Water Quality in Clark County

Transcript of Presentation is available online.
Presentation Audio Recording
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Southwest Regional Office
Partners

- Clark County Public Health
- Clark County Clean Water Division
- Clark Conservation District
- Watershed Alliance of Southwest Washington
- Washington State University Extension
Councilor Introductions

Eileen Quiring O'Brien
Council Chair
Contact

Temple Lentz
Councilor District 1
Contact

Julie Olson
Councilor District 2
Contact

Karen Dill Bowerman
Councilor District 3
Contact

Gary Medvigy
Councilor District 4
Contact
Presentation Overview

• Watersheds in Clark County
  • Agriculture
  • Septic systems

• Ecology’s Water Cleanup Plans
  • East Fork Lewis River
  • Lacamas Creek

• Poop Smart Clark
  • Pollution Identification and Correction
Overview of Clark County Watersheds
Clark County watersheds
## USDA Census of Agriculture, 2017

### Clark County
Washington

#### Total and Per Farm Overview, 2017 and change since 2012

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>% change since 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farms</td>
<td>1,978</td>
<td>+3</td>
</tr>
<tr>
<td>Land in farms (acres)</td>
<td>90,737</td>
<td>+21</td>
</tr>
<tr>
<td>Average size of farm (acres)</td>
<td>46</td>
<td>+18</td>
</tr>
</tbody>
</table>

#### Share of Sales by Type (%)

<table>
<thead>
<tr>
<th>Type</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crops</td>
<td>42</td>
</tr>
<tr>
<td>Livestock, poultry, and products</td>
<td>58</td>
</tr>
</tbody>
</table>
### Market Value of Agricultural Products Sold

<table>
<thead>
<tr>
<th></th>
<th>Sales ($1,000)</th>
<th>Rank in State</th>
<th>Counties Producing Item</th>
<th>Rank in U.S.</th>
<th>Counties Producing Item</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>47,702</td>
<td>23</td>
<td>39</td>
<td>1,796</td>
<td>3,077</td>
</tr>
<tr>
<td><strong>Livestock, poultry, and products</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Livestock, poultry, and products</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poultry and eggs</td>
<td>27,829</td>
<td>17</td>
<td>39</td>
<td>1,392</td>
<td>3,073</td>
</tr>
<tr>
<td>Cattle and calves</td>
<td>6,615</td>
<td>10</td>
<td>39</td>
<td>602</td>
<td>3,007</td>
</tr>
<tr>
<td>Milk from cows</td>
<td>13,887</td>
<td>12</td>
<td>29</td>
<td>383</td>
<td>1,892</td>
</tr>
<tr>
<td>Hogs and pigs</td>
<td>94</td>
<td>10</td>
<td>39</td>
<td>931</td>
<td>2,856</td>
</tr>
<tr>
<td>Sheep, goats, wool, mohair, milk</td>
<td>435</td>
<td>9</td>
<td>39</td>
<td>390</td>
<td>2,984</td>
</tr>
<tr>
<td>Horses, ponies, mules, burros, donkeys</td>
<td>512</td>
<td>8</td>
<td>39</td>
<td>416</td>
<td>2,970</td>
</tr>
<tr>
<td>Aquaculture</td>
<td>(D)</td>
<td>30</td>
<td>33</td>
<td>(D)</td>
<td>1,251</td>
</tr>
<tr>
<td>Other animals and animal products</td>
<td>(D)</td>
<td>(D)</td>
<td>39</td>
<td>(D)</td>
<td>2,878</td>
</tr>
</tbody>
</table>

### Livestock Inventory (Dec 31, 2017)

<table>
<thead>
<tr>
<th>Livestock Type</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broilers and other meat-type chickens</td>
<td>313,524</td>
</tr>
<tr>
<td>Cattle and calves</td>
<td>15,065</td>
</tr>
<tr>
<td>Goats</td>
<td>1,939</td>
</tr>
<tr>
<td>Hogs and pigs</td>
<td>412</td>
</tr>
<tr>
<td>Horses and ponies</td>
<td>2,687</td>
</tr>
<tr>
<td>Layers</td>
<td>11,470</td>
</tr>
<tr>
<td>Pullets</td>
<td>2,032</td>
</tr>
<tr>
<td>Sheep and lambs</td>
<td>2,016</td>
</tr>
<tr>
<td>Turkeys</td>
<td>314</td>
</tr>
</tbody>
</table>

$**47.7M** - Market Value for Agriculture in Clark County, 2017

$**27.8M** - Market Value of Livestock in Clark County, 2017
Septic Systems

- 34,500 Septic Systems in County
- 30% or 10,350 noncompliant systems.
- **Inspection** = Every 3 years
- **Maintenance** = Every 5 years
Clark County Polluted Waters
Ecology’s Water Cleanup Process

**Question:** How much pollution needs to be reduced to meet water quality standards?

**Step 1:** Water quality monitoring and data collection

**Step 2:** Source Assessment

**Step 3:** Water Cleanup Planning

**Step 4:** Implementation – Stormwater, septic systems, agriculture, restoration.
Current Projects

• **East Fork Lewis River, 2017-2020**
  *Currently on Step 4 - Implementation*

• **Burnt Bridge Creek, 2019-2022**
  *Currently on Step 3 – Water Cleanup Planning*

• **Lacamas Creek, 2021-2024**
  *Currently on Steps 1 and 2 – Data Collection and Source Assessment*
Achieve Clean Water

Meet Water Quality Standards

Support Beneficial Uses

For People, Fish, & Wildlife

Residents & Visitors of Clark County
Water Cleanup Plans in Clark County
East Fork Lewis River
Partnership
for clean water
Washington State’s Polluted Waters List (303d)
East Fork Lewis River Partnership

Collaboration of local, state, tribal, and federal governments; watershed groups and private landowners.
East Fork Lewis River Partnership

- *East Fork Lewis River Source Assessment, 2018*
- *East Fork Lewis River Water Cleanup Plan, 2020*
Implementation Priorities

Septic Systems
Outreach, Inspection, Maintenance, Repair
Pollution Identification & Correction

Small Acreage Agriculture
Conservation Planning, Technical Assistance
BMP Implementation

Stormwater Management
Source Tracing, Illicit Discharge Detection & Elimination
Stormwater Management Planning

Riparian Restoration
Public & Private Lands
Highest Shade Deficits = Middle Watershed
40% Shade Deficit
Legacy Lands Restoration

2,000+ acres of Clark County Legacy Lands.

9,000+ acres planned for acquisition.
Bacteria Reduction

Fecal Coliform Reductions

<table>
<thead>
<tr>
<th></th>
<th>Non-Seasonal</th>
<th>Wet Season</th>
<th>Dry Season</th>
</tr>
</thead>
<tbody>
<tr>
<td>1% - 10%</td>
<td>1% - 10%</td>
<td>1% - 10%</td>
<td>1% - 10%</td>
</tr>
<tr>
<td>11% - 30%</td>
<td>11% - 30%</td>
<td>11% - 30%</td>
<td>11% - 30%</td>
</tr>
<tr>
<td>31% - 60%</td>
<td>31% - 60%</td>
<td>31% - 60%</td>
<td>31% - 60%</td>
</tr>
<tr>
<td>61% - 100%</td>
<td>61% - 100%</td>
<td>61% - 100%</td>
<td>61% - 100%</td>
</tr>
</tbody>
</table>
Manure Lagoon
East Fork Lewis River Watershed
Bacteria and Temperature
Source Assessment Report

May 2018
Publication No. 18-43-419

FC Geometric Mean
(cfu/100mL)

- 301 - 600
- 201 - 300
- 101 - 200
- 51 - 100
- 21 - 50

High Bacteria

La Center, WA

2017

Ridgefield, WA

FC Geometric Mean
(cfu/100mL)

- 301 - 600
- 201 - 300
- 101 - 200
- 51 - 100
- 21 - 50

High Bacteria

La Center, WA
Stormwater investigation

Illicit Discharge Detection and Elimination.

Cross Connections Identified & Corrected.

Stormwater Management Planning.

New Codes, Ordinances Standards, and Procedures.
Poop Smart Clark
Pollution Identification and Correction
Letters of Support

Poop Smart Clark

1. Clark County Clean Water Division
2. Clark County Public Health
3. Watershed Alliance of Southwest Washington
4. Washington State University Extension
5. US Department of Agriculture
6. Washington State Conservation Commission
7. Washington State Department of Health
8. City of Battle Ground
9. Lower Columbia Fish Recovery Board
10. City of La Center
11. Craft 3 Regional Loan Program
12. Septic System Contractor
13. Skagit County Public Works
14. Fiends of the East Fork
15. Clark Conservation District Board
• **855** Agricultural parcels in priority water quality areas

• **689** within 200 feet of stream
• **6,161** septic systems in watershed, **1,995** noncompliant

• **1798** septic systems in priority areas **581** noncompliant, **449** within 200 feet of stream
Goals for 2021

• Achieved Federal and State support for nonpoint source agriculture and septic work!!!
  • USDA NRCS
  • Washington State Department of Ecology
  • Washington State Conservation Commission.
  • 15 organizations wrote letters of support.
Goals for 2021

• Achieve local support for Poop Smart Clark.
  • Septic system inspections, maintenance, and replacement.
  • Local funding for agricultural assistance.
  • Nonpoint source compliance and code enforcement for water quality.
Lacamas Creek Partnership for clean water
Lacamas Creek

- Impairments
  - Bacteria
  - Temperature
  - pH
  - Dissolved Oxygen

Figure 3. Fixed-network sampling locations in the Lacamas Creek watershed.
• 22% of the watershed is publicly owned
Polluted Waters

- Lacamas Creek
- Fifth Plain Creek
- Matney Creek

- Lacamas Creek
- Fifth Plain Creek
- Shanghai Creek
- Matney Creek
- Dwyer Creek
- China Ditch

- Lacamas Creek
- Fifth Plain Creek
- Shanghai Creek
- Matney Creek
- Dwyer Creek
- China Ditch

- Shanghai Creek
- Matney Creek
Landcover

NLCD Land Use (2016)

- Cropland
- Developed
- Forest
- Hay/Pasture
- Open Space/Barren Land
- Shrub/Scrub
- Wetlands
Current Lacamas Projects

• **Step 1** - Ecology data collection

• **Step 2** - Ecology’s Source Assessment

• **Step 3** – Water Cleanup Plan

• **Step 4** – Implementation

• **Partner efforts**
  • Lacamas Lake Management Plan
  • Lacamas Watershed Council
  • Stormwater Grants
  • Salmon Recovery
Opportunity

Use Poop Smart Clark to find and fix pollution issues in the Lacamas watershed.
Next Steps
Environmental Complaints
ecology.wa.gov/ReportAnIssue

Southwest Regional Office

Counties: Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, and Wahkiakum

Online: Statewide reporting form
Email: swrocerts@ecy.wa.gov
Phone: 360-407-6300
NO SWIMMING

WARNING!
CYANOBACTERIA (BLUE GREEN ALGAE) IS PRESENT
AVOID WATER CONTACT

No swimming No wading No wind surfing Keep animals out of water

For information contact Clark County: Public Health at 397-8428 or Parks Dept. at 619-1111
Investment in watersheds = Investment in lakes
Thank you for your commitment to clean water!
Thank you!

Devan Rostorfer
Water Quality Specialist
devan.rostorfer@ecy.wa.gov
360-409-6693
Environmental complaint submitted.  

Issue identified during routine fieldwork or data collection.  

Landowner asks for help.  

Ecology works with County to complete site visits and refer landowner with water quality problems to the Conservation District for help.  

Conservation District helps landowner address natural resource or water quality concern. *Technical and financial assistance.*  

Follow-up site visit to confirm compliance.
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