



PREDICT · PRIORITIZE · PROTECT

Know where failure waits.

Fracta scores every pipe segment in your distribution network for how likely it is to fail and what that failure will cost, so your next capital dollar replaces the segment that carries the most risk. Machine learning on the records you already have. No new sensors, no field work.

- 120+ VARIABLES
- 1 TO 5 YEAR HORIZON
- RANKED IN DOLLARS
- CIP READY

Most utilities rank replacement by age, material, or break history. Those are three of many variables that determine whether a pipe fails, and on their own they send crews to the oldest pipe rather than the weakest one. They also say nothing about what a break costs. **Fracta scores likelihood and consequence separately, then multiplies them into one monetized ranking of every segment in your system, defensible to your council, your finance team, and your regulator.**

THREE SCORES, ONE REPLACEMENT LIST

01

Likelihood of Failure

Every segment scored against 120+ variables, from soil corrosivity and frost depth to land use and break history on neighboring pipe. Calibrated against your own failure record, not an industry average.

PROBABILITY OF FAILURE AT 1, 2, 3, 5 YRS · PERCENTILE RANK · TOP 5 RISK DRIVERS PER SEGMENT

02

Cost of Failure

Repair and restoration costs separated from the consequential cost of road closure, water loss, service interruption, and emergency response. Location aware: a break on a side street is not a break outside a hospital.

DIRECT + INDIRECT COST PER SEGMENT · CUSTOMERS AFFECTED · CRITICAL FACILITY EXPOSURE

03

Total Risk

Likelihood multiplied by cost, expressed as dollars at risk on each segment. One objective criticality score, directly comparable across the entire system and readable by anyone who approves a budget.

DOLLARS AT RISK PER SEGMENT · SYSTEM-WIDE RANKING · EXPORTABLE RANKED CIP LIST

WHY CONDITION ALONE SPENDS MONEY IN THE WRONG ORDER

	SEGMENT A RESIDENTIAL SIDE STREET	SEGMENT B ARTERIAL NEAR HOSPITAL
Likelihood of failure (5 yr)	82%	31%
Cost of failure	\$9,000	\$75,000
Total Risk	\$7,380	\$23,250
Rank in the CIP	#41	#6

Segment A looks far worse on condition alone, and an age or break-history list sends crews there first. Segment B carries three times the exposure and belongs 35 positions earlier in the plan. Total Risk is the only view that puts the two on the same scale, which is what lets you rank by dollars rather than age, size the budget to real exposure, and defend every deferral you document.

IF YOUR NETWORK IS NOT IN GIS YET

As-Built Digitization PATENT PENDING

The authoritative record of what is in the ground often still sits in drawings. Fracta converts scanned record sets, mylars, vector PDFs, and CAD into georeferenced, attributed GIS data through centerline vectorization, automated georeferencing, and attribute extraction, standardized to your schema. Delivered as File Geodatabase, Utility Network ready feature classes, GeoJSON, or Shapefile for water, sewer, storm, gas, electric, and telecom networks.

PROVEN IN THE FIELD

200+

utilities served globally

200K+

miles of pipe analyzed

560K+

breaks analyzed and learned from

"We find that having a resource like Fracta to help make data-driven decisions on which line to replace is invaluable."

BRAXTON COPLEY · DIRECTOR OF UTILITIES, CITY OF TOPEKA, KS

See your own network ranked by dollars at risk.

Send us your GIS export and break history. We will show you where failure waits before it costs you.

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