



NDT&E Tech Brief

Mother Nature's Rain

Water testing that is part of a leak investigation will identify a source of the leak. This will be followed by a repair campaign to eliminate that source of the leak. Should this be followed by a quality assurance water test? It depends on the circumstances, the building, the nature of the leak, and the client.

If the leak is actually a leak (see [Is Your Leakage a Leak?](#)), then it may be sufficient to wait for the next rain and let Mother Nature perform the quality assurance water test. If there is still a leak, then it is appropriate to repeat the water testing as conducted before the repair. If it fails the test, then the quality of the repair is in doubt. If it passes the test, then further water testing will be needed to locate a secondary source.



Although most leaks have a single source, a few do have multiple sources. At one unfortunate residential apartment, as many as five sources were identified. As each source was identified, a repair was performed, Mother Nature showed the leak was still there, quality assurance water testing showed that the repair was good, and further water testing identified the next source. This process was repeated until all five sources were identified, each higher than the other (the final highest source was obviously the primary source, and actually created the other secondary sources, finally resulting in the leak into the apartment).

Was an interior probe opened to facilitate water testing during the leak investigation? Can the client identify the leak prior to repair and confirm that the leak is gone after the repair? If not, then a quality assurance water test is appropriate prior to closing the interior probe.

Of course, if the client is very cost-sensitive, then the client may prefer letting Mother Nature's rain perform the quality assurance testing, even if it means closing up interior probes and letting the repair contractor leave the site. The cost-sensitive client may even decide to tolerate minor or occasional problems due to the next tropical storm or after [several freeze-thaw cycles](#) have activated a new secondary source.

Whatever is decided, the client is always right. For a list of all of the tests that SUPERSTRUCTURES provides, including leak investigations and quality assurance water testing, click [here](#).

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