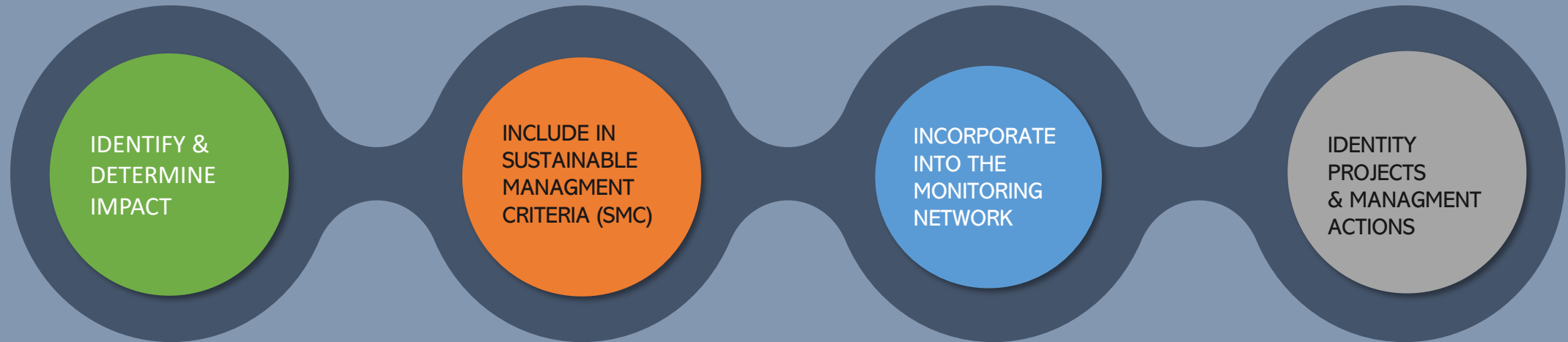


Tour of the Groundwater Resource Hub

Environmental Resources for Groundwater Sustainability Plans



Identify GDEs

Map and **Characterize** GDEs in the basin. The results from this step will be used to consider GDEs in other parts of the GSP, including establishing sustainable management criteria and assessing the monitoring network.

Determine Potential Impacts on the environment

Use hydrologic data to observe changes in groundwater conditions to help define whether potential effects on the environment are occurring or may occur.

Consider the environment when establishing SMCs

Consider GDEs when establishing sustainable management criteria for the basin. The objective in setting sustainable management criteria is to protect GDEs from adverse groundwater impacts while providing a reasonable margin of operational flexibility based on levels of uncertainty.

Incorporate the environment into the Monitoring Network

Assess and improve the hydrologic monitoring network to ensure groundwater conditions and sustainability indicators are sufficient to detect impacts to the environment.

Incorporate relevant biological data collection into the monitoring network to monitor GDE responses to changing groundwater conditions.

Identify Projects & Management Actions

Select projects and management actions that may help to maintain or improve GDEs to achieve the basin sustainability goal

STEPS TO IDENTIFY AND DETERMINE IMPACT TO THE ENVIRONMENT

- Map GDEs
- Characterize GDE Conditions
- Access Hydraulic Data
- Select Biological Data
- Evaluate Potential Effects on GDEs

KEY CONSIDERATIONS

- Review GW depth data from multiple seasons & water year types (wet & dry).
- Identify GDEs in the basin irrespective to the amount of current pumping occurring in a particular aquifer, so that future impacts on GDEs due to new production can be avoided.
- Select representative groundwater wells within 3.1 miles of NC Dataset polygons as they are more likely to reflect the local conditions relevant to the ecosystem.
- Interpolate **GW elevations** at monitoring wells to get groundwater elevation contours across the landscape.

RESOURCES TO IDENTIFY AND DETERMINE IMPACT TO THE ENVIRONMENT

GUIDANCE DOCUMENTS

[GDEs under SGMA: Guidance for preparing GSPs](#)
[Identifying GDEs under SGMA: Best Practices for using the NC Dataset](#)
[Quantifying "Groundwater Thresholds for Ecosystems"](#)

TOOLS/METHODOLOGIES

[Mapping Indicators of GDEs in California: Methods Report](#)
[NC Dataset Online Viewer](#)
[GDE PULSE](#)
[The Critical Species LookBook](#)
[Plant Rooting Depth Database](#)
[Freshwater Species List For Each GW Basin](#)

DOWNLOADABLE WORKSHEETS

[Assess a Connection to Groundwater](#)
[PDF](#) | [Word Doc](#)
[GDE Ecological Inventory](#)
[PDF](#) | [Word Doc](#)
[Biological Change Assessment](#)
[PDF](#) | [Word Doc](#)

