

Foundations of Virtual Fence: The Role of High-Quality Data

Why it Matters?

Virtual fence (VF) boundaries are created in the VF software, which requires an accurate high-quality digital GIS map of an entire ranch or land management area.

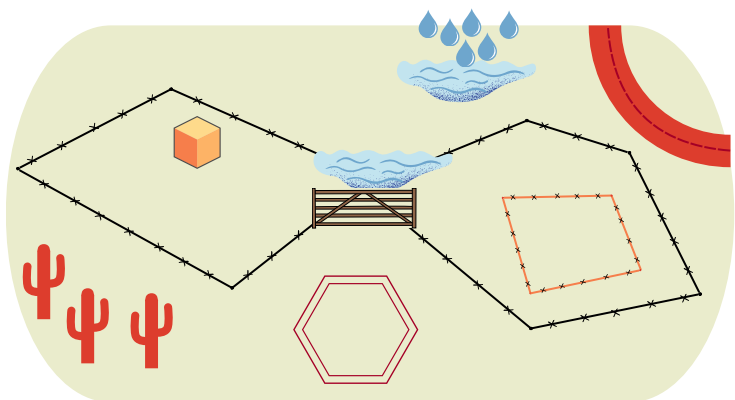
Collars, like all GPS units, have some amount of GPS error. Accounting for the error when designing virtual fence boundaries offers the **maximum benefits of precision livestock management technology**.



A **100ft buffer** around critical ranch locations may prevent unintended cues

Key Data Needed

- Water (seasonal & permanent)
- Gates
- Existing fence lines
- Roads
- Sensitive habitat
- Corrals and exclosures
- Cultural landmarks
- Salt and/or supplements locations



Finding GIS Data

Public GIS data can be found on public databases, but may need to be ground-truthed to confirm quality. Cooperative Extension personnel may be able to assist with information about where to find data.

For more information, read *The Vital Role of High-Quality GIS Data*

Access VF resources at rangelandsgateway.org/vf

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