



RIVERSIDE PUBLIC UTILITIES

Board Memorandum

BOARD OF PUBLIC UTILITIES

DATE: FEBRUARY 23, 2026

SUBJECT: MEMORANDUM OF UNDERSTANDING BETWEEN THE CITY OF RIVERSIDE PUBLIC UTILITIES AND VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY FOR PARTICIPATION IN THE PIPELINE INFRASTRUCTURE DATABASE (PIPEiD) RESEARCH PROJECT

ISSUE:

Consider recommending that the City Council authorize a Memorandum of Understanding between the City of Riverside and Virginia Polytechnic Institute and State University to participate in the Pipeline Infrastructure Database (PIPEiD) research project.

RECOMMENDATION:

That the Board of Public Utilities recommend that the City Council authorize a Memorandum of Understanding between the City of Riverside and Virginia Polytechnic Institute and State University to participate in the PIPEiD research project.

BACKGROUND:

Virginia Polytechnic Institute and State University (Virginia Tech) is conducting a national research effort titled, "Collection and Compilation of Water Pipeline Field Performance Data (PIPEiD)." This research project involves collaboration with approximately 500 water utilities and 100 federal facilities across the United States. Virginia Tech, the United States Geological Survey (USGS), and California water agencies, and the California Department of Water Resources, are working together in an effort to help utilities cost-effectively reduce water loss from source to tap. By creating a comprehensive model for tracking water loss in utility systems, the initiative identifies where and how to best invest in repairs and upgrades, helping participating utilities determine which assets to replace or which efforts to consider. The data reported through these pilot systems will be evaluated for quality, standardized into consistent formats, and complemented with other system-level data to support state-of-the-art modeling for public supply water use. USGS scientists will then use this data to enhance their models and better estimate losses for public supply systems across the nation.

Riverside Public Utilities (RPU) has been invited to voluntarily participate in this research effort. Participation requires entering into a Memorandum of Understanding (MOU) that outlines data-sharing responsibilities, security protections, confidentiality requirements, and access to project results. No customer-identifiable information will be shared as part of this agreement.

DISCUSSION:

Under the proposed MOU, RPU would provide existing water pipeline infrastructure data to Virginia Tech on an as-needed basis for use in the PIPEiD research project. The data would support analysis of pipeline condition, performance, and risk as part of the national study described above.

RPU currently tracks distribution system water loss as part of its Water Loss program, consistent with American Water Works Association water audit methods and reporting in the 2020 Urban Water Management Plan. Participation in the PIPEiD project would complement the program by providing additional, research-based information in pipeline condition and performance, helping staff better understand where real water losses may be occurring, and improving the prioritization of leak detection, maintenance, and pipeline replacement.

At the conclusion of the project, RPU will receive free access to the PIPEiD analytical tools, models, and visual reports. These resources will allow RPU to compare its system to national data, track performance trends, and use information to support long-term planning, while continuing to rely on RPU's engineering judgment, field inspections, or capital planning when deciding which pipelines to replace.

Initial analytical results are expected within several months after RPU submits its data. The PIPEiD research effort is a multi-year national project, and RPU's participation under this MOU will extend through December 31, 2028, with the option for the parties to extend the agreement allowing RPU to receive updated analyses and tools.

FISCAL IMPACT:

There is no fiscal impact associated with authorization of this Memorandum of Understanding.

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Certified as to availability of funds:	Julie Nemes, Interim Finance Director
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Approved as to form:	Rebecca McKee-Reimbold, Interim City Attorney

Attachments:

1. Memorandum of Understanding between Riverside Public Utilities and Polytechnic Institute and State University
2. Presentation