

# Interim Operations and Maintenance Plan/Periodic Review Report 2015, Gorham Street Area, Former Hampshire Chemical Corp. Facility, Waterloo, New York—Site No. 850001A

PREPARED FOR: Hampshire Chemical Corp.

PREPARED BY: CH2M HILL

DATE: December 7, 2015

## Introduction

This technical memorandum (TM) presents an Interim Operations and Maintenance (O&M) Periodic Review Report for the Gorham Street Area at the Former Hampshire Chemical Corp. (HCC) Facility in Waterloo, New York. Interim corrective measures (ICMs) at the Gorham Street Area were completed in fall 2013, and restoration activities including grading adjustments, erosion repairs and additional vegetation planting were completed in spring 2014. The activities included in this Periodic Review Report will become a part of the Site Management Plan (SMP) after the Sitewide Corrective Measures Study (CMS) is completed. This Periodic Review Report serves to bridge the gap in time between ICM completion and implementation of the SMP to ensure that the cover systems are maintained and performing as designed.

## Site Description

### Site Location

The facility is located at 228 East Main Street in Waterloo, New York. The facility is bordered to the north by East Main Street, to the east by residential properties, to the west by East Water Street, and to the south by the Cayuga-Seneca Canal. South of the canal are some residences and warehouses, and further downstream is the Village of Waterloo Wastewater Treatment Plant. The facility also includes property on the eastern side of Gorham Street, where the employee parking lot for the site is located. The area around the parking lot was the subject of the ICM as described in more detail below.

### ***Gorham Street Area Description***

The Gorham Street Area is defined as two areas with engineered soil caps and covers; one larger area is located east of Gorham Street and one smaller area is located west of Gorham Street. The portion east of Gorham Street is approximately 1.8 acres of land that extends approximately 365 feet east of Gorham Street and terminates at the adjacent residential parcel (Figure 1). The area extends from the northern property boundary to the canal located to the south. The New York State Canal Corporation (NYSCC) owns a thin right-of-way extending along the canal. A thin right-of-way also extends along each edge of Gorham Street and is owned by the Village of Waterloo. The area on the west side of Gorham Street encompasses approximately 0.04-acre of land that is owned by Evans Chemetics. The Evans Chemetics employee parking lot covers the majority of the portion of the parcel east of Gorham Street. Prior to Gorham Street corrective measures construction activities, the remaining area was wooded or covered by grass/undergrowth (CH2M HILL [CH2M] 2014a).

### **Topography**

Prior to Gorham Street corrective measures construction activities, the parcel west of Gorham Street sloped gently southeasterly toward the bridge abutment embankment and south toward the canal. East of Gorham Street, the land surface gently graded eastward across the parking lot and the adjacent wooded area to the eastern boundary of the former HCC facility.

The top of the canal bank was approximately 1 to 3 feet below the average grade of the parking lot, and a drainage swale trending west-east was present between the top of the canal bank and the parking lot. Beyond the swale, the grade dropped steeply to the canal where the bank was overgrown by vegetation and trees.

General overland flow from the parking lot and the extension area to the east of the parking lot was either south toward the canal or to the east. However, the canal bank berm was slightly higher in elevation than the grassy and formerly wooded area to the north and may limit some overland flow moving north to south. Precipitation that fell on the canal bank would potentially flow south toward the canal or north toward the grassy/vegetated area between the canal bank and the parking lot.

## Site Inspections

### Inspection Frequency

All inspections are conducted at the frequency specified in the Interim O&M Plan submitted on August 7, 2014 (CH2M 2014b). As indicated in the plan, inspections were to be conducted quarterly for the remainder of 2014 resulting in two inspections (two quarters remained after completion of construction). Future inspections will be conducted semiannually in 2015 and then will be performed annually until the SMP is in place as part of the sitewide CMS.

### Inspection Forms, Sampling Data, and Maintenance Reports

As part of the O&M activities for the soil and asphalt cover, inspections were completed semiannually in 2015. CH2M completed inspections on May 29, 2015 and October 19, 2015 as shown on the inspection forms included as Attachment A to this TM. Photographs of the site at the time of the inspection are included in Attachment B. Deficiencies were noted and reported, and appropriate corrective actions were taken to remedy the deficiency.

The following areas were inspected:

1. Soil cover
  - a. Stressed or dead vegetation
  - b. Observation as to whether mowing of vegetation is being performed at a suitable frequency
  - c. Erosion, furrows, ruts, penetrations, cracking, or animal burrows
  - d. Areas of ponding water
  - e. Evidence of vandalism to the cover
  - f. Evidence of slope movement along the canal
  - g. Signs of traffic on the soil cover area other than from mowing equipment
2. Asphalt cap
  - a. Signs of erosion, furrows, ruts, penetrations, cracking, or animal burrows
  - b. Vegetation growth through the asphalt
  - c. Areas of ponding water
  - d. Evidence of vandalism to the cap
3. Drainage swales
  - a. Observation as to whether drainage swales are still allowing for adequate flow towards the canal

- b. Signs of erosion, furrows, ruts, penetrations, cracking, or animal burrows
4. Perimeter security (fences and gates)
- a. Security signs in place
  - b. Gates are locked
  - c. Fence condition
  - d. Signs of vandalism
  - e. Any signs of vegetation growing on fence or gates

All applicable inspection forms and other records generated for the site during the reporting period are provided as Attachment A.

### Corrective Measures Completed

Any deficiencies noted during inspections were corrected as noted in the inspection reports (Attachment A). In general, the only issues that occurred in 2015 were associated with minor erosion, animal burrowing, and vegetation management. Each deficiency was addressed within 90 days as stipulated in the plan.

### Report Submission

The Periodic Review Report will be submitted on an annual basis in hardcopy format and electronic format to the New York State Department of Environmental Conservation (NYSDEC) Central and Region 8 Office and the New York State Department of Health (NYSDOH) Central Office.

### References

CH2M HILL (CH2M). 2014a. *Construction Completion Report, Former Hampshire Chemical Corp., Gorham Street Corrective Measures, Waterloo, New York.*

CH2M HILL (CH2M). 2014b. *Interim Operations and Maintenance Plan for Gorham Street Area, Former Hampshire Chemical Corp. Facility, Waterloo, New York.*

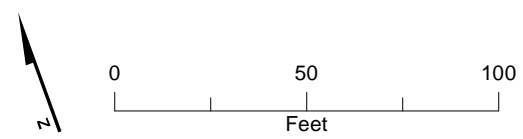
New York State Department of Environmental Conservation (NYSDEC). 2011. *Second Amended Order on Consent between Hampshire Chemical Corp. and NYSDEC* (Index Number CO 8-20000218-3281). August 12.

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Figure







# Attachment A Inspection Forms

May 2015 Inspection

**Attachment 1: Semi-Annual Inspection Form**  
**Interim Operations and Maintenance Plan for Gorham Street**  
**Former Hampshire Chemical Corp. Facility, Waterloo, New York**

Inspection Date: 5/29/2015 Inspector Name: Mike Shanahan

Soil Cover		Yes	No	Comments & Deficiencies Noted (Required if Shaded Area Selected)	CA Completion (Date/Initials)
Are there Signs of Stressed or Dead Vegetation?			X		
Is mowing of vegetation being performed at a suitable frequency?			X	Weeds along canal bank	Mowing performed on June 3, 2015 by Evans Chemetics personnel.
Are there Signs of Erosion, Furrows, Ruts, Penetrations, Cracking or Animal Burrows?			X		
Are there any Areas of Ponding Water?		X		At transition fence line	Existing grading in this area results in ponding water which evaporates within a couple days.
Any evidence of vandalism to the Cover?			X		
Is there evidence of slope movement along the canal?			X		
Are there Signs of traffic on the soil cover area other than from mowing equipment?			X		
Asphalt Cap		Yes	No	Comments & Deficiencies Noted (Required if Shaded Area Selected)	CA Completion (Date/Initials)
Are there Signs of Erosion, Furrows, Ruts, Penetrations, Cracking or Animal Burrows?		X		Cracks at transition lines	No action required at transition line cracks at this time
Are there any vegetation growth through the asphalt?		X		Yes - At transition to poles	Vegetation removal performed on June 3, 2015 by Evans Chemetics personnel.
Are there any Areas of Ponding Water?		X		Low areas in parking lot	Existing grading in this area results in ponding water which evaporates within a couple days.
Any evidence of vandalism to the Cap?			X		
Drainage Swales		Yes	No	Comments & Deficiencies Noted (Required if Shaded Area Selected)	CA Completion (Date/Initials)
Are the drainage swales still allowing for adequate flow towards the canal?		X			
Are there any signs of erosion, furrows, etc?			X		
Perimeter Security (Fences & Gates)		Yes	No	Comments & Deficiencies Noted (Required if Shaded Area Selected)	CA Completion (Date/Initials)
Are Security Signs in Place?		X			
Are all Gates Locked?		X			
Is Fence in Good Condition?		X			
Are there Signs of Vandalism?			X		
Is Vegetation growing on Fence or Gates?		X		Vegetation on fences	Vegetation removal performed on June 3, 2015 by Evans Chemetics personnel.

CA - Corrective Actions

Asphalt maintenance subcontractor to seal cracks

# October 2015 Inspection

**Attachment 1: Semi-Annual Inspection Form  
Interim Operations and Maintenance Plan for Gorham Street  
Former Hampshire Chemical Corp. Facility, Waterloo, New York**

Inspection Date: 10/19/2015 Inspector Name: Kurt Mehigh

Soil Cover	Yes	No	Comments & Deficiencies Noted (Required if Shaded Area Selected)	CA Completion (Date/Initials)
Are there Signs of Stressed or Dead Vegetation?		X		
Is mowing of vegetation being performed at a suitable frequency?	X			
Are there Signs of Erosion, Furrows, Ruts, Penetrations, Cracking or Animal Burrows?	X		Animal burrow near NW corner of large rock located near power poles.	Burrow was filled with stone on 11/5/2015.
Are there any Areas of Ponding Water?		X	See photos	
Any evidence of vandalism to the Cover?		X		
Is there evidence of slope movement along the canal?		X		
Are there Signs of traffic on the soil cover area other than from mowing equipment?	X		Appears Evans Chemetics has tracked onto cover Appears to be from vegetation clearing near power poles	
Asphalt Cap	Yes	No	Comments & Deficiencies Noted (Required if Shaded Area Selected)	CA Completion (Date/Initials)
Are there Signs of Erosion, Furrows, Ruts, Penetrations, Cracking or Animal Burrows?		X		
Are there any vegetation growth through the asphalt?		X		
Are there any Areas of Ponding Water?		X		
Any evidence of vandalism to the Cap?		X		
Drainage Swales	Yes	No	Comments & Deficiencies Noted (Required if Shaded Area Selected)	CA Completion (Date/Initials)
Are the drainage swales still allowing for adequate flow towards the canal?	X			
Are there any signs of erosion, furrows, etc?		X		
Perimeter Security (Fences & Gates)	Yes	No	Comments & Deficiencies Noted (Required if Shaded Area Selected)	CA Completion (Date/Initials)
Are Security Signs in Place?	X			
Are all Gates Locked?	X			
Is Fence in Good Condition?	X			
Are there Signs of Vandalism?		X		
Is Vegetation growing on Fence or Gates?		X		

CA - Corrective Actions  
None

# Attachment B

## Photo Logs



May 2015 Inspection



Asphalt Cap Transition Intersection





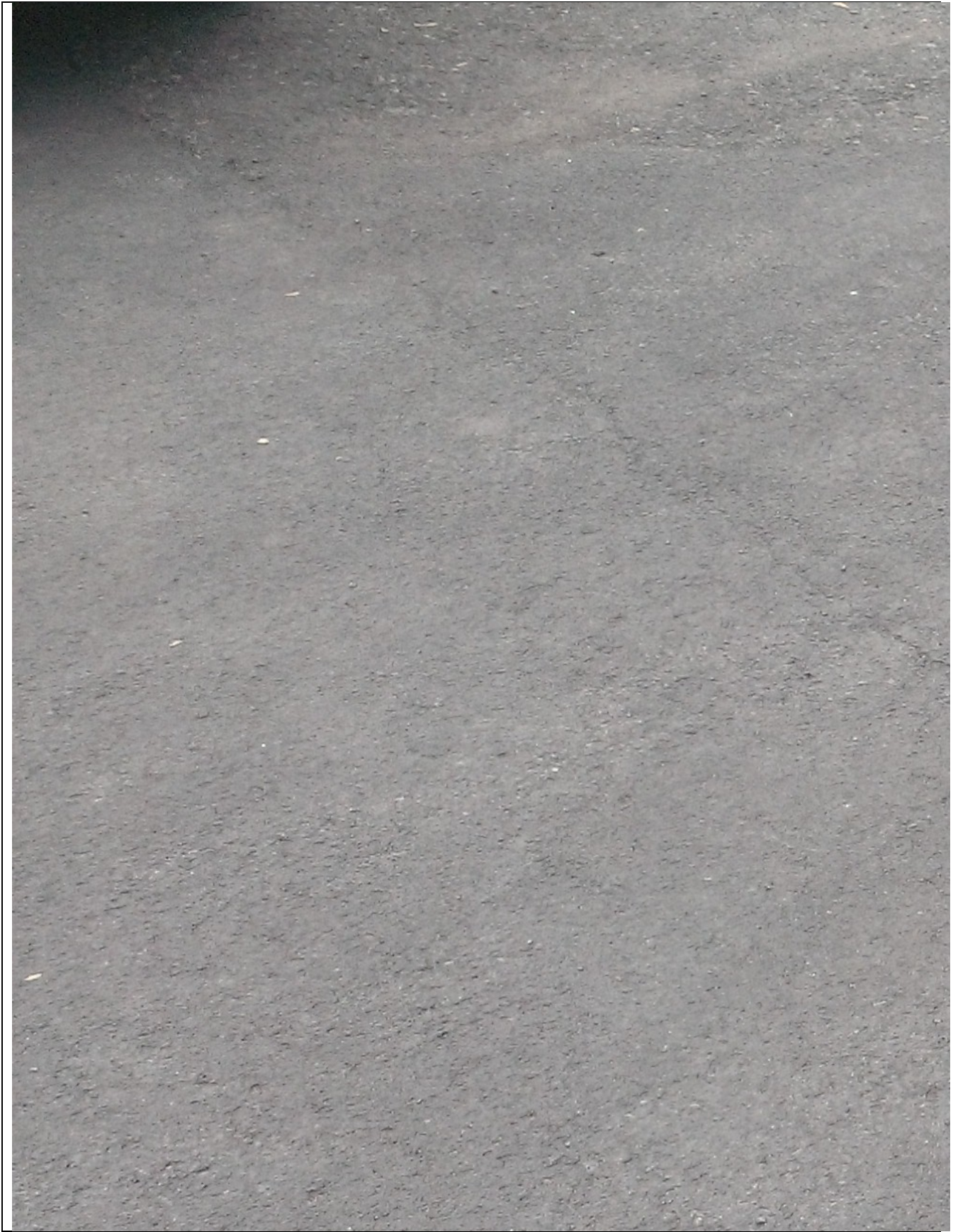
Asphalt Cap Transition Intersection





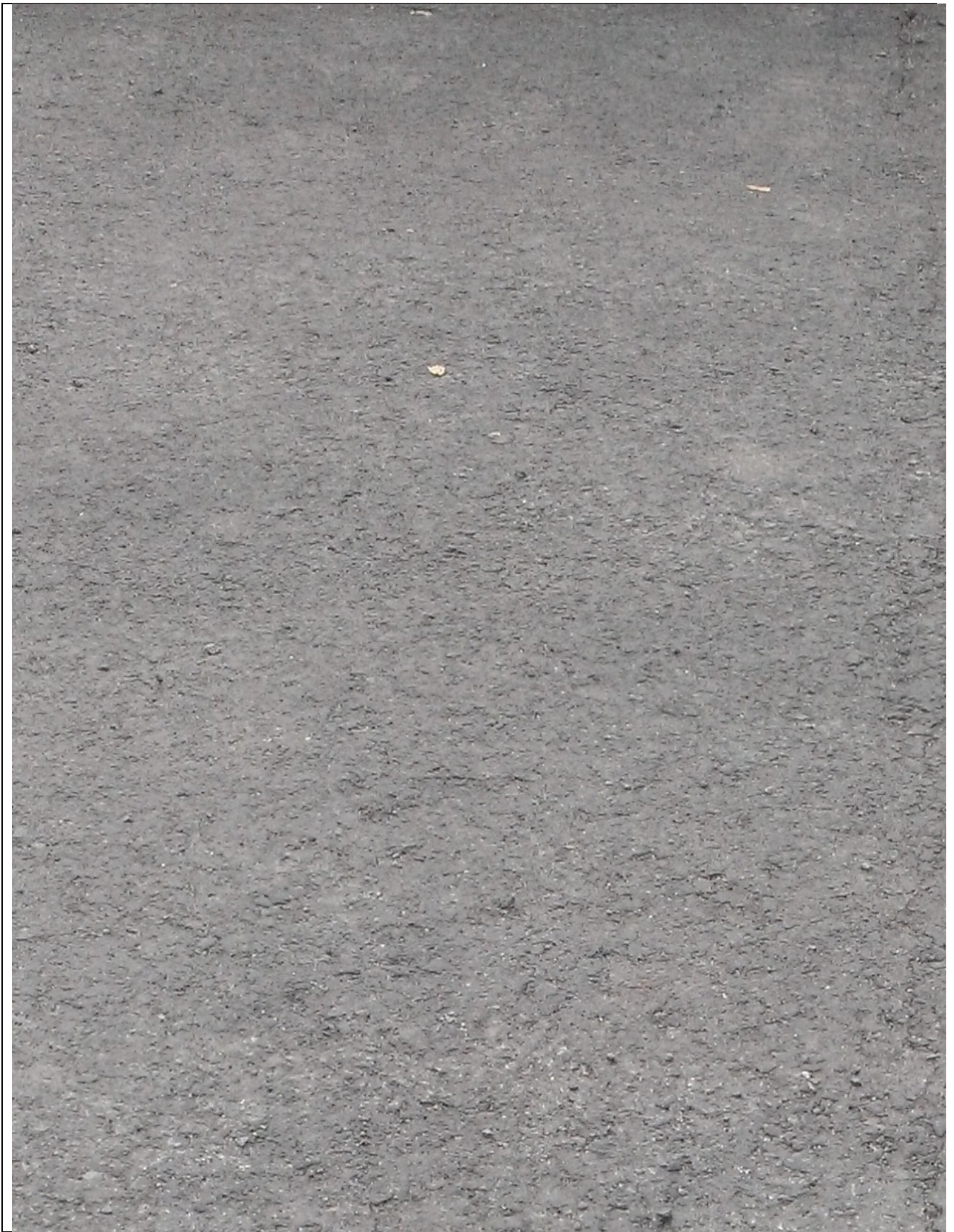
Asphalt Cap Condition





Asphalt Cap Condition





Asphalt Cap Condition





Vegetation on Fence

# October 2015 Inspection





Canal Bank Cover





Animal Burrow on NW Corner of Large Rock



Tracking onto Cover Area – Appears to be from Tree Clearing around Power Poles





Tree Clearing around Power Poles





Drainage Swale Located on East Side of Cover Area





Asphalt Cover Area