

**FINDING OF NO SIGNIFICANT IMPACT  
OAK RIDGE SCIENCE AND TECHNOLOGY PROJECT  
AT THE OAK RIDGE NATIONAL LABORATORY,  
OAK RIDGE, TENNESSEE**

**AGENCY:** U. S. Department of Energy

**ACTION:** Finding of No Significant Impact.

**SUMMARY:** The U. S. Department of Energy (DOE) has completed an Environmental Assessment (EA) (DOE/EA-1575) for the Oak Ridge Science and Technology Project (ORSTP) at the Oak Ridge National Laboratory (ORNL). The proposed action would advance technology transfer and other missions at ORNL by supporting technology commercialization, creating new companies, and stimulating technology-based recruitment. Funding for the ORSTP would primarily be from private, other federal, and state sources. As a part of the ORSTP, DOE would also establish the Oak Ridge Science and Technology Park, which would be the primary area of development.

DOE action is needed to support the commercialization and technology transfer efforts of ORNL, and it responds to a recognized need for accelerated science and technology development and for the commercialization of advanced technologies. The proposed action would support the space needs of ORNL's University-based research partners. In addition, it is anticipated that the ORSTP would further the overall modernization of the ORNL campus in broad support of DOE's missions and purposes. The activities planned in the ORSTP are consistent with the types of research activities already underway at ORNL.

Based on the results of the analysis reported in the EA, DOE has determined that the proposed action is not a major federal action that would significantly affect the quality of the human environment within the meaning of the National Environmental Policy Act (NEPA) of 1969. Therefore, the preparation of an Environmental Impact Statement (EIS) is not necessary, and DOE is issuing this Finding of No Significant Impact (FONSI).

**PUBLIC AVAILABILITY:** The EA and FONSI may be reviewed at and copies of the documents obtained from:

U. S. Department of Energy  
Information Center  
475 Oak Ridge Turnpike  
Oak Ridge, Tennessee 37830  
Phone: (865) 241-4780

**FURTHER INFORMATION ON THE NEPA PROCESS:** For further information on the NEPA process, contact:

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P.O. Box 2001, SE-32  
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**DESCRIPTION OF PROPOSED ACTION:** To establish the ORSTP, DOE would lease underutilized facilities and land parcels at ORNL within the Central Campus area, which is located in the western portion of the Laboratory. The Oak Ridge Science and Technology Park would be within the northwest quadrant of the Central Campus and includes approximately 12 acres of currently leased property along Bethel Valley Road. DOE would only identify land and facilities for lease where it has been determined that they are no longer needed for current or future mission-related activities. Development under the ORSTP would operate under a phased-building approach. A master land use plan would encourage new development to continue the campus-like environment at ORNL. New buildings would be constructed but existing facilities could also be modified or renovated to accommodate new users. The ORSTP would be intended primarily for research and development (R&D) facilities, high-technology and science-based companies, engineering support services, technology commercialization incubation space, and prototype manufacturing facilities. Specific uses would not be known until proposals are developed and reviewed by DOE. Reasonably foreseeable uses could include, but are not limited to, the following R&D technologies: energy, environmental, computational, materials and chemistry, biological systems and genetics/genomes, medical/pharmacological, nanotechnology, and national security. Potential types of research and light/prototype manufacturing uses would be compatible with the ORSTP objectives for technology transfer, based on the types of activities already ongoing at ORNL, and would be commensurate and compatible with other ongoing DOE missions and activities.

**ALTERNATIVES:** In addition to the proposed action, impacts were also evaluated for the no-action alternative. Other alternatives to establishing the ORSTP in the Central Campus Area of ORNL were considered, including locating the ORSTP within another portion of the Oak Ridge Reservation (ORR) and locating it outside of the ORR but within the Oak Ridge Technology Corridor. These were eliminated from further analysis primarily because they did not meet the purpose and need to advance DOE's technology transfer mission at ORNL through the use of underutilized land and facilities currently available or available in the future. Additionally, to maximize the technology transfer mission at ORNL, it is advantageous to have the ORSTP users in close proximity to the other resources of the Laboratory.

**ENVIRONMENTAL IMPACTS:** The EA assessed direct and indirect impacts of the proposed action and no action alternatives on the following resources: land use, geology and soils, water resources, air quality and noise, biological resources, cultural resources, socioeconomics, infrastructure, waste management, and human health and safety. Potentially cumulative impacts on land use, air quality, socioeconomics, transportation, and biodiversity were also assessed. Because the actual future uses under the ORSTP are not currently known, a "bounding" analysis was used to estimate potential impacts. To ensure that proposed activities fall within this analysis, DOE would review each proposal it receives. If the uses and potential impacts are not consistent with the uses and bounding analysis evaluated in the EA, DOE would determine the appropriate level of additional review required prior to implementation.

The ORSTP would not have any significant land use impacts. The current land use in the Central Campus area would continue to be designated as "institutional and research." New facilities would be constructed or existing buildings could be remodeled. The demolition of existing facilities and construction of new ones would change the current visual landscape similar to the other new development that is occurring in other areas at ORNL.

New construction would use techniques (e.g., shallow footings, micro piles, etc.) to minimize any potential disturbance of underlying geological resources. The proposed project area is within a previously disturbed area currently used for industrial applications. Potentially affected soils are generally stable and acceptable for standard construction requirements. Ground disturbance would be conducted incrementally to limit the potential for soil erosion and best management practices (i.e., erosion prevention and sediment control) would be implemented. No significant impacts to geology or soils would occur.

Potential adverse impacts to surface waters from construction activities would be minimized through the use of erosion prevention and sediment control procedures in accordance with all applicable regulations. Runoff would go into the ORNL stormwater collection system and be discharged via National Pollutant Discharge Elimination System (NPDES)-permitted outfalls. Sanitary wastewater from normal facility operations would be collected and discharged to the ORNL Sewage Treatment Plant. No impacts to groundwater are anticipated from any construction activities or normal facility operations. Use of groundwater would be prohibited via a condition of the lease.

Construction activities could produce short-term, sporadic, and localized emissions of particulates resulting from soil disturbance and vehicle traffic. Emissions are not expected to exceed National Ambient Air Quality Standards, and control measures for lowering fugitive dust emissions (i.e., covers and water or chemical dust suppressants) would minimize the amount of particulates generated. Specific details about air emissions from ORSTP companies are not available. Major sources of air emissions typical of heavy industries would not be allowed. Air emissions typical of standard light industrial and research operations are expected to be minor and controlled within the facility so that external effects are negligible. New users would be required to evaluate their potential to produce air emissions, obtain any applicable federal and state air quality permits, and maintain compliance so that no violations of air quality standards occur.

Because the Central Campus area is located within an active industrialized area of ORNL and because no sensitive noise resources are located in the immediate vicinity, no adverse noise impacts would occur.

Adverse environmental impacts to existing habitat or wildlife, as a result of implementing the proposed action, would be limited. Development under the ORSTP would primarily occur within previously disturbed areas. Measures would be incorporated into development plans to protect the riparian areas associated with White Oak Creek, First Creek, and Fifth Creek because these areas may provide some limited habitat for migratory birds. Some new development could occur in previously undisturbed areas, but this would be limited and would be evaluated prior to development. ORSTP facility emissions and effluents are expected to be minor and controlled, and they are not expected to have any adverse impacts to wildlife or to pose any ecological risk. Because the potentially affected area is industrialized, fragmented, and disturbed, no rare, threatened, and endangered plant and animal species are known to occur; it is highly unlikely that any adverse impacts would occur.

As part of the ORSTP, lease proposals would be reviewed for compliance with the National Historic Preservation Act. Prior to any actions that might impact the ORNL Historic District or historic properties located within the district, DOE would consult with the Tennessee State Historic Preservation Office. Although actions under the ORSTP would not directly disturb or impact the Graphite Reactor, demolition of existing facilities and the construction of new buildings may impact the existing viewscape surrounding the Graphite Reactor. Because the affected area is highly disturbed from previous activity, no archaeological resources would be impacted.

The proposed ORSTP would have a minor, positive employment and income impact. Actual jobs created would depend on the eventual size of the ORSTP, its success in recruiting tenants, and the mix of industries represented. Development is also likely to be spread over a number of years, as the ORSTP gradually develops, reducing the potential impact in any one year. Beneficial fiscal impacts would include increased revenue from real estate or sales taxes. Based on the small number of new jobs that would be created, no impact on population is anticipated, and no disproportionate adverse health or environmental impacts would occur to any low-income or minority populations.

1 ORSTP development would likely require minor extensions to the existing utility systems available  
2 at ORNL. It is expected that the existing utility capacity is sufficient to support the ORSTP, but electrical  
3 demands from potential new users would need to be evaluated. No adverse transportation impacts are  
4 expected during construction and modification activities to support the ORSTP. Employee traffic to ORNL,  
5 along Bethel Valley Road, would likely increase, to some degree, over current levels, which could possibly  
6 affect commute times.

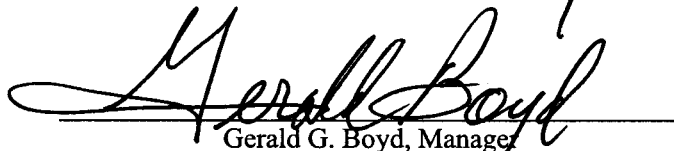
7 Wastes produced from the ORSTP are expected to be typical of standard light industrial and  
8 research operations. Minor quantities of hazardous materials and waste would be handled by commercial  
9 companies and would not enter into ORNL waste management systems. Use of the Process Wastewater  
10 Treatment Complex would be approved by DOE on a case-by-case basis. Quantities of solid non-hazardous  
11 waste generated would be recycled or transported to an appropriate landfill for disposal. Accidental spills  
12 would be addressed by individual operating entities through the use of safety procedures and spill  
13 prevention plans. Resources are available for response to an event, such as a release off-site, through  
14 mutual-aid agreements between the city of Oak Ridge, ORNL, and the surrounding communities.

15 Construction workers would be subject to typical hazards and occupational exposures faced at other  
16 industrial construction sites. Falls, spills, vehicle accidents, confined-space incidents, and injuries from tool  
17 and machinery operation could occur; similar accidents could occur at facilities during operation. No unique  
18 occupational health and safety hazards would be expected from the ORSTP. Individuals working for  
19 companies that would be part of the ORSTP would be classified as DOE co-located workers. Co-located  
20 workers that have access to ORNL receive applicable training and are protected through appropriate  
21 controls and oversight.

22 The ORSTP would not add significantly to the cumulative impacts resulting from other property  
23 leased or conveyed from DOE to public or private entities because the affected area has already been  
24 developed and ORNL employees or visitors would occupy the facilities regardless of funding source.  
25 Cumulative impacts or changes to local and regional air quality are expected to be negligible. The  
26 cumulative impact from the implementation of the ORSTP on socioeconomics and transportation would  
27 also be minor. Since the ORSTP would have little effect on ecological resources (including threatened  
28 and endangered species) and no wetlands would be impacted, no cumulative impacts would occur to the  
29 biodiversity of the area.

30 **DETERMINATION:** Based on the findings of this FONSI, and after careful consideration of all  
31 public and agency comments, DOE has determined that the proposed development of the ORSTP does  
32 not constitute a major federal action that would significantly affect the quality of the human environment  
33 within the context of NEPA. Therefore, preparation of an EIS is not required.

34 Issued at Oak Ridge, Tennessee, this 20<sup>th</sup> day of February 2008.

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37 Gerald G. Boyd, Manager  
38 U.S. Department of Energy  
39 Oak Ridge Office  
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