



New Garden, PA

Oxford, PA



UNIVERSITY OF
MARYLAND

ENVIRONMENTAL FINANCE CENTER



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BACKGROUND

New Garden is located in southern Chester County in eastern Pennsylvania. As of 2018, the population of New Garden was 9,635 people in 3,905 households. The median household income (MHI) is \$116,549 which is significantly above the state MHI of \$59,445. In New Garden, 9 percent of the population is living below the federal poverty line, compared to the state's 12.5 percent. Oxford is a small Borough to the west of New Garden, also in southern Chester County. As of 2018, the population of Oxford was 3,780 people in 1,870 households. The MHI is \$56,450 compared to the statewide MHI of \$59,445. In Oxford 22 percent of the population lives below the federal poverty line, compared to the state's 12.5 percent.

The two municipalities within this case study offer a view of the complexity of water and wastewater service areas that are not coincident with the municipal boundary. The two municipalities have very different median household incomes; however, the average monthly water and wastewater bills for residents are similar; \$51.96 for Oxford customers and \$56.50 for New Garden customers. Neither has a stormwater utility or stormwater fee at this time.

Water and Wastewater System Details

Water

Residents in certain areas of New Garden purchase public water provided by the Chester Water Authority (CWA), which is not affiliated with the Township. CWA is a non-profit public Pennsylvania Municipal Authority (established in 1939) that provides potable public water to 43,500 customers residing in Western Delaware County, PA; Southern Chester County, PA; and the City of Chester, PA. CWA also supplies wholesale water to neighboring water utilities in Pennsylvania and Delaware. CWA sets its own rates and operates independently, but does not have taxing power. Operational and maintenance costs are funded from revenue earned on water sales to customers, customer fees, and charges. CWA charges all retail water customers a monthly base charge of \$27.54 and a uniform rate of \$4.61 per 1,000 gallons. CWA has not raised rates in 12 years. Some residents of New Garden receive drinking water from private wells and pay a monthly bill for sewer to the Sewer Authority.

Oxford sources 80 percent of its drinking water from ground water wells and purchases approximately 20 percent from CWA. The CWA water is pumped directly to the water system.

Oxford retail water customers are charged a monthly base rate of \$31, which includes a 5,000 gallon consumption allowance, plus an increasing block rate for consumption.

Wastewater

Both New Garden and Oxford have sewer authorities that serve their respective residents. New Garden residents within the New Garden Sewer Authority service area currently pay a base charge of \$112 per quarter, which includes a consumption allowance of 5,000 gallons, plus a volumetric rate of \$15.17 per 1,000 gallons. The monthly residential sewer bill for 10,000 gallons per quarter is \$62.92.

Oxford also has a Sewer Authority (see map below). Residential customers pay a base charge of \$83.82 per quarter, which includes a consumption allowance of 5,000 gallons, and a volumetric rate of \$16.78 per 1,000 gallons. The Sewer Authority is not managed by the Borough of Oxford, but by an independent board. The average monthly residential sewer bill, based on quarterly charge of \$83.83, is \$27.94.

Stormwater

Currently, 58 of Chester County's 73 municipalities have been designated by the Pennsylvania Department of Environmental Protection (PADEP) for inclusion in the small Municipal Separate Storm Sewer System (MS4) program. New Garden is an MS4 community and has prepared a plan (2018 - 2023) to address stormwater. Oxford has been notified by PADEP that it would be included in the 2018 permit cycle as a result of the expansion of the Urbanized Area based on the 2010 census. Oxford does not assess stormwater fees. Neither New Garden nor Oxford currently have a stormwater utility fee.

Affordability in Context

New Garden (\$81.36) and Oxford (\$58.94) monthly bills differ for residential customers receiving water from Chester Water Authority and wastewater services from the each town's respective authorities. Residents on private wells only incur sewer charges. Some residents may also be on private wells and have a septic system, in which case there would be no charge for water or wastewater. In New Garden, there are approximately 1,707 residential connections to the public sewer system. Of that number, approximately 90 are served by wells.

Both municipalities have tried to keep rates low for their Sewer Authority services. Pennsylvania's Fair Value Act makes it easier for private utilities to acquire municipal water authorities, because the act allows for private utilities to offer higher prices for water and wastewater system assets. This Act has previously spurred privatization of municipal sewer systems. In 2016 the New Garden Board of Supervisors voted to sell the Sewer Authority assets to a private company, Aqua Pennsylvania (now Essential Utilities). The sale is not finalized as of 2020 but is expected to be in November/December 2020. The Board of Supervisors listed the following as reasons for the sale:

- Tapping the maximized value of the assets to remove debt, reduce budgetary constraints and reduce unfunded obligations.
- Avoiding needed short-term and long-term capital upgrades and replacements to the system which will result in additional debt and higher user fees.
- Reducing the risk of unfunded, ever increasing federal and state regulatory mandates in a heavily regulated industry.
- Reducing the risk of liability due to regulatory noncompliance.
- Recognizing that this type of utility can be more efficiently and economically operated by the private sector rather than government.
- Reducing the size of local government.

While the Oxford Sewer Authority is not managed by the Borough, they do not anticipate the privatization of the system in the foreseeable future.

Chester Water Authority is also under a pending sale to Essential Utilities (formerly Aqua America). However, there are challenges to the sale that have held the sale in litigation. Concerns are that the privatization will leave the residents with “higher rates, loss of the Octoraro reservoir, loss of open space, loss of control of our public water.” Chester Water Authority’s sale to Essential Utilities will be decided through litigation.

AFFORDABILITY METRICS SUMMARY

Metric	Definition	Value for New Garden	Value for Oxford
Residential Indicator	Annual average utility bill as % of MHI.	0.8%	1.2%
Household Burden Indicator	Annual water, wastewater, and stormwater bill as % of 20th percentile household income.	3.2%	2.6%
Poverty Prevalence Indicator	% of households at or below 200% of the federal poverty line.	18.6	36%
Cost of Basic Water Use as % of Upper Limit of Lowest Income Quartile	Annual water and wastewater bill, not including base charges, for the average household size for 50 gallons per person per day as a % of 20th percentile household income.	2.39%	4.55%
Weighted Average Residential Index	Average annual bills as a % of MHI by census tract or census block group extrapolated to the whole service area by weighting each tract or block group by the number of households. If the average annual bill by census tract or block group is unavailable, the average bill of the entire service area is used.	1.5%	2.5%
Affordability Ratio at 20th Income Percentile (AR20)	The water, wastewater, and stormwater bill as a percentage of discretionary income for the 20th percentile income household.	9.3%	15.1%
Hours at Minimum Wage	The number of hours at minimum wage, before taxes, needed to pay the water and wastewater bill. Assumes 50 gallons per person per day for the average household size and does not include base charges.	12.6	13.0
Households Delinquent in Paying Bills %	The percentage of residential accounts delinquent as of March 2020.	6%	20%
Poverty Rate %	The percentage of households in the census place below the federal poverty line.	9%	16%
Living Wage %	The % of households whose hourly household income is below the minimum wage necessary to pay for all essential expenses. Calculated based on MIT living wage values at the county-level.	10.5%	22%
Shelter Cost	Percentage of households in the census area paying more than 30% of their income on housing. Housing costs based on U.S. Department of Housing and Urban Development Fair Market Rate for a 2-bedroom unit.	25.9%	31.3%
Households receiving public assistance %	Percentage of households in the census area receiving SNAP benefits.	2.4%	14.8%

THE UTILITY'S FEEDBACK ON THE AFFORDABILITY METRICS

The assessment of each of the affordability metrics above were reviewed with the interviewees for New Garden and Oxford. Comments and input from the consultant to New Garden were requested to evaluate whether the metrics provided a reasonable assessment of actual conditions in the local community and of its customers. The feedback on each of the affordability metrics is documented below. In addition, an interview with Oxford staff provided feedback for metrics assessed for Oxford.

Residential Indicator

New Garden and Oxford do not use the residential indicator for affordability. The metric indicates a low burden for both municipal areas, however the lower MHI in Oxford results in a higher burden than New Garden.

Cost of Basic Water Use as % of Upper Limit of Lowest Income Quartile

This metric does not have a benchmark with which to compare. The basic water use as a percent of low income is higher in Oxford than New Garden.

HBI and PPI

The Household Burden Indicator and Poverty Prevalence Indicator show a low burden in New Garden but a moderate-high burden in Oxford. There is a similar HBI in the two municipalities, but the PPI is 17.4% higher in Oxford than New Garden. The PPI is higher in Oxford meaning the poverty is more prevalent community wide than it is in New Garden. Oxford is aware of the elderly and Hispanic communities that experience low income and are sensitive to increasing rates for these residents.

WARi

This metric shows a low burden for New Garden and Oxford and does express the burden higher than that shown in the residential indicator. The metric is higher in Oxford than New Garden. New Garden and Oxford do not currently have the data to analyze residential water and wastewater usage by census tract. Additionally, service areas for New Garden are not coincident with New Garden's boundary, and the average bill for the census tracts was used for WARi calculation in New Garden. The service areas (water and sewer) for Oxford do align with the town boundary in the census.

Hours at Minimum Wage

For New Garden and Oxford, hours and minimum wage is a metric that expresses a high, and similar, burden on residents. This is likely because there is also a similar minimum wage between the two municipalities, with New Garden's being \$0.75 lower than Oxford's.

AR20

The AR20 shows low burden in New Garden but higher in Oxford. Neither staff had specific comments about this metric.

Percent of Households Delinquent in Paying Bills

Oxford stated that the drinking water residential delinquencies before COVID-19 and currently are 20% of accounts. They are not shutting off accounts and typically the resident is able to pay if given time. There is no municipal assistance, but they refer residents struggling to a non-profit Neighborhood Services Center that will help residents with utility bills. New Garden reported approximately 5-6 percent (or about 200 households) being delinquent at any given time. Delinquency is expected to increase somewhat due to COVID-19, but in New Garden's experience "...at the end of the day people do pay."

Percentage of Household Below FPL

There is a 7% difference in the percentage of households below the federal poverty line with New Garden having less households below. This is, again likely due to the higher overall income of New Garden compared to Oxford.

Percentage of Households Below the Living Wage

No specific comments. Metric calculation seemed correct. Metric does not include water or wastewater costs, and thus does not provide an assessment of affordability of the rates but is a general assessment of economic conditions in the community.

Percentage of Household Income Spent on Shelter Cost

No specific comments. New Garden is again below Oxford for this metric. The metric does not include water or wastewater costs, and thus does not provide an assessment of affordability of the rates, but rather a general assessment of economic conditions in the community.

Percentage of Households Receiving Public Assistance

The value for households receiving public assistance is 12% higher in Oxford and is very low in New Garden at 2.4%. This metric does not include water or wastewater costs, and thus does not provide an assessment of affordability of the rates, but rather a general assessment of economic conditions in the community.

COVID-19

COVID-19 has impacted revenues for the municipalities by decreasing the revenue of both utilities, although costs have been minimal (protective equipment purchase for employees).

Oxford estimates residential drinking water consumption has increased 22 percent since the residents are at home. They instituted a recent rate increase in the spring 2020. Oxford does not expect staffing changes due to COVID-19.

New Garden estimates that revenue has decreased somewhat recently, and there are more late payers than “normal,” but in the long run that is expected to even out. There have not been significant cost increases, and there are no anticipated staffing changes. New Garden is considering sewer rate increases in November 2021. Meter readings are taking place now, and use is expected to continue to go up because people are home. This will provide New Garden with more data to reference and use for future planning.