The Narragansett Electric Company
d/b/a Rhode Island Energy

# Proposed FY 2026 Gas Infrastructure, Safety, and Reliability Plan

# Responses to Division Data Requests Set 1

December 20, 2024

Docket No. 24-55-NG

Submitted to:
Rhode Island Public Utilities Commission

Submitted by:

Rhode Island Energy™
a PPL company

Andrew S. Marcaccio, Counsel
PPL Services Corporation
AMarcaccio@pplweb.com

280 Melrose Street
Providence, RI 02907
Phone 401-784-4263

Rhode Island Energy™
a PPL company

November 15, 2024

**VIA ELECTRONIC MAIL AND HAND DELIVERY**

Stephanie De La Rosa, Clerk
Division of Public Utilities and Carriers
89 Jefferson Boulevard
Warwick, RI 02888

**RE: Rhode Island Energy's Proposed Fiscal Year 2026 Gas Infrastructure, Safety, and Reliability Plan**
**Responses to Division Data Requests – Set 1**

Dear Ms. De La Rosa:

On behalf of The Narragansett Electric Company d/b/a Rhode Island Energy (the "Company"), enclosed are the Company's responses to the Division's First Set of Data Requests in the above-referenced matter.

Thank you for your attention to this matter. If you have any questions, please contact me at 401-784-4263.

Sincerely,

Andrew S. Marcaccio

Enclosures

cc: Leo Wold, Esq.
John Bell, Division
Al Mancini, Division

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Division 1-1

Request:

Please provide an updated FY2025 workplan of all completed projects, work in progress projects and planned projects in all categories associated with the abandonment of leak prone mains. Please include the following for each project:

a. Installation miles
b. Abandonment miles
c. Number of services
d. Size of mains installed
e. Psig of new main
f. Total estimated costs
g. Current status of project
h. Identify ISR program (i.e Public Works, Proactive Main Replacement etc.)

Response:

Please see attached Table DIV 1-1, which lists:

(d-m) Installation miles and Size of mains installed
(n) Abandonment miles
(o) Number of services
(p) Psig of new main
(q) Total estimated costs
(r) Current status of project
(s) Identify ISR program (i.e Public Works, Proactive Main Replacement etc.)

Prepared by or under the supervision of: Phil LaFond

**Attachment DIV 1-1**

| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) | (i) | (j) | (k) | (l) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Estimated Installation Miles by Size | | | | | Estimated Installation Miles by Size | | | |
| | Main Work Order # | Project Title | Town | Est. Install Plastic - 2" | Est. Install Plastic - 4" | Est. Install Plastic - 6" | Est. Install Plastic - 8" | Est. Install Plastic - 12" | Est. Install Steel - 6" | Est. Install Steel - 8" | Est. Install Steel - 12" | Est. Install Steel - 16" |
| 1 | 90000198631 | Suez & Macklin St | CRA | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2 | 90000204547 | Lambert Ave (insertion) | WSO | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3 | 90000194780 | Rt 10 S Offramp @ Union Ave | PVD | 0.00 | 0.00 | 0.00 | 0.00 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4 | 90000209097 | Althea St | PVD | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5 | 90000185659 | Broadway | NPR | 0.00 | 0.00 | 0.03 | 0.12 | 0.14 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6 | 90000185666 | Smith St | NPV | 0.11 | 0.00 | 0.00 | 0.00 | 0.35 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7 | 90000118037 | Williams St | NPR | 0.00 | 0.00 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8 | 90000211756 | Hartford Ave | PVD | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9 | 90000210746 | Abbott St | PVD | 0.61 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10 | 90000212419 | 531-590 Manton Ave | PVD | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11 | 90000187222 | Reservoir Ave | PVD | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12 | 90000210771 | Winrooth Ave | PVD | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 13 | 90000210499 | Atwells Ave Phase 3 | PVD | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 14 | 90000212129 | Penn St | PVD | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 15 | 90000217370 | George Washington Hwy | LNC | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.14 | 0.00 |
| 16 | 90000218701 | Lonsdale Ave Bridge | PAW | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 |
| 17 | 90000220861 | Meadowbrook Dr | CLD | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 18 | 90000215797 | Oak St | CRA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 19 | 90000218032 | 696-786 Atwood Ave | CRA | 0.07 | 0.00 | 0.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 20 | 90000220826 | Bald Hill Rd | CRA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 21 | 90000215452 | 1-118 Potters Ave | PVD | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 22 | 90000220912 | Miles Ave | NPV | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 23 | 90000219276 | Maple St | WSO | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 24 | 90000214966 | Duncan Ave | PVD | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 25 | 90000215374 | Baltimore St | PVD | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 26 | 90000219663 | 127-250 Mendon Rd | CLD | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 27 | 90000220949 | Broadmoor Rd | CRA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 28 | 90000211621 | Ivy St | PVD | 0.45 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 29 | 90000219236 | 873-1010 Cranston St | CRA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 30 | 90000217831 | 364-420 Wellington Ave | CRA | 0.03 | 0.00 | 0.00 | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 |
| 31 | 90000212431 | Summer St | WSO | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 32 | 90000217184 | 481-604 Blackstone St | WSO | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 33 | 90000218021 | Oxford St | PVD | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 34 | 90000204675 | 957-1074 Mineral Spring Ave | NPV | 0.00 | 0.00 | 0.00 | 0.34 | 0.34 | 0.00 | 0.00 | 0.00 | 0.00 |
| 35 | 90000225808 | 1570-1802 Mendon Rd | CLD | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 36 | 90000228757 | Baker St | PVD | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 37 | 51629181 | Fales St | CFL | 0.00 | 0.00 | 0.14 | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 |
| 38 | 90000225848 | 143-212 Greenwood St | CRA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

**Attachment DIV 1-1**

| | (a) | (b) | (m) | (n) | (o) | (p) | (q) | (r) | (s) |
|---|---|---|---|---|---|---|---|---|---|
| | Main Work Order # | Project Title | Total Estimated Installed Miles | Estimated LPP Abandonment Miles | Estimated Services | New Main Pressure | Cost Estimate | Current Project Status | Program |
| 1 | 90000198631 | Suez & Macklin St | 0.08 | 0.10 | 11 | 99# | $ 127,886 | COMP - COMPLETE | Growth |
| 2 | 90000204547 | Lambert Ave (insertion) | 0.07 | 0.07 | 1 | LP to 60# | $ 105,889 | COMP - COMPLETE | Integrity |
| 3 | 90000194780 | Rt 10 S Offramp @ Union Ave | 0.07 | 0.07 | 0 | 10# to 10# | $ 232,522 | INPRG - AWAITING GAS IN | Reliability |
| 4 | 90000209097 | Althea St | 0.00 | 0.13 | 9 | LP | $ 294,318 | COMP - COMPLETE | Integrity |
| 5 | 90000185659 | Broadway | 0.29 | 0.34 | 18 | LP | $ 852,703 | WSCHD - PENDING SOP AND/OR ENVIRO REVIEW | Integrity |
| 6 | 90000185666 | Smith St | 0.46 | 0.46 | 25 | LP to LP / LP to 35# | $ 1,038,796 | INPRG - MAIN IN PROGRESS | Integrity |
| 7 | 90000118037 | Williams St | 0.05 | 0.32 | 25 | LP | $ 695,347 | FCOMP - COMPLETE | Integrity |
| 8 | 90000211756 | Hartford Ave | 0.00 | 0.64 | 57 | LP | $ 1,380,475 | WSTOP - ON HOLD GASSED | Integrity |
| 9 | 90000210746 | Abbott St | 0.61 | 0.55 | 74 | LP to 99# | $ 1,353,713 | INPRG - READY FOR ABANDONMENT | Integrity |
| 10 | 90000212419 | 531-590 Manton Ave | 0.00 | 0.59 | 45 | LP to LP / LP to 99# | $ 688,088 | WSTOP - ON HOLD NOT GASSED | Integrity |
| 11 | 90000187222 | Reservoir Ave | 0.00 | 0.65 | 17 | LP | $ 1,179,662 | FCOMP - COMPLETE | Integrity |
| 12 | 90000210771 | Winrooth Ave | 0.00 | 0.59 | 78 | LP to 99# | $ 832,943 | FCOMP - COMPLETE | Integrity |
| 13 | 90000210499 | Atwells Ave Phase 3 | 0.00 | 0.51 | 50 | LP | $ 987,131 | INPRG - READY FOR ABANDONMENT | Integrity |
| 14 | 90000212129 | Penn St | 0.00 | 0.39 | 71 | LP | $ 1,012,885 | ABANDONED - COMPLETE | Integrity |
| 15 | 90000217370 | George Washington Hwy | 0.14 | 0.18 | 2 | 99# | $ 1,718,585 | COMP - COMPLETE | Integrity |
| 16 | 90000218701 | Lonsdale Ave Bridge | 0.04 | 0.04 | 0 | 99# | $ 1,942,948 | FCOMP - COMPLETE | Pipes on Bridges |
| 17 | 90000220861 | Meadowbrook Dr | 0.00 | 0.17 | 11 | 60# | $ 220,804 | FCOMP - COMPLETE | Integrity |
| 18 | 90000215797 | Oak St | 0.00 | 0.27 | 29 | LP to 7# / LP to LP | $ 694,569 | COMP - COMPLETE | Integrity |
| 19 | 90000218032 | 696-786 Atwood Ave | 0.32 | 0.53 | 35 | LP to 99# / LP to LP | $ 1,143,492 | INPRG - SERVICES IN PROGRESS | Integrity |
| 20 | 90000220826 | Bald Hill Rd | 0.00 | 0.07 | 2 | 35# | $ 137,151 | COMP - COMPLETE | Integrity |
| 21 | 90000215452 | 1-118 Potters Ave | 0.00 | 0.55 | 73 | LP | $ 1,768,020 | ABANDONED - COMPLETE | Integrity |
| 22 | 90000220912 | Miles Ave | 0.00 | 0.16 | 17 | LP to 35# | $ 239,881 | COMP - COMPLETE | Integrity |
| 23 | 90000219276 | Maple St | 0.00 | 0.10 | 9 | LP | $ 246,126 | COMP - COMPLETE | Integrity |
| 24 | 90000214966 | Duncan Ave | 0.00 | 0.28 | 45 | LP to 99# | $ 651,240 | COMP - COMPLETE | Integrity |
| 25 | 90000215374 | Baltimore St | 0.00 | 0.13 | 13 | LP | $ 405,156 | INPRG - AWAITING GAS IN | Integrity |
| 26 | 90000219663 | 127-250 Mendon Rd | 0.00 | 0.16 | 6 | 60# | $ 329,640 | COMP - COMPLETE | Integrity |
| 27 | 90000220949 | Broadmoor Rd | 0.00 | 0.66 | 47 | LP | $ 1,394,388 | COMP - COMPLETE | Integrity |
| 28 | 90000211621 | Ivy St | 0.45 | 0.51 | 57 | LP to 99# | $ 1,068,029 | FCOMP - COMPLETE | Integrity |
| 29 | 90000219236 | 873-1010 Cranston St | 0.00 | 0.47 | 32 | LP | $ 1,266,693 | FCOMP - COMPLETE | Integrity |
| 30 | 90000217831 | 364-420 Wellington Ave | 0.12 | 0.44 | 34 | LP to LP / LP to 7# / LP to | $ 466,273 | INPRG - STRAGGLERS | Integrity |
| 31 | 90000212431 | Summer St | 0.04 | 1.88 | 206 | LP to 60# | $ 2,103,825 | INPRG - READY FOR ABANDONMENT | Integrity |
| 32 | 90000217184 | 481-604 Blackstone St | 0.00 | 0.34 | 16 | LP | $ 477,416 | FCOMP - COMPLETE | Integrity |
| 33 | 90000218021 | Oxford St | 0.00 | 1.50 | 94 | LP to 10# | $ 2,757,757 | COMP - COMPLETE | Integrity |
| 34 | 90000204675 | 957-1074 Mineral Spring Ave | 0.68 | 0.78 | 29 | LP to LP / LP to 60# / 60 | $ 1,700,646 | INPRG - VERIFICATION HOLES | Integrity |
| 35 | 90000225808 | 1570-1802 Mendon Rd | 0.00 | 0.87 | 20 | 99# | $ 1,688,978 | COMP - COMPLETE | Integrity |
| 36 | 90000228757 | Baker St | 0.00 | 0.44 | 13 | LP to LP / 99# to 99# | $ 717,945 | COMP - COMPLETE | CSC |
| 37 | 51629181 | Fales St | 0.22 | 0.22 | 22 | LP | $ 517,747 | WSCHD - PENDING SOP AND/OR ENVIRO REVIEW | Integrity |
| 38 | 90000225848 | 143-212 Greenwood St | 0.00 | 0.64 | 71 | LP | $ 1,453,827 | FCOMP - COMPLETE | Integrity |

**Attachment DIV 1-1**

| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) | (i) | (j) | (k) | (l) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Estimated Installation Miles by Size | | | | | Estimated Installation Miles by Size | | | |
| | Main Work Order # | Project Title | Town | Est. Install Plastic - 2" | Est. Install Plastic - 4" | Est. Install Plastic - 6" | Est. Install Plastic - 8" | Est. Install Plastic - 12" | Est. Install Steel - 6" | Est. Install Steel - 8" | Est. Install Steel - 12" | Est. Install Steel - 16" |
| 39 | 90000229281 | 969-1030 Park Ave | CRA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 40 | 90000225938 | 607-783 Mendon Rd | WSO | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 41 | 90000225937 | Lefrancois Blvd | WSO | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 42 | 90000220804 | Bay Spring Ave | BRG | 0.03 | 0.18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 43 | 90000227715 | Pine St | PAW | 0.00 | 0.00 | 0.01 | 0.18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 44 | 90000215445 | 578-776 Plainfield St | PVD | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 45 | 90000231160 | Abbott St | PAW | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 46 | 90000211786 | 1423-1741 Atwood Ave | JOH | 0.00 | 0.17 | 0.00 | 0.01 | 0.42 | 0.00 | 0.00 | 0.00 | 0.00 |
| 47 | 90000194335 | George St | PAW | 0.00 | 0.00 | 0.06 | 0.36 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 48 | 90000225867 | Perry St | CFL | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 49 | 90000231622 | Summit St | EPV | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 50 | 90000231868 | Greene St & Central Ave (99) | PAW | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 51 | 90000230891 | Narragansett Ave | PVD | 0.00 | 0.00 | 0.23 | 0.00 | 0.54 | 0.00 | 0.00 | 0.00 | 0.00 |
| 52 | 90000230850 | Sinclair Ave | PVD | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 54 | 90000229862 | Third Ave | WSO | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 55 | 90000229863 | Second Ave | WSO | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 56 | 90000236448 | 60-90 Newport Ave | EPV | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 57 | 90000226218 | RIDOT Mendon Rd Bridge 99psig | CLD | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.00 | 0.00 | 0.04 | 0.00 |
| 58 | 90000226220 | RIDOT Mendon Rd Bridge 60psig | CLD | 0.00 | 0.00 | 0.05 | 0.00 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 |
| 59 | 90000230322 | 250-1121 Centerville Rd | WWK | 0.00 | 0.10 | 0.00 | 0.00 | 0.93 | 0.00 | 0.00 | 0.00 | 0.00 |
| 60 | 90000231875 | Greenwich Ave (LP-99) | EPV | 1.46 | 0.00 | 0.00 | 0.00 | 0.74 | 0.00 | 0.00 | 0.00 | 0.00 |
| 61 | 90000180102 | Brown St | WAN | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 62 | 90000226362 | RIDOT Prov St Brdg | WWW | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.05 | 0.00 | 0.00 | 0.00 |
| 63 | 90000237072 | 705-1045 Elmwood Ave LP Relay | PVD | 0.47 | 0.11 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 65 | 90000220963 | Harding Ave | JOH | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 66 | 90000220936 | Constitution St | BST | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 67 | 51629514 | 1294 Atwood Ave | JOH | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 |
| 68 | 90000236076 | E School St | WSO | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 69 | 90000234597 | Chapel St | LNC | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 70 | 90000237150 | Pine St | PVD | 0.65 | 0.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 71 | 90000226102 | 218-310 River Rd | LNC | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 72 | 90000235502 | Aaron Ave | BST | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 73 | 90000235961 | Cumberland Hill Rd | WSO | 0.22 | 0.00 | 0.06 | 0.25 | 1.19 | 0.00 | 0.00 | 0.00 | 0.00 |
| 74 | 90000235670 | Douglas Ave | NPV | 0.07 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 75 | 90000235667 | Market St | WAN | 0.02 | 0.70 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 76 | 90000234900 | Mason St (Abandonment) | WSO | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 77 | 90000226114 | Park Pl | WSO | 0.41 | 0.33 | 0.00 | 0.16 | 0.54 | 0.00 | 0.00 | 0.00 | 0.00 |
| 78 | 90000235080 | Lincoln Ave | LNC | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

**Attachment DIV 1-1**

| | (a) | (b) | (m) | (n) | (o) | (p) | (q) | (r) | (s) |
|---|---|---|---|---|---|---|---|---|---|
| | Main Work Order # | Project Title | Total Estimated Installed Miles | Estimated LPP Abandonment Miles | Estimated Services | New Main Pressure | Cost Estimate | Current Project Status | Program |
| 39 | 90000229281 | 969-1030 Park Ave | 0.00 | 1.01 | 39 | LP to LP / 7# to 7# | $ 2,388,858 | COMP - COMPLETE | Integrity |
| 40 | 90000225938 | 607-783 Mendon Rd | 0.00 | 0.43 | 23 | 60# | $ 478,644 | COMP - COMPLETE | Integrity |
| 41 | 90000225937 | Lefrancois Blvd | 0.00 | 0.36 | 24 | LP to 60# | $ 605,530 | COMP - COMPLETE | Integrity |
| 42 | 90000220804 | Bay Spring Ave | 0.21 | 0.19 | 13 | 25# to 25# | $ 313,202 | FCOMP - COMPLETE | Integrity |
| 43 | 90000227715 | Pine St | 0.18 | 0.52 | 10 | LP to 60# | $ 405,115 | INPRG - READY FOR ABANDONMENT | CSC |
| 44 | 90000215445 | 578-776 Plainfield St | 0.00 | 0.77 | 60 | LP to LP / LP to 99# | $ 1,140,772 | WSTOP - ON HOLD GASSED | Integrity |
| 45 | 90000231160 | Abbott St | 0.03 | 0.08 | 6 | LP to 99# | $ 90,969 | INPRG - VERIFICATION HOLES | CSC |
| 46 | 90000211786 | 1423-1741 Atwood Ave | 0.61 | 0.87 | 30 | 35# to 35# | $ 1,448,301 | INPRG - STRAGGLERS | Integrity |
| 47 | 90000194335 | George St | 0.43 | 0.64 | 11 | LP | $ 935,745 | INPRG - AWAITING GAS IN | Integrity |
| 48 | 90000225867 | Perry St | 0.00 | 0.84 | 96 | LP to 99# | $ 1,369,373 | ABANDONED - COMPLETE | Integrity |
| 49 | 90000231622 | Summit St | 0.00 | 0.98 | 98 | LP to 5# | $ 1,750,260 | FCOMP - COMPLETE | CSC |
| 50 | 90000231868 | Greene St & Central Ave (99) | 0.00 | 0.12 | 34 | LP to 99# | $ 867,868 | ABANDONED - COMPLETE | Reliability |
| 51 | 90000230891 | Narragansett Ave | 0.77 | 0.84 | 41 | LP to LP | $ 2,609,670 | INPRG - READY FOR ABANDONMENT | Integrity |
| 52 | 90000230850 | Sinclair Ave | 0.00 | 0.92 | 132 | LP to 7# | $ 2,455,811 | FCOMP - COMPLETE | CSC |
| 54 | 90000229862 | Third Ave | 0.00 | 1.91 | 130 | LP to 60# | $ 1,871,421 | ABANDONED - COMPLETE | Integrity |
| 55 | 90000229863 | Second Ave | 0.00 | 1.11 | 75 | LP to 60# | $ 1,177,348 | FCOMP - COMPLETE | Integrity |
| 56 | 90000236448 | 60-90 Newport Ave | 0.00 | 0.35 | 7 | LP to 35# | $ 353,625 | COMP - COMPLETE | Integrity |
| 57 | 90000226218 | RIDOT Mendon Rd Bridge 99psig | 0.09 | 0.07 | 0 | 99# | $ 370,540 | ABANDONED - COMPLETE | CSC |
| 58 | 90000226220 | RIDOT Mendon Rd Bridge 60psig | 0.09 | 0.07 | 0 | 60# | $ 227,292 | ABANDONED - COMPLETE | CSC |
| 59 | 90000230322 | 250-1121 Centerville Rd | 1.03 | 1.93 | 41 | 35# | $ 3,994,621 | FCOMP - COMPLETE | CSC |
| 60 | 90000231875 | Greenwich Ave (LP-99) | 2.20 | 0.71 | 152 | LP to 99# | $ 3,947,000 | INPRG - MAIN IN PROGRESS | Reliability |
| 61 | 90000180102 | Brown St | 0.00 | 0.09 | 17 | 60# | $ 305,671 | COMP - COMPLETE | Reliability |
| 62 | 90000226362 | RIDOT Prov St Brdg | 0.06 | 0.07 | 0 | LP to 35# | $ 202,627 | FCOMP - COMPLETE | CSC |
| 63 | 90000237072 | 705-1045 Elmwood Ave LP Relay | 0.60 | 1.06 | 55 | LP to 99# | $ 1,112,035 | INPRG - SERVICE READY | CSC |
| 65 | 90000220963 | Harding Ave | 0.00 | 0.77 | 87 | LP to LP | $ 1,722,777 | COMP - COMPLETE | Integrity |
| 66 | 90000220936 | Constitution St | 0.00 | 0.53 | 85 | LP | $ 1,354,197 | FCOMP - COMPLETE | Integrity |
| 67 | 51629514 | 1294 Atwood Ave | 0.03 | 0.02 | 0 | 35# | $ 349,697 | DISPATCH - CONSTRUCTION / SHOVEL READY | Integrity |
| 68 | 90000236076 | E School St | 0.00 | 0.75 | 68 | LP to LP / LP to 60# / 60 | $ 538,207 | INPRG - PENDING CMS | Integrity |
| 69 | 90000234597 | Chapel St | 0.00 | 1.17 | 147 | LP to 99# | $ 1,324,296 | ABANDONED - COMPLETE | Integrity |
| 70 | 90000237150 | Pine St | 0.86 | 1.05 | 63 | LP to 99# | $ 1,541,451 | PENDING - PENDING REDESIGN | CSC |
| 71 | 90000226102 | 218-310 River Rd | 0.00 | 0.05 | 8 | LP to 99# | $ 282,606 | INPRG - PENDING CMS | Reliability |
| 72 | 90000235502 | Aaron Ave | 0.00 | 0.60 | 38 | 8# | $ 845,392 | COMP - COMPLETE | Integrity |
| 73 | 90000235961 | Cumberland Hill Rd | 1.72 | 1.87 | 46 | LP to 60# / 60# to 60# | $ 4,142,215 | INPRG - MAIN IN PROGRESS | Integrity |
| 74 | 90000235670 | Douglas Ave | 0.31 | 0.26 | 4 | 35# | $ 385,519 | COMP - COMPLETE | CSC |
| 75 | 90000235667 | Market St | 0.72 | 0.70 | 18 | 60# | $ 764,507 | COMP - COMPLETE | CSC |
| 76 | 90000234900 | Mason St (Abandonment) | 0.00 | 0.43 | 30 | LP to 60# | $ 135,001 | INPRG - IN PROGRESS NO MAIN | Integrity |
| 77 | 90000226114 | Park Pl | 1.44 | 2.02 | 124 | LP to 60# / 60# to 60# | $ 2,798,714 | INPRG - READY FOR ABANDONMENT | Integrity |
| 78 | 90000235080 | Lincoln Ave | 0.00 | 0.07 | 10 | 99# | $ 134,791 | COMP - COMPLETE | CSC |

**Attachment DIV 1-1**

| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) | (i) | (j) | (k) | (l) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Estimated Installation Miles by Size | | | | | Estimated Installation Miles by Size | | | |
| | Main Work Order # | Project Title | Town | Est. Install Plastic - 2" | Est. Install Plastic - 4" | Est. Install Plastic - 6" | Est. Install Plastic - 8" | Est. Install Plastic - 12" | Est. Install Steel - 6" | Est. Install Steel - 8" | Est. Install Steel - 12" | Est. Install Steel - 16" |
| 79 | 90000235077 | Roosevelt Ave | LNC | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 81 | 90000226151 | Sidney Ave | WSO | 0.47 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 82 | 90000235102 | Harris Ave | WSO | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 83 | 90000238988 | Gaulin Ave | WSO | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 84 | 90000237707 | Mendon Rd | WSO | 0.00 | 0.00 | 0.30 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 85 | 90000236214 | Huntington Ave | WSO | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 86 | 90000236081 | 204-321 Douglas Ave | PVD | 0.00 | 0.00 | 0.00 | 0.18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 87 | 90000239912 | Prospect St Area | COV | 0.33 | 0.00 | 0.00 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 89 | 90000241381 | Albany Rd | WWK | 0.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 90 | 90000241553 | 1315-1450 Broad St | PVD | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 91 | 90000241377 | Third School St | BST | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 92 | 90000226116 | Lincoln St | WSO | 0.81 | 0.00 | 0.37 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 93 | 90000237101 | Idaho St | COV | 0.47 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 94 | 90000225928 | 885-1092 Main St | WAN | 0.00 | 0.02 | 0.00 | 0.00 | 0.55 | 0.00 | 0.00 | 0.00 | 0.00 |
| 95 | 90000242242 | 88 Old Post Rd | WLY | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 96 | 90000242151 | 21-33 Candace St | PVD | 0.00 | 0.00 | 0.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 98 | 90000242311 | Almeida Ave | EPV | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 99 | 90000232985 | 1536-1600 Cranston St | CRA | 0.00 | 0.46 | 0.49 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100 | 90000212456 | Seneca Ave | PAW | 1.26 | 0.00 | 0.00 | 0.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 101 | 90000235506 | 575-585 Taunton Ave | EPV | 0.00 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 102 | 90000235209 | Woodland St Area 99 (Phase 2) | LNC | 1.00 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 104 | 90000241928 | Campbell St | PAW | 0.05 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 105 | 90000242341 | Sunset Ave | EPV | 0.00 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 106 | 90000234626 | Old Willis Rd | CLD | 0.48 | 0.19 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 107 | 90000242594 | Holly-Oregon Cut-Off | WSO | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 108 | 90000242634 | 2199 Post Rd | WWK | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 109 | 90000242633 | Austin Rd | NKS | 0.01 | 0.00 | 0.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 110 | 90000243116 | Charles St | PAW | 0.00 | 0.00 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 111 | 90000234766 | Sutcliffe Ave | LNC | 0.30 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 112 | 90000241773 | Heroux Blvd | CLD | 0.16 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 113 | 90000239809 | Charles St | PVD | 0.71 | 0.02 | 0.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 114 | 90000210913 | Waterman Ave | EPV | 1.28 | 0.23 | 0.00 | 0.64 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 115 | 90000241993 | 205-482 Broadway | PVD | 0.03 | 0.02 | 0.07 | 0.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 116 | 90000241944 | Saratoga Ave | PAW | 0.00 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 117 | 90000243227 | Maybury St | CLD | 0.08 | 0.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 118 | 90000242678 | Massasoit Ave | EPV | 0.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 119 | 90000243854 | 750 Douglas Ave | PVD | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 120 | 90000242970 | Hyde St | CRA | 0.67 | 0.00 | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

**Attachment DIV 1-1**

| | (a) | (b) | (m) | (n) | (o) | (p) | (q) | (r) | (s) |
|---|---|---|---|---|---|---|---|---|---|
| | Main Work Order # | Project Title | Total Estimated Installed Miles | Estimated LPP Abandonment Miles | Estimated Services | New Main Pressure | Cost Estimate | Current Project Status | Program |
| 79 | 90000235077 | Roosevelt Ave | 0.00 | 0.05 | 5 | 99# | $ 92,940 | COMP - COMPLETE | CSC |
| 81 | 90000226151 | Sidney Ave | 0.47 | 0.50 | 42 | 60# | $ 671,090 | COMP - COMPLETE | Integrity |
| 82 | 90000235102 | Harris Ave | 0.00 | 0.13 | 62 | LP to 60# | $ 361,811 | INPRG - PENDING CMS | Reliability |
| 83 | 90000238988 | Gaulin Ave | 0.00 | 0.15 | 10 | 60# | $ 190,159 | COMP - COMPLETE | CSC |
| 84 | 90000237707 | Mendon Rd | 0.30 | 0.98 | 25 | 60# | $ 1,169,997 | COMP - COMPLETE | CSC |
| 85 | 90000236214 | Huntington Ave | 0.00 | 0.54 | 55 | LP to 60# | $ 960,560 | INPRG - READY FOR ABANDONMENT | Integrity |
| 86 | 90000236081 | 204-321 Douglas Ave | 0.18 | 0.31 | 22 | LP | $ 947,968 | FCOMP - COMPLETE | CSC |
| 87 | 90000239912 | Prospect St Area | 0.57 | 0.54 | 26 | 35# | $ 948,316 | FCOMP - COMPLETE | CSC |
| 89 | 90000241381 | Albany Rd | 0.11 | 0.09 | 5 | 35# to 35# | $ 141,447 | FCOMP - COMPLETE | Integrity |
| 90 | 90000241553 | 1315-1450 Broad St | 0.01 | 0.32 | 14 | LP | $ 194,108 | WSCHD - PENDING SOP AND/OR ENVIRO REVIEW | Integrity |
| 91 | 90000241377 | Third School St | 0.01 | 0.11 | 18 | LP to LP | $ 301,534 | COMP - COMPLETE | Integrity |
| 92 | 90000226116 | Lincoln St | 1.18 | 1.21 | 103 | LP to 60# | $ 1,909,043 | INPRG - PENDING CMS | Integrity |
| 93 | 90000237101 | Idaho St | 0.47 | 0.34 | 33 | 35# to 35# | $ 615,419 | WSTOP - ON HOLD NOT GASSED | Integrity |
| 94 | 90000225928 | 885-1092 Main St | 0.57 | 0.56 | 18 | 8# to 8# | $ 1,729,571 | INPRG - MAIN IN PROGRESS | Integrity |
| 95 | 90000242242 | 88 Old Post Rd | 0.00 | 0.19 | 27 | 60# | $ 52,657 | COMP - COMPLETE | Growth |
| 96 | 90000242151 | 21-33 Candace St | 0.31 | 0.31 | 34 | LP | $ 985,203 | ABANDONED - COMPLETE | CSC |
| 98 | 90000242311 | Almeida Ave | 0.06 | 0.07 | 6 | 99# | $ 99,097 | COMP - COMPLETE | CSC |
| 99 | 90000232985 | 1536-1600 Cranston St | 0.95 | 0.84 | 94 | LP to LP / LP to 7# | $ 1,909,503 | INPRG - READY FOR ABANDONMENT | Integrity |
| 100 | 90000212456 | Seneca Ave | 1.51 | 1.31 | 150 | LP to 99# | $ 2,299,578 | INPRG - PENDING CMS | Integrity |
| 101 | 90000235506 | 575-585 Taunton Ave | 0.05 | 0.05 | 3 | 99# | $ 74,435 | ABANDONED - COMPLETE | Integrity |
| 102 | 90000235209 | Woodland St Area 99 (Phase 2) | 1.37 | 1.35 | 79 | 99# | $ 1,574,777 | INPRG - AWAITING GAS IN | CSC |
| 104 | 90000241928 | Campbell St | 0.07 | 0.12 | 5 | LP to 18# | $ 84,748 | COMP - COMPLETE | CSC |
| 105 | 90000242341 | Sunset Ave | 0.07 | 0.08 | 10 | LP to 25# | $ 136,595 | COMP - COMPLETE | CSC |
| 106 | 90000234626 | Old Willis Rd | 0.67 | 0.42 | 31 | LP to 60# | $ 867,667 | ABANDONED - COMPLETE | Integrity |
| 107 | 90000242594 | Holly-Oregon Cut-Off | 0.00 | 0.21 | 0 | 60# | $ 30,741 | FCOMP - COMPLETE | CSC |
| 108 | 90000242634 | 2199 Post Rd | 0.04 | 0.04 | 1 | 35# | $ 103,405 | COMP - COMPLETE | CSC |
| 109 | 90000242633 | Austin Rd | 0.34 | 0.29 | 12 | 35# | $ 709,991 | COMP - COMPLETE | CSC |
| 110 | 90000243116 | Charles St | 0.06 | 0.06 | 7 | LP | $ 160,372 | FCOMP - COMPLETE | CSC |
| 111 | 90000234766 | Sutcliffe Ave | 0.30 | 0.28 | 22 | LP to 99# / 99# to 99# | $ 406,198 | INPRG - SERVICES IN PROGRESS | Integrity |
| 112 | 90000241773 | Heroux Blvd | 0.16 | 0.16 | 15 | 60# to 60# | $ 173,603 | FCOMP - COMPLETE | Integrity |
| 113 | 90000239809 | Charles St | 0.94 | 0.52 | 86 | LP to 99# | $ 2,181,445 | INPRG - PENDING CMS | Reliability |
| 114 | 90000210913 | Waterman Ave | 2.15 | 1.52 | 168 | LP to 99# | $ 3,732,257 | INPRG - SERVICES IN PROGRESS | Integrity |
| 115 | 90000241993 | 205-482 Broadway | 0.67 | 1.01 | 64 | LP to LP / 99# | $ 2,434,454 | INPRG - PENDING CMS | Integrity |
| 116 | 90000241944 | Saratoga Ave | 0.05 | 0.05 | 5 | 18# | $ 101,224 | FCOMP - COMPLETE | CSC |
| 117 | 90000243227 | Maybury St | 0.20 | 0.16 | 27 | 60# | $ 346,318 | COMP - COMPLETE | CSC |
| 118 | 90000242678 | Massasoit Ave | 0.11 | 0.05 | 10 | 99# | $ 270,061 | INPRG - STRAGGLERS | CSC |
| 119 | 90000243854 | 750 Douglas Ave | 0.01 | 0.01 | 2 | LP to LP | $ 73,974 | COMP - COMPLETE | CSC |
| 120 | 90000242970 | Hyde St | 0.75 | 0.77 | 76 | LP to 99# | $ 1,287,514 | INPRG - PENDING CMS | Integrity |

**Attachment DIV 1-1**

| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) | (i) | (j) | (k) | (l) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Estimated Installation Miles by Size | | | | | Estimated Installation Miles by Size | | | |
| | Main Work Order # | Project Title | Town | Est. Install Plastic - 2" | Est. Install Plastic - 4" | Est. Install Plastic - 6" | Est. Install Plastic - 8" | Est. Install Plastic - 12" | Est. Install Steel - 6" | Est. Install Steel - 8" | Est. Install Steel - 12" | Est. Install Steel - 16" |
| 121 | 90000236814 | 845-970 Pontiac Ave | CRA | 0.30 | 0.00 | 0.15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 122 | 90000237699 | Tiffany St | NPV | 1.48 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 124 | 90000194347 | 330-505 Silver Spring St | PVD | 0.41 | 0.01 | 0.00 | 0.63 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 125 | 90000241929 | Dean St | PAW | 0.00 | 0.12 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 127 | 90000243101 | Angus St | COV | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 128 | 90000243106 | 318-408 Princess Ave | CRA | 0.00 | 0.00 | 0.22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 129 | 90000241943 | Pollard Ave & Poirier St | PAW | 0.00 | 0.22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 130 | 90000241942 | Paris St | PAW | 0.10 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 131 | 90000241930 | Owen Ave | PAW | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 132 | 90000234771 | Moshassuck Rd | LNC | 0.00 | 0.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 133 | 90000231856 | LNC Beverly Dr (LP-99) | LNC | 0.76 | 0.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 134 | 90000243205 | Cleveland St | PAW | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 135 | 90000243640 | Anthony Ave | PAW | 0.00 | 0.22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 136 | 90000242356 | Wilmarth Ave | EPV | 0.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 137 | 90000243642 | Cedarcrest & Park Dr | PAW | 0.04 | 0.49 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 138 | 90000204677 | Elmwood Ave | WWK | 1.43 | 0.00 | 0.00 | 0.73 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 139 | 90000236181 | Harding Ave | WWK | 0.40 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 140 | 90000242316 | Boston St | EPV | 0.00 | 0.12 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 141 | 90000232491 | Wampanoag Trl Main Relay | EPV | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.52 | 0.42 |
| 142 | 90000243192 | Grand View Rd | EGW | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 143 | 90000236178 | Milton Rd | WWK | 1.39 | 0.30 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 145 | 90000220964 | S Fairview St | JOH | 0.00 | 0.03 | 0.12 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 146 | 90000235353 | Privilege St | WSO | 2.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 147 | 90000243641 | Ashton & Follett St | PAW | 0.14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 148 | 90000243528 | Kimball Ave | PAW | 0.12 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 149 | 90000243689 | Forest & Hurley Ave | PAW | 0.28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 150 | 90000238888 | RIDOT Tower Hill Rd Bridge | NKS | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.00 |
| 151 | 90000243283 | 1st St | EPV | 0.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 152 | 90000244588 | Main St | WAN | 0.00 | 0.07 | 0.00 | 0.00 | 0.55 | 0.00 | 0.00 | 0.00 | 0.00 |
| 153 | 90000245401 | Hoyt Ave | EPV | 0.54 | 0.56 | 0.00 | 0.00 | 0.12 | 0.00 | 0.00 | 0.00 | 0.00 |
| 154 | 90000245691 | 2119 Post Rd Bldg 1 | WWK | 0.00 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 155 | 90000243098 | Maplewood Ave | CRA | 1.50 | 0.10 | 0.24 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 156 | 90000246540 | 1985-2072 Smith St | NPV | 0.00 | 0.00 | 0.00 | 0.31 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 157 | 90000243118 | Phenix Ave Phase 2 | CRA | 0.00 | 0.00 | 0.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 158 | 90000244604 | Beatrice & Miner St | WLY | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 159 | 90000211503 | River Rd | LNC | 0.51 | 0.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 160 | 90000247141 | Beckwith St | CRA | 0.00 | 0.04 | 0.00 | 0.00 | 0.36 | 0.00 | 0.00 | 0.00 | 0.00 |
| 161 | 51629222 | Orchard St | CRA | 0.00 | 0.44 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

**Attachment DIV 1-1**

| | (a) | (b) | (m) | (n) | (o) | (p) | (q) | (r) | (s) |
|---|---|---|---|---|---|---|---|---|---|
| | Main Work Order # | Project Title | Total Estimated Installed Miles | Estimated LPP Abandonment Miles | Estimated Services | New Main Pressure | Cost Estimate | Current Project Status | Program |
| 121 | 90000236814 | 845-970 Pontiac Ave | 0.45 | 0.72 | 49 | LP to 99# / 99# to 99# | $ 1,056,203 | INPRG - PENDING CMS | Integrity |
| 122 | 90000237699 | Tiffany St | 1.48 | 0.28 | 127 | LP to 60# | $ 1,781,701 | INPRG - SERVICES IN PROGRESS | Reliability |
| 124 | 90000194347 | 330-505 Silver Spring St | 1.04 | 0.64 | 55 | LP to 99# | $ 2,752,774 | INPRG - STRAGGLERS | Integrity |
| 125 | 90000241929 | Dean St | 0.12 | 0.14 | 19 | LP to 18# | $ 207,837 | ABANDONED - COMPLETE | CSC |
| 127 | 90000243101 | Angus St | 0.09 | 0.09 | 5 | 35# | $ 110,561 | COMP - COMPLETE | CSC |
| 128 | 90000243106 | 318-408 Princess Ave | 0.22 | 0.25 | 23 | LP | $ 613,469 | INPRG - PENDING CMS | CSC |
| 129 | 90000241943 | Pollard Ave & Poirier St | 0.22 | 0.21 | 18 | 18# | $ 301,895 | INPRG - PENDING CMS | CSC |
| 130 | 90000241942 | Paris St | 0.17 | 0.10 | 11 | 99# | $ 208,820 | ABANDONED - COMPLETE | CSC |
| 131 | 90000241930 | Owen Ave | 0.24 | 0.21 | 36 | LP to 60# | $ 356,699 | INPRG - SERVICES IN PROGRESS | CSC |
| 132 | 90000234771 | Moshassuck Rd | 0.33 | 0.30 | 7 | 60# to 60# | $ 295,657 | INPRG - PENDING CMS | Integrity |
| 133 | 90000231856 | LNC Beverly Dr (LP-99) | 0.87 | 0.88 | 59 | LP to 99# | $ 1,165,827 | INPRG - PENDING CMS | Reliability |
| 134 | 90000243205 | Cleveland St | 0.09 | 0.18 | 28 | 99# | $ 269,277 | INPRG - PENDING CMS | CSC |
| 135 | 90000243640 | Anthony Ave | 0.22 | 0.22 | 30 | 99# | $ 304,844 | INPRG - STRAGGLERS | CSC |
| 136 | 90000242356 | Wilmarth Ave | 0.31 | 0.26 | 30 | 99# | $ 424,514 | FCOMP - COMPLETE | CSC |
| 137 | 90000243642 | Cedarcrest & Park Dr | 0.54 | 0.35 | 22 | LP to 18# | $ 761,902 | INPRG - PENDING CMS | CSC |
| 138 | 90000204677 | Elmwood Ave | 2.16 | 2.02 | 149 | LP to 35# / 35# to 35# | $ 3,378,941 | INPRG - SERVICE READY | Integrity |
| 139 | 90000236181 | Harding Ave | 0.40 | 0.23 | 36 | LP to 35# | $ 393,675 | FCOMP - COMPLETE | Integrity |
| 140 | 90000242316 | Boston St | 0.12 | 0.11 | 6 | LP to 5# | $ 166,936 | DISPATCH - CONSTRUCTION / SHOVEL READY | CSC |
| 141 | 90000232491 | Wampanoag Trl Main Relay | 1.93 | 1.92 | 0 | 200# | $ 20,723,000 | INPRG - MAIN IN PROGRESS | Integrity |
| 142 | 90000243192 | Grand View Rd | 0.08 | 0.07 | 1 | 35# | $ 101,005 | COMP - COMPLETE | CSC |
| 143 | 90000236178 | Milton Rd | 1.68 | 1.67 | 171 | LP to 35# | $ 1,782,786 | INPRG - MAIN IN PROGRESS | Integrity |
| 145 | 90000220964 | S Fairview St | 0.14 | 0.14 | 13 | LP to LP | $ 281,504 | FCOMP - COMPLETE | Integrity |
| 146 | 90000235353 | Privilege St | 2.07 | 2.14 | 175 | 60# | $ 2,926,879 | INPRG - MAIN IN PROGRESS | Reliability |
| 147 | 90000243641 | Ashton & Follett St | 0.14 | 0.12 | 10 | LP to 18# | $ 165,625 | FCOMP - COMPLETE | CSC |
| 148 | 90000243528 | Kimball Ave | 0.12 | 0.12 | 11 | 99# | $ 203,430 | INPRG - SERVICES IN PROGRESS | CSC |
| 149 | 90000243689 | Forest & Hurley Ave | 0.28 | 0.32 | 23 | 99# | $ 363,411 | INPRG - PENDING CMS | CSC |
| 150 | 90000238888 | RIDOT Tower Hill Rd Bridge | 0.04 | 0.03 | 0 | 35# | $ 243,130 | WSCHD - PENDING SOP AND/OR ENVIRO REVIEW | CSC |
| 151 | 90000243283 | 1st St | 0.23 | 0.61 | 44 | LP 5# 25# | $ 436,371 | INPRG - READY FOR ABANDONMENT | CSC |
| 152 | 90000244588 | Main St | 0.63 | 0.63 | 47 | 8# | $ 1,986,865 | WSCHD - PENDING SOP AND/OR ENVIRO REVIEW | CSC |
| 153 | 90000245401 | Hoyt Ave | 1.22 | 0.85 | 59 | LP to 99# | $ 1,846,091 | INPRG - SERVICES IN PROGRESS | Integrity |
| 154 | 90000245691 | 2119 Post Rd Bldg 1 | 0.06 | 0.05 | 7 | 35# | $ 81,879 | ABANDONED - COMPLETE | Growth |
| 155 | 90000243098 | Maplewood Ave | 1.84 | 1.64 | 199 | LP to 10# | $ 3,130,493 | WSCHD - PENDING SOP AND/OR ENVIRO REVIEW | CSC |
| 156 | 90000246540 | 1985-2072 Smith St | 0.31 | 0.31 | 21 | LP to LP | $ 741,598 | DISPATCH - CONSTRUCTION / SHOVEL READY | Integrity |
| 157 | 90000243118 | Phenix Ave Phase 2 | 0.13 | 0.16 | 7 | LP | $ 307,892 | WSCHD - PENDING SOP AND/OR ENVIRO REVIEW | CSC |
| 158 | 90000244604 | Beatrice & Miner St | 0.09 | 0.09 | 5 | 21# | $ 104,884 | FCOMP - COMPLETE | CSC |
| 159 | 90000211503 | River Rd | 0.76 | 0.76 | 52 | LP to 99# | $ 1,004,486 | INPRG - VERIFICATION HOLES | Integrity |
| 160 | 90000247141 | Beckwith St | 0.41 | 0.36 | 28 | 7# | $ 930,241 | INPRG - MAIN IN PROGRESS | Integrity |
| 161 | 51629222 | Orchard St | 0.44 | 0.66 | 50 | LP to 7# | $ 703,026 | WSCHD - PENDING SOP AND/OR ENVIRO REVIEW | Integrity |

**Attachment DIV 1-1**

| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) | (i) | (j) | (k) | (l) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Estimated Installation Miles by Size | | | | | Estimated Installation Miles by Size | | | |
| | Main Work Order # | Project Title | Town | Est. Install Plastic - 2" | Est. Install Plastic - 4" | Est. Install Plastic - 6" | Est. Install Plastic - 8" | Est. Install Plastic - 12" | Est. Install Steel - 6" | Est. Install Steel - 8" | Est. Install Steel - 12" | Est. Install Steel - 16" |
| 162 | 90000243148 | Clover St | PAW | 0.00 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 163 | 90000243526 | Knowles St | PAW | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 164 | 90000243529 | Melrose Ave | PAW | 0.00 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 165 | 90000246107 | Curran Rd | CLD | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 166 | 90000247279 | 0 Upper College Rd | SKS | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 167 | 90000188537 | Harris Ave | PVD | 0.29 | 0.00 | 0.56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 168 | 90000245667 | Grand View Ave LP | LNC | 0.00 | 0.00 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 169 | 90000204673 | Tilley Ave | NPR | 0.00 | 0.00 | 0.30 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 170 | 90000244323 | Tuckerman Ave | MDT | 2.89 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 171 | 90000242317 | Follet & Bentley St | EPV | 0.00 | 0.34 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 172 | 51629888 | West St | WSO | 0.41 | 0.20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 174 | 51619884 | Greystone Ave | NPV | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 175 | 51620578 | 810 Eddy St @ Bay St | PVD | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 176 | 51619703 | 23 Baxter St | PVD | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 177 | 51621322 | 61 Cooke St | PVD | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 179 | 90000244748 | Dearborn St 99# | NPR | 0.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 180 | 90000247165 | 646 Bellevue Ave, Pool | NPR | 0.00 | 0.00 | 0.12 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 181 | 51619869 | 61 Crossman St | CFL | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

**Attachment DIV 1-1**

| | (a) | (b) | (m) | (n) | (o) | (p) | (q) | (r) | (s) |
|---|---|---|---|---|---|---|---|---|---|
| | Main Work Order # | Project Title | Total Estimated Installed Miles | Estimated LPP Abandonment Miles | Estimated Services | New Main Pressure | Cost Estimate | Current Project Status | Program |
| 162 | 90000243148 | Clover St | 0.05 | 0.06 | 5 | LP to 18# | $ 106,165 | INPRG - PENDING CMS | CSC |
| 163 | 90000243526 | Knowles St | 0.00 | 0.07 | 11 | LP to 99# | $ 49,402 | WSCHD - PENDING SOP AND/OR ENVIRO REVIEW | CSC |
| 164 | 90000243529 | Melrose Ave | 0.10 | 0.11 | 16 | LP to 18# | $ 174,414 | INPRG - SERVICES IN PROGRESS | CSC |
| 165 | 90000246107 | Curran Rd | 0.08 | 0.08 | 4 | LP | $ 122,528 | INPRG - READY FOR ABANDONMENT | CSC |
| 166 | 90000247279 | 0 Upper College Rd | 0.10 | 0.10 | 3 | 35# | $ 117,095 | WSCHD - PENDING SOP AND/OR ENVIRO REVIEW | Growth |
| 167 | 90000188537 | Harris Ave | 0.85 | 1.44 | 21 | LP to 99# | $ 2,049,194 | AWPER - PENDING WORK READINESS | Integrity |
| 168 | 90000245667 | Grand View Ave LP | 0.08 | 0.33 | 0 | LP | $ 157,451 | INPRG - VERIFICATION HOLES | CSC |
| 169 | 90000204673 | Tilley Ave | 0.30 | 0.28 | 31 | LP to LP | $ 724,623 | DISPATCH - CONSTRUCTION / SHOVEL READY | Integrity |
| 170 | 90000244323 | Tuckerman Ave | 2.89 | 0.24 | 204 | LP to 99# | $ 3,208,360 | WSCHD - PENDING SOP AND/OR ENVIRO REVIEW | Reliability |
| 171 | 90000242317 | Follet & Bentley St | 0.34 | 0.30 | 31 | 5# | $ 490,234 | WSCHD - PENDING SOP AND/OR ENVIRO REVIEW | CSC |
| 172 | 51629888 | West St | 0.61 | 0.63 | 54 | LP to 60# | $ 818,249 | WSCHD - PENDING SOP AND/OR ENVIRO REVIEW | Integrity |
| 174 | 51619884 | Greystone Ave | 0.00 | 0.10 | 0 | LP | $ 32,990 | WSCHD - PENDING SOP AND/OR ENVIRO REVIEW | CSC |
| 175 | 51620578 | 810 Eddy St @ Bay St | 0.01 | 0.01 | 0 | LP | $ 63,227 | WSCHD - PENDING SOP AND/OR ENVIRO REVIEW | CSC |
| 176 | 51619703 | 23 Baxter St | 0.00 | 0.02 | 0 | LP | $ 21,703 | ABANDONED - COMPLETE | CSC |
| 177 | 51621322 | 61 Cooke St | 0.00 | 0.01 | 0 | LP | $ 21,503 | ABANDONED - COMPLETE | CSC |
| 179 | 90000244748 | Dearborn St 99# | 0.13 | 0.11 | 11 | LP to 99# | $ 198,861 | RECEIVED - PENDING QC | CSC |
| 180 | 90000247165 | 646 Bellevue Ave, Pool | 0.12 | 0.03 | 4 | LP | $ 81,310 | WSCHD - PENDING SOP AND/OR ENVIRO REVIEW | Growth |
| 181 | 51619869 | 61 Crossman St | 0.01 | 0.00 | 1 | LP | $ 41,277 | RECEIVED - PENDING QC | CSC |

Division 1-2

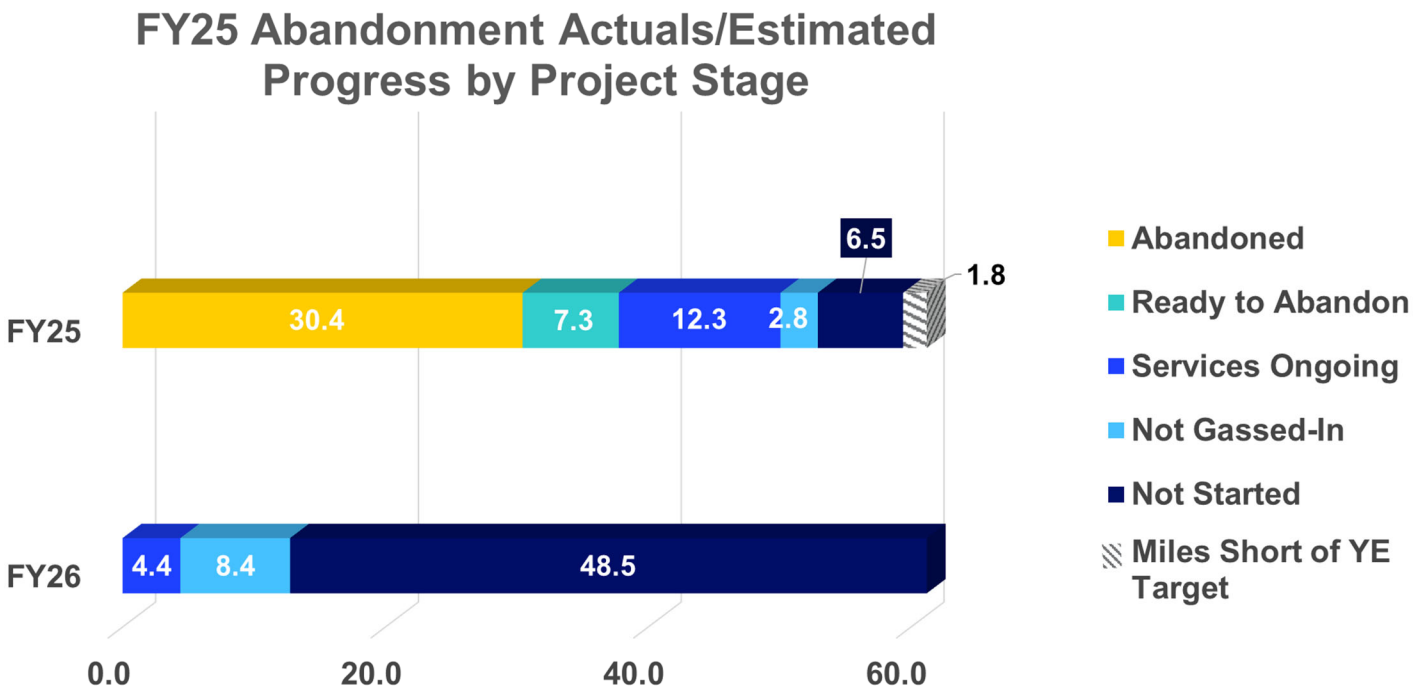
Request:

Please provide a bar chart listing the following regarding the FY2025 overall workplan to date including any carry-over into FY2026.

a. Total "Abandonment" miles to date.
b. Total "Ready to be abandoned" miles to date.
c. Total "Work in progress" miles to date.
d. Total "Installed but not gassed in" miles to date.
e. Planned "Not started" miles to date.

Response:

Please see the chart below for the requested information. The information in the bar chart represents the Company's results through the week ending November 9, 2024.




- Data through: 11/9/2024
- Abandonment Forecast: 59.3 mi.
- 6.5 LPP miles ready to abandon
- All mileage is based on actual or estimated abandonment by project

Prepared by or under the supervision of: Phil LaFond

Division 1-3

Request:

How many miles of "work in progress" did the Company carry-over from FY2024 into FY2025?

Response:

The Company had main replacement projects in progress at the conclusion of FY2024 for which the associated abandonment was approximately 33 miles.

Prepared by or under the supervision of: Phil LaFond

Division 1-4

Request:

How many miles of "work in progress" does the Company estimate it will carry-over from FY2025 into FY2026?

Response:

The Company forecasts that at the conclusion of FY2025 it will have main replacement projects in progress for which the associated abandonment totals approximately 13 miles.

Prepared by or under the supervision of: Phil LaFond

Division 1-5

Request:

Provide a FY2026 Workplan for all proposed projects within all categories associated with the abandonment of leak prone pipe. Please include the following for each project:

a. Installation miles
b. Abandonment miles
c. Number of services
d. Size of mains installed
e. Psig. of new main
f. Total estimated costs
g. Current status of project
h. Identify ISR program (i.e. Public Works, Proactive Main Replacement etc.)

Response:

Please see Attachment DIV 1-5. This list does not include any projects started in FY2025 that will be carried over and continued in FY2026, only those which are currently planned to be started in FY2026. The workplan data included is current as of November 5, 2024 and is subject to change. Projects may be added or removed prior to the start of the fiscal year based on a variety of factors including but not limited to changes in priority based on paving plans of municipalities, third party utility plans, and condition based field requests as well as the amount, location, and nature of in progress work carrying over to FY2026 from FY2025.

Prepared by or under the supervision of: Corey Hogg

# Attachment DIV 1-5

FY2026 Workplan as of November 5, 2024

| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) | (i) | (j) | (k) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ISR Program | City/Town | Project Title | Installation Miles | Leak-Prone Pipe Abandonment Miles | Total Abandonment Miles | Number of Services | Size of New Mains to be Installed | Pressure of New Mains to be Installed | Total Estimated Costs | Current Status of Project |
| 2 | CSC/Public Works – Non-Reimbursable | Coventry | Harris St | 0.04 | 0.05 | 0.05 | 2 | 2" | 35# | $66,932 | Proposed/In Design |
| 3 | CSC/Public Works – Non-Reimbursable | Cranston | Phenix Ave 1 | 0.02 | 0.00 | 0.00 | 1 | 4" | 99# | $51,914 | Design Complete |
| 4 | CSC/Public Works – Non-Reimbursable | Cranston | Phenix Ave 2 | 0.13 | 0.31 | 0.31 | 8 | 6" | LP | $357,154 | Design Complete |
| 5 | CSC/Public Works – Non-Reimbursable | East Greenwich | 6th Ave | 0.01 | 0.01 | 0.01 | 2 | 2" | 35# | $30,825 | Proposed/In Design |
| 6 | CSC/Public Works – Non-Reimbursable | East Greenwich | Maplewood Dr | 0.13 | 0.13 | 0.13 | 3 | 2" | 35# | $187,438 | Design Complete |
| 7 | CSC/Public Works – Non-Reimbursable | East Providence | Boston St | 0.12 | 0.11 | 0.11 | 6 | 4" | 5# | $193,645 | Design Complete |
| 8 | CSC/Public Works – Non-Reimbursable | East Providence | Follett & Bentley St | 0.34 | 0.30 | 0.32 | 31 | 4" | 5# | $568,672 | Design Complete |
| 9 | CSC/Public Works – Non-Reimbursable | East Providence | Ramsay St | 0.02 | 0.02 | 0.02 | 2 | 2" | 25# | $67,069 | Proposed/In Design |
| 10 | CSC/Public Works – Non-Reimbursable | Newport | Dearborn St | 0.13 | 0.11 | 0.11 | 11 | 2" | 99# | $230,678 | Design Complete |
| 11 | CSC/Public Works – Non-Reimbursable | North Providence | 3rd St | 0.04 | 0.03 | 0.03 | 2 | 2" | 35# | $71,536 | Proposed/In Design |
| 12 | CSC/Public Works – Non-Reimbursable | North Providence | Elm St | 0.16 | 0.12 | 0.12 | 14 | 2" / 4" | 35# | $234,832 | Proposed/In Design |
| 13 | CSC/Public Works – Non-Reimbursable | North Providence | Greystone Ave | 0.00 | 0.10 | 0.12 | 0 | N/A | N/A | $38,268 | Design Complete |
| 14 | CSC/Public Works – Non-Reimbursable | North Providence | Meadowbrook Rd | 0.06 | 0.05 | 0.05 | 6 | 2" | 35# | $114,420 | Proposed/In Design |
| 15 | CSC/Public Works – Non-Reimbursable | North Providence | Olney Ave | 0.17 | 0.15 | 0.17 | 6 | 2" / 6" | 35# | $379,797 | Proposed/In Design |
| 16 | CSC/Public Works – Non-Reimbursable | North Providence | Progress Ave | 0.11 | 0.08 | 0.10 | 8 | 2" | 35# | $187,279 | Proposed/In Design |
| 17 | CSC/Public Works – Non-Reimbursable | Pawtucket | Alfred Stone Rd (Main Abandon) | 0.00 | 0.05 | 0.07 | 2 | 2" | 35# | $37,832 | Proposed/In Design |
| 18 | CSC/Public Works – Non-Reimbursable | Pawtucket | Blackstone Ave | 0.00 | 0.08 | 0.09 | 4 | N/A | Service transfers to 99# | $50,890 | Proposed/In Design |
| 19 | CSC/Public Works – Non-Reimbursable | Pawtucket | Clover St | 0.05 | 0.06 | 0.06 | 5 | 4" | 18# | $123,151 | Design Complete |
| 20 | CSC/Public Works – Non-Reimbursable | Pawtucket | Grotto Ave | 0.04 | 0.14 | 0.15 | 10 | 4" | 60# | $126,296 | Proposed/In Design |
| 21 | CSC/Public Works – Non-Reimbursable | Pawtucket | Hughes Ave | 0.15 | 0.14 | 0.14 | 19 | 4" / 6" | 18# | $426,647 | Proposed/In Design |
| 22 | CSC/Public Works – Non-Reimbursable | Pawtucket | Kimball Ave | 0.12 | 0.12 | 0.12 | 11 | 2" | 99# | $235,979 | Design Complete |
| 23 | CSC/Public Works – Non-Reimbursable | Pawtucket | Knowles St | 0.00 | 0.07 | 0.07 | 11 | N/A | 99# | $57,306 | Design Complete |
| 24 | CSC/Public Works – Non-Reimbursable | Pawtucket | Martin & Ferris St | 0.60 | 0.58 | 0.60 | 78 | 4" | 18# | $981,989 | Proposed/In Design |
| 25 | CSC/Public Works – Non-Reimbursable | Pawtucket | Miller St | 0.00 | 0.04 | 0.04 | 3 | N/A | Service transfers to 99# | $58,039 | Proposed/In Design |
| 26 | CSC/Public Works – Non-Reimbursable | Pawtucket | Sisson St | 0.15 | 0.13 | 0.13 | 14 | 3" | 99# | $240,371 | Proposed/In Design |
| 27 | CSC/Public Works – Non-Reimbursable | Pawtucket | Suffolk Ave | 0.14 | 0.13 | 0.13 | 18 | 2" / 4" | 18# | $251,225 | Proposed/In Design |
| 28 | CSC/Public Works – Non-Reimbursable | Providence | 158-253 Thurbers Av | 0.18 | 0.21 | 0.21 | 11 | 6" | LP | $703,447 | Proposed/In Design |
| 29 | CSC/Public Works – Non-Reimbursable | Providence | 280-386 Broad St | 0.18 | 0.22 | 0.22 | 8 | 6" / 8" | LP | $801,311 | Design Complete |
| 30 | CSC/Public Works – Non-Reimbursable | Providence | 565-692 Prairie Av | 0.78 | 0.76 | 0.79 | 61 | 4" / 8" | 7# | $2,105,774 | Proposed/In Design |
| 31 | CSC/Public Works – Non-Reimbursable | Providence | 80-205 Gallup St | 0.92 | 0.92 | 0.94 | 98 | 4" / 6" / 8" | 10# | $2,752,284 | Design Complete |
| 32 | CSC/Public Works – Non-Reimbursable | Providence | Briggs St | 1.00 | 1.00 | 1.01 | 113 | 4" / 6" / 8" | 10# | $2,775,412 | Proposed/In Design |
| 33 | CSC/Public Works – Non-Reimbursable | Providence | Fricker St | 0.07 | 0.07 | 0.07 | 0 | 8" | LP | $242,894 | Design Complete |
| 34 | CSC/Public Works – Non-Reimbursable | Providence | Lockwood St | 0.41 | 0.42 | 0.42 | 25 | 6" / 12" | LP | $1,550,283 | Design Complete |
| 35 | CSC/Public Works – Non-Reimbursable | Providence | Pine St | 0.77 | 0.97 | 1.00 | 63 | 2" / 4" | 99# | $1,788,083 | Proposed/In Design |
| 36 | CSC/Public Works – Non-Reimbursable | Providence | Willard Av | 1.54 | 1.80 | 1.84 | 181 | 6" / 8" / 12" | LP | $5,652,565 | Design Complete |
| 37 | CSC/Public Works – Non-Reimbursable | Scituate | Hope Furnace Rd | 0.01 | 0.00 | 0.01 | 0 | 6" | 35# | $140,171 | Proposed/In Design |
| 38 | CSC/Public Works – Non-Reimbursable | Warren | Main St | 0.63 | 0.63 | 0.64 | 47 | 4" / 12" | 8# | $2,304,798 | Design Complete |
| 39 | CSC/Public Works – Reimbursable | Middletown | Navy Base Steam Line Gas Relays | 0.02 | 0.00 | 0.02 | 0 | 4" / 12" | 99# | $292,642 | Design Complete |
| 40 | CSC/Public Works – Reimbursable | North Kingstown | RIDOT Tower Hill Rd Bridge | 0.04 | 0.04 | 0.04 | 0 | 12" | 35# | $282,030 | Design Complete |
| 41 | CSC/Public Works – Reimbursable | Westerly | Bowling Lane | 0.01 | 0.00 | 0.01 | 5 | 2" | 60# | $58,944 | Proposed/In Design |
| 42 | Gas System Reliability | East Providence | 99# System Integration P2 | 0.50 | 0.00 | 0.00 | 0 | 2" / 4" / 12" | 99# | $1,240,000 | Proposed/In Design |

## Attachment DIV 1-5

FY2026 Workplan as of November 5, 2024

| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) | (i) | (j) | (k) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ISR Program | City/Town | Project Title | Installation Miles | Leak-Prone Pipe Abandonment Miles | Total Abandonment Miles | Number of Services | Size of New Mains to be Installed | Pressure of New Mains to be Installed | Total Estimated Costs | Current Status of Project |
| 43 | Gas System Reliability | East Providence | 99# System Integration P3 | 2.10 | 0.00 | 2.00 | 181 | 12" | 99# | $4,480,000 | Proposed/In Design |
| 44 | Gas System Reliability | East Providence | Roger Williams Ave | 0.90 | 0.00 | 0.00 | 0 | 8" | 99# | $1,740,000 | Design Complete |
| 45 | Gas System Reliability | Johnston | Allandale Ave | 0.40 | 0.20 | 0.20 | 0 | 4" | 35# | $570,000 | Design Complete |
| 46 | Gas System Reliability | North Providence | Waterman Ave | 0.70 | 0.00 | 0.00 | 0 | 12" | 35# | $1,840,000 | Design Complete |
| 47 | Gas System Reliability | Providence | Harris Ave | 0.20 | 0.00 | 0.00 | 5 | 6" | 99# | $2,270,000 | Proposed/In Design |
| 48 | Gas System Reliability | Providence | Hartford Ave | 0.40 | 0.00 | 0.00 | 21 | 8" | 99# | $1,060,000 | Proposed/In Design |
| 49 | Pipe on Bridges | North Providence | Greyston Ave Bridge - 12" Relay | 0.02 | 0.02 | 0.00 | 0 | 12" | 35# | $1,740,000 | Proposed/In Design |
| 50 | Pipe on Bridges | Providence | Glenbridge Av - 36" Relay | 0.05 | 0.05 | 0.00 | 0 | 24" | 99# | $2,320,000 | Proposed/In Design |
| 51 | Pipe on Bridges | Providence | Glenbridge Av - Utility Bridge | N/A | N/A | N/A | N/A | N/A | N/A | $1,740,000 | Proposed/In Design |
| 52 | Pipe on Bridges | Woonsocket | River St - Relay | 0.04 | 0.04 | 0.00 | 0 | 8" | 60# | $1,740,000 | Proposed/In Design |
| 53 | Proactive Low Pressure System Elimination | Johnston | Morton Ave | 0.70 | 0.10 | 0.70 | 43 | 2" | 99# | $1,001,000 | Proposed/In Design |
| 54 | Proactive Low Pressure System Elimination | Middletown | Tuckerman Ave | 2.90 | 0.20 | 2.90 | 204 | 2" | 99# | $3,210,000 | Design Complete |
| 55 | Proactive Low Pressure System Elimination | Warwick | Harrison Ave | 0.60 | 0.00 | 0.60 | 40 | 4" | 35# | $1,050,000 | Proposed/In Design |
| 56 | Proactive Low Pressure System Elimination | Woonsocket | Mitris Blvd | 0.30 | 0.50 | 0.60 | 17 | 2" | 60# | $290,000 | Proposed/In Design |
| 57 | Proactive Main Replacement | Bristol | 573-744 Hope St, BST | 0.51 | 0.43 | 0.47 | 50 | 2" / 4" | 8# | $1,062,560 | Proposed/In Design |
| 58 | Proactive Main Replacement | Cranston | 584-696 Atwood Av, CRA | 1.01 | 0.96 | 1.17 | 56 | 2" / 4" / 8" / 12" | 99# | $2,201,680 | Proposed/In Design |
| 59 | Proactive Main Replacement | Cranston | Orchard St, CRA | 0.44 | 0.66 | 0.66 | 50 | 4" | 7# | $962,800 | Design Complete |
| 60 | Proactive Main Replacement | Cranston | Plantation Dr, CRA | 4.90 | 4.21 | 5.18 | 319 | 2" / 4" | 35# / 99# | $8,898,360 | Proposed/In Design |
| 61 | Proactive Main Replacement | Cranston | Smith St, CRA | 1.68 | 1.79 | 1.83 | 209 | 2" / 8" / 12" | LP / 35# / 99# | $3,694,600 | Design Complete |
| 62 | Proactive Main Replacement | Cumberland | Anthony Dr, CLD | 0.23 | 0.23 | 0.23 | 11 | 2" | 60# | $365,400 | Design Complete |
| 63 | Proactive Main Replacement | East Greenwich | Upland Av, EGW | 0.07 | 0.07 | 0.07 | 4 | 2" | 35# | $162,400 | Design Complete |
| 64 | Proactive Main Replacement | East Providence | 2464-2556 Pawtucket Av, EPV | 1.09 | 0.98 | 1.16 | 93 | 2" | 99# | $1,793,360 | Proposed/In Design |
| 65 | Proactive Main Replacement | Johnston | 1294 Atwood Av, JOH | 0.02 | 0.02 | 0.02 | 0 | 8" | 35# | $429,200 | Design Complete |
| 66 | Proactive Main Replacement | Johnston | Serrel Sweet Rd, JOH | 2.35 | 2.07 | 2.77 | 204 | 2" / 12" | LP / 99# | $4,245,600 | Proposed/In Design |
| 67 | Proactive Main Replacement | Lincoln | Carriage Dr, LNC | 0.66 | 0.64 | 0.64 | 36 | 2" | 99# | $999,920 | Proposed/In Design |
| 68 | Proactive Main Replacement | Lincoln | Railroad Av, LNC | 0.00 | 0.16 | 0.18 | 3 | N/A | Service transfers to 60#/99# | $118,320 | Design Complete |
| 69 | Proactive Main Replacement | North Providence | Waterman Av, NPV | 0.68 | 0.77 | 0.78 | 57 | 2" / 6" / 8" | LP / 35# | $1,684,320 | Proposed/In Design |
| 70 | Proactive Main Replacement | North Providence | Windmill St, NPV | 0.15 | 0.14 | 0.15 | 11 | 2" / 4" | 99# | $342,200 | Proposed/In Design |
| 71 | Proactive Main Replacement | Pawtucket | Conant St, PAW | 0.39 | 0.39 | 0.39 | 8 | 8" | 60# | $908,280 | Design Complete |
| 72 | Proactive Main Replacement | Pawtucket | East St, PAW | 1.76 | 1.74 | 1.90 | 155 | 2" / 4" | 99# | $2,681,920 | Proposed/In Design |
| 73 | Proactive Main Replacement | Pawtucket | Gorizia St, PAW | 1.36 | 1.34 | 1.34 | 123 | 2" / 4" / 8" | 99# | $2,014,920 | Proposed/In Design |
| 74 | Proactive Main Replacement | Providence | 1-168 Eaton St, PVD | 1.60 | 1.63 | 1.68 | 221 | 2" / 4" / 6" | LP / 99# | $4,642,320 | Proposed/In Design |
| 75 | Proactive Main Replacement | Providence | 1-180 Westminster St, PVD | 0.42 | 0.68 | 0.69 | 17 | 4" / 6" / 8" / 12" | LP | $2,106,560 | Proposed/In Design |
| 76 | Proactive Main Replacement | Providence | 125-201 Washington St, PVD | 0.12 | 0.13 | 0.13 | 3 | 6" | LP | $609,000 | Design Complete |
| 77 | Proactive Main Replacement | Providence | 336-463 Benefit St, PVD | 0.40 | 0.39 | 0.48 | 30 | 6" / 12" | LP | $2,149,480 | Design Complete |
| 78 | Proactive Main Replacement | Providence | 65-153 Manton Av, PVD | 0.60 | 0.80 | 0.83 | 27 | 6" / 12" | LP | $2,550,840 | Proposed/In Design |
| 79 | Proactive Main Replacement | Providence | 751-897 Eddy St, PVD | 1.07 | 1.08 | 1.16 | 45 | 2" / 8" | 99# | $2,710,920 | Proposed/In Design |
| 80 | Proactive Main Replacement | Providence | Anthony Av, PVD | 0.80 | 0.79 | 0.82 | 48 | 4" | 10# | $1,873,400 | Design Complete |
| 81 | Proactive Main Replacement | Providence | Bath St, PVD | 0.67 | 0.76 | 0.76 | 33 | 2" / 4" | 35# | $1,693,600 | Proposed/In Design |
| 82 | Proactive Main Replacement | Providence | Delaine St, PVD | 0.27 | 0.42 | 0.43 | 16 | 6" / 12" | LP | $1,156,520 | Design Complete |
| 83 | Proactive Main Replacement | Providence | Dudley St, PVD | 0.33 | 0.41 | 0.43 | 18 | 4" / 6" / 12" | LP | $1,445,360 | Design Complete |

Division 1-6

Request:

Provide an updated list of isolated services (leak prone services on non-leak prone pipe) by location, material type, and date of installation in risk ranking order.

Response:

Please see Attachment DIV 1-6-1 for the leak prone services on non-leak prone pipe in risk ranking order. This list was compiled on October 29, 2024, and contains 1,724 services.

Please see Attachment DIV 1-6-2 for an explanation of the logic used to risk rank these services from 1 to 17, with 1 being the highest risk and 17 being the lowest risk.

Prepared by or under the supervision of: Barry Foster

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| **1** | **City/Town** | **ADDRESS** | **House #** | **Install Year** | **Material** | **Diameter** | **Pressure** | **Priority (1-17, 1 being the highest)** |
| 2 | Lincoln | 6 Betty St | 6 | 1962 | BS | 1 1/2 | 99# | 1 |
| 3 | Lincoln | 4 Blackstone Valley Pl | 4 | Unknown | BS | 3/4 | 99# | 1 |
| 4 | Lincoln | 6 Blackstone Valley Pl | 6 | Unknown | BS | 1 | 99# | 1 |
| 5 | Lincoln | 15 Boxwood Rd | 15 | 1967 | BS | 3/4 | 99# | 1 |
| 6 | Lincoln | 10 Great Meadow Ln | 10 | Unknown | BS | 3/4 | 99# | 1 |
| 7 | Lincoln | 196 Kirkbrae Glen Ln | 196 | Unknown | BS | 3/4 | 99# | 1 |
| 8 | Lincoln | 53 Main St | 53 | 1962 | BS | 3/4 | 99# | 1 |
| 9 | Lincoln | 61 Main St | 61 | 1962 | BS | 3/4 | 99# | 1 |
| 10 | Lincoln | 70 Main St | 70 | 1962 | BS | 3/4 | 99# | 1 |
| 11 | Lincoln | 95 Main St | 95 | 1962 | BS | 3/4 | 99# | 1 |
| 12 | Lincoln | 96 Main St | 96 | 1962 | BS | 3/4 | 99# | 1 |
| 13 | Lincoln | 114 Main St | 114 | 1962 | BS | 3/4 | 99# | 1 |
| 14 | Lincoln | 138 Main St | 138 | 1962 | BS | 3/4 | 99# | 1 |
| 15 | Lincoln | 140 Main St | 140 | 1962 | BS | 3/4 | 99# | 1 |
| 16 | Lincoln | 54-56 Main St | 54-56 | 1962 | BS | 3/4 | 99# | 1 |
| 17 | Lincoln | 64-66 Main St | 64-66 | 1962 | BS | 3/4 | 99# | 1 |
| 18 | Lincoln | 191 Old River Rd | 191 | 1968 | BS | 3/4 | 99# | 1 |
| 19 | East Providence | 600 LIND BLD Waterman Av | 600 LIND BLD | 1984 | BS | 1 1/8 | 99# | 1 |
| 20 | Cumberland | 511 Mendon Rd | 511 | 1951 | BS | 3/4 | 99# | 2 |
| 21 | Cumberland | 603 Mendon Rd | 603 | 1951 | BS | 3/4 | 99# | 2 |
| 22 | Cumberland | 615 Mendon Rd | 615 | 1952 | BS | 3/4 | 99# | 2 |
| 23 | Cumberland | 655 Mendon Rd | 655 | 1969 | BS | 1 | 99# | 2 |
| 24 | Lincoln | 292 Albion Rd | 292 | Unknown | BS | 3/4 | 99# | 2 |
| 25 | Lincoln | 331 Albion Rd | 331 | Unknown | BS | 3/4 | 99# | 2 |
| 26 | Lincoln | 9 Brushwood Dr | 9 | Unknown | BS | 3/4 | 99# | 2 |
| 27 | Lincoln | 1 Elizabeth Dr | 1 | Unknown | BS | 3/4 | 99# | 2 |
| 28 | Lincoln | 3 Elizabeth Dr | 3 | Unknown | BS | 3/4 | 99# | 2 |
| 29 | Lincoln | 4 Elizabeth Dr | 4 | Unknown | BS | 3/4 | 99# | 2 |
| 30 | Lincoln | 5 Elizabeth Dr | 5 | Unknown | BS | 3/4 | 99# | 2 |
| 31 | Lincoln | 6 Elizabeth Dr | 6 | Unknown | BS | 3/4 | 99# | 2 |
| 32 | Lincoln | 7 Elizabeth Dr | 7 | Unknown | BS | 3/4 | 99# | 2 |
| 33 | Lincoln | 8 Elizabeth Dr | 8 | Unknown | BS | 3/4 | 99# | 2 |
| 34 | Lincoln | 9 Elizabeth Dr | 9 | Unknown | BS | 3/4 | 99# | 2 |
| 35 | Lincoln | 10 Elizabeth Dr | 10 | Unknown | BS | 3/4 | 99# | 2 |
| 36 | Lincoln | 11 Elizabeth Dr | 11 | Unknown | BS | 3/4 | 99# | 2 |
| 37 | Lincoln | 12 Elizabeth Dr | 12 | Unknown | BS | 3/4 | 99# | 2 |
| 38 | Lincoln | 14 Elizabeth Dr | 14 | Unknown | BS | 3/4 | 99# | 2 |
| 39 | Lincoln | 1096 Great Rd | 1096 | 1970 | BS | 3/4 | 99# | 2 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| **1** | **City/Town** | **ADDRESS** | **House #** | **Install Year** | **Material** | **Diameter** | **Pressure** | **Priority (1-17, 1 being the highest)** |
| 40 | Lincoln | 1163 Great Rd | 1163 | 1967 | BS | 3/4 | 99# | 2 |
| 41 | Lincoln | 3 Logan Dr | 3 | Unknown | BS | 3/4 | 99# | 2 |
| 42 | Lincoln | 4 Logan Dr | 4 | Unknown | BS | 3/4 | 99# | 2 |
| 43 | Lincoln | 5 Logan Dr | 5 | Unknown | BS | 3/4 | 99# | 2 |
| 44 | Lincoln | 7 Logan Dr | 7 | Unknown | BS | 3/4 | 99# | 2 |
| 45 | Lincoln | 9 Logan Dr | 9 | Unknown | BS | 3/4 | 99# | 2 |
| 46 | Lincoln | 11 Logan Dr | 11 | Unknown | BS | 3/4 | 99# | 2 |
| 47 | Lincoln | 14 Logan Dr | 14 | Unknown | BS | 3/4 | 99# | 2 |
| 48 | Lincoln | 17 Logan Dr | 17 | Unknown | BS | 3/4 | 99# | 2 |
| 49 | Lincoln | 104 Main St | 104 | 1962 | BS | 3/4 | 99# | 2 |
| 50 | Lincoln | 110 Main St | 110 | 1962 | BS | 3/4 | 99# | 2 |
| 51 | Lincoln | 145 Main St | 145 | 1962 | BS | 3/4 | 99# | 2 |
| 52 | Lincoln | 30 Old River Rd | 30 | 1942 | BS | 3/4 | 99# | 2 |
| 53 | Lincoln | 183 Old River Rd | 183 | 1968 | BS | 3/4 | 99# | 2 |
| 54 | Lincoln | 251 Old River Rd | 251 | Unknown | BS | 3/4 | 99# | 2 |
| 55 | Lincoln | 253 Old River Rd | 253 | Unknown | BS | 3/4 | 99# | 2 |
| 56 | Lincoln | 255 Old River Rd | 255 | Unknown | BS | 3/4 | 99# | 2 |
| 57 | Lincoln | 267 Old River Rd | 267 | Unknown | BS | 3/4 | 99# | 2 |
| 58 | Cranston | 350 Atwood Av | 350 | 1965 | BS | 3/4 | 99# | 2 |
| 59 | East Greenwich | 2934 South County Trail | 2934 | 1984 | BS | 3/4 | 99# | 2 |
| 60 | Middletown | 9 Gunning Ct | 9 | Unknown | BS | 3/4 | 99# | 2 |
| 61 | North Kingstown | 69 South Rd | 69 | Unknown | Unknown | Unknown | 99# | 2 |
| 62 | Barrington | 18 Annawamscutt Rd | 18 | 1927 | BS | 3/4 | 25# | 3 |
| 63 | Barrington | 3 Briarwood Dr | 3 | 1959 | BS | 1 | 25# | 3 |
| 64 | Barrington | 9 Briarwood Dr | 9 | 1959 | BS | 1 | 25# | 3 |
| 65 | Barrington | 296-300 County Rd | 296-300 | 1963 | BS | 3/4 | 25# | 3 |
| 66 | Barrington | 132 Foote St | 132 | Unknown | BS | 1 | 25# | 3 |
| 67 | Barrington | 14 Joy St | 14 | 1961 | BS | 1 | 25# | 3 |
| 68 | Barrington | 12 Lantern Ln | 12 | 1959 | BS | 1 | 25# | 3 |
| 69 | Barrington | 210 Lincoln Ave | 210 | 1961 | BS | 1 | 25# | 3 |
| 70 | Barrington | 220 Lincoln Ave | 220 | 1952 | BS | 1 | 25# | 3 |
| 71 | Barrington | 4 Manning Dr | 4 | 1951 | BS | 1 | 25# | 3 |
| 72 | Barrington | 10 Manning Dr | 10 | 1951 | BS | 1 | 25# | 3 |
| 73 | Barrington | 483 Maple Ave | 483 | Unknown | BS | 3/4 | 25# | 3 |
| 74 | Barrington | 19 Middle St | 19 | 1954 | BS | 1 | 25# | 3 |
| 75 | Bristol | 235 High St | 235 | Unknown | Unknown | Unknown | 8# | 3 |
| 76 | Cumberland | 2374 Diamond Hill Rd | 2374 | 1960 | BS | 3/4 | 60# | 3 |
| 77 | Cumberland | 770 High St | 770 | 1951 | BS | 3/4 | 60# | 3 |
| 78 | Cumberland | 10 Kay St | 10 | 1960 | BS | 3/4 | 60# | 3 |
| 79 | Cumberland | 14 Manville Hill Rd | 14 | 1939 | BS | 3/4 | 60# | 3 |
| 80 | Cumberland | 60 Manville Hill Rd | 60 | 1936 | BS | 3/4 | 60# | 3 |
| 81 | Cumberland | 161 Manville Hill Rd | 161 | 1959 | BS | 3/4 | 60# | 3 |
| 82 | Cumberland | 30 Martin St | 30 | Unknown | BS | 1 | 60# | 3 |
| 83 | Cumberland | 35 Martin St | 35 | 1962 | BS | 2 | 60# | 3 |
| 84 | Cumberland | 770 Mendon Rd | 770 | 1929 | BS | 3/4 | 60# | 3 |
| 85 | Cumberland | 940 Mendon Rd | 940 | 1966 | BS | 3/4 | 60# | 3 |
| 86 | Cumberland | 1000 Mendon Rd | 1000 | 1965 | BS | 3/4 | 60# | 3 |
| 87 | Cumberland | 1266 Mendon Rd | 1266 | 1961 | BS | 3/4 | 60# | 3 |
| 88 | Cumberland | 1285 Mendon Rd | 1285 | 1967 | BS | 3/4 | 60# | 3 |
| 89 | Cumberland | 1372 Mendon Rd | 1372 | 1949 | BS | 3/4 | 60# | 3 |
| 90 | Cumberland | 1530 Mendon Rd | 1530 | 1967 | BS | 3/4 | 60# | 3 |
| 91 | Cumberland | 1557 Mendon Rd | 1557 | 1927 | BS | 3/4 | 60# | 3 |
| 92 | Cumberland | 1906 Mendon Rd | 1906 | 1960 | BS | 3/4 | 60# | 3 |

**Attachment DIV 1-6-1**

| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
|---|---|---|---|---|---|---|---|---|
| **1** | **City/Town** | **ADDRESS** | **House #** | **Install Year** | **Material** | **Diameter** | **Pressure** | **Priority (1-17, 1 being the highest)** |
| 93 | Cumberland | 1930 Mendon Rd | 1930 | 1960 | BS | 3/4 | 60# | 3 |
| 94 | Cumberland | 1950 Mendon Rd | 1950 | 1960 | BS | 3/4 | 60# | 3 |
| 95 | Cumberland | 1960 Mendon Rd | 1960 | 1964 | BS | 3/4 | 60# | 3 |
| 96 | Cumberland | 2033 Mendon Rd | 2033 | 1966 | BS | 3/4 | 60# | 3 |
| 97 | Cumberland | 2200 Mendon Rd | 2200 | 1954 | BS | 3/4 | 60# | 3 |
| 98 | Cumberland | 2300 Mendon Rd | 2300 | 1952 | BS | 3/4 | 60# | 3 |
| 99 | Cumberland | 2359 Mendon Rd | 2359 | 1939 | BS | 3/4 | 60# | 3 |
| 100 | Cumberland | 2360 Mendon Rd | 2360 | 1963 | BS | 1 | 60# | 3 |
| 101 | Cumberland | 2510 Mendon Rd | 2510 | 1941 | BS | 3/4 | 60# | 3 |
| 102 | Cumberland | 2701 Mendon Rd | 2701 | 1962 | BS | 3/4 | 60# | 3 |
| 103 | Cumberland | 2807 Mendon Rd | 2807 | 1959 | BS | 3/4 | 60# | 3 |
| 104 | Cumberland | 2859 Mendon Rd | 2859 | 1935 | BS | 3/4 | 60# | 3 |
| 105 | Cumberland | 3156 Mendon Rd | 3156 | Unknown | BS | 3/4 | 60# | 3 |
| 106 | Cumberland | 3364 Mendon Rd | 3364 | 1958 | BS | 1 | 60# | 3 |
| 107 | Cumberland | 3408 Mendon Rd | 3408 | 1967 | BS | 3/4 | 60# | 3 |
| 108 | Cumberland | 3475 Mendon Rd | 3475 | Unknown | BS | 3/4 | 60# | 3 |
| 109 | Cumberland | 3662 Mendon Rd | 3662 | 1939 | BS | 3/4 | 60# | 3 |
| 110 | Cumberland | 3664 Mendon Rd | 3664 | 1936 | BS | 3/4 | 60# | 3 |
| 111 | Cumberland | 3667 Mendon Rd | 3667 | 1939 | BS | 3/4 | 60# | 3 |
| 112 | Cumberland | 3830 Mendon Rd | 3830 | 1927 | BS | 3/4 | 60# | 3 |
| 113 | Cumberland | 3945 Mendon Rd | 3945 | 1947 | BS | 3/4 | 60# | 3 |
| 114 | Coventry | 194 Arnold Rd | 194 | 1961 | BS | 1 | 35# | 3 |
| 115 | Coventry | 86 Hopkins Hill Rd | 86 | Unknown | Unknown | Unknown | 35# | 3 |
| 116 | Coventry | 224 Hopkins Hill Rd | 224 | 1961 | BS | 1 | 35# | 3 |
| 117 | Cranston | 12 Coldbrook Ct | 12 | 1963 | BS | 3/4 | 35# | 3 |
| 118 | Cranston | 45 Ellison St | 45 | 1963 | BS | 3/4 | 35# | 3 |
| 119 | Cranston | 54 Ellison St | 54 | 1963 | BS | 3/4 | 35# | 3 |
| 120 | Cranston | 61 Ellison St | 61 | 1963 | BS | 3/4 | 35# | 3 |
| 121 | Cranston | 66 Ellison St | 66 | 1963 | BS | 3/4 | 35# | 3 |
| 122 | Cranston | 161 Julia St | 161 | 1936 | BS | 1 1/2 | 7# | 3 |
| 123 | Cranston | 179 Julia St | 179 | 1929 | BS | 1 1/2 | 7# | 3 |
| 124 | Cranston | 19 Kermit Av | 19 | 1958 | BS | 1 | 35# | 3 |
| 125 | Cranston | 181 Legion Wy | 181 | 1931 | BS | 1 1/2 | 7# | 3 |
| 126 | Cranston | 91 Mount Laurel Dr | 91 | 1963 | BS | 3/4 | 35# | 3 |
| 127 | Cranston | 845 Park Av | 845 | 1963 | BS | 2 | 7# | 3 |
| 128 | Cranston | 101 Puritan Av | 101 | 1951 | BS | 1 1/2 | 7# | 3 |
| 129 | Cranston | 70 Warwick Av | 70 | 1964 | BS | 2 | 35# | 3 |
| 130 | Cumberland | 4000 Mendon Rd | 4000 | 1927 | BS | 3/4 | 60# | 3 |
| 131 | Cumberland | 1067-1069 Mendon Rd | 1067-1069 | 1958 | BS | 3/4 | 60# | 3 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| **1** | **City/Town** | **ADDRESS** | **House #** | **Install Year** | **Material** | **Diameter** | **Pressure** | **Priority (1-17, 1 being the highest)** |
| 132 | Cumberland | 1392-1394 Mendon Rd | 1392-1394 | Unknown | BS | 3/4 | 60# | 3 |
| 133 | Cumberland | 1547 R Mendon Rd | 1547 R | 1927 | BS | 3/4 | 60# | 3 |
| 134 | Cumberland | 3370-3372 Mendon Rd | 3370-3372 | 1950 | BS | 3/4 | 60# | 3 |
| 135 | Cumberland | 3402-3406 Mendon Rd | 3402-3406 | 1959 | BS | 3/4 | 60# | 3 |
| 136 | Cumberland | 3872-3880 Mendon Rd | 3872-3880 | 1927 | BS | 3/4 | 60# | 3 |
| 137 | Cumberland | 50 Mount Pleasant View Av | 50 | 1939 | BS | 3/4 | 60# | 3 |
| 138 | Cumberland | 48-50 Mount Pleasant View Av | 48-50 | 1939 | BS | 3/4 | 60# | 3 |
| 139 | Cumberland | 7 New Clark Rd | 7 | 1952 | BS | 3/4 | 60# | 3 |
| 140 | Cumberland | 23 Pollett St | 23 | 1949 | BS | 3/4 | 60# | 3 |
| 141 | Cumberland | 91 Pollett St | 91 | 1961 | BS | 3/4 | 60# | 3 |
| 142 | Cumberland | 92 Pollett St | 92 | 1960 | BS | 3/4 | 60# | 3 |
| 143 | Cumberland | 99 Pollett St | 99 | Unknown | BS | 3/4 | 60# | 3 |
| 144 | Lincoln | 1180 Lonsdale Av | 1180 | 1958 | BS | 3/4 | 60# | 3 |
| 145 | Lincoln | 97 Railroad St | 97 | 1947 | BS | 3/4 | 60# | 3 |
| 146 | Lincoln | 136 Railroad St | 136 | Unknown | BS | 3/4 | 60# | 3 |
| 147 | Lincoln | 157 Railroad St | 157 | Unknown | BS | 3/4 | 60# | 3 |
| 148 | Lincoln | 190 Railroad St | 190 | 1932 | BS | 3/4 | 60# | 3 |
| 149 | Lincoln | 190 Railroad St | 190 | 1932 | BS | 3/4 | 60# | 3 |
| 150 | Lincoln | 208 Railroad St | 208 | 1931 | BS | 3/4 | 60# | 3 |
| 151 | Lincoln | 238 Railroad St | 238 | 1925 | BS | 3/4 | 60# | 3 |
| 152 | Lincoln | 272 Railroad St | 272 | 1935 | BS | 3/4 | 60# | 3 |
| 153 | Lincoln | 275 Railroad St | 275 | 1935 | BS | 3/4 | 60# | 3 |
| 154 | Lincoln | 276 Railroad St | 276 | 1947 | BS | 3/4 | 60# | 3 |
| 155 | Lincoln | 285 Railroad St | 285 | 1954 | BS | 3/4 | 60# | 3 |
| 156 | Lincoln | 287 Railroad St | 287 | 1949 | BS | 3/4 | 60# | 3 |
| 157 | North Smithfield | 88 Mechanic St | 88 | 1955 | BS | 3/4 | 60# | 3 |
| 158 | Woonsocket | 2 Bartlett St | 2 | 1952 | BS | 3/4 | 60# | 3 |
| 159 | Woonsocket | 207 Manville Rd | 207 | 1961 | BS | 3/4 | 60# | 3 |
| 160 | Woonsocket | 283 Manville Rd | 283 | 1961 | BS | 3/4 | 60# | 3 |
| 161 | Woonsocket | 293 Manville Rd | 293 | 1961 | BS | 3/4 | 60# | 3 |
| 162 | Woonsocket | 503 Manville Rd | 503 | 1961 | BS | Unknown | 60# | 3 |
| 163 | Woonsocket | 544 Manville Rd | 544 | 1961 | BS | 3/4 | 60# | 3 |
| 164 | Woonsocket | 598 Manville Rd | 598 | 1927 | BS | 3/4 | 60# | 3 |
| 165 | Woonsocket | 680 Manville Rd | 680 | 1961 | BS | 3/4 | 60# | 3 |
| 166 | Woonsocket | 700 Manville Rd | 700 | 1968 | BS | 3/4 | 60# | 3 |
| 167 | Woonsocket | 703 Manville Rd | 703 | Unknown | BS | 3/4 | 60# | 3 |
| 168 | Woonsocket | 715 Manville Rd | 715 | 1961 | BS | 3/4 | 60# | 3 |
| 169 | Woonsocket | 810 Manville Rd | 810 | 1945 | BS | 3/4 | 60# | 3 |
| 170 | Woonsocket | 1239 Manville Rd | 1239 | 1961 | BS | 3/4 | 60# | 3 |
| 171 | Woonsocket | 1255 Manville Rd | 1255 | 1970 | BS | 3/4 | 60# | 3 |
| 172 | Woonsocket | 1266 Manville Rd | 1266 | 1949 | BS | 3/4 | 60# | 3 |
| 173 | Woonsocket | 1539 Manville Rd | 1539 | 1946 | BS | 3/4 | 60# | 3 |
| 174 | Woonsocket | 314-320 Manville Rd | 314-320 | 1961 | BS | 3/4 | 60# | 3 |
| 175 | Woonsocket | 352-354 Manville Rd | 352-354 | 1961 | BS | 3/4 | 60# | 3 |
| 176 | Woonsocket | 490-492-494 Manville Rd | 490-492-494 | 1961 | BS | 3/4 | 60# | 3 |
| 177 | Woonsocket | 522-524 Manville Rd | 522-524 | Unknown | BS | 3/4 | 60# | 3 |
| 178 | Woonsocket | 559-561 Manville Rd | 559-561 | 1961 | BS | 3/4 | 60# | 3 |
| 179 | Woonsocket | 693-695 Manville Rd | 693-695 | 1960 | BS | 3/4 | 60# | 3 |
| 180 | Woonsocket | 1747 Mendon Rd | 1747 | 1963 | BS | 3/4 | 60# | 3 |
| 181 | Woonsocket | 1771 Mendon Rd | 1771 | 1963 | BS | 3/4 | 60# | 3 |
| 182 | Woonsocket | 1850 Mendon Rd | 1850 | 1968 | BS | 3/4 | 60# | 3 |
| 183 | Woonsocket | 2345 Mendon Rd | 2345 | 1966 | BS | 3/4 | 60# | 3 |
| 184 | Woonsocket | 91-93-95 Morton Av | 91-93-95 | Unknown | BS | 1 1/2 | 60# | 3 |
| 185 | Woonsocket | 170 Mt St Charles Av | 170 | 1968 | BS | 3/4 | 60# | 3 |
| 186 | Woonsocket | 101-103-105 Mt St Charles Av | 101-103-105 | 1937 | BS | 3/4 | 60# | 3 |
| 187 | Woonsocket | 52 St Barnabe St | 52 | 1966 | BS | 3/4 | 60# | 3 |
| 188 | Woonsocket | 64 St Barnabe St | 64 | 1966 | BS | 3/4 | 60# | 3 |
| 189 | East Greenwich | 21 Courthouse Ln | 21 | 1934 | BS | 1 | 35# | 3 |
| 190 | East Greenwich | 765 Main St | 765 | 1956 | BS | 1 | 35# | 3 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| 1 | City/Town | ADDRESS | House # | Install Year | Material | Diameter | Pressure | Priority (1-17, 1 being the highest) |
| 191 | East Greenwich | 205-207 Main St | 205-207 | 1961 | BS | 1 | 35# | 3 |
| 192 | East Greenwich | 2 Prospect St | 2 | 1943 | BS | 1 | 35# | 3 |
| 193 | East Greenwich | 41 Queen St | 41 | 1929 | BS | 1 | 35# | 3 |
| 194 | East Greenwich | 40 Torey Ln | 40 | 1980 | BS | 1 | 35# | 3 |
| 195 | East Providence | 42 Anson Dr | 42 | 1964 | BS | 3/4 | 25# | 3 |
| 196 | East Providence | 20 Catamore Blvd | 20 | 1970 | BS | 4 | 35# | 3 |
| 197 | East Providence | 83 Circuit Dr | 83 | 1949 | BS | 1 | 25# | 3 |
| 198 | East Providence | 167 Fenner Av | 167 | 1928 | BS | 3/4 | 25# | 3 |
| 199 | East Providence | 175 Fenner Av | 175 | 1945 | BS | 1 | 25# | 3 |
| 200 | East Providence | 178 Fenner Av | 178 | 1930 | BS | 1 | 25# | 3 |
| 201 | East Providence | 17 N Shore Dr | 17 | 1947 | BS | 1 | 25# | 3 |
| 202 | Johnston | 23 Di Ponte Dr | 23 | 1963 | BS | 5/8 | 35# | 3 |
| 203 | Johnston | 1385 Hartford Av | 1385 | 1967 | BS | 3/4 | 35# | 3 |
| 204 | Middletown | 176 Maple Av | 176 | Unknown | BS | 3/4 | 10# | 3 |
| 205 | Newport | 15 Kay Blvd | 15 | 1932 | BS | 1 1/4 | 10# | 3 |
| 206 | North Kingstown | 106 Briarbrook Dr | 106 | 1961 | BS | 1 | 35# | 3 |
| 207 | North Kingstown | 114 Briarbrook Dr | 114 | 1961 | BS | 1 | 35# | 3 |
| 208 | North Kingstown | 112 Evergreen Rd | 112 | 1964 | BS | 3/4 | 35# | 3 |
| 209 | North Kingstown | 36 Harrington Rd | 36 | 1961 | BS | 1 | 35# | 3 |
| 210 | North Kingstown | 40 Harrington Rd | 40 | 1961 | BS | 1 | 35# | 3 |
| 211 | North Kingstown | 30 Heritage Rd | 30 | 1961 | BS | 1 | 35# | 3 |
| 212 | North Kingstown | 25 Juniper Dr | 25 | 1959 | BS | 1 | 35# | 3 |
| 213 | North Kingstown | 67 Longfellow Dr | 67 | 1968 | BS | 3/4 | 35# | 3 |
| 214 | North Kingstown | 100 Longfellow Dr | 100 | 1966 | BS | 3/4 | 35# | 3 |
| 215 | North Kingstown | 135 Mark Dr | 135 | 1966 | BS | 3/4 | 35# | 3 |
| 216 | North Kingstown | 950 N Quidnesset Rd | 950 | 1989 | BS | 2 | 35# | 3 |
| 217 | North Kingstown | 655 Old Baptist Rd | 655 | 1964 | BS | 1 | 35# | 3 |
| 218 | North Kingstown | 200 Sachem Rd | 200 | 1957 | BS | 1 | 35# | 3 |
| 219 | North Kingstown | 145 Scenic Dr | 145 | 1963 | BS | 3/4 | 35# | 3 |
| 220 | North Kingstown | 95 W Main St | 95 | 1958 | BS | 1 | 35# | 3 |
| 221 | North Kingstown | 160-162 Yorktown Rd | 160-162 | 1955 | BS | 1 | 35# | 3 |
| 222 | Providence | 525 Eaton St | 525 | 1920 | BS | 1 1/2 | 35# | 3 |
| 223 | Providence | 527-529 Eaton St | 527-529 | 1928 | BS | 1 1/2 | 35# | 3 |
| 224 | Smithfield | 119 Farnum Pike | 119 | 1964 | BS | 3/4 | 35# | 3 |
| 225 | Smithfield | 23 Lakeside Dr | 23 | 1961 | BS | 1 | 35# | 3 |
| 226 | Smithfield | 8 Sweet St | 8 | 1964 | BS | 3/4 | 35# | 3 |
| 227 | Warren | 717 Main St | 717 | Unknown | BS | 3/4 | 8# | 3 |
| 228 | Warwick | 202 Bedford Av | 202 | 1931 | BS | 1 | 35# | 3 |
| 229 | Warwick | 159 Boylston St | 159 | 1960 | BS | 1 | 35# | 3 |
| 230 | Warwick | 77 Brightside Av | 77 | 1971 | BS | 3/4 | 35# | 3 |
| 231 | Warwick | 116 Buttonwoods Av | 116 | 1950 | BS | 1 | 35# | 3 |
| 232 | Warwick | 49 Doris Av | 49 | 1966 | BS | 3/4 | 35# | 3 |
| 233 | Warwick | 69 Draper Av | 69 | 1939 | BS | 1 1/2 | 35# | 3 |
| 234 | Warwick | 17-R Dudley Av | 17-R | 1964 | BS | 3/4 | 35# | 3 |
| 235 | Warwick | 97 Everleth Av | 97 | 1963 | BS | 3/4 | 35# | 3 |
| 236 | Warwick | 57 Flagg Av | 57 | 1952 | BS | 1 | 35# | 3 |
| 237 | Warwick | 168 Gainesville Dr | 168 | 1970 | BS | 3/4 | 35# | 3 |
| 238 | Warwick | 188 Gainesville Dr | 188 | 1952 | BS | 1 | 35# | 3 |
| 239 | Warwick | 92 Grove Av | 92 | 1941 | BS | 1 | 35# | 3 |
| 240 | Warwick | 11 Hope Av | 11 | 1959 | BS | 1 | 35# | 3 |
| 241 | Warwick | 85 Horseneck Rd | 85 | 1953 | BS | 1 | 35# | 3 |
| 242 | Warwick | 627 Namquid Dr | 627 | 1951 | BS | 1 | 35# | 3 |
| 243 | Warwick | 351 Norwood Av | 351 | Unknown | BS | 1 | 35# | 3 |
| 244 | Warwick | 78 Parkway Dr | 78 | 1947 | BS | 1 | 35# | 3 |
| 245 | Warwick | 174 Pinnery Av | 174 | 1954 | BS | 1 | 35# | 3 |
| 246 | Warwick | 891-901 Post Rd | 891-901 | 1954 | BS | 1 | 35# | 3 |
| 247 | Warwick | 64 Prudence Ct | 64 | 1948 | BS | 1 | 35# | 3 |
| 248 | Warwick | 56 Ramblewood Dr | 56 | 1963 | BS | 3/4 | 35# | 3 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| **1** | **City/Town** | **ADDRESS** | **House #** | **Install Year** | **Material** | **Diameter** | **Pressure** | **Priority (1-17, 1 being the highest)** |
| 249 | Warwick | 27 Rice St | 27 | 1958 | BS | 1 | 35# | 3 |
| 250 | Warwick | 41 Suburban Pkwy | 41 | 1927 | BS | 1 | 35# | 3 |
| 251 | Warwick | 45 Suburban Pkwy | 45 | 1938 | BS | 1 | 35# | 3 |
| 252 | Warwick | 85 Suburban Pkwy | 85 | 1944 | BS | 1 | 35# | 3 |
| 253 | Warwick | 214 Suburban Pkwy | 214 | 1951 | BS | 1 | 35# | 3 |
| 254 | Warwick | 205 Underwood Av | 205 | 1951 | BS | 1 | 35# | 3 |
| 255 | Warwick | 190 W Shore Rd | 190 | 1959 | BS | 1 | 35# | 3 |
| 256 | Warwick | 1084 W Shore Rd | 1084 | 1957 | BS | 3/4 | 35# | 3 |
| 257 | Warwick | 2887 W Shore Rd | 2887 | Unknown | BS | 3/4 | 35# | 3 |
| 258 | Warwick | 1600 Warwick Av | 1600 | 1963 | BS | 3/4 | 35# | 3 |
| 259 | Warwick | 115 Yucatan Dr | 115 | 1949 | BS | 1 | 35# | 3 |
| 260 | West Warwick | 6-8 Remington St | 6-8 | 1961 | BS | 1 | 35# | 3 |
| 261 | Central Falls | 55-57 Fales St | 55-57 | 1930 | BS | 1 1/2 | LP | 4 |
| 262 | Central Falls | 573 Hunt St | 573 | 1966 | BS | 1 1/2 | LP | 4 |
| 263 | Central Falls | 524-526 Hunt St | 524-526 | 1921 | BS | 1 1/2 | LP | 4 |
| 264 | Central Falls | 561-563 Hunt St | 561-563 | 1921 | BS | 1 1/2 | LP | 4 |
| 265 | Central Falls | 585-587 Hunt St | 585-587 | 1921 | BS | 1 1/2 | LP | 4 |
| 266 | Central Falls | 991 Lonsdale Av | 991 | 1928 | BS | 1 1/2 | LP | 4 |
| 267 | Central Falls | 1064 Lonsdale Av | 1064 | 1929 | BS | 1 1/2 | LP | 4 |
| 268 | Central Falls | 1085 Lonsdale Av | 1085 | 1925 | BS | 1 1/2 | LP | 4 |
| 269 | Central Falls | 54-56 W Hunt St | 54-56 | Unknown | BS | 1 1/2 | LP | 4 |
| 270 | Central Falls | 70 Washington St | 70 | 1948 | BS | 1 1/2 | LP | 4 |
| 271 | Central Falls | 71 Washington St | 71 | 1948 | BS | 1 1/2 | LP | 4 |
| 272 | Cumberland | 447 Broad St | 447 | 1949/1981 | BS / Aldyl-A | 2 | LP | 4 |
| 273 | Cumberland | 73 Dexter St | 73 | 1949 | BS | 1 1/2 | LP | 4 |
| 274 | Cumberland | 43-45 Dexter St | 43-45 | 1949 | BS | 2 | LP | 4 |
| 275 | Cumberland | 105 High St | 105 | 1926 | BS | 1 1/2 | LP | 4 |
| 276 | Cumberland | 10 River St | 10 | 1961 | BS | 1 1/2 | LP | 4 |
| 277 | Cumberland | 17 School St | 17 | 1927 | BS | 1 1/2 | LP | 4 |
| 278 | Lincoln | 21 R Binford St | 21 R | 1959 | BS | 2 | LP | 4 |
| 279 | Lincoln | 14 Knowles St | 14 | 1969 | BS | 1 1/2 | LP | 4 |
| 280 | Lincoln | 141-143 Lonsdale Main St | 141-143 | 1949 | BS | 1 1/2 | LP | 4 |
| 281 | Lincoln | 18 Parker St | 18 | 1950 | BS | 1 1/2 | LP | 4 |
| 282 | Lincoln | 55 Pleasant St | 55 | 1945 | BS | 1 1/2 | LP | 4 |
| 283 | Lincoln | 1 Pleasant View Av | 1 | 1957 | BS | 1 | LP | 4 |
| 284 | North Providence | 20 Borah St | 20 | 1947 | BS | 1 1/2 | LP | 4 |
| 285 | North Providence | 50 Jane St | 50 | 1968 | BS | 1 1/2 | LP | 4 |
| 286 | North Providence | 130 Volturno St | 130 | 1969 | BS | 1 1/2 | LP | 4 |
| 287 | North Providence | 155 Volturno St | 155 | 1939 | BS | 1 1/2 | LP | 4 |
| 288 | Pawtucket | 67 Abbott St | 67 | 1953 | BS | 1 1/2 | LP | 4 |
| 289 | Pawtucket | 16 Appleton Av | 16 | 1950 | BS | 1 1/2 | LP | 4 |
| 290 | Pawtucket | 473 Armistice Blvd | 473 | Unknown | BS | 2 | LP | 4 |
| 291 | Pawtucket | 69 REAR Belmont St | 69 REAR | 1902 | BS | 1 | LP | 4 |
| 292 | Pawtucket | 88-90 Belmont St | 88-90 | 1928 | BS | 1 1/2 | LP | 4 |
| 293 | Pawtucket | 43 Benefit St | 43 | 1922 | BS | 1 1/2 | LP | 4 |
| 294 | Pawtucket | 109 Benefit St | 109 | 1968 | BS | 2 | LP | 4 |
| 295 | Pawtucket | 110 Benefit St | 110 | 1922 | BS | 1 1/2 | LP | 4 |
| 296 | Pawtucket | 134 Benefit St | 134 | 1968 | BS | 1 1/2 | LP | 4 |
| 297 | Pawtucket | 207 Benefit St | 207 | 1925 | BS | 1 1/2 | LP | 4 |
| 298 | Pawtucket | 103-105 Benefit St | 103-105 | 1968 | BS | 2 | LP | 4 |
| 299 | Pawtucket | 35R Benefit St | 35R | 1944 | BS | 2 | LP | 4 |
| 300 | Pawtucket | 39R Benefit St | 39R | 1956 | BS | 2 | LP | 4 |
| 301 | Pawtucket | 58-60 Benefit St | 58-60 | 1959 | BS | 1 1/2 | LP | 4 |
| 302 | Pawtucket | 90-92 Benefit St | 90-92 | 1922 | BS | 1 1/2 | LP | 4 |
| 303 | Pawtucket | 164 Broad St | 164 | Unknown | BS | Unknown | LP | 4 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| **1** | **City/Town** | **ADDRESS** | **House #** | **Install Year** | **Material** | **Diameter** | **Pressure** | **Priority (1-17, 1 being the highest)** |
| 304 | Pawtucket | 491 Buchanan St | 491 | 1959 | BS | 1 1/2 | LP | 4 |
| 305 | Pawtucket | 15 Chestnut St | 15 | 1911 | BS | 1 | LP | 4 |
| 306 | Pawtucket | 22-24 Chestnut St | 22-24 | Unknown | BS | 1 1/4 | LP | 4 |
| 307 | Pawtucket | 80&24 Commerce St | 80&24 | 1942 | BS | 2 | LP | 4 |
| 308 | Pawtucket | 7 Denver St | 7 | 1958 | BS | 2 | LP | 4 |
| 309 | Pawtucket | 11 Dewey Av | 11 | 1955 | BS | 1 1/2 | LP | 4 |
| 310 | Pawtucket | 21 Division St | 21 | 1968 | BS | 2 | LP | 4 |
| 311 | Pawtucket | 70 Fortin Av | 70 | 1931 | BS | 1 1/2 | LP | 4 |
| 312 | Pawtucket | 130 Garden St | 130 | 1919 | BS | 1 1/4 | LP | 4 |
| 313 | Pawtucket | 151 Garden St | 151 | 1920 | BS | 1 1/2 | LP | 4 |
| 314 | Pawtucket | 158 Garden St | 158 | 1923 | BS | 1 1/2 | LP | 4 |
| 315 | Pawtucket | 143-145 Garden St | 143-145 | 1955 | BS | 1 1/2 | LP | 4 |
| 316 | Pawtucket | 154-156 Garden St | 154-156 | 1952 | BS | 2 | LP | 4 |
| 317 | Pawtucket | 162-164 Garden St | 162-164 | 1925 | BS | 1 1/2 | LP | 4 |
| 318 | Pawtucket | 180-182 Garden St | 180-182 | 1927 | BS | 2 | LP | 4 |
| 319 | Pawtucket | 95 Grand Av | 95 | 1917 | BS | 4 | LP | 4 |
| 320 | Pawtucket | 95 Grand Av | 95 | 1925 | BS | 3 | LP | 4 |
| 321 | Pawtucket | 268 Lafayette St | 268 | 1955 | BS | 1 1/2 | LP | 4 |
| 322 | Pawtucket | 9 Lockbridge St | 9 | 1934 | BS | 1 1/2 | LP | 4 |
| 323 | Pawtucket | 289 Lonsdale Ave | 289 | 1948 | BS | 1 1/2 | LP | 4 |
| 324 | Pawtucket | 75 Newport Av | 75 | 1965 | BS | 2 | LP | 4 |
| 325 | Pawtucket | 91 Newport Av | 91 | 1969 | BS | 4 | LP | 4 |
| 326 | Pawtucket | 67 Roosevelt Av | 67 | 1956 | BS | 4 | LP | 4 |
| 327 | Pawtucket | 111 Rosella Av | 111 | 1950 | BS | 1 1/2 | LP | 4 |
| 328 | Pawtucket | 188 Seneca Av | 188 | 1959 | BS | 1 1/2 | LP | 4 |
| 329 | Pawtucket | 234 Seneca Av | 234 | 1966 | BS | 1 1/2 | LP | 4 |
| 330 | Pawtucket | 28 Spring St | 28 | 1929 | BS | 1 1/2 | LP | 4 |
| 331 | Pawtucket | 43 Spring St | 43 | 1958 | BS | 2 | LP | 4 |
| 332 | Pawtucket | 65 Spring St | 65 | 1976 | BS | 1 1/2 | LP | 4 |
| 333 | Pawtucket | 30 Tower St | 30 | 1927 | BS | 1 1/2 | LP | 4 |
| 334 | Pawtucket | 33 Tower St | 33 | 1956 | BS | 1 1/2 | LP | 4 |
| 335 | Pawtucket | 390 Weeden St | 390 | 1923 | BS | 1 1/2 | LP | 4 |
| 336 | Pawtucket | 381-383 Weeden St | 381-383 | 1923 | BS | 1 1/2 | LP | 4 |
| 337 | Pawtucket | 272-274 Woodbine St | 272-274 | 1929 | BS | 1 1/2 | LP | 4 |
| 338 | Pawtucket | 42 Woodland St | 42 | 1929 | BS | 1 1/2 | LP | 4 |
| 339 | Pawtucket | 37-37R-39 Woodland St | 37-37R-39 | 1929 | BS | 1 1/2 | LP | 4 |
| 340 | Woonsocket | 128 Cleveland St | 128 | 1925 | BS | 1 1/2 | LP | 4 |
| 341 | Woonsocket | 23.5 Federal St | 23.5 | 1957 | BS | 4 | LP | 4 |
| 342 | Woonsocket | 188 Harris Av | 188 | 1970 | BS | 2 | LP | 4 |
| 343 | Woonsocket | 528 Harris Av | 528 | 1952 | BS | 1 1/2 | LP | 4 |
| 344 | Woonsocket | 93-105 Highland St | 93-105 | 1915 | BS | 1 1/2 | LP | 4 |
| 345 | Woonsocket | 179 Railroad St | 179 | 1965 | BS | 1 1/2 | LP | 4 |
| 346 | Woonsocket | 281 Railroad St | 281 | 1958 | BS | 2 | LP | 4 |
| 347 | Woonsocket | 411 Rathbun St | 411 | 1931 | BS | 1 1/2 | LP | 4 |
| 348 | Woonsocket | 25 Union St | 25 | Unknown | BS | 1 1/4 | LP | 4 |
| 349 | East Providence | 154 Halleck Av | 154 | 1917 | BS | 1 | LP | 4 |
| 350 | East Providence | 43 White Av | 43 | 1959 | BS | 1 1/2 | LP | 4 |
| 351 | East Providence | 50 White Av | 50 | 1944 | BS | 1 1/2 | LP | 4 |
| 352 | Johnston | 29 Camille Dr | 29 | Unknown | Unknown | Unknown | LP | 4 |
| 353 | Johnston | 293 George Waterman Rd | 293 | 1969 | BS | 1 1/4 | LP | 4 |
| 354 | Johnston | 118 R George Waterman Rd | 118 R | 1955 | BS | 2 | LP | 4 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| **1** | **City/Town** | **ADDRESS** | **House #** | **Install Year** | **Material** | **Diameter** | **Pressure** | **Priority (1-17, 1 being the highest)** |
| 355 | Johnston | 217 Highland Av | 217 | 1965 | BS | 1 1/4 | LP | 4 |
| 356 | Johnston | 68 N Olney St | 68 | 1929 | BS | 1 1/2 | LP | 4 |
| 357 | Newport | 65 Callender Av | 65 | Unknown | BS | 1 1/4 | LP | 4 |
| 358 | Newport | 17 Central St | 17 | Unknown | BS | Unknown | LP | 4 |
| 359 | Newport | 82 Connection St | 82 | 1964 | BS | Unknown | LP | 4 |
| 360 | Newport | 31 Elm St | 31 | 1966 | BS | 1 1/4 | LP | 4 |
| 361 | Newport | 32 Grafton St | 32 | 1932 | BS | 1 1/4 | LP | 4 |
| 362 | Newport | 36 Grafton St | 36 | Unknown | BS | Unknown | LP | 4 |
| 363 | Newport | 10-12 Grafton St | 10-12 | Unknown | BS | 1 1/4 | LP | 4 |
| 364 | Newport | 20 Greenough Pl | 20 | 1929 | BS | 2 | LP | 4 |
| 365 | Newport | 65 Houston Av | 65 | Unknown | BS | Unknown | LP | 4 |
| 366 | Newport | 10 Kingston Av | 10 | Unknown | BS | Unknown | LP | 4 |
| 367 | Newport | 10 Kingston Av | 10 | Unknown | BS | Unknown | LP | 4 |
| 368 | Newport | 555 Ocean Av | 555 | 1959 | BS | 1 1/4 | LP | 4 |
| 369 | Newport | 25-29 School St | 25-29 | Unknown | BS | Unknown | LP | 4 |
| 370 | Newport | 25-29 School St | 25-29 | Unknown | BS | Unknown | LP | 4 |
| 371 | Newport | 501 Thames St | 501 | 1978 | BS | 2 | LP | 4 |
| 372 | Newport | 688 Thames St | 688 | Unknown | BS | 2 | LP | 4 |
| 373 | Newport | 49 Touro St | 49 | Unknown | BS | Unknown | LP | 4 |
| 374 | Newport | 49 Washington St | 49 | Unknown | BS | 3/4 | LP | 4 |
| 375 | Newport | 39-41 Webster St | 39-41 | Unknown | BS | 1 1/4 | LP | 4 |
| 376 | Newport | 11 White St | 11 | 1925 | BS | 1 1/4 | LP | 4 |
| 377 | Newport | 10 Whitewell Pl | 10 | Unknown | BS | 3/4 | LP | 4 |
| 378 | North Providence | 129 East Av | 129 | 1924 | BS | 1 1/2 | LP | 4 |
| 379 | North Providence | 128 (Labeled as ???) East Av | 28 (Labeled as ??? | 1928 | BS | 1 1/2 | LP | 4 |
| 380 | North Providence | 45 REAR Peach Hill Av | 45 REAR | 1928 | BS | 1 1/2 | LP | 4 |
| 381 | Providence | 81 America St | 81 | 1911 | BS | 1 1/4 | LP | 4 |
| 382 | Providence | 276-296 Angel St | 276-296 | 1957 | BS | 4 | LP | 4 |
| 383 | Providence | 57 Armington Av | 57 | 1920 | BS | 1 1/2 | LP | 4 |
| 384 | Providence | 110 Atlantic Av | 110 | Unknown | BS | 1 | LP | 4 |
| 385 | Providence | 68 Bancroft St | 68 | Unknown | BS | 1 1/2 | LP | 4 |
| 386 | Providence | 53-55 Bancroft St | 53-55 | Unknown | BS | 1 1/4 | LP | 4 |
| 387 | Providence | 42 Battey St | 42 | 1914 | BS | 1 1/4 | LP | 4 |
| 388 | Providence | 192-194 Bellevue Av | 192-194 | 2005 | BS | 2 | LP | 4 |
| 389 | Providence | 357 Benefit St | 357 | 1935 | BS | 3 | LP | 4 |
| 390 | Providence | 624 Blackstone Blvd | 624 | 1956 | BS | 2 | LP | 4 |
| 391 | Providence | 134 Bowen St | 134 | 1911 | BS | 1 1/4 | LP | 4 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| **1** | **City/Town** | **ADDRESS** | **House #** | **Install Year** | **Material** | **Diameter** | **Pressure** | **Priority (1-17, 1 being the highest)** |
| 392 | Providence | 290 Branch Av | 290 | Unknown | BS | 1 1/2 | LP | 4 |
| 393 | Providence | 2 Burrs Ln | 2 | 1970 | BS | 1 1/4 | LP | 4 |
| 394 | Providence | 131 Calla St | 131 | Unknown | BS | 1 | LP | 4 |
| 395 | Providence | 1110 Chalkstone Av | 1110 | 1948 | BS | 1 1/2 | LP | 4 |
| 396 | Providence | 94 Cyr St | 94 | 1928 | BS | 1 1/2 | LP | 4 |
| 397 | Providence | 297 Dexter St | 297 | 1960 | BS | 4 | LP | 4 |
| 398 | Providence | 19 Fisk St | 19 | 1940 | BS | 1 1/2 | LP | 4 |
| 399 | Providence | 48 Halsey St | 48 | 1925 | BS | 1 1/2 | LP | 4 |
| 400 | Providence | 208 Home Av | 208 | 1961 | BS | 1 1/4 | LP | 4 |
| 401 | Providence | 30 Lenox Av | 30 | 1940 | BS | 2 | LP | 4 |
| 402 | Providence | 77 Lexington Av | 77 | 1970 | BS | 1 1/4 | LP | 4 |
| 403 | Providence | 112 Prospect St | 112 | 1928 | BS | 2 | LP | 4 |
| 404 | Providence | 67 Ridge St | 67 | 1954 | BS | 1 1/2 | LP | 4 |
| 405 | Providence | 119-121 Ridge St | 119-121 | 1937 | BS | 1 1/2 | LP | 4 |
| 406 | Providence | 71-73 Ridge St | 71-73 | Unknown | BS | 1 | LP | 4 |
| 407 | Providence | 75-77 Ridge St | 75-77 | Unknown | BS | 1 1/2 | LP | 4 |
| 408 | Providence | 10 Tobey St | 10 | 1918 | BS | 1 1/2 | LP | 4 |
| 409 | Providence | 271 Tockwotton St | 271 | 1956 | BS | 1 1/4 | LP | 4 |
| 410 | Providence | 96 Transit St | 96 | Unknown | BS | 1 | LP | 4 |
| 411 | Providence | 78R Transit St | 78R | 1917 | BS | 1 1/4 | LP | 4 |
| 412 | Warwick | 7 Columbia Av | 7 | 1947 | BS | 1 1/2 | LP | 4 |
| 413 | Westerly | 131 Cross St | 131 | 1970 | BS | 1 1/4 | LP | 4 |
| 414 | Westerly | 199.5 High St | 199 1/2 | 1965 | BS | 1 1/4 | LP | 4 |
| 415 | Barrington | 7 Chachapacasset Rd | 7 | 1939 | BS | 1 | 25# | 5 |
| 416 | Barrington | 3 Half Mile Rd | 3 | 1957 | BS | 1 | 25# | 5 |
| 417 | Barrington | 7 Half Mile Rd | 7 | 1957 | BS | 1 | 25# | 5 |
| 418 | Barrington | 6 Hancock Rd | 6 | 1950 | BS | 1 | 25# | 5 |
| 419 | Barrington | 11 Joy St | 11 | 1960 | BS | 1 | 25# | 5 |
| 420 | Barrington | 44 Maple Ave | 44 | 1924 | BS | 3/4 | 25# | 5 |
| 421 | Barrington | 136 Maple Ave | 136 | 1951 | BS | 1 | 25# | 5 |
| 422 | Barrington | 511 Maple Ave | 511 | Unknown | BS | 5/8 | 25# | 5 |
| 423 | Barrington | 166 Nayatt Rd | 166 | 1932 | BS | 1 1/2 | 25# | 5 |
| 424 | Barrington | 18 Roberta Dr | 18 | 1950 | BS | 1 | 25# | 5 |
| 425 | Barrington | 361 Rumstick Rd | 361 | Unknown | Unknown | Unknown | 25# | 5 |
| 426 | Barrington | 3 Surrey Rd | 3 | 1949 | BS | 1 | 25# | 5 |
| 427 | Barrington | 48 Third St | 48 | 1955 | BS | 1 1/4 | 25# | 5 |
| 428 | Barrington | 52 Third St | 52 | 1959 | BS | 1 | 25# | 5 |
| 429 | Coventry | 12 Gerald Ave | 12 | 1961 | BS | 1 | 35# | 5 |
| 430 | Coventry | 16 Gerald Ave | 16 | 1961 | BS | 1 | 35# | 5 |
| 431 | Coventry | 73 Wood Cove Dr | 73 | 1967 | BS | 3/4 | 35# | 5 |
| 432 | Cranston | 20 Ellison St | 20 | 1963 | BS | 3/4 | 35# | 5 |
| 433 | Cranston | 1461 Elmwood Av | 1461 | 1957 | BS | 2 | 7# | 5 |
| 434 | Cranston | 44 Fairwood Dr | 44 | 1965 | BS | 3/4 | 35# | 5 |
| 435 | Cranston | 48 Garden St | 48 | Unknown | BS | 1 1/2 | 7# | 5 |
| 436 | Cranston | 80 Metropolitan Av | 80 | 1958 | BS | 4 | 35# | 5 |
| 437 | Cranston | 230 Summit Dr | 230 | 1960 | BS | 1 | 35# | 5 |
| 438 | Cumberland | 190 Angell Rd | 190 | 1966 | BS | 3/4 | 60# | 5 |
| 439 | Cumberland | 2390 Diamond Hill Rd | 2390 | 1964 | BS | 3/4 | 60# | 5 |
| 440 | Cumberland | 3878 Diamond Hill Rd | 3878 | 1968 | BS | 3/4 | 60# | 5 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| **1** | **City/Town** | **ADDRESS** | **House #** | **Install Year** | **Material** | **Diameter** | **Pressure** | **Priority (1-17, 1 being the highest)** |
| 441 | Cumberland | 36 Manville Hill Rd | 36 | 1939 | BS | 3/4 | 60# | 5 |
| 442 | Cumberland | 40 Manville Hill Rd | 40 | 1939 | BS | 3/4 | 60# | 5 |
| 443 | Cumberland | 58 Manville Hill Rd | 58 | 1939 | BS | 3/4 | 60# | 5 |
| 444 | Cumberland | 30 Martin St | 30 | 1965 | BS | 3/4 | 60# | 5 |
| 445 | Cumberland | 30 Martin St | 30 | Unknown | BS | 2 | 60# | 5 |
| 446 | Cumberland | 111 Martin St | 111 | Unknown | BS | 2 | 60# | 5 |
| 447 | Cumberland | 296 Mendon Rd | 296 | 1969 | BS | 3/4 | 60# | 5 |
| 448 | Cumberland | 787 Mendon Rd | 787 | 1970 | BS | 3/4 | 60# | 5 |
| 449 | Cumberland | 800 Mendon Rd | 800 | 1925 | BS | 3/4 | 60# | 5 |
| 450 | Cumberland | 1023 Mendon Rd | 1023 | 1970 | BS | 3/4 | 60# | 5 |
| 451 | Cumberland | 1099 Mendon Rd | 1099 | 1927 | BS | 3/4 | 60# | 5 |
| 452 | Cumberland | 1104 Mendon Rd | 1104 | 1927 | BS | 3/4 | 60# | 5 |
| 453 | Cumberland | 1152 Mendon Rd | 1152 | 1963 | BS | 3/4 | 60# | 5 |
| 454 | Cumberland | 1249 Mendon Rd | 1249 | 1946 | BS | 3/4 | 60# | 5 |
| 455 | Cumberland | 1378 Mendon Rd | 1378 | 1927 | BS | 3/4 | 60# | 5 |
| 456 | Cumberland | 2208 Mendon Rd | 2208 | 1960 | BS | 3/4 | 60# | 5 |
| 457 | Cumberland | 2260 Mendon Rd | 2260 | 1957 | BS | 3/4 | 60# | 5 |
| 458 | Cumberland | 3041 Mendon Rd | 3041 | 1932 | BS | 3/4 | 60# | 5 |
| 459 | Cumberland | 3125 Mendon Rd | 3125 | 1970 | BS | 3/4 | 60# | 5 |
| 460 | Cumberland | 3200 Mendon Rd | 3200 | 1963 | BS | 3/4 | 60# | 5 |
| 461 | Cumberland | 3344 Mendon Rd | 3344 | 1956 | BS | 3/4 | 60# | 5 |
| 462 | Cumberland | 3353 Mendon Rd | 3353 | 1970 | BS | 3/4 | 60# | 5 |
| 463 | Cumberland | 3357 Mendon Rd | 3357 | 1951 | BS | 3/4 | 60# | 5 |
| 464 | Cumberland | 3595 Mendon Rd | 3595 | 1950 | BS | 3/4 | 60# | 5 |
| 465 | Cumberland | 3871 Mendon Rd | 3871 | 1927 | BS | 3/4 | 60# | 5 |
| 466 | Cumberland | 4107 Mendon Rd | 4107 | 1927 | BS | 3/4 | 60# | 5 |
| 467 | Cumberland | 4115 Mendon Rd | 4115 | 1949 | BS | 3/4 | 60# | 5 |
| 468 | Cumberland | 1262-1264 Mendon Rd | 1262-1264 | 1927 | BS | 3/4 | 60# | 5 |
| 469 | Cumberland | 942-944-946 Mendon Rd | 942-944-946 | 1927 | BS | 3/4 | 60# | 5 |
| 470 | Cumberland | 35-37 Middle St | 35-37 | 1970 | BS | 1 1/2 | 60# | 5 |
| 471 | Cumberland | 36-38 Mount Pleasant View Av | 36-38 | 1969 | BS | 3/4 | 60# | 5 |
| 472 | Cumberland | 45-47 Mount Pleasant View Av | 45-47 | Unknown | BS | 3/4 | 60# | 5 |
| 473 | Cumberland | 84 Pollett St | 84 | 1961 | BS | 3/4 | 60# | 5 |
| 474 | Cumberland | 10 Ryan Av | 10 | 1962 | BS | 3/4 | 60# | 5 |
| 475 | Lincoln | 55 Conduit St | 55 | Unknown | BS | 1 1/2 | 60# | 5 |
| 476 | Lincoln | 141 Railroad St | 141 | 1970 | BS | 3/4 | 60# | 5 |
| 477 | Lincoln | 145 Railroad St | 145 | 1935 | BS | 3/4 | 60# | 5 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| 1 | City/Town | ADDRESS | House # | Install Year | Material | Diameter | Pressure | Priority (1-17, 1 being the highest) |
| 478 | Lincoln | 156 Railroad St | 156 | 1932 | BS | 3/4 | 60# | 5 |
| 479 | Lincoln | 173 Railroad St | 173 | 1935 | BS | 3/4 | 60# | 5 |
| 480 | Lincoln | 177 Railroad St | 177 | 1935 | BS | 3/4 | 60# | 5 |
| 481 | Lincoln | 178 Railroad St | 178 | 1931 | BS | 3/4 | 60# | 5 |
| 482 | Lincoln | 192 Railroad St | 192 | 1931 | BS | 3/4 | 60# | 5 |
| 483 | Lincoln | 196 Railroad St | 196 | 1931 | BS | 3/4 | 60# | 5 |
| 484 | Lincoln | 201 Railroad St | 201 | 1935 | BS | 3/4 | 60# | 5 |
| 485 | Lincoln | 214 Railroad St | 214 | 1935 | BS | 3/4 | 60# | 5 |
| 486 | Lincoln | 220 Railroad St | 220 | 1931 | BS | 3/4 | 60# | 5 |
| 487 | Lincoln | 239 Railroad St | 239 | 1935 | BS | 3/4 | 60# | 5 |
| 488 | Lincoln | 241 Railroad St | 241 | 1935 | BS | 3/4 | 60# | 5 |
| 489 | Lincoln | 242 Railroad St | 242 | 1935 | BS | 3/4 | 60# | 5 |
| 490 | East Greenwich | 146 First Ave | 146 | 1946 | BS | 1 | 35# | 5 |
| 491 | East Greenwich | 42 Ladd St | 42 | 1951 | BS | 2 | 35# | 5 |
| 492 | East Greenwich | 5426 Post Rd | 5426 | 1931 | BS | 1 1/4 | 35# | 5 |
| 493 | East Greenwich | 45 Spring St | 45 | 1929 | BS | 1 | 35# | 5 |
| 494 | East Greenwich | 123 Spring St | 123 | 1931 | BS | 1 | 35# | 5 |
| 495 | East Greenwich | 223 Westwood Dr | 223 | 1981 | BS | 3/4 | 35# | 5 |
| 496 | East Providence | 110 Anson Dr | 110 | 1964 | BS | 3/4 | 25# | 5 |
| 497 | East Providence | 53 Bay View Av | 53 | 1947 | BS | 3/4 | 5# | 5 |
| 498 | East Providence | 1 Catamore Blvd | 1 | 1970 | BS | 2 | 35# | 5 |
| 499 | East Providence | 10 Garden Dr | 10 | 1958 | BS | 1 | 5# | 5 |
| 500 | East Providence | 30 Harvard St | 30 | 1940 | BS | 1 | 25# | 5 |
| 501 | East Providence | 3062 Pawtucket Av | 3062 | 1915 | BS | 3/4 | 5# | 5 |
| 502 | East Providence | 74 Wannisett Av | 74 | 1938 | BS | 1 | 25# | 5 |
| 503 | East Providence | 1 Woodbine St | 1 | 1930 | BS | 1 | 25# | 5 |
| 504 | Johnston | 1343 Hartford Av | 1343 | 1971 | BS | 3/4 | 35# | 5 |
| 505 | Johnston | 15 Salina Av | 15 | Unknown | Unknown | Unknown | 35# | 5 |
| 506 | Lincoln | 260 Railroad St | 260 | 1935 | BS | 3/4 | 60# | 5 |
| 507 | Lincoln | 263 Railroad St | 263 | Unknown | BS | 3/4 | 60# | 5 |
| 508 | Lincoln | 273 Railroad St | 273 | 1957 | BS | 3/4 | 60# | 5 |
| 509 | Lincoln | 283 Railroad St | 283 | 1963 | BS | 3/4 | 60# | 5 |
| 510 | North Smithfield | 65-67 Providence Pike | 65-67 | 1959 | BS | 3/4 | 60# | 5 |
| 511 | North Smithfield | 63 Westwood Rd | 63 | 1955 | BS | 3/4 | 60# | 5 |
| 512 | North Smithfield | 80 Westwood Rd | 80 | 1955 | BS | 3/4 | 60# | 5 |
| 513 | Pawtucket | 80 Conant St St | 80 | 1946 | BS | 1 | 60# | 5 |
| 514 | Woonsocket | 429 E School St | 429 | 1970 | BS | 2 | 60# | 5 |
| 515 | Woonsocket | 476 Manville Rd | 476 | 1922 | BS | 3/4 | 60# | 5 |
| 516 | Woonsocket | 572 Manville Rd | 572 | 1961 | BS | 3/4 | 60# | 5 |
| 517 | Woonsocket | 582 Manville Rd | 582 | 1922 | BS | 3/4 | 60# | 5 |
| 518 | Woonsocket | 664 Manville Rd | 664 | 1961 | BS | 3/4 | 60# | 5 |
| 519 | Woonsocket | 668 Manville Rd | 668 | 1961 | BS | 3/4 | 60# | 5 |
| 520 | Woonsocket | 710 Manville Rd | 710 | 1968 | BS | 3/4 | 60# | 5 |
| 521 | Woonsocket | 720 Manville Rd | 720 | 1967 | BS | 3/4 | 60# | 5 |
| 522 | Woonsocket | 730 Manville Rd | 730 | Unknown | BS | 3/4 | 60# | 5 |
| 523 | Woonsocket | 738 Manville Rd | 738 | 1946 | BS | 3/4 | 60# | 5 |
| 524 | Woonsocket | 1507 Manville Rd | 1507 | 1964 | BS | 1 | 60# | 5 |
| 525 | Woonsocket | 1525 Manville Rd | 1525 | 1965 | BS | 3/4 | 60# | 5 |
| 526 | Woonsocket | 1928 Mendon Rd | 1928 | 1963 | BS | 3/4 | 60# | 5 |
| 527 | Woonsocket | 2086 Mendon Rd | 2086 | Unknown | BS | 3/4 | 60# | 5 |
| 528 | Woonsocket | 2361 Mendon Rd | 2361 | Unknown | BS | 3/4 | 60# | 5 |
| 529 | Woonsocket | 2397 Mendon Rd | 2397 | 1948 | BS | 3/4 | 60# | 5 |
| 530 | Woonsocket | 2375A Mendon Rd | 2375A | 1949 | BS | 3/4 | 60# | 5 |
| 531 | Woonsocket | 2375B Mendon Rd | 2375B | 1949 | BS | 3/4 | 60# | 5 |
| 532 | Woonsocket | 45 Olympia Av | 45 | 1954 | BS | 1 | 60# | 5 |
| 533 | Woonsocket | 250 Rhode Island Av | 250 | 1936 | BS | 3/4 | 60# | 5 |
| 534 | Woonsocket | 257 Rhode Island Av | 257 | 1970 | BS | 3/4 | 60# | 5 |
| 535 | Woonsocket | 274 Rhode Island Av | 274 | 1968 | BS | 3/4 | 60# | 5 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| **1** | **City/Town** | **ADDRESS** | **House #** | **Install Year** | **Material** | **Diameter** | **Pressure** | **Priority (1-17, 1 being the highest)** |
| 536 | Woonsocket | 386 Rhode Island Av | 386 | 1936 | BS | 3/4 | 60# | 5 |
| 537 | Middletown | 26 Brookdale Rd | 26 | 1962 | BS | 3/4 | 10# | 5 |
| 538 | Middletown | 303 Forest Av | 303 | 1950 | BS | 3/4 | 10# | 5 |
| 539 | Middletown | 665 W Main Rd | 665 | 1955 | BS | 3/4 | 10# | 5 |
| 540 | Middletown | 657-659 W Main Rd | 657-659 | Unknown | BS | 3/4 | 10# | 5 |
| 541 | Newport | 84 Connection St | 84 | 1964 | BS | Unknown | 35# | 5 |
| 542 | Newport | 101 Malbone Rd | 101 | Unknown | BS | Unknown | 10# | 5 |
| 543 | Newport | 180 Narragansett Av | 180 | 1942 | BS | 2 | 10# | 5 |
| 544 | Newport | 180 Narragansett Av | 180 | 1942 | BS | 2 | 10# | 5 |
| 545 | North Kingstown | 84 Heritage Rd | 84 | 1961 | BS | 1 | 35# | 5 |
| 546 | North Kingstown | 89 Longfellow Dr | 89 | 1966 | BS | 3/4 | 35# | 5 |
| 547 | North Kingstown | 49 Peachtree Rd | 49 | 1957 | BS | 1 | 35# | 5 |
| 548 | North Kingstown | 6710 Post Rd | 6710 | 1974 | BS | 1 | 35# | 5 |
| 549 | North Kingstown | 201 Sachem Rd | 201 | 1957 | BS | 1 | 35# | 5 |
| 550 | North Kingstown | 25 W Main St | 25 | Unknown | Unknown | Unknown | 35# | 5 |
| 551 | North Kingstown | 4 Wasp Rd | 4 | 1965 | BS | 5/8 | 35# | 5 |
| 552 | North Kingstown | 200-202 Yorktown Rd | 200-202 | 1955 | BS | 1 | 35# | 5 |
| 553 | North Providence | 22 Marblehead Av | 22 | 1963 | BS | 3/4 | 35# | 5 |
| 554 | North Providence | 20 Twins Lane | 20 | 1970 | BS | 3/4 | 35# | 5 |
| 555 | Smithfield | 6 Candy Ct | 6 | 1962 | BS | 3/4 | 35# | 5 |
| 556 | Smithfield | 8 Circle Rd | 8 | 1958 | BS | 1 1/4 | 35# | 5 |
| 557 | Smithfield | 55 Lakeside Dr | 55 | 1962 | BS | 3/4 | 35# | 5 |
| 558 | Smithfield | 265 Old County Rd | 265 | 1960 | BS | 1 | 35# | 5 |
| 559 | Smithfield | 270 Old County Rd | 270 | Unknown | BS | 1 1/4 | 35# | 5 |
| 560 | Smithfield | 154 Pleasant View Av | 154 | 1970 | BS | 3/4 | 35# | 5 |
| 561 | Smithfield | 3 Scenic View Dr | 3 | 1959 | BS | 1 | 35# | 5 |
| 562 | Tiverton | 310 Hooper St | 310 | Unknown | BS | 1 1/4 | 55# | 5 |
| 563 | Tiverton | 1697 Main Rd | 1697 | Unknown | BS | 1 1/4 | 55# | 5 |
| 564 | Tiverton | 114 Riverside Dr | 114 | Unknown | BS | 3/4 | 5# | 5 |
| 565 | Tiverton | 128 Riverside Dr | 128 | Unknown | BS | 1 1/4 | 5# | 5 |
| 566 | Tiverton | 136 Riverside Dr | 136 | Unknown | BS | 1 1/4 | 5# | 5 |
| 567 | Warren | 373 Market St | 373 | Unknown | BS | 2 | 60# | 5 |
| 568 | Warwick | 107 Amsterdam Av | 107 | 1962 | BS | 1 | 35# | 5 |
| 569 | Warwick | 103 Ardway Av | 103 | 1929 | BS | 1 | 35# | 5 |
| 570 | Warwick | 148 Boylston St | 148 | 1961 | BS | 1 | 35# | 5 |
| 571 | Warwick | 151 Boylston St | 151 | 1960 | BS | 1 | 35# | 5 |
| 572 | Warwick | 156 Boylston St | 156 | 1961 | BS | 1 | 35# | 5 |
| 573 | Warwick | 31-33 Cady Av | 31-33 | 1944 | BS | 1 | 35# | 5 |
| 574 | Warwick | 20 Earlham Wy | 20 | 1931 | BS | 1 | 35# | 5 |
| 575 | Warwick | 24 Gillan Av | 24 | 1952 | BS | 1 | 35# | 5 |
| 576 | Warwick | 162 Gulf St | 162 | 1959 | BS | 1 | 35# | 5 |
| 577 | Warwick | 555 Jefferson Blvd | 555 | 1966 | BS | 1 1/2 | 35# | 5 |
| 578 | Warwick | 370-380 Jefferson Blvd | 370-380 | 1953 | BS | 2 | 35# | 5 |
| 579 | Warwick | 38 Largo Rd | 38 | 1952 | BS | 1 | 35# | 5 |
| 580 | Warwick | 4 Middlefield Dr | 4 | Unknown | BS | 1 | 35# | 5 |
| 581 | Warwick | 29 Mill Cove Rd | 29 | 1944 | BS | 1 | 35# | 5 |
| 582 | Warwick | 85 Montgomery St | 85 | 1961 | BS | 1 | 35# | 5 |
| 583 | Warwick | 67 Narraganset Bay Av | 67 | 1964 | BS | 3/4 | 35# | 5 |
| 584 | Warwick | 2138 Post Rd | 2138 | 1928 | BS | 1 | 35# | 5 |
| 585 | Warwick | 2900 Post Rd | 2900 | 1957 | BS | 1 | 35# | 5 |
| 586 | Warwick | 3436 Post Rd | 3436 | 1965 | BS | 3/4 | 35# | 5 |
| 587 | Warwick | 51 Priscilla Av | 51 | Unknown | BS | 1 | 35# | 5 |
| 588 | Warwick | 60 Reynolds Av | 60 | 1961 | BS | 1 | 35# | 5 |
| 589 | Warwick | 30 Rose St | 30 | Unknown | BS | 3/4 | 35# | 5 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| 1 | City/Town | ADDRESS | House # | Install Year | Material | Diameter | Pressure | Priority (1-17, 1 being the highest) |
| 590 | Warwick | 997-1001 Sandy Ln | 997-1001 | 1970 | BS | 3/4 | 35# | 5 |
| 591 | Warwick | 65 Suburban Pkwy | 65 | 1963 | BS | 3/4 | 35# | 5 |
| 592 | Warwick | 206 Suburban Pkwy | 206 | Unknown | BS | 1 | 35# | 5 |
| 593 | Warwick | 61-63 Suburban Pkwy | 61-63 | 1929 | BS | 1 | 35# | 5 |
| 594 | Warwick | 33 Surf Av | 33 | 1947 | BS | 1 | 35# | 5 |
| 595 | Warwick | 48 Surf Av | 48 | 1947 | BS | 1 | 35# | 5 |
| 596 | Warwick | 53 Surf Av | 53 | 1947 | BS | 1 | 35# | 5 |
| 597 | Warwick | 58 Surf Av | 58 | 1947 | BS | 1 | 35# | 5 |
| 598 | Warwick | 100 Warwick Industrial Dr | 100 | 1961 | BS | 4 | 35# | 5 |
| 599 | Warwick | 101 Washington St | 101 | Unknown | Unknown | Unknown | 35# | 5 |
| 600 | Warwick | 130 Washington St | 130 | 1957 | BS | 1 1/4 | 35# | 5 |
| 601 | Warwick | 164 Washington St | 164 | Unknown | Unknown | Unknown | 35# | 5 |
| 602 | Warwick | 11 Westfield Rd | 11 | 1948 | BS | 1 | 35# | 5 |
| 603 | Warwick | 9 Whipple Av | 9 | 1946 | BS | 1 | 35# | 5 |
| 604 | Warwick | 53 Whipple Av | 53 | 1940 | BS | 1 | 35# | 5 |
| 605 | Warwick | 126 Wilson Av | 126 | 1959 | BS | 1 | 35# | 5 |
| 606 | West Warwick | 34 Crossen St | 34 | 1963 | BS | 3/4 | 35# | 5 |
| 607 | West Warwick | 39 Crossen St | 39 | 1967 | BS | 3/4 | 35# | 5 |
| 608 | West Warwick | 40 Fornelli St | 40 | Unknown | BS | 3/4 | 35# | 5 |
| 609 | West Warwick | 9 Linden Dr | 9 | 1967 | BS | 5/8 | 35# | 5 |
| 610 | West Warwick | 25 Petti Dr | 25 | 1966 | BS | 3/4 | 35# | 5 |
| 611 | West Warwick | 149 Wakefield St | 149 | 1968 | BS | 3/4 | 35# | 5 |
| 612 | West Warwick | 157 Wakefield St | 157 | 1968 | BS | 3/4 | 35# | 5 |
| 613 | Westerly | 14 Church St | 14 | 1974 | BS | 3/4 | 35# | 5 |
| 614 | Westerly | 18 Church St | 18 | 1974 | BS | 3/4 | 60# | 5 |
| 615 | Westerly | 34 N Main St | 34 | Unknown | BS | Unknown | 60# | 5 |
| 616 | East Providence | 145 N Broadway | 145 | 1968 | CS | 1 1/4 | 99# | 6 |
| 617 | Lincoln | 1157 Great Rd | 1157 | 1969 | CS | 3/4 | 99# | 6 |
| 618 | Lincoln | 1161 Great Rd | 1161 | 1969 | CS | 3/4 | 99# | 6 |
| 619 | Cranston | 1077 Pontiac Av | 1077 | 1971 | CS | 3/4 | 99# | 7 |
| 620 | Cranston | 100 Sockanosset Cross Rd | 100 | 1970 | CS | 3 | 99# | 7 |
| 621 | Lincoln | 1159 Great Rd | 1159 | 1969 | CS | 3/4 | 99# | 7 |
| 622 | Lincoln | 15 Logan Dr | 15 | Unknown | CS | 3/4 | 99# | 7 |
| 623 | Barrington | 1 Andreozzi Dr | 1 | 1965 | CS | 3/4 | 25# | 8 |
| 624 | Barrington | 24 Broadview Dr | 24 | 1969 | CS | 3/4 | 25# | 8 |
| 625 | Barrington | 28 Broadview Dr | 28 | 1965 | CS | 3/4 | 25# | 8 |
| 626 | Barrington | 272 County Rd | 272 | 1970 | CS | 3/4 | 25# | 8 |
| 627 | Barrington | 365 County Rd | 365 | 1969 | CS | 3/4 | 25# | 8 |
| 628 | Barrington | 322-326 County Rd | 322-326 | 1969 | CS | 3/4 | 25# | 8 |
| 629 | Barrington | 257 County St | 257 | 1970 | CS | 3/4 | 25# | 8 |
| 630 | Barrington | 148 Foote St | 148 | 1968 | CS | 3/4 | 25# | 8 |
| 631 | Barrington | 5 Half Mile Rd | 5 | 1964 | CS | 3/4 | 25# | 8 |
| 632 | Barrington | 6 King Phillip Av | 6 | 1954 | CS | 1 | 25# | 8 |
| 633 | Barrington | 220 Lincoln Av | 220 | 1965 | CS | 2 | 25# | 8 |
| 634 | Barrington | 209 Lincoln Ave | 209 | 1960 | CS | 1 | 25# | 8 |
| 635 | Barrington | 241 Maple Av | 241 | 1970 | CS | 3/4 | 25# | 8 |
| 636 | Barrington | 621 Maple Ave | 621 | Unknown | CS | 3/4 | 25# | 8 |
| 637 | Barrington | 29 N Lake Dr | 29 | 1966 | CS | 3/4 | 25# | 8 |
| 638 | Barrington | 386 New Meadow Rd | 386 | 1967 | CS | 3/4 | 25# | 8 |
| 639 | Barrington | 3 Overlook Rd | 3 | 1968 | CS | 3/4 | 25# | 8 |
| 640 | Barrington | 81 Princes Hill Av | 81 | 1965 | CS | 3/4 | 25# | 8 |
| 641 | Barrington | 16 Quincy Adams Rd | 16 | 1968 | CS | 3/4 | 25# | 8 |
| 642 | Barrington | 3 Ridgeland Rd | 3 | 1970 | CS | 3/4 | 25# | 8 |
| 643 | Coventry | 124 Sandy Bottom Rd | 124 | 1962 | CS | 1 | 35# | 8 |
| 644 | Cranston | 172 Belvedere Dr | 172 | 1967 | CS | 3/4 | 35# | 8 |
| 645 | Cranston | 181 Belvedere Dr | 181 | 1968 | CS | 3/4 | 35# | 8 |
| 646 | Cranston | 205 Belvedere Dr | 205 | Unknown | CS | 3/4 | 35# | 8 |
| 647 | Cranston | 243 Belvedere Dr | 243 | 1969 | CS | 3/4 | 35# | 8 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| 1 | City/Town | ADDRESS | House # | Install Year | Material | Diameter | Pressure | Priority (1-17, 1 being the highest) |
| 648 | Cranston | 7 Benjamin Av | 7 | 1964 | CS | 3/4 | 35# | 8 |
| 649 | Cranston | 50 Birch At | 50 | 1968 | CS | 3 | 10# | 8 |
| 650 | Cranston | 88 Curtis St | 88 | 1964 | CS | 3/4 | 35# | 8 |
| 651 | Cranston | 165 Curtis St | 165 | 1965 | CS | 3/4 | 35# | 8 |
| 652 | Cranston | 12 Ellison St | 12 | 1964 | CS | 3/4 | 35# | 8 |
| 653 | Cranston | 26 Ellison St | 26 | 1964 | CS | 3/4 | 35# | 8 |
| 654 | Cranston | 27 Ellison St | 27 | 1964 | CS | 3/4 | 35# | 8 |
| 655 | Cranston | 38 Ellison St | 38 | 1964 | CS | 3/4 | 35# | 8 |
| 656 | Cranston | 51 Ellison St | 51 | 1963 | CS | 3/4 | 35# | 8 |
| 657 | Cranston | 70 Ellison St | 70 | 1964 | CS | 3/4 | 35# | 8 |
| 658 | Cranston | 73 Ellison St | 73 | 1964 | CS | 3/4 | 35# | 8 |
| 659 | Cranston | 78 Ellison St | 78 | 1964 | CS | 3/4 | 35# | 8 |
| 660 | Cranston | 55 Garden St | 55 | 1971 | CS | 1 1/4 | 7# | 8 |
| 661 | Cranston | 94 Greening Ln | 94 | 1967 | CS | 3/4 | 60# | 8 |
| 662 | Cranston | 183-185 Legion Wy | 183-185 | 1966 | CS | 1 1/4 | 7# | 8 |
| 663 | Cranston | 138 Park Forest Rd | 138 | 1966 | CS | 3/4 | 35# | 8 |
| 664 | Cranston | 146 Park Forest Rd | 146 | 1968 | CS | 3/4 | 35# | 8 |
| 665 | Cranston | 90 Summit Dr | 90 | 1966 | CS | 3/4 | 35# | 8 |
| 666 | Cranston | 141 Summit Dr | 141 | 1965 | CS | 3/4 | 35# | 8 |
| 667 | Cranston | 241 Summit Dr | 241 | 1964 | CS | 3/4 | 35# | 8 |
| 668 | East Greenwich | 43 Cedar St | 43 | 1966 | CS | 3/4 | 35# | 8 |
| 669 | East Greenwich | 54 Cedar St | 54 | 1964 | CS | 3/4 | 35# | 8 |
| 670 | East Greenwich | 110 Larch Rd | 110 | 1966 | CS | 3/4 | 35# | 8 |
| 671 | East Greenwich | 39 Larch Rd RD | 39 | 1966 | CS | 3/4 | 35# | 8 |
| 672 | East Greenwich | 584 Middle Rd | 584 | 1964 | CS | 3/4 | 35# | 8 |
| 673 | East Greenwich | 15 Red Oak Rd | 15 | 1968 | CS | 3/4 | 35# | 8 |
| 674 | East Greenwich | 35 Tamarack Dr | 35 | 1964 | CS | 3/4 | 35# | 8 |
| 675 | East Greenwich | 255 Tanglewood Dr | 255 | 1964 | CS | 3/4 | 35# | 8 |
| 676 | East Greenwich | 275 Tanglewood Dr | 275 | 1964 | CS | 3/4 | 35# | 8 |
| 677 | East Greenwich | 191 Westwood Dr | 191 | 1964 | CS | 3/4 | 35# | 8 |
| 678 | East Greenwich | 201 Westwood Dr | 201 | 1964 | CS | 3/4 | 35# | 8 |
| 679 | East Greenwich | 41 Wolverstone Rd | 41 | 1964 | CS | 3/4 | 35# | 8 |
| 680 | East Providence | 60 Bart Dr | 60 | 1964 | CS | 3 | 25# | 8 |
| 681 | East Providence | 16 Breeze Av | 16 | 1969 | CS | 3/4 | 25# | 8 |
| 682 | East Providence | 18 Breeze Av | 18 | Unknown | CS | 3/4 | 25# | 8 |
| 683 | East Providence | 91 Estrell Dr | 91 | 1964 | CS | 3/4 | 25# | 8 |
| 684 | East Providence | 5 Forbes St | 5 | 1969 | CS | 3/4 | 25# | 8 |
| 685 | East Providence | 45 Maxfield Av | 45 | 1968 | CS | 2 | 5# | 8 |
| 686 | East Providence | 45 Maxfield Av | 45 | 1969 | CS | 1 1/4 | 5# | 8 |
| 687 | East Providence | 2820-2830 Pawtucket Av | 2820-2830 | 1965 | CS | 1 | 5# | 8 |
| 688 | East Providence | 70 Rogers Av | 70 | 1969 | CS | 3/4 | 25# | 8 |
| 689 | East Providence | 74 Viola Av | 74 | 1965 | CS | 3/4 | 25# | 8 |
| 690 | Johnston | 14 Capri Dr | 14 | 1965 | CS | 3/4 | 35# | 8 |
| 691 | Johnston | 430 Central Av | 430 | 1968 | CS | 3/4 | 35# | 8 |
| 692 | Johnston | 9 Cleveland Av | 9 | 1971 | CS | 1 1/4 | 35# | 8 |
| 693 | Johnston | 13 Setian Cir | 13 | 1964 | CS | 3/4 | 35# | 8 |
| 694 | Cumberland | 9 Kay St | 9 | 1968 | CS | 3/4 | 60# | 8 |
| 695 | North Providence | 1350 Mineral Spring Ave | 1350 | 1969 | CS | 1 | 60# | 8 |
| 696 | Woonsocket | 41 Verdun St | 41 | 1963 | CS | 3/4 | 60# | 8 |
| 697 | Woonsocket | 69 Verdun St | 69 | 1970 | CS | 3/4 | 60# | 8 |
| 698 | North Kingstown | 80 Longfellow Dr | 80 | 1967 | CS | 3/4 | 35# | 8 |
| 699 | North Kingstown | 19 Mark Dr | 19 | Unknown | CS | 3/4 | 35# | 8 |
| 700 | North Kingstown | 30 Mark Dr | 30 | Unknown | CS | 3/4 | 35# | 8 |
| 701 | North Kingstown | 31 Mark Dr | 31 | Unknown | CS | 3/4 | 35# | 8 |
| 702 | North Kingstown | 43 Mark Dr | 43 | 1965 | CS | 3/4 | 35# | 8 |
| 703 | North Kingstown | 44 Mark Dr | 44 | 1965 | CS | 3/4 | 35# | 8 |
| 704 | North Kingstown | 55 Mark Dr | 55 | 1965 | CS | 3/4 | 35# | 8 |
| 705 | North Kingstown | 60 Mark Dr | 60 | 1965 | CS | 3/4 | 35# | 8 |
| 706 | North Kingstown | 73 Mark Dr | 73 | 1965 | CS | 3/4 | 35# | 8 |
| 707 | North Kingstown | 85 Mark Dr | 85 | 1966 | CS | 3/4 | 35# | 8 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| **1** | **City/Town** | **ADDRESS** | **House #** | **Install Year** | **Material** | **Diameter** | **Pressure** | **Priority (1-17, 1 being the highest)** |
| 708 | North Kingstown | 99 Mark Dr | 99 | 1966 | CS | 3/4 | 35# | 8 |
| 709 | North Kingstown | 111 Mark Dr | 111 | 1966 | CS | 3/4 | 35# | 8 |
| 710 | North Kingstown | 123 Mark Dr | 123 | 1966 | CS | 3/4 | 35# | 8 |
| 711 | North Kingstown | 471 N Quidnessett Rd | 471 | 1965 | CS | 3/4 | 35# | 8 |
| 712 | North Kingstown | 489 N Quidnessett Rd | 489 | 1965 | CS | 3/4 | 35# | 8 |
| 713 | North Kingstown | 521 N Quidnessett Rd | 521 | 1966 | CS | 3/4 | 35# | 8 |
| 714 | North Kingstown | 539 N Quidnessett Rd | 539 | 1967 | CS | 3/4 | 35# | 8 |
| 715 | North Kingstown | 405 Shore Acres Av | 405 | 1964 | CS | 3/4 | 35# | 8 |
| 716 | North Providence | 84 Eliot Av | 84 | 1969 | CS | 3/4 | 35# | 8 |
| 717 | North Providence | 86 Eliot Av | 86 | 1969 | CS | 3/4 | 35# | 8 |
| 718 | North Providence | 82 Elliot Av | 82 | 1966 | CS | 3/4 | 35# | 8 |
| 719 | North Providence | 88 Elliot Av | 88 | 1969 | CS | 3/4 | 35# | 8 |
| 720 | North Providence | 90 Elliot Av | 90 | 1969 | CS | 3/4 | 35# | 8 |
| 721 | North Providence | 36 Meadow View Blvd | 36 | 1967 | CS | 3/4 | 35# | 8 |
| 722 | Warren | 42 Ridgeway Dr | 42 | Unknown | CS | 3/4 | 8# | 8 |
| 723 | Warren | 46 Ridgeway Dr | 46 | Unknown | CS | 3/4 | 8# | 8 |
| 724 | Warwick | 167 Boylston St | 167 | 1960 | CS | 1 | 35# | 8 |
| 725 | Warwick | 170 Boylston St | 170 | 1960 | CS | 1 | 35# | 8 |
| 726 | Warwick | 100 Brightside Av | 100 | 1964 | CS | 3/4 | 35# | 8 |
| 727 | Warwick | 51 Cady Av | 51 | 1965 | CS | 3/4 | 35# | 8 |
| 728 | Warwick | 122 Cady Av | 122 | 1969 | CS | 3/4 | 35# | 8 |
| 729 | Warwick | 49 Carlton Av | 49 | 1963 | CS | 3/4 | 35# | 8 |
| 730 | Warwick | 467 Diamond Hill Rd | 467 | 1964 | CS | 3/4 | 35# | 8 |
| 731 | Warwick | 15 Elberta St | 15 | 1965 | CS | 3/4 | 35# | 8 |
| 732 | Warwick | 10 Fletcher St | 10 | 1967 | CS | 3/4 | 35# | 8 |
| 733 | Warwick | 31 Guilford Dr | 31 | 1965 | CS | 3/4 | 35# | 8 |
| 734 | Warwick | 36 Hedgerow Dr | 36 | 1966 | CS | 3/4 | 35# | 8 |
| 735 | Warwick | 39 Hedgerow Dr | 39 | 1966 | CS | 3/4 | 35# | 8 |
| 736 | Warwick | 55 Hedgerow Dr | 55 | 1966 | CS | 3/4 | 35# | 8 |
| 737 | Warwick | 46 Hollis Av | 46 | 1970 | CS | 3/4 | 35# | 8 |
| 738 | Warwick | 14 Jefferson Blvd | 14 | 1968 | CS | 1 1/4 | 35# | 8 |
| 739 | Warwick | 800 Jefferson Blvd | 800 | 1968 | CS | 3/4 | 35# | 8 |
| 740 | Warwick | 639 Jefferson Blvd | 639 | 1965 | CS | 3/4 | 35# | 8 |
| 741 | Warwick | 26 Kenwood St | 26 | 1967 | CS | 3/4 | 35# | 8 |
| 742 | Warwick | 27 Mark Allen Dr | 27 | 1967 | CS | 3/4 | 35# | 8 |
| 743 | Warwick | N/A Old Greenwich Av | N/A | 1970 | CS | 3/4 | 35# | 8 |
| 744 | Warwick | N/A Old Greenwich Av | N/A | 1970 | CS | 3/4 | 35# | 8 |
| 745 | Warwick | 4430 Post Rd | 4430 | 1967 | CS | 1 1/4 | 35# | 8 |
| 746 | Warwick | 1901 Post Rd | 1901 | 1967 | CS | 1 | 35# | 8 |
| 747 | Warwick | 3445 Post Rd | 3445 | 1965 | CS | 1 | 35# | 8 |
| 748 | Warwick | 815 Sandy Ln | 815 | 1969 | CS | 1 1/4 | 35# | 8 |
| 749 | Warwick | 30 Tidewater Dr | 30 | 1963 | CS | 3/4 | 35# | 8 |
| 750 | Warwick | 58 Tiernan Av | 58 | 1962 | CS | 1 | 35# | 8 |
| 751 | Warwick | 1056 W Shore Rd | 1056 | 1951 | CS | 1 | 35# | 8 |
| 752 | Warwick | 3030 W Shore Rd | 3030 | 1969 | CS | 3/4 | 35# | 8 |
| 753 | Warwick | 1401 Warwick Av | 1401 | 1969 | CS | 1 1/4 | 35# | 8 |
| 754 | Warwick | 1403 Warwick Av | 1403 | 1969 | CS | 2 | 35# | 8 |
| 755 | Warwick | 1590 Warwick Av | 1590 | 1967 | CS | 3/4 | 35# | 8 |
| 756 | Warwick | 1728 Warwick Av | 1728 | 1969 | CS | 3/4 | 35# | 8 |
| 757 | Warwick | 464 Warwick Neck Av | 464 | 1968 | CS | 3/4 | 35# | 8 |
| 758 | Warwick | 474 Warwick Neck Av | 474 | 1966 | CS | 3/4 | 35# | 8 |
| 759 | West Warwick | 130 Pepin St | 130 | 1964 | CS | 3/4 | 35# | 8 |
| 760 | Barrington | 84 Salisbury St | 84 | Unknown | BS | 1 1/2 | LP | 9 |
| 761 | Bristol | 111 High St | 111 | Unknown | BS | 1 | LP | 9 |
| 762 | Cranston | 12 Aborn St | 12 | 1969 | BS | 1 1/4 | LP | 9 |
| 763 | Cranston | 1927 Cranston St | 1927 | 1990 | BS | 1 1/4 | LP | 9 |
| 764 | Cranston | 1928 Cranston St | 1928 | Unknown | BS | 1 1/8 | LP | 9 |
| 765 | Cranston | 1938 Cranston St | 1938 | Unknown | BS | 1 1/2 | LP | 9 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| **1** | **City/Town** | **ADDRESS** | **House #** | **Install Year** | **Material** | **Diameter** | **Pressure** | **Priority (1-17, 1 being the highest)** |
| 766 | Cranston | 2044 Cranston St | 2044 | 1937 | BS | 2 | LP | 9 |
| 767 | Cranston | 2052 Cranston St | 2052 | 1941 | BS | 1 1/2 | LP | 9 |
| 768 | Cranston | 2070 Cranston St | 2070 | 1931 | BS | 1 1/2 | LP | 9 |
| 769 | Cranston | 2076 Cranston St | 2076 | 1946 | BS | 1 1/2 | LP | 9 |
| 770 | Cranston | 2100 Cranston St | 2100 | 1921 | BS | 1 1/2 | LP | 9 |
| 771 | Cranston | 2113 Cranston St | 2113 | Unknown | Unknown | Unknown | LP | 9 |
| 772 | Cranston | 2114 Cranston St | 2114 | 1955 | BS | 1 1/4 | LP | 9 |
| 773 | Cranston | 2140 Cranston St | 2140 | 1915 | BS | 1 1/4 | LP | 9 |
| 774 | Cranston | 2150 Cranston St | 2150 | Unknown | BS | 1 | LP | 9 |
| 775 | Cranston | 2170 Cranston St | 2170 | 1943 | BS | 1 1/2 | LP | 9 |
| 776 | Cranston | 2202 Cranston St | 2202 | 1962 | BS | 1 1/4 | LP | 9 |
| 777 | Cranston | 2242 Cranston St | 2242 | 1965 | BS | 1 1/4 | LP | 9 |
| 778 | Cranston | 2295 Cranston St | 2295 | 1965 | BS | 1 1/4 | LP | 9 |
| 779 | Cranston | 110-112 Fort Av | 110-112 | Unknown | BS | 1 1/2 | LP | 9 |
| 780 | Cranston | 67 Franklin Av | 67 | 1942 | BS | 1 1/2 | LP | 9 |
| 781 | Cranston | 115 Gladstone St | 115 | 1926 | BS | 1 1/2 | LP | 9 |
| 782 | Cranston | 183 Gladstone St | 183 | 1958 | BS | 1 1/4 | LP | 9 |
| 783 | Cranston | 135 Marlow St | 135 | 1969 | BS | 1 1/4 | LP | 9 |
| 784 | Cranston | 446 Park Av | 446 | 1968 | BS | 1 1/4 | LP | 9 |
| 785 | Cranston | 86 Park View Blvd | 86 | 1956 | BS | 1 1/4 | LP | 9 |
| 786 | Cranston | 126 Park View Blvd | 126 | 1958 | BS | 1 1/4 | LP | 9 |
| 787 | Cranston | 135 Park View Blvd | 135 | 1959 | BS | 1 1/4 | LP | 9 |
| 788 | Cranston | 1584 Plainfield Pike | 1584 | 1967 | BS | 1 1/4 | LP | 9 |
| 789 | Cranston | 21 Pleasant St | 21 | 1969 | BS | 2 | LP | 9 |
| 790 | Cranston | 30 Ridge St | 30 | 1915 | BS | 1 1/4 | LP | 9 |
| 791 | Cranston | 37 Royer St | 37 | 1951 | BS | 1 1/2 | LP | 9 |
| 792 | Cranston | 139 S Clarendon St | 139 | 1943 | BS | 1 1/2 | LP | 9 |
| 793 | Cranston | 142 S Clarendon St | 142 | 1925 | BS | 1 1/2 | LP | 9 |
| 794 | Cranston | 16-18 Scott St | 16-18 | 1923 | BS | 1 1/2 | LP | 9 |
| 795 | Cranston | 25 Seaview Av | 25 | 1927 | BS | 2 | LP | 9 |
| 796 | Cranston | 32 Seaview Av | 32 | 1971 | BS | 1 1/4 | LP | 9 |
| 797 | Cranston | 33 Seaview Av | 33 | 1950 | BS | 1 1/4 | LP | 9 |
| 798 | Cranston | 4 Springwood St | 4 | 1957 | BS | 1 1/4 | LP | 9 |
| 799 | Cranston | 69 Whipple Av | 69 | 1940 | BS | 1 1/2 | LP | 9 |
| 800 | Cranston | 68-70 Whipple Av | 68-70 | 1948 | BS | 1 1/2 | LP | 9 |
| 801 | Cranston | 78-80 Whipple Av | 78-80 | Unknown | BS | 1 | LP | 9 |
| 802 | Cranston | 4 Bayamo Ln | 4 | 1936 | BS | 1 1/2 | LP | 9 |
| 803 | Cranston | 10 Bayamo Ln | 10 | 1928 | BS | 1 1/2 | LP | 9 |
| 804 | Cranston | 14 Bayamo Ln | 14 | 1933 | BS | 1 1/2 | LP | 9 |
| 805 | East Providence | 16 Anthony St | 16 | Unknown | BS | 1 | LP | 9 |
| 806 | East Providence | 41 Grove Av | 41 | 1939 | BS | 2 | LP | 9 |
| 807 | East Providence | 148 Halleck Av | 148 | 1917 | BS | 1 | LP | 9 |
| 808 | East Providence | 342-344 Juniper St | 342-344 | 1942 | BS | 1 1/2 | LP | 9 |
| 809 | East Providence | 1-3 Knowlton St | 1-3 | 1924 | BS | 1 1/2 | LP | 9 |
| 810 | East Providence | 15 Reynolds St | 15 | 1957 | BS | 1 1/4 | LP | 9 |
| 811 | East Providence | 1024 S Broadway | 1024 | 1957 | BS | 1 1/2 | LP | 9 |
| 812 | East Providence | 215-217 S Hull St | 215-217 | 1918 | BS | 1 1/2 | LP | 9 |
| 813 | East Providence | 12 White Av | 12 | 1969 | BS | 1 1/2 | LP | 9 |
| 814 | East Providence | 15 White Av | 15 | 1939 | BS | 1 1/2 | LP | 9 |
| 815 | East Providence | 41 White Av | 41 | 1931 | BS | 3/4 | LP | 9 |
| 816 | East Providence | 55 White Av | 55 | 1958 | BS | 1 1/2 | LP | 9 |
| 817 | East Providence | 65 White Av | 65 | 1939 | BS | 1 1/2 | LP | 9 |
| 818 | East Providence | 21-23 White Av | 21-23 | 1935 | BS | 1 1/2 | LP | 9 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| 1 | City/Town | ADDRESS | House # | Install Year | Material | Diameter | Pressure | Priority (1-17, 1 being the highest) |
| 819 | Johnston | 19 Auburn Av | 19 | 1950 | BS | 1 1/2 | LP | 9 |
| 820 | Johnston | 46 Auburn Av | 46 | 1971 | BS | 1 1/4 | LP | 9 |
| 821 | Johnston | 101 Borden Av | 101 | 1958 | BS | 1 1/4 | LP | 9 |
| 822 | Johnston | 105 Borden Av | 105 | 1968 | BS | 1 1/4 | LP | 9 |
| 823 | Johnston | 115 Borden Av | 115 | 1960 | BS | 1 1/4 | LP | 9 |
| 824 | Johnston | 151 Borden Av | 151 | 1966 | BS | 1 1/4 | LP | 9 |
| 825 | Johnston | 154 Borden Av | 154 | 1949 | BS | 1 1/2 | LP | 9 |
| 826 | Johnston | 157 Borden Av | 157 | 1948 | BS | 1 1/2 | LP | 9 |
| 827 | Johnston | 161 Borden Av | 161 | 1949 | BS | 1 1/2 | LP | 9 |
| 828 | Johnston | 164 Borden Av | 164 | 1948 | BS | 1 1/2 | LP | 9 |
| 829 | Johnston | 170 Borden Av | 170 | 1948 | BS | 1 1/2 | LP | 9 |
| 830 | Johnston | 16 Calumet Av | 16 | 1950 | BS | 1 1/2 | LP | 9 |
| 831 | Johnston | 31 Camille Dr | 31 | Unknown | Unknown | Unknown | LP | 9 |
| 832 | Johnston | 25 Delmont St | 25 | 1939 | BS | 1 1/2 | LP | 9 |
| 833 | Johnston | 4 Dexter St | 4 | 1949 | BS | 1 1/2 | LP | 9 |
| 834 | Johnston | 6 Dexter St | 6 | 1949 | BS | 1 1/2 | LP | 9 |
| 835 | Johnston | 9 Dexter St | 9 | 1955 | BS | 1 1/4 | LP | 9 |
| 836 | Johnston | 12 Dexter St | 12 | 1949 | BS | 1 1/2 | LP | 9 |
| 837 | Johnston | 13 Dexter St | 13 | 1949 | BS | 1 1/2 | LP | 9 |
| 838 | Johnston | 36 Dexter St | 36 | 1949 | BS | 1 1/2 | LP | 9 |
| 839 | Johnston | 118 George Waterman Av | 118 | 1955 | BS | 1 1/4 | LP | 9 |
| 840 | Johnston | 32 George Waterman Rd | 32 | 1966 | BS | 1 1/4 | LP | 9 |
| 841 | Johnston | 34 George Waterman Rd | 34 | 1942 | BS | 1 1/2 | LP | 9 |
| 842 | Johnston | 43 George Waterman Rd | 43 | 1950 | BS | 1 1/2 | LP | 9 |
| 843 | Johnston | 49 George Waterman Rd | 49 | 1949 | BS | 1 1/2 | LP | 9 |
| 844 | Johnston | 74 George Waterman Rd | 74 | 1964 | BS | 1 1/4 | LP | 9 |
| 845 | Johnston | 115 George Waterman Rd | 115 | 1962 | BS | 1 1/4 | LP | 9 |
| 846 | Johnston | 124 George Waterman Rd | 124 | 1949 | BS | 1 1/2 | LP | 9 |
| 847 | Johnston | 175 George Waterman Rd | 175 | 1951 | BS | 1 1/2 | LP | 9 |
| 848 | Johnston | 177 George Waterman Rd | 177 | 1949 | BS | 1 1/2 | LP | 9 |
| 849 | Johnston | 200 George Waterman Rd | 200 | 1951 | BS | 2 | LP | 9 |
| 850 | Johnston | 1099 Hartford Av | 1099 | 1972 | BS | 1 1/4 | LP | 9 |
| 851 | Johnston | 54 Leading St | 54 | Unknown | BS | 1 1/2 | LP | 9 |
| 852 | Johnston | 85 Leading St | 85 | 1972 | BS | 1 1/4 | LP | 9 |
| 853 | Johnston | 88 Leading St | 88 | 1953 | BS | 1 1/4 | LP | 9 |
| 854 | Johnston | 7 Niverville St | 7 | 1972 | BS | 1 1/4 | LP | 9 |
| 855 | Johnston | 1539 Plainfield Pike | 1539 | Unknown | BS | 1 1/8 | LP | 9 |
| 856 | Johnston | 7 Rice St | 7 | 1956 | BS | 1 1/4 | LP | 9 |
| 857 | Johnston | 9 Rice St | 9 | 1949 | BS | 1 1/2 | LP | 9 |
| 858 | Johnston | 28 Rice St | 28 | Unknown | BS | 1 1/2 | LP | 9 |
| 859 | Johnston | 2 Zoar Av | 2 | 1960 | BS | 1 1/4 | LP | 9 |
| 860 | Central Falls | 547-549 Broad St | 547-549 | 1923 | BS | 2 | LP | 9 |
| 861 | Central Falls | 61-63 Claremont St | 61-63 | 1921 | BS | 1 1/2 | LP | 9 |
| 862 | Central Falls | 74 Clay St | 74 | 1932 | BS | 1 1/2 | LP | 9 |
| 863 | Central Falls | 75 Clay St | 75 | 1922 | BS | 1 1/2 | LP | 9 |
| 864 | Central Falls | 76 Clay St | 76 | 1925 | BS | 1 1/2 | LP | 9 |
| 865 | Central Falls | 77 Clay St | 77 | 1931 | BS | 1 1/4 | LP | 9 |
| 866 | Central Falls | 78 Clay St | 78 | 1932 | BS | 2 | LP | 9 |
| 867 | Central Falls | 84 Clay St | 84 | 1954 | BS | 1 1/2 | LP | 9 |
| 868 | Central Falls | 79-81 Clay St | 79-81 | 1944 | BS | 1 1/4 | LP | 9 |
| 869 | Central Falls | 83-85 Clay St | 83-85 | 1935 | BS | 1 1/2 | LP | 9 |
| 870 | Central Falls | 53 Fales St | 53 | 1926 | BS | 1 1/2 | LP | 9 |
| 871 | Central Falls | 59 Fales St | 59 | Unknown | BS | 1 1/2 | LP | 9 |
| 872 | Central Falls | 61 Fales St | 61 | Unknown | BS | 1 1/2 | LP | 9 |
| 873 | Central Falls | 63 Fales St | 63 | 1925 | BS | 1 1/2 | LP | 9 |
| 874 | Central Falls | 77 Fales St | 77 | 1949 | BS | 2 | LP | 9 |
| 875 | Central Falls | 79 Fales St | 79 | 1926 | BS | 1 1/2 | LP | 9 |
| 876 | Central Falls | 65-67 Fales St | 65-67 | 1961 | BS | 1 1/2 | LP | 9 |
| 877 | Central Falls | 69-71 Fales St | 69-71 | 1922 | BS | 1 1/2 | LP | 9 |
| 878 | Central Falls | 73-75 Fales St | 73-75 | 1931 | BS | 1 1/4 | LP | 9 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| **1** | **City/Town** | **ADDRESS** | **House #** | **Install Year** | **Material** | **Diameter** | **Pressure** | **Priority (1-17, 1 being the highest)** |
| 879 | Central Falls | 458 High St | 458 | 1961 | BS | 2 | LP | 9 |
| 880 | Central Falls | 468 High St | 468 | 1933 | BS | 1 1/2 | LP | 9 |
| 881 | Central Falls | 476 High St | 476 | 1926 | BS | 2 | LP | 9 |
| 882 | Central Falls | 514 Hunt St | 514 | 1951 | BS | 1 1/2 | LP | 9 |
| 883 | Central Falls | 519 Hunt St | 519 | 1921 | BS | 1 1/2 | LP | 9 |
| 884 | Central Falls | 520 Hunt St | 520 | 1923 | BS | 1 1/2 | LP | 9 |
| 885 | Central Falls | 525 Hunt St | 525 | 1921 | BS | 1 1/2 | LP | 9 |
| 886 | Central Falls | 537 Hunt St | 537 | 1921 | BS | 1 1/2 | LP | 9 |
| 887 | Central Falls | 551 Hunt St | 551 | 1921 | BS | 1 1/2 | LP | 9 |
| 888 | Central Falls | 567 Hunt St | 567 | 1921 | BS | 1 1/2 | LP | 9 |
| 889 | Central Falls | 579 Hunt St | 579 | 1921 | BS | 1 1/2 | LP | 9 |
| 890 | Central Falls | 584 Hunt St | 584 | 1921 | BS | 1 1/2 | LP | 9 |
| 891 | Central Falls | 588 Hunt St | 588 | 1951 | BS | 1 1/2 | LP | 9 |
| 892 | Central Falls | 513-515 Hunt St | 513-515 | 1930 | BS | 1 1/2 | LP | 9 |
| 893 | Central Falls | 529-531 Hunt St | 529-531 | Unknown | BS | 1 1/2 | LP | 9 |
| 894 | Central Falls | 542-544 Hunt St | 542-544 | 1924 | BS | 1 1/2 | LP | 9 |
| 895 | Central Falls | 546-548 Hunt St | 546-548 | 1951 | BS | 1 1/2 | LP | 9 |
| 896 | Central Falls | 552-554 Hunt St | 552-554 | 1951 | BS | 1 1/2 | LP | 9 |
| 897 | Central Falls | 555-557-559 Hunt St | 555-557-559 | 1921 | BS | 1 1/2 | LP | 9 |
| 898 | Central Falls | 558-562 Hunt St | 558-562 | 1962 | BS | 1 1/2 | LP | 9 |
| 899 | Central Falls | 564-566 Hunt St | 564-566 | 1924 | BS | 1 1/2 | LP | 9 |
| 900 | Central Falls | 570-572 Hunt St | 570-572 | 1921 | BS | 1 1/2 | LP | 9 |
| 901 | Central Falls | 591-593 Hunt St | 591-593 | 1921 | BS | 1 1/2 | LP | 9 |
| 902 | Central Falls | 720 Lonsdale Av | 720 | 1926 | BS | 1 1/2 | LP | 9 |
| 903 | Central Falls | 734 Lonsdale Av | 734 | 1921 | BS | 1 1/2 | LP | 9 |
| 904 | Central Falls | 738 Lonsdale Av | 738 | 1926 | BS | 1 1/2 | LP | 9 |
| 905 | Central Falls | 743 Lonsdale Av | 743 | 1921 | BS | 1 1/2 | LP | 9 |
| 906 | Central Falls | 985 Lonsdale Av | 985 | 1928 | BS | 1 1/2 | LP | 9 |
| 907 | Central Falls | 995 Lonsdale Av | 995 | 1928 | BS | 1 1/2 | LP | 9 |
| 908 | Central Falls | 1005 Lonsdale Av | 1005 | 1923 | BS | 1 1/2 | LP | 9 |
| 909 | Central Falls | 1011 Lonsdale Av | 1011 | 1928 | BS | 1 1/2 | LP | 9 |
| 910 | Central Falls | 1071 Lonsdale Av | 1071 | 1928 | BS | 1 1/2 | LP | 9 |
| 911 | Central Falls | 1089 Lonsdale Av | 1089 | 1926 | BS | 1 1/2 | LP | 9 |
| 912 | Central Falls | 1107 Lonsdale Ave | 1107 | 1936 | BS | 1 1/2 | LP | 9 |
| 913 | Central Falls | 1117 Lonsdale Av | 1117 | 1936 | BS | 1 1/2 | LP | 9 |
| 914 | Central Falls | 1121 Lonsdale Av | 1121 | 1936 | BS | 1 1/2 | LP | 9 |
| 915 | Central Falls | 1035-1037 Lonsdale Av | 1035-1037 | 1936 | BS | 1 1/2 | LP | 9 |
| 916 | Central Falls | 767-769 Lonsdale Av | 767-769 | 1921 | BS | 1 1/2 | LP | 9 |
| 917 | Central Falls | 36 W Hunt St | 36 | 1922 | BS | 1 1/2 | LP | 9 |
| 918 | Central Falls | 42 W Hunt St | 42 | 1925 | BS | 1 1/2 | LP | 9 |
| 919 | Central Falls | 24-26 W Hunt St | 24-26 | 1931 | BS | 1 1/2 | LP | 9 |
| 920 | Central Falls | 30-32 W Hunt St | 30-32 | Unknown | BS | 2 | LP | 9 |
| 921 | Central Falls | 48-50 W Hunt St | 48-50 | 1931 | BS | 1 | LP | 9 |
| 922 | Central Falls | 5 Washington St | 5 | 1920 | BS | 1 1/2 | LP | 9 |
| 923 | Central Falls | 9 Washington St | 9 | 1920 | BS | 1 1/2 | LP | 9 |
| 924 | Central Falls | 11 Washington St | 11 | 1920 | BS | 1 1/2 | LP | 9 |
| 925 | Central Falls | 35 Washington St | 35 | 1920 | BS | 1 1/2 | LP | 9 |
| 926 | Central Falls | 37 Washington St | 37 | 1920 | BS | 1 1/2 | LP | 9 |
| 927 | Central Falls | 42 Washington St | 42 | 1920 | BS | 1 1/2 | LP | 9 |
| 928 | Central Falls | 78 Washington St | 78 | 1923 | BS | 1 1/2 | LP | 9 |
| 929 | Central Falls | 113 Washington St | 113 | 1956 | BS | 1 1/2 | LP | 9 |
| 930 | Central Falls | 149 Washington St | 149 | 1931 | BS | 1 1/2 | LP | 9 |
| 931 | Central Falls | 117-119 Washington St | 117-119 | 1922 | BS | 1 1/2 | LP | 9 |
| 932 | Central Falls | 142-144-146 Washington St | 142-144-146 | 1929 | BS | 1 1/2 | LP | 9 |
| 933 | Central Falls | 52-54 Washington St | 52-54 | 1960 | BS | 1 1/2 | LP | 9 |
| 934 | Central Falls | 53-55 Washington St | 53-55 | 1949 | BS | 1 | LP | 9 |
| 935 | Central Falls | 57-59 Washington St | 57-59 | 1926 | BS | 1 1/2 | LP | 9 |
| 936 | Central Falls | 66-68 Washington St | 66-68 | 1925 | BS | 1 1/2 | LP | 9 |
| 937 | Central Falls | 74-76 Washington St | 74-76 | 1919 | BS | 1 1/2 | LP | 9 |
| 938 | Central Falls | 90-92 Washington St | 90-92 | 1950 | BS | 2 | LP | 9 |
| 939 | Cumberland | 457-459 Broad St | 457-459 | 1949 | BS | 2 | LP | 9 |
| 940 | Newport | 59-61 Americas Cup Av | 59-61 | Unknown | BS | 2 | LP | 9 |
| 941 | Newport | 30 Ann St | 30 | Unknown | BS | 1 | LP | 9 |
| 942 | Newport | 11 Annandale Rd | 11 | 1965 | BS | 1 1/4 | LP | 9 |
| 943 | Newport | 18 Bayview Av | 18 | Unknown | BS | 1 | LP | 9 |
| 944 | Newport | 601 Bellevue Av | 601 | 1930 | BS | 2 | LP | 9 |
| 945 | Newport | 680 Bellevue Av | 680 | 1960 | BS | 4 | LP | 9 |
| 946 | Newport | 718 Bellevue Av | 718 | 1964 | BS | 2 | LP | 9 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| 1 | City/Town | ADDRESS | House # | Install Year | Material | Diameter | Pressure | Priority (1-17, 1 being the highest) |
| 947 | Newport | 548 Bellevue Ave | 548 | Unknown | BS | 2 | LP | 9 |
| 948 | Newport | 53 Bridge St | 53 | Unknown | BS | Unknown | LP | 9 |
| 949 | Newport | 20 Broadway | 20 | 1928 | BS | 1 1/4 | LP | 9 |
| 950 | Newport | 5 Bush St | 5 | Unknown | BS | 1 1/4 | LP | 9 |
| 951 | Newport | 15 Callendar Av | 15 | Unknown | BS | Unknown | LP | 9 |
| 952 | Newport | 38 Callendar Av | 38 | Unknown | BS | Unknown | LP | 9 |
| 953 | Newport | 19 Central St | 19 | Unknown | BS | Unknown | LP | 9 |
| 954 | Newport | 11 Clarke St | 11 | 1957 | BS | 1 1/2 | LP | 9 |
| 955 | Newport | 11 Clarke St | 11 | 1957 | BS | 1 1/2 | LP | 9 |
| 956 | Newport | 11 Earl Av | 11 | Unknown | BS | 1 1/4 | LP | 9 |
| 957 | Newport | 15 Earl Av | 15 | Unknown | BS | 1 1/4 | LP | 9 |
| 958 | Newport | 19 Earl Av | 19 | Unknown | BS | 1 1/4 | LP | 9 |
| 959 | Newport | 19 East St | 19 | 1938 | BS | 1 | LP | 9 |
| 960 | Newport | 28 East St | 28 | Unknown | BS | Unknown | LP | 9 |
| 961 | Newport | 47 Farewell St | 47 | Unknown | BS | Unknown | LP | 9 |
| 962 | Newport | 19 Gibbs Av | 19 | Unknown | BS | 1 1/8 | LP | 9 |
| 963 | Newport | 16 Grafton St | 16 | Unknown | BS | Unknown | LP | 9 |
| 964 | Newport | 5 Harbor View Dr | 5 | Unknown | BS | 1 1/2 | LP | 9 |
| 965 | Newport | 9 Kay St | 9 | Unknown | BS | 1 1/2 | LP | 9 |
| 966 | Newport | 13 Kay St | 13 | Unknown | BS | 1 1/2 | LP | 9 |
| 967 | Newport | 78 Kay St | 78 | Unknown | BS | 1 1/2 | LP | 9 |
| 968 | Newport | 13 Kingston Av | 13 | Unknown | BS | Unknown | LP | 9 |
| 969 | Newport | 14 Kingston Av | 14 | Unknown | BS | Unknown | LP | 9 |
| 970 | Newport | 44 - 1 Ledge Rd | 44 - 1 | Unknown | BS | 1 1/4 | LP | 9 |
| 971 | Newport | 11 Leroy Av | 11 | 1926 | BS | 2 | LP | 9 |
| 972 | Newport | 8 Marchant St | 8 | Unknown | BS | 1 1/4 | LP | 9 |
| 973 | Newport | 29 Marsh St | 29 | 1967 | BS | 1 1/4 | LP | 9 |
| 974 | Newport | 9 Mount Vernon St | 9 | Unknown | BS | Unknown | LP | 9 |
| 975 | Newport | 120 Narragansett Av | 120 | 1926 | BS | 2 | LP | 9 |
| 976 | Newport | 140 Narragansett Av | 140 | 1935 | BS | 2 | LP | 9 |
| 977 | Newport | 7 Oakwood Ter | 7 | 1963 | BS | 1 1/4 | LP | 9 |
| 978 | Newport | 66 Ocean Av | 66 | Unknown | BS | 2 | LP | 9 |
| 979 | Newport | 10 Pell St | 10 | Unknown | BS | 2 | LP | 9 |
| 980 | Newport | 27 Poplar St | 27 | Unknown | Unknown | Unknown | LP | 9 |
| 981 | Newport | 29 Poplar St | 29 | Unknown | Unknown | 1 1/4 | LP | 9 |
| 982 | Newport | 58 Poplar St | 58 | Unknown | BS | 1 | LP | 9 |
| 983 | Newport | 96 Rhode Island Av | 96 | 1926 | BS | 1 1/2 | LP | 9 |
| 984 | Newport | 180 Ruggles Av | 180 | Unknown | BS | 2 | LP | 9 |
| 985 | Newport | 362 Spring St | 362 | Unknown | BS | 1 1/4 | LP | 9 |
| 986 | Newport | 569 Spring St | 569 | Unknown | BS | 2 | LP | 9 |
| 987 | Newport | 142 Thames St | 142 | 1930 | BS | 2 1/2 | LP | 9 |
| 988 | Newport | 170 Thames St | 170 | Unknown | BS | Unknown | LP | 9 |
| 989 | Newport | 400 Thames St | 400 | 1968 | BS | 1 1/4 | LP | 9 |
| 990 | Newport | 476 Thames St | 476 | Unknown | BS | 3 | LP | 9 |
| 991 | Newport | 487 Thames St | 487 | 1977 | BS | 1 1/4 | LP | 9 |
| 992 | Newport | 525 Thames St | 525 | 1934 | BS | 1 1/4 | LP | 9 |
| 993 | Newport | 182-184 Thames St | 182-184 | Unknown | BS | 2 | LP | 9 |
| 994 | Newport | 302-306 Thames St | 302-306 | Unknown | BS | 1 1/4 | LP | 9 |
| 995 | Newport | 421-423 Thames St | 421-423 | 1961 | BS | 1 1/4 | LP | 9 |
| 996 | Newport | 428-430 Thames St | 428-430 | Unknown | BS | 1 1/4 | LP | 9 |
| 997 | Newport | 12 Third St | 12 | Unknown | BS | 1 1/4 | LP | 9 |
| 998 | Newport | 74 Third St | 74 | 1927 | BS | 1 1/4 | LP | 9 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| 1 | City/Town | ADDRESS | House # | Install Year | Material | Diameter | Pressure | Priority (1-17, 1 being the highest) |
| 999 | Newport | 85 Touro St | 85 | Unknown | BS | 2 | LP | 9 |
| 1000 | Newport | 20 Walnut St | 20 | 1961 | BS | 1 1/4 | LP | 9 |
| 1001 | Newport | 9 Whitfield Pl | 9 | 1928 | BS | 1 1/2 | LP | 9 |
| 1002 | Newport | 1 Willow St | 1 | Unknown | Unknown | 1 1/4 | LP | 9 |
| 1003 | Cumberland | 3 Church St | 3 | 1949 | BS | 1 1/2 | LP | 9 |
| 1004 | Cumberland | 7 Church St | 7 | 1935 | BS | 1 1/2 | LP | 9 |
| 1005 | Cumberland | 36 Dexter St | 36 | 1949 | BS | 1 1/2 | LP | 9 |
| 1006 | Cumberland | 47 Dexter St | 47 | 1957 | BS | 1 1/2 | LP | 9 |
| 1007 | Cumberland | 51 Dexter St | 51 | 1949 | BS | 1 1/2 | LP | 9 |
| 1008 | Cumberland | 52 Dexter St | 52 | 1949 | BS | 1 1/2 | LP | 9 |
| 1009 | Cumberland | 59 Dexter St | 59 | 1949 | BS | 1 1/2 | LP | 9 |
| 1010 | North Providence | 1188 Douglas Av | 1188 | 1963 | BS | 1 1/2 | LP | 9 |
| 1011 | Cumberland | 65 Dexter St | 65 | 1949 | BS | 1 1/2 | LP | 9 |
| 1012 | Cumberland | 71 Dexter St | 71 | 1949 | BS | 1 1/2 | LP | 9 |
| 1013 | Cumberland | 77 Dexter St | 77 | 1952 | BS | 1 1/2 | LP | 9 |
| 1014 | Cumberland | 78 Dexter St | 78 | 1949 | BS | 1 1/2 | LP | 9 |
| 1015 | Cumberland | 15-17 Dexter St | 15-17 | 1949 | BS | 2 | LP | 9 |
| 1016 | Cumberland | 22-24 Dexter St | 22-24 | 1949 | BS | 1 1/2 | LP | 9 |
| 1017 | Cumberland | 29-31 Dexter St | 29-31 | 1949 | BS | 1 1/2 | LP | 9 |
| 1018 | Cumberland | 32-34 Dexter St | 32-34 | 1949 | BS | 1 1/2 | LP | 9 |
| 1019 | Cumberland | 20 E Barrows St | 20 | 1929 | BS | 1 1/2 | LP | 9 |
| 1020 | Cumberland | 8 Havens St | 8 | 1952 | BS | 1 1/2 | LP | 9 |
| 1021 | Cumberland | 77 High St | 77 | 1965 | BS | 1 1/2 | LP | 9 |
| 1022 | Cumberland | 83 High St | 83 | 1965 | BS | 1 1/2 | LP | 9 |
| 1023 | Cumberland | 98 High St | 98 | 1929 | BS | 1 1/2 | LP | 9 |
| 1024 | Cumberland | 99 High St | 99 | 1925 | BS | 2 | LP | 9 |
| 1025 | Cumberland | 102 High St | 102 | 1965 | BS | 1 1/2 | LP | 9 |
| 1026 | Cumberland | 107 High St | 107 | 1926 | BS | 1 1/2 | LP | 9 |
| 1027 | Cumberland | 109 High St | 109 | 1931 | BS | 1 1/2 | LP | 9 |
| 1028 | Cumberland | 119 High St | 119 | 1965 | BS | 1 1/2 | LP | 9 |
| 1029 | Cumberland | 306 High St | 306 | 1923 | BS | 1 1/2 | LP | 9 |
| 1030 | Cumberland | 146 Rear High St | 146 Rear | 1924 | BS | 2 | LP | 9 |
| 1031 | Cumberland | 11 Meeting St | 11 | 1958 | BS | 2 | LP | 9 |
| 1032 | Cumberland | 15 Meeting St | 15 | 1958 | BS | 2 | LP | 9 |
| 1033 | Cumberland | 32 Meeting St | 32 | 1957 | BS | 4 | LP | 9 |
| 1034 | Cumberland | 11 School St | 11 | 1924 | BS | 2 | LP | 9 |
| 1035 | Lincoln | 10 Ballou Ave | 10 | 1931 | BS | 1 | LP | 9 |
| 1036 | Lincoln | 1 Cecile St | 1 | 1927 | BS | 1 1/2 | LP | 9 |
| 1037 | Lincoln | 5 Columbia Av | 5 | 1928 | BS | 1 1/2 | LP | 9 |
| 1038 | Lincoln | 225-227 Front St | 225-227 | 1941 | BS | 1 1/2 | LP | 9 |
| 1039 | Lincoln | 36 Grandview Av | 36 | 1936 | BS | 1 1/2 | LP | 9 |
| 1040 | Lincoln | 10 Knowles St | 10 | 1956 | BS | 1 1/2 | LP | 9 |
| 1041 | Lincoln | 23 Knowles St | 23 | 1939 | BS | 1 1/2 | LP | 9 |
| 1042 | Lincoln | 145-147 Lonsdale Main St | 145-147 | 1949 | BS | 1 1/2 | LP | 9 |
| 1043 | Lincoln | 20 Pleasant St | 20 | 1961 | BS | 1 1/2 | LP | 9 |
| 1044 | Lincoln | 23 Pleasant St | 23 | 1941 | BS | 1 1/2 | LP | 9 |
| 1045 | Lincoln | 44 Pleasant St | 44 | 1927 | BS | 1 1/2 | LP | 9 |
| 1046 | Lincoln | 9 Woodward Av | 9 | 1912 | BS | 1 1/4 | LP | 9 |
| 1047 | Lincoln | 15 Woodward Av | 15 | 1910 | BS | 1 1/4 | LP | 9 |
| 1048 | Lincoln | 17 Woodward Av | 17 | 1948 | BS | 1 1/4 | LP | 9 |
| 1049 | Lincoln | 96 Woodward Av | 96 | 1931 | BS | 1 1/2 | LP | 9 |
| 1050 | North Providence | 10 Borah St | 10 | Unknown | BS | 1 1/2 | LP | 9 |
| 1051 | North Providence | 12 Borah St | 12 | 1942 | BS | 1 1/2 | LP | 9 |
| 1052 | North Providence | 14 Borah St | 14 | 1956 | BS | 1 1/2 | LP | 9 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| 1 | City/Town | ADDRESS | House # | Install Year | Material | Diameter | Pressure | Priority (1-17, 1 being the highest) |
| 1053 | North Providence | 15 Borah St | 15 | 1941 | BS | 1 1/2 | LP | 9 |
| 1054 | North Providence | 19 Borah St | 19 | 1955 | BS | 1 1/2 | LP | 9 |
| 1055 | North Providence | 52 Jane St | 52 | 1968 | BS | 1 1/2 | LP | 9 |
| 1056 | North Providence | 54 Jane St | 54 | 1968 | BS | 1 1/2 | LP | 9 |
| 1057 | North Providence | 60 Jane St | 60 | 1964 | BS | 1 1/2 | LP | 9 |
| 1058 | North Providence | 118 Jane St | 118 | 1938 | BS | 1 1/2 | LP | 9 |
| 1059 | North Providence | 75 Volturno St | 75 | 1948 | BS | 1 1/2 | LP | 9 |
| 1060 | North Providence | 82 Volturno St | 82 | 1946 | BS | 1 1/2 | LP | 9 |
| 1061 | North Providence | 88 Volturno St | 88 | 1948 | BS | 1 1/2 | LP | 9 |
| 1062 | North Providence | 107 Volturno St | 107 | 1940 | BS | 1 1/2 | LP | 9 |
| 1063 | North Providence | 120 Volturno St | 120 | 1955 | BS | 1 1/2 | LP | 9 |
| 1064 | North Providence | 123 Volturno St | 123 | 1926 | BS | 1 1/2 | LP | 9 |
| 1065 | North Providence | 124 Volturno St | 124 | 1952 | BS | 1 1/2 | LP | 9 |
| 1066 | North Providence | 136 Volturno St | 136 | 1961 | BS | 1 1/2 | LP | 9 |
| 1067 | North Providence | 137 Volturno St | 137 | Unknown | BS | 1 1/2 | LP | 9 |
| 1068 | Pawtucket | 77 Abbott St | 77 | 1954 | BS | 1 1/2 | LP | 9 |
| 1069 | Pawtucket | 12 Appleton Av | 12 | 1953 | BS | 1 1/2 | LP | 9 |
| 1070 | Pawtucket | 20 Appleton Av | 20 | 1954 | BS | 1 1/2 | LP | 9 |
| 1071 | Pawtucket | 23 Appleton Av | 23 | 1953 | BS | 1 1/2 | LP | 9 |
| 1072 | Pawtucket | 26 Appleton Av | 26 | 1953 | BS | 1 1/2 | LP | 9 |
| 1073 | Pawtucket | 34 Appleton Av | 34 | 1942 | BS | 1 1/2 | LP | 9 |
| 1074 | Pawtucket | 40 Appleton Av | 40 | 1936 | BS | 1 1/2 | LP | 9 |
| 1075 | Pawtucket | 43 Appleton Av | 43 | 1960 | BS | 1 1/2 | LP | 9 |
| 1076 | Pawtucket | 45 Appleton Av | 45 | 1959 | BS | 1 1/2 | LP | 9 |
| 1077 | Pawtucket | 48 Appleton Av | 48 | 1943 | BS | 1 1/2 | LP | 9 |
| 1078 | Pawtucket | 29-31 Appleton Av | 29-31 | 1945 | BS | 1 1/2 | LP | 9 |
| 1079 | Pawtucket | 9-11 Appleton Av | 9-11 | 1950 | BS | 1 1/2 | LP | 9 |
| 1080 | Pawtucket | 345 Armistice Blvd | 345 | 1957 | BS | 1 1/2 | LP | 9 |
| 1081 | Pawtucket | 353 Armistice Blvd | 353 | 1936/1951 | BS | 1 1/2 | LP | 9 |
| 1082 | Pawtucket | 359 Armistice Blvd | 359 | 1936/1938 | BS | 1 1/2 | LP | 9 |
| 1083 | Pawtucket | 367 Armistice Blvd | 367 | 1936 | BS | 1 1/2 | LP | 9 |
| 1084 | Pawtucket | 379 Armistice Blvd | 379 | 1936 | BS | 1 1/2 | LP | 9 |
| 1085 | Pawtucket | 381 Armistice Blvd | 381 | 1936 | BS | 1 1/2 | LP | 9 |
| 1086 | Pawtucket | 385 Armistice Blvd | 385 | 1936/1948 | BS | 1 1/2 | LP | 9 |
| 1087 | Pawtucket | 389 Armistice Blvd | 389 | 1936/1956 | BS | 1 1/2 | LP | 9 |
| 1088 | Pawtucket | 415 Armistice Blvd | 415 | 1936 | BS | 1 1/2 | LP | 9 |
| 1089 | Pawtucket | 419 Armistice Blvd | 419 | 1936/1941 | BS | 1 1/2 | LP | 9 |
| 1090 | Pawtucket | 423 Armistice Blvd | 423 | Unknown | BS | 1 1/2 | LP | 9 |
| 1091 | Pawtucket | 427 Armistice Blvd | 427 | Unknown | BS | 1 1/2 | LP | 9 |
| 1092 | Pawtucket | 431 Armistice Blvd | 431 | Unknown | BS | 1 1/2 | LP | 9 |
| 1093 | Pawtucket | 437 Armistice Blvd | 437 | 1936 | BS | 1 1/2 | LP | 9 |
| 1094 | Pawtucket | 485 Armistice Blvd | 485 | Unknown | BS | 1 1/2 | LP | 9 |
| 1095 | Pawtucket | 11 Benefit St | 11 | 1957 | BS | 2 | LP | 9 |
| 1096 | Pawtucket | 24 Benefit St | 24 | 1922 | BS | 1 1/2 | LP | 9 |
| 1097 | Pawtucket | 32 Benefit St | 32 | 1922 | BS | 2 | LP | 9 |
| 1098 | Pawtucket | 39 Benefit St | 39 | 1922 | BS | 1 1/2 | LP | 9 |
| 1099 | Pawtucket | 51 Benefit St | 51 | Unknown | BS | 1 1/2 | LP | 9 |
| 1100 | Pawtucket | 91 Benefit St | 91 | 1922 | BS | 1 1/2 | LP | 9 |
| 1101 | Pawtucket | 98 Benefit St | 98 | 1922 | BS | 1 1/2 | LP | 9 |
| 1102 | Pawtucket | 118 Benefit St | 118 | 1922 | BS | 1 1/2 | LP | 9 |
| 1103 | Pawtucket | 139 Benefit St | 139 | 1946 | BS | 1 1/2 | LP | 9 |
| 1104 | Pawtucket | 161 Benefit St | 161 | 1921 | BS | 1 1/2 | LP | 9 |
| 1105 | Pawtucket | 163 Benefit St | 163 | 1921 | BS | 1 1/2 | LP | 9 |
| 1106 | Pawtucket | 167 Benefit St | 167 | 1952 | BS | 1 1/2 | LP | 9 |
| 1107 | Pawtucket | 168 Benefit St | 168 | 1921 | BS | 1 1/2 | LP | 9 |
| 1108 | Pawtucket | 185 Benefit St | 185 | 1925 | BS | 1 1/2 | LP | 9 |
| 1109 | Pawtucket | 186 Benefit St | 186 | 1923 | BS | 1 1/2 | LP | 9 |
| 1110 | Pawtucket | 209 Benefit St | 209 | 1925 | BS | 1 1/2 | LP | 9 |
| 1111 | Pawtucket | 210 Benefit St | 210 | 1949 | BS | 1 1/2 | LP | 9 |
| 1112 | Pawtucket | 111-113 Benefit St | 111-113 | 1922 | BS | 1 1/2 | LP | 9 |
| 1113 | Pawtucket | 120-122 Benefit St | 120-122 | 1950 | BS | 1 1/2 | LP | 9 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| 1 | City/Town | ADDRESS | House # | Install Year | Material | Diameter | Pressure | Priority (1-17, 1 being the highest) |
| 1114 | Pawtucket | 121-123 Benefit St | 121-123 | 1949 | BS | 2 | LP | 9 |
| 1115 | Pawtucket | 20-22 Benefit St | 20-22 | 1922 | BS | 1 1/2 | LP | 9 |
| 1116 | Pawtucket | 213-215 Benefit St | 213-215 | 1925 | BS | 1 1/2 | LP | 9 |
| 1117 | Pawtucket | 38-40 Benefit St | 38-40 | 1922 | BS | 1 1/2 | LP | 9 |
| 1118 | Pawtucket | 45-47 Benefit St | 45-47 | 1922 | BS | 1 1/2 | LP | 9 |
| 1119 | Pawtucket | 46-48 Benefit St | 46-48 | 1922 | BS | 1 1/2 | LP | 9 |
| 1120 | Pawtucket | 53-55 Benefit St | 53-55 | 1922 | BS | 1 1/2 | LP | 9 |
| 1121 | Pawtucket | 59-61 Benefit St | 59-61 | 1926 | BS | 1 1/2 | LP | 9 |
| 1122 | Pawtucket | 95-97 Benefit St | 95-97 | 1922 | BS | 1 1/2 | LP | 9 |
| 1123 | Pawtucket | 444 Benefit St | 444 | 1926 | BS | 1 1/2 | LP | 9 |
| 1124 | Pawtucket | 458 Benefit St | 458 | 1922 | BS | 1 1/2 | LP | 9 |
| 1125 | Pawtucket | 477 Benefit St | 477 | 1949 | BS | 1 1/2 | LP | 9 |
| 1126 | Pawtucket | 478 Benefit St | 478 | 1924 | BS | 1 1/2 | LP | 9 |
| 1127 | Pawtucket | 480 Benefit St | 480 | 1927 | BS | 1 1/2 | LP | 9 |
| 1128 | Pawtucket | 5 Berndt St | 5 | 1922 | BS | 1 1/2 | LP | 9 |
| 1129 | Pawtucket | 591 Beverage Hill Ave | 591 | Unknown | BS | 2 | LP | 9 |
| 1130 | Pawtucket | 70 Bloodgood St | 70 | 1959 | BS | 1 1/2 | LP | 9 |
| 1131 | Pawtucket | 206 Bloodgood St | 206 | 1961 | BS | 1 1/2 | LP | 9 |
| 1132 | Pawtucket | 101 Broadway | 101 | 1928 | BS | 2 | LP | 9 |
| 1133 | Pawtucket | 125 Broadway | 125 | 1925 | BS | 1 1/2 | LP | 9 |
| 1134 | Pawtucket | 160 Broadway | 160 | 1926 | BS | 1 1/2 | LP | 9 |
| 1135 | Pawtucket | 505 Buchanan St | 505 | 1960 | BS | 1 1/2 | LP | 9 |
| 1136 | Pawtucket | 216 Carnation St | 216 | 1925 | BS | 1 1/2 | LP | 9 |
| 1137 | Pawtucket | 220 Carnation St | 220 | 1926 | BS | 1 1/2 | LP | 9 |
| 1138 | Pawtucket | 11 Chestnut St | 11 | 1968 | BS | 1 1/2 | LP | 9 |
| 1139 | Pawtucket | 18 Chestnut St | 18 | 1945 | BS | 1 1/2 | LP | 9 |
| 1140 | Pawtucket | 17-19 Chestnut St | 17-19 | 1931 | BS | 1 1/2 | LP | 9 |
| 1141 | Pawtucket | 122 Daggett Ave | 122 | 1945 | BS | 2 | LP | 9 |
| 1142 | Pawtucket | 50 East St | 50 | 1939 | BS | 1 1/2 | LP | 9 |
| 1143 | Pawtucket | 486 East Ave | 486 | 1927 | BS | 1 1/2 | LP | 9 |
| 1144 | Pawtucket | 257-259 East Ave | 257-259 | 1946 | BS | 1 1/2 | LP | 9 |
| 1145 | Pawtucket | 39 East St | 39 | 1939 | BS | 1 1/2 | LP | 9 |
| 1146 | Pawtucket | 52 East St | 52 | 1939 | BS | 1 1/2 | LP | 9 |
| 1147 | Pawtucket | 104 Fairview Av | 104 | 1938 | BS | 1 1/2 | LP | 9 |
| 1148 | Pawtucket | 109-111 Fairview Av | 109-111 | 1938 | BS | 1 1/2 | LP | 9 |
| 1149 | Pawtucket | 45 Fortin Av | 45 | 1928 | BS | 1 1/2 | LP | 9 |
| 1150 | Pawtucket | 50 Fortin Av | 50 | 1964 | BS | 1 1/2 | LP | 9 |
| 1151 | Pawtucket | 79 Fortin Av | 79 | 1949 | BS | 1 1/2 | LP | 9 |
| 1152 | Pawtucket | 83-85 Fortin Av | 83-85 | 1923 | BS | 1 1/2 | LP | 9 |
| 1153 | Pawtucket | 103 Garden St | 103 | 1922 | BS | 1 1/2 | LP | 9 |
| 1154 | Pawtucket | 104 Garden St | 104 | 1929 | BS | 2 | LP | 9 |
| 1155 | Pawtucket | 110 Garden St | 110 | 1928 | BS | 1 1/2 | LP | 9 |
| 1156 | Pawtucket | 131 Garden St | 131 | 1925 | BS | 1 1/2 | LP | 9 |
| 1157 | Pawtucket | 134 Garden St | 134 | 1923 | BS | 1 1/2 | LP | 9 |
| 1158 | Pawtucket | 139 Garden St | 139 | 1926 | BS | 1 1/2 | LP | 9 |
| 1159 | Pawtucket | 146 Garden St | 146 | 1923 | BS | 1 1/2 | LP | 9 |
| 1160 | Pawtucket | 155 Garden St | 155 | 1960 | BS | 1 1/2 | LP | 9 |
| 1161 | Pawtucket | 163 Garden St | 163 | Unknown | BS | 1 1/2 | LP | 9 |
| 1162 | Pawtucket | 166 Garden St | 166 | 1925 | BS | 1 1/2 | LP | 9 |
| 1163 | Pawtucket | 171 Garden St | 171 | 1922 | BS | 1 1/4 | LP | 9 |
| 1164 | Pawtucket | 189 Garden St | 189 | 1944 | BS | 1 1/2 | LP | 9 |
| 1165 | Pawtucket | 189 Garden St | 189 | 1927 | BS | 1 1/2 | LP | 9 |
| 1166 | Pawtucket | 197 Garden St | 197 | 1924 | BS | 1 1/2 | LP | 9 |
| 1167 | Pawtucket | 199 Garden St | 199 | 1925 | BS | 1 1/2 | LP | 9 |
| 1168 | Pawtucket | 200 Garden St | 200 | 1938 | BS | 1 1/2 | LP | 9 |
| 1169 | Pawtucket | 207 Garden St | 207 | 1954 | BS | 1 1/2 | LP | 9 |
| 1170 | Pawtucket | 208 Garden St | 208 | 1962 | BS | 2 | LP | 9 |
| 1171 | Pawtucket | 212 Garden St | 212 | 1925 | BS | 1 1/2 | LP | 9 |
| 1172 | Pawtucket | 213 Garden St | 213 | 1954 | BS | 2 | LP | 9 |
| 1173 | Pawtucket | 114-116 Garden St | 114-116 | 1922 | BS | 1 1/2 | LP | 9 |
| 1174 | Pawtucket | 138-140 Garden St | 138-140 | 1923 | BS | 1 1/2 | LP | 9 |
| 1175 | Pawtucket | 142-144 Garden St | 142-144 | 1936 | BS | 1 1/2 | LP | 9 |
| 1176 | Pawtucket | 190-192 Garden St | 190-192 | 1952 | BS | 2 | LP | 9 |
| 1177 | Pawtucket | 218-220 Garden St | 218-220 | 1954 | BS | 1 1/2 | LP | 9 |
| 1178 | Pawtucket | 222-224 Garden St | 222-224 | 1925 | BS | 1 1/2 | LP | 9 |
| 1179 | Pawtucket | 53-55 Garden St | 53-55 | 1925 | BS | 1 1/2 | LP | 9 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| **1** | **City/Town** | **ADDRESS** | **House #** | **Install Year** | **Material** | **Diameter** | **Pressure** | **Priority (1-17, 1 being the highest)** |
| 1180 | Pawtucket | 57-59 Garden St | 57-59 | 1954 | BS | 2 | LP | 9 |
| 1181 | Pawtucket | 18 Hope St | 18 | 1942 | BS | 1 1/2 | LP | 9 |
| 1182 | Pawtucket | 278 Lafayette St | 278 | 1955 | BS | 1 1/2 | LP | 9 |
| 1183 | Pawtucket | 281 Lafayette St | 281 | 1937 | BS | 1 1/2 | LP | 9 |
| 1184 | Pawtucket | 297 Lafayette St | 297 | 1937 | BS | 2 | LP | 9 |
| 1185 | Pawtucket | 303 Lafayette St | 303 | 1954 | BS | 2 | LP | 9 |
| 1186 | Pawtucket | 290 Lonsdale Ave | 290 | 1948 | BS | 1 1/2 | LP | 9 |
| 1187 | Pawtucket | 295 Lonsdale Ave | 295 | 1928 | BS | 1 1/2 | LP | 9 |
| 1188 | Pawtucket | 351 Lonsdale Ave | 351 | Unknown | BS | 1 1/2 | LP | 9 |
| 1189 | Pawtucket | 356 Lonsdale Ave | 356 | 1928 | BS | 1 1/2 | LP | 9 |
| 1190 | Pawtucket | 367 Lonsdale Ave | 367 | 1948 | BS | 1 1/2 | LP | 9 |
| 1191 | Pawtucket | 1139 Main St | 1139 | 1963 | BS | 2 | LP | 9 |
| 1192 | Pawtucket | 1129-1131 Main St | 1129-1131 | 1957 | BS | 1 1/2 | LP | 9 |
| 1193 | Pawtucket | 21 Mccusker Ct | 21 | 1923 | BS | 1 1/4 | LP | 9 |
| 1194 | Pawtucket | 592 Pawtucket Av | 592 | 1955 | BS | 3 | LP | 9 |
| 1195 | Pawtucket | 847-849 Roosevelt Av | 847-849 | 1961 | BS | 1 1/2 | LP | 9 |
| 1196 | Pawtucket | 2 Rowland St | 2 | 1918 | BS | 1 1/4 | LP | 9 |
| 1197 | Pawtucket | 1-3 Rowland St | 1-3 | 1916 | BS | 1 1/4 | LP | 9 |
| 1198 | Pawtucket | 717-721 School St | 717-721 | 1969 | BS | 6 | LP | 9 |
| 1199 | Pawtucket | 141 Seneca Av | 141 | 1961 | BS | 1 1/2 | LP | 9 |
| 1200 | Pawtucket | 210 Seneca Av | 210 | 1963 | BS | 2 | LP | 9 |
| 1201 | Pawtucket | 231 Seneca Av | 231 | 1959 | BS | 1 1/2 | LP | 9 |
| 1202 | Pawtucket | 24 Spring St | 24 | 1929 | BS | 1 1/2 | LP | 9 |
| 1203 | Pawtucket | 54 Spring St | 54 | 1958 | BS | 1 1/2 | LP | 9 |
| 1204 | Pawtucket | 68 Spring St | 68 | 1958 | BS | 2 | LP | 9 |
| 1205 | Pawtucket | 76 Spring St | 76 | 1958 | BS | 1 1/2 | LP | 9 |
| 1206 | Pawtucket | 23-25 Spring St | 23-25 | 1929 | BS | 1 1/2 | LP | 9 |
| 1207 | Pawtucket | 370 Weeden St | 370 | 1922 | BS | 1 1/2 | LP | 9 |
| 1208 | Pawtucket | 394 Weeden St | 394 | 1923 | BS | 1 1/2 | LP | 9 |
| 1209 | Pawtucket | 419 Weeden St | 419 | 1923 | BS | 1 1/2 | LP | 9 |
| 1210 | Pawtucket | 359-361 Weeden St | 359-361 | 1964 | BS | 1 1/2 | LP | 9 |
| 1211 | Pawtucket | 367-369 Weeden St | 367-369 | 1922 | BS | 1 1/2 | LP | 9 |
| 1212 | Pawtucket | 371-373 Weeden St | 371-373 | 1923 | BS | 1 1/2 | LP | 9 |
| 1213 | Pawtucket | 377-379 Weeden St | 377-379 | 1926 | BS | 1 1/2 | LP | 9 |
| 1214 | Pawtucket | 380-382 Weeden St | 380-382 | 1923 | BS | 1 1/2 | LP | 9 |
| 1215 | Pawtucket | 393-395 Weeden St | 393-395 | 1923 | BS | 1 1/2 | LP | 9 |
| 1216 | Pawtucket | 421-423-425 Weeden St | 421-423-425 | 1923 | BS | 1 1/2 | LP | 9 |
| 1217 | Pawtucket | 92 Wendell St | 92 | 1930 | BS | 1 1/2 | LP | 9 |
| 1218 | Pawtucket | 92 Wendell St | 92 | 1930 | BS | 1 1/2 | LP | 9 |
| 1219 | Pawtucket | 31 Whipple St | 31 | Unknown | BS | Unknown | LP | 9 |
| 1220 | Pawtucket | 30 Woodland St | 30 | 1931 | BS | 1 1/2 | LP | 9 |
| 1221 | Pawtucket | 34 Woodland St | 34 | Unknown | BS | 1 | LP | 9 |
| 1222 | Pawtucket | 8-10-12 Woodland St | 8-10-12 | 1925 | BS | 1 1/2 | LP | 9 |
| 1223 | Woonsocket | 66 Adams St | 66 | 1925 | BS | 1 1/4 | LP | 9 |
| 1224 | Woonsocket | 169 Adams St | 169 | 1954 | BS | 1 1/2 | LP | 9 |
| 1225 | Woonsocket | 170 Adams St | 170 | 1947 | BS | 1 1/4 | LP | 9 |
| 1226 | Woonsocket | 85 Bellingham St | 85 | 1926 | BS | 1 1/2 | LP | 9 |
| 1227 | Woonsocket | 24-26 Bellingham St | 24-26 | Unknown | BS | 1 1/4 | LP | 9 |
| 1228 | Woonsocket | 42 Desrochers Av | 42 | 1926 | BS | 1 1/2 | LP | 9 |
| 1229 | Woonsocket | 52-54 Desrochers Av | 52-54 | 1926 | BS | 1 1/2 | LP | 9 |
| 1230 | Woonsocket | 249 Elm St | 249 | 1914 | BS | 1 1/4 | LP | 9 |
| 1231 | Woonsocket | 284 Elm St | 284 | 1925 | BS | 2 | LP | 9 |
| 1232 | Woonsocket | 38 George St | 38 | 1913 | BS | 1 1/4 | LP | 9 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| **1** | **City/Town** | **ADDRESS** | **House #** | **Install Year** | **Material** | **Diameter** | **Pressure** | **Priority (1-17, 1 being the highest)** |
| 1233 | Woonsocket | 269 Greene St | 269 | Unknown | BS | 1 | LP | 9 |
| 1234 | Woonsocket | 651-653 Grove St | 651-653 | 1921 | BS | 1 1/4 | LP | 9 |
| 1235 | Woonsocket | 174 Harris Av | 174 | 1957 | BS | 1 1/2 | LP | 9 |
| 1236 | Woonsocket | 175 Harris Av | 175 | 1957 | BS | 1 1/2 | LP | 9 |
| 1237 | Woonsocket | 189 Harris Av | 189 | 1910 | BS | 1 1/4 | LP | 9 |
| 1238 | Woonsocket | 274 Harris Av | 274 | Unknown | BS | 1 1/4 | LP | 9 |
| 1239 | Woonsocket | 294 Harris Av | 294 | 1930 | BS | 2 | LP | 9 |
| 1240 | Woonsocket | 301 Harris Av | 301 | 1929 | BS | 2 | LP | 9 |
| 1241 | Woonsocket | 324 Harris Av | 324 | 1923 | BS | 1 1/2 | LP | 9 |
| 1242 | Woonsocket | 335 Harris Av | 335 | 1923 | BS | 1 1/2 | LP | 9 |
| 1243 | Woonsocket | 399 Harris Av | 399 | 1928 | BS | 2 | LP | 9 |
| 1244 | Woonsocket | 482 Harris Av | 482 | 1926 | BS | 1 1/2 | LP | 9 |
| 1245 | Woonsocket | 507 Harris Av | 507 | Unknown | BS | 2 | LP | 9 |
| 1246 | Woonsocket | 514 Harris Av | 514 | 1938 | BS | 1 1/2 | LP | 9 |
| 1247 | Woonsocket | 531 Harris Av | 531 | Unknown | BS | 1 1/2 | LP | 9 |
| 1248 | Woonsocket | 588 Harris Av | 588 | Unknown | BS | 1 1/2 | LP | 9 |
| 1249 | Woonsocket | 651 Harris Av | 651 | Unknown | BS | 1 1/2 | LP | 9 |
| 1250 | Woonsocket | 667 Harris Av | 667 | Unknown | BS | 1 1/2 | LP | 9 |
| 1251 | Woonsocket | 677 Harris Av | 677 | 1941 | BS | 1 1/2 | LP | 9 |
| 1252 | Woonsocket | 346-348 Harris Av | 346-348 | 1923 | BS | 1 1/2 | LP | 9 |
| 1253 | Woonsocket | 413-415-417 Harris Av | 413-415-417 | Unknown | BS | 1 1/2 | LP | 9 |
| 1254 | Woonsocket | 706-708 Harris Av | 706-708 | 1938 | BS | 1 1/2 | LP | 9 |
| 1255 | Woonsocket | 714-718 Harris Av | 714-718 | 1938 | BS | 1 1/2 | LP | 9 |
| 1256 | Woonsocket | 113-121 Highland St | 113-121 | 1925 | BS | 1 1/2 | LP | 9 |
| 1257 | Woonsocket | 63-65 Mill St | 63-65 | 1926 | BS | 1 1/2 | LP | 9 |
| 1258 | Woonsocket | 73-75 Mill St | 73-75 | 1926 | BS | 1 1/2 | LP | 9 |
| 1259 | Woonsocket | 329-333 Park Av | 329-333 | 1923 | BS | 1 1/2 | LP | 9 |
| 1260 | Woonsocket | 527-529 Park Av | 527-529 | 1914 | BS | 1 1/4 | LP | 9 |
| 1261 | Woonsocket | 283 Railroad St | 283 | 1970 | BS | 2 | LP | 9 |
| 1262 | Woonsocket | 149-151 Railroad St | 149-151 | 1929 | BS | 1 1/2 | LP | 9 |
| 1263 | Woonsocket | 414 Rathbun St | 414 | 1920 | BS | 1 1/2 | LP | 9 |
| 1264 | Woonsocket | 425 Rathbun St | 425 | 1931 | BS | 1 1/2 | LP | 9 |
| 1265 | Woonsocket | 439 Rathbun St | 439 | 1931 | BS | 1 1/2 | LP | 9 |
| 1266 | Woonsocket | 403-397 Rathbun St | 403-397 | 1914 | BS | 1 1/2 | LP | 9 |
| 1267 | Woonsocket | 409-415 Rathbun St | 409-415 | 1946 | BS | 1 1/2 | LP | 9 |
| 1268 | Woonsocket | 434-436 Rathbun St | 434-436 | 1931 | BS | 1 1/2 | LP | 9 |
| 1269 | Woonsocket | 446-444 Rathbun St | 446-444 | 1931 | BS | 1 1/2 | LP | 9 |
| 1270 | Woonsocket | 45-47 Shove St | 45-47 | 1922 | BS | 1 1/2 | LP | 9 |
| 1271 | Woonsocket | 64 Transit St | 64 | 1928 | BS | 1 1/2 | LP | 9 |
| 1272 | Woonsocket | 84-86 Transit St | 84-86 | 1964 | BS | 1 1/2 | LP | 9 |
| 1273 | Woonsocket | 90-92 Transit St | 90-92 | 1920 | BS | 1 1/2 | LP | 9 |
| 1274 | Woonsocket | 98 Water St | 98 | Unknown | BS | 4 | LP | 9 |
| 1275 | Providence | 365 Atwells Av | 365 | 1921 | BS | 1 1/2 | LP | 9 |
| 1276 | Providence | 141-147 Atwells Av | 141-147 | 1927 | BS | 1 1/2 | LP | 9 |
| 1277 | Providence | 169-171 Atwells Av | 169-171 | 2005 | BS | 2 | LP | 9 |
| 1278 | Providence | 275-277 Atwells Av | 275-277 | 2020 | BS | 2 | LP | 9 |
| 1279 | Providence | 420-513 Atwells Av | 420-513 | 1958 | BS | 1 1/2 | LP | 9 |
| 1280 | Providence | 83 Babcock St | 83 | 1916 | BS | 1 1/2 | LP | 9 |
| 1281 | Providence | 144 Babcock St | 144 | 1926 | BS | 1 1/2 | LP | 9 |
| 1282 | Providence | 100 Bowen St | 100 | 1920 | BS | 1 1/2 | LP | 9 |
| 1283 | Providence | 8 Cady St | 8 | 1917 | BS | 1 1/8 | LP | 9 |
| 1284 | Providence | 128 Calla St | 128 | 1962 | BS | 1 1/4 | LP | 9 |
| 1285 | Providence | 25 Carl St | 25 | 1998 | BS | 1 1/2 | LP | 9 |
| 1286 | Providence | 108 Carpenter St | 108 | 1978 | BS | 1 | LP | 9 |
| 1287 | Providence | 1125 Chalkstone Av | 1125 | 1910 | BS | 1 1/4 | LP | 9 |
| 1288 | Providence | 1127 Chalkstone Av | 1127 | 1948 | BS | 1 1/2 | LP | 9 |
| 1289 | Providence | 1150 Chalkstone Av | 1150 | 1910 | BS | 1 1/4 | LP | 9 |
| 1290 | Providence | 1165 Chalkstone Av | 1165 | 1945 | BS | 1 1/2 | LP | 9 |
| 1291 | Providence | 1169 Chalkstone Av | 1169 | 1938 | BS | 1 1/2 | LP | 9 |
| 1292 | Providence | 1176 Chalkstone Av | 1176 | 1959 | BS | 1 1/4 | LP | 9 |
| 1293 | Providence | 1180 Chalkstone Av | 1180 | 1962 | BS | 1 1/4 | LP | 9 |
| 1294 | Providence | 1182 Chalkstone Av | 1182 | 1915 | BS | 1 | LP | 9 |
| 1295 | Providence | 1200 Chalkstone Av | 1200 | 1957 | BS | 1 1/4 | LP | 9 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| **1** | **City/Town** | **ADDRESS** | **House #** | **Install Year** | **Material** | **Diameter** | **Pressure** | **Priority (1-17, 1 being the highest)** |
| 1296 | Providence | 1193-1195 Chalkstone Av | 1193-1195 | 1924 | BS | 1 1/2 | LP | 9 |
| 1297 | Providence | 67 Congdon St | 67 | 1937 | BS | 1 1/2 | LP | 9 |
| 1298 | Providence | 73 Congdon St | 73 | 1949 | BS | 2 | LP | 9 |
| 1299 | Providence | 131 Congdon St | 131 | 1937 | BS | 1 1/2 | LP | 9 |
| 1300 | Providence | 47 Corina St | 47 | 1954 | BS | 1 1/4 | LP | 9 |
| 1301 | Providence | 55 Corina St | 55 | 1922 | BS | 1 1/2 | LP | 9 |
| 1302 | Providence | 59 Corina St | 59 | 1928 | BS | 1 1/2 | LP | 9 |
| 1303 | Providence | 65 Corina St | 65 | 1930 | BS | 1 1/2 | LP | 9 |
| 1304 | Providence | 66 Dike St | 66 | 1959 | BS | 2 | LP | 9 |
| 1305 | Providence | 111 Dorchester Av | 111 | 1923 | BS | 1 1/2 | LP | 9 |
| 1306 | Providence | 82 Freeman Pkwy | 82 | 1925 | BS | 2 | LP | 9 |
| 1307 | Providence | 45 Halsey St | 45 | 1913 | BS | 1 1/4 | LP | 9 |
| 1308 | Providence | 762 Hope St | 762 | Unknown | BS | 1 1/2 | LP | 9 |
| 1309 | Providence | 771 Hope St | 771 | 1961 | BS | 2 | LP | 9 |
| 1310 | Providence | 785 Hope St | 785 | 1926 | BS | 2 | LP | 9 |
| 1311 | Providence | 903 Hope St | 903 | Unknown | BS | 1 1/2 | LP | 9 |
| 1312 | Providence | 14 John St | 14 | 1960 | BS | 2 | LP | 9 |
| 1313 | Providence | 16 John St | 16 | 1931 | BS | 2 | LP | 9 |
| 1314 | Providence | 172 Linwood Av | 172 | Unknown | BS | 1 | LP | 9 |
| 1315 | Providence | 184 Linwood Av | 184 | 1947 | BS | 1 1/2 | LP | 9 |
| 1316 | Providence | 184 Linwood Av | 184 | 1947 | BS | 1 1/2 | LP | 9 |
| 1317 | Providence | 194 Linwood Av | 194 | 1924 | BS | 1 1/4 | LP | 9 |
| 1318 | Providence | 195 Linwood Av | 195 | Unknown | BS | 1 1/4 | LP | 9 |
| 1319 | Providence | 199 Linwood Av | 199 | 1966 | BS | 1 1/2 | LP | 9 |
| 1320 | Providence | 163-165 Linwood Av | 163-165 | Unknown | BS | 1 1/4 | LP | 9 |
| 1321 | Providence | 168-170 Linwood Av | 168-170 | Unknown | BS | 1 1/4 | LP | 9 |
| 1322 | Providence | 174-176 Linwood Av | 174-176 | Unknown | BS | 1 1/4 | LP | 9 |
| 1323 | Providence | 183-185 Linwood Av | 183-185 | 1914 | BS | 1 1/4 | LP | 9 |
| 1324 | Providence | 187-189 Linwood Av | 187-189 | 1914 | BS | 1 1/4 | LP | 9 |
| 1325 | Providence | 198-200 Linwood Av | 198-200 | Unknown | BS | 1 | LP | 9 |
| 1326 | Providence | 28 Meeting St | 28 | 1930 | BS | 2 | LP | 9 |
| 1327 | Providence | 1303 N Main St | 1303 | 1956 | BS | 3 | LP | 9 |
| 1328 | Providence | 20 Newport St | 20 | 1919 | BS | 1 1/4 | LP | 9 |
| 1329 | Providence | 12 Ogden St | 12 | 1925 | BS | 1 1/2 | LP | 9 |
| 1330 | Providence | 13 Ogden St | 13 | Unknown | BS | 1 1/2 | LP | 9 |
| 1331 | Providence | 31 Ogden St | 31 | 1923 | BS | 1 1/2 | LP | 9 |
| 1332 | Providence | 51 Ogden St | 51 | 1924 | BS | 1 1/2 | LP | 9 |
| 1333 | Providence | 68 Ogden St | 68 | 1915 | BS | 1 1/4 | LP | 9 |
| 1334 | Providence | 9 Olive St | 9 | 1921 | BS | 1 1/2 | LP | 9 |
| 1335 | Providence | 239 Oxford St | 239 | 1925 | BS | 2 | LP | 9 |
| 1336 | Providence | 45 Parente St | 45 | Unknown | BS | 1 1/4 | LP | 9 |
| 1337 | Providence | 191 Pavilion Av | 191 | 1912 | BS | 1 1/4 | LP | 9 |
| 1338 | Providence | 222 Pavilion Av | 222 | 1936 | BS | 1 1/4 | LP | 9 |
| 1339 | Providence | 37 Pembroke Av | 37 | 1922 | BS | 1 1/2 | LP | 9 |
| 1340 | Providence | 11-13 Pequot St | 11-13 | 1965 | BS | 1 1/4 | LP | 9 |
| 1341 | Providence | 16 Pratt St | 16 | Unknown | BS | 1 1/2 | LP | 9 |
| 1342 | Providence | 63 Prospect St | 63 | 1960 | BS | 1 1/2 | LP | 9 |
| 1343 | Providence | 75 Prospect St | 75 | 1951 | BS | 2 | LP | 9 |
| 1344 | Providence | 82-84 Prospect St | 82-84 | 1928 | BS | 3 | LP | 9 |
| 1345 | Providence | 25 Putnam St | 25 | 1920 | BS | 1 1/2 | LP | 9 |
| 1346 | Providence | 31 Putnam St | 31 | Unknown | BS | 1 1/4 | LP | 9 |
| 1347 | Providence | 32 Putnam St | 32 | 1910 | BS | 1 1/4 | LP | 9 |
| 1348 | Providence | 41 Putnam St | 41 | Unknown | BS | 1 1/4 | LP | 9 |
| 1349 | Providence | 42 Putnam St | 42 | Unknown | BS | 1 | LP | 9 |
| 1350 | Providence | 49 Putnam St | 49 | Unknown | BS | 1 | LP | 9 |
| 1351 | Providence | 50 Putnam St | 50 | 1919 | BS | 1 1/2 | LP | 9 |
| 1352 | Providence | 94 Ridge St | 94 | 1913 | BS | 1 1/2 | LP | 9 |
| 1353 | Providence | 103-105 Ridge St | 103-105 | 1943 | BS | 1 1/2 | LP | 9 |
| 1354 | Providence | 107-109 Ridge St | 107-109 | 1950 | BS | 1 1/2 | LP | 9 |
| 1355 | Providence | 111-113 Ridge St | 111-113 | Unknown | BS | 1 | LP | 9 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| 1 | City/Town | ADDRESS | House # | Install Year | Material | Diameter | Pressure | Priority (1-17, 1 being the highest) |
| 1356 | Providence | 115-117 Ridge St | 115-117 | Unknown | BS | 1 | LP | 9 |
| 1357 | Providence | 91-93 Ridge St | 91-93 | 1912 | BS | 1 1/4 | LP | 9 |
| 1358 | Providence | 95-97 Ridge St | 95-97 | 1937 | BS | 1 1/2 | LP | 9 |
| 1359 | Providence | 99-101 Ridge St | 99-101 | 1924 | BS | 1 1/2 | LP | 9 |
| 1360 | Providence | 37 Smart St | 37 | 1972 | BS | 1 1/4 | LP | 9 |
| 1361 | Providence | 44 Smart St | 44 | 1960 | BS | 1 1/4 | LP | 9 |
| 1362 | Providence | 15 Social St | 15 | 1952 | BS | 1 1/2 | LP | 9 |
| 1363 | Providence | 145 Spruce St | 145 | 1999 | BS | 2 | LP | 9 |
| 1364 | Providence | 253 Summit Av | 253 | 1962 | BS | 1 1/4 | LP | 9 |
| 1365 | Providence | 15-19 Sutton St | 15-19 | 1957 | BS | 1 1/4 | LP | 9 |
| 1366 | Providence | 225-233 Thayer St | 225-233 | Unknown | BS | 1 1/2 | LP | 9 |
| 1367 | Providence | 2 Tobey St | 2 | 1912 | BS | 1 1/4 | LP | 9 |
| 1368 | Providence | 12 Tobey St | 12 | Unknown | BS | 1 1/4 | LP | 9 |
| 1369 | Providence | 77 Tobey St | 77 | 1917 | BS | 1 1/2 | LP | 9 |
| 1370 | Providence | 82 Tobey St | 82 | 1912 | BS | 1 1/4 | LP | 9 |
| 1371 | Providence | 78 Transit St | 78 | 1913 | BS | 2 | LP | 9 |
| 1372 | Providence | 86 Transit St | 86 | 1950 | BS | 1 1/4 | LP | 9 |
| 1373 | Providence | 130 Transit St | 130 | Unknown | BS | 1 | LP | 9 |
| 1374 | Providence | 131 Transit St | 131 | Unknown | BS | 1 | LP | 9 |
| 1375 | Providence | 5 Traverse St | 5 | Unknown | BS | 1 1/2 | LP | 9 |
| 1376 | Providence | 379 Washington St | 379 | 1999 | BS | 1 1/2 | LP | 9 |
| 1377 | Providence | 371-377 Washington St | 371-377 | 1998 | BS | 2 | LP | 9 |
| 1378 | Providence | 56-58 Webster Av | 56-58 | Unknown | BS | 1 | LP | 9 |
| 1379 | Warren | 32 Arlington Av | 32 | Unknown | BS | 1 1/4 | LP | 9 |
| 1380 | Warwick | 8 Druid Rd | 8 | Unknown | BS | 1 1/2 | LP | 9 |
| 1381 | Cranston | 1710 Cranston St | 1710 | 1969 | CS | 2 | LP | 10 |
| 1382 | Cranston | 5 Eagle Rd | 5 | 1965 | CS | 1 1/4 | LP | 10 |
| 1383 | Cranston | 109 Fort Av | 109 | Unknown | CS | 1 1/4 | LP | 10 |
| 1384 | Cranston | 113-117 Hybrid Dr | 113-117 | 1948 | CS | 1 1/2 | LP | 10 |
| 1385 | Cranston | 122 Park View Blvd | 122 | 1970 | CS | 1 1/4 | LP | 10 |
| 1386 | Cranston | 140 Park View Blvd | 140 | 1967 | CS | 1 1/4 | LP | 10 |
| 1387 | Cranston | 138 S Clarendon St | 138 | 1925 | CS | 1 1/2 | LP | 10 |
| 1388 | East Providence | 46 Grove Av | 46 | 1969 | CS | 1 1/4 | LP | 10 |
| 1389 | East Providence | 46 Grove Av | 46 | 1969 | CS | 1 1/4 | LP | 10 |
| 1390 | East Providence | 54 Water St | 54 | 1962 | CS | 2 | LP | 10 |
| 1391 | Johnston | 24 Buchanan St | 24 | 1964 | CS | 1 1/4 | LP | 10 |
| 1392 | Johnston | 12 Calumet Av | 12 | 1971 | CS | 1 1/4 | LP | 10 |
| 1393 | Johnston | 14 Calumet Av | 14 | 1971 | CS | 1 1/4 | LP | 10 |
| 1394 | Johnston | 46 Lafayette St | 46 | 1971 | CS | 1 1/4 | LP | 10 |
| 1395 | Newport | 100 Bellevue Av | 100 | 1959 | CS | 2 1/2 | LP | 10 |
| 1396 | Newport | 647 Bellevue Av | 647 | Unknown | CS | 1 1/2 | LP | 10 |
| 1397 | Newport | 25.5 Bridge St | 25.5 | 1971 | CS | 1 1/4 | LP | 10 |
| 1398 | Newport | 11 Howard Whf | 11 | Unknown | CS | 4 | LP | 10 |
| 1399 | Newport | 44 - 2 Ledge Rd | 44 - 2 | Unknown | CS | 1 1/4 | LP | 10 |
| 1400 | Providence | 170 Babcock St | 170 | 1967 | CS | 1 1/4 | LP | 10 |
| 1401 | Providence | 75 Bernard St | 75 | 1949 | CS | 1 1/4 | LP | 10 |
| 1402 | Providence | 15 Di Mario Dr | 15 | 1967 | CS | 1 1/4 | LP | 10 |
| 1403 | Providence | 496 Eddy St | 496 | 1963 | CS | 4 | LP | 10 |
| 1404 | Providence | 1 Floral Av | 1 | 1965 | CS | 4 | LP | 10 |
| 1405 | Providence | 405 Promenade St | 405 | 1966 | CS | 6 | LP | 10 |
| 1406 | Providence | 153-155 Whitmarsh St | 153-155 | 1969 | CS | 2 | LP | 10 |
| 1407 | Barrington | 11 Anchorage Wy | 11 | 1970 | CS | 3/4 | 25# | 11 |
| 1408 | Barrington | 78 Gov Bradford Dr | 78 | 1970 | CS | 3/4 | 25# | 11 |
| 1409 | Barrington | 219 Lincoln Ave | 219 | 1970 | CS | 3/4 | 25# | 11 |
| 1410 | Barrington | 243 Maple Av | 243 | 1970 | CS | 3/4 | 25# | 11 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| **1** | **City/Town** | **ADDRESS** | **House #** | **Install Year** | **Material** | **Diameter** | **Pressure** | **Priority (1-17, 1 being the highest)** |
| 1411 | Barrington | 171 Maple Ave | 171 | 1969 | CS | 3/4 | 25# | 11 |
| 1412 | Barrington | 20 Massasoit Av | 20 | 1969 | CS | 3/4 | 25# | 11 |
| 1413 | Barrington | 186 Nayatt Rd | 186 | 1970 | CS | 3/4 | 25# | 11 |
| 1414 | Barrington | 32 Sherwood Ln | 32 | 1969 | CS | 3/4 | 25# | 11 |
| 1415 | Coventry | 20 Alvero Rd | 20 | 1964 | CS | 3/4 | 35# | 11 |
| 1416 | Coventry | 51 Arizona St | 51 | 1963 | CS | 3/4 | 35# | 11 |
| 1417 | Coventry | 19 Beechwood St | 19 | 1965 | CS | 3/4 | 35# | 11 |
| 1418 | Coventry | 21 Beechwood St | 21 | 1965 | CS | 3/4 | 35# | 11 |
| 1419 | Coventry | 67 Hopkins Hill Rd | 67 | 1967 | CS | 3/4 | 35# | 11 |
| 1420 | Coventry | 141 Hopkins Hill Rd | 141 | 1965 | CS | 3/4 | 35# | 11 |
| 1421 | Coventry | 20 Knotty Oak Rd | 20 | 1970 | CS | 3/4 | 35# | 11 |
| 1422 | Coventry | 248 Knotty Oak Rd | 248 | 1964 | CS | 3/4 | 35# | 11 |
| 1423 | Coventry | 268 Knotty Oak Rd | 268 | 1964 | CS | 3/4 | 35# | 11 |
| 1424 | Coventry | 867 Tiogue Ave | 867 | 1960 | CS | 1 | 35# | 11 |
| 1425 | Coventry | 18-20 Whitford St | 18-20 | 1968 | CS | 3/4 | 35# | 11 |
| 1426 | Cranston | 217 Belvedere Dr | 217 | 1971 | CS | 3/4 | 35# | 11 |
| 1427 | Cranston | 220 Belvedere Dr | 220 | 1967 | CS | 3/4 | 35# | 11 |
| 1428 | Cranston | 225 Belvedere Dr | 225 | 1969 | CS | 3/4 | 35# | 11 |
| 1429 | Cranston | 113 Coldbrook Dr | 113 | 1965 | CS | 3/4 | 35# | 11 |
| 1430 | Cranston | 120 Coldbrook Dr | 120 | 1964 | CS | 3/4 | 35# | 11 |
| 1431 | Cranston | 211 Curtis St | 211 | 1965 | CS | 3/4 | 35# | 11 |
| 1432 | Cranston | 3 Fairwood Dr | 3 | 1971 | CS | 3/4 | 35# | 11 |
| 1433 | Cranston | 51 Fairwood Dr | 51 | 1971 | CS | 3/4 | 35# | 11 |
| 1434 | Cranston | 218 Garden Hills Dr | 218 | 1966 | CS | 3/4 | 35# | 11 |
| 1435 | Cranston | 4 Jennings Av | 4 | 1966 | CS | 3/4 | 35# | 11 |
| 1436 | Cranston | 11 Jennings Av | 11 | 1966 | CS | 3/4 | 35# | 11 |
| 1437 | Cranston | 15 Jennings Av | 15 | 1966 | CS | 3/4 | 35# | 11 |
| 1438 | Cranston | 205 Meshanticut Valley Pkwy | 205 | 1969 | CS | 3/4 | 35# | 11 |
| 1439 | Cranston | 111 Metropolitan Av | 111 | Unknown | CS | 3/4 | 35# | 11 |
| 1440 | Cranston | 68 Mount View Dr | 68 | 1968 | CS | 3/4 | 35# | 11 |
| 1441 | Cranston | 112 Park Forest Rd | 112 | 1969 | CS | 3/4 | 35# | 11 |
| 1442 | Cranston | 40 Red Cedar Dr | 40 | 1961 | CS | 3/4 | 35# | 11 |
| 1443 | Cranston | 20 Searle Av | 20 | 1970 | CS | 3/4 | 35# | 11 |
| 1444 | Cranston | 23 Searle Av | 23 | 1969 | CS | 3/4 | 35# | 11 |
| 1445 | Cranston | 140 Summit Dr | 140 | 1969 | CS | 3/4 | 35# | 11 |
| 1446 | Cranston | 222 Summit Dr | 222 | 1963 | CS | 3/4 | 35# | 11 |
| 1447 | Cranston | 249 Summit Dr | 249 | 1964 | CS | 3/4 | 35# | 11 |
| 1448 | Cranston | 15 Bateman Av | 15 | 1968 | CS | 3/4 | 35# | 11 |
| 1449 | East Greenwich | 31 Birchwood Way | 31 | 1970 | CS | 3/4 | 35# | 11 |
| 1450 | East Greenwich | 66 Cedar St | 66 | 1963 | CS | 3/4 | 35# | 11 |
| 1451 | East Greenwich | 126 Lakedell Dr | 126 | 1968 | CS | 3/4 | 35# | 11 |
| 1452 | East Greenwich | 901 Main St | 901 | 1967 | CS | 3/4 | 35# | 11 |
| 1453 | East Greenwich | 155-157 Marlborough St | 155-157 | 1969 | CS | 3/4 | 35# | 11 |
| 1454 | East Greenwich | 9 School Ln | 9 | 1970 | CS | 3/4 | 35# | 11 |
| 1455 | East Greenwich | 285 Tanglewood Dr | 285 | 1968 | CS | 3/4 | 35# | 11 |
| 1456 | East Greenwich | 300 Tanglewood Dr | 300 | 1970 | CS | 3/4 | 35# | 11 |
| 1457 | East Greenwich | 88 Wolverstone Rd | 88 | 1963 | CS | 3/4 | 35# | 11 |
| 1458 | Johnston | 1477 Atwood Av | 1477 | 1964 | CS | 1 | 35# | 11 |
| 1459 | Narragansett | 127 Old Pine Rd | 127 | 1971 | CS | 3/4 | 35# | 11 |
| 1460 | North Kingstown | 83 Cynthia Dr | 83 | 1971 | CS | 3/4 | 35# | 11 |
| 1461 | North Kingstown | 84 Eileen Dr | 84 | 1970 | CS | 3/4 | 35# | 11 |
| 1462 | North Kingstown | 102 Eileen Dr | 102 | 1970 | CS | 3/4 | 35# | 11 |
| 1463 | North Kingstown | 24 Harrington Rd | 24 | 1965 | CS | 3/4 | 35# | 11 |
| 1464 | North Kingstown | 75 Longfellow Dr | 75 | 1968 | CS | 3/4 | 35# | 11 |
| 1465 | North Kingstown | 22 Lydia Dr | 22 | 1965 | CS | 3/4 | 35# | 11 |
| 1466 | North Kingstown | 559 N Quidnessett Rd | 559 | 1970 | CS | 3/4 | 35# | 11 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| **1** | **City/Town** | **ADDRESS** | **House #** | **Install Year** | **Material** | **Diameter** | **Pressure** | **Priority (1-17, 1 being the highest)** |
| 1467 | North Kingstown | 712-714 Newcomb Rd | 712-714 | 1970 | CS | 3/4 | 35# | 11 |
| 1468 | North Kingstown | 23 Sedgefield Rd | 23 | 1969 | CS | 3/4 | 35# | 11 |
| 1469 | North Kingstown | 16 Spencer Dr | 16 | 1965 | CS | 3/4 | 35# | 11 |
| 1470 | North Kingstown | 75 W Main St | 75 | 1971 | CS | 3/4 | 35# | 11 |
| 1471 | North Kingstown | 110 Wickford Point Rd | 110 | 1971 | CS | 2 | 35# | 11 |
| 1472 | North Providence | 95 Elliot Av | 95 | 1965 | CS | 3/4 | 35# | 11 |
| 1473 | Cumberland | 990 Mendon Rd | 990 | 1969 | CS | 3/4 | 60# | 11 |
| 1474 | Cumberland | 2180 B Mendon Rd | 2180 B | 1969 | CS | 1 | 60# | 11 |
| 1475 | Woonsocket | 1842 Mendon Rd | 1842 | 1971 | CS | 3/4 | 60# | 11 |
| 1476 | Smithfield | 44 Pleasant View Av | 44 | Unknown | CS | 3/4 | 35# | 11 |
| 1477 | Smithfield | 141 Pleasant View Av | 141 | Unknown | CS | 3/4 | 35# | 11 |
| 1478 | Smithfield | 149 Pleasant View Av | 149 | 1971 | CS | 3/4 | 35# | 11 |
| 1479 | Smithfield | 153 Pleasant View Av | 153 | 1970 | CS | 3/4 | 35# | 11 |
| 1480 | Smithfield | 195 Pleasant View Av | 195 | 1971 | CS | 3/4 | 35# | 11 |
| 1481 | Smithfield | 205 Pleasant View Av | 205 | 1970 | CS | 3/4 | 35# | 11 |
| 1482 | Smithfield | 440 Putnam Pike | 440 | 1969 | CS | 3/4 | 35# | 11 |
| 1483 | Smithfield | 492 Putnam Pike | 492 | 1967 | CS | 3/4 | 35# | 11 |
| 1484 | Smithfield | 494 Putnam Pike | 494 | 1968 | CS | 1 1/4 | 35# | 11 |
| 1485 | South Kingstown | 36 Edwards Av | 36 | Unknown | CS | 3/4 | 35# | 11 |
| 1486 | South Kingstown | 47 Edwards Av | 47 | 1970 | CS | 3/4 | 35# | 11 |
| 1487 | Warwick | 113 Arlington Av | 113 | 1969 | CS | 3/4 | 35# | 11 |
| 1488 | Warwick | 43 Blackstone Av | 43 | 1968 | CS | 3/4 | 35# | 11 |
| 1489 | Warwick | 92 Cady Av | 92 | 1971 | CS | 3/4 | 35# | 11 |
| 1490 | Warwick | 1088 Cedar Swamp Rd | 1088 | 1968 | CS | 3/4 | 35# | 11 |
| 1491 | Warwick | 100 Corona St | 100 | 1971 | CS | 3/4 | 35# | 11 |
| 1492 | Warwick | 12 Ernest Av | 12 | 1963 | CS | 3/4 | 35# | 11 |
| 1493 | Warwick | 11 Eton Av | 11 | 1967 | CS | 3/4 | 35# | 11 |
| 1494 | Warwick | 83 Eton Av | 83 | 1971 | CS | 3/4 | 35# | 11 |
| 1495 | Warwick | 43 Everleth Av | 43 | 1966 | CS | 3/4 | 35# | 11 |
| 1496 | Warwick | 46 Everleth Av | 46 | 1964 | CS | 3/4 | 35# | 11 |
| 1497 | Warwick | 18 Frontier Rd | 18 | 1967 | CS | 3/4 | 35# | 11 |
| 1498 | Warwick | 49 Hollis Av | 49 | 1968 | CS | 3/4 | 35# | 11 |
| 1499 | Warwick | 29 Home Av | 29 | 1968 | CS | 3/4 | 35# | 11 |
| 1500 | Warwick | 439 Ives Rd | 439 | 1970 | CS | 1 1/4 | 35# | 11 |
| 1501 | Warwick | 39 King St | 39 | 1967 | CS | 3/4 | 35# | 11 |
| 1502 | Warwick | 38 Kenwood St | 38 | 1971 | CS | 3/4 | 35# | 11 |
| 1503 | Warwick | 152 Kerri Lyn Rd | 152 | 1970 | CS | 3/4 | 35# | 11 |
| 1504 | Warwick | 103 Palmer Av | 103 | 1959 | CS | 1 | 35# | 11 |
| 1505 | Warwick | 147 Leroy Av | 147 | 1971 | CS | 3/4 | 35# | 11 |
| 1506 | Warwick | 278 Lincoln Av | 278 | 1970 | CS | 3/4 | 35# | 11 |
| 1507 | Warwick | 43 Main Av | 43 | 1966 | CS | 3/4 | 35# | 11 |
| 1508 | Warwick | 1139 Main Av | 1139 | 1964 | CS | 3/4 | 35# | 11 |
| 1509 | Warwick | 1150 Main Av | 1150 | 1969 | CS | 3/4 | 35# | 11 |
| 1510 | Warwick | 20 Mark Allen Dr | 20 | 1968 | CS | 3/4 | 35# | 11 |
| 1511 | Warwick | 39 Mark Allen Dr | 39 | 1968 | CS | 3/4 | 35# | 11 |
| 1512 | Warwick | 44 Mark Allen Dr | 44 | 1969 | CS | 3/4 | 35# | 11 |
| 1513 | Warwick | 49 Mark Allen Dr | 49 | 1967 | CS | 3/4 | 35# | 11 |
| 1514 | Warwick | 75 Mark Allen Dr | 75 | 1968 | CS | 3/4 | 35# | 11 |
| 1515 | Warwick | 3 Maywood Av | 3 | 1970 | CS | 3/4 | 35# | 11 |
| 1516 | Warwick | 53 Mill Cove Rd | 53 | 1966 | CS | 3/4 | 35# | 11 |
| 1517 | Warwick | 66 Mill Cove Rd | 66 | 1968 | CS | 3/4 | 35# | 11 |
| 1518 | Warwick | 80 Millard Av | 80 | 1969 | CS | 3/4 | 35# | 11 |
| 1519 | Warwick | 114 Millard Av | 114 | 1969 | CS | 3/4 | 35# | 11 |
| 1520 | Warwick | 60 New Britain Dr | 60 | 1967 | CS | 3/4 | 35# | 11 |
| 1521 | Warwick | 31 Pender Av | 31 | 1965 | CS | 3/4 | 35# | 11 |
| 1522 | Warwick | 35 Pender Av | 35 | 1965 | CS | 3/4 | 35# | 11 |
| 1523 | Warwick | 38 Pender Av | 38 | 1967 | CS | 3/4 | 35# | 11 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| 1 | City/Town | ADDRESS | House # | Install Year | Material | Diameter | Pressure | Priority (1-17, 1 being the highest) |
| 1524 | Warwick | 43 Pender Av | 43 | 1971 | CS | 3/4 | 35# | 11 |
| 1525 | Warwick | 44 Pender Av | 44 | 1971 | CS | 3/4 | 35# | 11 |
| 1526 | Warwick | 48 Pender Av | 48 | 1961 | CS | 3/4 | 35# | 11 |
| 1527 | Warwick | 65 Pleasant St | 65 | 1969 | CS | 3/4 | 35# | 11 |
| 1528 | Warwick | 85 Pleasant St | 85 | 1970 | CS | 3/4 | 35# | 11 |
| 1529 | Warwick | 1748 Post Rd | 1748 | 1970 | CS | 3/4 | 35# | 11 |
| 1530 | Warwick | 2081 Post Rd | 2081 | 1966 | CS | 1 1/4 | 35# | 11 |
| 1531 | Warwick | 3134 Post Rd | 3134 | 1968 | CS | 3/4 | 35# | 11 |
| 1532 | Warwick | 2720-2726 Post Rd | 2720-2726 | 1956 | CS | 1 | 35# | 11 |
| 1533 | Warwick | 48 Rock Av | 48 | 1967 | CS | 3/4 | 35# | 11 |
| 1534 | Warwick | 137 Rocky Point Av | 137 | 1965 | CS | 3/4 | 35# | 11 |
| 1535 | Warwick | 11 Royal Av | 11 | 1969 | CS | 3/4 | 35# | 11 |
| 1536 | Warwick | 408 Sandy Ln | 408 | 1970 | CS | 3/4 | 35# | 11 |
| 1537 | Warwick | 975 Sandy Ln | 975 | 1969 | CS | 1 1/4 | 35# | 11 |
| 1538 | Warwick | 77 Shawomet Av | 77 | 1969 | CS | 3/4 | 35# | 11 |
| 1539 | Warwick | 87 Shawomet Av | 87 | 1964 | CS | 1 | 35# | 11 |
| 1540 | Warwick | 79 Symonds Av | 79 | Unknown | CS | 3/4 | 35# | 11 |
| 1541 | Warwick | 1 Twin Oak Dr | 1 | 1970 | CS | 3/4 | 35# | 11 |
| 1542 | Warwick | 292 W Shore Rd | 292 | 1968 | CS | 3/4 | 35# | 11 |
| 1543 | Warwick | 636 W Shore Rd | 636 | 1968 | CS | 3/4 | 35# | 11 |
| 1544 | Warwick | 695 W Shore Rd | 695 | 1968 | CS | 3/4 | 35# | 11 |
| 1545 | Warwick | 1161 W Shore Rd | 1161 | 1957 | CS | 1 | 35# | 11 |
| 1546 | Warwick | 1851 W Shore Rd | 1851 | 1967 | CS | 3/4 | 35# | 11 |
| 1547 | Warwick | 3030 W Shore Rd | 3030 | 1969 | CS | 3/4 | 35# | 11 |
| 1548 | Warwick | 861-865 W Shore Rd | 861-865 | 1970 | CS | 3/4 | 35# | 11 |
| 1549 | Warwick | 1792 Warwick Av | 1792 | 1969 | CS | 3/4 | 35# | 11 |
| 1550 | Warwick | 57-59 Whipple Av | 57-59 | 1968 | CS | 3/4 | 35# | 11 |
| 1551 | West Warwick | 35 Crossen St | 35 | 1967 | CS | 3/4 | 35# | 11 |
| 1552 | West Warwick | 100-104 Hay St | 100-104 | 1964 | CS | 1 1/4 | 35# | 11 |
| 1553 | West Warwick | 6 Old Carriage Rd | 6 | 1966 | CS | 3/4 | 35# | 11 |
| 1554 | West Warwick | 12 Old Carriage Rd | 12 | 1965 | CS | 3/4 | 35# | 11 |
| 1555 | West Warwick | 20 Old Carriage Rd | 20 | 1965 | CS | 3/4 | 35# | 11 |
| 1556 | West Warwick | 32 Old Carriage Rd | 32 | 1966 | CS | 3/4 | 35# | 11 |
| 1557 | West Warwick | 44 Old Carriage Rd | 44 | 1966 | CS | 3/4 | 35# | 11 |
| 1558 | West Warwick | 48 Old Carriage Rd | 48 | 1966 | CS | 3/4 | 35# | 11 |
| 1559 | West Warwick | 52 Old Carriage Rd | 52 | 1964 | CS | 3/4 | 35# | 11 |
| 1560 | West Warwick | 136 Pepin St | 136 | 1964 | CS | 3/4 | 35# | 11 |
| 1561 | West Warwick | 257 Quaker Ln | 257 | 1970 | CS | 3/4 | 35# | 11 |
| 1562 | West Warwick | 5 Remington St | 5 | 1967 | CS | 3/4 | 35# | 11 |
| 1563 | West Warwick | 33-35 Standard Av | 33-35 | 1971 | CS | 3/4 | 35# | 11 |
| 1564 | West Warwick | 145 Wakefield St | 145 | 1969 | CS | 3/4 | 35# | 11 |
| 1565 | West Warwick | 10-12 Wakefield St | 10-12 | 1966 | CS | 3/4 | 35# | 11 |
| 1566 | West Warwick | 37-39 Wakefield St | 37-39 | 1968 | CS | 3/4 | 35# | 11 |
| 1567 | Westerly | 138 Church St | 138 | Unknown | CS | 3/4 | 60# | 11 |
| 1568 | Westerly | 15 Post Rd | 15 | 1966 | CS | 3/4 | 60# | 11 |
| 1569 | Newport | 701 Bellevue Av | 701 | 1965 | CS | 2 | LP | 12 |
| 1570 | Newport | 2 Chase St | 2 | 1966 | CS | 1 1/4 | LP | 12 |
| 1571 | Newport | 11 Farewell St | 11 | 1968 | CS | 1 | LP | 12 |
| 1572 | Central Falls | 542 Broad St | 542 | 1966 | CS | 2 | LP | 12 |
| 1573 | Lincoln | 21 Knowles St | 21 | 1969 | CS | 1 1/2 | LP | 12 |
| 1574 | Providence | 18 Di Mario Dr | 18 | 1966 | CS | 1 1/4 | LP | 12 |
| 1575 | Westerly | 1 Watch Hill Rd | 1 | Unknown | CS | 2 | LP | 12 |
| 1576 | Cumberland | 1224 Mendon Rd | 1224 | 1980 | Aldyl-A | 3 | 99# | 13 |
| 1577 | Cumberland | 28 Manville Hill Rd | 28 | 1980 | Aldyl-A | 5/8 | 60# | 14 |
| 1578 | Cumberland | 2970 Mendon Rd | 2970 | 1980 | Aldyl-A | 5/8 | 60# | 14 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| **1** | **City/Town** | **ADDRESS** | **House #** | **Install Year** | **Material** | **Diameter** | **Pressure** | **Priority (1-17, 1 being the highest)** |
| 1579 | Cumberland | 2970 Mendon Rd | 2970 | 1981 | Aldyl-A | 5/8 | 60# | 14 |
| 1580 | Cumberland | 2970 Mendon Rd | 2970 | 1980 | Aldyl-A | 5/8 | 60# | 14 |
| 1581 | Cumberland | 2970 Mendon Rd | 2970 | 1981 | Aldyl-A | 5/8 | 60# | 14 |
| 1582 | Cumberland | 2970 Mendon Rd | 2970 | 1981 | Aldyl-A | 5/8 | 60# | 14 |
| 1583 | Cumberland | 2970 Mendon Rd | 2970 | 1981 | Aldyl-A | 5/8 | 60# | 14 |
| 1584 | Cumberland | 2970 Mendon Rd | 2970 | 1982 | Aldyl-A | 5/8 | 60# | 14 |
| 1585 | Cumberland | 2970 Mendon Rd | 2970 | 1981 | Aldyl-A | 5/8 | 60# | 14 |
| 1586 | Cumberland | 2970 Mendon Rd | 2970 | 1981 | Aldyl-A | 5/8 | 60# | 14 |
| 1587 | Cumberland | 2970 Mendon Rd | 2970 | 1982 | Aldyl-A | 5/8 | 60# | 14 |
| 1588 | Cumberland | 2970 Mendon Rd | 2970 | 1982 | Aldyl-A | 5/8 | 60# | 14 |
| 1589 | Cumberland | 2970 Mendon Rd | 2970 | 1981 | Aldyl-A | 5/8 | 60# | 14 |
| 1590 | Cumberland | 2970 Mendon Rd | 2970 | 1982 | Aldyl-A | 5/8 | 60# | 14 |
| 1591 | Cumberland | 2970 Mendon Rd | 2970 | 1982 | Aldyl-A | 5/8 | 60# | 14 |

**Attachment DIV 1-6-1**

| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
|---|---|---|---|---|---|---|---|---|
| **1** | **City/Town** | **ADDRESS** | **House #** | **Install Year** | **Material** | **Diameter** | **Pressure** | **Priority (1-17, 1 being the highest)** |
| 1592 | Cumberland | 2970 Mendon Rd | 2970 | 1980 | Aldyl-A | 5/8 | 60# | 14 |
| 1593 | Cumberland | 2970 Mendon Rd | 2970 | 1982 | Aldyl-A | 5/8 | 60# | 14 |
| 1594 | Cumberland | 2970 Mendon Rd | 2970 | 1981 | Aldyl-A | 5/8 | 60# | 14 |
| 1595 | Cumberland | 2970 Mendon Rd | 2970 | 1981 | Aldyl-A | 5/8 | 60# | 14 |
| 1596 | Cumberland | 3286-3288 Mendon Rd | 3286-3288 | 1978 | Aldyl-A | 5/8 | 60# | 14 |
| 1597 | Lincoln | 291 Railroad St | 291 | 1981 | Aldyl-A | 5/8 | 60# | 14 |
| 1598 | Lincoln | 399 Railroad St | 399 | 1981 | Aldyl-A | 5/8 | 60# | 14 |
| 1599 | North Providence | 6 Monticello St | 6 | 1981 | Aldyl-A | 5/8 | 60# | 15 |
| 1600 | Cumberland | 9 Apache Ln | 9 | 1981 | Aldyl-A | 5/8 | 60# | 15 |
| 1601 | Cumberland | 3 Carol Dr | 3 | 1980 | Aldyl-A | 5/8 | 60# | 15 |
| 1602 | Cumberland | 31 Green Meadow Ln | 31 | 1980 | Aldyl-A | 5/8 | 60# | 15 |
| 1603 | Cumberland | 34 Green Meadow Ln | 34 | 1980 | Aldyl-A | 5/8 | 60# | 15 |
| 1604 | Cumberland | 36 Green Meadow Ln | 36 | 1980 | Aldyl-A | 5/8 | 60# | 15 |
| 1605 | Cumberland | 38 Green Meadow Ln | 38 | 1980 | Aldyl-A | 5/8 | 60# | 15 |
| 1606 | Cumberland | 16 Hayfield Ln | 16 | 1979 | Aldyl-A | 5/8 | 60# | 15 |
| 1607 | Cumberland | 18 Hayfield Ln | 18 | 1980 | Aldyl-A | 5/8 | 60# | 15 |
| 1608 | Cumberland | 56 Hillside Rd | 56 | 1981 | Aldyl-A | 5/8 | 60# | 15 |
| 1609 | Cumberland | 60 Hillside Rd | 60 | 1982 | Aldyl-A | 5/8 | 60# | 15 |
| 1610 | Cumberland | 70 Hillside Rd | 70 | 1982 | Aldyl-A | 3/4 | 60# | 15 |
| 1611 | Cumberland | 76 Hillside Rd | 76 | 1980 | Aldyl-A | 5/8 | 60# | 15 |
| 1612 | Cumberland | 53 Lonesome Pine Rd | 53 | 1979 | Aldyl-A | 5/8 | 60# | 15 |
| 1613 | Cumberland | 30 Manville Hill Rd | 30 | 1981 | Aldyl-A | 5/8 | 60# | 15 |
| 1614 | Cumberland | 699 Mendon Rd | 699 | 1982 | Aldyl-A | 5/8 | 60# | 15 |
| 1615 | Cumberland | 765 Mendon Rd | 765 | 1982 | Aldyl-A | 5/8 | 60# | 15 |
| 1616 | Cumberland | 1300 Mendon Rd | 1300 | 1979 | Aldyl-A | 5/8 | 60# | 15 |
| 1617 | Cumberland | 1420 Mendon Rd | 1420 | 1982 | Aldyl-A | 5/8 | 60# | 15 |
| 1618 | Cumberland | 2494 Mendon Rd | 2494 | 1980 | Aldyl-A | 5/8 | 60# | 15 |
| 1619 | Cumberland | 3516 Mendon Rd | 3516 | 1980 | Aldyl-A | 5/8 | 60# | 15 |
| 1620 | Cumberland | 1406-1408 Mendon Rd | 1406-1408 | 1979 | Aldyl-A | 5/8 | 60# | 15 |
| 1621 | Cumberland | 2 Ora Murphy Ct | 2 | 1976 | Aldyl-A | 5/8 | 60# | 15 |
| 1622 | Cumberland | 17 Plantation Dr | 17 | 1981 | Aldyl-A | 5/8 | 60# | 15 |
| 1623 | Cumberland | 17 Pollett St | 17 | 1980 | Aldyl-A | 5/8 | 60# | 15 |
| 1624 | Cumberland | 29 Pollett St | 29 | 1980 | Aldyl-A | 5/8 | 60# | 15 |
| 1625 | Cumberland | 147 Roland St | 147 | 1980 | Aldyl-A | 5/8 | 60# | 15 |
| 1626 | Cumberland | 7 Shelter Ln | 7 | 1979 | Aldyl-A | 5/8 | 60# | 15 |
| 1627 | Cumberland | 4 Sprague St | 4 | 1980 | Aldyl-A | 5/8 | 60# | 15 |
| 1628 | Cumberland | 14 Timberwolf Dr | 14 | 1980 | Aldyl-A | 5/8 | 60# | 15 |
| 1629 | Cumberland | 16 Womantam Ln | 16 | 1981 | Aldyl-A | 5/8 | 60# | 15 |
| 1630 | Cumberland | 18 Womantam Ln | 18 | 1982 | Aldyl-A | 5/8 | 60# | 15 |
| 1631 | Lincoln | 451 Angell Rd | 451 | 1980 | Aldyl-A | 5/8 | 60# | 15 |
| 1632 | Lincoln | 4 Thomas Dr | 4 | 1980 | Aldyl-A | 5/8 | 60# | 15 |
| 1633 | North Providence | 5 Augusta Av | 5 | 1984 | Aldyl-A | 5/8 | 60# | 15 |
| 1634 | North Providence | 11 Grand Av | 11 | 1978 | Aldyl-A | 5/8 | 60# | 15 |
| 1635 | North Providence | 13 Grand Av | 13 | 1980 | Aldyl-A | 5/8 | 60# | 15 |
| 1636 | North Providence | 15 Grand Av | 15 | 1978 | Aldyl-A | 5/8 | 60# | 15 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| **1** | **City/Town** | **ADDRESS** | **House #** | **Install Year** | **Material** | **Diameter** | **Pressure** | **Priority (1-17, 1 being the highest)** |
| 1637 | North Providence | 24 Grand Av | 24 | 1981 | Aldyl-A | 5/8 | 60# | 15 |
| 1638 | North Providence | 32 Lewis St | 32 | 1982 | Aldyl-A | 5/8 | 60# | 15 |
| 1639 | North Providence | 9 Michelle Dr | 9 | 1978 | Aldyl-A | 5/8 | 60# | 15 |
| 1640 | North Providence | 63 Pearl Av | 63 | 1978 | Aldyl-A | 5/8 | 60# | 15 |
| 1641 | North Providence | 76 Pearl Av | 76 | 1979 | Aldyl-A | 5/8 | 60# | 15 |
| 1642 | North Providence | 78 Pearl Av | 78 | 1978 | Aldyl-A | 5/8 | 60# | 15 |
| 1643 | North Providence | 74 Thelma Ave | 74 | 1982 | Aldyl-A | 5/8 | 60# | 15 |
| 1644 | North Providence | 79 Thelma Ave | 79 | 1979 | Aldyl-A | 5/8 | 60# | 15 |
| 1645 | North Providence | 81 Thelma Ave | 81 | 1978 | Aldyl-A | 5/8 | 60# | 15 |
| 1646 | North Providence | 11 Time St | 11 | 1983 | Aldyl-A | 5/8 | 60# | 15 |
| 1647 | North Providence | 62 Verdi St | 62 | 1982 | Aldyl-A | 5/8 | 60# | 15 |
| 1648 | North Providence | 69 Verdi St | 69 | 1981 | Aldyl-A | 5/8 | 60# | 15 |
| 1649 | North Providence | 71 Verdi St | 71 | 1984 | Aldyl-A | 5/8 | 60# | 15 |
| 1650 | North Providence | 27 Young St | 27 | 1983 | Aldyl-A | 5/8 | 60# | 15 |
| 1651 | North Smithfield | 72 Mechanic St | 72 | 1980 | Aldyl-A | 5/8 | 60# | 15 |
| 1652 | North Smithfield | 325 North Main St | 325 | 1980 | Aldyl-A | 5/8 | 60# | 15 |
| 1653 | North Smithfield | 675 Saint Paul St | 675 | 1980 | Aldyl-A | 5/8 | 60# | 15 |
| 1654 | North Smithfield | 802 Victory Highway | 802 | 1981 | Aldyl-A | 5/8 | 60# | 15 |
| 1655 | North Smithfield | 70 Westwood Rd | 70 | 1979 | Aldyl-A | 5/8 | 60# | 15 |
| 1656 | North Smithfield | 74 Westwood Rd | 74 | 1979 | Aldyl-A | 5/8 | 60# | 15 |
| 1657 | Woonsocket | 177 Circle St | 177 | 1979 | Aldyl-A | 3/4 | 60# | 15 |
| 1658 | Woonsocket | 294 Coolidge Av | 294 | 1980 | Aldyl-A | 5/8 | 60# | 15 |
| 1659 | Woonsocket | 49 Hawthorne Cir | 49 | 1981 | Aldyl-A | 5/8 | 60# | 15 |
| 1660 | Woonsocket | 95 Hawthorne Cir | 95 | 1983 | Aldyl-A | 5/8 | 60# | 15 |
| 1661 | Woonsocket | 302 Manville Rd | 302 | 1981 | Aldyl-A | 5/8 | 60# | 15 |
| 1662 | Woonsocket | 845 Manville Rd | 845 | 1976 | Aldyl-A | 5/8 | 60# | 15 |
| 1663 | Woonsocket | 900 Manville Rd | 900 | 1981 | Aldyl-A | 5/8 | 60# | 15 |
| 1664 | Woonsocket | 918 Manville Rd | 918 | 1981 | Aldyl-A | 5/8 | 60# | 15 |
| 1665 | Woonsocket | 1409 Manville Rd | 1409 | 1981 | Aldyl-A | 5/8 | 60# | 15 |
| 1666 | Woonsocket | 1425 Manville Rd | 1425 | 1980 | Aldyl-A | 5/8 | 60# | 15 |
| 1667 | Woonsocket | 5 St Hughes St | 5 | 1978 | Aldyl-A | 5/8 | 60# | 15 |
| 1668 | Woonsocket | 126 St Hughes St | 126 | 1980 | Aldyl-A | 5/8 | 60# | 15 |
| 1669 | Woonsocket | 154 St Hughes St | 154 | 1978 | Aldyl-A | 5/8 | 60# | 15 |
| 1670 | Woonsocket | 31 Verdun St | 31 | 1983 | Aldyl-A | 5/8 | 60# | 15 |
| 1671 | North Providence | 117 Jacksonia Dr | 117 | 1978 | Aldyl-A | 1 1/8 | LP | 16 |
| 1672 | North Providence | 119 Jacksonia Dr | 119 | 1980 | Aldyl-A | 1 1/8 | LP | 16 |
| 1673 | Cumberland | 121 Old Whipple St | 121 | 1980 | Aldyl-A | 1 1/4 | LP | 16 |
| 1674 | North Providence | 114 Volturno St | 114 | 1980 | Aldyl-A | 1 1/4 | LP | 16 |
| 1675 | Pawtucket | 120 Broadway | 120 | 1978 | Aldyl-A | 2 | LP | 16 |
| 1676 | Pawtucket | 10 Goff Ave | 10 | 1979 | Aldyl-A | 4 | LP | 16 |
| 1677 | Pawtucket | 610-612 Pawtucket Av | 610-612 | 1981 | Aldyl-A | 2 | LP | 16 |
| 1678 | Pawtucket | 1-13 Summer St | 1-13 | 1980 | Aldyl-A | 3 | LP | 16 |
| 1679 | Pawtucket | 30-40 Walcott St | 30-40 | 1980 | Aldyl-A | 4 | LP | 16 |
| 1680 | Woonsocket | 16 Bentley St | 16 | 1982 | Aldyl-A | 1 1/4 | LP | 16 |
| 1681 | Woonsocket | 490 Clinton St | 490 | 1979 | Aldyl-A | 4 | LP | 16 |
| 1682 | Woonsocket | 395-403 Grove St | 395-403 | 1981 | Aldyl-A | 1 1/4 | LP | 16 |
| 1683 | Central Falls | 54-56 W Hunt St | 54-56 | 1976 | Aldyl-A | 1 1/2 | LP | 17 |
| 1684 | Central Falls | 56 REAR W Hunt St | 56 REAR | 1976 | Aldyl-A | 1 1/2 | LP | 17 |
| 1685 | Cumberland | 285 Bryant St | 285 | 1977 | Aldyl-A | 1 1/2 | LP | 17 |
| 1686 | Cumberland | 291 Bryant St | 291 | 1977 | Aldyl-A | 1 1/2 | LP | 17 |
| 1687 | Cumberland | 83 Dexter St | 83 | 1977 | Aldyl-A | 1 1/4 | LP | 17 |
| 1688 | Cumberland | 15 Hope St | 15 | 1981 | Aldyl-A | 1 1/4 | LP | 17 |
| 1689 | Cumberland | 17 Hope St | 17 | 1981 | Aldyl-A | 1 1/4 | LP | 17 |
| 1690 | Cumberland | 19 Hope St | 19 | 1981 | Aldyl-A | 1 1/4 | LP | 17 |
| 1691 | Cumberland | 80 Hope St | 80 | 1979 | Aldyl-A | 1 1/4 | LP | 17 |
| 1692 | Cumberland | 85 Hope St | 85 | 1979 | Aldyl-A | 1 1/4 | LP | 17 |
| 1693 | Cumberland | 90 Hope St | 90 | 1979 | Aldyl-A | 1 1/4 | LP | 17 |
| 1694 | Cumberland | 97 Hope St | 97 | 1979 | Aldyl-A | 1 1/4 | LP | 17 |
| 1695 | Cumberland | 99 Hope St | 99 | 1979 | Aldyl-A | 1 1/4 | LP | 17 |
| 1696 | Cumberland | 100 Hope St | 100 | 1979 | Aldyl-A | 1 1/4 | LP | 17 |
| 1697 | Lincoln | 16 Ballou Ave | 16 | 1979 | Aldyl-A | 1 1/4 | LP | 17 |
| 1698 | Lincoln | 33 Knowles St | 33 | 1979 | Aldyl-A | 1 1/4 | LP | 17 |
| 1699 | Lincoln | 52 Middle St | 52 | 1977 | Aldyl-A | 1 1/2 | LP | 17 |
| 1700 | Lincoln | 25 N Union St | 25 | 1979 | Aldyl-A | 1 1/4 | LP | 17 |
| 1701 | Lincoln | 17 Parker St | 17 | 1981 | Aldyl-A | 1 1/4 | LP | 17 |
| 1702 | Lincoln | 7 Westwood Dr | 7 | 1980 | Aldyl-A | 1 1/4 | LP | 17 |
| 1703 | North Providence | 116 Orlando Dr | 116 | 1976 | Aldyl-A | 1 1/2 | LP | 17 |

| Attachment DIV 1-6-1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) |
| **1** | **City/Town** | **ADDRESS** | **House #** | **Install Year** | **Material** | **Diameter** | **Pressure** | **Priority (1-17, 1 being the highest)** |
| 1704 | North Providence | 118 Orlando Dr | 118 | 1976 | Aldyl-A | 1 1/2 | LP | 17 |
| 1705 | North Providence | 120 Orlando Dr | 120 | 1976 | Aldyl-A | 1 1/2 | LP | 17 |
| 1706 | North Providence | 122 Orlando Dr | 122 | 1977 | Aldyl-A | 1 1/2 | LP | 17 |
| 1707 | North Providence | 125 Orlando Dr | 125 | 1977 | Aldyl-A | 1 1/2 | LP | 17 |
| 1708 | North Providence | 128 Orlando Dr | 128 | 1977 | Aldyl-A | 1 1/2 | LP | 17 |
| 1709 | North Providence | 90 Volturno St | 90 | 1980 | Aldyl-A | 1 1/4 | LP | 17 |
| 1710 | North Providence | 134 Volturno St | 134 | 1980 | Aldyl-A | 1 1/4 | LP | 17 |
| 1711 | Pawtucket | 71 Abbott St | 71 | 1979 | Aldyl-A | 1 1/4 | LP | 17 |
| 1712 | Pawtucket | 204 Garden St | 204 | 1976 | Aldyl-A | 1 1/2 | LP | 17 |
| 1713 | Pawtucket | 344-346 Lonsdale Ave | 344-346 | 1977 | Aldyl-A | 1 1/2 | LP | 17 |
| 1714 | Pawtucket | 197 Mineral Spring Ave | 197 | 1982 | Aldyl-A | 2 | LP | 17 |
| 1715 | Pawtucket | 54 Newport Av | 54 | 1976 | Aldyl-A | 1 1/2 | LP | 17 |
| 1716 | Pawtucket | 75 Spring St | 75 | 1981 | Aldyl-A | 2 | LP | 17 |
| 1717 | Woonsocket | 64 Bellingham St | 64 | 1980 | Aldyl-A | 1 1/4 | LP | 17 |
| 1718 | Woonsocket | 556 Bernon St | 556 | 1980 | Aldyl-A | 1 1/4 | LP | 17 |
| 1719 | Woonsocket | 481 Clinton St | 481 | 1978 | Aldyl-A | 2 | LP | 17 |
| 1720 | Woonsocket | 65-67 Dean St | 65-67 | 1981 | Aldyl-A | 1 1/4 | LP | 17 |
| 1721 | Woonsocket | 287 Elm St | 287 | 1979 | Aldyl-A | 1 1/4 | LP | 17 |
| 1722 | Woonsocket | 133 Estes St | 133 | 1978 | Aldyl-A | 1 1/2 | LP | 17 |
| 1723 | Woonsocket | 151 Estes St | 151 | 1981 | Aldyl-A | 1 1/4 | LP | 17 |
| 1724 | Woonsocket | 334 Logee St | 334 | 1982 | Aldyl-A | 1 1/4 | LP | 17 |
| 1725 | Woonsocket | 349 Logee St | 349 | 1984 | Aldyl-A | 1 1/4 | LP | 17 |

**Attachment 1-6-2**

| Priority | Material | Pressure | Meter Location | |
|---|---|---|---|---|
| 1 | Unprotected Bare Steel | Pressure > 60#, but not Transmission | Inside | |
| 2 | Unprotected Bare Steel | Pressure > 60#, but not Transmission | Outside | |
| 3 | Unprotected Bare Steel | High Pressure | Inside | |
| 4 | Unprotected Bare Steel | Low Pressure | Outside | |
| 5 | Unprotected Bare Steel | High Pressure | Outside | |
| 6 | Unprotected Coated Steel | Pressure > 60#, but not Transmission | Inside | |
| 7 | Unprotected Coated Steel | Pressure > 60#, but not Transmission | Outside | |
| 8 | Unprotected Coated Steel | High Pressure | Inside | |
| 9 | Unprotected Bare Steel | Low Pressure | Inside | |
| 10 | Unprotected Coated Steel | Low Pressure | Inside | |
| 11 | Unprotected Coated Steel | High Pressure | Outside | |
| 12 | Unprotected Coated Steel | Low Pressure | Outside | |
| 13 | Aldyl-A | Pressure > 60#, but not Transmission | Outside | |
| 14 | Aldyl-A | High Pressure | Inside | |
| 15 | Aldyl-A | High Pressure | Outside | |
| 16 | Aldyl-A | Low Pressure | Inside | |
| 17 | Aldyl-A | Low Pressure | Outside | |

NOTE: If a service material was “Unknown” or a meter location was “Unknown”, it was defaulted to the high risk group based on its known attributes. All meter locations were taken from the information available in GIS.

| Logic |
|---|
| -Any services either partially or fully LPP which were fed by cast iron mains 12” and under, ductile iron, wrought iron, bare steel, or coated steel mains installed prior to 08/01/1971 (including those we consider to be CP protected) were not included in this list. |
| -LPP (partial or fully) services which were fed by cast iron mains over 12" in diameter were not included, unless the main had previously been addressed using CISBOT. As mains are addressed using CISBOT in the future, any leak prone services off of these mains will need to be added to the master list (or relayed at the time the CISBOT work is done). The assumption is that all large diameter cast iron mains will either need to be addressed by relay, CISBOT, or lining. If this assumption ever changes, large diameter cast iron mains will need to be reviewed for leak prone services that may need to be addressed separately from the mains. |
| -LPP (partial or fully) services which were fed by short segments of plastic (<~200 feet) in the midst of areas that were otherwise LPP were not included, as it was assumed that when these areas were relayed, these pieces of plastic would be included in the relay, rather than tied into. |
| -LPP (partial or fully) services which were fed by plastic mains in the Cumberland yard installed in 1983 or earlier or in the towns of Bristol and Warren in 1979 or earlier were assumed to be Aldyl-A requiring replacement at some point, and thus were not included on this list. |
| -If plastic services installed in the Cumberland yard installed in 1983 or earlier or in the towns of Bristol and Warren in 1979 or earlier were tied into newer plastic mains, these were included on the list as it was assumed the plastic mains would not be replaced at any point, but the service material requires replacement. |
| -If records were inconclusive for any services being reviewed, we erred on the conservative side and included the service on the master list. There’s a good chunk of services here which may just require a field check so GIS can be updated to properly reflect field conditions rather than a relay. |

Division 1-7

Request:

Regarding Pressure Regulating Facilities, please provide an updated overall risk ranked list of all stations including any abandonments and/or replacements over that past 10 years.

Response:

Attachment DIV 1-7-1 provides an updated risk ranking of all Pressure Regulating stations, Attachment DIV 1-7-2 lists stations that have been replaced/installed within the last 10 years, and Attachment DIV 1-7-3 details stations that have been abandoned in the past 10 years.

Prepared by or under the supervision of: Vanessa Valencia

**Attachment DIV 1-7-1**

| | Town (a) | Station Number (b) | Station Name (c) | Station Type (d) | Risk Rank (e) | Station Age (f) | System (g) | Capacity (h) | System Customers (i) | Design Day Outages (j) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | PROVIDENCE | RIS-400 | 30 Allens Av (Manchester St) TS Power Plant | **Gate Station** | 1 | 29 | VPEM 350# | 0% | 1 | 51,000 |
| 2 | EAST PROVIDENCE | **RIS-004** | **Wampanoag Trail TS** | **Gate Station** | 2 | 70 | Providence 200# | NA | 1 | 68,000 |
| 3 | CRANSTON | **RIS-119** | **Wellington Av @ Well Av** | **Reg Station** | 3 | 29 | Providence LP | 34% | 76,744 | 1,969 |
| 4 | LINCOLN | RIN-C045 | 600 George Washington Hwy (Rt 116) TS | **Gate Station** | 4 | 32 | Upper Cumberland 99# | 44% | 5,753 | 27,111 |
| 5 | CUMBERLAND | **RIN-C017** | West Highland Av @ High St | **Reg Station** | 5 | 60 | Pawtucket LP | 46% | 34,781 | 440 |
| 6 | NORTH PROVIDENCE | **RIS-082** | Waterman @ Whitman St | **Reg Station** | 6 | 51 | Providence LP | 7% | 76,744 | - |
| 7 | PAWTUCKET | **RIN-C022** | **Weeden St @ Smithfield Av** | **Reg Station** | 7 | 61 | Pawtucket LP | 56% | 34,781 | 2,522 |
| 8 | PROVIDENCE | **RIS-116** | Silver Spring St @ Metcalf St | **Reg Station** | 8 | 33 | Providence LP | 43% | 76,744 | 1,236 |
| 9 | PROVIDENCE | **RIS-103** | **Promenade St @ Kingsley Av (121 Providence Place)** | **Reg Station** | 9 | 40 | Providence LP | 9% | 76,744 | 918 |
| 10 | WARWICK | **RIS-036** | **Post Rd @ Byron Blvd** | **Reg Station** | 10 | 33 | Providence LP | 20% | 76,744 | - |
| 11 | PROVIDENCE | **RIS-065** | Corina St @ Glasglow LP | **Reg Station** | 11 | 49 | Providence LP | 58% | 76,744 | 2,044 |
| 12 | PORTSMOUTH | RIS-N203 | 135 Old Mill Ln TS | **Gate Station** | 12 | 24 | Newport/Middleton 99# | 41% | 1,408 | 24,906 |
| 13 | CENTRAL FALLS | **RIN-C020** | 550 High St | **Reg Station** | 13 | 31 | Pawtucket LP | 36% | 34,781 | 4,220 |
| 14 | WOONSOCKET | **RIN-C007** | Kendrick Av @ Gaulin Av | **Reg Station** | 14 | 65 | Woonsocket LP | 36% | 8,854 | 1,784 |
| 15 | CENTRAL FALLS | **RIN-C050** | Broad St @ Hunt St | **Reg Station** | 15 | 15 | Pawtucket LP | 30% | 34,781 | 2,314 |
| 16 | PROVIDENCE | **RIS-109** | **477 Dexter St** | **Reg Station** | 16 | 36 | Providence LP | 85% | 76,744 | - |
| 17 | PROVIDENCE | **RIS-128** | Allens Av @ Blackstone St | **Reg Station** | 17 | 22 | Providence LP | 69% | 76,744 | 7,114 |
| 18 | JOHNSTON | **RIS-029** | 20 Serrel Sweet Rd | **Reg Station** | 18 | 54 | Providence LP | 58% | 76,744 | 1,969 |
| 19 | CRANSTON | **RIS-113** | Depot Av @ Cranston St | **Reg Station** | 19 | 36 | Providence LP | 67% | 76,744 | 1,141 |
| 20 | LINCOLN | **RIN-C048** | **New River Rd @ Cottage St** | **Reg Station** | 20 | 35 | South Cumberland 60# | 100% | 14,449 | 7,882 |
| 21 | WEST WARWICK | **RIS-133** | **Cowesett Av @ Quaker Ln** | **Reg Station** | 21 | 17 | Rhode Island 99# | 32% | 10,968 | 42,844 |
| 22 | WARWICK | **RIS-107** | **Warwick Av @ W Shore** | **Reg Station** | 22 | 39 | West Shore 35# | 84% | 59,694 | 19,258 |
| 23 | PAWTUCKET | **RIN-C036** | Dora St @ Vincent Av | **Reg Station** | 23 | 31 | Pawtucket LP | 46% | 34,781 | 2,194 |
| 24 | PROVIDENCE | **RIS-127** | Point St @ Beacon Av | **Reg Station** | 24 | 23 | Providence LP | 6% | 76,744 | 1,984 |
| 25 | MIDDLETOWN | RIS-N209 | Walcott Av @ St Georges | **Reg Station** | 25 | 27 | Middleton LP | 22% | 336 | 468 |
| 26 | CRANSTON | RIS-073 | Mayfield Rd @ Oakland Av | **Reg Station** | 26 | 31 | West Shore 35# | 67% | 59,694 | 13,178 |
| 27 | NORTH PROVIDENCE | **RIS-129** | David St @ Mineral Spring Av | **Reg Station** | 27 | 20 | Providence LP | 48% | 76,744 | 372 |
| 28 | CRANSTON | **RIS-016** | Park Av @ Hayward Av | **Reg Station** | 28 | 29 | Providence LP | 69% | 76,744 | 3,414 |
| 29 | PROVIDENCE | **RIS-023** | Westminster St @ Rt 10 | **Reg Station** | 29 | 29 | Providence LP | 68% | 76,744 | 3,390 |
| 30 | PAWTUCKET | RIN-C031 | Tidewater St @ Taft St City Reg | **Reg Station** | 30 | 13 | Pawtucket LP | 91% | 34,781 | 6,657 |
| 31 | NORTH PROVIDENCE | **RIS-088** | Corina St @ Glasgow 35 PSIG | **Reg Station** | 31 | 46 | North Providence/Johnston 35# | 100% | 4,317 | 8,403 |
| 32 | PROVIDENCE | **RIS-121** | Broad St @ Early St | **Reg Station** | 32 | 28 | Providence LP | 30% | 76,744 | - |
| 33 | CRANSTON | **RIS-096** | Broad St @ Columbia Av | **Reg Station** | 33 | 42 | Providence LP | 75% | 76,744 | 3,617 |
| 34 | PROVIDENCE | **RIS-024.1** | **Hartford Av @ Petteys Av (Holder 19) LP** | **Reg Station** | 34 | 40 | Providence LP | 100% | 76,744 | 14,871 |
| 35 | JOHNSTON | **RIS-034** | **Atwood Av @ 1401 Plainfield St** | **Reg Station** | 35 | 61 | Johnston 35# | 60% | 521 | 3,596 |
| 36 | WOONSOCKET | **RIN-C005** | Bailey St @ Ballou St | **Reg Station** | 36 | 46 | Woonsocket LP | 28% | 8,854 | 1,174 |
| 37 | PROVIDENCE | **RIS-078** | Ives St @ Trenton St | **Reg Station** | 37 | 53 | Providence LP | 61% | 76,744 | - |
| 38 | JOHNSTON | **RIS-100** | Allendale Av @ Geo. Waterman | **Reg Station** | 38 | 37 | North Providence/Johnston 35# | 39% | 4,317 | 3,962 |

**Attachment DIV 1-7-1**

| | Town (a) | Station Number (b) | Station Name (c) | Station Type (d) | Risk Rank (e) | Station Age (f) | System (g) | Capacity (h) | System Customers (i) | Design Day Outages (j) |
|---|---|---|---|---|---|---|---|---|---|---|
| 39 | CUMBERLAND | **RIN-C049** | **Mendon Rd @ Nate Whipple Hwy** | **Reg Station** | 39 | 24 | South Cumberland 60# | 91% | 14,449 | 16,136 |
| 40 | PROVIDENCE | RIS-098 | Chalkstone St @ Rosebank Av | **Reg Station** | 40 | 42 | Providence LP | 100% | 76,744 | 6,991 |
| 41 | PAWTUCKET | **RIN-C024** | Senate St @ Daggett Av | **Reg Station** | 41 | 31 | Pawtucket LP | 80% | 34,781 | 1,543 |
| 42 | PAWTUCKET | **RIN-C028** | Oregon Av @ Manistee St | **Reg Station** | 42 | 31 | Pawtucket LP | 31% | 34,781 | 1,011 |
| 43 | WOONSOCKET | RIN-C004 | Harris Av @ Blackstone St | **Reg Station** | 43 | 42 | Woonsocket LP | 41% | 8,854 | 938 |
| 44 | WARWICK | **RIS-035** | 186 N Country Club Dr | **Reg Station** | 44 | 67 | Providence LP | 59% | 76,744 | 717 |
| 45 | WARREN | RIS-BW014 | Market St @ Kickemuit Rd | **Reg Station** | 45 | 20 | Warren LP | 8% | 256 | 512 |
| 46 | LINCOLN | **RIN-C018** | Boulevard Av @ Front St | **Reg Station** | 46 | 43 | Pawtucket LP | 22% | 34,781 | 893 |
| 47 | CRANSTON | **RIS-077** | Fountain Av @ Dyer Av | **Reg Station** | 47 | 31 | Providence LP | 97% | 76,744 | 1,530 |
| 48 | WARREN | **RIS-BW010** | Warren TS | **Gate Station** | 48 | 12 | Bristol Warren 60# | 54% | 4,051 | 15,601 |
| 49 | NEWPORT | RIS-N216 | Bliss Rd @ Broadway | **Reg Station** | 49 | 37 | Newport LP | 39% | 6,492 | 2,626 |
| 50 | WOONSOCKET | RIN-C006 | Kenwood St @ Cass Av | **Reg Station** | 50 | 32 | Woonsocket LP | 22% | 8,854 | 501 |
| 51 | EAST PROVIDENCE | RIS-014 | N Broadway @ Greenwood St | **Reg Station** | 51 | 64 | East Providence LP | 21% | 6,505 | 1,149 |
| 52 | SMITHFIELD | RIS-402 | **347 Putnam Pike TS (Rt 44) 99 PSIG** | **Gate Station** | 52 | 25 | Rhode Island 99# | 17% | 10,968 | 28,091 |
| 53 | EAST PROVIDENCE | RIS-006 | Pawtucket Av @ Sprague St | **Reg Station** | 53 | 54 | Riverside LP | 56% | 1,290 | 786 |
| 54 | PROVIDENCE | RIS-094 | Dyer St @ Pine St | **Reg Station** | 54 | 20 | Providence 35# | 15% | 523 | 2,762 |
| 55 | WEST WARWICK | **RIS-104** | E Greenwich St @ Quaker Ln | **Reg Station** | 55 | 40 | West Shore 35# | 21% | 59,694 | 1,305 |
| 56 | PROVIDENCE | **RIS-111** | Canal St @ Washington St | **Reg Station** | 56 | 37 | Providence LP | 78% | 76,744 | 6,116 |
| 57 | NORTH PROVIDENCE | **RIN-132** | Waterman Av @ Greystone | **Reg Station** | 57 | 17 | Providence LP | 61% | 76,744 | 1,488 |
| 58 | NORTH KINGSTOWN | RIS-118 | 3362 Kingstown Rd (Waites Corner) | **Reg Station** | 58 | 31 | West Shore 35# | 29% | 59,694 | 9,359 |
| 59 | CRANSTON | **RIS-108** | 11 Lawnacre Dr @ Wayside Dr | **Reg Station** | 59 | 38 | Providence LP | 32% | 76,744 | 2,033 |
| 60 | WEST WARWICK | RIS-120 | **Providence St @ Toll Gate Rd** | **Reg Station** | 60 | 28 | West Shore 35# | 22% | 59,694 | 6,942 |
| 61 | SMITHFIELD | **RIS-125** | **347 Putnam Pike TS (Rt 44) 35 PSIG** | **Gate Station** | 61 | 25 | Johnston 35# | 11% | 6,784 | 6,321 |
| 62 | CRANSTON | **RIS-049** | 1584 Plainfield St @ Plainfield Pk | **Reg Station** | 62 | 49 | Providence LP West | 26% | 1,402 | 679 |
| 63 | PAWTUCKET | **RIN-C027** | Bloomfield St @ Armistice Blvd | **Reg Station** | 63 | 39 | Pawtucket LP | 100% | 34,781 | 2,016 |
| 64 | WARREN | RIS-310 | 28 Brown St TS (Barrington Bldg) | **Gate Station** | 64 | 12 | East Shore 25# | 58% | 7,622 | 3,073 |
| 65 | PAWTUCKET | **RIN-C030** | North Bend St @ Cottage St | **Reg Station** | 65 | 37 | Pawtucket LP | 52% | 34,781 | 2,332 |
| 66 | EAST PROVIDENCE | RIS-046 | Centre St @ Castro St | **Reg Station** | 66 | 61 | East Providence LP | 28% | 6,505 | 857 |
| 67 | NORTH PROVIDENCE | RIS-027 | Smithfield Rd @ Cushing St | **Reg Station** | 67 | 11 | Providence LP | 18% | 76,744 | 519 |
| 68 | EAST PROVIDENCE | RIS-047 | 747 Bullocks Point Av | **Reg Station** | 68 | 38 | Riverside LP | 24% | 1,290 | 352 |
| 69 | JOHNSTON | RIS-057 | 915 Atwood Av @ Plainfield St (St Rocco's) | **Reg Station** | 69 | 49 | Providence LP West | 83% | 1,402 | 1,334 |
| 70 | CENTRAL FALLS | **RIN-C019** | Liberty St @ Hunt St | **Reg Station** | 70 | 50 | Pawtucket LP | 73% | 34,781 | 2,650 |
| 71 | JOHNSTON | RIS-092 | Traver Av @ Killingly St | **Reg Station** | 71 | 6 | Providence LP | 53% | 76,744 | 1,256 |
| 72 | WOONSOCKET | RIN-C009 | Asylum St @ Mason St | **Reg Station** | 72 | 55 | Woonsocket LP | 48% | 8,854 | 570 |
| 73 | WOONSOCKET | RIN-C003 | High St @ Fountain St | **Reg Station** | 73 | 26 | Woonsocket LP | 1% | 8,854 | 599 |
| 74 | BRISTOL | RIS-BW005 | 213 Mt Hope Av | **Reg Station** | 74 | 39 | Bristol LP | 41% | 2,206 | 183 |
| 75 | PAWTUCKET | **RIN-C026** | Downes Av @ Robinson Av | **Reg Station** | 75 | 34 | Pawtucket LP | 77% | 34,781 | 2,223 |
| 76 | PROVIDENCE | RIS-022 | Niantic Av @ Pawnee St | **Reg Station** | 76 | 14 | Providence LP | 69% | 76,744 | 474 |

**Attachment DIV 1-7-1**

| | Town (a) | Station Number (b) | Station Name (c) | Station Type (d) | Risk Rank (e) | Station Age (f) | System (g) | Capacity (h) | System Customers (i) | Design Day Outages (j) |
|---|---|---|---|---|---|---|---|---|---|---|
| 77 | PROVIDENCE | RIS-087 | Silver Spring St @ Charles St | **Reg Station** | 77 | 6 | Providence LP | 24% | 76,744 | 2,906 |
| 78 | WESTERLY | RIS-OOF | 14A Perkins Av | **Reg Station** | 78 | 33 | Westerly LP | 16% | 1,559 | 127 |
| 79 | PROVIDENCE | **RIS-115** | Doyle Av @ Taber Av | **Reg Station** | 79 | 35 | Providence LP | 45% | 76,744 | 6,971 |
| 80 | NORTH KINGSTOWN | RIS-081 | Ten Rod Rd (Pole 110) | **Reg Station** | 80 | 52 | West Shore 35# | 40% | 59,694 | 6,212 |
| 81 | WESTERLY | RIS-OOB-R | Westerly TS (Relief Only) | **Gate Station** | 81 | 20 | Westerly 75# | N/A | 38 | 4,076 |
| 82 | EAST PROVIDENCE | RIS-117 | County Rd @ Old County Rd | **Reg Station** | 82 | 13 | East Shore 25# | 100% | 7,622 | 4,085 |
| 83 | PAWTUCKET | **RIN-C032** | Bacon St @ Columbus Av | **Reg Station** | 83 | 25 | Pawtucket LP | 58% | 34,781 | 1,964 |
| 84 | PAWTUCKET | **RIN-C033** | Kepler St @ Divison St | **Reg Station** | 84 | 23 | Pawtucket LP | 57% | 34,781 | 1,586 |
| 85 | CUMBERLAND | RIN-C016 | Ann & Hope Way | **Reg Station** | 85 | 8 | Pawtucket LP | 45% | 34,781 | 1,341 |
| 86 | PAWTUCKET | RIN-C023 | Moshassuck St @ Main St | **Reg Station** | 86 | 15 | Pawtucket LP | 51% | 34,781 | 2,187 |
| 87 | NORTH PROVIDENCE | RIS-026 | Eliot Av @ Barrett Av | **Reg Station** | 87 | 11 | Providence LP | 66% | 76,744 | 1,913 |
| 88 | JOHNSTON | RIS-063 | Hartford Av @ Dale Av | **Reg Station** | 88 | 11 | Providence LP | 27% | 76,744 | 508 |
| 89 | LINCOLN | RIN-C037 | Woodland St @ Smithfield Av | **Reg Station** | 89 | 9 | Pawtucket LP | 19% | 34,781 | 731 |
| 90 | MIDDLETOWN | RIS-N212 | W Main Rd @ Dudley Av | **Reg Station** | 90 | 12 | Newport LP | 13% | 6,492 | 421 |
| 91 | WESTERLY | RIS-OOC | 53 Ward Av | **Reg Station** | 91 | 27 | Westerly LP | 15% | 1,559 | 294 |
| 92 | PAWTUCKET | RIN-C029 | Maryland Av @ School St | **Reg Station** | 92 | 14 | Pawtucket LP | 33% | 34,781 | 1,214 |
| 93 | WOONSOCKET | RIN-C012 | Bourdon Blvd @ Asylum St | **Reg Station** | 93 | 43 | Woonsocket Int. 8# | 6% | 58 | 202 |
| 94 | NORTH PROVIDENCE | RIN-C038 | Charles St @ Mineral Spring Av | **Reg Station** | 94 | 7 | Pawtucket LP | 100% | 34,781 | 1,572 |
| 95 | COVENTRY | RIS-126 | 433 Hopkins Hill Rd | **Reg Station** | 95 | 24 | West Shore 35# | 38% | 59,694 | 5,180 |
| 96 | PAWTUCKET | RIN-C025 | 290 Daggett Av | **Reg Station** | 96 | 33 | Pawtucket LP | 31% | 34,781 | 748 |
| 97 | NEWPORT | RIS-N220 | Memorial Blvd @ Anna Dr | **Reg Station** | 97 | 27 | Newport 10# | 19% | 2,593 | 1,069 |
| 98 | PROVIDENCE | RIS-008 | Brook St @ George St LP | **Reg Station** | 98 | 9 | Providence LP | 39% | 76,744 | 1,359 |
| 99 | EAST PROVIDENCE | RIS-311 | 27 Dey St TS | **Gate Station** | 99 | 43 | Rhode Island 99# | 89% | 10,968 | 46,661 |
| 100 | EAST PROVIDENCE | RIS-130 | Village Green N @ Pawtucket Av | **Reg Station** | 100 | 18 | East Providence 5# | 37% | 2,394 | 2,180 |
| 101 | PROVIDENCE | **RIS-122** | 30 Virginia Av | **Reg Station** | 101 | 27 | Providence LP | 77% | 76,744 | 4,009 |
| 102 | WOONSOCKET | RIN-C002 | Rockland Av @ Morse Av | **Reg Station** | 102 | 23 | Woonsocket LP | 25% | 8,854 | 494 |
| 103 | MIDDLETOWN | RIS-N202 | W Main Rd @ Oliphant Ln | **Reg Station** | 103 | 18 | Newport 10# | 100% | 2,593 | 1,154 |
| 104 | EAST PROVIDENCE | RIS-001 | 500 Veterans Mem Pkwy (Bentley St) | **Reg Station** | 104 | 7 | East Providence 25# | 21% | 33 | 4,964 |
| 105 | MIDDLETOWN | RIS-N201 | Newman Rd @ Aquidneck Av | **Reg Station** | 105 | 13 | Newport 10# | 8% | 2,593 | 886 |
| 106 | EAST PROVIDENCE | RIS-123 | Fort St @ S Broadway | **Reg Station** | 106 | 25 | East Providence LP | 48% | 6,505 | 715 |
| 107 | NORTH KINGSTOWN | RIS-084 | Stony Ln @ Rt 2 | **Reg Station** | 107 | 12 | N. Kingston Stony Ln. 35# | 3% | 49 | 17 |
| 108 | PAWTUCKET | RIN-C035 | Tidewater St @ Taft St B Run | **Reg Station** | 108 | 13 | Pawtucket Intermediate 18# | 49% | 1,114 | 9,412 |
| 109 | PAWTUCKET | RIN-C051 | Bernon St @ Front St | **Reg Station** | 109 | 14 | Woonsocket LP | 36% | 8,854 | 2,702 |
| 110 | WOONSOCKET | RIN-C001 | St James Way @ Mendon Rd | **Reg Station** | 110 | 11 | Woonsocket LP | 4% | 8,854 | 265 |
| 111 | EAST PROVIDENCE | RIS-099 | 860 Waterman Av | **Reg Station** | 111 | 41 | S. East Providence 35# | 19% | 276 | 757 |
| 112 | BRISTOL | RIS-BW015 | 8 Gooding Av | **Reg Station** | 112 | 20 | Bristol Warren 8# | 26% | 2,443 | 1,379 |
| 113 | PAWTUCKET | RIN-C042 | Smithfield Av @ Weeden St | **Reg Station** | 113 | 52 | South Cumberland 60# | 50% | 14,449 | 3,951 |
| 114 | LINCOLN | RIN-C014 | Railroad Av @ Winter St LP | **Reg Station** | 114 | 10 | Lincoln/Manville LP | 24% | 437 | 751 |

**Attachment DIV 1-7-1**

| | Town (a) | Station Number (b) | Station Name (c) | Station Type (d) | Risk Rank (e) | Station Age (f) | System (g) | Capacity (h) | System Customers (i) | Design Day Outages (j) |
|---|---|---|---|---|---|---|---|---|---|---|
| 115 | EAST PROVIDENCE | RIS-015 | Pawtucket Av @ Waterman Av | **Reg Station** | 115 | 12 | East Providence LP | 24% | 6,505 | 1,780 |
| 116 | BRISTOL | RIS-BW002 | Wood St @ Shaws Ln LP | **Reg Station** | 116 | 11 | Bristol LP | 48% | 2,206 | 1,276 |
| 117 | NEWPORT | RIS-N219 | Carroll Av @ Ocean Dr | **Reg Station** | 117 | 13 | Newport LP | 9% | 6,492 | 283 |
| 118 | EAST PROVIDENCE | RIS-064 | Wampanoag Trail @ Boyd Av 5 PSIG | **Reg Station** | 118 | 14 | East Providence 5# | 27% | 2,394 | 1,045 |
| 119 | WESTERLY | RIS-OBL | 12 Canal St | **Reg Station** | 119 | 10 | Westerly LP | 54% | 1,559 | 1,316 |
| 120 | WESTERLY | RIS-OOE | Beach St @ 11 Watch Hill Rd | **Reg Station** | 120 | 12 | Westerly LP | 14% | 1,559 | 218 |
| 121 | EAST PROVIDENCE | RIS-003 | First St @ Mauran Av (Holder 20) LP | **Reg Station** | 121 | 12 | East Providence LP | 40% | 6,505 | 592 |
| 122 | MIDDLETOWN | RIS-N215 | E Main Rd @ Turner Rd | **Reg Station** | 122 | 42 | Newport 10# | 74% | 2,593 | 363 |
| 123 | PORTSMOUTH | RIS-N204 | 135 Old Mill Ln | **Reg Station** | 123 | 10 | Portsmouth 55# | 28% | 898 | 6,548 |
| 124 | PROVIDENCE | **RIS-024.5** | **Hartford Av @ Petteys Av (Holder 19) Dey St Line** | **Reg Station** | 124 | 20 | Providence 10# | 100% | 556 | 9,675 |
| 125 | NEWPORT | RIS-N217 | Boulevard St @ Miantonomi | **Reg Station** | 125 | 11 | Newport 10# | 9% | 2,593 | 829 |
| 126 | PROVIDENCE | **RIS-024.3** | **Hartford Av @ Petteys Av (Holder 19) 18" Line** | **Reg Station** | 126 | 20 | Providence 10# | 80% | 556 | 9,777 |
| 127 | EAST PROVIDENCE | RIS-131 | Amaral St @ Wampanoag Trail | **Reg Station** | 127 | 18 | S. East Providence 35# | 9% | 276 | 566 |
| 128 | NEWPORT | RIS-N213-HP | Wellington St @ Thames St 40 PSIG | **Reg Station** | 128 | 46 | Newport 35# | 100% | 510 | 1,203 |
| 129 | PROVIDENCE | RIS-105 | Brook St @ George St 35 PSIG | **Reg Station** | 129 | 9 | South Providence 35# | 82% | 1,481 | 4,688 |
| 130 | LINCOLN | RIN-C043 | Cobble Hill Rd @ Louisquisset Pk | **Reg Station** | 130 | 35 | South Cumberland 60# | 100% | 14,449 | 2,490 |
| 131 | PROVIDENCE | **RIS-048** | Hyacinth St @ Shiloh St | **Reg Station** | 131 | 13 | Providence LP | 91% | 76,744 | 1,381 |
| 132 | WARREN | RIS-309 | 22 Brown St Basement 25 PSIG | **Reg Station** | 132 | 12 | East Shore 25# | 65% | 7,622 | 3,292 |
| 133 | CUMBERLAND | RIN-C044 | 1595 Mendon Rd | **Reg Station** | 133 | 11 | South Cumberland 60# | 64% | 14,449 | 5,359 |
| 134 | BRISTOL | RIS-BW001 | Franklin @ Wood 8 PSIG | **Reg Station** | 134 | 17 | Bristol Warren 8# | 28% | 2,443 | 552 |
| 135 | WOONSOCKET | RIN-C010 | E School St @ Pond St | **Reg Station** | 135 | 7 | Woonsocket LP | 52% | 8,854 | 1,067 |
| 136 | PAWTUCKET | RIN-C039 | Tidewater St @ Taft St Primaries | **Reg Station** | 136 | 13 | South Cumberland 60# | 50% | 14,449 | 3,089 |
| 137 | MIDDLETOWN | RIS-N205 | 305 Corey Ln | **Reg Station** | 137 | 13 | Corey Lane 25# | 3% | 136 | 131 |
| 138 | EAST PROVIDENCE | RIS-013 | Summit St @ Taunton Av | **Reg Station** | 138 | 10 | East Providence LP | 92% | 6,505 | 2,800 |
| 139 | WARREN | RIS-BW013 | 22 Brown St Basement 8 PSIG | **Reg Station** | 139 | 14 | Bristol Warren 8# | 18% | 2,443 | 1,042 |
| 140 | WESTERLY | RIS-OOD | 54 East Av | **Reg Station** | 140 | 7 | Westerly LP | 9% | 1,559 | 472 |
| 141 | PROVIDENCE | RIS-091 | Adelaide Ave @ Hamilton St | **Reg Station** | 141 | 6 | Providence LP | 50% | 76,744 | 800 |
| 142 | EAST PROVIDENCE | **RIS-315** | Wampanoag Trail @ Tripps Ln | **Reg Station** | 142 | 15 | East Shore 99# | 31% | 8,463 | 552 |
| 143 | MIDDLETOWN | RIS-N221 | Maple Av @ Yarnell Av | **Reg Station** | 143 | 20 | Newport 10# | 19% | 2,593 | 1,514 |
| 144 | WESTERLY | RIS-OOA | 10 White Rock Rd | **Reg Station** | 144 | 12 | Westerly 21# | 33% | 661 | 991 |
| 145 | EAST GREENWICH | **RIS-068** | 337 Cowesett Rd | **Reg Station** | 145 | 41 | West Shore 35# | 42% | 59,694 | 7,310 |
| 146 | PAWTUCKET | RIN-C040 | Sanford St @ Myrtle St | **Reg Station** | 146 | 4 | Pawtucket Intermediate 18# | 100% | 1,114 | 7,942 |
| 147 | PROVIDENCE | RIS-320 | Allens Av/LNG Fuel | **Reg Station** | 147 | 25 | LNG Fuel 70# | 0% | 1 | - |
| 148 | EAST PROVIDENCE | RIS-002 | First St @ Mauran Av (Holder 20) 5 PSIG | **Reg Station** | 148 | 12 | East Providence 5# | 52% | 2,394 | 4,167 |
| 149 | WESTERLY | RIS-OBH | Friendship St - Spectra Line | **Reg Station** | 149 | 10 | Westerley 60# | 16% | 2,789 | 2,004 |
| 150 | NORTH KINGSTOWN | RIS-097 | 6 Long Av | **Reg Station** | 150 | 13 | West Shore 35# | 14% | 59,694 | 361 |
| 151 | EAST PROVIDENCE | RIS-056 | Roger Williams Av @ Puritan | **Reg Station** | 151 | 6 | East Providence LP | 19% | 6,505 | 1,138 |
| 152 | PROVIDENCE | RIS-079 | Ship St @ Chestnut St | **Reg Station** | 152 | 20 | Providence 35# | 9% | 523 | 3,301 |

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| | Town (a) | Station Number (b) | Station Name (c) | Station Type (d) | Risk Rank (e) | Station Age (f) | System (g) | Capacity (h) | System Customers (i) | Design Day Outages (j) |
|---|---|---|---|---|---|---|---|---|---|---|
| 153 | TIVERTON | RIS-TIV2 | Evans Av @ Pierce Av | **Reg Station** | 153 | 10 | Tiverton 5# | 21% | 356 | 621 |
| 154 | NEWPORT | RIS-N211 | Americas Cup @ Poplar | **Reg Station** | 154 | 5 | Newport LP | 7% | 6,492 | 265 |
| 155 | JOHNSTON | RIS-124 | Scenery Ln | **Reg Station** | 155 | 25 | Johnston Scenery Ln. 35# | 4% | 145 | 147 |
| 156 | BRISTOL | RIS-BW007 | Woodlawn Av @ Wood St | **Reg Station** | 156 | 5 | Bristol LP | 41% | 2,206 | 432 |
| 157 | EAST GREENWICH | RIS-093 | Division Rd @ Quaker Ln | **Reg Station** | 157 | 11 | West Shore 35# | 58% | 59,694 | 2,140 |
| 158 | WESTERLY | RIS-OOG | Friendship St - Yankee Line | **Reg Station** | 158 | 10 | Westerley 60# | 68% | 2,789 | 3,797 |
| 159 | WEST WARWICK | **RIS-135** | Cowesett Av @ Quaker Ln | **Reg Station** | 159 | 2 | Rhode Island 99# | 132% | 10,968 | 42,844 |
| 160 | PROVIDENCE | RIS-308 | Melrose @ Thackery | **Reg Station** | 160 | 4 | Cranston Providence 7# | 10% | 653 | 6,385 |
| 161 | BURRILLVILLE | RIS-340 | 1084 Wallum Lake Rd TS | **Gate Station** | 161 | 10 | Burrilville 99# | 4% | 215 | 710 |
| 162 | CRANSTON | RIS-032 | Park Av @ Old Park Av | **Reg Station** | 162 | 3 | Cranston Providence 7# | 91% | 653 | 6,045 |
| 163 | CUMBERLAND | RIN-C047 | 4425 Diamond Hill Rd TS | **Gate Station** | 163 | 31 | South Cumberland 60# | 4% | 14,449 | 1,069 |
| 164 | PROVIDENCE | RIS-300 | Allens Av/Becker Cabinet 18" Line | **Reg Station** | 164 | 4 | Rhode Island 99# | 10% | 10,968 | 162,540 |
| 165 | PROVIDENCE | RIS-086 | Fountain St @ Eddy St | **Reg Station** | 165 | 4 | Providence LP | 17% | 76,744 | 962 |
| 166 | PROVIDENCE | RIS-306 | Ontario @ Niagara | **Reg Station** | 166 | 3 | Providence 10# | 22% | 556 | 6,356 |
| 167 | NORTH KINGSTOWN | **RIS-066** | Namcook Rd @ Devils Foot Rd | **Reg Station** | 167 | 8 | West Shore 35# | 23% | 59,694 | 5,700 |
| 168 | WEST WARWICK | RIS-134 | 565 Quaker Ln | **Reg Station** | 168 | 14 | Greenwich 35# | 8% | 137 | 136 |
| 169 | CRANSTON | RIS-020 | Cannon St | **Reg Station** | 169 | 13 | Cannon 35# | 2% | 65 | 65 |
| 170 | PROVIDENCE | **RIS-083** | Pettis St @ N Main St | **Reg Station** | 170 | 2 | Providence LP | 7% | 76,744 | 1,978 |
| 171 | EAST PROVIDENCE | RIS-067 | Roger Williams Av @ Whitaker | **Reg Station** | 171 | 6 | East Providence 35# | 16% | 247 | 2,430 |
| 172 | NEWPORT | **RIS-N213-LP** | Wellington St @ Thames St LP | **Reg Station** | 172 | 1 | Newport LP | 69% | 6,492 | 5,385 |
| 173 | EAST GREENWICH | RIS-106 | Frenchtown Rd @ S County Trail | **Reg Station** | 173 | 3 | N. Kingstown Frenchtown Rd. 35# | 35% | 458 | 1,065 |
| 174 | EAST PROVIDENCE | RIS-071 | Willet Av @ Forbes St 5 PSIG | **Reg Station** | 174 | 2 | East Providence 5# | 26% | 2,394 | 815 |
| 175 | PROVIDENCE | RIS-305 | Allens Ave @ Georgia | **Reg Station** | 175 | 4 | West Shore 35# | 42% | 59,694 | 8,314 |
| 176 | JOHNSTON | RIS-101 | 1 Cottage St | **Reg Station** | 176 | 3 | Johnston 35# | 38% | 6,784 | 4,846 |
| 177 | CRANSTON | **RIS-114** | **110 Atwood Av @ D St** | **Reg Station** | 186 | 0 | Providence LP | 63% | 76,744 | 2,218 |
| 178 | CRANSTON | **RIS-017** | **Station St @ Pond St** | **Reg Station** | 187 | 0 | Providence LP | 26% | 76,744 | 2,374 |
| 179 | PAWTUCKET | **RIN-C021** | **337 Lonsdale Av** | **Reg Station** | 188 | 0 | Pawtucket LP | 50% | 34,781 | 1,628 |
| 180 | EAST PROVIDENCE | **RIS-089** | Willet Av @ Forbes St 25 PSIG | **Reg Station** | 177 | 2 | East Shore 25# | 59% | 7,622 | 4,169 |
| 181 | JOHNSTON | RIS-102 | Greenville @ George Waterman | **Reg Station** | 178 | 5 | Johnston 35# | 10% | 6,784 | 1,158 |
| 182 | NORTH PROVIDENCE | **RIS-110** | Smith St @ Sunset Av | **Reg Station** | 179 | 1 | Providence LP | 78% | 76,744 | 1,664 |
| 183 | CRANSTON | RIS-018 | Park Av @ Maple Av | **Reg Station** | 180 | 1 | Providence LP | 33% | 76,744 | 1,180 |
| 184 | PROVIDENCE | RIS-343 | 30 Allens Av (Crary St) TS 99 PSIG | **Gate Station** | 181 | 6 | Rhode Island 99# | 25% | 10,968 | - |
| 185 | TIVERTON | RIS-TIV1 | 401 Main Rd TS | **Gate Station** | 182 | 1 | Tiverton 55# | N/A | 874 | 1,448 |
| 186 | WARWICK | RIS-061 | Maple St @ Albany | **Reg Station** | 183 | 3 | West Shore 35# | 30% | 59,694 | 6,051 |
| 187 | JOHNSTON | **RIS-090** | 1827 Plainfield Pk @ Simmonsville | **Reg Station** | 184 | 2 | West Shore 35# | 100% | 59,694 | 3,940 |
| 188 | EAST GREENWICH | **RIS-069** | 816 Middle Rd | **Reg Station** | 185 | 2 | West Shore 35# | 26% | 59,694 | 5,637 |
| 189 | CUMBERLAND | **RIN-C046** | **98 Scott Rd TS** | **Gate Station** | 189 | 0 | Upper Cumberland 99# | 25% | 5,753 | 30,067 |
| 190 | CRANSTON | RIS-334 | **67 Laten Knight Road TS** | **Gate Station** | 190 | 0 | Cranston 149# | 14% | 1 | 42,866 |

## Attachment DIV 1-7-2

| | Town | Station Number | Station Name | Year Installed |
|---|---|---|---|---|
| 1 | JOHNSTON | RIS-092 | Traver Av @ Killingly St | 2018 |
| 2 | PROVIDENCE | RIS-087 | Silver Spring St @ Charles St | 2018 |
| 3 | CUMBERLAND | RIN-C016 | Ann & Hope Way | 2016 |
| 4 | LINCOLN | RIN-C037 | Woodland St @ Smithfield Av | 2015 |
| 5 | NORTH PROVIDENCE | RIN-C038 | Charles St @ Mineral Spring Av | 2017 |
| 6 | PROVIDENCE | RIS-008 | Brook St @ George St LP | 2015 |
| 7 | EAST PROVIDENCE | RIS-001 | 500 Veterans Mem Pkwy (Bentley St) | 2017 |
| 8 | LINCOLN | RIN-C014 | Railroad Av @ Winter St LP | 2014 |
| 9 | WESTERLY | RIS-OBL | 12 Canal St | 2014 |
| 10 | PORTSMOUTH | RIS-N204 | 135 Old Mill Ln | 2014 |
| 11 | PROVIDENCE | RIS-105 | Brook St @ George St 35 PSIG | 2015 |
| 12 | WOONSOCKET | RIN-C010 | E School St @ Pond St | 2017 |
| 13 | EAST PROVIDENCE | RIS-013 | Summit St @ Taunton Av | 2014 |
| 14 | WESTERLY | RIS-OOD | 54 East Av | 2017 |
| 15 | PROVIDENCE | RIS-091 | Adelaide Ave @ Hamilton St | 2018 |
| 16 | PAWTUCKET | RIN-C040 | Sanford St @ Myrtle St | 2020 |
| 17 | WESTERLY | RIS-OBH | Friendship St - Spectra Line | 2014 |
| 18 | EAST PROVIDENCE | RIS-056 | Roger Williams Av @ Puritan | 2018 |
| 19 | TIVERTON | RIS-TIV2 | Evans Av @ Pierce Av | 2014 |
| 20 | NEWPORT | RIS-N211 | Americas Cup @ Poplar | 2019 |
| 21 | BRISTOL | RIS-BW007 | Woodlawn Av @ Wood St | 2019 |
| 22 | WESTERLY | RIS-OOG | Friendship St - Yankee Line | 2014 |
| 23 | WEST WARWICK | **RIS-135** | Cowesett Av @ Quaker Ln | 2022 |
| 24 | PROVIDENCE | RIS-308 | Melrose @ Thackery | 2020 |
| 25 | BURRILLVILLE | RIS-340 | 1084 Wallum Lake Rd TS | 2014 |
| 26 | CRANSTON | RIS-032 | Park Av @ Old Park Av | 2021 |
| 27 | PROVIDENCE | RIS-300 | Allens Av/Becker Cabinet 18" Line | 2020 |
| 28 | | | New 200 to 99 Building | 2024 |
| 29 | PROVIDENCE | RIS-086 | Fountain St @ Eddy St | 2020 |
| 30 | PROVIDENCE | RIS-306 | Ontario @ Niagara | 2021 |
| 31 | NORTH KINGSTOWN | **RIS-066** | Namcook Rd @ Devils Foot Rd | 2016 |
| 32 | PROVIDENCE | **RIS-083** | Pettis St @ N Main St | 2022 |
| 33 | EAST PROVIDENCE | RIS-067 | Roger Williams Av @ Whitaker | 2018 |
| 34 | NEWPORT | **RIS-N213-LP** | Wellington St @ Thames St LP | 2023 |
| 35 | EAST GREENWICH | RIS-106 | Frenchtown Rd @ S County Trail | 2021 |
| 36 | EAST PROVIDENCE | RIS-071 | Willet Av @ Forbes St 5 PSIG | 2022 |
| 37 | PROVIDENCE | RIS-305 | Allens Ave @ Georgia | 2020 |
| 38 | JOHNSTON | RIS-101 | 1 Cottage St | 2021 |
| 39 | CRANSTON | **RIS-114** | **110 Atwood Av @ D St** | 2024 |
| 40 | CRANSTON | **RIS-017** | **Station St @ Pond St** | 2024 |

## Attachment DIV 1-7-2

| | Town | Station Number | Station Name | Year Installed |
|---|---|---|---|---|
| 41 | PAWTUCKET | **RIN-C021** | **337 Lonsdale Av** | 2024 |
| 42 | EAST PROVIDENCE | **RIS-089** | Willet Av @ Forbes St 25 PSIG | 2022 |
| 43 | JOHNSTON | RIS-102 | Greenville @ George Waterman | 2019 |
| 44 | NORTH PROVIDENCE | **RIS-110** | Smith St @ Sunset Av | 2023 |
| 45 | CRANSTON | RIS-018 | Park Av @ Maple Av | 2023 |
| 46 | PROVIDENCE | RIS-343 | 30 Allens Av (Crary St) TS 99 PSIG | 2018 |
| 47 | TIVERTON | RIS-TIV1 | 401 Main Rd TS | 2023 |
| 48 | WARWICK | RIS-061 | Maple St @ Albany | 2021 |
| 49 | JOHNSTON | **RIS-090** | 1827 Plainfield Pk @ Simmonsville | 2022 |
| 50 | EAST GREENWICH | **RIS-069** | 816 Middle Rd | 2022 |
| 51 | CUMBERLAND | **RIN-C046** | **98 Scott Rd TS*** | 2024 |
| 52 | CRANSTON | RIS-334 | **67 Laten Knight Road TS** | 2024 |

**Attachment DIV 1-7-3**

| | Town | Station Number | Satation Name | Station Type | Year Abandoned |
|---|---|---|---|---|---|
| 1 | BRISTOL | RIS-BW003 | 142 Gibson Rd | **Reg Station** | 2017 |
| 2 | WARWICK | RIS-037 | Pettaconsett Ave. @ Outlet Ave. Lp | **Reg Station** | 2020 |
| 3 | PROVIDENCE | RIS-091 | Sackett St @ Niagara St | **Reg Station** | 2020 |
| 4 | NEWPORT | RIS-N211 | Admiral Kalbfus @ Third St. Lp | **Reg Station** | 2020 |
| 5 | EAST PROVIDENCE | RIS-045 | Harris Ave. @ Hoppin St. Lp | **Reg Station** | 2021 |
| 6 | PROVIDENCE | RIS-274 | Allens Ave 8In Becker Cabinet 99 Psig | **Reg Station** | 2022 |
| 7 | PROVIDENCE | RIS-307 | Summers Allens Ave. - Plant 99 Psig - Disabled | **Reg Station** | 2022 |
| 8 | PROVIDENCE | RIS-327 | Allens Ave. - West Shore 99 Psig | **Reg Station** | 2022 |
| 9 | EAST PROVIDENCE | RIS-005 | Dodge St @ Martin Lp | **Reg Station** | 2022 |
| 10 | WARWICK | RIS-038 | East Av @ 650 Bald Hill Rd | **Reg Station** | 2023 |

Division 1-8

Request:

Provide the Company's FY 2025 Gas ISR Quarterly Update ending September 30, 2023 as soon as possible and the Company's FY 2025 Gas ISR Quarterly Report Update ending December 31, 2023 no later than February 15, 2025.

Response:

Please see Attachment DIV 1-8-1 for the Company's FY 2025 Gas ISR Quarterly Update ending September 30, 2023.

For the Company's FY 2025 Gas ISR Quarterly Report Update ending December 31, 2023, the Company will supplement its response to this request and provide the above-referenced report no later than February 15, 2025.

Prepared by or under the supervision of: Nathan Kocon

Jennifer Brooks Hutchinson
Senior Counsel
PPL Services Corporation
JHutchinson@pplweb.com

280 Melrose Street
Providence, RI 02907
Phone 401-784-7288

Rhode Island Energy™
a PPL company

November 15, 2024

**VIA HAND DELIVERY AND ELECTRONIC MAIL**

Stephanie De La Rosa, Commission Clerk
Rhode Island Public Utilities Commission
89 Jefferson Boulevard
Warwick, RI 02888

**RE: Docket No. 23-49-NG – FY 2025 Gas Infrastructure, Safety, and Reliability Plan**
**Quarterly Update – Second Quarter Ending September 30, 2024**

Dear Ms. De La Rosa:

On behalf of Rhode Island Energy, I have enclosed an electronic version of the Company's fiscal year (FY) 2025 Gas Infrastructure, Safety, and Reliability (ISR) Plan quarterly update for the second quarter ending September 30, 2024. Pursuant to the provisions of the approved FY 2018 Gas ISR Plan, the Company committed to providing quarterly updates on the progress of its Gas ISR Program to the Rhode Island Public Utilities Commission and the Rhode Island Division of Public Utilities and Carriers.

Thank you for your attention to this matter. If you have any questions, please contact me at 401-316-7429.

Very truly yours,

Jennifer Brooks Hutchinson

Enclosure

cc: Docket No. 23-49-NG Service List

# Gas Infrastructure, Safety, and Reliability Plan

# The Narragansett Electric Company

# Fiscal Year 2025 Quarterly Update

# Second Quarter - Ending September 30, 2024

## Executive Summary

The Narragansett Electric Company d/b/a Rhode Island Energy ("Rhode Island Energy" or the "Company") submits this Quarterly Update for the Second Quarter ending September 30, 2024, for the fiscal year ("FY") 2025 Gas Infrastructure, Safety, and Reliability Plan ("Gas ISR Plan" or the "Plan"), which the Rhode Island Public Utilities Commission ("PUC") approved in Docket No. 23-49-NG. The second quarter results (Attachment A) reflect that the Company has spent approximately $118.26 million of an estimated year-to-date ("YTD") budget of $91.73 million, resulting in a second quarter overspending variance of $26.53[1] million. To date, the $118.26 million of actual spending represents 66 percent of the total FY2025 annual Gas ISR Plan budget of $191.03 million (including $10.79 million for Pipeline and Hazardous Materials Safety Administration ("PHMSA") – Gas Pipeline Leak Detection and Repair ("LDAR")). As of September 30, 2024, the forecasted total year-end spend was $188.96 million (excluding PHMSA – LDAR) and $193.26 million including PHMSA – LDAR. The $188.96 million forecasted year-end spend is $8.72 million greater than the Gas ISR Plan budget of $180.24 million (excluding PHMSA – LDAR).

[1] Dollar value numbers throughout this report are rounded to the nearest hundredth of a million. For example, $26.529 million has been rounded to $26.53 million. Please see Attachments A and B for numbers rounded to nearest thousandth.

The Gas ISR Plan spending through the second quarter of $118.26 million includes actual spending of $81.73 million out of an estimated YTD budget of $57.59 million for Group A – Main Replacement & Rehabilitation, resulting in a second quarter greater than budget variance of $24.14 million. Group A is forecasted to be overbudget by $11.39 million at fiscal year-end. The spending through the second quarter also includes actual spending of $8.19 million out of an estimated YTD budget of $6.23 million for Group B – Mandated, resulting in a second quarter greater than budget variance of $1.95 million. Group B is forecasted to be underbudget by $1.10 million at fiscal year-end. The spending through the second quarter also includes actual spending of $18.15 million out of an estimated YTD budget of $15.26 million for Group C – Reliability & Pressure Regulation, resulting in a second quarter variance of $2.89 million greater than budget. Group C is currently forecasted to be $2.96 million overbudget at fiscal year-end primarily because of the Transmission Station Integrity – Scott Road Gate Station Rebuild project, which is forecasted to be overbudget by $4.97 million at fiscal year-end. The Scott Road project and overall Group C categories are explained in further detail below. The spending through the second quarter also includes spending of $2.23 million out of an estimated YTD budget of $2.52 million for Group D – Separately Tracked Categories – Purchase Meters (Replacement), resulting in a second quarter underbudget variance of $0.29 million. Group D is forecasted to be on budget at fiscal year-end. The spending through the second quarter also includes spending of $7.96 million out of an estimated YTD budget of $10.12 million for Group E – Separately Tracked Major Projects, resulting in a second quarter underbudget variance of $2.16 million. Group E is currently forecasted to be $4.40 million underbudget at fiscal year-end. Group F – Pipeline and Hazardous Materials Safety Administration ("PHMSA") – Gas Pipeline Leak Detection and Repair ("LDAR"), as expected, has no YTD spending out of a YTD budget of $0.00 (the quarterly budgets were set based on when the final ruling was expected to be implemented). Group F is forecasted to be underbudget by $6.49 million based on an anticipated delay in the PHMSA LDAR rulemaking. Finally, curb-to-curb final restoration paving, which is being treated as operations and maintenance ("O&M") expense instead of

capital, currently is forecast to total $13.51 million versus the original estimate of $12.00 million, which would result in O&M expenses being $1.51 million higher than budgeted.

**FY2025 Capital Spending by Category**

***A. Main Replacement & Rehabilitation - $24.14 million variance over fiscal year-to-date budget***

For FY2025, the Company has spent $81.73 million against a projected year-to-date budget of $57.92 million for Group A – Main Replacement & Rehabilitation, resulting in a second quarter greater than budget variance of $24.14 million. To date, for FY2025, the Company has installed 29.2 miles of new replacement gas main against a plan of 33.1 miles and abandoned 27.7 miles of a plan of 23.0 miles of leak-prone pipe throughout the Main Replacement categories. As of the end of the second quarter, Group A is forecasted to be overbudget by $11.39 million at fiscal year-end.

Across the entire Gas ISR Plan portfolio, the Company has installed 34.4 miles of new replacement gas main against a plan of 41.6 miles and abandoned 28.6 miles of leak-prone pipe against a plan of 27.1 miles.

To start the fiscal year, the Company and its contractors have been executing a higher percentage of City State Construction ("CSC")/Public Works projects than was planned for this point in the fiscal year, in part, to accommodate project timelines requested by municipalities (e.g., complete Company gas work ahead of municipal paving), Rhode Island Department of Transportation ("RIDOT"), and other utilities. This has contributed to the CSC/Public Works categories being overbudget YTD by $10.63 million, net reimbursements. Overall, the CSC/Public Works categories are forecasted to be overbudget by $1.52 million as the overall volume of work and

resulting costs are higher than budgeted for FY2025. Through the second quarter, CSC/Public Works installed 9.7 miles of new replacement gas main against a YTD plan of 7.5 miles and abandoned 9.2 miles against a YTD plan of 7.2 miles. The prioritization of CSC/Public Works projects to start the fiscal year is a leading factor why the Proactive Low Pressure System Elimination ("LP Elimination") category is underbudget YTD by $1.53 million; however, the LP Elimination category is forecasted to be on budget at fiscal year-end.

The Company has spent $2.96 million of a YTD projected budget of $4.20 million for the Cumberland Hill area projects. The Hamlet Avenue portion of those projects is being deferred into FY2026, which has lowered the Reactive Main Replacement – Leak Prone Pipe & Maintenance forecast by $1.60 million (from $7.84 million down to $6.24 million) and will help reduce the forecasted FY2025 Group A overspend.

The Proactive Main Replacement – Leak Prone Pipe category currently is forecasted to be $10.57 million over budget at fiscal year-end due in part to curb-to-curb final restoration paving charges being higher than originally anticipated and budgeted as explained above. The Company has also seen a general increase in costs, such as the cost of materials. Additionally, with the focus on projects with higher priority scores, the types of projects in the FY2025 workplan are continuing to be more costly per mile because of factors such as larger pipe diameter (which has a slower rate of production), locations in busier roadways and/or more urban locations (which may have shortened permitted work hours and require additional message board signage, detours, and some night work).

Through the second quarter, the Replace Pipe on Bridges category actual spending was $0.43 million higher than the YTD budget of $0.17 million and the fiscal year forecast, as of September 30, 2024, was $2.01 million or $0.59 million higher than budget. That forecast may decrease, however, if work on the Goat Island bridge is deferred until FY2026. The two primary

drivers of the forecasted overspending variance are 1) ongoing costs to finish the Lonsdale Avenue Bridge project in Pawtucket, which is a carryover from FY2024 and not included in the original FY2025 plan; and 2) the Manton Avenue Tar Bridge in Providence which is incurring higher costs because the Company was unable to obtain an easement to complete the project as originally designed, so the project was redesigned with additional piping incorporated resulting in higher forecasted spending.

***B. Mandated & Non-Main Reactive - $1.95 million variance <u>over</u> fiscal year-to-date budget***

For FY2025, the Company has spent $8.19 million against a projected year-to-date budget of $6.23 million for Group B – Mandated & Non-Main Reactive, resulting in a second quarter overbudget variance of $1.95 million. As of the end of the second quarter, Group B is forecasted to be underbudget by $1.10 million at fiscal year-end, which is driven by forecasted underspend in the Corrosion category. The original FY2025 budget included funding for a potential project that the Company determined was not needed based on the results of field inspections, so the forecast has been reduced for FY2025.

There are two primary drivers for the overspending variance through the second quarter in Group B. First, spending in the Reactive Leaks category was $0.91 million higher than the YTD budget but is forecasted to be on budget at fiscal year-end. Second, spending in the Reactive Service Replacements – Non-Leaks/Other category was $1.06 million higher than the YTD budget because the Company has continued to complete an increased volume of compliance related work on services. The Reactive Service Replacements – Non-Leaks/Other category, however, is forecasted to be on budget at fiscal year-end.

***C. Reliability & Pressure Regulation - $2.89 million variance <u>over</u> fiscal year-to-date budget***

For FY2025, the Company has spent $18.15 million against a projected year-to-date budget of $15.26 million for Group C – Reliability & Pressure Regulation, resulting in a second quarter overbudget variance of $2.89 million. As of the end of the second quarter, Group C was forecasted to be overbudget by $2.83 million at fiscal year-end.

The primary driver of the FY2025 overbudget forecast is the Transmission Station Integrity – Scott Road Take Station (Cumberland) project ("Scott Road TS project"). The FY2025 budget for this project was $5.54 million based upon the most up-to-date estimate available during the development of the FY2025 Gas ISR Plan. This estimate was developed prior to the completion of the Scott Road TS project design. The Company's updated project estimate includes additional construction related costs, including a higher than estimated contractor bid being accepted (+$3.14M), material cost increases resulting from design changes (+$0.78M), addition of stormwater management requested by the Town of Cumberland to address water runoff concerns associated with the project (+$2.60M), electrical conduit connecting Supervisory Control and Data Acquisition ("SCADA") to Kinder Morgan's building at the take station (+$0.23M), increased welding inspections and oversight (+$0.18), increased paving estimate (+$0.34M), and internal labor cost increases (+$0.21M). The total Scott Road TS project estimate has increased from $8.71 million to $17.06 million, which has increased the FY2025 forecast to $10.50 million or $4.97 million over the FY2025 budget for this project. When developing the FY2025 Gas ISR Plan, the Company utilized the information that was available at the time leading to this project's incorporation into the Category C budget. In hindsight, however, the Company should have recommended that this project be included in Group E – Separately Tracked Major Projects because of the potential that project costs could exceed the $10 million threshold for Group E. During the second quarter, the Company made several forecast reductions across Group C in an effort to reduce the forecasted FY2025 overspend for the group. As certain projects within Group C are delayed or deferred for various reasons, the

Company generally is not advancing other projects to replace them, which is helping to reduce the overall Group C FY2025 forecast. The Company is, however, seeking to avoid the deferral of important or time-sensitive Group C programs and projects. Although the Company was able to make forecast reductions in the Pressure Regulating Facilities, Distribution Station Over Pressure Protection, Take Station Refurbishment, and Heater Installation Program categories, those reductions were partially offset by forecast increases in the LNG and Southern RI Gas Expansion Project – Regulator Station Investment categories. The net result is that the forecasted overbudget variance for Group C increased from $1.56 million (as of end of the first quarter of FY2025) to $2.83 million (as of end of the second quarter of FY2025).

Regarding other categories within Group C, the LNG category currently is overspent by $0.01 million versus the YTD budget but is now forecasted to be overbudget by $2.42 million at fiscal year-end. The LNG category is forecasted to be overbudget for the fiscal-year on the following projects: 1) Cumberland Portable Vaporizer Tap (+$1.14M) - a redesign required additional funds to perform required civil work on site for the vaporizer manifold to be installed, 2) Exeter LNG Boiloff Compressor (+$1.88M) - driven by several change orders that were necessary to complete the project, 3) Exeter Emergency Generator Upgrade (+$0.50M) - funding for design and electrical design that were not originally in the budget for the project, and 4) Cumberland Supplemental Storage (+$0.40M) - because of an increase of independent testing on welding processes and onsite overview of the units in production. Those increases were partially offset by forecasts lower than budget on the Exeter Tank Switchback Stairs (-$0.20M), which is partially deferred into FY2026 and the Cumberland LNG Water (-$0.26M) due to the timing of work. The Laten Knight – Cranston Take Station Upgrades project is forecasted to be overbudget at fiscal year-end and as a project scope change was necessary.

The Pressure Regulating Facilities category is underspent by $1.01 million versus the YTD budget and is forecasted to be $2.50 million underbudget at fiscal year-end because the New

River Regulator Station was deferred to align with the project's updated construction schedule. No other projects have been advanced to replace this deferred project to help offset the forecasted Scott Road TS project overspend. The Distribution Station Over Pressure Protection category is underspent by $0.47 million versus the YTD budget and is forecasted to be $0.76 million underbudget at fiscal year-end as two header projects were deferred into FY2026 to align with MRP project timelines and other project costs have been lower than anticipated. No additional projects are being advanced to replace them. Finally, the Take Station Refurbishment category is forecasted to be underbudget by $1.12 million at fiscal year-end because only design activities will occur on the Smithfield Gate Station project. Other Smithfield Gate Station project activities will be deferred into FY2026, and no additional projects are being advanced to replace deferred work.

***D. Separately Tracked Categories -Purchase Meters (Replacement) - $0.29 million variance under fiscal year-to-date budget***

For FY2025, the Company has spent $2.23 million against a projected YTD budget of $2.52 million for Group D – Separately Tracked Categories – Purchase Meters (Replacement), resulting in a second quarter underbudget variance of $0.29 million. The primary driver of the YTD variance is the timing of meter deliveries versus the original forecasted arrival. As of the end of the second quarter, Group D is forecasted to be on budget at fiscal year-end.

In June 2021, the Company, in collaboration with the Rhode Island Division of Public Utilities and Carriers ("Division"), developed and implemented a plan to continuously improve the Company's tracking of its meter inventory and its purchasing strategies. This was implemented in compliance with the PUC's Report and Order dated May 6, 2021, in Docket No. 5099, regarding the Company's FY 2022 Gas ISR Plan. The first component of the plan is an enhanced meter inventory tracking process. The Company is conducting a manual count of the meter lab inventory each month and has been comparing it to the inventory tracked in the

Maximo system (now transitioned to WATT-Net Plus). The Company conducted a physical inventory on June 10, 2021, to establish the baseline count. The chart below provides a summary of the manual meter lab inventories on June 10, 2021, and the closest date to the close of each quarter that followed—June 30, 2021, September 30, 2021, January 3, 2022, March 31, 2022, June 30, 2022, September 30, 2022, January 3, 2023, March 31, 2023, June 30, 2023, September 30, 2023, December 31, 2023, March 31, 2024, and July 1, 2024. Please note, the Company migrated from Maximo to a PPL inventory tracking system called WATT-Net Plus on August 19, 2024. WATT-Net Plus is expected to produce more accurate system counts and eventually eliminate the need to conduct physical inventory counts on a quarterly basis. As part of the migration from Maximo to WATT-Net Plus, the Company has also provided the Meter Lab Inventory as of July 31, 2024 (last month using Maximo) and September 30, 2024 (close of the second quarter of FY2025 and the first quarter end using WATT-Net Plus).

| Meter Lab Inventory | | | | |
|---|---|---|---|---|
| **Measure** | **Physical Count** | **Maximo** | **Variance** | **Variance %** |
| **Inventory as of 6/10/2021** | 9,943 | 10,926 | 983 | 9% |
| **Inventory as of 6/30/2021** | 9,156 | 9,988 | 832 | 8% |
| **Inventory as of 9/30/2021** | 9,568 | 10,370 | 802 | 8% |
| **Inventory as of 1/3/2022*** | 9,994 | 10,986 | 992 | 9% |
| **Inventory as of 3/31/2022** | 11,724 | 12,605 | 881 | 7% |
| **Inventory as of 6/30/2022** | 7,354 | 8,164 | 810 | 10% |
| **Inventory as of 9/30/2022** | 6,513 | 7,452 | 939 | 13% |
| **Inventory as of 1/3/2023*** | 5,043 | 5,963 | 920 | 15% |
| **Inventory as of 3/31/2023** | 8,647 | 9,716 | 1,069 | 11% |
| **Inventory as of 6/30/2023** | 6,293 | 7,244 | 951 | 13% |
| **Inventory as of 9/30/2023** | 3,618 | 4,405 | 787 | 18% |
| **Inventory as of 12/31/2023** | 2,899 | 3,632 | 733 | 20% |
| **Inventory as of 3/31/2024** | 4,354 | 5,045 | 691 | 14% |
| **Inventory as of 7/1/2024** | 6,000 | 8,056 | 2,056 | 26% |
| **Inventory as of 7/31/2024**** | 5,785 | 7,034 | 1,249 | 18% |
| **Measure** | **Physical Count** | **WATT-Net Plus** | **Variance** | **Variance %** |
| **Inventory as of 9/30/2024** | 7,885 | 7,931 | 46 | 1% |

***The Meter Lab gathered inventory data the first Monday after the New Years holiday.**

****Last month using Maximo**

***E. Separately Tracked Major Categories - $2.16 million variance under fiscal year-to-date budget***

For FY2025, the Company has spent $7.96 million against a projected year-to-date budget of $10.12 million for Group E – Separately Tracked Major Projects, resulting in a second quarter underbudget variance of $2.16 million. The Company forecasts Group E will be underbudget by $4.40 million at fiscal year-end. The primary project with ongoing FY2025 construction activity has been the Pipeline Integrity (Wampanoag Trail Pipeline Replacement) project, which has been progressing well with main installation and is forecasted to be on budget at fiscal year-end.

On August 22, 2024, the Rhode Island Energy Facility Siting Board ("EFSB") voted unanimously (3-0), in Docket No. SB-2021-04, to approve a license to operate the Old Mill Lane Liquified Natural Gas ("LNG") Vaporization Facility for a period of five years, from that date forward. The Company will be placing a down payment for the Portable LNG Equipment in FY2025. The Company forecasts to spend $8.30 million for the LNG – Old Mill Lane Portable Equipment project in FY2025, which is on budget for the fiscal year.

The LNG – Old Mill Lane Site Upgrades project is currently in the design phase, and the Company plans to put the construction work out to bid in January 2025 (FY2025) and start construction at the site in April 2025 (FY2026). This project is forecasted to be placed in-service in FY2027. In addition to permitting the mobile LNG operation to continue at Old Mill Lane, the EFSB's approval means that the proposed site improvements may proceed subject to the issuance of any permits required from other agencies for the proposed site improvements. The site improvements include moving the pipeline connection points and equipment parking area farther from the road to mitigate the visual and noise impacts of the operation for abutters and to improve site efficiency and safety. The site improvements were designed to provide a more efficient and safer layout for operations. The Rhode Island Department of Environmental Management ("RIDEM") is one of the agencies reviewing the proposed site improvements and

its decision is expected shortly. Because actual construction will not occur on the site until FY2026, the Company is forecasting to spend $1.60 million of the budgeted $6.00 million, resulting in a forecasted underbudget variance of $4.40 million for FY2025.

***F. PHMSA – Gas Pipeline LDAR – <u>On</u> budget fiscal year-to-date***

Through the second quarter of FY2025, the Company had no fiscal year-to-date spending in Group F – PHMSA – Gas Pipeline LDAR. Originally, the pending PHMSA LDAR rulemaking was expected to be implemented in or around the July 2024 timeframe, and the FY2025 budget was developed in consideration of that expectation. Based on feedback from gas industry peers and trade associations during FY2025, that expected implementation was initially shifted back to September 2024 and, more recently, to January 2025. With this updated timeline for final rule implementation, the Company has decreased the FY2025 forecast down to $4.30 million versus the approved budget of $10.79 million. This would result in a FY2025 underspending variance of $6.49 million. The Company will continue to engage with industry trade associations and monitor the forecasted implementation timeline of PHSMA's proposed LDAR rules.

Attachment A
The Narragansett Electric Company
d/b/a Rhode Island Energy
RIPUC Docket No. 23-49-NG
FY2025 Gas Infrastructure, Safety, and Reliability Plan
FY2025 Quarterly Update
Second Quarter Ending September 30, 2024

**Attachment A - Forecasted Capital Spending by Investment Categories - Summary**
**Through Q2 FY2025 (September 30, 2024)**

($000)

| | A | B | C | D | | E | F | G |
|---|---|---|---|---|---|---|---|---|
| | | FYTD | | | | FY2025 Total | | |
| 1 | Investment Categories & Groups | Budget | Actual | Variance | | Budget | Forecast | Variance |
| 2 | A. Main Replacement & Rehabilitation | $ 57,592 | $ 81,728 | $ 24,136 | | $ 107,703 | $ 119,090 | $ 11,387 |
| 3 | B. Mandated & Non-Main Reactive | $ 6,234 | $ 8,189 | $ 1,954 | | $ 13,178 | $ 12,078 | $ (1,100) |
| 4 | C. Reliability & Pressure Regulation | $ 15,259 | $ 18,151 | $ 2,892 | | $ 29,391 | $ 32,224 | $ 2,833 |
| 5 | D. Separately Tracked Categories | | | | | | | |
| 6 | *Purchase Meters (Replacement)* | $ 2,525 | $ 2,234 | $ (290) | | $ 5,646 | $ 5,646 | $ - |
| 7 | E. Separately Tracked Major Projects | $ 10,120 | $ 7,956 | $ (2,164) | | $ 24,320 | $ 19,920 | $ (4,400) |
| 8 | Gas ISR TOTAL (Without PHMSA LDAR) | $ 91,730 | $ 118,259 | $ 26,529 | | $ 180,238 | $ 188,958 | $ 8,720 |
| 9 | F. PHMSA - Gas Pipeline Leak Detection and Repair (LDAR) | $ - | $ - | $ - | | $ 10,789 | $ 4,299 | $ (6,490) |
| 10 | Gas ISR TOTAL (With PHMSA LDAR) | $ 91,730 | $ 118,259 | $ 26,529 | | $ 191,027 | $ 193,257 | $ 2,230 |
| 11 | Final Restoration Paving on Capital Main Replacement Projects - Treated as O&M | $ (8,000) | $ (8,392) | $ (392) | | $ (12,000) | $ (13,512) | $ (1,512) |
| 12 | G. Notable Capital Projects Not Currently Included in the ISR | $ 1,050 | $ 123 | $ (927) | | $ 2,475 | $ 210 | $ (2,265) |

Attachment B
The Narragansett Electric Company
d/b/a Rhode Island Energy
RIPUC Docket No. 23-49-NG
FY2025 Gas Infrastructure, Safety, and Reliability Plan
FY2025 Quarterly Update
Second Quarter Ending September 30, 2024

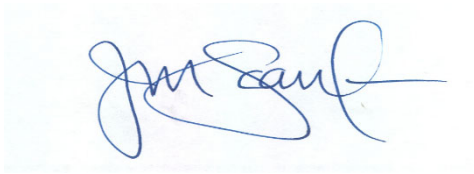
**Attachment B - Forecasted Capital Spending by Investment Categories - Detail**
**Through Q2 FY2025 (September 30, 2024)**
($000)

| | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|
| | | FYTD | | | FY2025 Total | | |
| 1 | **Investment Categories & Groups** | **Budget** | **Actual** | **Variance** | **Budget** | **Forecast** | **Variance** |
| 2 | **A. Main Replacement & Rehabilitation** | | | | | | |
| 3 | *Damage / Failure (Reactive)* | $ 13 | $ - | $ (13) | $ 25 | $ 25 | $ - |
| 4 | *Reactive Main Replacement - Leak Prone Pipe & Maintenance* | $ 5,320 | $ 5,385 | $ 65 | $ 7,838 | $ 6,238 | $ (1,600) |
| 5 | *CSC/Public Works - Non-Reimbursable* | $ 9,776 | $ 18,653 | $ 8,876 | $ 22,519 | $ 23,543 | $ 1,024 |
| 6 | *CSC/Public Works - Reimbursable* | $ 668 | $ 2,340 | $ 1,672 | $ 1,700 | $ 3,000 | $ 1,300 |
| 7 | *CSC/Public Works - Reimbursements* | $ (113) | $ (32) | $ 81 | $ (850) | $ (1,650) | $ (800) |
| 8 | *Gas System Reliability* | $ 1,063 | $ 1,994 | $ 932 | $ 4,580 | $ 4,736 | $ 156 |
| 9 | *Proactive Main Rehabilitation - Large Diameter (CI Lining & CISBOT)* | $ 1,717 | $ 63 | $ (1,654) | $ 750 | $ 750 | $ - |
| 10 | *Proactive Low Pressure System Elimination* | $ 4,328 | $ 2,793 | $ (1,534) | $ 6,552 | $ 6,552 | $ - |
| 11 | *Replace Pipe on Bridges* | $ 167 | $ 598 | $ 431 | $ 1,420 | $ 2,006 | $ 586 |
| 12 | *Proactive Main Replacement - Leak Prone Pipe* | $ 33,795 | $ 49,055 | $ 15,260 | $ 62,169 | $ 72,740 | $ 10,571 |
| 13 | *Atwells Avenue* | $ 750 | $ 782 | $ 32 | $ 750 | $ 900 | $ 150 |
| 14 | *Proactive Service Replacement* | $ 109 | $ 99 | $ (11) | $ 250 | $ 250 | $ - |
| 15 | ***Main Replacement & Rehabilitation Total*** | **$ 57,592** | **$ 81,728** | **$ 24,136** | **$ 107,703** | **$ 119,090** | **$ 11,387** |
| 16 | **B. Mandated & Non-Main Reactive** | | | | | | |
| 17 | *Reactive Leaks (CI Joint Encapsulation/Service Replacement)* | $ 4,582 | $ 5,489 | $ 907 | $ 8,000 | $ 8,000 | $ - |
| 18 | *Corrosion* | $ 119 | $ 267 | $ 149 | $ 1,918 | $ 818 | $ (1,100) |
| 19 | *Reactive Service Replacements - Non-Leaks/Other* | $ 874 | $ 1,934 | $ 1,060 | $ 1,748 | $ 1,748 | $ - |
| 20 | *I&R - Reactive* | $ 652 | $ 477 | $ (175) | $ 1,472 | $ 1,472 | $ - |
| 21 | *Access Protection Remediation* | $ 7 | $ 21 | $ 14 | $ 40 | $ 40 | $ - |
| 22 | ***Mandated Total*** | **$ 6,234** | **$ 8,189** | **$ 1,954** | **$ 13,178** | **$ 12,078** | $ (1,100) |
| 23 | **C. Reliability & Pressure Regulation** | | | | | | |
| 24 | *LNG* | $ 2,572 | $ 2,662 | $ 90 | $ 8,117 | $ 10,535 | $ 2,418 |
| 25 | *Transmission Station Integrity* | $ 3,056 | $ 7,179 | $ 4,123 | $ 5,891 | $ 10,616 | $ 4,725 |
| 26 | *Pressure Regulating Facilities* | $ 3,382 | $ 2,369 | $ (1,014) | $ 5,888 | $ 3,386 | $ (2,502) |
| 27 | *Distribution Station Over Pressure Protection* | $ 1,467 | $ 993 | $ (474) | $ 1,785 | $ 1,026 | $ (759) |
| 28 | *Tiverton GS - Heaters Replacement and Ownership Transfer* | $ 10 | $ (1) | $ (11) | $ 10 | $ 0 | $ (10) |
| 29 | *Take Station Refurbishment* | $ 575 | $ 98 | $ (477) | $ 1,221 | $ 103 | $ (1,118) |
| 30 | *Heater Installation Program* | $ 120 | $ 53 | $ (67) | $ 400 | $ 79 | $ (321) |
| 31 | *System Automation* | $ 446 | $ 130 | $ (316) | $ 665 | $ 526 | $ (139) |
| 32 | *Tools & Equipment* | $ 694 | $ 496 | $ (197) | $ 1,211 | $ 1,211 | $ - |
| 33 | *Valve Installation/Replacement - Primary Valve Program & Aquidneck Island Low Pressure Valves* | $ 76 | $ (36) | $ (112) | $ 142 | $ 42 | $ (100) |
| 34 | *Southern RI Gas Expansion Project - Regulator Station Investment* | $ 2,860 | $ 4,207 | $ 1,347 | $ 4,060 | $ 4,699 | $ 639 |
| 35 | ***Reliability & Pressure Regulation Total*** | **$ 15,259** | **$ 18,151** | **$ 2,892** | **$ 29,391** | **$ 32,224** | **$ 2,833** |
| 36 | **D. Separately Tracked Categories** | | | | | | |
| 37 | ***Purchase Meters (Replacement)*** | **$ 2,525** | **$ 2,234** | **$ (290)** | **$ 5,646** | **$ 5,646** | **$ -** |
| 38 | **E. Separately Tracked Major Projects** | | | | | | |
| 39 | *LNG - Old Mill Lane Portable Equipment* | $ 2,800 | $ 137 | $ (2,663) | $ 8,300 | $ 8,300 | $ - |
| 40 | *LNG - Old Mill Lane Site Upgrades* | $ 3,000 | $ 561 | $ (2,439) | $ 6,000 | $ 1,600 | $ (4,400) |
| 41 | *Pipeline Integrity (Wampanoag Trail Pipeline Replacement)* | $ 4,320 | $ 7,259 | $ 2,938 | $ 10,020 | $ 10,020 | $ - |
| 42 | ***Separately Tracked Major Projects Total*** | **$ 10,120** | **$ 7,956** | **$ (2,164)** | **$ 24,320** | **$ 19,920** | **$ (4,400)** |
| 43 | **Gas ISR Total (without PHMSA LDAR)** | **$ 91,730** | **$ 118,259** | **$ 26,529** | **$ 180,238** | **$ 188,958** | **$ 8,720** |
| 44 | **F. PHMSA - Gas Pipeline Leak Detection and Repair (LDAR)** | | | | | | |
| 45 | *Reactive Leaks (CI Joint Encapsulation/Service Replacement) (PHMSA)* | $ - | $ - | $ - | $ 4,000 | $ 1,594 | $ (2,406) |
| 46 | *Main Replacement (Mandated) - Leak Prone Pipe (PHMSA)* | $ - | $ - | $ - | $ 6,589 | $ 2,625 | $ (3,964) |
| 47 | *Tools & Equipment (PHMSA)* | $ - | $ - | $ - | $ 200 | $ 80 | $ (120) |
| 48 | ***PHMSA LDAR Total*** | **$ -** | **$ -** | **$ -** | **$ 10,789** | **$ 4,299** | **$ (6,490)** |
| 49 | **Gas ISR TOTAL (With PHMSA LDAR)** | **$ 91,730** | **$ 118,259** | **$ 26,529** | **$ 191,027** | **$ 193,257** | **$ 2,230** |

Certificate of Service

I hereby certify that a copy of the cover letter and any materials accompanying this certificate was electronically transmitted to the individuals listed below.

The paper copies of this filing are being hand delivered to the Rhode Island Public Utilities Commission and to the Rhode Island Division of Public Utilities and Carriers.



Joanne M. Scanlon

November 15, 2024
Date

## Docket No. 23-49-NG- RI Energy's Gas Infrastructure, Safety and Reliability (ISR) Plan 2025 – Service List 8/15/2024

| Name/Address | E-mail Distribution | Phone |
|---|---|---|
| **The Narragansett Electric Company d/b/a Rhode Island Energy**<br><br>Jennifer Hutchinson, Esq.<br>280 Melrose Street<br>Providence, RI 02907<br><br>Steve Boyajian, Esq.<br>**Robinson & Cole LLP**<br>One Financial Plaza, 14th Floor<br>Providence, RI 02903 | JHutchinson@pplweb.com;<br>COBrien@pplweb.com;<br>JScanlon@pplweb.com;<br>JMOBrien@rienergy.com;<br>PLaFond@rienergy.com;<br>NKocon@rienergy.com;<br>SBriggs@pplweb.com;<br>JOliveira@pplweb.com;<br>SBoyajian@rc.com;<br>HSeddon@rc.com; | 401-784-7288<br><br>401-709-3359 |
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| | | |
|---|---|---|
| **Office of Energy Resources**<br>Al Vitali, Esq. | Albert.vitali@doa.ri.gov;<br>nancy.russolino@doa.ri.gov;<br>Christopher.Kearns@energy.ri.gov;<br>Shauna.Beland@energy.ri.gov;<br>William.Owen@energy.ri.gov; | |
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| **Conservation Law Foundation (CLF)**<br>James Crowley, Esq.<br>Conservation Law Foundation<br>235 Promenade Street<br>Suite 560, Mailbox 28<br>Providence, RI 02908 | jcrowley@clf.org;<br>mjw@groundworkdata.org; | 401-228-1905 |
| **File an original and five copies**<br>Stephanie De La Rosa, Commission Clerk<br>Public Utilities Commission<br>89 Jefferson Blvd.<br>Warwick RI 02888 | Stephanie.DeLaRosa@puc.ri.gov;<br>Patricia.lucarelli@puc.ri.gov;<br>Todd.bianco@puc.ri.gov;<br>Alan.nault@puc.ri.gov;<br>Christopher.Caramello@puc.ri.gov;<br>Kristen.L.Masse@puc.ri.gov; | 401-780-2107 |
| Emily Koo, Acadia Center | EKoo@acadiacenter.org; | |

Division 1-9

Request:

Provide an updated inventory of leak prone main total miles by material type including cast iron, ductile iron, Wrought iron, bare steel and unprotected coated steel. Please list inventory miles by decade of installation.

Response:

Please refer to Attachment DIV 1-9. Certain mains are listed with an "Unknown" installation date due to incomplete historical records and/or GIS data accuracy issues. Please note this information is accurate as of January 1, 2024 and was compiled using the same dataset used for the Company's 2023 System Integrity Report.

Prepared by or under the supervision of: Corey Hogg

**Attachment DIV 1-10**

| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) | (i) | (j) | (k) | (l) | (m) | (n) | (o) | (p) | (q) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Material | | | | | | | | | | | | | | | |
| | | Cast/Wrought Iron | | | | Ductile Iron | | | | Bare Steel | | | | Unprotected Coated Steel | | | |
| | | Pr Score | | | | | | | | | | | | | | | |
| 1 | City/Town | Low | Medium | High | Total | Low | Medium | High | Total | Low | Medium | High | Total | Low | Medium | High | Total |
| 2 | Barrington | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.33 | 0.00 | 0.00 | 0.47 | 0.98 | 0.00 | 0.00 | 0.98 |
| 3 | Bristol | 1.66 | 0.93 | 1.13 | 7.42 | 0.00 | 0.00 | 0.44 | 0.58 | 0.00 | 0.00 | 0.13 | 1.01 | 0.78 | 0.00 | 0.13 | 1.76 |
| 4 | Burrillville | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5 | Central Falls | 6.58 | 2.86 | 0.00 | 14.41 | 0.12 | 0.02 | 0.00 | 0.16 | 0.42 | 0.26 | 0.00 | 2.19 | 0.20 | 0.00 | 0.00 | 0.98 |
| 6 | Coventry | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.38 | 0.00 | 0.00 | 0.68 | 5.47 | 0.00 | 0.00 | 9.48 |
| 7 | Cranston | 19.93 | 24.51 | 7.33 | 81.43 | 0.00 | 0.00 | 0.00 | 0.00 | 2.30 | 5.03 | 0.61 | 12.74 | 0.39 | 2.20 | 0.90 | 9.00 |
| 8 | Cumberland | 1.50 | 0.88 | 1.15 | 9.17 | 0.15 | 0.02 | 0.36 | 1.02 | 2.27 | 1.52 | 0.18 | 13.98 | 0.00 | 0.00 | 0.00 | 1.14 |
| 9 | East Greenwich | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.27 | 0.00 | 0.07 | 0.56 | 1.29 | 0.00 | 0.00 | 5.06 |
| 10 | East Providence | 5.35 | 5.98 | 5.65 | 32.73 | 0.00 | 0.00 | 0.00 | 0.00 | 2.28 | 0.52 | 0.33 | 4.72 | 1.54 | 0.51 | 0.28 | 5.58 |
| 11 | Exeter | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.08 |
| 12 | Hopkinton | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 |
| 13 | Johnston | 5.86 | 1.73 | 2.45 | 15.75 | 0.00 | 0.00 | 0.00 | 0.00 | 3.36 | 1.00 | 0.49 | 7.06 | 3.88 | 0.17 | 1.46 | 8.71 |
| 14 | Lincoln | 0.26 | 1.78 | 0.00 | 7.22 | 0.02 | 1.05 | 0.00 | 2.09 | 1.23 | 0.19 | 0.00 | 1.77 | 0.00 | 0.00 | 0.00 | 1.07 |
| 15 | Middletown | 0.38 | 0.00 | 0.00 | 0.98 | 0.00 | 0.00 | 0.00 | 0.00 | 0.21 | 0.00 | 0.00 | 0.36 | 0.14 | 0.00 | 0.00 | 2.56 |
| 16 | Narragansett | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.52 | 0.00 | 0.00 | 0.52 |
| 17 | Newport | 2.55 | 1.66 | 1.30 | 10.51 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.30 | 0.10 | 2.11 | 1.10 | 0.68 | 0.00 | 4.22 |
| 18 | North Kingstown | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.34 | 0.00 | 0.00 | 0.34 | 2.26 | 0.00 | 0.00 | 6.33 |
| 19 | North Providence | 9.53 | 4.30 | 0.90 | 20.12 | 1.50 | 0.00 | 0.00 | 1.90 | 3.20 | 1.85 | 0.35 | 9.29 | 0.71 | 0.90 | 0.01 | 6.85 |
| 20 | North Smithfield | 0.00 | 0.00 | 0.65 | 0.65 | 0.00 | 0.00 | 0.05 | 0.05 | 3.17 | 0.00 | 0.35 | 4.03 | 0.00 | 0.00 | 0.00 | 0.21 |
| 21 | Pawtucket | 12.55 | 20.51 | 6.30 | 118.98 | 0.10 | 0.70 | 0.80 | 4.87 | 1.75 | 2.15 | 0.60 | 15.03 | 0.03 | 0.14 | 0.17 | 0.80 |
| 22 | Portsmouth | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.04 |
| 23 | Providence | 16.00 | 20.25 | 50.15 | 183.14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.35 | 1.15 | 2.20 | 9.40 | 2.02 | 0.40 | 1.50 | 11.62 |
| 24 | Scituate | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 25 | Smithfield | 0.00 | 0.00 | 0.00 | 1.14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.53 | 1.03 | 0.00 | 0.30 | 3.51 |
| 26 | South Kingstown | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.50 | 0.00 | 0.00 | 8.55 |
| 27 | Tiverton | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 28 | Warren | 0.29 | 0.75 | 0.00 | 1.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.07 | 0.00 | 0.00 | 0.26 | 0.01 | 0.01 | 0.00 | 0.62 |
| 29 | Warwick | 1.28 | 2.90 | 3.81 | 9.74 | 0.00 | 0.00 | 0.00 | 0.00 | 15.96 | 0.90 | 2.71 | 28.69 | 3.65 | 0.90 | 0.85 | 23.90 |
| 30 | West Greenwich | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 31 | West Warwick | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.42 | 0.45 | 0.00 | 0.87 | 3.60 | 0.81 | 0.00 | 17.51 |
| 32 | Westerly | 1.38 | 1.22 | 0.00 | 2.60 | 0.00 | 0.00 | 0.00 | 0.00 | 2.56 | 0.11 | 0.00 | 2.67 | 1.05 | 0.00 | 0.00 | 1.05 |
| 33 | Woonsocket | 6.82 | 8.74 | 2.10 | 33.91 | 0.00 | 0.19 | 0.00 | 0.96 | 3.47 | 1.33 | 0.11 | 10.30 | 1.26 | 0.00 | 0.00 | 2.05 |
| 34 | Unknown | N/A | N/A | N/A | 9.92 | N/A | N/A | N/A | 0.36 | N/A | N/A | N/A | 0.43 | N/A | N/A | N/A | 0.06 |
| 35 | **Total** | **91.92** | **99.00** | **82.92** | **560.87** | **1.89** | **1.98** | **1.65** | **11.99** | **44.40** | **16.76** | **8.33** | **129.52** | **36.41** | **6.72** | **5.60** | **134.25** |

Division 1-10

Request:

Provide a low/med/high risk ranking by material of all remaining leak prone main inventory to date by City/Town within the gas distribution system including cast iron, bare steel, unprotected coated steel and ductile iron mains.

Response:

Please refer to Attachment DIV 1-10 for the requested information. The Company does not currently have priority scores calculated for its entire leak-prone main inventory. The totals in the attachment represent the portion of the inventory which has been analyzed and assigned a priority score as of October 30, 2024. Segments were grouped as follows: low – priority score between 0 and 10, medium – priority score between 10 and 15, and high – priority score 15 and greater. Analyzed projects are tracked until they are abandoned, so in progress projects are included in these totals.

In addition to this data, the total amount of remaining leak-prone main in each city/town separated by material has been included in the table (columns e, i, m, and q of Attachment DIV 1-10). This data was pulled from the dataset used to compile the Company's 2023 System Integrity Report, which is accurate as of January 1, 2024. Since January 1, 2024 and as of October 30, 2024, the Company has abandoned approximately 35 miles of leak-prone main. The level of data detail required to update these totals by city/town and material will not be available until data collection and verification is completed for the 2024 System Integrity Report. Please note, the Company has a subset of mains for which the city/town is listed as "Unknown" due to GIS data quality issues. This subset is summarized in row 34 of Attachment DIV 1-10.

Prepared by or under the supervision of: Corey Hogg

**Attachment DIV 1-10**

| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) | (i) | (j) | (k) | (l) | (m) | (n) | (o) | (p) | (q) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Material | | | | | | | | | | | | | | | |
| | | Cast/Wrought Iron | | | | Ductile Iron | | | | Bare Steel | | | | Unprotected Coated Steel | | | |
| | | Pr Score | | | | | | | | | | | | | | | |
| 1 | City/Town | Low | Medium | High | Total | Low | Medium | High | Total | Low | Medium | High | Total | Low | Medium | High | Total |
| 2 | Barrington | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.33 | 0.00 | 0.00 | 0.47 | 0.98 | 0.00 | 0.00 | 0.98 |
| 3 | Bristol | 1.66 | 0.93 | 1.13 | 7.42 | 0.00 | 0.00 | 0.44 | 0.58 | 0.00 | 0.00 | 0.13 | 1.01 | 0.78 | 0.00 | 0.13 | 1.76 |
| 4 | Burrillville | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5 | Central Falls | 6.58 | 2.86 | 0.00 | 14.41 | 0.12 | 0.02 | 0.00 | 0.16 | 0.42 | 0.26 | 0.00 | 2.19 | 0.20 | 0.00 | 0.00 | 0.98 |
| 6 | Coventry | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.38 | 0.00 | 0.00 | 0.68 | 5.47 | 0.00 | 0.00 | 9.48 |
| 7 | Cranston | 19.93 | 24.51 | 7.33 | 81.43 | 0.00 | 0.00 | 0.00 | 0.00 | 2.30 | 5.03 | 0.61 | 12.74 | 0.39 | 2.20 | 0.90 | 9.00 |
| 8 | Cumberland | 1.50 | 0.88 | 1.15 | 9.17 | 0.15 | 0.02 | 0.36 | 1.02 | 2.27 | 1.52 | 0.18 | 13.98 | 0.00 | 0.00 | 0.00 | 1.14 |
| 9 | East Greenwich | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.27 | 0.00 | 0.07 | 0.56 | 1.29 | 0.00 | 0.00 | 5.06 |
| 10 | East Providence | 5.35 | 5.98 | 5.65 | 32.73 | 0.00 | 0.00 | 0.00 | 0.00 | 2.28 | 0.52 | 0.33 | 4.72 | 1.54 | 0.51 | 0.28 | 5.58 |
| 11 | Exeter | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.08 |
| 12 | Hopkinton | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 |
| 13 | Johnston | 5.86 | 1.73 | 2.45 | 15.75 | 0.00 | 0.00 | 0.00 | 0.00 | 3.36 | 1.00 | 0.49 | 7.06 | 3.88 | 0.17 | 1.46 | 8.71 |
| 14 | Lincoln | 0.26 | 1.78 | 0.00 | 7.22 | 0.02 | 1.05 | 0.00 | 2.09 | 1.23 | 0.19 | 0.00 | 1.77 | 0.00 | 0.00 | 0.00 | 1.07 |
| 15 | Middletown | 0.38 | 0.00 | 0.00 | 0.98 | 0.00 | 0.00 | 0.00 | 0.00 | 0.21 | 0.00 | 0.00 | 0.36 | 0.14 | 0.00 | 0.00 | 2.56 |
| 16 | Narragansett | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.52 | 0.00 | 0.00 | 0.52 |
| 17 | Newport | 2.55 | 1.66 | 1.30 | 10.51 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.30 | 0.10 | 2.11 | 1.10 | 0.68 | 0.00 | 4.22 |
| 18 | North Kingstown | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.34 | 0.00 | 0.00 | 0.34 | 2.26 | 0.00 | 0.00 | 6.33 |
| 19 | North Providence | 9.53 | 4.30 | 0.90 | 20.12 | 1.50 | 0.00 | 0.00 | 1.90 | 3.20 | 1.85 | 0.35 | 9.29 | 0.71 | 0.90 | 0.01 | 6.85 |
| 20 | North Smithfield | 0.00 | 0.00 | 0.65 | 0.65 | 0.00 | 0.00 | 0.05 | 0.05 | 3.17 | 0.00 | 0.35 | 4.03 | 0.00 | 0.00 | 0.00 | 0.21 |
| 21 | Pawtucket | 12.55 | 20.51 | 6.30 | 118.98 | 0.10 | 0.70 | 0.80 | 4.87 | 1.75 | 2.15 | 0.60 | 15.03 | 0.03 | 0.14 | 0.17 | 0.80 |
| 22 | Portsmouth | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.04 |
| 23 | Providence | 16.00 | 20.25 | 50.15 | 183.14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.35 | 1.15 | 2.20 | 9.40 | 2.02 | 0.40 | 1.50 | 11.62 |
| 24 | Scituate | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 25 | Smithfield | 0.00 | 0.00 | 0.00 | 1.14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.53 | 1.03 | 0.00 | 0.30 | 3.51 |
| 26 | South Kingstown | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 4.50 | 0.00 | 0.00 | 8.55 |
| 27 | Tiverton | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 28 | Warren | 0.29 | 0.75 | 0.00 | 1.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.07 | 0.00 | 0.00 | 0.26 | 0.01 | 0.01 | 0.00 | 0.62 |
| 29 | Warwick | 1.28 | 2.90 | 3.81 | 9.74 | 0.00 | 0.00 | 0.00 | 0.00 | 15.96 | 0.90 | 2.71 | 28.69 | 3.65 | 0.90 | 0.85 | 23.90 |
| 30 | West Greenwich | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 31 | West Warwick | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.42 | 0.45 | 0.00 | 0.87 | 3.60 | 0.81 | 0.00 | 17.51 |
| 32 | Westerly | 1.38 | 1.22 | 0.00 | 2.60 | 0.00 | 0.00 | 0.00 | 0.00 | 2.56 | 0.11 | 0.00 | 2.67 | 1.05 | 0.00 | 0.00 | 1.05 |
| 33 | Woonsocket | 6.82 | 8.74 | 2.10 | 33.91 | 0.00 | 0.19 | 0.00 | 0.96 | 3.47 | 1.33 | 0.11 | 10.30 | 1.26 | 0.00 | 0.00 | 2.05 |
| 34 | Unknown | N/A | N/A | N/A | 9.92 | N/A | N/A | N/A | 0.36 | N/A | N/A | N/A | 0.43 | N/A | N/A | N/A | 0.06 |
| 35 | **Total** | **91.92** | **99.00** | **82.92** | **560.87** | **1.89** | **1.98** | **1.65** | **11.99** | **44.40** | **16.76** | **8.33** | **129.52** | **36.41** | **6.72** | **5.60** | **134.25** |

Division 1-11

Request:

Provide an updated inventory of all leak prone services by material type including bare steel, unprotected coated steel, copper and cast iron. Please list inventory by decade of installation.

Response:

Please refer to Attachment DIV 1-11. Certain services are listed as having "Unknown" material and/or installation date due to incomplete historical records and/or GIS data accuracy issues. Please note this information is accurate as of January 1, 2024 and was compiled using the same dataset used for the Company's 2023 System Integrity Report.

Prepared by or under the supervision of: Corey Hogg

## Attachment DIV 1-11

| | (a) | (b) | (c) | (d) | (e) | (f) |
|---|---|---|---|---|---|---|
| | | Material | | | | |
| 1 | Decade of Installation | Cast Iron | Copper | Bare Steel | Unprotected Coated Steel | Unknown |
| 2 | 1880-1889 | 0 | 0 | 1 | 0 | 0 |
| 3 | 1890-1899 | 0 | 0 | 7 | 0 | 0 |
| 4 | 1900-1909 | 1 | 0 | 67 | 0 | 0 |
| 5 | 1910-1919 | 1 | 0 | 2,729 | 0 | 0 |
| 6 | 1920-1929 | 7 | 0 | 7,963 | 0 | 0 |
| 7 | 1930-1939 | 4 | 0 | 4,147 | 0 | 0 |
| 8 | 1940-1949 | 2 | 0 | 3,998 | 0 | 0 |
| 9 | 1950-1959 | 3 | 2 | 5,759 | 32 | 0 |
| 10 | 1960-1969 | 0 | 3 | 5,131 | 4,262 | 0 |
| 11 | 1970-1979 | 0 | 2 | 733 | 1,100 | 0 |
| 12 | Unknown | 7 | 37 | 4,468 | 246 | 881 |
| 13 | **Total** | 25 | 44 | 35,003 | 5,640 | 881 |

Division 1-12

Request:

Please provide all leaks receipts by grade (1, 2, 2A, or 3) for each month of CY 2024.

Response:

Please see the table below for leak receipts by grade through October 31, 2024.

| DIV 1-12 | | | | | | |
|---|---|---|---|---|---|---|
| | | (a) | (b) | (c) | (d) | (e) |
| | | Leak Grade at Receipt | | | | |
| 1 | Month | Grade 1 | Grade 2A | Grade 2 | Grade 3 | Total |
| 2 | January | 71 | 10 | 41 | 41 | 163 |
| 3 | February | 65 | 34 | 75 | 70 | 244 |
| 4 | March | 52 | 9 | 35 | 40 | 136 |
| 5 | April | 41 | 4 | 25 | 33 | 103 |
| 6 | May | 47 | 4 | 26 | 24 | 101 |
| 7 | June | 56 | 6 | 30 | 56 | 148 |
| 8 | July | 34 | 0 | 19 | 24 | 77 |
| 9 | August | 39 | 1 | 9 | 19 | 68 |
| 10 | September | 37 | 1 | 20 | 46 | 104 |
| 11 | October | 42 | 5 | 18 | 40 | 105 |
| 12 | November | X | X | X | X | X |
| 13 | December | X | X | X | X | X |
| 14 | Total | 484 | 74 | 298 | 393 | 1,249 |
| 15 | *Data current as of October 31st, 2024. | | | | | |

Prepared by or under the supervision of: Barry Foster

Division 1-13

Request:

Provide total number of new services installed for CY 2023 and CY 2024 to date.

Response:

During CY 2023 the Company installed 1,095 new services. Through September of CY 2024, the Company installed 607 new services.

Prepared by or under the supervision of: Phil LaFond

Division 1-14

Request:

Provide the total number of active services and active meters to date.

Response:

Rhode Island Energy currently has 205,209 active services and 278,900 active meters.

Prepared by or under the supervision of: Barry Foster

Division 1-15

Request:

Provide a copy of the Company's latest Gas Distribution Integrity Management Program (DIMP).

Response:

Please see Attachment DIV 1-15 for the Company's latest Gas Distribution Integrity Management Program ("DIMP"), dated June 5, 2024.

Prepared by or under the supervision of: Barry Foster

2023

Rhode Island Energy™

a PPL company

# Gas Distribution Integrity Management Plan

RHODE ISLAND ENERGY

June 5, 2024

## Preface

The development of this Distribution Integrity Management program was initiated in 2009 as a project involving the Northeast Gas Association, the Southern Gas Association, forty-seven utilities (including National Grid, the company of which Rhode Island Energy was a part at the time of the project initiation), and Structural Integrity Associates. These parties collaborated to develop a best-in-class framework. Subsequent to the initial development, National Grid retained Structural Integrity to assist in the customization of the National Grid-specific DIM Plan. Departments within National Grid that were directly involved in the Plan development included Operations, Regulatory Compliance, and Distribution Engineering. A team with representatives from these three groups was assigned the task of creating the National Grid DIM Plan by August 2011 for U.S. Gas Operations. Rhode Island Energy continues to utilize this Distribution Integrity Management framework.

**REVISION CONTROL SHEET**

RHODE ISLAND ENERGY DISTRIBUTION INTEGRITY MANAGEMENT PLAN

| SECTION | PAGES | REVISION | DATE | COMMENTS |
|---|---|---|---|---|
| 1-12 | All | 0 | 8/2/2011 | INITIAL RELEASE |
| 1-12 | All | 1 | 2/17/2012 | REVISION 1 |
| 1-12 & All Appendices | All | 2 | 8/29/2013 | REVISION 2 |
| 1-12 & All Appendices | All | 3 | 9/12/2014 | REVISION 3 |
| 1-12 & All Appendices | All | 4 | 9/1/2015 | REVISION 4 |
| 1-12 & All Appendices | All | 5 | 9/1/2016 | REVISION 5 (Complete Re-Evaluation) |
| 1-13 & All Appendices | All | 6 | 8/2/2017 | REVISION 6 |
| 1-13 & All Appendices | All | 7 | 8/2/2018 | REVISION 7 |
| 1-13 & All Appendices | All | 8 | 8/2/2019 | REVISION 8 |
| 1-13 & All Appendices | All | 9 | 8/2/2020 | REVISION 9 |
| 2, 3, 9, 11, D Appendix | 2, 3, 9, 11, 14, 15, 16 | 9.1 | 12/14/2020 | REVISION 9.1 |
| 1-13 & All Appendices | All | 10 | 8/20/2021 | REVISION 10 (Complete Re-Evaluation) |
| 3, 4, 5, 6, 7, & A, B, D Appendices | 3, 4, 5, 6, 7, 14, 15, 16 | 10.1 | 9/30/2021 | REVISION 10.1 |
| 1-13 & All Appendices | All | 11 | 8/2/2022 | REVISION 11 |
| 1-13 & All Appendices | All | 12 | 6/21/2023 | REVISION 12 |
| 1-13 & All Appendices | All | 13 | 6/5/2024 | REVISION 13 |

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## Table of Figures

## Table of Tables

# 1.0 COMPANY OVERVIEW

Rhode Island Energy, a PPL company, serves approximately 278,700 natural gas customers in the state of Rhode Island (See Figure 1-1).

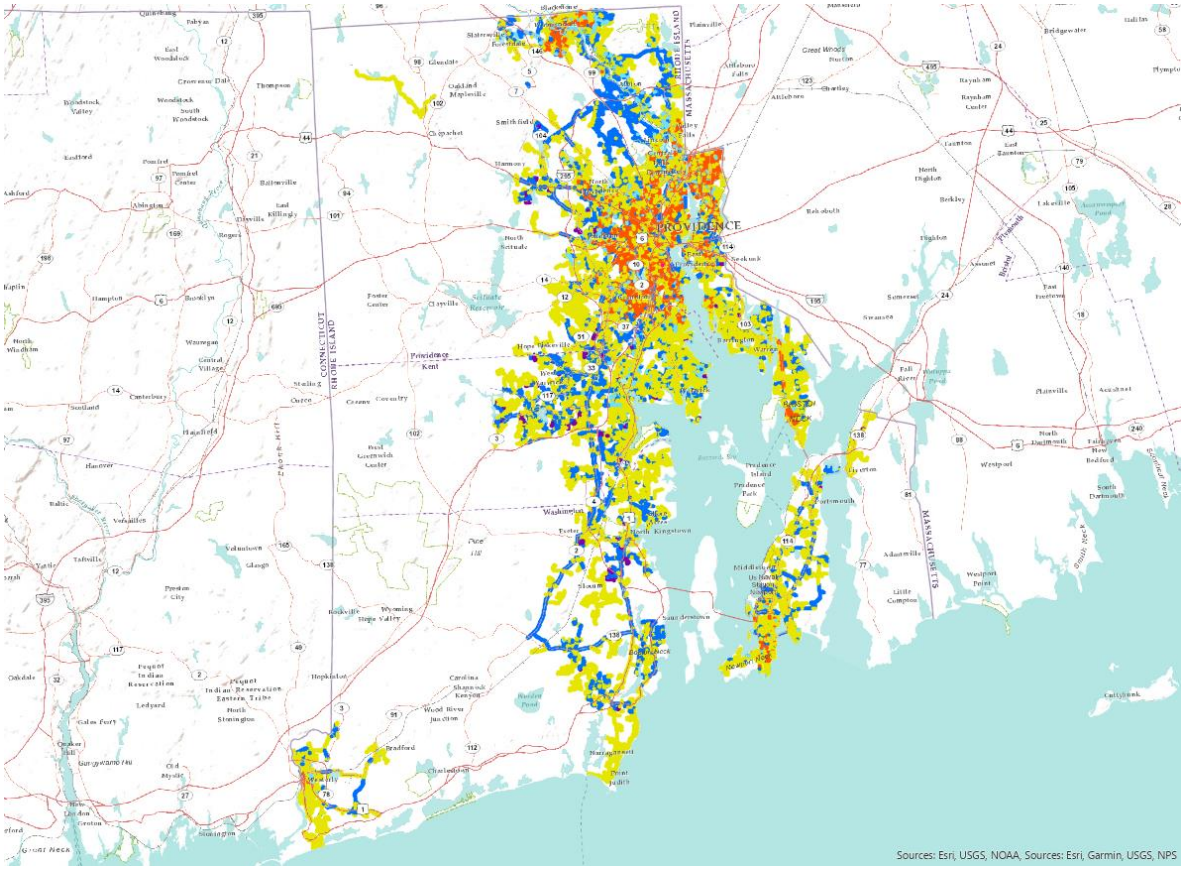


*Figure 1-1: Rhode Island Energy Operating Regions*

At this time, Rhode Island Energy provides annual reports to The U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) under the following Operator IDs:

Operator ID .....40400 – Rhode Island Energy (RIE)

## 1.1 Rhode Island Company Sale

On May 25th, 2022, National Grid Corporation concluded the sale of the company and territory administered in Rhode Island under the legacy Narragansett Electric Company to Pennsylvania Power & Light (PPL). The sale did not affect any of the data or processes presented in this document regarding

the DIM framework in Rhode Island. However, some sections of the document contain references to legacy National Grid information for context. In other sections, updated tables and descriptions have been provided to suit the new organization and jurisdiction.

## 2.0 COMPANY SAFETY

Rhode Island Energy recognizes that their operations potentially give rise to risk and believe that they can eliminate or minimize risk to achieve zero injuries, safeguarding members of the public. The communities served include all those who have a stake in or are affected by the company. By using the best designs, processes, tools, and training, Rhode Island Energy aims to develop a process-focused approach to mitigating risk, therefore increasing the overall safety of our system and customers. The Distribution Integrity Management Program (DIMP) aims to ensure pipeline integrity by identifying, evaluating, and mitigating the risks within Rhode Island Energy's systems. The following are key elements within the program to achieve this goal as per the requirement of 49 CFR §192.1007:

(a) Knowledge
(b) Identify Threats
(c) Evaluate and Rank Risk
(d) Identify and Implement Measures to Address Risks
(e) Measure Performance, Monitor Results, and Evaluate Effectiveness
(f) Periodic Evaluation and Improvement
(g) Report Results

## 3.0 SCOPE

The U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) amended the Federal Pipeline Safety Regulations on December 4, 2009, to require operators of gas distribution pipelines to develop and implement a Distribution Integrity Management Program (DIMP). Rhode Island Energy's written integrity management plan also complies with Rhode Island Division of Public Utilities Rules and Regulations Prescribing Standards for Gas Utilities, Master Meter Systems, and Jurisdictional Propane Systems.

The purpose of the DIMP is to enhance safety by identifying and reducing gas distribution pipeline integrity risks. Operators must integrate reasonably available information about their pipelines to inform their risk decisions. The DIMP approach was designed to promote improvement in pipeline safety

by identifying and implementing risk control measures beyond those previously established in PHMSA regulatory requirements, when warranted.

This written DIM Plan addresses the DIM Rule which requires operators to develop and implement a DIM Program that addresses the following elements as per §192.1007:

(a) Knowledge
(b) Identify Threats
(c) Evaluate and Rank Risk
(d) Identify and Implement Measures to Address Risks
(e) Measure Performance, Monitor Results, and Evaluate Effectiveness
(f) Periodic Evaluation and Improvement
(g) Report Results

Because of the significant diversity among distribution pipeline operators and pipelines, the requirements in the DIM Rule are high-level and performance based. The DIM Rule specifies the required program elements but does not prescribe specific methods of implementation.

This written Integrity Management Plan applies to gas distribution pipelines operated by Rhode Island Energy. Gas distribution pipelines include the mains, services, service regulators, customer meters, valves, and other gas carrying appurtenances attached to the pipe. Table 3-1 below summarizes which Rhode Island piping systems (mains) under Rhode Island Energy are covered by the DIM Program.

*Table 3-1: Program Coverage*

| Pipeline System | Approximate Miles of Mains as of 2023 PHMSA Report[1] | Asset Family | Integrity Program | Pipeline Attributes | Rhode Island Energy Management Plans |
|---|---|---|---|---|---|
| Distribution | About 3,223 miles | Distribution | DIMP | < 20% SMYS | Preventive, Mitigative & Performance Measures |

This Plan also acknowledges Rhode Island Energy's responsibilities relative to Oxbow Farm's master meter system in Middletown, RI, in accordance with its Agreement with RI on Oxbow Farms Apartments

(Docket# D-06-54). Rhode Island Energy recognizes its ownership, operation, and maintenance of the natural gas pipelines downstream of the Oxbow Farms master meter system. This includes performing walking leak surveys on a 3-year cycle, the cathodic protection of steel facilities and damage prevention, public awareness, key valves, and atmospheric corrosion.

All piping was included in its respective asset category for threat identification, risk ranking, risk mitigation, and all other requirements as identified in 49CFR, Part 192.1015.

This plan does not cover:

*Customer owned lines* – piping downstream of the service line (as defined in Section 5.0).

*Gathering lines* – Rhode Island Energy does not currently own or operate gas gathering lines.

*Regulator stations* - covered under Rhode Island Energy's Station Integrity Management Program (*SIMP*).

*Transmission lines* – formerly covered under National Grid's Transmission Integrity Management Program *(TIMP)* and not required for Rhode Island, as no mains in Rhode Island meet Transmission criteria. Refer to Table 3-1.

*Liquefied Natural Gas (LNG) and Compressed Natural Gas (CNG)* - covered under Asset Management.

## 3.1 DIM Plan Review

On February 11th, 2019, Gas Distribution Engineering awarded the contract to safety management consultant, Exponent, to assist in adopting API RP 1173 core elements (DIMP focused) into the DIMP Plan, to identify gaps within the DIMP Plan, and to ensure program compliance with PHMSA Inspection Form-22 and 24. Exponent was also tasked to review the Massachusetts Senators' letter, and AGA's recommendations as the result of 2018 Columbia Gas Incident, against the information contained within National Grid's DIM Plan, which continues under Rhode Island Energy.

RIE has embraced API RP 1173. The Lead Pipeline Safety Program Manager is actively working on implementation. Blacksmith (a PSMS consulting firm), in conjunction with the NGA, has completed their maturity assessment. Rhode Island Energy is awaiting receipt of the final maturity assessment report. The final report will demonstrate where our conformance is with RP 1173 requirements, highlight specific practices or processes upon which we can build, and recommended steps to improve our overall

PSMS performance. The final report will also include a high-level PSMS action item roadmap, as well as recommended improvement for each element. RIE is committed to strengthening its pipeline safety culture.

# 4.0 PURPOSE AND OBJECTIVES

The purpose of the DIM Program is to enhance safety by identifying and reducing gas distribution pipeline integrity risks. Managing the integrity and reliability of the gas distribution pipeline has always been a primary goal for Rhode Island Energy; with design, construction, operations and maintenance activities performed in compliance with or exceeding the requirements of the Code of Federal Regulations (CFR) and as well as the following where applicable: Rhode Island Division of Public Utilities Rules and Regulations Prescribing Standards for Gas Utilities, Master Meter Systems, and Jurisdictional Propane Systems.

The objective of this DIM Plan is to establish the requirements to comply with 49 CFR § 192.1005, 192.1007, 192.1009, 192.1011, 192.1013 and (192.1015 for the master meter system in Middletown, RI) pertaining to integrity management for gas distribution pipelines. Rhode Island Energy does not currently propose to reduce the frequency of periodic inspections and tests allowed by 192.1013 but may submit such proposals for consideration and concurrence by regulators in the future.

The DIM Plan is comprised of seven elements as depicted in Figure 4-1 (DIM Plan Section reference also provided).

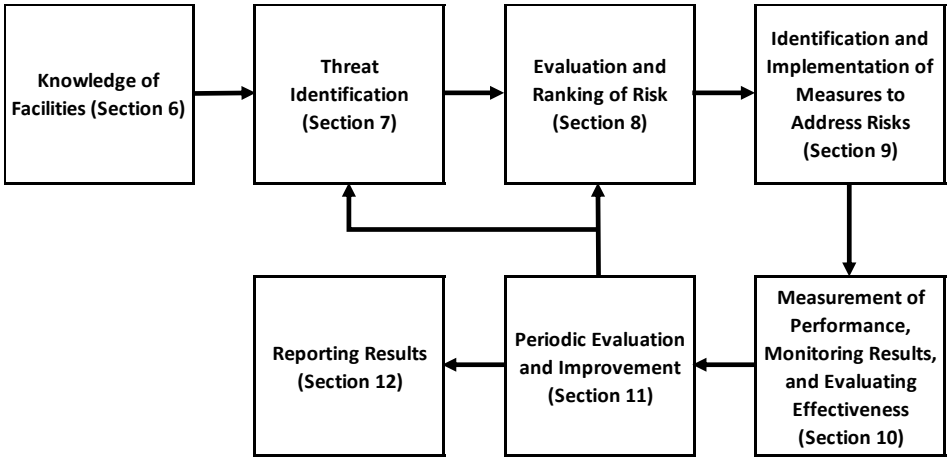


*Figure 4-1: DIM Plan Elements*

In addition to the key elements shown in Figure 4-1, the DIM Plan also establishes requirements for reporting of mechanical fitting failures (Section 12.1) and maintaining records (Section 13).

All elements of this DIM Plan were implemented on August 2, 2011.

## 4.1 Roles and Responsibilities

The purpose of this section is to describe key roles within the organization.

### *4.1.1 Vice President, Gas Operations*

The Vice President of Gas Operations is responsible for oversight of the DIM Plan and assures that the program processes are implemented by the organization in accordance with this DIM Plan and associated regulatory requirements. The Vice President may delegate some or all of these responsibilities to the Director, Gas Engineering and Asset Management..

### *4.1.2 Director, Gas Engineering and Asset Management*

The Director of Gas Engineering and Asset Management has overall responsibility to assure that the DIM Plan processes are implemented by the organization in accordance with this DIM Plan and associated regulatory requirements. The Director conducts a month-to-month review of the program with the Manager to make sure the DIM Plan aligns with the Company's operating procedures. The Director may delegate some or all of these responsibilities.

### *4.1.3 Manager, Distribution Asset Management*

The Manager of Distribution Asset Management has the responsibility for day-to-day program oversight, policy integrity, facility replacement priorities, and responsibility to assure that the plan is implemented effectively and is integrated with the Company's operating procedures. This Plan assigns authority to the Manager for approval of the DIM Plan.

### *4.1.4 Engineer, Gas Asset Management Engineering*

The Engineer is responsible for gathering all pertinent data for DIMP Appendices including Risk Ranking. Ensure that all the changes made to the plan during its yearly and 5-year comprehensive Plan revisions are documented and tracked.

### *4.1.5* Subject Matter Experts (SMEs)

The subject Matter Experts act as the knowledgeable authority regarding a specific Company system or area of expertise. The assignment of SME responsibility is delegated to the appropriate individual(s) within the Rhode Island Energy organization or to qualified contractors. The SME is responsible for input into specific DIMP related processes or oversight of DIMP related tasks. An SME may be assigned for a specific issue and/or geographic area of the company or may represent the company system-wide in certain technical areas as appointed by the DIMP Director or Manager.

## 4.2 DIM Program Administration

Gas Asset Management is responsible for the overall Integrity Management Program. Table 4-1 Provides a RACI Chart outlining the Departments that are either responsible, accountable, consulted or informed on the seven elements of the DIMP.

*Table 4-1: Roles and Responsibilities (RACI Chart)*

| Stakeholder Group | Facilities Knowledge | Threat Identification | Risk Evaluation & Prioritization | Threat Mitigation & Implementation | Performance & Monitoring | Performance Evaluation & Improvement | Reporting Results |
|---|---|---|---|---|---|---|---|
| Gas Asset Management | A | A | A | A | A | A | A |
| Gas Field Ops | R | R | C | R | R | R | I |
| Gas Construction | I | I | I | R | I | I | I |
| Corrosion Control | R | R | I | R | R | R | R |
| Project Management | I | I | I | R | I | I | I |
| Resource Planning | I | I | I | R | I | I | I |
| Project Engineering & Design | I | I | I | R | I | I | I |
| Damage Prevention | I | I | I | R | I | I | I |
| Pipeline Safety & Compliance | I | C | C | I | I | C | I |

**Notes:**

R = responsible for performing the task
A = accountable for overall result of task
C = consulted to provide input or participate in the task
I = informed about the progress or results of task

*Table 4-2: DIM Program Administration*

| Plan Section | Role / Responsibility | Responsible Position |
|---|---|---|
| 4.1 | Overall Program Oversight | Vice President, Gas Operations |
| 4.1 | Overall Program Implementation | Director, Gas Engineering and Asset Management |
| 6.1, 6.2, 6.3 Appendix A | Updates to Appendix A | Manager, Gas Asset Management or designee |
| 6.4 | Update Action Plans for Gaining Additional Knowledge | Manager, Gas Asset Management or designee |
| 6.6, Appendix A Appendix B | Conduct and Record SME Interviews as necessary for input into Appendix A (Knowledge) and Appendix B (Threat Identification) | Manager, Gas Asset Management or designee |
| 7.0, 7.1, Appendix B | Update Threat Identification (Appendix B) as new or modified threats are known or recognized | Manager, Gas Asset Management or designee |
| 8.1 | Update the Risk Assessment and Ranking process and/or algorithms | Manager, Gas Asset Management or designee |
| Appendix C | Perform and document updates to the Risk Assessment & Ranking Results. | Manager, Gas Asset Management or designee |
| 9.1, 9.2, Appendix D | Ongoing updates to Mitigation Measures to Address Risks | Manager, Gas Asset Management or designee |
| 10.1 thru 10.6, Appendix E | Maintain Performance Measures (updates to actual performance as well as the associated baselines) | Manager, Gas Asset Management or designee |
| 11.1, Appendix F | Periodic Updates to the Plan | Manager, Gas Asset Management or designee |
| 11.2, Appendix F | Conduct and document the Annual Effectiveness Review | Manager, Gas Asset Management or designee |
| 11.1, Appendix F | Conduct the Program Re-evaluation | Manager, Gas Asset Management or designee |
| 12.1 | Prepare and submit the annual report to PHMSA and the State Pipeline Safety Authority | Manager, Gas Asset Management or designee |

| Plan Section | Role / Responsibility | Responsible Position |
|---|---|---|
| 13.0 | Maintain DIM Program Records and Files as required by Retention Policy | Manager, Gas Asset Management or designee |

### *4.2.1 Organizational Charts*

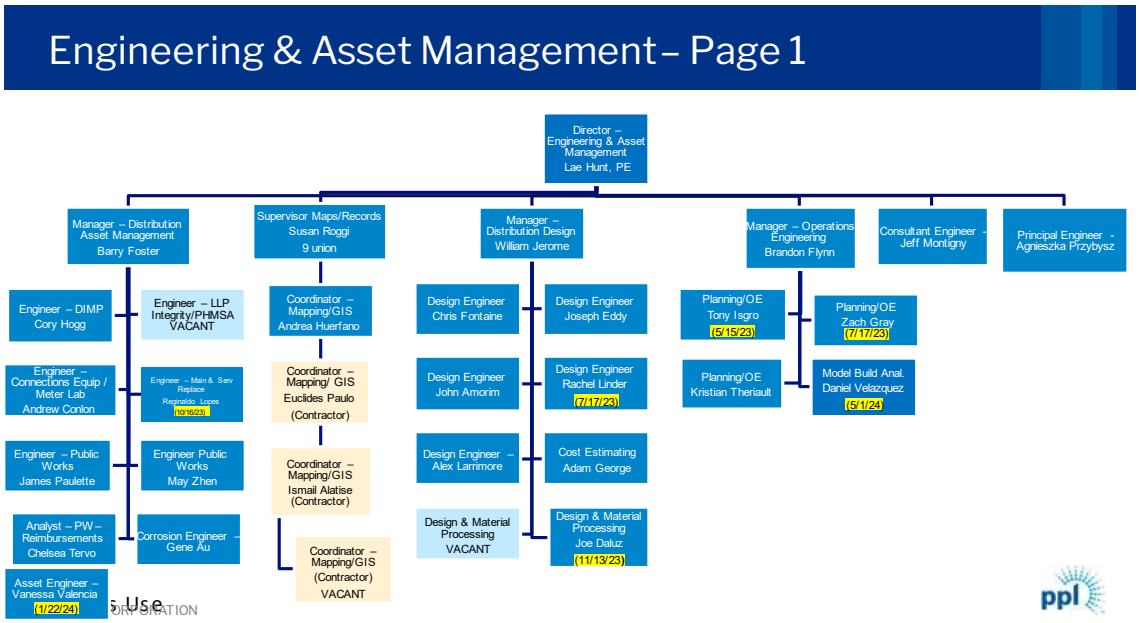


*Figure 4.2.1*: Rhode Island Energy Organization Charts

## 4.3 How to Use this Plan

This DIM Plan is intended to be a resource and decision-making guide for implementing the DIM Program at Rhode Island Energy. The 12-section general Plan applies to all Rhode Island Energy jurisdictions. There is also an Appendix for Rhode Island covering the duration of calendar year 2023. The general IMP and DIM Program workflow is outlined in Figure 4-2.

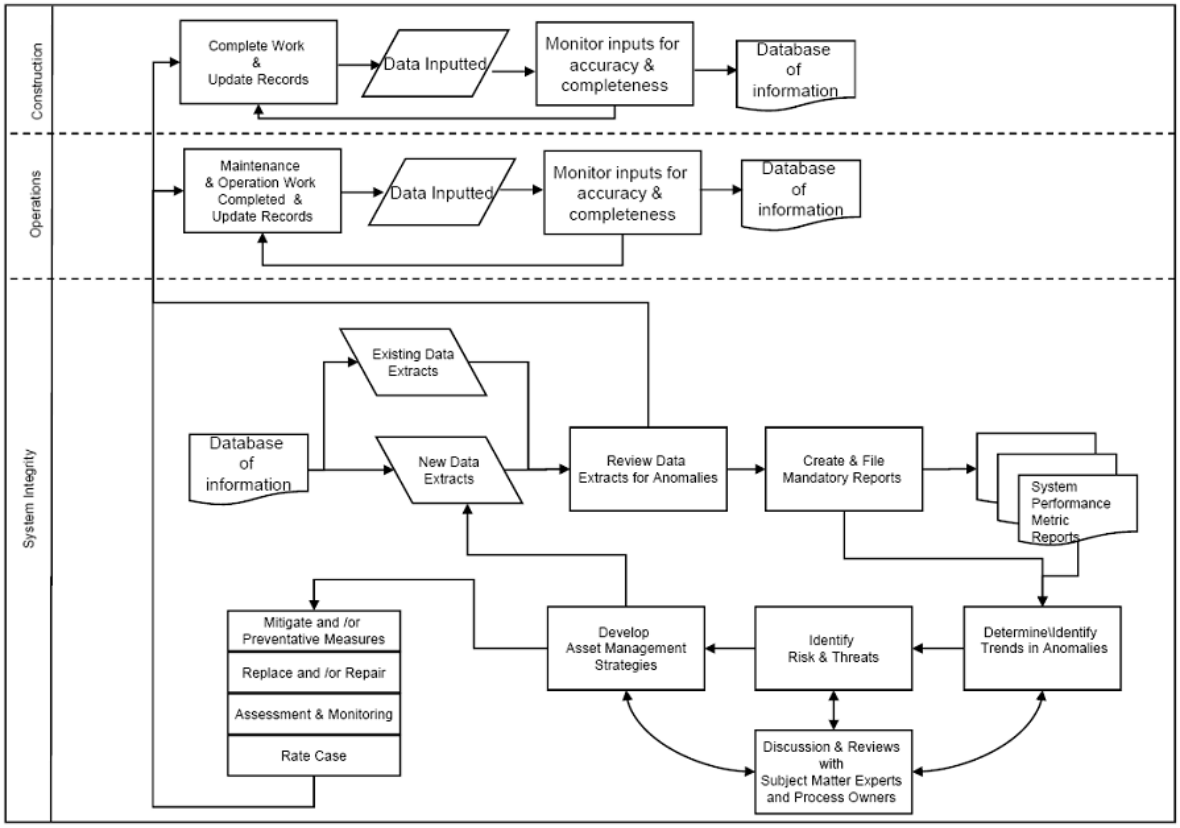


*Figure 4-2: DIM Program Process Flow*

# 5.0 DEFINITIONS AND ACRONYMS

The definitions provided in 49 CFR, §192.3 and §192.1001 shall apply to this DIM Plan. The following definitions and acronyms shall apply to this DIM Plan.

**American Petroleum Institute Recommended Practice 1173 (API RP 1173)**: API RP 1173 is a Safety Management System that was developed by the American Petroleum Institute.

**Baseline**: A value established for the purposes of evaluating the ongoing results of a performance measure. Baselines are established as a matter of judgment and can change and evolve over time.

**Business Management System (BMS):** The Company has adopted BMS standards that bring together best practices from across all regions.

**COF**: Consequence of Failure.

**D.I.R.T.**: Damage Information Reporting Tool – A secure, national web application for the collection, analysis, and reporting of underground facility damage information for all stakeholders. More information on D.I.R.T. may be found at the Common Ground Alliance's (CGA's) website at www.cga-dirt.com.

**Distribution Integrity Management Plan (DIM Plan)**: A written explanation of the mechanisms or procedures the operator will use to implement its integrity management program and to ensure compliance with subpart P of 49 CFR Part 192 (reference §192.1001).

**Distribution Integrity Management Program (DIM Program)**: An overall approach used by an operator to ensure the integrity of its gas distribution system (reference §192.1001).

**Distribution Integrity Management Program Files**: Operator records, databases, and/or files that contain either material incorporated by reference in the Appendices of the DIM Plan or outdated material that was once contained in the DIM Plan Appendices but is being retained in order to comply with record keeping requirements.

**DIM Rule**: 49 CFR, Part 192, Subpart P.

**Distribution Line**: A pipeline other than a gathering or transmission line (reference §192.3).

**EFV**: Excess Flow Valve. An Excess Flow Valve is a safety device that is designed to shut off flow of natural gas automatically if the service line breaks.

**Excavation damage**: A physical impact that results in the need to repair or replace an underground facility due to a weakening, or the partial or complete destruction of the facility including, but not limited to, the protective coating, lateral support, cathodic protection, or the housing for the line device or facility (reference §192.1001).

**Hazardous Leak**: A leak that represents an existing or probable hazard to persons or property and requires immediate repair or continuous action until the conditions are no longer hazardous (reference §192.1001).

**HDPE**: High Density Polyethylene.

**FOF**: Frequency of Failure; synonymous with Likelihood of Failure.

**Transmission Integrity Management Program (TIMP)**: A program used to manage gas transmission pipeline integrity in compliance with Subpart O of 49CFR, Part 192.

**Main**: A distribution line that serves as a common source of supply for more than one service line (reference §192.3).

**MDPE**: Medium Density Polyethylene.

**Master Meter System:** A pipeline system for distributing gas within, but not limited to, a definable area, such as a mobile home park, housing project, or apartment complex, where the operator purchases metered gas from an outside source for resale through a gas distribution pipeline system. The gas distribution pipeline system supplies the ultimate consumer who either purchases the gas directly through a meter or by other means, such as by rents.

**Mechanical fitting** – As defined in the instructions for completing Form PHMSA F7100.1-1; includes Stab Type Mechanical Fittings, Nut Follower Type Mechanical Fittings, Bolted Type Mechanical Fittings, and other types as may be specified by PHMSA.

**NTSB**: The National Transportation Safety Board.

**PHMSA**: The U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration.

**Pipeline**: All parts of those physical facilities through which gas moves in transportation, including pipe, valves, and other appurtenances attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies (reference §192.3).

**Region**: Areas within a distribution system consisting of mains, services, and other appurtenances with similar characteristics and reasonably consistent risk. The term Region may also apply to a geographic area within the operator's system.

**Risk**: A relative measure of the likelihood of a failure associated with a threat and the potential consequences of such a failure.

**Risk Model**: The integration of facility data, operational data, SME input, and established algorithms to estimate the relative risk associated with a gas distribution system threat.

**Service Line**: A distribution line that transports gas from a common source of supply to an individual customer, to two adjacent or adjoining residential or small commercial customers, or to multiple residential or small commercial customers served through a meter header or manifold. A service line ends at the outlet of the customer meter or at the connection to a customer's piping, whichever is furthest downstream, or at the connection to customer piping if there is no meter.

**Service Line Shut-off Valve:** a curb valve or other manually operated valve located near the service line that is safely accessible to operator personnel or other personnel authorized by the operator to manually shut off gas flow to the service line, if needed (reference §192.385).

**SME**: Subject Matter Expert. An SME is an individual who is judged by the operator to have specialized knowledge based on their expertise or training.

**Sub-Threat**: A threat type within one of the primary threat categories specified in §192.1007(b).

**Ticket**: A notification from the one-call notification center to the operator providing information of pending excavation activity for which the operator is to locate and mark its facilities.

## 6.0 KNOWLEDGE OF FACILITIES

The objective of this section is to assemble and demonstrate as complete of an understanding of the company's infrastructure as possible using reasonably available information from past and ongoing design, operations, and maintenance activities. In addition, this plan identifies what additional information is being sought for the program and provides a plan for gaining that information over time through normal activities.

Rhode Island Energy has a long history of systematically managing its distribution system. The Company actively participates in committees of the American Gas Association (AGA), the Northeast Gas Association (NGA), the American Society of Mechanical Engineers (ASME), and the Association for Materials Protection and Performance (AMPP, formerly NACE)..

The Rhode Island Energy Distribution Engineering Department is responsible for the development and implementation of Integrity Management Programs for Gas Distribution facilities and pipelines. The department compiles and analyzes system and operating data, files annual reports to the Department of Transportation (DOT) and State regulators, generates periodic bulletins, and prepares various Integrity Reports and Analyses. Data analysis is an important component of Integrity Management. System performance, risk, and threat analyses, and asset management, replacement strategizing, and rate case support are all performed. These engineering and operational activities require knowledge of the system inventory, age, and annual performance, as well as performance trends over time.

## 6.1 Policy & Procedures

Rhode Island Energy has a number of policies and procedures that are related to integrity management and asset management of its gas distribution systems. Table 6-1 below has been prepared to summarize which procedures exist to cover the elements as outlined in §192.1007.

For example: Rhode Island Energy follows the nine (9) elements contained within the published PHMSA Damage Prevention Assistance Program (DPAP). The Company has been actively involved in mark outs and damage prevention for over 35 years and these processes are covered under numerous legacy operating procedures and test instructions. Mark out and damage prevention statistics are tracked by region.

Section 11.0, Periodic Evaluation and Improvement, will identify any areas, policy, or procedures that will require changes to comply with the rule or to improve the process over time.

*Table 6-1: Policy Documents Related to Integrity Management for Distribution*[2]

| Category | Covered Elements per 192.1007 | Element Description | Procedure | Procedure Title | Regions |
|---|---|---|---|---|---|
| Annual System Integrity Gas Distribution Report | (a) (1), (2), (4), (b), (c), & (f) | Demonstrating Knowledge, Identified Threats & Periodic Evaluation | DIMP | Gas Distribution Facilities 10 Year Trend Analysis | RI |
| Improving Knowledge, Asset Information | (a) (1), (a) (3) & (a) (5) | Identify Additional information | CNST01005 | Preparation of Gas Facility Historical Records | RI |
| Asset Information | (a) (1) & (5) | Demonstrating Knowledge | GEN03002 | Preparation and Processing Gas Main and New Services Work Packages | RI |
| Asset Information | (a) (1) & (a) (5) | Demonstrating Knowledge | CNST06020 | Completion and Processing of Gas Service Record Cards | RI |
| Risk Scoring Policy | (c) | Ranking Risk | GEN01002 | Risk Scoring Policy | RI |
| Annual DOT Reports | (b) & (g) | Identify Threats & Reporting Results | GEN01020 | Preparation and filing of DOT Annual Report for the Gas Transmission and Distribution System | RI |
| Problematic Materials | (a) & (b) | Demonstrating Knowledge & Identifying Threats | GEN01009 | Reporting Nonconforming Material | RI |
| Damage Prevention Policy | (d) | Mitigate Risk | DAM01000 | Damage Prevention Policy | RI |

| Category | Covered Elements per 192.1007 | Element Description | Procedure | Procedure Title | Regions |
|---|---|---|---|---|---|
| System Operation Procedures | (d) | Mitigate Risk | GCON02001 | System Operating Procedure (SOP) | RI |
| Welding Policy | (d) | Mitigate Risk | CNST05002 | Welding Policy | RI |
| Operator Qualification Plan | (d) | Mitigate Risk | GEN01100 | Operator Qualification Plan | RI |
| Asset Information | (a) (1), (a) (2), (a) (3), (a) (5) & (d) | Demonstrating Knowledge, Mitigate Risk | ENG01002 | Design of Gas Regulator Stations | RI |
| Corrosion Design Criteria | (d) | Mitigate Risk | COR01100 | Corrosion Design Criteria | RI |
| Leakage Survey | (d) | Mitigate Risk | CNST02001 | Leakage Survey Policy | RI |
| Leakage Survey | (d) | Mitigate Risk | CNST02022 | Special Survey (Schools & Hospitals) for Rhode Island | RI |
| Special Winter Operations | (d) | Mitigate Risk | CNST02004 | Winter Leak Operations | RI |

| Category | Covered Elements per 192.1007 | Element Description | Procedure | Procedure Title | Regions |
|---|---|---|---|---|---|
| Corrosion Control | (d) | Mitigate Risk | COR02100 | Requirements for Corrosion Inspection, Testing and Repair | RI |
| Atmospheric Corrosion Inspections | (d) | Mitigate Risk | COR02010 | Atmospheric Corrosion Inspection of Services | RI |
| Corrosion Control | (d) | Mitigate Risk | COR03002 | Measuring Pipe-To-Soil Potential | RI |
| Valve Inspection Policy | (d) | Mitigate Risk | CNST04009 | Valve Inspection Policy | RI |
| Classifying Gas Leaks | (d) | Evaluating Risk | CNST02009 | Classifying Gas Leaks | RI |
| Eliminating Gas Leaks | (d) | Mitigate Risk | CNST02010 | Leak Response and Repair | RI |
| Surveillance of Gas Leaks | (d) | Mitigate Risk | CNST02011 | Surveillance of Classified Leaks | RI |

| Category | Covered Elements per 192.1007 | Element Description | Procedure | Procedure Title | Regions |
|---|---|---|---|---|---|
| First Responder | (d) | Evaluating Risk | CNST02013 | First Responder – Rhode Island | RI |
| Odor Monitoring | (d) | Mitigate Risk | INR06001 | Odor Monitoring | RI |
| Regulator Station Inspection | (d) | Mitigate Risk | INR03003 | Regulator Station Annual Inspection Policy: New England | RI |
| Asset Management Strategy | (d) | Mitigate Risk | ENG04030 | Identification, Evaluation, and Prioritization of Distribution Main Segments for Replacement | RI |
| Survey & Inspection | (d) | Mitigate Risk | CMS06002/CMS06003 | Inspecting Service Regulators and Regulator Vent Piping | RI |
| Survey & Inspection | (d) | Mitigate Risk | CNST02005 | Patrolling Transmission Pipelines | RI |
| Asset Management Strategy | (d) | Mitigate Risk | CNST06001 | Policy for Inactive Services | RI |
| Asset Management Strategy | (d) | Mitigate Risk | CNST06005 | Inspection and Abandonment of Inactive Services | RI |
| Asset Management Strategy | (d) | Mitigate Risk | CNST06009 | Meter/Service Relocation Guideline | RI |
| Regulators | (d) | Mitigate Risk | ENG02001 | Design of Gas Services | RI |

| Category | Covered Elements per 192.1007 | Element Description | Procedure | Procedure Title | Regions |
|---|---|---|---|---|---|
| Purging Operations | (d) | Mitigate Risk | CNST03006 | Purging Operations - Direct Displacement | RI |
| Purging Operations | (d) | Mitigate Risk | CNST03007 | Purging Operations - Complete Inert Gas Fill | RI |
| Purging Operations | (d) | Mitigate Risk | CNST03008 | Purging Operations - Slug Method | RI |
| Cast Iron Management | (d) | Mitigate Risk | DAM01008 | Cast Iron Encroachment Policy for Rhode Island | RI |

[2] Note: Table 6-1 may not include all the policies and procedures related to the DIM Plan. Refer to the Codes and Standards website: https://nationalgridplc.sharepoint.com/sites/GRP-EXT-US-GasWorkMethodsRhodeIsland for the Company's policies and procedures.

These documents are subject to revision or replacement at any time. It is not practical to issue DIM Plan revisions for every policy/procedure change or update. Table 6-1 is updated when a full Plan revision occurs. Refer to the Company's Gas Work Method site for the most current Gas Standards and Policies.

## 6.2 Overview of Past Design, Operating, Maintenance, and Environmental Factors

Rhode Island Energy owns and operates approximately 3,223 miles of cast iron, steel, and plastic distribution mains at various pressures from low to high throughout its service territory in Rhode Island, as well as the associated services, connection equipment, instrumentation and regulation, and other appurtenances. The Company has sought and obtained regulatory approval to upgrade, replace, and maintain the distribution systems needed to reduce risk and to address threats to its system and the customers it serves. Since annual system performance statistics can easily vary due to external conditions (e.g., weather), programs and plans must be based on the performance of the system over time. Identifying trends and evaluating data requires an understanding of the science of past designs, operating, and maintenance histories. Rhode Island Energy's knowledge of its gas distribution system is supported by the Company's gas industry experience and data.

Rhode Island Energy separates its gas distribution systems into two primary asset classes; Mains & Services which includes associated connection equipment, and Instrumentation & Regulation. Rhode Island Energy also divides assets into sub-classes (regions) which include distinctions by factors such as material, size, vintage, pressure, construction method, and location.

### *6.2.1 Bare and Coated Steel Mains & Services*

The modes and mechanisms of failure associated with bare-steel corrosion are well understood by corrosion experts and documented in a number of texts on the topic. It is a known fact that non-cathodically protected bare steel pipe, buried in the earth where there is moisture in the soil and without cathodic protection, will corrode over time. This corrosion may occur over the entire surface of the pipe and it may take many years before the first corrosion leak occurs. However, once the first leak on a pipeline segment occurs, other points on the pipe experience continuing loss of metal, and corrosion pits become deeper. As corrosion pitting continues and the pipes continue to lose metal, these pipes will increasingly experience more frequent leaks. Eventually many additional points of corrosion may result in an unmanageable leak rate.

The deterioration mentioned above is a function of time in the ground and is also influenced by the local environmental characteristics. This information is evidenced by the fact that the USDOT has not allowed the installation of unprotected or bare steel for gas service since 1971. Furthermore, an early scientific reference regarding the failure rate of buried steel pipe was given in the book “Soil Corrosion and Pipe Line Protection” by Scott Ewing, Ph.D., published in 1938. In the text, the performance of the service pipes in the Philadelphia Gas Works System was plotted and showed that corrosion leak occurrences over time on bare steel pipe increased at an exponential rate. This graph is shown below in Figure 6-1. When this text was written the natural gas industry was still in its infancy and high performance materials such as plastic and well-coated and cathodically protected steel were not available or well understood.

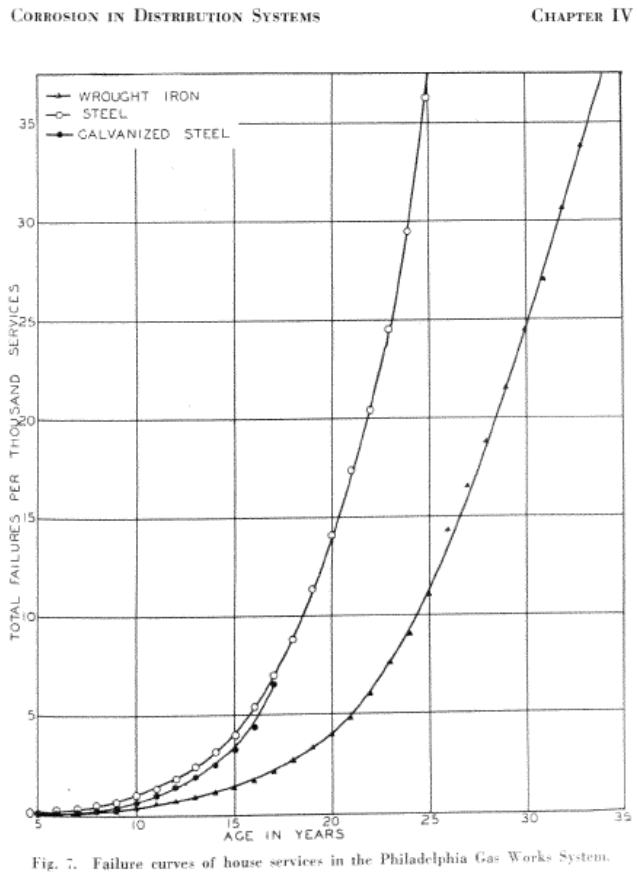


*Figure 6-1: Chart Indicating Exponential Leak Rates for Bare Steel Gas Service (1938)*

This very same finding is corroborated today in more modern texts. One such text that is well-regarded as a foundational book for the study of corrosion is: "Peabody's Control of Pipeline Corrosion" by A.W. Peabody, published by the National Association of Corrosion Engineers International, the Corrosion Society (Second Edition 2001). This text, published more than 60 years after the Ewing text, reaffirms the fact that leak incidents on unprotected bare pipe will occur at an exponentially increasing rate. In the Peabody text, this is shown on semi log paper. A copy of the graph used to describe this in the Peabody text (Figure 15.1 in Peabody) is shown in Figure 6-2 below.

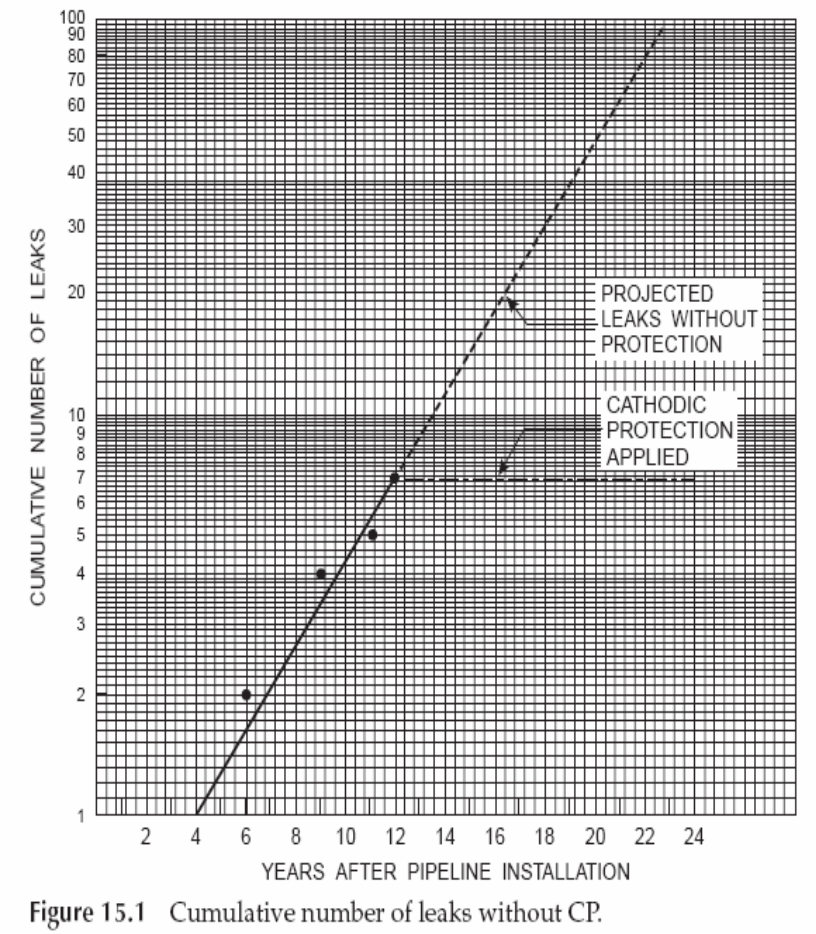


*Figure 6-2: Chart Indicating Exponential Leak Rates for Bare Steel Gas Service (2001)*

As shown on this graph, no leakage occurs during the initial life of the pipe (first leak occurred 4 years after placing the piping in service). Then, in the next 4 years, 1.5 new leaks occurred. Then, in the next 4 years, 4.5 new leaks occurred. Then, in the next 4 years, 11 new leaks were projected to occur. This increasing frequency of leaks continues at a rate that places the cumulative leak count off the scale, past the 23rd year, with more than 100 cumulative leaks occurring. What is important to note is not only that the leaks are occurring, but that they are occurring at an ever-increasing frequency as a function of time (once the corrosion process has reached the point of producing the initial leak). Although Rhode Island Energy's inventory of mains and services contains many pipes that have exceeded the 23 years noted, not all of these pipes have experienced leaks at the same initial time.

This exponential growth of leak occurrences on bare-steel pipe is scientifically documented as indicated in the text above. This exponential growth of leak occurrences on bare steel pipe is also well known by

experienced gas system operators who perform bare-steel repairs and find themselves installing multiple leak repair sleeves on sections of corroding pipe.

This ever-increasing frequency of leak incidents is evidence of the corrosion mechanisms. Bare steel pipe is undergoing continuous deterioration by corrosion. The deterioration is more aggressive in some locations than in others. In many cases, although the wall thickness is penetrated at only a single point, the entire pipe may have been visibly degraded to the point where future leaks will occur at an ever-increasing rate. This is apparent on a piece of corroded pipe displayed on the USDOT website in Figure 6-3. In this picture, there are only a few points of actual leakage, but the pipe shows apparent signs of distress along the entire segment.

An example of bare steel pipe installed for gas service. Note the deep corrosion pits that have formed. Operators should never install bare steel pipe underground. Operators should use either polyethylene pipe manufactured according to ASTM D2513 or coated steel pipe as new or replacement pipe. If steel pipe is installed, that pipe must be coated and cathodically protected.

*Figure 6-3: Bare Steel Pipe Corrosion*

Wrought iron pipes, while less brittle than cast-iron mains and service lines, are also subject to corrosion. The corrosion of wrought iron is similar to that of bare steel in its exponential leak rate growth.

Coated steel mains and services, when cathodically protected against corrosion, are an excellent and well-performing gas distribution material. They resist corrosion and have significantly higher strength than plastic. All underground steel pipe installed after July 31, 1971 is required by federal code (per 49 CFR 192, Subpart I) to be coated and cathodically protected and is regularly tested to ensure an adequate level of protection and compliance. In many cases, steel pipe installed before 1971 is also coated, cathodically protected, and regularly tested. However, coated steel mains and services that are unprotected can undergo accelerated corrosion if the coating is breached – either by damage or disbonding. Such mains are currently viewed by Rhode Island Energy as not protectable, ineffectively coated, and subject to the same risks as bare unprotected steel.

### 6.2.2 Cast Iron and Wrought Iron Pipe

#### 6.2.2.1 Cast Iron Pipe

The natural gas industry considers cast-iron mains and non-cathodically protected steel mains and services to be higher risk materials. Cast Iron mains are among the oldest materials remaining in gas distribution systems, often pre-dating the 1900's. Gas facilities in most large older cities (particularly in the Northeast) account for the largest amounts of cast iron dating back before the turn of the 20th century. The changeover from the use of cast iron to steel started slowly in the 1920s. During the 1940s, following the discovery of electric arc welding which provided a tight joint, steel pipe gradually replaced cast iron entirely. The industry has since replaced steel pipe with plastic pipe and cathodically protected coated steel pipe as the primary materials for distribution systems. Similar to unprotected or bare steel mains, the USDOT no longer permits installations of cast iron mains or service lines.

There are 15,909 miles of buried cast iron pipe still in service in the United States distributing natural gas as of 2023[1]. Much of this pipe has provided excellent service over its life. However, aging cast-iron mains have experienced gradual deterioration and are susceptible[2] to breaks, cracks, and other failures such as joint leaks.

As the owner and operator of approximately 3.5 percent of all the cast iron distribution main in the United States, Rhode Island Energy has unparalleled experience in dealing with cast iron mains in a safe and reliable manner. Extensive research has been done throughout the years by National Grid's and Rhode Island Energy's legacy companies, and Rhode Island Energy's cast iron replacement program has been carefully designed to continue cost-effective operation in the safest and most reliable way possible.

In 2013, National Grid also participated in the development of an AGA white paper to Congress entitled "Managing the Reduction of the Nation's Cast Iron Inventory", which is incorporated here by reference.

[1] Source: US DOT Pipeline and Hazardous Materials Safety Administration Gas Distribution, Gas Gathering, Gas Transmission, Hazardous Liquids, Liquefied Natural Gas (LNG), and Underground Natural Gas Storage (UNGS) Annual Report Data - https://www.phmsa.dot.gov/data-and-statistics/pipeline/gas-distribution-gas-gathering-gas-transmission-hazardous-liquids

[2] Other environmental effects, including methods used to support the pipe, frost, and vehicle loads that impose additional stress on the pipe, thus further reducing its useful life, exacerbate the deterioration caused by graphitization.

Experience from companies[3] that operate greater mileage of cast iron has identified certain parameters associated with higher leak and failure rates. Many of these parameters are useful to evaluate in identifying pipe segments more prone to failure. Predominant among these are:

- Pipe graphitization history
- Manufacture and original wall thicknesses, sometimes associated with vintage pipe diameter size and flexural resistance
- Loading and stresses associated with:
    - Operating pressures
    - Weather induced loads, such as depth of winter frost penetration and frost action
    - Traffic loads
    - Construction impacts
    - Block supports
    - Settlement
    - Undermining
    - Washouts
    - Direct impact

Under research contracts with Cornell University that started in the early 1980's, the former Brooklyn Union (now part of National Grid) and other NY Gas Group companies sponsored research that has developed a library of technical papers on CI main condition, performance, and evaluation. Rhode Island Energy's Cast Iron-related policies are informed by those studies, the most recent of which was prepared in 2008.

#### *6.2.2.2 Cast Iron Graphitization*

NACE[4], in its Introduction to Corrosion Basics, 1984, pg. 216, states that the corrosion rate of cast iron is comparable to that of steel in a soil. The iron is removed from the metal, leaving a network of carbon particles by the de-alloying phenomenon termed graphitization. The residual carbon retains the form of the pipe, and unless the weakened pipe is fractured, the graphitized pipe will continue to transport gas.

[3] Several studies of cast-iron and factors affecting their service life have been made. A number of these studies and evaluations were made by ZEI, Inc. (formerly Zinder Eng Inc) Ann Arbor Michigan, including articles written; see Gas Industries, February 1986. The Department referred to this report in its February 28, 1991 Order concerning its investigation into proposed rules for cast iron.

[4] National Association of Corrosion Engineers.

Once the cast-iron is graphitized, the exterior becomes an extremely noble electrode in any galvanic couple. Thus, uncoated or unprotected cast-iron or steel will act as the anode in contact with this "noble" pipe.

It should be noted that graphitization is still relatively infrequent within Rhode Island Energy and only included here to demonstrate the Company's knowledge base.

Graphitization occurs when cast iron is exposed to certain types of corrosive environments over time. The resultant graphitization causes the beam strength to weaken and the pipe to become brittle and contributes to rates of broken mains. In its 1971-72 study of cast iron, the New York Gas Operations Advisory Committee report stated that its experience indicated graphitization was limited to certain specific localized environments. These were areas where there were localized salt water exposures or extreme stray current discharges (such as at substations and electrified rail transit systems).

Cast iron contains carbon, in the form of graphite, in its molecular structure. It is composed of a crystalline structure as are all metals (i.e., it is a heterogeneous mass of crystals of its major elements iron, manganese, carbon, sulfur and silicon). In the presence of acid rain and/or seawater, the stable graphite crystals remain in place, but the less stable iron becomes converted to insoluble iron oxide (rust). The result is that the cast iron piece retains its shape and appearance but becomes weaker mechanically because of the loss of iron.

Graphitization is not a common problem. It generally will occur only after bare metal is left exposed for extended periods, or where joints allow the penetration of acidic rainwater to internal surfaces. Therefore, there is a time dependency for graphitization to occur, and excluding other factors, the expectation would be that older pipes will have experienced deeper graphitic penetration and disintegration. Soil moisture is normally enough to provide a conducting solution. This corrosion process is galvanic, with the carbon present acting as the noblest (least corrosive) element and the iron acting as the least noble (most corrosive) element. The composition or microstructure of the iron affects the durability of the object because the rate of corrosion is dependent upon the amount and structure of the graphite present in the iron.

Graphitic corrosion or graphitization[5] is a form of de-alloying or parting caused by selective dissolution of iron from cast iron (usually gray cast iron). It precedes uniformly inward from the surface, leaving a

[5] NACE defines graphitic corrosion in its Introduction to Corrosion Basics 1984, at page 107.

porous matrix of the remaining alloying element, carbon. Graphitization occurs in salt water, acidic mine water, dilute acids, and soils, especially those containing sulfates and sulfate-reducing bacteria. There is no outward appearance of damage, but the affected metal loses weight, and becomes porous and brittle. The porous residue may retain appreciable tensile strength and have moderate resistance to erosion. For example, a completely buried cast-iron pipe may hold gas under pressure until jarred by a worker's shovel. Sulfates and sulfate-reducing bacteria in soil stimulate this form of attack.

#### *6.2.2.3 Cast Iron Pipe Support*

A number of methods were used to install cast iron pipe sections. The most common method involved support of individual lengths of pipe with wooden or concrete blocks near each end. The blocks served to both support the main during construction and slope the pipe for proper drainage of manufactured gas liquids. Some installations included support near the center, placing pipe on mounds of earth instead of blocks, and still others directly on the trench bottom. Placing pipe on the trench bottom provided the greatest life expectancy as it minimized unsupported lengths of pipe, increased ability to withstand superimposed loads, and reduced beam action. Installation on wooden blocks has been seen to cause increased instances of graphitization at the point of contact between the cast iron and wood. There are no records indicating the method of installation; though at times, it can be inferred from the condition of the pipe. Block supports may also be detrimental when they cause pipe sections to behave as beams. Each of these factors result in regionally higher break rates, which are used for identifying system replacement.

#### *6.2.2.4 Cast Iron Pipe Size – Diameter and Flexural Resistance*

Cast iron is more brittle and relatively weak as compared to steel. Sections of cast iron pipe supported at their ends on blocks experience loading and act as a beam. Flexural stress is created by the weight of the soil overburden, by the weight of the pipe itself, and by forces such as frost heave and other loads. Results of one study[6] to identify those main sizes that experience the highest failure rates revealed that 4", 6", and 8" diameter pipe accounted for 90% of the incidences of breaking and cracking. In other words, the beam strength is much less for smaller diameters of cast iron pipe than for larger diameter pipe. There is an increase in relative beam strength for cast iron pipe with diameters equal to or greater than 10", providing some higher relative safety. In its system integrity analyses, Rhode Island Energy regularly tracks the cast iron breakage "rates" on all of their systems and has found similar results.

[6] 2007 Final Report on Peoples Gas Light and Coke Cast Iron Main Replacement – Kiefner and Associates, Inc.

While Rhode Island Energy has not experienced extensive cast iron graphitization, it should be noted that cast iron pipe was installed bare and cannot be adequately protected by cathodic protection. Graphitization reduces wall thickness and thus reduces flexural resistance. An evaluation of flexural resistance (which is directly related to the "section modulus"[7]) demonstrates that a wall loss of 0.2 inch will result in a change in the relative section modulus of 4" through 8" diameter cast iron of between 45% and 52%. This reduced flexural resistance demonstrates that the smaller size pipes are far more susceptible to breakage than the larger size pipes.

Research performed by Cornell University identified 2000 micro strain as a critical level for cast iron pipe. For the purposes of replacement decisions related to parallel trench construction, 600-800 micro strain (0.06-0.08%) was selected as the replacement criteria. The condition of the cast iron pipe tested supported those levels as a proper margin of safety, which has been proven out by field experience.

When cast-iron main was originally installed as low pressure piping, its bell and spigot joints were filled with compacted jute backing and sealed with molten lead and lead caulking or cement. After years of service and switching from wet manufactured gas to natural gas, the jute has dried out and decreased in volume, weakening the seal within the joint. Additionally, exterior loads impact and flex the pipe and disturb the seal. Loads adversely impacting cast iron mains result from traffic, seasonal weather, vibration, and soil movements due to nearby construction activities, causing these joints to leak. Cornell observed that depending upon the diameter of the pipe, the joint contributed more or less to the flexibility of the pipe. Lead and jute joints were found to flex more than cement jointed pipe. Lead joints were also seen to leak when flexed, and later creep and seal again in low pressure applications.

#### *6.2.2.5 Cast Iron Bell Joints*

Cast Iron and Ductile Iron gas mains are constructed with bell and spigot joints. These joints were most often sealed with jute and lead, cement, or encased in concrete in order to make the joint leak-free and rigid. In many cases, bell joints have been retrofitted with mechanical bell joint clamps or bell joint encapsulation as a means of addressing bell joint leaks.

Rhode Island Energy has used a number of methods to seal cast iron joints in past years. These methods fall into five broad categories and are listed below:

[7] Section Modulus is a function of outside diameter, inside diameter, and wall thickness.

- Metallic Joint Clamps – A two-part clamp secured by bolts and designed to force a steel ring over the bell and spigot joint. Pressure from a rubber gasket presses on the circumferential lead face of the bell joint. One problem caused by this method of repair is that the steel clamp can become anodic to the cast iron, resulting in corrosion.
- Shrink Sleeves – Rubber/plastic materials used have varied as have the shrinking methods (electrical or thermal). A sleeve is fitted over a cleaned bell and spigot joint as well as a short section of pipe beyond the joint. The material is then essentially shrink-fit to seal the joint. Extensive cleaning of the joint area is required, and if performed incorrectly it can cause these to fail over time.
- Anaerobic Seals - These have had the advantage of exposing only the top part of the joint. A hole is drilled into the bell and an anaerobic sealant injected into the jute backing. The sealant material wicks into the jute and joint surfaces sealing the joint.
- Encapsulants - Also commonly called boots or muffs, encapsulate the face of the joint. This method is more effective than shrink sleeves and not subject to corrosion or gasket failure as is common with metallic clamps, nor are they as susceptible to improper installation.
- Internal sealing methods - There have been a few approaches used over the years, including internal clamping of the joint, fogging of the main, spraying the inside of the joint with an atomized sealer, mechanically applying a sealant of the joint and the internal pipe surface from within the pipe, and pipe lining with a type of “innertube”.

Metallic Joint Clamps and Shrink Sleeves are no longer used, though metallic clamps that were properly coated are often found to be in good condition. Anaerobic seals are often selected when a large excavation is undesirable, exposing the entire joint is difficult or impossible, or in high water tables where it is difficult or disruptive to effectively encapsulate the joint. The current internal sealing method used is known as "CISBOT" and it has diameter, length, and other limitations. Internal Lining is an expensive process, but one which comes with other benefits. The best application for internal liners is on stretches of main without tie-ins or large numbers of services. Encapsulating bell joints is generally the most common and effective of the methods. Many hundreds of cast-iron joints are sealed every year in response to leaks. While this creates a high cost of operating and maintaining this class of asset material, leaking joints have rarely led to incidents.

Recently, there has been an increase in leak activity on cast iron mains sealed using the CISBOT method within the last three years. This leak activity has primarily occurred on 20 inch, 7 psig cast iron mains.

Rhode Island Energy is currently investigating the cause of the CISBOT failures to determine next steps to prevent similar occurrences in the future.

#### *6.2.2.6 Cast Iron Loading and Impact*

Cast iron is much more brittle than steel and is susceptible to cracks or breaks due to loading and impact. Main breaks are a major concern due to the large amount of gas that may be released in such instances. This is made worse when the driving force behind the cast-iron main leak is the operating pressure. Medium or high pressure cast iron aggravates the safety threat posed by cast-iron mains.

Cast iron breaks are often more severe than the typical corrosion leak. A cracked main may leak at a high rate, quickly saturating the area around the break with natural gas, migrating and entering conduits and following the path of other utilities to homes or other confined spaces such as utility vaults and sewers. Cast iron main breaks are of particular concern during periods of cold temperatures when frost actions may cause additional stresses on these mains and when frost caps create an impermeable barrier of the earth's surface, preventing leaking gas from safely venting to the atmosphere. Such leaks may be difficult to pinpoint as they can cause high gas readings at appreciable distances from the actual leak site. The difficulty of leak investigation is aggravated under frost conditions and with depth of frost penetration. The inability of the gas to safely escape increases the risk to nearby residents, as gas follows the path of least resistance, often to nearby habitable structures.

The inventory of small diameter cast iron in Rhode Island Energy's service territory varies. Small diameter cast iron (8" and less) is most susceptible to bending stress and impact. Rhode Island Energy policies define the replacement criteria for sound cast iron adjacent to parallel trenches or exposed due to crossing excavations. Additional consideration is given to conditions such as system performance and removal of pavement over shallow cast iron mains during road reconstruction.

#### *6.2.2.7 Wrought Iron Pipe*

In the Rhode Island Energy territory, Wrought Iron was also used for both mains and services, although to a lesser extent than Cast Iron. Due to the lower carbon content compared to Cast Iron, Wrought Iron pipes are relatively malleable and do not exhibit the same body on pipe fracture mechanics common to Cast Iron. The method by which Wrought Iron pipe is joined also differs from Cast Iron, typically utilizing threaded or welded connections in addition to compression couplings which are not prone to the desiccation that Cast Iron bell and spigot joints experience over time. However, Wrought Iron is still vulnerable to corrosion as are any/all pipes composed of iron which are not cathodically protected.

While not vulnerable to the same unique threats posed to Cast Iron, Wrought Iron is still considered by Rhode Island Energy to be an elevated risk and is actively replaced under the Leak Prone Pipe (LPP) Program due to the advent of improved material and construction standards, and the long-term impacts of corrosion.

### *6.2.3 Plastic Pipe*

Plastic pipe has over 50 years of history. Various plastic piping materials were developed and introduced into the gas industry in the late 1960's and early 1970's. The industry became more focused on the corrosion and performance concerns associated with unprotected piping following the 1968 "National Gas Pipeline Safety Act". This required Federal regulations on Gas Transmission & Distribution systems in the U.S. and placed them under the jurisdiction of the Department of Transportation. Table 6-2 below is a summary of the plastic pipe materials that have been manufactured and marketed to the gas industry with a notation as to whether or not they are known to exist on Rhode Island Energy systems.

An unknown quantity of Aldyl-A plastic exists in the Rhode Island inventory. Though it cannot be quantified for the LPP total, the Company considers it an inferior material and has executed projects to replace it when it is discovered. This includes plastic pipe installed pre-1985.

*Table 6-2: Plastic Pipe Material Summary*

| Plastic Material Type | Known to Exist in the Rhode Island Energy Gas System? |
|---|---|
| CAB – Cellulose Acetate Butyrate* | No |
| PB – Polybutylene** | Yes |
| PP – Polypropylene | No |
| PA – Polyamide | No |
| Century MDPE 2306 | No |
| Aldyl-A (1972 and Prior) PE 2306 | Yes |
| Aldyl-A (Post 1972) PE 2306 | No |
| Aldyl-A (1973 and After) PE 2406 | Yes |
| Aldyl 4A (green) PE 2306 | No |
| MDPE 2406 | Yes |
| MDPE 2708 | Yes |
| HDPE 3306 | Yes |
| HDPE 3406 | Yes |
| HDPE 3308 | No |
| HDPE 3408 | Yes |
| HDPE 4710 | Yes |

Note: All pipe materials for RI taken from the 2023 System Integrity Report.

Table 6-3 below provides a summary of the currently approved plastic material types.

*Table 6-3: Currently Approved Plastic Pipe Material Summary*

| Current Approved Plastic Material Type | Region(s) |
|---|---|
| PE 4710 | RI |

Details for plastic pipe by Company, Material designation, description, and Region are provided below in Table 6-4.

*Table 6-4: Summary of Plastic Pipe by Region*

| Common Name | Company | Material Designation | Physical Description | Region(s) |
|---|---|---|---|---|
| Aldyl A* | Dupont Pipe | PE 2306 (pre-1973) | Pink, but can turn grey | RI |
| Aldyl A* | Dupont Pipe | PE 2406 (1973 & later) | Pink, but can turn grey | RI |
| Polybutylene | Clow Corp. | (1976 – 1979) | Tan | RI |
| Driscoplex 6500 | Performance Pipe | PE 2406/PE 2708 | Yellow | RI |
| Drisco 7000 | Driscopipe / Phillips | PE 3406 | Solid Black | RI |
| Drisco 8000 | Driscopipe / Phillips | PE3406/PE3408 | Solid Black | RI |
| Plexco | Plexco Pipe | PE2306 | Orange | RI |
| Plexco | Plexco Pipe | PE 2406 | Yellow | RI |
| Plexco Yellowstripe | Plexco Pipe | PE 3406/3408 | Black pipe with 4 yellow stripes | RI |
| Drisco/Performance Pipe 6800 | Driscopipe / Phillips | PE 3408 | Black with 3 yellow stripes | RI |
| Drisco/Performance Pipe 8100 | Driscopipe / Phillips | PE 3408/4710 | Yellow exterior black pipe | RI |
| Performance Pipe 8300 | Performance Pipe | PE 3408/4710 | Black with 4 yellow stripes | RI |
| US Poly UAC 3600 (formerly DuPont) | US Poly | PE 3408/ PE 3710 | Black with 3 yellow stripes | RI |
| US Poly UAC 3700 (formerly DuPont) | US Poly | PE 3408/4710 | Black with 3 yellow stripes | RI |
| JM Eagle UAC 3700 (formerly US Poly) | JM Eagle | PE3408/PE4710 | Black with yellow stripes | RI |
| Charter Plastics Inc | Charter Plastics Inc | PE 3408/ PE 3608/ PE 4710 | Black with 3 Yellow stripes | RI |
| Endot | Endot | PE 3408/ PE 4710 | Black with 3 Yellow stripes | RI |

### *6.2.4 Copper Pipe*

Copper pipe was used for gas service lines in many service territories throughout the United States. Within Rhode Island Energy's service territory, copper was predominantly used for service renewal by

inserting copper inside of deteriorated steel services. In a much more limited manner, copper services were occasionally direct buried.

Copper services may be subject to leakage caused by corrosion. In particular, direct buried copper services may be subject to advanced rates of corrosion in the presence of dissolved salts in the soil (e.g., deicing salts to melt ice and snow on road surfaces).

Copper tubing is far less of a corrosion risk than steel—Rhode Island Energy has 44 copper services which indicated less of a percentage of corrosion leaks associated with copper compared to all eight PHMSA threats.

When inserted in older steel services, the steel provides corrosion protection since the steel is more anodic than the copper. The older steel also protects the copper pipe from excavation, natural forces, and other damage. Corrosion on Rhode Island Energy's copper services has been limited to locations where it was connected to dissimilar metal without insulating joints to provide isolation between the two dissimilar metals. The dissimilar metal is anodic to the copper and corrodes. The most common situation for this exists where copper is joined to an iron or bronze service tee (the iron tees are the most susceptible). Records of where and when these dissimilar metals were installed do not exist.

### *6.2.5 Instrumentation & Regulating Facilities*

Instrumentation & Regulator stations are covered under Rhode Island Energy's Station Integrity Management Program (SIMP).

### *6.2.6 Construction Methods*

The existing Rhode Island Energy distribution system is one of the oldest in the country and various methods of construction may have been utilized from time to time. Table 6-5 summarizes the types of construction Practices that have been used or practiced within the Companies' service territory.

*Table 6-5: Construction Practices Summary*

| Construction Practice | Comment |
|---|---|
| Open trench installation | Yes |
| Support and Blocking | Yes |
| Service Replacement via insertion of Copper | Yes |
| Replacement of mains and services via Insertion of Plastic | Yes |
| Main Replacement via insertion and pipe splitting via PIM (Pipe Insertion Method) | Yes |
| Main Replacement via insertion and pipe splitting (static pipe bursting) | Yes |
| Internal lining / swage-lining / roll-down | Yes |

| Construction Practice | Comment |
|---|---|
| Joint Trench with other utilities | Yes |
| Unguided Bore (e.g. Hole Hog) | Yes |
| Guided Directional Bore / Drill | Yes |
| Blasting | Yes |
| Plow-in | Yes |

### 6.2.7 Excess Flow Valves

Rhode Island Energy has implemented the recent Pipeline and Hazardous Materials Safety Administration (PHMSA) requirement of 49 CFR 192.381 Service Lines: Excess Flow Valve Performance Standards, and 192.383 Excess Flow Valve Installations. Rhode Island Energy has been installing excess flow valves for new and replacement high pressure residential service lines in all areas since the early 1990's.

Ball type EFVs installed in the 1970's have been found to be unreliable, but there have not been issues with the spring & plunger type. Rhode Island Energy uses EFVs of various capacities, including branch service lines serving single family residences, multifamily residences, and small businesses where they are compatible with load patterns and volumes. Refer to Table 6-7 for additional information.

Notifications to customers of their right to request installation of an EFV on service lines that are not being newly installed or replaced have been made through the Company's website[8]. Rhode Island Energy is in the process of developing a tracking and maintenance program for new or replaced service valves as required by 49 CFR 192.385 Manual Service Line Shut-off Valve Installation requirements.

### 6.2.8 Mechanical Fittings

A summary of the known mechanical fittings currently in service is detailed below in Table 6-6.

*Table 6-6: Mechanical Fittings*

| Mechanical Fitting Manufacturer | Type | Region |
|---|---|---|
| Perfection | Stab Fitting | RI |
| Lyco | Stab Fitting | RI |
| AMP Fittings | Stab Fitting | RI |
| Reynolds | Nut-Follower | RI |

[8] **Natural Gas Safety Links:**

*https://www.rienergy.com/RI-Home/*

| | | |
|---|---|---|
| Mueller w/ Dresser End | Nut-Follower | RI |
| Normac | Nut-Follower | RI |
| Dresser | Nut-Follower | RI |
| Dresser | Bolted | RI |
| Eastern | Bolted | RI |
| Mueller | Bolted | RI |
| Smith Blair | Bolted | RI |
| CSI | Bolted | RI |
| Dresser Posi-Hold | Hydraulic | RI |

## 6.3 Characteristics of Design, Operations and Environmental Factors

The characteristics of the pipeline's design, operations, and environmental factors that are necessary to assess the applicable threats and risks are summarized in the following sections as well as Appendix A.

### *6.3.1 Operating Pressures and Gas Quality*

Rhode Island Energy's gas distribution pipeline system operates at various pressures from low to high throughout its service territory. Sources of gas include LNG and gas produced from natural underground reservoirs. Gas Quality is monitored and managed at Rhode Island Energy's take stations per standards GCON02011 and INR05002.

### *6.3.2 Reportable/Significant Gas Incidents*

Detailed summaries of recent DOT reportable gas incidents are provided in Appendix A and were given the highest influence in the risk evaluation and prioritization. Table A-1 summarizes incidents by year for the past 30 years – with consequences. Table A-2 summarizes incidents by year for the past 30 years – by cause. Additionally, details of last 10 years reportable incidents are provided in Table A-3 and the asset-threat combinations of all integrity-related incidents in that table were given a superseding influence in the risk ranking and prioritizations for that region. PHMSA[9] reportable gas incidents are reviewed on a quarterly basis to determine the likelihood of such incident occurring in Rhode Island Energy's system and to create mitigation programs when necessary.

### *6.3.3 Gas Distribution Inventory and Repair Data*

Rhode Island Energy's Distribution Asset Management Engineering Department is responsible for the development and implementation of Integrity Management Programs for Gas Distribution facilities. The department compiles and analyzes system and operating data, files annual reports to the Department of

[9] https://www.phmsa.dot.gov/safety-reports/pipeline-failure-investigation-reports

Transportation (DOT) and State regulators, generates periodic bulletins, and prepares various Integrity Reports and Analyses. In addition, the department measures system performance, analyzes risk, performs data analysis, identifies threats, performs asset management, creates main & service replacement strategies, and provides rate case support. These engineering and operational activities require knowledge of the system, including inventory age, annual system performance, and performance trends over time.

A complete system inventory by material and size as well as leak repair data by cause is updated annually and submitted on the Annual DOT reports. Annual DOT reports are publicly available on PHMSA's website. Rhode Island Energy Operator IDs are provided in Section 1.0**Error! Reference source not found.**.

### *6.3.4 Environmental Factors*

Rhode Island Energy operates gas distribution piping in some of the most populated regions of the country and where extremes of weather exhibiting the four seasons are experienced. As such, all these factors are considered in the design, operation, and maintenance of the gas system. As previously noted in this section (Knowledge of Facilities) there are many different policies, piping materials, and construction methods used. Rhode Island Energy utilizes, where appropriate, the characteristics of the distribution system and its design to assess the applicable threats and risk to its gas distribution assets. This includes operating and environmental conditions, performance and physical testing, and inspections. The actual performance, testing, and observed condition of an asset is directly related to the environmental conditions encountered. Other attributes that are considered in the risk assessment can include asset class (main, service, or I&R facility), material, size, pressure, construction method, or meter location (sub-classes). Environmental factors that have been considered in threat identification (see Appendix B) include seismic activity, earth movement, frost heave, heat sources, and flooding. Following the preliminary assessment by asset class and subclass (region), population density and other location-specific conditions are considered in Rhode Island Energy's secondary risk ranking efforts. At the segment level, this more detailed assessment includes the estimate of potential human exposure by building type and usage. Rhode Island Energy's leak survey and surveillance practices take into account environmental factors such as susceptibility to leak migration (wall-to-wall paving or seasonal frost cap), and proximity to buildings of public assembly. Valves are located in a variety of environments, including paved streets. Valves are operated and maintained in accordance with Policy CNST04009.

### *6.3.5 Gas Distribution Main and Service Assets Analysis*

Rhode Island Energy's gas distribution system was constructed with the materials and methods described above over more than a century. The company reduces risk and threats by replacing the riskiest leak prone pipe where appropriate, and through prudent operations and maintenance that include a number of Preventative and Mitigative policies as noted in Table 6-1.

The Rhode Island Energy Annual System Integrity Report is incorporated by reference into the DIM Plan and typically provides the following:

- Overall Regional Distribution Integrity Assessment Summary
- Total Leak Receipts – Current Year and Previous 9 Years
- Leak Receipts as a Function of Total System Pipe Mileage – Current Year
- Leak Receipts by Discovery Source (Excluding Damages) – Current Year and Previous 9 Years
- Leak Receipts by Original Classification (Excluding Damages) – Current Year and Previous 9 Years
- Year-End Workable (excludes Type 3) Leak Backlogs – Current Year and Previous 9 Years
- Year-End Open Type 3 Leak Inventories – Current Year and Previous 9 Years
- Main Inventory by regional Company- Current Year and Previous 9 Years
- Leak-prone pipe and Main replacement program – Current Year and Previous 9 Years
- Percentage of Leak-Prone Pipe – Current Year and Previous 9 Years
- Total Main Leak Repairs (Including Damages) – Current Year and Previous 9 Years
- Total Main Inventory by Material vs. Total Main Leak Repairs (incl. damages) by Material – Current Year
- All Main Leak Repairs by Material (Excluding Damages) – Current Year and Previous 9 Years
- All Main Leak Repairs (Including Damages) by Cause – Current Year
- Total Main Leak Rates (repairs per total mile of main) Including Damages – Current Year and Previous 9 Years
- Total Main Leak Rates (repairs per mile of total main) Including Damages – Current Year
- Main Leak Rates (Excluding Damages) by Material – Current Year and Previous 9 Years
- Current Year Main Leak Rates (Excluding Damages) – All Region Comparison by Material
- Main Leak Repairs – Material-Cause Matrix – Current Year
- 10-Year Cast Iron Main Inventory and Attrition Rate – All Region Comparison
- Total Cast Iron Main Breaks – Current Year and Previous 9 Years

- Cast Iron Main Break Rates – All Region Comparison by Diameter – Current Year
- 10-Year Bare/Unprotected Steel Main Inventory and Attrition Rate– All Region Comparison
- Main Corrosion Leak Rates – Current Year and Previous 9 Years
- Service Inventory by Region/Company- Current Year and Previous 9 Years
- Total Service Leak Repairs (Including Damages) – Current Year and Previous 9 Years
- Total Service Inventory by Material vs. Total Service Leak Repairs by Material – Current Year
- All Service Leak Repairs (Excluding Damages) by Material – Current Year and Previous 9 Years
- All Service Leak Repairs (Including Damages) by Cause – Current Year
- Total Service Leak Rates (Including Damages) – Current Year and Previous 9 Years
- Total Service Leak Rates (Excluding Damages) by Material – Current Year and Previous 9 Years
- All Region Service Leak Rates (Excluding Damages) Comparison by Material – Current Year
- Service Leak Repairs Material-Cause Matrix – Current Year
- System Integrity Report Analysis (Findings and Explanations)

The company has developed a procedure for selecting main segments for replacement. ENG04030: Identification, Evaluation, and Prioritization of Distribution Main Segments for Replacement. This procedure details the attributes that are considered and utilized, and they include but are not limited to Design, Operations, and Environmental factors.

Rhode Island Energy Damage Prevention metrics are also incorporated by reference into the DIM Plan and provide the following:

- Total Damages per 1000 Tickets
- Excavator Error Damages per 1000 Tickets
- Damages due to No-Calls per 1000 Tickets
- Damages due to Mismarks per 1000 Tickets
- Damages due to Company & Company Contractors per 1000 Tickets

(Note that “tickets” refers to all “one-call” requests, and not actual mark outs performed)

### *6.3.6 Gas Distribution Instrumentation & Regulation (I&R) Facilities Asset Analysis*

Instrumentation & Regulator stations are covered under Rhode Island Energy’s Station Integrity Management Program (SIMP).

## 6.4 Additional Data Needed

Additional information needed that will be obtained over time through normal activities conducted on the pipeline is described in Table 6-7.

*Table 6-7: Additional Information*

| Area of incomplete records or Knowledge | Can it be acquired over time through normal activities? | Does Action Plan Exist? Y / N | Scope | Schedule | Responsible Departments |
|---|---|---|---|---|---|
| Estimate number of EFVs in system at CY end | Yes | Yes | Data acquired through Electronic Records and GIS | N/A | Distribution Engineering |
| Above grade hazardous leak repair data on services | Yes | Yes | Not previously included in DOT reporting. These leaks now need to be reported per latest OPS ruling | Completed (2021 Annual DOT reporting) | Distribution Engineering |
| Above grade leak repair data on I&R facilities | Yes | Yes | Not previously included in DOT reporting unless leak tickets and leak numbers are generated. These leaks now need to be reported per latest OPS ruling | Completed (2021 Annual DOT reporting) | Distribution Engineering |
| Incorrect or Incomplete Facilities Records – Maps and Scanned Records – RI | Yes | Yes | - Employees may submit corrections when inconsistencies are found per procedure CNST01005.<br>- Appropriate changes are made in ArcGIS. Sketches are added to the Scanned Records system.<br>- Connect assets which are currently disassociated | Continuous | Damage Prevention, Maps and Records |

## 6.5 Data Capture for New Construction

The requirement for data capture for the location where any new pipeline is installed and the material of which it is constructed is contained in various standards as summarized in Table 6-8 below.

*Table 6-8: Data Capture Requirements*

| STANDARD | RI |
|---|---|
| GEN03002 Preparation and Processing of Gas Main and New Service Work Packages | x |
| CNST06020 Completion and Processing of Gas Service Record Cards | x |
| CNST01005 Preparation of Gas Facility Historical Records | x |
| Construction Documentation Specifications | x |

## 6.6 Knowledge Capture – Subject Matter Experts

In addition to existing enterprise wide data, information, and reporting, National Grid (including the future Rhode Island Energy) has conducted additional interviews and discussions with process owners and regional groups of Subject Matter Experts (SMEs) to determine if there are undocumented risks that could impact system performance. SMEs are individuals who have specialized knowledge based on their experience or training. SMEs were used to supplement existing, incomplete, or missing records and may be the only or best source of information in subjects such as historical operations, maintenance, and construction practices. SME interviews were also utilized to ensure that all threats have been identified. All SME interviews have been documented and stored in the Distribution Integrity Management Program files.

It should be noted that, due to the extent of National Grid's gas delivery systems over eight (8) legacy companies, SME interviews needed to be limited in order to accomplish implementation of the Plan within the necessary time frame. SMEs were selected based on experience and knowledge of general regions. It was not possible to include operations personnel from all geographic locations in each legacy company. To ensure that all reasonable threats were identified and evaluated, the summary SME data was carefully reviewed after the first issuance of the Plan. If anything was believed to be incorrect by

the engineering SME panel or any regulator, that information was corrected in the current revision. Furthermore, after the Plan is audited by regulators in all states, a more detailed rollout will be conducted with Operations and feedback will be solicited and incorporated into a future revision, as appropriate.

### *6.6.1 Bi-Annual Meeting*

Threats, or Abnormal Operation Conditions (AOC), are continually being identified by Corrosion, Construction, Field Operations, and Materials Lab. Gas Distribution Engineering (GDE) has established a formal bi-annual meeting with SME's from the various service territories to provide updates on the Engineering Organization, Distribution Engineering Management Program, review of 10 year Trends and system performance, DIMP Threat Remediation Programs, Procedure Updates, and AOC methodology to determine emerging threats, and to gain Subject Matter Expert Feedback. The presentation utilized for the DIMP Bi-Annual meeting is stored in the Gas Distribution Engineering/Gas Asset Management Engineering shared drive.

# 7.0 THREAT IDENTIFICATION

The objective of this section of the plan is to identify existing and potential threats to the gas distribution pipeline. The following categories of threats shall be considered for each gas distribution pipeline:

- Corrosion Failure
- Natural Forces Damage
- Excavation Damage
- Other Outside Force Damage
- Pipe, Weld, or Joint Failure
- Equipment Failure
- Incorrect Operation
- Other Cause concerns that could threaten the integrity of the pipeline.

In addition to the above categories established by §192.1007(b), Rhode Island Energy may collect and assess threats by other additional categories to evaluate the system, trends, and risk. The Leak Cause categories and definitions per PHMSA OMB No. 2137-0629 are summarized below.

**Corrosion Failure**

A leak caused by galvanic, atmospheric, stray current, microbiological, or other corrosive action. A corrosion release or failure is not limited to a hole in the pipe or other piece of equipment. If the bonnet or packing gland on a valve or flange on piping deteriorates or becomes loose and leaks due to corrosion and failure of bolts, it is classified as Corrosion. (Note: If the bonnet, packing, or other gasket has deteriorated to failure, whether before or after the end of its expected life, but not due to corrosive action, it will be reported under a different cause category, such as Incorrect Operation for improper installation, or Equipment Failure if the gasket failed).

**Excavation Damage**

A leak resulting directly from excavation damage by operator's personnel (oftentimes referred to as “first party” excavation damage) or by the operator’s contractor (oftentimes referred to as “second party” excavation damage) or by people or contractors not associated with the operator (oftentimes referred to as “third party” excavation damage). Also, this section includes a release or failure determined to have resulted from previous damage due to excavation activity. For damage from outside

forces OTHER than excavation which results in a release, use Natural Force Damage or Other Outside Force, as appropriate.

**Equipment Failure**

A leak caused by malfunction of control/relief equipment including valves, regulators valves, meters, compressors, or other instrumentation or functional equipment, Failures may be from threaded components, flanges, collars, couplings and broken or cracked components, or from o - ring failures, gasket failures, seal failures, and failures in packing or similar leaks. Leaks caused by overpressurization resulting from malfunction of control or alarm device; relief valve malfunction and valves failing to open or close on command; or valves which opened or closed when not commanded to do so. If overpressurization or some other aspect of this incident was caused by incorrect operation, the incident should be reported under “Incorrect Operation.”

**Pipe, Weld, or Joint Failure (All Materials, Including Plastic)**

A leak resulting from a material defect within the pipe, component, or joint due to faulty manufacturing procedures, design defects, or in-service stresses such as vibration, fatigue, and environmental cracking. Material defect means an inherent flaw in the material or weld that occurred in the manufacture or at a point prior to construction, fabrication, or installation. Design defect means an aspect inherent in a component to which a subsequent failure has been attributed that is not associated with errors in installation, i.e., is not a construction defect. This could include, for example, errors in engineering design. Fitting means a device, usually metal, for joining lengths of pipe into various piping systems. It includes couplings, ells, tees, crosses, reducers, unions, caps, and plugs. Any leak that is associated with a component or process that joins pipe such as threaded connections, flanges, mechanical couplings, welds, and pipe fusions that leak as a result from poor construction should be classified as “Incorrect Operation”. Leaks resulting from failure of original sound material from applied during construction that caused a dent, gouge, excessive stress, or other defect, including leaks due to faulty wrinkle bends, faulty field welds, and damage sustained in transportation to the construction or fabrication site that eventually resulted in a leak, should be reported as “Pipe, Weld or Joint Failure”.

**Natural Forces Damage**

A leak caused by outside forces attributable to causes NOT involving humans, such as earth movement, earthquakes, landslides, subsidence, heavy rains/floods, lightning, temperature, thermal stress, frozen components, high winds (Including damage caused by impact from objects blown by wind), or other similar natural causes. Lightning includes both damage and/or fire caused by a direct lighting strike and damage and/or fire as a secondary effect from a lightning strike in the area. An example of such a secondary effect would be a forest fire started by lightning that results in damage to a gas distribution system asset which results in an incident.

**Other Outside Force Damage**

A leak resulting from outside force damage, other than excavation damage or natural forces such as:

• Nearby Industrial, Man-made, or Other Fire/Explosion as Primary Cause of Incident (unless the fire was caused by natural forces, in which case the leak should be classified Natural Forces. Forest fires that are caused by human activity and result in a release should be reported as Other Outside Force),

• Damage by Car, Truck, or Other Motorized Vehicle/Equipment NOT Engaged in Excavation. Other motorized vehicles/equipment includes tractors, mowers, backhoes, bulldozers and other tracked vehicles, and heavy equipment that can move. Leaks resulting from vehicular traffic loading or other contact (except report as “Excavation Damage” if the activity involved digging, drilling, boring, grading, cultivation, or similar activities.

• Damage by Boats, Barges, Drilling Rigs, or Other Maritime Equipment or Vessels so long as those activities are not excavation activities. If those activities are excavation activities such as dredging or bank stabilization or renewal, the leak repair should be reported as “Excavation Damage”.

• Previous Mechanical Damage NOT Related to Excavation. A leak caused by damage that occurred at some time prior to the release that was apparently NOT related to excavation activities and would include prior outside force damage of an unknown nature, prior natural force damage, prior damage from other outside forces, and any other previous mechanical damage other than that which was apparently related to prior excavation. Leaks resulting from previous damage sustained during construction, installation, or fabrication of the pipe, weld, or joint from which the release eventually occurred are to be reported under “Pipe, Weld, or Joint Failure”. Leaks resulting from previous damage

sustained as a result of excavation activities should be reported under "Excavation Damage" unless due to corrosion, in which case it should be reported as a corrosion leak.

• Intentional Damage/Vandalism means willful or malicious destruction of the operator's pipeline facility or equipment. This category would include pranks, systematic damage inflicted to harass the operator, motor vehicle damage that was inflicted intentionally, and a variety of other intentional acts.

• Terrorism, per 28 C.F.R. § 0.85 General functions, includes the unlawful use of force and violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives.

• Theft means damage by any individual or entity, by any mechanism, specifically to steal or attempt to steal the transported gas or pipeline equipment.

**Incorrect Operations**

A leak resulting from inadequate procedures or safety practices, failure to follow correct procedures, or other operator error. It includes leaks due to improper valve selection or operation, inadvertent over pressurization, or improper selection or installation of equipment. It includes a leak resulting from the unintentional ignition of the transported gas during a welding or maintenance activity.

**Other Cause**

Leak resulting from any other cause not attributable to the above causes. A best effort should be made to assign a specific leak cause before choosing the Other cause category. An operator replacing a bare steel pipeline with a history of external corrosion leaks without visual observation of the actual leak, may form a hypothesis based on available information that the leak was caused by external corrosion and assign the Corrosion cause category to the leak.

This cause is used for all cast iron joint leaks Including those which re-occurred because a failed joint clamp or seal.

## 7.1 Means of Threat Identification

Rhode Island Energy's records and employees provide the basis of information regarding the system assets and materials. The cause categories noted above are the threats for gas distribution pipelines.

The 5-year summary of the leak causes as reported on the annual DOT reports is incorporated by reference into this DIM Plan (refer to Apppendix E).

In an effort to gain additional information about the gas system and to identify potential unknown threats, Subject Matter Expert (SME) interviews were conducted and are summarized in Appendix B. Subsequent threats shall be identified as they are discovered or identified and reviewed by Integrity Engineering/Distribution Asset Management Engineering for inclusion into the Program.

A review of information gathered for Section 6.0 shall be conducted periodically to identify existing and potential threats. Threats (including material performance concerns) shall subsequently be identified by personnel who are knowledgeable of the Rhode Island Energy system and operations, and the Distribution Integrity Management Program. This is accomplished through the annual system integrity report that is prepared and issued by Distribution Engineering and is incorporated by reference into the DIM Plan. An annual review of the system performance combined with knowledge of the facilities, design, materials science, engineering, operation and maintenance histories, construction methods, environmental factors, and an understanding of reportable/significant gas incidents provides Rhode Island Energy with a sound indication of the threats to its system.

## 7.2 Monitoring Potential Threats

Potential Threats include those that are not currently evident based on Rhode Island Energy gas distribution system failures, leak, or incident data. Rhode Island Energy routinely monitors information from sources that may include:

- National Transportation and Safety Board (NTSB) Reports and Recommendations applicable to Pipeline Accidents.
    - Reports may be found at: https://www.ntsb.gov/Pages/home.aspx
    - Recommendation Letters may be found at: https://www.ntsb.gov/Pages/home.aspx
- Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) Advisory Bulletins: https://www.phmsa.dot.gov/regulations/federal-register-documents
- Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) Reportable Incidents: https://www.phmsa.dot.gov/data-and-statistics/pipeline/distribution-transmission-gathering-lng-and-liquid-accident-and-incident-data

Reported failures attributed to the gas distribution system are analyzed on a quarterly basis.

- Membership in a local, regional, or national gas association (e.g. American Gas Association, Northeast Gas Association, NACE, ASME, etc.) and involvement in Association workshops and forums that share knowledge regarding distribution pipeline threats
- Review of trade journals and magazines that publish material regarding gas distribution
- Incident Analysis (IA's) or Near Miss Reviews
- Leak Repair Data
- Mechanical Coupling / Fitting failure reports
- Pipeline Safety Reporting
- All Failure Analysis Reports from the Materials and Testing Group (M&T) are reviewed by Distribution Engineering and key failure data is entered into a Failure Analysis Database, which is used to identify any potential systemic integrity issues. Whenever an issue is discovered, even if it is not attributable to any asset subclass in the risk ranking (e.g. – common substandard conditions, fittings, etc.), appropriate mitigative measures are developed and implemented regionally or organizationally (depending on the nature of the issue). To further enhance the accuracy of the Failure Analysis Database, details of plastic leak data from all regions are scanned quarterly to identify any failures that may not have been sent in for analysis.

For material failures including mechanical fittings, a database was created where material failures are tracked. The following requirements have been incorporated into the gas operating procedure GEN01009, Reporting Nonconforming Material:

- Operations and Construction enters the material failure data into the non-conforming material database and sends failed specimen, when applicable, to the Materials & Testing Lab for evaluation.
- Operations and Construction will notify Distribution Engineering immediately if the failure is potentially systemic in nature, requiring immediate follow-up.
- M&T Lab will review the form, examine the material, perform any necessary testing, and notify manufacturers and/or vendors when applicable. Standards and Work Methods issues any necessary technical bulletins, product advisories or reports containing the lab's findings, recommendations and required follow-up actions.
- M&T will make all necessary filings.

- M&T will forward the form and report to Distribution Engineering for appropriate filing with PHMSA and advise Distribution Engineering if the investigation deems that immediate or scheduled removal of in-service material is warranted.
- Also, under "Reporting Nonconforming Material GEN01009 ", other potential threats (beyond mechanical fitting failures) are reported to and investigated by M&T, and the follow-up is similar.

# 8.0 EVALUATION AND RANKING OF RISK

## 8.1 Objective

Risk analysis is an ongoing process of understanding what factors affect the risk posed by threats to the gas distribution system and where they are relatively more important than others. The primary objectives of the evaluation and ranking of gas distribution risk are:

- Consider each applicable current and potential threat
- Consider the likelihood of failure associated with each threat
- Consider the potential consequences of such a failure
- Estimate and rank the risks (i.e. determine the relative importance) posed to the system
- Consider the differences in the relevance of threats in areas among the various regions

For the purposes of risk assessment, Rhode Island Energy has separated its gas distribution system into two broad (and very different) asset categories; Mains & Services and Instrumentation & Regulation Facilities. Separate models have been developed to estimate and relatively rank the risks for each of the assets (by sub-category). The models are different and completely independent of one another. The models and the results of these models are maintained by Distribution Engineering and Pressure Regulation Engineering and are used to develop Rhode Island Energy's Asset Management Strategies within the State and by Operator ID.

## 8.2 Mains & Services

For mains and services (with service lines including all equipment upstream of customer-owned piping, with "service line" as defined in Section 5.0), because of their sheer volume and non-homogenous nature, Rhode Island Energy has elected to divide these assets into "regions" (segments of the system with similar characteristics and reasonably consistent risk for which similar actions would be effective in reducing risk). For purposes of the mains and services model, the "regions" will be the asset subclasses. The asset is first broken into two general facilities – mains or services. Each facility is further broken down by such factors as material (including active/inactive status, pipe coating, and cathodic protection status), inside vs. outside meter set (for services), pressure, and diameter (for mains).

Diameters for pipe are classified by the following diameter ranges: up to 4-inch (small fractional wall thickness), over 4-inch and up to 8-inch (nominally ¼-inch wall), and over 8-inch (0.375-inch wall). For

iron pipe (cast and wrought), diameters are classified by the following diameter ranges: less than 4-inch (with a higher break rate), 4-inch to 8-inch, and greater than 8-inch (with a lower break rate).

All plastic pipe evaluated in the model is assumed to be Polyethylene. As covered in Section 0, there may be small quantities of PB in RI. To address any potential risk associated with these materials, company policy requires that all integrity-related plastic pipe failures be reported to the M&T lab for evaluation and monitoring for possible systemic issues.

A relative risk score is calculated for each asset subclass (with the main and service facilities ranked independently) for each of the eight defined threat categories. The risk ranking method for each asset subclass and threat consists of four parts: likelihood of failure and release of gas, likelihood of the release resulting in ignition, reduction controls, and the potential consequences of such an event.

A separate score is calculated for each asset subclass and threat category. The highest scores (separately for mains and services) are identified for each region and then reviewed by an engineering SME panel in order to validate/adjust the model results. Some asset subclass/threat category scores were removed if the panel concluded that the high scores were the result of known data anomalies. Additionally, some asset subclass/threat categories with lower scores were added if the SME panel felt that the potential risk or exposure was not adequately represented by the calculations. Further, any asset subclass/threat category that experienced a reportable integrity-related incident within the prior ten (10) calendar years had its score changed in its respective region to “Known Incident”. (If the asset subclass/threat was not among the top risks listed, it was added to the list with a score of “Known Incident”.) All scores labeled “Known Incident” were then accelerated to the top of the risk rankings. The resulting final main and service lists of the highest risks for each region appear in Appendix C. The model and these lists will be updated annually based on the inventory and performance data for the previous calendar year.

It is not possible for Rhode Island Energy to utilize operating environment factors such as known soil conditions, frost heave susceptibility, depth of cover, potential "other outside force damage" sources, potential "natural force damage" sources, geological conditions, paving, population density, building types, substandard conditions, etc. in its primary risk rankings (beyond the overall asset subclass general susceptibilities to "natural force" and "other outside force" damages), as these are very specific to geographic areas and can vary widely within even a small geographic region. As a result, Rhode Island Energy’s DIM Plan ranks risk by dividing its mains and services into "regions" with similar

characteristics (as previously described). These types of factors, when known, are all considered when evaluating and prioritizing assets for proactive replacement as a mitigative measure. Rhode Island Energy utilizes a secondary methodology for replacement qualification and prioritization (ENG04030) (see Section 6.3.4) that is risk-based and applied on a segment-by-segment level. Wherever possible, this methodology allows for accounting of environmental and other location-specific factors in the qualification and prioritization algorithms. These algorithms also include a "DIMP Factor" (which is based on the highest risk scores for that region in the DIM Plan) to increase the scoring for those asset subclasses and subsequently accelerate their attrition.

The considerations (or "factors") used for risk ranking have been carefully designed to take advantage of known differences in the asset subclasses, extensive experience in failure modes and subsequent events, actual current performance data for the asset subclasses and threat categories, subject matter expert opinion on assets and failures experienced throughout the history of the company, existing system operational procedures, and populations affected by each threat. Some of these factors are variable (and will be updated on an annual basis), while others are relatively fixed. The factors and their components are detailed as follows:

- Likelihood of Failure and Release of Gas – There are two components to this. The first is the actual failure frequency (or leak repair rate) for the most recent calendar year. This is a variable factor that will be updated annually. The second is a rating applied from the results of subject matter expert interviews. This strengthens the likelihood calculation because it accounts for infrequent failures that may not occur on a consistent basis. It also was derived from extensive questioning on not only each threat category, but of all the known sub-threats for each category. This is a comparatively fixed factor.
- Likelihood of the Release Resulting in an Ignition – There are two components to this factor as well. The first involves the hazardous nature of all failures. This will be determined by the percentage of all leak discoveries that are Type 1 (hazardous). This varies widely within Rhode Island Energy. This is a variable factor which will be updated on an annual basis. The second component is a failure mode factor - a fixed score assigned based on the most common mode of asset failure.
- Separate failure mode factor scores were identified by an engineering SME panel and will be assigned based on the asset and threat category.
    - Additionally, reduction factors were included to this category for "controls" that are in place to reduce the likelihood of a release resulting in ignition. Extreme care was

utilized not to include any controls already accounted for by the actual failure frequencies (leak rates). There was one control reduction factor applied to select services and one to select mains:

- SERVICES – A reduction factor was applied to all non-LP operating greater than 10 psi services to account for the presence of excess flow valves (EFVs). The factor was different for each region, based on the percentage of those services which had been equipped with an EFV.
- MAINS – A set of reduction factors was also applied to all Local Transmission mains. These factors are the same for each region but vary by threat category. They were applied to account for the fact that these mains were designed and constructed as Transmission mains and are operated, maintained, and monitored as Transmission mains as well; thereby reducing the likelihood of a release.

- Potential Consequences – The Health & Safety consequence is given a weight of 60% of the total consequence score, while Customer Interruption is given a weight of 20% and Regulatory & Reputational Impact and Asset Impact consequences are weighted at 10% each.

The data used in the mains & services risk assessment is consistent with the data reported to PHMSA in Rhode Island Energy's Annual Gas Distribution Reports.

### 8.3 Pressure Regulation

Rhode Island Energy utilizes a risk model for Pressure Regulation, and risk ranking information is covered under Rhode Island Energy's Station Integrity Management Program (SIMP).

## 9.0 IDENTIFICATION AND IMPLEMENTATION OF MEASURES TO ADDRESS RISKS

The objective of this section of the DIM Plan is to describe existing and proposed measures to address the risks that have been evaluated and prioritized in Section 7.0. Rhode Island Energy has a number of Corporate and Gas Business programs and initiatives to minimize risk to the company, the customers, and the public.

## 9.1 Corporate Culture Philosophy and Programs

Rhode Island Energy recognizes that the energy it provides is essential to today's society, and that it includes an inherent risk which cannot be completely eliminated. However, the risk can be managed and kept as low as reasonably possible. These risk mitigation programs and initiatives, in most cases, exceed existing gas safety regulations and position Rhode Island Energy to be a premier energy company. These programs and initiatives include but are not limited to the following:

- *Asset Management* and Engineering

Rhode Island Energy has adopted the Business Management System (BMS). At Rhode Island Energy, asset management and engineering are vital to delivering safe, efficient, reliable, and environmentally sound performance in each of its lines of business.

Safety Management System - Rhode Island Energy is working to implement a Safety Management System (SMS) based on the American Petroleum Institute Recommended Practice 1173 (API RP 1173). The SMS provides a framework to house all relevant activity under ten prescribed elements**:**

1. **Leadership and Management Commitment:** Puts Rhode Island Energy's commitment to improve pipeline safety into formal practice.
2. **Stake Holder Engagement:** Builds relationships both internally and externally to support the safety of our system and operations.
3. **Risk Management:** Manages the Company's assets and operations using a risk-based approach.
4. **Operational Controls:** Integrates all aspects of the Company's operations into a single umbrella framework, providing a disciplined and formal method to communicate and manage standard ways of working.
5. **Incident Investigation, Evaluation, Lessons Learned:** Provides the basis for learning and continuous improvement from the review and feedback after incidents.
6. **Safety Assurance:** Measures and assesses pipeline safety risk and compliance issues.
7. **Management Review and Continuous Improvement:** Ensures that pipeline safety performance is reviewed, and continuous improvement actions are developed on an on-going basis.

8. **Emergency Preparedness and Response:** Develops and practices response readiness to in the event of a pipeline incident.
9. **Competence, Awareness, and Training:** Designs and delivers proper training and information to achieve a workforce that has the appropriate level of experience, knowledge, and expertise.
10. **Documentation and Record Keeping:** Manages documentation and record keeping supporting pipeline safety decision-making and reporting.

- *Damage Prevention* - Rhode Island Energy follow the nine (9) elements contained within the published PHMSA Damage Prevention Assistance Program (DPAP). The Company has been actively involved in mark outs and damage prevention for over 25 years. National Grid and Rhode Island Energy also participate in the Common Ground Alliance DIRT program.
- *Gas Emergency Procedure Manual – A* Gas US manual that includes plans specifically developed to provide for a rapid emergency response. The program is designed to minimize the extent of an emergency.
- *Incident Investigation Program* –This program is intended to reduce the recurrence of injuries and incidents by identifying contributing factors and root causes, and then taking corrective actions that address the root causes. Using this program, personnel can help prevent repeat incidents, reducing risk of injury. This is the process necessary to ensure that injuries and serious incidents are analyzed thoroughly and promptly to avoid recurrence.

  Rhode Island Energy Safety Procedure SHE01001 provides details on:

  - How we ensure that injuries and serious incidents are investigated, and corrective actions are taken promptly, to avoid any recurrence.
  - How the information derived from our investigations is communicated to the organization to ensure that the lessons learned through operating experiences can be utilized by others.

- *Leak Management Program* – Rhode Island Energy's leak management program (see Table 6-1 for specific procedures) adheres to the following principles:
  - Locate the leaks (leak response and leak survey)
  - Evaluate the actual or potential hazards associated with these leaks

  - Act appropriately to mitigate these hazards (including leak surveillance)
  - Keep records; and
  - Self-assess to determine if additional actions are necessary to keep people and property safe

- *Material Standards & Testing (MS&T)* - Rhode Island Energy maintains its own materials lab that test gas materials for compliance with standards and for suitability for the gas system. The lab also performs root cause analysis of materials failures and investigates issues with materials and tools. Findings often generate changes in manufacturers' products and QA/QC procedures. MS&T's role in investigating mechanical fitting failures and other non-conforming materials is described in Section 7.2.
- *Operator Qualifications (OQ)* – Representatives of The New England Gas Association, the regional trade association for 26 distribution companies operating in the 6 New England states, and the New York Gas Group, a regional trade association for 10 distribution companies operating in the state of New York, formed a consortium in 1999 to develop an operator qualification written plan. Those trade associations merged and are now the Northeast Gas Association. The Rhode Island Energy OQ committee has met quarterly to ensure the effectiveness of the OQ program. Rhode Island Energy participates in meetings with all State Commission Staffs through the Northeast Gas Association's OQ Working Group (offspring of the two organizations mentioned previously).
- *Personnel and Job Site Safety* – This includes a core belief and commitment to zero accidents, Employee Safety Handbooks, Trusted to Work Responsibly Documents, the Golden Rules of Safety, Job Briefing and Compliance Assessments.
- *Plastic Pipe Data Collection (PPDC) Initiative* – National Grid (including the future Rhode Island Energy) participated in the national effort to track plastic material failures and use that information to assess risk on plastic systems.
- *Proactive Main and Service Replacement Programs* – Rhode Island Energy recognizes that over 25.96% of the mains and 21.31% of the services are made up of leak prone materials. Significant replacement plans are in place to reduce the inventory and thus the risk associated with leaks and cast iron breaks.
  - Additionally, ENG04030 has been revised (Revision 4, effective 08/01/2020) to better address systemic issues on vintage plastic pipe, and the extent of replacement under such conditions.

- *Flooding* – Rhode Island Energy has begun identifying its vulnerable facilities in flood-prone regions on both 100-year and 500-year flood surge maps and will consider any appropriate safety and reliability improvements to those facilities.
- *Storm Hardening* – Rhode Island Energy is currently evaluating various potential storm hardening measures.
- *Process Ownership* - Rhode Island Energy has established process owners for various safety and management tasks to reduce risk by ensuring that best practices are reviewed and there is consistent reporting and tracking across all territories.
- *QA/QC* – Rhode Island Energy has a Quality Assurance and Quality Control (QA/QC) group which monitors compliance with all gas regulatory requirements, as well as applicable Rhode Island Energy construction, maintenance, service, and safety policies. This effort involves:
    - Field inspection and assessment of Rhode Island Energy personnel and contractors who routinely perform gas construction, maintenance, and service activities;
    - Performing process audits involving Federal and State gas regulations;
    - Conducting additional audits for gas related activities on a regional basis, as well as those identified by the Business Management System (BMS) for having potential adverse risk to the Companies' gas assets;
    - Re-Dig program - this program targets post inspection results of completed gas facility installation and repair activities across Rhode Island Energy's gas territory.
- *Gas Distribution Engineering Reporting* – Distribution Engineering tracks and produces regulatory reports for compliance with annual DOT and State reporting requirements. In addition, various in-depth reports on the system's performance are created to provide trending data. These reports are also used to measure and monitor the performance of existing programs.
- *Corrosion Control* – Rhode Island Energy has established enterprise-wide corrosion control standards, test instructions, and policies covering the design, installation, surveys, inspections, testing, and monitoring of the cathodic protection on their gas systems. These provide the preventative and mitigative actions necessary to address the threat of corrosion.
- The Compliance Programs area of Rhode Island Energy's Gas Asset Management organization has developed a Pipeline Public Awareness (PPA) program as a result of the Pipeline Safety Improvement Act of 2002. The program encompasses the distribution facilities across Rhode

Island. The goal of the program is to educate the public about pipeline safety, including topics such as:

- How to recognize possible leaks in gas pipelines and what to do if a leak is suspected
- How to contact the pipeline operator in an emergency
- The presence of buried gas pipelines in the communities served
- The necessity to call before excavation – Know What's Below; Call Before you Dig – Call 811
- The significant role the public/excavators can take in helping to prevent third-party damage accidents as well as how they should respond.
- The proper actions emergency response agencies and first responders should take in response to a pipeline emergency
- The means to assess the effectiveness of the communications used by the PPA Program, in order to improve the Program's effectiveness over time.

- The PPA program is managed within the Compliance Programs area of Gas Asset Management. There is a Committee that provides oversight to the program made up of:
  - Customer Communications
  - Community & Customer Management
  - Damage Prevention
  - Emergency Planning
  - Gas Work Methods
  - Learning & Development
  - Safety
- The PPA program has four key stakeholders:
  - Affected Public: Residents along a transmission pipeline right-of-way, places of congregation, near gas storage & operational facilities, along gas distribution lines, as well as all Rhode Island Energy customers should be educated on the appropriate actions and precautions to take while living in proximity of gas pipelines. This will in turn create a safer environment and allow for more reliable service.
  - Emergency Officials: Fire departments, police departments, Local Emergency Planning Management Agencies (EMA) and 911 call centers must be aware and educated on the safety measures and company plans while dealing directly with a gas pipeline emergency.

- Local Public Officials: Mayors & administrators, zoning boards, public works officials, licensing & permitting departments, building code enforcement departments, and public officials must be educated and work alongside Rhode Island Energy to ensure the safety and cooperation of the public.
- Excavators: Employees from construction, blasting, directional drilling, and landscaping companies as well as farmers, sprinkler system installers, and demolition teams all need to be aware of and educated on pipeline safety. This increased awareness and education will likely reduce the number of pipeline damages and accidental leaks.

Rhode Island Energy's PPA Program communicates to these key stakeholder groups in a number of ways:

- Pipeline Public Awareness brochures included in customer bills
- Public service announcements
- Paid advertising
- Direct mailings with letters and safety brochures
- Rhode Island Energy websites
- Links to other pipeline safety information sites
- Facebook
- Twitter/X
- On-line training programs for first responders and contractors dealing with natural gas and electric
- Education materials for elementary school teachers and students regarding natural gas and electric.
- Liaison meetings with emergency and local public officials
- Attendance at community events

- Rhode Island Energy also participates in collaborative outreach to key stakeholders through the Northeast Gas Association using radio and cable television spots.
- The PPA program also communicates natural gas and pipeline safety information by direct mail outreach to excavators and in conjunction with the local Call Before You Dig call centers like Dig Safely, and Dig Safe to provide natural gas safety and damage prevention information and training sessions.

## 9.2 Primary Threat Mitigation

National Grid (including the future Rhode Island Energy) worked with the American Gas Association (AGA) and the American Gas Foundation (AGF) on the development of an AGF Study on Distribution Integrity. This study was based on an analysis of gas distribution incidents in the DOT / OPS Database for the years 1990-2002. The study concluded that the top five (5) processes having the greatest impact on distribution integrity were:

- One Call / Mark Outs Systems to reduce third party damage
- Operator Qualifications to reduce operator error
- Cathodic Protection to reduce potential corrosion leaks or wall loss
- Leak Management to reduce the potential for leaks to cause an incident
- Proactive Replacement to reduce the inventory of problematic materials or components

Rhode Island Energy also included construction activities in the Operator Qualifications program. Additional or accelerated actions that have been taken or are being planned in order to reduce the risks from failure of the gas distribution pipeline are documented in Appendix D. These mitigation efforts address each of the primary threat types: corrosion, natural forces, excavation damage, other outside force, material or weld failure, equipment failure, incorrect operation, and other causes. Rhode Island Energy's Distribution Engineering Departments continuously monitor system performance in order to evaluate threats and monitor gas industry best practices. As necessary, the Distribution Engineering Departments will work with the Standards & Policy Departments to update or issue new policies and procedures to mitigate threats.

### *9.2.1 Mitigation Program Tracker*

Appendix D in the DIM Plan includes a description of Rhode Island Energy's mitigation programs.

# 10.0 MEASUREMENT OF PERFORMANCE, MONITORING RESULTS, AND EVALUATING EFFECTIVENESS

The objective of this section of the plan is to establish performance measures that shall be monitored from an established baseline in order to evaluate the effectiveness of the DIM Program. The performance measures detailed in Sections 10.1 through 10.6 have been established in order to monitor performance and assist in the ongoing evaluation of threats. Distribution Engineering shall aggregate

data from various legacy data sources (and successor data systems) as necessary to track each performance measure.

## 10.1 Number of Hazardous Leaks Either Eliminated or Repaired, per §192.703(c), Categorized by Cause

Rhode Island Energy has been tracking all leaks by material and cause since 2005, consistently monitoring trends. The baseline and ongoing performance of the number of hazardous leaks either eliminated or repaired, per §192.703(c), categorized by cause, shall be documented, or included by reference, in Appendix E, Section 1. The baseline for this performance measure shall be 5 years recorded performance. Recent improvements in data scrubbing and validation make 5 years performance the best baseline from which to monitor ongoing performance.

## 10.2 Number of Excavation Damages

Excavation Damage was defined in §192.1001 in December of 2009 with the publishing of the Final Distribution Integrity Management Rule. Rhode Island Energy has been tracking and trending leaks associated with excavation damage since 2004; however the new definition of excavation damage goes beyond just leaks. Thus, the baseline for this performance measure will be 5 years performance. The baseline and ongoing performance of the number of excavation damages shall be documented, or included by reference, in Appendix E, Section 2.

## 10.3 Number of Excavation Tickets (Received from the Notification Center)

The baseline and ongoing performance of the number of excavation tickets received from the notification center(s) shall be documented, or included by reference, in Appendix E, Section 3. The baseline for this performance metric will be 5 years performance.

## 10.4 Total Number of Leaks Either Eliminated or Repaired, Categorized by Cause

Rhode Island Energy has been tracking all leaks by material and cause since 2004, consistently monitoring trends. Recent improvements in data scrubbing and validation make 5 years performance the best baseline from which to monitor ongoing performance. The baseline and ongoing performance of the total number of leaks either eliminated or repaired, categorized by cause, shall be documented, or included by reference, in Appendix E, Section 4.

### 10.5 Number of Hazardous Leaks Either Eliminated or Repaired, per §192.703(c), Categorized by Material

Rhode Island Energy has been tracking all leaks by material and cause since 2004, consistently monitoring trends. The baseline and ongoing performance of the number of hazardous leaks either eliminated or repaired, per §192.703(c), categorized by material, shall be documented, or included by reference, in Appendix E, Section 5. The baseline for this performance measure shall be 5 years recorded performance. Recent improvements in data scrubbing and validation make 5 years performance the best baseline from which to monitor ongoing performance.

### 10.6 Additional Performance Measures

As it is determined that additional performance measures are needed to evaluate the effectiveness of the DIM Program in controlling an identified threat, the performance measures shall be documented, or included by reference, in Appendix E, Section 6.

Additional performance measures initially established include:

- Workable Leak Backlog at the End of Year (known system leaks scheduled for repair)
- Total Excavation Damages per 1,000 Tickets
- Main Leak Rates by Material Excluding Damages
- Service Repairs per 1,000 Services by Material, Excluding Damages
- Total Leak Receipts
- Response Time Performance

Rhode Island Energy monitors many other metrics in the course of conducting and monitoring operations and pipeline safety. Extensive investigation/research, monitoring, and improvement works are being performed on some special projects. These include Farm Tap investigation and design upgrades to new Pipeline Safety Standards, Inner-Tite fitting Inspection, etc. All the reports are incorporated by reference in their most updated form. Additional performance measures may be added to Section 10.6 to control threats, when warranted.

## 11.0 PERIODIC EVALUATION AND IMPROVEMENT

The objective of this section of the plan is to periodically re-evaluate threats and risks on the entire pipeline and evaluate the effectiveness of its program.

## 11.1 Plan Updating and Documentation

This written integrity management plan shall be reviewed periodically and updated as required to reflect changes and improvements that have occurred in process, procedures, and analysis for each element of the program. Rhode Island Energy performs extensive trending and analysis annually and documents this in the System Integrity Report. Additionally, Rhode Island Energy will update risk assessment and ranking by asset class on an annual basis. In addition to the annual efforts, a complete program re-evaluation shall be completed, at a minimum, every five years. All the DIM Plan changes and results are documented in a "Description of Change" report, which is kept on the Gas Distribution Engineering Internal Share drive. The complete program re-evaluations shall address:

- Frequency of the next complete program re-evaluation based on the complexity of the system and changes in factors affecting the risk of failure
- Verification of general information
- Incorporation of new system information
- Re-evaluation of threats and risk
- Review the frequency of the measures to reduce risk
- Review the effectiveness of the measures to reduce risk
- Modification of the measures to reduce risk and refine/improve as needed
- Review performance measures, their effectiveness, and necessary improvements

Form F-1 in Appendix F must be used to document Periodic Review and Updating. All changes to the written plan, inclusive of material from the appendices, shall be recorded on the Revision Control Sheet on page 2. However, changes to material in the appendices that is included by reference need not be recorded on the Revision Control Sheet. This plan shall reside on the Rhode Island Energy intranet with the accompanying change-management.

## 11.2 Effectiveness Review

An assessment of the performance measures described in Sections 10.1 through 10.5 shall be performed periodically. The Rhode Island Energy System Integrity Reports shall be prepared annually. The evaluation of threats and risks shall be performed annually. Other discretionary measures (mitigation beyond minimum code requirements) may be necessary and shall be assessed at the discretion of management. An emerging threat in one or more locations shall be evaluated for relevance to other

areas. If the reviews described above demonstrate significant changes to threats or system performance, a complete program re-evaluation may be completed in a shorter timeframe than five years. Form F-1 in Appendix F may be used to document Effectiveness Reviews.

# 12.0 REPORTING RESULTS

## 12.1 State & Federal Annual Reporting Requirements

The following shall be reported annually, by March 15, to PHMSA as part of the annual report required by 49 CFR, § 191.11:

- Number of hazardous leaks either eliminated or repaired (or total number of leaks if all leaks are repaired when found), per § 192.703(c), categorized by cause
- Number of excavation damages
- Number of excavation tickets (receipt of information by the underground facility operator from the notification center)
- Total number of leaks either eliminated or repaired, categorized by cause
- Total number of hazardous leaks involving a mechanical joint failure

These measures, as well as any others that may be required by the State, shall also be reported to the appropriate State Agency as per GEN01020 (incorporated by reference). A copy of the reports shall be maintained in the Distribution Integrity Management Program files.

# 13.0 DOCUMENT AND RECORD RETENTION

The following records shall be retained in the Distribution Integrity Management Program files.

- The most current as well as prior versions of this written DIM Plan and its Appendices
- Documents supporting Knowledge of Facilities (material supporting Appendix A of the DIM Plan as well as the annual System Integrity Report)
- Documents supporting threat identification (material supporting Appendix B of the DIM Plan)
- Documents supporting the identification and implementation of measures to address risks (material supporting Appendix D of the DIM Plan)
- Annual Reports to PHMSA (as required by §191.11) and State pipeline safety authorities
- Mechanical fitting Failure Reports

Documentation demonstrating compliance with the requirements of 49 CFR, Part 192, Subpart P shall be retained for at least 10 years. Table 13-1 summarizes a data matrix on records used, collection method, collection frequency, and storage location.

*Table 13-1: Data Matrix for Collection Method and Storage Location*

| Source | Data Characteristics (192.1007(a)(1)) (Design, Operations, or Environment) | Asset Type | Collection Method/Frequency | Storage Location | Region | Responsible Party | Description |
|---|---|---|---|---|---|---|---|
| As-Built Drawings | Design | Main | Paper and Electronic/Completion of Job | Gas System Engineering Shared Drive | RI | Construction/Field Operations | Material, Installation method, Installed Date, pressure, pressure test, pressure test duration, diameter, segment length, construction method, foreman, spatial placement, fitting information, depth of cover, easement, pipe grade. |
| | Design | Service | Paper and Electronic/Completion of Job | Docuware, Iron Mountain | RI | Construction/Field Operations | Material, intallation method, installed date, pressure, pressure test, pressure test duration, diameter, segment length, construction method, foreman, spatial placement, fitting information, depth of cover, easement, pipe grade, meter location, service valve installed, meter protection, EFV installed, cathodic protection, pipe abandoned, meter capacity, tracer wire |
| GIS | As-Built Drawings | Main | Electronic/updated as new information becomes available | GIS-ESRI | RI | Mapping/Maps and Records | Distribution assets: Work order, date installed, vintage date, location, diameter, install method, material, length, cathodic protection status, pressure classification, joining method, coating type |
| | As-Built Drawings | Service | Electronic/updated as new information becomes available | GIS-ESRI | RI | Mapping/Maps and Records | Distribution assets: Work order, date installed vintage date, location, diameter, material, length, cathodic protection status, pressure classification, joining method, coating type |
| DIMP Bi-Annual Meeting | Design, Operations, Environment | Main/Service | Electronic meeting minutes | DIMP Shared Drive | RI | DIMP | Bi-Annual meeting with SMEs - Review distribution 10-year trends for system performance, overall review of PHMSA reportable incidents, engineering organization, distribution engineering management program overview, threat remediation program, procedure updates, SME feedback |
| PHMSA Bulletins | Design, Operations, Environment | Main/Service | Electronic | https://www.phmsa.dot.gov/regulations-fr/notices | RI | Gas Process Safety/Compliance | The safety and compliance group distributes the bulletins to the appropriate departments |
| National Weather Service | Environment | Not applicable | Electronic | DIMP Shared Drive | RI | DIMP/Field Operations | Weather forecast information is used to initiate weather leak operations |
| PHMSA Reportable Incidents | Design, Operations, Environment | Main/Service | Paper and Electronic/As Needed | DIMP Shared Drive - Incidents as of 2010 | RI | DIMP | The criterion to report incident to PHMSA, if as follows: 1-Any fatalities or injuries are involved, 2- Estimated property damage of $50,000 or more, 3- Unintentional estimated gas loss of three million cubic feet or more, 4- An event that is significant in the judgment of the operator, even though it did not meet any of the three criteria listed above |
| Incident Management System (IMS) | Operations | Main/Service | Electronic | DIMP Shared Drive | RI | DIMP | Incident Management System (IMS) - IMS Safety, Health and Environmental Services' online management tool. IMS allows the reporting of safety and environmental-related incidents and performance of incident analysis. GDE reviews all reported incidents and takes necessary actions. |
| Quarterly Google News Alert (Incidents) | Knowledge | Main/Service | Electronic | DIMP Shared Drive | RI | DIMP | Utilize Google Alerts to perform keyword searches in news articles for potential gas incidents. GDE reviews all US incidents on a quarterly basis for existing and new threats |
| Leak Survey Plan | Operations | Main/Service | Refer to RI procedures for collection method and frequency. | Fulcrum | RI | Field Operations | 1- Distribution Survey - Walking: Main and service leakage surveys shall be conducted at least once every three calendar years |
| | | | | | | | 2- Business District Survey: Conducted in company-designated business districts, at intervals not to exceed 15 months |
| | | | | | | | 3- Winter Patrol Surveys: Conducted during company-defined frost periods for company-designated segments of the distribution system |
| | | | | | | | 4- Special Surveys: As-requested surveys - shall be performed based on demand. |
| | | | | | | | Piping subject to the cast iron encroachment plan shall be surveyed for leakage daily until the main is replaced. As-requested surveys shall be performed based on demand. |
| Leak Management System | Operations | Main/Service | Electronic | Maximo, CWQ Maximo, LMS, GAM LMS, New Maximo, GIS (DIMP Shared Drive) | RI | DIMP | Class 1, 2, and 3 leaks information and repair status for quarterly PSC reports, yearly DOT, System Integrity, and DIMP reports. |
| Pipeline Patrol | Operations, Environment | Main | Weekly, not to exceed 10 days | Damage Prevention, GFO, I&R | RI | Field Operations | Pipeline Operating at >124 PSIG, Patrolling Transmission Pipelines - CNST02005, Patrolling Mains in Hazardous Locations - CNST02005 |
| Nonconforming Material (Internal Procedure CNST01009) | - | Main/Service | Electronic/Failure-based | Nonconfroming Material Database (Materials Testing Lab Sharepoint Site) | RI | Operations/Construction/Materials Testing Lab/DIMP/Codes and Standards | Nonconforming material removed should be reported to the Materials Testing Lab |

# 14.0 APPENDICES FOR RHODE ISLAND

# RHODE ISLAND
# APPENDIX A
# KNOWLEDGE OF FACILITIES

Table A-1: Reportable Gas Incidents by Year

| Year | Number of Incidents | Fatalities | Injuries | Property Damage |
|---|---|---|---|---|
| 2023 | 0 | 0 | 0 | - |
| 2022 | 1 | 0 | 0 | $411,285.00 |
| 2021 | 0 | 0 | 0 | - |
| 2020 | 0 | 0 | 0 | - |
| 2019 | 0 | 0 | 0 | - |
| 2018 | 0 | 0 | 0 | - |
| 2017 | 3 | 0 | 0 | $403,895.00 |
| 2016 | 0 | 0 | 0 | - |
| 2015 | 1 | 0 | 0 | $58,140.00 |
| 2014 | 0 | 0 | 0 | - |
| 2013 | 1 | 0 | 0 | $29,184.00 |
| 2012 | 1 | 0 | 0 | $133,377.00 |
| 2011 | 0 | 0 | 0 | - |
| 2010 | 0 | 0 | 0 | - |
| 2009 | 1 | 0 | 2 | $100,000.00 |
| 2008 | 0 | 0 | 0 | - |
| 2007 | 0 | 0 | 0 | - |
| 2006 | 0 | 0 | 0 | - |
| 2005 | 0 | 0 | 0 | - |
| 2004 | 2 | 0 | 2 | $118,000.00 |
| 2003 | 1 | 0 | 0 | $100,000.00 |
| 2002 | 0 | 0 | 0 | - |
| 2001 | 0 | 0 | 0 | - |
| 2000 | 2 | 0 | 0 | $250,000.00 |
| 1999 | 0 | 0 | 0 | - |
| 1998 | 0 | 0 | 0 | - |
| 1997 | 0 | 0 | 0 | - |
| 1996 | 1 | 0 | 0 | $250,000.00 |
| 1995 | 0 | 0 | 0 | - |
| 1994 | 1 | 0 | 1 | $100,000.00 |
| 1993 | 1 | 0 | 0 | $300,000.00 |
| 1992 | 2 | 0 | 1 | $142,500.00 |
| **Total** | **18** | **0** | **6** | **$2,396,381.00** |

## Table A-2: Reportable Gas Incidents by Cause

| Year | Corrosion | Natural Forces | Excavation Damage | Outside Force | Material or Weld Failure | Equipment Failure | Incorrect Operation | Other |
|---|---|---|---|---|---|---|---|---|
| 2023 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2022 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 2021 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2020 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2019 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2018 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2017 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 2016 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2015 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2014 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2013 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 2012 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2011 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2010 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 2008 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2007 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2006 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2005 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2004 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2003 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 1999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1998 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1997 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1996 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 1995 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1994 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1993 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 1992 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| **Total** | **1** | **5** | **5** | **3** | **1** | **0** | **0** | **3** |

## Table A-3: 10-Year Incident History Details (**Rhode Island**)

| Company | Year | Facility | Asset Class/Subclass | Street | Town | Leak Cause |
|---|---|---|---|---|---|---|
| NIMO (RI) | 2022 | MAIN | Steel-12" | Intersection Cumberland Hill Rd and | Woonsocket | Weld Failure |
| Details | In February 2022, a Grade 1 leak was discovered and repaired on Cumberland Hill Rd near the intersection with St. Augustin St on a 12" Bare Steel 60 PSIG main. The leaking segment was cut out and replaced. However, the failure mode appeared to be consistent with a weld failure, so x-rays were ordered through Sky Testing. X-rays were conducted in five nearby locations, with four of them indicating failing scores for the welds.<br>Subsequently, two pipe segments from the Grade 1 leak were sent to Massachusetts Materials Research (MMR) for analysis. One of these pipe segments showed visual evidence of a cracked circumferential weld.<br>The analysis, which compared the cracked weld against a similar exhumed weld without any evidence of cracking, confirmed that the leak occurred due to a poorly executed weld. | | | | | |
| NIMO (RI) | 2017 | MAIN | Steel-3" | Intersection Baker St and Water St | WARREN | Excavation Damage |
| Details | The contractor while installing the water main hit a 3-inch gas main with a backhoe. During pipe repair process 310 customers were shut off and were all restored successfully after repair. | | | | | |
| NIMO (RI) | 2017 | SERVICE RISER | Plastic (PE) - 5/8" | 110 Toll Gate Rd | WARWICK | Other Outside Force Damage |
| Details | Vehicle driver crashed into a service riser and (3) meter assembly, causing the gas leak. This cause fire and one person was hospitalized. A 5/8" PE plastic end cap was installed and tested. | | | | | |
| NIMO (RI) | 2017 | MAIN | Steel-12" | 30 Allens Avenue | PROVIDENCE | Other Incident Cause |
| Details | There was insufficient support of a live gas main as the earth was removed during construction, allowing vibration and pressure to pull one of the 12-inch 99 PSIG pipe segments out from a 12-inch Dresser coupling. | | | | | |
| NIMO (RI) | 2015 | MAIN | CI-6"-LP | 130 Woodbury St | PROVIDENCE | Natural Force |
| Details | Pipe in frozen ground caused disturbance and odor in area. | | | | | |
| NIMO (RI) | 2013 | MAIN | Protected Coated Steel - 8"- HP (35#) | Rocky Hill Road & Rte 116 | LINCOLN | Excavation Damage |
| Details | Mechanical Puncture on gas main by excavator. | | | | | |

# RHODE ISLAND
# APPENDIX B
# THREAT IDENTIFICATION

In April through June of 2021, groups of Subject Matter Experts (SMEs) were brought together, each having knowledge of threats in the various communities served by National Grid and the future Rhode Island Energy. Details on SME qualifications as well as copies of their interview records are located in the Distribution Integrity Management Program files. A summary of the threats identified are presented below in Table 14-1 and Table 14-2.

*Table 14-1: Summary of Applicable Threats*

| SME's to Consider the Following | YES / NO |
|---|---|
| Do you have the necessary knowledge and/or experience (skills sets) regarding the areas of expertise for which you provided knowledge or supplemental information for input into the DIMP plan? (PHMSA Q.) | Yes |
| Do operator personnel in the field understand their responsibilities under DIMP plan? (PHMSA Q.) | Yes |
| Have you received DIMP training? (PHMSA Q.) | Yes |
| Have you received instructions to address the discovery of pipe or components not documented in the company records? (PHMSA Q.) | Yes |
| Have you received instructions to address, if you find any possible issue? (ex: corrosion, dented pipe, poor fusion joints, missing coating, excavation damage, mechanical fitting failures). (PHMSA Q.) | Yes |
| Have you received instructions to address when you find situations where the facilities examined (e.g., Material, Diameter, Coating, etc.) are different than records indicate, what documentation do you prepare? (PHMSA Q.) | Yes |
| • If yes, are the findings documented? | Yes |
| During any repairs, if you find an improperly installed fitting, do you remediate it? (PHMSA Q.) | Yes |
| • If yes, are the findings documented? | Yes |
| Does CMS conduct atmospheric corrosion inspection when they have access to facilities? | Yes |
| • If yes, are the findings documented? | Yes |
| Do you know the procedures to visually examine any plastic fusion that is uncovered as part of excavation? | Yes |
| • If yes, are the findings documented? | Yes |
| Do you notify damage prevention if any municipal work is being performed near gas distribution facilities? | Yes |
| • If yes, are the findings documented? | Yes |
| Is Cross Bore recognized as a risk? | Yes |
| • If yes, are the findings documented? | Yes |

| Primary Threat Category | SME's to Consider the Following | Rhode Island |
|---|---|---|
| Corrosion | Is there known evidence of Corrosion on the system? | Yes |
| | Is there a known history of leakage on the system due to Corrosion? | Yes |
| | Threat Applicable? | Yes |
| Natural Force | Is there known evidence of damage or failures on the system due to natural forces? | Yes |
| | Is there a known history of leakage on the system due to Natural forces? | Yes |
| | Threat Applicable? | Yes |
| Excavation Damage | Is there known evidence of damage or failures on the system due to Excavation Damage? | Yes |
| | Is there a known history of leakage on the system due to Excavation Damage? | Yes |
| | Threat Applicable? | Yes |
| Other Outside Forces | Is there known evidence of damage or failures on the system due to Other Outside Forces? | Yes |
| | Is there a known history of leakage on the system due to Other Outside Forces? | Yes |
| | Threat Applicable? | Yes |
| Material or Weld Failure | Is there known evidence of damage or failures on the system due to Material or Weld Failure? | Yes |
| | Is there a known history of leakage on the system due to Material or Weld Failure? | Yes |
| | Threat Applicable? | Yes |
| Equipment Failure | Is there known evidence of damage or failures on the system due to Equipment Failure? | Yes |
| | Is there a known history of leakage on the system due to Equipment Failure? | Yes |
| | Threat Applicable? | Yes |

| | | |
|---|---|---|
| Incorrect Operations | Is there known evidence of damage or failures on the system due to Incorrect Operations? | Yes |
| | Is there a known history of leakage on the system due to Incorrect Operations? | Yes |
| | Threat Applicable? | Yes |
| Others | Is there known evidence of damage or failures on the system due to other reasons? | Yes |
| | Is there a known history of leakage on the system due to other reasons? | Yes |
| | Threat Applicable? | Yes |

*Table 14-2: Summary of SME Interview Responses for Threat Identification*

| Primary Threat Category | Material or Sub-Threat | SME's to Consider the Following | Rhode Island |
|---|---|---|---|
| **Corrosion** | Cast Iron Pipe | Does Cast Iron pipe exist in the system? | **Yes** |
| | | Is there a known history of body-of-pipe leaks, fractures, or graphitization? | **Yes** |
| | Bare Steel or Wrought Iron Pipe (with no CP other than Localized hot spotting with anodes) | Do bare (uncoated) steel main or services exist in the system that are not under CP? | **Yes** |
| | | Is there known evidence of external corrosion on bare steel or wrought iron pipes not under CP? | **Yes** |
| | | Is there a history of leakage on bare steel or wrought iron pipes not under CP? | **Yes** |
| | Bare Steel or Wrought Iron Pipe (with CP other than just localized hot spotting with anodes) | Do bare (uncoated) steel main or services exist in the system that are under CP? | **No** |
| | | Is there known evidence of external corrosion on bare steel pipes under CP? | **No** |
| | | Is there a known history of leakage on bare steel pipes under CP? | **No** |
| | Coated Steel with CP | Is there known evidence of external corrosion on coated steel pipe with CP? | **Yes** |
| | | Is there a known history of leakage on coated steel pipe with CP? | **Yes** |

| | | | |
|---|---|---|---|
| | | Are some CP systems frequently down (not achieving the required level of protection); more than 10% of the time? | **Yes** |
| | | Is there a risk of grounds installed on risers making CP ineffective? | **Yes** |
| | Coated Steel w/o CP | Is there known evidence of external corrosion on coated steel pipe without CP? | **Yes** |
| | | Is there a known history of leakage on coated steel pipe without CP? | **Yes** |
| | Copper Services | Are direct buried or inserted copper services known to exist in the system? | **Yes** |
| | | Is there a known history of leakage on copper services? | **Yes** |
| | Stray Current | Do distribution facilities exist near DC transit systems, high voltage DC transmission systems or other known sources of DC current? | **Yes** |
| | | Are any facilities known to be impacted by sources of stray DC current that has or may result in corrosion? | **Yes** |
| | Internal Corrosion | Are liquids known to exist within any portions of the distribution system? | **Yes** |
| | | Is there known evidence of internal corrosion on steel pipe? | **Yes** |
| | | Is there a known history of leakage caused by internal corrosion of steel pipe? | **Yes** |
| | Atmospheric Corrosion on above ground facilities | Do above ground distribution facilities exist in areas exposed to marine atmosphere, high humidity, atmospheric pollutants, or agricultural chemicals? | **Yes** |

| | | | |
|---|---|---|---|
| | | Is there known evidence of external atmospheric corrosion on exposed steel pipe, equipment, or fittings? | **Yes** |
| | | Is there a known history of leakage caused by atmospheric corrosion of steel pipe? | **Yes** |
| | Atmospheric Corrosion of facilities in Vaulted areas underground | Do gas distribution facilities exist underground in vaulted areas? | **Yes** |
| | | Is there known evidence of external atmospheric corrosion on exposed steel pipe, equipment, or fittings? | **Yes** |
| | | Is there a known history of leakage caused by atmospheric corrosion of steel pipe in vaults? | **Yes** |
| | Corrosion of carrier pipe in Cased Crossing | Do steel carrier pipes exist within cased crossings? | **Yes** |
| | | Are there any existing known contacts between carrier pipes and casings? | **Yes** |
| | | Is there known evidence of past or active external corrosion on cased steel pipe? | **Yes** |
| | | Is there a known history of leakage caused by corrosion on cased steel pipe? | **Yes** |
| | Other Corrosion | Are there other corrosion threats? | **Wall Piece, at Dis-Similar Metals & Isolated Fittings** |
| **Natural Forces** | Seismic Activity | Are there any seismically active zones or fault lines that exist in the area? | **Yes** |
| | | Is there a history of leakage associated with Seismic activity? | **No** |
| | Earth Movement / Landslide (Unstable Soil) | Are there any areas susceptible to earth movement or landslide in the area? | **Yes** |
| | | Is there a known history of leakage associated with landslide or earth movement? | **No** |

| | | | |
|---|---|---|---|
| | Frost Heave | Are there any areas susceptible to frost heave that exist in the area? | **Yes** |
| | | Is there a known history of leakage resulting from frost heave? | **Yes** |
| | Flooding | Are there any areas within the gas system that are subject to flooding? | **Yes** |
| | | Is there a known history of leakage or damage associated with flooding? | **Yes** |
| | Over-pressure due to snow/ice blockage | Are pressure control equipment vents subject to ice blockage during the winter? | **Yes** |
| | | Is there a known history of over-pressure events as a result of snow/ice blockage? | **Yes** |
| | Tree Roots | Is there a known history of leakage to pipe or fittings as a result of tree root damage? | **Yes** |
| | Other Natural Forces | Is there a known history of leakage or damage due to other natural force causes; including but not limited to lightning, wildfire, or high winds (tornados)? | **Lightning** |
| **Excavation Damage** | Improper Excavation Practice | Has damage requiring repair or replacement occurred on properly marked facilities due to the failure of the excavator to follow proper excavation rules and procedures? | **Yes** |
| | Facility not located or marked | Has damage requiring repair or replacement occurred due to failure to locate a valid and timely locate request? | **Yes** |
| | One-Call Notification Practices Not Sufficient | Has damage requiring repair or replacement occurred due to an error made at the one-call notification center? | **Yes** |
| | Mis-Marked Facilities | Has damage requiring repair or replacement occurred due to the mismarking of facilities? | **Yes** |
| | | Threat Applicable? | **Yes** |

| | | | |
|---|---|---|---|
| | Incorrect Facility Records | Has damage requiring repair or replacement occurred due incorrect facility records? | **Yes** |
| | Other Excavation Damage | Has damage requiring repair or replacement occurred due other causes? | **Shallow Mains and Plastic w/o Tracer Wire** |
| **Other Outside Force Damage** | Vehicle Damage to Riser/Meter | Are existing risers and/or meters exposed to damage from vehicular damage that do not have barriers or other protection conforming to current design requirements? | **Yes** |
| | | Has known leakage occurred due to vehicle damage to risers/meters. | **Yes** |
| | Vandalism | Are gas valves susceptible to damage by vandalism that has the potential to pose a risk to employees or the public? | **Yes** |
| | | Has leakage or other unsafe condition been created by vandalism? | **Yes** |
| | Structure Fire | Is there a history of damage to gas meters or other equipment due to structure fires? | **Yes** |
| | Other Outside Force Damage | Has damage requiring repair or replacement occurred due other outside forces? | **Falling ice, Heat, ground contamination, down electric lines** |
| **Pipe, Weld, or Joint Failure** | Century Products (MDPE 2306) | Is Century Products (MDPE 2306) pipe (Tan) known to exist in the system? | **No** |
| | | Is there a history of leakage of Century Products (MDPE 2306) pipe due to material failure? | **No** |
| | Aldyl A (MDPE 2306/2406) | Is pre-1973 Aldyl A pipe (Tan, but can turn grey) known to exist in the system? | **Yes** |
| | | Has pre-1973 Aldyl A pipe been known to leak due to brittle-like failure from rock impingement or other stresses? | **Yes** |

| | | | |
|---|---|---|---|
| | | Is there a history of leakage of pre-1973 Aldyl A pipe due to material failure? | **Yes** |
| | | Is 1973 and later Aldyl A pipe (Tan, but can turn grey) known to exist in the system? | **Yes** |
| | | Has 1973 and later Aldyl A pipe been known to leak due to brittle-like failure from rock impingement or other stresses? | **Yes** |
| | | Is there a history of leakage of 1973 and later Aldyl A pipe due to material failure? | **Yes** |
| | Aldyl AAAA<br><br>(MDPE 2306)<br><br>Green Aldyl | Is Green Aldyl pipe known to exist in the system? | **No** |
| | | Is there a history of brittle like failures of Green Aldyl pipe? | **No** |
| | | Is there a history of leakage of Green Aldyl pipe due to material failure? | **No** |
| | PVC – Polyvinyl Chloride | Is PVC pipe known to exist in the system? | **No** |
| | | Is there a history of leakage of PVC pipe due to material failure? | **No** |
| | CAB – Cellulose Acetate Butyrate | Is CAB pipe known to exist in the system? | **No** |
| | | Is there a history of leakage of CAB pipe due to material failure? | **No** |
| | PB – Polybutylene | Is PB pipe known to exist in the system? | **Yes** |
| | | Is there a history of leakage of PB pipe due to material failure? | **Yes** |
| | PP – Polypropylene | Is PP pipe known to exist in the system? | **No** |
| | | Is there a history of leakage of PP pipe due to material failure? | **No** |

| | | | |
|---|---|---|---|
| | Polyamide - PA | Is PA pipe known to exist in the distribution system? | **No** |
| | | Is there a history of leakage of PA pipe due to material failure? | **No** |
| | PE Fusion failure | Is there a history of PE Fusion Failures or leakage in the system? | **Yes** |
| | | Are any types of PE fusion (type, material, size, age, process, geographic area) more prone to leakage or failure? | **Yes** |
| | Pre-1940 Oxy-Acetylene Girth Weld | Do pre-1940 Oxy-Acetylene Girth Welds exist on pipe greater than 4 inch? | **Yes** |
| | | Is there a history of pre-1940 Oxy-Acetylene Girth Weld failures or leakage in the system due to material failure? | **Yes** |
| | Other | Do other material failures occur that present a possible current or future risk? | **Yes** |
| | Mechanical Fittings | Is there a history of Mechanical Fitting failures or leakage in the system due to pullout? | **No** |
| | | Is there a history of Mechanical Fitting failures or leakage in the system due to seal leakage? | **Yes** |
| | | What Types and Manufactures of Stab Type Mechanical Fittings have you seen used in the System? | **Perfection, Permaset, Plexco, Dresser, AMP, Continental, LYCO, Kerotest** |
| | | Are any types of Mechanical Fitting (type, material, size, age, manufacturer, geographic area) more prone to leakage or failure? | **LYCO, Kerotest** |

| | | | |
|---|---|---|---|
| **Equipment Failure** | Valves | Are valves inoperable, inaccessible and or paved over without timely identification and repairs? | **Yes** |
| | | Are certain types or makes of valves more likely to leak? | **Kerotest** |
| | Service Regulators | Is there a history of service regulator failures that present a threat to the public or employees? | **Yes** |
| | | Are certain types or makes of service regulator more likely to create a risk? | **Mercury** |
| | Meters | Is there a history of meter failures that present a threat to the public or employees? | **No** |
| | | Are certain types or makes of meters more likely to create a risk? | **No** |
| | Other Equipment Failure | Is there a history of other equipment failures that present a threat to the public or employees? | **No** |
| | | Are certain types or makes of other equipment more likely to create a risk? | **No** |
| **Incorrect Operations** | General | Have inadequate procedures or safety practices, or failure to follow correct procedures, or other operator error resulted in an incident that created a risk to the gas distribution system? | **Yes** |
| | Gas lines bored through Sewers | Have pipes been installed via unguided or guided bore without proper procedures to ensure other facilities are not damaged? | **Yes** |
| | | Have pipes unknowingly bored through sewer lines been damaged by sewer line cleaning operations? | **Yes** |
| **Other** | Bell Joint Leakage | Does Cast Iron pipe exist in the system? | **Yes** |
| | | Is there a history of bell joint leaks? | **Yes** |
| | | Are certain diameters or parts of the system known to be more prone to bell joint failure or leakage than others? | **Yes** |

| | | | |
|---|---|---|---|
| | Inserted Copper Puncture | Do copper services inserted in steel exist in the system? | **Yes** |
| | | Is there a history of leakage of copper services due to puncture by a deteriorated steel outer casing? | **No** |
| | Copper Sulfide | Have any safety incidents occurred as a result of copper sulfide in copper services or service regulators? | **No** |
| | Construction over gas mains & services | Have others constructed over gas facilities or taken other action that prevents effective leak survey and other maintenance? | **Yes** |
| | | When identified, is construction that impacts required maintenance corrected in a timely manner? | **Yes** |
| | Other | Are there any other known threats to the Gas Distribution system that we need to be aware of? | **Gas mains in Catch basins, Vibration equipment, Anaerobic sealants** |

# RHODE ISLAND
# APPENDIX C
# EVALUATION AND RANKING OF RISK

| Rhode Island – All Regions – Mains – Mitigation Will Be As Per Appendix D, Except As Otherwise Indicated In Notes | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Material | Pressure | Diameter | Mileage | Risk Score | Primary Threat Category(ies) | Known Incident (2013 to 2023) | Additional Mitigation Notes | DIMP Factor |
| Unprotected Bare Steel | HP | Over 8" | 3.74 | 3.61 | MATERIAL/WELD / CORROSION | **Known Incident Yr 2022 - Weld Failure** | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 3.00 |
| Cast Iron | LP | 4" through 8" | 459.34 | 1.70 | NATURAL FORCE | **Known Incident Yr 2015 - Pipe in frozen ground** | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 3.00 |
| Protected Coated Steel | > 60 PSI, not Transmission | Over 8" | 103.46 | 1.56 | EXCAVATION / MATERIAL/WELD / NATURAL FORCE / O.O. FORCE / INC. OPERATION | **Known Incident Yr 2017 - Dresser coupling failed after nearby excavation caused earth to shift, removing support for main** | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 3.00 |
| Protected Coated Steel | HP | Over 4" through 8" | 106.11 | 1.06 | EXCAVATION / CORROSION | **Known Incident Yr 2013 - Mechanical puncture on gas** | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 3.00 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Protected Coated Steel | HP | Up to 4" | 211.32 | 1.06 | EXCAVATION / CORROSION | **Known Incident Yr 2017 - Damage by contractor** | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 3.00 |
| Unprotected Bare Steel | > 60 PSI, not Transmission | Up to 4" | 0.95 | 4.57 | CORROSION / MATERIAL/WELD / EXCAVATION / NATURAL FORCE / O.O. FORCE / INC. OPERATION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 3.00 |
| Unprotected Bare Steel | > 60 PSI, not Transmission | Over 4" through 8" | 0.66 | 4.57 | CORROSION / MATERIAL/WELD / EXCAVATION / NATURAL FORCE / O.O. FORCE / INC. OPERATION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 3.00 |
| Unprotected Bare Steel | > 60 PSI, not Transmission | Over 8" | 1.90 | 4.57 | CORROSION / MATERIAL/WELD / EXCAVATION / NATURAL FORCE / O.O. FORCE / INC. OPERATION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 3.00 |
| Unprotected Bare Steel | HP | Up to 4" | 54.85 | 3.61 | CORROSION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 2.37 |
| Unprotected Bare Steel | HP | Over 4" through 8" | 14.47 | 3.61 | CORROSION | N/A | An additional factor will be applied to the prioritization algorithm to | 2.37 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | account for the replacement qualification ranking. | |
| Cast Iron | HP | Under 4" | 0.01 | 2.58 | OTHER / NATURAL FORCE | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.69 |
| Cast Iron | HP | 4" through 8" | 2.33 | 2.58 | OTHER / NATURAL FORCE | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.69 |
| Cast Iron | HP | Over 8" | 12.41 | 2.58 | OTHER / NATURAL FORCE | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.69 |
| Wrought Iron | HP | Under 4" | 0.12 | 2.58 | OTHER / NATURAL FORCE | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.69 |
| Unprotected Bare Steel | LP | Up to 4" | 22.70 | 2.53 | CORROSION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.66 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Unprotected Bare Steel | LP | Over 4" through 8" | 27.26 | 2.53 | CORROSION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.66 |
| Unprotected Bare Steel | LP | Over 8" | 2.99 | 2.53 | CORROSION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.66 |
| Plastic | > 60 PSI, not Transmission | Up to 4" | 122.82 | 2.28 | EXCAVATION / O.O. FORCE / MATERIAL/WELD / NATURAL FORCE / INC. OPERATION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.50 |
| Plastic | > 60 PSI, not Transmission | Over 4" through 8" | 37.82 | 2.28 | EXCAVATION / O.O. FORCE / MATERIAL/WELD / NATURAL FORCE / INC. OPERATION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.50 |
| Plastic | > 60 PSI, not Transmission | Over 8" | 4.04 | 2.28 | EXCAVATION / O.O. FORCE / MATERIAL/WELD / NATURAL FORCE / INC. OPERATION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.50 |
| Ductile Iron | HP | Over 4" through 8" | 0.58 | 2.11 | OTHER / NATURAL FORCE | N/A | An additional factor will be applied to the prioritization algorithm to | 1.39 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | account for the replacement qualification ranking. | |
| Unprotected Coated Steel | > 60 PSI, not Transmission | Up to 4" | 1.63 | 2.04 | CORROSION / MATERIAL/WELD / EXCAVATION / O.O. FORCE / NATURAL FORCE / INC. OPERATION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.34 |
| Unprotected Coated Steel | > 60 PSI, not Transmission | Over 4" through 8" | 1.55 | 2.04 | CORROSION / MATERIAL/WELD / EXCAVATION / O.O. FORCE / NATURAL FORCE / INC. OPERATION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.34 |
| Unprotected Coated Steel | > 60 PSI, not Transmission | Over 8" | 4.10 | 2.04 | CORROSION / MATERIAL/WELD / EXCAVATION / O.O. FORCE / NATURAL FORCE / INC. OPERATION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.34 |
| Cast Iron | LP | Under 4" | 0.95 | 1.91 | NATURAL FORCE | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.25 |
| Wrought Iron | LP | Under 4" | 0.50 | 1.89 | NATURAL FORCE | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.24 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Plastic | HP | Up to 4" | 1057.75 | 1.84 | EXCAVATION / O.O. FORCE | N/A | | 1.20 |
| Plastic | HP | Over 4" through 8" | 217.55 | 1.84 | EXCAVATION / O.O. FORCE | N/A | | 1.20 |
| Plastic | HP | Over 8" | 11.32 | 1.84 | EXCAVATION / O.O. FORCE | N/A | | 1.20 |
| Wrought Iron | LP | 4" through 8" | 0.12 | 1.70 | NATURAL FORCE | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.12 |
| Unprotected Coated Steel | HP | Up to 4" | 62.76 | 1.64 | CORROSION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.08 |
| Unprotected Coated Steel | HP | Over 4" through 8" | 38.24 | 1.64 | CORROSION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.08 |
| Unprotected Coated Steel | HP | Over 8" | 4.87 | 1.64 | CORROSION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.08 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Protected Coated Steel | > 60 PSI, not Transmission | Up to 4" | 58.08 | 1.56 | EXCAVATION / MATERIAL/WELD / NATURAL FORCE / O.O. FORCE / INC. OPERATION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.03 |
| Protected Coated Steel | > 60 PSI, not Transmission | Over 4" through 8" | 42.00 | 1.56 | EXCAVATION / MATERIAL/WELD / NATURAL FORCE / O.O. FORCE / INC. OPERATION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.03 |
| Ductile Iron | LP | Up to 4" | 4.40 | 1.48 | NATURAL FORCE | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 0.97 |
| Plastic | LP | Up to 4" | 56.92 | 1.46 | EXCAVATION | N/A | | 0.96 |
| Plastic | LP | Over 4" through 8" | 272.03 | 1.46 | EXCAVATION | N/A | | 0.96 |
| Plastic | LP | Over 8" | 17.18 | 1.46 | EXCAVATION | N/A | | 0.96 |
| Ductile Iron | LP | Over 4" through 8" | 6.24 | 1.43 | NATURAL FORCE | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 0.94 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Cast Iron | LP | Over 8" | 82.38 | 1.42 | OTHER | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 0.93 |
| Wrought Iron | LP | Over 8" | 0.20 | 1.42 | OTHER | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 0.93 |
| Unprotected Coated Steel | LP | Up to 4" | 5.27 | 1.19 | CORROSION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 0.78 |
| Unprotected Coated Steel | LP | Over 4" through 8" | 13.20 | 1.19 | CORROSION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 0.78 |
| Unprotected Coated Steel | LP | Over 8" | 2.63 | 1.19 | CORROSION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 0.78 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Ductile Iron | LP | Over 8" | 0.77 | 1.16 | OTHER / NATURAL FORCE | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 0.76 |
| Protected Coated Steel | HP | Over 8" | 27.61 | 1.06 | CORROSION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 0.70 |
| Protected Coated Steel | LP | Up to 4" | 7.27 | 0.91 | EXCAVATION | N/A | | 0.59 |
| Protected Coated Steel | LP | Over 4" through 8" | 23.04 | 0.91 | EXCAVATION | N/A | | 0.59 |
| Protected Coated Steel | LP | Over 8" | 5.83 | 0.91 | EXCAVATION | N/A | | 0.59 |

***Note: The above table shows combined threats for each asset. Refer to Appendix A – Table A-3 (10-Year Incident History Details) for a complete list of threats.***

| Rhode Island – All Regions – Services – Mitigation Will Be As Per Appendix D, Except As Otherwise Indicated In Notes | | | | | | | |
|---|---|---|---|---|---|---|---|
| Material | Pressure | Meter Set | Quantity | Risk Score | Primary Threat Category(ies) | Known Incident (2013 to 2023) | Additional Mitigation Notes |
| Plastic | LP | Outside | 28,735 | 2.02 | O.O. FORCE / EXCAVATION | Known Incident Yr 2017 - Vehicle Crash into Riser | Service leaks are included in the main replacement prioritization evaluation. |
| Unprotected Bare Steel | > 60 PSI, not Transmission | Inside | 91 | 5.20 | CORROSION / EXCAVATION / NATURAL FORCE / MATERIAL/WELD | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Unprotected Bare Steel | > 60 PSI, not Transmission | Outside | 222 | 5.20 | CORROSION / EXCAVATION / NATURAL FORCE / MATERIAL/WELD | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Unprotected Bare Steel | HP | Inside | 800 | 5.04 | CORROSION / NATURAL FORCE / EXCAVATION | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Unprotected Bare Steel | LP | Inside | 30,485 | 4.32 | CORROSION / NATURAL FORCE / EXCAVATION / MATERIAL/WELD | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Unprotected Bare Steel | HP | Outside | 1,632 | 4.03 | CORROSION / NATURAL FORCE / EXCAVATION | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Unprotected Bare Steel | LP | Outside | 1,773 | 3.24 | CORROSION / NATURAL FORCE / EXCAVATION | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Unprotected Coated Steel | > 60 PSI, not Transmission | Inside | 15 | 3.13 | CORROSION / MATERIAL/WELD | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Unprotected Coated Steel | > 60 PSI, not Transmission | Outside | 100 | 3.13 | CORROSION / MATERIAL/WELD | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Unprotected Coated Steel | HP | Inside | 1,619 | 3.02 | CORROSION | N/A | Service leaks are included in the main replacement prioritization evaluation. |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Plastic | HP | Inside | 6,760 | 2.98 | EXCAVATION / O.O. FORCE / MATERIAL/WELD | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Plastic | > 60 PSI, not Transmission | Inside | 188 | 2.98 | EXCAVATION / O.O. FORCE / MATERIAL/WELD | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Plastic | > 60 PSI, not Transmission | Outside | 10,154 | 2.98 | EXCAVATION / O.O. FORCE / MATERIAL/WELD | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Unprotected Coated Steel | LP | Inside | 1,336 | 2.71 | CORROSION / MATERIAL/WELD / INC. OPERATION | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Cast Iron | LP | Inside | 21 | 2.70 | NATURAL FORCE / O.O. FORCE / EXCAVATION / INC. OPERATION | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Plastic | LP | Inside | 22,039 | 2.69 | EXCAVATION / O.O. FORCE / MATERIAL/WELD | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Copper | HP | Inside | 12 | 2.50 | EQ. FAILURE / EXCAVATION | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Unprotected Coated Steel | HP | Outside | 2,500 | 2.42 | CORROSION / NATURAL FORCE | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Plastic | HP | Outside | 79,202 | 2.40 | EXCAVATION / O.O. FORCE / MATERIAL/WELD | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Copper | LP | Inside | 6 | 2.10 | EQ. FAILURE / INC. OPERATION | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Cast Iron | LP | Outside | 4 | 2.05 | NATURAL FORCE / EXCAVATION / O.O. FORCE | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Unprotected Coated Steel | LP | Outside | 70 | 2.03 | CORROSION | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Copper | HP | Outside | 26 | 2.00 | EQ. FAILURE / EXCAVATION | N/A | Service leaks are included in the main replacement prioritization evaluation. |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Protected Coated Steel | > 60 PSI, not Transmission | Inside | 60 | 1.58 | CORROSION | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Protected Coated Steel | > 60 PSI, not Transmission | Outside | 1,478 | 1.58 | CORROSION | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Protected Coated Steel | HP | Inside | 207 | 1.52 | CORROSION | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Protected Coated Steel | LP | Inside | 1,331 | 1.45 | CORROSION / INC. OPERATION | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Protected Coated Steel | HP | Outside | 2,873 | 1.22 | CORROSION | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Protected Coated Steel | LP | Outside | 538 | 1.10 | INC. OPERATION | N/A | Service leaks are included in the main replacement prioritization evaluation. |

***Note: The above table shows combined threats for each asset. Refer to Appendix A – Table A-3 (10-Year Incident History Details) for a complete list of threats.***

# RHODE ISLAND
# APPENDIX D
# IDENTIFICATION AND IMPLEMENTATION OF MEASURES TO ADDRESS RISKS

*Table 14-3: Threat Mitigation*

| Primary Threat Category | Sub-Threat | Existing Mitigation or Additional/Accelerated Actions Rhode Island |
|---|---|---|
| Corrosion | Cast Iron Pipe Graphitization (including risk of crack or break due to becoming brittle) | Periodic Leak Surveys, Proactive/Reactive Leak Prone Pipe Replacement Program, and Leak Management Programs |
| | Bare Steel or Wrought Iron Pipe | Periodic Leak Surveys, Proactive/Reactive Leak Prone Pipe Replacement Program, and Leak Management Programs |
| | Coated Steel w/ CP | Cathodic Protection Monitoring, Periodic Leak Survey, Reactive Pipe Replacement, and Leak Management Program |
| | Grounds installed on risers making CP ineffective | Cathodic Protection Monitoring |
| | Coated Steel w/o CP | Periodic Leak Surveys, Proactive/Reactive Leak Prone Pipe Replacement Program, and Leak Management Programs |
| | Copper Services | Proactive Service Replacement, Periodic Leak Surveys, Service Tees Replaced w/ Main Replacements and Leak Management Programs |
| | Stray Current | Design, Periodic Leak Surveys, Proactive Corrosion Control Inspections |
| | Internal Corrosion | Periodic Leak Surveys, Proactive/Reactive Pipe Replacement, and Leak Management Programs |
| | Atmospheric Corrosion on above ground facilities | Coating and Periodic Leak Surveys/Atmospheric Corrosion Inspections |

| Primary Threat Category | Sub-Threat | Existing Mitigation or Additional/Accelerated Actions Rhode Island |
|---|---|---|
| | Atmospheric Corrosion of facilities in Vaulted areas underground | Coating and Periodic Leak Surveys/Atmospheric Corrosion Inspections |
| | Corrosion of carrier pipe in Cased Crossing | Design and Cathodic Protection Monitoring |
| | Corrosion of Buried Farm Tap Equipment | Not Applicable |
| | Wall Piece at Dissimilar Metals & Isolated Fittings | Periodic Leak Surveys and Leak Management Programs |
| | Corrosion of Service Fittings on cast iron mains that are not cathodically protected. | Periodic Leak Surveys, Services Associated with Main Replacement Programs are Replaced, and Leak Management Program |
| Natural Forces | Seismic Activity | Proactive Leak Survey Programs |
| | Earth Movement / Landslide (Unstable Soil) | Proactive Leak Survey Programs |
| | Frost Heave | Periodic Leak Survey Programs / Winter Operations |
| | Flooding | Proactive Leak Survey Programs |
| | Over-pressure due to snow/ice blockage or freeze up | Design, Periodic Leak Survey, and Customer Communications |
| | Tree Roots | Periodic Leak Survey Programs |

| Primary Threat Category | Sub-Threat | Existing Mitigation or Additional/Accelerated Actions Rhode Island |
|---|---|---|
| | Other Natural Forces | Design, Periodic Leak Survey |
| Excavation Damage | Improper Excavation Practice (including mitigation for high-risk tickets) | Damage Prevention Monitoring, Design, EFV's, training and emergency response |
| | Facility not located or marked | Damage Prevention Monitoring, Design, EFV's, training and emergency response |
| | One-call notification practices not sufficient | Damage Prevention Monitoring, Design, EFV's, training and emergency response |
| | Mis-Marked Facilities | Damage Prevention Monitoring, Design, EFV's, training and emergency response |
| | Incorrect Facility Records | EFV's and Field Corrections |
| | Shallow Mains - reduced cover | Design, Training, and Map Notation |
| | Plastic without tracer wire that cannot be located | EFV's, training, and service records |
| Other Outside Force Damage | Vehicle Damage to Riser/Meter | Design (Bollards/Meter Protection Posts) |
| | Vandalism | Design, EFV's, Periodic Leak Survey Programs |
| | Structure Fire | Design, EFV's, training, and emergency response |
| | Falling Ice, Heat, Ground Contamination, Down Electric Lines | Customer Communications for Snow/Falling Ice |
| Pipe, Weld or Joint Failure | Pre-1973 Aldyl A (Tan MDPE 2306/2406) | Periodic Leak Survey and Proactive/Reactive Main Replacements |

| Primary Threat Category | Sub-Threat | Existing Mitigation or Additional/Accelerated Actions Rhode Island |
|---|---|---|
| | 1973 and later Aldyl A (Tan MDPE 2306/2406) | Periodic Leak Survey and Proactive/Reactive Main Replacements |
| | Aldyl 4A (Green MDPE 2306) | Not Applicable |
| | PE other than Aldyl A & 4A | Periodic Leak Survey and Proactive/Reactive Main Replacements |
| | PE Fusion failure | Periodic Leak Survey & Training |
| | Pre-1940 Oxy-Acetylene Girth Weld | Periodic Leak Survey |
| | Other Failures | Periodic Leak Survey |
| Equipment Failure | Mechanical Fittings | Periodic Leak Survey |
| | Valves | Periodic Leak Survey |
| | Service Regulators | Initiating Service Regulator Inspections |
| | Meters (including Tin Meters) | Periodic Leak Survey, Meter Relocations, and Odorization |
| Incorrect Operations | General | Operator Qualifications, training, and emergency response |
| | Gas lines bored through Sewers | Operator Qualifications, training, and emergency response |
| Other | Bell Joint Leakage, Cast Iron and Ductile Iron | Periodic Leak Survey |
| | Inserted Copper Puncture | Periodic Leak Survey and Main Replacements |

| Primary Threat Category | Sub-Threat | Existing Mitigation or Additional/Accelerated Actions Rhode Island |
|---|---|---|
| | Copper Sulfide | Periodic Leak Survey and Main Replacements |
| | Construction over gas mains & services | Operator Qualifications, training, and emergency response |
| | Catch Basins, Vibration Equipment, Anaerobic Sealants | Periodic Leak Surveys |

Extensive investigation/research, monitoring and improvement works are being performed on some special projects listed below and all the reports are incorporated by reference in their most updated form.

## MITIGATION OF OIL/LIQUIDS

Natural gas pipeline liquids have been identified as recurring at some existing distribution collection points as well as some commercial customer locations within a portion of the natural gas distribution system. These liquids can be a problem in and of themselves, but they can also cause trace contaminants such as PCBs to become mobile and accumulate at different points, possibly even travelling all the way to a customer's meter set. Rhode Island Energy is actively monitoring collection points, removing liquids from the system, and employing mitigation measures to help limit movement of liquids and ensure customer protection.

## ATMOSPHERIC CORROSION

Rhode Island Energy visits all services with inside meter sets to inspect the service for atmospheric corrosion. Due to the timing of these inspections, Rhode Island Energy cannot always gain access to all buildings to inspect the pipe. Rhode Island Energy attempts two more times to contact the customer and schedule an appointment. However, a large number of service inspections attempted are never completed and have a result of "Can't Get In" (CGI).

To address any safety concerns with these services, Rhode Island Energy conducted a review to see if any other inspection programs or service work were conducted at the address in the last 6 years. Rhode Island Energy determined that if the service was replaced in the last 6 years or if an atmospheric corrosion inspection was completed as a "tag-a-long" inspection to other work being completed, the service was at a lower risk to be severely corroded.

The remaining 6-year CGIs have been compiled into a list which is currently under prioritization review. The CGIs are manually prioritized by age as well as by concurrent factors such as a pending periodic meter testing requirement and/or curb valve installation which can be executed alongside the atmospheric corrosion inspection or 6-year CGI shutoff, as required. Along with this prioritization activity, RIE is scrubbing the list by comparing it to other data sources used by CMS to eliminate

addresses which have already been inspected as part of other activity, such as meter changes and service relays. This process has resulted in some progress in completing shutoffs using existing curb valves and installing curb valves where needed for the shutoffs.

In the longer term, Rhode Island Energy expects to have greater visibility to the premises requiring inside atmospheric corrosion inspection-related shutoffs with the introduction of our new data management system, to be implemented in late 2024 or early 2025. This system will unify all available premise data with all survey data to create a prioritized inspection list, facilitating the company's efforts to integrate and process all of our CMS-related surveys and inspections.

## INSIDE METER SETS

The Rhode Island Energy Inside Meter Sets program is dedicated to upgrading the natural gas infrastructure by relocating inside gas meter sets. Natural gas meters are moved from inside to outside locations so that Rhode Island Energy can continue to provide safe, high-quality customer service by replacing older leak prone pipe made of cast iron or unprotected steel. Service lines may also be replaced with modern materials if they have not previously been replaced during routine maintenance. Some of the benefits of this program are the replacement of LPP with more modern materials to reduce the risk of gas leaks. This program also contributes to customer and company convenience by eliminating the need to enter the home for atmospheric corrosion inspections and leak surveys. The inside meter sets program increases customer satisfaction by facilitating more frequent and comprehensive inspections and maintenance work on meters and service piping that has been placed outside. Lastly, the inside meter sets relocation program eliminates the risk of shut-off due to access issues and provides easy access to relocated outside meters in the event of an emergency.

## INNERTITE FITTINGS

National Grid had two incidents involving Inner-Tite fittings in 2008 and 2011 on Long Island, with the 2008 incident resulting in property damage. History has shown the Inner-Tite fitting has corroded at a faster rate than the rest of the service. Because of this, National Grid has identified all plastic and plastic tube inside meter services installed in 1974 and prior for the Rhode Island Service territory (now Rhode Island Energy) to be inspected, as services meeting these conditions may have the Inner-Tite equipment installed as part of the fitting assembly.

From 2012 – 2014, National Grid visited every site and has completed all inspections on plastic and plastic tube inside meter services installed pre-1975. Rhode Island Energy will continue to monitor these types of fittings through the Atmospheric Corrosion program.

## WATER INTRUSION/WASHOUT PROJECTS

The Rhode Island Energy Water Intrusion/Washouts Program is in place to remediate situations where water has infiltrated the gas distribution system. This situation is known to cause poor pressure, resulting in repeated customer supply disruptions and decreased system reliability. The program addresses outstanding water intrusion issues in addition to allowing in-year projects to be walked-in as locations meeting criteria for inclusion in the program are identified. This program also addresses unanticipated infrastructure washouts and main exposures that can occur due to storms, heavy rains and/or seasonal snow melt. Main exposure/undermining can result in damage to facilities, emergency response and potential loss of service to customers. Distribution washouts/exposures can create potential for further damages and risks to assets if not addressed efficiently and appropriately. Rhode Island Energy is required to ensure proper integrity for safe operation of its assets and to maintain proper cover and protection of its facilities.

## PROACTIVE MAIN REPLACEMENT PROGRAM – LPP

This program supports the replacement of Leak Prone Pipe (LPP) inventory, defined as mains that are non-cathodically protected steel, whether bare or coated (collectively termed “unprotected steel”) or cast/wrought/ductile iron or pre-1985 Aldyl-A plastic. The goal of this program is to reduce the risk associated with leak prone pipe in the distribution system.

## CI FROST PATROL

Cast Iron (CI) is a brittle material and has the tendency to break when extended periods of cold temperature allow frost to form in the ground. The downward pressure of the expanding frost line can exert such great force that it can crack smaller diameter cast iron mains. In a natural process of graphitization, iron degrades to softer elements, making iron pipelines more susceptible to cracking. Gas may leak from the joints or through cracks in the pipe if graphitization has occurred. Rhode Island Energy actively performs proactive periodic surveys in the Winter specifically to identify CI breaks and joint leaks at cycles not to exceed 20 calendar days unless extenuating circumstances exist. Additionally,

Type 2A and 2 leaks are also scheduled for surveillances at accelerated frequencies as well to address the threat of underground migration.

## PLASTIC FAILURES

Rhode Island Energy policy requires that failed plastic parts (either leaking or visually identified as not exhibiting properties of a properly fused or assembled part) be returned to the laboratory for analysis and testing. When possible, parts are destructively tested to assess cause of leak/failure. A log of analyzed failures is maintained and periodically reviewed to recognize system wide failure trends. Local analysis (frequently a leak survey) is conducted to check contemporary and contiguous installation work for similar failures. The paperwork associated with nearby failures from other years may also be examined in order to further complete the review. Certain failures, such as the identification of slow crack growth on pre-1985 Aldyl-A plastic, may lead to proactive replacement of similar pipe.

## CROSS BORE

Rhode Island Energy has installed several plastic gas mains through Horizontal Directional Drilling (HDD) technology where the pipe can bore through an unverified sewer lateral and cause blockage. If a mechanical cleaning tool is used to remove the blockage, it may lead to damaging the gas line, causing the gas to migrate into the building that can lead to an explosion. Rhode Island Energy's cross bore inspection program addresses all previous HDD installations to review if a cross bore incident has occurred and if so, take proactive steps to remediate the situation.

## PROACTIVE SERVICE REPLACEMENT

The Rhode Island Energy proactive service replacement program is a program that targets the replacement of.Leak-prone services associated with non-leak-prone mains. The services are prioritized for replacement based on leak history statistics and those with inside meter sets. All targeted services should be outside the bounds of planned main replacements.

## ACCESS PROTECTION

The Access Protection program was implemented due to an Incident in the UK, where kids climbed on an elevated pipe resulting in a fatality. Rhode Island Energy installs protection on any elevated structure.

The program is to reduce the risk of public injury by restricting or deterring public access to the Company's elevated gas facilities. In accordance with the customer/community-first approach, the Company has installed protective barriers, such as fencing or other physical deterrents, that will restrict or deter the public from accessing or climbing on elevated gas mains.

## PIPE ON BRIDGES

Rhode Island Energy developed the Pipe on Bridges program to replace or rehabilitate gas pipe and appurtenances on aboveground structures, typically bridges, due to integrity concerns.

# RHODE ISLAND
# APPENDIX E
# MEASUREMENT OF PERFORMANCE, MONITORING RESULTS, AND EVALUATION EFFECTIVENESS

**Appendix E, Section 1 – Number of Hazardous Leaks Either Eliminated or Repaired, Categorized by Cause**

The 5 years baseline and ongoing performance of the number of Hazardous (***Type 1***) Leaks for Main and Service combined Either Eliminated or Repaired, Categorized by Cause is provided below (Including Excavation Damage Leaks):

| Cause | Actual vs. Baseline (Where Baseline = Rolling Average Since 2019 + 0.5 Standard Deviation) | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|
| Corrosion | Actual | 266 | 177 | 270 | 208 | 241 |
| | Baseline | 250 | | | | |
| Natural Forces | Actual | 53 | 13 | 23 | 49 | 23 |
| | Baseline | 40 | | | | |
| Excavation Damage | Actual | 95 | 75 | 105 | 77 | 80 |
| | Baseline | 92 | | | | |
| Other Outside Force | Actual | 4 | 6 | 6 | 4 | 3 |
| | Baseline | 5 | | | | |
| Material or Welds | Actual | 2 | 1 | 3 | 1 | 26 |
| | Baseline | 11 | | | | |
| Equipment Failure | Actual | 24 | 25 | 39 | 52 | 5 |
| | Baseline | 37 | | | | |
| Incorrect Operations | Actual | 2 | 1 | 1 | 4 | 4 |
| | Baseline | 3 | | | | |
| Other | Actual | 281 | 131 | 134 | 129 | 196 |
| | Baseline | 204 | | | | |
| Total | Actual | 727 | 429 | 581 | 524 | 578 |
| | Baseline | 616 | | | | |

**Appendix E, Section 2 – Number of Excavation Damages**

The 5 years baseline and ongoing performance of the number of excavation damages is provided below (Including Excavation Damage Leaks):

| Cause | Actual vs. Baseline (Where Baseline = Rolling Average Since 2019 + 0.5 Standard Deviation) | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|
| Excavation Damages | Actual | 102 | 117 | 94 | 99 | 86 |
| | Baseline | 105 | | | | |

## Appendix E, Section 3 – Number of Excavation Tickets

The 5 years baseline and ongoing performance of the number of excavation tickets is provided below (Including Excavation Damage Leaks):

| | Actual vs. Baseline (Where Baseline = Rolling Average Since 2019 + 0.5 Standard Deviation) | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|
| Excavation Tickets | Actual | 43,444 | 41,123 | 43,930 | 42,900 | 44,168 |
| | Baseline | 43,656 | | | | |

## Appendix E, Section 4 – Total Number of Leaks Either Eliminated or Repaired, Categorized by Cause

The baseline and ongoing performance of the number of Leaks Either Eliminated or Repaired, Categorized by Cause is provided below (Including Excavation Damage Leaks):

| Cause | Actual vs. Baseline (Where Baseline = Rolling Average Since 2019 + 0.5 Standard Deviation) | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|
| Corrosion | Actual | 465 | 407 | 569 | 360 | 433 |
| | Baseline | 482 | | | | |
| Natural Forces | Actual | 69 | 18 | 27 | 54 | 30 |
| | Baseline | 49 | | | | |
| Excavation Damage | Actual | 97 | 77 | 119 | 78 | 82 |
| | Baseline | 99 | | | | |
| Other Outside Force | Actual | 5 | 6 | 11 | 4 | 3 |
| | Baseline | 7 | | | | |
| Material or Welds | Actual | 6 | 4 | 5 | 3 | 38 |
| | Baseline | 18 | | | | |
| Equipment Failure | Actual | 38 | 47 | 104 | 93 | 6 |
| | Baseline | 76 | | | | |
| Incorrect Operations | Actual | 3 | 2 | 4 | 6 | 4 |
| | Baseline | 4 | | | | |
| Other | Actual | 840 | 620 | 587 | 453 | 580 |
| | Baseline | 679 | | | | |
| Total | Actual | 1,523 | 1,181 | 1,426 | 1,051 | 1,176 |
| | Baseline | 1,359 | | | | |

## Appendix E, Section 5 – Number of Hazardous Leaks Either Eliminated or Repaired, Categorized by Material

The 5 years baseline and ongoing performance of the number of Hazardous (***Type 1***) Leaks for Main and Service combined Either Eliminated or Repaired, Categorized by Material is provided below (Excluding Excavation Damage Leaks):

| Material | Actual vs. Baseline (Where Baseline = Rolling Average Since 2019 + 0.5 Standard Deviation) | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|
| Cast Iron/Wrought Iron | Actual | 327 | 148 | 174 | 200 | 220 |
| | Baseline | 245 | | | | |
| Ductile Iron | Actual | 0 | 1 | 1 | 0 | 2 |
| | Baseline | 1 | | | | |
| Reconditioned Cast Iron | Actual | 0 | 0 | 0 | 0 | 2 |
| | Baseline | 1 | | | | |
| Unprotected Bare | Actual | 235 | 149 | 229 | 164 | 186 |
| | Baseline | 210 | | | | |
| Unprotected Coated | Actual | 22 | 15 | 22 | 11 | 7 |
| | Baseline | 18 | | | | |
| Protected Bare | Actual | 0 | 0 | 0 | 0 | 0 |
| | Baseline | 0 | | | | |
| Protected Coated | Actual | 2 | 0 | 0 | 14 | 11 |
| | Baseline | 8 | | | | |
| Plastic | Actual | 42 | 41 | 50 | 57 | 44 |
| | Baseline | 50 | | | | |
| Copper | Actual | 3 | 0 | 0 | 1 | 0 |
| | Baseline | 1 | | | | |
| Other | Actual | 1 | 1 | 1 | 0 | 0 |
| | Baseline | 1 | | | | |
| Total | Actual | 632 | 355 | 477 | 447 | 472 |
| | Baseline | 521 | | | | |

## Appendix E, Section 6 – Number of Excavation Damages

The 5 years baseline and ongoing performance of the number of known system leaks at the end of the year scheduled for repair is provided below:

| Workable Leak Backlog | Actual vs. Baseline (Where Baseline = Rolling Average Since 2019 + 0.5 Standard Deviation) | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|
| Rhode Island | Actual | 164 | 155 | 188 | 97 | 73 |
| | Baseline | 157 | | | | |

The 5 years baseline and ongoing performance of total damages per 1000 tickets is provided below (**INCLUDING** Excavation Damage Leaks):

| Total Excavation Damages per 1000 Tickets - all numbers multiplied by 1000 | Actual vs. Baseline (Where Baseline = Rolling Average Since 2019 + 0.5 Standard Deviation) | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|
| Rhode Island | Actual | 2.35 | 2.55 | 2.14 | 2.31 | 1.95 |
| | Baseline | 2.36 | | | | |

The 5 years baseline and ongoing performance of Total Leak Receipts is provided below (**EXCLUDING** Excavation Damage Leaks):

| Total Leak Receipts | Actual vs. Baseline (Where Baseline = Rolling Average Since 2019 + 0.5 Standard Deviation) | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|
| Rhode Island | Actual | 2,107 | 1,738 | 1,507 | 1,321 | 1,261 |
| | Baseline | 1,741 | | | | |

The baseline and ongoing performance of the Response Time Performance are provided below:

| Regular Day | | | | | | |
|---|---|---|---|---|---|---|
| Response Time - Percentages | | 2019 | 2020 | 2021 | 2022 | 2023 |
| 30 Minutes | Actual | 95.05% | 96.64% | 96.93% | 95.66% | 97.83% |
| | Baseline (RFY) | 91.97% As Established by RI PUC | | | | |

| Nights and Weekends | | | | | | |
|---|---|---|---|---|---|---|
| Response Time - Percentages | | 2019 | 2020 | 2021 | 2022 | 2023 |
| 45 Minutes | Actual | 96.04% | 97.41% | 98.31% | 96.51% | 98.49% |
| | Baseline (RFY) | 94.38% As Established by RI PUC | | | | |

The baseline and ongoing performance of the Main Leak Rates (LEAK REPAIRS BY MILE OF MAIN) by Material are provided below (Excluding Excavation Damage Leaks):

| Main Leak Rates (Leak Repairs by Mile of Main) by Material, Excluding Damages | | | | | | |
|---|---|---|---|---|---|---|
| Material | Actual vs. Baseline (Where Baseline = Rolling Average Since 2019 + 0.5 Standard Deviation) | 2019 | 2020 | 2021 | 2022 | 2023 |
| Cast Iron | Actual | 1.221 | 0.979 | 1.046 | 0.922 | 1.093 |
| | Baseline | 1.103 | | | | |
| Ductile Iron | Actual | 0.150 | 1.041 | 0.396 | 0.244 | 0.250 |
| | Baseline | 0.577 | | | | |
| Other | Actual | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Baseline | 0.000 | | | | |
| Plastic | Actual | 0.009 | 0.001 | 0.006 | 0.010 | 0.008 |
| | Baseline | 0.008 | | | | |
| Protected Steel | Actual | 0.076 | 0.026 | 0.038 | 0.052 | 0.021 |
| | Baseline | 0.053 | | | | |
| Unprotected Steel | Actual | 0.195 | 0.183 | 0.248 | 0.156 | 0.349 |
| | Baseline | 0.260 | | | | |
| Reconditioned Cast Iron | Actual | 0.000 | 0.000 | 0.000 | 0.000 | 2.785 |
| | Baseline | 1.114 | | | | |

The baseline and ongoing performance of the Service Leak Rates (LEAK REPAIRS BY 1000 SERVICES) by Material are provided below (Excluding Excavation Damage Leaks):

| Service Leak Rates by Material, Excluding Damages (Leaks/# of Services, Per Material) | | | | | | |
|---|---|---|---|---|---|---|
| Material | Actual vs. Baseline (Where Baseline = Rolling Average Since 2019 + 0.5 Standard Deviation) | 2019 | 2020 | 2021 | 2022 | 2023 |
| Cast Iron | Actual | 0.0769 | 0.1200 | 0.0400 | 0.0000 | 0.0000 |
| | Baseline | 0.0705 | | | | |
| Copper | Actual | 0.0054 | 0.0000 | 0.0000 | 0.0204 | 0.0000 |
| | Baseline | 0.0091 | | | | |
| Other | Actual | 0.0049 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| | Baseline | 0.0020 | | | | |
| Plastic | Actual | 0.0004 | 0.0004 | 0.0007 | 0.0004 | 0.0003 |
| | Baseline | 0.0005 | | | | |
| Protected Steel | Actual | 0.0034 | 0.0029 | 0.0036 | 0.0027 | 0.0011 |
| | Baseline | 0.0032 | | | | |
| Unprotected Steel | Actual | 0.0078 | 0.0064 | 0.0095 | 0.0061 | 0.0072 |
| | Baseline | 0.0080 | | | | |

# RHODE ISLAND
# APPENDIX F
# PERIODIC EVALUATION AND IMPROVEMENT

**2023 REGIONAL DISTRIBUTION INTEGRITY ASSESSMENT**

Distribution Engineering has reviewed all of the findings in the annual Trend-Based Distribution System Integrity Analysis (System Integrity Report) in accordance with our Distribution Integrity Management Plan (DIMP). There are no immediate causes for concern that would warrant changes to DIMP.

Below is a summary of the individual key integrity measure results for the following federal (PHMSA) filing entities that constitute Rhode Island Energy.

| Rhode Island Energy<br>2023 System Integrity Report Summary | |
|---|---|
| **Items** | **Trend** |
| Leak Receipts (Excluding Damages) | Decrease |
| Workable Leak Backlog | Decrease |
| LPP Main Inventory | Decrease |
| LPP Service Inventory | Decrease |
| Main Leak Rate (Excluding Damages) | Increase |
| Cast Iron Main Break Rate | Decrease |
| Unprotected Steel Main Corrosion Leak Rate | Increase |
| Service Leak Rate (Excluding Damages) | Increase |

**Form F-1: Periodic Updating and Review (Region: RI)**

| Annual Evaluation of Performance Measures that Exceeded Baseline | | | | |
|---|---|---|---|---|
| **Performance Measure** | **Actual Performance for Year 2023** | **Established Baseline** | **Are additional measures beyond minimum code requirement necessary?** | **Has an engineering evaluation been completed and documented?** |
| Leak Receipts | 1,261 | 2,011 | NO | Annual System Integrity Report |
| Workable leak Backlog | 73 | 151 | NO | Annual System Integrity Report |
| LPP Main Inventory | 837 miles | 989 miles (2020) | NO | Annual System Integrity Report |
| Overall Main Leak Rate | 0.23 | 0.28 | NO | Annual System Integrity Report |
| Cast Iron Main Break Rate | 0.048 | 0.09 | NO | Annual System Integrity Report |
| Steel Main Corrosion Leak Rate | 0.14 | 0.10 | NO | Annual System Integrity Report |
| Service Leak Rate | 2.15 | 2.68 | NO | Annual System Integrity Report |

Existing Date for Complete Program re-evaluation:____08/2/2026_____ Is a shorter timeframe for complete program re-evaluation warranted? : __NO____

**Complete Re-evaluation was performed on 08/02/2021 - DIMP REV 10**

Laeyeng Hunt (Director) and Barry Foster (DIMP Manager) Gas Distribution Engineering

| Required Frequency | Program Re-Evaluation Element | Date Completed |
|---|---|---|
| Required Annually | Evaluate Performance Measures | 6/5/2024 |
| As Needed | Update Knowledge of System Characteristics, Environmental Factors, and Threats | 8/2/2022 |
| As Needed | Update General Information | 8/2/2022 |
| As Needed | Update Threat Identification | 8/2/2022 |
| As Needed | Update Risk Evaluation and Ranking Process | 8/2/2022 |
| Required Annually | Update Risk Evaluation and Ranking of Risks | 6/5/2024 |
| As Needed | Update Risk Evaluation and Ranking Validation | 8/2/2022 |
| As Needed | Update Risk Evaluation and Ranking Process Improvement Action Plans | 8/2/2022 |
| As Needed | Update Action Plans | |

# RHODE ISLAND
# APPENDIX G
# CROSS REFERENCE OF 49 CFR PART 192, SUBPART P REQUIREMENTS TO THE DIM PLAN

The table below provides a cross reference between 49 CFR Part 192, Subpart P (Gas Distribution Pipeline Integrity Management) and this Gas Distribution Integrity Management Plan.

| 49 CFR Part 192, Subpart P | DIM Plan Reference |
|---|---|
| §192.1005 No later than August 2, 2011 a gas distribution operator must develop and implement an integrity management program that includes a written integrity management plan as specified in § 192.1007. | 4.0 |
| §192.1007 A written integrity management plan must contain procedures for developing and implementing the following elements: | |
| §192.1007 (a) *Knowledge.* An operator must demonstrate an understanding of its gas distribution system developed from reasonably available information. | 6.0 |
| §192.1007 (a) (1) Identify the characteristics of the pipeline's design and operations and the environmental factors that are necessary to assess the applicable threats and risks to its gas distribution pipeline. | 6.3 |
| §192.1007 (a) (2) Consider the information gained from past design, operations, and maintenance. | 6.2 |
| §192.1007 (a) (3) Identify additional information needed and provide a plan for gaining that information over time through normal activities conducted on the pipeline (for example, design, construction, operations or maintenance activities). | 6.4 |
| §192.1007 (a) (4) Develop and implement a process by which the IM program will be reviewed periodically and refined and improved as needed. | 11.0 |
| §192.1007 (a) (5) Provide for the capture and retention of data on any new pipeline installed. The data must include, at a minimum, the location where the new pipeline is installed and the material of which it is constructed. | 6.5 |
| §192.1007 (b) *Identify threats.* The operator must consider the following categories of threats to each gas distribution pipeline: corrosion, natural forces, excavation damage, other outside force damage, material, weld or joint failure, equipment failure, incorrect operation, and other concerns that could threaten the integrity of the pipeline. | 7.0 |
| §192.1007 (b) An operator must consider reasonably available information to identify existing and potential threats. Sources of data may include, but are not limited to, incident and leak history, corrosion control records, continuing surveillance records, patrolling records, maintenance history, and excavation damage experience. | 6.1, 7.0 |
| §192.1007 (c) *Evaluate and rank risk.* An operator must evaluate the risks associated with its distribution pipeline. In this evaluation, the operator must determine the relative importance of each threat and estimate and rank the risks posed to its pipeline. This evaluation must consider each applicable current and potential threat, the likelihood of failure associated with each threat, and the potential consequences of such a failure. | 8.0 |
| §192.1007 (c) An operator may subdivide its pipeline into regions with similar characteristics (e.g., contiguous areas within a distribution pipeline consisting of mains, services and other appurtenances; areas with common materials or environmental factors), and for which similar actions likely would be effective in reducing risk. | Non-Mandatory |

| 49 CFR Part 192, Subpart P | DIM Plan Reference |
|---|---|
| §192.1007 (d) *Identify and implement measures to address risks.* Determine and implement measures designed to reduce the risks from failure of its gas distribution pipeline. These measures must include an effective leak management program (unless all leaks are repaired when found). | 9.0 |
| §192.1007 (e) (1) *Measure performance, monitor results, and evaluate effectiveness.* Develop and monitor performance measures from an established baseline to evaluate the effectiveness of its IM program. These performance measures must include the following: (i) Number of hazardous leaks either eliminated or repaired, per § 192.703(c), categorized by cause; (ii) Number of excavation damages; (iii) Number of excavation tickets (receipt of information by the underground facility operator from the notification center); (iv) Total number of leaks either eliminated or repaired, categorized by cause; (v) Number of hazardous leaks either eliminated or repaired per § 192.703(c), categorized by material; and (vi) Any additional measures the operator determines are needed to evaluate the effectiveness of the operator's IM program in controlling each identified threat. | 0 |
| §192.1007 (e) (1) *Measure performance, monitor results, and evaluate effectiveness.* An operator must consider the results of its performance monitoring in periodically re-evaluating the threats and risks. | 11.2 |
| §192.1007 (f) *Periodic Evaluation and Improvement.* An operator must re-evaluate threats and risks on its entire pipeline and consider the relevance of threats in one location to other areas. | 8.1, 11.1 |
| §192.1007 (f) Each operator must determine the appropriate period for conducting complete program evaluations based on the complexity of its system and changes in factors affecting the risk of failure. The operator must conduct a complete program reevaluation at least every five years. The operator must consider the results of the performance monitoring in these evaluations. | 11.2 |
| §192.1007 (g) *Report results.* Report, on an annual basis, the four measures listed in paragraphs (e)(1)(i) through (e)(1)(iv) of this section, as part of the annual report required by § 191.11. An operator also must report the four measures to the state pipeline safety authority if a state exercises jurisdiction over the operator's pipeline. | 12.1 |
| §192.1009 Each operator must report, on an annual basis, information related to failure of mechanical fittings, excluding those that result only in nonhazardous leaks, as part of the annual report required by §191.11 beginning with the report submitted March 15, 2011. This information must include, at a minimum, location of the failure in the system, nominal pipe size, material type, nature of failure including any contribution of local pipeline environment, coupling manufacturer, lot number and date of manufacture, and other information that can be found in markings on the failed coupling. An operator also must report this information to the state pipeline safety authority if a state exercises jurisdiction over the operator's pipeline. | 12.1 |
| §192.1011 An operator must maintain records demonstrating compliance with the requirements of this subpart for at least 10 years. The records must include copies of superseded integrity management plans developed under this subpart. | 0 |

| 49 CFR Part 192, Subpart P | DIM Plan Reference |
|---|---|
| §192.1013 (a) An operator may propose to reduce the frequency of periodic inspections and tests required in this part on the basis of the engineering analysis and risk assessment required by this subpart. (b) An operator must submit its proposal to the PHMSA Associate Administrator for Pipeline Safety or, in the case of an intrastate pipeline facility regulated by the State, the appropriate State agency. The applicable oversight agency may accept the proposal on its own authority, with or without conditions and limitations, on a showing that the operator's proposal, which includes the adjusted interval, will provide an equal or greater overall level of safety. (c) An operator may implement an approved reduction in the frequency of a periodic inspection or test only where the operator has developed and implemented an integrity management program that provides an equal or improved overall level of safety despite the reduced frequency of periodic inspections. | Not covered by DIM Plan |

Division 1-16

Request:

Provide a copy of the Company's latest Annual PHMSA Gas Distribution System report.

Response:

Please see Attachment DIV 1-16 for the latest version of the Company's Annual PHMSA Gas Distribution System Report.

Prepared by or under the supervision of: Corey Hogg

NOTICE: This report is required by 49 CFR Part 191. Failure to report may result in a civil penalty OMB No. 2137-0629 as provided in 49 USC 60122.

OMB NO: 2137-0629
EXPIRATION DATE: 6/30/2026

| | | | |
|---|---|---|---|
| | | **Initial Date Submitted:** | 03/06/2024 |
| U.S. Department of Transportation<br>Pipeline and Hazardous Materials Safety Administration | **ANNUAL REPORT FOR CALENDAR YEAR 2023<br>GAS DISTRIBUTION SYSTEM** | **Report Submission Type** | SUPPLEMENTAL |
| | | **Date Submitted:** | 05/15/2024 |

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2137-0629. Public reporting for this collection of information is estimated to be approximately 20 hours per response, including the time for reviewing instructions, gathering the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, PHMSA, Office of Pipeline Safety (PHP-30) 1200 New Jersey Avenue, SE, Washington, D.C. 20590.

***Important:*** *Please read the separate instructions for completing this form before you begin. They clarify the information requested and provide specific examples. If you do not have a copy of the instructions, you can obtain one from the PHMSA Pipeline Safety Community Web Page at http://www.phmsa.dot.gov/pipeline/library/forms.*

| **PART A - OPERATOR INFORMATION** | **(DOT use only)** | | 20240636-62220 |
|---|---|---|---|

| | |
|---|---|
| 1. Name of Operator | THE NARRAGANSETT ELECTRIC COMPANY D/B/A RHODE |
| 2. LOCATION OF OFFICE (WHERE ADDITIONAL INFORMATION MAY BE OBTAINED) | |
| 2a. Street Address | 477 DEXTER STREET |
| 2b. City and County | PROVIDENCE |
| 2c. State | RI |
| 2d. Zip Code | 02907 |
| 3. OPERATOR'S 5 DIGIT IDENTIFICATION NUMBER | 40400 |
| 4. HEADQUARTERS NAME & ADDRESS | |
| 4a. Street Address | 280 MELROSE STREET |
| 4b. City and County | PROVIDENCE |
| 4c. State | RI |
| 4d. Zip Code | 02907 |
| 5. STATE IN WHICH SYSTEM OPERATES | RI |
| 6. **THIS REPORT PERTAINS TO THE FOLLOWING COMMODITY GROUP** *(Select Commodity Group based on the predominant gas carried and complete the report for that Commodity Group. File a separate report for each Commodity Group included in this OPID.)* | |
| Natural Gas | |
| 7. **THIS REPORT PERTAINS TO THE FOLLOWING TYPE OF OPERATOR** *(Select Type of Operator based on the structure of the company included in this OPID for which this report is being submitted.)*: | |
| Investor Owned | |

**PART B - SYSTEM DESCRIPTION**

**1.GENERAL**

| | STEEL | | | | PLASTIC | CAST/ WROUGHT IRON | DUCTILE IRON | COPPER | OTHER | RECONDITIONED CAST IRON | SYSTEM TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | UNPROTECTED | | CATHODICALLY PROTECTED | | | | | | | | |
| | BARE | COATED | BARE | COATED | | | | | | | |
| MILES OF MAIN | 129.516 | 134.248 | 0 | 584.722 | 1797.449 | 560.794 | 11.985 | 0 | 0.084 | 3.95 | 3222.748 |
| NO. OF SERVICES | 35003 | 5640 | 0 | 6487 | 147078 | 25 | 0 | 44 | 881 | 0 | 195158 |

NOTICE: This report is required by 49 CFR Part 191. Failure to report may result in a civil penalty OMB No. 2137-0629 as provided in 49 USC 60122.

OMB NO: 2137-0629
EXPIRATION DATE: 6/30/2026

**2. MILES OF MAINS IN SYSTEM AT END OF YEAR**

| MATERIAL | UNKNOWN | 2" OR LESS | OVER 2" THRU 4" | OVER 4" THRU 8" | OVER 8" THRU 12" | OVER 12" | SYSTEM TOTALS |
|---|---|---|---|---|---|---|---|
| STEEL | 0.068 | 253.498 | 171.338 | 266.52 | 109.402 | 47.66 | 848.486 |
| DUCTILE IRON | 0 | 0.049 | 4.343 | 6.824 | 0.769 | 0 | 11.985 |
| COPPER | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CAST/WROUGHT IRON | 0.012 | 1.362 | 213.084 | 251.366 | 63.561 | 31.409 | 560.794 |
| PLASTIC PVC | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PLASTIC PE | 0.266 | 892.997 | 322.175 | 527.125 | 32.278 | 0 | 1774.841 |
| PLASTIC ABS | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PLASTIC OTHER | 0 | 22.319 | 0.013 | 0.276 | 0 | 0 | 22.608 |
| OTHER | 0.073 | 0.001 | 0.003 | 0.001 | 0 | 0.006 | 0.084 |
| RECONDITIONED CAST IRON | 0 | 0 | 0 | 0 | 0 | 3.95 | 3.95 |
| TOTAL | 0.419 | 1170.226 | 710.956 | 1052.112 | 206.01 | 83.025 | 3222.748 |
| **Describe Other Material:** | | Unknown and Reconditioned Steel | | | | | |

**3.NUMBER OF SERVICES IN SYSTEM AT END OF YEAR** | **AVERAGE SERVICE LENGTH: 63.09**

| MATERIAL | UNKNOWN | 1" OR LESS | OVER 1" THRU 2" | OVER 2" THRU 4" | OVER 4" THRU 8" | OVER 8" | SYSTEM TOTALS |
|---|---|---|---|---|---|---|---|
| STEEL | 492 | 11806 | 34320 | 462 | 48 | 2 | 47130 |
| DUCTILE IRON | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| COPPER | 1 | 42 | 1 | 0 | 0 | 0 | 44 |
| CAST/WROUGHT IRON | 0 | 0 | 13 | 11 | 1 | 0 | 25 |
| PLASTIC PVC | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PLASTIC PE | 422 | 63109 | 78665 | 1021 | 111 | 2 | 143330 |
| PLASTIC ABS | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PLASTIC OTHER | 69 | 2424 | 1252 | 3 | 0 | 0 | 3748 |
| OTHER | 719 | 39 | 120 | 3 | 0 | 0 | 881 |
| RECONDITIONED CAST IRON | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 1703 | 77420 | 114371 | 1500 | 160 | 4 | 195158 |
| **Describe Other Material:** | | | **Unknown** | | | | |

**4.MILES OF MAIN AND NUMBER OF SERVICES BY DECADE OF INSTALLATION**

| | UNKNOWN | PRE-1940 | 1940-1949 | 1950-1959 | 1960-1969 | 1970-1979 | 1980-1989 | 1990-1999 | 2000-2009 | 2010-2019 | 2020-2029 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MILES OF MAIN | 313.414 | 346.931 | 33.249 | 120.352 | 370.542 | 201.026 | 358.946 | 373.441 | 288.408 | 607.038 | 209.401 | 3222.748 |
| NUMBER OF SERVICES | 6272 | 14928 | 4000 | 5797 | 9432 | 12830 | 26389 | 30407 | 26976 | 45247 | 12880 | 195158 |

**PART C - TOTAL LEAKS AND HAZARDOUS LEAKS ELIMINATED/REPAIRED DURING THE YEAR**

NOTICE: This report is required by 49 CFR Part 191. Failure to report may result in a civil penalty OMB No. 2137-0629 as provided in 49 USC 60122.

OMB NO: 2137-0629
EXPIRATION DATE: 6/30/2026

| CAUSE OF LEAK | MAINS | | SERVICES | |
|---|---|---|---|---|
| | TOTAL | HAZARDOUS | TOTAL | HAZARDOUS |
| CORROSION FAILURE | 118 | 61 | 315 | 180 |
| NATURAL FORCE DAMAGE | 29 | 22 | 1 | 1 |
| EXCAVATION DAMAGE | 11 | 10 | 71 | 70 |
| OTHER OUTSIDE FORCE DAMAGE | 0 | 0 | 3 | 3 |
| PIPE, WELD OR JOINT FAILURE | 13 | 7 | 25 | 19 |
| EQUIPMENT FAILURE | 3 | 3 | 3 | 2 |
| INCORRECT OPERATIONS | 2 | 2 | 2 | 2 |
| OTHER CAUSE | 580 | 196 | 0 | 0 |

**NUMBER OF KNOWN SYSTEM LEAKS AT END OF YEAR SCHEDULED FOR REPAIR : 73**
**NUMBER OF HAZARDOUS LEAKS INVOLVING A MECHANICAL JOINT FAILURE : 4**

**PART D - EXCAVATION DAMAGE**

1. TOTAL NUMBER OF EXCAVATION DAMAGES BY APPARENT ROOT CAUSE: 86

a. One-Call Notification Practices Not Sufficient: 15

b. Locating Practices Not Sufficient: 28

c. Excavation Practices Not Sufficient: 31

d. Other: 12

2. NUMBER OF EXCAVATION TICKETS 44168

**PART E – RESERVED**

**PART F - LEAKS ON FEDERAL LAND**

TOTAL NUMBER OF LEAKS ON FEDERAL LAND REPAIRED OR SCHEDULED TO REPAIR: 0

**PART G – PERCENT OF UNACCOUNTED FOR GAS**

UNACCOUNTED FOR GAS AS A PERCENT OF TOTAL CONSUMPTION FOR THE 12 MONTHS ENDING JUNE 30 OF THE REPORTING YEAR.

[(PURCHASED GAS + PRODUCED GAS) MINUS (CUSTOMER USE + COMPANY USE + APPROPRIATE ADJUSTMENTS)] DIVIDED BY (CUSTOMER USE + COMPANY USE + APPROPRIATE ADJUSTMENTS) TIMES 100 EQUALS PERCENT UNACCOUNTED FOR.

FOR YEAR ENDING 6/30: 2.70%

NOTICE: This report is required by 49 CFR Part 191. Failure to report may result in a civil penalty OMB No. 2137-0629 as provided in 49 USC 60122.

OMB NO: 2137-0629
EXPIRATION DATE: 6/30/2026

| **PART H - ADDITIONAL INFORMATION** | |
|---|---|
| Excavation damages reported in part D includes 12 hand digs (reported under d. Other). 8 excavation damages reported did not result in a leak repair. 3 of the leak repairs with a cause of "Excavation Damage" were not discovered during the time of digging and were discovered at a later date. | |
| **PART I - PREPARER** | |
| | |
| Barry Foster<br>(Preparer's Name and Title) | 4014658841<br>(Area Code and Telephone Number) |
| | |
| BJFoster@RIEnergy.com<br>(Preparer's email address) | (000) 000-0000<br>(Area Code and Facsimile Number) |

Division 1-17

Request:

Provide a copy of the Company's risk ranking model for leak prone pipe and highlight any proposed changes for the FY2026 Gas ISR.

Response:

Please see Attachment DIV 1-17-1 for the most recent revision of the Company's leak prone pipe prioritization policy (ENG04030). Attachment DIV 1-17-2 is an accompaniment to the policy and contains factors (known as Distribution Integrity Management Program or "DIMP" factors) used in ENG04030 calculations specific to different subsets of mains, grouped based on material, diameter, and pressure. The ENG04030 procedure has not been revised from the time it was used to identify projects for the FY2025 Gas ISR to the time it was used to identify projects for the FY2026 Gas ISR. The DIMP factors used as a part of the ENG04030 procedure are updated on an annual basis, based on the prior year's leak activity.

Prepared by or under the supervision of: Corey Hogg

# Identification, Evaluation and Prioritization of Distribution Main Segments for Replacement ENG04030

## 1. Purpose

This procedure describes and details the identification, evaluation, and prioritization of distribution main segments for replacement, and prescribes methods to be used for corrective action.

Potential areas of active corrosion are identified using leakage surveys in conjunction with an analysis of the corrosion and leak history records.

## 2. Responsibilities

Distribution Engineering or designee shall be responsible for:

- Serving as Process Owner / Lead Organization for this policy document.
- Gathering and evaluating gas facility and leak data and determine required calculations.
- Determining qualification and prioritization procedure and remedial action for active corrosion, non-active continuing corrosion, and other systemic integrity issues.
- Identifying main segments for replacement and prioritizing them according to this procedure.

Corrosion Engineering or designee shall be responsible for:

- Evaluating and reclassifying pre-1971 gas piping with cathodic protection (CP).

## 3. Personal & Process Safety

All required PPE shall be worn or utilized in accordance with the current Rhode Island Energy Safety Policy when performing tasks associated with this document.

## 4. Operator Qualification Required Tasks [Qualified or Directed & Observed]

Not applicable.

## 5. Content

### 5.1 Identification of Main Segments for Replacement

a. Main segment candidates are identified through four avenues:
   1) Field Requests, which will be reviewed throughout the year.
   2) Mains located in Public Improvement Job Areas, which will also be reviewed throughout the year, as requested by Field Operations and/or Public Works employees.
   3) Annual screenings by Main and Service Engineering, as deemed appropriate. Screenings will vary among the regions, based on the data and tools available for the systems.
   4) Lab failure analysis reports reviewed by Distribution Engineering for systemic issues.

b. All identified main segment candidates shall be evaluated and prioritized by Distribution Engineering in accordance with the criteria set forth in this procedure. Minimum segment lengths for screening and engineering review will vary among the regions; however, no Engineering review is required for replacements up to 300 feet. Segments identified by Distribution Engineering for systemic integrity issues will be replaced and prioritized as determined appropriate.

c. Where possible, the system should be upgraded to high pressure while retiring low pressure mains.

d. Leak prone pipe replacement includes replacement of associated leak prone services listed below:
   1) All steel services except large diameter, industrial and commercial services with CP
      **Note: Services that cannot be relayed should be transferred and follow corrosion policies. A test station sketch should be sent to the corrosion department.
   2) Plastic
      i. Pre-1985: Aldyl-A (usually pink or grey)
      ii. Pre-1974: HDPE (black)
      iii. Polybutylene (PB) - (tan or yellow)
   3) Copper
   4) Cast Iron
   5) Wrought Iron

e. Large diameter remediation includes Lining and CISBOT of leak prone steel mains and cast iron mains greater than 12 inches in diameter
   1) Lining and replacement are the preferred remediation methods. Lining is not possible when there are too many services or there is presence of mitered bends or back-to-back 45s or main cannot be taken out of service (require expensive bypass), or main is too deep. CISBOT will be used when lining is not feasible.

f. All identified main segment candidates shall be reviewed by Distribution Engineering with Corrosion Engineering to ensure that none of the job or part of the job is pre 1971 protected main.

**5.2 Evaluation/Prioritization of Steel Main Segments for Replacement**

a. Data Collection - Minimum Data Required:
   1) All Repaired Corrosion Leaks on Main Segment for the last 10 years
   2) All repaired corrosion leaks on services for last 10 years. (In order to consider service leaks in main prioritization calculation, there should be main leaks)
   3) All Open Leaks that are believed to be on the actual Main Segment

b. For all applicable leaks, the following data is required:
   1) Leak Number
   2) Date (date found for open leaks, date repaired for repaired leaks)
   3) Leak Class (original class for open leaks, repaired class for repaired leaks)
   4) For repaired leaks, the following additional data is also required:
      i. Number of clamps installed to repair and specific clamp locations.
      ii. Condition of main when repaired.
      iii. Address based leak location.
      iv. Length of segment exhibiting significant leak activity (i.e., from first leak to last leak).
      v. Building Types in Area of Main Segment (None, Single Family Houses, Small Buildings, Public Buildings).

c. Calculate a main deterioration factor (“D”) using the formula:

$$D = N \times 500 / L_{(calc)}$$

Where:

$L_{(calc)}$ = Length of Segment exhibiting significant leak activity (i.e., first leak to last leak) or 500 feet, whichever is larger. However, if the total length of the segment considered for replacement is less than 500 feet, Lcalc shall be the length of the main considered,

The segment length used in calculations is not necessarily the total length being considered for replacement. "L" should be determined by the evaluating engineer as the length of the segment exhibiting significant leak activity. In no case should the length used for calculations extend beyond the locations of the leaks).

and

N = Repair Factor (within the defined "$L_{calc}$").

1) If the leak is still open (except for grade 3 high emitter leaks), N=1 for each open leak.
2) If the leak is still open and is a grade 3 high emitter leak, N=2 for each open leak.
3) If leak was repaired with 1 clamp, by another method or associated with service corrosion leak repair, N = 1.
4) If the leak was repaired with 2 – 3 clamps, N = 2.
5) If the leak was repaired with 4 – 5 clamps, N = 3.
6) If the leak was repaired with 6 – 7 clamps, N = 4.
7) If the leak was repaired with > 7 clamps, N = 5.
8) If the leak was repaired by replacing a section of a pipe less than 10', N=7 and N=9 for replacement pipe 10' or greater.

THE SUM OF ALL THE "N"s FOR EACH LEAK IS PLUGGED INTO THE FORMULA

This method estimates the deterioration according to the actual number of physical repairs and normalizes it for the length of the segment.

d. Calculate an incident probability factor ("P") using the formula:

$$P = \{[(\#\ Class1\ Leaks/0.5) + (\#\ Class2A\ Leaks/1.5) + (\#\ Class2\ Leaks/2) + (\#\ Class3\ Leaks/3)] \times 500\} / L_{(calc)}$$

This method estimates public safety incident probability by weighting each leak based on how far the gas migrated toward buildings, again normalized according to the segment length. (Note – If leak class is unknown, Class 2A will be assumed).

e. Calculate a risk factor ("R") using the formula:

$$R = P \times C$$

Where:

P = Probability Factor Calculated in previous step.
C = Consequence Factor

1) If there are no buildings in the area, C = 0.
2) If there are only single-family homes, C = 1.

3) If there are small buildings (multi-family, strip mall, etc.), C = 1.2.
4) If there are public buildings (school, church, hospital, etc.) C = 1.5.

This is the standard Risk Analysis calculation where Risk is defined as the product of the likelihood of an event and the potential consequence of that event. The consequences increase with building size and number of people affected.

f. Calculate the preliminary prioritization factor ("Pr") using the formula:

Pr = D + R + IM

Where:

D = Deterioration Factor Calculated in "c".
R = Risk Factor Calculated in "e".
IM = DIMP factor as found in Rhode Island Energy's Distribution Integrity Management Program (DIMP) listed in attachment 1

The prioritization calculation considers both the deterioration of the main and the risk to public safety.

IM factor is applied to help accelerate the attrition of mains which belong to an asset group known to have a higher likelihood of incident or is of a high relative risk.

g. The following adjustments may be needed:
1) Before making a final determination and prioritization of a main segment replacement, the details of the job are reviewed and "engineering judgment" is applied where appropriate. This application may result in the following types of adjustments:
i. Changing the priority of the job
ii. Increasing or decreasing the job length/scope
iii. Breaking the job into smaller segments
iv. Merging several segments into one job
2) These adjustments may be made based on the following types of information, if available and applicable:
i. Analysis of the age of the leaks and any increasing frequency of leak occurrences
ii. Pipe vintage and service insert activity associated with the main
iii. Service leaks at the main connection due to corrosion
iv. Adjustments based on very long or very short segments
v. Observed pipe condition from leak repair data
vi. Observed pipe condition from recent field exposure
vii. Clustering of repairs and/or clamps along the segment
viii. Other replacement jobs in the vicinity
ix. Cathodic protection systems in place
x. Specific locations of intersections, fittings, material transitions, diameter transitions, etc.
xi. Customer complaints, Executive complaints, Regulatory Agency complaints
xii. Corporate good will

xiii. Unusual hazards or exposure in the area
xiv. Proximity to gas regulating equipment
xv. Proximity to transmission main
xvi. Unusual difficulty or expense of repairs
xvii. Main location
xviii. Identification of outdated construction methods or problematic materials or fittings
xix. Depth of cover and soil conditions
xx. High open leak counts
xxi. Water intrusion or other geographic considerations
xxii. Any special or unusual conditions or considerations identified by Field Operations
xxiii. Any other safety, integrity, operational or economic factors that are available and deemed appropriate

Segments that qualify based on their preliminary prioritization calculation may not be disqualified by adjustments.

h. Qualification of job for replacement:

1) Jobs will be approved and prioritized based on the calculated Prioritization Factor (“Pr”) and applied adjustments. Enough jobs should be approved to accommodate the replacement levels determined by the model(s) in use at the time.

Some jobs will be mandatory to replace.

2) In general, a condition of “Active Corrosion” will be determined when the preliminary Pr calculation is greater than 20 (Pr > 20).
3) Use the following labels for each job to provide a macro view as to the type of work to be performed throughout the year.
   i. A “TS 300” label is associated with any steel job with a preliminary Prioritization Factor (“Pr”) calculation of greater than 20 (Pr > 20), known as “Active Corrosion.”
   ii. A TS 900 label is given to any job which has received additional points from Public Works considerations (as described below).
   iii. A TS 800 label is given to the remainder of the jobs.

i. Impact Identification:
   1) Every approved job should be processed through the Strategic Asset and System Planning and Corrosion Engineering for:
      i. Sizing (determining the appropriate replacement material and diameter).
      ii. Determining if the replacement will have any impact on existing cathodic protection systems.
      iii. Determining if abandonment is an appropriate option over replacement.
      iv. Determining if a system uprating is an appropriate option as part of the replacement.

j. Non-Pipeline Alternative Evaluation (NPA):

1) All jobs will be evaluated for NPA feasibility. If NPA is not feasible, reason(s) will be provided.

**5.3 Evaluation/prioritization of cast iron main segments for replacement**

a. Cast Iron Main Segments will be evaluated in a similar manner as Steel Main segments, where the Prioritization factor will be the sum of the Deterioration Factor, Risk factor and DIMP factor (Pr = D + R + IM).

b. Candidates are reviewed based primarily on breakage and/or graphitization history; and all segments that contain 1or more breaks and/or graphitization repairs must be reviewed.

c. If the candidate segment has had two (2) or more breaks and/or graphitization repairs within 400 feet. and the MAOP is greater than six inches of water column – the segment has automatic approval for replacement. The Prioritization score will automatically be set at 21.

d. If the candidate segment doesn't have at least 2 breaks and/or graphitization repairs or if the pressure is six inches of water column– approval will be based on the Prioritization calculation.

   i. If "Pr" is greater than 20 (Pr > 20), replacement will be required (however, a cast iron segment is not deemed active corrosion)

   ii. If "Pr" is less than or equal to 20 (Pr ≤ 20), prioritize and replace according to resources and replacement level recommendations.

e. The Repair Factor "N" (as defined 5.2 – c for steel evaluation), will be assigned for each leak, as follows:

1) For cast iron – main breaks, graphitization (corrosion of cast iron) and joint leak repairs are examined.

   i. If the leak is still open or associated service corrosion leak repair, N = 1.

   ii. If the leak was repaired only by joint sealing, N = 0.5.

   iii. If the leak was a break, crack or graphitization, N = 3.

f. Engineering judgment should also be applied to both the prioritization and determination of the segment length to be replaced based on the pressure, diameter, dates of failures, surrounding areas, etc.

**5.4 Evaluation/prioritization of plastic main segments for replacement**

a. Vintage Plastic Main Segments shall be evaluated by Distribution Engineering based on Lab Failure Analysis Reports that are reviewed for systemic issues.

   I. If Distribution Engineering determines that a systemic issue exists in a specific main segment due to improper fusion or other construction defects, the entire affected section of main will be forwarded to Main and Service Replacement Group for prioritization and expedited replacement.

b. Plastic Main Segments (including non-vintage plastic) will be evaluated in a similar manner as Steel Main segments, where the Prioritization factor will be the sum of the Deterioration Factor, Risk factor and DIMP factor (Pr = D + R + IM).

c. For plastic pipe segments in "b", above, the following criteria shall apply:

   1) For plastic – Previous squeeze-offs, point loading failures (e.g. – rock impingement) and material defects (e.g. – cracking) and construction defect failures (e.g. – butt fusion joint) are examined.

      Where:

N = Repair Factor (within the defined "L")

i. If the leak is still open, N = 1
ii. If the leak was the result of an improper squeeze-off, N = 2 x (the number known squeeze-offs on ALDYL-A pre 1985 pipe)
iii. If the leak was the result of a point loading failure, N = 2
iv. If the leak was the result of a construction defect or material defect, N = 3

**5.5 Evaluation and Reclassification of Pre-1971 Gas Piping with Cathodic Protection**

a. The following factors should be considered in evaluating and reclassify Pre-DOT CP pipe:
   1) The Corrosion Engineering department shall identify inadequately protected sections of mains and services on the basis of:
      i. Frequently failed readings in the last 5 years
      ii. Failed readings despite additional anode installation
      iii. Unusually low resistance or high current demand as determined by Corrosion Control
      iv. Excessive Coating degradation determined by integrity assessments
      v. High corrosion leak activity
      vi. Any other unusual or abnormal condition determined by Corrosion Control

   2) The section identified in section 1 above shall be removed from the CP monitoring program. The Electronic Monitoring Database and the Corrosion Control section folders shall be updated accordingly. In PCS, the section shall be marked as "inactive" and a statement that the section has been removed from the CP monitoring program along with an effective date with explanation of reclassification will be provided in the permanent remarks section. Reclassified pipe will be marked as "removed from CP" where Electronic Monitoring Database is available.
   3) Once the section is removed from the CP monitoring program, it shall be treated as unprotected coated/bare main.
   4) Every six months, the Corrosion Engineering department will run a report listing which sections of pipe have been reclassified from CP to unprotected coated/bare main. The Corrosion Engineering department will check this list against Corrosion Control mapping records to ensure consistency. This list will be sent to the Distribution Engineering.

b. The following steps are used to evaluate and reclassify Pre-DOT CP pipe when Distribution Engineering or field employees identify inadequacies:
   1) Distribution Engineering shall consult with the Corrosion Engineering department to evaluate the effectiveness of the cathodic protection on the section identified. The Corrosion Engineering department will evaluate the section of main based on section 1 above.
      i. Distribution Engineering shall incorporate the reclassified unprotected coated/bare main section into the LPP main replacement program on the basis of priority.

**5.6 Reinforcements, Jobs in Public Works Areas, or Storm Hardening**

a. Additional adjustment shall be applied for candidate segments in flood zones – by the addition of a storm hardening factor to the Prioritization calculation. An exception to the flood zone factor may be applied. Any exception to the flood zone factor shall be documented as part of the prioritization calculation.

b. Additional adjustments may be applied for candidate segments in public works areas or for which reinforcement opportunities have been identified - by the addition of a Public Works (PW) and/or Reinforcement (RI) factor to the Prioritization calculation:

$$Pr = D + R + IM + PW + RI + SH$$

1) For Road Resurfacing, PW = 2.4
2) For Road Reconstruction, PW = 4.2
3) For Size-Pressure Upgrade Reinforcement, RI = 2.5
4) For 100-yr FEMA defined flood zone, SH = 2
5) For 500-yr FEMA defined flood zone, SH = 1

These factors are applied because of potential cost savings in combining main replacements with other work, as well as anticipated avoidance of performing work on protected streets that were recently improved.

Attachment 2: Main Reclassification Form

# MAIN RECLASSIFICATION FORM

**CP System #:** _____ **System Name:** _____ **Date:** _____

**Address Range, Street Name, Intersecting Streets:**

| | |
|---|---|
| | |

**Address Range, Street Name, Intersecting Streets:**

| | |
|---|---|
| | |

**Address Range, Street Name, Intersecting Streets:**

| | |
|---|---|
| | |

## Main Data

| Year: | Size: | Length: | Coating: |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**Has the System had Poor Reads in the Last 5 Years?** **YES** **NO**

| TS ID: | TS Type: | Date: | P/S: | Date: | P/S: | Date: | P/S: | Date: | P/S: | Date: | P/S: |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

## Resistance:

| TS ID: | Date: | Resistance (Ω, Ohms): |
|---|---|---|
| | | |
| | | |

**Average Coating Resistance (ACR)** $[(L \times Dia \times Resistance \times \pi) \div 12 = \Omega ft^2] =$ _____

**Current Requirement (Ireq)** [(0.9v – |Voff|) ÷ Resistance × 1000 = mA] =_____

## Work Order History:

| Date: | WO #: | WO Type: | Completion Date: |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**Comments:** _____

## 6. References

| Code | Section | Description |
|---|---|---|
| 49 CFR | 192.457 | External corrosion control: Buried or submerged pipelines installed before August 1, 1971 |

## 7. Attachments

Attachment 1: ENG04030 Attachment 1 DIMP factors

Attachment 2: Main Reclassification Form

## DIMP Factors - 2023

**STATE: RHODE ISLAND**
**REGION: ALL**
**FACILITY: MAINS**

**Mitigation Will Be As Per Appendix D, Except As Otherwise Indicated In Notes**

| Material | Pressure | Diameter | Mileage | Risk Score | Primary Threat Category(ies) | Known Incident (2013 to 2023) | Additional Mitigation Notes | DIMP Factor |
|---|---|---|---|---|---|---|---|---|
| Unprotected Bare Steel | HP | Over 8" | 3.74 | 3.61 | MATERIAL/WELD / CORROSION | Known Incident Yr 2022 - Weld Failure | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 3.00 |
| Cast Iron | LP | 4" through 8" | 459.34 | 1.70 | NATURAL FORCE | Known Incident Yr 2015 - Pipe in frozen ground | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 3.00 |
| Protected Coated Steel | > 60 PSI, not Transmission | Over 8" | 103.46 | 1.56 | EXCAVATION / MATERIAL/WELD / NATURAL FORCE / O.O. FORCE / INC. OPERATION | Known Incident Yr 2017 - Dresser coupling failed after nearby excavation caused earth to shift, removing support for main | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 3.00 |
| Protected Coated Steel | HP | Over 4" through 8" | 106.11 | 1.06 | EXCAVATION / CORROSION | Known Incident Yr 2013 - Mechanical puncture on gas | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 3.00 |
| Protected Coated Steel | HP | Up to 4" | 211.32 | 1.06 | EXCAVATION / CORROSION | Known Incident Yr 2017 -Damage by contractor | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 3.00 |
| Unprotected Bare Steel | > 60 PSI, not Transmission | Up to 4" | 0.95 | 4.57 | CORROSION / MATERIAL/WELD / EXCAVATION / NATURAL FORCE / O.O. FORCE / INC. OPERATION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 3.00 |
| Unprotected Bare Steel | > 60 PSI, not Transmission | Over 4" through 8" | 0.66 | 4.57 | CORROSION / MATERIAL/WELD / EXCAVATION / NATURAL FORCE / O.O. FORCE / INC. OPERATION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 3.00 |
| Unprotected Bare Steel | > 60 PSI, not Transmission | Over 8" | 1.90 | 4.57 | CORROSION / MATERIAL/WELD / EXCAVATION / NATURAL FORCE / O.O. FORCE / INC. OPERATION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 3.00 |
| Unprotected Bare Steel | HP | Up to 4" | 54.85 | 3.61 | CORROSION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 2.37 |
| Unprotected Bare Steel | HP | Over 4" through 8" | 14.47 | 3.61 | CORROSION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 2.37 |
| Cast Iron | HP | Under 4" | 0.01 | 2.58 | OTHER / NATURAL FORCE | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.69 |
| Cast Iron | HP | 4" through 8" | 2.33 | 2.58 | OTHER / NATURAL FORCE | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.69 |
| Cast Iron | HP | Over 8" | 12.41 | 2.58 | OTHER / NATURAL FORCE | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.69 |
| Wrought Iron | HP | Under 4" | 0.12 | 2.58 | OTHER / NATURAL FORCE | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.69 |
| Unprotected Bare Steel | LP | Up to 4" | 22.70 | 2.53 | CORROSION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.66 |

| Material | Pressure | Diameter | Mileage | Risk Score | Primary Threat Category(ies) | Known Incident (2013 to 2023) | Additional Mitigation Notes | DIMP Factor |
|---|---|---|---|---|---|---|---|---|
| Unprotected Bare Steel | LP | Over 4" through 8" | 27.26 | 2.53 | CORROSION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.66 |
| Unprotected Bare Steel | LP | Over 8" | 2.99 | 2.53 | CORROSION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.66 |
| Plastic | > 60 PSI, not Transmission | Up to 4" | 122.82 | 2.28 | EXCAVATION / O.O. FORCE / MATERIAL/WELD / NATURAL FORCE / INC. OPERATION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.50 |
| Plastic | > 60 PSI, not Transmission | Over 4" through 8" | 37.82 | 2.28 | EXCAVATION / O.O. FORCE / MATERIAL/WELD / NATURAL FORCE / INC. OPERATION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.50 |
| Plastic | > 60 PSI, not Transmission | Over 8" | 4.04 | 2.28 | EXCAVATION / O.O. FORCE / MATERIAL/WELD / NATURAL FORCE / INC. OPERATION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.50 |
| Ductile Iron | HP | Over 4" through 8" | 0.58 | 2.11 | OTHER / NATURAL FORCE | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.39 |
| Unprotected Coated Steel | > 60 PSI, not Transmission | Up to 4" | 1.63 | 2.04 | CORROSION / MATERIAL/WELD / EXCAVATION / O.O. FORCE / NATURAL FORCE / INC. OPERATION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.34 |
| Unprotected Coated Steel | > 60 PSI, not Transmission | Over 4" through 8" | 1.55 | 2.04 | CORROSION / MATERIAL/WELD / EXCAVATION / O.O. FORCE / NATURAL FORCE / INC. OPERATION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.34 |
| Unprotected Coated Steel | > 60 PSI, not Transmission | Over 8" | 4.10 | 2.04 | CORROSION / MATERIAL/WELD / EXCAVATION / O.O. FORCE / NATURAL FORCE / INC. OPERATION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.34 |
| Cast Iron | LP | Under 4" | 0.95 | 1.91 | NATURAL FORCE | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.25 |
| Wrought Iron | LP | Under 4" | 0.50 | 1.89 | NATURAL FORCE | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.24 |
| Plastic | HP | Up to 4" | 1057.75 | 1.84 | EXCAVATION / O.O. FORCE | N/A | | 1.20 |
| Plastic | HP | Over 4" through 8" | 217.55 | 1.84 | EXCAVATION / O.O. FORCE | N/A | | 1.20 |
| Plastic | HP | Over 8" | 11.32 | 1.84 | EXCAVATION / O.O. FORCE | N/A | | 1.20 |
| Wrought Iron | LP | 4" through 8" | 0.12 | 1.70 | NATURAL FORCE | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.12 |
| Unprotected Coated Steel | HP | Up to 4" | 62.76 | 1.64 | CORROSION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.08 |
| Unprotected Coated Steel | HP | Over 4" through 8" | 38.24 | 1.64 | CORROSION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.08 |
| Unprotected Coated Steel | HP | Over 8" | 4.87 | 1.64 | CORROSION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.08 |
| Protected Coated Steel | > 60 PSI, not Transmission | Up to 4" | 58.08 | 1.56 | EXCAVATION / MATERIAL/WELD / NATURAL FORCE / O.O. FORCE / INC. OPERATION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.03 |
| Protected Coated Steel | > 60 PSI, not Transmission | Over 4" through 8" | 42.00 | 1.56 | EXCAVATION / MATERIAL/WELD / NATURAL FORCE / O.O. FORCE / INC. OPERATION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 1.03 |
| Ductile Iron | LP | Up to 4" | 4.40 | 1.48 | NATURAL FORCE | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 0.97 |

| Material | Pressure | Diameter | Mileage | Risk Score | Primary Threat Category(ies) | Known Incident (2013 to 2023) | Additional Mitigation Notes | DIMP Factor |
|---|---|---|---|---|---|---|---|---|
| Plastic | LP | Up to 4" | 56.92 | 1.46 | EXCAVATION | N/A | | 0.96 |
| Plastic | LP | Over 4" through 8" | 272.03 | 1.46 | EXCAVATION | N/A | | 0.96 |
| Plastic | LP | Over 8" | 17.18 | 1.46 | EXCAVATION | N/A | | 0.96 |
| Ductile Iron | LP | Over 4" through 8" | 6.24 | 1.43 | NATURAL FORCE | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 0.94 |
| Cast Iron | LP | Over 8" | 82.38 | 1.42 | OTHER | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 0.93 |
| Wrought Iron | LP | Over 8" | 0.20 | 1.42 | OTHER | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 0.93 |
| Unprotected Coated Steel | LP | Up to 4" | 5.27 | 1.19 | CORROSION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 0.78 |
| Unprotected Coated Steel | LP | Over 4" through 8" | 13.20 | 1.19 | CORROSION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 0.78 |
| Unprotected Coated Steel | LP | Over 8" | 2.63 | 1.19 | CORROSION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 0.78 |
| Ductile Iron | LP | Over 8" | 0.77 | 1.16 | OTHER / NATURAL FORCE | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 0.76 |
| Protected Coated Steel | HP | Over 8" | 27.61 | 1.06 | CORROSION | N/A | An additional factor will be applied to the prioritization algorithm to account for the replacement qualification ranking. | 0.70 |
| Protected Coated Steel | LP | Up to 4" | 7.27 | 0.91 | EXCAVATION | N/A | | 0.59 |
| Protected Coated Steel | LP | Over 4" through 8" | 23.04 | 0.91 | EXCAVATION | N/A | | 0.59 |
| Protected Coated Steel | LP | Over 8" | 5.83 | 0.91 | EXCAVATION | N/A | | 0.59 |

**DIMP Factor - 2023**

**STATE: RHODE ISLAND**
**REGION: ALL**
**FACILITY: SERVICES**

**Mitigation Will Be As Per Appendix D, Except As Otherwise Indicated In Notes**

| Material | Pressure | Meter Set | Quantity | Risk Score | Primary Threat Category(ies) | Known Incident (2013 to 2023) | Additional Mitigation Notes |
|---|---|---|---|---|---|---|---|
| Plastic | LP | Outside | 28,735 | 2.02 | O.O. FORCE / EXCAVATION | Known Incident Yr 2017 - Vehicle Crash into Riser | Service leaks are included in the main replacement prioritization evaluation. |
| Unprotected Bare Steel | > 60 PSI, not Transmission | Inside | 91 | 5.20 | CORROSION / EXCAVATION / NATURAL FORCE / MATERIAL/WELD | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Unprotected Bare Steel | > 60 PSI, not Transmission | Outside | 222 | 5.20 | CORROSION / EXCAVATION / NATURAL FORCE / MATERIAL/WELD | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Unprotected Bare Steel | HP | Inside | 800 | 5.04 | CORROSION / NATURAL FORCE / EXCAVATION | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Unprotected Bare Steel | LP | Inside | 30,485 | 4.32 | CORROSION / NATURAL FORCE / EXCAVATION / MATERIAL/WELD | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Unprotected Bare Steel | HP | Outside | 1,632 | 4.03 | CORROSION / NATURAL FORCE / EXCAVATION | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Unprotected Bare Steel | LP | Outside | 1,773 | 3.24 | CORROSION / NATURAL FORCE / EXCAVATION | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Unprotected Coated Steel | > 60 PSI, not Transmission | Inside | 15 | 3.13 | CORROSION / MATERIAL/WELD | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Unprotected Coated Steel | > 60 PSI, not Transmission | Outside | 100 | 3.13 | CORROSION / MATERIAL/WELD | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Unprotected Coated Steel | HP | Inside | 1,619 | 3.02 | CORROSION | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Plastic | HP | Inside | 6,760 | 2.98 | EXCAVATION / O.O. FORCE / MATERIAL/WELD | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Plastic | > 60 PSI, not Transmission | Inside | 188 | 2.98 | EXCAVATION / O.O. FORCE / MATERIAL/WELD | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Plastic | > 60 PSI, not Transmission | Outside | 10,154 | 2.98 | EXCAVATION / O.O. FORCE / MATERIAL/WELD | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Unprotected Coated Steel | LP | Inside | 1,336 | 2.71 | CORROSION / MATERIAL/WELD / INC. OPERATION | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Cast Iron | LP | Inside | 21 | 2.70 | NATURAL FORCE / O.O. FORCE / EXCAVATION / INC. OPERATION | N/A | Service leaks are included in the main replacement prioritization evaluation. |

| Material | Pressure | Meter Set | Quantity | Risk Score | Primary Threat Category(ies) | Known Incident (2013 to 2023) | Additional Mitigation Notes |
|---|---|---|---|---|---|---|---|
| Plastic | LP | Inside | 22,039 | 2.69 | EXCAVATION / O.O. FORCE / MATERIAL/WELD | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Copper | HP | Inside | 12 | 2.50 | EQ. FAILURE / EXCAVATION | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Unprotected Coated Steel | HP | Outside | 2,500 | 2.42 | CORROSION / NATURAL FORCE | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Plastic | HP | Outside | 79,202 | 2.40 | EXCAVATION / O.O. FORCE / MATERIAL/WELD | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Copper | LP | Inside | 6 | 2.10 | EQ. FAILURE / INC. OPERATION | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Cast Iron | LP | Outside | 4 | 2.05 | NATURAL FORCE / EXCAVATION / O.O. FORCE | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Unprotected Coated Steel | LP | Outside | 70 | 2.03 | CORROSION | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Copper | HP | Outside | 26 | 2.00 | EQ. FAILURE / EXCAVATION | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Protected Coated Steel | > 60 PSI, not Transmission | Inside | 60 | 1.58 | CORROSION | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Protected Coated Steel | > 60 PSI, not Transmission | Outside | 1,478 | 1.58 | CORROSION | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Protected Coated Steel | HP | Inside | 207 | 1.52 | CORROSION | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Protected Coated Steel | LP | Inside | 1,331 | 1.45 | CORROSION / INC. OPERATION | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Protected Coated Steel | HP | Outside | 2,873 | 1.22 | CORROSION | N/A | Service leaks are included in the main replacement prioritization evaluation. |
| Protected Coated Steel | LP | Outside | 538 | 1.10 | INC. OPERATION | N/A | Service leaks are included in the main replacement prioritization evaluation. |