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THE BUNCHER COMPANY
JACKSON TOWNSHIP
BUTLER COUNTY, PENNSYLVANIA
JACKSON'S POINTE PHASE 3 AND 4
LOCATION EXHIBIT

Scale: 1" = 2000'
Date: APRIL 2015
Drawn By: MTS
Checked By: VLB
Approved By: VLB

Order No.
481-07
Drawing No.
EX1
Sheet No.
1 of 1



Figure 2 - Aerial Site Location Map



GPS Streams		GPS Data		National Wetland Inventory			
	Stream 1		Wetland		Freshwater Emergent Wetland		Study Area
	Stream 2		Pond		Freshwater Forest/Shrub Wetlands		Chapter 83 Streams
	Stream 3		Wetland Data Point		Freshwater Pond		Culvert
	Stream 4		Wetland Data Point		Other		Conduit
	Stream 5		Scrub				



1 inch = 300 feet
Date: November 22, 2013

Mitigation Plan

Figure 2 illustrates the streams and wetlands located within the project boundary limits (yellow line). Drawing Numbers GP2 and GP3 illustrate the grading, hence the impacts from the proposed development. The numbering and length of the impacted streams along with the area of the impacted wetlands was obtained from preliminary jurisdictional determination(attached), except for Stream 1. Figure A illustrates the impacted length of Stream 1. Table X lists the impacts to the resources.

Table X
Impact Summary

Resource	Impact Type	Permanent Impact (Lineal ft.)
Stream 1	Culvert/Fill	1,464
Stream 6	Culvert/Fill	240
Stream 5	Culvert/Fill	239
Stream 7	Culvert/Fill	306
Stream 8	Culvert/Fill	321
Stream 9	Culvert/Fill	138
Stream 10	Fill	633
Stream 11	Fill	490
Stream 12	Fill	235
Total		4,066
		(Acre)
Wetland 7	Fill	0.025
Wetland 6	Fill	0.031
Wetland 5	Fill	0.013
Wetland 4	Fill	0.054
Total		0.123

The mitigation of these impacts will result from the Buncher Company donating/purchasing materials for Connoquenessing Watershed Alliance’s Thorn Creek Habitat Improvement Project (TCHIP), and the Buncher Company purchasing wetland mitigation area from Resources Environmental Solutions, LLC.

The TCHIP was started in 2010 to coordinate Thorn Creek habitat improvements along Thorn Creek in central Butler County, PA. To date, the project has seen the installation of 55 habitat improvement devices on one property, improving approximately 2,500 feet of stream. These projects are designed in conjunction with the Stream Habitat Manager for the PA Fish and Boat Commission, and all work will be permitted and coordinated through this office. The Stream Habitat Manager will be present on site for all project work. Due to commitments from other projects, the Stream Habitat Manager has limited availability which requires the Thorn Creek projects to be staged yearly.

The improvements have reached completion on the original property, and for the next several years will move to additional locations and involve several property owners. These new locations are directly upstream and downstream of the initial property, and will add substantial improvements to an area that receives high use from the public during the spring and summer fishing seasons.

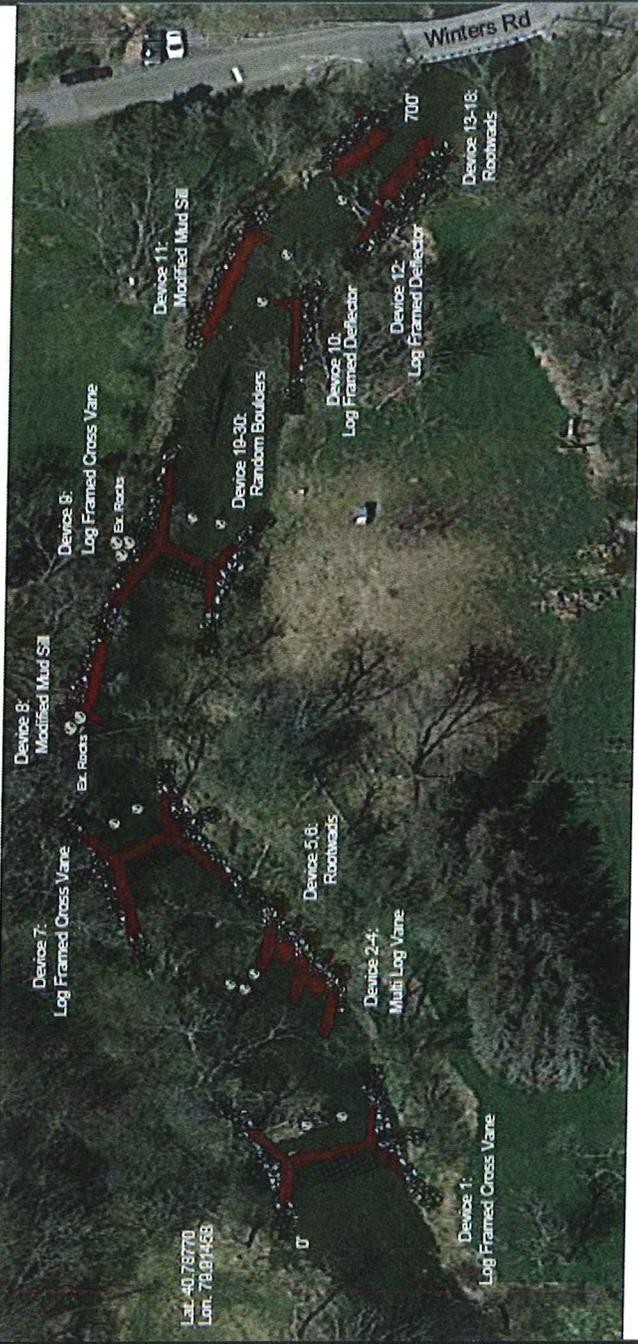
In 2017 work is planned at the Kosher Site. This site suffers from severe bank erosion due to extreme high water events from upstream impervious surfaces. The creek rapidly rises during rain events, and stream banks quickly erode due to a lack of hard surface protection and riparian buffers. Figure Y illustrates the Kosher Site's location on Thorn Creek while Figure Z show all devices that will be constructed and placed in the stream. The Kosher Site will improve approximately 700 feet of stream

In 2018 work is planned at the Upper and Lower Railroad Sites. These sites also suffer from severe bank erosion. This erosion is causing damage to a rail line that runs along Thorn Creek, and was the impetus for moving to these properties in order to protect and reinforce the stream bank and prevent the rail line from falling into the stream due to the loss of ballast. Protection of the bank near the rail line will come in the form of mud sills and rootwads, forcing the water away from the stream bank and collecting sediments to help build additional stream bank. Once sediments have accumulated, live stakes of riparian buffer species will be planted to hold the sediments in place and provide overhead cover and shading of the stream. Figure A illustrates the site locations on Thorn Creek while Figures B and C shows all devices that will be constructed and placed in the stream. The Upper and Lower Railroad Sites will improve approximately 275 feet and 650 feet, respectively of stream.



FIGURE Y Koshier Site

Section 1



*All Stream Habitat Devices will not be greater than 3 feet above normal stream bed
 *Habitat structures will not restrict the stream flow more than the most narrow natural stream width within the project area

Linear: 427'
Square: 7,200'

Thom Creek
Butler County
Kohser Property
Fish Habitat Improvement Plan
Stream Section: Habitat Management District
Patrons: Pennsylvania Fish & Boat Commission
Prepared by: Mark Sautzer
Date: 10/27/2015
Scale: AS SHOWN

FIGURE Z Koshier Site Devices



FIGURE A Upper / Lower Railroad Sites

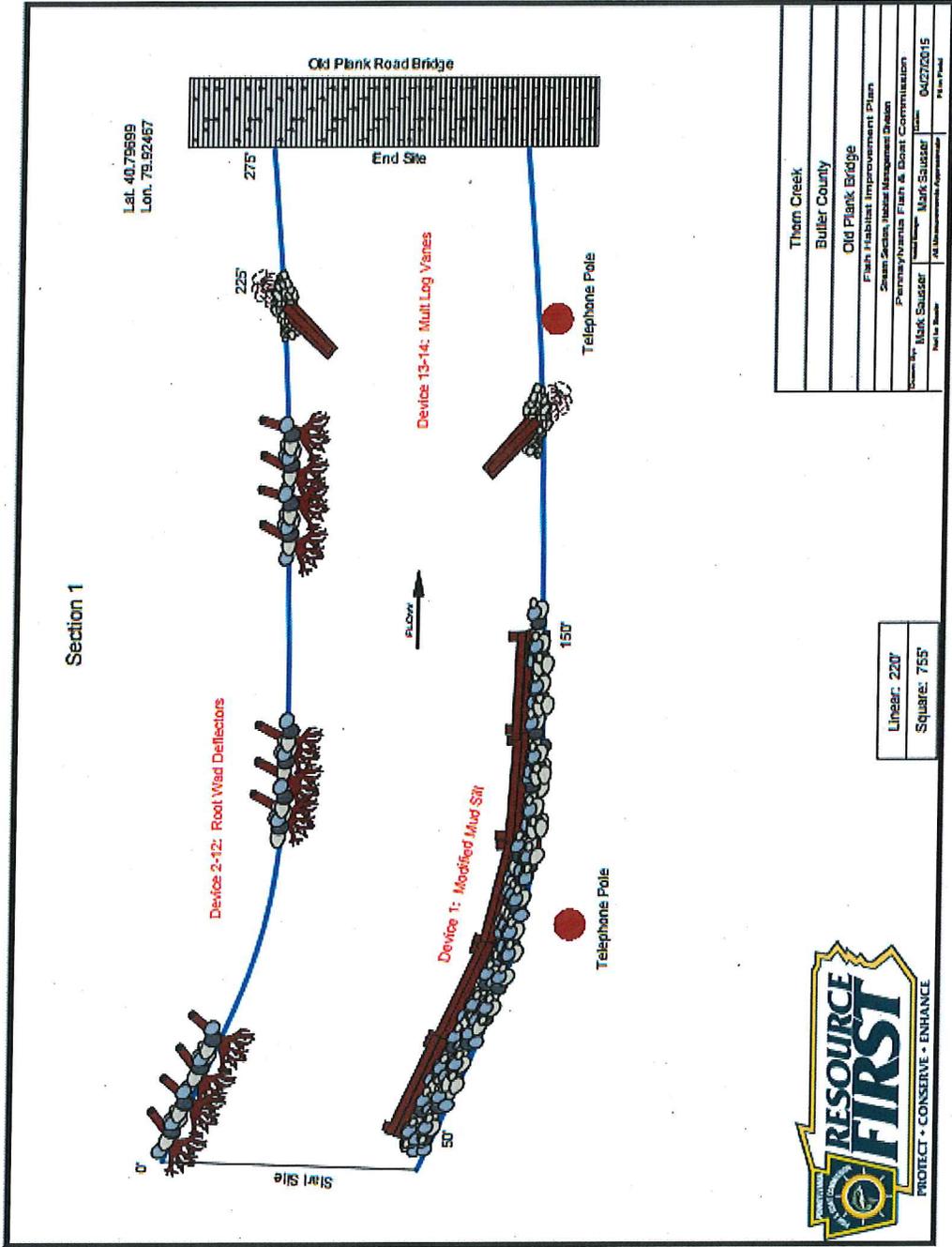


Figure B Upper Railroad Site Devices

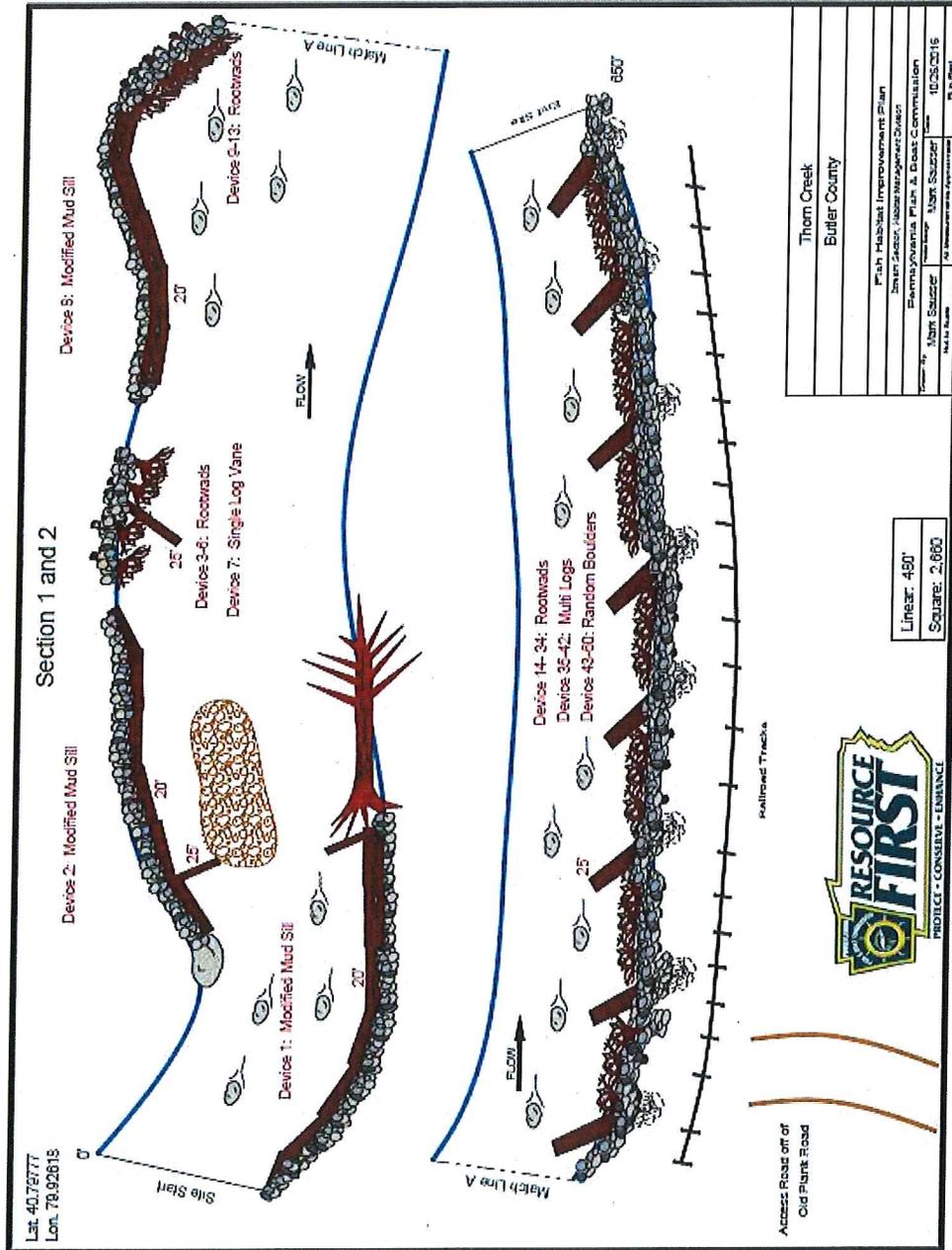


Figure C Lower Railroad Site Devices