

Massachusetts Gas Leaks Legislation

OCTOBER 6, 2015

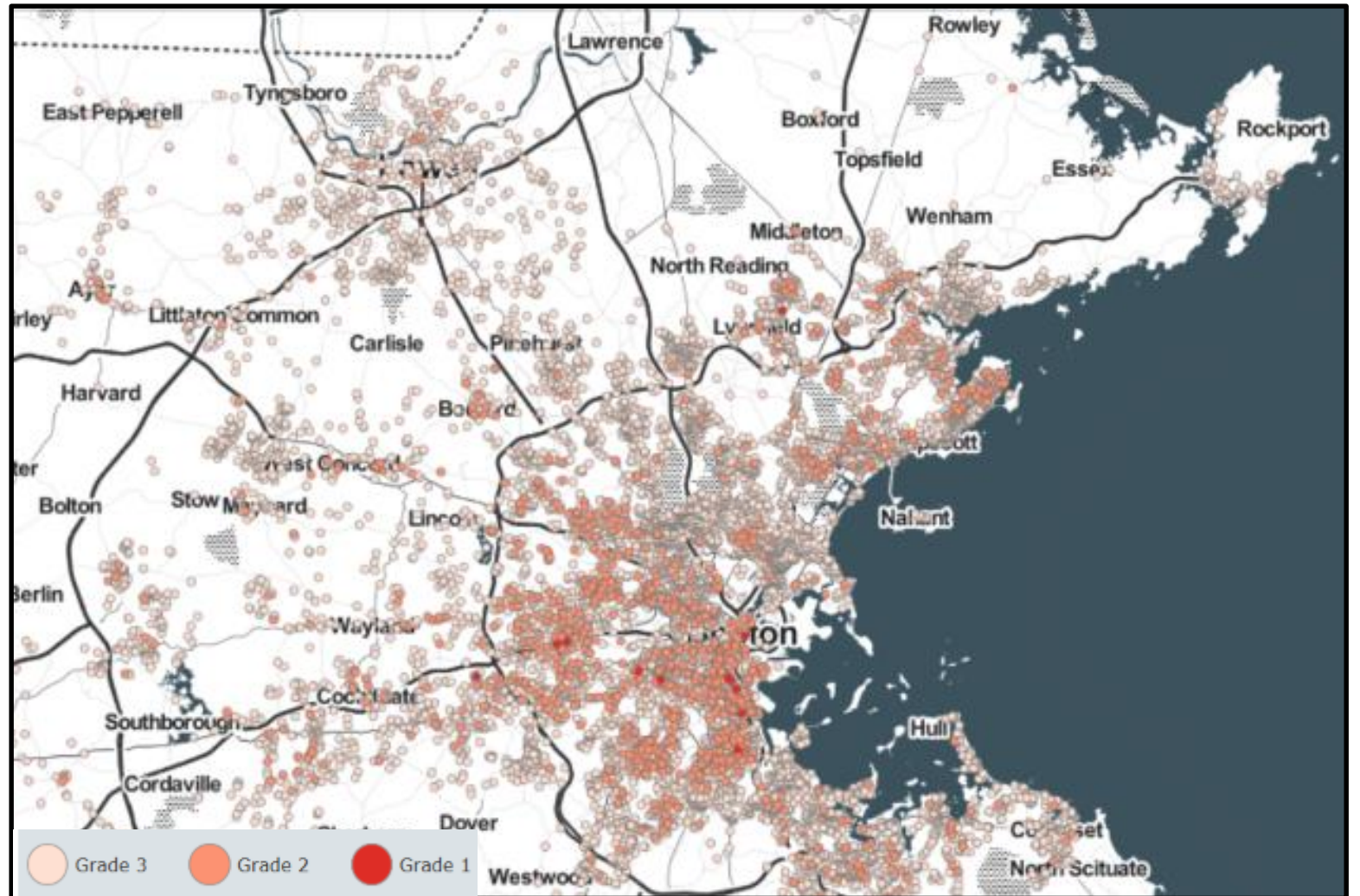
DAVID ZEEK

SIERRA CLUB, MASSACHUSETTS CHAPTER

Natural Gas Leaks: A Waste and a Threat

Massachusetts has one of the nation's oldest natural gas pipeline systems.

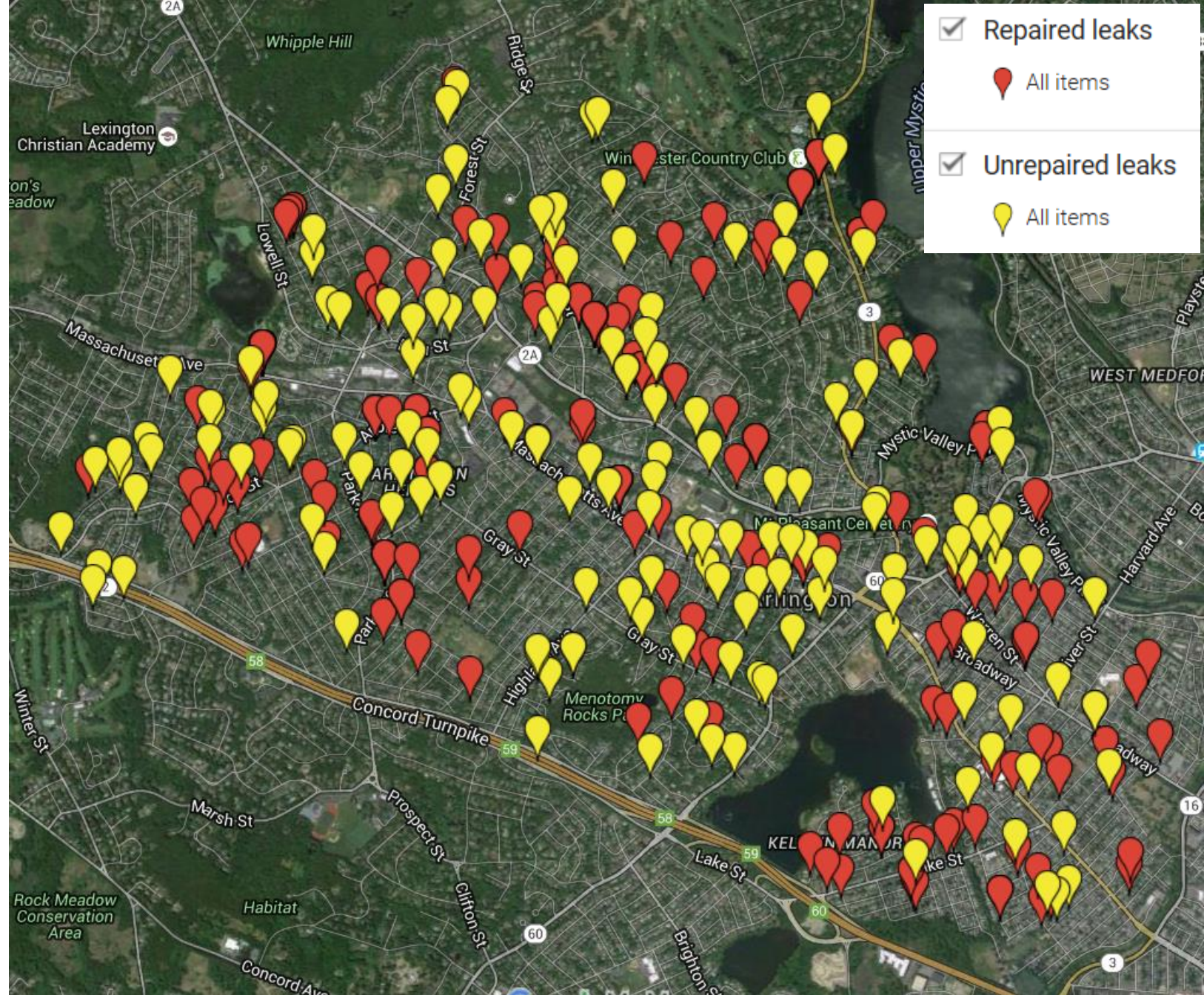
- Over 25,000 leaks
- 8-12 billion cubic feet of lost gas
- Costs Massachusetts ratepayers \$38.8M annually
- (Rep. Ehrlich fact sheet)



Leaks threaten safety, health, and the environment.
Leaks waste a valuable resource. And we pay for it!

Arlington Has 154 Unrepaired Gas Leaks

The oldest is from 1996.



From <<http://www.heetma.org/squeaky-leak/natural-gas-leaks-maps/>>

What's Wrong with Gas Leaks?

Unaccounted For Gas exceeds 8 billion cubic feet per year – possibly as high as 19 billion

That lost gas is worth, on average, between \$50M and \$128M per year

Gas utilities are not required to repair Grade 3 (non-threatening) gas leaks – ever!

Gas utilities can completely recover the cost of that lost gas through charges to customers.

Natural gas (methane) is a global warming gas 84 times as bad as carbon dioxide for 20 years.

Natural gas kills plants and creates ozone which affects human health and allergies.

UFG is Unaccounted For Gas	Lower Bound		Upper Bound	
	UFG Volume (cubic feet)	Estimated Cost of UFG	UFG Volume (cubic feet)	Estimated Cost of UFG
2000-2011	99,294,819,000	\$640,252,916	227,154,754,000	\$1,536,298,783
Annual Average	8,274,568,250	\$53,354,410	18,929,562,833	\$128,024,899

"America Pays for Gas Leaks," Table 3, Page 7. This report was prepared for Sen. Ed Markey by the House Natural Resources Committee Democratic staff.

Table 8.7 | GWP and GTP with and without inclusion of climate-carbon feedbacks (cc fb) in response to emissions of the indicated non-CO₂ gases (climate-carbon feedbacks in response to the reference gas CO₂ are always included).

	Lifetime (years)		GWP ₂₀	GWP ₁₀₀	GTP ₂₀	GTP ₁₀₀
CH ₄	12.4 ^a	No cc fb	84	28	67	4
		With cc fb	90	34	70	11
HFC-134a	13.4	No cc fb	3710	1300	3050	201
		With cc fb	3790	1550	3170	530
CFC-11	45.0	No cc fb	6900	4660	6890	2340
		With cc fb	7020	5350	7080	3490
N ₂ O	121.0 ^b	No cc fb	264	265	277	234
		With cc fb	268	298	284	297
CF ₄	50,000.0	No cc fb	4880	6630	5270	8040
		With cc fb	4950	7350	5400	9560

Notes:

Uncertainties related to the climate-carbon feedback are large, comparable in magnitude to the strength of the feedback for a single gas.

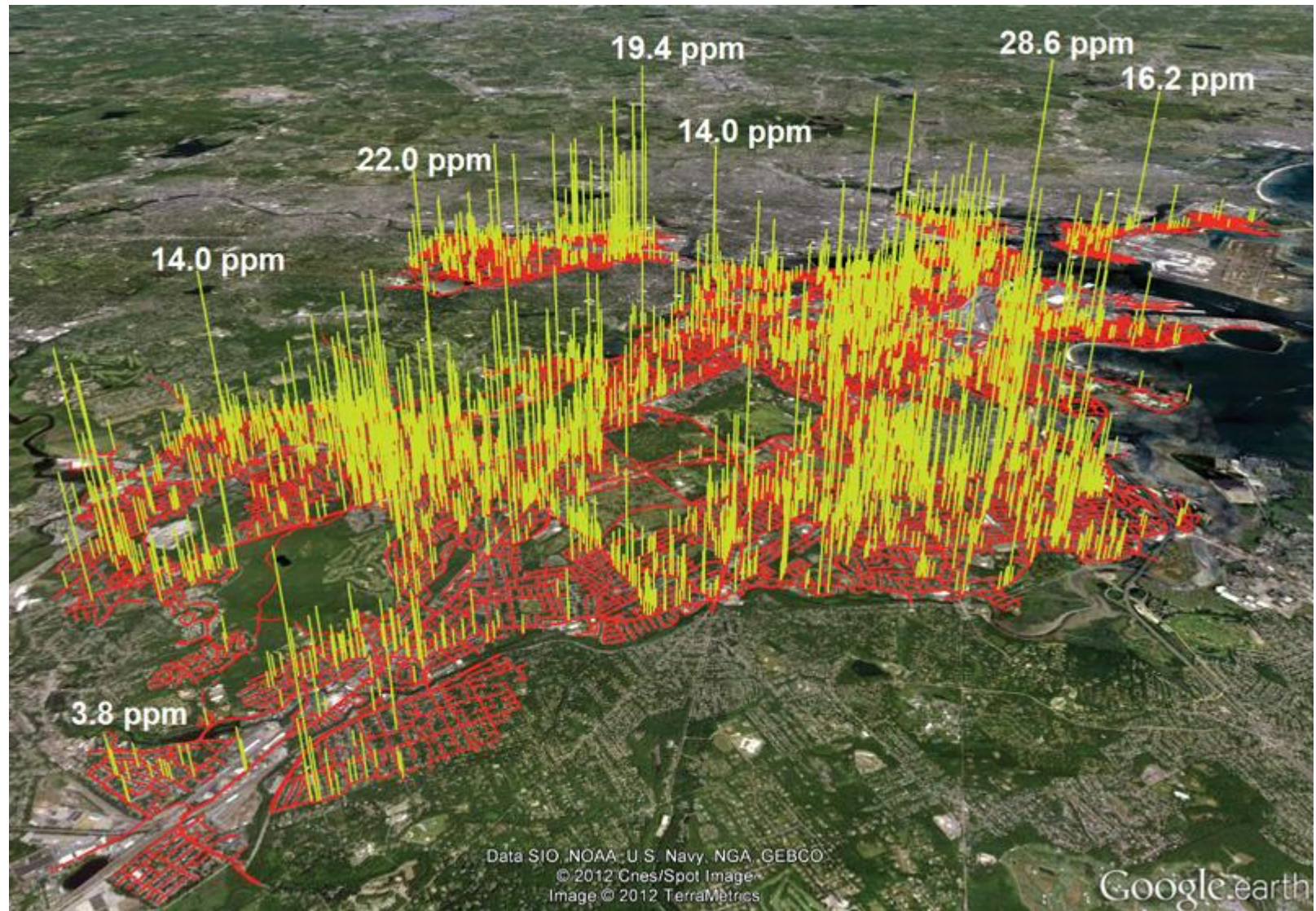
^a Perturbation lifetime is used in the calculation of metrics.

^b These values do not include CO₂ from methane oxidation. Values for fossil methane are higher by 1 and 2 for the 20 and 100 year metrics, respectively (Table 8.A.1).

IPCC Climate Change Report, "Climate Change 2013: The Physical Science Basis"

Methane Emissions over Boston

Using sophisticated instruments, researchers at Boston University detected thousands of methane leaks in the City of Boston. ©Nathan Phillips



Two Gas Leaks Bills in the Massachusetts Legislature Address This Problem

Two bills assigned to the Joint Committee on Telecommunications, Utilities and Energy ensure that gas consumers no longer pay for gas leaked from neglected, obsolete and decrepit pipes

H.2870, An Act Relative to Protecting Consumers of Gas and Electricity from Paying for Leaked and Unaccounted for Gas

- Precludes utility companies from charging customers for the cost of lost and unaccounted for gas, protecting consumers from expenses that they have no ability to control or reduce
- Precludes utility companies from charging customers to reduce or remedy the losses, i.e., fix the leaky pipes
- Consumers means homeowners, businesses, companies using gas in manufacturing, municipalities, state, and federal government
- Presented by Rep. Lori Ehrlich and Sen. James Eldridge with 49 additional petitioners

H.2871, An Act Relative to Gas Leak Repairs During Road Projects

- Requires all gas leaks under a road to be repaired when it is opened up for a construction project. This is a sensible, cost saving, efficient way to ensure more leaks are repaired.
- Expands coverage of safety leaks bill passed last year
- Presented by Rep. Lori Ehrlich with 47 additional petitioners

Municipal Support for Gas Leaks Legislation

Your community can voice its support for these bills.

Seven municipalities have already passed resolutions supporting one or both gas leaks bills

Boston
Cambridge
Framingham
Newton
Northampton
Somerville
Waltham



City of Waltham, Massachusetts

Resolution

Concerning Lost and Unaccounted For Gas

June 8, 2015

WHEREAS... "Unaccounted For Gas" (UFG) or "Lost And Unaccounted For Gas" (LAUF) represents the difference between the total gas from all sources and the total gas accounted for as sales, interchange, and use and includes leakage or loss by other means, discrepancies in measuring or monitoring, variations of temperatures or pressures and other variants, and

WHEREAS... The cost of UFG is typically passed down from providers to consumers, and

WHEREAS... Leaking gas in the ground is harmful to vegetation and can kill valuable shade trees by depriving roots of oxygen, and

WHEREAS... Massachusetts House Bill (H.2870), "An Act relative to protecting consumers of gas and electricity from paying for leaked and UFG", seeks to protect all gas and electricity customers from paying for UFG, by prohibiting providers from including the cost of UFG, as well as the costs of reducing or remedying loss, in the rate base, and

WHEREAS... H.2870 will provide economic incentive to gas providers to mitigate loss, pushing development of improved technologies and practices, as well as to reduce heat-trapping gasses released during transportation, distribution and storage, which have an impact on global warming;

THEREFORE, BE IT RESOLVED... That the Waltham City Council supports H.2870, and

BE IT FURTHER RESOLVED... That the Waltham City Clerk forward an engrossed copy of this resolution to the elected Waltham delegation in the House and Senate as well as House Speaker Robert A. DeLeo and Senate President Stanley C. Rosenberg on behalf of the entire Waltham City Council;

Read and adopted _____

Attest: Rosario C. Malone, City Clerk

Respectfully submitted:

Councillor George A. Darcy III

Councillor Stephen F. Rourke

Example Language

Backup

Grades of Gas Leaks

Massachusetts Law (2014) Chapter 149 AN ACT RELATIVE TO NATURAL GAS LEAKS changes to: Chapter 164, MANUFACTURE AND SALE OF GAS AND ELECTRICITY, Section 144.

- (a) There shall be uniform natural gas leaks classification for all gas companies.
- (b)
 - (1) Gas companies shall assess a grade to all reported natural gas leaks based on the system provided in this section.
 - (2) A **Grade 1** leak shall be a leak that represents an existing or probable hazard to persons or property. **Grade 1 leaks require repair as immediately as possible and continuous action until the conditions are no longer hazardous.** The gas company shall immediately schedule a completion of repairs and the condition shall be kept under continuous surveillance until the hazard or source of the leak is eliminated. Whenever appropriate and feasible, a gas company shall notify the fire department and chief law enforcement officer in each city or town where a Grade 1 leak is identified.
 - (3) A **Grade 2** leak shall be a leak that is recognized as non-hazardous to persons or property at the time of detection, but justifies scheduled repair based on probable future hazard. **The gas company shall repair Grade 2 leaks or replace the main within 12 months from the date the leak was classified.** All Grade 2 leaks shall be reevaluated by a gas company at least once every 6 months until eliminated; provided, however, that the frequency of reevaluation shall be determined by the location and magnitude of the leakage condition.
 - (4) A **Grade 3** leak shall be a leak that is recognized as non-hazardous to persons or property at the time of detection and can be reasonably expected to remain non-hazardous. The gas company shall reevaluate Grade 3 leaks during the next scheduled survey, or within 12 months from the date last evaluated, whichever occurs first, until the leak is eliminated or the main is replaced. A municipal or state public safety official may request a reevaluation of a Grade 3 leak prior to the next scheduled survey, or sooner than 12 months of the date last evaluated, if the official reasonably believes that the Grade 3 leak poses a threat to public safety.

<https://malegislature.gov/Laws/SessionLaws/Acts/2014/Chapter149>

Gas Leaks in the News

The public is just now becoming aware of the cost, waste, and personal and environmental hazard of gas leaks as they have become a significant current topic in the news. See:

Boston Globe, Aug. 20, "Leaks widespread in state's gas lines"

<http://www.bostonglobe.com/metro/2015/08/20/new-law-casts-light-state-natural-gas-leaks/qJJPCjRZITc5ai0JeHNOqO/story.html>

WBUR, Aug. 21, Radio story on gas leaks,

<http://radioboston.wbur.org/2015/08/21/leaky-gas-lines>

WCVB television news, Aug. 21, "Hidden danger, cost of gas leaks in Massachusetts"

<http://www.wcvb.com/news/hidden-danger-cost-of-gas-leaks-in-massachusetts/34852528>

Resources

Resource	Source	Link or Reference
Report on Lost and Unaccounted for Gas	DPU	http://www.mass.gov/eea/docs/dpu/gas/icf-lauf-report.pdf
Into Thin Air	CLF	http://www.clf.org/static/natural-gas-leaks/WhitePaper_Final_lowres.pdf
America Pays for Gas Leaks	Sen. Ed Markey	http://www.markey.senate.gov/documents/markey_lost_gas_report.pdf
David Abel "Leaks in Boston area gas pipes exceed estimates"	Boston Globe	http://www.bostonglobe.com/metro/2015/01/22/natural-gas-leaks-boston-area-are-far-more-extensive-than-thought/5BykQrnaGRr2XLtxpHqLIM/story.html
"Methane emissions from natural gas infrastructure and use in the urban region of Boston, Massachusetts"	Proceedings of the National Academy of Sciences of the United States of America	http://www.pnas.org/content/112/7/1941.full?sid=544e506b-2c46-4e28-b620-1dc30c6cea62
An Act relative to protecting consumers of gas and electricity from paying for leaked and unaccounted for gas	Massachusetts House	https://malegislature.gov/Bills/189/House/H2870
An Act Relative to Gas Leak Repairs During Road Projects	Massachusetts House	https://malegislature.gov/Bills/189/House/H2871
Understanding the Impact of Natural Gas Leaks on Public Safety, the Environment and Your Wallet	CLF	http://clf.org/map/