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As water/wastewater operators and managers, many of you have rolls of system as-built maps and/or design drawings in your plant or office. Many water systems have books of valve and hydrant cards. An example service card file is shown here as Figure 1. Similarly, wastewater collection systems may have cards detailing the location of cleanouts. It is obviously important to keep these vital records and protect them from damage due to fire, water, vandalism, human error, paper decay, fading, etc. It is also important to be able to readily access these documents when you need them, including out in the field.

The best way to preserve system records/maps and improve access to them is to convert them into a computer (digital) format. This process, called digital imaging (or digitizing), involves converting records on paper into electronic images of the original records. Many simply refer to this as scanning, since it usually involves a flatbed or sheet fed scanner for smaller documents and a wide format scanner for maps and drawings.

feasible. This can be done in house or by a third party vendor that specializes in document imaging services.

I have scanned many system maps, valve and hydrant cards, etc. and have linked them to GIS and online system maps. System personnel can simply click on a feature such as a shutoff or a clean out on the map and an image of the service or clean out card can be immediately pulled up. Similarly, as-built and design drawings can be linked to a digital map of the system. I have found that it is not particularly expensive to take maps and records to local businesses that have copying and printing services and have these establishments scan the materials. The two most widely accepted scanned image formats are Tagged Image File Format (TIFF) and PDF/A. The latter format is a version of PDF (Portable Document Format) that is preferred over PDF for long term archiving purposes. Personally, I have had good luck with TIFF images.

So, to summarize, scanning is an important step to protect your system's information assets. I would encourage you to get started. If you have questions or would like to learn more about linking scanned documents to digital maps, please give me a call at 1-888-NYRURAL, ext. 170 or drop me an email to winkley@nyruralwater.org. 💧💧

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Figure 1: Example Service Valve (Curb Stop) Card (from AWWA, 2009)

If you would like to learn more details of the digital imaging process, a good resource is the New York State Archives. Their document entitled, Digital Imaging Guidelines, is available online at http://www.archives.nysed.gov/common/archives/files/mr_erecords_imgguides.pdf. The Archives offer a grant program that includes scanning known as the Local Government Records Management Improvement Fund Grants. Unfortunately, the latest round of grant proposals were due in January 2018. With or without grant funding, however, I would encourage systems to consider digitizing their records and maps as soon as it is