



**Item 5.
Consideration and potential
recommendation on topics related to the
Vina Periodic Evaluation and potential
amendments to the Groundwater
Sustainability Plan**

Vina Stakeholder Advisory Committee

July 22, 2026

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Assistant Director, Butte County Water and Resource Conservation

[Providing technical staff support to the Vina GSA]

Today's Discussion: Four Topics

Staff will overview each topic so you can discuss and, where warranted, take action on a recommendation to the GSA Boards.

A **Non-Dry Year Language** — Remove a qualifier DWR flagged in its Corrective Actions.

B **Groundwater Level Thresholds** — Two alternatives for the Minimum Threshold

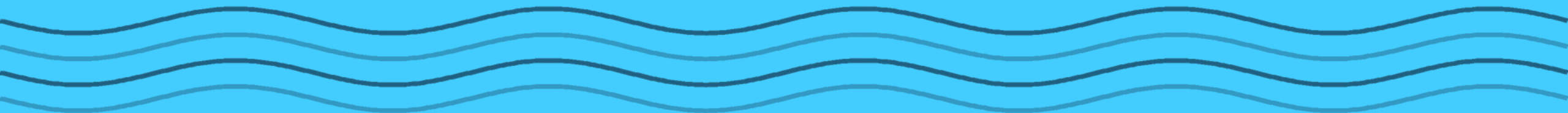
C **Projects & Management Actions** — New concepts introduced for early feedback.

D **Water Quality RCA Response** — Draft reply to DWR's water-quality Corrective Action

ITEM A

Removing “Non-Dry Year” Language

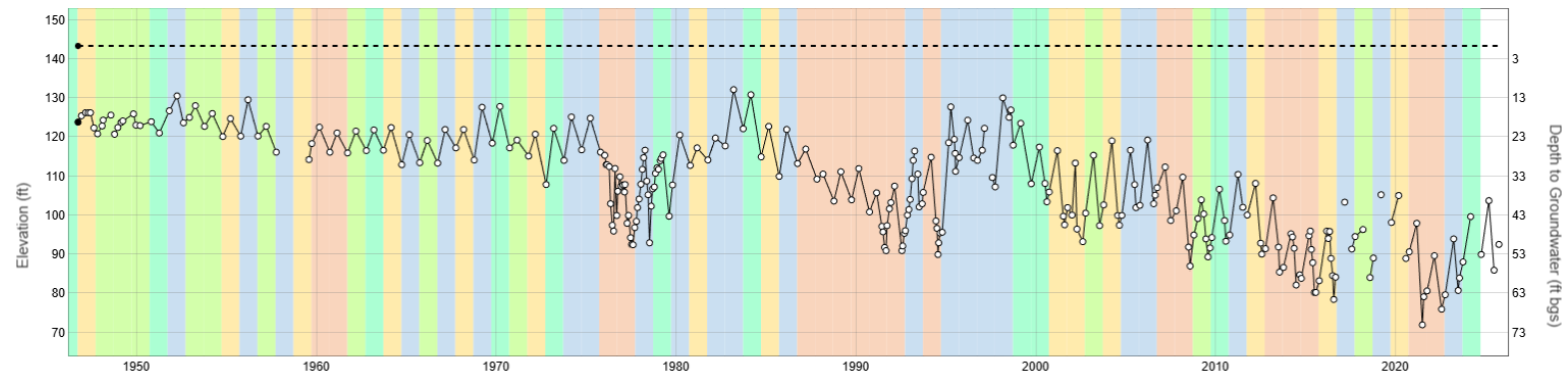
Responding to DWR Recommended Corrective Actions 3a & 4



What is the “non-dry year” condition?

- The 2022 GSP defines an undesirable result when minimum thresholds are exceeded during “non-dry” years — wet, above normal, or below normal.
- That excludes dry and critically dry years — so impacts occurring during severe drought would not trigger an undesirable result.
- DWR flagged this in Corrective Actions 3a and 4 as inconsistent with SGMA.
- The neighboring Corning Subbasin had the same language in their GSP that was deemed inadequate and it was removed before later DWR plan approval.
- Other subbasins receiving the same DWR feedback also removed the non-dry year description.

DWR: it is *“inappropriate for a GSA to disregard a depletion of supply based on certain hydrologic or climatic conditions.”*



Proposed Change: Remove the Qualifier

- Staff recommends removing the language rather than keeping it and separately proving dry-year impacts are offset later.
- Specific plan amendments associated with this change are included in the staff memo for consideration

REQUESTED ACTION

Recommend the GSA Boards amend the GSP to remove the language and document the response in the Periodic Evaluation.

Applies across four sustainability indicators:



Groundwater Levels



Water Quality



Groundwater Storage



Interconnected Surface Water

ITEM B

Groundwater Level Minimum Thresholds



Two Alternatives for Consideration

Groundwater Level Strawman

Input on the June strawman shaped the alternatives before you today.

- Vina GSA released the Groundwater Level Strawman on June 18, 2026 for input/feedback
- Community members have spent significant time/effort digesting and providing feedback to staff on the strawman
- Input was received at several in-person gatherings
 - June 22 – informal discussion with environmental and domestic well user community members
 - June 24 – SHAC meeting, initial feedback
 - July 6 – informal discussion with environmental, domestic well, and agricultural community members
 - July 8 – Joint Vina and Rock Creek GSA Board Meeting. Board member and public comments received
 - July 14 – Groundwater Levels Public Workshop in Chico

Groundwater Level Strawman — Here's What Changed

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Input on the June strawman shaped the alternatives before you today.

STAKEHOLDER INPUT

REFLECTED IN THE ALTERNATIVES

Interest in the Wyandotte Creek approach



Alternative 2 uses that dual-criterion method (deeper of historical low -20 ft OR 5% domestic-well risk).

Apply LMLs to more than the 5 strawman wells



LMLs now on 14 wells, with expanded purpose: GDE/shallow areas, subbasin-boundary alignment, and a domestic-well-dense polygon.

Preference for 2022 MTs to remain unchanged



Alternative 1 retains the comparable 2022 MTs.

Broad (unanimous at SHAC) support to expand monitoring



Both alternatives use the expanded 29-well / 26-area RMS network.

Remove the “non-dry year” language



Addressed as Item A, across all four indicators.

Protect domestic wells proactively



Domestic Well Mitigation Program funded to begin in 2027 under both alternatives.

The Building Blocks (Plain Language)

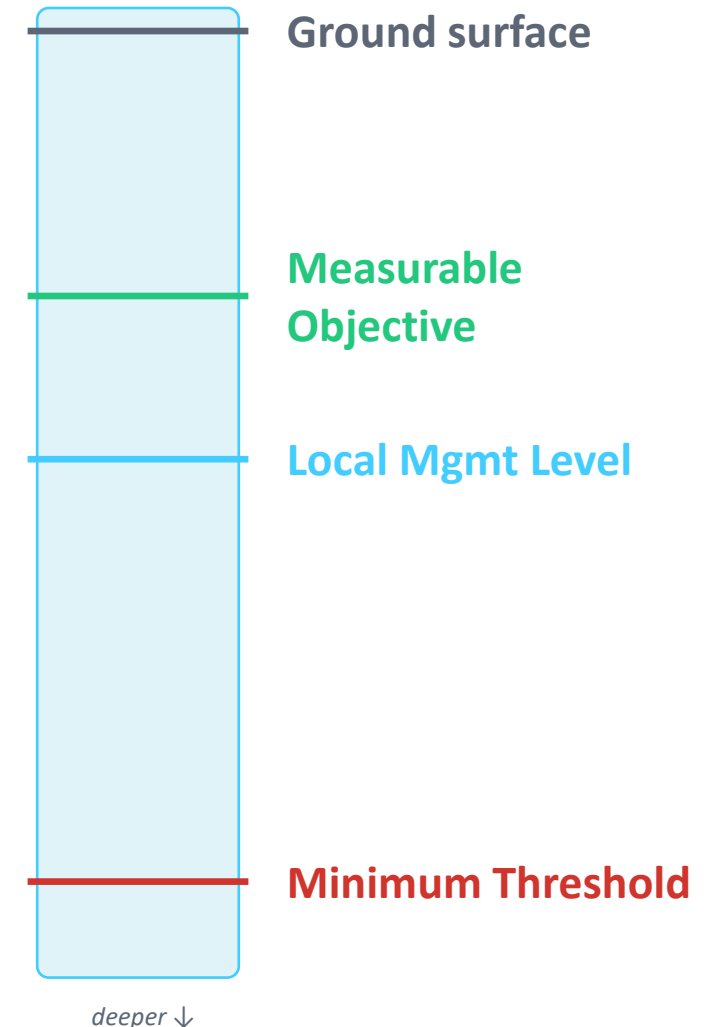
RMS wells — The specific wells we watch — the subbasin's “gauges.”
(29 wells, 26 areas)

Measurable Objective (MO) — The level we manage toward — the goal. Sits well above the MT (avg ~62 ft). Mostly below historical lows.

Local Management Level (LML) — An early-warning trigger 15 ft below the MO — not regulatory response; prompts a closer look.
(Alternative 1 only)

Minimum Threshold (MT) — The regulatory “low line.” Two RMS wells crossing it for two straight years may signal an undesirable result.

The decision: keep 2022 MTs and add early-warning LMLs, or revise the MTs?



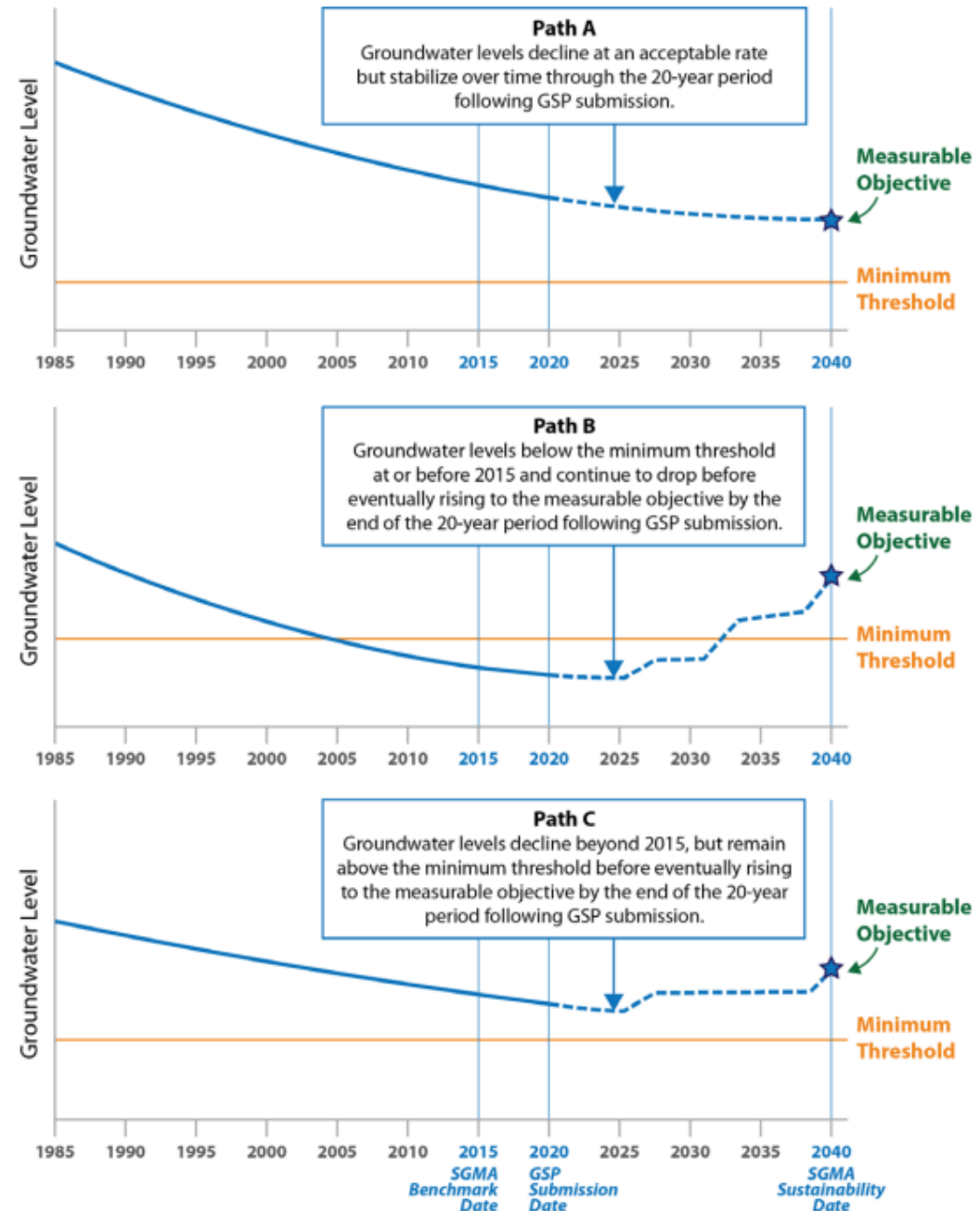
All Subbasins are Managing to the Measurable Objective

Vina Approach

Circumstances and approach differ in different subbasins

Applicable to other subbasins

Figure 15 is from DWR's Sustainable Management Criteria Best Management Practices document



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Figure 15. Potential Paths to Sustainability

Key Considerations Behind the Choice

Context staff weighed when shaping the alternatives — useful to talk through as you deliberate.

Basin setting

Levels fall in droughts and recover in wet years, but a long-term storage deficit remains. Ag footprint and pumping are stable — no sustained upward trend.

Domestic wells

The MT is a regulatory line, not the level managed toward — MOs average ~62 ft higher. A mitigation program is funded to begin in 2027.

Well dataset (pre-1980)

Both all-well and post-1980 counts are shown in the memo — broad exposure (but not realistic due to inclusion of all wells since 1900) vs. a practical planning estimate given record limits.

Inter-basin coordination

Vina MTs sit up to 60 ft below Corning and 25–59 ft below Butte, while MOs are much closer — managing toward the MO matters at shared boundaries.

Environmental uses / GDEs

Environmental Science Associates and The Nature Conservancy work advances GDE understanding, but the pumping–vegetation link isn't yet locally validated or well understood. Coordinated monitoring is the logical next step.

Chico urban forest

Not fully captured by GDE mapping; the MO–MT gap here averages only ~18 ft — far less than the other management areas. Focused monitoring is proposed with the City.

Adaptive management

The GSP runs on adaptive management; each 5-year Periodic Evaluation is the checkpoint to revisit criteria as new data arrives.

Common Ground: What's the Same in Both

Same expanded monitoring network

29 RMS wells across 26 representative areas.

Same MOs and 2027 Interim Milestones

Comparable to the 2022 GSP for both alternatives.

Chico Management Area unchanged

Chico MTs stay the same under both.

Domestic Well Mitigation Program

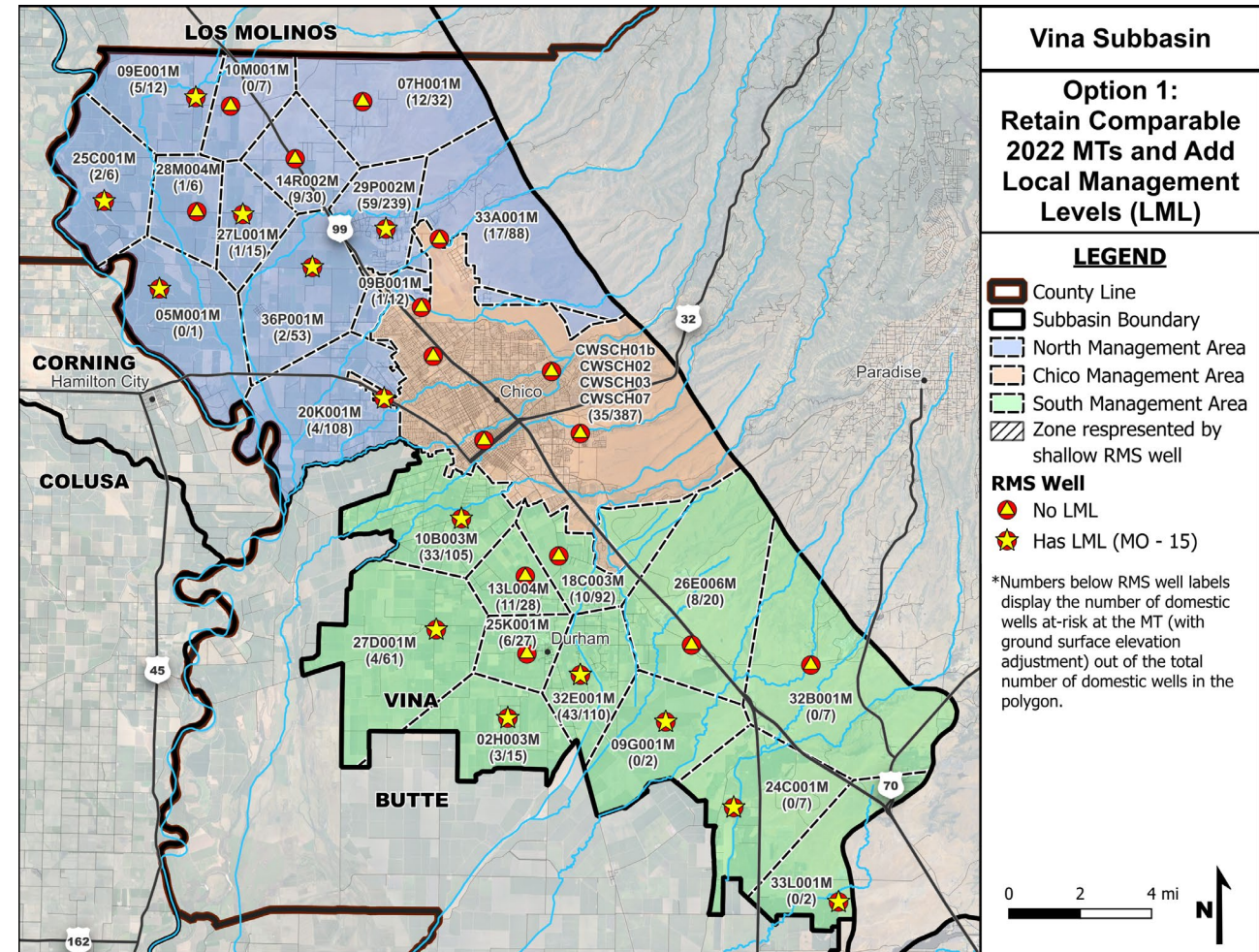
Funded to begin in 2027 regardless of the choice.

Continued projects & coordination

Recharge, efficiency, conservation, and inter-basin / surface-water work continue.

Alternative 1 — Keep 2022 MTs, Add Early Warning

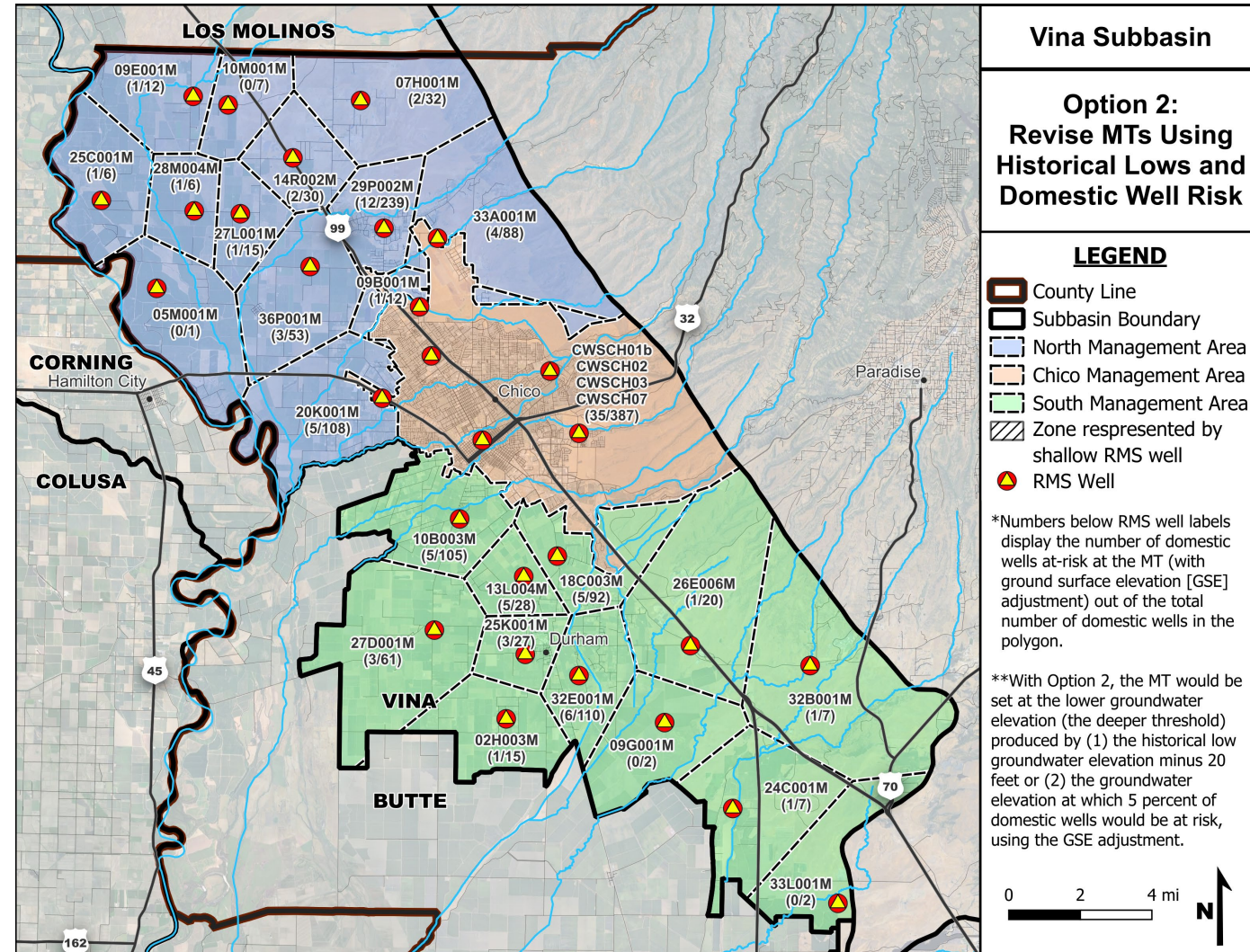
- Carries forward the comparable 2022 GSP Minimum Thresholds; new RMS wells use “comparable” method.
- Adds non-regulatory Local Management Levels (LMLs) — 15 ft below the MO — on 14 RMS wells.
- LML purpose: GDE / shallow areas, subbasin-boundary wells, and a domestic-well-dense polygon.
- Persistently reaching an LML prompts Board consideration of adaptive actions (monitoring, investigation, or implementation of a project or management action).
- Effect: preserves flexibility and avoids premature regulatory action, while adding earlier local triggers.



Alternative 2 — Revise the Minimum Thresholds

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- New method for all North & South RMS wells (Chico unchanged): MT = the deeper of (1) 20 feet deeper than historical low, or (2) the level where 5% of domestic wells are at risk.
- The 5% domestic well criterion is used for all but two RMS wells (tends to be the deeper of the two criteria)
- Modeled on the Wyandotte Creek draft amendment; similarities to Butte, Corning, Colusa, and Los Molinos.
- No LMLs; MOs and Interim Milestones stay the same.
- Generally more precautionary — raises MTs in most polygons and lowers estimated wells at risk. Yet, 8 RMS wells get a lower MT than 2022 MT.
- Effect: an earlier regulatory trigger on 16 RMS wells.



By the Numbers: Domestic Wells with Depths above the MT

Estimated wells with well-bottoms above the MT if levels sat exactly at the Minimum Threshold · post-1980 dataset, subbasin-wide.

1,472

Total domestic wells evaluated

266

At risk — Alternative 1

95

At risk — Alternative 2

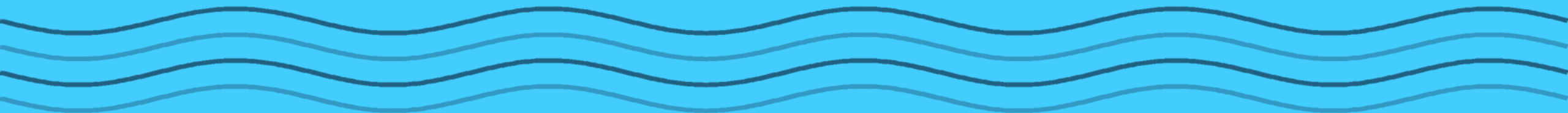
Remember: An MT is a regulatory line defining where Undesirable Results occur — not the level the GSAs manage toward. Measurable Objectives sit about 62 ft higher on average, and a separate mitigation program addresses individual wells.

ITEM C

Projects & Management Actions

Introducing New Concepts for Your Feedback

No recommendation is requested on these today.



Where Things Stand: Existing PMAs

From the framework presented to SHAC in March — provided as context for the new concepts.



PMAs — active strategy

Tracked in DWR's PMA Module as Completed, In-Progress, or Potential. 7 in-progress projects (e.g., irrigation efficiency, residential conservation, recharge scoping, orchard replacement, surface water & recharge incl. Lindo Channel).



Other Projects

Led mainly by other entities with ancillary groundwater benefit. 8 projects (e.g., wastewater recycling, PID intertie, streamflow augmentation). Documented in the PE; tracked as feasible.



Management Actions

7 actions reported on annually — e.g., Domestic Well Mitigation, well permitting ordinance, landscape ordinance, and groundwater allocation.

New Management Actions

MONITORING & ASSESSMENT · INTRODUCED FOR FEEDBACK ONLY

Local Refinement of GDE Mapping *Provided by Audubon*

- Develop and begin implementing a place-based monitoring plan for priority GDEs building from shallow-groundwater monitoring wells identified by Vina GSA
- Refine GDE maps — capturing oak woodlands and urban canopy the state data misses.
- Establish baseline ecological conditions, field + NDVI vegetation-health indicators, and help identify groundwater-driven impacts to GDEs
- Define potential timing or response triggers tied to LMLs and ecological thresholds
- Integrates best available science (incl. Traditional Ecological Knowledge); volunteers, schools & partners add ground-truthing.

Chico Urban Forest Vulnerability Assessment *Provided by Audubon in coordination with City of Chico*

- Fills a data gap on how dependent Chico's unirrigated, deep-rooted trees are on groundwater vs. soil moisture/creek recharge — helping address DWR Corrective Action 3 for environmental users.
- Two-Tiered Vulnerability Assessment- Tier 1: satellite z-NDVI greenness screening (Rohde et al. method); Tier 2: City tree inventory + field checks near shallow, GDE-sensitive RMS wells.
- Baseline begins now; formal evaluation only if a Chico-area/GDE well reaches its LML.
- Partners: City of Chico Urban Forestry, County, possibly CSU Chico.

Related concept under discussion: a Community Science / watershed stewardship program (CA Urban Streams Alliance) — possibly standalone or part of the GDE mapping effort.

New Projects

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DEFINED PLANNING / IMPLEMENTATION • INTRODUCED FOR FEEDBACK ONLY

Lindo Channel Recharge — Multi-Benefit Plan for Five Mile *ESA in coordination with Butte County*

- Builds on the June 2026 Lindo Channel recharge feasibility report and efforts in progress by Butte County Public Works; benefits require operational changes at the Big Chico Creek gates at Five Mile.
- Pairs recharge with the County's deferred maintenance — one-time channel/vegetation work to set a template, then ongoing TEK-informed monitoring and upkeep.
- Balances flood conveyance, fish passage, habitat, and recharge; a new governance/funding structure needed to align costs with beneficiaries. Potential funding: DWR Prop 4.

Biomass & Biochar Utilization *Provided by Audubon*

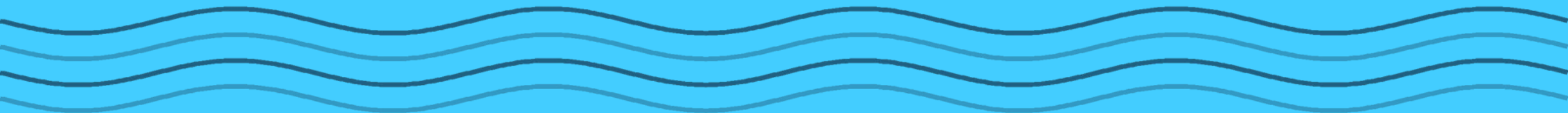
- Biochar on farmland for soil health, water retention & water quality; cultural burning reduces invasive species and fuels while converting biomass to biochar.
- On-farm recharge & demand management pilots with before/after monitoring to document soil, water quality, recharge and other hydrologic outcomes.
- California Open Lands led partnership could include CalFIRE, growers, and local agencies. Potential funding: CalFIRE, DWR, Prop 4.

Related concept under discussion: a Lindo Channel Multi-Benefit Stormwater Recharge Initiative (CA Urban Streams Alliance) — possibly standalone or part of the Lindo Channel project.

ITEM D

Water Quality — Corrective Action Response

Draft Response to DWR Recommended Corrective Action 1



Water Quality: What DWR Asked (RCA 1)

ITEM D

Key message: The GSA's role is to supplement — not replace — the agencies that regulate water quality. Existing programs addressing water-quality issues continue (e.g., the Chico Nitrate program).

DWR asked the GSAs to:

- a** Map contamination plumes and monitored constituents, and describe ongoing remediation.
- b** Evaluate whether GSA pumping or recharge could move contaminant plumes.
- c** Investigate impacts to supply & beneficial uses, and note any mitigation programs.
- d** Coordinate with lead remediation agencies and update the Plan accordingly.

Draft Response: Coordinate, Monitor, Document

- Plumes are already mapped in the GSP (Figure 2-18), reviewed against SWRCB, DTSC, and EPA sources — no significant changes since 2022. The recharge feasibility study flagged known plumes near proposed projects.
- Trend analysis of specific conductance shows no significant impacts from pumping this evaluation period.
- Planned recharge projects may dilute and limit plume movement; a water-quality monitoring plan would be expected if/when projects are built.
- Continued coordination with the Regional Water Board, DTSC, EPA, CV-SALTS, and the Sacramento Valley Water Quality Coalition — tracking nitrate and PFOA/PFOS.



Documented in the PE

Section 6.4

No plan amendment

proposed for this RCA

What SHAC Is Asked to Do

SUMMARY

A

RECOMMEND

Recommend the Vina GSA Board amend the GSP to remove “non-dry year” from the SMC (Levels, Storage, Water Quality, Interconnected Surface Water) and document it in the PE.

B

RECOMMEND

Recommend Alternative 1 or Alternative 2, note any modifications, and advise whether to make it a GSP amendment or describe it only in the Periodic Evaluation.

C

DISCUSS

Discuss and provide feedback on the new project & management-action concepts.

D

DISCUSS

Discuss and provide feedback on the draft water-quality RCA response.

The GSA Boards make the final policy and amendment decisions.



Discussion & Recommendations

Thank you — your input guides the Boards' decisions.

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<https://www.vinagsa.org/gsp-periodic-evaluation-plan-amendments>