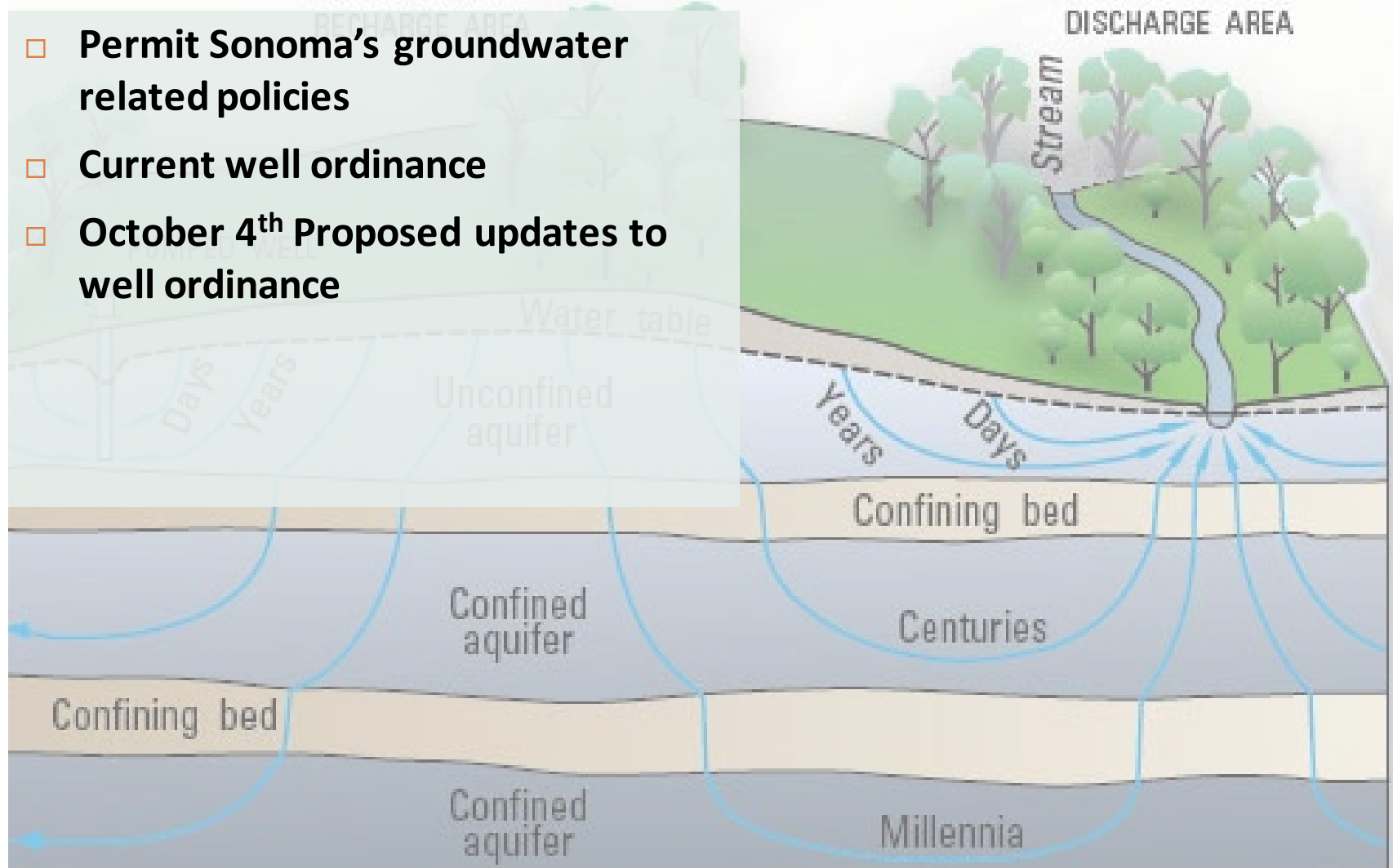


SONOMA COUNTY GROUNDWATER POLICIES AND WELL ORDINANCE

Robert Pennington, Professional Geologist, Permit Sonoma
November 17, 2022

Presentation Overview

- Permit Sonoma's groundwater related policies
- Current well ordinance
- October 4th Proposed updates to well ordinance



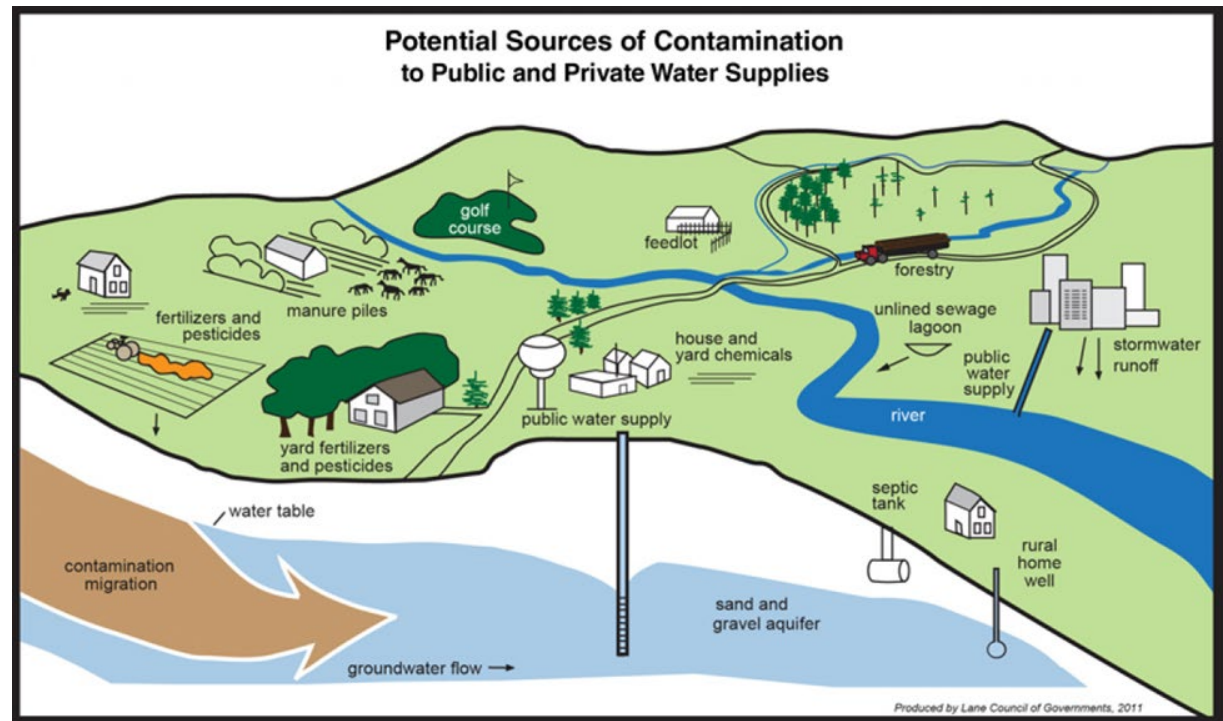
County Groundwater Policies

- General Plan - Water Resources Element
 - **Objective WR-2.1:**
 - Conserve, enhance and manage groundwater resources on a sustainable basis for future generations, the uses allowed by the General Plan, and the natural environment.

 - **Policy WR-2e:**
 - Proof of groundwater availability in water scarce areas.
 - Deny Use Permits and other discretionary permits in water scarce areas unless a Hydrogeologic Report shows sufficient supply and no adverse impacts.

Well Ordinance – Ch 25B

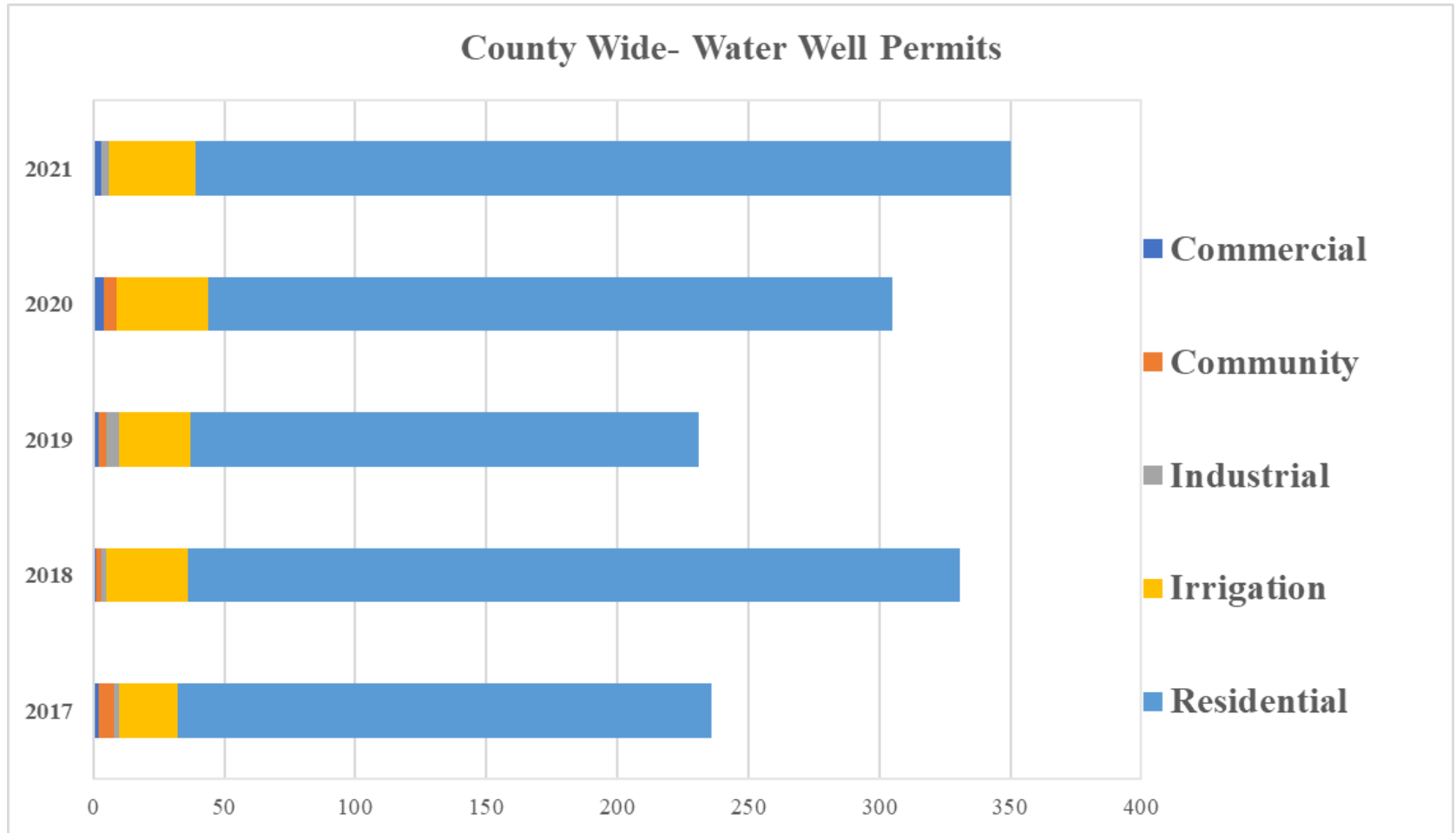
- Last Updated in 2015
- Construction standards
 - ▣ Setbacks
 - ▣ Well seal
 - ▣ Destruction



Well Ordinance – Ch 25B

Uses and/or Facilities	Setback (feet)
Septic tank/sewage disposal system	100
Seepage pit or cesspool	150
Feed yard/lot	100
Non-leaking underground storage of hazardous materials	100
Aboveground storage of hazardous materials	50
Municipal biosolids land application sites	100
Pond, lake, stream or wetland as measured from top of bank	30
Known Contaminated Sites	
Open Sites	2500
Closed Sites	1000

Well Permits by Year



Well Permitting - Recent Events

- 2018 – **California Court of Appeals Ruling** - Public Trust Doctrine applies to groundwater wells
- 2021 - **California Coastkeeper Alliance lawsuit**
- March 28, 2022, **Governor's Executive Order** - additional review of water wells (excluding public water systems and residential wells)
- August 9, 2022, BOS directs staff to:
 - ▣ make changes to the proposed ordinance
 - ▣ conduct community engagement
- October 4, 2022, BOS:
 - ▣ Adopts temporary (six month) **moratorium of water well permits**
 - ▣ Directed staff to form **advisory committee, come back in six months**

Ordinance Sections

October 4th Proposed Ordinance

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- 25B-1. **Declarations.**
- Sec. 25B-3. **Definitions**
 - **Public Trust Resources**
 - **Navigable Waters**
 - **Critical Watershed Areas**
- Sec. 25B-4(d) **Discretionary Public Trust Review Process**
- Sec. 25B-4(d)(1)(ii) **Public Trust Review Area**
- Sec. 25B-4(e) **Ministerial Well Classifications**
- Sec. 25B-12 **Monitoring Requirements**
- Sec. 25B-13 **Water conservation and best management practices**

Public Trust Resources

October 4th Proposed Ordinance

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Navigable waterways of Sonoma County:

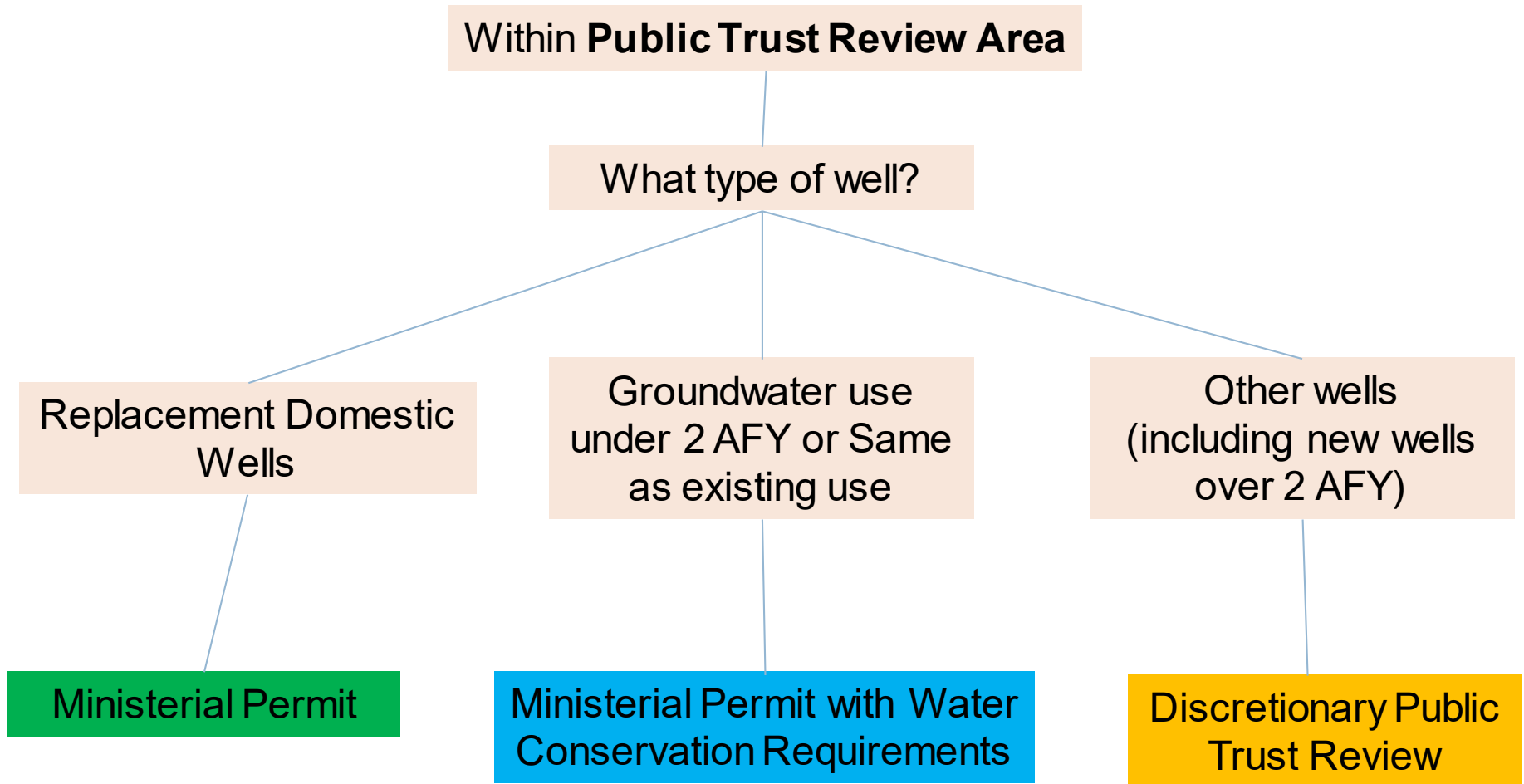
- ❑ Russian River (Pacific Ocean to County line)
- ❑ Petaluma River (SF Bay to downtown)
- ❑ Sonoma Creek (SF Bay to Hwy 12/121)
- ❑ Gualala (west of Highway 1)
- ❑ Estero Americano (Pacific Ocean to near Valley Ford)
- ❑ Salmon Creek (west of Highway 1)

- ❑ From Army Corp Survey, 1971, and *Hitchings vs Del Rio Wood*, 1976

Permit Screening Flow Chart

October 4th Proposed Ordinance

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Public Trust Review Area

October 4th Proposed Ordinance

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- Contributing watershed to navigable water, **and within** any of the below areas:
 - Subterranean Stream or Potential Stream Depletion Area
 - Stetson Engineers, inc., 2008
 - Critical Watershed Areas
 - Upper Mark West Creek
 - Upper Green Valley Creek
 - Mill Creek
 - Dutch Bill Creek
 - Priority Basin
 - Defined by Department Water Resources for Sustainable Groundwater Management

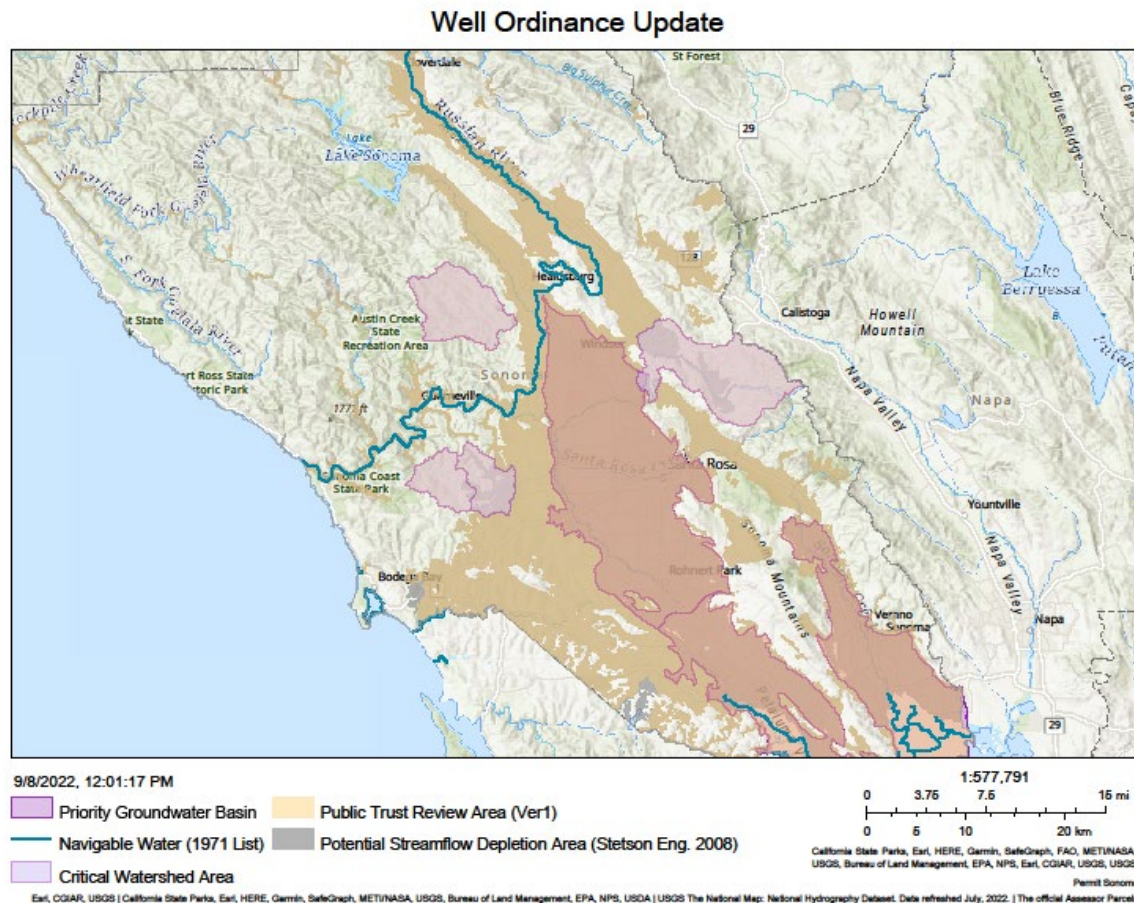
Public Trust Review Area

October 4th Proposed Ordinance

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Please visit and explore using the online GIS viewer:

<https://sonomacounty.maps.arcgis.com/apps/webappviewer/index.html?id=8baedfd50be640b0b11548537f89fee2>



Well Classes Exempt from Discretionary Public Trust Review

October 4th Proposed Ordinance

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- **Replacement domestic well**
 - groundwater use of parcel limited to 2 AFY
- **Well on low water use parcel** (inc. most new domestic uses)
 - groundwater use of parcel limited to 2 AFY
 - water conservation and monitoring requirements
- **Well for existing land use**
 - groundwater use of parcel limited to existing use
 - water conservation and monitoring requirements
- **Public water wells**
 - where CEQA has been completed

Water Conservation and BMPs

October 4th Proposed Ordinance

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- Showerheads and toilets meet water efficiency standards
- Existing and future landscaped areas meet Water Efficient Landscape Regulations
- Non-functional/ornamental turf prohibited
- Individual water meters on each separate service connections
- Water conservation plan for commercial, industrial, and institutional projects
- Vineyard and Orchard irrigation limited to:
 - 0.4 AFY per acre for sites within a Critical Watershed Area
 - 0.6 AFY per acre within Priority Basin, and all water conservation requirements specified in a GSP or other regulations adopted by a GSA
 - 0.6 AFY per acre for all other areas, or existing use supported by data or study

Well Monitoring

October 4th Proposed Ordinance

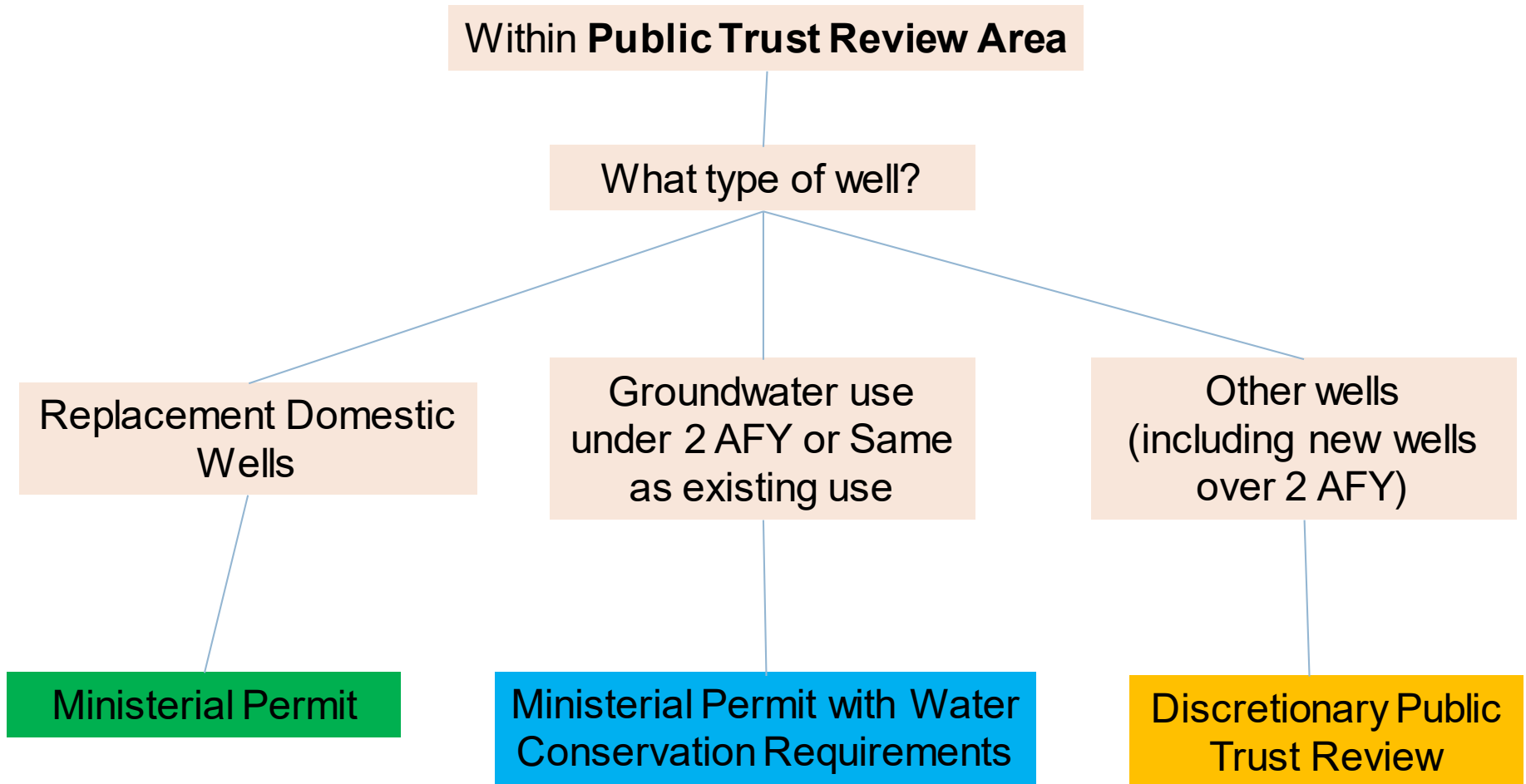
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- Monthly Water Meter Readings
- Annual Reporting
- Domestic properties with less than 2 acre feet per year are **exempt**

Permit Screening Flow Chart

October 4th Proposed Ordinance

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Discretionary Public Trust Review

October 4th Proposed Ordinance

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- ❑ Applications required to provide information to assess impacts
- ❑ Written findings on potential impacts
- ❑ Determination may be appealed to BOS
- ❑ BOS can approve a well with overriding consideration of public benefit

(Estimated to apply to 10 to 20 permits a year)

BOS Decision and Direction

October 4th Hearing

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- Six month moratorium through April 4th
- Form a technical advisory committee and return in 6 months
- Ministerial path for additional well “classes”:
 - Wells that qualify as zero net use
 - Wells regulated under existing surface water rights
- Refine the public trust review area

Public Comments

October 4th Ordinance

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- Support for:
 - Consistency with groundwater sustainability plans and coordination with groundwater sustainability agencies.
 - Monitoring (recommendation to monitor water levels).
 - Comprehensive groundwater policy development process.

Public Comments cont.

October 4th Ordinance

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- Concern that public trust review:
 - Would not adequately evaluate cumulative impacts.
 - Would not evaluate impacts to fisheries within non-navigable tributary streams.
 - Add significant uncertainty, expense, and time to the well permitting process.

- Questions and concern:
 - Scope of required studies.
 - Definitions of substantial adverse impact.
 - CEQA review process in association with the discretionary public trust review.

Working Groups Outcome: Consensus Recommendations on Topics

Public Trust / GW Review Area	<p>What waterways require impacts analysis under the public trust doctrine?</p> <p>What public trust resources and uses are sensitive to streamflow depletion due to groundwater extraction?</p> <p>What aquifers are interconnected with public trust waterways and groundwater extraction from these areas is likely to have an adverse impact on public trust resources?</p>
Well Classification: Ministerial and Discretionary	<p>What classes or categories of wells receive a ministerial (routine) permit?</p> <p>What well classes receive a discretionary (more tailored review)?</p> <p>Replacement domestic wells, public water wells, zero net use, etc.</p>
Well Implementation Requirements – Conservation and other Measures	<p>What water conservation measures should be required of each class of wells?</p> <p>Water efficient landscape regulations, maximum allowed use, etc.</p> <p>Other measures: groundwater recharge, farm practices, etc.</p>
Impact Definitions	<p>What is a substantial adverse impact? (watershed, waterway, basins)</p> <p>What methods should be employed to evaluate adverse impacts?</p>
Discretionary Review Process	<p>What is the nature of that review? (CEQA, other)</p> <p>What requirements are defined by what anticipated impacts?</p>
Monitoring Requirements	<p>What groundwater monitoring conditions (water meter readings, depth to water measurements, etc.) should be required of specific classes of wells?</p>
Adaptation	<p>What information or discovery will trigger the need to revisit these policies or approaches?</p>