DEPARTMENT OF NATURAL RESOURCES

DIVISION OF WATER RESOURCES

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GENERAL GUIDELINES FOR SUBSTITUTE WATER SUPPLY PLANS FOR SAND AND GRAVEL PITS

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In 1989, the Colorado Legislature passed Senate Bill 120 that affects gravel pits in operation after December 31, 1980. §37-90-137(11)(a)(1I), C.R.S., requires any gravel pit that exposed ground water to the atmosphere after December 31, 1980 to replace all out-of-priority depletions of ground water through a plan for augmentation or substitute water supply plan. In 1993, the Colorado Legislature passed Senate Bill 260 that changed the fees associated for review of the substitute water supply plans. The fees were increased again under Senate Bill 2006-1293. To ensure consistency and to expedite the review process, the State Engineer's Office provides these guidelines to be followed when requesting substitute water supply plan applications for sand and gravel pits. These general evaluation guidelines are provided to assist the applicant preparing the substitute water supply plan request and are not to be construed as formal policy-making procedures. Even though most of these guidelines are engineering related issues, there are some that contain policy issues by the State Engineer as well as statutory requirements.

PROJECT DESCRIPTION

1. The applicant must submit a narrative description summarizing the relevant water resource aspects of the proposed or existing operation including:
    - water usage and consumption
    - the proposed plan for replacing out-of-priority depletions
    - the Division of Reclamation Mining and Safety ("DRMS") permit number
    - the estimated number of years that the gravel pit will be mined
    - the estimated number of years remaining in the mining operation
    - the proposed final reclamation for the site
    - if all or a portion of the site will be lined, the extent of the proposed lined areas and the timing for the installation of the liner, if known
    - the extent and location of any ground water surface area exposed to the atmosphere prior to January 1, 1981
    - if the final reclamation will be a ground water pond, a statement along with the original substitute water supply plan request, agreeing to file for an augmentation plan at least three years prior to completion of mining to replace the depletions from long term evaporation.

To expedite the State Engineer's processing of the substitute water supply plan, the applicant should submit the narrative in electronic format whenever possible.

2. The applicant should provide two maps showing the water resource aspects of the operation, including the existing or proposed lake(s), streams, wells, ditches, dewatering pumps and trenches, points of discharge for the washing and dewatering operations, and slurry walls or liners, both on and off the property, which may affect the timing of lagged depletions. One of the maps should be a USGS 7-1/2' quadrangle. The scale, section, township, range, and principal meridian should be clearly identified on the map. The second map can be hand-drawn showing current, proposed and ultimate lake surface area. Additionally, aerial photographs (if applicable) should be provided identifying any gravel pits on the DRMS site that exposed ground water to the atmosphere prior to January 1, 1981 and identifying the extent of such pre-1981 exposure.

3. The fee for a new substitute water supply plan is based on statute and is currently $1,593 regardless of the number of acres exposed and is applicable for the first two years, or shorter time period as proposed by the applicant. For persons who reactivated or reactivate mining operations that ceased activity prior to January 1, 1981, this fee only applies if the surface areas of any gravel pit lake is enlarged beyond the area it covered before the cessation of activity. Plans and fees are necessary only if the gravel pit operation exposes ground water in an over-appropriated stream system.

4. If multiple gravel mining operations apply for a combined substitute water supply plan, a filing fee is required for each mining site as recognized by a unique DRMS permit number.

5. If the mining operation will consume ground or surface water that results in out-of-priority depletions occurring from gravel washing, dust control or other uses, but will not expose ground water, the operator must apply for a substitute water supply plan pursuant to §37-92-308, C.R.S.

6. If the operator proposes to use ground water from the gravel pit or a well within the DRMS boundary and those uses are not directly related to the mining operation, the operator must apply for a substitute water supply plan pursuant to §37-92-308, C.R.S.

7. Pursuant to §37-90-137(11)(a)(I), C.R.S., no substitute water supply plan or augmentation plan shall be required by the State Engineer or the water court if a gravel pit owner or operator has, prior to January 15, 1989, entered into and has continually thereafter complied with a written agreement with a water users' association (e.g., Water Users Association of Water District No. 6 and St. Vrain and Left Hand Water Conservancy District) or water conservancy district (e.g., Middle Park Water Conservancy District, West Divide Water Conservancy District, Basalt Water Conservancy District, and the Bureau of Reclamation project water in Green Mountain Reservoir and Ruedi Reservoir) to replace or augment the depletions in time, location and quantity which result from open mining of sand and gravel. A substitute water supply plan or court approved augmentation plan will be required if the depletions from the

mining operation exceed that amount covered by the agreement with the water users' association or water conservancy district. The above referenced agreement shall be submitted to the State Engineer's Office or Division Engineer upon request to show that depletions from the gravel mining operation are being replaced in time, location and quantity.

8. The renewal fee for an existing substitute water supply plan is based on statute and is currently $257. A substitute water supply plan application may not be considered a renewal if the plan is not received by the Office of the State Engineer prior to the expiration date of the previously approved plan. Additionally, renewals cannot change the replacement sources (exception for new replacement sources that do not require consumptive use analyses and do not have return flow obligations) and renewals cannot add uses that were not approved in the original plan. A renewal can increase the quantity of water which is consumed by the uses which were originally approved. Plans that have expired, change the replacement source(s), or add uses in addition to those approved in the original plan may be considered new plans requiring a fee of $1,593.

9. The fee for a gravel pit well permit application is based on statute and is currently $100 even if the operation is not in an over-appropriated stream system. The fee must be paid at the time of application and is not refundable.

10. An outside consultant will review all new substitute water supply plan requests. The State Engineer's Office will review all renewals. Once the substitute water supply plan has been approved by the State Engineer's Office, any subsequent amendments will require submittal of an engineering report and a the filing fee for a renewal, or the filing fee for a new plan, if deemed necessary according to the criteria in paragraph 8.

DEPLETIONS

11. Gross evaporation (free water surface) shall be calculated based upon evaporation atlases in NOAA Technical Report NWS 33 or more site-specific information, if site specific information is based on measurements deemed reliable by the state climatologist. The total gross evaporation estimate from NOAA 33 shall be distributed to all months. The monthly distribution for elevations below 6500 feet msl is: Jan - 3.0%, Feb - 3.5%, Mar - 5.5%, Apr - 9.0%, May - 12.0%, Jun - 14.5%, Jul - 15.0%, Aug - 13.5%, Sep - 10.0%, Oct - 7.0%, Nov - 4.0%, and Dec - 3.0%. The monthly distribution for elevations above 6500 feet msl is: Jan - 1.0%, Feb - 3.0%, Mar - 6.0%, Apr - 9.0%, May - 12.5%, Jun -15.5%, Jul - 16.0%, Aug - 13.0%, Sep - 11.0%, Oct - 7.5%, Nov - 4.0%, and Dec - 1.5%. Evaporation does not need to be calculated for an ice-cover period, however, if the applicant claims an ice-cover period in the projection accounting, adequate engineering documentation must be submitted to support the claim. The plan shall not project ice cover for a time period that the historical mean monthly temperature is greater than 32 degrees Fahrenheit. Regardless of the projection of ice cover in the plan, monthly evaporation shall be calculated according to actual field conditions and depletions shall be replaced accordingly.

12. Pursuant to §37-90-137(11)(b), C.R.S., the gravel pit operator does not need to replace depletions that occur due to evaporation from ground water exposed prior to January 1, 1981. The burden of proving the ground water was exposed prior to January 1, 1981 shall be on the operator claiming the benefit of the exception.

    For a gravel pit that exposed ground water at a specific location prior to January 1, 1981:

    - If the gravel pit has had mining activity after December 31, 1980, the gravel pit shall retain the exception from the requirement to replace depletions that occur from evaporation for the area that was exposed before January 1, 1981. Any area exposed after December 31, 1980 shall not benefit from the exception.
    - If the gravel pit has added new beneficial uses to the pit, including the area that was exposed prior to January 1, 1981, the gravel pit shall retain the exception from the requirement to replace depletions that occur solely from evaporation for the area that was exposed prior to January 1, 1981. However, any water diverted other than through evaporation, would require a well permit and may require a substitute water supply plan or a plan for augmentation, whether consumed or not.
    - If a portion of the gravel pit at the location at which the surface area was exposed prior to January 1, 1981 is partially or completely lined or backfilled, the lining or backfilling shall not create an augmentation credit to offset evaporative depletions from surface area exposed after December 31, 1980 or other depletions occurring at a another location.

13. Water consumption by the mining operation (including associated well structures) including, but not limited to, dust control, water removed with the mined product, water used for concrete batching, and reclamation irrigation must also be determined. The matrix below specifies the percent of product mined which is considered water weight. All water diverted from the pit shall be measured. All diversions, including water for dust control and irrigation for vegetation establishment, shall be considered 100 percent consumptive unless the applicant can document otherwise.

	Not Washed	**Washed**
Material mined above the ground water table	Material has 2% moisture content, but 0% is charged because the moisture is not a ground water diversion	After washing, the material has a 4% moisture content (saturated), but 2% is charged because only 2% is from the soil profile and the other 2% is from ground water used for washing
Material mined below the ground water table	Material has 4% moisture content (saturated), and 4% is charged because all of the water is a ground water diversion	After washing, material has 4% moisture content (saturated), and 4% is charged because that entire 4% is a ground water diversion

Material mined below the ground water table, but in a dewatered state	Material has 2% moisture content, and 2% is charged because the moisture is from a ground water diversion	After washing, material has 4% moisture content (saturated), and 4% is charged because that entire 4% is a ground water diversion

Note: the percentages are by weight

Note: The following Guideline 14, like each of the guidelines in this document, is intended to provide guidance information to operators and consultants regarding the potential for injury that results from all mining activities, as well as the requirement that out-of-priority depletions to the stream be replaced. The SEO will work with individual operators and consultants on a case-by-case basis to determine whether Guideline 14 is applicable and necessary to prevent injury to senior vested water rights.

14. Water consumption by the mining operation shall also include water removed from the tributary stream system by the "first fill" or an "intermittent fill" of the gravel pit. The "first fill" or "intermittent fill" is the water that fills an unlined gravel pit and occupies the volume previously occupied by the removed sand, gravel, or other solid material. For pits that are "dry mined" through dewatering, the first fill normally occurs at the conclusion of mining; the additional fill occurs as the pit is allowed to fill seasonally, only to be dewatered again, as part of the mining operation. For "wet mined" pits, it occurs continuously during mining. The first fill for any administrative period shall be calculated as:

$$\mathbf{V_{fif} = V_{mm} \times (1 - porosity) - V_{lp}},$$ where

V_{fif} = Volume of water in **f**irst fill or **intermittent fill**
V_{mm} = The net increase in the volume of "**m**ined **m**aterial" below the water table that has been filled with ground water
Porosity = The ratio of the pore volume to the total volume of the mined material
V_{lp} = Volume of water calculated as **l**ost in **p**roduct for "Not Washed" gravel

Since V_{mm} may be a negative number in the case that the volume of backfill occurring in the pit is greater than the volume of mined material, it is possible that V_{fif} will be a negative number, or a credit to the total amount of water consumed by the mining operation. This credit will be allowed only up to the amount that will offset all other consumptive use at the mining operation. Use of the credit beyond that amount must be done through a court-approved plan.

15. The plan shall specifically address whether dewatering will occur at the site. If the site will be dewatered, the expected rate and volume of dewatering must be specified along with the lagged depletions which will occur due to the dewatering process. The applicant shall replace all out of priority depletions caused by the dewatering operation. Accretions that may occur at the beginning of the dewatering operation may be claimed as replacement water to offset depletions that occur due to the mining operations and the dewatering

process, if applicant can account for the amount, location, and timing of these accretions. The replacement water can be used only for mining depletions that occur within the mining permit boundaries, or for mining depletions that result from a pit at another location, operated by the same operator. If dewatering accretions are to be used to replace depletions that result from a pit at another location, the delivery or exchange of such water and application of appropriate transit losses is subject to the approval of the Division Engineer. All site dewatering must be accounted for in a method satisfactory to the division engineer and water commissioner. Adequate measuring devices may be required in order to adequately account for the dewatering. If dewatering is occurring at the site, the gravel pit well permit application must specifically specify dewatering as a use.

16. If the proposed final reclamation of the mining operation, as approved in the DRMS permit, does not include backfilling or lining to eliminate all ground water exposed within the mining boundaries, sufficient replacement water must be dedicated to the plan, or financial assurance that would allow purchase of replacement water to cover the expected depletions that would occur at the site. The expected depletions must include evaporation from the surface area and the effects of the first fill that would occur if dewatering operations at the site ceased and the ponds were allowed to fill. At least three years prior to completion of dewatering, the applicant must submit a plan that specifies how the post-dewatering depletions, including refilling of the pit, will be replaced, in time, place and amount. If the final reclamation does not include backfilling or lining, and the applicant has not dedicated permanent replacement water to the plan, the applicant can still provide sufficient bonding (through the Division of Reclamation Mining and Safety) to cover lining or backfilling until such time as a court-approved augmentation plan is obtained or until all depletions at the site have ceased and all delayed depletions have been replaced. In the event that the operator of the pit walks away from the site prior to final approval of an augmentation plan or prior to replacement of all delayed depletions, the dedicated water or bond will be used to ensure that depletions will not occur at the site or that depletions will be replaced. As part of the proposed plan, the applicant must clarify whether they will dedicate water to the plan or whether a bond has been approved. If the applicant has obtained a bond, they must indicate the amount of the bond and show that the bond is adequate to line or backfill the water surfaces that will be exposed during the plan period.

17. Timing of depletions may be calculated using Glover techniques or numeric modeling. The State Engineer's Office may require that special procedures be used to analyze depletions and injury on intermittent streams.

18. An historical consumptive use credit for native vegetation (including phreatophytes) can be credited against monthly gross evaporation, resulting in a net monthly evaporation value. The credit can be applied only for the area under the free water surface in an area that is subject to a replacement requirement and cannot exceed the amount of gross evaporation on a monthly basis. Consistent with State Engineer's Office Policy 2004-3, native vegetation credit cannot be claimed for sand and gravel mining operations which are not approved through a permit with the Division of Reclamation Mining and Safety. The amount of historical consumptive use credit from precipitation and ground water during a given month cannot exceed the total

potential consumptive use of the native vegetation in that month and no credit shall be given for excess historical consumptive use credits.

19. The historical consumptive use credit may result from an analysis of the historically consumed precipitation or ground water. The consumptive use analysis shall be based upon published engineering studies acceptable to the State Engineer's Office and engineering analysis of site specific information for the type of growth, ground water depth, and soil information. Documentation of the vegetative growth shall be based on aerial and perspective photographs depicting the growth. In lieu of an analysis of the historical consumptive use, the State Engineer will accept an estimate for this value of 70 percent of total precipitation for each month. The credit must be reduced for sites historically irrigated by water rights for which the applicant is claiming consumptive use credits in the plan.

20. In accordance with State Engineer's Office Policy 2004-3, phreatophyte credit, including effective precipitation, cannot be claimed for an off-channel lined gravel pit.

21. For gravel pits that are lined in accordance with the State Engineer's Lining Criteria (lining is approved by the Division Office), the applicant must provide replacement for all native ground water remaining within the lined area that is put to beneficial use except for the water removed in product. The water may be removed from within the lined area and returned to the stream system through surface flow or ground water recharge without need for replacement, so long as the operator does not put the water to beneficial use. The exception to this is when the applicant replaced "first fill" water as provided by these guidelines, in which case the applicant may consume 100 percent of the water that was replaced.

22. Plans approved for sand and gravel mining operations cannot be used to replace depletions which occur from uses that are not directly related to the mining operation. The plan cannot replace depletions from uses that occur outside the mining permit boundary, unless the applicant can demonstrate to the satisfaction of the State Engineer's Office that the use is directly related to the gravel mining operation.

REPLACEMENT SOURCES

23. Replacement water to compensate for out-of-priority depletions must be available either directly or by exchange in the proper quantity, quality, place and time to ensure that existing water rights are not injured. All plans submitted to this office shall have concurrent replacement water available in order to obtain approval from the State Engineer.

24. Substitute water supply plans generally utilize five primary sources of water to compensate the stream system for depletions resulting from evaporation and mining losses. These sources include direct flow water rights, reservoir storage, nontributary ground water, foreign (transbasin) water, and leased reusable effluent. The applicant shall provide water right decrees and other pertinent information regarding the replacement sources. The applicant shall also provide signed lease agreements or recorded non-encumbered ownership documents

authorizing use of the proposed replacement sources. Although the substitute water supply plan may be approved on a temporary basis using leased or nontributary ground water for the replacement water, the State Engineer's Office may object to the use of these sources in a proposed decreed plan for augmentation. The decision to accept these sources as adequate to protect the senior water rights may be determined by the Water Court in which the proposed plan for augmentation is filed.

25. For plans that propose short-term leases as a replacement source, the applicant shall ensure that a replacement source will be available in the event that the lease is not renewed. This may be accomplished through a bond with the Division of Reclamation Mining and Safety, dedication of a back-up water source, or other method that the State Engineer determines is adequate to ensure that all depletions will be replaced.

26. Nontributary ground water, foreign (transbasin) water, or other fully consumable sources may be used for replacement purposes in the substitute water supply plan, provided adequate engineering and documentation are supplied. Use of nontributary ground water must comply with the Colorado Revised Statutes, the pertinent decrees and, if applicable, the Statewide Nontributary Ground Water Rules. The applicant must meet all relinquishment requirements before using nontributary ground water. Nontributary ground water used as replacement water must be permitted for augmentation purposes. All replacement water must be made appurtenant to the site by dedicating it solely for the purposes of replacement at the site for the duration of the substitute water supply plan and recording an agreement to dedicate such replacement water with the county.

27. Since only the Water Court has the authority to approve changes in water rights, those substitute water supply plans approved by the State Engineer's Office that involve a change of use may not be able to claim the period of time while operating under the approved substitute water supply plan for historical consumptive use credit.

28. Analysis of historical consumptive use shall be based upon the modified Blaney-Criddle method, other acceptable consumptive use determination methods, or determination from previous court decrees for the subject water right, if applicable. The historical use analysis shall be based on firm yield (most cases equal to dry-year yield). A dry year analysis shall be based on the average of five dry years (for example, 1954, 1963, 1977, 1994, 2002) unless such average is greater than the historical average for the entire period of record. The Water Court may impose less stringent conditions on the plan for augmentation based on a different study period. Any non-use of the water right during a study period shall be included in averaging historical use. Any occurrence of subirrigation must be documented and considered in the historical use analysis. Documentation of historical irrigation may be based on aerial photographs, sworn affidavits, court decrees, well permit files, and water commissioner diversion records. Estimates of irrigation efficiencies, ditch conveyance efficiency, and subirrigation shall be based on acceptable engineering references and standards.

29. The historical consumptive use analysis must be based on a detailed (year-by-year) and monthly time step analysis. A representative study period must be used and zeros must be

averaged in for periods of non-use or use for non-decreed purposes. The actual monthly historical diversions must be used and compared to the monthly crop consumptive use based on actual weather data (not long term averages). The engineering report must identify the maximum monthly headgate diversions and the return flow factors for surface and subsurface return flows.

30. The land to be dried up shall be documented to the satisfaction of the local water commissioner. A copy of the dry-up covenant and a map designating the dried-up lands shall be submitted to the State Engineer's Office and recorded with the county clerk and recorder. Maintenance of historical return flows from the formerly irrigated lands will be required if necessary to prevent injury to other water rights. The timing of return flows may be calculated using Glover techniques or numeric modeling.

31. Substitute water supply plans may use reservoir water released to the stream at the proper time and in the proper amount. Reservoir storage and releases are generally required to offset winter depletions. An analysis of the consumptive use of the reservoir water (if reservoir water is not decreed for augmentation purposes) should be performed similar to that performed for a direct flow water right.

32. An excavation that intercepts ground water is considered a well; therefore, the excavation may not be used for water storage unless the excavation is lined in accordance with the State Engineer's lining criteria.

33. The plan may include the introduction of water into recharge sites located at desirable distances from the stream using the sources discussed previously or water diverted when there is a free river. Recharge water would reach the stream on a delayed schedule and would be creditable against stream depletions caused by the gravel mining operation. The State Engineer's Office must specifically approve the recharge operation in the plan approval unless the recharge accretions have been previously approved in a plan by the water court. The timing of recharge accretions may be calculated using Glover techniques or numeric modeling.

34. Transportation loss charges, if applicable, will be assigned for any replacement source of water.

35. In accordance with amendments to §25-8-202-(7), C.R.S., and "Senate Bill 89-181 Rules and Regulations" adopted on February 4, 1992, the State Engineer shall determine if this substitute water supply plan is of a quality to meet requirements of use to which the senior appropriation receiving the substitute supply has normally been put. As such, water quality data or analyses may be requested at any time to determine if the requirement of use of the senior appropriator is met.

OPERATION OF PLAN

36. Each plan shall include a detailed accounting sheet providing monthly estimates of the following items: water surface area, gross evaporation, amount of mined material, water removed with the mined sand and gravel, water used for concrete batching, diversions for dust control, diversions for vegetation establishment, total lagged depletions impacting the river, replacement source releases, physical flow available at the surface water right headgate, historical consumptive use credit estimate, rate and volume of dewatering, replacement sources, and transit loss charges. Not all items in this list will be applicable to every proposal. Likewise, certain proposals may require additional accounting. A draft accounting form shall be submitted to the State Engineer's Office for approval. The substitute water supply plan shall provide the name, address and telephone number of the contact person who will be responsible for the accounting and operation of this plan. The State Engineer's Office will hold the permit designee of the operation as filed with the Division of Reclamation Mining and Safety responsible for compliance but reserves the right to also pursue the landowner for eventual compliance.

37. Accounting and reporting of depletions and replacements shall be made monthly to the Division Engineer and water commissioner. More frequent accounting may be required by the Division Engineer to protect other water users. Reservoir releases may also be aggregated at the Division Engineer's discretion for maximum benefit of the stream system.

38. Adequate flow measuring and recording devices and measurements may be required to implement the plan. Measurements may include, but shall not be limited to, all diversions from the pit (excluding evaporation), water released from reservoirs or other sources for replacement water, and the diversion and turn back of ditch diversions.

39. A plan will not be approved unless the applicant has also applied for a gravel pit well permit for the subject pit. A gravel pit well permit will not be issued until the substitute water supply plan is approved. Additionally, if another well is located within 600 feet of the perimeter of the proposed free water surface that would exist if the pit is not dewatered, a waiver of objection from the well owner(s) must be obtained. If the applicant cannot obtain a waiver of objection from the owners of wells located within 600 feet of the free water surface, the State Engineer's Office shall notify the well owners in accordance with § 37-90-137(2)(b)(II)(A), C.R.S. If objections are received, a hearing will be held before the State Engineer to determine if circumstances in the particular instance so warrant issuance of the well permit. As part of the substitute water supply plan application, the applicant shall specify whether any wells constructed in the same source, are located within 600 feet of the free water surface of the mining operation. If such wells exist, the applicant shall provide waivers from the well owners or provide names and addresses of the well owners.

40. The gravel pit well permit will be issued in accordance with the uses and depletions approved in the substitute water supply plan. If the substitute water supply plan and the gravel pit well permit are approved for less than the final size of the ground water pond or for less than the maximum use of ground water, a new gravel pit well permit will be required each time the substitute water supply plan is approved for a greater use. However, the State Engineer's Office will consider the final buildout of the gravel pit when issuing the

initial permit and, where possible, condition the well permit such that it will remain valid as the operations and SWSP obligations expand.

41. After initiation of excavation of the pit, the applicant shall submit plan and cross-sectional drawings to the State Engineer's Office on 8-1/2" x 11" paper. These drawings are required in lieu of the Well Completion Report and should include the extent of excavation, maximum depth of the pit and the initial static water level, and the initial date of ground water exposure in the pit.

42. No permanent well and pumping equipment shall be installed in the gravel pit unless a variance has been approved by the Board of Examiners of Water Well Construction and Pump Installation Contractors. A permanent well and pumping equipment does not include portable pumps used for watering needs at the gravel pit for such things as dewatering, dust control and gravel washing. When a permanent well and pump are installed, a Well Construction Report and Pump Installation Report are required. Board of Examiners Policy 2000-4, as approved by the Board of Examiners of Water Well Construction and Pump Installation Contractors is hereby incorporated into these guidelines.

43. An Abandonment Report must be filed if a permitted gravel pit (well) is either backfilled or lined.

44. Substitute water supply plans may be revoked or modified at any time should it be determined that injury to other vested water rights has occurred or will occur as a result of the plan. A copy of the approved substitute water supply plan must be recorded with the county clerk and recorder.

45. The duration of the substitute water supply plan will be evaluated case-by-case by the State Engineer. While mining continues, individual plans may be approved or renewed for extended years. Criteria for approving the plan for extended years include the approved term and conditions of mining by the Division of Reclamation Mining and Safety, the senior water rights impacted, the source and reliability of replacement water, the operating history of the applicant, and any other criteria which affects the operational viability of the plan.

46. Approval of a substitute water supply plan does not relieve the Applicant and/or landowner of the requirement to obtain a Water Court decree approving a permanent plan for augmentation or mitigation to ensure the permanent replacement of all depletions, including long-term evaporation losses and lagged depletions after gravel mining operations have ceased. If reclamation of the mine site will produce a permanent water surface exposing ground water to evaporation, an application for a plan for augmentation must be filed with the Water Court at least three years prior to the completion of mining to include, but not be limited to, long-term evaporation losses and lagged depletions. If a lined pond results after reclamation, replacement of lagged depletions from mining and dewatering shall continue until there is no longer an effect on stream flow.

47. The applicant will be responsible for all lagged depletions that occur due to operation of the sand and gravel mining operation, including lagged depletions from evaporation, operational uses, reclamation and dewatering. The applicant must have a valid substitute water supply plan or court-approved augmentation plan until such time as all lagged depletions have been replaced to the satisfaction of the State Engineer, Division Engineer and water commissioner.

48. For a gravel pit whose mining operations have ceased: With the approval of the Division Engineer, upon replacement of 95 percent of the depletions that remained to be replaced when mining ceased, the applicant may aggregate the remaining five percent of the lagged depletions for replacement in one final month.

49. Substitute water supply plan requests must identify whether the applicant is the owner of the land where the mining operation is located. If the applicant is not the landowner, before any plan is approved, an agreement must be obtained between the operator and the landowner (or whoever is the responsible party) and their successors to identify who is responsible for the operation and continuance of the substitute water supply plan and future augmentation requirements after mining is complete. The agreement must be recorded with the county clerk and recorder and be a binding document with the title to the property.

50. In any substitute water supply plan approval, the decision of the State Engineer shall have no precedential or evidentiary force, shall not create any presumptions, shift the burden of proof, or serve as a defense in any Water Court case or any other legal action that may be initiated concerning the substitute water supply plan. This decision shall not bind the State Engineer to act in a similar manner in any other applications involving other plans or in any proposed renewal of this plan, and shall not imply concurrence with any findings of fact or conclusions of law contained herein, or with the engineering methodologies used by the Applicant.

51. These guidelines are conditional for five years and will be subject to reevaluation.