



## **Humboldt County Onsite Wastewater Local Agency Management Program**

*Adopted by the Humboldt County Board of Supervisors*

Virginia Bass

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Humboldt County Board of Supervisors

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## **Humboldt County Onsite Wastewater Local Agency Management Program**

### **Introduction**

#### **Purpose**

This Local Agency Management Program (LAMP) is prepared pursuant to, and describes Humboldt County's compliance with, the State Water Resources Control Board's *Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems* (OWTS Policy). When approved by the North Coast Regional Water Quality Control Board (NCRWQCB) and the Humboldt County Board of Supervisors, it (along with supporting local documents *Humboldt County Onsite Wastewater Treatment System Regulation and Technical Manual* (RTM) and Humboldt County Code, Title VI, Divisions 1 and 2 (HCC)) will be formally adopted and implemented in the unincorporated area of Humboldt County.

The purpose of the OWTS Policy and this LAMP is to allow for the continued use of onsite wastewater treatment systems (OWTS) in a manner that protects water quality and public health. OWTS owners in Humboldt County who comply with this LAMP are included in a conditional waiver to apply for Waste Discharge Requirements through the NCRWQCB for their OWTS.

The Humboldt County Board of Supervisors (BOS) has opted to pursue development and implementation of a LAMP in accordance with, and as authorized in, Tier 2 of the OWTS Policy. The Department of Health and Human Services, Division of Environmental Health (DEH), is the authority for permitting OWTS and implementing this LAMP. This LAMP addresses the siting, design, operation and maintenance of OWTS that:

- Have a projected flow of 10,000 gallons per day or less; and
- Receive only domestic wastewater from residential or commercial buildings; or
- Receive high strength wastewater that does not exceed 900 mg/L Biological Oxygen Demand (BOD) from commercial food service buildings which have a properly sized and functioning oil/grease interceptor.

Humboldt County is within Region 1, the North Coast Regional Water Quality Control Board jurisdiction.

#### **Structure**

The OWTS Policy requirements (complete or summarized as necessary) are presented with their section number and appear in bold text for easy reference throughout the LAMP (e.g., **9.1.1 Degree of vulnerability to pollution from OWTS due to hydrogeological conditions**). They appear generally in the order in which they appear in the OWTS Policy. The text below each of these entries, in normal font, describes Humboldt County's method of compliance with that OWTS Policy section.

References to Tiers 0, 1, 2, 3 and 4 refer to the Tiers specified in the OWTS Policy.

The RTM is included for reference as Appendix 1. The RTM is a new document and replaces the former *Humboldt County Sewage Disposal Regulations*. The RTM incorporates policies and practices from several documents (*Humboldt County Sewage Disposal Regulations*, technical design manuals, and the Regional Water Board's *Basin Plan*) into one document with updated language and a user-friendly format.

The portion of the HCC applicable to OWTS management (Title VI, Division 1) and septage pumper regulation (Title VI, Division 2) is included for reference as Appendix 2.

The OWTS Policy (via electronic link) is included for reference as Appendix 3.

## **Responsibilities and Duties**

### **2.0 OWTS Owners' Responsibilities and Duties**

The most important aspect of managing an OWTS is good stewardship on the part of the OWTS owner. Section 2.0 of the OWTS Policy assigns responsibilities and duties to OWTS owners. Sections 2.1 – 2.7 are reproduced here as they appear in the OWTS Policy; they apply to all OWTS owners in Humboldt County.

**2.1 All new, replacement, or existing OWTS within an area that is subject to a Basin Plan prohibition of discharges from OWTS, must comply with the prohibition. If the prohibition authorizes discharges under specified conditions, the discharge must comply with those conditions and the applicable provisions of this Policy.**

**2.2 Owners of OWTS shall adhere to the requirements prescribed in local codes and ordinances. Owners of new and replacement OWTS covered by this Policy shall also meet the minimum standards contained in Tier 1, or an alternate standard provided by a Local Agency Management Program per Tier 2, or shall comply with the requirements of Tier 3 if near an impaired water body and subject to Tier 3, or shall provide corrective action for their OWTS if their system meets conditions that place it in Tier 4.**

**2.3 Owners of OWTS shall comply with any and all permitting conditions imposed by a local agency that do not directly conflict with this Policy, including any conditions that are more stringent than required by this Policy.**

**2.4 To receive coverage under this Policy and the included waiver of waste discharges, OWTS shall only accept and treat flows of domestic wastewater. In addition, OWTS that accept high-strength wastewater from commercial food service buildings are covered under this Policy and the waiver of waste discharge requirements if the wastewater does not exceed 900 mg/L BOD and there is a properly sized and functioning oil/grease interceptor (a.k.a. grease trap).**

**2.5 Owners of OWTS shall maintain their OWTS in good working condition including inspections and pumping of solids as necessary, or as required by local ordinances, to maintain proper function and assure adequate treatment.**

**2.6 The following owners of OWTS shall notify the Regional Water Board by submitting a Report of Waste Discharge for the following:**

**2.6.1 a new or replacement OWTS that does not meet the conditions and requirements set forth in either a Local Agency Management Program if one is approved, an existing local program if it is less than 60 months from the effective date of the Policy and a Local Agency Management Program is not yet approved, or Tier 1 if no Local Agency Management Program has been approved and it is more than 60 months after the effective date of this Policy;**

**2.6.2 any OWTS, not under individual waste discharge requirements or a waiver of individual waste discharge requirements issued by a Regional Water Board, with the projected flow of over 10,000 gallons-per-day;**

**2.6.3 any OWTS that receives high-strength wastewater, unless the waste stream is from a commercial food service building;**

**2.6.4 any OWTS that receives high-strength wastewater from a commercial food service building: (1) with a BOD higher than 900 mg/L, or (2) that does not have a properly sized and functioning oil/grease interceptor.**

**2.7 All Reports of Waste Discharge shall be accompanied by the required application fee pursuant to California Code of Regulations, title 23, section 2200.**

### **3.0 Local Agency Requirements and Responsibilities**

Humboldt County implements this LAMP to regulate the siting, design, operation and maintenance of OWTS as authorized in Tier 2 of the OWTS Policy. DEH is the authority for permitting OWTS and implementing this LAMP.

#### **3.3 Annual Report**

DEH will submit an annual report in tabular spreadsheet format that provides the following information by February 1<sup>st</sup> of each year to the NCRWQCB:

**3.3.1 The number and location of complaints pertaining to OWTS operations and maintenance, and identification of those which were investigated and how they were resolved;**

**3.3.2 Applications and registrations issued to septic tank cleaning businesses pursuant to Section 117400 et seq. of the California Health and Safety Code;**

**3.3.3 The number, location, and description of permits issued for new and replacement OWTS and under which Tier each permit was issued.**

### **9.3.1 The number, location, and description of permits issued for OWTS where a variance was granted.**

#### **3.4 Permanent Records**

DEH will maintain permanent records for all OWTS permitting actions and will make those records available within 10 working days upon written request for review by the NCRWQCB. The records for each permit will reference the Tier under which the permit was issued.

#### **3.5 Notification to water providers of OWTS failure**

DEH will notify the owner of a public water well or water intake and the State Water Resources Control Board Drinking Water Program as soon as practicable, but no later than 72 hours upon its discovery, of a failing OWTS as described in OWTS Policy sections 11.1 and 11.2 occurring within the following setbacks:

**7.5.6 150 feet from a public water well where the depth of the effluent dispersal field does not exceed 10 feet.**

**7.5.7 Within 1,200 feet from a public water system surface water intake if the failing system is 400 feet or less from the high water mark of the water body.**

**7.5.8 Within 2,500 feet from a public water system surface intake if the failing system is less than 200 feet from the high water mark of the water body.**

All public water system wells and surface water intake locations will be mapped. The distances shown above will be delineated around each well and surface water intake. Upon discovery of a failing OWTS, DEH will reference this map and notify water system owners as required.

#### **3.8 Withdrawal of LAMP**

If Humboldt County wishes to withdraw a previously submitted and approved LAMP, it may do so upon 60 days written notice to the NCRWQCB. The notice of withdrawal shall specify the reason for withdrawing its Tier 2 program, the effective date for the cessation of the program, and the resumption of permitting of OWTS only under Tiers 0, 1, 3 and 4.

#### **Tier 0 – Existing OWTS**

**Existing OWTS that are properly functioning and do not meet the conditions of failing systems or otherwise require corrective action (for example, to prevent groundwater impairment), as specifically described in Tier 4, and are not determined to be contributing to an impairment of surface water, as specifically described in Tier 3, are automatically included in Tier 0.**

## **6.0 Coverage for Properly Operating Existing OWTS**

**6.1 Existing OWTS are automatically covered by Tier 0 and the herein included waiver of waste discharge requirements if they meet the following requirements:**

**6.1.1 have a projected flow of 10,000 gallons-per-day or less;**

**6.1.2 receive only domestic wastewater from residential or commercial buildings, or high-strength wastewater from commercial food service buildings that does not exceed 900 mg/L BOD and has a properly sized and functioning oil/grease interceptor (a.k.a. grease trap);**

**6.1.3 continue to comply with any previously imposed permitting conditions;**

**6.1.4 do not require supplemental treatment under Tier 3;**

**6.1.5 do not require corrective action under Tier 4; and**

**6.1.6 do not consist of a cesspool as a means of wastewater disposal.**

**6.2 A Regional Water Board or local agency may deny coverage under this Policy to any OWTS that is:**

**6.2.1 Not in compliance with Section 6.1;**

**6.2.2 Not able to adequately protect the water quality of the waters of the State, as determined by the Regional Water Board after considering any input from the local agency. A Regional Water Board may require the submission of a report of waste discharge to receive Region specific waste discharge requirements or waiver of waste discharge requirements so as to be protective.**

**6.3 Existing OWTS currently under waste discharge requirements or individual waiver of waste discharge requirements will remain under those orders until notified in writing by the appropriate Regional Water Board that they are covered under this Policy.**

## **Tier 2 – Local Agency OWTS Management Program**

### **9.0 Local Agency Management Program for Minimum OWTS Standards**

Humboldt County's physical and human geography present a number of constraints that prohibit the implementation of the OWTS Policy's Tier 1 standards. Humboldt County's option for compliance is the adoption and implementation of this Tier 2 LAMP. It sets forth minimum standards which differ from Tier 1 but still achieve the OWTS Policy's purpose: to allow the continued use of OWTS while protecting water quality and public health.

Challenging conditions considered in LAMP development and the methods Humboldt County employs to protect water quality and public health are shown below.

**9.1.1 Degree of vulnerability to pollution from OWTS due to hydrogeological conditions.**

**9.1.2 High Quality waters or other environmental conditions requiring enhanced protection from the effects of OWTS.**

**9.1.3 Shallow soils requiring a dispersal system installation that is closer to the ground surface than is standard.**

**9.1.4 High domestic well usage.**

**9.1.5 Dispersal system is located in an area with fractured bedrock.**

**9.1.6 Dispersal System is located in an area with poorly drained soils.**

**9.1.7 Vulnerable surface water.**

With approximately half its households dependent on onsite wastewater treatment, Humboldt County has approximately 17,000 OWTS within its jurisdiction. Using its Sewage Disposal Regulations, the Regional Waster Board's Basin Plan, and local policies and practices, DEH has been responding to proposals for OWTS new construction, modifications, and repairs in areas with challenging conditions such as those listed in OWTS Policy sections **9.1.1 – 9.1.12** (with the exception of 9.1.8). DEH began in 1980 to permit OWTS installations only after soils testing and groundwater level determinations had been performed. Because many areas of the County exhibit shallow groundwater and restrictive soils, they are not suitable to the use of standard OWTS (those relying solely on gravity to disperse effluent). Thus, in the 1980s, DEH began to permit the installation of non-standard OWTS (those which rely on pressure distribution of effluent) (NSOWTS) because, on many sites, groundwater quality and public health cannot be protected with standard gravity systems.

The siting and design requirements of Humboldt County's RTM call for qualified professionals to perform site evaluations to determine the soil, groundwater, and physical restrictions which exist on a site and to propose an OWTS design which will support the wastewater needs of the site structures. When properly implemented, the siting and design requirements, along with construction oversight and OWTS monitoring, achieve the OWTS Policy purpose of protecting water quality and public health.

Table 1, Variance Prohibition Areas (see page 20) identifies areas in Humboldt County known to exhibit one or more of the challenging conditions listed in OWTS Policy section **9.1** and shows mitigation measures employed. These areas are specifically addressed in the RTM on page 3. Mitigation measures for new OWTS construction proposed in the areas listed in Table 1 include:

- Wet weather testing (wet weather groundwater monitoring and percolation testing) is required in all areas listed on Table 1; and
- No variances to siting and design standards will be considered

**9.1.8 Surface water within the watershed is listed as impaired for nitrogen or pathogens.**

This is further addressed on page 16 under Tier 3.

#### **9.1.9 OWTS is located within an area of high OWTS density.**

The following communities in Humboldt County contain areas of high OWTS density:

- Fairhaven
- Pacific Manor Subdivision (west of Arcata)
- Portions of Hydesville and Carlotta, in the Van Duzen Hydrologic Unit

##### Fairhaven

The community of Fairhaven has a high OWTS density along with a number of small undeveloped parcels. Proposals for future development are subject, as part of the application process, to submittal of a Cumulative Impact Report assessing the groundwater mounding, organics and nitrogen impacts likely to occur due to the proposed development. HCC section 612-2(b)(3)(J) provides DEH the authority to require such information.

##### Pacific Manor

The Pacific Manor subdivision west of the City of Arcata boundary is another area with high OWTS density and small parcel sizes. These lots have already been developed and are further discussed following section 9.1.11 below.

##### Hydesville/Carlotta

Some areas of Hydesville and Carlotta in the Van Duzen Hydrologic Unit (HU) have a high OWTS density. The parcels that remain undeveloped, while they likely exhibit restrictive soils and will depend on onsite water supply, are typically large enough in size to support an OWTS and a replacement dispersal field.

#### **9.1.10 A parcel's size and its susceptibility to hydraulic mounding, organic or nitrogen loading, and whether there is sufficient area for OWTS expansion in case of failure.**

The creation of any new parcel in Humboldt County requires a qualified professional to demonstrate that all siting and design criteria in the RTM are met without a variance to any design criteria for both the primary and replacement dispersal areas. DEH staff receives these proposed projects for review from the Planning and Building Department and will recommend approval only when this is demonstrated satisfactorily. Typically, most rural lands where OWTS are used are created with minimum parcel sizes larger than those specified in Table 1 under Tier 1 of the OWTS Policy (See OWTS Policy page 22).

When development is proposed on existing undeveloped parcels outside the Variance Prohibition Areas, one or more variances may be considered by DEH staff during the design review. The OWTS application must identify which RTM standards are not met by the proposed design, must request a variance to each, and satisfactorily demonstrate that water quality will not be impaired

and that public health will not be threatened as a result of any variance. Variances to the standard requiring sufficient area for OWTS replacement will not be considered. Some parcels exist in Humboldt County that are not suitable to development.

Proposed developments, particularly subdivision developments, commercial establishments, and OWTS receiving greater than 1,500 gallons per day, are subject to groundwater mounding, organic and nitrogen study in the form of a Cumulative Impact Report. HCC section 611-12 provides the requirements for DEH review of subdivisions and lot line adjustments in non-sewered areas. HCC section 611-12(c) provides the County's Health Officer the authority to require a Cumulative Impact Study of the effects of wastewater discharge. DEH will consult with NCRWQCB staff on all these types of proposed projects and on any proposed project where it appears that a cumulative impact or other study is necessary to fully understanding the proposed project's impact.

**9.1.11 Geographic areas that are known to have multiple, existing OWTS predating any adopted standards of design and construction including cesspools.**

Existing OWTS are allowed to continue under Tier 0 until or unless a failure occurs. DEH will authorize repairs that are in substantial conformance, to the greatest extent practicable, with this LAMP and the RTM.

Pacific Manor subdivision's lots and homes were constructed in the 1960s and 1970s using seepage pits. As failures occur in this area, DEH permits repairs and replacement OWTS to conform as closely as possible to current standards using NSOWTS.

Cesspools are deemed public nuisances pursuant to HCC section 613-2 and, when encountered, will be assigned a Tier 4 ranking (OWTS Requiring Corrective Action) and a replacement system, conforming as closely as possible to this LAMP and the RTM, will be required.

OWTS failures will be tracked, mapped, and reported to the NCRWQCB in annual reports.

Applications for permits to modify OWTS (expand capacity) are subject to the County's *Policy for the Use of Existing Onsite Wastewater Treatment Systems* (See RTM Appendix F).

**9.1.12 Geographic areas that are known to have multiple, existing OWTS located within either the pertinent setbacks listed in Section 7.5 of the OWTS Policy, or a setback that the local agency finds is appropriate for that area.**

The community of Alton has small parcels that were created prior to modern OWTS siting and design criteria. The parcels are served by private domestic wells which, in some cases, do not meet the 100 foot setback requirement to OWTS.

If, through the assessment and reporting requirements of the OWTS Policy or through any other means, DEH finds that its standards are not adequate to protect water quality and public health, additional protective measures will be considered and proposed in an amendment to this LAMP.

## **9.2 Scope of coverage, types of OWTS permitted, and local site evaluation, siting, design, and construction requirements.**

The Humboldt County LAMP regulates domestic wastewater, as defined in the OWTS Policy, from residential or commercial buildings in the unincorporated areas of the County with daily flows not exceeding 10,000 gallons. High strength wastewater, as defined in the OWTS Policy, and wastewater from industrial processes are not regulated under this LAMP and remain the responsibility of the NCRWQCB. Parts 1, 2, and 4 of the RTM provide the types of OWTS permitted under the LAMP as well as local site evaluation, siting, design, and construction requirements.

### **9.2.1 Local agency requirements for onsite wastewater system inspection, monitoring, maintenance, and repairs, including procedures to ensure that replacements or repairs to failing systems are done under permit from the local governing jurisdiction.**

Permits are required for new system installations and for modifications, repairs and destructions of existing systems. For permit requirements, see HCC section 612-2 and RTM Part 3.

Inspection requirements prior to and at the time of OWTS construction are found in the RTM on page 34. DEH maintains an operating permit and inspection program for NSOWTS. Each NSOWTS must undergo an inspection once every three years. The inspection must be performed by DEH or a Qualified Service Provider. Homeowners may conduct their own NSOWTS inspection upon approval by DEH. For inspection, monitoring, maintenance, and repair of non-standard systems, see HCC sections 616-1 and 616-3(a)(d)(g)(h)(i), and RTM at page 14.

### **9.2.2 Areas near impaired water bodies.**

This is further addressed on page 16 under Tier 3.

### **9.2.3 Variances for new installations and repairs. Variances are not allowed for requirements stated in OWTS Policy sections 9.4.1 through 9.4.9.**

A variance to any condition stated in section 9.4 of the OWTS policy (listed beginning on page 14 of this LAMP) will not be considered. Outside of Variance Prohibition Areas, variances requested to any standard contained in the RTM may be granted by DEH when it is demonstrated by the applicant that water quality will not be impaired and public health will not be threatened as a result of such variance. Variances for new construction or for modification are not allowed within the Variance Prohibition Area (*see* RTM at page 2).

For OWTS repairs in all areas of the County, DEH may authorize repairs that are in substantial conformance, to the greatest extent practicable, with this LAMP and the RTM. In some cases, this will require supplemental treatment.

DEH may consult with NCRWQCB staff prior to the issuance of any variance requested. A proposed variance from any standard requires submittal of a complete OWTS Variance Application and fee. Variances granted will be clearly stated on the permit and will be reported to NCRWQCB annually.

**9.2.4 Educational, training, certification and/or licensing requirements that will be required of OWTS service providers, site evaluators, designers, installers, pumpers, maintenance contractors, and any other person related to OWTS activities.**

*See HCC section 611-2(n) for OWTS site evaluator and designer (Qualified Professional) qualification requirements.*

*See HCC section 616-2(d) for NSOWTS maintenance contractors' (Qualified Service Provider) qualification requirements.*

OWTS installers must hold one of the following licenses: General Engineering Contractor, General Building Contractor, C-36 Plumbing Contractor or C-42 Sanitation System Contractor. *See RTM at page 29.*

*See HCC Title VI Division 2 Sewage and Cesspool Cleaning for permit requirements for Septic Pumpers.*

**9.2.5 Educational and outreach program.**

Community information sessions will be held soon after local adoption of the LAMP to educate the public on LAMP content and applicability. DEH has informational handouts available in hard copy and on its web page explaining how to properly operate and maintain various types of OWTS. Prior to LAMP implementation, DEH will ensure that all handouts are technically accurate yet reader-friendly. DEH will review this information and update it as necessary, but at a minimum, every five years in conjunction with the OWTS program evaluation required by OWTS Policy section 9.3.3.

Permits issued for NSOWTS following implementation of the LAMP will include homeowner procedures to ensure maintenance, repair, or replacement of critical items within 48 hours following failure.

Permits issued for NSOWTS utilizing supplemental treatment of effluent following implementation of the LAMP will require that an operation and maintenance agreement with a Qualified Service Provider, as defined in HCC section 616-2(d), be in force for the life of the system.

### **9.2.6 Assessment of existing and proposed disposal locations for septage, volume of septage anticipated and whether adequate capacity is available.**

DEH maintains a registration and permit program for septic tank and grease trap pumpers. The permit application requires pumpers to report their disposal location(s). Currently, permitted pumpers dispose of their septage at the following locations:

1. City of Ferndale Sewer Treatment Facility
2. Trinity County Waterworks District #1
3. City of Eureka Sewer Treatment Facility
4. Steve's Septic Service (prior to discharge at McKinleyville Community Sewer Treatment Facility)

Pumpers are required to submit monthly records to DEH showing each pumping location and the location of septage disposed.

DEH will continue to collect data and will maintain communication with septage receiving facilities to determine the facilities' current and long term capacity to receive septage.

### **9.2.7 Onsite maintenance districts or zones.**

Presently, there are no onsite wastewater districts in Humboldt County and no consideration was given to one in development of this LAMP.

### **9.2.8 Regional Salt and Nutrient Management Plans.**

No consideration was given to development of such plans.

### **9.2.9 Coordination with watershed management groups.**

There are several active watershed management groups in Humboldt County which were invited to participate in the LAMP development process. DEH will coordinate with Humboldt Baykeeper on the results of their surface water sampling program and will consider those results in its Advanced Protection Management Program (APMP) OWTS risk assessment. DEH will seek the input of local watershed management groups during future five-year water quality assessment reviews.

### **9.2.10 Evaluating the proximity of sewer systems to new or replacement OWTS installations.**

DEH will maintain a mapped inventory of sewer areas. Public sewer authorities are consulted to provide the location of public sewer service when an application is reviewed by DEH and is shown to be near a sewer area. Sewer connection requirements will be initiated pursuant to HCC section 611-4.

### **9.2.11 Notifications to public water system.**

All public water system wells, surface collection reservoirs, and surface water intakes locations will be mapped. Each OWTS application received will be compared to the map to determine if notifications must be made.

DEH will notify the owner of a public water system when an application is received for any new, replacement or repair OWTS where the OWTS is: (1) within 1,200 feet of an intake point for a surface water treatment plant providing drinking water, is in the drainage area catchment in which the intake point is located, and is located such that it may impact water quality at the intake point such as upstream of the intake point for a flowing water body; or (2) if the proposed OWTS is within the horizontal sanitary setback (150 feet) from a public well.

In accordance with the OWTS Policy, DEH will provide the following information to the owner of the public water system:

**7.6.1 The permitting agency shall provide a copy of the permit application.**

**7.6.2 The permit application shall include a topographical plot plan for the parcel showing the OWTS components, the property boundaries, proposed structures, physical address, and name of property owner.**

**7.6.3 The permit application shall provide the estimated wastewater flows, intended use of proposed structure generating the wastewater, soil data, and estimated depth to seasonally saturated soils.**

The public water system owner shall have 15 days from receipt of the permit application to provide recommendations and comments to DEH. If the owner of the public water system cannot be identified, DEH will notify the state agency having authority over the public water system (currently the State Water Resources Control Board Drinking Water Program).

**9.2.12 Policies and procedures that will be followed when proposed OWTS dispersal area is within the horizontal sanitary setback of a public well or a surface water intake point.**

Humboldt County DEH will consider proposed OWTS development within the required horizontal sanitary setback of a public well or surface water intake point on a case-by-case basis. A professional evaluation of site specific hydrogeological characteristics will be required; the evaluation must address potential contamination from proposed OWTS usage and propose the best available technology and siting practices to mitigate potential adverse effects to a public water source.

**9.2.13 Cesspool usage.**

Cesspools in Humboldt County are prohibited and are deemed public nuisances. (*See* HCC section 613-2). When discovered, DEH requires cesspools to be properly destroyed and a repair or replacement system installed as soon as practicable.

### **9.3 Minimum responsibilities of the local agency for management of the LAMP.**

#### **9.3.1 Maintain records of the number, location, and description of permits issued for OWTS where a variance is granted.**

DEH maintains an electronic database with information on all OWTS permit applications received since 2010. The database will be configured to allow a search for permits where variances were granted after LAMP implementation.

#### **9.3.2 Maintain a water quality assessment program to determine the general operation status of OWTS and evaluate the impact of OWTS discharges and assess the extent to which groundwater and surface water quality may be adversely impacted.**

DEH has identified the areas exhibiting conditions listed in Section 9.1 of the OWTS Policy and listed them on Table 1 of this LAMP and in the RTM. These areas are most susceptible to water quality impacts. Other than the APMP areas (see Tier 3 at page 16), areas with individual water wells, small lots, and coarse soils, such as Alton and Carlotta, will receive first priority for monitoring and assessment.

OWTS failures, repairs, and water sample results exceeding drinking water and/or recreational water standards will be mapped for the purpose of determining the general operation status of OWTS, evaluating the impact of OWTS discharges, and assessing the extent to which groundwater and surface water quality may be adversely impacted.

Suspected water quality impacts from OWTS in these areas will be assessed through any or all of the following: complaint investigations, OWTS inspections, records research, surface water sampling, sanitary surveys, and, with the permission of well owners, DEH-collected water well and monitoring well samples. When such sampling is conducted, the samples will be analyzed for pathogens and nitrates. Water quality testing at the time of new well construction may be required, pursuant to HCC section 631-6(a) in priority areas.

DEH currently receives copies of laboratory analysis from the Public Health Laboratory of drinking water samples which show positive results for coliform bacteria. As part of the DEH investigation into the source of the positive coliform results, the existence and condition of an OWTS as a contributing factor is assessed. OWTS exhibiting a failure will be reclassified from its existing Tier to Tier 4, and will also require corrective action pursuant to Tier 4, the HCC, and the RTM.

Other data sources likely to be used include:

- Review of public water system sampling reports.
- Beach water quality testing performed per Health & Safety Code Section 115885.

- Surface water quality testing performed by DEH and/or others engaged in water quality studies in Humboldt County.
- DEH complaint records.
- Data contained in the California Water Quality Assessment Database.
- Groundwater data collected as part of the Groundwater Ambient Monitoring and Assessment Program, available on the Geotracker Database.

**9.3.3 Annual report of water quality assessment program. Every 5<sup>th</sup> year submit a monitoring program evaluation.**

Included in the report due to the NCRWQCB by February 1<sup>st</sup> of each year, DEH will provide the number, location, and description of permits issued for OWTS where variances were granted. DEH will include a summary of monitoring data collected pursuant to 9.3.2 above. Groundwater monitoring data will be submitted in electronic deliverable format for inclusion into Geotracker; surface water monitoring data will be submitted to California Environmental Data Exchange Network (CEDEN) in a Surface Water Ambient Water Monitoring Program (SWAMP) comparable format. In addition to the annual report, an evaluation of the monitoring program will be submitted every 5<sup>th</sup> year identifying any changes in our LAMP that will be undertaken to address impacts from OWTS, along with an assessment of whether water quality is being impacted by OWTS. The first report will commence one year after NCRWQCB's approval of the LAMP.

**Features and Conditions Not Allowed to be Authorized in LAMP.**

Humboldt County LAMP will not authorize any of the conditions listed in Sections 9.4.1 through 9.4.12.

**9.4 The following are not allowed to be authorized on a LAMP:**

**9.4.1 Cesspools of any kind or size.**

**9.4.2 OWTS receiving a projected flow over 10,000 gallons per day.**

**9.4.3 OWTS that utilize any form of effluent disposal that discharges on or above the post installation ground surface such as sprinklers, exposed drip lines, free-surface wetlands, or a pond.**

**9.4.4 Slopes greater than 30 percent without a slope stability report approved by a registered professional.**

**9.4.5 Decreased leaching area for IAPMO certified dispersal systems using a multiplier less than 0.70.**

**9.4.6 OWTS utilizing supplemental treatment without requirements for periodic monitoring or inspections.**

**9.4.7 OWTS dedicated to receiving significant amounts of wastes dumped from RV holding tanks.**

**9.4.8 Separation of the bottom of dispersal system to groundwater less than two (2) feet, except for seepage pits, which shall not be less than 10 feet.**

**9.4.9 Installation of new or replacement OWTS where public sewer is available. The public sewer may be considered as not available when such public sewer or any building or exterior drainage facility connected thereto is located more than 200 feet from any proposed building or exterior drainage facility on any lot or premises that abuts and is served by such public sewer. This provision does not apply to replacement OWTS where the connection fees and construction cost are greater than twice the total cost of the replacement OWTS and the local agency determines that the discharge from the OWTS will not affect groundwater or surface water to a degree that makes it unfit for drinking or other uses.**

**9.4.10 Except as provided for in sections 9.4.11 and 9.4.12, new or replacement OWTS with minimum horizontal setbacks less than any of the following:**

**9.4.10.1 150 feet from a public water well where the depth of the effluent dispersal system does not exceed 10 feet in depth.**

**9.4.10.2 200 feet from a public water well where the depth of the effluent dispersal system exceeds 10 feet in depth.**

**9.4.10.3 Where the effluent dispersal system is within 600 feet of a public water well and exceeds 20 feet in depth the horizontal setback required to achieve a two-year travel time for microbiological contaminants shall be evaluated. A qualified professional shall conduct this evaluation. However in no case shall the setback be less than 200 feet.**

**9.4.10.4 Where the effluent dispersal system is within 1,200 feet from a public water systems' surface water intake point, within the catchment of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 400 feet from the high water mark of the reservoir, lake or flowing water body.**

**9.4.10.5 Where the effluent dispersal system is located more than 1,200 feet but less than 2,500 feet from a public water systems' surface water intake point, within the catchment area of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 200 feet from the high water mark of the reservoir, lake or flowing water body.**

**9.4.11 For replacement OWTS that do not meet the above horizontal separation requirements, the replacement OWTS shall meet the horizontal separation to the greatest extent practicable. In such case, the replacement OWTS shall utilize supplemental treatment and other mitigation measures, unless the permitting authority finds that there is no indication that the previous system is adversely affecting the public water source, and there is limited potential that the replacement system could impact the water source based on topography, soil depth, soil texture, and groundwater separation.**

**9.4.12 For new OWTS, installed on parcels of record existing at the time of the effective date of this Policy, that cannot meet the above horizontal separation requirements, the OWTS shall meet the horizontal separation to the greatest extent practicable and shall utilize supplemental treatment for pathogens as specified in section 10.8 and any other mitigation measures prescribed by the permitting authority.**

### **Tier 3 - Advanced Protection Management Program for Impaired Areas**

**Existing, new, and replacement OWTS that are near impaired water bodies may be addressed by a Total Maximum Daily Load (TMDL) and its implementation program, or special provisions contained in a LAMP.**

A TMDL is a planning and management tool issued by the Regional Water Quality Control Board intended to identify, quantify, and control the sources of pollution within a given watershed such that water quality objectives are achieved and the beneficial uses of water are fully protected.

The term TMDL is used in two ways. First, it is the total maximum daily load of a pollutant that a water body can handle and still achieve acceptable water quality (this is also known as the loading capacity). Second, it is the document that includes all the supporting components.

Under Section 303(d) of the federal Clean Water Act, states are required to identify water bodies that do not meet water quality standards and are not supporting their beneficial uses. States must also identify the pollutant or stressor causing the impairments. The result of this effort is the 303(d) List of Impaired Waters. Placement on the 303(d) List of Impaired Waters generally triggers development of a TMDL for each waterbody and associated pollutant/stressor.

## **10.0 Advanced Protection Management Program.**

**An APMP is the minimum required management program for all OWTS located near a water body that has been listed as impaired due to nitrogen or pathogen indicators pursuant to Section 303(d) of the Clean Water Act. Local agencies are authorized to implement APMPs in conjunction with an approved LAMP or, if there is no approved LAMP, Tier 1.**

### **10.1 The geographic area for each impaired waterbody's APMP.**

Four Humboldt County waterbodies from the 303(d) List of Impaired Waters are listed as impaired for pathogens in Attachment 2 of the OWTS Policy. Those water bodies are: Clam Beach, Luffenholtz Beach, Moonstone County Park and Trinidad State Beach. Beginning May 13, 2013, and until adoption of a TMDL by the NCRWQCB, the APMP geographic area is defined in the OWTS Policy as "600 linear feet in the horizontal (map) direction of a water body listed in Attachment 2 of the OWTS Policy where the edge of that water body is the natural or levied bank for creeks and rivers, the high water mark for lakes and reservoirs, and the mean high tide line for tidally influenced water bodies, as appropriate."

Alternatively, the OWTS Policy allows a local agency to place special provisions in a LAMP that will provide protection to the impaired water bodies as an alternative to applying the 600 foot boundary and/or the specific requirements of Tier 3 sections 10.8-10.16.

**10.2 The requirements of an APMP will be in accordance with a TMDL Implementation Plan, if one has been adopted to address the impairment. An adopted TMDL implementation plan supersedes all other requirements in Tier 3.**

**10.3 In the absence of an adopted TMDL implementation plan, the requirements of an APMP will consist of any special provisions for the water body if any such provisions have been approved as part of a LAMP.**

TMDL completion date for all of Humboldt County impaired waterbodies is 2020, as shown in Attachment 2 of the OWTS Policy. As TMDLs have not yet been established, Humboldt County will implement an APMP with special provisions, in lieu of continuing the specific requirements of Tier 3 sections **10.8 -10.16**.

## **Special Provisions**

### **APMP line**

The four listed impaired water bodies in Humboldt County are all adjacent to the Pacific Ocean. The geographic area of Humboldt County's proposed APMP is 200 linear feet in the horizontal (map) direction of each major drainage course upgradient of beach shorelines between Clam Beach and Trinidad State beach, to where timberlands begin (APMP line). (See Figures 1-5, following Table 1).

### **Special provisions within this APMP line are:**

- 1. Public Education**
- 2. Research and evaluation of existing systems**
- 3. Water sample collection and analysis**
- 4. Criteria for new construction OWTS**
- 5. Criteria for repair and replacement OWTS**

### **Public Education**

DEH staff will develop an educational program targeted at land owners in and around the APMP line to increase awareness of our LAMP, the APMP and its goal of improving surface water quality, and OWTS operation and maintenance.

### **Research and Evaluation of Existing Systems**

Within each of the major drainages in this area, DEH staff will:

- Identify, list, and map the parcels that intersect the APMP line.
- From existing records, DEH will research and rank OWTS on each parcel according to perceived risk based on, but not limited to, the following: permit status, age, design and size of OWTS, record of repairs, distance to surface water, complaints, geography, parcel size, and parcel use.
- Use existing code authority requiring septic tank pumping every 7 years to gather information on systems at the time of septic tank pumping. DEH will attempt to be present at the time of pumping for as many OWTS as possible to interview system owner/operator and observe and evaluate OWTS condition. DEH staff will refine risk using these criteria, plus soil/site conditions, occupancy, and any other factors learned during the evaluation.

### **Water Sample Collection and Analysis**

Concurrent with this research and evaluation, surface water sampling will be conducted by the DEH Beach Sampling program as well as Humboldt Baykeeper. Samples testing positive for pathogens will be further analyzed using bacterioides typing to identify whether the source of the bacteria is human, cow, bird or dog.

DEH Beach sampling locations are: Mill Creek at Trinidad State Beach; Little River at Moonstone Beach; Luffenholtz Creek at Luffenholtz Beach; Strawberry Creek at Clam Beach; and North Mad River Mouth.

#### **Criteria for New Construction OWTS Within APMP**

Until it is determined through laboratory testing that OWTS effluent is not likely the source of bacterial contamination of a 303(d) impaired water body, proposals for new construction on parcels that intersect an APMP line must meet all site evaluation, design, and construction standards. No variances will be considered. This is also true for OWTS modifications to accommodate proposed increased flow to an existing OWTS.

#### **Criteria for Repairs to OWTS Within APMP**

For repairs to existing systems and for replacement or modification of OWTS not related to increased effluent flow, compliance to the greatest extent practicable with all LAMP and RTM standards is required. Proposed variances will be considered on a case-by-case basis and may require supplemental treatment. Any variances requested will be reviewed with NCRWQCB staff prior to issuance.

The information gained from these special provisions will provide an evaluation of the conditions of as many of the OWTS as possible within the APMP area, and will provide analysis of surface water quality with respect to pathogen levels in an effort to identify the source of the pathogens.

DEH will collaborate with the NCRWQCB by sharing information pertaining to the impairments, provide advice on potential remedies, and regulate OWTS to the extent that our authority allows toward improvement of the impairments. All information gained will be shared with NCRWQCB for their use in TMDL development.

**Table 1 – Variance Prohibition Areas**

Section 9.1 Conditions/Characteristics	Geographic Area/Hydrologic Unit (HU) Tier 1 Requirements Infeasible	Mitigation Measures that may be Considered (Wet Weather Testing in All Areas)	
		New System (No Variance)	Repair
9.1.1 Degree of Vulnerability due to Hydrogeological conditions.	Westhaven, Fieldbrook, Fairhaven, Eureka Plain HU, Van Duzen River HU	NSOWTS, Supplemental Treatment	NSOWTS, Supplemental Treatment
9.1.2 High Quality Waters/Environmental Conditions requiring enhanced protection	Trinidad HU, Eureka Plain HU, Fairhaven, Van Duzen River HU	Supplemental Treatment	Supplemental Treatment
9.1.3 Shallow Soils	Westhaven, Fieldbrook, Eureka Plain HU	NSOWTS - Mound, Supplemental Treatment	NSOWTS - Mound, Supplemental Treatment
9.1.4 OWTS in area of high domestic well usage	Van Duzen River HU, Alton, Petrolia	Supplemental Treatment & Disinfection	Supplemental Treatment & Disinfection
9.1.5 OWTS in area of fractured rock	Benbow, Shelter Cove	NSOWTS, Supplemental Treatment	NSOWTS, Supplemental Treatment
9.1.6 OWTS in area of poorly drained soils	Fieldbrook, Eureka Plain HU, Petrolia	NSOWTS - Mound	NSOWTS - Mound, Supplemental Treatment
9.1.7 Surface Water vulnerable to pollution from OWTS	Trinidad HU, Eureka Plain HU, Fairhaven, Van Duzen River HU	NSOWTS, Supplemental Treatment	NSOWTS, Supplemental Treatment
9.1.8 OWTS within Tier 3 area	Trinidad HU, Clam Beach	NSOWTS, Supplemental Treatment, APMP Special Provisions	APMP Special Provisions
9.1.9 Area of high OWTS density	Pacific Manor subdivision, Fairhaven, Van Duzen River HU	NSOWTS, Supplemental Treatment, Cumulative Impact Study, Water Efficient Fixtures	
9.1.10 Parcel size susceptible to hydraulic mounding, nitrogen loading	Fairhaven, Pacific Manor subdivision, Petrolia, Hydesville	NSOWTS, Supplemental Treatment	NSOWTS, Supplemental Treatment
9.1.11 Multiple OWTS predating standards	Alton, Petrolia, Fairhaven, Westhaven		Conformance with RTM
9.1.12 OWTS located within pertinent setbacks	Alton	NSOWTS, Supplemental Treatment & Disinfection	NSOWTS, Supplemental Treatment & Disinfection

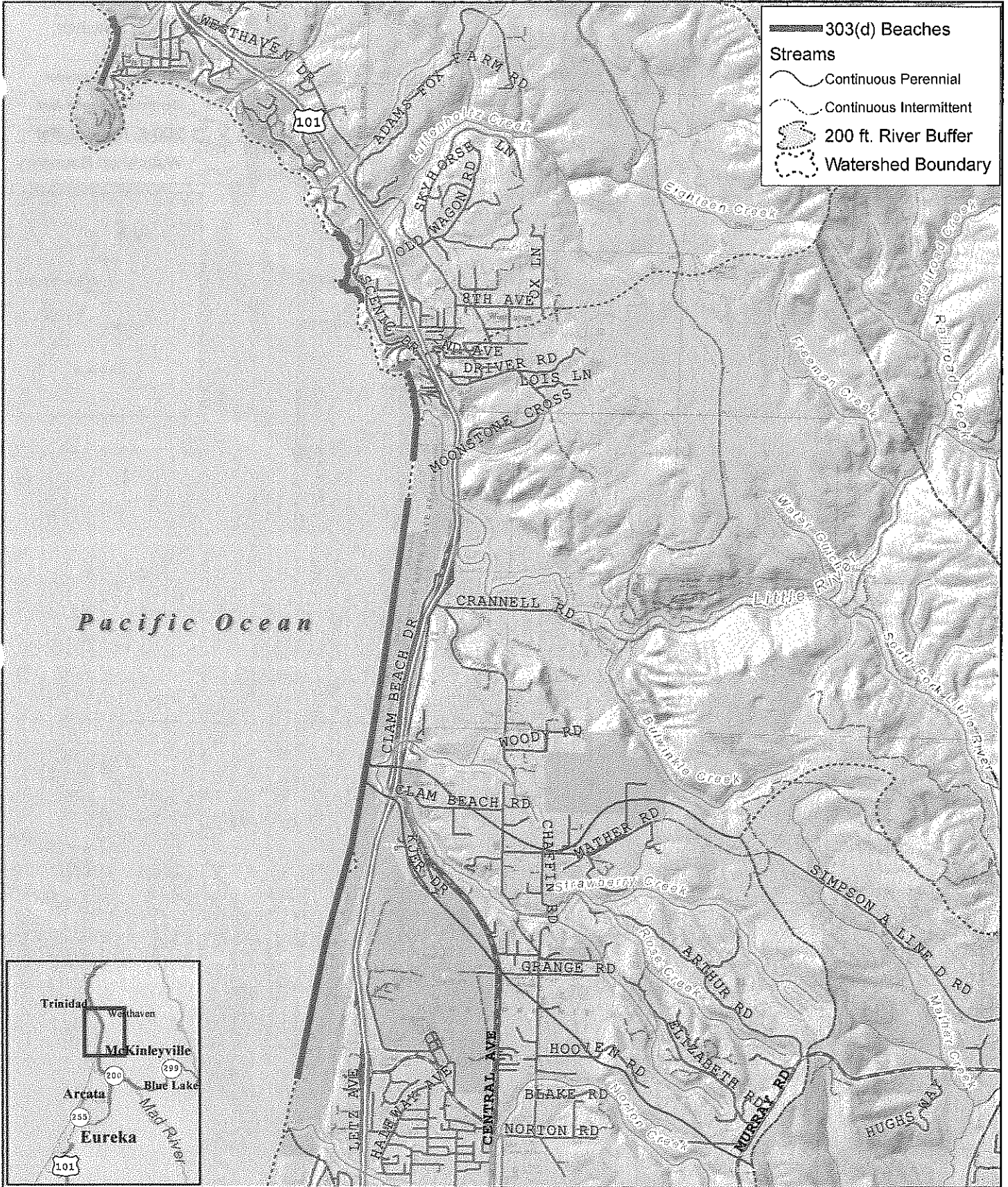
**Trinidad HU** covers the area from Big Lagoon south to Little River.

**Eureka Plain HU** includes Jacoby Creek, Bayside, Freshwater, Elk River.

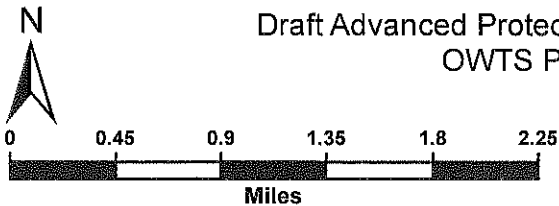
**Van Duzen River HU** covers the area from Bridgeville west to Hydesville.

The table above lists the primary areas in Humboldt County where conditions listed in 9.1.1 – 9.1.12 occur and prevent the use of Tier 1 siting criteria for the design and installation of an OWTS.

FIGURE 1

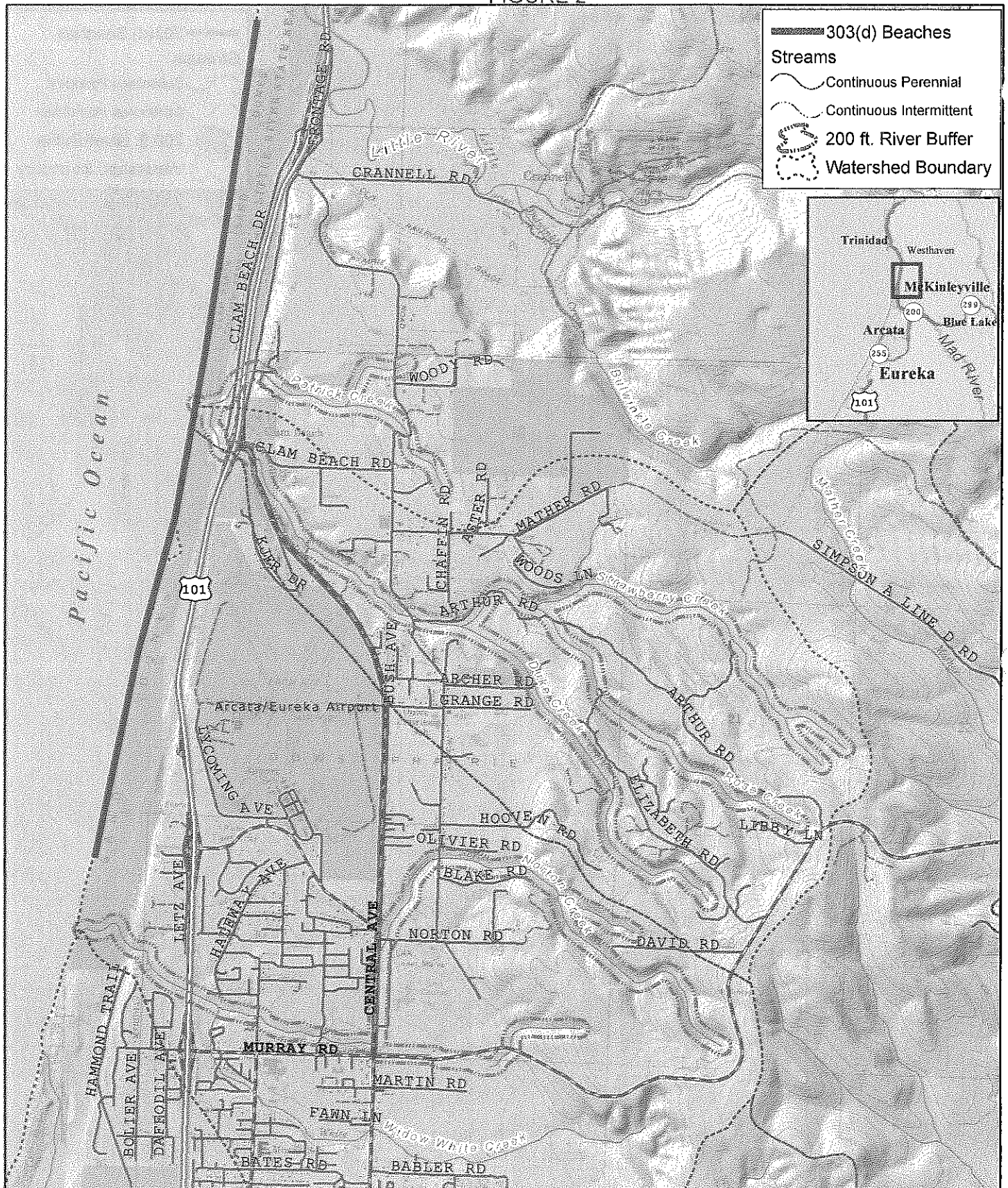


Draft Advanced Protection Management Plan/303(d) Listed Beaches 3/7/16  
 OWTS Policy 303(d) Listed Beaches Study Area

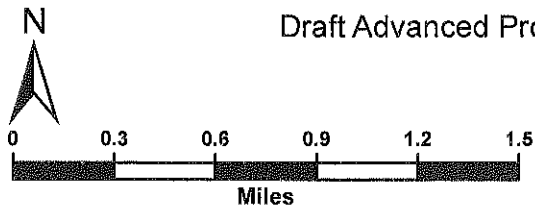


This map is intended for display purposes only and should not be used for precise measurement or navigation. Map compiled by Humboldt County Planning and Building Department, Mar. 2016, contact: [jvondohlen@co.humboldt.ca.us](mailto:jvondohlen@co.humboldt.ca.us) ArcGIS 10.3.1 file H:\arpa\303d\_beaches\_StudyArea.mxd

FIGURE 2

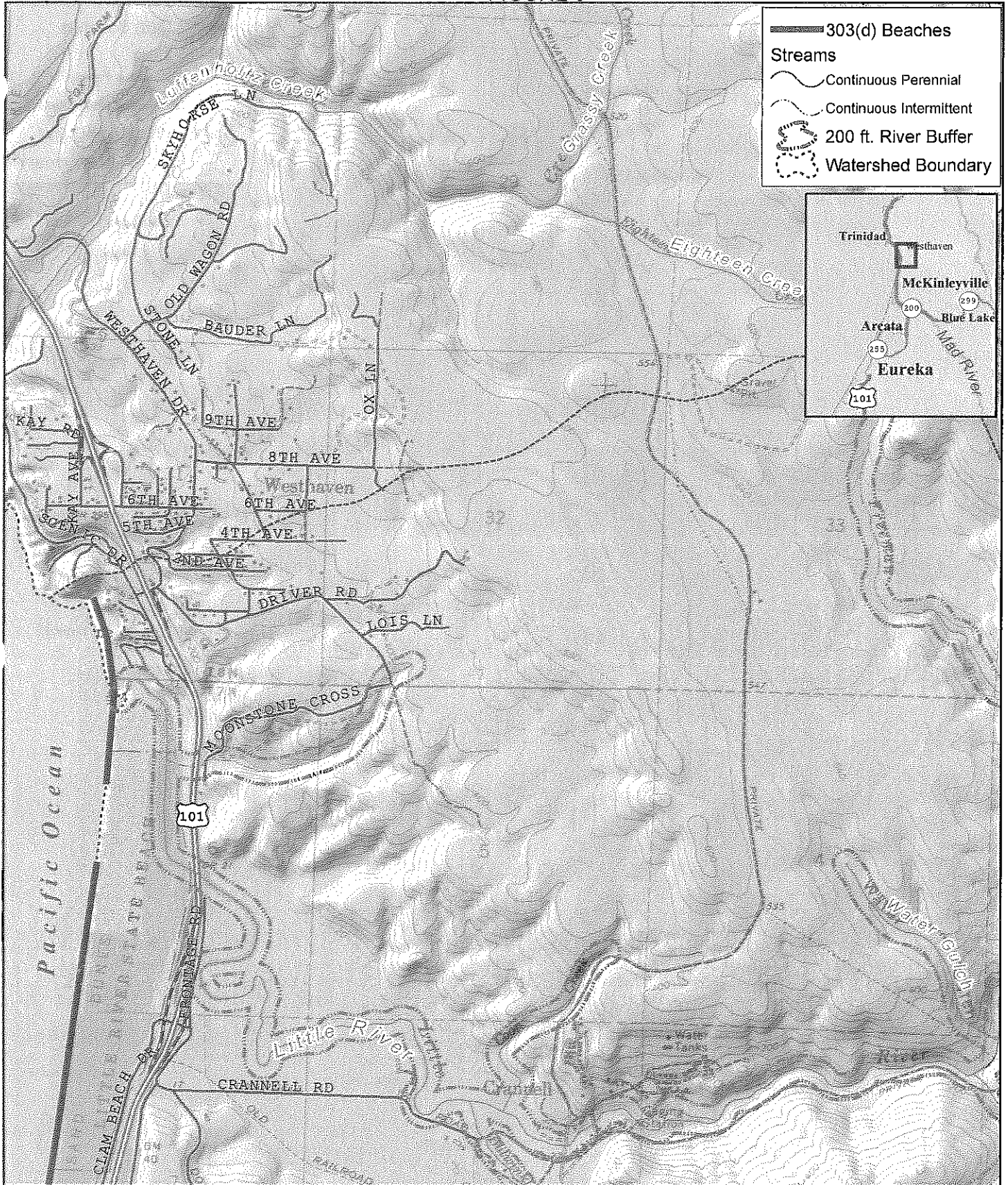


Draft Advanced Protection Buffer Zones/303(d) Listed Beaches 3/7/16  
Clam Beach

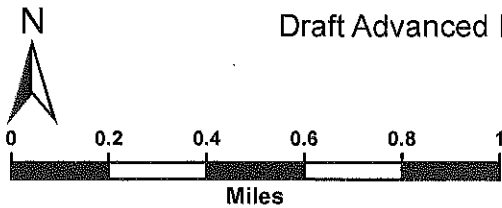


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FIGURE 3

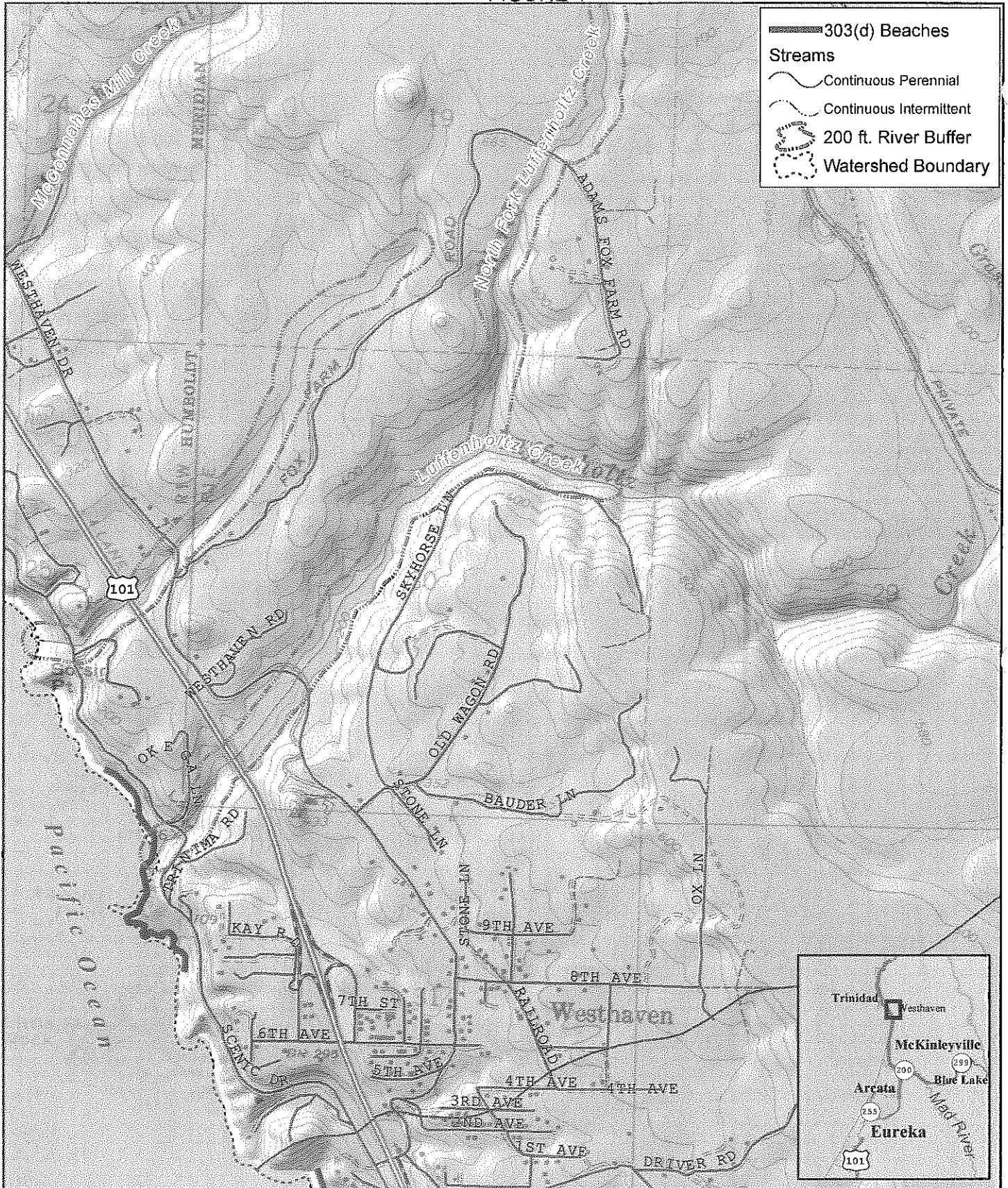


Draft Advanced Protection Buffer Zones/303(d) Listed Beaches 3/7/16  
Moonstone State Beach



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FIGURE 4

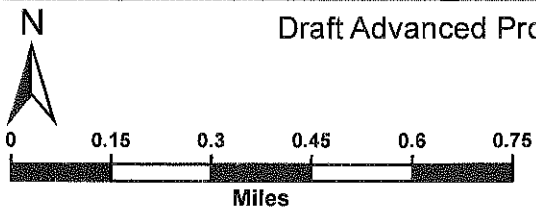


**303(d) Beaches**

**Streams**

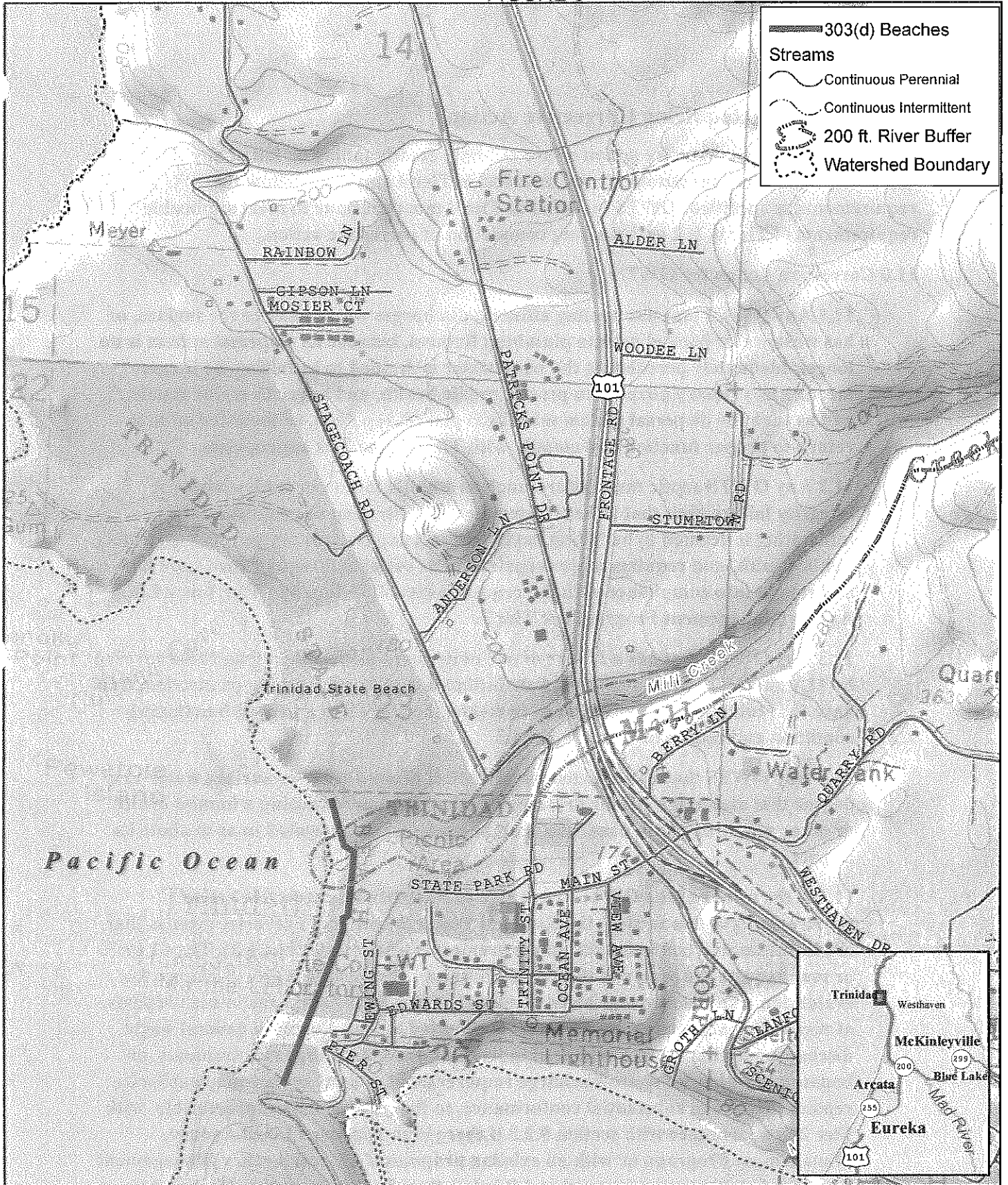
- Continuous Perennial
- Continuous Intermittent
- 200 ft. River Buffer
- Watershed Boundary

Draft Advanced Protection Buffer Zones/303(d) Listed Beaches 3/7/16  
Luffenholtz Beach

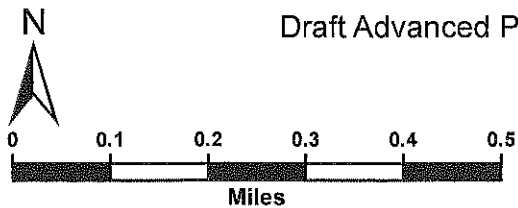


This map is intended for display purposes only and should not be used for precise measurement or navigation. Map compiled by Humboldt County Planning and Building Department, Mar. 2016, contact: jvondohien@co.humboldt.ca.us ArcGIS 10.3.1 file H:\arpat303d\_beaches\_Luffenholtz.mxd

FIGURE 5



Draft Advanced Protection Buffer Zones/303(d) Listed Beaches 3/7/16  
Trinidad State Beach



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## **Tier 4 – OWTS Requiring Corrective Action**

**OWTS that require corrective action or are either presently failing or fail at any time while this Policy is in effect are automatically included in Tier 4 and must follow the requirements as specified. OWTS included in Tier 4 must continue to meet applicable requirements of Tier 0, 1, 2 or 3 pending completion of corrective action.**

### **11.0 Corrective Action for OWTS**

**11.1 Any OWTS that has pooling effluent, discharges wastewater to the surface, or has wastewater backed up into plumbing fixtures, because its dispersal system is no longer adequately percolating the wastewater is deemed to be failing, no longer meeting its primary purpose to protect public health, and requires major repair, and as such the dispersal system must be replaced, repaired, or modified so as to return to proper function and comply with Tier 1, 2, or 3 as appropriate.**

**11.2 Any OWTS septic tank failure, such as a baffle failure or tank structural integrity failure such that either wastewater is exfiltrating or groundwater is infiltrating is deemed to be failing, no longer meeting its primary purpose to protect public health, and requires major repair, and as such shall require the septic tank to be brought into compliance with the requirements of Section 8 in Tier 1 or a Local Agency Management Program per Tier 2.**

**11.3 Any OWTS that has a failure of one of its components other than those covered by 11.1 and 11.2 above, such as a distribution box or broken piping connection, shall have that component repaired so as to return the OWTS to a proper functioning condition and return to Tier 0, 1, 2, or 3.**

**11.4 Any OWTS that has affected, or will affect groundwater or surface water to a degree that makes it unfit for drinking or other uses, or is causing a human health or other public nuisance condition shall be modified or upgraded so as to abate its impact.**

**11.5 If the owner of the OWTS is not able to comply with corrective action requirements of this section, the Regional Water Board may authorize repairs that are in substantial conformance, to the greatest extent practicable, with Tiers 1 or 3, or may require the owner of the OWTS to submit a report of waste discharge for evaluation on a case-by-case basis. Regional Water Board response to such reports of waste discharge may include, but is not limited to, enrollment in general waste discharge requirements, issuance of individual waste discharge requirements, or issuance of waiver of waste discharge requirements. A local agency may authorize repairs that are in substantial conformance, to the greatest extent practicable, with Tier 2 in accordance with section 9.2.3 if there is an approved Local Agency Management Program, or with an existing program if a Local Agency Management Program has not been approved and it is less than 5 years from the effective date of the Policy.**

**11.6 Owners of OWTS will address any corrective action requirement of Tier 4 as soon as is reasonably possible, and must comply with the time schedule of any corrective action notice received from a local agency or Regional Water Board, to retain coverage under this Policy.**

**11.7 Failure to meet the requirements of Tier 4 constitutes a failure to meet the conditions of the waiver of waste discharge requirements contained in this Policy, and is subject to further enforcement action.**

DEH maintains an electronic database for tracking receipt and response to public complaints. Our complaint investigation policy sets a response goal of five days to complaints received. Complaints alleging conditions such as failing OWTS or sewage spills require immediate attention and a rapid response time is employed.

HCC section 611-2(i) defines OWTS failure; section 612-2 requires that a permit be obtained to make a repair to a failed system; and section 612-4 provides investigation and abatement authority.

Page 23 of the RTM provides information on obtaining permits for repairs.

If, through the assessment and reporting requirements of the OWTS Policy or through any other means, DEH finds that its standards are not adequate to protect water quality and public health, additional protective measures will be considered and proposed.

**Appendix 1: Humboldt County Onsite Wastewater Regulations and Technical Manual.**

**Appendix 2: Humboldt County Code, Title VI, Divisions 1 and 2.**

**Appendix 3: SWRCB Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems.**

Available online at:

*[https://www.waterboards.ca.gov/water\\_issues/programs/owts/docs/owts\\_policy.pdf](https://www.waterboards.ca.gov/water_issues/programs/owts/docs/owts_policy.pdf)*