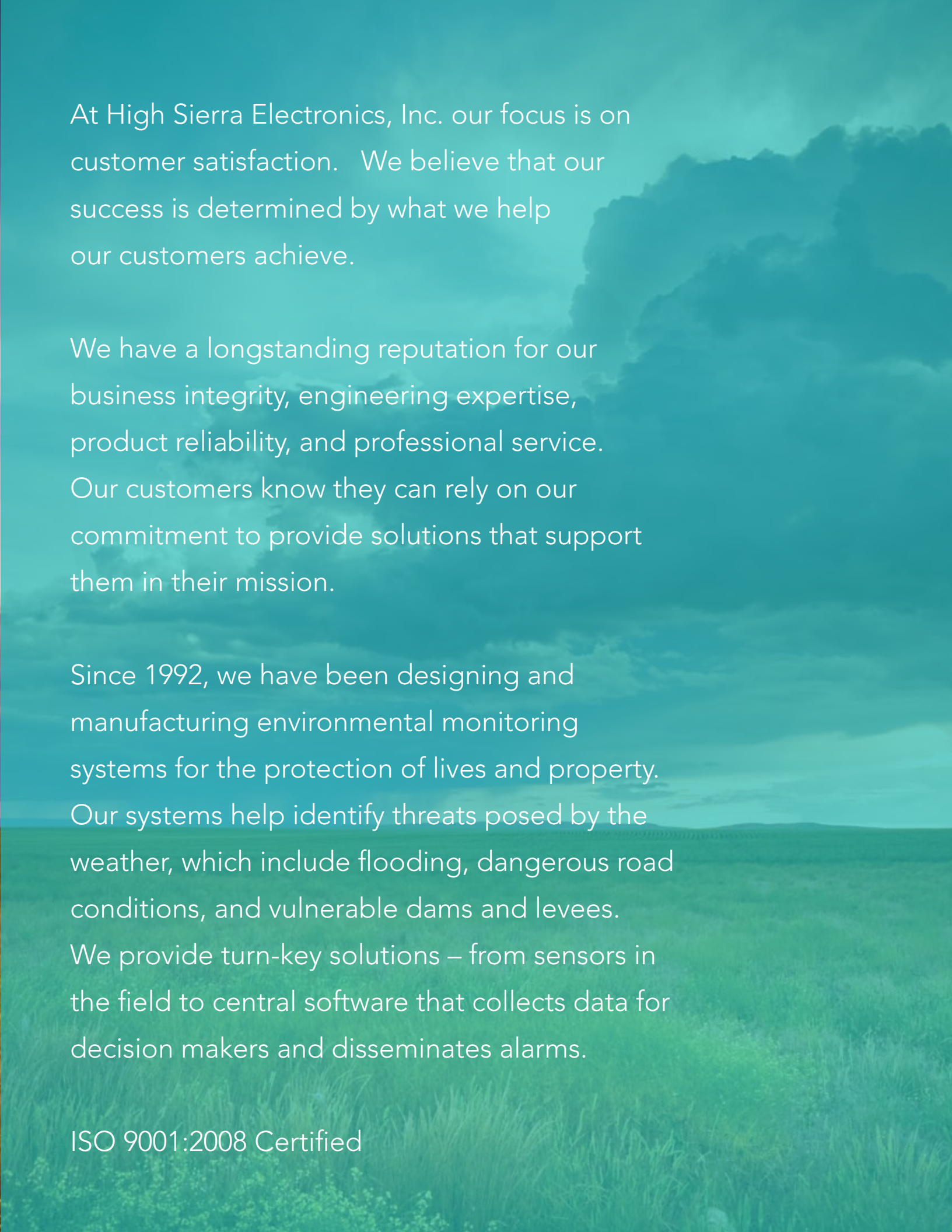




# HIGH SIERRA ELECTRONICS

*environmental monitoring solutions*





At High Sierra Electronics, Inc. our focus is on customer satisfaction. We believe that our success is determined by what we help our customers achieve.

We have a longstanding reputation for our business integrity, engineering expertise, product reliability, and professional service. Our customers know they can rely on our commitment to provide solutions that support them in their mission.

Since 1992, we have been designing and manufacturing environmental monitoring systems for the protection of lives and property. Our systems help identify threats posed by the weather, which include flooding, dangerous road conditions, and vulnerable dams and levees. We provide turn-key solutions – from sensors in the field to central software that collects data for decision makers and disseminates alarms.

ISO 9001:2008 Certified

# HydroMet flood warning & environmental monitoring



Early detection of potential flood conditions and reliable flood forecasting are critical components of an effective local flood warning system. Advance warning of impending floods can save lives and prevent extensive property damage.

HSE's monitoring systems include all the remote site equipment, communications equipment, and central base station equipment and software required for a complete, integrated solution. They are ideally suited for applications requiring real-time environmental data – measurements of rainfall, snow, and water levels in streams, rivers, and other bodies of water. When additional meteorological parameters are required, HSE offers sensors that monitor wind, humidity, temperature, barometric pressure, and solar radiation. Our field stations also feature a powerful and flexible built-in data logger to record, process, and transmit data. The data logger will interface with analog, SDI-12 and other digital sensors.

The HSE system includes network-ready software to facilitate data management: graphical map displays,

activation of alarms, instant messaging, hydrological forecasting and analysis tools. The software package is an easy-to-use, menu-driven program and is capable of feeding public or intra-agency web sites.



A variety of communication options are available to meet the needs of any data collection or control system. Examples include radio telemetry, cellular, spread spectrum radio, GOES, ORBCOMM, and other satellite networks.

# RWIS

## road weather monitoring & management



HSE's Environmental Sensor Stations (ESS) provide real-time information about weather and roadway conditions. Information is used to help operations and maintenance personnel stay informed to make timely decisions and improve traffic safety. Our ESS are NTCIP compliant and offer a non-proprietary, open architecture design that allows maximum flexibility in choosing sensors and telemetry options. Whether an agency needs to initiate alarms, mobilize emergency personnel or activate weather-related closures, HSE provides a professional solution to quickly and reliably transform data into actionable information.

Road weather management solutions include:

- Advance Warning Stations that advise motorists of a weather impaired or flooded roadway by activating flashing beacons, message signs, or automatic road barrier gates.



- Road Weather Information Systems (RWIS) to track weather changes, identify threats to road surface conditions, disseminate information, and facilitate Dynamic Message Signs or other automatic warning systems.

- "Mini" RWIS remote processing units designed for primary deployment within existing or new ITS cabinets for simpler implementation at a lower cost than traditional RWIS installations and weather-responsive traffic management.
- HSE's IceSight non-intrusive surface condition sensor uses laser and infrared technology to read surface condition, temperature and grip. Mounted easily on nearby traffic or luminary poles, this sensor provides an economical means of gathering road condition information for ATMS, MDSS and weather-responsive traffic management applications.

# Dam & Levee Safety

## minimizing dangerous conditions

One of the main threats to dam integrity is extreme rainfall and the high flows that follow. HSE gauges can record and report rainfall totals in real time throughout a watershed, and notify dam operators and safety officials of the possibility of flooding or dangerous conditions.

HSE hydrologic monitoring stations can also report and record reservoir levels and Piezometer data. This data supplies real-time information for improve dam management, and also provides long-term statistics for water resources planning. Stage measuring equipment, including auxiliary sensors for water temperature and water quality is available. Data can be logged on site as well as transmitted in real time to a data collection center. Communication options vary from satellite, cellular or radio telemetry.



# Services

## exceeding your expectations

In addition to delivering outstanding products worldwide, HSE is committed to providing comprehensive service and support. Our mission is to provide all levels of service required to facilitate the installation, operation, and maintenance of our systems.

Customers benefit from having a single source from pre-construction to annual maintenance. HSE provides the personal attention of a small firm, backed by more than fifty years of extensive knowledge and engineering experience. Services include system design, site surveys, radio path studies, turn-key installation, installation supervision, and annual or semi-annual site inspection and maintenance agreements.

Factory and on-site training classes are available. HSE seminars and workshops offer thorough and complete instruction for companies, agencies and individuals devoted to environmental monitoring. Based on real-world scenarios and led by experienced instructors, HSE training classes teach students how to improve their day-to-day operational skills.

HSE also maintains an in-house repair and calibration facility. Our electronic technicians and engineers have extensive experience in evaluating and/or troubleshooting any hardware challenge. The facility is equipped with environmental chambers, test equipment for tuning radios and calibrating pressure-sensitive devices, and sophisticated computer systems for running diagnostic and test programs.

By working closely with our customers, HSE ensures professional and personalized service through all phases of their project.



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