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DATE: July 13, 2015

TO: Interested Parties

FROM: Joseph Douglas, Compliance Project Manager

SUBJECT: **GWF Tracy Combined Cycle Power Plant (08-AFC-7C)**
Staff Analysis of Petition for Approval of Alternative Water Supplies

On June 26, 2015, a petition for approval of alternative water supplies was docketed with the California Energy Commission (Energy Commission) for the GWF Tracy Combined Cycle Power Plant (GWF Tracy). The combined-cycle, natural gas-fired, 330-megawatt facility was certified by the Energy Commission in its Decision on March 24, 2010, and began commercial operation on November 1, 2012. The facility is located in an unincorporated portion of San Joaquin County, southwest of the city of Tracy at 14950 W. Schulte Road.

The modifications proposed in the petition would allow GWF Tracy to use alternative water supplies to avoid being forced to reduce or suspend operations. The proposed modifications will not increase the amount of water used by GWF Tracy to levels above that analyzed in the Final Decision.

Energy Commission staff (staff) reviewed the petition and assessed the impacts of the proposal on environmental quality and on public health and safety. Staff's analysis of the proposed changes can be reviewed on the Energy Commission's website for this facility (see below). Staff is proposing to modify Condition of Certification **SOIL&WATER-4** in the Energy Commission's Final Decision, to allow GWF Tracy the option to use alternative water supplies for project operations during emergency periods when water curtailment is possible.

It is staff's opinion that, with the implementation of the revised condition, the facility would remain in compliance with applicable laws, ordinances, regulations, and standards, and the proposed changes to the facility would not result in any significant adverse, direct, indirect, or cumulative impacts to the environment (Cal. Code Regs., tit. 20, § 1769). Staff intends to recommend approval of the petition at the July 30, 2015 Business Meeting of the Energy Commission.

The Energy Commission's webpage for this facility, http://www.energy.ca.gov/sitingcases/tracyexpansion/, has a link to the petition and the Staff Analysis on the right side of the webpage in the box labeled "Compliance Proceeding." Click on the "Documents for this Proceeding (Docket Log)" option. After the Business Meeting, the Energy Commission's Order regarding this petition will also be available from the same webpage.

This notice has been mailed to the Commission's list of interested parties and property owners adjacent to the facility site. It has also been e-mailed to the facility listserv. The listserv is an automated Energy Commission e-mail system by which information about this facility is e-mailed to parties who have subscribed. To subscribe, go to the Commission's webpage for this facility, cited above, scroll down the right side of the project webpage to the box labeled "Subscribe," and provide the requested contact information.

Any person may comment on the Staff Analysis. Those who wish to comment on the analysis are asked to submit their comments by 5:00 p.m., July 28, 2015. To use the Energy Commission's electronic commenting feature, go to the Energy Commission's webpage for this facility, cited above, click on the "Submit e-Comment" link, and follow the instructions in the on-line form. Be sure to include the facility name in your comments. Once submitted, the Energy Commission Dockets Unit reviews and approves your comments, and you will receive an e-mail with a link to them.

Written comments may also be mailed or hand-delivered to:

California Energy Commission
Dockets Unit, MS-4
Docket No. 08-AFC-7C
1516 Ninth Street
Sacramento, CA 95814-5512

All comments and materials filed with and approved by the Dockets Unit will be added to the facility Docket Log and become publicly accessible on the Energy Commission's webpage for the facility.

If you have questions about this notice, please contact Joseph Douglas, Compliance Project Manager, at (916) 653-4677, or by fax to (916) 654-3882, or via e-mail to joseph.douglas@energy.ca.gov.

For information on participating in the Energy Commission's review of the petition, please call the Public Adviser at (800) 822-6228 (toll-free in California) or send your e-mail to publicadviser@energy.ca.gov. News media inquiries should be directed to the Energy Commission Media Office at (916) 654-4989, or by e-mail to mediaoffice@energy.ca.gov.

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GWF TRACY COMBINED CYCLE POWER PROJECT (08-AFC-7C)

Petition to Amend the Final Decision

Executive Summary

Joseph Douglas

INTRODUCTION

On June 26, 2015, Star West Generation (Star West) filed a 'Petition for Approval of Alternative Water Supplies,' Docket No. 08-AFC-07C, to provide a range of water supply alternatives and ensure continued operation of their GWF Tracy Combined Cycle Power Plant (GWF Tracy) during the ongoing drought. In the petition Star West requests the Executive Director use his delegated authority in accordance with the California Energy Commission's May 13, 2015 Order. The Commission's order delegates "to the Executive Director the authority to approve amendment petitions filed for the purposes of securing alternate water supplies necessary for continued power plant operation," as authorized by the Governor's Executive Order B-29-15. Executive Order B-29-15 in part states that Title 20, California Code of Regulations, Section 1769 and the California Environmental Quality Act (CEQA) are suspended for purposes of carrying out this directive. The approval of this amendment would secure alternative water sources for GWF Tracy that may be necessary for continued power plant operation. Although the owner made this request, staff prepared a complete analysis of the potential environmental impacts in accordance with Title 20, California Code of Regulations, Section 1769.

The combined-cycle, natural gas-fired, 330-megawatt facility was certified by the Energy Commission in its Decision on March 24, 2010, and began commercial operation on November 1, 2012. The facility is located in an unincorporated portion of San Joaquin County, southwest of the city of Tracy at 14950 W. Schulte Road.

The purpose of the Energy Commission's review process is to assess any impacts the proposed modifications would have on environmental quality and on public health and safety. The process includes an evaluation of the consistency of the proposed changes with the Energy Commission's Final Decision and an assessment of whether the project, as modified, would remain in compliance with applicable laws, ordinances, regulations, and standards (LORS) (Cal. Code Regs., tit. 20, § 1769).

Staff prepared an analysis of the proposed changes that is included below.

DESCRIPTION OF PROPOSED MODIFICATIONS

The modifications proposed in the petition would allow GWF Tracy to use alternative water supplies (four alternatives are proposed) to avoid being forced to reduce or suspend operations. The proposed modifications will not increase the amount of water used by GWF Tracy to levels above that analyzed in the Final Decision. All alternative water source options would use temporary onsite infrastructure. The temporary equipment would include approximately 110 portable storage tanks with a combined capacity of 7 acre-feet which is approximately a 45-day supply. Collapsible piping to connect the storage tanks to the facility's water treatment system would be used with a

portable diesel-fueled pump to convey the water through the system. The project owner has filled the tanks with water currently provided to GWF Tracy by the Byron Bethany Irrigation District (BBID) and proposes using the tanks and piping to store and convey water from one or more of the proposed alternative supplies if their BBID water is curtailed.

ALTERNATIVE 1: "GE WATER"

General Electric Power and Water (GE) currently provides water treatment services at GWF Tracy. In addition, GE operates an existing, fully permitted facility in the city of San Jose from which it provides water to various industrial and commercial users. The source of the water provided by GE is groundwater pumped from municipal wells. GE has indicated to GWF that it has sufficient capacity at its San Jose facility to meet GWF Tracy's needs of approximately 50,000 gallons per day of raw water. The raw water would be trucked from the GE facility in San Jose to GWF Tracy, a distance of approximately 57 miles. It is anticipated that approximately 10-15 round trips of 4,000-6,000 gallon tanker trucks would be required to meet the needs of GWF Tracy. The trucks would be standard tanker trucks with all necessary licenses and approvals for such service, and trips would be scheduled to occur during off-peak travel hours. Exhibit A to the petition shows the route that will be followed from the GE facility at 5900 Silver Creek Valley Road, San Jose to GWF Tracy at 14950 W. Schulte Road. GWF has executed a contract with GE for acquisition of the GE Water and believes that if its current water supply was curtailed, it could start trucking water to GWF Tracy as soon as the petition is approved.

ALTERNATIVE 2: "HENRIETTA WATER"

In addition to GWF Tracy, GWF also owns and operates the GWF Henrietta Peaker Project, which is a nominal 91.4-megawatt simple cycle power plant located in unincorporated Kings County (GWF Henrietta). GWF Henrietta currently has surplus water that can be made available to GWF Tracy. The source of the Henrietta Water is surface water, including 5 acre-feet of municipal and industrial water from Westlands Water District and state water project entitlements of 200 acre-feet. The 2015 allocation is 40 acre-feet. The water would be trucked from GWF Henrietta to GWF Tracy, a distance of approximately 165 miles. It is anticipated that approximately 10-15 round trips of 4,000-6,000 gallon tanker trucks would be required to meet the needs of GWF Tracy. The trucks would be standard tanker trucks with all necessary licenses and approvals for such service, and trips would be scheduled to occur during off-peak travel hours. Exhibit B to the petition shows the route that will be followed from GWF Henrietta at 16027 25th Avenue, Lemoore to GWF Tracy at 14950 W. Schulte Road. GWF believes that if its current water supply was curtailed, it could begin trucking water from GWF Henrietta as soon as the petition is approved.

ALTERNATIVE 3: "BOGETTI WATER"

GWF has identified an agricultural well owned and operated by the Bogetti family in close proximity to GWF Tracy. The well has been in existence since 1992 and is currently used for agricultural irrigation. The well is drilled to a depth of 580 feet. The well has a flow rate of approximately 2,400 gallons per minute; whereas GWF Tracy's levelized requirement under peak summer dispatch is approximately 37 gallons per

minute (i.e., approximately 1.5% of the well's flow rate). Currently, the Bogetti well can produce approximately 1,800 acre-feet per year of water; whereas GWF Tracy's expected consumption is 25-30 acre-feet per year (average 2013-2014). Thus, the incremental demands placed on the well as a result of serving GWF Tracy are minimal. The well would preferably be accessed using an existing pipeline that runs from the well to approximately 30 feet from a flanged connection that leads into the GWF Tracy water inlet, pending testing of the pipeline. The flanged connection would be connected using temporary piping or non-collapsible hosing. If testing indicates the pipe should not be used, above ground temporary piping would be run 3,000 feet from the Bogetti well to the flanged connection leading into the GWF Tracy water inlet as a less preferred option. GWF anticipates executing an agreement with the Bogetti family to meet the plant's daily needs, and believes that this water supply alternative could be available no later than mid-July 2015. Exhibit C to the petition includes a photograph of the Bogetti well, as well as the two options for connecting the well to GWF Tracy that are currently under consideration.

ALTERNATIVE 4: "CITY OF TRACY RECYCLED WATER"

An assessment completed by GEI Consultants (Exhibit E to the petition) analyzed availability of recycled water from the city of Tracy. This water supply was also analyzed in the Energy Commission's original approval of GWF Tracy, which concluded it to be infeasible due to a lack of necessary distribution infrastructure. While that continues to be the case today, GWF remains committed to connecting to the city of Tracy recycled water system once the city's distribution network is sufficiently close to the GWF Tracy site to make construction of a pipeline from GWF Tracy to the distribution network feasible. That is not expected to occur before 2019. Exhibit F to the petition is a letter provided to the city of Tracy by GWF in support of the build out of its recycled water system. In the interim, it may be possible to truck water from the Tracy wastewater treatment facility.

GWF understands that the city must obtain an amendment to its National Pollution Discharge Elimination System (NPDES) permit from the State Water Resources Control Board (SWRCB) to allow sale of recycled water to GWF Tracy. GWF further understands that the city has submitted a request for such an amendment. At this time, it is uncertain when the SWRCB will act on the city's request, but GWF Tracy is seeking approval of the ability to utilize recycled water from the city when such water is available for sale. Initially, the recycled water would be trucked to the site, and ultimately GWF Tracy will connect directly to the city's recycled water distribution system. Exhibit G to the petition shows the 7.5-mile truck route that will be followed from the city of Tracy Wastewater Treatment Plant at 3900 Holly Drive, Tracy to GWF Tracy at 14950 W. Schulte Road. As with the other truck delivery options, it is anticipated that approximately 10-15 round trips of 4,000-6,000 gallon tanker trucks would be required to meet the needs of GWF Tracy. The trucks would be standard tanker trucks with all necessary licenses and approvals for such service, and trips would be scheduled to occur during off-peak travel hours.

If GWF Tracy intends to ultimately establish a permanent connection to the city of Tracy recycled water system, the approval of that project change would need to be done through a separate amendment.

NECESSITY FOR THE PROPOSED MODIFICATIONS

The BBID recently informed GWF that BBID's water supply will be severely restricted due to implementation of the recently revised Shasta Temperature Management Plan (Plan). The Plan was developed by the United States (U.S.) Bureau of Reclamation in coordination with National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service, the U.S. Fish & Wildlife Service, the California Department of Water Resources, the California Department of Fish and Wildlife, and the State Water Resources Control Board. The Plan was developed in response to California's drought and will restrict flows from Shasta Reservoir in order to maintain temperatures in the Sacramento River at levels conducive to the survival of winter-run Chinook salmon. As a result of implementation of the Plan, GWF was informed by BBID that water deliveries to GWF Tracy could be temporarily suspended as soon as July 1, 2015.

As part of staff's independent assessment of the need for the emergency backup supply options, staff consulted with BBID, the State Water Resources Control Board and the US Bureau of Reclamation and received assurance that water is expected to be available to GWF Tracy without restriction through the end of the summer. Barring action from higher levels of government than were included in these discussions (Washington DC), or a catastrophic event not yet known to any of the involved parties, the supply of water to GWF Tracy is not currently threatened by the drought or curtailment orders. However, due to the California Independent System Operator's determination that GWF Tracy is considered to be critical infrastructure, staff acknowledges GWF's desire to have multiple alternative water options available.

STAFF'S ASSESSMENT OF THE PROPOSED PROJECT CHANGES

Energy Commission technical staff reviewed the petition for potential environmental effects and consistency with applicable laws, ordinances, regulations, and standards (LORS). Staff's conclusions reached in each technical area are summarized in **Executive Summary Table 1**. Staff has determined that the technical or environmental areas of Efficiency, Facility Design, Geological/Paleontological Resources, Hazardous Materials Management, Noise and Vibration, Public Health, Reliability, Transmission Line Safety and Nuisance, Transmission System Engineering, and Visual Resources are not affected by the proposed changes.

For the technical areas of Air Quality, Biological Resources, Cultural Resources, Land Use, Socioeconomics, Soils and Water Resources, Traffic and Transportation, Waste Management, and Worker Safety and Fire Protection, staff has determined that the modified project would continue to comply with applicable LORS and no changes to any conditions of certification are necessary to ensure impacts remain less than significant.

Staff is proposing to modify Condition of Certification **SOIL&WATER-4** in the Energy Commission's Final Decision to allow GWF Tracy the option to use groundwater for project operations during emergency periods when water curtailment is possible and other options are not available.

Executive Summary Table 1
Summary of Impacts for Each Technical Area

TECHNICAL AREAS REVIEWED	STAFF RESPONSE			Revised Conditions of Certification Recommended
	Technical Area Not Affected	No Significant Environmental Impact*	Process As Amendment	
Air Quality		X		
Biological Resources		X		
Cultural Resources		X		
Efficiency	X			
Facility Design	X			
Geological & Paleontological Resources	X			
Hazardous Materials Management	X			
Land Use		X		
Noise & Vibration	X			
Public Health	X			
Reliability	X			
Socioeconomics		X		
Soil & Water Resources			X	X
Traffic & Transportation		X		
Transmission Line Safety & Nuisance	X			
Transmission System Engineering	X			
Visual Resources	X			
Waste Management		X		
Worker Safety & Fire Protection		X		

*There is no possibility that the proposed modifications may have a significant effect on the environment, and the modifications will not result in a change in or deletion of a condition adopted by the Commission in the Final Decision, or make changes that would cause project noncompliance with any applicable laws, ordinances, regulations, or standards (Cal. Code Regs., tit. 20, § 1769 (a)(2)).

STAFF RECOMMENDATIONS AND CONCLUSIONS

Staff concludes potential water resource impacts from use of Alternative water supplies 1, 2, and 4 (GE raw water, licensed GWF Henrietta water supply, and recycled water from Tracy, respectively) are insignificant or mitigated by LORS compliance.

Staff recommends use of recycled water in Alternative 4 be prioritized for use as a backup supply because it is consistent with Section 13550 of the California Water Code and Energy Commission water policy. Use of this supply would even further mitigate

any drought impact. Future long term use of this supply could also be facilitated because the owner would have to adapt to the change in water quality characteristics and would essentially be testing what permanent water treatment system may be needed for long term recycled water use. For these reasons, staff believes the option to truck recycled water to the site is the best of the alternative water supply options proposed by the owner. Staff recognizes that it may take several weeks for GWF to obtain the necessary approvals to purchase and truck recycled water from the city of Tracy; therefore, Alternative 1 use of GE raw water can be considered the priority emergency backup water supply until option 4 is available. The project owner will need to file a separate amendment when they want to establish a permanent, piped connection to the city of Tracy recycled water system.

Staff concludes there may be a potentially significant cumulative impact to the Tracy Groundwater Subbasin from increased pumping of the Bogetti Well proposed in Alternative 3. Staff recommends the owner only be allowed to use this alternative if alternatives 4 and 1 are not available and they can demonstrate that they can offset groundwater use and benefit the Tracy Groundwater Subbasin.

Staff has proposed changes to Condition of Certification **SOIL & WATER-4** to allow use of alternative water supplies as a back-up supply for project operation. The project owner would be required to provide an offset plan for groundwater use from Alternative 3 (Bogetti Well). Changes to prioritize and monitor the use of the alternative supplies have also been incorporated into **SOIL & WATER-4**.

Staff believes that Alternative 2 involving trucking water 165 miles from GWF Henrietta should only be used if the other three alternatives are not available.

Staff would encourage the owner to seek a long-term solution to the current issue by pursuing a more sustainable water supply. Staff agrees with the owner, that the ultimate use of recycled water at GWF Tracy is preferred and should be implemented as soon as possible.

Staff also concludes that the following required findings, mandated by Title 20, California Code of Regulations, section 1769 (a)(3), can be made, and staff recommends approval of the petition by the Energy Commission:

- The proposed modification(s) would not change the findings in the Energy Commission's Decision pursuant to Title 20, California Code of Regulations, section 1755;
- There would be no new or additional unmitigated, significant environmental impacts associated with the proposed modification(s);
- The facility would remain in compliance with all applicable laws, ordinances, regulations, and standards;
- The modifications proposed in the petition would have no additional significant impacts beyond those identified in the Commission Decision for GWF Tracy. The proposed changes will ensure that the project will be able to continue to operate in the drought emergency period;

- The proposed modifications would be beneficial to the project owner and the public because it would allow the project flexibility in water use to maintain operations during drought conditions; and
- The proposed modifications are justified because there has been a substantial change in circumstances since the Energy Commission certification as the statewide drought has caused a reduction of available water sources.

GWF TRACY COMBINED CYCLE POWER PROJECT (08-AFC-7C)

Petition to Amend the Final Decision

Air Quality Staff Analysis

Joseph Hughes

INTRODUCTION

The BBID may temporarily suspend water deliveries to GWF Tracy as of July 1, 2015, as a result of the California drought. Therefore, GWF Tracy must obtain alternative water supplies to avoid being forced to reduce or suspend operations.

GWF Tracy has identified four alternative water supply options (discussed in more detail below). Three of the four options would require water deliveries via tanker trucks, and all options would require temporary on-site infrastructure (e.g. water storage and conveyance systems) to augment the alternative water supplies. The alternative water supplies are as follows:

1. General Electric Power and Water
2. Henrietta Water
3. Bogetti Water
4. City of Tracy Recycled Water

The temporary on-site infrastructure includes approximately 110 portable storage tanks, collapsible piping to connect the storage tanks to the facility's water treatment system, and a portable California Air Resources Board (ARB) certified diesel pump to convey the water through the system.

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS) - COMPLIANCE

GWF Tracy would continue to operate in compliance with its San Joaquin Valley Air Pollution Control District (SJVAPCD) Permits to Operate (PTO) and the Energy Commission license (as it pertains to air quality). The use of an alternative water supply would not change the facility's operating profile or change any emission limits for the permitted equipment. The facility would continue to comply with all applicable laws, ordinances, regulations, and standards (LORS).

The tanker trucks used for water deliveries would be required to comply with ARB's on-road, heavy-duty vehicle program. The diesel pump used to convey the water would be an ARB-certified diesel pump rated at less than 50 horsepower.

SETTING

The project setting would not be negatively affected by the requested modification since there would be no increase in permitted emission limits. The emissions associated with truck deliveries and use of a portable diesel engine would be negligible compared to overall facility operation.

ANALYSIS

GWF has identified four potential alternative water source options. A brief description of each option, including the associated air quality and greenhouse gas impacts, is provided below.

Alternative 1: GE Water

Under Alternative 1, General Electric Power and Water (GE) raw water would be trucked from the GE facility in San Jose to GWF Tracy, a distance of approximately 57 miles. It is anticipated that approximately 10-15 round trips per day would be needed using 4,000-6,000 gallon tanker trucks.

Alternative 2: Henrietta Water

Under this alternative, GWF Henrietta surplus water would be trucked approximately 165 miles to GWF Tracy. It is anticipated that 10-15 round trips per day would be needed using 4,000-6,000 gallon tanker trucks.

Alternative 3: Bogetti Water

Under Alternative 3, the incremental demands that would be placed on the Bogetti well and its diesel driven pump as a result of servicing GWF Tracy would be minimal.

The well would preferably be accessed using an existing pipeline that runs from the well to approximately 30 feet from a flanged connection that leads into the GWF Tracy water inlet, pending testing of the pipeline. The flanged connection would be connected using temporary piping or non-collapsible hosing. If testing indicates the pipe should not be used, above ground temporary piping would be run 3,000 feet from the Bogetti well to the flanged connection leading into the GWF Tracy water inlet as a less preferred option.

Alternative 4: City of Tracy Recycled Water

Under Alternative 4, recycled water would be trucked 7.5 miles to GWF Tracy. It is anticipated that 10-15 round trips per day would be needed using 4,000-6,000 gallon tanker trucks.

Temporary Onsite Infrastructure

All alternative water source options would use temporary onsite infrastructure. The temporary equipment includes approximately 110 portable storage tanks, collapsible piping to connect the storage tanks to the facility's water treatment system, and a

portable diesel-fueled pump to convey the water through the system. GWF Tracy proposes using the tanks and piping to store and convey water from one or more of the proposed alternative supplies.

ENVIRONMENTAL IMPACTS

Alternatives 1, 2 and 4 all involve trucking water to GWF Tracy. Each alternative would involve 10-15 round trips per day using standard 4,000-6,000 gallon tanker trucks. The distances for each alternative vary and are provided above. There would be criteria pollutant and greenhouse gas emissions associated with the truck trips; however, these emissions would be negligible compared to ongoing routine facility operating emissions and would be dispersed over a larger area. The trucks used for water deliveries would be required to comply with ARB's on-road, heavy-duty vehicle program requirements.

Alternative 3 may have a temporary but negligible increase in criteria pollutant and greenhouse gas emissions associated with the delivery and installation of above ground temporary piping and operations of the well pump, but would not entail diesel-fueled truck transport of the water. If testing indicates the existing pipe should not be used, temporary piping would be installed from the Bogetti well to the flanged connection leading into the GWF Tracy water inlet.

All alternative water source options would use temporary onsite infrastructure. As described above, the temporary onsite equipment consists of portable storage tanks, collapsible piping, and a portable diesel-fueled pump. The storage tanks are prefabricated so there would be little or no emissions associated with erection of equipment onsite. There would be negligible criteria pollutant and greenhouse gas emissions associated with material delivery (e.g. storage tanks, piping, etc.).

There would also be emissions associated with operation of the portable diesel-fueled engine. However, the engine is expected to be smaller than 50 horsepower and would be operated no more than two to three hours per day. The engine would be certified through ARB. Emissions associated with engine operation would be negligible compared to facility operation.

CONCLUSIONS AND RECOMMENDATIONS

Staff recommends processing the requested modifications to the GWF Tracy as any air quality changes would be temporary and would have no significant effect on the environment. The proposed modifications do not require immediate changes to conditions of certification, and the project would continue to comply with all LORS. The requested project modifications would allow for continued operation of the project.

PROPOSED MODIFICATIONS TO CONDITIONS OF CERTIFICATION

There would not be any changes to the conditions of certification that were included in the Energy Commission's Final Decision at this time.

REFERENCES

CEC2010 – California Energy Commission, Final Commission Decision for the GWF Tracy Combined Cycle Power Plant Project (08-AFC-7). March 2010.

GWF2015 – GWF Tracy II (08-AFC-7C), Petition for Approval of Alternative Water Supplies. June 26, 2015.

The BBID water supply to GWF Tracy may be severely restricted as a result of a new Shasta Temperature Management Plan developed in response to the current drought conditions in California. This plan calls for restricting flows from Shasta Reservoir which would eventually temporarily suspend BBID water deliveries to GWF Tracy as of July 1, 2015. Therefore, the project owner filed a petition requesting approval of four water supply alternatives to secure constant water supply to avoid reduced or suspended operations of GWF Tracy. In addition, the petition proposes to install infrastructure within the GWF Tracy project fence line to support the four alternatives that includes 110 portable storage tanks, collapsible piping to connect the storage tanks to the facility's water treatment system, and a portable diesel pump.

ASSESSMENT OF IMPACTS ON BIOLOGICAL RESOURCES

ALTERNATIVE 1 (GE WATER), ALTERNATIVE 2 (GWF HENRIETTA WATER) AND ALTERNATIVE 4 (TRACY RECYCLED WATER):

Alternative 1 proposes to truck water from General Electric Power and Water in the city of San Jose for 57 miles to the GWF Tracy site; Alternative 2 involves trucking water for 165 miles from GWF Henrietta to GWF Tracy; and Alternative 4 involves trucking recycled water 7.5 miles from the city of Tracy. The trucks will use specified state freeways/highways and county roads. The activities associated with trucking of water to the project site would not involve ground disturbance. Additionally, installation of the on-site infrastructure would occur in a previously developed and disturbed area that does not support sensitive biological resources. Therefore, Alternatives 1, 2 and 4 would have no effect on biological resources.

ALTERNATIVE 3 (BOGETTI WATER):

Alternative 3 would require accessing water from the Bogetti agricultural well using an existing underground pipeline that runs from the well to BBID Canal water meter which would be connected to a second underground pipe to the GWF Tracy site. This alternative also proposes a second option of installing an above ground temporary piping or non-collapsible hosing that would convey water from the well to the GWF Tracy site. Installation of the above ground piping would involve some degree of ground disturbance that may potentially impact sensitive species such as San Joaquin kit fox. However, project impacts to sensitive biological resources would be mitigated to less than significant with implementation of the following existing conditions of certification:

BIO-2: Designated Biologist Duties
BIO-3: Biological Monitor Selection
BIO-4: Designated Biologist and Biological Monitor Authority
BIO-5: Worker Environmental Awareness Program
BIO-6: Biological Resources Mitigation Implementation and Monitoring Plan
BIO-7: Impact Avoidance Mitigation Measures

BIO-8: Pre-construction Surveys
BIO-9: Avoid Harassment or Harm to San Joaquin Kit Foxes
BIO-10: Burrowing Owl Impacts Avoidance and Minimization Measures

GWF TRACY COMBINED CYCLE POWER PROJECT (08-AFC-7C)

Petition to Amend the Final Decision

Cultural Resources Staff Analysis

Gabriel Roark, M.A.

ASSESSMENT OF CULTURAL RESOURCES IMPACTS

Staff has reviewed GWF Energy LLC's (GWF or project owner) Petition for Approval of Alternative Water Supplies for the Tracy Combined Cycle Power Plant (Petition; Carroll 2015). The Petition describes temporary on-site water storage and four alternative water supplies (Carroll 2015:2–4). This memorandum presents staff's analysis and comparison of the alternative water supplies' potential impacts on cultural resources. Responsive to Executive Order B-29-15, staff bases the following analysis on a review of existing literature pertinent to the Tracy Combined Cycle Power Plant. The potential impacts of each alternative in the Petition are summarized in the bullet list immediately below.

- Temporary Storage Layout Plan: No cultural resources impacts. No mitigation measures required.
- Alternatives 1–3: No cultural resources impacts. No mitigation measures required.
- Alternative 4: No cultural resources impacts and no mitigation required for trucking option.

TEMPORARY STORAGE LAYOUT PLAN

GWF is in the process of placing temporary water tanks and piping on the surface of the project site (Carroll 2015:4). Staff reviewed previous cultural resources documentation pertinent to the project site. Records searches of the project site were conducted in 2001 and 2008; the records searches did not identify any cultural resources within the project site (CH2M Hill 2008:5.3-6–5.3-7; URS 2001:8.3-8). Consultation with Native American tribes and organizations in 2001 and 2008 also did not identify cultural resources on the project site (CH2M Hill 2008:5.3-6–5.3-7; URS 2001:8.3-9–8.3-10). The project site has been surveyed in its entirety and no California Register-eligible cultural resources have been identified within the project site (URS 2001:8.3-10–8.3-12, 8.3-22, Figure 8.3-4). Qualified archaeologists monitored construction of the Tracy Combined Cycle Power Plant and did not identify any cultural resources in the project site (Reno and Zeier 2003:Map 1).

Staff concludes that the Temporary Storage Layout Plan would not result in impacts on significant cultural resources because none have been identified within the project site since 2001 and the storage plan entails the placement of facilities on the surface of the project site. No mitigation measures are required for cultural resources.

ALTERNATIVES 1 AND 2: GE WATER AND GWF HENRIETTA WATER

Alternatives 1 and 2 would not involve any ground disturbance or placement of new facilities on the project site. These alternatives would have no impacts on significant cultural resources. No mitigation measures are required.

ALTERNATIVE 3: BOGETTI WATER

Option A

Option A of Alternative 3 would involve no excavation and minimal surficial disturbance through placement of non-collapsible hosing. GWF would place 30 feet of non-collapsible hosing between the Byron-Bethany Irrigation District (BBID) Canal Water Meter for GWF Tracy Power Plant and the downstream side of the water willing pipe leading from the Bogetti Well. (Carroll 2015:3, Exhibit C.)

Staff consulted the records searches submitted with the two Tracy Power Plant applications for certification (CH2M Hill 2008:Appendix 5.3E; URS 2001). The area proposed for non-collapsible hose has been surveyed for the presence of cultural resources and subjected to construction monitoring (Reno and Zeier 2003:Map 1; URS 2001:Figure 8.3-4). During construction monitoring, archaeologists identified two historic-age artifacts: a glass bottle fragment and a glass insulator (P-39-004388/Isolates GWF 1 and 2) near the aforementioned BBID Canal Water Meter. P-39-004388 does not qualify as a historical resource under the California Environmental Quality Act (CEQA). (Reno and Zeier 2003:30.)

Since no historical or unique archaeological resources have been identified within Option A, and no excavation would be involved in the implementation of this option, its implementation would not affect cultural resources. No mitigation measures are recommended of Alternative 3, Option A.

Option B

Option B of Alternative 3 would require placement of a temporary pipeline for 3,000 feet from the Bogetti Well to the Tracy Power Plant on-site water inlet (Carroll 2015:3, Exhibit C).

Staff consulted the records searches submitted with the two Tracy Power Plant applications for certification (CH2M Hill 2008:Appendix 5.3E; URS 2001). The entire proposed temporary pipeline route has been surveyed for the presence of cultural resources (Atwell et al. 1995; Foster 1995:Figure 1; Moratto, Jackson, et al. 1990; Moratto, Pettigrew, et al. 1994; Reno and Zeier 2003:Map 1; URS 2001:Figure 8.3-4). No cultural resources have been identified along the proposed temporary pipeline route.

Since no historical or unique archaeological resources have been identified within Option B, and no excavation would be involved in the implementation of this option, its implementation would not affect cultural resources. No mitigation measures are recommended of Alternative 3, Option B.

ALTERNATIVE 4: CITY OF TRACY RECYCLED WATER

Under Alternative 4, GWF proposes to truck recycled water from the Tracy Wastewater Treatment Plant to GWF Tracy (Carroll 2015:4). As with Alternatives 1 and 2, trucking water to the project site would not result in impacts on cultural resources. No mitigation measures are necessary for Alternative 4.

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GWF TRACY COMBINED CYCLE POWER PROJECT (08-AFC-7C)

Petition to Amend the Final Decision

Land Use Staff Analysis

Scott Polaske and Amanda Stennick

SUMMARY

The proposed amendment would not change the staff review of land use and would have a less than significant impact on the Land Use technical area.

ANALYSIS

The proposed amendment requests the approval of four alternative water supplies as well as temporary on-site infrastructure necessary to store and transfer the water from these alternative sources within the GWF Tracy facility. The four alternatives are described in the petition to amend.

Temporary on-site infrastructure (water storage and conveyance systems) are in the processes of being installed to store additional water from the canal while it continues to be available and would be installed within the fence line of the GWF Tracy facility. The San Joaquin County zoning ordinance identifies the site as General Industrial (I-G). The petition proposes accessory structures in this zone that are not specified in Chapter 9-605.4 (Accessory Uses and Structures) of the San Joaquin County General Plan. This action would normally require an Improvement Plan, if not for the Energy Commission's siting authority and Executive Order B-29-15.

Alternative 3 proposes two options involving two temporary hoses of differing lengths, both connecting to the GWF Tracy water inlet. Staff concludes that because the hoses would be temporary, above ground, and would not impact agricultural lands that there would be no land use impacts resulting from Alternative 3. Alternatives 1, 2, and 4 propose water delivery via trucks. Alternatives 1 and 2 would have no land use impacts.

The proposed amendment would have a less than significant land use impact. No new conditions of certification or changes to Condition of Certification **LAND-1** in the March 2010 Energy Commission Decision for GWF Tracy would be required.

GWF TRACY COMBINED CYCLE POWER PROJECT (08-AFC-7C)
Petition to Amend the Final Decision to Install Alternative Water Supply
Socioeconomics Staff Analysis

Lisa Worrall

SUMMARY

The proposed amendment would not change the staff review of socioeconomics and would have a less than significant impact on the Socioeconomics technical area.

ANALYSIS

The proposed amendment requests the approval of four alternative water supplies as well as temporary on-site infrastructure necessary to store and transfer the water from these alternative sources within the GWF Tracy facility. The four alternatives are described in the petition to amend.

Temporary on-site infrastructure (water storage and conveyance systems) are in the processes of being installed to store additional water from the canal while it continues to be available and would be installed within the fence line of the GWF Tracy facility.

Few, if any, additional workers may be necessary for Alternatives 1, 2, and 4, to truck the water to the GWF Tracy facility, and Alternative 3, to connect existing piping or install temporary above-ground piping. With over 50,000 workers in the construction and extraction occupations in the Oakland-Fremont-Hayward Metropolitan District, there would be more than adequate workforce to meet the workforce needs for the proposed amendment.

The proposed amendment would not change the staff review of socioeconomics and would have a less than significant impact on socioeconomic criteria: induce substantial population growth in an area, either directly or indirectly; displace substantial numbers of people and/or existing housing, necessitating the construction of replacement housing elsewhere; or adversely impact acceptable levels of service for emergency medical services, police protection, schools, parks, and other public facilities. Lastly, the proposed amendment would not cause the project to not to comply with applicable local laws, ordinances, regulations, or standards.

The proposed amendment would have a less than significant socioeconomic impact. No new conditions of certification or changes to Condition of Certification **SOCIO-1** (school impact fees) in the March 2010 Energy Commission Decision for GWF Tracy would be required. Additionally, **SOCIO-1** would not apply to the proposed amendment.

GWF TRACY COMBINED CYCLED POWER PLANT (08-AFC-7C)

Petition to Amend
Soil and Water Resources
Prepared by: Mike Conway

INTRODUCTION AND BACKGROUND

GWF Tracy normally obtains surface water from the Byron-Bethany Irrigation District (BBID) via the Delta-Mendota Canal (Canal) to meet its needs. However, BBID has informed Star West that BBID's water supply may be restricted or cutoff due to a pending order from the State Water Resources Control Board in response to California's drought. The period of suspension could likely last at least through the summer.

GWF Tracy is currently installing temporary storage tanks within the fenced area to store water pumped from the Delta Mendota Canal, their existing licensed supply. The storage, when completed, would be sufficient for about two to four weeks of operation. During this time they would need approval to access an alternate supply for operation beyond stored water supplies.

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS (LORS) COMPLIANCE

Staff has reviewed the LORS identified in the Energy Commission's Final Staff Assessment and the Final Decision for the project. Staff reviewed the four new water supply alternatives and determined which new LORS may be applicable. Where identified, newly applicable LORS are described below with their associated alternative.

ANALYSIS

GWF Tracy is actively pursuing the four alternative water supplies listed below. GWF Tracy has requested approval of all these alternative supplies and the ability to use them as needed to maintain continuous operation if their current water supply is curtailed or cut off. Each alternative must be capable of supplying up to 50,000 gallons of water per day of operation. The duration of use has not been requested, but would be limited by curtailment of water supplied by BBID via its canal. GWF Tracy is licensed to use 54.4 acre-feet per year (AFY). During 2013 and 2014 GWF Tracy averaged about 30 AFY. Staff provides a description and analysis of each alternative below.

1. GWF Tracy is anticipating executing an agreement to purchase water from General Electric Power and Water, a provider of water for industrial users. GWF Tracy would truck the water from the General Electric facility in the city of San Jose, which is located approximately 57 miles from GWF Tracy.

2. GWF Tracy may also be able to utilize a portion of the water supply for the GWF Henrietta facility. GWF Tracy would truck in the water from the GWF Henrietta facility, which is located approximately 165 miles from GWF Tracy.

3. GWF Tracy is anticipating executing an agreement to purchase up to 50,000 gallons per day of groundwater from the Bogetti family groundwater well, located in close proximity to GWF Tracy. The well has a flow rate of approximately 2,400 gallons per minute; however, GWF Tracy's levelized requirement under peak summer dispatch is approximately 37 gallons per minute (i.e. 1.5% of the well's flow rate). The well would be accessed by tapping into an existing pipeline that is located approximately 15 feet from the GWF Tracy flowmeter/access point for Canal water.

4. GWF Tracy would source tertiary-treated recycled water from the city of Tracy wastewater plant. GWF Tracy would truck water to the site; additional onsite water treatment would need to be rented or purchased.

ALTERNATIVE 1: GENERAL ELECTRIC WATER, SURFACE WATER/GROUNDWATER

This alternative would require the trucking of water from the General Electric Water (GE) facility at 5900 Silver Valley Road, San Jose, California. The GE facility is approximately 57 miles from the project site and the delivery would require 10-15 round trips of 4,000-6,000 gallon tanker trucks per day.

GE is a retail distributor of water, permitted to sell potable water within and outside of the Santa Clara Valley. GE is served water by the city of San Jose municipal water system and is located within their Edenville service area. The water supplied by the city, a retailer, is supplied by the Santa Clara Valley Water District (SCVWD), a wholesaler. SCVWD's water is comprised of both surface and groundwater supplies, originating both inside and outside of the district boundaries. The Santa Clara Valley Groundwater Basin provides about half of the County's water supply for potable use, through pumping by retail water agencies or individual well owners. The quality, supply, and management of this local groundwater basin are monitored by SCVWD.

This alternative would be expected to have minimal adverse environmental impacts to water resources. The water supplied by GE is fully permitted and accounted for within the SCVWD accounting system and their 2010 Urban Water Management Plan projections. Staff understands that the water available at the GE facility is fully permitted and available in sufficient quantity to supply GWF Tracy's needs. Staff concludes any potentially significant impacts from this alternative would be accounted for by SCVWD local management of the groundwater basin.

Condition of Certification **SOIL&WATER-4** of the Final Decision specifically prohibits pumping of groundwater for project operation. Staff believes that the condition includes groundwater from within the other water basins, including that managed by SCVWD. However, staff concludes that given the limited amount and short term nature of this request for the alternative supply, this prohibition can be removed. A copy of the revised condition of certification is included below for review.

ALTERNATIVE 2: GWF HENRIETTA WATER, SURFACE WATER

GWF also owns and operates the GWF Henrietta Peaker power plant located at 16027 25th Avenue, Lemoore, California, approximately 165 miles from the GWF Tracy facility. The Henrietta facility is licensed by the Energy Commission to use water delivered by the Westlands Water District. If this water supply option is used for GWF Tracy, it would require 10-15 round trips of 4,000-6,000 gallon tanker trucks per day to the GWF Tracy site.

The source of the proposed supply is the State Water Project (SWP), of which, 200 acre-feet per year are allocated to the Westlands Water District for GWF Henrietta. However, the 2015 allocation of SWP water to Westlands is only 40 acre-feet. The petition states that this water is available for use at GWF Tracy and would not violate any LORS. Staff concludes potential significant impacts from implementation of this alternative have been accounted for since the water made available for GWF Tracy could have otherwise been used by GWF Henrietta, and there would not be water use at Henrietta beyond the currently permitted annual volume. Star West, the owner of both facilities, has not addressed any issues relating to the potential water supply shortfall to GWF Henrietta.

ALTERNATIVE 3: BOGETTI FAMILY WELL, GROUNDWATER

GWF Tracy is preparing an agreement to purchase up to 50,000 gallons per day of groundwater from the Bogetti family groundwater well, located in close proximity to GWF Tracy. The well is 580 feet deep and has a flow rate of approximately 2,400 gallons per minute; however, GWF Tracy's average requirement under peak summer dispatch is approximately 37 gallons per minute (i.e. 1.5% of the well's flow rate). The well would preferably be accessed using an existing pipeline that runs from the well to approximately 30 feet from a flanged connection that leads into the GWF Tracy water inlet, pending testing of the pipeline. The flanged connection would be connected using temporary piping or non-collapsible hosing. If the existing pipe cannot be used, above ground temporary piping would be run about 3,000 feet from the Bogetti well to the flanged connection leading into the GWF Tracy water inlet.

The water requirement of the GWF Tracy facility is expected to be up to 37 gallons per minute (gpm) during peak summer conditions. The GWF Tracy facility could use about 15 acre-feet by the end of September and between 17 to 30 acre-feet in an entire year of operation.

Staff reviewed the Alternative Water Availability Report that was attached to the petition, which was prepared for GWF Tracy on April 29, 2015. This report evaluates long term project alternative supplies and their potential adverse impacts to local water resources. Since the Bogetti well is in close proximity to GWF Tracy, the study of a potential onsite well provides useful data and site specific analysis of potential impacts to local groundwater. Staff considered impacts to nearby water supply well from drawdown, impacts to nearby water supply well quality, and cumulative impacts to the San Joaquin Tracy Subbasin. The direct impact to local wells from drawdown or water quality degradation is expected to be minimal. The additional pumping of up to 37 gpm is not expected to result in significant or noticeable drawdown beyond the immediate well

vicinity. Likewise, the pumping of 37 gpm is not expected to induce new sources of water quality into the zone of influence of the pumping well.

The cumulative impact of removing an additional 15 AF for this summer and up to 30 AFY from the San Joaquin Tracy Subbasin could be cumulatively considerable. Though the basin has shown stable water levels for some time, California's recent drought has caused water levels in the basin to fall. This indicates that the basin could be entering or experiencing overdraft. The additional pumping from the basin proposed by GWF Tracy would contribute to this potential impact. This is the most significant potential issue with this alternative that was identified by staff. It is also worth noting however that this additional cumulative impact is small in terms of magnitude relative to the size of the basin. Additional pumping of up to 30 AFY is a relatively small additional draw on this basin. The groundwater study provided by the owner also supports these conclusions.

The amount of water needed by GWF Tracy is small, and though there is the possibility that its use may cumulatively contribute to the impact of California's drought, this impact is expected to be small but any overdraft is significant. Staff concludes mitigation for the impact should be required if this alternative is implemented. The owner has not yet identified a way to offset the use of groundwater in this area. Staff contacted the city of Tracy Public Works Department to inquire about existing water offset programs. Other than the program they have in place to replace inefficient, old toilets, the city does not have any water offset programs in place. Staff understands the city is looking to start new offset programs like a lawn replacement program. Without knowing what program the owner would contribute to, what programs could be available at the time of use, and how much water they would need, it is unknown whether this impact can be mitigated. Staff recommends requiring the project owner to submit a Groundwater Offset Plan for approval, prior to implementing this alternative water supply option.

Condition of Certification **SOIL&WATER-4** of the Final Decision specifically prohibits pumping of groundwater for project operation. Staff has revised the condition to allow groundwater pumping under this alternative provided the owner can demonstrate an offset of groundwater use from the Bogetti well can be achieved in the Tracy Groundwater Subbasin.

ALTERNATIVE 4: TRACY WASTEWATER PLANT, RECYCLED WATER

The owner's petition describes the potential need to seek modification to the city of Tracy waste water treatment plant's National Pollutant Discharge Elimination System (NPDES) permit, Order R5-2012-0115. Staff was able to find two possibly applicable permits/processes that were not discussed in the petition. Staff learned through a discussion with the Central Valley Regional Water Quality Control Board (RWQCB) that no changes to the project's NPDES permit would be required. However, if GWF Tracy were to use recycled water for project operation, the owner should apply for coverage under the State Water Resources Control Board (SWRCB) Order WQ 2014-0090-DWQ, which provides the General Waste Discharge Requirements for Recycled Water Use.

If GWF Tracy were to use recycled water for project operation, the entity serving the water (city of Tracy) would likely be required to file a Wastewater Change Petition with

the SWRCB, Division of Water Rights. This petition process allows the Division of Water Rights to evaluate changes in the permitted discharge volume to receiving water bodies.

Staff did not identify any adverse environmental impacts associated with this alternative, which specifically relates to the trucking of recycled water to the site. If the owner were to follow the appropriate processes for the use of recycled water, the impacts expected from this proposed alternative would be insignificant.

Staff also recommends the use of this supply be prioritized because it is consistent with Energy Commission water policy and Section 13550 of the California Water Code. Water Code section 13550 requires use of recycled water for industrial purposes when available and when the quality and quantity of the recycled water are suitable for the use, the cost is reasonable, the use is not detrimental to public health, and the use would not impact downstream users or biological resources. Staff concludes that all of these criteria can be met for the recycled water supply if the project owner complies with the RWQCB and SWRCB permitting requirements outlined above.

The California Energy Commission, under legislative mandate specified in the 2003 Integrated Energy Policy Report, (water policy) and State Water Resources Control Board Resolution 75-58, will approve the use of fresh water for cooling purposes by power plants it licenses only where alternative water supply sources and alternative cooling technologies are shown to be environmentally undesirable or economically unsound. At the time GWF Tracy was permitted, the raw surface water supply from BBID was the only viable water supply option. Although the GWF Tracy uses freshwater for operation, it is a relatively small amount because the project uses an air cooled condenser to cool the steam cycle. Use of this cooling technology demonstrates substantial compliance with the water policy. Staff concludes that since recycled water can be made readily available as an alternative water supply, the project owner should be required to use recycled water as a primary back-up supply. This would further enhance GWF compliance with the water policy.

CONDITION OF CERTIFICATION

GWF Tracy has also included a request to permanently revise Condition of Certification **SOIL & WATER-4** to allow use of groundwater for project operation. Staff agrees that modification of **SOIL & WATER-4** is necessary to permit the owner to use the proposed alternative options. Staff believes the purpose of the petition is to grant temporary short term use of groundwater as an alternative among four options. Staff concludes the following changes to the condition are needed to ensure there are no impacts from the proposed groundwater use and alternative water use is consistent with Energy Commission water policy.

SOIL & WATER-4: Water used for project operation for process, sanitary and landscape irrigation purposes shall exclusively be raw surface water from Byron-Bethany Irrigation District (BBID). ~~Pumping or purchasing groundwater is prohibited.~~ **In the event that BBID water supply becomes unavailable, the use of alternative water supplies shall be prioritized as follows:**

- **City of Tracy Recycled Water (Alternative 4): The project owner shall use tertiary treated recycled water trucked from the city of Tracy wastewater treatment plant distribution system as the primary back up supply. The owner shall also obtain approval for the use of recycled water at the power plant from the City of Tracy. In the event recycled water is not available or the timing for conversion to recycled water use at GWF Tracy temporarily prevents its use, the project owner shall utilize the water supply identified in Alternative 2 below. The project owner must use recycled water whenever a back-up supply is needed and it is available as a backup supply.**

- **GE Water (Alternative 1): Raw water supply from the General Electric- industrial water supply facility in San Jose, California, shall be used when recycled water from the city of Tracy is unavailable.**

- **Bogetti Well Water (Alternative 3): Groundwater from the neighboring Bogetti family well may be used when water supply from Alternative 4 and 1 are unavailable. The project owner must offset the groundwater use through water conservation measures implemented for the benefit of the Tracy Groundwater Subbasin. The project Owner must submit an Offset Plan for CPM review and approval.**

- **GWF Henrietta Water (Alternative 2): In the event backup water supplies in Alternatives 4, 1, and 3 are not available, the project owner may truck the necessary GWF Henrietta facility water supply for use at GWF Tracy.**

- **All trucks used to transport water to the project are required to comply with ARB's on-road, heavy-duty vehicle program requirements and be scheduled to minimize traffic impacts.**

Water use shall not exceed the annual water-use limit of 54.4 acre-feet per year. The project owner shall monitor and record the total water used on a monthly basis. For calculating the annual water use, the term "year" will correspond to the date established for the annual compliance report submittal.

Prior to using raw surface water **from BBID or any of the alternative supplies identified above** for process needs, the project owner shall install and maintain metering devices as part of the water supply and distribution systems to monitor and record, in gallons per day, the total volume(s) of water supplied to GWF Tracy**.** ~~from BBID.~~ Those metering devices shall be operational for the life of the project.

For the first year of operation, the project owner shall prepare an annual Water Use Summary, which will include the monthly range and monthly average of daily raw surface water usage in gallons per day, and total water

used by the project on a monthly and annual basis in acre-feet. For subsequent years, the annual Water Use Summary shall also include the yearly range and yearly average water use by the project. The annual Water Use Summary shall be submitted to the CPM as part of the annual compliance report.

Verification: At least sixty (60) days prior to commercial operation of GWF Tracy, the project owner shall submit to the CPM evidence that metering devices have been installed and are operational on the water supply and distribution systems. When the metering devices are serviced, tested and calibrated, the project owner shall provide a report summarizing these activities in the next annual compliance report. The project owner, in the annual compliance report, shall provide a Water Use Summary that states the source and quantity of ~~raw surface~~ water used on a monthly basis and on an annual basis in units of acre-feet. Prior annual water use including yearly range and yearly average shall be reported in subsequent annual compliance reports.

At least 48 hours prior to use of back up water supplies from Alternative 4 or 1, the project owner shall notify the CPM. If Alternative 1 is used, the notification shall include a discussion of why Alternative 4 could not be used and an estimate of when it can be used. The notification will also provide evidence that all trucks used to transport water comply with ARB's on-road, heavy-duty vehicle program requirements and will be scheduled to minimize traffic impacts.

At least 15 days prior to use of groundwater from the Bogetti Well in Alternative 3, the project owner shall provide a plan showing how the groundwater use will be offset. The offset plan shall include information on the measures to be used to achieve groundwater offset, when the offset will be implemented, how the offset will be verified, costs for implementation of the offset measures, and discussion of whether any other agency review and approvals are needed for implementation.

At least 48 hours prior to use of the backup water supply from Alternative 3 or 2, the project owner shall notify the CPM. If Alternative 3 or 2 is used, the notification shall include a discussion of why Alternative 4 could not be used and an estimate of when Alternative 4 can be used. The notification will also provide evidence that all trucks used to transport water comply with ARB's on-road, heavy-duty vehicle program requirements and will be scheduled to minimize traffic impacts.

The project owner shall return to use of Alternative 4 at the time described in the notification and as agreed to with the CPM.

CONCLUSIONS

Staff concludes potential water resource impacts from use of Alternative water supplies 4, 1, and 2 (recycled water, GE raw water, and licensed GWF Henrietta water supply, respectively) are insignificant or mitigated by LORS compliance.

Staff recommends use of recycled water in Alternative 4 be prioritized for use as a backup supply because it is consistent with Section 13550 of the California Water Code and Energy Commission water policy. Use of this supply would even further mitigate any drought impact. Future long term use of this supply could also be facilitated because the owner would have to adapt to the change in water quality characteristics and would essentially be testing what permanent water treatment system may be needed for long term use. For these reasons, staff believes the option to truck recycled water to the site is the best of the alternative water supply options proposed by the owner. The project owner would be required to file a separate amendment when they want to establish a permanent, piped connection to the city of Tracy recycled water system.

Staff concludes there may be a potentially significant cumulative impact to the Tracy Groundwater Subbasin from increased pumping of the Bogetti Well proposed in Alternative 3. Staff recommends the owner only be allowed to use this alternative only if they can demonstrate they can offset groundwater use and benefit the Tracy Groundwater Subbasin.

Staff has proposed changes to Condition of Certification **SOIL & WATER-4** to allow use of alternative water supplies as a back-up supply for project operation. The project owner would be required to provide an offset plan for groundwater use from Alternative 3 (Bogetti Well). Changes to prioritize and monitor the use of the alternative supplies have also been incorporated.

Staff would encourage the owner to seek a long-term solution to the current issue by pursuing a more sustainable water supply. Staff agrees with the owner, that the ultimate use of recycled water at GWF Tracy is preferred and should be implemented as soon as possible.

GWF TRACY COMBINED CYCLE POWER PROJECT (08-AFC-7C)
Petition to Amend the Final Decision
TRAFFIC AND TRANSPORTATION STAFF ANALYSIS

Jim Adams

SUMMARY

Alternative 3 yields the least impact to the transportation system and would be the environmentally preferred option from a traffic perspective.

ANALYSIS

The GWF Tracy Combined Cycle Power Plant (GWF Tracy) is facing a pending suspension of water deliveries from the Byron-Bethany Irrigation District. GWF Tracy requires approximately 50,000 gallons of water daily to maintain operation. GWF seeks approval of an alternative water supply as well as temporary on-site infrastructure necessary to store and transfer the water from these alternative sources within the GWF Tracy facility. Four alternative water sources have been put forth by GWF for approval. Each scenario could also include temporary equipment such as: 110 portable storage tanks, collapsible piping to connect the storage tanks to the facility's water treatment system, and a portable California Air Resources Board certified diesel pump to convey the water through the system.

Alternatives 1, 2 and 4 (trucking options) could have minor traffic impacts, but are not considered significant. Each trucking alternative would utilize improved roadways and highways, therefore not requiring roadway improvements. The 10-15 daily truck trips along county roadways would not cause a degradation of existing levels of service. These options need to comply with Condition of Certification **TRANS-5** (limitation on vehicle sizes, weights, and travel routes) contained in the March 2010 Energy Commission Decision in the GWF Tracy proceeding.

Alternative 3 requires the installation of temporary pipeline from the Bogetti well to GWF Tracy and would not involve any truck deliveries and would have no significant impact on traffic.

GWF TRACY POWER PLANT (08-AFC-7C)

Petition to Amend the Final Decision
Worker Safety and Fire Protection Staff Analysis

Brett Fooks, PE

INTRODUCTION

GWF Tracy is seeking out alternative supplies of water to avoid being forced to reduce or suspend operations. Four alternative supplies of water have been identified that could be used in lieu of the water from the BBID Canal.

LAWS, ORDINANCES, REGULATIONS AND STANDARDS (LORS) COMPLIANCE

Staff has reviewed the LORS identified in the Energy Commission's Final Staff Assessment and the Final Decision for the project. Staff reviewed the four new water supply alternatives and determined which new LORS may be applicable. Where identified, newly applicable LORS are described below with their associated alternative.

ANALYSIS

GWF Tracy is actively pursuing the four alternatives listed below. GWF Tracy has requested approval of all these alternative supplies and the ability to use them as needed to maintain continuous operation if their current water supply is curtailed or cut off. Staff provides a description and analysis of each option below.

1. Under this alternative, General Electric Power and Water (GE) raw water would be trucked from the GE facility in San Jose to GWF Tracy, a distance of approximately 57 miles. Approximately 10-15 round trips per day would be needed using 4,000-6,000 gallon tanker trucks
2. Under this alternative, GWF Henrietta surplus water would be trucked approximately 165 miles. It is anticipated that 10-15 round trips per day would be needed using 4,000-6,000 gallon tanker trucks.
3. Under this alternative, GWF would utilize an agricultural well owned and operated by the Bogetti family in close proximity to the GWF Tracy.
4. Under this alternative, recycled water would be trucked just a few miles to GWF Tracy. It is anticipated that 10-15 round trips per day would be needed using 4,000-6,000 gallon tanker trucks.

The on-site raw water storage tank is also used as the fire water storage tank. The tank supplies the fire protection needs of the GWF Tracy power plant site. The first three alternatives would all source water that is of the same quality as what the plant currently draws from the Canal. Staff finds that there would be no change from the Final Decision with the use of the first three alternative water supplies.

The fourth alternative water supply would be tertiary treated recycled water from the city of Tracy. This source of water would have a different quality than the current supply from the Canal. Tertiary treated recycled water is allowed for the use of fire protection under Title 22, Division 4, Chapter 3, Article 3, Section 60307. Staff contacted the South County Fire Authority (SCFA), which provides fire protection services for the GWF Tracy plant, to ensure that the fire department would not have any objections to the use of recycled water. The SCFA's representative, Kevin Jorgensen, stated that the use of tertiary treated recycled water would be acceptable for the fire protection of GWF Tracy (TN#205293). Staff concurs that the use of tertiary treated recycled water for fire protection is acceptable.

CONCLUSIONS AND RECOMMENDATIONS

Staff recommends processing this petition so that GWF Tracy has access to the alternative sources of water to continue operation. The proposed modifications do not require immediate changes to conditions of certification, and the project would continue to comply with all LORS. The requested project modifications would allow for continued operation of the project.

PROPOSED MODIFICATIONS TO CONDITIONS OF CERTIFICATION

There would not be any changes to the conditions of certification that were included in the Energy Commission's Final Decision at this time.

REFERENCES

TN #205182 - GWF Tracy II (08-AFC-7C), Petition for Approval of Alternative Water Supplies. June 26, 2015.

TN #205293 - **South County Fire Authority E-mail Response 7-8-15**. July 9, 2015