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Lessons Learned- Drone Procurement

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Drone Procurement Timeline

- May 2017: Initial steps
- September 2017: Scope of Work Development
- March 2018: Pre-bid meeting
- May 2018: Bid opening
- July 2018: Drone Policy and Procedure development
- July 2018: Drone Contracts awarded





Bureau of Utility Operations

24-Hour Emergency Water Services: (410) 222-8400
Billing Inquiries: (410) 222-1144



Bureau of Highways

Northern District: (410) 222-6120
Central District: (410) 222-7940
Southern District: (410) 222-1933
Traffic Lights/Signs: (410) 222-1940



Bureau of Waste Management Services

Bulk Trash Service/Curbside Collections: (410) 222-6100



Bureau of Engineering

General Inquiries: (410) 222-7500



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Initial Steps

- Develop list of uses for drone services
 - CIP progress
 - Asset location mapping
 - As built verification
 - Inspections
 - Training videos
 - Leak detection/SSO
- Included other County agency uses



Scope of Work Development

- Variety of uses led to complex SOW issues
 - Categories for procurement/bidding
 - Photo/Video projects
 - Thermal projects
 - Topographic projects
 - Planimetric projects
 - PEG-TV projects



Scope of Work Development

- Variety of uses led to complex SOW issues
 - Scheduling
 - Standard Planned Schedule
 - Emergency Unplanned Projects- 24 hour notice
 - Critical Unplanned Projects- 2 hour notice
 - Hours of Service
 - Office Hours
 - OT
 - Weekend/Holiday



Scope of Work Development

- Variety of uses led to complex SOW issues
 - Focus of procurement
 - Level of detail
 - Equipment
 - Sensor requirements
 - Quality of deliverables
 - Licensing and Waivers



Pre-Bid Meeting

- 15+ firms in attendance
- More than 50 questions from firms
 - Licensing/Restrictions/Waivers
 - Equipment Specifications
 - Subcontracting of specialists
 - Surveyors
 - Engineers



Pre-Bid Meeting

- More than 50 questions from firms (Cont)
 - Community notification
 - Data Concerns
 - Privacy
 - Storage
 - Delivery
 - Experience Verification
 - Basis of Awards



Pre-Bid Meeting

- More than 50 questions from firms (Cont)
 - Insurance Requirements
 - Pricing Structure
 - Processing and flight time included in hourly rate
 - Emergency Management/OSHA
 - Specific project questions



Bid Opening

- 13 bids received
 - Buyer reviews for responsiveness
 - Responsive bids forwarded to DPW for review of responsible
- DPW committee reviewed 6 bids
 - Lowest 3 bids per type of work



Bid Opening

- Committee Findings
 - Firms bid on all types of work
 - Not what we were expecting
 - References listed were primarily for photo and video work
 - Large variation in prices across firms



Drone Contracts awarded

- Contracts awarded to 2 firms
 - Photo/Video and PEG-TV work
 - Other work types not awarded
 - Quality of thermal and LiDar data not addressed in proposals
 - Specific capabilities not addressed in proposals
- Drone Services vs. Projects that could be completed by drone
 - County's best interest



Policy and Procedure Development

- Concerns
 - Usage of drone contract across DPW-subject matter experts
 - Understanding requirements/limitations of contract
 - Privacy Concerns
 - Capital Projects vs. Drone Services contracts
 - Documentation
 - Public Notification of drone use
 - Emergency usage
 - Changing and Lack of legislation

