Construction Optimization

PICARRO

APPLICATION BRIEF

Picarro's methane data and analytics provide insight into a number of applications in overall asset management – examples include pipe replacement prioritization, emissions reduction, accelerated risk reduction, etc. An additional benefit is in optimizing construction projects by identifying adjacent construction opportunities and opportunities for bundling construction work.

Methane emissions data collected and analyzed by the Picarro system can be used either on its own, or can be combined with utility DIMP/risk data in Picarro's visualization dashboards, and used in this application to identify construction optimization opportunities.

Some examples of how Picarro's methane data and analytics can enhance construction planning include:

- Identifying opportunities for grouping of adjacent pipe replacement construction projects.
- Optimizing construction budgets by efficiently scheduling sub-contractor resources.
- Further refining the scoping of pipe replacement initiatives at a 'neighborhood' level.
- Identifying pipe sections that can be replaced in their entirety, avoiding multiple, costly tie-ins.

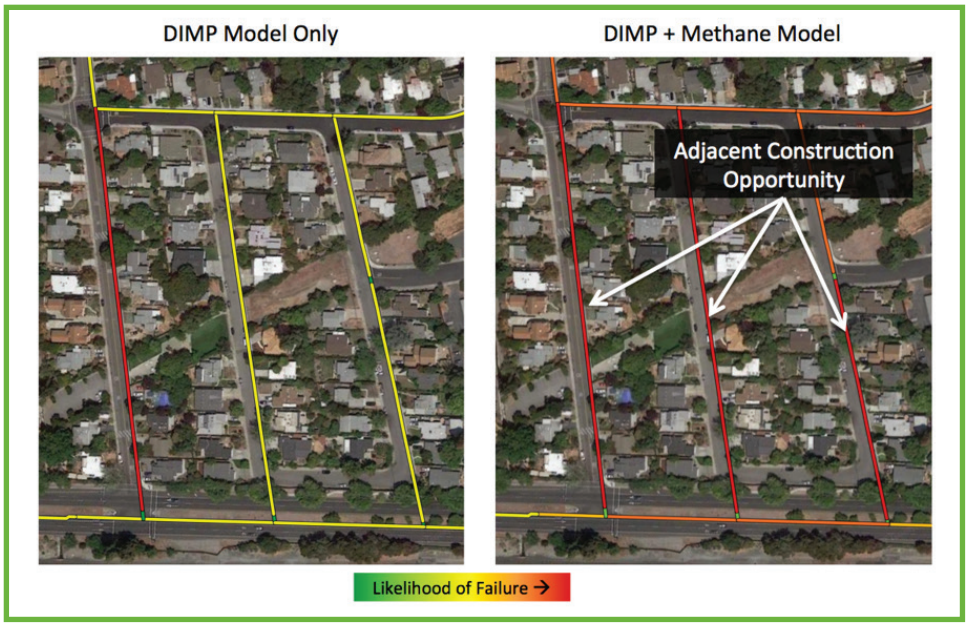

Figure 1. The addition of methane data to existing DIMP models can allow the identification of opportunities for bundling of work. In this example, all three sections of mains were determined by the DIMP+Methane model to be in need of replacement (equal failure likelihood) whereas the DIMP-only model incorrectly estimated the risk of two of the three sections. The two sections in yellow would be prioritized for replacement, just in a later year. Here, the work should be bundled since all three sections will eventually be replaced and are of equal failure likelihood. Work bundling like this results in overall cost savings if a neighborhood can be impacted only once during a multi-year pipe replacement program. Additional cost avoidance results from removing additional leaks that would incur O&M expense if found by leak survey or odor calls before the sections in yellow are replaced.

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