

**FEASIBILITY STUDY WORK PLAN
HARRISON ROAD AND MILLMAR ROAD DROSS
WQARF REGISTRY SITE
TUCSON, ARIZONA**



December 20, 2017

Arizona Department of Environmental Quality
Remedial Projects Unit
1110 West Washington
Phoenix, Arizona 85007

TABLE OF CONTENTS

LIST OF ABBREVIATIONS & ACRONYMS ii
1.0 INTRODUCTION..... 1
1.1 Purpose 1
1.2 Site Description..... 1
2.0 FEASIBILITY STUDY TASKS 2
3.0 COMMUNITY INVOLVEMENT 3
4.0 FEASIBILITY STUDY REPORT FORMAT 3
5.0 REFERENCES..... 4

FIGURE

Figure 1. Site Map

LIST OF ABBREVIATIONS & ACRONYMS

| | |
|--------|---|
| A.A.C. | Arizona Administrative Code |
| ADEQ | Arizona Department of Environmental Quality |
| A.R.S. | Arizona Revised Statutes |
| COC | Contaminants of Concern |
| FS | Feasibility Study |
| HGC | Hydro Geo Chem, Inc. |
| RCRA | Resource Conservation and Recovery Act |
| RI | Remedial Investigation |
| RO | Remedial Objectives |
| SRLs | Soil Remediation Levels |
| WP | Work Plan |
| WQARF | Water Quality Assurance Revolving Fund |

1.0 INTRODUCTION

1.1 Purpose

This Work Plan (WP) presents the methodology that will be followed for completion of the Feasibility Study (FS) for the Harrison Road and Millmar Road Dross Water Quality Assurance Revolving Fund (WQARF) Site (the Site) in Tucson, Arizona. This WP is required as part of the FS process, pursuant to Arizona Administrative Code (A.A.C.) R18-16-407(B).

The purpose of the FS is to develop and evaluate a reference remedy and alternative remedies that are capable of achieving the Remedial Objectives (ROs) for the Site. An FS report will be developed that relies on data and information from the Remedial Investigation (RI), and further work that may be conducted during the FS. The remedy for the Site will address soils and non-soil materials that have not and will not impact groundwater. Pursuant to A.A.C. R18-16-407 (C) and (D), the FS will not require an analysis of alternative remedies. The FS will demonstrate that the chosen remedy:

- Is designed to prevent human exposure to hazardous substances through achievement of Soil Remediation Levels (SRLs) in 18 A.A.C. 7, Article 2, or achievement of site-specific remediation levels based on a site-specific human health risk assessment;
- Is selected based on best judgment and practices of engineering, geology, or hydrogeology; and
- Will achieve the ROs.

In accordance with A.A.C. R18-16-407 (D), the FS report shall describe the reasons for selecting the remedy considering the following information:

- The Remedial Investigation (RI);
- Best available scientific information concerning available remedial methods and technologies; and
- A written analysis explaining how the remedy is consistent with Arizona Revised Statutes (A.R.S.) §49-282.06, including a brief explanation of the comparison criteria under R18-16-407 (H) (3).

1.2 Site Description

The Site is located in the southeastern area of Tucson, Arizona, approximately 0.25-miles southeast of the intersection of Harrison and Millmar Roads (Figure 1).

The purpose of the RI was to determine the nature and extent of contamination at the Site. The RI also identified present and reasonably foreseeable uses of land that have been or are threatened to be impacted by the contamination. As waters of the state are not impacted or threatened to be

impacted, only land use was evaluated for the Site. Based upon the data collected, the following represents the interpretations and conclusions reached as a result of the RI.

The Site consists of two distinct areas that originally contained aluminum dross piles. The surrounding soils impacted by the dross at concentrations above the Arizona residential SRLs are also considered part of the Site. Aluminum dross is a by-product of aluminum scrap meltdown and consists of an ash-like substance with sporadic metal pieces. The dross at the Site likely originated from facilities in the 1960s that legally purchased aircraft parts from Davis-Monthan Air Force Base and melted them down for scrap metals (HGC, 2017). The dross materials were likely deposited on the land prior to 1976 (i.e. pre-Resource Conservation and Recovery Act [RCRA]) (HGC, 2017). The primary contaminants of concern (COCs) for the Site are aluminum, antimony, arsenic, cadmium, copper, lead and nickel. The extent of contamination is contained in the areas shown in Figure 1 (HGC, 2017). Several private residences are located on or near the dross piles; an Early Response Action (ERA) and remedial action activities were conducted to mitigate the risks to the residents of these properties (HGC, 2017).

Land use in the area around the facility consists of a mixture of low-density residential and small-scale agricultural uses (HGC, 2017). Harrison Hills wash, an ephemeral stream with peak discharge between 500 to 1,000 cubic feet per second, is located along the western edge of the Site immediately adjacent to the western-most dross pile. Migration of dross materials into the Harrison Hills wash was observed to be mostly limited to an area immediately adjacent to the west dross pile, with no significant off-site migration appearing to have occurred (HGC, 2017). Groundwater is not impacted by the Site.

2.0 FEASIBILITY STUDY TASKS

This section discusses the tasks associated with the development of the FS report. The FS tasks will be performed in order to meet the requirements of A.A.C. R18-16-407. The FS process considers the data gathered during the RI and further work that may be conducted during the FS. As the remedy for this site is addressing soils and non-soil materials that have not and will not impact groundwater, pursuant to A.A.C. R18-16-407 (C) and (D) an analysis of alternative remedies is not required. The FS report shall be prepared that demonstrates that the remedy:

- Prevents human exposure to hazardous substances through achievement of Soil Remediation Levels (SRLs) in A.A.C. R18-7-2, or levels based on site-specific human health risk assessment
- Achieves the ROs for the use of the property
- Was selected based on best engineering, geological or hydrogeological judgement, following the standards of practice of those fields
- Considers the information from the RI; and
- Considers the best available scientific information concerning available remedial technologies.

The FS report shall contain a written analysis of how the remedy is consistent with A.R.S §49-282.06 and a brief explanation of the comparison criteria specified under R18-16-407 (H) (3) as applied to the remedy.

3.0 COMMUNITY INVOLVEMENT

ADEQ will issue a Notice to the Public announcing availability of the work plan to implement the Feasibility Study on ADEQ's website at www.azdeq.gov. The notice may be mailed to the Public Mailing List for the Site, local governments, the property owners, and any other interested parties.

4.0 FEASIBILITY STUDY REPORT FORMAT

An FS report will be prepared documenting the FS process. The FS report will be organized into the following sections:

- **Section 1.0 INTRODUCTION**
This section will summarize the purpose of the FS report.
- **Section 2.0 SITE BACKGROUND**
This section will present a summary of the Site description, physiographic setting, nature and extent of contamination.
- **Section 3.0 FEASIBILITY STUDY SCOPING**
This section will present the regulatory requirements presented in statute and rule, delineate the remediation areas and present the ROs identified in the RI.
- **Section 4.0 IDENTIFICATION AND SELECTION OF REMEDIAL MEASURES**
This section will present how the remedy was selected considering the best available scientific information concerning applicable remedial technologies, using best engineering, geological or hydrogeological judgement, following the standards of practice of those fields.
- **Section 5.0 PROPOSED REMEDY**
This section will present the proposed remedy pursuant to A.A.C. R18-16-407(C) and (D), demonstrate how the proposed remedy will meet the requirements of A.R.S. §49-152 and 18 A.A.C. 7, Article 2, and how the remedy will achieve the ROs for the use of the property.
- **Section 6.0 COMMUNITY INVOLVEMENT**
This section will document the community involvement activities conducted in association with the FS.

5.0 REFERENCES

Hydro Geo Chem, Inc. (HGC), 2017. Final Remedial Investigation Report. December 20

FIGURE

Figure 1 – Site Map

