Conceptual Site Model of Storm Water Runoff in the Vicinity of the Laboratory

LA-UR-17-24765
ESHID-602509

A- Prevailing southwest winds bring storms to the Laboratory, as well as atmospheric deposition of constituents such as PCBs.

B- Precipitation falling on the Jemez Mountains (area of little to no anthropogenic development) generates storm water runoff which flows through the undeveloped landscape, mobilizing and transporting constituents sourced from the natural landscape and atmospheric deposition.

C- Storm water enters the Laboratory boundary, where canyon sediments are mobilized and transported downstream.

D,E- Precipitation events within the Laboratory result in storm water runoff from impervious surfaces on the mesa tops, mobilizing and transporting constituents from developed sources (D), and historic Laboratory activities (E).

F- Developed (urban) areas generate constituents in storm water runoff that contribute to concentrations observed in downstream waters and sediments.

G- Due to the arid environment and sandy canyon bottoms within the Laboratory, storm flows rarely reach the Rio Grande. Occasionally, due to large rain events or years of high snowmelt, canyon flows may reach the Rio Grande and mix with in-stream flow.

Water Canyon
Pajarito Canyon
Mortandad Canyon
Sandia Canyon
Los Alamos Canyon
DP Canyon
Pueblo Canyon