

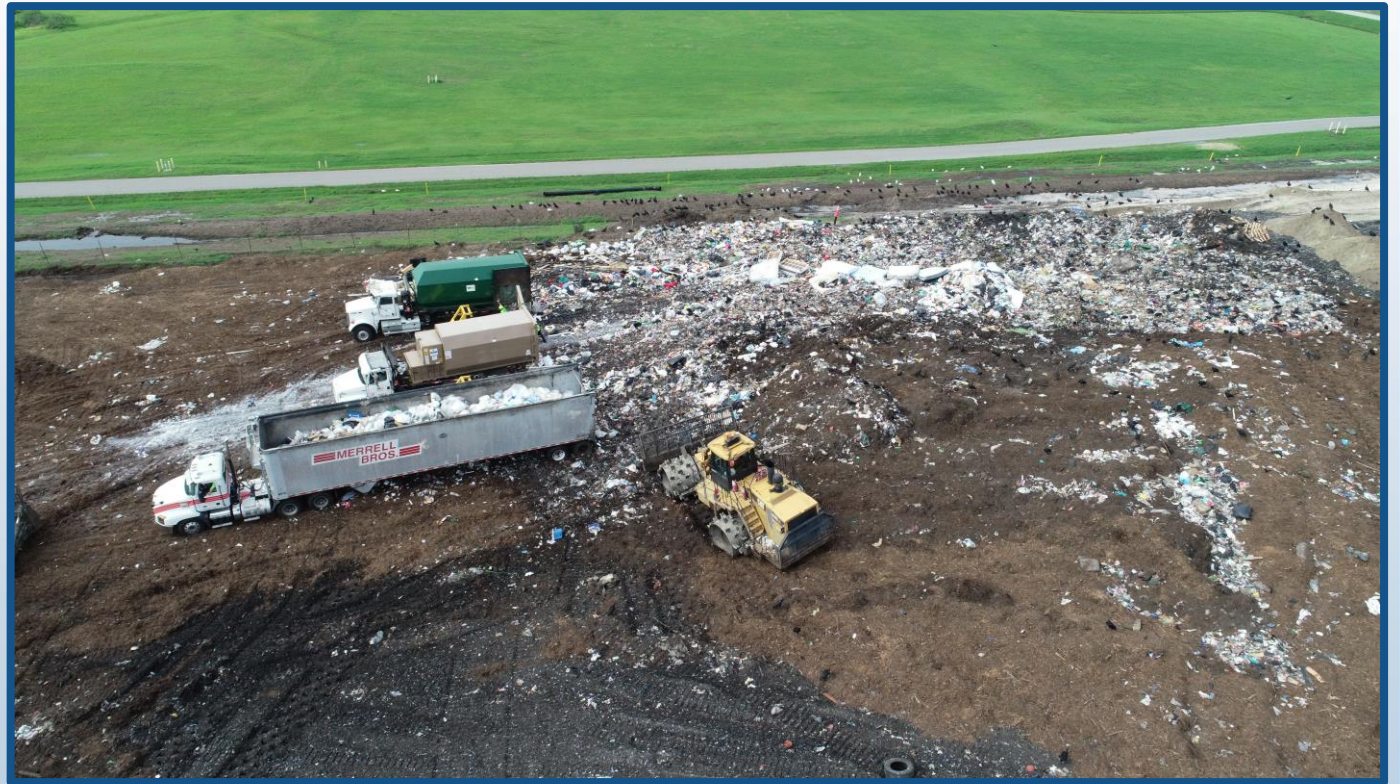
A Drone Story:

One County's Journey Building An In-House Drone Program



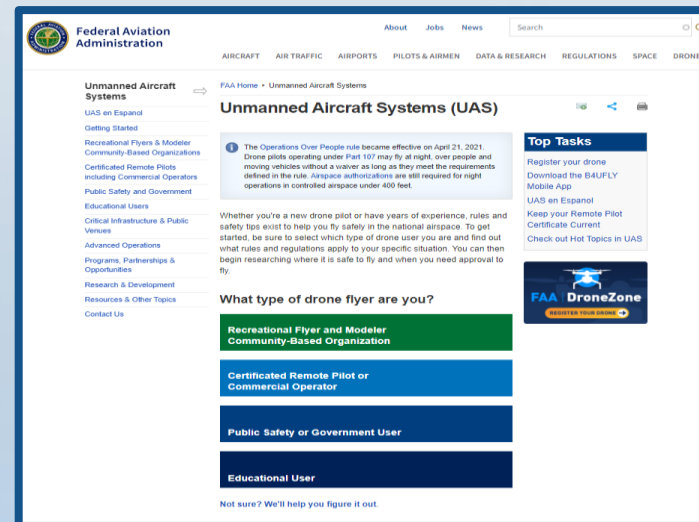
Overview

- Regulations
- Initial Startup
- Hardware
- Software
- Lessons Learned



Regulations

- Federal
 - FAA: 14 CFR Part 107
 - <https://www.faa.gov/uas/>
 - <https://faadronezone.faa.gov/#/>
- Government
- Remote Pilot License
- Drone Registration



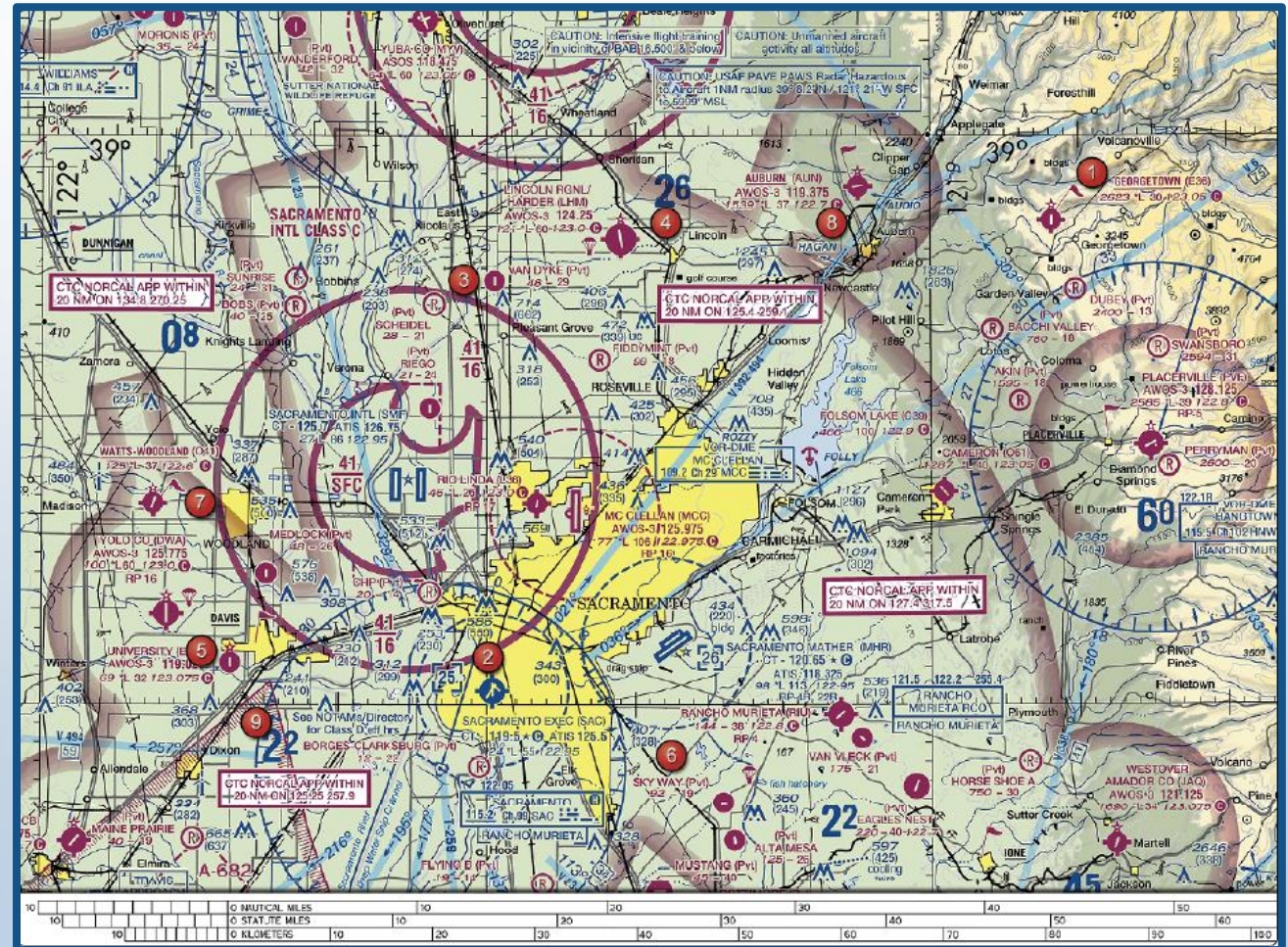
Initial Startup

- What drone is best for your landfill?
- Studying for FAA Exam
 - Do you need to take the exam?
 - Prep Course
- Basic Flight Training



What is on the FAA Exam?

- Applicable Regulations
- Airspace
- Weather
- Aircraft Loading
- Emergency Procedures
- Crew
- Radio Communications
- Decision-making
- Airport Operations
- Maintenance and Preflight inspections
- Physiological effects of drugs and alcohol



Hardware

- DJI Phantom 4 Pro
- GL300E vs. GL300F Controller
- Surveying Equipment



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Software

- Pix4Dmapper
- AutoDesk ReCap
- AutoDesk Civil 3D
- DJI 4 GO
- Litchi
- Pix4Dcapture



<https://www.pix4d.com/product/pix4dmapper-photogrammetry-software>



<https://www.youtube.com/autodeskreCAP>



<https://csengineermag.com/autodesk-releases-civil-3d-2020-and-infra-works-2020/>



<https://apps.apple.com/us/app/dji-go-4/id1170452592>



<https://flylitchi.com/>

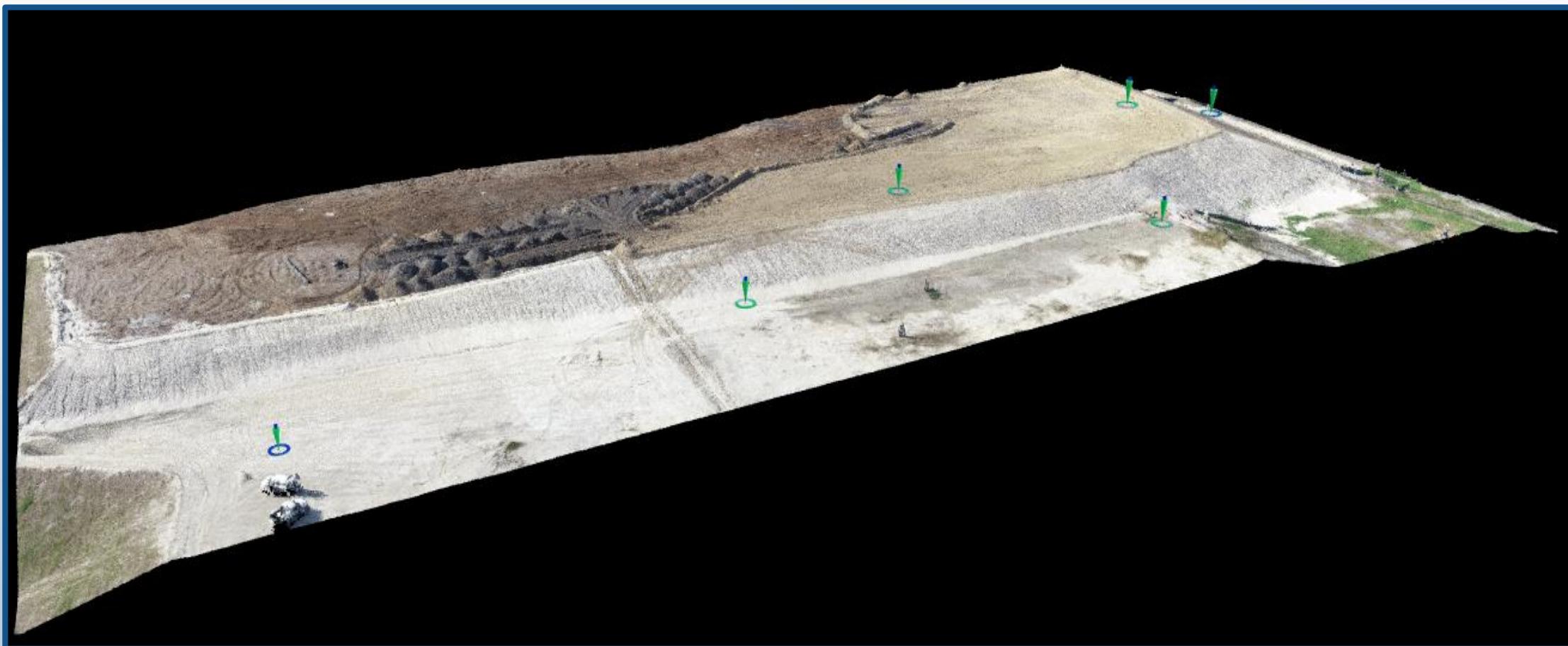


<https://www.pix4d.com/survey-equipment-product/pix4dcapture/>

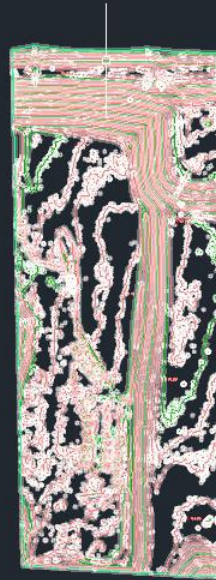
Flight Planning



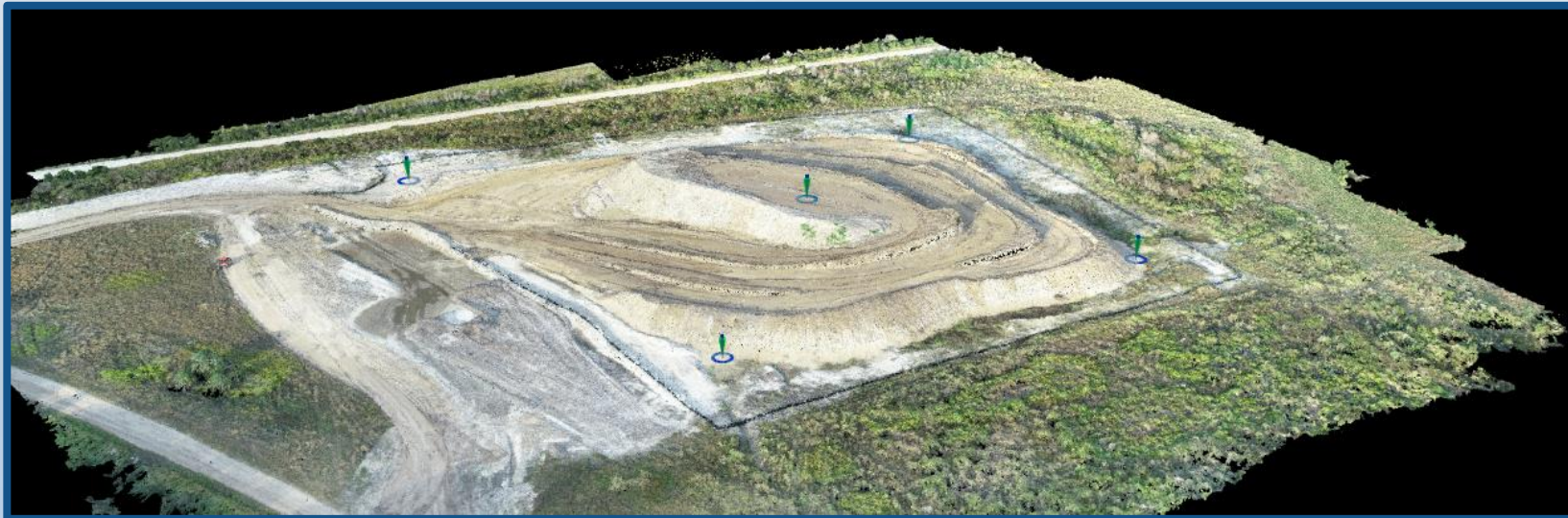
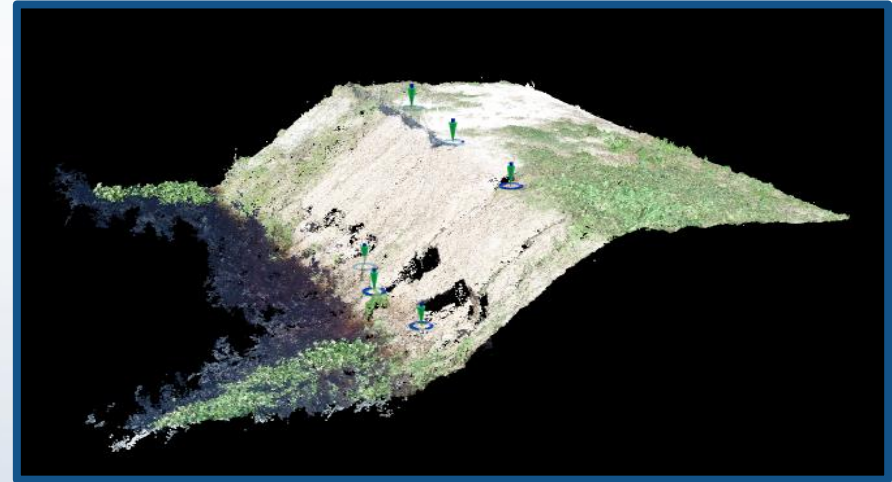
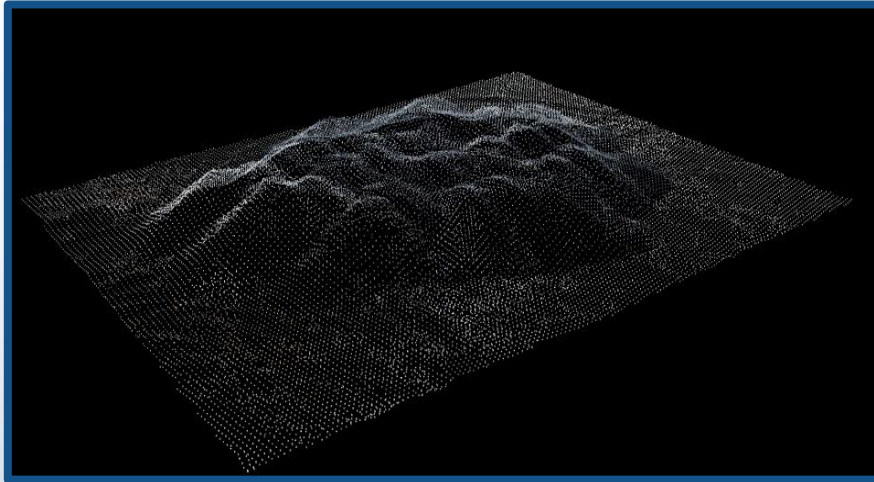
PIX4D Recreation



Why Should YOU Care?



Various Applications



Cost Comparison

Drone

- Drone: \$1400
- Prep Course: \$150
- Exam: \$175
- Drone Registration: \$5
- Basic Flight Training Course: \$580
- Misc. Equipment: \$500
- Software: \$5000

Total: \$7,810

Vendor Flyover

- Topographic Survey & Imagery: \$16,000 per flight
 - Flyover is around 200 acres
 - Performed twice a year

Lessons Learned

- Do your research and know what you are purchasing!
- Flight Planning to AutoCADD workflow
- Understand the capabilities of your drone



Thank You for Your Time & Safe Flying



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