MEMORANDUM

TO: ALL COUNTY LAND USE PLANNING DIRECTORS

FROM: HAL SIMPSON, STATE ENGINEER

SUBJECT: STATE ENGINEER'S ACTIONS ON PROPOSED WATER SUPPLIES FOR LAND USE ACTIONS

March 4, 2005

On August 7, 1995, I sent a memorandum to the Land Use Planning Directors for each county in the state. The memorandum addressed the State Engineer's responsibilities in providing "an opinion regarding material injury likely to occur to decreed water rights by virtue of diversion of water necessary or proposed to be used to supply the proposed subdivision and adequacy of proposed water supply to meet requirements of the proposed subdivision" as required under Section 30-28-136(h)(l) C.R.S. The primary objective of that memo was to inform the Land Use Planning Directors and their staff ("County") that effective August 31, 1995, the State Engineer's Office ("SEO") would no longer respond to comments regarding county land use actions that do not involve the subdivision of land as defined in Section 30-28-101(10)(a) C.R.S. ("Subdivision"). The reason adopted that approach in 1995 was to ensure that my staff would be able to satisfy the statutory requirement of responding to those land use actions that do meet the definition of a Subdivision.

In addition to explaining that approach, the memorandum provided a Water Supply Information Summary form and Guidelines for the County's use in determining exempt well permit availability in situations that did not involve a Subdivision.

I find it is appropriate to update the information provided in that memorandum. This memorandum supersedes the memorandum dated August 7, 1995. County land use planning directors and their staff should read this memorandum and become familiar with the content. A copy of this memorandum should be provided to all developers that are submitting a water supply plan to the county. This memorandum provides valuable information that will guide the developer when creating a water supply plan for a subdivision and reviewing this memorandum will save the developer valuable time and resources in many cases.

SUBDIVISION WATER SUPPLY PLAN REVIEW

The SEO will continue to provide timely review and an opinion regarding material injury and adequacy for water supply plans for Subdivisions as those water supply plans are submitted to the SEO by referral from the County. The opinion will be completed within the statutory 21-day requirement. The SEO'S Water Supply Plan Review Requirements For Subdivisions are found in Attachment A on Page 3.
The SEO will not respond to water supply plans that are submitted by parties other than the County. This includes amended water supply plans that address concerns raised by the SEO in a previous response. Those amended plans must also be submitted through the County.

The SEO has no statutory responsibility to review land use actions that do not involve the subdivision of land as defined in Section 30-28-101(10)(a). These actions include, but are not limited to, lot line adjustments, zone change requests, special use of land, division by exemption, and cluster developments. To assist the County in evaluating the water supply for these 'non-Subdivision' land use actions, this memorandum includes water supply evaluation guidelines in Attachment B, Page 8. If the County finds it is appropriate to submit a written request concerning a specific 'non-Subdivision' land use action, the SEO will perform a cursory review and provide only informal comments regarding the proposed water supply. Those comments will identify any concerns or issues that the SEO identifies through cursory review that may present themselves at such time that the developer of the subject land implements the water supply. The comments will not state an opinion on the adequacy of the water supply or the ability of the water supply plan to satisfy any County regulations or requirements. The comments cannot be used to guarantee a viable water supply plan or infrastructure, the issuance of a well permit, or physical availability of water. If the SEO does not identify concerns or issues related to the proposed water supply, the SEO will respond with no comment regarding the water supply. The response will also state that the SEO does not necessarily take the position that the water supply plan is valid.

Therefore, each referral submitted to the SEO must clearly identify whether the proposed action is a Subdivision or does not qualify as a Subdivision according to the definition in C.R.S. 30-28-101(10)(a).

WATER SUPPLY PLAN INFORMATION FOR SUBDIVISIONS

The water supply plan must be included in all Subdivision referrals from the County. That plan must identify the Subdivision's estimated water supply requirements and demonstrate the adequacy of the proposed water supply. The WATER SUPPLY INFORMATION SUMMARY form that is included with this memo as Attachment C on Page 11 may be used as a guide and in many cases will be sufficient. However, for many subdivisions the water supply plan must include a water supply report. The Water Supply Information Summary or the report should identify, at a minimum: the number of lots; the type of use and the demand, by lot; and the total water requirement. The SEO will review the Water Supply Information Summary or water supply report to ensure the water use values are reasonable for the described uses and are consistent with SEO accepted demand/consumptive use values unless specific information is supplied to support different use values or the values are indicated in a court approved augmentation plan or, for a subdivision located in a Designated Basin, a Ground Water Commission approved replacement plan. The SEO may consider, but is not obligated to follow County Land Development Codes or Rules.

The maps in Attachment D on Page 12 show the boundaries of the Designated Basins and the approximate locations of the Denver Basin bedrock aquifers.
ATTACHMENT A

The SEO will apply specific review criteria to water supply plans that rely on sources of water as listed below:

SEO'S WATER SUPPLY PLAN REVIEW REQUIREMENTS FOR SUBDIVISIONS

1. Source is a Municipality or Quasi-Municipality

If the water supply is to be provided by a municipality or quasi-municipality (i.e. a Water District, a Water and Sanitation District, etc.), the SEO will review the submittal to ensure that it includes:

a. A letter of commitment from the municipality or quasi-municipality referencing the subdivision name (as submitted to the county) and a level of commitment in terms of uses to be served.

b. As required by C.R.S. 30-28-136(1)(h)(II), a report from the municipality or quasi-municipality documenting the amount of water that can be supplied to the subdivision, containing the following:

i. A summary of the water rights owned and controlled by the municipality.

ii. The anticipated yield of these rights in both an average and dry year.

iii. The present demand on the municipality, and the anticipated demand due to commitments for service entered into by the municipality that are not yet supplied.

iv. The amount of uncommitted firm supply the municipality has available for future commitment and development.

v. A map of the municipality's service area.

The above information should be provided in a manner that demonstrates that the municipality has sufficient water resources to meet its commitments in terms of an overall annual water supply and daily availability. Note that, for many of these providers, the SEO maintains files that document the firm water supplies and the amount of water that has been committed to subdivisions. If that information is on file, this statement may not be necessary.

The SEO may request updated information from the municipality or quasi-municipality if it appears the information has not been updated within three calendar years, or when the commitments reach a total that is close to the firm yield (approximately 90 percent)

c. Proposed uses that correspond to the uses of the municipality or quasi-municipality's water rights.

d. For a Subdivision located in a Designated Basin, proposed place of use (the Subdivision) that corresponds with the place of use listed on Permit or Determination of Water Right.

2. Source is Wells Withdrawing Tributary Ground Water or any Designated Ground Water from a Non-Denver Basin Aquifer
If the water supply is to be provided by wells withdrawing tributary ground water or designated ground water from any non-Denver Basin aquifer:

a. The SEO will review the submittal to ensure that all uses are consistent with the uses in a court-decreed augmentation plan or, if in a designated basin, the uses in a commission approved replacement plan.

(Note: For areas outside of the Designated Basins, a source of water that is approved through a substitute water supply plan is not an acceptable water supply for inside domestic uses; a court decreed augmentation plan is required. However, if the water supply plan includes lawn and garden irrigation from a source that is not yet subject of a court-decreed augmentation plan, the SEO will evaluate that component of the water supply plan for adequacy and potential injury independently, however, the source of water to be used for lawn and garden irrigation may be subject to curtailment until the developer acquires a court-approved augmentation plan for that source. The SEO will not comment unfavorably on the entire plan due to failure of that one aspect.)

b. If in a Designated Basin, the SEO will review the submittal to ensure that the proposed place of use (the subdivision) corresponds with the place of use listed on the well permit.

c. State statute requires that the SEO provide an opinion regarding the water supply’s adequacy to meet the requirements of a proposed subdivision [C.R.S. 30-28-136(h)(l)]. Therefore, the SEO will review the submittal to ensure that there is evidence that a water supply is physically adequate. This evidence should be in the form of a hydrologist’s or geologist’s report that may include information from a test well or wells.

3. Source is Individual, On-lot, Exempt/Small Capacity Wells Withdrawing Denver Basin Ground Water Considered to be Nontributary**, or Other Ground Water Determined to be Nontributary. The Water that has not been adjudicated or is not Subject of a Determination of Water Right

If the water supply is to be provided by individual on-lot wells from a Denver Basin aquifer and is considered nontributary**, or a formation that is determined to be nontributary by statutory definition [C.R.S. 37-90-103(10.5)], and the ground water has not been adjudicated or is subject of a Determination of Water Right, the SEO will review the water supply plan to ensure that:

(** note: for a subdivision located in a Designated Basin, the subdivision may also use a source that is not-nontributary with a 4 percent replacement requirement, without the need for a replacement plan)

a. The developer has identified a specific source (for example, Dawson, Denver, Arapahoe, Laramie-Fox Hills),

b. The developer has properly quantified the amount of water using aquifer characteristics that are consistent with the Denver Basin Rules or site-specific information that has been validated by the SEO geotechnical staff.
c. The subdivision's proposed water supply has not been previously allocated through existing decrees, well permits, pre-Senate Bill 213 type wells, Determinations of Water Rights, or other claims to the water.

d. The amount of water available annually, on the basis of an aquifer life of 100 years, is greater than or equal to the amount of water required.

(Note: The amount of water available annually should be quantified as described in Rule 8 of the Statewide Nontributary Ground Water Rules. The water supply plan must ensure that the smallest parcel in the subdivision has adequate land area such that the calculation of the water available underlying that land area is sufficient to satisfy its needs. Small parcels may not 'borrow' land area from larger parcels to increase the amount of water available to the small parcel since the well permit will ultimately be issued pursuant to C.R.S. 37-92-602(3)(b)(I) or 37-90-105(3)(c), which requires a land area evaluation. If the developer cannot provide a water supply to the smaller parcels because of this, the developer may pursue a water court decree or Determination of Water Right that will "separate" the water from the land and allow it to be deeded to individual landowners in the amounts necessary to provide a water supply.

Additionally, to satisfy a county's "300-year water supply approach", the developer may state that each lot will use one aquifer for a portion of the 300-year period (the first 100 years), then, a deeper aquifer for subsequent portions of the 300-year period (the remaining 200 years). This approach is acceptable, however, it is entirely the developer's responsibility to identify, by lot number, the aquifer that will be used for each lot and for which period of time. In no case will the SEO approve a plan where the engineer makes that determination in the response to the County or where that determination is left to the well permit applicant or permit evaluator in the future. In this situation, the SEO response will state that the lot owners should be notified through plat notes or other means of the specific restrictions.)

e. The amount of water available considers any 300-year water supply approach or similar approach that is currently used by the referring county.

f. The proposal meets all applicable Ground Water Management District rules, if located within a Designated Basin.

4. Source is from a Denver Basin Aquifer that has been Decreed or, for the Designated Basins, is Subject of a Determination of Water Right

If the ground water is from a Denver Basin aquifer and is considered to be nontributary or not-nontributary and has been adjudicated by Water Court or has a Determination of Water Right/Permit issued by the Ground Water Commission, the SEO will review the water right to ensure that:

a. The developer has identified a specific source (for example, Dawson, Denver, Arapahoe, or Laramie-Fox Hills aquifer),

b. The amount of water available annually, according to the court-approved decree or Commission-approved Determination of Water Right/Permit, is
greater than or equal to the amount of water required for the entire subdivision.

(Note: The adjudication/quantification of nontributary or not nontributary ground water "separates" the ownership of the water from the land. Therefore, individual lot owners that apply for well permits will require a "special warranty deed" or other document by which ownership of an amount of water is transferred to the lot owner from the original landowner. Such a deed will not be necessary if a Homeowner's Association ("HOA") will be created to take ownership of the water rights and the HOA will have the necessary mechanism to convey the water rights to members of the HOA. The water supply plan must identify whether water will be deeded to individual lot owners or owned by a HOA. In comments to the County, the SEO will add a note that indicates whether there will be a "HOA" that will take ownership of the water rights and to which each homeowner must belong. If so, well permit applicants will not require a "special warranty deed" granting them the rights to use the amount of water identified in the water supply plan. If water will be deeded to individual lot owners, well permit applicants will be required to provide to this office a copy of the "special warranty deed" or other document conveying the water right to the lot owner.)

c. The proposed uses correspond to the uses of the vested water rights to be used.

d. If in a Designated Basin, the proposed place of use (the Subdivision) corresponds with the place of use listed on the well permit or Determination of Water Right.

e. The water supply plan is consistent with the specific terms and conditions of a court-approved augmentation plan or Ground Water Commission-approved replacement plan, if one was developed.

f. The amount of water available considers any 300-year water supply approach or similar approach that is currently used by the referring county.

(Note: To satisfy a county's "300-year water supply approach", the developer may state that each lot will use one aquifer for a portion of the 300-year period (the first 100 years), then, a deeper aquifer for subsequent portions of the 300-year period (the remaining 200 years). Or, a developer may state that a predetermined number of lots will use a shallower aquifer while other lots will use a deeper aquifer. These approaches are acceptable, however, it is entirely the developer's responsibility to identify, by lot number, the aquifer that will be used for each lot and for which period of time. In no case will the SEO approve a plan where the engineer makes that determination in the response to the County or where that determination is left to the well permit applicant or permit evaluator in the future. In these situations, the SEO response will state that the lot owners should be notified through plat notes or other means of the specific restrictions.)

Additionally, the following comments apply to the four SOURCE OF WATER SUPPLY categories listed above.
1. If the water supply plan relies on an adjudicated water right, and the decree for that water right is not yet final, the SEO will not include consideration of the water that is subject of that water right. Similarly, if the water supply plan relies on water rights, changes to water rights, or replacement plans that are pending review by the Ground Water Commission but have not been approved, the SEO will not include consideration of the water that is subject of that water right.

2. The SEO's determination that a water supply is "adequate" requires evidence that volume and flow rate required is physically and legally available, but does not necessarily include infrastructure beyond the wellhead, storage vessel, diversion or release point. For example, the SEO does not comment on the design of the piping and pump stations needed to deliver water throughout the system at required pressures.

3. The adequacy of a water supply plan in the Denver Basin aquifers is evaluated using estimates of legally available water based on information available at the SEO and may not necessarily reflect the physical availability of water. Water in the Denver Basin aquifers is allocated based on a 100-year aquifer life under the provisions of C.R.S. 37-90-137(4)(b)(I). For planning purposes the county should be aware that the economic life of a water supply based on wells in a given Denver Basin aquifer may be less than the 100 years indicated due to anticipated water level declines. Furthermore, the water supply plan should not rely solely upon non-renewable aquifers. Alternative renewable water resources should be acquired and incorporated in a permanent water supply plan that provides future generations with a water supply.
ATTACHMENT B

WATER SUPPLY EVALUATION GUIDELINES FOR LAND USE ACTIONS THAT DO NOT INVOLVE A SUBDIVISION

The SEO will not provide a comprehensive opinion for land use actions that do not involve a Subdivision. In these cases the developer must rely on an engineering consultant or use the guidelines included below. In any case, the decision to issue a well permit will not be evaluated until a well permit application has been submitted to the SEO. In situations where the land use action will be creating a parcel of land (for example, recorded exemption), the SEO cannot accept well permit applications until the land use action is final.

These guidelines may be used by your staff or the developer to make a preliminary determination of the availability of a well permit for parcels addressed in land use actions that do not involve a subdivision of land and which rely on a well as a water supply. The SEO will evaluate well permits according to the criteria described below using rules and statutes in place at the time of application. Well permits of the types described below can often be approved under the 2004 statutes when the land involved meets the respective parcel definition and the proposed well will meet the water use and return flow conditions stated below. Note the SEO’s evaluation process may find that there is a well on the subject parcel or on a neighboring parcel that may ‘encumber’ the land on the parcel and prevent the SEO from issuing a well permit.

Below are the possible categories of land use actions that do not involve a subdivision and the types of well permit for which the SEO may evaluate an application:

1. a) ‘Pre June 1, 1972’ Parcels; b) Parcels created after June 1, 1972 to which the statutory definition of a subdivision does not apply; or c) Parcels that the County has “Exempted” from the subdivision process

Description

a. A parcel that was created prior to June 1, 1972 (the date on which SB72-35 was enacted). A well permit applicant will need to submit proof that the parcel existed prior to June 1, 1972. This may be in the form a plat or deed of transfer dated before June 1, 1972. The documentation must include a legal description of the parcel. Or,

b. A parcel that was created after June 1, 1972 and satisfies the criteria in C.R.S. 30-28-101(10)(c). Or,

c. A parcel that was created after June 1, 1972 and has been exempted from the “subdivision process” by the County as described in C.R.S. 30-28-101(10)(d). A well permit applicant will need to submit proof that the parcel has been exempted from the “subdivision process” in the form a county resolution or plat with the proper documentation.

Well Permit Evaluation for Areas Outside a Designated Basin

a. The SEO will evaluate this type of parcel for a Household Use Only well permit.

b. If the applicant requests, the SEO will evaluate this type of parcel for a ‘Commercial Exempt’ well permit (Drinking and Sanitary uses only in a single business, not to exceed 0.33 acre-feet annually and not to be used for any outside purposes.)
c. If the parcel overlies a nontributary Denver Basin aquifer or a not nontributary Denver Basin aquifer with a “four-percent replacement” requirement, the landowner has the potential to get a well permit for additional dwellings and outside domestic uses.

d. If the parcel overlies a nontributary Denver Basin aquifer, the landowner has the potential to get a well permit for commercial uses beyond Drinking and Sanitary uses and 0.33 acre-feet annually.

Well Permit Evaluation for Areas Inside a Designated Basin

a. The SEO will evaluate this type of parcel for a residential well permit for no more than three single-family dwellings, including the normal operations associated with such dwellings including the irrigation of not more than one acre of land; subject to all applicable Ground Water Management District Rules if the parcel is located within such a district.

b. If the applicant requests, the parcel may be evaluated for small-capacity commercial use subject to all applicable Ground Water Management District rules.

2. “35-acre” Parcels

Description

A parcel that is 35 acres or larger and not composed of multiple subdivided parcels. A well permit applicant must submit a legal description of the parcel.

Well Permit Evaluation for Areas Outside a Designated Basin

a. For most areas of the state, the SEO will evaluate this type of parcel for household use and outside uses. Unless the applicant specifically requests livestock uses only, the SEO will evaluate the well permit for use in up to three single-family dwellings, one acre of home lawn and garden irrigation, domestic animal watering and livestock watering.

b. If the applicant requests, the SEO will evaluate this type of parcel for a 'Commercial Exempt' well permit (Drinking and Sanitary uses only in a Single business, not to exceed 0.33 acre-feet annually)

c. If the parcel overlies a nontributary Denver Basin aquifer or another aquifer determined to bee nontributary, the landowner has the potential to get a well permit for commercial uses beyond Drinking and Sanitary uses and 0.33 acre-feet annually.

Well Permit Evaluation for Areas Inside a Designated Basin

a. The SEO will evaluate this type of parcel for a residential well permit for no more than three single-family dwellings, including the normal operations associated with such dwellings including the irrigation of not more than one acre of land; subject to all applicable Ground Water Management District Rules if the parcel is located within such a district.
b. If the applicant requests, the parcel may be evaluated for small-capacity commercial use subject to all applicable Ground Water Management District rules.

3. 'Cluster Development' Parcels

Description:

A parcel that satisfies the statutory provisions of C.R.S. 30-28-401, 30-28-402, 38-28-403, and 30-28-404, as amended in 2001. The County may approve cluster developments in accordance with a rural land use planning process enacted and adopted by the County. At least two-thirds of the total tract area must be reserved for preservation of open space. The number of residential lots may not exceed one lot for each seventeen and one-half acres of total tract area.

No later than ten days after County approval of a cluster development, the County shall notify the SEO of such approval and shall provide a copy of the approved rural land use plan that includes the cluster development. For administrative purposes, the plan must include a copy of a survey plat that describes the entire land area associated with the plan, identifies the set aside open space area, and describes the residential lots within the land area.

Well Permit Evaluation for Areas Outside a Designated Basin

The SEO will evaluate this type of parcel for household use and outside uses. The uses of the well will be limited by a permitted maximum annual amount. One well permit may be obtained for each residential lot. The total amount of water available to all lots in the cluster development is equal to one acre-foot for each full 35-acre-parcel, with no consideration for any additional fraction of a 35-acre parcel. The total amount available will be divided equally between each of the lots.

For example, a Cluster Development with seven lots on 150 acres has four full 35-acre parcels. Therefore four acre-feet of water is available to the lots in the development. Split evenly among the seven lots, the four acre-feet allows for 0.57 acre-feet annually per lot.

Parcels that are approved as a part of a cluster development are not eligible for consideration for uses greater than those described above. For example, a 35-acre lot that is part of a cluster development, will not be eligible for use beyond those allowed by the parcel's allotment of the one acre-foot per full 35-acre parcel.

Well Permit Evaluation for Areas Inside a Designated Basin

The SEO will evaluate applications for a residential well permit for no more than one single-family dwelling, including the normal operations associated with such dwelling including the irrigation of not more than one acre of land; subject to all applicable Ground Water Management District Rules if the parcel is located within such a district.
ATTACHMENT C

WATER SUPPLY INFORMATION SUMMARY
STATE OF COLORADO, OFFICE OF THE STATE ENGINEER
1313 Sherman St., Room 818, Denver, CO 80203
Phone – Info (303) 866-3587
Main (303) 866-3581
Fax (303) 866-3589
http://www.water.state.co.us

Section 30-28-133(d), C.R.S. requires that the applicant submit to the County, "Adequate evidence that a water supply that is sufficient in terms of quantity, quality, and dependability will be available to ensure an adequate supply of water."

1. NAME OF DEVELOPMENT AS PROPOSED:

2. LAND USE ACTION:

3. NAME OF EXISTING PARCEL AS RECORDED:
   SUBDIVISION: _______________________
   FILING UNIT: _______________________
   BLOCK: _______________________ LOT: _______________________

4. TOTAL ACREAGE: __________

5. NUMBER OF LOTS PROPOSED: __________
   PLAT MAP ENCLOSED? □ YES or □ NO

6. PARCEL HISTORY – Please attach copies of deeds, plats, or other evidence or documentation.
   A. Was parcel recorded with county prior to June 1, 1972? □ YES or □ NO
   B. Has the parcel ever been part of a division of land action since June 1, 1972? □ YES or □ NO
   If yes, describe the previous action:

7. LOCATION OF PARCEL – Include a map delineating the project area and tie to a section corner.
   1/4 of the 1/2, Section _____, Township _____ □ N or □ S, Range _____ □ E or □ W
   Principal Meridian: □ Sixth □ New Mexico □ Ute □ Costilla
   Optional GPS Location: GPS Unit must use the following settings: Format must be UTM, Units must be meters, Datum must be NAD83, Unit must be set to true N, □ Zone 12 or □ Zone 13
   Easting: __________ Northing: __________

8. PLAT – Location of all wells on property must be plotted and permit numbers provided.
   Surveyor’s Plat: □ YES or □ NO
   If not, scaled hand drawn sketch: □ YES or □ NO

9. ESTIMATED WATER REQUIREMENTS

<table>
<thead>
<tr>
<th>USE</th>
<th>WATER REQUIREMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOUSEHOLD USE # _____ of units</td>
<td>Gallons per Day</td>
</tr>
<tr>
<td>COMMERCIAL USE # _____ of S. F</td>
<td></td>
</tr>
<tr>
<td>IRRIGATION # _____ of acres</td>
<td></td>
</tr>
<tr>
<td>STOCK WATERING # _____ of head</td>
<td></td>
</tr>
<tr>
<td>OTHER:</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
</tr>
</tbody>
</table>

10. WATER SUPPLY SOURCE
    □ NEW WELLS
    □ EXISTING
    □ DEVELOPED
    □ SPRING

    □ MUNICIPAL
    □ ASSOCIATION
    □ COMPANY
    □ DISTRICT
    NAME ________________________________
    LETTER OF COMMITMENT FOR SERVICE □ YES or □ NO
    WATER COURT DECREE CASE NUMBERS:

11. WAS AN ENGINEER’S WATER SUPPLY REPORT DEVELOPED? □ YES or □ NO
    (This may be required before our review is completed.)

12. TYPE OF SEWAGE DISPOSAL SYSTEM
    □ SEPTIC TANK/LEACH FIELD
    □ LAGOON
    □ ENGINEERED SYSTEM (Attach a copy of engineering design.)
    □ OTHER:
    □ CENTRAL SYSTEM
    DISTRICT NAME: ________________________________
    VAULT
    LOCATION SEWAGE HAULED TO: ________________________________
    □ OTHER: ________________________________
ATTACHMENT D

COLORADO STATE MAP SHOWING

THE DENVER BASIN AND THE DESIGNATED BASINS