



Fulfilling the Land Grant University Mission at State Agricultural Experiment Stations in Urban Interfaces of the Westⁱ

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How have western state Agricultural Experiment Stations (AES) or Research and Extension Centers (RECs) pivoted to meet the need of agricultural producers and the emerging stakeholder communities in urbanizing areas? We are exploring centers, like the WSU Puyallup Research and Extension Center, that are in a rapidly developing, peri-urban setting, with prime agricultural soils and a strong commitment to continued agriculture, but transformed by the complexities of the Growth Management Act, rising land prices, immediate access to high volume direct markets, rapidly changing natural environments and other features of urbanizing regions.

Context: WSU Puyallup was established as WSU's agriculture experimental station in 1894, shortly after Washington State College (now Washington State University) broke ground on the main campus in 1890. WSU deployed multiple branch stations, or RECs, specializing in research and extension programs specific to the significant agricultural and natural resource markets and opportunities in their locale.

Since the 1900s, Puyallup's agricultural focus has changed as land uses have evolved in the rapidly urbanizing area of the Puget Sound region. While other RECs have also experienced changes, agricultural research and extension programs still dominate commodity agriculture and grower/industry partnerships. Historically, agriculture in the Puyallup and Puget Sound region included hops, small fruits, vegetables, poultry, cut flowers, ornamental nursery production, forestry and dairy. As a result of urbanization, research focus has shifted to meet the needs of the region's stakeholders: from agricultural operations and production to specific *issues* impacting agricultural land and producers. Current issues addressed by the Puyallup REC revolve around invasive species, urban agriculture, soil quality and conservation, water quality, stormwater runoff, soil health, ecotoxicology, urban integrated pest management, green industry workforce development and food safety.

Problem Statement: Funding and partnerships for RECs have changed in urbanizing areas because of the fundamental shift from agricultural commodity or industry supported research and extension, to issue-based research and extension. Long-term agricultural commission relationships have been cornerstone to WSU's agricultural research and extension successes.

In urban areas, funding is increasingly based on shorter term relationships as issues evolve. In the urbanizing Puget Sound region, land parcels continue to shrink as prices per acre rise due to land development, and agricultural producers adapt and change to adjust to new market opportunities and increasing interest in local food. Other ecological issues add complications such as critical habitat, development and endangered species mitigation. Climate change makes water management (e.g., too much or too little) more complicated, in addition to the complexity of managing land around terrestrial and aquatic endangered species. The urban farming community is increasingly diverse, with varying interests and goals and without a financial conduit to fund research initiatives in ways similar to those that agricultural commodities are able to coalesce around.

County, municipality, regional USDA, and Conservation District partners are rapidly pivoting and developing new programs to meet the new needs, but rely on Research and Extension productivity and outputs. **Our REC needs a clearer understanding of how we can meet the needs of our changing**

communities. We understand that other urbanized regions of the Western USA may have similar experiences.

Goal: To understand the experience of experimental agricultural stations established from the Hatch Act of 1887, understand the current needs of our agricultural stakeholders, as well as the tribes whose land we are on, and understand how the Land Grant mission can continue (or adapt) in the peri-urban west. We will then develop recommendations for stations to adapt to continued urbanization.

Methods:

- Learn which AES/RECs in the West self-identify as serving urban stakeholders (by developing multiple surveys to both identify AES/RECs urban identities and topics via Qualtrics).
- Identify existing urban research and extension programs, disciplines and issues, understand successful funding mechanisms and partnerships; identify common challenges and opportunities (by interviewing station directors or key staff- interview data will be characterized for themes and quantified to aggregate and report back to WCMER and disseminate more broadly). While urban focused research and extension work will be captured to the extent possible, particular attention will be given to urban agriculture needs, opportunities, resources and research.
- Develop a stronger understanding of the current agricultural producer needs in the Puget Sound region that are not presently being met by counties, municipalities (e.g. cities and ports) and Conservation Districts, which could be met by adapted AES/REC programming in Washington State.

Outputs: Our outputs include surveys, survey results, summary report and specific recommendations to inform AES/REC's adaption to urban research and extension.

Outreach and dissemination: Along with [Western Center for Metropolitan Extension and Research](#) (WCMER) outlets, we plan to report our findings back to western leadership groups including Western Association of Agricultural Experiment Station Directors, Western Extension Directors Association and other national opportunities such as the Research Center Administrators Society. Additionally, publication of findings will be submitted to document the effort in Journal of Extension. We will also continue to build and support our existing relationships with Counties, municipal partners and CDs by sharing our findings with them.

Outcomes: This research will specifically add AESs and RECs to the [Leading Edge Dialogue Series - Fulfilling the Land Grant University Mission](#) for western states, by providing an understanding of how AESs and RECs have adapted (or failed to adapt) to urbanization. This work will also help inform actions identified in the Leading Edge Dialogue, such as including applied research categories in faculty expectations, incentivizing tenured faculty to conduct applied research to increase promotion potential, and communicating research priorities of urban stakeholders to the greater LGU community. AESs and RECs imbedded in urban fringe (peri-urban) or urban central communities are key conduits for engaging students from cities to develop applied research that directly impact their communities. Finally, the proposed study will define what urban and peri-urban agriculture means to the LGU and focus efforts of the LGU to develop research, extension and academic programs relevant to urban stakeholders.

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