



Washington State University Clark County

Extension engages people, organizations, and communities in Clark County to advance knowledge, economic well-being, and quality of life by fostering inquiry, learning, and the application of research. Extension fosters and promotes partnerships with public agencies, NGOs, community groups and members, and individuals to implement the shared mission of WSU Extension and Clark County. Extension opened in Clark County on November 1, 1917.

WSU Extension contributes to communities in all 39 Washington Counties. Locally, in 2016, 501 adult Extension volunteers contributed 33,374 hours and made 31,883 educational contacts in Clark County.

WSU Clark County Extension's 4-H program helps young people in 4-H achieve future life successes through structured learning, encouragement, and adult mentoring. A national Tufts University study¹ shows 4-H helps youth excel beyond their peers:

 4-H youth are 56 percent more likely to be physically active; they are less likely to be sexually active by grade 10; and 4-H youth exhibit significantly lower drug, alcohol, and cigarette use.

 4-H youth report better grades at school; they are more likely to attend college and pursue careers in science, engineering, or computer technology; are three times more likely to actively contribute to their communities.

¹ http://4-h.org/about/research/, Richard M. Lerner, Jacqueline V. Lerner, et. al. 2013. The Positive Development of Youth: Comprehenisve findings from the 4H Study of Positive Youth Development, Institute for Applied Research in Youth Development, Tufts University.



"Team work. Our club works on teamwork, helping others when confused, and giving encouragement when others are down. My club is my second family." 4-H member

Clubs Program

4-H clubs bring Clark County youth together under the guidance of caring adults for year-long, hands-on learning in a community environment that fosters the four essential elements for positive youth development: belonging, mastery, independence, and generosity.

When 800 4-H members were asked about their experience, 146 responded:

- 88 percent of responding youth increased their ability to set goals for themselves and plan for reaching those goals.
- 85 percent of youth respondents gained life skills such as public speaking, goal setting, record keeping, and civic engagement that will help them in their future.
- 96 percent of youth have developed resilience by having a relationship with another caring adult in their lives.

4-H Clubs raised approximately \$110,000 to send youth to national competitions, increase educational opportunities through clinics and exhibition shows, and reach out to the community.

Of eighty Clark County 4-H members aging out of the program, 80% indicate that they would attend college after graduating from high school, compared to the typical rate of 60% of all Washington high school graduates planning to attend college.

Businesses recognize that 4-H provides youth with the soft skills necessary to succeed in the workplace. Businesses often comment that 4-H youth go the top of the candidate list for internships. The Internship coordinator of a large local car dealer commented that youth who participated in 4-H succeed because they learned to work hard and follow through. Conversations at the Governor's Summit on Career Connected Learning, June, 2017.

Science, Engineering, and Technology (SET)

4-H Science, Engineering and Technology provide youth hands-on learning experiences to encourage greather understanding of the world around them.

In 2016:

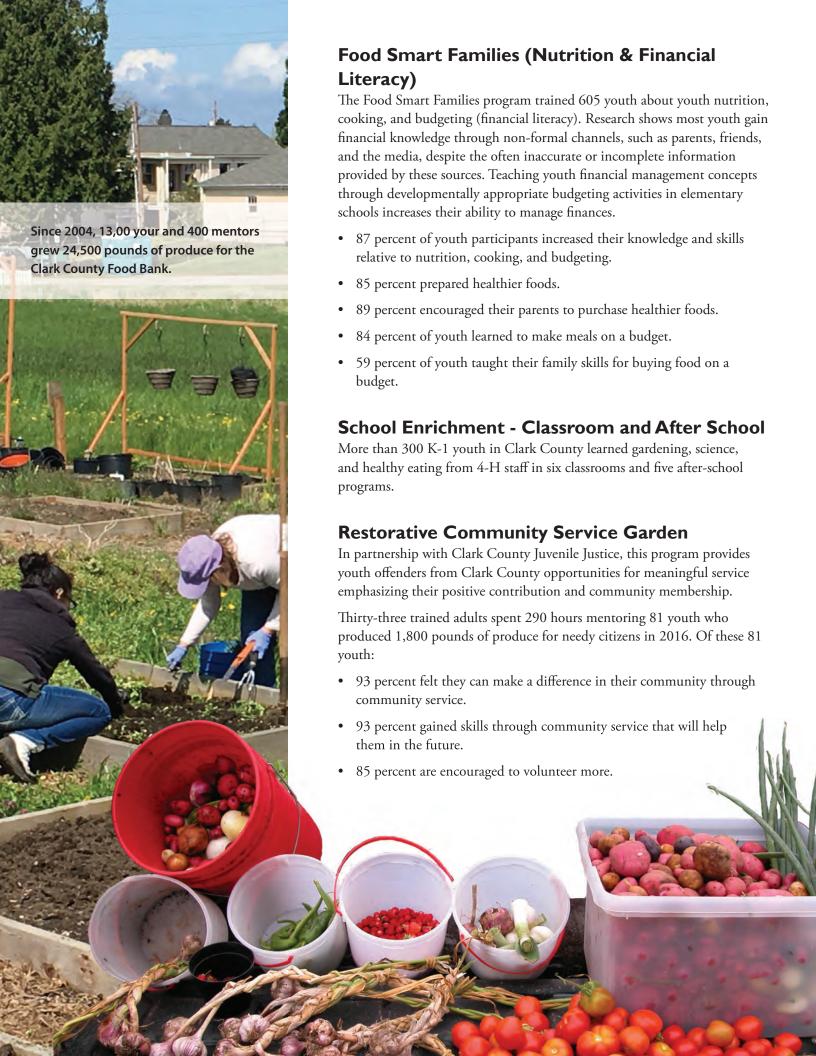
 2,500 youth engaged in STEM related experiences through 4-H projects, school enrichment, and outreach opportunities.

 4-H raised over \$32,000 to support the 4-H robotics program.

Successfully competed regionally and nationally.









WSU Clark County Extension Health and Wellness programs promote healthy food choices, exercise, and safe food practices to low-income families, youth, and the general public. This strengthens our community and contributes to the local economy by making participants less reliant on social and medical services. Healthy people are more employable; they rely less on medical services which reduces both medical and insurance costs. Businesses do not need to pay for extra help or overtime when an employee is sick and businesses decrease lost production due to illness.

• Partnered with over 1,000 individuals, schools, NGOs, businesses, health care organizations, agencies, and volunteers.

Supplemental Nutrition Assistance Program - Education

Under the federal grant funded Supplemental Nutrition Assistance Program - Education (SNAP-ED) program, Food \$ense and the Expanded Food and Nutrition Program (EFNEP) teach low-income families and school children to make healthy food choices and increase exercise. Successful learning decreases the costs of health care related to poor food habits, decreases obesity rates, and reduces potential diseases, all of which decrease reliance on local social services. SNAP-ED programs received \$490,705 in federal grants. The benefit-to-cost ratio of \$10.64/\$1.00 translates to \$5.2 million annually in saved health care costs in Clark County from the federal grants received.²

Food \$ense provides nutrition education to low income youth and their families through classes in schools, community centers, and housing

projects. Topics include the basic food groups, importance of eating healthy, selecting healthy foods, food safety, hand washing, importance of physical activity, and tasting new foods. Educators emphasize increased consumption of fruits, vegetables, low fat milk, and decreased

Benefit-to-cost ratio of SNAP- ED programs equals more than \$5.2 million annually in Clark County

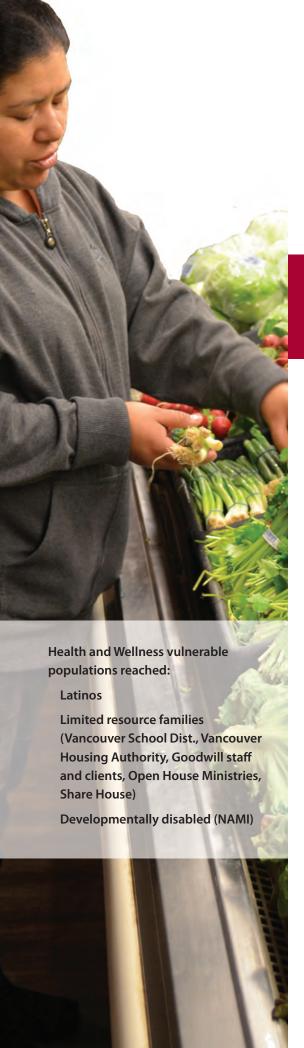
consumption of high fat, high sugar foods. Nutrition educators taught a series of six lessons in 2nd through 8th grade classrooms. Parents of all the youth participated in a four-part series and received a weekly newsletter covering similar topics.

Classes help families reduce obesity and potential diseases, decreasing health care costs related to poor food choices. Healthier children increase their learning abilities. 6,142 youth in 275 classrooms participated in nutrition education classes, with 65 percent being SNAP recipients, 22 percent being Latino, and 35 percent being people of color. Working with 10 school Family Community Resource Centers' food pantry and backpack programs provided additional nutrition education to families.

Of 5,835 students evaluated:

• 82 percent now consume fruits and vegetables daily.

² Journal of Nutrition and Behavior, 2002, 34:1, Pages 26–37; also for SNAP-ED Public Health Institute, http://www.phi.org/resources/?resource=snapedworks Applying Cost Benefit Analysis to Nutrition Education Programs: Focus on the Virginia Expanded Food and Nutrition Education Program, 1999, Virginia Cooperative Extension, publication 490-403. https://vtechworks.lib.vt.edu/handle/10919/24691.



- 72 percent select snacks that are low in sugar, fat and salt.
- 75 percent eat a daily breakfast comprising 3 food groups.
- 84 percent get 60 minutes of physical activity each day.

Staff implemented nudge marketing strategies to help families understand how to select and prepare healthy foods. This included providing samples of recipes using foods that clients do not usually take home because they don't know what to do with them. Staff helped group foods for the recipe together for the client to take home and make the recipe. Pantries report that now those particular foods are taken more often than previously.

After a fourth grade SNAP Ed nutrition lesson on cereals and label reading, one child learned that the frosted flakes his family were eating most mornings were not whole-grain and had too much sugar in them. The whole family switched from frosted flakes to Cheerios, which contain whole grains and less sugar.

The Expanded Foods and Nutrition Program (EFNEP) provides nutrition education to low income families with children disproportionately affected by hunger and poor nutrition. Often, children prepare meals and snacks for themselves and younger siblings. Working with this group can produce lifetime impacts on their health and their family's.

EFNEP helped 102 low income families (465 family members) acquire the knowledge, skills, attitudes, and changed behaviors necessary to increase nutritionally sound diets and improve total family diet and nutritional welfare. Research shows that better health correlates with reduced health care costs, less absenteeism from work, and less dependence on emergency food assistance. Thirty-five percent of the children in the program were under 6 years old and 73 percent of the families were Latino.

Impacts from 102 responses:

- 98 percent of participants made healthy food choices within a limited budget.
- 87 percent of adults now select food more closely aligned with dietary guidelines, 72 percent eat more vegetables, and 62 percent eat more fruits.
- 55 percent of adults increased their physical activity.
- 61 percent ran out of food less frequently before the end of the month and 52 percent used a list more often for grocery shopping.

EFNEP educators also taught 453 youth (46 percent Latino) in grades 3-5. Children attended an average of six classes, learning about making healthy food selections by focusing on eating more fresh produce, making healthy snack selections, and the importance of eating breakfast. Teachers and families indicate students become more attentive due to eating breakfast and making healthier food choices at lunch. Of the 453 youth:

- 44 percent eat more vegetables and 38 percent eat more fruits.
- 74 percent ask their parents for fruits/vegetables for snacks.
- 43 percent increased their physical activity.



Food Safety for Food Workers

This program provides food handlers the food safety knowledge necessary to meet the Person In Charge (PIC) standards which improve the skills of food workers, improve health inspection scores, and eliminate or reduce foodborne illnesses in the community. Regulations stipulate that food service establishments have a PIC with food safety training beyond the basic food handlers card. When Public Health closes a food business due to food borne illness (FBI) or violations, owners must take an extensive food safety class (offered by Extension) before reopening. The Extension - Public Health partnership provides a local educational resource to help workers, restaurant owners, and managers follow health regulations.

- 120 food workers from 51 restaurants took PIC classes in 2016. Since 2007, 1,852 food handlers from 561 food facilities took classes.
- All food facilities changed at least two policies and/or procedures that improved their health inspection scores and reduced the potential for FBI.

"I thought this class was going to be the longest event ever, but I learned so much and plan to share with my co-workers and boss. We have some changes we need to make." Person in Charge (PIC) training attendee

Master Food Preserver Volunteers

Food safety programs teach consumers how to prevent food-borne illness (FBI) with safe food handling practices. Hand washing remains the primary method to prevent Norovirus outbreaks in schools and to promote general individual health. The program annually teaches over 5,000 youth in classrooms and 4,000 at the Clark County Fair the importance of correct hand washing.

Eleven Master Food Preservers (MFP) in Clark County volunteered 1,637 hours teaching classes, testing pressure gauges, staffing displays and answering questions on the phone hotline. MFPs answer questions about safe storage and food preservation from community garden coordinators, local nurseries, library, local feed and hardware stores and others requesting information.

- MFPs reached 431 consumers in classes and another 990 at community events.
- MFPs tested 93 pressure gauges at 17 clinics, finding 60 percent were inaccurate.
 - The MFP Facebook site has 502 members.



"This class has really changed my life. I have lost weight, but most of all, I no longer take blood pressure medicine and my cholesterol dropped dramatically. I feel like a new person."

Attendee in diabetes prevention class



Diabetes Prevention Work

Extension partners with the Diabetes Prevention and Control Alliance, Washington State Department of Health Diabetes Prevention and Control Program, and Washington State Health Care Authority to bring the National Diabetes Prevention Program to communities in Clark County and around Washington. The national, evidence-based program, led by the Center for Disease Control, helps people with pre-diabetes prevent or delay the onset of type 2 diabetes, a disease consuming one in five U.S. health care dollars. Nationwide implementation could save the health care system \$5.7 billion and prevent 850,000 cases of type 2 diabetes.³

The program teaches participants to manage their lives through healthy food choices, regular physical activity, and lifestyle management to prevent diabetes.

- 135 pre-diabetic Clark County residents participated in one of ten 12-month programs and lost between 5 percent and 15 percent of their body weight, participated in 160 minutes of weekly physical activity, and prevented the onset of diabetes.
- 75 percent of the participants improved cholesterol and blood pressure readings, with 40 percent no longer taking cholesterol and/or blood pressure medications.

100 percent reduced their A1c reading (a three-month blood sugar average), with two no longer in the pre-diabetes range.

Healthy Families at Farmers Markets

WSU Extension received a \$153,000 two-year federal grant to help three local farmers markets provide education and incentives to limited resource families to purchase local produce at the local markets. A Healthy Families booth at the three farmers markets provides information about selecting fresh produce on a budget, presents recipes using different produce, and hosts activities to increase fruit and vegetable consumption. Funding allowed limited income families to receive a \$4-\$5 bag of produce and up to \$5 in Fresh Match tokens from the farmers market to buy fresh produce.

The Healthy Families booth staff presented at twelve events during the summer of 2016 and distributed 372 bags of produce to families receiving some form of public assistance. 448 market shoppers completed surveys at the booth, with 82 percent saying they would try making the demonstrated recipe at home.

³ Health Affairs, 2012, 31:1, pages 50-60.

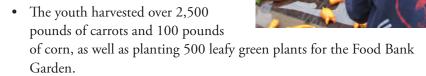
"This is such a great opportunity for youth to actually see where their food comes from and how it grows. So many of them don't know how the store gets all their food." Teacher at

Farm to Fork Field Days for Kids

In partnership with 4-H, this program teaches youth about their food system and where food comes from. Kids visit the Heritage Farm where they rotate through four educational stations to learn about composting; erosion

and water quality; food safety; plant identification; taste testing; chickens and eggs; hands-on produce harvesting; weeding; planting; and how to access local foods. A community service component includes planting, weeding and harvesting food for the Food Bank.

Youth learned that fresh, locally grown produce tastes different than that in the grocery store. One student who picked carrots found some of those same carrots in his weekend food backpack two weeks later. He was excited to see his efforts go full circle.



• 699 school-age youth from 10 schools participated in a half-day Farm to Fork educational experience.



Environmental Stewardship in an Urbanizing County



Partnering with Clark County's Clean Water Program, the Small Acreage Program (SAP) trains land users how to steward their land and save money by doing so. The Living on the Land: Stewardship for Small Acreages (LOL) class, a 12 week training, graduated 446 people owning 3,867 acres since 2003. Among the 428 LOL graduates (282 households) through 2015:

• 211 of 260 households implemented 667 best management practices

(BMPs) on at least 2,206 acres affecting at least 1200 livestock (excluding poultry).

Respondents shared what they learned with at least 3,134 other people.

Over 43 percent tested their soil, 56 percent of respondents with septic systems inspected their septic system, and 50 percent of the households with wells tested them, all as a result of what they learned.



Over 85 percent agreed funding the LOL through Clean Water Program fees was a good use of the fee.

SAP holds an annual Small Acreage Expo; over two-thirds of responding participants increased their knowledge about property management and how management affects water quality. SAP provides workshops on best practices, property tours, and relevant publications. A signage program also recognizes those landowners "doing our part for clean water".

162 participants attended best management practices workshops and tours: Between 60 percent and 100 percent of respondents reported increasing their knowledge about various BMP topics.

The Small Acreage Expo drew 109 participants: Between 71 percent and 100 percent of respondents learned "some" to "a lot" about topics on managing their land.

 A follow-up of 235 previous BMP workshop participants showed that 162 implemented 117 BMPs on their property.

Habitat Restoration.

Working as part of the Technical Advisory Committee of the Lower Columbia Fish Recovery Board, staff annually assess and rank habitat restoration projects for funding (\$1.9 million in 2016). This year's projects included:

- Instream work on 15.6 miles of stream,
- 19.6 miles of enhancing stream banks,
- 315 acres of restoration work, and
- 50 acres of acquisition.





WSU Master Gardener Volunteer Program

The WSU Master Gardeners' (MG) 255 para-professional volunteers (49 new in 2016) promote landscaping practices that yield environmental, economic, and aesthetic benefits. The WSU MG program performs outreach to the public through tours, workshops, and public events, such as organic vegetable gardening, fruit tree care, composting, and pest management. The program endowment stands at \$236,430.

Answer Clinic Staffed by MG volunteers at the WSU Clark County Extension office, volunteers answered questions from 943 members of the public via walk-ins, email, and phone calls. Questions include plant identification, soil testing, general plant care, disease solutions, and general garden care.

Outreach Master Gardeners staffed outreach booths at 13 community events, reaching 3,063 people with information about pest management, water-wise gardening, and best practices in the garden. Events included the Clark County Fair, Home & Garden Idea Fair, the Recycled Arts Festival, neighborhood events, and more.

Workshops Volunteers coordinated 35 workshops for the community, on topics including organic fruit tree care, composting, and watersmart gardening, and others, attended by 744 people. Workshop participants completed evaluations assessing their knowledge about topics before and after the class session.

Community Work Sixteen Master Gardeners served as garden mentors at several area senior/assisted living centers. The program enhances the quality of life for residents by helping them grow edible and ornamental plants in gardens at their living facilities. Volunteers help residents decide what to plant and work with them on garden maintenance through to harvest. This activity encourages socialization and participation in a beneficial physical activity.

Twelve Master Gardeners serve at the Fort Vancouver National Historic Reserve where they use historically accurate plant varieties to recreate the gardens of that time.

Youth Programs Master Gardeners reached 587 children in 2016. Master Gardeners presented to 74 fourth-graders on Good Bugs/Bad Bugs at the Columbia Springs Watershed Festival and to 147 first graders on worms at Yacolt Elementary School. They provided hands-on garden education at the Hazel Dell Elementary School and community garden to 108 children attending the school and area Boys and Girls Clubs. Master Gardeners taught 205 youth about growing vegetables at three Farm to Fork events where students visit the Heritage Farm to learn where their food comes from.

⁴ \$30.04/hr volunteer time from Independent Sector.



Extension works with both large commercial operations and direct market farmers on smaller acreages. Topics include small fruit, vineyard, greenhouse, orchard, medicinal herb, tree fruit, water rights, women in agriculture, marketing, and more.

Agricultural Entrepreneurship Business Planning

Agricultural Entrepreneurship Business Planning This 10 week class series provides both established and start-up farm businesses the knowledge and skills necessary to build business plans for their operations. Topics include marketing, market analysis, business structures, taxes, licensing, insurance, payroll, risk management, regulations, record keeping, and budgets. The program graduated 29 participants owning 23 properties comprising at least 100 acres and included eight existing small farm businesses. Participants developed draft business plans to make and keep their operations profitable. At least 63 percent learned "something" to a "a lot" over what they knew before the class.

- Since 2008, 219 people graduated and represented 1,746 acres and 58 existing businesses.
- 50 75 percent increased their knowledge of the topic areas covered.
- 61 percent of responding graduates changed management practices.
- 55 percent of responding graduates agreed changes improved their business.
- 44 percent of respondents increased their profit.

"I considered them [classes] extremely valuable in many ways. 1. Key business contacts we made, particularly with a local insurance company, which now has all our insurance coverage and we could not be happier. 2. The business plan module was very applicable and helped us focus on new directions for our business." - Ralph Greer, Cultivating Success Ag Business Planning graduate, 2015

Agricultural Production & Marketing

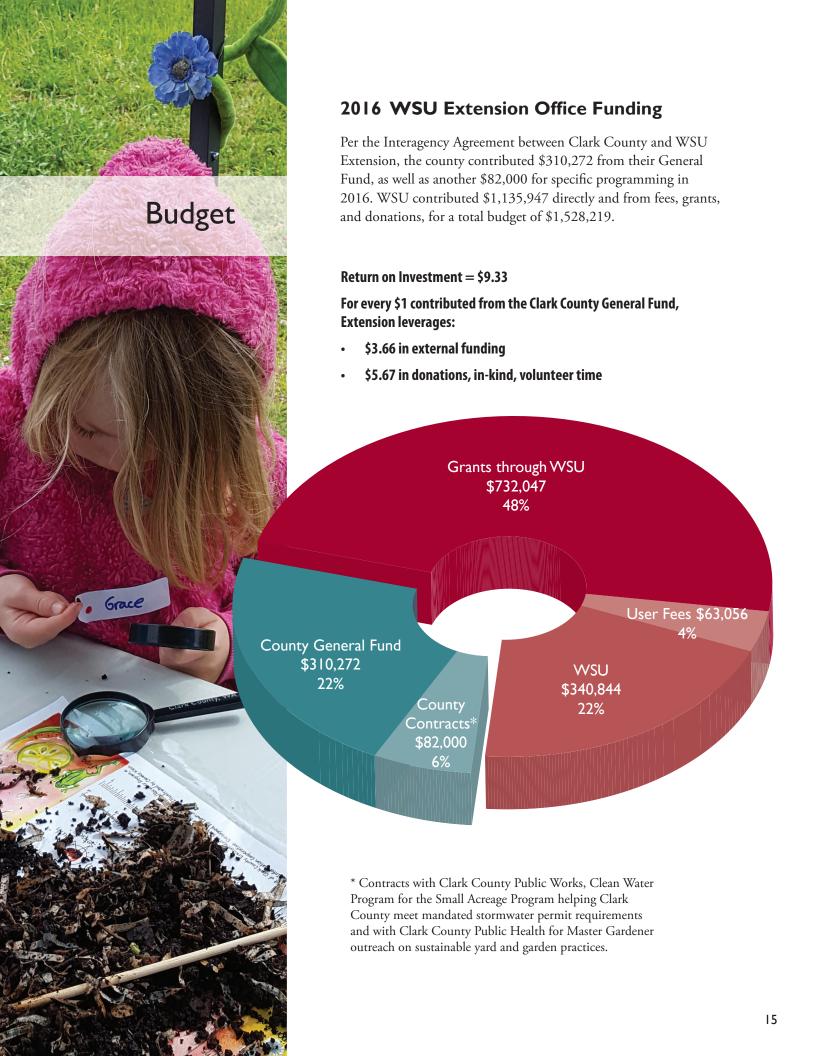
The specialist position remained vacant after a retirement, but a new hire will start mid-2017.

Workshops

Raising Poultry for Meat - 28 participants learned how to raise and process poultry on-farm. 53 percent of participants increased their knowledge about all topics. 95 percent said they would use what they learned.

Women in Agriculture - 22 women farmers learned about communication styles through a personality typing system called DiSC assessment. This formed part of Western regional online event for 675 women in Idaho, Washington, Alaska, Montana, and Oregon. All participants reported improved overall farm management with family, staff, and associates by paying more attention to how they communicated







Thanks to all our partners and collaborators.....

Alicorn Stables

Amazia Veterinary

Boys and Girls Club

Camas Farmer's Market

Clark College (Community Ed, ESL)

Clark Conservation District

Clark County (Public Health, DES - Vegetation Mgmt., Environmental Health, Corrections,

Fair, DSHS, Youth Commission)

Clark County Farm Forestry

Clark County Food Bank

Clark County Food Systems Council

Clark County Jr. Livestock Auction

Clark County Juvenile Court

Clark County Saddle Club

Clark / Cowlitz Farm Bureau

Clark Public Utilities

The Columbian newspaper

Columbia Springs Environmental Education

Center (CSEEC)

Columbia United Providers

Connect Battle Ground

Connect Evergreen

Educational Opportunities for Children and Families (aka Early Childhood Education

Assistance Program ECEAP)

Educational School District #112

Evergreen School District and Family

Community Resource Centers

Farmers (numerous)

Farmers Markets (Vancouver, Salmon Creek,

Camas, Battle Ground)

Fisher's Grange

Food businesses (381)

Fort Vancouver Regional Library

Fred Meyer

Hazel Dell School & Community Garden

Healthy Living Collaborative

La Center School District

Latino Community Resource Group

Lower Columbia River Fish Recovery Board,

Technical Advisory Committee

Master Gardener Foundation

Nature Scaping

Oregon State University Extension

Parents Again

Partners in Careers

Peace Health Medical Center

Plant-a-Row for the Hungry Garden

PREVENT

Rain or Shine Nursery

REACH

Reflector weekly newspaper

Salvation Army

Sea Mar (Nutrition Programs, WIC)

Second Step Housing

Share Aspire

Share House (Backpack program)

Shorty's Nursery

WSU Small Business Development Center

SW Washington Child Care Consortium

Trinity Lutheran Church

US Department of Fish and Wildlife

USDA / NRCS

Vancouver Housing Authority

Vancouver Library

Vancouver, City of (Vancouver Parks and

Recreation)

Vancouver School District (and Family

Community Resource Centers)

WA State Department of Agriculture

WA State Corrections

WA Department of Ecology

WA Department of Fish & Wildlife

WA Work First

West Vancouver for Youth

Wilco Farm Stores

Wildlife Botanical Gardens

Wolverton Mt. Gun Club

WSU Vancouver (Human Development, nursing)

WSU Extension (Food Systems Team/Program)

YMCA

Youth Efforts Against Hunger



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