



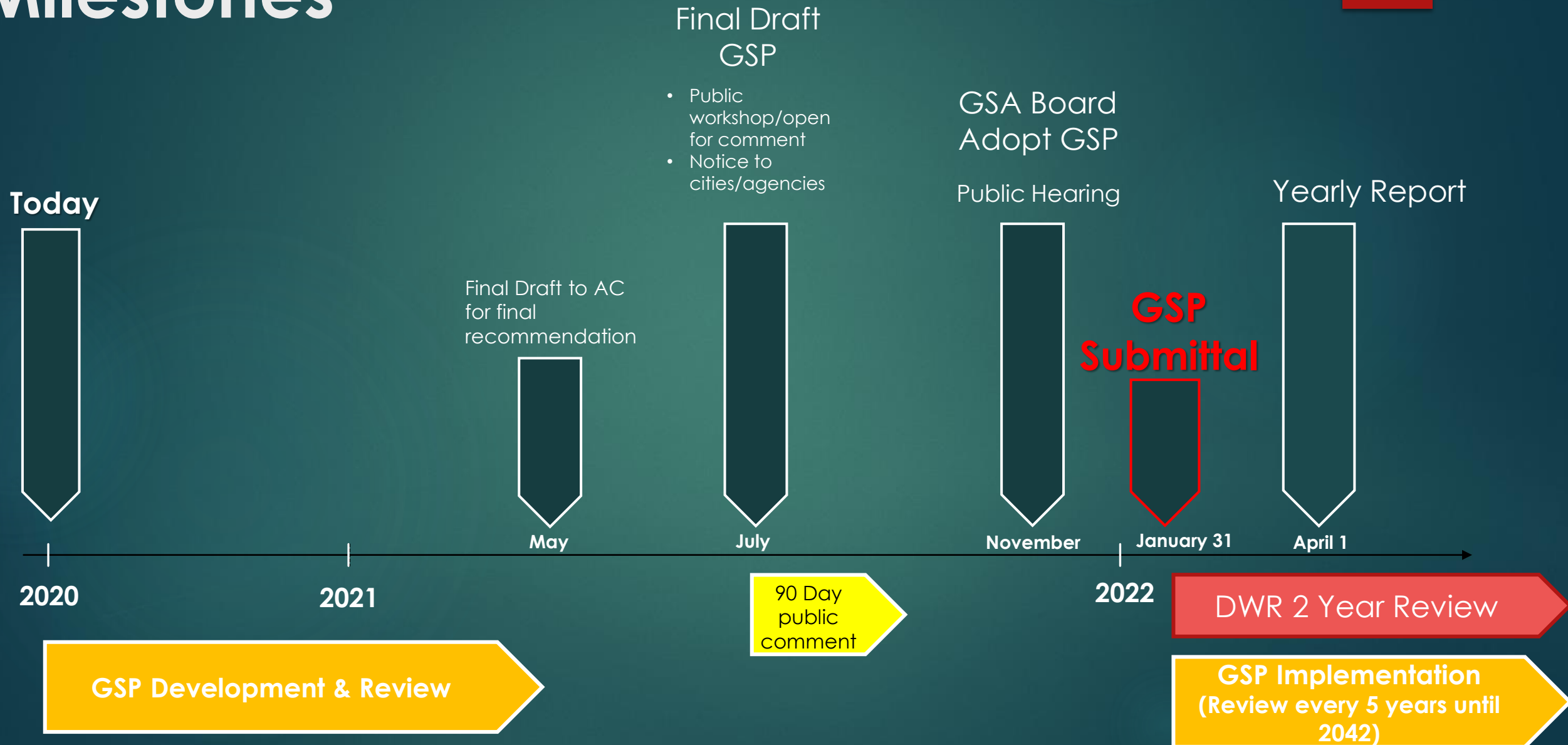
GSA Board Meeting SGMA Update

JUNE 23, 2020

Agenda

- ▶ Introduction
- ▶ GSP Schedule/Timeline
- ▶ GSP Chapter Overview
- ▶ SMC Introduction
 - ▶ Water Quality
 - ▶ Innerconnected Surface Water
- ▶ Communication & Engagement Plan
- ▶ Closing/Next Steps

GSP Milestones



GSP Chapter 1. Introduction

- 1.1 Purpose of the GSP
- 1.2 Sustainability Goal
- 1.3 Agency Information
 - 1.3.1 Organization & Mgmt. Structure of the GSA
 - 1.3.2 Legal Authority of the GSA
 - 1.3.3 Estimated Cost of Implementing the GSP & GSA's Approach to Meet Costs
- 1.4 GSP Organization

Chapter 2. Plan Area & Basin Setting

- 2.1 Description of the Plan Area - Draft
 - 2.1.1 Summary of Jurisdictional Areas and Other Features - Draft
 - 2.1.2 Water Resources Monitoring and Management Programs - Draft
 - 2.1.3 Land Use Elements or Topic Categories of Applicable General Plans
 - 2.1.4 Additional GSP Elements
 - 2.1.5 Notice and Communication – Communication & Engagement Plan**
- 2.2 Basin Setting - Draft
 - 2.2.1 Hydrogeologic Conceptual Model – Ongoing
 - 2.2.2 Current and Historical Groundwater Conditions - Ongoing
 - 2.2.3 Water Budget Information – Ongoing
 - 2.2.4 Management Areas – Discussed but TBD

Chapter 3. Sustainable Management Criteria (SMC)

- ▶ Components
 - ▶ Measureable Objectives
 - ▶ Minimum Thresholds
 - ▶ Undesirable results
 - ▶ Triggers
- ▶ 6 Criteria
 - ▶ Water Quality - **Current**
 - ▶ Groundwater Levels - **Current**
 - ▶ Groundwater Storage - **Current**
 - ▶ Surface Water Depletion - **Current**
 - ▶ Subsidence – **Completed in AC**
 - ▶ Seawater Intrusion – **Not applicable**

Chapter 3 – continued

- 3.1 Sustainability Goal - Ongoing
- 3.5 Monitoring Network - Ongoing

Chapter 4. Projects & Management Actions to Achieve Sustainability Goal

- ▶ **4.1** Project Descriptions
 - ▶ (Each Project)

Chapter 5. Plan Implementation

- 5.1** Estimate of GSP Implementation Costs
- 5.2** Schedule for Implementation
- 5.3** Annual Reporting
- 5.4** Periodic Evaluations

Chapter 6. References & Technical Studies

- ▶ Coordination Agreements
- ▶ Contact Information for Plan Manager & GSA Mailing Address
- ▶ List of Public Meetings
- ▶ Technical Appendices
- ▶ Groundwater Model Documentation
- ▶ Comments & Responses

Development of Sustainable Management Criteria for Scott, Shasta, and Butte Valley

June 23, 2020



Today's Objectives

- Introduction to **Sustainable Management Criteria development process**
- Report on input from ACs about **Water Quality (and subsidence)**
- GSA role for Water Quality

Development of Sustainable Management Criteria

Sustainable Management Criteria (SMCs) are defined **locally** based on *basin conditions* to avoid *significant and unreasonable undesirable results* for six SGMA sustainability indicators.



Lowering groundwater levels



Reduction in storage



Seawater intrusion



Degraded water quality

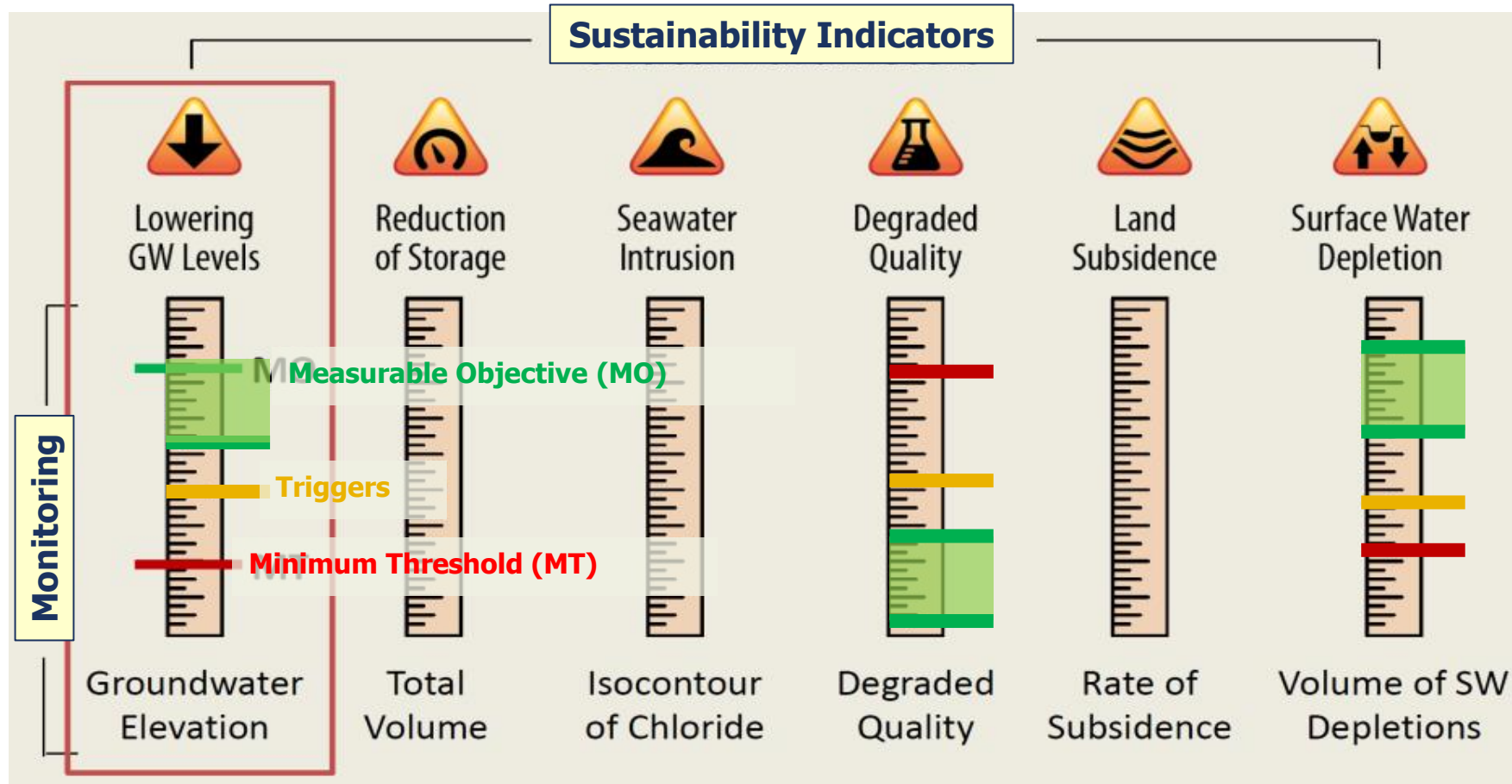


Land subsidence



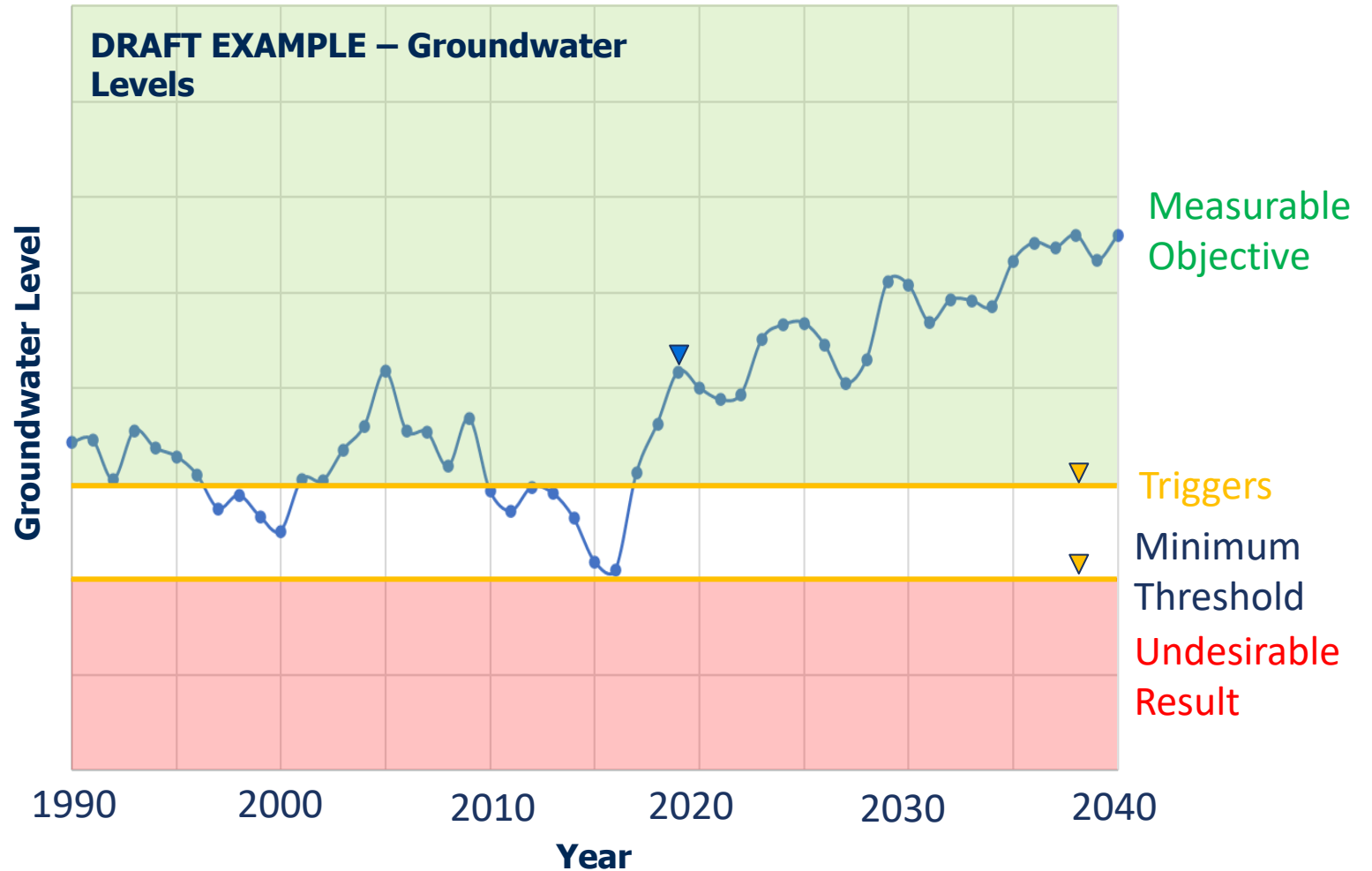
Surface water depletion

GSP: Monitoring and Managing Sustainability



Review of Sustainable Management Criteria Components

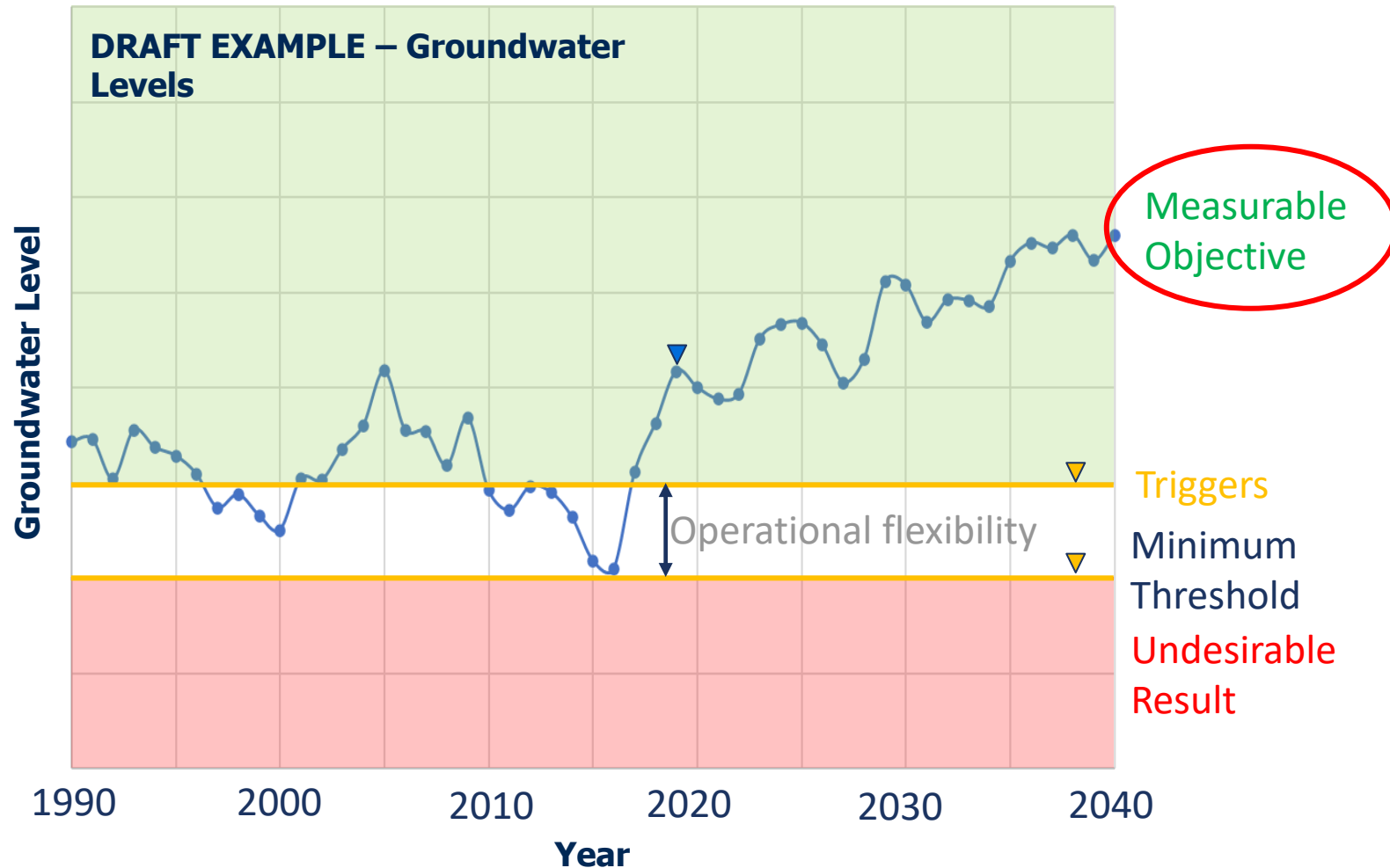
- Undesirable Results
- Minimum Thresholds
- Measurable Objectives
- Sustainability Goal



Review of Sustainable Management Criteria Components

■ Measurable Objectives

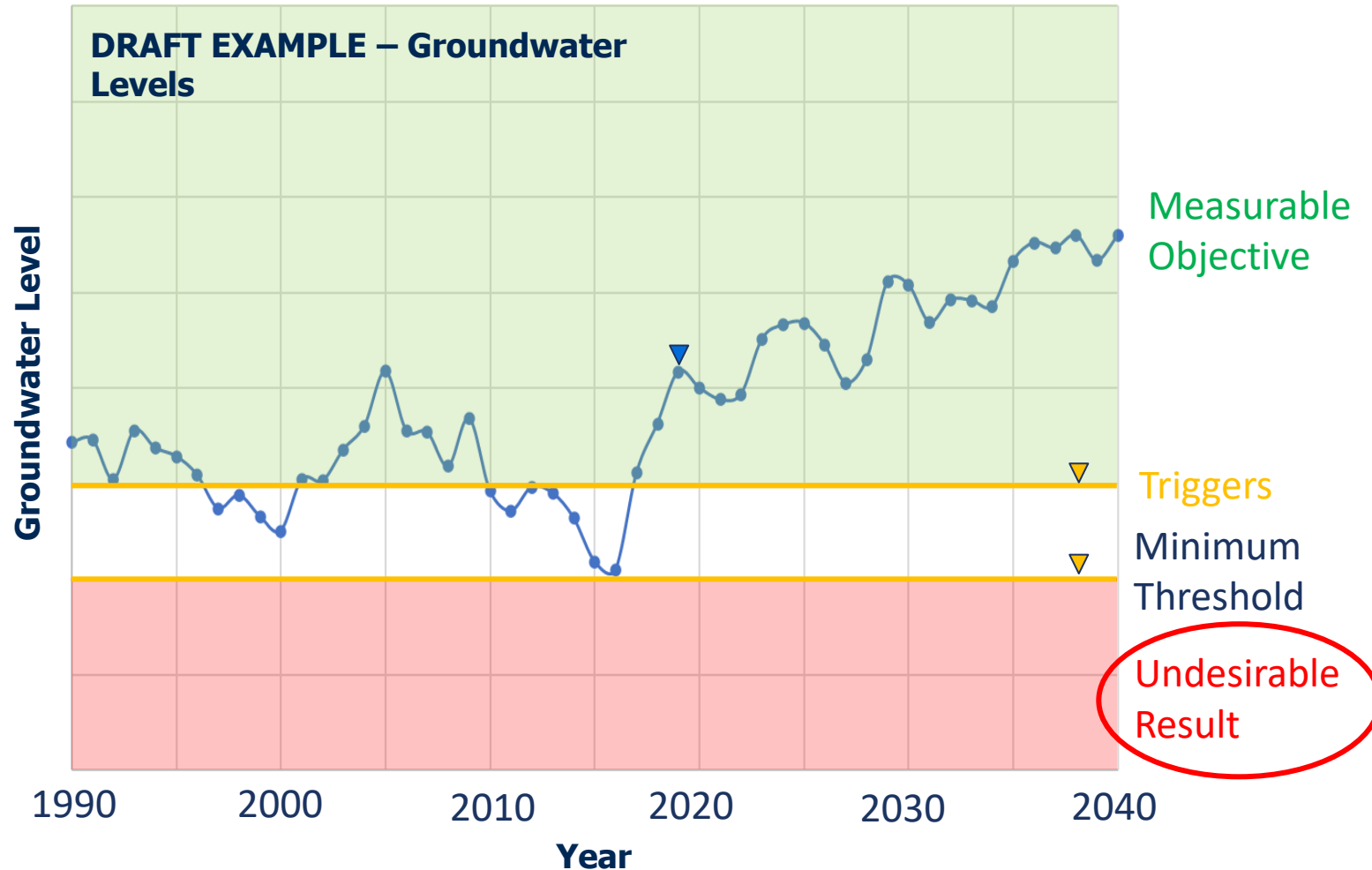
- A management target that provides a usable buffer for use during droughts, etc.
- Establishes the lower/upper targeted boundary for basin management
- Should provide a reasonable margin of operational flexibility



Review of Sustainable Management Criteria Components

■ Undesirable Results

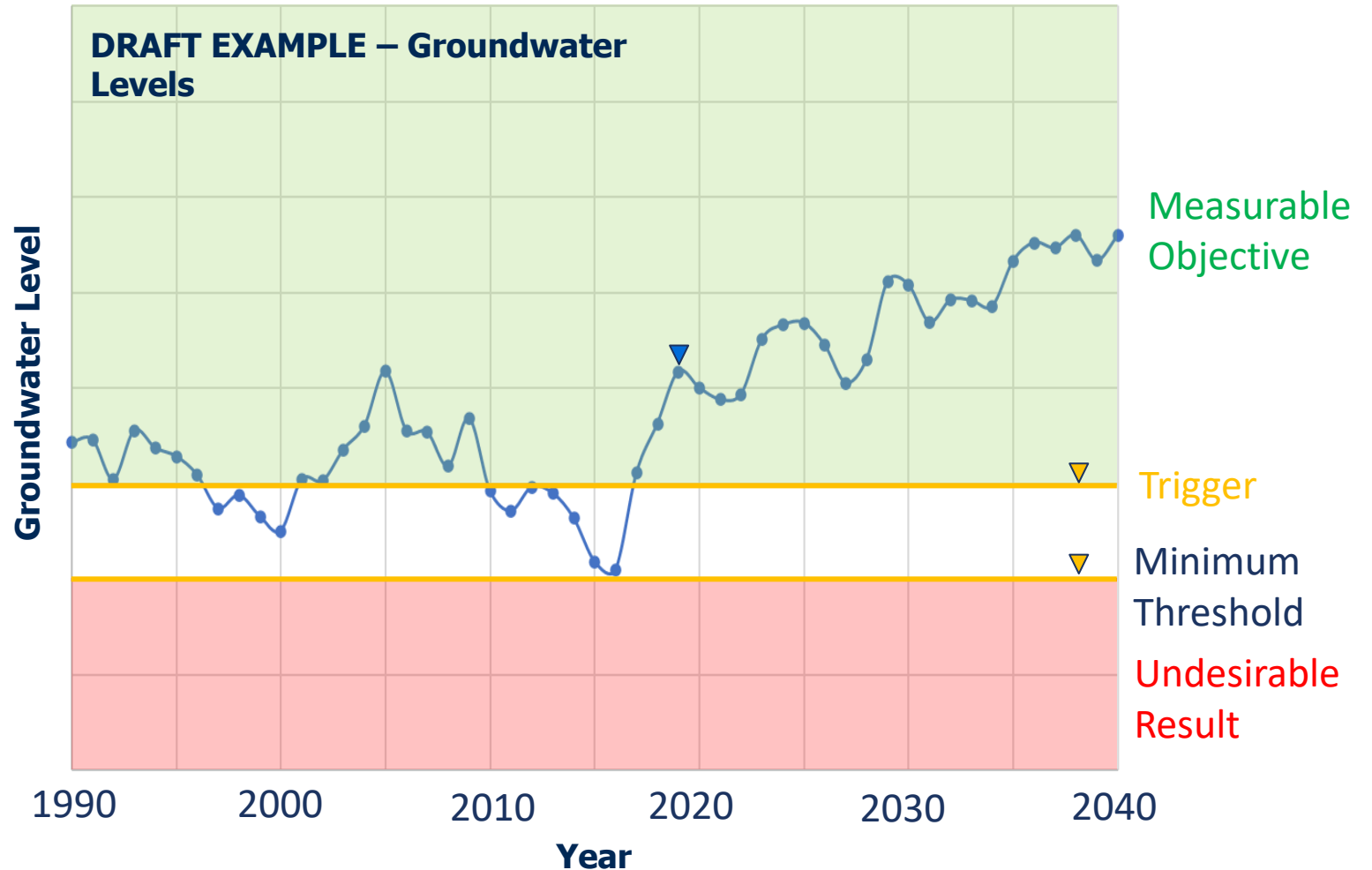
- Must be “Significant and Unreasonable”
- Statement that describes conditions that we do not want to happen
- Defined for each sustainability indicator
 - (e.g. groundwater levels, groundwater quality, etc.)



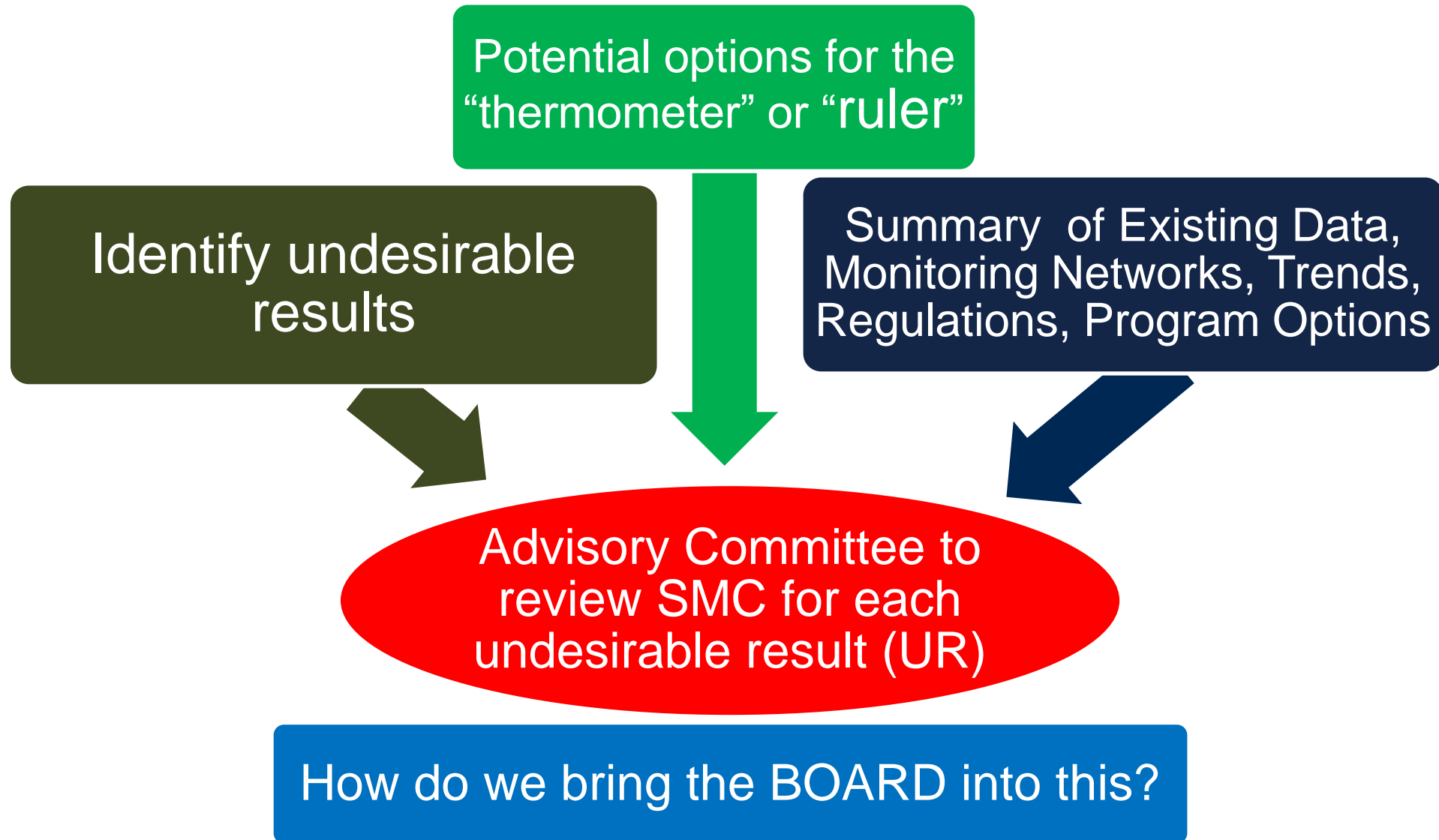
Review of Sustainable Management Criteria Components

■ Minimum Threshold

- Anything worse is considered an “undesirable result”
- The highest/lowest a basin can go without something significant and unreasonable happening to groundwater



Proposed SMC Development Process



SGMA Requirement for Water Quality

- §345.28 (c) (4) Degraded Water Quality.

“The minimum threshold for degraded water quality shall be the degradation of water quality, including the migration of contaminant plumes that impair water supplies or other indicator of water quality as determined by the Agency that may lead to undesirable results. The minimum threshold shall be based on the number of supply wells, a volume of water, or a location of an isocontour that exceeds concentrations of constituents determined by the Agency to be of concern for the basin. **In setting minimum thresholds for degraded water quality, the Agency shall consider local, state, and federal water quality standards applicable to the basin.**”

The GSA's Responsibility for Water Quality

- Existing regulatory agencies (and programs):
 - State/Regional Boards, Dept. of Toxic Substances Control, Dept. of Pesticide Regulation
- GSA: main steward of GW basin sustainability (closer to the “pulse” than state)
- GSA has monitoring duties
- In case of man-made pollution: May act as a proactive “facilitator” to move forward on processes that protect groundwater quality
- For recharge/pumping projects:
 - Consider effects on existing man-made pollution
 - Consider effects on existing naturally occurring contaminants

Developing SMC for Water Quality based on ACs results

- What is a “significant and unreasonable undesirable result”
- Constituents of concern:
 - Review and approve shortlist of constituents to be included in the GSP
 - Are we missing existing data?
 - Review existing and potential future groundwater quality monitoring network programs available to be used in GSP
- Review and discuss options to set SMC for the shortlisted constituents
 - Thresholds
 - Measurable objectives
 - Monitoring and reporting
 - Projects and management actions (if needed)

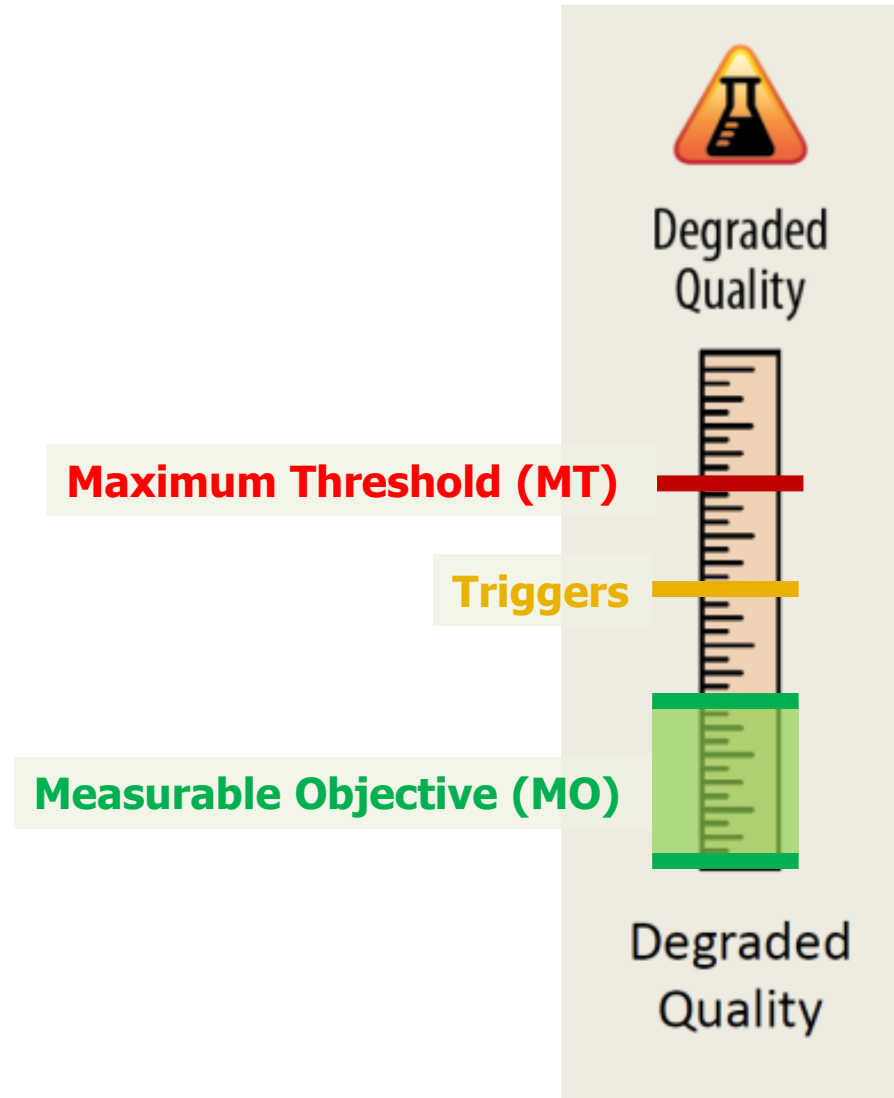
“Significant and Unreasonable” Undesirable Results for Water Quality

To be discussed, options include:

- Adverse effects on drinking water uses
- Adverse effects on irrigation water uses
- Deferred to development of GW-SW Sustainability Indicator:
 - WQ impacts to stream baseflow (from groundwater) → Close coordination with North Coast Regional Board and existing TMDL

For Selected Constituents: Define SMC

- Who will measure
- What to measure
- Where to measure
- When to measure
- What metric to use



Existing Groundwater Quality Monitoring Programs and Networks

- Public water supply wells
 - Monitored regularly for key water constituents
- State small public water supply wells
 - Monitored regularly, but less frequent than PWS wells for some water constituents
- Domestic wells
 - Only sporadic monitoring, if any
- Agricultural/irrigation wells
 - Only sporadic monitoring, if any
- Monitoring wells
 - At contamination sites to guide/assess remediation

Approach to preliminary list of Constituents of concerns

- MCL, Basin Plan water quality objective, or human health-related level exists for the constituent
- Consider data from the historical record (e.g., 30 years)
- Focus on water quality parameters confirmed by multiple measurements
- Constituent either (a) shows exceedances of a threshold, (b) shows a strong likelihood of exceeding a threshold, or (c) is commonly addressed in other GSPs.

What choices does the GSA have to make?

- Metrics (thresholds, measurable objectives)
- Monitoring Network (where and when to monitor)
- Implementation Actions

Input from the ACs

- Based on current available data, no apparent WQ issues in groundwater in the three basins.
- The proposed list of COCs are sufficient
- Set triggers equal to MCL, SMCL, and NLs.
- Existing monitoring network to be used for WQ needs to be augmented with a dedicated water quality monitoring network
 - The expanded network will be included in the implementation plan
- Objective for WQ is to maintain the current status, considered as high water quality within the valleys.
- GSA to be aware of ongoing groundwater cleanup actions

Ongoing work

- SMC for SW/GW interactions (Scott and Shasta)
- Model development and evaluation of groundwater levels (Butte)
- Scenarios development

Implementation of the Sustainable Groundwater Management Act in Siskiyou County

Stakeholder Communication and Engagement

GSA Board Meeting
June 23, 2020

Stakeholder Communication and Engagement

Core SGMA requirements

- SGMA requires GSAs to conduct broad stakeholder *identification, communication and engagement*
- GSPs must include a summary of information that describes ongoing notification, communication and engagement with stakeholders
 - A description of beneficial uses and users of groundwater in the basin
 - A list of public meetings at which the GSP was discussed or considered by the GSA
 - Comments regarding the GSP received by the GSA and a summary of any responses by the GSA
 - A communication section of the GSP

Source: GSP Emergency Regulations § 354.10

Stakeholder Communication and Engagement

What needs to be in the communication section of the GSP?

- An explanation of the GSA's decision-making process
- Identification of opportunities for public engagement and a discussion of how public input and response will be used
- A description of how the GSA encourages active involvement of diverse social, cultural and economic elements of the population within the basin
- The method the GSA shall follow to inform the public about progress implementing the GSP, including the status of projects and actions

Source: GSP Emergency Regulations § 354.10

Stakeholder Communication and Engagement

Key language of the law

“The groundwater sustainability agency shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the groundwater basin prior to and during the development and implementation of the groundwater sustainability plan.” (California Water Code Section 10727.8(a))

“The groundwater sustainability agency shall consider the interests of all beneficial uses and users of groundwater.”
(California Water Code Section 10723.2)

Source: California Sustainable Groundwater Management Act (2014)

Stakeholder Communication and Engagement

Beneficial uses and users the GSA must consider

- Agricultural users of water
- Domestic well owners
- Municipal well operators
- Public water systems
- Land use planning agencies
- Environmental users of groundwater
- Surface water users
- The federal government
- California Native American Tribes
- Disadvantaged communities (including those served by private domestic wells or small community water systems)
- Entities in Section 10927 – monitoring and reporting groundwater elevation

Source: California Sustainable Groundwater Management Act (2014)

Stakeholder Communication and Engagement

How Siskiyou County plans have been assembled and advanced

- SGMA overview
- Plan goals and objectives
- Key aspects of SGMA implementation in Siskiyou County
- Target audiences
- Phases of GSP development
- Outreach strategies, tools and forums
- Various appendices

Source: Siskiyou County Stakeholder Communication and Engagement Plans for Scott Valley, Shasta Valley and Butte Valley

Stakeholder Communication and Engagement

Recent activities, milestones and ongoing work

- Secured initial input on GSP Chapter 2 (basin setting)
- Developed and secured advisory committee approval of stakeholder communication and engagement plans in each basin
- Established memorandum of understanding with the Karuk Tribe
- Fostering collaborative stakeholder engagement in the development of SMCs and running of hydrologic model scenarios
 - SGMA “lightning round” exercises
 - Technical meetings as needed
 - Regular outreach calls and visits
 - Next public meeting still pending
- Identifying links between SGMA and other related initiatives

Next Steps/Planning

- ▶ Summer technical work & GSP writing
 - ▶ Model work & refinement
 - ▶ Scenario brainstorm & discussion from AC's
- ▶ September & November AC meetings
- ▶ Fall Board Meeting
- ▶ Public workshops in late 2020
- ▶ 2021
 - ▶ 2-4 Board Meetings
 - ▶ 6-8 AC Meetings



Questions & Discussion