STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

STAFF SUMMARY REPORT: Roger Papler
MEETING DATE: December 16, 2020

ITEM: 6

Advances in Remediation Technologies at Sites Contaminated with Volatile Organic Compounds – Status Report

DISCUSSION:

This status report (Appendix A) provides an overview of advances in technologies used to remediate sites contaminated with volatile organic compounds. A status report to the Board in October 2018 covered advances in investigation technologies.

Widespread soil and groundwater contamination was initially discovered in our Region in the early 1980s. At that time, the cleanup industry relied on what we now call conventional remediation technologies, such as soil excavation and groundwater extraction. In the late 1980s, soil vapor extraction started becoming more common. Remediation methods evolved during the 1990s as new technologies were developed and as we learned more about how contaminants break down. The use of conventional groundwater extraction is now mainly for containment rather than cleanup due to higher cost and inefficiency in removing contaminants from fine grained materials such as silt and clay.

Advances in remediation technologies have enabled faster and more effective cleanup at our sites. If a site is adequately investigated and characterized, these newer technologies can provide a more targeted remediation while the contaminants are still in the ground. Bioremediation for example, is now one of the most widely used remediation technologies due to cost savings and its ability to target and destroy contaminants.

Under the Water Code, the choice of remediation methods is up to the discharger. However, we can encourage the use of innovative remediation technologies and require that they be evaluated against other methods. We will continue to make dischargers aware of their remediation options and encourage them to use innovative methods where appropriate, particularly as more expeditious cleanup is needed to protect public health from exposure to contaminant vapor intrusion or contaminated groundwater used for drinking water, and to protect ecological health where contaminants are migrating or may migrate to creeks, wetlands or the Bay.

APPENDIX:

A. Status Report

Appendix A
Status Report