

## **DRAFT SITE REGISTRY REPORT**

### **PROPOSED WATER QUALITY ASSURANCE REVOLVING FUND (WQARF) SITE Harrison Road and Millmar Road Dross Tucson, Pima County, Arizona February 2017**

#### **Site Location**

The proposed Harrison Road and Millmar Road Dross Water Quality Revolving Fund (WQARF) Registry site (the Site) consists of contaminated soils located near Millmar Rd and Harrison Rd in Tucson, Arizona. The site is generally bounded by Millmar Rd to the north, Mountain View to the south, the private driveway of 9880 Millmar Rd to the east, and Harrison Hills wash to the west. The site is in an urban/rural setting that includes a mixture of low and high density residential neighborhoods, small farms, and small businesses.

#### **Background**

The Site consists of two piles of aluminum dross and several areas of dross/soil mixture on residential property. Sampling at the time of discovery in the late 1980s to early 1990s determined that the dross contained heavy metals including arsenic, antimony, lead, cadmium, and copper. The Harrison Hills Wash, which flows directly into the Pantano Wash, runs next to one of the dross pile areas and approximately 750 feet from the other dross pile. One of the piles is also located immediately adjacent to the Pantano Vista Manufactured Home Community. Thirteen private groundwater wells exist within one mile downgradient of the Site.

Aluminum dross is a byproduct of aluminum scrap meltdown and consists of a gray ash-like substance interspersed with metal pieces. ADEQ files indicate the dross at the Site may have originated from facilities in the 1950s-1970s that legally purchased obsolete aircraft parts from Davis-Monthan Air Force Base and melted them down for scrap metals.

Site investigations in late 2015 through early 2016 indicated that the Site contained aluminum, antimony, arsenic, cadmium, copper, lead, and nickel above residential Soil Remediation Levels (rSRLs). Maximum lead concentrations in dross/soil samples were 2,177 milligrams per kilogram (mg/kg), exceeding the rSRL of 400 mg/kg. Other maximum concentrations of metals detected were aluminum at 160,000 mg/kg (rSRL = 76,000 mg/kg), antimony at 268 mg/kg (rSRL = 31 mg/kg), arsenic at 53 mg/kg (rSRL = 10 mg/kg), cadmium at 253 mg/kg (rSRL = 39 mg/kg), copper at 34,632 mg/kg (rSRL = 3,100 mg/kg), and nickel at 2,115 mg/kg (rSRL = 1,600 mg/kg). Metals exceeding rSRLs were also detected in the Harrison Hills Wash, which less than 0.5 miles downstream discharges directly into the Pantano Wash, with designated uses of partial body contact and aquatic and wildlife, ephemeral.

In August of 2016, an Early Response Action (ERA) was conducted to remove contaminated surface soils located near a residence, remove the contamination from the wash and stabilize nearby areas, and place a temporary cap over approximately  $\frac{3}{4}$  of the large pile adjacent to the Pantano Vista Manufactured Home Community.

While metals were above minimum Groundwater Protection Limits (GPLs), site metals were not detected in 6 private wells tested in December 2015, indicating no current impacts to groundwater.

The E&E score for the Site is 41 out of a possible 120. The Arizona Department of Environmental Quality (ADEQ) proposes that the Site be added to the WQARF Registry established pursuant to Arizona Revised Statutes (A.R.S.) § 49-287.01(D). This Draft Site Registry Report (SRR) was prepared to meet the requirements of A.R.S. § 49-287.01(B).

#### **Rationale to list the Site on the WQARF Registry**

- Heavy metals are present at concentrations over rSRLs on properties currently being used for residential purposes.
- Possibility of wind-blown contamination emanating from the remainder of the uncapped pile of dross located next to multiple residences, including the Pantano Vista Manufactured Home Community.
- ERA performed to clean up contamination detected above regulatory limits (rSRLs) in the Harrison Hills wash needs long term observation and maintenance to prevent future spreading of contamination.
- Possible future impacts to multiple privately owned domestic water wells within the boundaries of the Site if groundwater should become impacted. Metal concentrations are above minimum GPLs at the Site.