

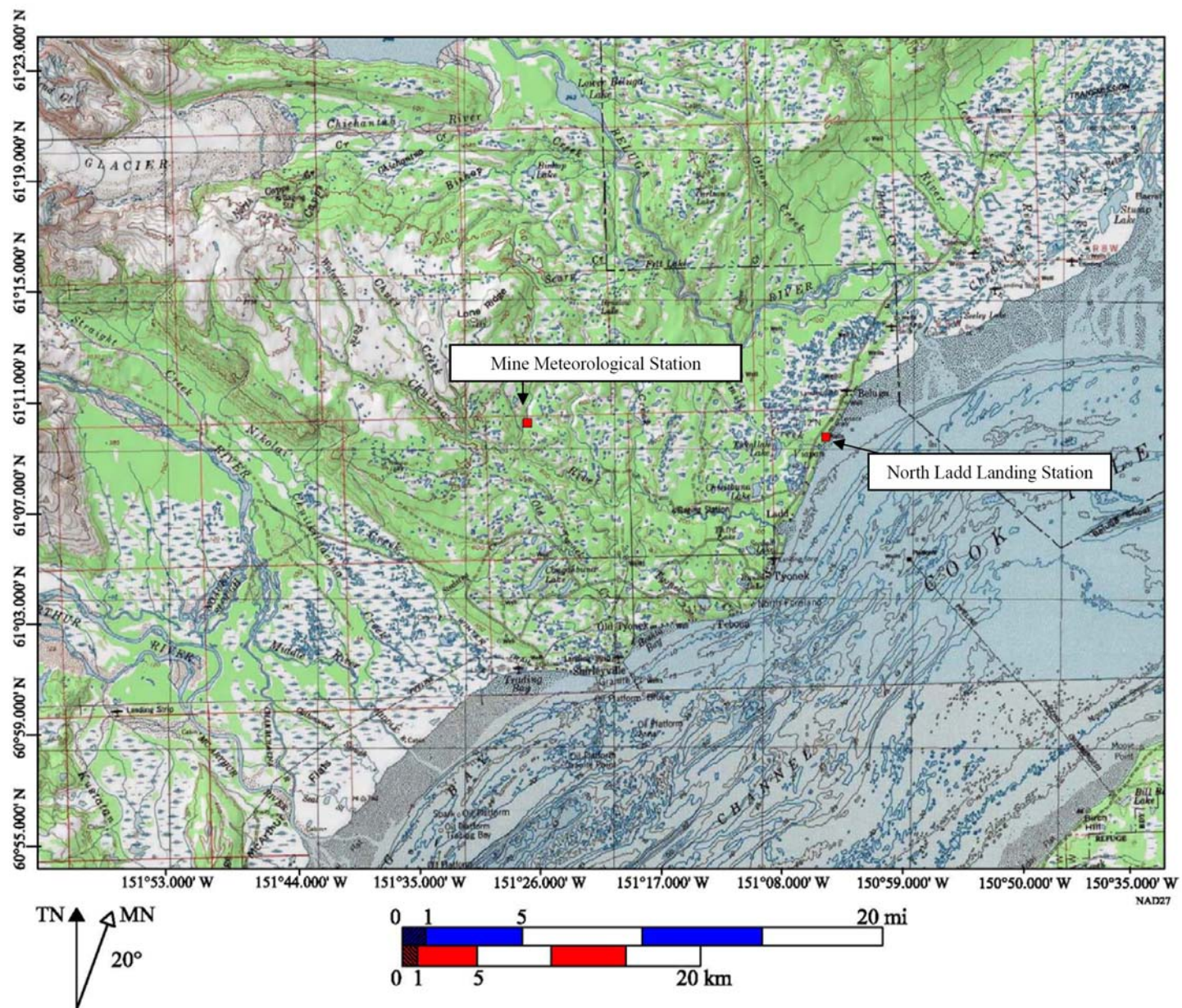
Regulatory Framework Dust Control

Beluga Informational Meeting
July 25, 2008

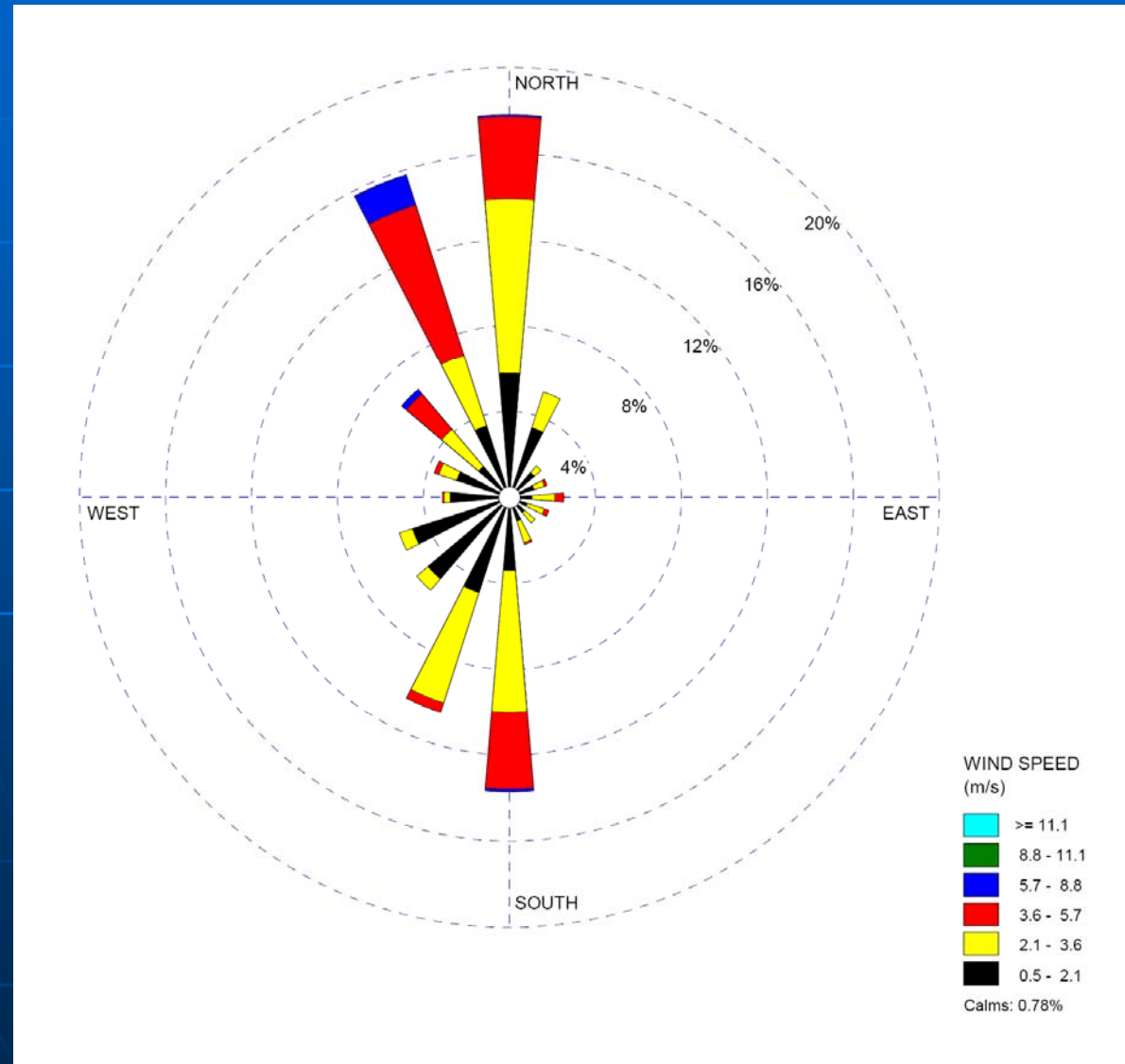
Baseline Monitoring

- 11 AAC 90.053. CLIMATOLOGICAL INFORMATION.
When requested by the commissioner, an application must contain a description of climatological factors of the proposed permit area, including, but not limited to,
 - The average annual and seasonal precipitation including average snow depth accumulation and water content;
 - The average direction and velocity of prevailing winds; and
 - Seasonal temperature ranges.

Figure 1-1 Chuitna Coal Project – Meteorological Station Locations

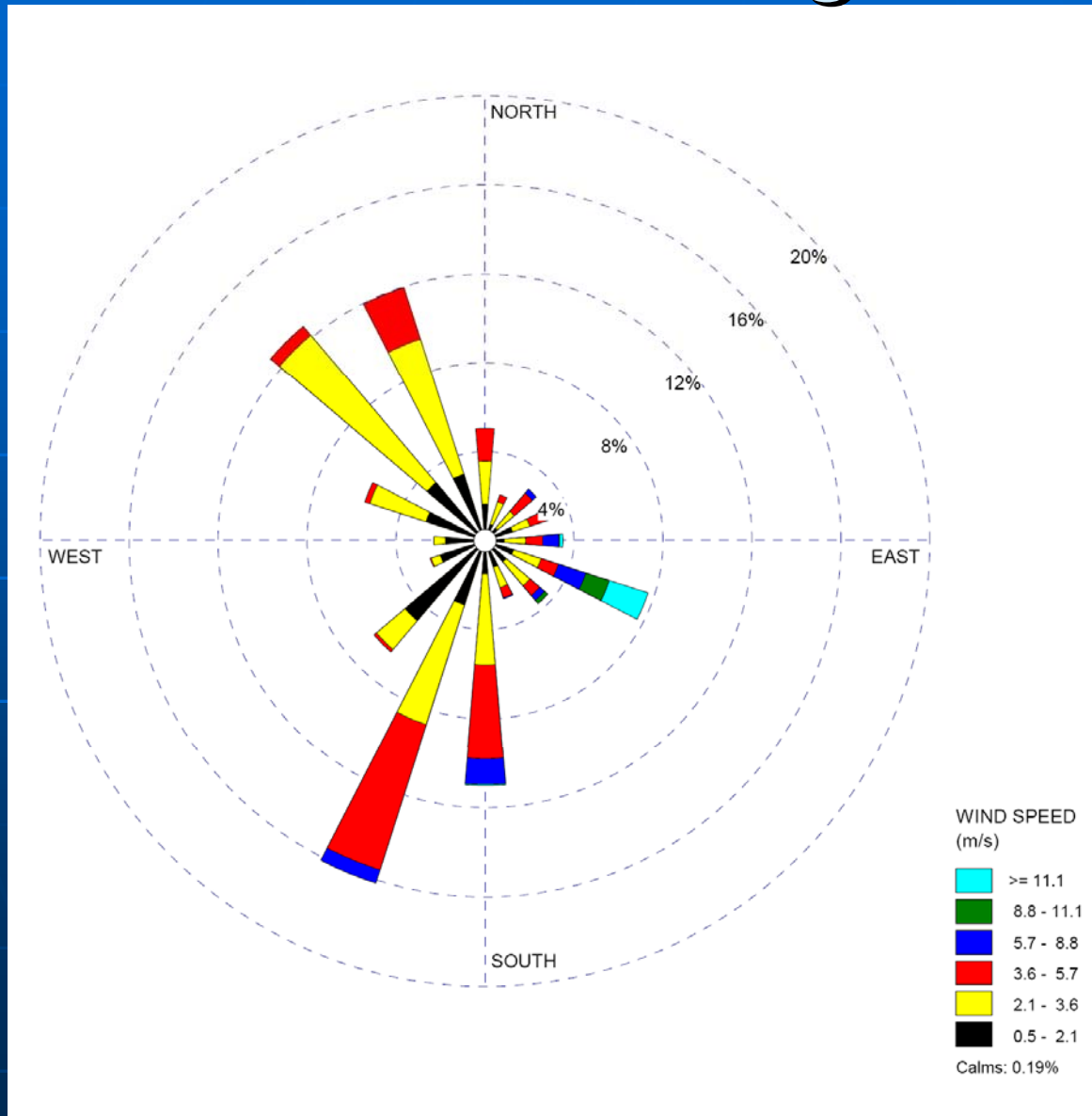


PacRim Lease Area



- Rose Diagram showing average wind speed data for July to September 2006
- 1 meter per second (m/s) equals 2.24 MPH

Beluga Area



- Rose Diagram showing Average wind speed data for July to September 2006
- 1 meter per second (m/s) equals 2.24 MPH

Permit Requirements

11 AAC 90.079. AIR POLLUTION CONTROL PLAN. Each application must include an air pollution control plan showing how all surface area will be stabilized and protected to comply with applicable federal and state air quality regulations .

An air quality monitoring program to provide sufficient data to evaluate the effectiveness of the air pollution control practices to be used.

Performance Standards

11 AAC 90.421. AIR RESOURCES PROTECTION. An operator shall stabilize and protect all exposed surface areas to effectively control erosion and attendant air pollution. An operator shall comply with applicable federal and state air quality laws and regulations and employ the required fugitive dust control measures as an integral part of operations.

Inspection and Enforcement

The Law requires that coal mines are inspected every month to ensure compliance with ASMCRA and the issued permit. The state works closely with the public and the operator to make sure that any potential adverse environmental impacts are addressed. To help ensure compliance ASMCRA also allows for the issuance of fines, criminal and civil penalties against the company and/or individuals associated with the mine operations.

Compliance with Clean Air Act

Clean Air Act

- Federal law that comprehensively addresses air quality in the United States
 - Original Clean Air Act was passed in 1963.
 - Congress passed a much stronger Clean Air Act in 1970, the same year it created the EPA.
 - In 1990, Congress dramatically revised and expanded the Clean Air Act
 - provided EPA even broader authority to implement and enforce regulations reducing air pollutant emissions
 - placed an increased emphasis on more cost-effective approaches to reduce air pollution
- Clean Air Act governs the State Implementation Plan (SIP) process

Alaska Primacy for Air Quality

- Alaska DEC has been delegated authority by the EPA to administer the state air quality control program
- Alaska's overall air quality plan is documented in the "State Air Quality Control Plan"
- The air quality control plan, including the State Implementation Plan (SIP), is adopted by reference into Title 18, Chapter 50 of the Alaska Administrative Code
- Alaska DEC is responsible for establishing the air quality standards throughout the state and ensuring that regulations are enforced statewide to maintain air standards

State Air Quality Control Plan

- Plan for addressing air quality statewide
- Portions of the Air Quality Control Plan make up Alaska's SIP and address the federal requirements of the Clean Air Act.
- Each time EPA approves an amendment to the state's control plan, those amendments become a part of the federally required and approved SIP.
- Other portions of the control plan are state requirements that may be pending approval by EPA or cover control measures that are not required by EPA.

National Ambient Air Quality Standards

- Health standards set for 6 air pollutants:
 - Carbon monoxide
 - Nitrogen dioxide
 - Sulfur dioxide
 - Ozone
 - Lead
 - Particulate Matter: PM10 and PM2.5
- EPA reviews standards on five year cycle

Sources of Dust

Most mine plans address 3 potential sources of dust generation

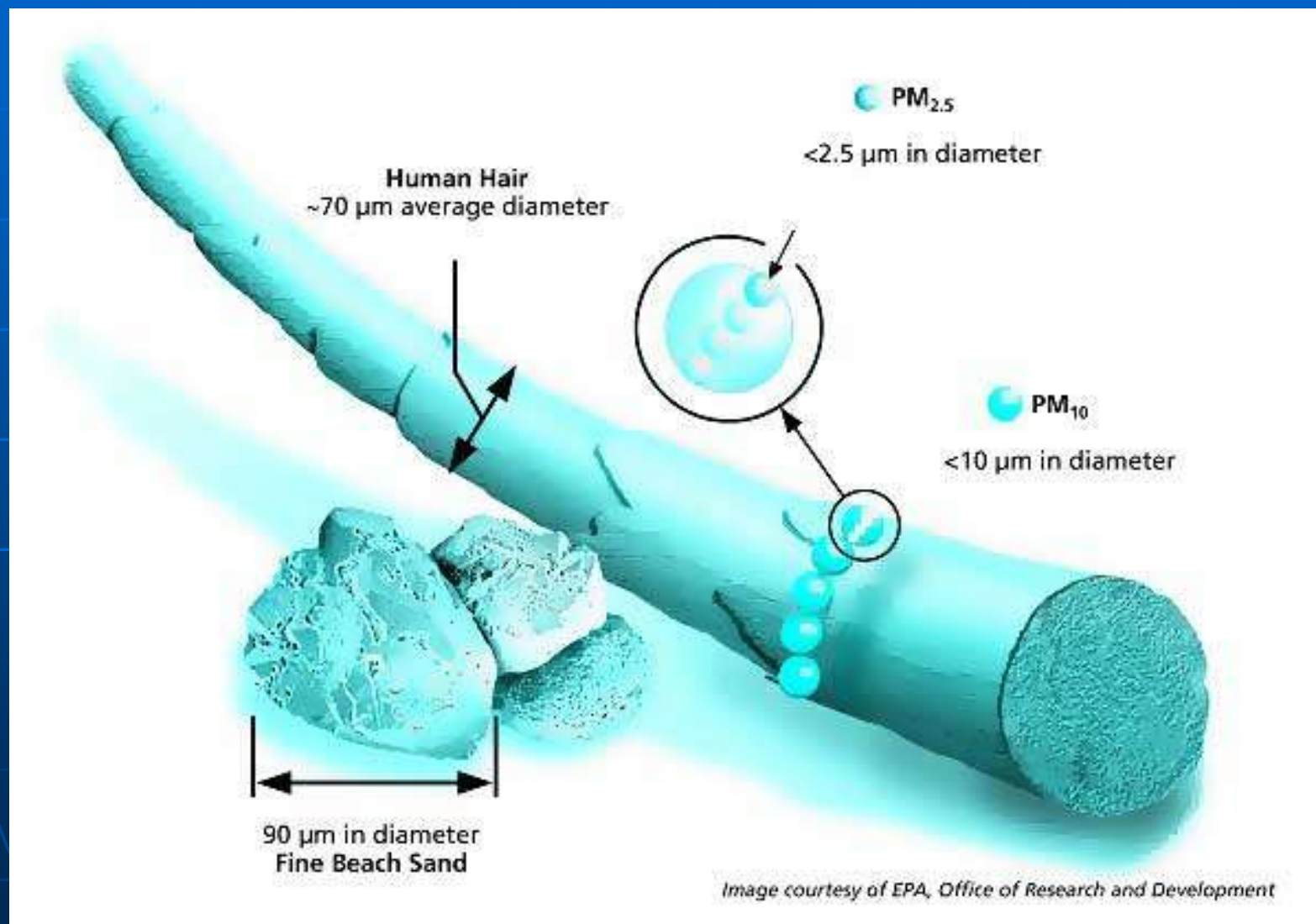
- Equipment operation on haul roads or in mine pits or at transfer points
- Wind Erosion on exposed surfaces
- Transfer points

Particulate Matter - Background Information (Dust)

Size is important to understand because the EPA classifies particulate matter as two types based on size. Alaska has problems with both types of particulate matter.

- Coarse Particulate Matter (PM10) is less than 10 micrometers in diameter. It primarily comes from road dust, agriculture dust, river beds, construction sites, mining operations, and similar activities. Most people in Alaska experience PM10 as dust.
- Fine Particulate Matter (PM2.5) is less than 2.5 micrometers in diameter. PM2.5 is a product of combustion, primarily caused by burning fuels. Examples of PM2.5 sources include power plants, vehicles, wood burning stoves, and wildland fires.

Size Comparison PM10 to PM2.5



Air Permits

- Air Permits are issued through DEC's Division of Air Quality; Air Permits Program.
- Applications consist of a description of the planned project, estimates of project-related emissions and mitigation measures, an air quality impact (modeling) assessment and application forms and supporting documentation as required by 18 AAC 50.502.

Questions?