Relevant Agencies & Organizations

Nation to Nation

Yakama Nation <u>http://www.yakamanation-nsn.gov/programs.php</u>

Department of Natural Resources

The Department of Natural Resources was established to manage, co-manage and protect the Yakama Nation's Ancestral, Cultural, and Treaty Natural Resources on Reservation, in the Ceded Area and at Usual and Accustomed Sites, to meet the tribal culture, protecting tribal sensitive areas and sites and restoring diminished damaged resources.

Engineering Program Department of Natural Resources Yakama Nation

Mission: Provide professional engineering and surveying services necessary to enhance and develop infrastructure that serves the collective needs of the Yakama Nation.

Goals and Objectives: 1) Utilize existing contract funding and pursue additional funding to fulfill the stated mission of the Engineering Program. 2) Supervise the WIP General Engineer Program, Indian Reservation Roads contracts and other engineering and surveying contracts as awarded. 3) Improve communication between DNR Programs and assist in developing a shared vision for the appropriate utilization, preservation and enhancement of infrastructure and natural resources reserved by the Treaty of 1855.

Water Code Administration

The Water Code operates according to Resolutions GC-01-93 and T-161-92; also enforces Resolution T-136-91 Hydraulic Code. The Water Code is responsible for the enforcement of the Yakama Nation surface and ground waters and all water rights for the Yakama Nation. The Water Code was amended by Tribal Council action in April 2005.

Water Resource Program

Mission Statement: The mission of the Yakama Nation Water Resource Program is to protect, manage, restore and develop the water resources of the Yakama Nation in a manner that will protect the political integrity, economic security as well as the health and welfare of the tribe and its members.

Federal Government

U.S. Bureau of Reclamation https://www.usbr.gov/pn/programs/yrbwep/index.html

In 1979, Congress directed the Bureau of Reclamation to conduct a feasibility study of the Yakima River Basin Water Enhancement Project. The congressional objectives of the YRBWEP study were to develop a plan that would provide supplemental water for presently irrigated lands, water for new lands within the Yakama Indian Reservation, water for increased instream flows for aquatic life, and a comprehensive plan for efficient management of basin water supplies.

Early in the YRBWEP study process, fish passage problems were identified as needing immediate early attention and congressional legislation in 1984 authorized YRBWEP Phase 1, which primarily involved rebuilding fish ladders and constructing fish screens on river diversions.

The YRBWEP study proceeded through the 1980s but was not fully completed primarily due to issues and uncertainties associated with the adjudication of the basin surface waters that began in 1978. Consequently, Congress passed legislation in 1994 for what is generally referred to as YRBWEP Phase 2. This legislation provided for significant water conservation and acquisition activities, studies to define the longterm water needs of fish and current irrigators, improvements to the Wapato Irrigation Project, and development of an interim plan for management of basin water supplies.

The Yakima River Basin Water Enhancement Project (YRBWEP) Lower Yakima Valley Groundwater Work Group is studying storage. See

https://www.usbr.gov/pn/studies/yakimastoragestudy/reports/07-11-044/Groundwater Storage Alternatives.pdf

The groundwater storage alternatives include surface recharge with passive recovery, municipal aquifer storage and recovery, and direct injection with passive recovery. These alternatives include placing water in the aquifer system and storing it to realize benefits in the form of increased streamflow from increased groundwater discharge, recovery of the stored water for out-of-stream uses, and/or replenishing depleted groundwater storage. The groundwater storage alternatives are conjunctive use tools in which the use of surface water and groundwater can be coordinated to minimize impacts to the hydrologic system and provide environmental benefits.

U.S. Geological Survey – Yakima River Basin Project

https://wa.water.usgs.gov/projects/yakimagw/

The Yakima River flows 215 miles from the outlet of Keechelus Lake in the central Washington Cascades southeasterly to the Columbia River, draining an area of 6,155 square miles. The Yakima River Basin is one of the most intensively irrigated areas in the United States. Population in the Yakima River Basin was about 238,000 in 1990.

Increasing demands for water for municipal, fisheries, agricultural, industrial, and recreational uses will affect the ground-water resources of the basin. A better understanding of the ground-water flow system and its relation to rivers and streams is needed to effectively manage the basin's water resources.

In cooperation with the U.S. Bureau of Reclamation, the Washington Department of Ecology, and the Yakama Indian Nation, the USGS is studying the ground-water system

in the Yakima River Basin and how it interacts with rivers and streams in the basin. The study includes data collection, mapping of hydrogeologic units and ground-water levels, and a computer numerical model to bring together all the information.

Environmental Protection Agency Region X – Lower Yakima Valley Groundwater https://www.epa.gov/wa/lower-yakima-valley-groundwater

EPA is responding to community concerns in Washington's Lower Yakima Valley about high nitrate levels in residential drinking water wells and the potential for disproportionate impacts on low income and minority rural populations, local, state, and federal agencies collaborated to develop a Preliminary Assessment and recommendations for moving forward.

One of the recommendations was to develop new projects that could help to identify sources of the contamination in groundwater supplies.

In accordance with this recommendation, EPA conducted sampling in 2010 as part of a study to identify potential sources of nitrate contamination in local groundwater and residential drinking water wells. EPA issued a report in March 2013 entitled, Relation between Nitrate in Water Wells and Potential Sources in the Lower Yakima Valley. The study concluded that several dairies in the report were likely sources of elevated nitrate levels that were measured in residential drinking water wells downgradient of the dairies.

In December 2012 and January 2013 EPA installed and sampled 10 groundwater monitoring wells in the vicinity of the Yakima Valley dairies that were included in the 2010 study. Data collected by EPA from the monitoring wells confirmed that that the dairies are a source of nitrate contamination to the groundwater beneath and downgradient of these dairies. More recent and extensive data collected by the dairies under the Consent Order affirm this conclusion.

Natural Resources Conservation Service

https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/water/

As the leading Federal agency for assisting in restoring watershed health on private land, NRCS provides technical and financial assistance to producers who implement conservation practices and management strategies, including the restoration and protection of wetlands, that benefit water quality and improve water management. The science behind the implementation of these conservation practices and management strategies is developed and supported by the NRCS Science and Technology Divisions, National Technical Support Centers, the Water and Climate Center, and the Wetlands Team, who are continually developing new tools to, among other things, improve snowmelt prediction capabilities, improve current conservation practice technology, improve models to track nutrients, and improve irrigation efficiency so that agricultural producers can more efficiently use water, increase water storage, and protect water quality by minimizing the potential loss of sediment and nutrients from their operations by applying science based conservation practices.

Washington State

WA State Dept of Ecology

Groundwater <u>https://ecology.wa.gov/Research-Data/Monitoring-</u> assessment/Groundwater-quality-assessment/Active-studies-index/Lower-Yakima-Valley

Our staff provide ongoing technical assistance, monitoring, research, and education and outreach to help find strategies to improve groundwater quality in the Lower Yakima Valley.

Led by Yakima County, the program was initiated in response to nitrate contamination found in drinking-water wells in the valley. The goal is to implement strategies to bring aquifers into drinking water standards, as well as educate citizens about the problem and provide information on how they can protect themselves. Additional information about the Lower Yakima Valley GWMA is available on our <u>Lower Yakima</u> <u>Valley groundwater quality</u> page. *Solid Waste/Composting/Bio-solids* <u>https://ecology.wa.gov/Regulations-Permits/Permits-</u> certifications/Solid-waste-permits

As directed by <u>RCW 70.95.060</u>, we adopt standards for solid waste facilities, while local jurisdictional health departments (county, regional, or local health departments or districts) have primary oversight of solid waste facilities and issue permits and enforce the standards. Under <u>RCW 70.95.160</u>, health departments must adopt regulations that are at least as stringent as state standards, or may adopt more stringent standards. Because of this, it is important for any person or business planning to manage solid waste to first <u>contact the health department</u> where the facility is located to discuss local permit application standards and fees.

National Pollution Discharge Permitting <u>https://ecology.wa.gov/Water-Shorelines/Water-</u> <u>quality/Water-quality-permits/Water-Quality-general-permits</u>

General water quality permits regulate specific discharge categories that release treated stormwater or wastewater to either surface or groundwater.

Categories of general permits include:

- <u>All stormwater permits</u>
- <u>Aquatic pesticide permits</u>
- <u>Boatyard Permit</u>
- Bridge & Ferry Terminal Washing Permit
- Concentrated Animal Feeding Operation Permit
- <u>Construction Stormwater Permit</u>
- <u>EPA Vessel Permit (greywater)</u>
- Fresh Fruit Packing Permit
- Industrial Stormwater Permit
- <u>Municipal Stormwater Permit</u>
- Sand & Gravel Permit
- <u>Upland Fin Fish Permit</u>

- <u>Vessel Deconstruction Permit</u>
- <u>Water Treatment Plant General Permit</u>
- <u>Winery General Permit</u>

Concentrated Animal Feeding Operation General Permit

https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Concentrated-animalfeeding-operation

We issue the Concentrated Animal Feeding Operation (CAFO) General Permit to operations that confine livestock for long periods of time in pens or barns and discharge pollution to surface or groundwater.

You must get this permit if you:

- Confine livestock in pens or barns for 45 days or more during the year.
- Discharge from your operation.

There are two CAFO permits:

- A state permit that only covers groundwater discharges.
- A federal permit that covers discharges to surface and groundwater.

Fresh Fruit Packing General Permit <u>https://ecology.wa.gov/Regulations-Permits/Permits-</u> certifications/Fresh-fruit-packing-general-permit

This permit outlines uniform conditions and treatment, discharge, and disposal methods for fresh fruit packing wastewater based on the similarities of wastewater characteristics among facilities.

The combined State Waste Discharge Permit and National Pollutant Discharge Elimination System Permit (NPDES) provides assurance that fruit packers are protecting nearby lakes, rivers, and groundwater when managing the wastewater coming from their facilities. The current permit went into effect Sept. 1, 2016 and expires Aug. 31, 2021.

Winery General Permit <u>https://ecology.wa.gov/Regulations-Permits/Permits-</u> certifications/Winery-permit

Washington is the second-largest wine-producing state in the nation. If not properly managed, corrosive wastewater from wineries can potentially harm aquatic life and even people.

Washington's first Winery General Permit regulates discharges of process wastewater from wineries to land, groundwater, and wastewater treatment plants. No surface water discharges are allowed under this permit.

The permit was issued on May 17, 2018, goes into effect on July 1, 2019, and expires on July 1, 2024.

Memorandum of Understanding between Ecology and WSDA https://agr.wa.gov/FP/Pubs/docs/MOUAgricultureEcology2011Final.pdf

The Washington State Department of Ecology (Ecology) and the Washington State Department of Agriculture (WSDA) enter into (MOU) for the purpose working towards the shared goal of using their respective authority and resources as efficiently and effectively as possible to assure water quality compliance relative to livestock activities.

With this MOU, Ecology and WSDA will identify the areas that are the responsibility of each agency and in cases where the two agencies share responsibilities specify how they will coordinate and work together. The agencies are authorized for implementing water quality activities under Chapter 90.48 RCW and Chapter 90.64 RCW.

WA State Dept of Agriculture

Natural Resources Assessment Section https://agr.wa.gov/pestfert/natresources/default.aspx

> The activities of the Washington State Department of Agriculture (WSDA) Natural Resources Assessment Section (NRAS) focus on the impacts of agriculture chemicals on Washington State's natural resources.

> The goal of WSDA is to work together with the agricultural community and regulators to protect Washington's natural wealth and the environment.

WSDA is developing analytical tools that will be used to identify, evaluate and mitigate impacts to Washington's renewable and non-renewable resources.

Staff includes a hydro-geologist; an environmental toxicologist; specialists in crop and pesticide use, crop mapping and groundwater.

Dairy Nutrient Management Program https://agr.wa.gov/FoodAnimal/Livestock-Nutrient/

Dairy Nutrient Management is a water quality program administered by Washington State Department of Agriculture under Chapter RCW 90.64, Dairy Nutrient Management Act. Elements of the program are managed in conformance with a <u>Memorandum of Understanding</u> with the Washington State Department of Ecology. Ecology is the delegated agency in Washington for the Federal Clean Water Act.

Washington's <u>Dairy Nutrient Management Act</u> requires all licensed cow dairies to develop and implement <u>nutrient management plans</u>, register with WSDA, and participate in a program of regular <u>inspections</u> and compliance.

Mission:

- Protect water quality from livestock nutrient discharges
- Help maintain a healthy agricultural business climate

Tools:

- Clear guidance, education, and technical assistance
- Equitable enforcement of state and federal water quality laws
- Good communication with industry, related agencies, and other stakeholders

Commodity Commissions

Washington State's <u>22 agricultural commodity commissions</u> [PDF 38kB] are engaged primarily in marketing and/or research related to a specific commodity. They are funded by producer assessments and vary in size and activity.

The <u>Director of Agriculture</u> is a board member of each commission and has specific duties related to commissions.

WA State Apple Commission https://bestapples.com/

WA State Dairy Products Commission https://wadairy.org/

WA State Fruit Commission http://www.wastatefruit.com/

WA State Hops Commission

WA State Mint Commission

WA State Dept. of Health

Drinking Water Systems

https://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater

More than 6.2 million Washington State residents, 85 percent of the state's population, get their drinking water from public water systems. Public water systems and their water works operators are our first line of defense against contaminants getting into our public water supply and people getting sick. The Drinking Water Systems website above provides access to water testing data from all regulated systems. WA DOH does not regulate private water wells.

Washington Tracking Network https://fortress.wa.gov/doh/wtn/WTNPortal/

Provides statistical data on:

- Climate and Health
- Community
- Environment
- Exposure
- Health

Health Equity <u>https://www.doh.wa.gov/CommunityandEnvironment/HealthEquity</u>

Are you interested in learning more about how place can impact health? We have a new tool that allows you to look up Washington State information by location, including:

- Health outcomes.
- Social determinants of health.
- Economic determinants of health.

This interactive tool can be used to identify health disparities in a community, but should not be used to diagnose a health issue or label a community. <u>Visit the Washington</u> <u>Tracking Network IBL Mapping Tool for health disparities information</u>.

WA State Dept of Fish and Wildlife https://wdfw.wa.gov/

Mission and Goals

Our Mission: To preserve, protect and perpetuate fish, wildlife and ecosystems while providing sustainable fish and wildlife recreational and commercial opportunities.

WDFW defines "Conservation" as: Protection, preservation, management, or restoration of natural environments and the ecological communities that inhabit them; including management of human use for public benefit and sustainable social and economic needs.

Department Goals: To achieve its mission, WDFW will continue to focus its activities on the following four goals:

Goal 1: Conserve and protect native fish and wildlife

Goal 2: Provide sustainable fishing, hunting, and other wildlife-related recreational and commercial experiences

Goal 3: Promote a healthy economy, protect community character, maintain an overall high quality of life, and deliver high-quality customer service

Goal 4: Build an effective and efficient organization by supporting our workforce, improving business processes, and investing in technology

South Central Region 3:

This region offers more than 400,000 acres of department owned land, all of which is open for public recreation. The department has also secured hunter access to an additional 180,000 acres of private land. These lands offer good to excellent hunting prospects for upland birds, waterfowl, and big game.

WA State Conservation Commission http://scc.wa.gov/

The Washington State Conservation Commission (SCC) is the coordinating state agency for all 45 <u>conservation districts</u> in Washington State. Together, the SCC and conservation districts provide voluntary, incentive-based programs that empower private landowners to implement conservation on their property. The SCC was created by the legislature in 1939 (<u>RCW 89.08.070</u>) to support conservation districts through financial and technical assistance; administrative and operational oversight; program coordination; and promotion of district activities and services.

Local Agencies & Government

Yakima County – Lead Agency for the LYV GWMA https://www.yakimacounty.us/766/County-Commissioners-Office

Responsibilities

All Yakima County Elected Officials are responsible for the administration and operation of their respective and independent departments. The Board of County Commissioners is responsible for the overall executive administration of Yakima County government.

As an elected board, the County Commissioners are responsible for direct oversight of the following County operations: Public Services, Department of Corrections, Human Resources, Technology Services, Purchasing, Grants Management, Financial Services and Department of Assigned Counsel. The county is divided into 3 districts on the basis of population. At the time of election each commissioner must live in and represent his/her district. The commissioners are partisan and are nominated in a primary election by voters in their particular district. All the voters in the county are given an opportunity in the general election to vote for the commissioner who will ultimately serve the 4-year term.

Further Duties

In addition to the oversight of these departments, the Board's duties include adopting and enacting ordinances and resolutions, levying taxes and establishing county policies. As the County's legislative authority, the Board is responsible for adoption of the annual budget, provision and maintenance of public facilities, construction and maintenance of County roads, development and implementation of planning and zoning policies, and appointments to advisory boards and commissions.

Lower Yakima Valley Groundwater Management Area

https://www.yakimacounty.us/541/Groundwater-Management-Area

The purpose of the Groundwater Management Area is to reduce the nitrate contamination concentrations in groundwater below state drinking water standards.

Yakima County Voluntary Stewardship Program

https://www.yakimacounty.us/1657/Voluntary-Stewardship-Program-VSP

The Voluntary Stewardship Program (VSP) is an optional, incentive-based approach to protecting critical areas while promoting agriculture. The VSP is allowed under the Growth Management Act as an alternative to traditional approaches to critical areas protection, such as "no touch" buffers. Yakima County is one of 27 counties that has "opted in" to VSP, and has received funding to develop a VSP work plan. The VSP is locally prepared and monitored at a watershed scale by agricultural and environmental stakeholders participating in a VSP Work Group; the VSP is voluntarily implemented by individual agricultural producers to protect critical areas and improve agricultural viability through conservation practices. Unnecessary regulations are avoided.

Yakima Health District https://www.yakimacounty.us/275/Health-District

Services Mandated By State Legislature

- Communicable Disease Control Prevention and Treatment Services
- Tuberculosis Services
- Sexually Transmitted Disease Services
- Water and Vector-borne Disease Services
- Food Service Licenses, Inspection and Certification Programs
- Vital Statistics Services

- Solid and Hazardous Waste Services
- Water Recreation Inspection Services
- Waste Water Treatment Services
- School Sanitation Inspection Services
- Food Handler Education and Certification
- General Sanitation Inspection/Control
- Such other services as mandated by State Board of Health

Yakima County Water Conservancy Board <u>https://www.yakimacounty.us/1042/Water-</u> <u>Conservancy-Board</u>

The Board rules on applications for volunteer water rights transfers. All decisions are subject to review by the Department of Ecology.

Yakima County Extension Service https://extension.wsu.edu/yakima/

Yakima County Extension is part of the world-class outreach and engagement enterprise of Washington State University. We partner with local agencies, businesses, our community, and volunteers to drive innovation, invention and technology transfer. We specifically focus on expanding the problem-solving capacity of communities within the county, enhancing and sustaining the local economy, enhancing natural resources and the environment, enhancing economic opportunities for agriculture and eliminating barriers to success for youth and families.

City of Grandview https://grandview.wa.us/

Population: 10,862

Annual Budget for 2018: \$6,026,255.00

Port of Grandview http://portofgrandview.org/

The Port is in the middle of the fruitful orchards, vineyards, and farmlands of the Yakima Valley, and the Port's mission will become to provide support and development for the food-processing industry and to encourage other industries to locate in the Grandview region.

The Port's main goal from the beginning was to acquire and develop land for industrial and business use. In 1998, the Port purchased the Stover Road Development Site. This 50-acre site on the west side of Grandview contains 17 lots ranging from 11 acres to one acre.

In 1999, the Port acquired the 44-acre Wallace Way Development Site, also on the west side of Grandview. The Port developed it with the infrastructure necessary for industrial use, including rail access.

City of Granger http://www.grangerwashington.org/

Population: 3,905

Annual Budget for 2018: \$1,335,064.00

City of Mabton https://www.cityofmabton.com/

Population: 2,230

Annual Budget for 2018: \$5,300,100.00

City of Sunnyside http://www.ci.sunnyside.wa.us/

Population: 15,858

Annual Budget for 2017: \$30,813,531.00

Port of Sunnyside https://www.portofsunnyside.com/

Organized in 1964 by a vote of the people, the Port of Sunnyside is governed by a three-member Port commission and administered by an executive director. Currently the Port employs 16 full-time employees. Included in the Port's sources of revenue are: leases of various Port properties and buildings, Industrial Waste Water Treatment Plant. Currently, there are 13 industries located at the Port of Sunnyside, employing 635 people.

Roza Irrigation District http://www.roza.org/

Sunnyside Irrigation District http://www.svid.org/

SVID is the largest entity in the Sunnyside Division which encompasses all lands served by the Sunnyside Canal. The Sunnyside Division serves 94,614 irrigable acres and is comprised of Sunnyside Valley Irrigation District, two ditch companies Konowac Ditch Company and Piety Flat Ditch Company and five cities Zillah, Granger, Sunnyside, Grandview and Prosser. SVID provides irrigation service to roughly 92,000 acres with mostly senior, non-proratable rights. The Sunnyside Division has, in the aggregate, 2/3 senior or non-proratable rights and 1/3 junior or proratable rights.

Roza-Sunnyside Board of Joint Control http://www.roza.org/governance/rsbojc/

The RSBOJC's mission is to "implement a program to enhance water supplies by supporting storage development, improving water quality, and increasing management efficiency". The RSBOJC's goal is to achieve the following within ten years:

- System improvements such as canal automation, regulatory reservoirs, and J/B enclosed conduit delivery systems and additional storage which will protect existing rights while providing higher quality and more reliable irrigation service to Sunnyside Division landowners
- Water savings sufficient to support the goal of furnishing at a minimum, 75% of entitlement to Roza Irrigation District landowners in all years
- Compliance with the total maximum daily load process for return flows discharging from lands under Roza-Sunnyside Board of Joint Control jurisdiction

South Yakima Conservation District http://www.sycd.us/

The South Yakima Conservation District is a political subdivision of the State of Washington that seeks, utilizes, and coordinates assistance from all available sources. We are authorized under provisions of the Washington State Soil and Water Conservation District Law, Chapter 89.08 in the revised code of Washington (RCW).

Our primary goal is to promote the wise use, development, and conservation of our renewable natural resources in our district by providing assistance to local landowners to solve conservation resource problems.

South Yakima Conservation District was organized and chartered by the State of Washington September 24, 1974. It was a consolidation of the former Toppenish District whose name changed from Wapato (1949) and Lower Yakima Valley District (1947).

The Conservation District is governed by a Board of Supervisors. The five Supervisors are local residents who serve voluntarily without pay. Three Supervisors are elected by local citizens and two Supervisors are appointed by the Washington State Conservation Commission. Yakima Valley Conference of Governments https://www.yvcog.org/about-us/

Governed by an Executive Committee of 6 local elected officials and 1 member at large, the YVCOG is a membership organization that is funded by Federal, State, local resources, member dues, and professional service contracts. Founded in 1966, the YVCOG provides a forum for our members to address regional issues for 14 cities and Yakima County. We are a regional agency with the ability to conduct any activity that can be legally assigned or contracted to perform projects of mutual concern under the Interlocal Cooperation Act.

Institutions of Higher Learning

Washington State University College of Agriculture Human and Natural Resource Sciences https://cahnrs.wsu.edu/about/

Learning: With 16 academic units, 4 research and extension centers, and 40 county and tribal Extension offices distributed across the state, our regional presence is the largest of any college at WSU.

Our 550 faculty and 700 staff embody excellence in teaching, practical training, and pivotal research.

The CAHNRS mission: each and every one of our close to 3,000 undergraduate and graduate students leave equipped with the knowledge base, experience, and interpersonal communication skills to be job ready, day one.

Research: CAHNRS students work with renowned faculty committed to the training of future scientists. They pursue meaningful research projects, and they extend science to serve communities at home and around the world.

Research at CAHNRS is as diverse as the communities, businesses, agriculture systems, natural resources, and landscapes of Washington state. Our strong, dynamic research

engine helps to feed a growing population, protect the natural resources we rely on for food, water, and energy, and create greater capacities for resilience in the face of change.

Extension: Extension is about giving everyday people exceptional tools to thrive in a world that is constantly changing.

For over 100 years, Extension has provided educational, personal, and professional development opportunities throughout the state—impacting lives in ways that few other organizations can. Because of these efforts, communities, organizations, and individuals are able to solve local issues and improve their futures.

Biological Systems Engineering https://bsyse.wsu.edu/

From solar drying and pasteurization research in the 1970's to today's emphasis on biological waste analysis and treatment, chemical transport through soils, food engineering, bioenergy, bioproducts, and more, our department has a long history of technical environmental stewardship, research, and education.

Community and Economic Development https://ced.cw.wsu.edu/about/

CED activities focus on promoting local business expansion and retention; increasing transfer funds within a local economy (such as tourism dollars and retirement dollars); economic analysis; and increasing exports and local entrepreneur development. In addition, efforts include programs that result in local leadership development and effective community non-profits. In undertaking this work, CED has a number of special emphases.

Crop and Soil Science http://css.wsu.edu/

Soils are everywhere. We walk on them, eat food grown on them, and enjoy the aesthetic things that they support such as ornamental plants and wildlife habitats. And soils are as complex at the different aspects of our lives as they support. Our faculty works across all of the diverse aspects of soil science (soil biological, chemical, and physical processes; soil as a supplier of water and nutrients to plants, a host to an array of living organisms, and natural and imposed events can degrade soils). We do this in concert with the broad array of animal and crop production systems in our state to support economically and environmentally sustainable practices.

Extension Economics <u>http://ses.wsu.edu/extension/</u>

Community and Regional Economics

Washington is the most export reliant state in the country. Many development projects have an outward component. Thus regional development is intertwined and connected to the global economy.

Health Economics

Projects in health extension economics include studies on maternal work status and infant feeding practices, obesity and child nutrition, and mental health among older individuals due to job loss.

Environmental & Natural Resources

This site contains applied economics studies focusing on a diverse array of environmental and natural resources issues in the State of Washington

Specialty Crop Economics

This site contains information on extension economic studies focusing on a diverse array of specialty crops produced in Washington State.

Livestock Economics

Economics-oriented extension programming for livestock producers and industries. Program focuses on applied economics related to record keeping and financial analysis; cost of livestock diseases and their control; value-added enterprises; and environment interactions such as waste management, and grazing issues.

<u> Tree Fruit Economics</u>

Washington State is blessed by climate as one of the top tree fruit producing regions in the world. However, the world market for tree fruits is highly competitive. Effective economic knowledge is integral to both the Washington growers' profitability and consumers' satisfaction.

Wheat and Small Grains

This site includes updates and analyses of the marketing and economics issues of Washington produced wheat and small grains.

University of Washington School of Public Health - #3 Ranked School of Public Health in the World http://sph.washington.edu/

Our Vision: Healthy people in sustainable communities – locally, nationally, and globally.

The UW School of Public Health is grounded in teaching, research, and service. Our 10,000 graduates have gone on to transform communities, lead health organizations, and find solutions to emerging public health challenges.

Leading-edge student experience

Our major <u>departments</u> are Biostatistics, Environmental and Occupational Health Sciences, Epidemiology, Global Health, and Health Services.

We offer <u>interdisciplinary programs</u> in Health Administration, Maternal and Child Health, Nutritional Sciences, Pathobiology, and Public Health Genetics. Our more than 40 <u>centers and institutes</u> bring together faculty from throughout the School to collaborate and do research across disciplines. Center for One Health Research http://deohs.washington.edu/cohr/

The growing recognition of the links between human health, animal health, and the environment requires new tools for cooperation and collaboration between professionals working in these sectors.

Such transdisciplinary "One Health" approaches demand further development of a common body of knowledge and a common scientific and clinical vocabulary for understanding and controlling diseases affecting both human beings and animals that often are related to shared environmental exposures.

Emerging infectious diseases such as SARS, West Nile Virus infection, and avian/swine influenza have focused attention on infectious diseases that cross between animals and human beings; many of these diseases are manifestations of important environmental changes related to land use, climate change, intensification of food production, and other factors. Therefore, preventing such diseases must involve creating and maintaining healthy environments. Other environmental health risks that may be shared by human beings and animals include toxicants, allergens, and psychosocial issues. Working to improve such environments is a complex process that involves both professionals and communities.

Center for Child Environmental Health Research http://deohs.washington.edu/chc

Working to understand the mechanisms that define children's susceptibility to pesticides and air pollution. Identifying the implications of this susceptibility for developmental and learning trajectories, and partnering with our communities to translate our findings into risk communication, risk management and public health prevention strategies.

Northwest Agricultural Safety and Health Center http://deohs.washington.edu/pnash/

The Pacific Northwest Agricultural Safety and Health Center conducts research and promotes best health and safety practices for Northwest producers and workers in farming, fishing and forestry. Affiliated with the UW School of Public Health, PNASH integrates expertise from multiple disciplines, institutions and community partners. Areas of emphasis include new production technologies and the needs of under-served and vulnerable populations.

Pediatric Environmental Health Specialty Unit http://deohs.washington.edu/pehsu/

Exposures from the environment can have significant and potentially lifelong health consequences. Environmental exposures of concern include biological, chemical, and radiological hazards, both naturally occurring and as a result of human activity. Children are especially at risk because exposures can interfere with their rapid ongoing development. In addition, children are at increased risk for certain exposures due to their behaviors, such as crawling on the ground, putting their hands and other objects in their mouths, or eating paint chips or other non-food items. Children also breath more air, drink more water, and eat more food per pound of body weight than adults, increasing their potential level of exposure. Fortunately, much can be done to protect children by identifying and eliminating or minimizing any ongoing exposures of concern and avoiding future exposures.

Pediatric Environmental Health Specialty Units (PEHSU) is a national network of academically based specialists dedicated to providing expertise to clinicians, public health professionals, policy-makers, and the public on environmental factors that influence children's health. The Northwest PEHSU:

- Is an academically based, nonprofit agency that offers its services at no cost. It is funded by the U.S. Environmental Protection Agency (EPA) and the Agency for Toxic Substance and Disease Registry (ATSDR).
- Serves the EPA's Region 10, which consists of Alaska, Idaho, Oregon, and Washington

- Was established in 1997 with the Department of Environmental and Occupational Health at the University of Washington in Seattle, WA.
- Has a staff of seven, including two pediatricians who specialize in environmental medicine, a medical fellow and public health professional, two nurse/public health consultants, an industrial hygienist, and a program coordinator.
- Our mission is to improve reproductive and pediatric environmental health outcomes by:
 - Increasing knowledge and awareness about environmental health issues through training, outreach, and education
 - Offering consultation services to assist healthcare professionals with the recognition, management, and prevention of environmentally related health conditions in children and in adults of reproductive age
 - Providing evidence-based medical information and advice to public health professionals, clinicians, policy-makers, individuals, and communities

El Proyecto Bienestar <u>http://deohs.washington.edu/pnash/pnash/epb</u>

El Proyecto Bienestar (EPB) or, Well Being Project, is a long standing community health intervention effort guided by a Yakima Valley community advisory board and a partnership of: The University of Washington; Northwest Communities Education Center/Radio KDNA; Heritage University; Yakima Valley Farm Workers Clinic

Heritage University Environmental Studies <u>http://www.heritage.edu/academic-paths/undergraduate-degrees/environmental-studies/</u>

The Environmental Science program at Heritage University prepares students for careers that deal with complex environmental issues like air and water quality, conservation, watershed management, and natural resources planning. Emphasizing

biology, chemistry, and geology, the program examines Earth's ecosystems, climate changes and effects on the environment by human activities.

Students in the program complete research projects and internships with top environmental agencies and programs such as the U.S. Department of Agriculture, U.S. Forest Service, the Environmental Protection Agency and major research universities. Upon completion of this program, students can apply their skills to a variety of careers within industry, nonprofit organizations and government as well as take advanced graduate studies in environmental sciences.

Agricultural Associations

Washington State Farm Bureau https://wsfb.com/

Farm Bureau is a voluntary, grassroots advocacy organization representing the social and economic interests of farm and ranch families at the local, state and national levels. By providing leadership and organizational skills, Farm Bureau seeks to gain public support on the issues affecting farm and ranch families.

Washington State Dairy Federation <u>http://wastatedairy.com/#</u>

The Washington State Dairy Federation develops and promotes initiatives directed toward the financial strength, political support, and public awareness of our industry to achieve a successful business climate for dairy farmers in Washington State.

Environmental Groups

Community Association for the Restoration of the Environment

A 501 (C) (3) non-profit group that has led the fight against water and air pollution in the Lower Yakima Valley since the 1990's. In the early years CARE won a landmark lawsuit that funded the VIRE study and cast a spotlight on pollution of the Granger Drain

Concerned Citizens of the Yakama Reservation

CCYR is composed of residents from the Yakama Reservation who came together to advocate for policy change and resist pollution from dairies and feedlots in their communities

Friends of Toppenish Creek <u>http://www.friendsoftoppenishcreek.org/</u>

Friends of Toppenish Creek is dedicated to protecting the rights of rural communities and improving oversight of industrial agriculture. FOTC operates under the simple principle that all people deserve clean air, clean water and protection from abuse that results when profit is favored over people. FOTC works through public education, citizen investigations, research, legislation, special events, and direct action.

Local Health Care

Yakima Valley Farmworkers Clinics http://www.yvfwc.com/

It was 1973 and healthcare for migrant and seasonal farm workers was almost nonexistent. Underfed, poorly clothed and with little to no education, the farm worker community was facing a health crisis that was not being addressed at a local or national level.

Respected physicians - Dr. Paul Monahan, Dr. Donald Gargas and Dr. Julie Ricking cared deeply about this 'forgotten' community and, together with a group of committed care providers, set up the clinic in a small house made out of plywood and built by VISTA volunteers. Conditions were far from perfect, but it was a start. We've come a long way since and Yakima Valley Farm Workers Clinic has grown into a Joint Commission-accredited community/migrant health center, and is the largest community based health center in the Pacific Northwest.

Today, Yakima Valley Farm Workers Clinic has locations throughout Washington and Oregon, impacting the lives of thousands of adults and children each year. We embrace new technologies and systems that engage and empower patients to actively participate in their own care and are well placed to meet the evolving needs of our communities.

Our Mission statement is our daily guide:

"Together we are dedicated to lead, with the courage to care, the determination to promote personal growth, and the compassion to champion the cause of those who have no voice".

We are committed to providing quality services to everyone, regardless of an individual's financial or citizenship status. A sliding-fee scale is available for those without health insurance. Yakima Valley Farm Workers Clinic is a FTCA Deemed facility.

Neighborhood Health Services https://www.ynhs.org/

Established in 1975, Yakima Neighborhood Health Services today serves more than 23,000 patients annually. We were the first Health Center in the state to achieve the highest level of recognition possible as a Patient-Centered Medical Home and we are accredited by the Joint Commission.

Mission: To provide affordable, accessible, quality health care, promote learning opportunities for students of health professions, end homelessness and improve quality of life in our communities. Astria Health - Sunnyside, Toppenish & Yakima http://www.astria.health/

The Astria Health system, headquartered in the heart of Yakima Valley in the state of Washington, is the parent nonprofit organization of Astria Sunnyside Hospital, Astria Regional Medical Center and Astria Toppenish Hospital.

Astria Health's leadership team has worked with some of the largest systems in the nation with dozens of successful hospital turnarounds throughout the country. Providing the expertise, know-how, processes and resources hospitals need, Astria Health ensures profitable growth and stability in today's ever-changing healthcare environment.

Virginia Mason Memorial/Yakima Valley Memorial Hospital <u>https://www.yakimamemorial.org/about-us.asp</u>

Founded: 1950 Ownership: Yakima Valley Memorial Hospital Association, a private not-for-profit organization governed by a board of directors. Location: Based in Yakima with locations throughout Yakima County Accreditation: The Joint Commission Patient admissions: 11,751 Hospital inpatient services include: Cancer Care, Heart Care, Critical Care, Orthopedics, Surgery, The Family Birthplace, Pediatric Care, Neonatal Intensive Care Unit, Surgery, and Psychiatric Care Hospital square footage: 600,684 Campus size: 26.4 acres Total employees: approximately 2800 Total licensed hospital beds: 226 Total Operating Revenue: \$433,163,870

Education and Outreach

Radio KDNA La Voz del Campesino/ Northwest Communities Education Center http://www.kdna.org/

In 1979, Northwest Communities Education Center (NCEC), launched a Spanish language, public radio station in the heart of the Yakima Valley located in Eastern Washington. Broadcasting on a frequency of 91.9 FM with an effective radiated power of 20,000 watts, from studios located in Granger, Washington, the station is governed by a minority Board of Directors representative of its listening community.

Radio KDNA, a community public radio station, went on the air with an educational and informational format. Radio KDNA has been instrumental in educating, informing, mobilizing, motivating and encouraging its listeners to become involved in every aspect of the Valley's culture that affects their lives: health, education, and civic participation; to learn English, to become citizens and to fully understand all the implications of benefits received from schools, state and federal agencies.

The Mission: KDNA will direct its efforts as a minority public radio station in response to the cultural and informational isolation of Hispanic/Latino and other disadvantaged communities. Radio KDNA will produce quality radio programming to help such communities overcome barriers of literacy, language, discrimination, poverty, and illness. In this way, KDNA will empower these communities to more fully participate in our multiethnic society.