



**Construction Permit
Application Review
SHINE Medical Technologies**

Environmental Panel

December 15, 2015

Panelists

- **Jane Marshall**
 - **Deputy Director, Division of License Renewal, NRR**
- **David Wrona**
 - **Branch Chief, NRR**
- **Michelle Moser**
 - **Project Manager, NRR**

Environmental Review

- **National Environmental Policy Act**
- **Environmental review process**
 - **Title 10 of *Code of Federal Regulations* (10 CFR) Part 51**
 - **Environmental Standard Review Plan (NUREG-1537)**
 - **Interim Staff Guidance**

Environmental Impact Statement (EIS)

- **10 CFR 51.20**
- **Project-specific decision**
 - **Potential significant impacts**
 - **First-of-a-kind facility with a unique application of technologies**
 - **Public involvement maximized**

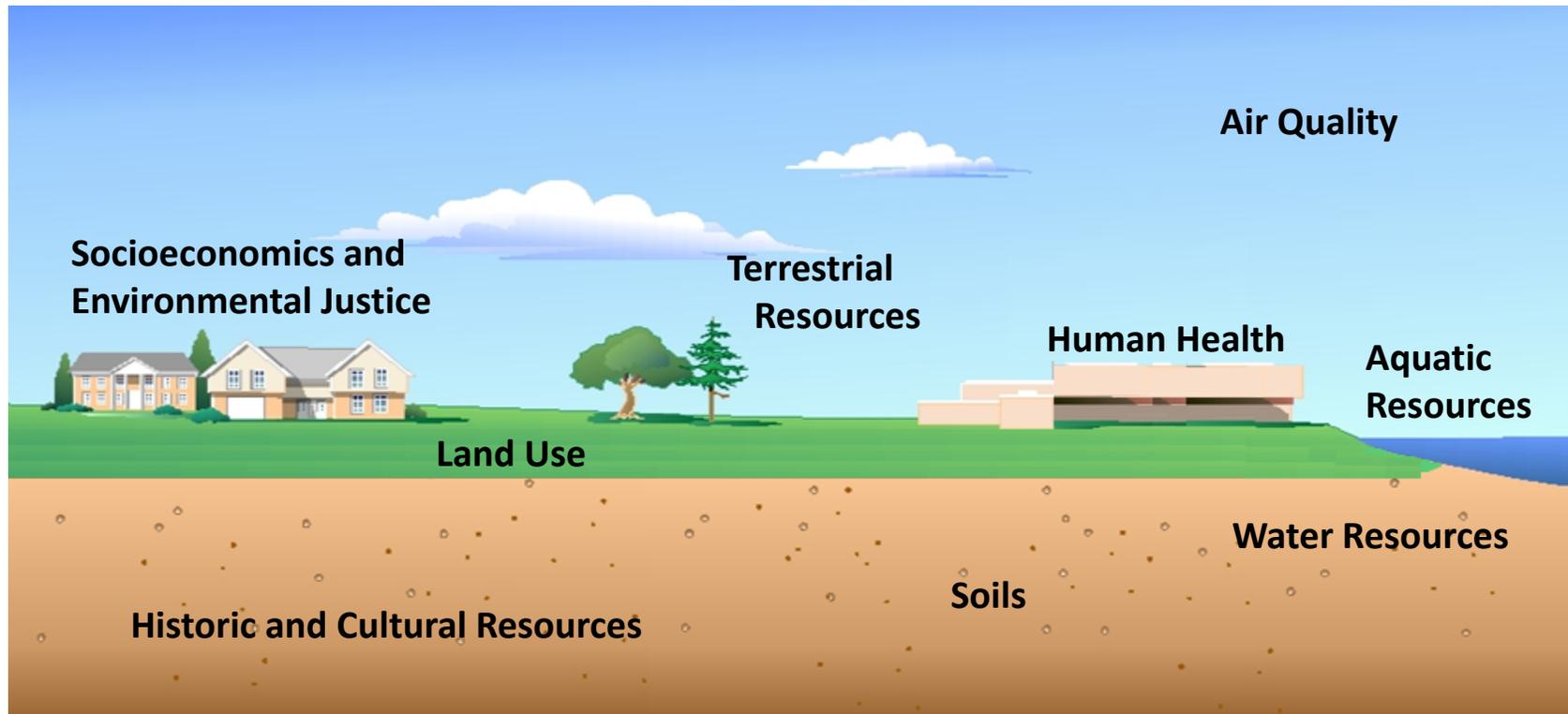
Scoping

- **2 public meetings in Janesville, Wisconsin**
- **5 oral comments**
- **6 written comments**

Department of Energy (DOE)

- **National Environmental Policy Act**
 - **Lead agency: Nuclear Regulatory Commission**
 - **Cooperating agency: DOE**
- **American Medical Isotopes Production Act**
 - **Complementary environmental reviews**

Environmental Review Areas



Environmental Impacts

Resource Area	Impact
Land Use and Visual Resources	SMALL
Air Quality and Noise	SMALL
Geologic Environment	SMALL
Ecological and Water Resources	SMALL
Historic and Cultural Resources	SMALL
Socioeconomics	SMALL
Human Health and Waste	SMALL
Transportation	SMALL to MODERATE

Reasonable Alternatives

- **No-action alternative**
- **Alternative sites**
 - **Chippewa Falls**
 - **Stevens Point**
- **Alternative technologies**

Alternative Technologies

- **Neutron capture**
- **Aqueous homogenous reactor**
- **Linear-accelerator-based**
 - **Analyzed in depth**

Costs and Benefits

- **Purpose**
 - **Inform recommendation to the Commission**
- **Costs**
 - **Environmental and financial**
- **Benefits**
 - **Societal, medical, and economic**

Environmental Costs

	SMALL to MODERATE
Proposed Janesville Site	Traffic
Chippewa Falls Alternative	Traffic, Noise
Stevens Point Alternative	Traffic, Noise, Visual
Alternative Technology	Traffic
No-action Alternative	None

- **SMALL impacts for all other resource areas**

Benefits

- **Support United States (U.S.) policy**
- **Support U.S. public health needs**
- **Economic benefits**
 - **Increased tax revenue**
 - **New employment opportunities**

Consultations

Regulation or Order	Determination
Endangered Species Act, Section 7	No Effect
National Historic Preservation Act, Section 106	No Adverse Effect

Draft Environmental Impact Statement

- **2 public meetings in Janesville, Wisconsin**
- **1 oral comment**
- **8 written comments**

NRC Staff's Recommendation

Staff recommends issuance of the construction permit.

Future NEPA Analyses

- **10 CFR 51.95(b) requires the staff to supplement the Final EIS**
 - **Matters that differ from the Final EIS**
 - **New significant information**

Acronyms

- **NRR – Office of Nuclear Reactor Regulation**