

SCVWD UAV Pilot Project



Managed by the
Land Surveying and Mapping Unit
(367)

Timeline

- Initial Request to SCVWD Board December 2017
- Research January – July 2018
- Preparation of Draft Policies & Procedures July – October 2018
- Public Comment Period September – October 2018
- **Request for Board Approval November 2018**
- Purchasing & Training December 2018
- Pilot Project Operations January – June 2019
- Reporting of Results to SCVWD Board July – August 2019

Aerial drone pilot program

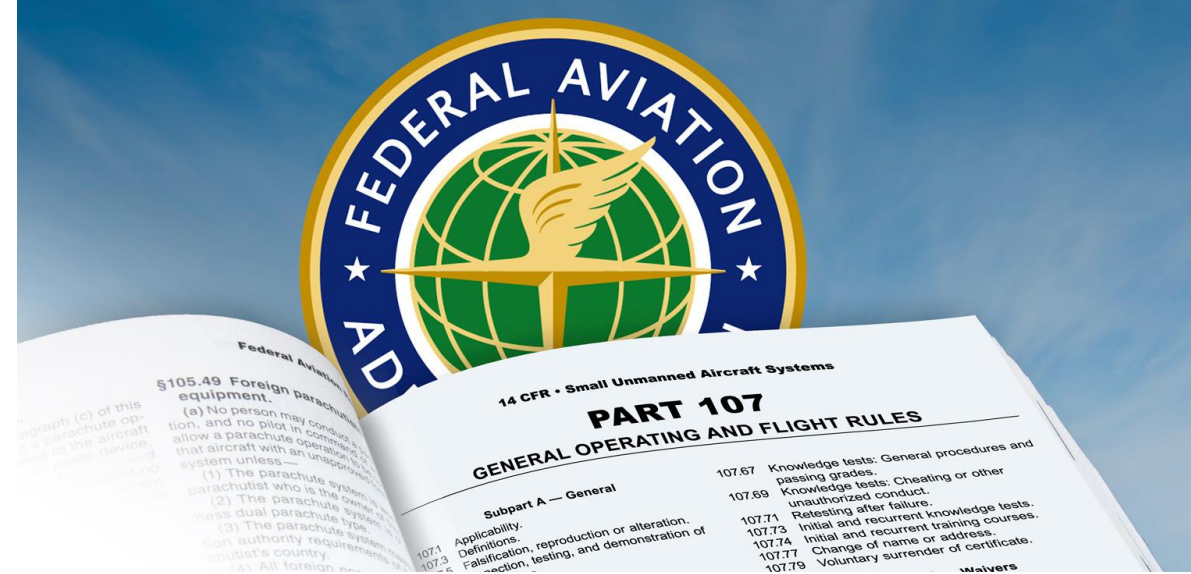
The Santa Clara Valley Water District is proposing to implement a pilot project to use drones in land surveying and mapping activities in locations within Santa Clara County. Also known as "Unmanned Aerial Vehicles," drone technology is more cost effective than the traditional use of piloted aircraft. Because drones fly at lower altitudes than airplanes, the images and data produced can be more precise.

The Federal Aviation Administration regulates the operation of drones for non-hobbyists. These regulations ensure that commercial drone operators (or pilots) are trained and certified and that they follow strict safety requirements. The water district has certified drone pilots who will fly our drones for the project.

After the proposed pilot project is concluded, district staff will evaluate its effectiveness to determine if the program should continue.



Rules and Regulations



- This 6-month pilot project shall follow all Rules and Regulations of the Federal Aviation Administration (FAA) Part 107 Commercial including:
 - Remote Pilot Certification
 - LSMU currently has 4 Part 107 certified pilots on staff
 - Registration
 - All aircraft shall be registered with the FAA. The Tail Number shall be visible on the UAV
 - Insurance
 - Coverage shall be provided by the current District insurance carrier
 - Special Considerations per FAA
 - 400 foot maximum flight height above ground level
 - No operation within 5 miles of an airport without Waiver or Certificate of Authorization

LSMU will offer services using UAVs for:

- Surveying and Mapping
 - Land Surveying and Mapping
 - Engineering and Design
 - Construction and O&M Inspection
 - Vegetation Management
 - Community Projects Review
 - Capital Program Planning
 - Real Estate Services
- Photographic
 - Environmental Health and Safety
 - Emergency Services & Security
 - Facilities Maintenance
 - Utility Maintenance Pipelines
 - Dam Safety
 - Public Safety
 - External Affairs
 - Water Revenue
 - Asset Management

Pilot Project Schedule

- Start within 2 weeks of Board approval with purchase of 2 UAVs
- 6 months for Program Evaluation
 - Cost benefit of UAVs
 - Time savings analysis
 - Policy and Procedure development
 - Site Assessment Document
 - Pre- and Post-Flight Checklist
 - Maintenance Log
 - Flight Log for District/Public responsibility questions
- An evaluation report to be completed within 60 days of completion of pilot project and submitted to the Board for review with staff recommendations on next steps.

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