2018-2019 WASHINGTON STATE LASER
FREQUENTLY ASKED QUESTIONS

1. What is Washington State LASER?

Washington State LASER (Leadership and Assistance for Science Education Reform) is a state science education program led by Washington STEM along with the Office of Superintendent of Public Instruction, Educational Service Districts, and the Logan Center for Education at the Institute for Systems Biology.

2. What does LASER do?

The work of Washington State LASER is actualized through ten regional Alliances, geographically aligned with Washington's Educational Service Districts. These Alliances offer leadership and technical assistance, including strategic planning support, within the five components of the LASER model developed by the Smithsonian Science Education Center: professional learning, curriculum, instructional materials support, assessment, and administrative and community support. LASER plays a key role in ensuring that state science leaders maintain a learning community and develop their skills to provide leadership and assistance in service of removing barriers and structures to improve science/STEM[1] implementation at the school and district levels.

3. What changes have occurred with Washington State LASER in the past year?

In Summer of 2017 LASER operations moved to Washington STEM in order to drive innovation in implementation of the LASER model and to leverage Washington STEM's strong advocacy and business partnerships. In February 2018, a process to reconfigure the leadership structure was initiated in which the Co-Directorship will rotate across Alliance Directors every two years. These changes will ensure that LASER is closely attuned to the strategic needs of schools and districts and is equipped with increased resources and support to improve science/STEM outcomes in K-12 education by providing leadership and assistance.

4. Why were those changes made?

Washington STEM's state-wide role, strong advocacy presence, and ability to leverage business and funding relationships presented an opportunity for LASER to deepen its impact starting in 2017.

The change in leadership structure fully taps the capacity and expertise of the statewide LASER network by situating leadership within the field of work, and drives more resources to on-the-ground efforts. Access to STEM-related careers has long been inequitable along lines of race, gender, class, and more. LASER is seeking ways of working that will be explicitly equity-focused in all dimensions of its work. The new combination of leadership between Washington STEM and a subset of Alliance Directors brings together a broader base of equity-focused leaders who are drawing from equity efforts in different

[1] In many instances, districts and schools have moved toward an integrated approach to science, technology, engineering and math (STEM). To address this growing movement, we aim to provide leadership support for science in the context of STEM. As such our goals encompass STEM-focused plans and efforts, as well as plans focused solely on science and engineering as described in the Next Generation Science Standards.

levels and locations of our state's Science/STEM education system. This will help us clarify LASER's role in an increasingly busy science and engineering education landscape.

5. **What are the current goals for LASER?**

In 2018-2019, Washington State LASER aims to build upon the successes of the existing LASER model in order to improve science learning experiences for all students, particularly those underserved and underrepresented in science/STEM[2] fields. We envision a future in which all students are informed and thriving global citizens, and are prepared for high-demand, family-sustaining STEM careers if they so choose.

Toward this vision, LASER will focus on the following system-level goals:

- **Landscape**: Washington State LASER will asset map--by Alliance region--science/STEM implementation efforts at the district and/or school level.
- **Culture**: Washington State LASER will engage in continuous improvement efforts to support science/STEM implementation in the Alliance regions. LASER will be a space to get inspired, fail forward together, and "fill our cup."
- **Leadership**: Washington State LASER will develop a set of tools and leadership capacity to support science/STEM implementation.

Additionally, in several regions LASER Alliances provide essential and embedded structures aligned with two of the five pillars of the LASER model--instructional materials and professional learning across districts.

6. **What is the relationship between OSPI, Washington STEM, and Washington State LASER?**

Washington State LASER is primarily funded through a legislative proviso (2ESHB 2376, Sec 511 (2)), administered and overseen by OSPI. Washington STEM serves in a coordinating and technical support role, and the LASER leaders - Co-Directors and Alliance Directors - carry out the implementation of work aligned with the LASER goals, and regional needs. Over half of the Alliance Directors are also Regional Science Coordinators at Educational Service Districts and have a direct connection with OSPI. Additionally, several Alliances collaborate on local efforts with the local STEM Network in their region.

7. **How is leadership and responsibility distributed in LASER?**

Beginning in 2018-2019, leadership and responsibility is distributed between 3 statewide LASER Co-Directors and Washington STEM, with on-the-ground work carried out by regional LASER Alliance Directors.

LASER Co-Directors - provide leadership for continuous improvement efforts within and across Alliances, and liaise with the Advisory group.

[2] In many instances, districts and schools have moved toward an integrated approach to science, technology, engineering and math (STEM). To address this growing movement, we aim to provide leadership support for science in the context of STEM. As such our goals encompass STEM-focused plans and efforts, as well as plans focused solely on science and engineering as described in the Next Generation Science Standards.

Washington STEM - provide capacity-building support and technical assistance, including communications and advocacy, regionally and statewide.

Regional Alliance Directors - implement, share, and refine best practices for improving student learning outcomes by acting at the system and organization levels.

8. **What is LASER's unique contribution to the science education landscape in Washington?**

For the past 20 years, Washington State LASER has served as a key network of leaders in science education in Washington by building leadership and capacity across the state to improve science learning for K-12 students. In this critical era of NGSS implementation--in which we need to remove barriers and build supports toward equitable outcomes for all students in science/STEM--LASER is uniquely positioned to help create the context in which innovation and best practices in curriculum, instructional materials, professional learning, inclusive community engagement, and assessment can thrive.

LASER's work is complementary to the work of Washington STEM, Regional Science Coordinators, and regional STEM Networks through their support and capacity building of district and school science/STEM leadership. LASER will lead and/or partner with these organizations by focusing on improving system-level outcomes.

9. **What can districts/schools/leaders gain from working with LASER?**

In 2018-2019, districts and schools working with LASER will contribute to and benefit from an asset mapping process that highlights bright spots and illuminates areas for growth in STEM education in our state. The system-level indicators that provide the foundation for the asset map are derived from LASER science/STEM strategic planning resources, the NGSS District Implementation Indicators, and additional research. While analyzing the current landscape of strategic, equity-focused science/STEM education, Alliances will work with schools and districts to design, test, and refine solutions for improving STEM education, including equity-focused professional development, maximizing the use of high-quality instructional materials, and localized strategic planning support.

> **Update, January 2019:** We have launched the second phase of our landscape analysis--a K-12 STEM Implementation District Self-Assessment. This landscape analysis serves as the first step in strategic planning support for districts, and will focus and drive immediate and long-term LASER leadership assistance efforts, both in overall strategic planning assistance and deeper support in a subset of key components of effective Science/STEM district systems. To participate, please contact your regional LASER Alliance Director (see #11 below).

10. **What constitutes a LASER Alliance?**

In order to honor Washington State LASER's commitments to OSPI, while avoiding a "one size fits all" approach, each Alliance has its own criteria for regional participation. For example, in the South Central, Southeast, and North Central Alliances, districts participate by buying into an instructional materials/curriculum cooperative and receive the benefits of a centralized materials center and

corresponding professional learning. In the South Sound LASER Alliance, members (local district science education leaders) convene monthly to develop leadership capacity for changing instructional practices and school/district structures that contribute to the historically inequitable access to STEM-related careers.

For more information about LASER Alliance activity in your region, contact your regional LASER Alliance Director.

11. Who are the LASER Alliance Directors?

Regional Alliance	Alliance Director(s)	Contact
Mountain to Harbor	Scott Killough	skillough@esd113.org
North Central	Mechelle LaLanne	mechellel@ncesd.org
Northeast	Tammie Schrader	tschrader@esd101.net
North Sound	Caroline Kiehle Tom Hathorn	ckiehle@systemsbiology.org tomhathorn@gmail.com
Northwest	Joanne Johnson	jjohnson@nwesd.org
Olympic	Jeff Ryan	jryan@oesd.wednet.edu
South Central	Michael Brown	mike.brown@esd105.org
Southeast	Georgia Boatman	gboatman@esd123.org
South Sound	Kirk Robbins John Leitzinger	Robbinsk2@comcast.net jleitzi@tacoma.k12.wa.us
Southwest	Vickei Hrdina Stacy Meyer	vickei.hrdina@esd112.org stacy.meyer@esd112.org

12. I served on the Advisory board. What is happening with the Advisory?

In October 2018 (exact date TBD) past and potential Advisory members, critical friends, and any other interested parties will be invited to participate a webinar to learn more about the goals and projected future of LASER, as well as our vision for the Advisory group moving forward. We envision an Advisory that contributes to advancing work centered on issues of equity and diversity, helps develop solutions to emergent problems of practice, advocates for LASER locally and statewide. This group will include critical entities that continue to provide support and guidance for LASER: OSPI, the State Board of Education, and the Smithsonian Science Education Center.

13. My school/district previously attended a LASER Summer Institute. Are those still being offered?

Over 106,300 educators in more than 205 school districts have worked with LASER since 1999, improving instructional practices, and accessing high-quality instructional materials. Many districts also

participated in Strategic Planning Institutes and STEM Leadership Institutes--increasing their leadership capacity for improving science learning outcomes by applying the LASER model. We aim to leverage and build upon the resources and practices developed through the Institutes to increase the regional impact of this body of work. At this time, we do not plan to hold a statewide LASER Summer Institute. Instead, the LASER Co-Directors and Alliance Directors will be working together to increase and improve their capacity to provide leadership and strategic support at a regional level, while staying closely connected to the statewide network.