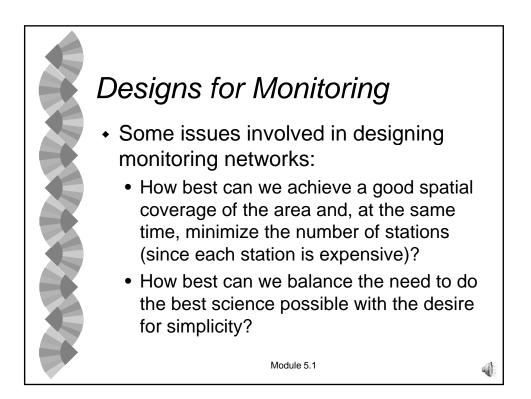
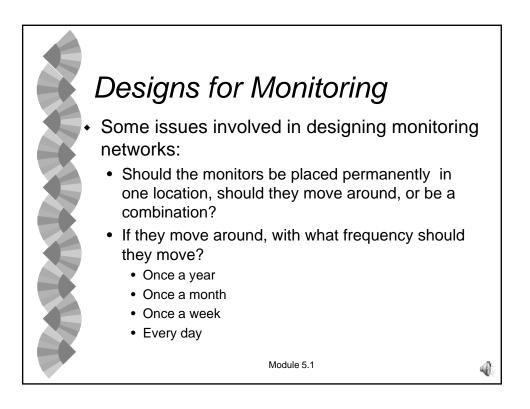


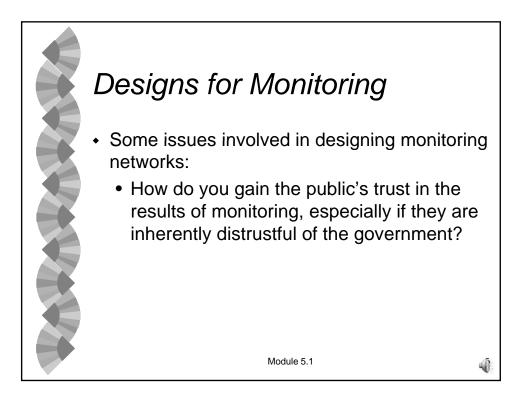


- The design of monitoring networks is complex and involves balancing various goals
- Some issues involved in designing monitoring networks:
  - Should the monitors be placed in random locations throughout the area or should be be located where contamination is expected to be worst?

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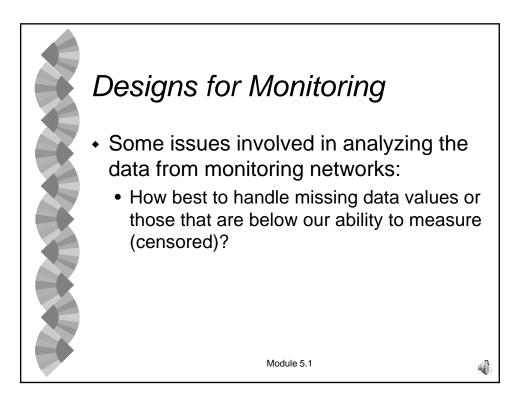


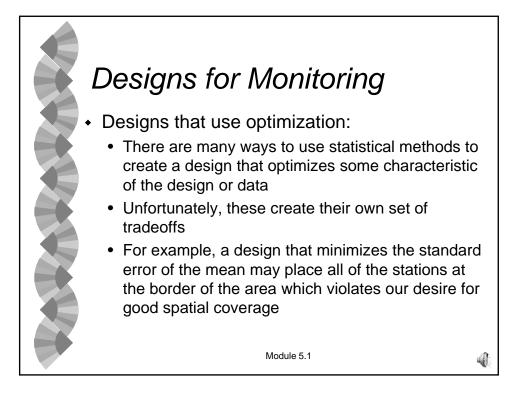


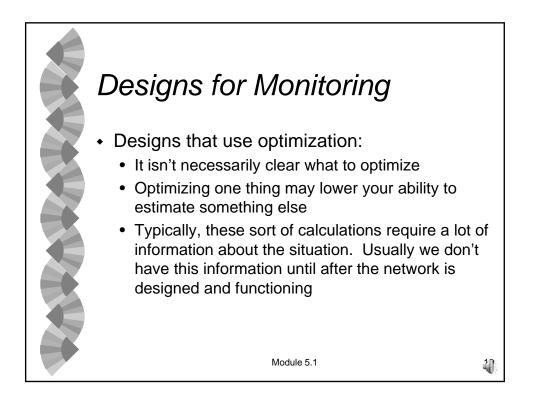


- Some issues involved in analyzing the data from monitoring networks:
  - What is the best metric to use: a time average (8 hour average for example) or a maximum value achieved during a time interval?
  - Monitoring technology is continually being improved. How best can we analyze a data set that has changing characteristics?

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## Designs for Monitoring

- So, in a given situation, judgements must be made about the various desirable characteristics of the network:
  - spatial coverage
  - simplicity

• capture maximums

- randomization
- minimize cost
- estimate both long and short term trends
- public acceptability that their risk is monitored
- straightforward data analysis

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