next 15 years.
- Additional \$430 million in potential payroll over the next three decades from residents who use DC Water project work as a springboard to a construction career

Southeast D.C. : \$1.1 billion of IAC payments over three decades yields:

- Over 2,500 job-years of direct employment on DC Water projects
- 125-150 residents complete apprenticeship or gain equivalent work experience (3-4 years on job... calculated as 3.5 job-years of employment on DC Water projects)
- \$45 million in direct payroll (including health and retirement benefits) within the next 15 years.
- Additional \$200 million in potential payroll over next 30 years from residents who use DC Water project work as a springboard to a construction career

Key assumptions

- **Job creation.** DC Water's proposed \$2.6 billion investment in the Clean Rivers Project will create approximately 12,000 job-years of employment for construction workers, which will translate into average annual construction worker employment of 1,000 over the next dozen years. The job-years estimate is based on our analysis of the most recent available data from the Economic Census (2007), from which we calculated that, on average, heavy/highway contractors directly employ 2.7 construction workers and indirectly employ 1.9 subcontracted workers for every \$1 million of construction work performed. The number of jobs per year will vary with the pace of construction and is likely to exceed our estimate because many workers will not spend the entire year working on the Clean Rivers Project but will instead shift to other projects when a contractor's phase of the work is complete.
- **Job distribution within the District.** We assume that the distribution of DC Water infrastructure construction employment opportunities will roughly follow the current pattern on major agency projects, with half of District resident construction workers hailing from Southeast

(Wards 7 and 8), and the remainder from other parts of the city.⁵ While there is no guarantee that this pattern will continue, Southeast DC has the largest pool of likely applicants: unemployed residents who lack college degrees and often live in poverty.

- **Wages and benefits.** We assume that annual earnings for District residents who secure construction employment on DC Water construction projects and continue to work in the industry will fall between the average for D.C. construction laborers (\$42,420) and the average for all D.C. construction workers (\$54,930) since new opportunities will be most available at the bottom end of the construction scale.⁶ We further assume that these earnings will be supplemented by health and retirement benefits that increase total compensation by roughly 30%. Such benefit payments are required for DC Water projects and other work covered by prevailing wage laws, and are not uncommon for skilled construction workers employed on major area private infrastructure or building construction projects. Fringe rates vary, but 30% is not atypical: for example, the Federal prevailing wage rate for construction laborers working on heavy/highway projects in D.C. is \$22.79 plus \$6.83 in fringe benefits. Finally, we assume that construction worker wages and benefits will rise at a modest rate over the next 30 years (we have assumed one percent per year).
- **“Construction career opportunity” creation.** We assume that the average period of employment on DC Water projects will be between three and four years, based on the length of a typical construction craft apprenticeship (two to four years) and the average job tenure of a construction worker (4.3 years according to the most recent data from the Bureau of Labor Statistics). We would thus expect the DC Water contractor workforce to turn over three or four times during a twelve-year period. We further assume that most but not all of those District residents who successfully complete an average three-to-four-year apprenticeship or job on DC Water projects will continue to work in the construction industry. For the purposes of this analysis, we assume that two-thirds of opportunities will result in new construction careers while a third will be “lost” because participants drop out or slots are taken by workers who were already fully employable in the industry. While a third may seem at first like a very low loss rate, it is important to remember that we are estimating loss of job-years not individual participants. Many more than a third of new apprentices and hires will likely drop out – often within days or weeks of being hired when they or their employers discover that they are not cut out for construction. But most leave so quickly that relatively few job-years will be “wasted” on them. Even if 90% of participants dropped out after the first two weeks, these early drop-outs would consume just under a third of total job-years.

⁵ “DC Water Contractor Employment Overview: March 2013.” DC Water. 2013.

⁶ Bureau of Labor Statistics. “May 2012 State Occupational Employment and Wage Estimates District of Columbia.” (http://www.bls.gov/oes/current/oes_dc.htm#47-0000)