

Massachusetts Department of Conservation and Recreation
Division of Water Supply Protection, Office of Watershed Management
Forest Management Project Summary

Project Title: Barre Heath Part 2

DWSP Harvest Permit Number: 4394

DWSP Proposal ID: WR-17-21-04

DCR Forest Cutting Plan File Number: 021-8843-17

Site Information

Watershed: Ware River Watershed

Town(s): Barre

Acres: 25

Nearest Road: Rt 62

Natural Heritage Atlas overlap?: Yes

Public Drinking Water Supply Watershed?: Yes

Forest Types: White Pine/Hardwood

Area of Critical Environmental Concern (ACEC)?: No

Soils: 253 B and C Hinckley loamy sand excessively drained

Wetland Resources: The lot is located between the Burnshirt River and Canesto Brook and associated wetlands

Vernal Pools: Yes

Harvest Information

Harvest Start Date: 2/20/18

Harvest End Date: 3/29/18

Number of Wetland Crossings: None

Number of Stream Crossings: None

Best Management Practices Applied

Stream Crossings: There are no stream crossings.

Filter Strips: There is harvesting in a filter strip.

Wetland Crossings: There are no wetland crossings.

Harvesting in Wetlands: There is no harvesting in wetlands.

DWSP Forester supervising this harvest

Name: Ken Canfield

Forester License number: 431

Phone number: 857 274 7090

Email: Kenneth.canfield@mass.gov

Narrative

General Description/Forest Composition/History

The harvest area lies south of Rt 62 in Barre, between the Burnshirt River and Canesto Brook.

This area was mined for gravel decades ago. Much of the topsoil may have been removed in spots to prepare for gravel extraction. The area may have also burned repeatedly. This resulted in a heath type habitat that is characterized by low bush blueberry with scattered pitch pine and large crowned oaks. Over the years, low quality white pine with scattered red maple and white, red, and black oaks have regenerated much of the site, resulting in the loss of much of the open heath habitat.

Open heath still exists in the area, and has been enhanced by hand girdling by NHESP staff. A harvest was completed in the spring of 2017 on the site. That harvest removed undesirable species in three large groups of 4.6, 4.9, and 4.9 acres and two smaller groups of 1.0 and 0.5 acres.

Species present are white pine, white, red, black, and scarlet oak, pitch pine, red maple, hemlock, black cherry, quaking aspen, and grey birch.

Invasive buckthorn is abundant on the site, and invasive barberry, honeysuckle, and burning bush are present, particularly adjacent to Rt 62.

The soil is excessively drained.

Site Selection

The primary goal of the watershed forest management program is to create and maintain a forest that provides high quality drinking water to current users and future generations. DWSP recognizes that wildlife habitat management and restoration of rare habitats are important secondary goals, where they are compatible with maintaining high quality drinking water.

This area was chosen for upland heath habitat restoration in cooperation with NHESP. The upland heath habitat is rare this far inland and is considered globally significant.

Silvicultural Objectives

The main purpose of this harvest is to expand the existing upland heath habitat by harvesting overstory trees adjacent to the existing heath and the openings created by the last harvest. All overstory white pine, red maple, hemlock, and black cherry will be harvested. All pitch pine will be retained. Scattered large crowned white oak will also be retained. Aspen will be retained to avoid sprouting. The resulting stand will be open, with areas that have less than 5 square feet per acre of basal area. Up to 20 square feet per acre of basal area will be retained where more desirable species are present.

Cultural Resources

This land has been determined to not be culturally or archeologically sensitive based on a review by the DCR Archaeologist. Standard practice dictates that every effort is made to avoid disturbing stone walls and other cultural resources.

Rare or Endangered Species

No known vernal pools are present within the lot. There are three vernal pools within 200 feet of the boundary of the lot. State CMP's and DWSP policy will be implemented to mitigate potential impacts to these areas.

Natural Heritage Endangered Species Program (NHESP) shows rare habitat within the harvest area. Seasonal restrictions on harvesting activities will be followed as outlined in the cutting plan.

Figures

- Figure 1 Final Forest Cutting Plan
- Figure 2 (A-B) Pre-Harvest photographs from marked photo points 1 and 2 taken 7/28/17
- Figure 3 (A-B) Post-Harvest Photographs taken from marked photo points 1 and 2 taken 8/15/18
- Figure 4 (A-B) Post-Harvest Photographs taken from marked photo points 1 and 2 taken 8/24/21

Figure 1

Final Forest Cutting Plan

JUN 01 2017

Forest Cutting Plan

and Notice of Intent under M.G.L. Chapter 132 - The Forest Cutting Practices Act, 304 CMR 11.00 (Effective Date: 3/15/16)

For DCR Use Only:

File Number 21-2043.17 Case No. _____
 Date Rec'd 6/1/17 Nat. Hert. Yes - some adjacent
 Earliest Start 6/16/17 Pub. Dr. Wat. Yes
 River Basin Quabbin ACEC No
 Gen. Obi. OT

Site Information

Location

Town Barre
 Road Rt 62
 Acres 24.6 Proposed Start Date 6/20/17
 Vol. MBF 20.1 Vol. Cds. 58 Vol. Tons 832

Plan Preparer

Name Kenneth W. Canfield
 Address 578 Old Turnpike Rd
 Town, State, Zip Oakham, MA 01068
 Phone (508) 882-3636
 Type of Preparer LF
 *Mass. Forester License # 431
 *Required for land under Ch61, Ch61A or Forest Stewardship

Landowner

Name DCR Division of Water Supply Protection
 Mailing Address 485 Ware Rd
 Town, State, Zip Belchertown, MA 01007
 Phone (413) 323-6921
 Ch61 61A 61B Stew *Case #
 FSC CR CR Holder

Licensed Timber Harvester**

Name CHRIS PIANER
 Address 152 WILLAMSVILLE ROAD
 Town, State, Zip HICKORYSTON, MA 01452
 Phone (978) 210-9416
 Mass. Lic. Harvester # 2018-587
 **This information may be supplied after the plan is approved, but before work begins.

Best Management Practices

Stream Crossings

Indicate location on map	SC-1	SC-2	SC-3	SC-4
Type of Crossing				
Existing Structure				
Type of Bottom				
Bank Height (ft)				
Stabilization				

Wetland Crossings

Indicate location on map	WC-1	WC-2	WC-3	WC-4
Length of Crossing				
Mitigation				
Stabilization				

Filter Strips

Indicate location on map	FS-1	FS-2	FS-3	FS-4
Width (50', 100', or VA)	VA			

Harvesting in Wetlands

Indicate location on map	HW-1	HW-2	HW-3	HW-4
Forest Type (see pg 2)				
Acres to be Harvested				
Resid. Basal Area (>50%)				

Service Forester Comments

- No stream crossings or wetland crossing harvest proposed for this harvest
- Please notify Service Forester when harvest begins
- Operation of motorized vehicles side work shall occur updrift of the main patch beginning Nov 1 and ending March 31 of any year
- Use of equipment on steep slopes should be minimized as much as possible
- Please review NHESP guidelines

Codes

Type of Preparer	Type of Crossing	Stabilization	Mitigation	Type of Bottom	Note:
LF: Mass. Lic. For.	CU Culvert	SE Seed	FR Frozen	LE Ledge	Applicant must provide DCR with all relevant information before plan may be approved and cutting may begin. Some forestry activities, such as prescribed burning and pesticide or fertilizer application may require additional permits. Consult MA Forestry BMP Manual for further information.
TH: Lic. Tim. Har	BR Bridge	MJ Mulch	DR Dry	ST Stony	
TB: Timber Buyer	FO Ford	CO Corduroy	OT Other	MU Mud	
LO: Landowner	PO Poled	ST Stone		GR Gravel	
OT Other	OT Other	HB Hay Bales		OT Other	
		OT Other			

If Other (OT) is used in any category an explanation must be given on an attached narrative page

Forest Products

Products to be Harvested*

Table with columns: Species, MbF/Cds, MbF/Cds. Rows include White Pine, Red Pine, Pitch Pine, Hemlock, Spruce, Other Sftwd., White Ash, Beech, White Birch, B & Y Birch, Black Cherry.

*Note: Volumes indicated in the Plan are as reported by the plan preparer and have not been independently verified by the service forester upon approval. Mbf = thousand board feet.

Stand Treatment

Cutting Standards

Table with columns: Indicate location on map, ST-1, ST-2, ST-3, ST-4. Rows include Forest Type, Acres, Landowner Objective, Designation of Trees, Type of Cut, Source of Regeneration.

Landowner

Landowner Signature

The most important information on a cutting plan is the Landowner's objective, as this will determine which trees will be harvested and which will remain; this decision will also determine the future condition of the forest for decades to come.

LT - Long-term Forest Management

Planned management of the forest to achieve one or more of the following objectives: produce immediate and maximize long-term income, enhance wildlife habitat, improve recreational opportunities, protect soil and water quality, or produce forest specialty products.

ST - Short-term Harvest

Harvest of trees with the main intention of producing short-term income with minimal consideration given to improving the future forest condition, which often results in a forest dominated by poor quality and low value species.

I (we) have read the Massachusetts Cutting Plan Information Sheet, and am aware of my (our) management options. I (we) hereby certify that I (we) have the legal authority to carry out the operation described above.

Signature of landowner(s)

Date 5-25-17

Service Forester

Determination and Status

Form with checkboxes for Cutting Plan, Extension, Amendment, and Expires. Includes signature line for Service Forester/Director's Agent.

Final Report and Comments

I hereby certify that the afore described Forest Cutting Plan and all relevant statutes have been substantially complied with.

Signature of Service Forester/Director's Agent and Date 5/30/17

Codes

Table with columns: Forest Types, Designation of Trees, Type of Cut, Source of Regeneration. Rows include WP White Pine, WK WP/Hem, WH WP/Hdwd, WO WP/Oak, RP Red Pine, SR Red Spruce, etc.

*If Other (OT) or a non-standard system is used an explanation must be given on attached narrative page pg 4 of 5

Forest Cutting Plan

Narrative Page (Effective Date: 3/15/16)

Use this page to provide further explanation or if Other (OT) was used in any category on pages 3 or 4.

Landowner DCR - DWSP

Town Barre

File Number 021-8843-17

BMPs
Designation of Trees

Use this Section to provide further explanation or if Other (OT) was used in any category in the Best Management Practices Section on Page 3.

The objective of this harvest is to expand and restore sandplain heathland habitat. Sandplain heathland is very open, with scattered pitch pine and large crowned white oak. This harvest will remove all undesirable species, mostly white pine, black cherry, red maple, and red oak. Overstory pitch pine and aspen will be retained where present. Large crowned white oak will be retained where present up to 20 ft² of basal area/acre. Where more white oak is present only the largest and healthiest will be retained. Retained overstory trees will be patchy, with an average of < 5 ft² of basal area/acre.

Use this Section to describe the types of trees to be harvested and/or retained if Other (OT) was used for "Designation of Trees" in the Stand Treatment Section on page 4. Additional narrative description may be added on a separate page.

Stand No.	Describe Trees to be Cut			Describe Trees to be Left			% BA/AC	
	Species	Size	Quality	Species	Size	Quality	Cut	Left
1 & 2	ALL BUT PP, WO, AS	>2" dbh	All	PP, AS	> 5" dbh	Any	0	100
				WO	> 6" dbh	Any	40	60

Regeneration & Future Condition

Use this Section to describe how Chapter 132 requirements will be met if a non standard system (HG, DL, or OT) was used for the "Type of Cut" in the Cutting Standards Section on page 4.

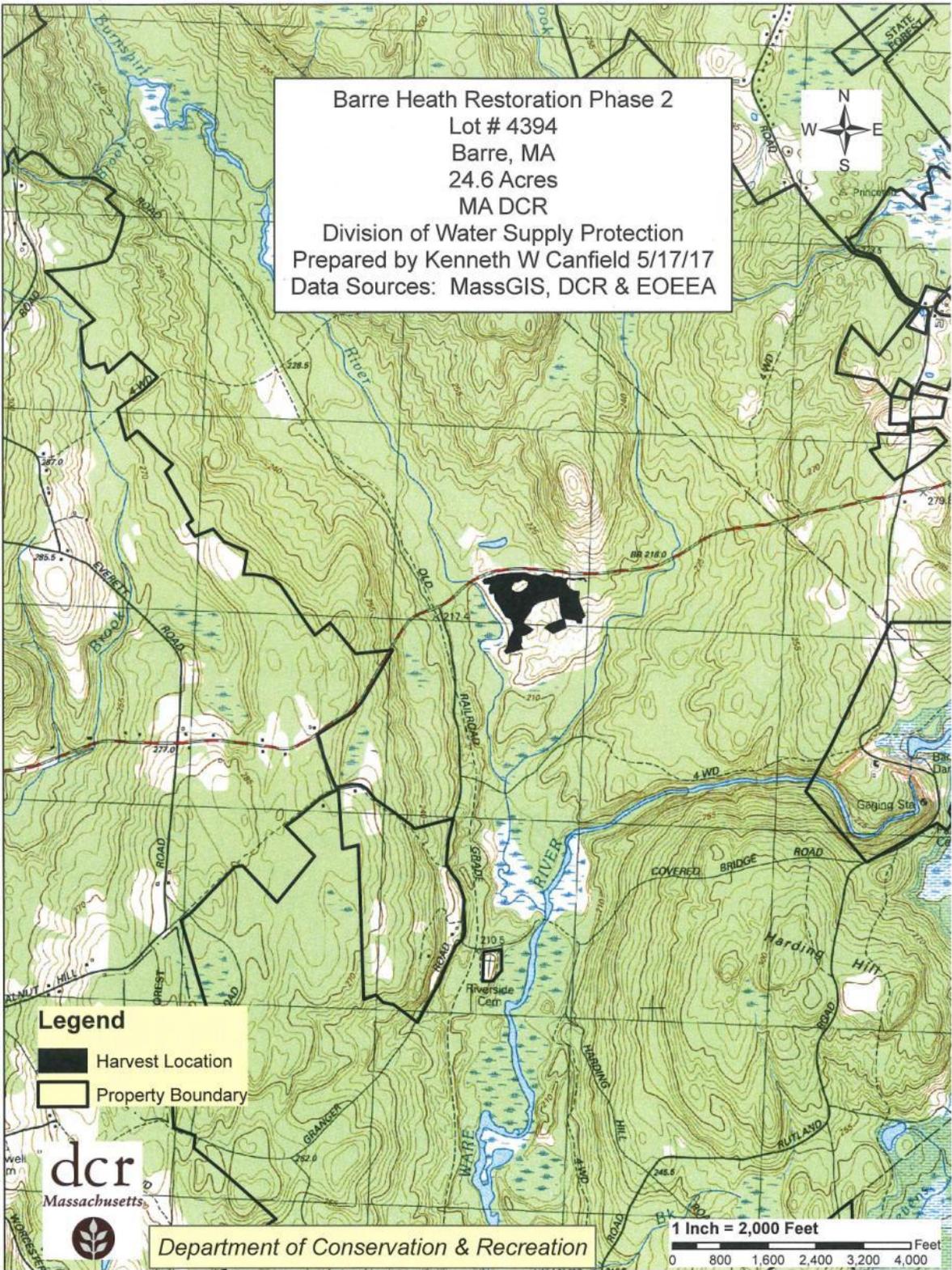
Stand No.	Source of Regeneration (ex. AD, SE)	How will Regeneration be obtained/protected? If using AD - Describe the species present and how the regeneration will be protected If using SE - Describe the source of the seed and the number of seed trees/acre
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1		This stand is dominated by white pine, with some white oak, black cherry, red and black oak, red maple, aspen, and pitch pine present. It is the intention of DWSP to maintain the heathland habitat that will be created/restored with help from MA DFW and MA DCR Fire Control.
2		Stand 2 is comprised of open heathland and old gravel pits with sapling and pole size white pine and hardwood. It is the intention of DWSP to maintain the heathland habitat that will be created/restored with help from MA DFW and MA DCR Fire Control. There is also 1.3 acres on which 35 dead white pine trees will be removed from open heathland.

Stand No.	Desired Future Condition Describe what the stand is expected to look like five years from the harvest, including the condition of the overstory & understory
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1 & 2	These stands will be part of a larger sandplain heathland community. This habitat is dominated by heath species, such as low bush blueberry and huckleberry, some shrubs, and scattered pitch pine and large crowned white oak trees.
	This type of habitat is very open. Prescribed burning and/or mowing in conjunction with DCR Fire Control and DFW NHESP will be used to maintain the heathland.
	Due to the presence of a NHESP species of special concern, harvesting activities will only occur between 11/1 and 3/31 unless a protection plan is developed, submitted to and approved by NHESP, and followed. DWSP will notify the service forester if that occurs. There is some rolling terrain with short sections of steep slopes (60%) on very dry soils present on the lot. Logging contractor will be instructed to minimize equipment on the steep slopes as much as possible.

Barre Heath Restoration Phase 2
Lot # 4394
Barre, MA
24.6 Acres
MA DCR
Division of Water Supply Protection
Prepared by Kenneth W Canfield 5/17/17
Data Sources: MassGIS, DCR & EOEAA



Legend

- Harvest Location
- Property Boundary



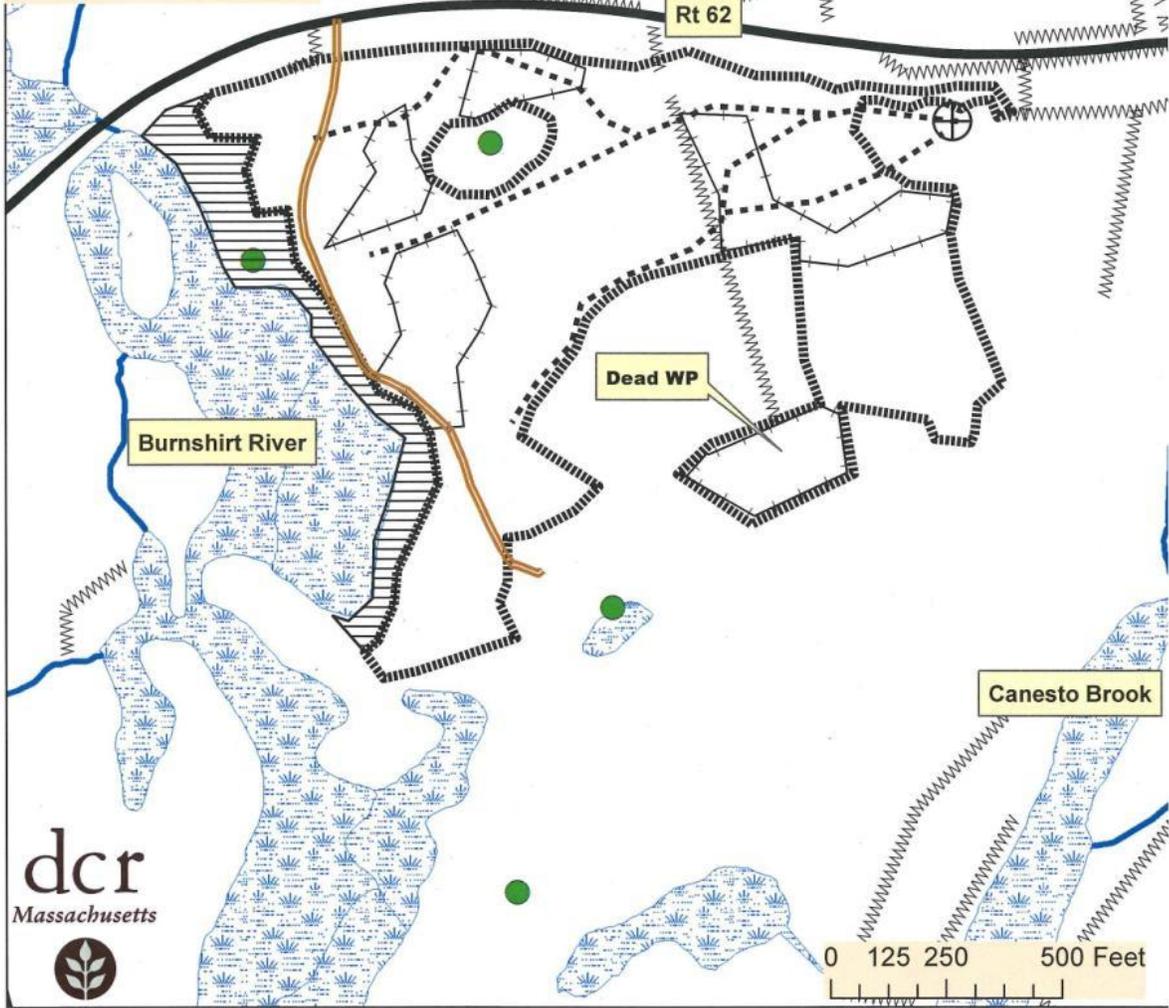
Department of Conservation & Recreation

1 Inch = 2,000 Feet
0 800 1,600 2,400 3,200 4,000 Feet

Legend

-  Harvest Boundary
-  Skid Trail
-  Stand 2
-  Landing
-  Existing Unpaved Road
-  Stone Wall
-  FS-1
-  Vernal Pool
-  Stream
-  Wetland
-  Rt 62

Barre Heath Restoration Phase 2
Lot # 4394 - 24.6 acres
MA DCR DWSP
Map by Kenneth W. Canfield
5/17/17
Not a legal survey



Legend

-  Harvest Boundary
-  Skid Trail
-  Stand 2
-  Landing
-  Harvested 3/17
-  FS-1

Barre Heath Restoration Phase 2
Lot # 4394 - 24.6 acres
MA DCR DWSP
Map by Kenneth W. Canfield
5/17/17
Not a legal survey



dcr



COMMONWEALTH OF MASSACHUSETTS
Department of Conservation and Recreation
Division of State Parks and Recreation

FILE # 021-8843-17

W

FOREST CUTTING PLAN CERTIFICATE

Post this in a conspicuous place within the area in which the harvesting operation is to take place.

This certifies that DCR DWSP 485 Ware Road
(Name of Owner) (Address) Belchertown, MA 01007 in accordance with the

provision of M.G.L. Chapter 132, Section 40-46, filed in Clinton with the Dept. of Conservation
and Recreation, Division of State Parks and Recreation, a Notice of Intent to cut forest products upon the
Rt 62 lot.

Approval Date 7/19/17
Director's Agent Kate Marquis
DCR Phone No. (413) 992-8734

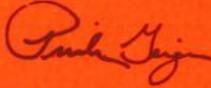
ISSUED BY: 
Priscilla E. Geigis, Director
Division of State Parks and Recreation

Figure 2 (A-B)

Pre-Harvest photographs from marked photo points 1 and 2 taken 7/28/17

2A From the edge of the landing looking west



2B Looking north from photo point 2



Figure 3 (A-B)

Post-Harvest Photographs taken from marked photo points 1 and 2 taken 8/15/18

3A From the edge of the landing looking west



3B Looking north from photo point 2



Figure 4 (A-B)

Post-Harvest Photographs taken from marked photo points 1 and 2 taken 8/24/21

4A From the edge of the landing looking west



4B Looking north from photo point 2

