

# PGDP GROUNDWATER HISTORY & ACCOMPLISHMENTS

## GROUNDWATER PLUMES

Groundwater investigations have delineated the extent of trichloroethene (TCE) **5** and technetium-99 (99Tc) **6** in PGDP groundwater

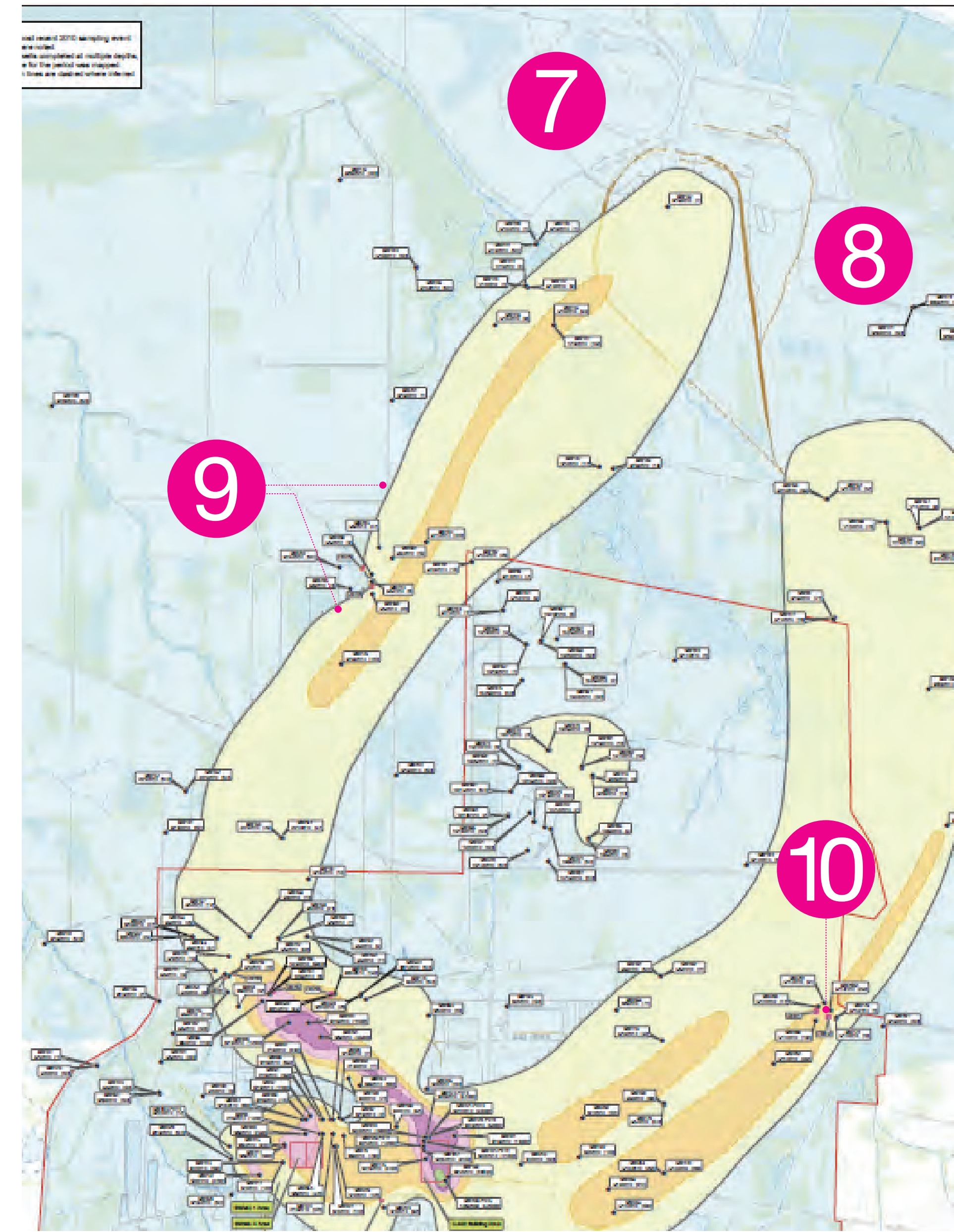
The Northwest TCE and 99Tc Plume **7** and Northeast TCE Plume **8** extend more than 3 miles toward the Ohio River from PGDP sources

1995 Northwest Plume GW Pump & Treat System **9** begins operations extracting contaminated groundwater from two NWP extraction well fields **10**

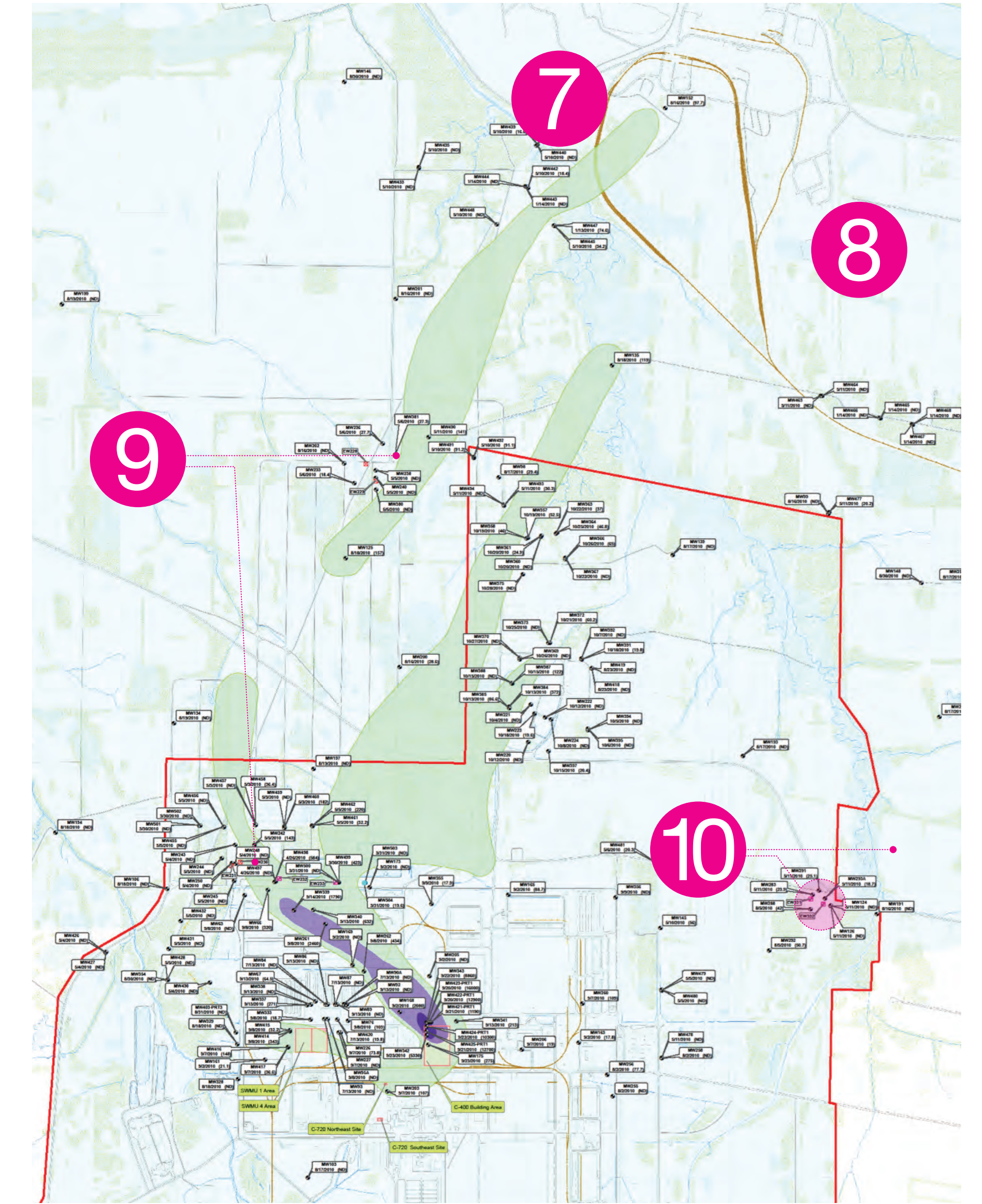
1997 Northeast Plume GW Extraction System begins operations

## PUMP & TREAT RESULTS

SOURCE AREA	ESTIMATED TCE REMOVED	YR. ACTION BEGAN COMPLETE?
P&T WATER TREATED		
NW - 1,237,860,000 GAL	2,687 GAL	1995 - NO
NE - 1,674,770,000 GAL	272 GAL	1997 - NO



**5 TCE**



**6 99Tc**

## PGDP INDUSTRIAL SITE GROUNDWATER AND SOURCE IMPACTS

PGDP GW Plumes are the largest in the DOE Complex and among the largest in the world (volume and extent)

PGDP GW Plumes present world-class remedial challenges because  
 -Extensive industrial infrastructure  
 -Depth (@60 - 100' bgs)  
 -Presence of 99Tc  
 -Geochemistry

Process Water Impoundments used to treat liquid discharges **M**

Burial Ground used for shallow land burial of process wastes **M**

Water Treatment, Distribution, and Sewage Treatment Facilities **M**

C-746 K Landfill Sanitary and fly ash waste and early site construction waste **10**

C-720 Maintenance Building Process equipment fabrication and maintenance **12**

C-746 U Landfill Early site operations non-contaminated and construction waste **M**

C-746 S&T Landfills Sanitary waste and early site construction waste **M**

Process water transfer lines

Process Buildings

C-400 Cleaning Building Used to clean process piping, filters and equipment **11**

## IMPACTS

## PGDP INDUSTRIAL SITE GROUNDWATER AND SOURCE ACTIONS

## ACTIONS

Ongoing investigations with groundwater source component **M**

Lasagna Project Removal of shallow TCE from soils and groundwater **13**

Landfill investigated, capped/closed **10**

Burial and Landfill facilities capped/closed **M**

2003 - C-400 Six Phase Treatability Study Completed **11**

2010 - C-400 Phase 1 Remedy Completed **11**

Ongoing investigations with groundwater source component **M**

## ACTIONS