GROUNDWORX®

FLOODPLAIN & FIRE INTELLIGENCE

PROTOTYPE - UNDER DEVELOPMENT

Guardian

SmartTower

From the air to the ground.

> 33 data points. One dedicated flood-and-fire prototype.

Air / atmosphere / motion / soil



8 ft. prototype / marked bury line

5 m soil-array length

Air quality & detection 14

01	Carbon monoxide (CO)	02	Carbon dioxide (CO2)
03	VOCs	04	Nitrogen dioxide (NO2)
05	Ozone (O3)	06	PM1.0
07	PM2.5	08	PM10
09	Optical smoke obscuration	10	Photoelectric smoke
11	UV flame response	12	IR flame response
13	Thermal imaging	14	Visible / low-light

Atmospheric 12

15	Air temperature	16	Relative humidity
17	Wind speed	18	Wind gust
19	Wind direction	20	Solar radiation
21	Precipitation rate	22	Precipitation accumulation
23	Barometric pressure	24	Lightning strike count
25	Lightning distance	26	Ambient light

ET, motion & location 3

27	Evapotranspiration (ET)	28	Accelerometers
29	GPS location		

In-ground 4

30	Temperature	31	Moisture (VWC)
32	Conductivity (EC)	33	Dielectric

Floodplains & fire-exposed areas

33
DATA POINTS

Planned communications & power

Satellite / autonomous LTE / LoRaWAN 900 MHz

Meshed network / 228 Ah lithium / no solar required

GAIN

Flood and fire awareness through GAIN.

Mission-critical autonomous alerts. Prototype under development.

Not a substitute for official emergency warnings.

© 2026 GroundWorx Inc.