



Oconee River Land Trust
Drone Studies



Public Relations Release
& Frequently Asked
Questions

Emily Lanoue; Shelby Womack;
Gavin Hua; Danny Kim

Drone Mapping Product

**Land Trusts or Government Agencies can easily monitor conservation easements
with Drone Mapping Product!**

Drone Mapping Product will benefit Land Trusts or Government Agencies who monitor conservation easements throughout the years. Instead of trekking through hundreds of acres of land on foot, the land can be monitored from the sky. The *Drone Mapping Product* will fly over the land and be able to identify any changes to the land that the baseline (the paperwork outlining the conservation easement) disallows.

Land Trusts and Government Agencies are responsible for enforcing the easement's provisions. Each year, they ensure that the easement is not being abused or misused. This could include establishing that no activities that could alter the land's present natural condition have taken place. In order to monitor this, the agents often have to walk the land on foot as driving on the land could disturb its natural condition. On occasion, even walking the land is disruptive. Each easement can take hours upon hours to monitor, and agents set aside time to monitor the easements throughout the entire year because of the sheer number there are.

The *Drone Mapping Product* aids the Land Trusts and Government Agencies by allowing the monitoring of easements quickly and easily. The agent would be able to fly the drone over the easement and within minutes know whether or not the land owner is

respecting the provisions. Countless hours can be saved by the *Drone Mapping Product* as it quickly flies over the easements and reports the relevant data.

Drone Mapping Product producer and content writer Emily Lanoue vouches for the product, saying “The *Drone Mapping Product* is innovation at its finest, saving agents who are doing the environment a service by preserving natural habitat precious time and energy. Instead of dedicating hours upon hours to walk this land, they can quickly monitor it within minutes and spend the saved time working to promote easements and encourage landowners.”

To get started, all that is needed is a drone that is registered with the FAA and someone who is licensed to fly it. After a bit of practice flying the drone and locating the easement that needs monitoring, then the Land Trust or Government Agency would use the *Drone Mapping Product* to monitor the land.

Pleased *Drone Mapping Product* User Samantha Snow gives testament to the product’s innovation: “The *Drone Mapping Product* makes my job so much easier! It saves me time, steps, and money every time I need to monitor an easement. Instead of walking the land, all the while trying to keep it in its natural state, I can use the *Drone Mapping Product* and easily ensure the land’s protection and conservation.”

The monitoring of conservation easements by Land Trusts and Government Agencies can be reformed by the *Drone Mapping Product*. Read further for some of our customers’ Frequently Asked Questions about the *Drone Mapping Product*.

[Frequently Asked Questions](#)

Where did the idea for this product come from?

We worked alongside the Oconee River Land Trust and their land steward, Laura Hall. Together, we chose specific conservation easements that the ORLT had already been monitoring and traveled to these locations to ensure that they were both being properly taken care of and that no land was being violated. We wanted to make the jobs of the ORLT easier and allow them to more comfortably and quickly monitor the easements.

What is a conservation easement? How does it relate to this product?

A conservation easement is a legal agreement between a landowner and a land trust or government agency that permanently limits the use of the land in order to protect its conservation values. The limitations of an easement are very flexible, where some containing a rare wildlife habitat could prohibit any development, while others on an area of land such as a farm can continue farming and the building of any additional agricultural structures. Additionally, these lands can either be public or private access.

These conservation easements are what Land Trusts monitor. The *Drone Mapping Product* allows for easier monitoring of these easements.

What kind of drone does my Land Trust or Government Agency need?

The *Drone Mapping Product* is compatible with many types of drones, including the Mavic 2 Pro and Mavic 2 Zoom which were the test drones for the product.

What are the benefits of this product to the general public as well as a Land Trust or Government Agency?

Drones are cost and time effective methods of mapping and tracking lands. Currently, Land Trusts and Government Agencies must physically traverse the land and collect information. With the Drone Mapping Product, they can easily track their properties over periods of time to ensure easements are being followed.

This also benefits the general public as the agencies can more easily create and monitor the easements, allowing the agencies to juggle more easements and set more in place.

What is drone mapping?

Drone mapping is a product of a photogrammetry process that allows for 2D maps and 3D models to be created via aerial images.

What are the costs for someone to use the *Drone Mapping Product*? Do I need an expensive drone?

Not at all! With today's technology, there are only a few things needed to do drone mapping. We have found that the best affordable drones to use to map are the popular models of DJI Phantom 3, 4 or Mavic Pro. The Phantom 3 is available for less than \$400. In addition, you will need a mapping program on your smartphone. Pix4D and Data Mapper are free options, and Drone Deploy is another viable option with a 14 day trial and \$99/month following.

What do I have to do to operate drones?

Most drones or unmanned aircraft systems require users to follow certain regulations before operating such vehicles. In order to safely fly your drone, it is imperative to research the drone regulations and aircraft laws of the country you are operating in. Even small drones that do not have to be registered like the DJI Mavic Mini must follow airspace laws and restrictions. For more information on drones and air gadgets, refer to the Federal Aviation Administration page.

Do I need permission to drone over certain areas?

It is illegal to use a drone for aerial photography of the general public, as well as private properties. Furthermore, some cities have been able to create additional drone laws thanks to certain local powers, so it is advised to research the drone regulations in the area you are flying in.

What other uses are there for the drone?

In addition to taking pictures of different areas as a flat 2D image, drones can create 3D models of a landmark for users. This could enhance the land owner's and the public's view of the land and increase the desire for more conservation easements.

How is drone mapping and the *Drone Mapping Product* different from Google Earth?

Google Earth captures images through the use of satellites, which are located in space. The fact that a person can utilize a drone from a few meters from the ground provides clearer and higher quality images. Furthermore, a drone can automatically fly the route safely by determining the route beforehand. With the close proximity and focus of the cameras of the drones, people could easily categorize land formations and track the changes easily.