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# Bid Specifications for GPS Collars

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## Proposed Timeline:

Order Placed: 01/09/2023

The Pennsylvania Game Commission is collecting bids for 200 GPS collars to be used on white-tailed deer (*Odocoileus virginianus*).

Each **GPS Collar** must:

- Be designed for use on free-ranging white-tailed deer, and upon request, be supported with examples of their use on current deer studies.
- Use GPS technology to collect accurate locations and transmit location data on a predetermined schedule and have two-way communication via the Iridium satellite network for changing GPS schedules.
- Store internally all GPS locations collected during at least 3-4 years of continuous use.
- Contain a VHF beacon, where the VHF frequency and schedule can be changed remotely via the Iridium satellite network.
- Contain a mortality sensor, that transmits a mortality message immediately upon activation, superseding all other messages.
- Contain a 3-axis activity sensor that records data every 5 minutes and stores all data internally.
- Contain a break-away mechanism that allows remote removal of the collar through the Iridium satellite network as well as a timer-controlled drop-off, and a remote radio release as a backup.
- Have a battery life of approximately 3 years with 1 GPS fix every 30 minutes for the first year, Iridium messages with locations at least once every 2 days, a VHF beacon on for 20 hours per day, and a total weight under 900 grams.
- Have all wires and antennas integrated within the collar belting or housing. Belting must be brown.
- Contain 2 complete sets of attachment hardware per collar (plates, bolt stems, nuts).
- Have unlimited number of alert messages sent to as many personnel as requested
- Be a complete, 1 part construction, i.e., no 2-part housing using O-rings to prevent water ingress
- Have at least a 2-year warranty, where warranty replacement claims should not require a physical collar to be returned.
- Be compatible with Vectronic GPS Plus X Collar Manager software.
- Be compatible with Vectronic Drop-Off Manager software.

Bids should also include all costs associated with use of the collars for 4 years, including any activation fees and data transmission plans.

All radio-collars must be received at 2001 Elmerton Ave. Harrisburg, PA 17110 by December 1, 2023.

Questions concerning radio-collar specifications should be directed to:

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