EXH. CAK-6 (Apdx. B)
DOCKETS UE-22___/UG-22___
2022 PSE GENERAL RATE CASE
WITNESS: CATHERINE A. KOCH

BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY,** **Respondent.**	**Docket UE-22____** **Docket UG-22____**

APPENDIX B (NONCONFIDENTIAL) TO THE FIFTH EXHIBIT TO THE PREFILED DIRECT TESTIMONY OF

CATHERINE A. KOCH

ON BEHALF OF PUGET SOUND ENERGY

JANUARY 31, 2022

OLDER VINTAGE PE PIPE MITIGATION

ENERGY TYPE: GAS

1. SHORT DESCRIPTION

Based on company and industry experience, PSE has identified a risk of premature brittle-like cracking and fusion failure in 1985 and older, 1-1/4" and larger PE mains and services. To mitigate this risk, PSE conducts field inspections to confirm pipe material and then prioritizes replacement based on risk data. The plan will be continually evaluated as the higher risk populations are replaced and adjustments to the strategy may result if replacement is no longer justified for the remaining population.

2. BACKGROUND

Older vintage PE pipe includes PE mains and services installed prior to 1986 and is specific to larger diameter (1-1/4" and larger) DuPont Aldyl "HD" plastic pipe. Pipe manufactured by DuPont has an increased risk of premature, brittle-like cracking due to slow crack growth at locations where there is a stress concentration. Brittle-like cracking is primarily due to rock impingement but also occurs where the pipe has been squeezed or where other stress concentrations have been introduced due to inconsistent joining practices. DuPont pipe was installed between the 1970s and early 1980s and there was approximately 435 miles of larger diameter DuPont pipe in the system prior to 2013.

The Older Vintage PE Pipe Mitigation plan was initiated in response to an increase in brittle-like cracking and fusion failures on DuPont pipe which typically results in hazardous leaks. A systematic approach was developed that included a risk model to prioritize the replacement of DuPont pipe. In 2013, the plan was incorporated into the Pipeline Replacement Program (PRP). The PRP allows accelerated replacement of gas facilities with elevated risk. Pending approval by the UTC, plans incorporated into the PRP are eligible for immediate cost recovery.

As part of the Pipeline Replacement Program, an identification plan was developed and implemented in 2014 to confirm the location of DuPont pipe in the system through records research and field investigations. Field investigations include both targeted and opportunity-based investigations from normal operations and maintenance activities. The identification effort was completed by the end of 2016.

The plan utilizes the results from Exposed Pipe Condition Reports, Blue Cards, PE Reports, leak repairs, and material failure analysis to prioritize remediation. The primary plan strategy includes pipe identification and pipe replacements.

Table 1 - Older Vintage PE Mitigation Plan (2010 – 2020)

Year	Miles Replaced	Total Leaks (Brittle-like Cracking)	Hazardous Leaks (Brittle-like Cracking)	Total Leaks (Fusion Failure)	Hazardous Leaks (Fusion Failure)
2010 - 2012	8.0	86	43	122	57
2013	6.5	23	22	32	24
2014	10.5	20	26	26	31
2015	28.6	25	25	35	30
2016	27.4	22	18	31	21
2017	27.9	17	10	27	14
2018	38.8	25	9	34	10
2019	27.7	21	17	22	18
2020	14.6	22	13	25	14

3. STATEMENT OF NEED

The Older Vintage PE Pipe Mitigation plan was initiated in response to an increase in brittle-like cracking and fusion failures on DuPont pipe which often results in hazardous leaks. The Older Vintage PE Pipe Mitigation plan is important because it reduces the risk on older vintage PE pipe through proactive main and service replacement.

3.1. NEED DRIVERS

- **Safety:** The main driver for the Older Vintage PE Pipe Mitigation plan is improving safety by eliminating pipe with increased likelihood of hazardous leaks.
- **Environmental:** A secondary driver for the Older Vintage PE Pipe Mitigation plan is to reduce future methane emissions resulting from leaks.

3.2. INTEGRATED STRATEGIC PLAN (ISP) ALIGNMENT

This plan aligns primarily with the Processes & Tools category of the ISP:

- **System Reliability and Integrity:** The main driver for this plan is to improve system integrity by eliminating pipe that is susceptible to brittle-like cracking and fusion failure.
- **Extract and leverage value from existing technology:** The plan will utilize existing equipment to optimize the costs to attain the plan's goals and benefits.

4. PLAN DETAIL

4.1. PLAN SIZE/POPULATION

The original population of larger diameter DuPont pipe was 435 miles. This population was split into two categories based on remediation priority. The first 245 miles are the highest risk segments with known leaks, or in high risk locations. The remaining 190 miles are the lower risk segments.

4.2. PROPOSED COMPLETION DATE

The current target is to eliminate the highest risk population by 2023 and then all remaining DuPont pipe by 2032. Risk data will be continually evaluated to determine if replacement is still the appropriate strategy or if the remaining risk can be mitigated through other means.

4.3. SUMMARY OF PLAN BENEFITS

- **Safety:** The Older Vintage PE Pipe Mitigation plan mitigates the threats of brittle-like cracking and fusion failure. Reducing the inventory of pipe that has an elevated risk of failure is expected to reduce the number of hazardous leaks caused by these threats. Remediation of the entire population of 435 miles of pipe is expected to reduce risk by 53 risk points[1], out of a total of 525 total distribution system risk points at year-end 2020. Risk is scored based on plan population, historical leak data, field identified integrity concerns, and subject matter expert feedback.
- **Stakeholder Relationships:** The plan demonstrates our commitment to safety to stakeholder groups such as UTC, Cities, and Customers through efforts to replace pipe with an elevated risk of failure.
- **Methane Reduction:** Environmental safety benefits relative to methane emission reduction is measured by converting methane to a carbon dioxide equivalent (CO2e). The plan reduces CO2e emissions by replacing pipe that is prone to leakage by brittle-like cracking and fusion failure. Remediation of the entire population of Older Vintage PE pipe is expected to reduce the average annual CO2e emissions rate by 1,155 metric tons.

Table 2 - CO2e Emission Reduction Potential

	Older Vintage PE Leaks Per Year (5 year average)	Average CO2e Per Leak (metric tons)	Annual CO2e Emissions (metric tons)
Brittle Like Cracking	21	27	567
Fusion Failure	28	21	588

[1] The plan benefit of risk reduction is quantified by using DIMP risk points. Through DIMP, plans are scored based on the probability of a failure or leak occurring and the consequence resulting from a failure or leak

4.4. PRIMARY IDOT CATEGORIES

PSE employs an Investment Decision Optimization Tool (iDOT) to evaluate benefits of projects and optimize the annual portfolios for construction. The top primary iDOT Categories this plan addresses are:

- Health and Safety
- Stakeholders

Table 3 – iDOT Benefit

2023 Forecast Cost ($)	2023 iDOT Benefit ($)	2023 Benefit / Cost Ratio
$50,000,000	$20,013,400	0.40

The benefit to cost ratio is less than one at the proposed spending level. At this stage of the plan, much of the current leak-prone pipe has already be eliminated. Because the risk of failure increases with time the goal of the plan is to continue to replace the remaining population at a rate faster than the pipe is anticipated to leak. Proactively replacing leak prone Older Vintage PE Pipe allows for work to be completed by a single field visit which saves unplanned O&M expense, $4,400 O&M a year and capital investment of $4,000 per foot. PSE has also made a commitment with the UTC as part of its Pipeline Replacement Plan to eliminate all DuPont at an accelerated rate, by 2032.

4.5. ESTIMATED COSTS

The programmatic costs to complete the Older Vintage PE Pipe Mitigation plan from 2013 until 2032 is approximately $981.9 million. This is based on replacing the entire population of 435 miles of pipe, prioritizing the 235 miles of higher risk pipe first and replacing the remaining pipe at an accelerated rate.

5. ALTERNATIVES

5.1. SOLUTION ALTERNATIVES

Proactive Replacement: The selected alternative is to replace all Older Vintage PE pipe manufactured by DuPont as part of a planned approach prior to leaks occurring.

Reactive Replacement: The alternative not selected would be to wait until the pipe leaks and then replace it. This would lead to potentially hazardous leaks and an increase in methane emissions.

5.2. FUNDING ALTERNATIVES

No Action: Without a plan in place, PSE would face the risk of leaks due to brittle-like cracking and fusion failure. If they are not remediated, leaks can be hazardous and lead to an increase in methane emissions

Increased Funding: With increased funding, Older Vintage PE pipe could be replaced at a quicker rate. In order to fully realize the benefits of increased funding there would need to be additional field resources dedicated to the Older Vintage PE Pipe Mitigation plan.

Decreased Funding: Reducing the current funding levels would result Older Vintage PE pipe being replaced at a slower rate. DuPont pipe is prone to brittle-like cracking and fusion failure and the longer it remains in the system the more likely it will leak.

6. HISTORY

Date	Reason(s) for Update	Summary of Significant Change(s)	Modified By
1/27/2020	Initial Program Documentation - New plan template	Initial Program Document – Summarize historical plans	Parker Indorf
4/30/2021	2021 Business Case Update	Revised language throughout. Updated program summary and background	Parker Indorf
9/20/2021	Used and Useful Policy guidance	Updated benefits. Added alternative and cost information	Parker Indorf
12/17/2021	Annual Review	Minor word and format changes	Parker Indorf

7. SUPPORTING DOCUMENTATION

Document Name
DIMP SUMMARY OF ADDITIONAL AND ACCELERATED ACTIONS
PIPELINE REPLACEMENT AND METHANE EMISSION REDUCTION PROGRAM PLAN
CONTINUING SURVEILLANCE ANNUAL REPORT
DIMP RISK GRAPHIC

SEWER CROSS BORE

ENERGY TYPE: GAS

1. SHORT DESCRIPTION

Due to historic and current construction practices of the industry, PSE has identified a risk of sewer system cross bores by gas pipelines within its service territory. To mitigate this risk, PSE conducts sewer video inspections to confirm clear or identify a cross bore and then repair.

2. BACKGROUND

The threat of sewer cross bores was identified through PSE's Distributed Integrity Management Program (DIMP) has an elevated risk to certain pipe installations. A sewer cross bore is a gas pipeline that has been inadvertently installed through an unmarked sewer pipe. Sewer cross bores occur when trenchless construction methods are utilized to install new natural gas pipe in areas where unmarked sewer lines exist. The state of Washington Damage Prevention Law requires excavators to use a One-call number locator service to alert underground facility owners of intended excavation activities and requires the marking of underground facilities in the area. However, sewer lines, and in particular, sewer laterals have proven to be difficult to locate. Sewer systems are often comprised of pipe that is not electronically locatable and sewer records are lacking in many areas. In addition, sewer lines on private property are the responsibility of the property owner, who does not possess the technology or records to be able to locate their sewer line. Sewer cross bores pose an elevated risk of failure due to the high consequence that would result if damage to the pipe occurs causing gas to leak into the sewer. If there is a sewer cross bore and it causes a blocked sewer, plumbers typically use a drain cleaning machine to clear the blocked sewer which could damage the gas line endangering people and property. Based on PSE's experience, it is more likely for plastic service lines in residential urban areas to be cross bored through sewers.

A sewer cross bore pilot program was conducted in 2012 and in 2013, and the Sewer Cross Bore plan was officially established to identify and remediate legacy cross bores. A risk model was developed to identify the highest risk locations. Of the model results, 60,000 locations were identified, representing the top 10% locations to be remediated. The Sewer Cross Bore plan was incorporated into the Pipeline Replacement Program (PRP) in 2019. The PRP allows accelerated replacement of gas facilities with elevated risk. Pending approval by the UTC, plans incorporated into the PRP are eligible for immediate cost recovery.

Along with remediation of legacy cross bores, the plan has also implemented processes to inspect sewers in conjunction with blocked sewer calls and to perform post-construction sewer inspections any time a new gas line is installed by trenchless technology.

Table 1 - Sewer Cross Bore Plan (2013 – 2020)

Year	# of Parcel Inspections Completed	# of Legacy Parcel Inspections Completed	# of Cross Bores Found	# of Leaks
2010 – 2012	0	0	128	2
2013	1,926	303	86	1
2014	8,109	2126	113	1
2015	11,297	1502	124	2
2016	8,012	1705	138	5
2017	10,344	600	109	0
2018	7,526	299	96	1
2019	7,855	1,609	121	0
2020	19,999	8009	84	1

3. STATEMENT OF NEED

Sewer cross bores occur because trenchless construction methods are utilized to install natural gas pipe in areas where unmarked sewer lines exist. Finding cross bores is needed because a cross bore can block a sewer line which may result in a plumber trying to clear the line. Clearing a blocked sewer with a cutter could sever the gas line resulting in uncontrolled gas leaking into homes through the sewer which may result in a fire or explosion. The Sewer Cross Bore plan is tracked in the Continuing Surveillance Annual Report and has identified sewer cross bore as one of the highest risks in PSE's distribution system.

3.1. NEED DRIVERS

- **Safety:** The main driver for the Sewer Cross Bore Program is to increase safety by remediating legacy sewer cross bores that have a potential to leak gas into homes through the sewer.
- **Environmental:** A secondary driver for the Sewer Cross Bore plan is to reduce future methane emissions resulting from leaks.

3.2. INTEGRATED STRATEGIC PLAN (ISP) ALIGNMENT

This plan aligns primarily with the Processes & Tools category of the ISP:

- **System Reliability and Integrity:** The main driver for this plan is to improve system integrity by identifying and remediating cross bores.
- **Extract and leverage value from existing technology:** The plan will utilize existing equipment to optimize the costs to attain the plan's goals and benefits.

4. PLAN DETAIL

4.1. PLAN SIZE/POPULATION

The Sewer Cross Bore plan consists of a population is 400,000 parcels. Each parcel typically has one location to inspect, but experience has shown that in urban settings there may be more than one. The current target involves a population of 60,000 highest risk locations identified by the model. Additional locations are incorporated into the model as we gather information on new side sewer segments, and the highest risk locations are recalibrated by the model. From past trends, PSE predicts approximately one cross bore will be found for every 100 inspections. The current target is completing the 60,000 highest risk legacy locations by 2028.

4.2. PROPOSED COMPLETION DATE

The current target is to inspect the 60,000 highest risk legacy locations identified by the model by 2028. PSE will continue to incorporate new risk knowledge and develop an inspection strategy for the next highest risk population.

4.3. SUMMARY OF PLAN BENEFITS

- **Safety:** The Sewer Cross Bore plan mitigates the risk of cross bores that could endanger people and property if damaged by a plumber using a drain cleaning machine. Remediation of the original population of 60,000 locations is expected to reduce risk by 30 risk points[1], out of 547 total distribution system risk points.
- **Stakeholder Relationships:** The plan improves our public perception from stakeholder groups such as UTC, Cities, and Customers through efforts to identify and remediate cross bores.

4.4 PRIMARY IDOT CATEGORIES

PSE's employs an Investment Decision Optimization Tool (iDOT) to evaluate benefits of projects and optimize the annual portfolios for construction. The top primary iDOT Categories this plan addresses are:

- Health and Safety
- Stakeholders

Table 2 – iDOT Benefit

2023 Forecast Cost ($)[2]	2023 iDOT Benefit ($)	2023 Benefit / Cost Ratio
$5,100,000	$16,528,676	3.24

[1] The plan benefit of risk reduction is quantified by using DIMP risk points. Through DIMP, plans are scored based on the probability of a failure or leak occurring and the consequence resulting from a failure or leak
[2] Includes Capital and O&M

4.5. ESTIMATED COSTS

The programmatic costs to complete the Sewer Cross Bore plan from 2019 until 2027 is approximately $40.9 million. This is based on remediating the original population of 60,000 highest risk locations at an accelerated rate.

5. ALTERNATIVES

5.1. SOLUTION ALTERNATIVES

Proactive Remediation: The selected alternative is to remediate locations of probable sewer cross bores as part of a planned approach prior to leaks occurring.

Reactive Remediation: The alternative not selected would be to wait until sewer cross bores are discovered, and then remediate. This could lead to hazardous leaks occurring in customer sewer lines which lead directly into their homes.

5.2. FUNDING ALTERNATIVES

No Action: Without a plan in place, PSE would face the risk of leaks occurring in customer sewer lines which lead directly into their homes.

Increased Funding: With increased funding, probable sewer cross bore locations could be remediated at a quicker rate. In order to fully realize the benefits of increased funding there would need to be additional field resources dedicated to the Sewer Cross Bore plan.

Decreased Funding: Reducing the current funding levels would result in probable sewer cross bore locations being remediated at a slower rate. This could lead to sewer cross bores being undetected.

5. HISTORY

Date	Reason(s) for Update	Summary of Significant Change(s)	Modified By
1/27/2020	Initial Program Documentation - New plan template	Initial Program Document – Summarize historical plans	Parker Indorf
4/30/2021	2021 Business Case Update	Revised language throughout. Updated program summary and background	Parker Indorf
9/20/2021	Used and Useful Policy guidance	Updated benefits. Added alternative and cost information	Parker Indorf
12/17/2021	Annual Review	Minor word and format changes	Parker Indorf

6. SUPPORTING DOCUMENTATION

Document Name
DIMP SUMMARY OF ADDITIONAL AND ACCELERATED ACTIONS
PIPELINE REPLACEMENT AND METHANE EMISSION REDUCTION PROGRAM PLAN
CONTINUING SURVEILLANCE ANNUAL REPORT
DIMP RISK GRAPHIC

BURIED MSA REMEDIATION

ENERGY TYPE: GAS

1. SHORT DESCRIPTION

From field reports and leak history data, PSE has identified an increased risk from buried meter set assemblies due to corrosion, leading to hazardous leaks at or near the building wall. To mitigate this risk, PSE conducts field inspections to evaluate and carry out remediation options.

2. BACKGROUND

A meter set assembly (MSA) is located on the service riser and includes the meter shut-off valve, service regulator, and meter. If the riser is an anodeless PE riser, there is typically a PE to steel transition fitting adjacent to the shut-off valve. The fittings on the riser and MSA are installed and intended to be operated aboveground, but can be subsequently buried by changes in landscaping, hard surface additions, or other changing field conditions. Fittings unintentionally buried could result in corrosion and shut-off valves buried are not operable and impede emergency response. Since the MSA is generally at the building wall, there would be a higher consequence if there was a leak.

The Buried MSA Remediation plan was first initiated in 2007 in response to increased reports of buried meters through the Abnormal or Unusual Operation Condition Report (called a “Blue Card”) as they were identified during routine leak surveys. The prioritization and process to concurrently re-inspect and unbury components was developed and implemented based on a pilot that was completed in 2008. Work requests to replace the riser and MSA were initiated at locations that could not be unburied at the time of the re-inspection. Increased leak surveys were initiated due to the significant number of reports. Customer communication was developed to provide education on the need to protect the MSA from reburial.

In 2019, the plan was elevated in priority and incorporated into the Pipe Replacement Program (PRP). The PRP allows accelerated replacement of gas facilities with elevated risk. Pending approval by the UTC, plans incorporated into the PRP are eligible for immediate cost recovery.

Table 1 - Buried MSA Remediation Plan (2010 – 2020)

Year	# of New Reports of Buried MSAs	# of Facilities Remediated	# of Reports of Corrosion Requiring Remediation	# of Leaks
2010 - 2014	35,350	7,184	417	16
2015	4,315	499	410	2
2016	5,538	2,290	271	7
2017	5,676	1,635	486	6
2018	7,840	4,112	403	6
2019	14,295	2,340	647	2
2020	16,091	6,283	998	0

3. STATEMENT OF NEED

The Buried MSA Remediation plan identifies and remediates issues that could otherwise lead to corrosion leaks at the building wall.

3.1. NEED DRIVERS

- **Safety:** The main driver for the Buried MSA Remediation plan is to increase safety. Buried MSAs have a greater potential of corrosion leaks at the building wall and emergency shut off valves may become inaccessible.
- **Environmental:** A secondary driver for the Buried MSA Remediation plan is to reduce future methane emissions resulting from leaks.

3.2. INTEGRATED STRATEGIC PLAN (ISP) ALIGNMENT

This plan aligns primarily with the Processes & Tools category of the ISP:

- **System Reliability and Integrity:** The main driver for this plan is to improve system integrity by remediating buried MSAs.
- **Extract and leverage value from existing technology:** The plan will utilize existing equipment to optimize the costs to attain the plan's goals and benefits.

4. PLAN DETAIL

4.1. PLAN SIZE/POPULATION

As of year-end 2020, the population of MSA locations in the system is 829,368 and, there are approximately 65,000 buried MSAs in the system. When the PRP master plan was filed in 2019 there were 40,000 buried MSAs in the system.

4.2. PROPOSED COMPLETION DATE

The current target is to remediate the original population of 40,000 buried MSAs by 2026, in alignment with the PRP master plan. Since 2019, there have been improvements made in field identification of buried MSAs which has led an increase of approximately

30,000 new reports. At the completion of the PRP master plan population there will need to be an evaluation of the remaining population based on total number of new reports.

4.3. SUMMARY OF PLAN BENEFITS

- **Safety:** The Buried MSA Remediation plan mitigates the risk of corrosion leaks at the building wall by remediating buried MSA's. Remediation of the original population of 40,000 buried MSAs is expected to reduce risk by 23 risk points[1], out of 525 total distribution system risk points as of year-end 2020. Risk is scored based on plan population, historical leak data, field identified integrity concerns, and subject matter expert feedback.
- **Stakeholder Relationships:** The plan demonstrates our commitment to safety to stakeholder groups such as UTC, Cities, and Customers through efforts to eliminate issues that could result in hazardous leaks at the building wall.
- **Methane Reduction:** Environmental safety benefits relative to methane emission reduction is measured by converting methane to carbon dioxide equivalent (CO2e). The plan reduces CO2e emissions by remediating issues that would otherwise lead to corrosion leaks. Remediation of the original population of 40,000 buried MSAs is expected to reduce the average annual CO2e emission rate by 12 metric tons.

Table 2 - CO2e Emission Reduction Potential

Buried MSA Leaks Per Year (5 year average)	Average CO2e Per Leak (metric tons)	Annual CO2e Emissions (metric tons)
4	3	12

4.4. PRIMARY IDOT CATEGORIES

PSE employs an Investment Decision Optimization Tool (iDOT) to evaluate benefits of projects and optimize the annual portfolios for construction. The primary iDOT Categories this plan addresses are:

- Health and Safety
- Stakeholders

Table 3 – iDOT Benefit

2023 Forecast Cost ($)[2]	2023 iDOT Benefit ($)	2023 Benefit / Cost Ratio
$6,600,000	$9,203,962	1.39

[1] The plan benefit of risk reduction is quantified by using DIMP risk points. Through DIMP, plans are scored based on the probability of a failure or leak occurring and the consequence resulting from a failure or leak.
[2] Includes Capital and O&M

4.5. ESTIMATED COSTS

The programmatic costs to complete the Buried MSA Remediation plan from 2020 until 2025 is approximately $35 million. This is based on remediating the original population of 40,000 buried meters by prioritizing the higher risk locations first and remediating the remaining identified locations at an accelerated rate.

5. ALTERNATIVES

5.1. SOLUTION ALTERNATIVES

Proactive Remediation: The selected alternative is to remediate all buried MSAs in the system as part of a planned approach prior to leaks occurring.

Reactive Remediation: The alternative not selected would be to wait until the buried MSAs leak and then remediate. This would lead to potentially hazardous leaks at the building wall.

5.2. FUNDING ALTERNATIVES

No Action: Without a plan in place, PSE would face the risk of corrosion leaks at the building wall. If they are not remediated, the consequence of a leak is significant.

Increased Funding: With increased funding, buried MSAs could be remediated at a quicker rate. In order to fully realize the benefits of increased funding there would need to be additional field resources dedicated to the Buried MSA Remediation plan. In 2019 and 2020 there approximately 30,000 new reports of buried MSAs. If this trend continues an increase in funding would be necessary in future years to reduce this growing population.

Decreased Funding: Reducing the current funding levels would result buried MSAs being remediated at a slower rate. If these MSAs remain buried they are more likely to leak due to corrosion.

6. HISTORY

Date	Reason(s) for Update	Summary of Significant Change(s)	Modified By
1/27/2019	Initial Program Documentation - New plan template	Initial Program Document – Summarize historical plans	Parker Indorf
4/30/2021	2021 Business Case Update	Revised language throughout. Updated program summary and background	Parker Indorf
9/20/2021	Initial Program Documentation - New plan template	Initial Program Document – Summarize historical plans	Parker Indorf
12/17/2021	Annual Review	Minor word and format changes	Parker Indorf

7. SUPPORTING DOCUMENTATION

Document Name
DIMP SUMMARY OF ADDITIONAL AND ACCELERATED ACTIONS
PIPELINE REPLACEMENT AND METHANE EMISSION REDUCTION PROGRAM PLAN
CONTINUING SURVEILLANCE ANNUAL REPORT
DIMP RISK GRAPHIC