



# Moraine Preservation Fund

Osprey Cam Installation Project Overview



# Osprey Webcam Installed at Moraine State Park

**BUTLER COUNTY, PA (March, 2018)** – A webcam has been installed along Lake Arthur, across from McDanel’s Launch, providing a continuous Live Stream of the osprey nest. This is the first osprey webcam in the area and will allow users 7AM-7PM viewing access at [http://www.morainepreservationfund.org/osprey\\_cam.html](http://www.morainepreservationfund.org/osprey_cam.html) or [www.VisitButlerCounty.com](http://www.VisitButlerCounty.com)

The Moraine Preservation Fund (MPF) received a grant from Butler County Tourism & Convention Bureau in 2017 for the webcam. MPF is a non-profit organization led by volunteers who educate the public and aid in maintaining the natural resources within Moraine State Park, Jennings Environmental Education Center and McConnells Mill State Park. In an effort to help this endangered species, MPF established an Osprey Reintroduction Program in June of 1993. It was a huge success and resulted in six fledglings raised from several nesting platforms throughout the park. The park was an important hacking site in the state's osprey reintroduction program and they continue to prosper.

This area has one of the most significant clusters of osprey nests in Pennsylvania, and for the first time in history, individuals will be able to watch as osprey return from migration to lay their eggs. Ospreys typically lay two or three egg clutches with 2-4 eggs in a clutch. Incubation begins when the first egg is laid and clutches hatch asynchronously. It takes about 40 days for an egg to hatch. The osprey, also commonly known as a “fish hawk”, stalks its prey by hovering above the water then diving talons first to snag its prey. Ospreys fit in well on impoundments with good fish populations and artificial structures where they can build their bulky stick nests.

“We’re excited for Butler County and our region to have this webcam that allows everyone the opportunity to watch the habits of the osprey. Moraine Preservation Fund is doing great things, and we look forward to raising awareness about our wildlife,” said Jack Cohen, President of Butler County Tourism & Convention Bureau.

# Key Project Contacts

## **Moraine Preservation Fund**

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# Bill of Materials

## **RRS005**

Remote Stream 4G HD PTZ Camera System  
On-Demand 4G cellular streaming video system  
HD Pan Tilt Zoom IP camera with 18X zoom  
150 Meter IR night illumination

## **BAT108**

(3) 100 AH 12V Battery

## **BATTERY ENCLOSURE - HDW010**

2' x 2' Outdoor NEMA Enclosure  
Hold up to 3 100 AH Batteries  
Includes external ports for connecting solar panels

## **SOLAR PANEL - HDW009**

150 Watt Solar Panel  
\*panels do not come with mounting hardware\*

## **AT&T Cradlepoint**

NEMA Enclosure  
Mounted to Pole, approx 10' off of ground.

## **STREAMING / AT&T**

NEMA Enclosure w/ CradlePoint  
Mounted to Pole, approx 10' off of ground.

## **CUSTOM CAMERA MOUNT**

Custom welded mounting bracket with bracing and mounting places for Pole and Camera. 1.5" Steel  
(4) 18" x 3/4 Lag Bolts, Nuts, Washers  
(2) Camo Paint

## **STAND FOR BATTERY & SOLAR**

Battery NEMA Box.  
Solar Panel will mount approx 6-8' off of the ground.  
(2) 4x4x10  
(2) Bags quick crete  
(2) 2x6x8  
(1) 3/4 x 4x4 Treated Plywood  
(2) 1" Flex Conduit & Weatherproof Box

## **60' Boom Lift**

4wd boom lift, bucket holds 2 men, AC Power on Bucket

## **LIFT**

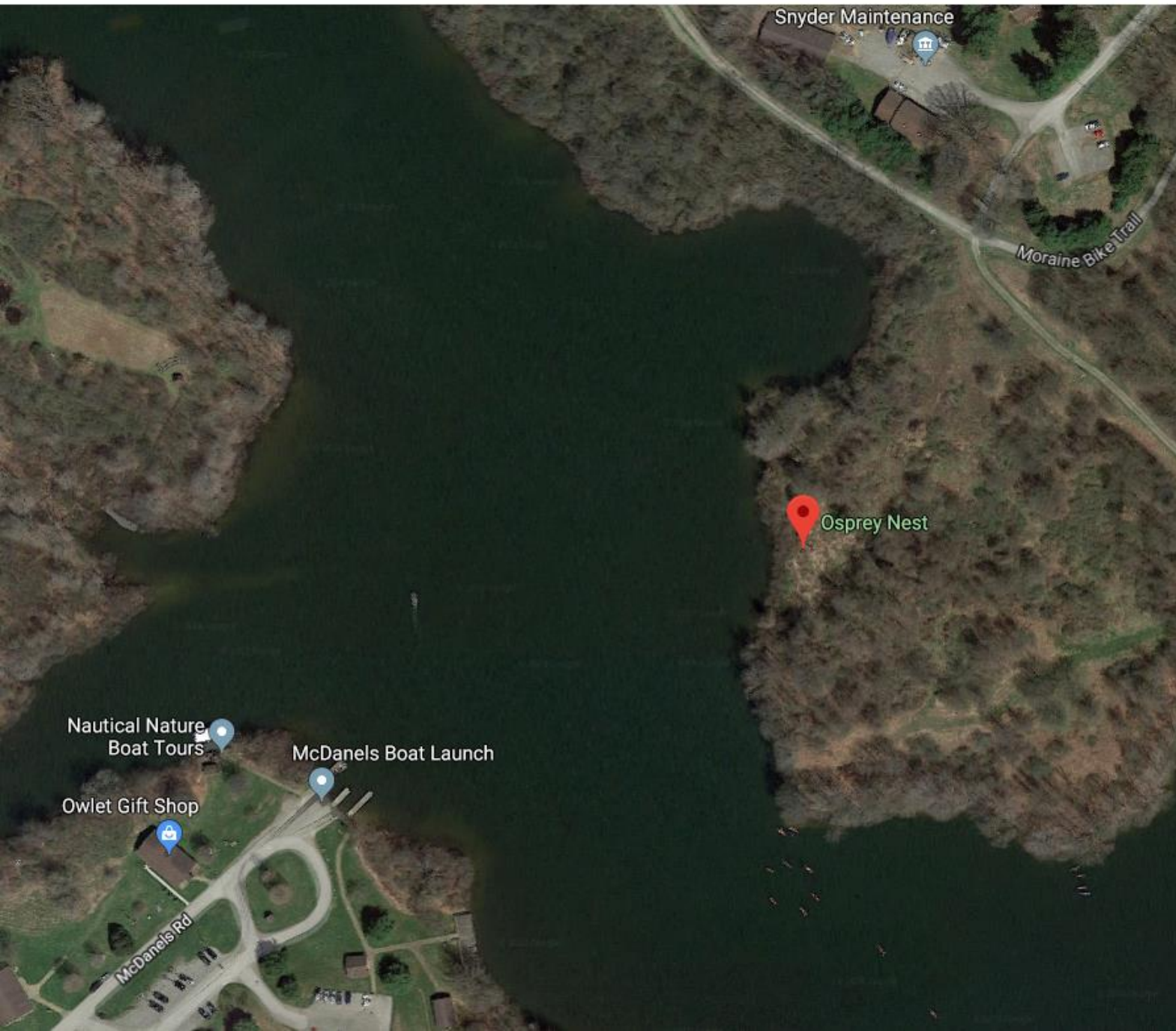
4wd 60' boom lift by GM Equipment Rentals  
Holds 2 men with AC Power on Bucket

## **SOLAR PANEL MOUNT**

(2) Angle Steel 3'  
(2) Angle Steel 2'  
(2) Angle Steel 1'  
5/16<sup>th</sup> Hex Bolts, Washers, Nuts  
1/4 Hex Bolts, Washers, Nuts

## **CONDUIT AND MISC.**

(3) 10' sections of 1" Conduit  
(3) 1" Box  
(4) 1" 90 Elbow  
(3) Blank Box Cover  
(2) Angle  
50' Grounding Copper  
1/2" x 8' Solid Copper Grounding Rod  
Copper Mesh Lug  
Clamp – 2-Hole Strap



## Site Map

Osprey Nesting pole and platform located at Snyder's Point on the North shore of Moraine State Park

# Site Survey

02-15-18

- Parked at Snyders Point Maintenance Facility.
- Path recently cut by Park Personnel
- Road bed moist, but firm
- Took Photo from aprox 60'
- Spray Painted tree ring 10' from ground.
- Laser measures 44' when 5' off ground = 49' from ground to nest

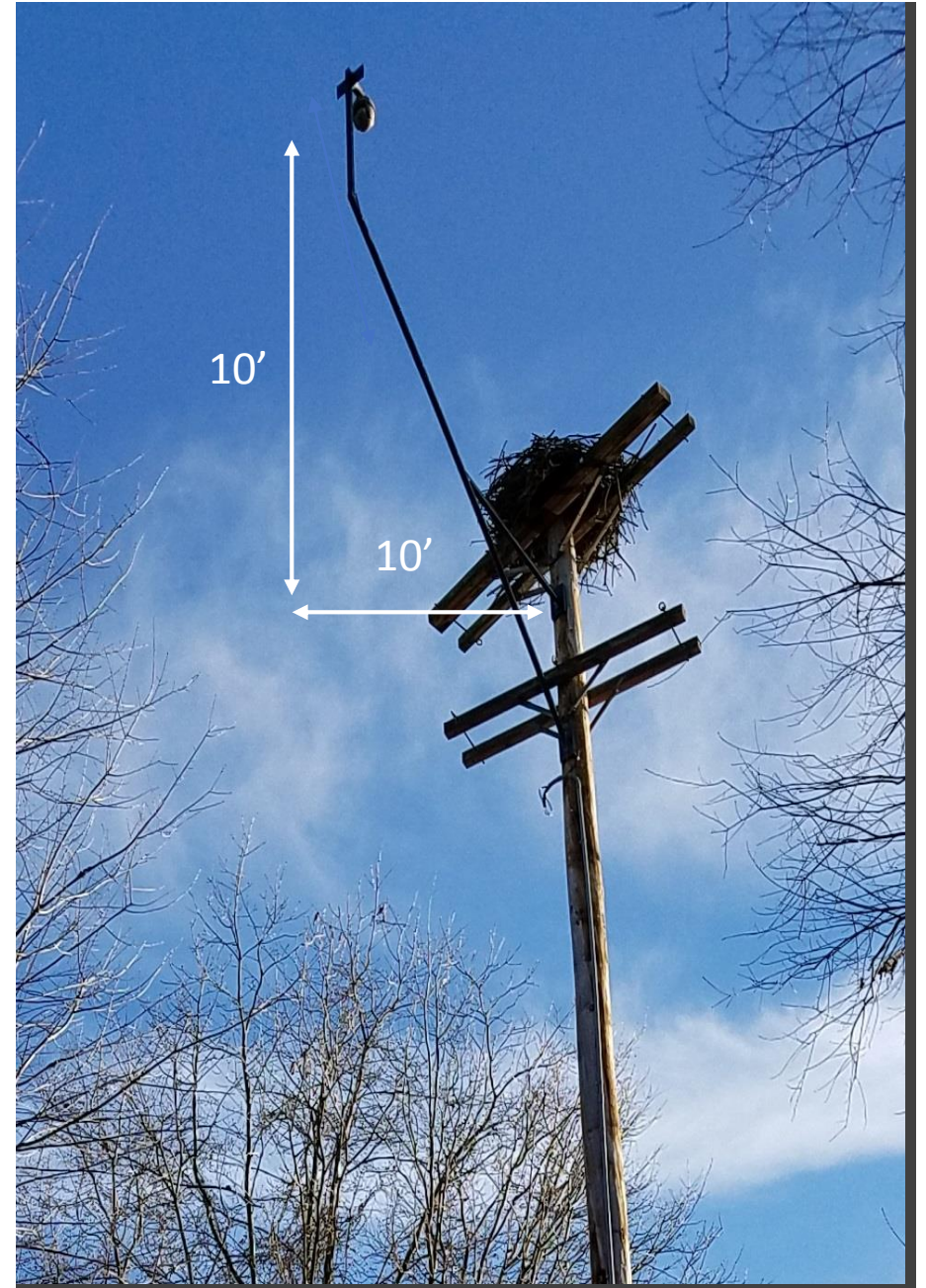


# Site Survey

Cont.

- Est Height to Nesting Platform 49'
- Est space between platforms 6'
- Pole located on East Shoreline
- Steady wind form West
- Soil condition = Soft, Loam Soil
- Minimum 60' boom lift required





# Custom Mount

10' from Pole

10' from top mounting bracket to Camera Plate



# Installation

03-04-18

## Day #1 - Ground Work

- Installed 4x4 Posts
- Installed Battery Enclosure
- Installed (3) Batteries
- Installed NEMA Enclosure
- Tested AT&T Connection = Good!

\*Installation provided by ITG Networks





# Installation | 03-05-18

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## Day #2 – Pole Work

- Maneuvered 60' boom lift to site
- Raised lift, drilled 1<sup>st</sup> of three  $\frac{3}{4}$  inch holes
- Strapped custom mount to Bucket
- Lifted mount onto the first hole
- Marked and Drilled two additional holes
- Bolted mounting bracket to pole using  $\frac{3}{4}$  x 18" lag bolts

# Installation

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## Day #2 – Continued

- Installed camera
- Installed 1" conduit
- Installed Grounding Wire
- Tested AT&T Wireless connection
- Verified live stream from Laptop



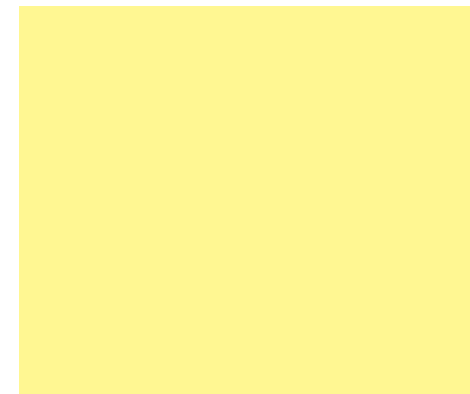
# Above View

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# Ground View

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# Camera View

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- Night
- Bracket view
- Shoreline View
- Platform with Osprey  
(return date March 27, 2018)



# Installation Team

- Elizabeth Wilson
- John Spirnak
- Tom Eshenbaugh
- Peter Masciantonio
- Aaron Orient
- John Barbish
- Jim Fowkes
- Ken Ketterer
- Kent Cooper

