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AGENDA ITEM NO.: 1 (Action Item – Public Hearing)

PLANNING COMMISSION MEETING DATE: March 11, 2009

SUBJECT: Conditional Use Permit #2007-03/Coso (Hay Ranch Water Extraction & Delivery Project)

EXECUTIVE SUMMARY

Coso Operating Company, LLC ("COC") has applied for a 30-year Conditional Use Permit (CUP) to extract groundwater from two existing wells on Coso's Hay Ranch property in Rose Valley, which is located approximately ½ mile south of Dunmovin and two miles north of Coso Junction (to the east of, but adjacent to, U.S. Highway 395). The extracted groundwater would be piped approximately nine miles east of the wells and be delivered to Coso's geothermal plant, which is located in the northwest area of the China Lake Naval Air Weapons Station (CLNAWS). The extracted water will provide the additional supplemental injection water needed by the geothermal plant in order to offset declines in its productivity.

The CUP for the project is required under Inyo County Code Chapter 18.77, which regulates water transfers. An Environmental Impact Report (EIR) has been prepared in order to fully investigate potential impacts of the proposed project.

PROJECT INFORMATION

Proposal: Export 4,839 acre-feet/year of groundwater per year via a nine-mile pipeline from Coso's Hay Ranch property (just south of Dunmovin), for injection at Coso's geothermal plant (located within the CLNAWS property).

Supervisory District: Fifth

Applicants:	Coso Operating Company, LLC ("COC" or "Coso")
Landowners:	Coso Operating Company, LLC; Bureau of Land Management (BLM); China Lake Naval Air Weapons Station (CLNAWS)
Address/ Community:	The project extends from Coso's Hay Ranch property in Rose Valley, across BLM lands, to Coso's geothermal plant located in the northwest area of CLNAWS.
A.P.N.s:	037-040-23, -03, -24 (Coso); 037-070-08, 037-027-01, -02 (BLM); 037-032-01 (CLNAWS)
Project Size:	The project site is largely a 50-foot wide linear corridor that supports the proposed nine miles of pipeline. Total area is 54 acres.

General Plan:

- Rural Protection (RP), 1 dwelling unit/40 acres, 40-acre minimum parcel size (5.36 acres of Coso-owned land is so designated)
- State & Federal Lands (SFL) (32.24 acres of BLM-owned land, and 16.18 acres of CLNAWS-owned land is so designated)

Zoning:	Open Space, 40-acre minimum parcel size (OS-40) [all property is so Designated].
Current Land Use:	Approximately five acres of the project site (the northwest portion, where the two existing wells are located) is owned by Coso and consists of fallowed agricultural lands. Undeveloped BLM land (32 acres) surround part of the proposed pipeline corridor, with CLNAWS-owned land (16 acres) surrounding the balance of the pipeline corridor.

Recommended Action:

1.) Adopt the Final Environmental Impact Report (FEIR) and certify that the provisions of the California Environmental Quality Act have been satisfied.
2.) Make Findings, as noted below, and approve CUP #2007-03/Coso Operating Company LLC.
3.) Make additional Findings, as required by CEQA Guideline 15091, pertaining to potential significant environmental effects of the project, as noted below.
4.) Adopt the recommended Conditions of Approval for the project.

Alternatives:

1.) Deny the CUP, thereby prohibiting the applicant from constructing the proposed pipeline.
2.) Continue the public hearing to a future date, and provide specific direction to staff regarding additional information and analysis needed.

BACKGROUND/HISTORY

Intensive investigation of the Coso geothermal resource took place in the 1970s, with the drilling of a number of heat flow holes, acquisition of geophysical and geological data, and the drilling of a 4,842-foot deep test well. In 1979 the U.S. Navy entered into a third party contract with California Energy Company to develop the geothermal resource for electrical power production, with the first electricity delivered to the Southern California Edison (SCE) power grid on July 15, 1987. Coso has generated up to a peak of 240 megawatts (MW) of electricity, which is roughly enough to provide power for 250,000 homes.

However, Coso has been experiencing a decline in the water reservoirs at the geothermal field over the past few years. This decline in water availability is crucial because water is necessary in order to make use of the geothermal resource for electricity production. In brief, electricity is produced at the Coso plant in the following way: there are numerous "well sites" (essentially, deep holes that tap into the geothermal source deep below the surface) from which hot water/fluid is extracted that has been heated by geothermal forces/activity; the steam from this hot water runs turbines which produce electricity; the "remaining" hot water left over from the steam phase of the process is then re-injected into the well sites where it goes through the whole process again. Although a significant amount of the hot water/fluid that is initially captured from the well sites is retained even after electricity is produced, a significant amount is also lost as evaporation during the steam/electricity production process. Over time, this inevitably results in an overall reduction of hot water/fluid available from the well sites. Essentially, this is where things are for the plant and is the reason for the current project: a new source of injection water for the plant is necessary for it to continue to be a profitable and viable resource. Coso representatives estimate that with such additional water resources, the plant can continue to be viable for another 30 years; without such additional water resources, the capacity of the plant to generate electricity will continue to decline until it will become un-economical to run and will have to be shut down.

PROJECT DESCRIPTION

The applicants are asking for a 30-year CUP for their "Hay Ranch Groundwater Extraction and Delivery Project." The project would pump groundwater from two existing wells on the Hay Ranch property, deposit the water into a pipeline which would extend nine miles eastward to the geothermal plant located on the CLNAWS property, where the water would be injected into the geothermal resource via injection wells, with the result that it is converted into steam and pressure to drive turbines, producing electricity.

The project proposes to pump an average rate of 3,000 gallons per minute (gpm) from the combined two Hay Ranch wells. This averages to approximately 4,800 acre-feet per year (afy). The two wells had been used for agricultural irrigation in the past and will not have to be deepened, as they are at depths of 675 and 724 feet. The Bureau of Land Management estimates that net water use for alfalfa in Rose Valley (all farming uses) was 3,000 acre-feet per year during the period that the Hay Ranch wells were producing. Pumping is proposed for 18 hours a day, with water deposited first into a large storage tank, and then into the pipeline. Detailed information on the proposed lift stations, substation, and pipeline construction is covered in Chapter 2 of the EIR for the project.

The project is recommended for approval only with mitigation. Mitigation for the groundwater pumping would take the form of an intensive monitoring effort in which the groundwater level in twenty monitoring wells would be measured periodically. Pumping would be decreased or halted to ensure that no significant impact occurred to the environment in Rose Valley. The mitigation measures are further explained below.

GOVERNING REGULATIONS

Water Transfer, Sale or Transport Regulations (Inyo Co. Code Section 18.77)

This project is subject to the requirements of Section 18.77 to the Inyo County Code ("Regulation of Water Transfer, Sale, or Transport from Inyo County"), which applies to:

> *"*A transfer or transport of groundwater extracted from a groundwater basin located in whole or in part within the boundaries of Inyo County, for use in an area outside of the groundwater basin.*"* (ICC § 18.77.010(A)(3).

Thus the project's pumping of groundwater from wells located in the Rose Valley basin and transporting it via pipeline to the Coso geothermal plant, which is located on the margins of the Coso Valley basin, make it subject to the water transfer regulations.

Section 18.77 requires a conditional use permit for any transport of more than one acre-foot of groundwater per year. Such a CUP shall be granted by the Inyo County Planning Commission, with consideration of the recommendations of the Inyo County Water Commission, only if such a transfer will not unreasonably affect the overall economy or environment of Inyo County (Section 18.77.030(A)). The determination of whether or

not such a transfer will have an unreasonably adverse effect, or whether mitigation will reduce an unreasonably adverse effect to a reasonable level, shall be made by reference to the factors that relate to "significant effects" in the California Environmental Quality Act (CEQA)(California Public Resources Code Section 21000 et seq.), its Guidelines, and relevant case law (Section 18.77.030.B).

Built into Section 18.77 are several safeguards from potential impacts that a water transfer might have on the economy and environment of Inyo County:

- Monitoring, Management, & Reporting: Section 18.77.035 authorizes a monitoring, groundwater management and/or reporting program for each conditional use permit the Planning Commission grants, as described in Section 18.77.010.A: "The monitoring, groundwater management and/or reporting program shall be of such scope and extent as the Commission finds to be necessary to ensure that the proposed water transfer will not unreasonably affect the overall economy or the environment of the County…".
- Limited Permit Term: Section 18.77.050 states that "each applicant for a conditional use permit pursuant to this chapter shall specify in the application the duration or term of the permit requested. The County Planning Commission, in consideration of the relationship of the term of the permit to the potential for the water transfer to unreasonably affect the overall economy or environment of Inyo County, shall…determine the term of the permit."
- Permit Amendment or Revocation: The Planning Commission may revoke a conditional use permit granted pursuant to the provisions of Chapter 18.77 if it finds that the water transfer cannot be continued without causing an unreasonable effect on the overall economy or environment of Inyo County, or if the Commission finds that there has been a failure to reasonably comply with the terms of the permit. In the event the Commission revokes a permit, the Commission may order the former permittee to implement such work as the Commission finds is necessary to mitigate any significant adverse effects caused by the water transfer of transport undertaken by the former permittee (Section 18.77.045(C)).
- Permit amendment or revocation may also come about as a result of a challenge to the CUP from anyone: "Any interested party may challenge the ongoing transfer or transport of water subject to an approved permit during the term of the permit, based on allegations that one of more of the following circumstances exists:

    1.) There has been or is an ongoing violation of one or more conditions of an approved permit.

    2.) The transfer or transport of water subject to a conditional use permit has unreasonably affected the overall economy or the environment of the County."

Inyo County General Plan Consistency

The proposed project was analyzed against the Inyo County General Plan in order to evaluate its consistency with the goals and policies of the Plan. The project was found to be broadly consistent with the Plan, and consistency Findings were developed to reflect this fact. The applicable General Plan goals and policies, together with the consistency Findings, can be found in Attachment #2 to this staff report.

Zoning Ordinance Consistency

State law requires that local zoning be consistent with the adopted General Plan, and in this case the zoning of the site, which is Open Space, 40-acre minimum (OS-40), is consistent with the two General Plan land use designations of the site: Rural Protection (RP) and State & Federal Lands (SFL).

Specifically, the project conforms to these purposes of the OS-40 Zone in a number of ways:

- A significant portion of the fallowed agricultural lands of the Hay Ranch portion of the project site will remain as open space and largely unaffected by the project, as the project's permanent disturbance area is only five acres in size.
- The OS-40 Zone allows, as a conditional use, the "mining and processing of natural resources" (in this case, water is the natural resource).
- Upon termination of the CUP, there will be immediate reclamation and re-seeding activities along the proposed pipeline corridor, returning it to an open space state.

HYDROLOGIC MODELING AND MITIGATION

Factual Uncertainty

Any groundwater withdrawal on the scale proposed has some potential to negatively affect the surface environment. The challenge for County staff in evaluating this negative potential is the lack of information about the Rose Valley aquifer and about the effects that extended (years-long) groundwater withdrawal might have on the Rose Valley aquifer. The most accurate method to determine the effect of a thirty-year pumping project on an uncharacterized aquifer such as the Rose Valley is to pump at the proposed rate and measure what happens. Obviously, with the extensive network of monitoring wells required for this project, the County will learn a great deal about the aquifer and the effect of pumping on it if the project is approved and commences.

However, the County may not allow this pumping to even begin without enforceable assurances that significant environmental damage will not result. This is particularly important at the Little Lake reservoir, where any impact would likely come years after the

pumping started. To evaluate the potential for negative effects, a twelve-day pump test was conducted at the Hay Ranch Well and the results were entered into a hydrologic model. The County used conservative and protective assumptions in the model, the results of which are included in the EIR. The conservative assumptions used in the model include: that only about 5,000 afy of water recharges the aquifer to replenish the water that would be removed at the Hay Ranch, which amount excludes all rainfall below 4500 feet and in the valley and to the east; no recharge flows into Rose Valley from the Coso geothermal area; and that the entire aquifer is connected from the Hay Ranch to Little Lake, such that pumping at the Hay Ranch nine miles to the north has a linear effect on the Little Lake reservoir to the south. This later assumption was included despite the existence of the volcanic field between the Hay Ranch and Little Lake.

The resulting model is conservative and protective. It shows an unacceptable surface water drawdown in the Little Lake area after thirty years of pumping at the Hay Ranch at the full rate requested. Therefore, initial pumping has been limited to avoid harm to the Little Lake reservoir while allowing the County to study the actual effects of pumping. This will allow staff to evaluate the amount of water that is available for pumping in the long term and to determine just what effect pumping at the Hay Ranch would have nine miles down the valley. The amount of pumping that is allowed in the future would be determined based on evidence derived from observation, which would be used to construct a more accurate model.

Standard of Protection

To allow pumping to begin and to begin accumulating better data, it was necessary to determine a standard that would be protective of Little Lake and its habitats and to limit the initial pumping to remain within that standard. The standard used in the FEIR is: No more than a ten percent reduction in the groundwater flow available to Little Lake and its surroundings. This 10% figure was chosen because it is the amount of groundwater that can be taken while still maintaining a healthy flow of groundwater into the Little Lake system (see page C4-5, of the DEIR). The ten percent reduction amounts to about a 3.5 inch lowering of the groundwater table in a well at the northern end of Little Lake. The effect becomes less south of that point and south of Little Lake. The existence of Little Lake itself, a relatively large body of water, serves to maintain groundwater levels around and down gradient from the reservoir.

The ten percent standard will ensure that the level of Little Lake will not be significantly affected beyond its natural seasonal variations and will ensure that no groundwater dependent vegetation will be significantly threatened by pumping at the Hay Ranch. Combining this conservative standard of protection with the existing conservative model guarantees that no harm will come to the Little Lake area while more accurate information about the aquifer is obtained for future decisions.

The EIR demonstrates that the ten percent standard is protective of Little Lake and its habitats for several reasons. Perhaps foremost, there is a wide natural variation in the flow of water to the lake and in the level of the lake. The variation depends on the time of year, rainfall and other factors. The ten percent reduction will generally maintain groundwater flow within the

natural variation. Additionally, the vegetation in the area of Little Lake has adapted to this variation. As a result, there should be no significant affect to Little Lake and the surrounding vegetation from a ten percent reduction in flow.

Mitigation and Monitoring

The Mitigation and Monitoring Plan (MMP) developed for the EIR ensures that the ten percent standard will be met. It is important to realize that any effect caused by pumping at the Hay Ranch, because it is so far from Little Lake, would take many years to be observed at Little Lake. Therefore, the monitoring plan is established to ensure that pumping would be reduced or halted before it could cause a predicted effect to Little Lake, well before any actual effects could be observed. The MMP establishes a grid of monitoring wells from the Hay Ranch and south in Rose Valley. Trigger levels are established for these wells that are intended to prevent any damage from occurring years in the future. Groundwater effects from pumping at Hay Ranch will be measured and evaluated as they radiate from the Hay Ranch and deviations from predictions close to Hay Ranch would trigger a re-evaluation of pumping levels.

Another significant feature of the HMMP is the long-term hydrological data collection it requires. Specifically, along with watching the monitoring wells to see that drawdown trigger levels are not tripped, the monitoring wells will also be used as data collection points. Over time, the data collected from the wells can be compared against the model predictions. When enough data has been collected, the data can be plugged into the model to recalibrate it to increase its accuracy, thus providing the opportunity to re-assess (ground truth) the model and make it even more reflective of Rose Valley conditions. Such a recalibration has the potential to alter the time and rate at which Coso may pump, and/or the established drawdown trigger levels, necessary to stay within the 10% limit. The recalibration shall take place within the first year of project start-up.

The Inyo County Water Department will review and evaluate the data to confirm that the monitoring standard remains protective. The Water Department has the authority and obligation to reduce or halt pumping at the Hay Ranch if there is a predicted effect on Little Lake that is greater than the ten percent standard. This flexibility is important so that the County may react to any unexpected occurrences that would indicate that the model predictions are not protective enough, and also to ensure that pumping is not prematurely curtailed if trigger levels are met for reasons other than pumping at the Hay Ranch.

There are two sensitive populations that are monitored in the hydraulic mitigation plan – users of groundwater wells in Rose Valley and the sensitive habitats that are dependent on groundwater:

- Protection for well users.

  Groundwater pumping by Coso Operating Company (COC) may result in up to 50 feet of decline in well water levels in northern Rose Valley. The MMP, which would be a condition of the permit, requires COC to ensure that no well user loses his ability

to use his well and that no well user will have to pay more to use his well. If the aquifer under a groundwater well is lowered to the extent that the well may not be used in its current configuration, COC is required to lower the pump or deepen the well so that it remains usable. COC is also required to pay any additional electrical charges that occur as a result of having to pump water from a deeper level. The ultimate obligation of COC is to ensure that no well owner is disadvantaged as a result of its groundwater withdrawal.

The mechanics of how this obligation is ensured is as follows: COC is required to annually survey groundwater wells, in cooperation with the well user, to determine if there is a likelihood that COC's operations will affect the well in the upcoming six months. If the well user and COC determine that the well may be affected, COC will undertake actions to ensure the well remains usable. If the user and COC are unable to agree on appropriate mitigation measures, the Inyo County Water Department will direct COC as to the actions to be taken.

Additionally, if a well user, at any time, detects an effect to her well, she may contact COC so that the problem is addressed. COC is then under the same obligation as when it discovers a potential effect.

[Members of the public, and the Water Commission, were concerned that a well owner who detects an effect would have to negotiate with COC for a solution and that this unfairly places a burden on the well user. A suggested change to the MMP that would address this concern would be to require the well user to contact the Water Department directly. The Water Department would decide what, if any, remedial action was necessary and direct COC to undertake that action.]

- <u>Protection for groundwater dependent habitat.</u>

The standard of protection for groundwater dependent habitat and surface water is explained above. The MMP establishes an extensive network of monitoring wells, trigger levels, and responses to ensure the standard is met. There will be a network of approximately twenty monitoring wells in the Rose Valley to track any effect to groundwater levels in the valley.

There will be trigger levels established for each well, as well as a Maximum Allowable Drawdown established for each well. The trigger levels are set in terms of reduction of groundwater level. So, for instance, if the trigger level is .5 feet, it is tripped if the water level in the well is reduced by that amount. Trigger levels, which are predicted aquifer responses over time, change with the amount of time that pumping has occurred. So, a well that is some distance from the Hay Ranch might have a trigger level of zero feet for year one and two of pumping, .3 for year three, .5 for year four, etc. The Maximum Allowable Drawdown in a well level is a set amount that does not change with time. (See table 3-1 in the Hydrology MMP for the trigger levels for the ten established wells and the Maximum Acceptable Drawdown.)

The trigger levels have been established in the MMP for ten existing wells and will be established for new monitoring wells prior to the start of pumping. The trigger levels are solely designed to ensure that no significant effect will ever occur at the Little Lake reservoir.

COC is required to pay for an expert, approved by the Inyo County Water Department, to monitor the water levels in each monitoring well on a monthly basis (increasing to a quarterly basis after two years of pumping). There are three scenarios addressed in the MMP:

1. If any one trigger level is hit, the Water Department is orally notified within 48 hours.

2. If the trigger levels are hit in any two wells, the Water Department is orally notified within 48 hours, with a written report to follow in seven days. The Water Department will immediately determine whether to require COC to curtail or cease pumping. The Water Department will also oversee a recalibration of the model, meaning the model is ground-truthed based on actual data, to determine if its assumptions remain valid and whether more or less restrictive trigger levels should be established.

3. If the Maximum Acceptable Drawdown is reached for any well, pumping is required to cease, and the Water Department determines if the decrease represents a threat to the environment. The model is recalibrated to test its assumptions against actual data. The Water Department determines whether pumping may resume and at what level.

The MMP has been designed to place all final decisions regarding pumping levels with the County Water Department. COC shall pay the expenses of the MMP.

[The EIR concluded that the springs, wetlands and irrigated pasture at the Davis Ranch on Portuguese Bench are not affected by the level of the Rose Valley aquifer and therefore are not threatened by the project. This conclusion was based on the fact that the Portuguese Bench is about 600 feet above the Rose Valley water table and that the springs there are created by a fault that intercepts water flowing underground from the Sierra above, before that flow reaches the aquifer. Therefore, monitoring of the springs at Portuguese Bench was not included in the MMP. Mr. Davis, of the Davis Ranch, has requested monitoring of his springs and the Inyo County Water Commission also recommended monitoring. If these recommendations were implemented, if the Water Department concluded that the Hay Ranch pumping caused an effect at the Portuguese Bench springs, COC would be required to reestablish an equal water supply for the ranch, including supplying electricity to run pumps at the ranch. (The Davis Ranch currently does not have electrical service.)]

Consistency With Past County Regulatory Practices

Public comment on the EIR and at public meetings to this date have stated that Inyo County proposes to regulate this project in a more lenient manner than it has regulated previous projects. In particular, it has been asserted that the County would be creating a situation similar to the Los Angeles water exportation activities in Owens Valley.

Staff strongly disagrees that COC would be treated more leniently than Los Angeles under the MMP. The City of Los Angeles diverted an entire river from Owens Valley to Los Angeles, resulting in the loss of a rare inland desert lake and the creation of a huge salt flat, which is one of the largest sources of particulate pollution in the United States. Additionally, the groundwater withdrawal activities of Los Angeles resulted in the complete loss of numerous springs in the southern sections of Owens Valley and reduced groundwater levels under some of these springs by as much as forty feet. It was not until the seventies, with the passage of strong environmental protections and the construction by Los Angeles of facilities to remove even more water from Owens Valley, that Inyo County was able to effect some control over Los Angeles' activities. But even then, Los Angeles denied, and the County was unable to establish, regulatory control over the activities of Los Angeles. After decades of litigation, the County was able to negotiate an agreement with Los Angeles to protect further environmental damage from occurring and to mitigate some of damage that had occurred in the recent past. One need only drive past Owens *Dry* Lake, or any of the County's dry springs, to see the past and continuing environmental damage caused by the water exports of Los Angeles, which are beyond the regulatory control of Inyo County.

To compare the current project to the actions of Los Angeles in Owens Valley is misleading, and unfair to COC and the County. Through the permitting process, Inyo County has regulatory control over COC. COC may not operate its project without complying with the conditions and mitigation placed in the permit. Furthermore, Inyo County proposed extensive controls on the project to ensure that there will be no significant effect to Little Lake, and although those controls are strict and are predicted to drastically curtail the water available to COC, COC has willingly agreed to them. Rather than being in a position vis-à-vis Los Angeles of attempting to halt ever increasing environmental degradation, the County is in a position with the proposed project to ensure that no environmental degradation occurs in the first place. The County's relation relative to COC is entirely dissimilar to its relation relative to Los Angeles.

Further, the groundwater originating at the Hay Ranch is proposed to be used within Inyo County to the benefit of Inyo County citizens (as well as to the benefit of COC and the nation). As such, this project is much closer in nature to a drinking water bottling operation, which would be allowed in the County without permit, than it is to a project to export water from the County for the benefit of an unrelated population. Water bottling operations are not subject to the County water export ordinance for good reason. Although the water is exported from the County in plastic bottles, the extraction and bottling operation results in jobs within the County, economic activity within the County and the payment of taxes to the County. These have been viewed as benefits to the

County and a beneficial use of groundwater originating in the County. The Hay Ranch project results in the same types of benefits. Staff therefore sees no inconsistency between how it has addressed the COC project and other groundwater projects in the County.

Enforcement

A violation of conditions in a conditional use permit is a violation of the Inyo County Code. Such violations are crimes, judicially punishable after prosecution by the District Attorney. Violations of Title 18 of the Inyo County Code, under which the proposed project would be permitted, are also public nuisances. The County may seek a judicial remedy to a public nuisance, which is brought to the court by the District Attorney. The Inyo County Board of Supervisors may direct the District Attorney to bring a public nuisance action.

Prior to seeking judicial (criminal or civil) enforcement of the permit, the County would determine that the permit had been violated. Chapter 18.77 of the Inyo County Code (the water export ordinance) appoints the Inyo County Planning Commission as the body to determine whether the permit has been violated, or whether the permit has been ineffective to protect the environment. If there is an alleged violation of the permit, the Planning Commission is required to hold a hearing on the matter. The Planning Commission may revoke the permit entirely if it finds that the permittee did not reasonably comply with the terms of the permit. The Inyo County Water Department would be the most appropriate County agency to bring a violation before the Planning Commission, but *any* individual may do so. The burden of proof would be on COC to show by substantial evidence that it did not violate the permit.

The same procedure applies if any person, or County agency, determines that the project, even with mitigation, unreasonably affects the environment or the overall economy of Inyo County. The Planning Commission may modify the terms of the permit, or revoke the permit, to protect against such effects, and the amended or revoked permit would be subject to enforcement by the County through the District Attorney.

Permit Term

The model currently shows that it would take about 1.2 years before hitting trigger levels that would require the cessation of pumping. This raises the question of whether the conditional use permit should be limited to 1.2 years, rather than the 30 years requested. Staff concludes it would not be appropriate to limit the permit to a 1.2 year period for several reasons. Most important is the fact that the model is extremely conservative. Alternatively, it may be that the applicant can pump for a number of years without reaching a trigger level or threatening to exceed the significance criteria at Little Lake reservoir. Assuming the applicant must cease pumping because it hits a Maximum Allowed Drawdown level at 1.2 years, it may develop that the aquifer regenerates more quickly than assumed and that the applicant could resume pumping after some period of recharge. This could entail periodic pumping for the full 30-year permit period. Therefore, it is appropriate and protective to approve a 30-year CUP, even if it currently appears that pumping will not be allowed for that length of time.

MODEL RESULTS

Coso proposes to pump 4,839 acre-feet of water per year, for 30 years, from the two Hay Ranch wells, which is about 3,000 gpm from the two wells combined, each pumping 18 hours a day. Hydrological models developed for the project predict that taking this amount of water will have significant effects on groundwater supplies in Rose Valley. Specifically, the following drawdown information is found on page 3.2-36 of the EIR:

Well Location	Distance from Hay Ranch	Predicted Max. Drawdown
Dunmovin & LADWP wells	1.5 miles north	25 - 55 feet
Coso Junction well	2 miles south	20 - 50 feet
Cinder Road/Red Hill well	6.5 miles south	7 – 20 feet
Little Lake Ranch North well	8.5 miles south	4 – 11 feet

CULTURAL ISSUES

Hot Springs

The hot springs near the Coso geothermal facility (approx. 2.5 miles distant) have long been considered a site sacred to Native Americans, and are included in the National Register of Historic Places. The hot springs have been monitored by the Navy at China Lake since geothermal plant production activity began near them in 1988, since both the hot springs and the geothermal plant are located on Navy property. While a clear causal link has not been established, evidence suggests that an increase in the temperature of the springs coincides with the commencement of geothermal activity in the late 1980s (see DEIR at page 3.2-51).

These changes in the hot springs have been, and will continue to be, monitored through a program specified in the original 1979 Memoranda of Agreement (MOA) between China Lake Naval Air Weapons Systems (CLNAWS), the State Historic Preservation Officer, and the Advisory Council on Historic Preservation.

While the proposed new pumping project is not expected to have a significant effect on the hot springs, it may or may not have some kind of effect on the temperature of the hot springs; analysis suggests that if the increased injection of water affected the hot springs at all, it would likely lower the temperature of the springs closer to what they were prior to geothermal development (see DEIR at pages 3.2-51 – 54).

Cultural Resources

There are several known cultural resource sites within the project region, with construction activities having the potential to significantly impact such resources. Ten mitigation measures have been developed for the project in order to decrease the potential for significant impacts to a less than significant level (see pages 3.5-11 – 18 of the DEIR). These mitigation measures include training construction workers, having an archaeologist monitor all

excavations, and re-sighting project structures and/or conducting data recovery if significant resources are found.

BIOLOGICAL ISSUES

Two federally and/or state protected species, the Mojave ground squirrel and the desert tortoise, are assumed to be present in the project area. These two species have the potential to be harmed during project construction and, as a result, compensation plans have been developed:

- Mojave ground squirrel: compensation is provided under the 1988 Mitigation Plan for geothermal development at China Lake (see page 3.4-29 of the DEIR)
- Desert tortoise: three acres for every acre that is permanently lost due to the project (6 acres) will be purchased and deeded to the California Department of Fish & Game (CDFG) or the Desert Tortoise Preserve. Additional mitigation measures such as surveys, fencing, and construction measures are detailed on pages 3.4-31 – 32 of the DEIR.

In addition to the two species noted above, several other sensitive species were found during a 2008 survey, with a number of other sensitive species showing the potential to occur on the site. As a result, other mitigation measures were developed to keep impacts to such species to a less than significant level (see mitigation measures described on pages 3.4-31 – 35 of the DEIR).

ENVIRONMENTAL REVIEW

Processing.

An EIR was prepared by MHA Consultants, pursuant to the California Environmental Quality Act, and forwarded to the State Clearinghouse on July 23, 2008. The 45-day public comment period ended on September 6, 2008. Commissioners were provided with copies of the DEIR.

Forty-six comment letters were received. The letters, together with responses to the comments, can be found in Chapter 2 of the FEIR.

Project Description and Environmental Baseline.

The purpose of the project is to "help minimize the annual geothermal reservoir decline and the resulting megawatt production decline through the replacement of lost geothermal fluids at the geothermal power plants." "The proposed project is not anticipated to extend the operating periods of the Coso projects beyond the planned operating periods evaluated in the previous environmental documentation for the Coso projects, nor increase the permitted megawatt output of these plants." (DIER § 2.1.2.)

Coso representatives have stated that it is the company's goal to utilize the injection water from the proposed export project to increase electrical production from the amount acutally being produced at present to about 270 MW. Improvements have already been put in place at the plant that will allow an increase in electrical production from current production with the addition of the imported water. This has raised the question of whether the EIR is inadequate in not evaluating an increase in production to 270 MW.

Staff concludes that the EIR is adequate in this respect. As stated in the EIR, the purpose of the project is to increase electrical production to no more than the permitted level, and the environmental baseline against which analysis is conducted is the operational level of the plant that was allowed by permit at the time that the Notice of Preparation for this EIR was filed. The permits for the Coso plant allow production of 270 MW. The plant has permits from both federal and local authorities.

The most relevant of these permits for the purposes of this EIR is the Permit to Operate issued by Great Basin Unified Air Pollution Control District (GBUAPCD). (There are actually nine identical permits issued, one for each production unit.) This permit is specifically intended to control the pollutants of concern that result from operating the plants and thereby limit the environmental effects of the plants. It is legally enforceable by the GBUAPCD and was subject to CEQA analysis. The Permit to Operate regulates both the hourly emissions of pollutants (most importantly hydrogen sulfide, H_2S) and the ambient concentration of pollutants at the gate of the plant. The Operating Permit is particular to the specific equipment used at the plant and a change of equipment would require a new permit. Under the Operating Permit, Coso has been allowed to produce 270 MW of electricity. Therefore, the environmental baseline for this EIR, as pertains to energy production, is 270 MW. There is no requirement for the EIR to analyze this amount of power production, since the water export project will not result in electrical production beyond the baseline amount. The purpose of the EIR is to evaluate environmental impacts resulting from changes from that baseline, not to re-evaluate existing conditions. As a practical matter, the environmental effects of producing 270 MW of electricity were analyzed and are controlled by the GBUAPCD.

In reviewing its responses to comments to the DEIR, staff has noticed an ambiguity. In master response A6 (Baseline Studies) is the following statement: "The potential increase in power production at the power plants was not addressed because the project as proposed would not increase power production at the plants beyond the existing conditions (established at the time of issuance of the Notice of Preparation [NOP]). The relevant baseline in this discussion is the amount of energy that is produced by the plants." This response should be modified to clarify its intent as follows:

> The potential increase in power production at the power plants was not addressed because the project as proposed would not increase power production at the plants beyond the existing *permit* conditions (established at the time of issuance of the Notice of Preparation [NOP]). The relevant baseline in this discussion is the amount of energy that is *permitted to be* produced by the plants. Any other responses to comments in this EIR that

refer to baseline power production refer to production as allowed by permit at the time of the issuance of the NOP.

INYO COUNTY WATER COMMISSION EVALUATION

Pursuant to provisions of Inyo County Code Chapter 18.77, this application was presented to the Inyo County Water Commission on January 12, 2008. The Water Commission's role was to evaluate the project in terms of the hydrogeological and related environmental impacts of the project and to provide recommendations to the Inyo County Planning Commission. The Water Commissions recommendations are attached.

RECOMMENDATIONS

Staff recommends that the Planning Commission approve the CUP for the following reasons:

- The project allows the use of two valuable and precious natural resources located in the County, for the benefit of the citizens of the County, with no significant effect to the environment of the County. The first resource is the large and productive geothermal field located in the Coso geothermal area. The second resource is the abundant groundwater resource in the Rose Valley.
- The project will help maintain significant tax revenues that directly benefit citizens in the southern part of the County through support of the Southern Inyo Hospital, school districts and other service districts. The project will additionally maintain the tax contributions to the County for the benefit of all citizens of the County.
- The project will allow the continued generation of large amounts of clean electricity, which will help to address climate change by curtailing the need for carbon based fuel for generation, a benefit to all citizens.
- The project will help reduce the United States' dependence on foreign sources of energy and improve the national security of the Country.
- The project will support the operations of a good corporate citizen of the County and thereby demonstrate a protective, but friendly business atmosphere in the County.

Staff recommends that the Planning Commission adopt the attached resolution:

- Making certain findings concerning, and certifying and adopting the Final Environmental Impact Report regarding Conditional Use Permit #2007-03/Coso Operating Company, LLC.

- Adopting the proposed Mitigation and Monitoring Program as included in the FEIR.

- Approving the Conditional Use Permit #2007-03/Coso Operating Company, LLC subject to the conditions enumerated in the resolution.

ATTACHMENTS

1. DEIR & FEIR (routed to Commissioners previously)
2. Inyo County General Plan Goals & Policies, with Consistency Findings
3. Public Comment Letters to the Planning Commission
4. Planning Commission Resolution
5. Water Commission Staff Report & Interim Memo
6. Water Commission Recommendation to the Planning Commission
7. Public Comment Letters to the Water Commission