

# Administrative Guidance for Green, Sustainable, and Resilient Remediation

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# Green, Sustainable, and Resilient Remediation is:

- ▶ Site Specific employment of:
  - ▶ Products
  - ▶ Processes
  - ▶ Technologies
  - ▶ Procedures
- ▶ Mitigate contaminants risk to receptors while making decisions that balance:
  - ▶ Community goals
  - ▶ Economic Impacts
  - ▶ Environmental effects

# Green Remediation

- ▶ CSRR encourages strategies which consider environmental impacts of cleanup activities at every stage of the remedial process to maximize the net environmental benefit of a cleanup.
- ▶ Examples are:
  - ▶ Reducing energy and water usage
  - ▶ Promoting carbon neutrality
  - ▶ Promoting reuse and recycling of materials
  - ▶ Protecting and preserving land resources

# Recommendations:

- ▶ Green Remediation
- ▶ Renewable Energy
- ▶ Resilience Measures
- ▶ Extreme Heat Resilience
- ▶ Brownfield Development
- ▶ Clean Diesel
- ▶ Idle Reduction

# Renewable Energy

- ▶ CSRR encourages the use of all reasonably feasible renewable energy sources
- ▶ Sources include:
  - ▶ Solar
  - ▶ Wind
  - ▶ Biomass
  - ▶ Biogas
- ▶ Cost analysis - comparing renewable vs traditional energy for remedy
- ▶ Evaluate cost of purchasing green power

# Resilience Measures

- ▶ Integrate Climate Change vulnerability assessments and adaptation measures into the remediation process
- ▶ Ensure resilience of remedies to climate change impacts

# Extreme Heat Resilience-Brownfields

- ▶ Encourage redevelopment of urban sites into green space
  - ▶ Combat urban heat Island effect
  - ▶ Cooling strategies:
    - ▶ Open Spaces
    - ▶ Green Infrastructure
    - ▶ Tree Canopy development
  - ▶ Allows for:
    - ▶ Carbon Drawdown
    - ▶ Improved access to Parks
    - ▶ Improved Public Health

# Brownfield Redevelopment

- ▶ CSRR encourages incorporation of redevelopment in site remediation process
  - ▶ Reduces energy expenditure
  - ▶ Carbon emissions
  - ▶ Water use
- ▶ Brings significant local, regional, and global climate benefits over traditional “greenfield” development
  - ▶ Lowers per capita carbon footprint
  - ▶ Reduces stormwater runoff and flooding
  - ▶ Improves air quality



# Clean Diesel

- ▶ CSRR encourages the use of the cleanest construction equipment available
  - ▶ At minimum use of diesel construction equipment retrofitted with emission control technologies, ensure proper maintenance, and minimize idling for all non-road equipment and generators powered by diesel.
  - ▶ All construction equipment that don't have aftermarket emission control devices installed should meet USEPA's Tier 4 clean diesel standards.
  - ▶ Many hybrid electric or fully electric non-road equipment options available that should be considered. NJDEP's Bureau of Mobile Sources provides funding assistance.

# Idle Reduction

- ▶ N.J.A.C. 7:27-14 and N.J.A.C. 7:27-15 Regulatory Requirements:
- ▶ All on-road vehicles and non-road construction equipment operating at, or visiting a construction site shall comply with the three-minute idling limit.
- ▶ Should consider posting “No Idling” signs at construction sites.

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# Questions?