

# ANNUAL REPORT

An annual review of the history and progress of the  
Highstown Housing Authority

2017

# Annual Report of the Hightstown Housing Authority

February 20<sup>th</sup>, 2018



This annual report is being presented to the Borough Council in open session to inform the Council and general public of the highlights, activities and plans developed by the Executive Director and dedicated Board of Commissioners.

## **Description and History**

The Hightstown Housing Authority (HHA) was originally established in the mid 1950's with the intent of redeveloping the blighted area of town bordered by Rogers Avenue, Mercer and Academy Street. In 3 phases and separate grants, the 100 housing units were built and the remaining property was deeded to the Post Office, with portions sold to what is now the First Constitution Bank. The Housing Authority (HA) property and housing units are strictly controlled by HUD through deed restrictions, a Declaration of Trust, a Use Agreement and an annual ACC (Annual Contributions Contract). We also have a Cooperation Agreement with the Borough. All of these documents control what we are able to do with the property and how we are required to operate.

## **Importance of Our Board of Commissioners**

Unlike most boards and commissions in the Borough, the HHA Board has a legal and fiduciary responsibility to the Borough, the State of New Jersey and the Federal Government. The Board is liable for the operations and can be sued for their actions or lack thereof. Our commissioners are required to have state mandated training at Rutgers. In addition, the HHA makes continuing education and conferences available at the HHA expense. It was determined several years ago the HA Board needed diversity and specific skill sets. The Commission has selected new members based on expertise that is needed by our business. We currently have on our board representatives with experience in law enforcement, finance, insurance, banking, legal, social services, and education. Having expertise in these fields is beneficial to managing a social service based real estate business.

## Where We Have Been

The HHA has evolved over the years, both financially and physically. This has been done by taking a holistic approach to the HA as a “community.” No longer considered a “project”, the HA is now an age and ethnically diverse community that works together as a neighborhood. This has been accomplished through a dedicated effort by the Executive Director that is supported by the Commissioners. Steps that were taken to accomplish this include:

- Renovations to the buildings and apartment units to make all our units available to eligible families. The HA had a historical vacancy problem that at times exceeded 50% of the units. This has been addressed and over the last 6 years the occupancy rate has been over 99%. This has an effect on a number of other factors:
  - We have been able to improve our HUD rating from a REAC (Real Estate Assessment Center) score of 58 (Troubled) to a 96 which is considered a “High Performing” Housing Authority.
  - We have reversed the trend of running financial deficits, to producing over \$500,000 dollars in reserves that are invested back into the buildings and apartments.
  - We have reduced our overall operating expenses through staff reductions and reassignments, cross training and outsourcing. We have also made the necessary investments that have reduced our utility consumption and expense by over 30%. (see appendix 1)
  - We have increased our annual PILOT payment to the Borough by over 50% since 2010. Our 2018 payment will be the highest on record of almost \$36,000.
  - We have been able to dramatically reduce the number of criminal incidents by actively screening our applicants, monitoring our households for compliance, maintaining a zero-tolerance policy for any illegal drug use and enforcing the Authority’s rules and regulations.
- Introduction of new landscaping to the community that helps to “humanize” the buildings and soften the appearance. Flowering trees, shrubs and plants enhance the curb appeal of the property. Tree and plant tags have been installed on most trees and newly installed plantings to promote learning and awareness by our residents and children. Family garden plots were introduced and in 2018 a new Children’s garden area will be opened up.
- Instituted our Resident Council and recruited our first Resident Commissioner in many years. This is a State and Federal mandate, giving our residents a voice at the table when decisions are being made.
- Including the HA in community wide events and projects: becoming the Stormwater Demonstration Site for the Borough, a teaching site for the Stony Brook Millstone Watershed Academy and various public events including ANJEC Stormwater Conference and Sustainable Jersey showcasing our property.

## Demographics

Age and ethnicity: The HHA is currently serving 202 residents of which 119 are female and 83 males. We have 45 senior citizens and 9 younger persons that are permanently disabled. We currently have 60 children under the age of 18. We are an ethnically diverse community, with 112 Caucasian residents, 79 African American residents, 7 Asian residents and 4 who are listed as American Indian or Hawaiian Island decent. 58 of our residents are listed as Hispanic.

## Employment and Community Service:

The Housing Authority has policies in place that promote work and self-sufficiency. Each resident who is not a student, senior, family caregiver or disabled must be employed and work at least 30 hours per week. If none of these are applicable, they must perform 8 hours of community service. Community service is a benefit to the local community by volunteering at local non-profits.

We currently have 63 residents working at the businesses listed below. Many of our residents do not have cars, but rather rely on bikes, cabs or walking to work. As you can see, the majority of the employers below are within walking distance of our community.

## Workforce Housing: Employers Served:

Meadow Lakes	Shop Rite	E.W. School District	Princeton Hospital
State of NJ	Walmart	Princeton Foot and Ankle	
Home Health Aids	Target	Byrne Deli	Hightstown Housing
Amazon	Temp Agency	Better Beginnings	Wawa
CVS	Bank of America	Local Construction	
Hilton	Jiffy Lube	Victoria Textiles	Lifetime Brands
US Post Office	RISE	YMCA	Retro Fitness
NJ Turnpike	Staples	Home Depot	Morgan's Grill
Local Dry Cleaner	Forsegate CC	Dollar Tree	Monroe Village

## We have 13 residents performing community service at the following organizations:

RISE	Trenton Area Soup Kitchen	Better Beginnings
United Methodist Church	St. James EME	First Baptist Church
HHA Resident Council		

## Wait Lists and Wait List Management:

The HHA Wait List currently contains 152 entries for all of our apartment types. Our Wait Lists are presently closed. We have not been taking applications for over a year due to the 3-5 year anticipated wait for an apartment. We are currently moving in people who have been on our Wait List since 2011, when a formal wait list was put in place. A letter is mailed with a required response twice a year (January and July) to all applicants. Failure to respond will result in the applicant's name being permanently removed from our Wait Lists. This insures our wait lists are always current with people that are still actively waiting for apartments. In 2017 we had only 5 move outs, 2 of which were from the death of the tenant and one family bought a home. We remain 100% occupied.

## Revenue-Where It Comes From

The Hightstown Housing Authority has 3 main sources of income. They are, in the order of magnitude:

- **Resident Rents:** All of our residents, regardless of their source of income, pay 30% of their gross income in rent. Each household goes through a rigorous process at least annually to certify their income and family expenses to determine their rental rate. This process can be simple, like for our senior citizens on a fixed income, to complicated, especially in today's world where tenants have multiple income streams. The cash economy that exists further complicates the certification process. We use multiple sources to verify income including electronic government systems, contacting banks, businesses and employers directly to verify.
- **Federal Subsidy:** As part of our **Annual Contributions Contract**, or ACC, the HHA receives operating subsidy from the Federal Government to supplement the resident rents. This subsidy is based on our annual budget and HUD's experience on the average cost of operations in specific regions. In the last 6 years, HUD has only been funding the subsidy portion at 82-85% of eligibility. In 2017, the HHA received the lowest amount of Federal subsidy in current records. Our preliminary subsidy allocation for 2018 is even lower than the 2017 amount by almost \$22,000.
- **Capital Funding:** Each year HUD awards Housing Authority's money, based on size and performance, an amount of money to take care of long term capital repairs. This account has been desperately underfunded over the years, to where nationwide, there is an estimated \$23 billion-dollar capital fund back log. Our local HA portion of that funding would be a shortfall of approximately \$2.7 million dollars.

**Expenses:** Monitoring the budget and keeping expenses in check are paramount in today's funding environment. The HHA has worked diligently since 2011 to reduce spending. This has been accomplished by trimming payroll and payroll expenses by almost \$40,000, utility expense by \$50,000 and overall operations by almost \$10,000. These savings through efficiency help to make the HHA financially stable in an unstable funding environment.

**Salary expense** is one of the largest line items at the HHA. There has been a concerted effort over the last several years to stabilize the staff and staffing costs. This has been successful, resulting in salary and associate benefits decreases in the past 6 years by over 10% by right sizing the staff, cross training, controlling overtime, and use of professional vendors. Looking toward the future, the Board has locked the largest salary at the current level until late 2022. This stabilizes the salary line into a very manageable and predictable level for the foreseeable future.

**Utility Expense** is our second largest line item. The HHA has made a concerted effort over the last several years to reduce our utility expenses. This includes:

**Water-** Over the last 6 years we have reduced consumption from 129 gallons per unit per day to an ongoing average of 94 gallons per unit per day. This saves approximately 2 million gallons of water per year which equates to approximately \$20,000. This has been done by installing low-flow shower heads, faucet aerators and 1.6-gallon flush toilets.

**Electric-** Over the last 6 years we have reduced our annual cost from approximately \$97,000 to an ongoing average of \$67,000 by converting all of our outdoor lighting to LED, installing new energy efficient refrigerators, installing new high efficiency laundry equipment and installing motion sensors on all common area lighting.

**Natural Gas-** Over the last 6 years we have reduced our annual cost from approximately \$73,000 to an ongoing average of \$51,000 by insulating and air sealing key areas of our buildings, installing new boiler controls that monitor outdoor and indoor air temperatures as well as boiler and circulating loop temperatures and installing 528 thermostatic radiator valves to control the temperature in every room on our property.

**Stormwater-** The HHA is a Storm Water Demonstration Site for the Borough of Hightstown and a teaching site for the Stony Brook Millstone Watershed. In 2017, our storm water solutions kept over 500,000 gallons of water on site and recharged back into the aquifer. This helps prevent street flooding and debris flowing into our storm drains and waterways. (See appendix 1 for details)



Rain Barrels at the HHA office

Rain Gardens, Buildings 2 and 6



Annual Plantings and Bird Houses



## Financials

The Hightstown Housing Authority has developed a strong financial position over the last 5 years. Maintaining 100% occupancy and strict financial controls have allowed us to generate over \$500,000 in cash that has been dedicated to supplementing our Capital Fund which is used to rebuild and maintain the Housing Authority. 2017 continued this trend as demonstrated below.

<b>2017 at a glance:</b>	Revenues	\$852,233 (unaudited)
	Expenses:	
	Salaries	\$223,742
	Payroll Expenses	\$ 85,766
	Utilities	\$193,986
	Maintenance Exp.	\$143,204
	Admin Exp.	\$ 84,857
	Insurance	\$ 45,000
	PILOT	<u>\$ 34,915</u>
	Total Expenses	\$811,470(Unaudited)

We are pleased with our performance given 2017 was the lowest year for federal subsidy in the last 10 years. Unfortunately, we feel this trend will continue.

## The Trend in Public Housing

In our opinion, Public Housing and publicly subsidized housing will be going through a transition to a private housing model. This has been underway for several years and will continue to evolve over the next 10 years. The Federal Government no longer has the will or the financial resources to properly fund these vital programs. The Tax Credit Program is one of the models to help fund development without long-term capital and operating support. The RAD (Rental Assistance Demonstration Program) is another model that is currently being tested, and shows promise. This helps fund operations and long-term capital. In the future we believe affordable housing will become an issue that must be solved and funded locally.

## Planning For The Future

- 1. Investing in Infrastructure:** In 2018, the HHA will invest from its cash reserves and limited capital funds over \$500,000 dollars into the physical plant and residential units. We will begin the process of installing new state of the art heating and hot water boilers and upgrading our piping and pumping systems. We will also continue with our normal capital activities such as appliance replacement, storm water drainage systems, landscape improvements and removal of unused impervious surfaces.
- 2. Explore Developing a Section 32 Program:** PHA's have the ability to develop homeownership programs tailored to meet the goals of their specific locality and resident population. Under this program, the HHA could possibly;
  - a. Provide subsidy to public housing or other low-income families in the form of down payment or closing cost assistance, subsidize or subordinate mortgages or offer below market financing.
  - b. Acquire existing housing stock to be renovated and sold to income eligible families
  - c. Provide a lease-purchase option to eligible families.
- 3. Begin the process of becoming a HUD approved Housing Counseling Agency.** This is a longer-term prospect that could enable the HHA to provide a variety of financial tools and services to prospective home buyers and tenants. This could also provide another new revenue stream for the HHA.
- 4. Continue the evaluation of implementing Solar as a long-term investment.** Within the next 10 years the HA will need to begin the process of installing new roofing materials. At that time the board will consider installing solar panels and/or solar roofing materials to supplement the traditional electrical grid.

5. **Continue to Explore a RAD conversion.** The HHA has applied and been put on a wait list for the RAD program. The Rental Assistance Demonstration (RAD) Program was developed by HUD to allow PHA's to remove themselves from their Public Housing Contracts and in turn accept 20-year Section 8 contracts in lieu of operating subsidy and capital funding. This program has been around since 2013, and we have considered it in the past. This past year our Executive Director proposed a concept and was asked to compose a research paper at the request of the Public Housing Authority Directors Association (PHADA). The paper, entitled "Small PHA Deregulation, Voluntary Defederalizing by Eligible PHA'S" was presented at a joint meeting of all the national affordable housing groups in July. The paper was well received by the national associations and especially by HUD. He was invited to meet with HUD and discuss the concept and other possibilities using RAD and our proposal. HUD has offered the HHA free consulting services to assist us in exploring a conversion using RAD. The HHA has applied and been placed on the HUD waitlist for possible conversion. RAD holds interesting possibilities for the HHA and the Borough. The HHA would no longer be considered "Federal" and the assets and income would no longer be Federal dollars. The real estate would be granted free and clear to the HHA. The subsidies for each unit could be fixed in place or used on another site. This could possibly have a multiplying effect for the fulfillment of the Borough's affordable housing commitment to the State of NJ. As a private entity, the HHA would be able to contract with the Borough, as has been done with Randolph's, to provide affordable housing. In addition, being able to move our subsidies, we would possibly be able to provide Section 8 like subsidy to another complex, new construction or a home ownership program. Other options and models are possible under this scenario and the HHA Board looks forward to working with the Borough to explore a possible structure that could benefit the residents of Hightstown in the long term. (See Appendix 2)

## **Memberships, Affiliations and Certifications**

**The HHA holds memberships to the following national and regional organizations:**

- PHADA- Public Housing Authority Directors Association. The ED is a principal member of their Small PHA Committee.
- NAHRO- National Association of Housing and Redevelopment Officials.
- NJNAHRO- NJ division of the above.
- NJNAHRA- NJ division of National Association of Housing and Redevelopment Authorities
- IREM- Institute of Real Estate Management

**Executive Director's Accreditations:**

- Director holds both **ARM** (Accredited Residential Manger) and **CPM** (Certified Property Manager) designations from the Institute of Real Estate Management
- **AHM** (Assisted Housing Manager) from the National Leased Housing Association
- **PHM** (Public Housing Management) from the National Association of Housing and Redevelopment Officials.

**Awards and Honorariums**

- High Performance Housing Authority as awarded by HUD for operational, financial and physical plant excellence. 2013,2014,2015,2016,2017.
- New Jersey Sustainable Business designation
- River Friendly Business- Stony Brook Millstone Watershed

# Utility and Environmental Conservation Measures and the Impact on the Hightstown Housing Authority

The Hightstown Housing Authority has undertaken several projects in the last 3 years with a goal of reducing the carbon footprint of the Housing Authority and reducing operating expenses. Shrinking budgets due to lack of funding from the Federal Government have left major gaps in the budgets of every Federally funded agency. In order to survive in the new normal of Federal funding, The Hightstown Housing Authority completed the following projects.

## Water and Sewer

**Condition:** Water and Sewer as a combined utility over the last 10 years have cost the Housing Authority just over \$80,000 per year. This equates to approximately 4.87 million gallons of water per year. Based on the 100 units on our campus, this would equal approximately 133 gallons per unit per day. This is fairly typical for a residential household designed in the 1960's and well within typical engineering standards of that period.

**Solution:** The HA undertook the installation of water saving devices that would bring the community up to the modern standards of water conservation. This included 1.0-gallon kitchen aerators, 1.7-gallon shower heads, 1.0-gallon bathroom aerators and 1.6-gallon toilets. These modern water saving devices provide residents with the same pressure and water quality experience, while lowering the overall consumption.

**Results:** Based on the last 18 months experience, our usage has dropped to an average 3.7 million gallons per year or just over 100 gallons per unit per day. This is a 24% decrease in our water usage that saves approximately \$1,000 per month in water and sewer fees bringing our annual cost to approximately \$68 thousand dollars. The cost of the project was done through normal operating and maintenance expenses. The total cost of the installed devices is just under \$35 thousand dollars. The payback is just under 3 years.

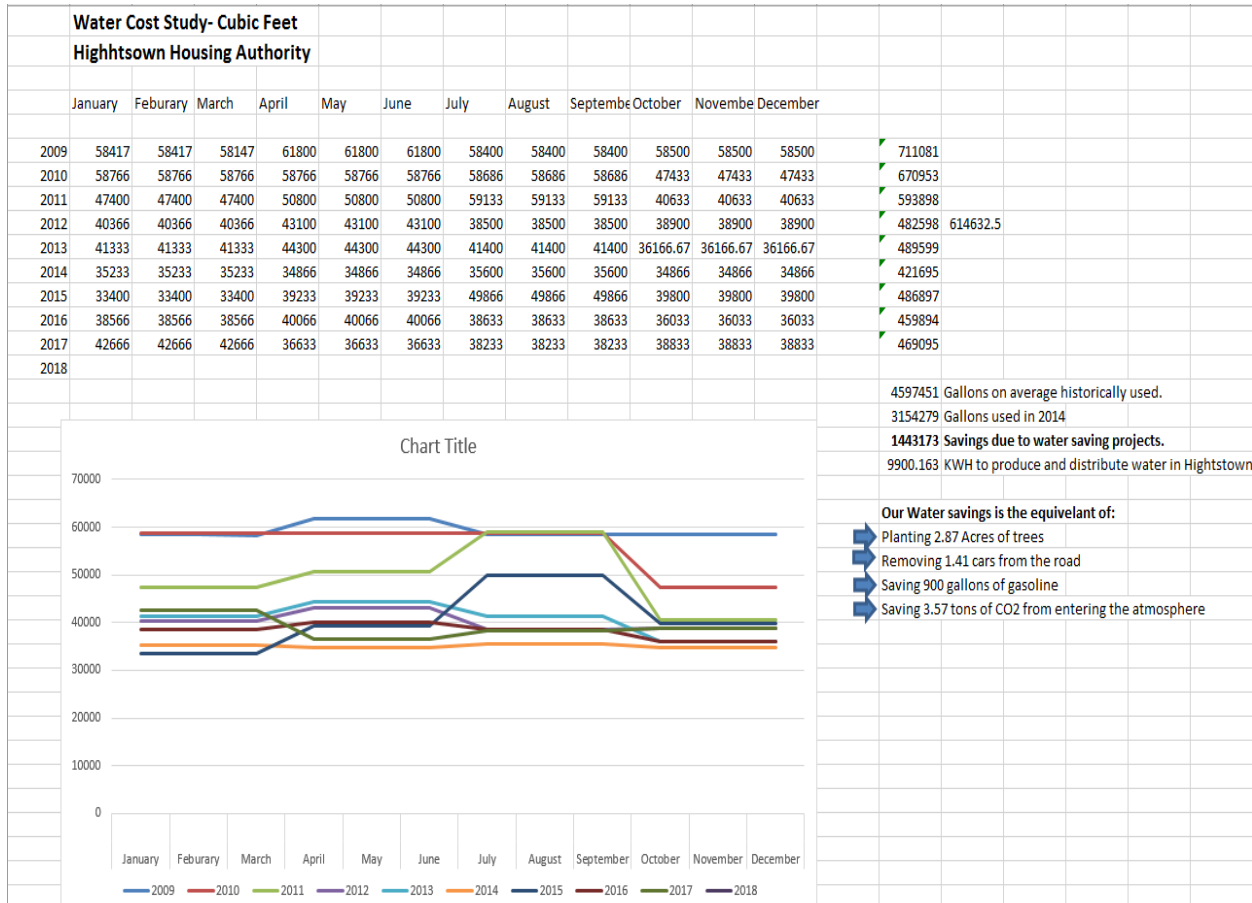
**Condition:** The Hightstown Housing Authority has 2 commercial laundry facilities for resident use. The combined facilities on average process approximately 250 loads of laundry per month. The laundries utilize traditional top load machines and standard dryers.

**Solution:** In October, 2013, the HA installed all new super high efficiency laundry machines that use less than 20% of the traditional water usage for laundry, saving an additional 8000+gallons per month. The machines are designed for "Cold Water Wash" which will save on the fuel side of the equation also.

**Results:** We have recorded a significant reduction in usage, approximately 100,000 gallons per quarter. This was the lowest water usage on the property in the last 10 years of data we have available. The natural gas savings will be more difficult to measure, and will be taken under the heating system improvements.

**Global Impact:** Water conservation saves on electricity and fossil fuel consumption. In Hightstown, it is estimated that each gallon of water requires .00686KWH to produce, treat, distribute and then retreat. By reducing our consumption, we are having the global equivalent impact annually of:

- Planting 2.38 acres of trees
- Permanently removing 1.16 cars from the road
- Saving 747 gallons of gasoline from being burned
- Preventing 2.96 tons of CO2 from going into the atmosphere



## Storm Water Runoff

**Condition:** Storm water is a condition that exists when our impervious surfaces such as roofs, sidewalks and parking areas drain directly to the street, causing rushes of water during rain events. This rush of water carries debris, oils, road salts and chemicals directly into our waterways. We have been installing storm water solutions that put the water that normally would become storm water into the ground in our planting beds.

**Solution:** The Housing Authority began its storm water projects in coordination with the local environmental commission. A rain garden, 3 rain barrels and a dry well were installed to recharge the water from approximately 4000 square feet of roof. Since that time, the Housing Authority has added 5 additional sites that include drywells and pervious drainage trenches to pick up an additional 10,000 square feet of roof area. Currently we have developed 4 types of storm water solutions for the Housing Authority. They are drywells, rain gardens, rain barrels and discontinuous paving. This reduces the need for as much irrigation and recharges the water into the aquifer.

**Results:** The Housing Authority property is currently capturing and recharging into the aquifer rain water from just over 50% of the impervious surfaces on the Housing Authority property. This is preventing over 500,000 gallons of water from running down our streets annually.

Monitoring and compliance of the water saving measures will be ongoing to insure the devices are in place and operating efficiently.



Installation of pervious lateral trenches to distribute storm water runoff into the soil.



Building 2 Rain Garden



Rain Barrels with percolating trenches



## Electricity

**Condition:** The majority of the electrical demand at the Hightstown Housing Authority is for site and unit lighting. Existing apartment fixtures are incandescent and or T-12 fluorescent lighting. Outside balcony fixtures that are on daylight sensors are 2 bulb incandescent fixtures. Larger site and security lights that operate on daylight sensors are either mercury vapor or metal halide fixtures. The average electric bill is \$8,000 per month.

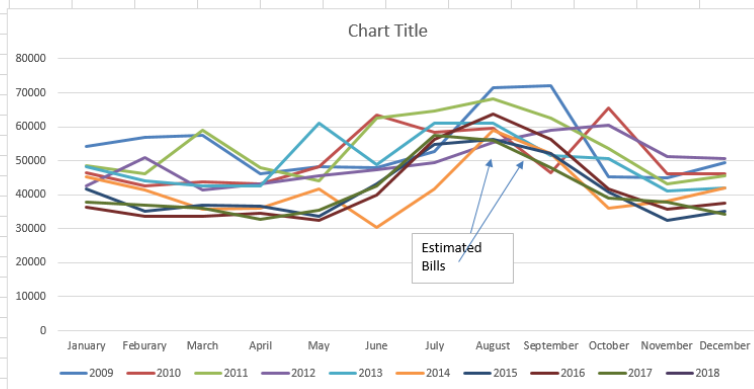
**Solution:** The HA has completed projects to reduce electrical consumption. These include removing 70 exterior balcony lights and replacing them with new LED fixtures. By changing each of these 120Watt fixtures with new 17Watt fixtures, we save approximately \$350 dollars per month in electric, paying for the new fixtures in just 11.5 months. The next phase was replacing all of the exterior site lighting with LED. We currently use 34,263 watts of power each year with our current fixtures. Once replaced with LED, our consumption decreased to just over 1,680 watts. Annually this saves over \$4,500 in electric. Payback is approximately 3 years. The third project has a longer payback and will be done upon turnover. We anticipate this taking approximately 5 years and will involve replacing all the ceiling mounted fixtures in the apartments with new LED fixtures. The payback period will be approximately 10 years, saving just over \$250 dollars per month.

Additional projects included replacing all laundry room lighting with LED fixtures on motion sensors and replacing all of the office lighting with LED fixtures on motion sensors.

**Results:** We will monitor our monthly usage and report our progress

**Where do we go from here?** This process of updating each apartment will take up to 5 years to fully implement. We will carefully monitor the costs as we install new fixtures.

Electric Cost Study- KWH																	
Hightstown Housing Authority																	
	January	February	March	April	May	June	July	August	September	October	November	December	Jan-June	July-Dec	Full year		
2009	54177	57006	57588	46120	48154	47981	52754	71640	72219	45206	44911	49578	311026	336308	647334		
2010	46484	42630	43806	43153	48179	63364	58501	59680	46418	65508	46263	46225	287616	322595	610211		
2011	48555	46228	58853	47983	44184	62625	64725	68100	62435	53533	43061	45636	308428	337490	645918		
2012	42632	51041	41505	43205	45576	47325	49481	55497	58937	60608	51171	50641	271284	326335	597619		
2013	48240	44224	42633	42633	61112	48735	61202	61202	51534	50641	41134	41951	287577	307664	595241		
2014	45154	41481	35753	35966	41805	30444	41803	59071	52174	36005	38094	42018	230603	269165	499768		
2015	41681	35018	37026	36541	33681	43264	54783	56402	52256	40827	32610	35209	227211	272087	499298		
2016	36482	33744	33744	34511	32436	39829	56402	63805	56347	41656	35624	37628	210746	291462	500424.7		
2017	37958	36940	35980	32847	35504	42700	57584	55921	47962	39112	37902	34132	221929	272613	494542		
2018													0	0	0		



**Global Impact:** Each day, your local utility plant will burn coal, oil, or gas to generate electricity for your lighting system and your other electrical needs. While burning these fossil fuels produces readily available and instantaneous supply of electricity, it also generates air pollution. Hightstown, NJ is located in the EPA region 2. The following projections are based on data provided by the EPA for our region. By reducing our consumption, we are having the global equivalent impact annually of:

- Planting 16.48 Acres of trees annually
- Permanently removing 8 cars from the road
- Saving 5,167 gallons of gasoline from being burned
- Preventing 20.46 tons of CO2 from going into the atmosphere.

## Natural Gas

**History:** Natural gas is consumed on the site for 3 purposes. The first is cooking gas for the individual units, second is for domestic hot water and finally is space heating. The Housing Authority historically use approximately 73,000 CCF of natural gas per year for these purposes. This average is taken over a 5-year period which allows for fluctuation in weather. Each CCF of natural gas produces 122 lbs of CO2 when burned. Annual, the Housing Authority was producing 4,453 tons of CO2 for heating and hot water.

**Domestic Hot Water:** The production of hot water was done one of 2 ways. In the summer the HA has 3 Lochinvar high efficiency boilers and 8 super insulated storage tanks which feed all the residential buildings as well as the laundry facilities with domestic hot water. In the winter, when the main boilers are operating, the heat exchangers were opened and the main boilers were used to supply hot water.

We have eliminated the use of the boiler heat exchangers in the winter. The Lochinvar boilers are 10-12% more efficient than our main boilers and we no longer lose up to 20% of the energy produced by the main boilers by using the heat exchangers. In addition, we are able to reduce our daily operating boiler temperatures, as the boilers must run at 180 degrees to produce domestic hot water.

**Solution:** Low-flow aerators and shower heads were installed in every residential apartment, reducing the demand for hot water. This should reduce the consumption of natural gas for the production of hot water in half. The new laundry facilities are “Cold Water” only machines that will not use hot water. There is notable savings from this solution, which will only be determined by monitoring and comparison due to the fact we do not know historically how many loads of laundry were done in hot water. We can surmise the baseline usage of natural gas over the last 10 years is 1,270 CCF per month for cooking and hot water based on 0-degree day months where all gas used would be for those purposes. With the installation of the “Cold Water” wash laundry, we will monitor the consumption of natural gas during the 0-degree day periods to determine the new consumption standard.

**Residential Space Heating:** The Hightstown Housing Authority has 3 centralized boiler rooms, each of which contain 2 boilers capable of approximately 1.9 to 2.1 million BTU for a total BTU capacity of 4.0 million BTU per boiler plant. After careful study by 2 independent energy auditors, it was determined the boilers are running at an efficiency of 81-83% annual **fuel utilization efficiency**. (AFUE) is a thermal efficiency measure of combustion equipment like furnaces, boilers, and water heaters. The AFUE differs

from the true 'thermal efficiency' in that it is not a steady-state peak measure of conversion efficiency, but instead attempts to represent the actual season-long average efficiency of that piece of equipment, including the operating transients. It is a dimensionless ratio of useful energy output to energy input, expressed as a percentage. For example, a 90% AFUE for a gas furnace means it outputs 90 BTUs of useful heating for every 100 BTUs of Natural Gas input (where the rest may be wasted heat in the exhaust).

**Solution:** This equipment is considered to be in the mid-range of efficiency but nearing the end of its useful lifecycle. All of the equipment is scheduled to be replaced in the summer of 2018. To maximize the efficiency of the current equipment, we have installed new controls on the units that will allow us to monitor the heating loop water temperatures and adjust that against the current outdoor temperature with a base indoor comfort level ( $\Delta T$ ). As an example, on a 40-degree day, the boilers may only fire the loop temperature to 135 degrees, whereas at 20 degrees' outdoor air temperature, the loop temperature may run at 155 degrees. This insures an adequate amount of heat is being produced to meet the demand in the units. The new heating plants will be a series of modular stainless-steel boilers that will fire in sequence with overall efficiency of 96-97%.

**Results:** We have experienced much higher efficiency during the moderate demand days. By modifying the loop temperatures based on outdoor air temperatures, we are able to gently warm the interior spaces instead of overheating them.

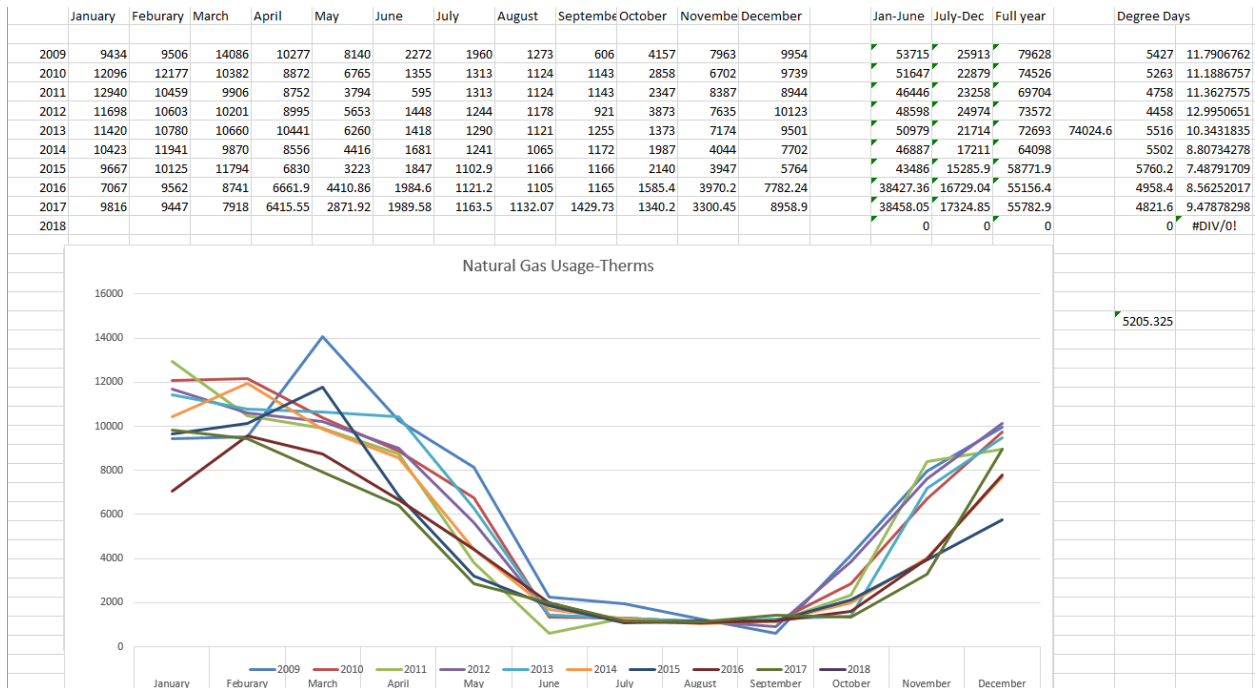
**Condition:** Each apartment unit has between 3 and 7 radiators based on the unit's size. There was no way to thermostatically control the amount of heat coming from each radiator. The tenants traditionally would open the window when the unit became too warm. This was especially prevalent during the moderate demand days when the boilers would be running at 180 degrees. Most of the energy being expended was being wasted and the residents were never really comfortable.

**Solution:** In 2013 we installed 528 individual thermostatic radiator valves, one on each radiator on the property. This project was partially funded through a grant from the State of NJ, and the Housing Authority contributed just over \$17,000. The total as built cost was approximately \$82,000. The thermostatic valves have been a great success, with our overall consumption dropping from approximately 11.5 CCF per day to approximately 8.5 CCF per day over the course of the year. This of course is degree day adjusted with the cooking and hot water usage removed. This one project has reduced the cost of natural gas to the property by just over \$20,000 dollars per year.

**Global Impact:** Each day, our physical plant burns gas to generate domestic hot water and heat in the winter. While burning, natural gas produces readily available and instantaneous supply of heat and hot water, it also generates air pollution. Hightstown, NJ is located in the EPA region 2. The following projections are based on data provided by the EPA for our region. By reducing our natural gas consumption, we are having the global equivalent impact annually of:

- Planting 2,592 seedlings trees annually
- Permanently removing 21.1 cars from the road
- Saving 11,257 gallons of gasoline from being burned
- Preventing 100 Metric tons of CO<sub>2</sub> from going into the atmosphere.

## Hightstown Housing Authority-Natural Gas usage.



The overall global impact of the conservation measures taken by the Hightstown Housing Authority can be summarized by the following:

- An average 38.9% reduction in the expense from the 2 major utilities.
- A 34.3% reduction in water consumption
- A 28.4% reduction in greenhouse gas.

(snip from Hightstown Housing Authority’s Energy Star-Portfolio Manager)

Metrics Summary			
Metric	Dec 2009 (Energy Baseline)	Dec 2017 (Energy Current)	Change
ENERGY STAR Score (1-100)	7	44	37.00 (528.60%)
Source EUI (kBtu/ft <sup>2</sup> )	186.4	134.8	-51.60 (-27.70%)
Site EUI (kBtu/ft <sup>2</sup> )	123.9	87.6	-36.30 (-29.30%)
Energy Cost (\$)	188,517.93	115,447.25	-73070.68 (-38.80%)
Total GHG Emissions Intensity (kgCO <sub>2</sub> e/ft <sup>2</sup> )	8.1	5.8	-2.30 (-28.40%)
Water Use (All Water Sources) (kgal)	5,321.6	3,498.5	-1823.10 (-34.30%)
Total Waste (Disposed and Diverted) (Tons)	Not Available	4.11	N/A

## Where do we go from here....

The Hightstown Housing Authority is continuing to pursue energy efficiency opportunities.

Current projects include:

- Air sealing the window frames. When the replacement windows were installed 15+ years ago, the contractors did not air seal the gap between the new window and the frame. This leaves an airspace with only a caulk joint keeping air from infiltrating the unit. We are currently removing the interior trims on the apartment windows and air sealing them using expanding foam. This is being done as units turn over, but will be prioritized later this year and regularly scheduled to be completed campus wide in 2018.



A 1 inch or greater air space surrounds each window. These spaces are being filled with expanding foam.

- Replacement of the current nearly 20-year-old hot water boilers. The current boilers are operating at approximately 81-81% efficiency. Engineers are currently working on redesigning the boiler plants to accommodate smaller modular boilers that will fire in sequence, producing just the amount of heat needed by the community without over heating the apartments. The new boilers will be operating at 97% efficiency which should save another 8,500 therms of energy per year. This will also significantly raise our Source and Site EUI scores.
- Replacement of interior fixed lighting continues on turnover and cycle painting. We are replacing all of the fluorescent ceiling mounted fixtures with LED fixtures.
- Although all of the toilets on the property have been replaced with 1.6 gallon per flush fixtures, we are considering replacing fixtures as needed with new .8 gallon per flush toilets. If fully implemented, this change would further reduce the HA's consumption by approximately 450,000 gallons per year. At today's rates this would equate to almost \$10,000 per year in savings.

## Small PHAs' Deregulation Voluntary Defederalization by Eligible PHAs A Concept Paper

Written by Allen Keith LePrevost, ED, The Hightstown Housing Authority  
(06/16/2017)

The Trump Administration has displayed a desire to see dramatic changes in the way agencies across the government work and/or even exist. Affordable housing is a necessity in every corner of our country, and the preservation of affordable units is going to take a new approach, using market forces and limited government resources. The reliance on the federal government for providing all of the operating subsidy is very quickly becoming an antiquated model that begs to be changed.

The problem with the current system is that each small agency or each asset management project (AMP) is treated exactly the same as every other one across the country. They should be looked at as their own local provider of housing. Many small agencies fill a need in a local area, serving a vital role as primary Houser of lower income people. Many times, an individual AMP from a larger agency fills the same role, serving a neighborhood or specific part of a city. In many parts of the country, the economics of the area are strong, there is access to jobs, transportation, childcare, educational facilities and social service agencies to provide incomes for anyone willing and able to work. In other parts of the country one or more of these elements are missing, making getting or keeping a job very difficult.

The premise of this concept paper is to demonstrate how on a voluntary basis, the complete defederalization of eligible AMP's or small agencies will benefit the communities they serve, and the subsidies they would have received can be redistributed to other AMPs and agencies that are less fortunate. The data and other examples are from the Hightstown Housing Authority (HHA), a small, 100-unit authority that is located in Central New Jersey. The median income of the area according to HUD is \$94,000, but for the case of this study and our budgets we are using the 2010 census data and the 2016 NJ Housing Mortgage Finance Agency (HMFA) data specifically for the Borough of Hightstown which estimates the median income to be \$72,583.

It is assumed that there will be current residents that will not be able to remain on our site due to rent *increases*. There is also an equal number of residents whose rent will dramatically *decrease*. Under the proposed rent structure (described below), our current *elderly* population on a fixed-income will be affected as follows: 1) three of our seniors (13%) would see a *decrease* in their current rent; 2) approximately 15 (65%) would be able to accommodate the new rent; and 3) five (22%) would either need family support or have to find other housing.

Our current *family* population will be affected as follows: 1) 22 families (29%) would see a *decrease* in their rent to the new fixed rent within three years. Another 26 families (35%) would be able to meet the new rent and up to 27 families (36%) would either need to *increase* their incomes or find other housing within three years.

Based on this proposed rent structure, 25 of our current households (25%) would see *decreases* in the rent they currently pay under the Public Housing Program. This means, based on today's rent roll, the federal government will no longer need to subsidize all 100 of our families. Under the propose rent structure in year one, only 75 of our units will require subsidy. Now the subsidies are directly tied to the units. As residents move, new fixed "based rent" tenants will occupy the unit. Residents that are likely to relocate from the property but were not otherwise served by other HAs/owners/managers' rental assistance programs, could receive a "tenant protection" voucher which could be paid for by HUD or the savings associated with needing to only subsidize 75 of the 100 units could be an alternate funding source.

**How do we get there?** The process of converting from a deep operating subsidy program (which was only funded in FY 2016 at 53% of annual capital accrual needs and 84% of the authorized operating fund formula) to fixed "base rents" would take three years.

Year 1 - Communication: The first year would be spent educating the residents as to the changes in the program. We will need to provide group and one-on-one counseling to the residents on the transition. The HHA continues to be funded under the Public Housing Operating and Capital Fund programs. Other deep subsidy programs in our geographic area would be contacted and their applications would be made available to our residents who will continue to need subsidy. There are a range of waiting list eligibility categories under which assisted-resident households would qualify, both at the time that they apply to, and come to the top of, other entities' waiting lists for housing assistance. For example, these assisted-households may qualify as being eligible based on their income, other entities' waiting list preferences or lack thereof, and/or under HUD's waiting list continued assistance regulation for assisted-households. To this end, specific efforts would need to be made to help assisted-households, including a social service coordinator to be brought on staff during the first year to assist in this area.

Year 2: HUD will convert the HHA from Public Housing to a Section 8 subsidy. The Federal Government makes a one-time payment of \$100,000 (\$1,000 dollars per unit) for the establishment of a Reserves for Replacement (R&R) account. This is approximately what the HHA receives each year in Capital funding, so there is no additional financial burden to the Government. The HHA will convert its rent structure to the new fixed "base rent." Monthly payments will be made to supplement the R&R account. There will be an immediate drop in subsidy, as there are 25 residents whose rent will be *decreased* to the new fixed rent. Also, as new tenants move-in, they will not be eligible for any subsidy. Each month, as the HHA submits Tenant Rental Assistance Certification System (TRACS), only the amount necessary will be billed to HUD's Office of Multi-Family Housing. The HHA will work with existing tenants that will require continued deep subsidy to apply for vouchers or other subsidized properties. The HHA will work with HUD, the State and County to ensure that existing tenants are satisfactorily handled. The HHA will coordinate with the State of NJ, Department of Community Affairs(DCA) to take over and conduct their regularly scheduled Multi-family inspections under its existing program. The HHA will also coordinate with the local building department to perform new Certificate of Occupancy inspections on each unit at each new move-in.

Year 3: By the end of Year 3, all subsidy stops and the HHA relies only on the fixed rent. The management of the HHA will be transferred to the Affiliated Non-Profit and the HHA will become



only a consulting entity. This change will allow the HHA to restructure its management, line staff, benefits and contracting practices to better align with the market. These changes will also *decrease* the end operation costs by over \$100K per year allowing for budget flexibility and increased investment. We would also propose a 3-year maximum term for families on the property to ensure other individuals and families would have access to the affordable apartments. Senior Citizens and disabled individuals would be exempt. The HHA will deed restrict the property to remain in compliance with the State of NJ affordability guidelines for a 20-year period. The HHA will renegotiate the payment in lieu of taxes (PILOT) agreement with the local municipality to reflect the new structure and the benefits to the community.

Once fully implemented, the benefits for the local community include:

- Certification only at move-in to ensure compliance with family size and income eligible.
- Ability to raise the rents annually based on current local conditions and needs.
- Freedom to finance capital improvements locally as needed.
- Dramatic reduction in HUD’s compliance paperwork compared with the public housing program.
- Freedom from Federal Deed restrictions and limitations of the ACC.
- All private money in the project, without federal restriction.

**Mercer County, NJ (Hightstown)**

Median Income = \$72,583

<b>% of Median Income</b>	<b>1 Person</b>	<b>2 Pers.</b>	<b>3 Pers.</b>	<b>4 Per.</b>	<b>5 Pers.</b>	<b>6 Pers.</b>	<b>7 Pers.</b>	<b>8 Pers.</b>
30% Median Income	\$20,940	\$23,940	\$26,940	\$29,910	\$32,310	\$34,710	\$37,110	\$39,510

<b>“Base Rents” Would Be Based on 30% of 30% of Median income (MI)</b>				
<b><u>Studio</u></b>	<b><u>One bedroom</u></b>	<b><u>Two Bedroom</u></b>	<b><u>Three Bedroom</u></b>	<b><u>Four Bedroom</u></b>
\$523	\$561	\$673	\$777	\$867

(a) How did we arrive at these rents?

(see page 23) -

[http://www.nj.gov/dca/hmfa/media/download/tax/incomelimits/tc\\_2016\\_income\\_limits.pdf](http://www.nj.gov/dca/hmfa/media/download/tax/incomelimits/tc_2016_income_limits.pdf)

<b>Unit Size</b>	<b># of Units</b>	<b>FMRs (adjusted)(a)</b>	<b>Total Monthly Gross Rent</b>	<b>Other Income</b>
(utilities, laundry)				
0 Bedroom	10	\$ 523	\$ 5,230	
1 Bedroom	36	\$ 561	\$ 20,196	
2 Bedroom	24	\$ 673	\$ 16,152	
3 Bedroom	24	\$ 777	\$ 18,648	
4 Bedroom	6	\$ 867	\$ 5,202	
<b>Monthly Total</b>	<b>100</b>		<b>\$ 65,428/mo.</b>	<b>\$ 25,000/mo.</b>
<b>Yearly Total</b>			<b>\$ 785,136/yr.</b>	<b>\$ 810,136/yr.</b>

These are “base rents” that may be modified based on the number of occupants living in the dwelling unit. As an example, person “X” qualifies and moves into a one-bedroom apartment. Person “X” gets engaged to be married and fiancé wants to move in. A new certification is done and as a couple they qualify. The new monthly rent based on two people would be \$599. If upon certification the new couple did not qualify, they would be given the choice to vacate the property with reasonable advanced written notice, or pay market rent until the initial lease term expires, then move-out.

<b><u>Revenue Items</u></b>	<b><u>Current Income Stream</u></b>	<b><u>Projected Using “Base Rents”</u></b>
Dwelling Rentals	\$ 546,000	\$ 785,136
Excess Utilities	\$ 9,210	\$ 9,210
CFP Used for Operations	\$ 10,230	\$ -
Vacancy Allowance 3%	N/A	\$ (23,554)
Interest Income	\$ 6,720	\$ 6,720
Other Operating Receipts	\$ 9,215	\$ 9,215
Operating Subsidy	\$ 233,544	\$ -
<b>Projected Income</b>	<b>\$ 814,919</b>	<b>\$ 786,726</b>

With this process, there will also be budgetary challenges. Adjustments will need to be made consistent with the way the community operates over time. After the initial three-year period, staffing can be modified, as there will not be the need for annual and interim household certifications. Also, when we move the management of the property to the non-profit, we can change the benefit package from the State Health and Pension system to a private, market driven system. Based on overall staffing and benefit changes, we will be able to reduce expenses by approximately \$100,000 per year.

Other areas for which we will need to be budgeting are marketing, reserves for replacement (R&R) and vacancies. These three things are not normally considered in Public Housing, but are a reality in a market-driven property. We have included a 3% vacancy factor in our budgets, \$2,000 per month for R&R and \$500 per month for marketing.

**Existing Households’ Demographics on Income, Household Type & Rent**

<b>Existing Households’ Distribution by Family Type</b>	<b>% of Total Households by Household Type</b>	<b>Average Monthly Total Tenant Payment</b>
Non-elderly, with Children, Non-Disabled	26%	\$ 642
Non-elderly, No Children, Non-Disabled	25%	\$ 330
Non-elderly, No Children, Disabled	12%	\$ 262
Non-elderly, with Children, Disabled	1%	\$ 0
Female Headed Household with Children	23%	\$ 566
Elderly, No Children, Non-Disabled	25%	\$ 588
Elderly, with Children, Non-Disabled	4%	\$ 553
Elderly, with Children, Disabled	0%	\$ 389
Elderly, No Children, Disabled	6%	\$ 382

<b>Existing Households' Current Annual Income</b>	<b>% of Area Median Income</b>
Extremely Low Income (Below 30% of AMI)	70%
Very Low Income ( 50% of AMI)	24%
Low Income ( 80% of AMI)	4%
Above Low Income ( 81%+ of AMI)	2%

<b>Existing Households' Distribution by Source of Income</b> (Some families have multiple sources of income)	<b>% of Area Median Income</b>
With any SSI/SS/Pension	64%
With any wages	47%
With any other Income	15%
With any Welfare	1%
With No Income	0%

<b>Existing Households' Current Average Annual Income</b>	\$19,580
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<b>Existing Distribution of Units by Bedroom Size</b>	<b>% of Units by Bedroom Size</b>
Studio	10%
1 Bedroom	36%
2 Bedrooms	24%
3 Bedrooms	23%
4 Bedrooms	6%
5+ Bedrooms	0%

<b>Number of Current Households Paying Flat Rents</b>	25
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<b>Existing FY 2017 Fair Market Rents in Section 8 Programs</b>				
<u>Studio</u>	<u>One bedroom</u>	<u>Two Bedroom</u>	<u>Three Bedroom</u>	<u>Four Bedroom</u>
\$947	\$1,109	\$1,364	\$1,793	\$2,073