LOBO LAN
A Wireless LAN for Elkhorn Slough
http://www.mbari.org/lobo

A Three Tier System:

- Wireless Ethernet Bridges (Cirronet SEM2410) distribute IP connectivity to fixed sites within the Elkhorn Slough watershed.

- Colocated Access Points (Cirronet SNAP2410) manage incoming connections from the deployed moorings and route their traffic to a MBARI designed server application running on a shore-side UNIX machine.

- A MBARI designed low-power mooring controller and OEM Wireless LAN Module (Cirronet WIT2410) are used to log and telemeter instrument data from each mooring.

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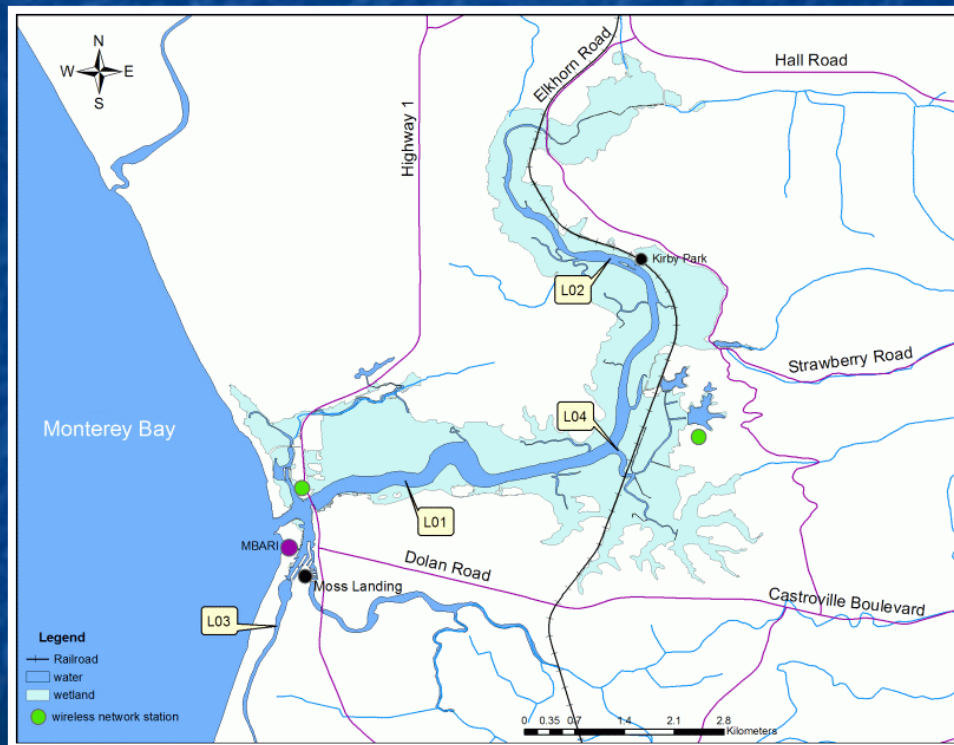
Reliability:

- A Frequency Hopping Spread Spectrum (FHSS) radio topology, in the 2.4GHz ISM band, minimizes data loss caused by jamming and interference and maximizes bandwidth sharing.

- A MBARI implementation of the ZMODEM file transfer protocol ensures end-to-end data integrity between the local and remote file systems.

Expandibility:

- The system allows for a seamless and secure extension of the local MBARI network to remote IP and serial devices, e.g., weather station, webcam, ect…

Status:

- The L03 mooring is currently networked and is making hourly data transfers.
- The three remaining moorings are currently deployed in Elkhorn Slough and will be brought onto the network during July and August of 2005.

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