

# Russian River County Sanitation District Wastewater Treatment Facility NPDES Permit Renewal

Item No. 6

Order No. R1-2021-0002

Cathleen Goodwin, NPDES Unit WRCE

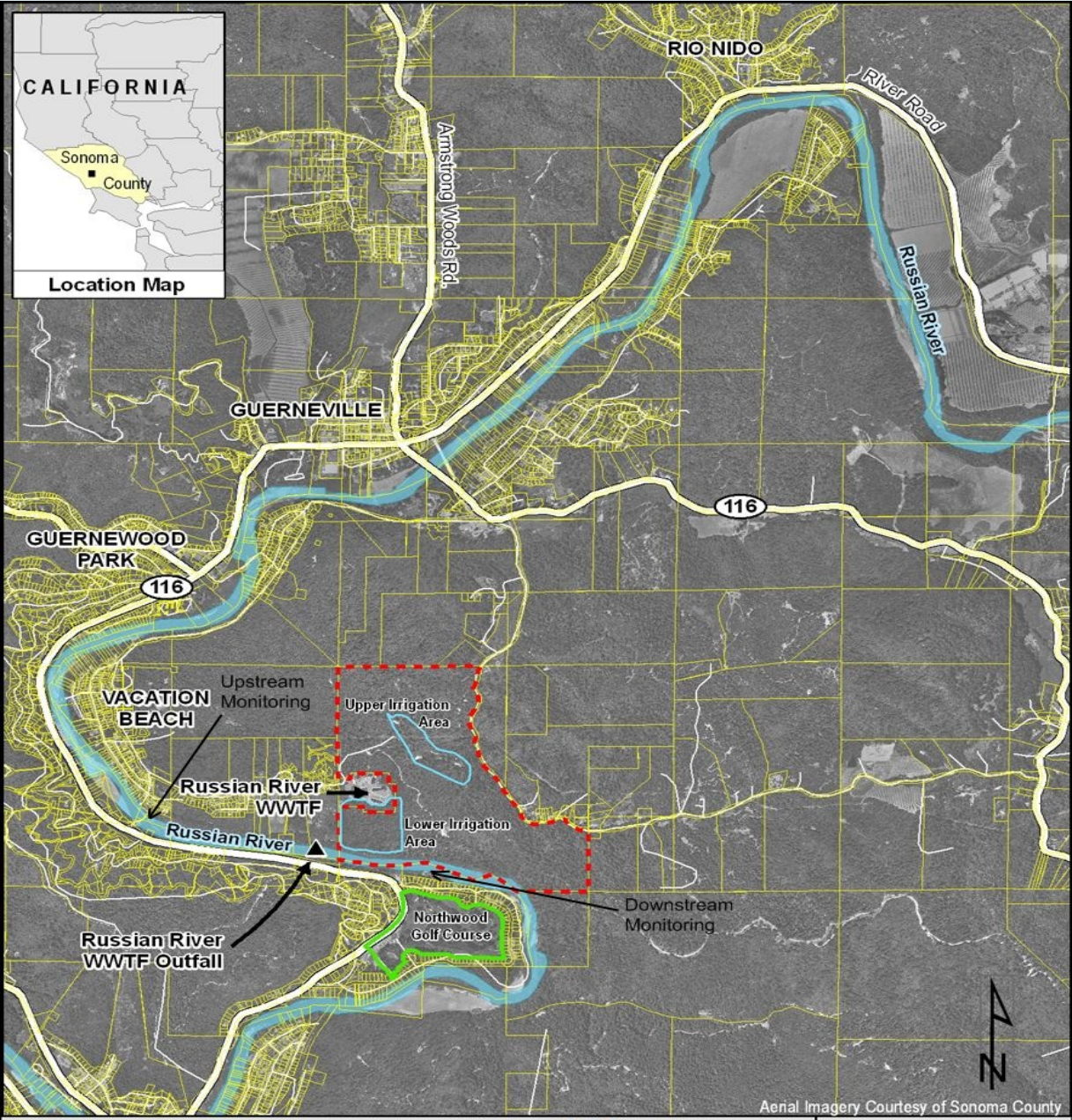
June 17, 2021



# Overview

- Facility Location and Description
- Proposed NPDES Permit
- Public Comments
- Late Change
- Recommendation





**Facility Location Map**

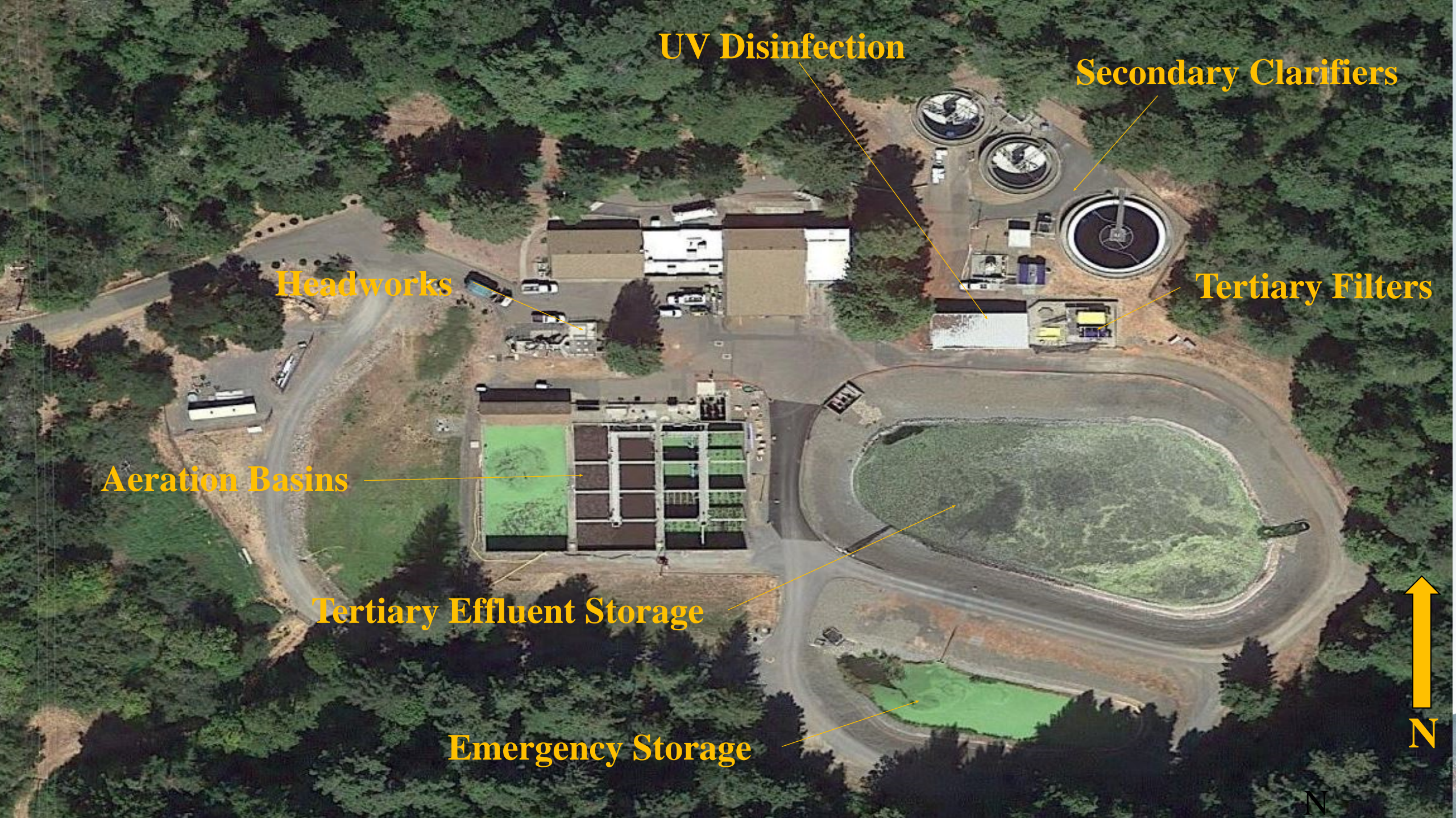
- Burch Property
- Northwood Golf Course
- Parcels
- Irrigation Areas



# Overview of Wastewater Treatment Facility

- Design Treatment Capacity
  - 0.71 mgd – average dry weather
  - 3.5 mgd – peak wet weather
- Permitted Treatment Capacity
  - 0.51 mgd – average dry weather
  - Based on reclamation/land disposal capacity





**UV Disinfection**

**Secondary Clarifiers**

**Headworks**

**Tertiary Filters**

**Aeration Basins**

**Tertiary Effluent Storage**

**Emergency Storage**



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# Recent Facility Upgrades

- UV light disinfection
  - Completed October 2012
  - Replaced chlorine disinfection
- Biological Nutrient Removal
  - Completed in August 2014
  - Reduces nitrogen and phosphorus in effluent





**Upstream  
Monitoring  
Location**

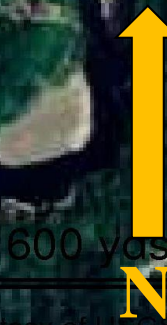
**WWTF**

**Upper Irrigation**

**Lower  
Irrigation**

**River Outfall and  
Downstream Monitoring**

**Northwood Golf Course**



# Dry-Weather Irrigation Uses

## ➤ Northwood Golf Course

- Unrestricted access golf course per Title 22
- Must comply with Title 22 standards for disinfected tertiary treated water
- Must comply with agronomic rate requirements





# Dry-Weather Irrigation Uses

## ➤ Burch Property

- Land disposal (not Title 22)
- No agronomic rate requirement
- Nuisance assessment
- Improvements in land disposal management practices



# Proposed NPDES Permit

- Surface Water Discharge Effluent Limitations
- Land Discharge Specifications
  - New narrative requirements
  - Land Discharge Operation and Management Plan
  - Decreased groundwater monitoring frequency



# Proposed NPDES Permit

## ➤ Special Studies and Provisions

- Flood Control/Flow Reduction Mitigation Requirements
  - Evaluate effectiveness of current plan and update
  - Revise System Evaluation and Capacity Assurance Plan
  - Engineering study
- Public Spill Notification Plan
- Disaster Preparedness Assessment/Action Plan
- Pathogen reopener and pathogen study



# Public Comments

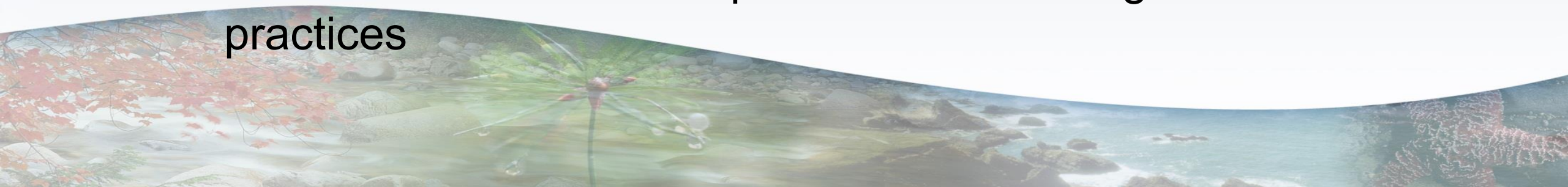
- Comments received from four parties
- Permittee - satisfied with permit
- EPA – biosolids clarification
- Russian River Watershed Protection Committee
- Guerneville Forest Coalition



# Key Comments (Continued)

## ➤ Land Discharge

- Concerned about ponding, runoff, overspray
- Potential impacts of proposed timber harvest plan
- Request for irrigation capacity analysis
- Proposed permit adequately addresses land discharge
- Capacity analysis based on a future condition – too many unknowns
- Staff has documented improvement in management practices



# Key Comments (Continued)

## ➤ SSOs

- Extensive SSOs and spills during high flows and related floodplain issues
- Delayed collection system repairs and upgrades
- Inadequate notification to residents regarding sanitary sewer overflows
- Proposed permit addresses these concern
  - Flood Control/Flow Reduction Mitigation requirements
- Permittee received planning grant from State Board for condition assessment

# Key Comments (Continued)

- Phosphorus (biostimulatory substance)
  - Potential Impact on algal blooms in Russian River
  - BNR project has reduced effluent phosphorus
  - Effluent and receiving water monitoring requirements
- System Capacity/Capacity Expansion
  - Permit includes treatment capacity requirements
  - Any future proposal to increase flows would require public process and permit revision



# Late Change

## ➤ Revision of Aluminum Effluent Limitation

- Recalculated limit using a data point that was missed in previous calculation





# Staff Recommendation

Adopt NPDES Permit, Order No. R1-2021-0002  
with changes identified in the Change Sheet.

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