

DRAFT SHALLOW ZONE LANGUAGE
FOR DISCUSSION PURPOSES
December 14, 2017

Path A applies to all permitted dischargers, unless the discharger affirmatively elects to participate in the Management Zone Approach under Path B. For Path A, nitrate discharge impacts to groundwater are assessed in shallow groundwater underlying the area of discharge, otherwise referred to as the “Shallow Zone.” What constitutes the Shallow Zone in any given area may vary. The primary means to determine nitrate concentrations in the Shallow Zone is to evaluate data collected from groundwater monitoring wells that:

- a. Contain screens that generally extend from approximately 5 feet above the water table to approximately 15 feet below the water table;
- b. Have been designed based on site-specific conditions, such as unconfined, semi-confined or confined conditions, and anticipated water level changes over time; and,
- c. Do not extend below the Corcoran clay (if applicable).

Additional considerations for monitoring well design is contained in Section X.X (Monitoring and Surveillance for the Salt and Nitrate Control Program and the Staff Report (Ref).

Upon approval by the Executive Officer, one of the following options may be utilized to determine nitrate concentrations in the Shallow Zone:

- (1) Use readily available data and information to calculate ambient nitrate concentrations for the uppermost ten percent (10%) of the Upper Zone¹ of a groundwater basin/subbasin as defined and established in *Region 5: Updated Groundwater Quality Analysis and High Resolution Mapping for Central Valley Salt and Nitrate Management Plan* (June 2016); or
- (2) Conduct a site (or area) specific evaluation based on various types of available data and information, including but not limited to, depth and age of domestic wells in the area of concern, groundwater table, well completion report data, and other available and relevant information.

Based on the impact to the Shallow Zone and the quality of the discharge, nitrate discharges are to be characterized and placed into one of five categories. Regional Water Board determinations regarding availability and allocation of assimilative capacity will be based on ambient water conditions in the Shallow Zone.

¹ Upper Zone is defined to mean, “the portion of groundwater basin, subbasin or management zone from which most domestic wells draw water. It generally extends from the top of the saturated zone to the depth to which domestic wells are generally constructed (screened). The lower boundary of the upper zone varies based on well construction information for a given basin or subbasin. The Corcoran Clay layer may define the lower boundary of the upper zone or the lower zone, pending the available well construction and groundwater use information.”