

# RECYCLED WATER TRUCK PROGRAM APPLICATION & PERMIT

## CITY OF HEALDSBURG MUNICIPAL UTILITIES DEPARTMENT

401 GROVE STREET  
HEALDSBURG, CA 95448-4723  
PHONE (707) 431-3346  
FAX (707) 431-2710  
Visit us at [www.ci.healdsburg.ca.us](http://www.ci.healdsburg.ca.us)



## APPLICATION

\*\*\*\*\*SECTION TO BE COMPLETED BY APPLICANT\*\*\*\*\*

### USER INFORMATION:

User's Name (individual): \_\_\_\_\_

Name of Company: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City/State/ZIP Code: \_\_\_\_\_

Office Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Primary Contact: \_\_\_\_\_ Title: \_\_\_\_\_

Site Supervisor (if applicable): \_\_\_\_\_

Cell Phone or Other Phone: \_\_\_\_\_

Email: \_\_\_\_\_

### TRUCK INFORMATION:

Provide the following information for the truck(s) for which a permit is requested. City staff must inspect each truck to determine that it is equipped with the necessary air gap before decal issuance.

Truck Trailer # (if applicable)	License Plate Number	Capacity of Tank or Storage Containers	Vehicle Equipped with Air Gap	Decal #s

# RECYCLED WATER TRUCK PROGRAM APPLICATION & PERMIT

## RECYCLED WATER INFORMATION (CHECK ALL THAT APPLIES):

Use of Recycled Water:  Compaction  Dust Control

Sewer Flushing and/or Construction Purposes: \_\_\_\_\_

Application Method:  Tank Truck  Spray  Wash Water

Other: \_\_\_\_\_

Where you expect to apply recycled water:

Region or Approximate Location: \_\_\_\_\_ Approximate area (sq. ft.) \_\_\_\_\_

Region or Approximate Location: \_\_\_\_\_ Approximate area (sq. ft.) \_\_\_\_\_

Region or Approximate Location: \_\_\_\_\_ Approximate area (sq. ft.) \_\_\_\_\_

Region or Approximate Location: \_\_\_\_\_ Approximate area (sq. ft.) \_\_\_\_\_

*(Attach separate sheet if necessary)*

## CERTIFICATION:

I certify that I am an authorized agent for the User cited in this application and that I have authority to bind the User to the requirements of this permit and program. I hereby certify under penalty of perjury that the information provided in this permit application and in any attachment is true and accurate to the best of my knowledge. I also certify that I have read, understand, and agree to abide by all of the City Recycled Water Truck Program Permit and Guideline conditions, and applicable recycled water use rules and regulations set forth by the Regional Water Quality Control Board and California Department of Public Health.

Company: \_\_\_\_\_

Print Name of User: \_\_\_\_\_

Signature of User: \_\_\_\_\_

Date: \_\_\_\_\_

Title: \_\_\_\_\_

## **PERMIT**

\*\*\*\*\*SECTION TO BE COMPLETED BY CITY STAFF\*\*\*\*\*

**Permit Number:** \_\_\_\_\_ **Effective Date of Permit:** \_\_\_\_\_

## AUTHORIZATION:

User is authorized to use recycled in accordance with City's Recycled Water Permit, Guidelines and applicable recycled water use requirements and restrictions set forth by the Regional Water Quality Control Board and California Department of Public Health.

Authorized City Staff Printed Name: \_\_\_\_\_

Authorized City Staff Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## PERMIT CONDITIONS

### **NOTIFICATION REQUIREMENTS:**

For any change in information provided within the permit after issuance of this Permit, you must provide notice to the City within 1 business day. This Recycled Water Use Permit must be available for inspection at all times. The recycled water user/user's agent must carry one copy in the truck. This Permit is subject to all applicable recycled water use requirements and restrictions set forth by the Regional Water Quality Control Board and California Department of Public Health.

### **METHOD AND PLACE OF GIVING NOTICE, SUBMITTING BILLS AND MAKING PAYMENTS:**

All notices, bills, and payments shall be made in writing and may be given by personal delivery or by mail. Notices, bills, and payments sent by mail shall be addressed as follows:

Municipal Utilities Department  
City Engineer

City of Healdsburg  
Recycled Water Trucking Program  
401 Grove Street  
Healdsburg, CA 95448

And when so addressed, shall be deemed given upon deposit in the United States mail, postage prepaid. In all other instances, notices, bills, and payments shall be deemed given at the time of actual delivery. Changes may be made in the names and addresses of the person to whom notices, bills, and payments are to be given by giving notice pursuant to this paragraph.

### **FEES, RATES, AND CHARGES:**

All fees are subject to change, pending Council approval. There are currently no processing fees to process the initial application, permit or usage fees.

### **VEHICLE REGISTRATION AND INSURANCE REQUIREMENTS:**

Permit holder must provide and attach copies of current vehicle registration (for each truck) and the following insurance requirements: 1) Vehicle Liability, 2) Commercial Liability, and 3) Workers' Compensation

### **HOLD HARMLESS AND INDEMNIFICATION:**

Each party hereto agrees to protect, indemnify, defend and hold harmless the other party and its directors, officers, employees, agents, successors and assigns from and against any and all actual or potential claims, liabilities, damages, losses, fines, penalties, judgments, awards, costs and expenses (including without limitation reasonable attorneys' fees and costs and all foreseeable, unforeseeable and consequential damages) asserted against, resulting to, imposed upon or incurred by said other party by reason of the first party's breach of any provisions of this Agreement or the Order. This indemnification shall survive the termination of this Agreement. To implement this provision, User agrees to obtain and continue in force at all times during the life of this Agreement a comprehensive general liability insurance policy covering liability from the use of Recycled Water, or such other insurance policy reasonably acceptable to the City, that names the City, its elected officials, officers, employees, contractors, sub-

## RECYCLED WATER TRUCK PROGRAM APPLICATION & PERMIT

contractors and agents as additional insured's by endorsement and that has a policy limit of at least \_\_\_million per occurrence, \_\_\_ million general aggregate, and \_\_\_ million combined- single auto limit..

### **PERMIT VALIDITY PERIOD/TERMINATION:**

This Permit shall be valid for one year from the date of issuance unless it is terminated as provided below. This Permit may be terminated by the City if the City determines that User has violated any of the Healdsburg Recycled Water Guidelines, the RWQCB or CDPH recycled water regulations and any other City code violation that relates to misuse of recycled water. Termination shall be effective immediately upon notification by the City by phone, fax, email or mail.

### **NO ENTITLEMENT TO WATER/SUPPLY SUBJECT TO AVAILABILITY:**

This Permit does not entitle User to any quantity of recycled water. Supply of recycled water to User is subject to availability as determined by the City and to any federal, state or local requirements which limit supply or availability. To the extent, recycled water is available; supply shall be on a first-come, first-served basis. Entities with Recycled Water Agreements with the City shall have priority over User in supply of recycled water.

### **PERMIT NON-TRANSFERABLE:**

This permit is issued only to User as specified above. It may not be transferred to any other entity or person.

### **RECYCLED WATER USE GUIDELINES AND REGIONAL WATER QUALITY CONTROL BOARD REQUIREMENTS:**

The City Recycled Water Truck Program Guidelines ("Guidelines") which contain requirements and restrictions for storage, transportation and use of recycled water, are attached to this Permit. Regional Water Quality Control Board and California Department of Public Health Title 22 requirements ("Regional Board/Public Health Recycled Water Requirements") are also attached to this Permit. User agrees to abide by all of the requirements and restrictions contained in the Guidelines and the Regional Board/Public Health Recycled Water Requirements.

User has identified the person responsible for implementing worker/public protection requirements specified in the Guidelines and the Regional Board/Public Health Recycled Water Requirements at each site (e.g., that humans are not to drink recycled water or use it for preparing food, etc.)

In the event there is a recycled water spill, questions on compliance requirements, or User notices a use not in accordance with requirements stated herein, User shall contact the City of Healdsburg Municipal Utilities Department and report the incident immediately (707-431-3346).

# RECYCLED WATER TRUCK PROGRAM GUIDELINES

## **CITY OF HEALDSBURG** **MUNICIPAL UTILITIES DEPARTMENT**

401 GROVE STREET  
HEALDSBURG, CA 95448-4723  
PHONE (707) 431-3346 FAX: (707) 431-2710  
Visit us at [www.ci.healdsburg.ca.us](http://www.ci.healdsburg.ca.us)



These Recycled Water Truck Program Guidelines specify requirements for the Recycled Water Truck Program (RWTP) being implemented for use of recycled water generated from the City of Healdsburg Reclamation Facility, NPDES NO. CA0025135. The City of Healdsburg ("City") is the owner and/or operator of the facility.

### **RECYCLED WATER QUALITY**

The RWTP supplies clean, safe recycled water that has been through an advanced treatment process that includes biological nutrient removal, membrane bio-reactor microfiltration, and ultra-violet disinfection. Recycled water treated to these levels meets the rigorous and protective standards set by the California Department of Public Health.

### **ADMINISTRATIVE REQUIREMENTS**

1. Customers with trucks interested in utilizing recycled water must apply for a Recycled Water Use Permit. The application may be obtained via one of the following methods:
  - a. In person, at the City Community Development Center (CDC), 435 Allen Court, Healdsburg CA, 95448.
  - b. By downloading the application form from the City website ([www.ci.healdsburg.ca.us](http://www.ci.healdsburg.ca.us))
2. Application forms must be completed and returned, with copies of required documents attached (photocopies, PDFs, scanned documents acceptable), to CDC. Options for submitting completed applications include:
  - a. Mail to: 401 Grove Street Healdsburg CA, 95448 – Attention: Public Works Recycled Water Trucking Program.
  - b. Email to: [publicworks@ci.healdsburg.ca.us](mailto:publicworks@ci.healdsburg.ca.us) – Attention: Public Works Recycled Water Trucking Program.
  - c. Fax to: (707) 431-2710 - Attention: Recycled Water Trucking Program

### **GENERAL PERMIT REQUIREMENTS**

1. Currently the use of the City of Healdsburg reclaimed wastewater is restricted to soil compaction, dust control, construction use, and agricultural micro-irrigation. Use is limited to dry periods or short duration, complies with the basin plan, and complies with statewide reclamation requirements. Agricultural users must also complete the agricultural user agreement.
2. Tank trucks must be equipped with an air gap.

## RECYCLED WATER TRUCK PROGRAM GUIDELINES

3. Truck owners must show proof of vehicle liability insurance and worker's compensation insurance meeting minimum requirements specified in the application (copies must be attached to permit application).
4. Truck owners must show proof of valid truck registration (a copy for each truck registration must be attached to permit application).
5. Before trucks can be filled for the first time, all truck owners and/or drivers are required to attend a brief on-site orientation/training in order to learn about using the filling station and the proper handling and use of recycled water. The City will schedule the on-site orientation/training and inform customers of the date, time, and location.
6. Once the customer completes the on-site orientation/training and the City verifies the required air gap, the City will issue a signed Recycled Water Use Permit along with three magnetic recycled water signs to affix to the customer's truck (both sides and rear). The City provides the first set of signs at no charge; the customer will have to pay (at cost) for any replacement signs.
7. The Recycled Water Use Permit must be available for inspection at all times.
8. The recycled water user/user's agent must carry at least one copy in the truck.
9. The driver of the recycled water delivery truck and the construction site supervisor are responsible for ensuring all required Federal, State, and City Recycled Water Requirements and Guidelines are followed.

### RECLAIMED FILLING STATION LOCATIONS & REQUIREMENTS

#### Locations:

##### Filling Station #1

City of Healdsburg Water Reclamation Facility  
340 Forman Lane, Healdsburg CA 95448

##### Filling Station #2

Kinley Drive Hydrant  
280 Kinley Dr, Healdsburg, CA 95448

#### Requirements:

1. Recycled water is available at the City Water Reclamation Facility (WRF) Purple Hydrant and Kinley Drive Purple Hydrant filling stations. Upon request the City will provide maps and directions to the WRF and Kinley filling stations.
2. Filling Stations will be locked at all times.
3. Only authorized and prescribed users will have access to filling stations.
4. Trucks must have an affixed and appropriately placed recycled water signage to fill at the stations
5. When filling at the Kinley Drive filling station, access to Opperman's gate/driveway cannot be blocked. Driving through Opperman's yard is not allowed.
6. If the truck is longer than 40 feet, haulers must fill up at the Treatment Plant.
7. If the Kinley Drive filling station is occupied, you must either go the Treatment Plant or stage on Westside Road at the Highway 101 crossing. Staging in front of Opperman's is not permitted.

## RECYCLED WATER TRUCK PROGRAM GUIDELINES

8. **NO IDLING.** Turn off your truck engine while filling or waiting at the filling stations.
9. **NO SMOKING.** Smoking or tobacco products are not permitted at the plant at any time.
10. Truck drivers needs to call (707) 431-3346 to report vehicle issues, damaged equipment, permit violations, or recycled water concerns.
11. Do **not** leave any trash or debris in the filling station area.

### RECYCLED WATER HANDLING AND USE REQUIREMENTS, PROHIBITIONS AND BEST MANAGEMENT PRACTICES

1. Recycled water users should apply hand sanitizer or wash their hands with soap and potable water after working with recycled water.
2. Recycled water shall not be applied in areas where the public would be inadvertently exposed to recycled water.
3. Do **not** drink recycled water or use it for food preparation. Additionally, the truck driver must notify workers and/or the public when recycled water is used at a site and tell them that they are not to drink recycled water or use it for food preparation.
4. Precautions should be taken to avoid food coming into contact with recycled water while the use site is still wet.
5. Truck drivers should be equipped with an adequate first aid kit. Cuts or abrasions should be promptly washed, disinfected and bandaged.
6. Recycled water shall not be allowed to spray onto external drinking water fountains or faucets used for potable water.
7. Recycled water shall not be applied where it could contact or enter passing vehicles, buildings, areas where food is handled or eaten, or storm drains.
8. Recycled water users shall take adequate measures to prevent overspray, ponding, or run off of recycled water from the authorized recycled water use area(s) or at the designated filling stations.
9. Recycled water shall not be allowed to escape from the designated filling stations as surface flow that would either pond and/or enter waters of the State.
10. Recycled water shall not be applied on water-saturated or frozen ground or during periods of precipitation such that runoff is induced or ponding is created.
11. Recycled water shall not be applied on slopes if runoff cannot be controlled.
12. All unused recycled water shall be returned to a Wastewater Treatment Facility or upon City approval, discharged into the sewage conveyance system for proper disposal.
13. There shall be no irrigation or impoundment of recycled water within a minimum of 50 feet of any domestic (drinking water) well.

## RECYCLED WATER TRUCK PROGRAM GUIDELINES

14. Recycled water shall not be applied into State waters, within 25 feet of State waters containing standing or flowing water, nor in a manner that could result in uncontrolled runoff into State water.
15. Vehicles used for transportation and distribution of recycled water must have watertight valves and fittings, and must not leak.
16. Recycled water storage/hauling tanks must be clean of all substances to prevent contamination with residue. A truck or tank that has contained material from a septic tank, cesspool, or hazardous waste shall not be used to convey recycled water. Storage tanks cannot have prior use of carrying substances that are hazardous, within the meaning of federal or state of California definitions of hazardous or toxic materials, wastes or substances or poison.
17. Truck storage tanks for the storage and transport of recycled water must comply with all Federal, State of California, County and City requirements for the storage and transport of water that is to be reused.
18. Recycled water must not be introduced into any permanent piping system and no connection shall be made between the tank truck and any part of a potable water system.
19. User must comply with all requirements and restrictions specified by the Regional Water Quality Control Board and California Department of Public Health Title 22.
20. Tank trucks used to transport recycled water should not be used to carry potable water unless approved by the California Department of Public Health Food and Drug Branch.
21. The treatment, storage, distribution, or reuse of recycled water shall not create a nuisance as defined in Section 13050(m) of the California Water Code.

---

**I CERTIFY THAT I HAVE READ, UNDERSTAND, AND AGREE TO ABIDE BY THE ABOVE GUIDELINES.**

Permit Number: \_\_\_\_\_

Date: \_\_\_\_\_

Print Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Company: \_\_\_\_\_

California Driver License Number: \_\_\_\_\_

## APPLICATION OF RECYCLED WATER AT AGRONOMIC RATES

The use of recycled water for vineyard irrigation will be protective of groundwater quality by ensuring irrigation occurs within established agronomic rates. The agronomic rate assessment assumes there will be no nitrogen in percolating groundwater because all applied nitrogen will be utilized by the plants. The agronomic rate assessment also assumes no impacts to groundwater salinity because the irrigation rate will be less than the annual deep percolation rate. The assessment will be conducted using hydraulic, nitrogen, and salinity thresholds determined for the irrigated area by local agronomists and groundwater hydrologists. Compliance with agronomic rates will be assessed by comparing actual rates on each use site with the lowest of the thresholds presented in **Table 4**.

**Table 4. City of Healdsburg Agronomic Rate Thresholds**

Area	Thresholds		
	Hydraulic	Nitrogen	Salinity
Valley Floor Vineyards (Piped Recycled Water)	75% of Full ET <sub>c</sub>	15 lb N/acre-year (from recycled water application only) 30 lb N/acre-year (from all nitrogen sources)	9 in/year (+/- 10%)
Other Vineyards (Trucked Recycled Water)	75% of Full ET <sub>c</sub>	15 lb N/acre-year (from recycled water application only) 30 lb N/acre-year (from all nitrogen sources)	Not applicable

The hydraulic threshold (75% of Full ET<sub>c</sub>) will be distributed over the March to October growing season based on ET<sub>o</sub>. The threshold will be applied as a general rule to address local soil types and cultural practices, while providing flexibility to the vineyard operator if extreme heat and drought conditions necessitate additional irrigation. The nitrogen threshold related to recycled water content (15 lb N/acre per year) will be distributed over the March to October growing season according to plant demand. The 15 lbs of N/acre-year is based on a 9 in/year irrigation rate and 7 mg/L total nitrogen concentration in recycled water (2012 irrigation season results). A secondary threshold of 30 lbs of N/acre per year added by all nitrogen sources (i.e., recycled water, fertilizers, well water, and precipitation) will also be evaluated.<sup>21</sup> The California Sustainable Winegrowing Alliance recommends 30 lbs of N/acre per year to sustain medium vigor vines.<sup>22</sup> The salinity threshold of 9 in/year (recommended by Gus Yates in the 2010 groundwater study)<sup>23</sup> will also be evaluated. The annual deep percolation rate in the valley floor area is 15 in/year. The average total dissolved solids (TDS) concentration of the recycled water is

<sup>21</sup> Fertilizer application is needed when new vines are established or when nitrogen deficient conditions are identified in the soil and plants.

<sup>22</sup> California Sustainable Winegrowing Alliance, "Third Edition California Code of Sustainable Winegrowing Workbook," 2012. (Soil Management Chapter, page 10).

<sup>23</sup> Yates, Gus, "Impacts of Recycled Water Irrigation on Groundwater and Surface Water Flow and Quality near Healdsburg: A Generalized Approach." Letter to City of Healdsburg, September 21, 2010. (Page 17)

335 mg/L, less than the secondary MCL.<sup>24</sup> Irrigation at 9 in/year will insure that dilution occurs and the percolating water quality will be less than 335 mg/L. A study to assess deep percolation rates at other sites has not been conducted, so a salinity-based threshold is not applicable at this time. Recycled water application within the hydraulic, nitrogen, and salinity thresholds in **Table 4** will prevent runoff and degradation of groundwater quality.

The City will compile the information identified in **Table 5** each month. The information will be used to calculate the actual loading rates, and assess whether or not the designated thresholds have been exceeded. If a threshold is exceeded, the City will discuss operations with vineyard users and obtain information on the irrigation regime. If necessary, the City will provide recommendations to reduce recycled water irrigation rates and change operations in the following month. The reduced irrigation requirements could be accomplished by supplementing or replacing recycled water irrigation with local well water or applying less fertilizer.

**Table 5. Information Compiled by the City of Healdsburg to Assess Compliance with Agronomic Rates**

Information	Responsible Entity	Frequency
Block Number and Area Irrigated	Vineyard Operator	Monthly
Source and Volume of Irrigation Water Applied to each Block (e.g., recycled water, well water)	Vineyard Operator	Monthly
Percent Shaded Ground at Solar Noon	Vineyard Operator	Average Values in 2 randomly selected Blocks per Month
Amount and Nitrogen Content of Fertilizer Applied to Each Block	Vineyard Operator	Monthly
Total Nitrogen Concentration in Recycled Water	City of Healdsburg	Monthly
Precipitation Measured at WWTF	City of Healdsburg	Daily
ET <sub>o</sub> Measured at CIMIS Station 103 (Windsor)	City of Healdsburg	Monthly
Total Volume of Recycled Water Delivered to Vineyard Users	City of Healdsburg	Monthly

The calculations that will be used to determine the agronomic loading rates and make the threshold comparisons are depicted as examples in **Table 6** (Hydraulic Assessment) and **Table 7** (Nitrogen Assessment). The results of the spreadsheet analysis and a discussion of activities implemented by the City or the vineyards users will be provided to the Regional Water Board in the City's Quarterly Recycled Water Reports as required by Order No. R1-2010-0034.

<sup>24</sup> Secondary Maximum Contaminant Level (MCL) for TDS is 500 mg/L, CDPH Title 22, Division 4, Chapter 15, Article 16, Table 64449-B.

## **BEST MANAGEMENT PRACTICES**

The use of recycled water will be protective of public health and surface water/groundwater quality by implementation of Best Management Practices (BMPs) at all use sites. The following BMPs are either required or suggested for vineyard operators to ensure safe operation of the recycled water system, reduce runoff, prevent ponding, and minimize impacts to groundwater and surface waters.

### **Irrigation Practices**

- Apply recycled water within hydraulic agronomic rates. [Required]
- Do not use recycled water for frost protection. [Required]
- Do not irrigate during rainfall events if runoff will be induced. [Required]
- Do not irrigate on water-saturated or frozen ground. [Required]
- Do not irrigate prior to a predicted rainfall event of 0.5 inches or greater. [Suggested]
- Consider implementing shorter, more frequent irrigation periods to prevent soil saturation and increase soil water available to roots. [Suggested]
- Do not irrigate for more than 12 continuous hours. [Suggested]
- Allow at least 24 hours of drying time between irrigations. [Suggested]
- Use well water or local surface water for irrigation above agronomic rates or post-harvest irrigation, if needed. [Suggested]
- Do not allow recycled water to pond on-site. All irrigation water must infiltrate within a 24-hour period. [Required]
- Do not irrigate within 50 feet of domestic water supply wells. [Required]
- Maintain 100 foot setbacks to surface waters (including ponds with river connections), unless it can be demonstrated that a lesser setback is sufficient. [Required]
- Use soil moisture monitoring devices to determine irrigation requirements. [Suggested]

### **Fertilization Practices**

- Apply recycled water within nitrogen agronomic rates. [Required]
- When calculating the amount of commercial fertilizer needed, consider nitrogen load applied through irrigation with recycled water. [Required]
- Cleanup fertilizer spills immediately and remove waste from the site. [Suggested]
- Do not leave fertilizers on paved surfaces or in locations where it could migrate offsite or into nearby surface waters. [Suggested]
- Use petiole measurements to determine amount of nitrogen fertilizer required. [Suggested]

## **Equipment Operation and Maintenance**

- Inspect and maintain irrigation distribution system once per week during growing season to prevent pipe breaks or leaks. [Suggested]
- Repair leaks or pipe breaks within 72 hours or prior to the release of 1,000 gallons, whichever comes first. [Required]
- Do not install hose bibs in areas that can be accessed by general public. [Required]
- Inspect and maintain drip emitters once per month during growing season. Verify or re-establish proper operation, aim, and flowrate. [Suggested]
- Adjust valves or pressure regulators to ensure operation of the irrigation system at the appropriate pressure. [Suggested]
- Use automatic rain shut-off devices. [Suggested]
- Test accuracy of irrigation timers and recalibrate or repair as necessary. [Suggested]
- Post recycled water use signs at site entrances and corners. Mark recycled water equipment with signs or purple tape. [Required]
- Inspect site once a month to verify the proper placement and legibility of recycled water identification signs, tags, stickers, and above ground pipe markers. Replace signs and markers as needed. [Required]
- Discourage or prevent public access to irrigation site. [Suggested]
- Utilize double-check valves to prevent backflows from the recycled water distribution system to agricultural wells. [Suggested]
- Conduct recycled water operations training prior to each growing season and whenever new employees are hired. [Suggested]

**Table 9. City of Healdsburg Recycled Water Cross-Connection Control Activities**

Required Action	Frequency	Documentation
Investigate site to determine cross-connection potential, perform shutdown test of recycled water system to ensure no cross-connections are present.	Prior to initial delivery of recycled water	Cross-Connection Control Investigation and Test Report – Parts I and II ( <b>Appendix C</b> )
Test all backflow prevention devices to determine if functioning properly.		Backflow Prevention Device Test Report ( <b>Appendix C</b> )
Investigate site to determine cross-connection potential.	Annually	Cross-Connection Control Investigation Report – Part I ( <b>Appendix C</b> )
Test all backflow prevention devices to determine if functioning properly.		Backflow Prevention Device Test Report ( <b>Appendix C</b> )
Shutdown recycled water system to test for cross-connections	Every five years (or more frequently if necessary)	Cross-Connection Control Investigation and Test Report – Parts I and II ( <b>Appendix C</b> )

### **Monitoring and Reporting Program**

To ensure public safety and operation of the recycled water system in conformance with legal requirements, periodic site observations and inspections will be conducted by the vineyard users and the City. The results will be submitted to the Regional Water Board in the Quarterly Recycled Water Report and summarized in the Annual Recycled Water Report. Recycled water quality results will be provided by the City to the vineyard users on a monthly basis.

If a violation of permit requirements or the California Health and Safety Code<sup>25</sup> occurs, proper notification by telephone (within 2-hrs or 24-hrs as applicable) will be made to Regional Water Board, CDPH, or the California Office of Emergency Services (Cal OES).

### **User Self-Monitoring and Reporting**

As part of the terms and conditions of the Recycled Water Use Agreement, the vineyard users will be required to perform observations of site conditions and verify proper operation of the recycled water distribution system. The vineyard users must perform the observations once per month during the irrigation season and record the results in the User Self-Monitoring Report (**Appendix D**). In addition to conducting site observations, the vineyard users must compile and report the following information to the City. This information will be used to assess compliance with agronomic rate requirements.

<sup>25</sup> Specifically, California Health and Safety Code Title 19, Div. 2, Chap. 4, Section 2703 which requires notification of the California Office of Emergency Services (Cal OES) when any release or threatened release of a hazardous materials occurs to surface waters.

- Block Identifier and Area Irrigated
- Source and Volume of Irrigation Water Applied to each Block (recycled water and well water)
- Percent Shaded Ground at Solar Noon (for 2 randomly selected Blocks per month)
- Amount and Nitrogen Content of Fertilizer Applied to Each Block

The User Self-Monitoring report and the recycled water use data must be submitted to the City by the fifth day of the month after the month when observations were performed. Although user self-monitoring is required on a monthly basis, user awareness must be continuous to note any violations of recycled water use requirements.

If a violation of recycled water requirements is observed (e.g., runoff from site, leaks/breaks in irrigation system, drainage to surface waters, reservoir overflows), the vineyard users must contact the City immediately by telephone. The vineyard users also have a responsibility to discuss any planned operational changes with the City prior to implementation. Depending on the nature of the violation and/or operational changes, the City will inform the Regional Water Board and may change the terms and conditions of the Recycled Water Use Agreement.

### ***City Monitoring and Reporting***

The City is responsible for recycled water quality leaving the WWTF and the permitted use of recycled water at the use sites. Samples of recycled water produced at the WWTF are collected and analyzed to assess regulatory compliance, and WWTF operations are continuously scrutinized to ensure production of high quality recycled water. The City will perform an unannounced, randomly timed inspection of the vineyard irrigation sites at least once per year. Observations will be recorded on the Site Inspection Report (**Appendix E**). The observations will be used to verify information reported in the User Self-Monitoring Reports including recycled water volume applied, operation of storage and irrigation systems, placement of warning signs, and evidence of runoff or ponding.

The City currently monitors the quality and quantity of recycled water leaving the WWTF as defined in Order No. R1-2010-0034. A list of the required constituents and sampling frequencies are presented in **Table 10**. Samples of recycled water quality are collected after disinfection, prior to effluent storage (Location EFF-001 or REC-001) and after storage, immediately before irrigation delivery (Location REC-002). Process control samples are collected after filtration (Location INT-001) and immediately after disinfection (EFF-001). The total amount of recycled water delivered daily is determined from a flow meter at the WWTF.

## **Training Program Overview**

Prior to startup of the recycled water system, all WWTF staff (and City employees that interface with the recycled water program) will receive an orientation on recycled water program operation and regulatory requirements. Order No. R1-2010-0034, CCR Titles 17 and 22, and sections of the WWTF O&M Manual on water recycling facilities will be reviewed by the participants. As appropriate, the participants will tour the use sites to identify monitoring locations, distribution valves, piping, and the irrigation system. Newly-hired employees will tour the use sites and the WWTF during their first month of work to learn how the recycled water is produced, monitored, and distributed to the use sites.

The City will conduct training of vineyard employees prior to startup of the recycled water distribution system. A training event will be conducted with City staff, each vineyard's Site Supervisor, and key vineyard personnel. The training will provide an overview of recycled water regulations, introduce the program forms, and detail how/when to submit the required information. A copy of Order No. R1-2010-0034, CCR Titles 17 and 22, and recommended BMPs will be provided to the Site Supervisor and key personnel to facilitate understanding of the recycled water program, activities that must be conducted, and regulatory requirements. Additional training will be provided by the City as necessary to address any particular issues noted during program implementation. The training program content and administration is detailed in a separate document entitled, "City of Healdsburg Recycled Water Training Program Technical Report, Micro-irrigation of Vineyards."



City of Healdsburg Recycled Water Program

Recycled Water User Self-Monitoring Report (Cont.)

Designated Recycled Water Use

Have there been any changes in recycled water use from those listed in your Recycled Water Use Agreement?  
(for example: new crops, irrigation system, additional acreage, public access)

Yes       No

If yes, describe the changes.


Odors

Any odors present that are related to recycled water use?

Yes       No

If yes, describe the odor & estimate source/direction of travel.


Ponding

Any ponding of recycled water?

Yes       No

If yes, describe existing conditions, locate the ponding areas on an attached site map, and note below if mosquitoes or larvae are present.


Evidence of mosquitoes?

Yes       No

If yes, describe the evidence observed.


**City of Healdsburg Recycled Water Program  
Recycled Water User Self-Monitoring Report (Cont.)**

**Signage**

Are recycled water use signs properly posted and legible?

Yes     No

Is recycled water equipment identified with tags, stickers, purple tape?

Yes     No

If no, explain how the problems will be corrected.


**Leaks and/or Breaks in Equipment**

Any leaks or breaks in the recycled water distribution system?

Yes     No

If yes, describe the problems below and locate the leaks or broken pipes on an attached map.


**Repairs and/or Operational Changes**

Have the above-noted deficiencies been corrected?

Yes     No

If no, what are the plans and timeline for completion?


If yes, what work was completed?


**City of Healdsburg Recycled Water Program  
Recycled Water User Self-Monitoring Report (Cont.)**

**Certification**

"I certify under penalty of law that this document and all attachments are prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

This report must be signed by the Recycled Water Site Supervisor.

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

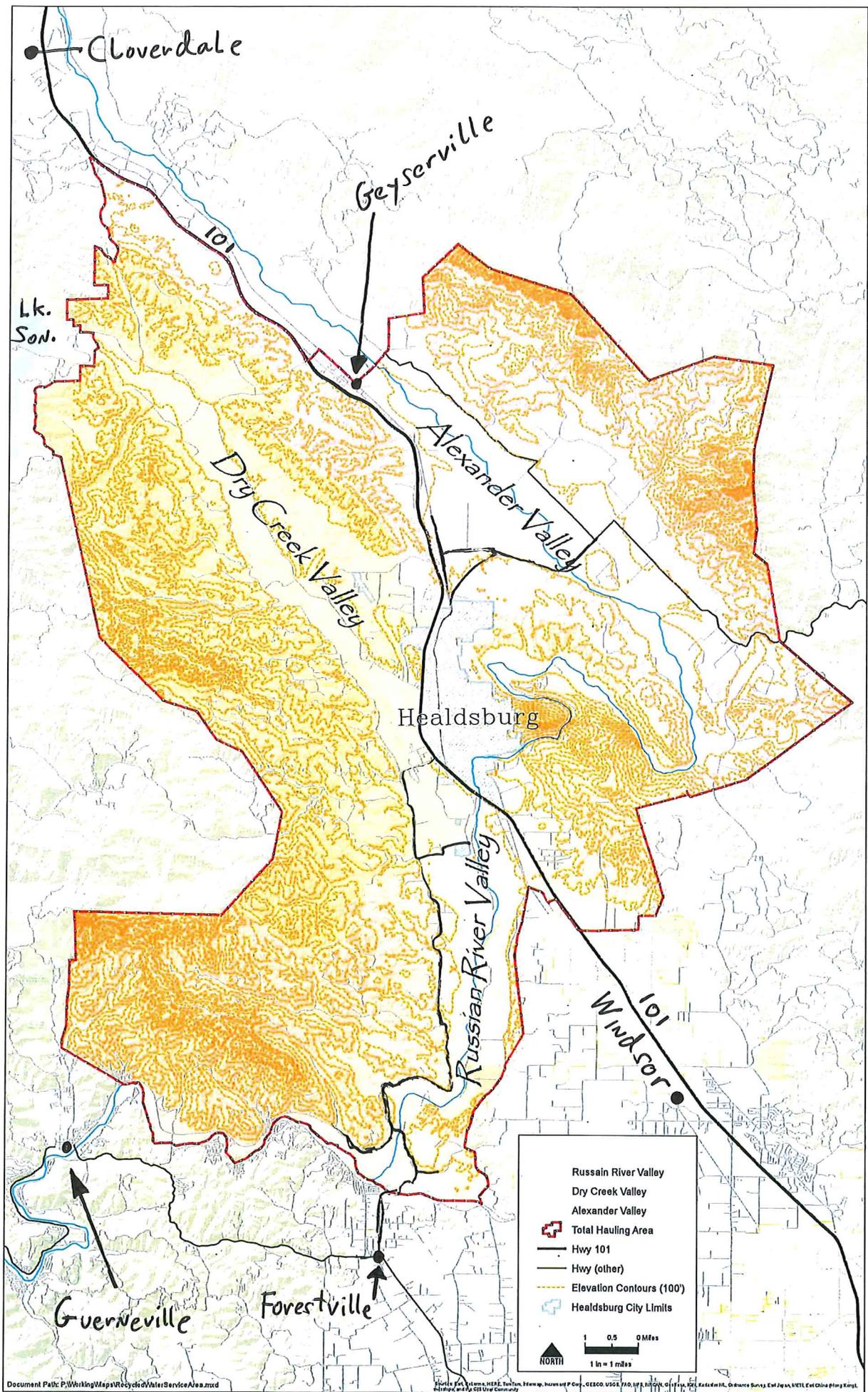
Title: \_\_\_\_\_

Date: \_\_\_\_\_

Signature of Person Conducting Inspection:

\_\_\_\_\_  
*(if different than the Recycled Water Site Supervisor)*





Document Path: P:\Working\Maps\RecycledWater\ServiceArea.mxd

Maple GIS Systems, HEALD, Tustin, Healdsburg, Healdsburg, GEBCO, USGS, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 2681, 2682, 2683, 2684, 2685, 2686, 2687, 2688, 2689, 2690, 2691, 2692, 2693, 2694, 2695, 2696, 2697, 2698, 2699, 2700, 2701, 2702, 2703, 2704, 2705, 2706, 2707, 2708, 2709, 2710, 2711, 2712, 2713, 2714, 2715, 2716, 2717, 2718, 2719, 2720, 2721, 2722, 2723, 2724, 2725, 2726, 2727, 2728, 2729, 2730, 2731, 2732, 2733, 2734, 2735, 2736, 2737, 2738, 2739, 2740, 2741, 2742, 2743, 2744, 2745, 2746, 2747, 2748, 2749, 2750, 2751, 2752, 2753, 2754, 2755, 2756, 2757, 2758, 2759, 2760, 2761, 2762, 2763, 2764, 2765, 2766, 2767, 2768, 2769, 2770, 2771, 2772, 2773, 2774, 2775, 2776, 2777, 2778, 2779, 2780, 2781, 2782, 2783, 2784, 2785, 2786, 2787, 2788, 2789, 2790, 2791, 2792, 2793, 2794, 2795, 2796, 2797, 2798, 2799, 2800, 2801, 2802, 2803, 2804, 2805, 2806, 2807, 2808, 2809, 2810, 2811, 2812, 2813, 2814, 2815, 2816, 2817, 2818, 2819, 2820, 2821, 2822, 2823, 2824, 2825, 2826, 2827, 2828, 2829, 2830, 2831, 2832, 2833, 2834, 2835, 2836, 2837, 2838, 2839, 2840, 2841, 2842, 2843, 2844, 2845, 2846, 2847, 2848, 2849, 2850, 2851, 2852, 2853, 2854, 2855, 2856, 2857, 2858, 2859, 2860, 2861, 2862, 2863, 2864, 2865, 2866, 2867, 2868, 2869, 2870, 2871, 2872, 2873, 2874, 2875, 2876, 2877, 2878, 2879, 2880, 2881, 2882, 2883, 2884, 2885, 2886, 2887, 2888, 2889, 2890, 2891, 2892, 2893, 2894, 2895, 2896, 2897, 2898, 2899, 2900, 2901, 2902, 2903, 2904, 2905, 2906, 2907, 2908, 2909, 2910, 2911, 2912, 2913, 2914, 2915, 2916, 2917, 2918, 2919, 2920, 2921, 2922, 2923, 2924, 2925, 2926, 2927, 2928, 2929, 2930, 2931, 2932, 2933, 2934, 2935, 2936, 2937, 2938, 2939, 2940, 2941, 2942, 2943, 2944, 2945, 2946, 2947, 2948, 2949, 2950, 2951, 2952, 2953, 2954, 2955, 2956, 2957, 2958, 2959, 2960, 2961, 2962, 2963, 2964, 2965, 2966, 2967, 2968, 2969, 2970, 2971, 2972, 2973, 2974, 2975, 2976, 2977, 2978, 2979, 2980, 2981, 2982, 2983, 2984, 2985, 2986, 2987, 2988, 2989, 2990, 2991, 2992, 2993, 2994, 2995, 2996, 2997, 2998, 2999, 3000, 3001, 3002, 3003, 3004, 3005, 3006, 3007, 3008, 3009, 3010, 3011, 3012, 3013, 3014, 3015, 3016, 3017, 3018, 3019, 3020, 3021, 3022, 3023, 3024, 3025, 3026, 3027, 3028, 3029, 3030, 3031, 3032, 3033, 3034, 3035, 3036, 3037, 3038, 3039, 3040, 3041, 3042, 3043, 3044, 3045, 3046, 3047, 3048, 3049, 3050, 3051, 3052, 3053, 3054, 3055, 3056, 3057, 3058, 3059, 3060, 3061, 3062, 3063, 3064, 3065, 3066, 3067, 3068, 3069, 3070, 3071, 3072, 3073, 3074, 3075, 3076, 3077, 3078, 3079, 3080, 3081, 3082, 3083, 3084, 3085, 3086, 3087, 3088, 3089, 3090, 3091, 3092, 3093, 3094, 3095, 3096, 3097, 3098, 3099, 3100, 3101, 3102, 3103, 3104, 3105, 3106, 3107, 3108, 3109, 3110, 3111, 3112, 3113, 3114, 3115, 3116, 3117, 3118, 3119, 3120, 3121, 3122, 3123, 3124, 3125, 3126, 3127, 3128, 3129, 3130, 3131, 3132, 3133, 3134, 3135, 3136, 3137, 3138, 3139, 3140, 3141, 3142, 3143, 3144, 3145, 3146, 3147, 3148, 3149, 3150, 3151, 3152, 3153, 3154, 3155, 3156, 3157, 3158, 3159, 3160, 3161, 3162, 3163, 3164, 3165, 3166, 3167, 3168, 3169, 3170, 3171, 3172, 3173, 3174, 3175, 3176, 3177, 3178, 3179, 3180, 3181, 3182, 3183, 3184, 3185, 3186, 3187, 3188, 3189, 3190, 3191, 3192, 3193, 3194, 3195, 3196, 3197, 3198, 3199, 3200, 3201, 3202, 3203, 3204, 3205, 3206, 3207, 3208, 3209, 3210, 3211, 3212, 3213, 3214, 3215, 3216, 3217, 3218, 3219, 3220, 3221, 3222, 3223, 3224, 3225, 3226, 3227, 3228, 3229, 3230, 3231, 3232, 3233, 3234, 3235, 3236, 3237, 3238, 3239, 3240, 3241, 3242, 3243, 3244, 3245, 3246, 3247, 3248, 3249, 3250, 3251, 3252, 3253, 3254, 3255, 3256, 3257, 3258, 3259, 3260, 3261, 3262, 3263, 3264, 3265, 3266, 3267, 3268, 3269, 3270, 3271, 3272, 3273, 3274, 3275, 3276, 3277, 3278, 3279, 3280, 3281, 3282, 3283, 3284, 3285, 3286, 3287, 3288, 3289, 3290, 3291, 3292, 3293, 3294, 3295, 3296, 3297, 3298, 3299, 3300, 3301, 3302, 3303, 3304, 3305, 3306, 3307, 3308, 3309, 3310, 3311, 3312, 3313, 3314, 3315, 3316, 3317, 3318, 3319, 3320, 3321, 3322, 3323, 3324, 3325, 3326, 3327, 3328, 3329, 3330, 3331, 3332, 3333, 3334, 3335, 3336, 3337, 3338, 3339, 3340, 3341, 3342, 3343, 3344, 3345, 3346, 3347, 3348, 3349, 3350, 3351, 3352, 3353, 3354, 3355, 3356, 3357, 3358, 3359, 3360, 3361, 3362, 3363, 3364, 3365, 3366, 3367, 3368, 3369, 3370, 3371, 3372, 3373, 3374, 3375, 3376, 3377, 3378, 3379, 3380, 3381, 3382, 3383, 3384, 3385, 3386, 3387, 3388, 3389, 3390, 3391, 3392, 3393, 3394, 3395, 3396, 3397, 3398, 3399, 3400, 3401, 3402, 3403, 3404, 3405, 3406, 3407, 3408, 3409, 3410, 3411, 3412, 3413, 3414, 3415, 3416, 3417, 3418, 3419, 3420, 3421, 3422, 3423, 3424, 3425, 3426, 3427, 3428, 3429, 3430, 3431, 3432, 3433, 3434, 3435, 3436, 3437, 3438, 3439, 3440, 3441, 3442, 3443, 3444, 3445, 3446, 3447, 3448, 3449, 3450, 3451, 3452, 3453, 3454, 3455, 3456, 3457, 3458, 3459, 3460, 3461, 3462, 3463, 3464, 3465, 3466, 3467, 3468, 3469, 3470, 3471, 3472, 3473, 3474, 3475, 3476, 3477, 3478, 3479, 3480, 3481, 3482, 3483, 3484, 3485, 3486, 3487, 3488, 3489, 3490, 3491, 3492, 3493, 3494, 3495, 3496, 3497, 3498, 3499, 3500, 3501, 3502, 3503, 3504, 3505, 3506, 3507, 3508, 3509, 3510, 3511, 3512, 3513, 3514, 3515, 3516, 3517, 3518, 3519, 3520, 3521, 3522, 3523, 3524, 3525, 3526, 3527, 3528, 3529, 3530, 3531, 3532, 3533, 3534, 3535, 3536, 3537, 3538, 3539, 3540, 3541, 3542, 3543, 3544, 3545, 3546, 3547, 3548, 3549, 3550, 3551, 3552, 3553, 3554, 3555, 3556, 3557, 3558, 3559, 3560, 3561, 3562, 3563, 3564, 3565, 3566, 3567, 3568, 3569, 3570, 3571, 3572, 3573, 3574, 3575, 3576, 3577, 3578, 3579, 3580, 3581, 3582, 3583, 3584, 3585, 3586, 3587, 3588, 3589, 3590, 3591, 3592, 3593, 3594, 3595, 3596, 3597, 3598, 3599, 3600, 3601, 3602, 3603, 3604, 3605, 3606, 3607, 3608, 3609, 3610, 3611, 3612, 3613, 3614, 3615, 3616, 3617, 3618, 3619, 3620, 3621, 3622, 3623, 3624, 3625, 3626, 3627, 3628, 3629, 3630, 3631, 3632, 3633, 3634, 3635, 3636, 3637, 3638, 3639, 3640, 3641, 3642, 3643, 3644, 3645, 3646, 3647, 3648, 3649, 3650, 3651, 3652, 3653, 3654, 3655, 3656, 3657, 3658, 3659, 3660, 3661, 3662, 3663, 3664, 3665, 3666, 3667, 3668, 3669, 3670, 3671, 3672, 3673, 3674, 3675, 3676, 3677, 3678, 3679, 3680, 3681, 3682, 3683, 3684, 3685, 3686, 3687, 3688, 3689, 3690, 3691, 3692, 3693, 3694, 3695, 3696, 3697, 3698, 3699, 3700, 3701, 3702, 3703, 3704, 3705, 3706, 3707, 3708, 3709, 3710, 3711, 3712, 3713, 3714, 3715, 3716, 3717, 3718, 3719, 3720, 3721, 3722, 3723, 3724, 3725, 3726, 3727, 3728, 3729, 3730, 3731, 3732, 3733, 3734, 3735, 3736, 3737, 3738, 3739, 3740, 3741, 3742, 3743, 3744, 3745, 3746, 3747, 3748, 3749, 3750, 3751, 3752, 3753, 3754, 3755, 3756, 3757, 3758, 3759, 3760, 3761, 3762, 3763, 3764, 3765, 3766, 3767, 3768, 3769, 3770, 3771, 3772, 3773, 3774, 3775, 3776, 3777, 3778, 3779, 3780, 3781, 3782, 3783, 3784, 3785, 3786, 3787, 3788, 3789, 3790, 3791, 3792, 3793, 3794, 3795, 3796, 3797, 3798, 3799, 3800, 3801, 3802, 3803, 3804, 3805, 3806, 3807, 3808, 3809, 3810, 3811, 3812, 3813, 3814, 3815, 3816, 3817, 3818, 3819, 3820, 3821, 3822, 3823, 3824, 3825, 3826, 3827, 3828, 3829, 3830, 3831, 3832, 3833, 3834, 3835, 3836, 3837, 3838, 3839, 3840, 3841, 3842, 3843, 3844, 3845, 3846, 3847, 3848, 3849, 3850, 3851, 3852, 3853, 3854, 3855, 3856, 3857, 3858, 3859, 3860, 3861, 3862, 3863, 3864, 3865, 3866, 3867, 3868, 3869, 3870, 3871, 3872, 3873, 3874, 3875, 3876, 3877, 3878, 3879, 3880, 3881, 3882, 3883, 3884, 3885, 3886, 3887, 3888, 3889, 3890, 3891, 3892, 3893, 3894, 3895, 3896, 3897, 3898, 3899, 3900, 3901, 3902, 3903, 3904, 3905, 3906, 3907, 3908, 3909, 3910, 3911, 3912, 3913, 3914, 3915, 3916, 3917, 3918, 3919, 3920, 3921, 3922, 3923, 3924, 3925, 3926, 3927, 3928, 3929, 3930, 3931, 3932, 3933, 3934, 3935, 3936, 3937, 3938, 3939, 3940, 3941, 3942, 3943, 3944, 3945, 3946, 3947, 3948, 3949, 3950, 3951, 3952, 3953, 3954, 3955, 3956, 3957, 3958, 3959, 3960, 3961, 3962, 3963, 3964, 3965, 3966, 3967, 3968, 3969, 3970, 3971, 3972, 3973, 3974, 3975, 3976, 3977, 3978, 3979, 3980, 3981, 3982, 3983, 3984, 3985, 3986, 3987, 3988, 3989, 3990, 3991, 3992, 3993, 3994, 3995, 3996, 3997, 3998, 3999, 4000, 4001, 4002, 4003, 4

1000

1000

1000

1000

1000

1000

1000

1000

