Lacamas Creek Partnership for clean water
Welcomes and Introductions

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Meeting Objectives

1. Provide an overview of Ecology’s Source Assessment and TMDL Alternative Restoration Plan process.

2. Learn about different programs and planning efforts in the Lacamas Watershed.

3. Discuss roles, responsibilities, next steps, and project timeline.
Meeting Agenda

Ecology’s Water Quality Monitoring and Source Assessment  9:40 – 10:10 a.m.
*Molly Gleason, Water Quality Specialist, Washington State Department of Ecology*
- Watershed overview.
- Ecology water quality monitoring and historical data review.
- Source Assessment.

Water Quality efforts in Lacamas Watershed  10:10 – 10:50 a.m.
- City of Camas – Lacamas Lake Management Plan.
- Clark County – Fallen Leaf Lake & Swim Beach Monitoring.
- Clark Conservation – Poop Smart Clark.

Discussion & Next Steps  10:50 – 11:00 a.m.
- Timeline, project schedule, and sampling plan.
- Roles and responsibilities.
- Meetings, coordination, information sharing, and data sharing.
What is the Lacamas Partnership for clean water?
What is the Lacamas Partnership for clean water?

Collaboration of local, state, and federal governments, non-profits, watershed groups, and private landowners working together to develop and implement a Water Cleanup Plan for Lacamas Creek focused on implementation of best management practices (BMPs) to improve water quality in the watershed.
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.
Milestones

Timeline for Lacamas Creek Partnership

☑️ June 2021 – Begin water quality monitoring and data collection.

☑️ October 2021 – Complete water quality monitoring.

☑️ August 2022 – Complete technical analysis of water quality data.

☑️ April 2023 – Complete Draft Source Assessment Report identifying critical areas for water quality improvement.

☑️ May 2023 – Water Cleanup Plan begins focused on implementation.
Achieve Clean Water
Meet Water Quality Standards
Support Beneficial Uses
For People, Fish, & Wildlife
Residents & Visitors of Clark County
Water Quality Monitoring and Source Assessment

Molly Gleason, Water Quality Specialist, Washington State Department of Ecology
Water Quality efforts in Lacamas Watershed
10:10-10:50am

- **City of Camas** – Lake Management Plan.
- **Clark County** – Fallen Leaf Lake & Swim Beach Monitoring.
- **WSDA** – Dairy Nutrient Management Program
- **USDA NRCS** – Technical and Financial Assistance
- **Clark Conservation District** – Poop Smart Clark
- **Ecology Freshwater Algae Program** – Lake Cyanobacteria Management Plan
Milestones

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Roles and Responsibilities

- **Water Quality Data Collection** – Molly Gleason, Ecology
- **Source Assessment** – Sheelagh McCarthy & Molly Gleason, Ecology
- **Water Cleanup Plan** – Devan Rostorfer, Ecology
- **Lake Management Plan** – City of Camas & Lizbeth Seebacher, Ecology
- **Swim Beach Program & Swimming Advisories** – Clark County Public Health
Roles and Responsibilities

- **Dairy Nutrient Management** – WSDA

- **Agriculture** – Poop Smart Clark (Clark CD & NRCS) *Note: Ecology’s NPS position currently vacant.*

- **Septic Systems** – Clark County Public Health & Poop Smart Clark (Clark CD & Watershed Alliance)

- **Stormwater** – Clark County, Camas, Vancouver
Next Steps

• What is everyone’s availability and capacity?

• How often should we meet?

• Information sharing – Meetings, tableau page, EIM, StoryMap?

• Coordinating Lacamas Creek Source Assessment with Lake Management Plan.

• Implementation and Source Correction.
Grant Funding Opportunities

- One of our regional goals is to help local jurisdictions develop competitive applications for Ecology Water Quality grants.

- To encourage communication earlier in the process and provide more time for project proposal development, Ecology is asking interested applicants to complete a short “Notice of Intent” form by **June 15, 2021**.

- Ecology will still host statewide application workshops in August and the final applications are due **October 12, 2021**.

- For more details please visit [https://tinyurl.com/ECY-SWRO-Grants](https://tinyurl.com/ECY-SWRO-Grants), or contact **Leanne Whitesell, Regional Fund Coordinator, Nonpoint Activity Projects**, (360) 407-6295 or Leaw461@ecy.wa.gov.
Investment in watersheds = Investment in lakes
Thank you!
WARNING
TOXINS FROM ALGAE IN THIS WATER CAN HARM PEOPLE AND KILL ANIMALS

No swimming. Stay away from scum, and cloudy or discolored water.

Do not let pets or other animals drink the water, or go near the scum.

Do not boat or kayak in areas of scum or algae.

Do not drink this water or use it for cooking.

Avoid fishing in areas of scum. Throw away guts and clean fillets.

Call your doctor or veterinarian if you or your animals have sudden or unexplained sickness or signs of poisoning.

For more information, Para mas informacion, Для получения дополнительной информации:

CLARK COUNTY WASHINGTON
DANGER
TOXINS FROM ALGAE IN THIS WATER CAN HARM PEOPLE AND KILL ANIMALS

Stay out of the water until further notice. Do not touch scum in the water or on shore.

Do not let pets or other animals drink the water, or go near the scum.

Do not eat fish from this lake.

Do not use this water for drinking or cooking. Boiling or filtering will not make the water safe.

Call your doctor or veterinarian if you or your animals have sudden or unexplained sickness or signs of poisoning.

For more information:

CLARK COUNTY WASHINGTON

PELIGRO
LAS TOXINAS DE LAS ALGAS EN ESTA AGUA PUEDEN DAÑAR A LAS PERSONAS Y MATAR A LOS ANIMALES

Manténganse fuera del agua hasta nuevo aviso. No toque la espuma lamosa en el agua o en la orilla.

No permita que las mascotas y otros animales beban el agua ni estén cerca de la espuma.

No coma pescado de este lago.

No use esta agua para beber o cocinar. Hervir o filtrar el agua no hace que sea segura.

Llame a su médico o veterinario si usted o sus animales presentan una enfermedad repentina o sin causa aparente o señales de envenenamiento.

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ОПАСНО
Токсичное воздействие водорослей в воде может привести к ухудшению состояния здоровья людей и смерти животных

Держаться подальше от озера до дальнейшего уведомления. Избегайте мест с водорослями.

Не разрешайте домашним и другим животным пить воду или приближаться к местам скопления тины.

Не употребляйте в пищу рыбку, пойманную в этом озере.

Не пейте эту воду и не используйте ее для приготовления пищи. Кипячение и фильтрация не обеззараживают эту воду.

Позвоните своему врачу или ветеринару, если у Вас или у Вашего домашнего питомца возникла внезапная или беспричинная болезнь или признаки отравления.

Para mas información

Для получения дополнительной информации:

Para mas información

Для получения дополнительной информации:
Poop Smart Clark
Pollution Identification and Correction
Poop Smart Clark
Pollution Identification and Correction

- Water Quality Monitoring
- Education and Outreach
- Site Visits
- Technical Assistance
- Conservation Planning
- Agricultural Best Management Practices
- Canines for Clean Water
- Septic System Replacement and Sewer Connection
- Septic System Maintenance
- Septic System Inspections
Lake Cyanobacteria Management Plan Template

A. Title Page with Approvals
   a. Lake Name Cyanobacteria Management Plan
   b. Lake, County
   c. Organization
   d. Date prepared
   e. Signature page

B. Table of Contents

C. Table of Figures and Tables

D. Executive Summary

E. Background
   a. Study Area
      i. Lake and Watershed
      ii. Beneficial uses of the lake
      iii. Current and historical land uses
      iv. Number and location of houses on septic
      v. Water use
      vi. Water withdrawals
      vii. Fisheries
      viii. Aquatic plants
      ix. Endangered/rare species
   b. Water Quality History
      i. Past water quality conditions
      ii. Efforts to improve water quality
   c. Current Conditions
      i. Water quality
      ii. Stormwater entry untreated?
      iii. Contaminants of concern
         a. Cyanotoxins
         b. 303d list status
         c. TMDLs
         d. Regulatory criteria of contaminants and cyanotoxins
   d. Community Involvement
      i. Public participation
      ii. Public support

F. Project Description
   a. Project goals and objectives
   b. Project schedule

G. Monitoring Methods and Results
   a. Lake level, stream inflows/outflows, groundwater & precipitation/evaporation
      i. Monitoring methods
      ii. Monitoring results
   b. Lake water quality profile monitoring — Field measurements
      i. Monitoring methods

H. Hydrologic Budget
   a. Description of water budget components
   b. Inflows
   c. Outflows

I. Nutrient Budget and Phosphorus Model
   a. External phosphorus loading
   b. Internal phosphorus loading
   c. Phosphorus model
      i. Model description
      ii. Model results

J. Management Methods for Cyanobacteria Control and Lake Restoration
   a. Direct algae control methods
   b. Internal loading control methods
   c. External loading control methods

K. Management / Restoration Methods Rejected

L. Recommended Management / Lake Restoration Plan

M. Future Monitoring and Adaptive Management
   a. Evaluation
   b. Adaptive changes

N. Funding Strategy

O. Roles and Responsibilities

P. References