

Office of Research and Library Services



The Washington State Department of Transportation (WSDOT) Office of Research and Library Services manages specialized research and provides information and innovative solutions to support the WSDOT mission.

Research Services

The Research Office facilitates the identification of WSDOT's research, technology, and development needs and manages the development and conduct of funded projects. Along with funding, directing and managing research, additional activities include:

- Providing research study design assistance
- Conducting surveys of other state DOTs
- Synthesizing research topics
- Accessing past and ongoing transportation research
- Advocating for agency research needs
- Supporting implementation of research results
- Coordinating agency participation in national research and library programs and projects including Transportation Pooled Fund studies
- Developing and maintaining research partnerships and contracts with universities, governmental agencies and other organizations

Recent Research Products:

Economic Vitality: The research project entitled *Development of a Truck Freight Economic Impact Methodology for Project Planning and Prioritization* developed a data supported framework to prioritize investment in truck freight projects.

Preservation: *Newly Developed Protocols and Evaluation of Chip Seals* research was able to show that through the refinement of specifications and policy decisions, WSDOT now places chip seals on roadways with higher traffic levels than previously allowed and has lowered pavement preservation costs. In the six year evaluation period, WSDOT has saved well over \$28 million.

Safety: Concern that the presence of landscaping trees in state highway medians, a treatment sometimes favored as an amenity by local jurisdictions, may involve additional risk to vehicular traffic, led to a three year effort to collect and analyze collision data in certain test areas in the Puget Sound region. The purpose of the study was to improve design guidance for this kind of landscaping application. The authors of the study showed that landscaped medians with street trees were not associated with increases in crash rates. The research provides reference material for future design decisions.

Mobility: The research project, *Error Assessment for Emerging Traffic Data Collection Devices*, evaluated the effectiveness of various travel time technologies side-by-side. These findings will be invaluable to WSDOT as the need for accurate and reliable travel time information sources is becoming increasingly apparent.

Environment: Results of studies on compost amended soils has confirmed a storm water treatment strategy that can be used instead of expensive retention ponds on roadsides. The research led to regulatory approval of these bioswales as an approved practice for basic and enhanced treatment of dissolved metals and oil control. This method helps WSDOT cost effectively treat storm water runoff to protect water quality in aquifers, streams, lakes and marine waters.

Stewardship: *The Plug-in Electric Vehicle (PEV) Action Tool* was a WSDOT led transportation pooled fund study with seven other states, the Federal Highway Administration, and local agencies, to identify strategies and best practices to support PEV and charging infrastructure commercialization. The PEV Action Tool helps state DOTs and other public agencies determine their PEV deployment goals, a path for reaching those goals, and is a resource for state DOT's and local agencies in PEV implementation.

Research Investment by Strategic Goal 2013-15 Biennium

Safety

5 Projects | \$269,030 | 3%

Economic Vitality

4 Projects
\$675,198
7%

Stewardship

17 Projects
\$1,290,624
14%

Environment

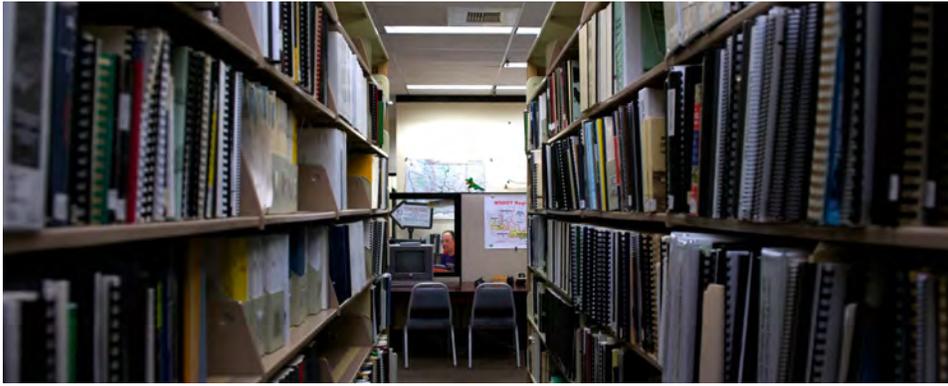
14 Projects
\$1,695,750
18%

Preservation

21 Projects
\$2,417,130
26%

Mobility

22 Projects
\$2,963,956
32%



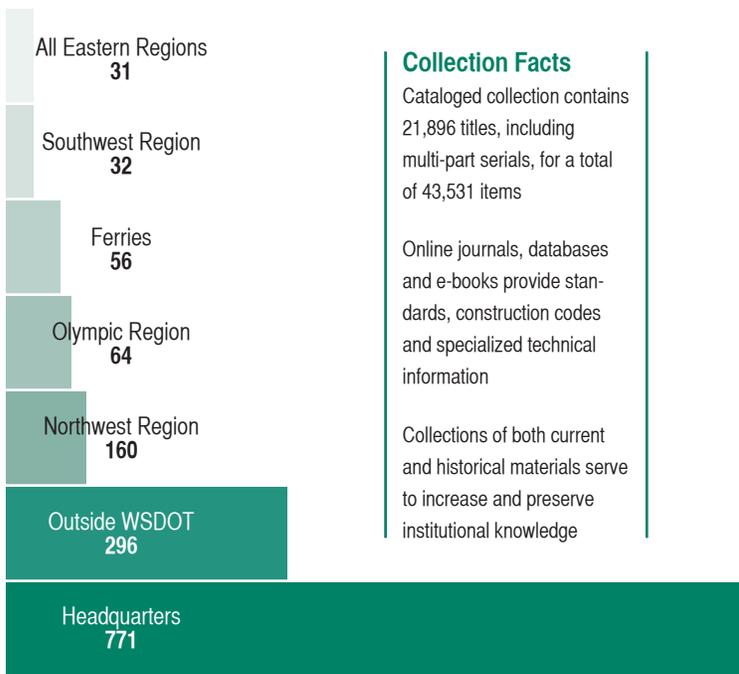
Library Services

Housing a specialized collection of state-focused materials, as well as more generalized intermodal transportation resources, WSDOT's Main Library also coordinates with three technical libraries within the department that serve the State Materials Laboratory and the Terminal and Vessel Engineering sections of the Ferries division.

WSDOT employees access a wealth of information via the WSDOT Libraries Intranet pages at www.wsdot.wa.gov/Library/ and can search WSDOT library holdings in the Washington State Library's online catalog: www.sos.wa.gov/library/catalog.aspx

Individual Library Requests by Location

Total Number: 1,410



Collection Facts

Cataloged collection contains 21,896 titles, including multi-part serials, for a total of 43,531 items

Online journals, databases and e-books provide standards, construction codes and specialized technical information

Collections of both current and historical materials serve to increase and preserve institutional knowledge

WSDOT Main Library Stats from November 1, 2012 through October 31, 2013

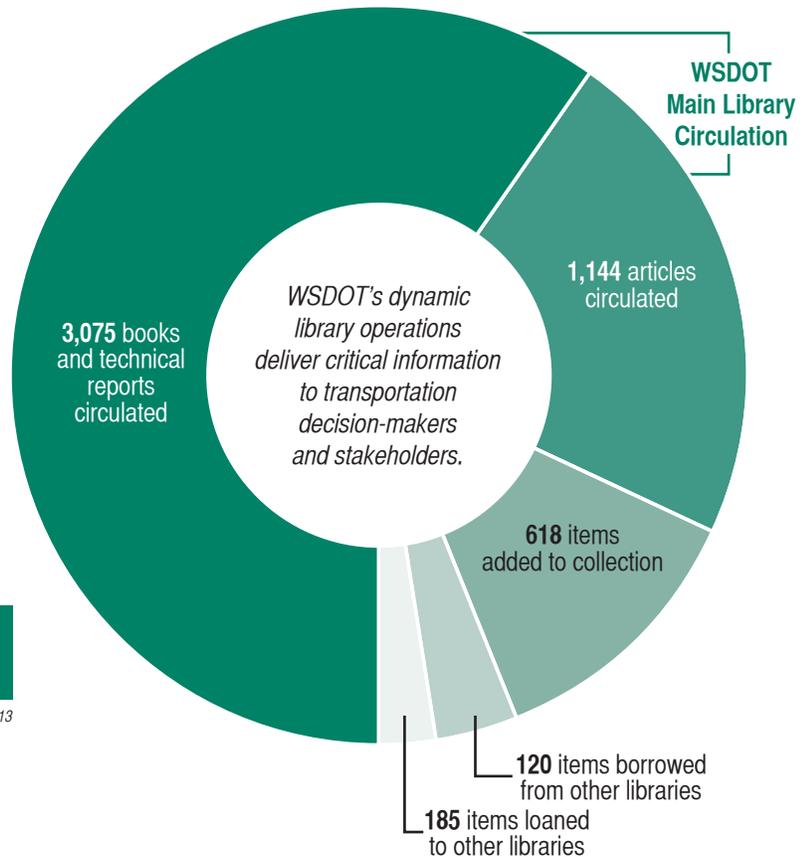
Interested in signing up for news clips or alerts? Need transportation information? Please contact a WSDOT Librarian: library@wsdot.wa.gov

The "3 R's" of WSDOT Library services are provided by experienced, professional librarians:

- **Reference** – Responding quickly with facts and statistics
- **Research** – Looking in-depth for specific information
- **Resource sharing** – Networking globally for reciprocal borrowing and lending of needed source materials

Literature searches are a key library research service. Practitioners in the many disciplines represented in the WSDOT workforce rely on these comprehensive reviews of current and historical published research, plus research in progress, to gain the knowledge they need to successfully operate, manage and preserve the state's transportation system.

Specialized library services promote current awareness and include daily Online News Clips sent via e-mail to over 500 subscribers inside and outside of WSDOT, plus "hot topic" news alerts on subjects such as transportation finance and high-speed rail.



Contact us:

Office of Research and Library Services
360.705.7961

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Washington State
Department of Transportation