Prepared for

Narragansett Bay
Commission



Rumford

East Providence

Edgewood Lake

Edgewood Yacht Club 🧶



BUILDING A BETTER WORLD



Fay Memorial Field





> Alternatives Development

April 10 & May 22, Grey & Green Infrastructure

➤ Alternatives Evaluation

- June 19, Evaluation Criteria
- September 4, Alternatives Analysis Workshop

➤ Plan Definition

- October 23, IPF:
 Affordability & Alternatives
 Costs
- November 13, Scenario
 Review & Plan Finalization



Affordability analysis Alternatives costs Subsystem alternatives evaluation completion Alternatives analysis conclusion & next steps **Affordability Analysis**



BUILDING A BETTER WORLD



NBC Financial Plan and Assumptions

Financial Plan

Sources

Retail Revenues

Other Revenues

Debt Issued

Fund Balance

Uses

M&O

Capital Improvements

Debt Service

Reserves & Targets

Key Financial Plan Assumptions

Retail Revenues

0% growth of usage in future years, rate increases needed to pay CSO Phase III

Other Revenues

Pretreatment, septage, late charges, and other miscellaneous income remain consistent

Debt Proceeds

Maximum allowable will be funded through RICWFA loans, projecting \$45 M in 2015 and \$25 M in future years

O&M Expenses

Escalated at 2.3% per year, includes O&M impact from CIP in future years

Debt Service

RICWFA loans at 3% for 20 years, revenue bonds at 5% for 20 years

Capital Improvement Projects

Costs from NBC budget and baseline CSO Phase III estimate

Reserves and Policy Targets

Maintain DSC of 1.25, operating reserve of \$4.5 M growing to 90 days O&M in future years

Capital Improvement Projects

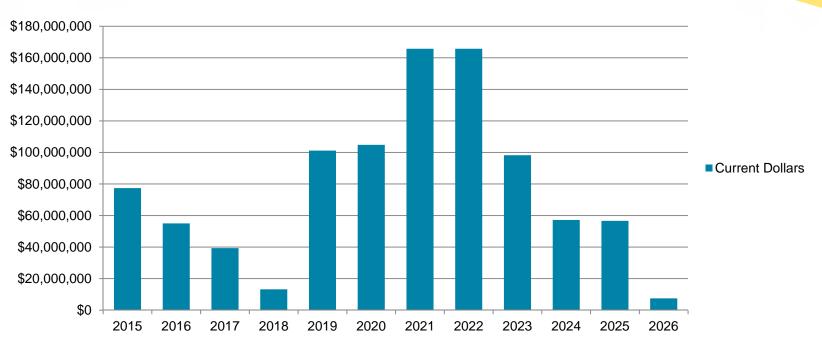
| Negat . | Want Finds | overnents Infrastructu | te Management | grents & cso Phase | . CSO Pringe | M. Antual To |
|---------|--------------|---------------------------|---------------|--------------------|---------------|---------------|
| 2015 | \$22,476,211 | \$1,965,578 | \$3,018,930 | \$35,594,214 | \$10,655,899 | \$73,710,832 |
| 2016 | 25,743,500 | 1,686,900 | 5,226,363 | 8,924,731 | 10,655,899 | 52,237,393 |
| 2017 | 5,056,024 | 856,761 | 4,532,276 | 4,773,530 | 21,311,798 | 36,530,389 |
| 2018 | 2,125,922 | 621,300 | 5,325,966 | 0 | 2,841,573 | 10,914,761 |
| 2019 | 2,191,826 | 722,207 | 5,167,229 | 0 | 91,831,056 | 99,912,317 |
| 2020 | 2,259,772 | 564,943 | 2,259,772 | 0 | 97,340,231 | 102,424,719 |
| 2021 | 2,329,825 | 582,456 | 2,329,825 | 0 | 158,255,266 | 163,497,372 |
| 2022 | 2,402,050 | 600,512 | 2,402,050 | 0 | 158,255,266 | 163,659,878 |
| 2023 | 2,476,513 | 619,128 | 2,476,513 | 0 | 90,729,431 | 96,301,586 |
| 2024 | 2,553,285 | 638,321 | 2,553,285 | 0 | 49,717,079 | 55,461,970 |
| 2025 | 2,632,437 | 658,109 | 2,632,437 | 0 | 49,136,897 | 55,059,880 |
| 2026 | 2,714,043 | 678,511 | 2,714,043 | 0 | 0 | 6,106,596 |
| Total | \$74,961,407 | \$10,194,726 | \$40,638,689 | \$49,292,475 | \$740,730,396 | \$915,817,693 |

CIP/Operating Capital Outlays

| Project Description | Project Group | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---------------------------|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | | | | | | |
| | | | | | | | |
| Operating Capital Outlays | Operating Capital | 3,678,500 | 2,798,400 | 3,261,300 | 2,778,000 | 1,962,000 | 3,000,000 |

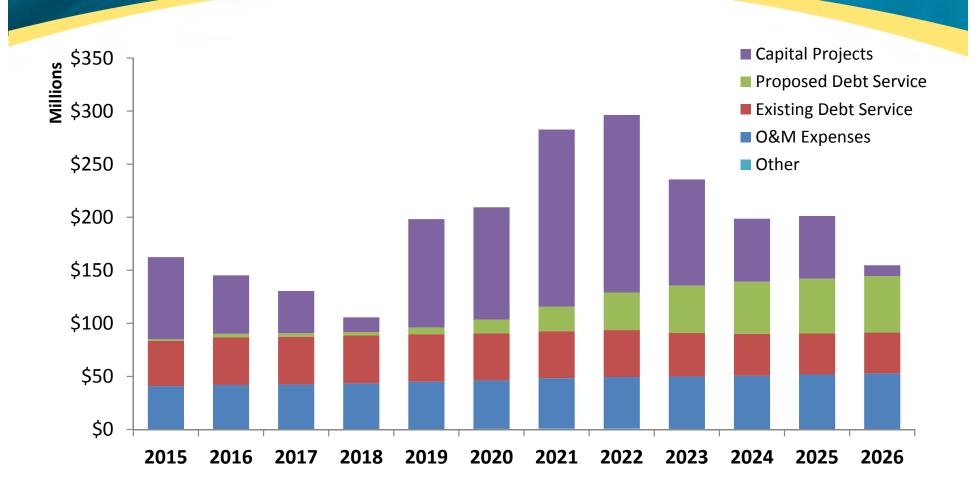
Capital Planning Trend

Projected Capital Expenditures

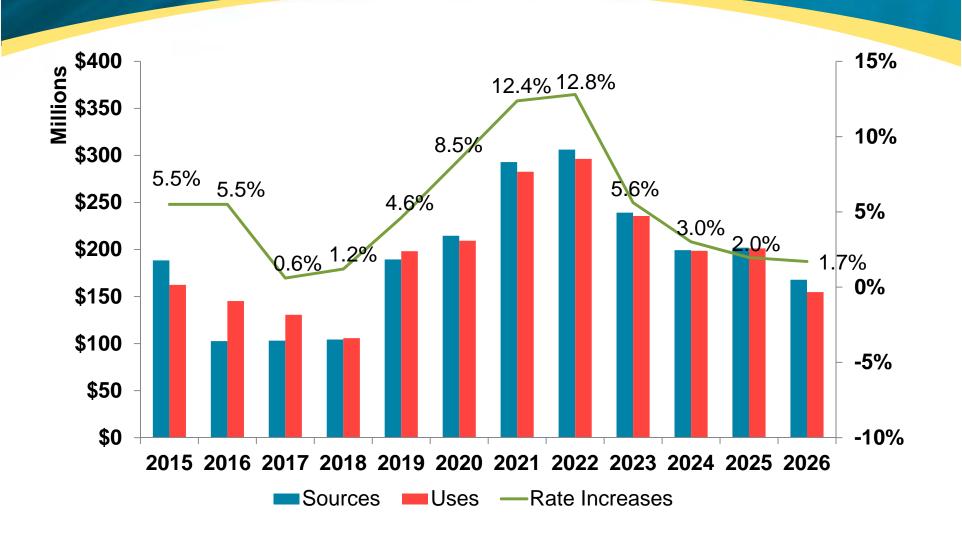


| Project Description | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
|------------------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|-------------|
| | | | | | | | | | | | | |
| TOTAL CASH EXPENDITURE | \$77,389,332 | \$55,035,793 | \$39,334,098 | \$13,214,572 | \$101,167,056 | \$104,840,231 | \$165,755,266 | \$165,755,266 | \$98,229,431 | \$57,217,079 | \$56,636,897 | \$7,500,000 |

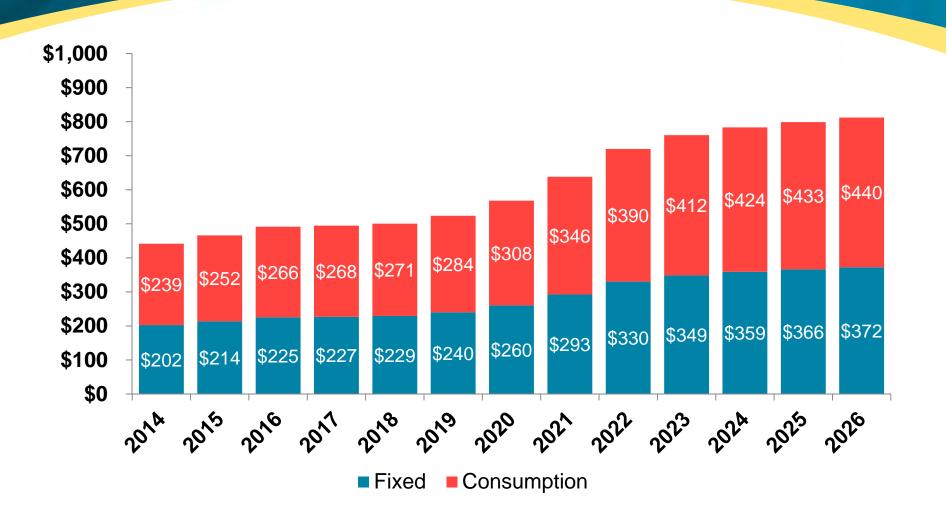
Total Expenditures/Uses of Funds



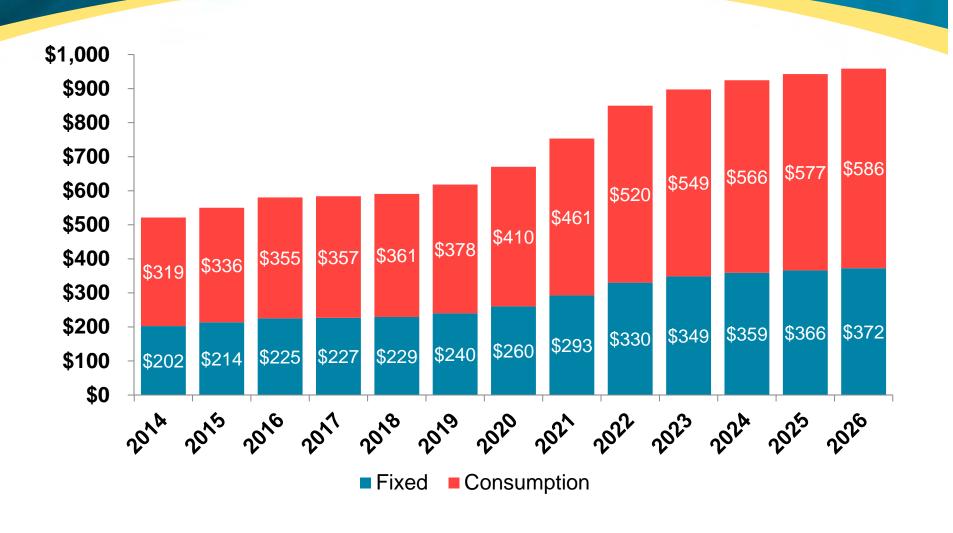
Rate Increases



Average Annual Charge (150 GPD)



Average Annual Charge (200 GPD)





Measuring Affordability: Shifting Mind Sets and Terminology

- Population/Accounts
- EPA "No Bills"
- Entire Area-City/County
- No Income Distribution
- 2010 or 2012 MHI
- Median

- Households
- Actual Bills/Average Bills
- Census Track Level
- 16 buckets of Income Distribution
- 2014 MHI Adjusted
- Weighted Average

EPA Methodology (1997)

| PHASE 2: Economic Indicators | PHASE 1 : Residential Indicator | | | | | | | | |
|------------------------------------|---------------------------------|--|--------------------------------|--|--|--|--|--|--|
| | Low (below 1.0 %) | Mid-Range (between 1.0 and 2.0 %) | High (greater than 2.0 %) | | | | | | |
| Weak (Below 1.5) | Medium Burden | High Burden | High Burden | | | | | | |
| Mid-Range (Between 1.5 and 2.5) | Low Burden | Medium Burden | High Burden | | | | | | |
| Strong (Above 2.5) | Low Burden | Low Burden | Medium Burden | | | | | | |

T

EPA Financial Capability Assessment

| Indicator | Strong | Mid-Range | Weak |
|---------------------------|-------------------------------|---------------------------|------------------------------|
| Bond Rating | AAA-A (S&P) or Aaa-A (MIS) | BBB (S&P) or Baa (MIS) | BB-D (S&P) or Ba-C (MIS) |
| Net Debt/Property Value | Below 2% | 2% - 5% | Above 5% |
| Unemployment Rate | >1% below National Ave. | ±1% of National Ave. | >1% above National Ave. |
| Median Household Income | >25% above adj. Nat'l MHI | ±25% of adj. Nat'l MHI | >25% below adj. Nat'l MHI |
| Prop. Tax/Property Value | Below 2% | 2% - 4% | Above 4% |
| Prop. Tax Collection Rate | Above 98% | 94% - 98% | Below 94% |

Key FCA Assumptions

Current O&M of \$41.0 M

Does not include any infrastructure costs or stormwater costs

Annual Capital of \$45.2 M

Existing debt service of \$42.2 M and annual PAYGO capital of \$3.0 M

CSO Ph III / Future CIP of \$831 M

\$678 M of CSO Phase III (\$740 M of costs with escalation), \$153 M of WWT improvements and non-LTCP, \$500k of annual infrastructure management costs

Future O&M Increase of \$490k

Additional O&M resulting from construction of Phase III

Funding aims to max RICWFA loans

51% revenue bonds, 26% RICWFA loans, 22% cash

Financing at 3% / 5% for 20 years

RICWFA loans at 3% for 20 years, revenue bonds at 5% for 20 years

Residential Share of 61.0%

Billed usage in FY 2014

Households at 118,683

Dwelling units in FY 2014

EPA Phase 1: Residential Indicator

Current Costs

\$ 86,417,929

Projected Costs

67,165,564

Total Costs

\$ 153,583,493

Residential Share

\$ 97,753,926

Number of Households

118,683

Cost Per Household

\$ 789.95

Weighted & Adjusted MHI

\$ 47,165

Residential Indicator

1.67%

Medium Burden

EPA Phase 2: Financial Capability Indicators

| Bond Rating | AA- | Strong |
|-------------------------|---------|-----------|
| Net Debt/Property Value | 1.4% | Strong |
| Unemployment Rate | + 1.9% | Weak |
| MHI | - 14.5% | Mid-Range |
| Property Tax/Value | 2.7% | Mid-Range |
| Property Tax/Collection | 96.2% | Mid-Range |
| | | |

Total Score

Mid-Range

Critical
Information
Overlooked
by EPA
Residential
Indicator

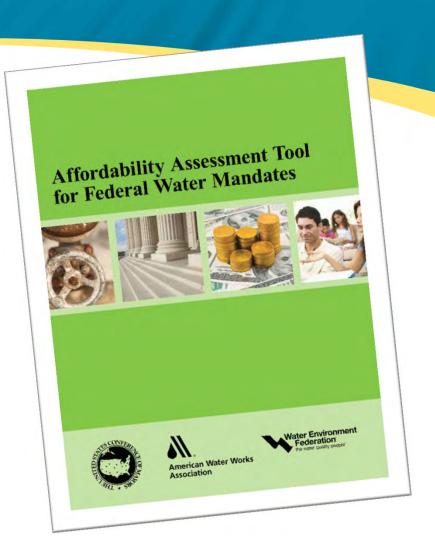
1) Income distribution and skew

2) Neighborhoods

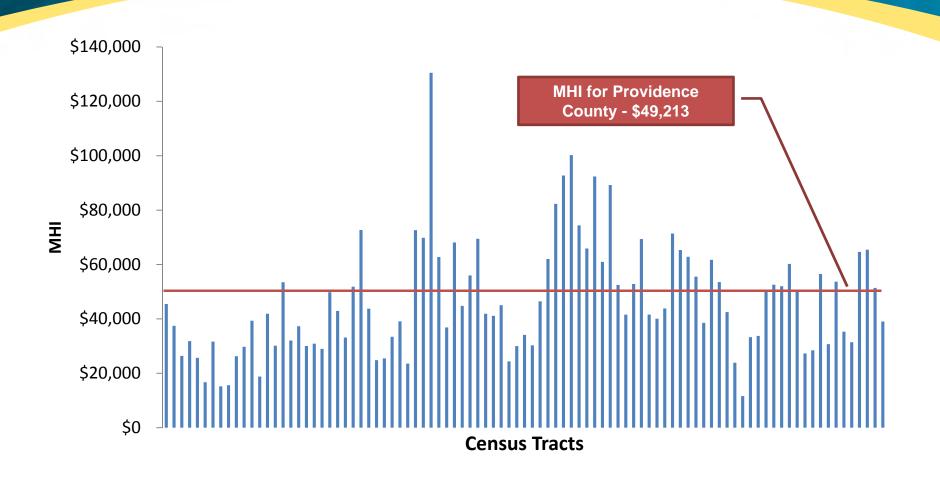
3) Actual bills

Our Approach Improves Negotiating Power

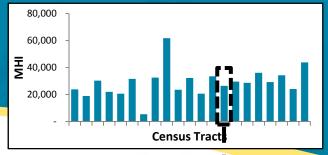
- Meets and exceeds EPA standard
- Supported by Major Industry Groups
 - US Conference of Mayors
 - AWWA
 - WEF
- Allows You to Shape CSO Long Term Control Plan (LTCP) to Fit the Whole Community

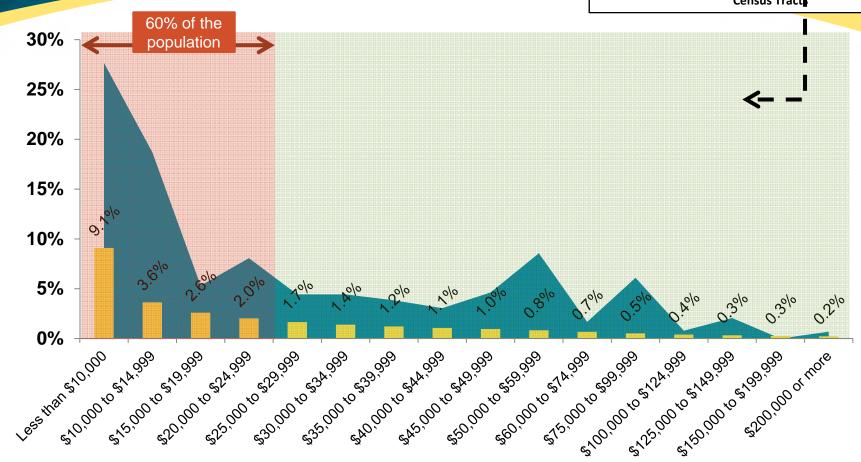


MHI by Census Tract in the NBC Service Area









Burden

Enhanced Affordability Modeling

| eble 5 | _ | | _ | | | | | | | | | | | | | | | | | | _ | | _ |
|-----------------------|---------------------|-----------------------|--------------------|------------------------|-------------------------|-------------|------------------------|--------------------------------|-------------------------------|----------------------------|------------------------------|--------------------------------|------------------------------|----------------------------|---------------------------|-----------------------------------|-------------------------------|--------------------------------|------------------------------|----------------------------|------------------------------|---------------------------------|--------------------------|
| | | Souer Comm | turtur. | | | | | | | | | | | | | | | | | | | | |
| Springhal Maddilks | | Sauar Cana | WTIEL | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| ray-chad file | #1660HP) INGO | oper Consult Tree | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | Honburel Unitrinen | Hudios Heuviold | Ancres Alfordoliöte | Anacego Affanádáláta | Attacédiáte | Anuces Affectabilit | Anucego Afferdebilits indus | Average Afferådsliftvinder | Ancesu Attendebütrindes | Anorese Affendebiltninder | Anunego Affendebilitaria de | Anney Afferdability index | Ancep Atterédébriske | Anarega Afferdebilknin | Average des: Afferdebilityrins | Ancesu cc Attorésbětnínéso | Anorego Affendebiltzindox A | Anuces Medebilitrindes | Anney Afferdebiltrindes | Anurese Harddditrinku Aff | | Anerop elokiliteindes |
| | Households Corns | Billing Date | | index2054 | indos2815 | index20% | vistor2007 | Afterdebility is dix. 2011 | Afterdobility in dec | Attoresbety méso 2826 | 2921 | 2022 | 2023 | Attended at pindos 2424 | 2025 | dox Afterdobilitynis 2024 | ec Attoresbety m4co 2827 | Returnations index: A | Prendobility in disc 2024 | 2918 | 2015 | andebelikyvindux Africa 2002 | relability males 2000 |
| 2005 | 3,123 | 3,196 | \$32,545 | 1792 | | | | 2662 | | | | | | 2,5% | | Str. 2 | | | 2,000 | 2.500 | 2,552 | 3.00% | em |
| 10,500 | 2,5% | 2,570 | \$30,04 | 1352 | | | | 2.00 | | | | | | | | | | | | | | | |
| 20,5900 | 104 | 25 | \$40,04 | 1062 | | | | 1572 | | | | | | | | | To: 5.70 | | 1700 | 1.720 | 1.752 | 17tz | 100 |
| 8403 | 1717 | 1377 | \$40,515 | 162 | | | | 2.50 | | | | | | | | .ttz 1. | | | 2,330 | 136x | 2.02 | Letz Letz | 2.48 |
| 3894 | 2,170 | 2,390 | \$39,264 | 102 | | | | | | | | | | | | | | | | | 2352 | 236z | |
| 1805 | 109 | 1,91 | \$46,524 | 1322 | | | | 1952 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| 8806 | 1400 | 146 | \$16,463 | 1,90x | | | | | | | | | | | | | | | | | 6.8tz 5.78z | | |
| 8897 | 1,611 | 2,109 | \$14,226 | | | | | | | | | | | | | | | | | | | | |
| 1891 | | | | | | | | 100 | | | | | | | | | | | | | | | |
| 2009 | 1,790 | 1,547 | \$11,712 | | | | | | | | | | | | | | | | | 1.65x 1.36x | | 7.89z | |
| | 1,172 | 799 | \$10,724 | | | | | | | | | | | | | | | | | | | | |
| 1911.02 | 721 | 2% | \$19,236 | | | | | | | | | | | | | Mz C | | | 4,000 | Ofix | | 4.8z | |
| 210 | 1,232 | 1,261 | \$17,544 | | | | | | | | | | | | | | | | | | | 5.96x | |
| 1913 | 1,514 | 1,514 | \$21,751 | 2.59% | | | | 3.842 | | | | | | Cita | | | | | | | | | |
| 1954,01 | 1,265 | 1,334 | \$31,921 | 2200 | | | | | | | | | | | | | | | 1.56× | | 3,693 | 3.75x | |
| 1114.02 | 771 | 1,003 | \$42,741 | 1502 | | | | 226 | | | | | | 2,600 | | | | | 2.000 | 2.45% | 2.00 | ΣStz | 2.56 |
| 1915.01 | 1,884 | 2,177 | \$66,449 | 155× | | | | | | | | | | 2500 | | .492 Z | | | 2.6% | 2,500 | 2.542 | 2.51× | |
| 1015.02 | 1,351 | 1,444 | \$33,552 | 1792 | | | | 260 | | | | | | | | | | | 2,850 | 2,890 | 2,942 | 290x | |
| 8015.03 | 1,645 | 1,904 | \$40,863 | 1332 | | | | 1972 | | | | | | 2.52 | | :MX 2 | | | | 2.60 | 2.902 | | |
| 1936.05 | 1,493 | 2,327 | \$50,966 | 1302 | | | | 1972 | | | | | | 2.90 | | .9kz - 2 | | | 2.93 | 2.6x | 2.90 | 2.22× | |
| 308.02 | 1,133 | 2,6% | \$41,541 | 5.992 | | | | 170 | | | | | | | | | Htc 191 | | 1900 | 1500 | 1962 | 1992 | 2.02 |
| 1016.00 | 1,699 | 1,514 | \$51,275 | 0.902 | | | | 1340 | | | | | | | | | Bx 1,450 | | 1.400 | 1.46× | 5.482 | 15tx | 150 |
| 205.04 | 1,481 | 1,557 | \$71,354 | 0.772 | | | | 1.50 | | | | | | | | | St: 126 | | 1230 | 1250 | 1272 | 1292 | 131 |
| 1016.05 | 1,722 | 2,975 | \$66,900 | 1500 | | | | | | | | | | | | Mix 2 | | | | 2.0% | | | |
| 1917 | 1,950 | 2,316 | \$35,124 | 1592 | | | | 2352 | | | | | | | | .56x 2. | | | | | | 2.65× | |
| 1991 | 1,257 | 2,010 | \$5000 | 2,50% | | | | | | | | | | 4000 | | .00x 4. | | | 3,990 | 4.6% | | 4.90 | |
| 1919 | 3,007 | 2,861 | \$11,366 | 3.02 | | | | 5.052 | | | | | | | | .50z 5. | | | 5,400 | 5.53x | | | |
| 8420 | 1,165 | 1,200 | \$17,264 | 2500 | | | | 3,850 | | | | | | | | | iix (ib | | 4.6% | | | 435% | CC |
| 8921 | 2,399 | 2,791 | \$34,550 | 1902 | | | | 2.152 | | | | | | | | | Hz 3,00 | | | | | | |
| 8422 | 196 | 1,141 | \$3(36) | 2.20 x | | | | | | | | | | | | .54x 3. | | | 3,550 | | | | |
| 1423 | 1,455 | 2,215 | \$34,497 | 1500 | | | | 220 | | | | | | | | .Qz 2 | | | 2.400 | 2.440 | 2.6% | 2.5tx | 2.59 |
| 8424 | 1,517 | 1,575 | \$57,170 | 0.782 | | | | 5.90 | | | | | | | - 1 | 26z 1. | 5x 125 | 125z | 1250 | 1270 | 128z | 13tz | 133: |
| 1425 | 2,765 | 2,864 | \$65,217 | 0.702 | | | | 550 | | | | | | | | number | Number | | | | | | |
| 10,8500 | 2,423 | 2,670 | \$40,005 | 1272 | | | | 180 | | | | | | | | | | Median | | | | | |
| 9026.02 | 179 | 600 | \$12,995 | 0.7Nz | | | | 1.02 | | | | | | | | | of Units | Househ | | | | | |
| 1914.04 | 1,459 | 2 | \$64,199 | 0.522 | | | | 0.772 | | | | | | | | Househ | from | | 2014 | 2015 | 2016 | 2017 | |
| 1114.12 | 2,455 | 3 | \$51,61 | 0.6% | 0.8kx | 1.190 | (12tc | 0.222 | 1,24 | 626 | 0.24 | z 0.24 | tr 6240 | | | | Billing | old | | | | | |
| 1107 | 2,657 | 3 | \$52,700 | 1902 | 23tx | 2.63 | | 280 | | | | | | | | | | Income | | | | | |
| \$109.02 | 1,142 | 2 | \$31,124 | 1472 | 1.86x | 1.190 | 2,000 | 2.90 | 234 | 236 | 2.0 | z 239 | o: 2,380 | | | Cesus | Data | | | | | | |
| 1134.01 | 1,896 | 36 | \$14,321 | 0.72% | 0.8x | 0.63 | 0.9% | 1072 | 114 | 180 | 1.90 | z 1f1 | 2 1772 | 800 | 01 | 3.123 | 3,196 | 32945 | 1.79 | 2.1493 | 2.3063 | 2.474 | 7 2. |
| \$0403 | 1,481 | 4 | \$71,397 | 0.92% | 1900 | 198 | 1272 | 130 | 1.46 | 1,490 | 151 | 150 | o: 1,490 | | | 2,506 | 2.573 | 39034 | | 1.6172 | 1.7353 | 1.862 | |
| | | | | | | | | | | | | | | | | | | | | | | | |

Billing Data Combined with Census Track Data

| | | | 2.02 | 2,400 | 2,401 | | | 2,550 | | | | | | | | | | | | | | | |
|--------------------|----------------|----------|----------------|-------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|-----------------|-----------------|-----------------|----------------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| 1262 | 126z 12 | 6x 129x | 125z | 125% | 1270 | 12tz | 13tz | 1330 | | | | | | | | | | | | | | | |
| | number | Number | Median | | | | | | | | | | | | | | | | | | | | |
| | | of Units | Househ | | | | | | | | | | | | | | | | | | | | |
| Tract | Househ | | old | 2014 | 2015 | | | | | | 2021 | 2022 | | 2024 | | | | | | | | | 2033 |
| | olds | Billing | Income | | | | | | | | | | | | | | | | | | | | |
| | Cesus | Data | | | | | | | | | | | | | | | | | | | | | |
| 8001 | 3,123 | 3,196 | 32945 | | 2.1493 | 2.3063 | 2.4747 | 2.6555 | 2.8494 | 2.8981 | 2.9475 | 2.9129 | 2.902 | 2.8948 | 2.8877 | 2.8806 | 2.8735 | 2.8665 | 2.8594 | 2.9049 | 2.951 | 2.9979 | 3.0455 |
| 8002.01 | 2,506 | 2,573 | 39034 | | 1.6172 | 1.7353 | 1.862 | 1.998 | 2.144 | 2.1806 | 2.2178 | 2.1917 | 2.1835 | 2.1781 | 2.1728 | 2.1674 | 2.1621 | 2.1568 | 2.1515 | 2.1857 | 2.2204 | 2.2557 | 2.2915 |
| 8002.02 | 604 | 712 | 48088 | | 1.2746 | 1.3677 | 1.4676 | 1.5748 | 1.6898 | 1.7186 | 1.748 | 1.7274 | 1.7209 | 1.7167 | 1.7125 | 1.7083 | 1.7041 | 1.6999 | 1.6957 | 1.7226 | 1.75 | 1.7778 | 1.806 |
| 8003 | 1,717 | 1,977 | 40515 | | 1.7493 | 1.877 | 2.0141 | 2.1612 | 2.3191 | 2.3587 | 2.3989 | 2.3708 | 2.3618 | 2.356 | 2.3502 | 2.3445 | 2.3387 | 2.3329 | 2.3272 | 2.3642 | 2.4017 | 2.4399 | 2.4786 |
| 8004 | 2,170 | 2,390 | 39260 | | 1.7095 | 1.8343 | 1.9683 | 2.1121 | 2.2663 | 2.305 | 2.3444 | 2.3168 | 2.3081 | 2.3024 | 2.2968 | 2.2911 | 2.2855 | 2.2799 | 2.2743 | 2.3104 | 2.3471 | 2.3844 | 2.4223 |
| 8005 | 1,139 | 1,191 | 46520 | | 1.5775 | 1.6927 | 1.8163 | 1.949 | 2.0913 | 2.127 | 2.1633 | 2.1379 | 2.1299 | 2.1246 | 2.1194 | 2.1142 | 2.109 | 2.1038 | 2.0986 | 2.132 | 2.1658 | 2.2003 | 2.2352 |
| 8006 | 719 | 846 | 16463 | 3.9 | 4.6678 | 5.0087 | 5.3745 | 5.7671 | 6.1883 | 6.2939 | 6.4014 | 6.3262 | 6.3024 | 6.2869 | 6.2714 | 6.256 | 6.2406 | 6.2253 | 6.21 | 6.3087 | 6.4089 | 6.5107 | 6.6141 |
| 8007 | 1,488 | 2,109 | 14226 | | 4.1508 | 4.4539 | 4.7792 | 5.1283 | 5.5028 | 5.5968 | 5.6923 | 5.6255 | 5.6043 | 5.5905 | 5.5768 | 5.5631 | 5.5494 | 5.5358 | 5.5222 | 5.6099 | 5.699 | 5.7895 | 5.8815 |
| 8008 | 838 | 906 | 16094 | | 3.7974 | 4.0747 | 4.3723 | 4.6917 | 5.0343 | 5.1203 | 5.2077 | 5.1466 | 5.1272 | 5.1146 | 5.102 | 5.0895 | 5.077 | 5.0645 | 5.052 | 5.1323 | 5.2138 | 5.2966 | 5.3808 |
| 8009 | 1,710 | 1,547 | 11712 | | 5.658 | 6.0712 | 6.5146 | 6.9904 | 7.5009 | 7.629 | 7.7592 | 7.6681 | 7.6392 | 7.6205 | 7.6017 | 7.5831 | 7.5644 | 7.5459 | 7.5273 | 7.6469 | 7.7683 | 7.8917 | 8.0171 |
| 8011.01 | 1,172 | 719 | 14726 | | 5.741 | 6.1603 | 6.6102 | 7.093 | 7.611 | 7.741 | 7.8731 | 7.7807 | 7.7514 | 7.7323 | 7.7133 | 7.6944 | 7.6755 | 7.6566 | 7.6378 | 7.7591 | 7.8824 | 8.0076 | 8.1348 |
| 8011.02 8012 | 728 | 816 | 19236 | | 3.0038 | 3.2232 | 3.4586 | 3.7112 5.2232 | 3.9822 | 4.0502 5.7004 | 4.1193 | 4.071 | 4.0556 | 4.0457 | 4.0357 5.68 | 4.0258 | 4.0159 | 4.0061 5.6382 | 3.9962 | 4.0597 | 4.1242 5.8045 | 4.1897 | 4.2562 5.9903 |
| 8013 | 1,232 | 1,261 | 17544 28750 | | 4.2276 3.1056 | 4.5364 3.3324 | 4.8677 3.5758 | 3.837 | 5.6047 4.1172 | 4.1875 | 5.7977 4.259 | 5.7296 4.209 | 5.708 4.1931 | 5.694 4.1828 | 4.1726 | 5.666 4.1623 | 5.6521 4.1521 | 4.1419 | 5.6244 4.1317 | 5.7137 4.1973 | 4.264 | 5.8967 4.3317 | 4.4005 |
| 8014.01 | 1,265 | 1,389 | 31921 | | 2,688 | 2.8843 | 3.0949 | 3.321 | 3,5635 | 3.6244 | 3,6862 | 3.643 | 3,6292 | 3,6203 | 3.6114 | 3.6025 | 3.5937 | 3,5849 | 3,5761 | 3.6329 | 3,6906 | 3.7492 | 3,8087 |
| 8014.02 | 771 | 1,003 | 42798 | | 1.8096 | 1.9418 | 2.0836 | 2.2357 | 2,399 | 2.44 | 2.4816 | 2.4525 | 2.4433 | 2.4373 | 2.4313 | 2.4253 | 2.4193 | 2.4134 | 2.4075 | 2.4457 | 2.4846 | 2,524 | 2.5641 |
| 8015.01 | 1.884 | 2,077 | 46449 | | 1.8527 | 1.988 | 2.1332 | 2.289 | 2.4561 | 2.4981 | 2.5407 | 2.5109 | 2.5014 | 2.4953 | 2.4891 | 2.483 | 2.4769 | 2.4708 | 2.4648 | 2.5039 | 2.5437 | 2.5841 | 2.6251 |
| 8015.02 | 1.351 | 1,444 | 33512 | | 2.1392 | 2.2954 | 2.4631 | 2.643 | 2.836 | 2.8844 | 2.9337 | 2.8992 | 2.8883 | 2.8812 | 2.8741 | 2.867 | 2.86 | 2.853 | 2.846 | 2.8912 | 2.9371 | 2.9838 | 3.0311 |
| 8015.03 | 1,645 | 1,908 | 43063 | | 1.5952 | 1.7117 | 1.8367 | 1.9709 | 2.1148 | 2.1509 | 2.1876 | 2.162 | 2.1538 | 2.1485 | 2.1432 | 2.138 | 2.1327 | 2.1275 | 2.1223 | 2.156 | 2.1902 | 2.225 | 2.2603 |
| 8016.01 | 1,493 | 2,327 | 50966 | | 1.5934 | 1,7098 | 1.8347 | 1.9687 | 2.1125 | 2.1485 | 2.1852 | 2.1596 | 2.1514 | 2.1461 | 2.1409 | 2.1356 | 2.1303 | 2.1251 | 2.1199 | 2,1536 | 2.1878 | 2.2225 | 2.2578 |
| 8016.02 | 1.833 | 2,436 | 48548 | | 1.4273 | 1.5316 | 1.6434 | 1.7635 | 1.8923 | 1.9246 | 1.9574 | 1.9344 | 1.9272 | 1.9224 | 1.9177 | 1.913 | 1,9083 | 1.9036 | 1.8989 | 1.9291 | 1.9597 | 1.9909 | 2.0225 |
| 8016.03 | 1.699 | 1,568 | 58275 | | 1.0838 | 1,163 | 1.2479 | 1.3391 | 1,4369 | 1.4614 | 1.4864 | 1.4689 | 1.4634 | 1.4598 | 1.4562 | 1.4526 | 1.449 | 1.4455 | 1.4419 | 1.4648 | 1.4881 | 1.5117 | 1.5357 |
| 8016.04 | 1.481 | 1.557 | 76354 | | 0.9273 | 0.995 | 1.0676 | 1.1456 | 1.2293 | 1.2503 | 1.2716 | 1.2567 | 1.252 | 1.2489 | 1.2458 | 1.2428 | 1.2397 | 1.2367 | 1.2336 | 1.2532 | 1.2731 | 1.2933 | 1.3139 |
| 8016.05 | 1,722 | 2,975 | 46900 | 1.5 | 1.7972 | 1.9285 | 2.0693 | 2.2204 | 2.3826 | 2.4233 | 2.4646 | 2.4357 | 2.4265 | 2.4206 | 2.4146 | 2.4087 | 2.4028 | 2.3969 | 2.391 | 2.429 | 2.4675 | 2.5067 | 2.5465 |
| 8017 | 1.950 | 2.386 | 35824 | 1.59 | 1.9034 | 2.0424 | 2.1916 | 2.3516 | 2.5234 | 2.5664 | 2.6103 | 2.5796 | 2,5699 | 2.5636 | 2.5573 | 2,551 | 2.5447 | 2.5385 | 2.5322 | 2.5725 | 2.6133 | 2.6548 | 2.697 |
| 8018 | 1,257 | 2,018 | 24602 | 2.5 | 2.996 | 3.2148 | 3.4496 | 3.7016 | 3.9719 | 4.0397 | 4.1087 | 4.0604 | 4.0451 | 4.0352 | 4.0253 | 4.0154 | 4.0055 | 3.9957 | 3.9859 | 4.0492 | 4.1135 | 4.1788 | 4.2452 |
| 8019 | 3,007 | 2,861 | 18366 | 3.42 | 4.0914 | 4.3902 | 4.7108 | 5.0549 | 5.424 | 5.5166 | 5.6108 | 5.545 | 5.524 | 5.5105 | 5.4969 | 5.4834 | 5.47 | 5.4565 | 5.4431 | 5.5296 | 5.6174 | 5.7066 | 5.7973 |
| 8020 | 1,165 | 1,200 | 17268 | 2.6 | 3.1195 | 3.3473 | 3.5918 | 3.8541 | 4.1356 | 4.2062 | 4.278 | 4.2278 | 4.2119 | 4.2015 | 4.1912 | 4.1809 | 4.1706 | 4.1604 | 4.1502 | 4.2161 | 4.2831 | 4.3511 | 4.4202 |
| 8021 | 2,399 | 2,718 | 39550 | 1.93 | 2.3084 | 2.477 | 2.6579 | 2.852 | 3.0603 | 3.1126 | 3.1657 | 3.1285 | 3.1167 | 3.1091 | 3.1015 | 3.0938 | 3.0862 | 3.0786 | 3.0711 | 3.1199 | 3.1694 | 3.2198 | 3.2709 |
| 8022 | 996 | 1,141 | 30368 | 2.23 | 2.6702 | 2.8652 | 3.0745 | 3.2991 | 3.54 | 3.6004 | 3.6619 | 3.6189 | 3.6053 | 3.5964 | 3.5876 | 3.5788 | 3.57 | 3.5612 | 3.5525 | 3.6089 | 3.6662 | 3.7244 | 3.7836 |
| 8023 | 1,955 | 2,285 | 34497 | | 1.8017 | 1.9333 | 2.0745 | 2.226 | 2.3886 | 2.4294 | 2.4709 | 2.4419 | 2.4327 | 2.4267 | 2.4207 | 2.4148 | 2.4088 | 2.4029 | 2.397 | 2.4351 | 2.4738 | 2.5131 | 2.553 |
| 8024 | 1,517 | 1,575 | 57070 | 0.78 | 0.9374 | 1.0059 | 1.0793 | 1.1582 | 1.2427 | 1.264 | 1.2855 | 1.2704 | 1.2657 | 1.2625 | 1.2594 | 1.2563 | 1.2533 | 1.2502 | 1.2471 | 1.2669 | 1.287 | 1.3075 | 1.3283 |
| 8025 | 2,765 | 2,860 | 65217 | | 0.9356 | 1.004 | 1.0773 | 1.156 | 1.2404 | 1.2616 | 1.2831 | 1.268 | 1.2633 | 1.2602 | 1.2571 | 1.254 | 1.2509 | 1.2478 | 1.2448 | 1.2645 | 1.2846 | 1.305 | 1.3257 |
| 8026.01 | 2,423 | 2,670 | 40805 | | 1.5199 | 1.6309 | 1.75 | 1.8778 | 2.015 | 2.0494 | 2.0844 | 2.0599 | 2.0521 | 2.0471 | 2.042 | 2.037 | 2.032 | 2.027 | 2.0221 | 2.0542 | 2.0868 | 2.1199 | 2.1536 |
| 8026.02 | 979 | 680 | 62995 | | 0.9097 | 0.9762 | 1.0475 | 1.124 | 1.2061 | 1.2267 | 1.2476 | 1.233 | 1.2283 | 1.2253 | 1.2223 | 1.2193 | 1.2163 | 1.2133 | 1.2103 | 1.2295 | 1.2491 | 1.2689 | 1.2891 |
| 8104.03 | 1,695 | | 48542 | - 0 | 0 | 0 | 0 | - 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - 0 | 0 | 0 | 0 |
| 8104.04 | 1,469 | 2 | 64199 | | 0.6259 | 0.6716 | 0.7206 | 0.7733 | 0.8297 | 0.8439 | 0.8583 | 0.8482 | 0.845 | 0.843 | 0.8409 | 0.8388 | 0.8368 | 0.8347 | 0.8327 | 0.8459 | 0.8593 | 0.873 | 0.8868 |
| 8104.12 | 2,455 | 3 | 58438 | | 0.1785 | 0.1915 | 0.2055 | 0.2205 | 0.2366 | 0.2406 | 0.2448 | 0.2419 | 0.241 | 0.2404 | 0.2398 | 0.2392 | 0.2386 | 0.238 | 0.2374 | 0.2412 | 0.245 | 0.2489 | 0.2529 |
| 8104.14 | 2,257 | - | 70927 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8107 | 2,657 | 3 | 52780 | 1.93 | 2.3141 | 2.4832 | 2.6645 | 2.8591 | 3.0679 | 3.1203 | 3.1736 | 3.1363 | 3.1245 | 3.1168 | 3.1092 | 3,1015 | 3.0939 | 3.0863 | 3.0787 | 3.1276 | 3.1773 | 3.2278 | 3.279 |
| 8109.02 8125 | 1,742 2,751 | - 2 | 37824 57614 | 1.47 | 1.7622 0 | 1.8909 N | 2.029 N | 2.1772 n | 2.3362 | 2.3761 | 2.4167 0 | 2.3883 | 2.3793 | 2.3735 | 2.3676 N | 2.3618 N | 2.356 0 | 2.3502 | 2.3445 | 2.3817 n | 2.4195 | 2.458 | 2.497 |
| | | - | 82375 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8129.02 8134.01 | 1,946 | 30 | 64327 | | 0.8631 | 0.9261 | 0.9937 | 1.0663 | 1.1442 | 1.1637 | 1.1836 | 1.1697 | 1.1653 | 1.1624 | 1.1596 | 1.1567 | 1.1539 | 1.1511 | 1.1482 | 1.1665 | 1,185 | 1,2038 | 1.2229 |
| 8134.03 | 1,481 | - 30 | 71307 | | 1.1033 | 1.1838 | 1.2703 | 1.3631 | 1.4626 | 1.4876 | 1.513 | 1.4952 | 1,4896 | 1,4859 | 1.4823 | 1.4786 | 1.475 | 1.4714 | 1.4678 | 1.4911 | 1.5148 | 1.5388 | 1.5633 |
| 8136.01 | 3.059 | 9 | 77865 | | 1.6496 | 1.7701 | 1.8993 | 2.038 | 2.1869 | 2.2242 | 2.2622 | 2.2356 | 2.2272 | 2.2217 | 2.2163 | 2.2108 | 2.2054 | 2.2 | 2.1946 | 2.2294 | 2.2649 | 2.3008 | 2.3374 |
| 8136.02 | 2.334 | 20 | 107500 | | 1.4154 | 1.5188 | 1.6297 | 1.7488 | 1.8765 | 1.9085 | 1.9411 | 1.9183 | 1.9111 | 1,9064 | 1.9017 | 1.897 | 1.8924 | 1.8877 | 1.8831 | 1.913 | 1.9434 | 1.9742 | 2.0056 |
| 12.50.02 | 2,001 | | | | | 5100 | | 100 | | | | 5 100 | | 2001 | 5011 | | | | 5001 | 010 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |

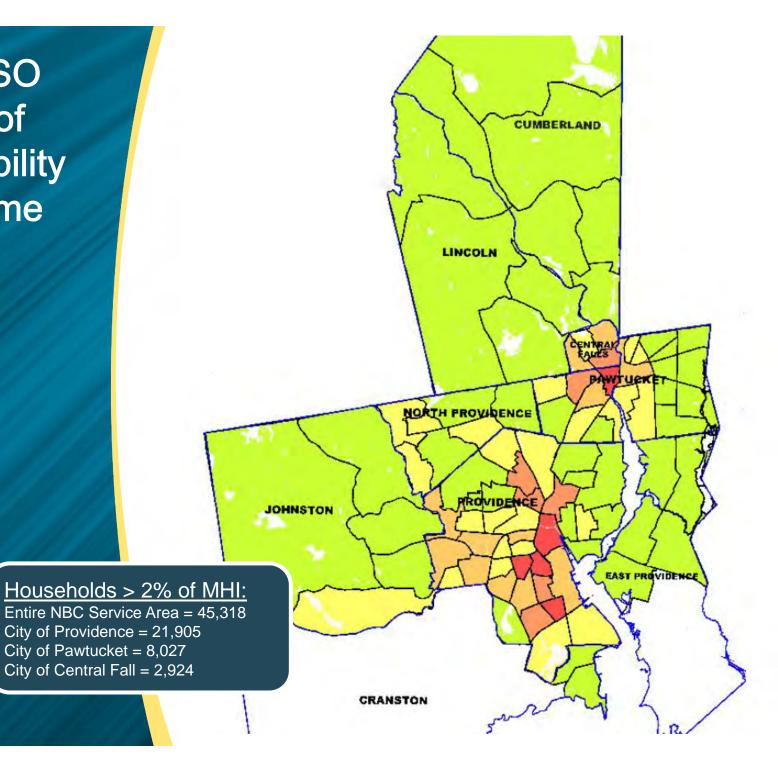
Affordability Modeling

Rate and Inflation Assumptions

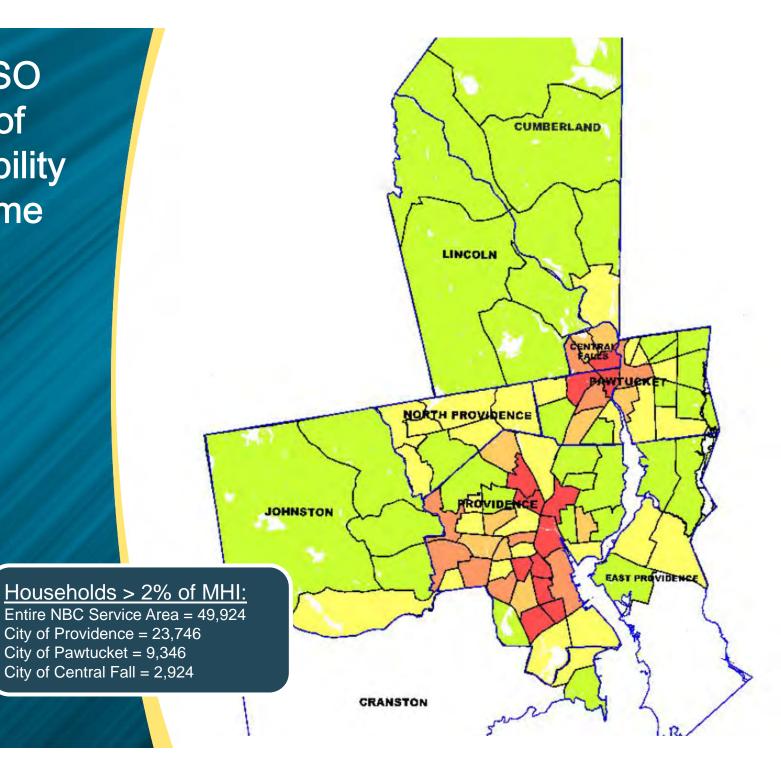
| | Current | Projected |
|--------------------------------|---------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Description | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
| | | | | | | | | | | | | | |
| Financial Plan Rate Adjustment | 0.0% | 5.5% | 5.5% | 0.6% | 1.2% | 4.6% | 8.5% | 12.4% | 12.8% | 5.6% | 3.0% | 2.0% | 1.7% |
| Annual Expected Inflation | 0.0% | 0.0% | 1.7% | 1.4% | 1.3% | 1.3% | 1.3% | 1.3% | 1.2% | 1.2% | 1.1% | 1.1% | 1.0% |
| Cumulative Rate Adjustments | 100.0% | 105.5% | 111.3% | 112.0% | 113.3% | 118.5% | 128.6% | 144.5% | 163.0% | 172.2% | 177.3% | 180.8% | 183.9% |
| • | | | | | | | | | | | | | |
| Cumulative Inflation | 100.0% | 100.0% | 101.7% | 103.2% | 104.5% | 105.9% | 107.3% | 108.7% | 110.0% | 111.3% | 112.5% | 113.7% | 114.9% |
| Index for Affordability | 100.0% | 105.5% | 109.4% | 108.5% | 108.4% | 111.9% | 119.9% | 133.0% | 148.2% | 154.7% | 157.6% | 159.0% | 160.1% |

| EPA Affordability Index Thr | esholds | | |
|-----------------------------|-------------|-------|-------|
| Financial Impact | | Index | Color |
| Low | Less than | 1.00% | |
| Low-Mid | Up to | 1.50% | |
| Mid | Up to | 1.75% | |
| Mid-High | Up to | 2.00% | |
| High | Higher than | 2.00% | |

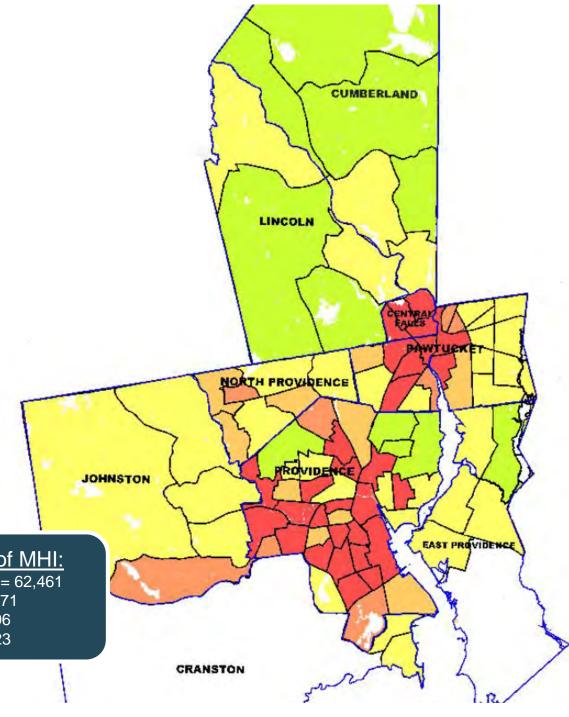
2015



2020



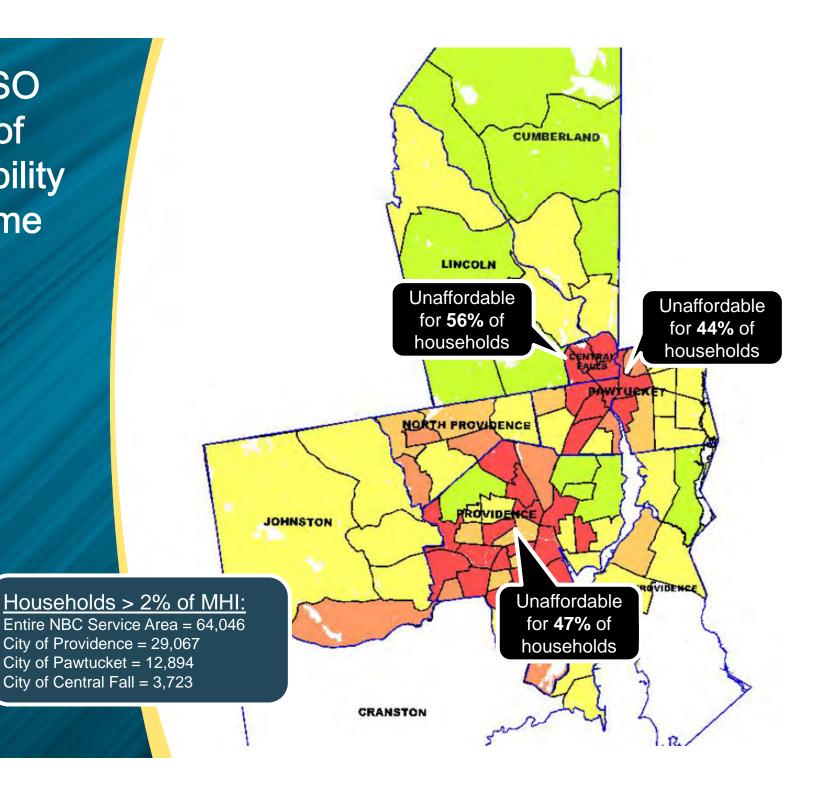
2023



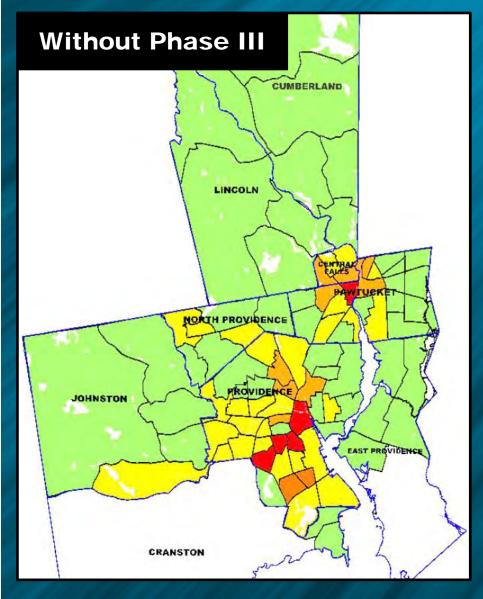
Households > 2% of MHI:

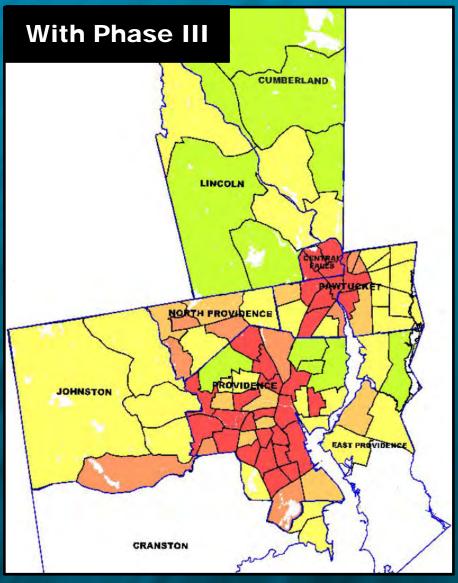
Entire NBC Service Area = 62,461 City of Providence = 28,671 City of Pawtucket = 11,996 City of Central Fall = 3,723

2026



Affordability Comparison in 2026

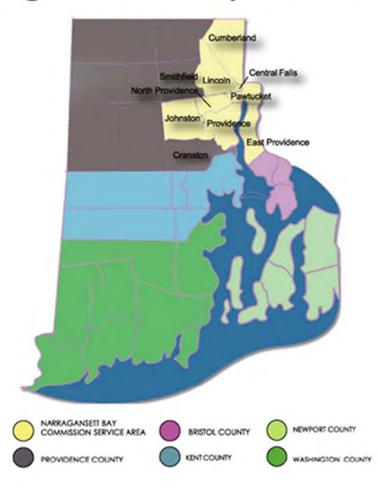






Member Communities

Narragansett Bay Commission



Member Communities

| | <u>MHI</u> | <u>Households</u> |
|--|------------|-------------------|
| Cumberland town, Providence County, Rhode Island | 73,340 | 13,048 |
| Johnston town, Providence County, Rhode Island | 56,803 | 11,561 |
| Lincoln town, Providence County, Rhode Island | 75,445 | 8,424 |
| North Providence town, Providence County, Rhode Island | 50,939 | 14,178 |
| Smithfield town, Providence County, Rhode Island | 72,546 | 7,155 |
| Central Falls city, Rhode Island | 29,268 | 6,615 |
| Cranston city, Rhode Island | 58,772 | 30,510 |
| East Providence city, Rhode Island | 49,545 | 20,173 |
| Pawtucket city, Rhode Island | 40,383 | 29,075 |
| Providence city, Rhode Island | 38,243 | 61,556 |

Member Communities WW CIP Needs

| Municipality | Total Pipe Length (mi) | Average Pipe Age (yr) | Annual Pipe Replacement (mi/yr) | Annual Cost (2014 USD) |
|------------------|---------------------------|--------------------------|---------------------------------------|---------------------------|
| Providence | 370 | 110 | 3.7 | \$8,300,000 |
| North Providence | 115 | 60 | 1.2 | \$2,000,000 |
| Johnston | 58 | 50 | 0.6 | \$900,000 |
| Pawtucket | 180 | 100 | 1.8 | \$4,000,000 |
| Central Falls | 23 | 100 | 0.3 | \$680,000 |
| Cumberland | 100 | 35 | 1.0 | \$1,200,000 |
| Lincoln | 103 | 25 | 1.1 | \$1,500,000 |
| East Providence | 173 | 50 | 1.8 | \$2,700,000 |

Member Communities Storm CIP Needs

| Municipality | Total Pipe Length (mi) | Average Pipe Age (yr) | Annual Cost (2014 USD) |
|------------------|---------------------------|--------------------------|---------------------------|
| Providence | 130 | 75 | \$1,275,000 |
| North Providence | 115 | 75 | \$1,125,000 |
| Johnston | 58 | 50 | \$435,000 |
| Pawtucket | 20 | 75 | \$195,000 |
| Central Falls | 0 | 75 | \$0 |
| Cumberland | 160 | 35 | \$960,000 |
| Lincoln | 103 | 25 | \$615,000 |
| East Providence | 66 | 50 | \$495,000 |

City of Providence

Current Costs

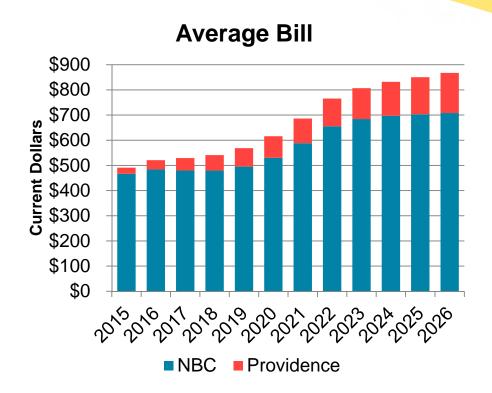
\$50,000 to \$100,000 per year spent on emergencies

Estimated Infrastructure Improvement Costs Required

\$8,300,000 per year on wastewater CIP \$1,275,000 per year on stormwater CIP

Case Study Assumptions

All CIP would be debt financed using debt at 4% for 20 years



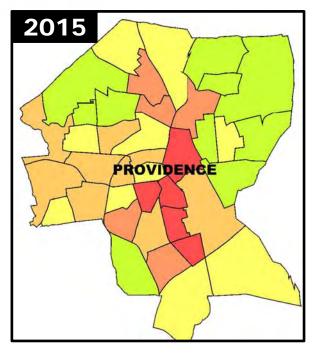
City of Providence

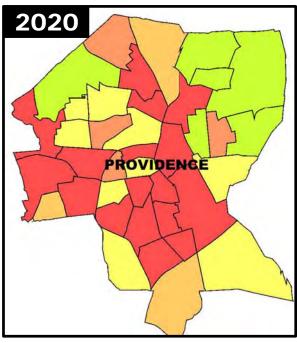
| Description | <i>Current</i> 2014 | Projected 2015 | Projected 2016 | Projected 2017 | Projected 2018 | Projected 2019 | Projected 2020 | Projected 2021 | Projected 2022 | Projected 2023 | Projected 2024 | Projected 2025 | Projected 2026 |
|-------------------------------------|----------------------------|--------------------------|----------------|----------------|----------------|--------------------------|--------------------------|--------------------------|----------------|--------------------------|--------------------------|----------------|----------------|
| Description | 2014 | 2015 | 2010 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2023 | 2020 |
| Average Annual Bill - NBC | \$442.29 | \$466.62 | \$483.97 | \$480.04 | \$479.52 | \$495.01 | \$530.10 | \$588.16 | \$655.37 | \$684.25 | \$697.20 | \$703.22 | \$708.16 |
| Estimated Average Bill - Providence | \$12.26 | \$24.52 | \$36.77 | \$49.03 | \$61.29 | \$73.55 | \$85.81 | \$98.06 | \$110.32 | \$122.58 | \$134.84 | \$147.09 | \$159.35 |
| Total Average Bill | \$454.55 | \$491.14 | \$520.74 | \$529.07 | \$540.81 | \$568.55 | \$615.90 | \$686.22 | \$765.69 | \$806.82 | \$832.03 | \$850.32 | \$867.51 |
| | | | | | | | | | | | | | |
| EPA - NBC | 1.31% | 1.38% | 1.43% | 1.42% | 1.42% | 1.46% | 1.57% | 1.74% | 1.94% | 2.02% | 2.06% | 2.08% | 2.09% |
| EPA - NBC + Providence | 1.34% | 1.45% | 1.54% | 1.56% | 1.60% | 1.68% | 1.82% | 2.03% | 2.26% | 2.38% | 2.46% | 2.51% | 2.56% |

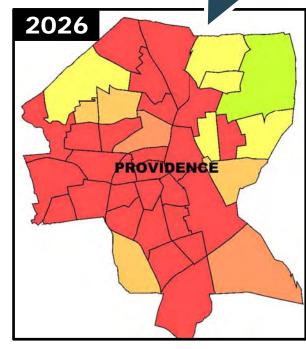
| Census | | Number of | | Current | Projected |
|--------|-----------------|------------|----------|---------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Tract | City/Town | Households | МНІ | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
| 1.01 | Providence city | 1,132 | \$45,484 | 1.04% | 1.12% | 1.19% | 1.21% | 1.23% | 1.29% | 1.40% | 1.56% | 1.74% | 1.83% | 1.89% | 1.93% | 1.97% |
| 1.02 | Providence city | 1,815 | 37,438 | 1.26% | 1.36% | 1.44% | 1.46% | 1.50% | 1.57% | 1.70% | 1.90% | 2.12% | 2.23% | 2.30% | 2.35% | 2.39% |
| 2 | Providence city | 1,915 | 26,394 | | 1.98% | 2.10% | 2.13% | 2.17% | 2.28% | 2.47% | 2.75% | 3.07% | 3.23% | 3.33% | 3.40% | 3.47% |
| 3 | Providence city | 2,261 | 31,833 | 1.48% | 1.60% | 1.70% | 1.72% | | | 2.00% | 2.23% | 2.49% | 2.62% | 2.70% | 2.76% | 2.81% |
| 4 | Providence city | 1,140 | 25,673 | 1.89% | 2.03% | 2.15% | 2.19% | 2.23% | 2.34% | 2.54% | 2.83% | 3.15% | 3.32% | 3.42% | 3.49% | 3.56% |
| 5 | Providence city | 1,016 | 16,713 | 2.77% | 2.99% | 3.17% | 3.22% | 3.29% | 3.46% | 3.74% | 4.17% | 4.65% | 4.90% | 5.06% | 5.17% | 5.27% |
| 6 | Providence city | 520 | 31,667 | 1.51% | 1.63% | 1.73% | | | | 2.04% | 2.27% | 2.53% | 2.66% | 2.75% | 2.80% | 2.86% |
| 7 | Providence city | 1,022 | 15,203 | 3.10% | 3.35% | 3.55% | 3.60% | 3.68% | 3.86% | 4.18% | 4.66% | 5.20% | 5.48% | 5.65% | 5.77% | 5.88% |
| 8 | Providence city | 1,632 | 15,613 | 2.76% | 2.99% | 3.17% | 3.23% | 3.30% | 3.48% | 3.77% | 4.20% | 4.69% | 4.94% | 5.10% | 5.21% | 5.32% |
| 9 | Providence city | 892 | 26,276 | 1.55% | 1.68% | | | | 1.96% | 2.12% | 2.37% | 2.64% | 2.79% | 2.88% | 2.94% | 3.01% |
| 10 | Providence city | 1,131 | 29,741 | 1.42% | 1.54% | 1.64% | 1.67% | 1.71% | | 1.95% | 2.17% | 2.42% | 2.55% | 2.63% | 2.69% | 2.75% |
| 11 | Providence city | 1,035 | 39,341 | 1.05% | 1.14% | 1.21% | 1.23% | 1.26% | 1.33% | 1.44% | 1.61% | | | | 2.00% | 2.04% |
| 12 | Providence city | 1,051 | 18,810 | 2.47% | 2.66% | 2.82% | 2.87% | 2.93% | 3.08% | 3.34% | 3.72% | 4.15% | 4.37% | 4.50% | 4.60% | 4.69% |
| 13 | Providence city | 1,480 | 41,888 | 1.05% | 1.14% | 1.21% | 1.23% | 1.26% | 1.32% | 1.43% | 1.60% | | | | 1.98% | 2.02% |
| 14 | Providence city | 2,002 | 30,142 | 1.66% | | | | 1.96% | 2.06% | 2.22% | 2.48% | 2.76% | 2.91% | 3.00% | 3.06% | 3.12% |
| 15 | Providence city | 951 | 53,469 | 0.83% | 0.90% | 0.96% | 0.97% | 0.99% | 1.04% | 1.13% | 1.26% | 1.41% | 1.48% | 1.53% | 1.56% | 1.60% |
| 16 | Providence city | 2,603 | 32,076 | 1.54% | 1.66% | | | | 1.91% | 2.07% | 2.30% | 2.57% | 2.70% | 2.79% | 2.84% | 2.90% |
| 17 | Providence city | 1,240 | 37,295 | 1.22% | 1.32% | 1.40% | 1.42% | 1.45% | 1.53% | 1.66% | 1.85% | 2.06% | 2.17% | 2.24% | 2.29% | 2.33% |
| 18 | Providence city | 2,084 | 30,036 | 1.60% | 1.72% | | | | | 2.15% | 2.40% | 2.67% | 2.82% | 2.90% | 2.96% | 3.02% |
| 19 | Providence city | 1,803 | 30,901 | 1.48% | 1.60% | 1.70% | 1.72% | | | 2.01% | 2.24% | 2.50% | 2.63% | 2.71% | 2.77% | 2.83% |
| 20 | Providence city | 2,048 | 28,977 | 1.58% | 1.71% | | | | 1.97% | 2.14% | 2.38% | 2.66% | 2.80% | 2.89% | 2.95% | 3.01% |

Providence - Affordability Over Time

Unaffordable for 33,880 households - **55%**







City of Pawtucket

Current Costs

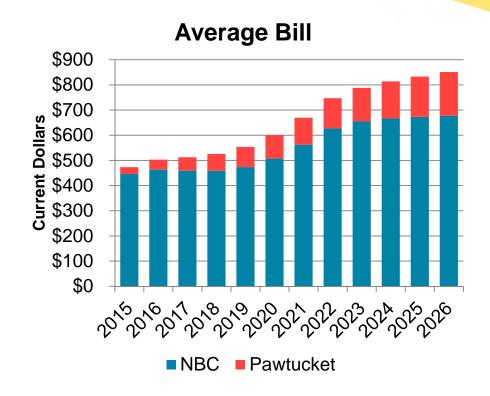
\$80,000 to \$100,000 per year spent on maintenance of infrastructure

Estimated Infrastructure Improvement Costs Required

\$4,000,000 per year on wastewater CIP \$195,000 per year on stormwater CIP

Case Study Assumptions

All CIP would be debt financed using debt at 4% for 20 years

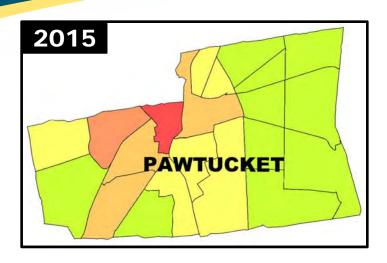


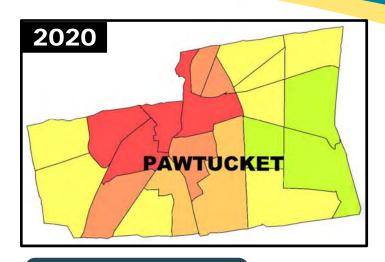
City of Pawtucket

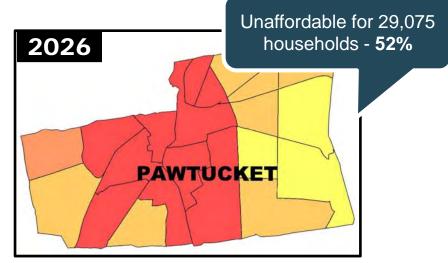
| | Current | Projected |
|------------------------------------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Description | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
| Average Annual Bill - NBC | \$423.08 | \$446.35 | \$462.94 | \$459.18 | \$458.68 | \$473.50 | \$507.06 | \$562.60 | \$626.89 | \$654.51 | \$666.90 | \$672.67 | \$677.39 |
| Estimated Average Bill - Pawtucket | \$13.37 | \$26.74 | \$40.10 | \$53.47 | \$66.84 | \$80.21 | \$93.58 | \$106.94 | \$120.31 | \$133.68 | \$147.05 | \$160.42 | \$173.78 |
| Total Average Bill | \$436.44 | \$473.08 | \$503.05 | \$512.65 | \$525.52 | \$553.71 | \$600.64 | \$669.55 | \$747.21 | \$788.19 | \$813.95 | \$833.08 | \$851.17 |
| | | | | | | | | | | | | | |
| EPA - NBC | 1.19% | 1.26% | 1.31% | 1.29% | 1.29% | 1.34% | 1.43% | 1.59% | 1.77% | 1.85% | 1.88% | 1.90% | 1.91% |
| EPA - NBC + Pawtucket | 1.23% | 1.33% | 1.42% | 1.45% | 1.48% | 1.56% | 1.69% | 1.89% | 2.11% | 2.22% | 2.30% | 2.35% | 2.40% |

| Census | | Number of | | Current | Projected |
|--------|----------------|------------|----------|---------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Tract | City/Town | Households | МНІ | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
| 150 | Pawtucket city | 1,736 | \$42,500 | 1.02% | 1.11% | 1.18% | 1.20% | 1.23% | 1.30% | 1.41% | 1.57% | 1.75% | 1.85% | 1.91% | 1.95% | 2.00% |
| 151 | Pawtucket city | 1,745 | 23,882 | 1.79% | 1.94% | 2.07% | 2.11% | 2.16% | 2.28% | 2.47% | 2.76% | 3.08% | 3.25% | 3.35% | 3.43% | 3.51% |
| 152 | Pawtucket city | 1,451 | 11,612 | 3.82% | 4.14% | 4.40% | 4.49% | 4.60% | 4.84% | 5.25% | 5.85% | 6.53% | 6.89% | 7.11% | 7.28% | 7.44% |
| 153 | Pawtucket city | 866 | 33,281 | 1.29% | 1.40% | 1.49% | 1.52% | 1.55% | 1.64% | | 1.98% | 2.21% | 2.33% | 2.41% | 2.47% | 2.52% |
| 154 | Pawtucket city | 901 | 33,750 | 1.28% | 1.39% | 1.48% | 1.51% | 1.55% | 1.63% | 1.77% | 1.97% | 2.20% | 2.32% | 2.40% | 2.45% | 2.51% |
| 155 | Pawtucket city | 1,655 | 50,670 | 0.85% | 0.92% | 0.97% | 0.99% | 1.02% | 1.07% | 1.17% | 1.30% | 1.45% | 1.53% | 1.58% | 1.62% | 1.65% |
| 156 | Pawtucket city | 1,024 | 52,576 | 0.78% | 0.85% | 0.90% | 0.92% | 0.95% | 1.00% | 1.08% | 1.21% | 1.35% | 1.42% | 1.47% | 1.51% | 1.54% |
| 157 | Pawtucket city | 1,382 | 52,000 | 0.86% | 0.93% | 0.99% | 1.01% | 1.03% | 1.09% | 1.18% | 1.31% | 1.47% | 1.55% | 1.60% | 1.63% | 1.67% |
| 158 | Pawtucket city | 1,491 | 60,223 | 0.72% | 0.78% | 0.83% | 0.85% | 0.87% | 0.92% | 1.00% | 1.11% | 1.24% | 1.31% | 1.35% | 1.38% | 1.41% |
| 159 | Pawtucket city | 1,108 | 49,972 | 0.86% | 0.94% | 1.00% | 1.02% | 1.04% | 1.10% | 1.19% | 1.33% | 1.48% | 1.56% | 1.61% | 1.65% | 1.69% |
| 160 | Pawtucket city | 1,523 | 27,313 | 1.56% | 1.69% | | | | 1.99% | 2.16% | 2.40% | 2.68% | 2.83% | 2.92% | 2.99% | 3.06% |
| 161 | Pawtucket city | 1,839 | 28,456 | 1.56% | 1.69% | 1.80% | 1.83% | 1.88% | 1.98% | 2.14% | 2.39% | 2.66% | 2.81% | 2.90% | 2.97% | 3.03% |
| 163 | Pawtucket city | 1,135 | 56,509 | 0.79% | 0.85% | 0.91% | 0.92% | 0.95% | 1.00% | 1.08% | 1.20% | 1.34% | 1.42% | 1.46% | 1.50% | 1.53% |
| 164 | Pawtucket city | 1,698 | 30,729 | 1.39% | 1.50% | 1.60% | 1.63% | 1.67% | 1.76% | 1.91% | 2.13% | 2.38% | 2.51% | 2.59% | 2.66% | 2.71% |
| 165 | Pawtucket city | 1,812 | 53,682 | 0.85% | 0.92% | 0.97% | 0.99% | 1.01% | 1.07% | 1.16% | 1.29% | 1.44% | 1.52% | 1.57% | 1.60% | 1.64% |
| 166 | Pawtucket city | 707 | 35,313 | 1.24% | 1.34% | 1.42% | 1.45% | 1.49% | 1.57% | 1.70% | 1.89% | 2.11% | 2.23% | 2.30% | 2.36% | 2.41% |
| 167 | Pawtucket city | 1,238 | 31,421 | 1.34% | 1.45% | 1.55% | 1.58% | 1.62% | 1.71% | 1.85% | 2.07% | 2.31% | 2.43% | 2.51% | 2.57% | 2.63% |
| 168 | Pawtucket city | 1,308 | 64,625 | 0.68% | 0.73% | 0.78% | 0.80% | 0.82% | 0.86% | 0.93% | 1.04% | 1.16% | 1.22% | 1.26% | 1.29% | 1.32% |
| 169 | Pawtucket city | 850 | 65,455 | 0.72% | 0.78% | 0.82% | 0.84% | 0.86% | 0.90% | 0.98% | 1.09% | 1.22% | 1.28% | 1.32% | 1.35% | 1.38% |
| 170 | Pawtucket city | 1,762 | 51,384 | 0.87% | 0.94% | 1.00% | 1.02% | 1.05% | 1.10% | 1.19% | 1.33% | 1.49% | 1.57% | 1.62% | 1.66% | 1.69% |
| 171 | Pawtucket city | 1,844 | 39,038 | 1.11% | 1.20% | 1.28% | 1.31% | 1.34% | 1.41% | 1.53% | 1.71% | 1.90% | 2.01% | 2.07% | 2.12% | 2.17% |

Pawtucket - Affordability Over Time







City of Central Falls

Current Costs

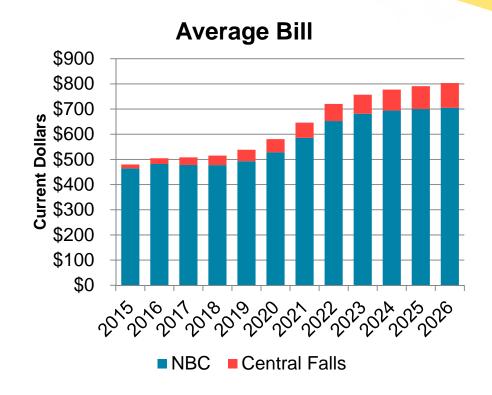
\$0 per year spent on infrastructure

Estimated Infrastructure Improvement Costs Required

\$680,000 per year on wastewater CIP \$0 per year on stormwater CIP

Case Study Assumptions

All CIP would be debt financed using debt at 4% for 20 years



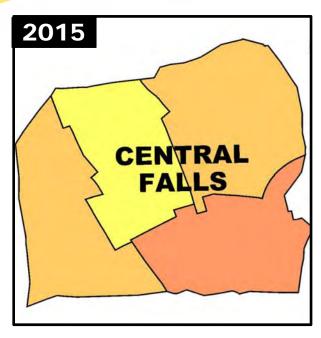
City of Central Falls

| Description | Current 2014 | Projected 2015 | Projected 2016 | Projected 2017 | Projected 2018 | Projected 2019 | Projected 2020 | Projected 2021 | Projected 2022 | Projected 2023 | Projected 2024 | Projected 2025 | Projected 2026 |
|--|------------------------|-----------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-----------------------|--------------------------|--------------------------|-----------------------|--------------------------|
| | | | | | | | | | | | | | |
| Average Annual Bill - NBC | \$440.38 | \$464.60 | \$481.88 | \$477.96 | \$477.44 | \$492.86 | \$527.80 | \$585.61 | \$652.53 | \$681.28 | \$694.18 | \$700.18 | \$705.09 |
| Estimated Average Bill - Central Falls | \$7.56 | \$15.13 | \$22.69 | \$30.26 | \$37.82 | \$45.38 | \$52.95 | \$60.51 | \$68.08 | \$75.64 | \$83.20 | \$90.77 | \$98.33 |
| Total Average Bill | \$447.94 | \$479.73 | \$504.57 | \$508.22 | \$515.26 | \$538.25 | \$580.75 | \$646.12 | \$720.61 | \$756.92 | \$777.38 | \$790.95 | \$803.43 |
| | | | | | | | | | | | | | |
| EPA - NBC | 1.50% | 1.58% | 1.64% | 1.63% | 1.63% | 1.68% | 1.80% | 1.99% | 2.22% | 2.32% | 2.36% | 2.38% | 2.40% |
| EPA - NBC + Central Falls | 1.52% | 1.63% | 1.72% | 1.73% | 1.75% | 1.83% | 1.98% | 2.20% | 2.45% | 2.58% | 2.65% | 2.69% | 2.74% |

| Census | | Number of |] | Current | Projected |
|--------|--------------------|------------|----------|---------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Tract | City/Town | Households | МНІ | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
| 108 | Central Falls city | 1,711 | \$24,386 | | 1.92% | 2.02% | 2.04% | 2.07% | 2.16% | 2.33% | 2.59% | 2.89% | 3.04% | 3.12% | 3.18% | 3.23% |
| 109 | Central Falls city | 1,624 | 30,000 | 1.47% | 1.58% | 1.66% | 1.67% | 1.70% | | 1.91% | 2.13% | 2.37% | 2.49% | 2.56% | 2.61% | 2.65% |
| 110 | Central Falls city | 1,900 | 34,120 | 1.33% | 1.43% | 1.50% | 1.51% | 1.53% | 1.60% | 1.73% | 1.92% | 2.14% | 2.25% | 2.31% | 2.35% | 2.39% |
| 111 | Central Falls city | 1,380 | 30,263 | 1.51% | 1.62% | 1.70% | 1.71% | 1.74% | | 1.96% | 2.18% | 2.43% | 2.55% | 2.62% | 2.67% | 2.71% |
| Total | | 6,615 | \$29,786 | 1.52% | 1.63% | 1.72% | 1.73% | 1.75% | 1.83% | 1.98% | 2.20% | 2.45% | 2.58% | 2.65% | 2.69% | 2.74% |

Central Falls - Affordability Over Time

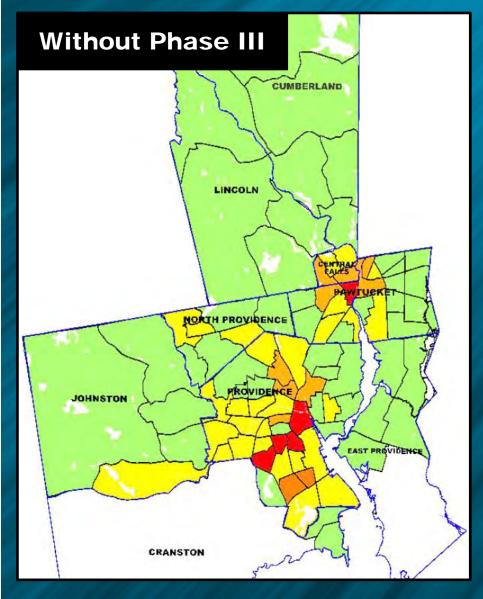
Unaffordable for 6,615 households - **61%**

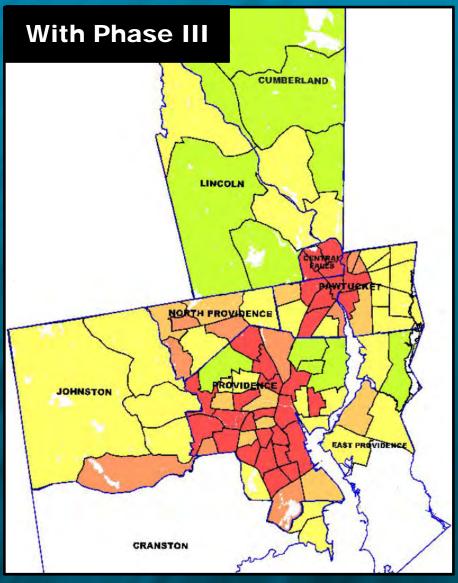






Affordability Comparison in 2026





After the break.... **Alternatives Analysis Part 2**