

MERCED SUBBASIN GROUNDWATER SUSTAINABILITY AGENCY: GSP Consistency Criteria for Well Construction Applications (Criteria)

RULE 1

1.1 PURPOSE:

This Criteria shall be used by the Merced Subbasin Groundwater Sustainability Agency (MSGSA) to determine that a Groundwater Well proposed for construction with the MSGSA's boundary as filed with the California Department of Water Resources, DWR GSA ID 207 (**GSA Boundary**) is consistent with the objectives of the Merced Subbasin Groundwater Sustainability Plan, as adopted by MSGSA on December 9, 2019, or as subsequently updated and adopted pursuant to California Water Code Section 10728.2 (**GSP**).

1.2 APPLICABILITY:

Capitalized terms in this Criteria shall have the meaning give in Merced County Ordinance 9.27.030 and 9.28.020 as follows:

"Agricultural Well" or **"Irrigation Well"** means a water well used exclusively to supply water for irrigation, livestock or other agricultural purposes, not for domestic use or to provide potable water

"Groundwater" means water beneath the surface of the earth within the zone below the water table in which the soil is completely saturated with water, but does not include water that flows in known and definite channels.

"Monitoring Well" means an artificial excavation by any method for the purpose of monitoring the fluctuations in groundwater levels, the quality of underground waters, the presence or concentration of contaminants in subsurface soil and water, and for the purpose of vapor monitoring. Monitoring wells include remediation wells.

"Person" means and includes natural persons, corporations, firms, partnerships, joint stock companies, associations and other organizations of persons, and public entities.

"Public Water Agency" means any local public agency, mutual water company, or nonprofit tax-exempt unincorporated association within, or partially within, Merced County that has authority to extract, deliver, store or regulate water.

"Well or Water Well" as defined in Section 13710 of the Water Code, means any artificial excavation constructed by any method for the purpose of extracting water from, or injecting water into, the underground. This definition shall not include: (a) oil and gas wells, or geothermal wells constructed under the jurisdiction of the Department of Conservation, except those wells converted to use as water wells; or (b) wells used for the purpose of: (1) dewatering excavation during construction, (2) stabilizing hillsides or earth embankments, or (3) monitoring wells.

“**Well Construction**” means creation of an artificial excavation by any method for the purpose of obtaining water, providing cathodic protection, or monitoring subsurface water, soil, or vapors. Construction shall include excavation, placement of the annular, surface, and sanitary seals and installation of the sample faucet, as appropriate.

This Criteria applies to any “Person” or “Public Water Agency” (hereafter “**Applicant**”) that must obtain a permit from the County pursuant to the County’s Ordinance 9.28, where the Well proposed to be constructed is located within the GSA Boundary.

1.3 APPLICANT REQUIREMENTS:

Prior to applying for a permit from the County under Ordinance, 9.28, the Applicant must provide the following information to the MSGSA:

- 1.3.1 A completed Merced County Well Construction, Destruction, Mining, and Export Application Permit form (**Form**) and accompanying attachments. *Do not submit the form to Merced County until obtaining the necessary determination from MSGSA as required by Merced County Ordinance 9.27, specifically Section 9.27.050.*
- 1.3.2 If the applicant has indicated the proposed well is a “back-up Well” on the Form, provide a detailed description of:
 - 1.3.2.1 The proposed circumstances, quantities, and frequencies of use of the back-up Well; and
 - 1.3.2.2 The Primary Surface Water Source to which the Well will serve as back-up. As used in this Criteria, the term “Primary Surface Water Source” shall mean a surface water source that has supplied at least 75% of the total applied water to the parcel(s) that will be served by the back-up Well during the most recent 3 water years where precipitation exceeded the San Joaquin Precipitation: 5-Station Index 1991-2020 average of 39.9 inches
(https://cdec.water.ca.gov/reportapp/javareports?name=PLOT_FSI),
 - 1.3.2.3 The monthly and annual quantity and source of the Primary Surface Water Source during the prior five water years.
- 1.3.3 If the applicant has indicated the proposed Well is a “replacement Well” on the Form, provide a table listing the following:
 - 1.3.3.1 The planned beneficial use for the Groundwater (e.g. crop type(s)), including average acreage by crop type during the prior five water years

or, for a Public Agency, a list of typical crops grown within the agency boundary;

1.3.3.2 A 5-year projection of annual pumped water quantity estimated to meet the planned use; and

1.3.3.3 The past 5-years of annual water pumped from the well(s) to be replaced to meet the historic use. If records indicating the actual 5-year annual amount of pumped water from wells is not available, then alternative estimates of quantities pumped may be supplied using records such as utility reading for pump electrical and pump efficiency tests for wells.

1.3.4 A map/drawing indicating the parcel(s) where Groundwater from the Well will be applied (indicate APN(s)). If the Well is an Agricultural Well, designate the field(s) that will be irrigated and estimated irrigated acres. If for a Public Water Agency, the map shall designate the entire area where water has historically been served during at least one full irrigation season during the past five (5) water years.

1.3.5 A signed statement on a form provided by MSGSA acknowledging that extractions from the Well proposed to be constructed could be restricted at any time by the MSGSA consistent with the Sustainable Groundwater Management Act.

1.3.6 A check in the amount to be determined by the MSGSA to cover the cost of making the consistency determination.

1.4 MSGSA CONSISTENCY CRITERIA:

The following criteria will determine whether a proposed Well is consistent with the GSP.

1.4.1 For an Agricultural Well Application:

1.4.1.1 Any Agricultural Well proposed to be constructed within the GSA Boundary as a **replacement Well** is deemed consistent with the GSP if the Applicant agrees that:

1.4.1.1.1 The proposed replacement Well will replace an existing Well(s) consistent with Section 9.28.110 of the Merced County Code;

1.4.1.1.2 The proposed replacement Well will be located on the Historical Parcel(s) or, for a Public Agency, anywhere within the boundary of the Public agency as that boundary existed on January 1, 2022,

1.4.1.1.3 The proposed replacement Well will provide water only to the acreage to which the existing well(s) historically applied water (“**Historical Parcel**”),

- 1.4.1.1.4 Annual water pumped from the proposed replacement Well(s) will not exceed the highest annual total applied water on the Historical Parcel(s) from the existing Well(s) or, for a Public Agency, not exceed the highest cumulative annual total pumped from all existing Public Agency Wells when considered with the quantity pumped by remaining existing Well(s), based either upon: (a) over the prior five (5) years, or (b) during the most recent “Critical Year” as that term is defined for the San Joaquin Valley as indicated with a “C” in the table found at <https://cdec.water.ca.gov/reportapp/javareports?name=WSIHIST>,
- 1.4.1.1.5 The existing Well(s) will be destroyed in accordance with County Ordinance 9.28, converted to a dedicated Monitoring Well as mutually agreed to by the MSGSA and the Applicant, or converted to a backup Well subject to the same pumping limitations placed upon the replacement well.
- 1.4.1.2 Any Agricultural Well proposed to be constructed within the GSA Boundary as a **backup Well** is deemed consistent with the GSP if the proposed Well will:
 - 1.4.1.2.1 Be used to supply Groundwater only as an alternative water source during circumstances where the Applicant’s Primary Surface Water Source is restricted, or to provide an alternative location where the same groundwater would be pumped during circumstances where an Applicant’s existing Well(s) has experienced a failure and is unable to pump water.
 - 1.4.1.2.2 Be located on the same parcel(s) as the backup Groundwater will be applied or, for a Public Agency, anywhere within the boundary of the Public Agency as that boundary existed on January 1, 2022,
 - 1.4.1.2.3 Provide backup water only to the same parcel(s) as otherwise served by the restricted Primary Surface Water Source or the existing Well,
 - 1.4.1.2.4 Pump no more water annually, in combination with any other source of water applied to the same parcel(s) during the same year, to not exceed the highest annual total applied water on the Historical Parcel(s) either: (a) over the last five (5) years, or (b) during the most recent “Critical Year” as that term is defined for the San Joaquin Valley as indicated with a “C” in the table found at <https://cdec.water.ca.gov/reportapp/javareports?name=WSIHIST>.
 - 1.4.1.2.5 For circumstances where the backup Well is used when an existing Well(s) fails, no more water will be pumped than would have been pumped by the existing Well should it not have failed.

1.4.2 Any other Well not covered under Sections 1.4.1 proposed to be constructed within the MSGSA Boundary as a **replacement Well** is deemed consistent with the GSP if the Applicant agrees that:

1.4.2.1 The proposed replacement Well will replace an existing Well(s) consistent with Section 9.28.110 of the Merced County Code;

1.4.2.2 The proposed replacement Well will be located on the Historical Parcel(s) or, for a Public Agency, anywhere within the boundary of the Public Agency as that boundary existed on January 1, 2022,

1.4.2.3 The proposed replacement Well will provide water only to the Historical Parcel(s),

1.4.2.4 Annual Groundwater pumped from the proposed replacement Well will not exceed the highest annual total Groundwater used on the Historical Parcel(s) over the prior five (5) years,

1.4.2.5 The purpose of use of water will be consistent with the historic purpose of use of water on the Historical Parcel(s).

1.4.2.6 The existing Well(s) will be destroyed in accordance with County Ordinance 9.28, converted to a dedicated Monitoring Well as mutually agreed to by the MSGSA and the Applicant, or converted to a backup Well subject to the same pumping limitations placed upon the replacement well.

1.4.3 If a Well(s) proposed under sections 1.4.1 or 1.4.2 is for use by a Public Water Agency to provide water supplies within its boundaries, the Public Water Agency must agree:

1.4.3.1 That it will not provide any Groundwater from the Well(s) to any parcel within its boundaries that has not actively irrigated a crop for at least one growing season within the last five (5) years, documenting such use with a map indicating historic and current water use on parcels within its boundaries;

1.4.3.2 That it will have an approved flow meter properly installed and calibrated;

1.4.3.3 That it will provide a schematic showing proposed installation including distances along piping runs, show venting provided and measures taken to insure metering section will be filled with fluid during operation, and provide meter manufacturer and model number of proposed flow meter; and

1.4.3.4 To file with MSGSA within sixty (60) days following the end of each month, a monthly accounting for the earlier month demonstrating the:

1.4.3.4.1 Quantity of Groundwater pumped at the Well(s) in acre feet (AF). Starting and stopping flow totalizer readings for month;

- 1.4.3.4.2 Water discharged from the Well(s) into the Public Water Agency's distribution system;
 - 1.4.3.4.3 Acre-feet of total Primary Surface Water Source and/or any source other than the Well(s) received by the Public Water Agency entering the distribution system;
 - 1.4.3.4.4 Other information reasonably required by MSGSA to document Well use.
 - 1.4.4 If any Well proposed under this Section 1.4 is to be drilled and screened within areas where the Corcoran Clay is present, as illustrated in the attached MSGSA map, the Applicant must:
 - 1.4.4.1 For circumstances where the existing Well is screened only above the Corcoran Clay, drill and screen the Well only above the Corcoran Clay layer.
 - 1.4.4.2 For circumstances where the existing Well is screened both above and below the Corcoran Clay layer or screened only below the Corcoran Clay layer, either:
 - 1.4.4.2.1 Drill and screen the Well only above the Corcoran Clay layer, or
 - 1.4.4.2.2 Drill and screen the Well only below the Corcoran Clay layer, and a sanitary seal installed which effectively isolates groundwater above the Corcoran Clay layer, or
 - 1.4.4.2.3 Alternatively, if the well is an Agricultural Well under this section, the Applicant can propose to drill and screen two Wells - one Well below the Corcoran Clay and one Well above the Corcoran Clay as required under Sections 1.4.4.2.1 and 1.4.4.2.2, and agree that the combined quantity pumped from the Wells will be equivalent to the requirements for a single Agricultural replacement Well. If two wells are drilled in close proximity as described above, the lateral separation will be consistent with Merced County Code 9.28.060.
- 1.5 **MSGSA Consistency Determination:**
 - 1.5.1 MSGSA staff will review the Applicant information to determine consistency with this Criteria (**Consistency Determination**).
 - 1.5.2 MSGSA staff will provide written notification of the Consistency Determination to the Applicant upon review of the submitted materials.

1.5.3 If the proposed Well is not consistent with the GSP, staff and/or consultant may work with the Applicant to modify the proposed Well application to achieve a Consistency Determination. Alternatively, the Applicant may provide written information to MSGSA that the proposed well is consistent with the GSP even though it does not meet the Criteria, and MSGSA staff may make a recommendation to the MSGSA Board to undertake a CEQA analysis to see if the proposed well is consistent, with all costs to be paid for by the Applicant.

1.6 MSGSA Rules and Enforcement:

Consistency Determinations depend upon the representation made by the Applicant and the requirements imposed by the MSGSA. The following rules and regulations are applicable to any Well for which a Consistency Determination has been made, other than *de minimis* extractors (**Consistent Wells**):

1.6.1 Consistent Wells are subject to future pumping restrictions imposed by the MSGSA consistent with SGMA and the GSP. These restrictions may limit the seasonal and monthly extractions of any Well located within the GSA Boundary.

1.6.2 Registration. Consistent Wells shall be registered with the MSGSA within sixty (60) days of the completion of drilling and development activities. The owner of a Consistent Well shall provide the information required to complete the on-line registration form provided by the MSGSA that includes, at a minimum, the following:

1.6.2.1 Name and address of the Well operator(s).

1.6.2.2 Name and address of the Well owner(s) of the land upon which the Consistent Well is located, or if Well is located on an easement, then provide information on holder of easement.

1.6.2.3 Well Completion Report, filed with the Department of Water Resources, pursuant to California Water Code section 13751, or if not available, construction information about the Consistent Well, including total depth of the Well casing, size of the Well casing, location or depth of perforations, type and size of perforations, and size of gravel pack if included in Well Construction.

1.6.2.4 Information on the size of the Consistent Well, including pump size (horsepower) and pump test information or estimated pumping capacity. For Wells with planned operating pumping rates of 1,000 gallons per minute (gpm) or higher, provide as a minimum:

1.6.2.4.1 Well development data including: static water level (SWL) prior to development, pumping water level (PWL) at a flowrate below planned pumping rate, PWL at a flowrate above planned pumping rate.

- 1.6.2.4.2 Each development flowrate will be maintained for a minimum of two (2) hours.
- 1.6.2.4.3 Provide SWL one (1) hour after development pumping has been discontinued (well recovery).
- 1.6.2.4.4 Provide development information electronically to a location to be provided by MSGSA.
- 1.6.2.5 Location (latitude and longitude), parcel number and state Well number of the Consistent Well.
- 1.6.2.6 Information on the type of installed flowmeter for Wells greater than 150 gpm in pumping rate. Provide schematic showing proposed installation including distances along piping runs. Show venting provided and measures taken to insure metering section will be filled with fluid during operation. Provide meter manufacturer and model number of proposed flow meter.
- 1.6.2.7 Indicate if the proposed Well will be engine or electric motor driven. If electric motor driven indicate if pump will be equipped with a variable frequency drive (VFD).
- 1.6.3 Change in Owner. The name of the owner of each registered Consistent Well, the parcel number on which the Consistent Well is located, along with the names of all operators for each Consistent Well shall be reported to the MSGSA within sixty (60) days upon any change of ownership or operators, together with such other information required by the MSGSA.
- 1.6.4 Measurement. In order to enable verification of production:
 - 1.6.4.1 Private owners or operators of a Consistent Well must have an accurate method for quantifying use. Unless otherwise stated in this section, use shall be generated based upon one of the following two (2) bases, to be determined by the MSGSA at the time of the Consistency Determination: (1) information provided from flowmeters which have been connected to the Consistent Well; or (2) evapotranspiration information obtained via satellite technology.
 - 1.6.4.2 Public Agency Operators shall provide data from properly installed and calibrated flowmeters.
 - 1.6.4.3 Criteria for Using Meters. The following criteria and information shall be provided to the MSGSA:
 - 1.6.4.3.1 Manufacturer and Model of flowmeter;

- 1.6.4.3.2 Date Flow Meter Installed;
- 1.6.4.3.3 Diameter of Pipe and Size of Flow Meter;
- 1.6.4.3.4 Identification of who installed flowmeter and calibrated flowmeter per manufacturer specifications;
- 1.6.4.3.5 Inspection records will be required to submit to MSGSA per schedule outlined in the manufacturer specifications.
- 1.6.4.3.6 Pictures to identify flowmeter installed correctly (e.g. adequate straight pipe sections before and after the flowmeter); and
- 1.6.4.3.7 Detailed information on type of use as requested by MSGSA.

1.6.4.4 Meter Requirements.

- 1.6.4.4.1 It shall be the responsibility of the owner of the Consistent Well to maintain the meter in good working order at all times.
- 1.6.4.4.2 MSGSA shall have the authority to test the accuracy of meters and inspect the meters as needed.
- 1.6.4.4.3 Each month the owner shall report to the MSGSA, no later than thirty (30) days following the last day of the month, the quantity of groundwater extracted at each Consistent Well, as measured by the flowmeter(s).

1.6.4.5 Criteria for Using Evapotranspiration Method. The criteria for using crop evapotranspiration (ET) estimates for determining Well production shall be determined by the MSGSA.

1.6.4.6 Criteria for Livestock Use on Non-Irrigated Land:

- 1.6.4.6.1 For livestock wells equipped with a pump with a nominal production rate of 10 gallons per minute or less, no metering or reporting is required.
- 1.6.4.6.2 For livestock wells equipped with a pump with a nominal production rate of more than 10 gallons per minute, the owner shall install a volumetric totalizing meter and measure the total use for each calendar year. The owner shall submit a report to the MSGSA by January 31 of each year regarding total water pumped during the prior calendar year.

- 1.6.5 Rights of Access. The MSGSA staff and/or other authorized agents may enter upon any land on which a Consistent Well is located for the sole and exclusive purpose of conducting MSGSA business.
- 1.6.6 SGMA Penalties. Any landowner, operator or other person who violates the provisions of these Rules and Regulations, or the parameters for operation of a Consistent Well, is subject to the criminal and civil sanctions set forth in the Water Code and SGMA, including, but not limited to the following:
- 1.6.6.1 All extractions during a water year in excess of the parameters established in the Consistency Determination shall be subject to extraction surcharges as provided in Water Code Section 10732, including (1) a civil penalty not to exceed five hundred dollars (\$500) per acre-foot extracted in excess of the amount that person is authorized to extract, plus (2) one thousand dollars (\$1,000) plus one hundred dollars (\$100) for each additional day on which the violation continues if the person fails to comply within 30 days after MSGSA has notified the person of the violation.
- 1.6.6.2 Civil Remedies. Upon the failure of any person to comply with any provision of this Criteria, the MSGSA may petition the Superior Court for a temporary restraining order, preliminary or permanent injunction, or such other equitable relief as may be appropriate. The right to petition for injunctive relief is an additional right to those, which may be provided elsewhere in these Criteria or otherwise allowed by law. The MSGSA pay petition the Superior Court to recover any sums due to the MSGSA.
- 1.6.6.3 Protest of Penalty Determination. Within thirty (30) days of the date identified in any written notification, an owner or operator of a Consistent Well may appeal a penalty determination in writing. The written appeal must be submitted to the MSGSA.
- 1.6.6.4 Submission to Board. Upon receipt of an appeal, a representative of the MSGSA may request additional information or evidence from the appellant. The representative of the MSGSA shall then submit the appeal, along with any relevant information and any recommendation, to the Board. The Board may, in its discretion, either issue a decision based upon the written appeal and supporting documentation, or hold a hearing concerning the matter.