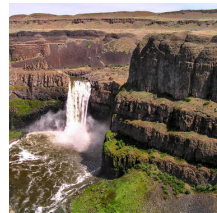
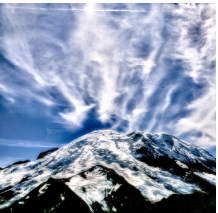


WASHINGTON STATE
Academy of Sciences

Science in the Service of Washington State

2019 ANNUAL REPORT



For activities January 2018 - June 2019
*unless otherwise specified

Prepared in December 2019 for Governor Jay Inslee

From the President

It is my pleasure to provide the 2019 Annual Report of the Washington State Academy of Sciences. Since January 2018, WSAS has significantly increased its impact to the state through funded projects and involvement in meetings and workshops, advanced its visibility with legislators and state agencies, and increased member involvement. WSAS is doing what the founders envisioned 12 years ago, and evidence shows the Academy is on the right path led by the strategy laid out in 2018.

WSAS continues to build our staff by hiring experienced science writers, other expert consultants, and interns to work on specific projects. Their work, along with the guidance and wisdom of past president Anjan Bose, has increased the Academy's visibility and usefulness.

During the past year, it became clear that the current level of state funding cannot sustain the Academy's mission. The direct state budget level for core operations has decreased since 2008, while inflation and other real costs have risen substantially over the past 12 years.

To address these issues, the Board focused efforts the past year on increasing direct state funding for the Academy. The immediate goal was to raise direct state funding to support two FTE — the Executive Director

and Program Operations Manager — activities of the Board, office costs, travel and additional operational costs. The goal for 2020 is to develop adequate, reliable and sustainable sources of core funding.

Moving forward, the Board will continue to make WSAS the nation's model state academy dedicated to advising state policymakers. WSAS will continue to develop relationships with state elected officials, legislators, and agency leaders. This will necessarily require more time and effort by both WSAS members and staff. The Academy's activities will continue to be guided by the 5-year goals and priority actions developed by Board in February 2018:

1. Become the go-to organization in the state for unbiased science and engineering expertise.
2. Achieve a sustained annual funding level of \$1 million.
3. Expand WSAS's network of partnerships and collaborations.
4. Increase staffing to meet state needs both reactively and proactively.



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WASHINGTON STATE
Academy of Sciences
Science in the Service of Washington State

Contact us:

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WSAS is a 501(c)(3) non-profit organization.

EIN: 68-0668369

About WSAS

Who We Are

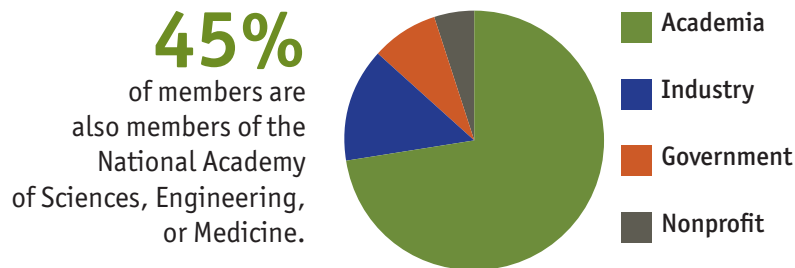
The Washington State Academy of Sciences (WSAS) is a non-profit organization of 300+ elected members who are nationally recognized for their scientific and technical expertise. All members of the National Academies of Sciences, Engineering and Medicine who reside in Washington State are invited to join; others are elected in recognition of their scientific and technical contributions and their desire to contribute their expertise to inform issues in Washington State.

Our Mission

WSAS provides expert scientific and engineering assessments to inform public policy making and works to increase the impact of research in Washington State.

Our Members

Members of WSAS are elected into one of five disciplinary sections: Physical and Mathematical Sciences, Engineering and Technology, Biological Sciences, Health Sciences, and Social and Behavioral Sciences. In 2018, WSAS inducted 29 new members; in 2019, WSAS inducted 28 new members.



Physical and Mathematical Sciences	52
Engineering and Technology	79
Biological Sciences	54
Health Sciences	82
Social and Behavioral Sciences	36
Total	303

WSAS's Work

ANNUAL SYMPOSIA

12th Annual Symposium: Wildfire in Washington State



The 12th Annual Symposium took place at the Museum of Flight on September 12, 2019. Presentations examined a range of issues associated with wildfire in Washington State including health impacts, fuel and ecosystems, economics, and government regulations and policy.

11th Annual Symposium: The Highs and Lows of Cannabis Research in Washington State

The 2018 Symposium examined current evidence and research needs regarding the medical and recreational uses of cannabis, as well as issues associated with conducting research given the status of state and federal laws and regulations.

All symposia proceedings since 2011 are available online at washacad.org

TOPICAL WORKING GROUPS

Additive Manufacturing of Advanced Materials: The goal of this endeavor is to assess the technology and its potential impacts on education, training and employment in the manufacturing sector of Washington State. A white paper is being prepared, with an estimated completion date of mid 2020.

Clean Energy Fund 3: WSAS members and others advised the Washington Department of Commerce (DOC) on this competition and reviewed proposals that the DOC received.

Deep Decarbonization: In April 2018, TWG 2 (Jobs, Infrastructure and Economic Environment) hosted a roundtable discussion on deep decarbonization in Washington State. This meeting has led to several ongoing efforts resulting in the planning of our 2020 Symposium centered on decarbonizing Washington's economy.

STATE PROJECTS

US Department of Energy (DOE) Request for Information about Pacific Northwest National Laboratory's (PNNL) Marine Sciences Laboratory
WSAS prepared a response to a DOE request for information about PNNL's Marine Sciences Laboratory, with an emphasis on the role(s) the laboratory could play in research to inform the Blue Economy.

Science of Salmon Hatcheries

The Washington Department of Fish and Wildlife (WDFW) requested WSAS to provide independent review of a manuscript it is preparing to advise state policies on salmon hatchery management.



Skagit Water Supply Task Force

The Washington Department of Ecology (ECY) requested WSAS to conduct an independent third-party review of a series of consultant reports for the Joint Legislative Task Force on the Skagit River Water Supply.



Puget Sound Partnership (PSP) Science Panel Review

Each winter, PSP requests WSAS's review of nominees for their Science Panel. The committee's recommendations in 2018 and 2019 were unanimously accepted by PSP leadership.



Clean Energy Fund 3

In Spring 2018, WSAS worked with the Washington Department of Commerce to review the third Clean Energy Fund request for proposals (RFP). The Clean Energy Fund is a state capital-budget funded competition intended to increase RD&D in the clean energy sector.



Department of Commerce

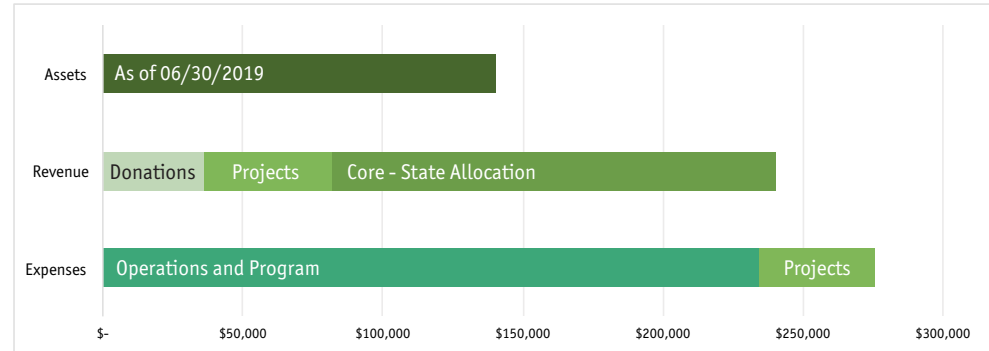
Riparian Guidelines Review

In Winter 2018, the Washington Department of Fish and Wildlife (WDFW) asked WSAS to review a chapter of their Riparian guidelines. The Academy put together a panel of experts who anonymously reviewed the chapter.



Fiscal Year 2019

July 1, 2018 - June 30, 2019*



Project revenue reflects the amount of project funding allocated by granting agencies for expenditure in FY2019. EIN: 68-0668369

FUNDING SOURCES

WSAS's funding comes from three main sources: **core state funding**, **project funding**, and **donations**. **Core funding** from the state supports personnel (1.5 FTE) and other overhead. **Project funding** supports the direct costs of contracted projects. **Donations** allow WSAS to explore topics that are not supported by core funding and expand the activities of our Topical Working Groups, the Board, and standing committees.

- Thank you to the following 2018-2019 corporate sponsors -



Education Sponsors

Symposium Sponsor

"When the need for targeted, independent scientific review arose during our work, the WSAS was primed and ready to assist our efforts."

TODD HASS, PUGET SOUND PARTNERSHIP

CHAIR, VESSELS WORKING GROUP, SOUTHERN RESIDENT KILLER WHALE TASK FORCE

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Up to \$250

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\$20,000+

Larry R. Dalton

“The Academy has been a great partner with the Washington State Department of Commerce. . . We are looking forward to additional help from Academy members in reviewing proposals. The Academy is a great source of scientific expertise for state agencies that don’t have such in-house resources.”

TONY USIBELLI, WA STATE DEPT. OF COMMERCE (RETIRED)