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| **Docket Number:** | 97-AFC-01C |
| **Project Title:** | High Desert Power Plant (COMPLIANCE) |
| **TN #:** | 203041 |
| **Document Title:** | Gary Ledford Reply to Comments of the High Desert Power Trust on the Staff Analysis of the Petition |
| **Description:** | Reply as to why the Commission cannot make an administrative approval on these critical issues |
| **Filer:** | Gary Ledford |
| **Organization:** | Gary A. Ledford |
| **Submitter Role:** | Intervenor |
| **Submission Date:** | 9/8/2014 12:59:07 PM |
| **Docketed Date:** | 9/8/2014 |

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Party in Intervention
In Pro per

STATE OF CALIFORNIA

Energy Resources Conservation
And Development Commission

| | | |
|---|---|---|
| In the Matter of: | ) | Docket No. 97-AFC-01C |
| | ) | |
| | ) | |
| The Application for | ) | September 10, 2014 |
| For the High Desert Power Project | ) | |
| [HDPP] | ) | |
| | ) | |
| | ) | |

**INTERVENTOR LEDFORD'S REPLY TO COMMENTS OF THE HIGH DESERT POWER TRUST ON THE STAFF ANALYSIS OF THE PETITION TO ALLOW HIGH DESERT POWER PROJECT TO USE PROHIBITED ALTERNATIVE WATER SUPPLIES**

## I. INTRODUCTION

The HDPP Petition before the Commission makes two requests. Intervener addresses only the "First", the Petition asks that HDPP be allowed the option of acquiring and using **Prohibited** alternative water supplies to avoid operational disruptions caused by the current drought

**which they are prevented from doing** as specifically conditioned. The HDPP's operational water supply is currently limited and **mandated** to use State Water Project ("SWP") water or recycled water, unfortunately the HDPP Project failed to provide the 13,000 acre feet of water in a Water Bank [See Exhibit "A" on Annual Water Banking] to attempt to bridge the Drought, there is no surprise, as all of these possibilities were fully addressed in the Evidentiary hearings leading up to conditioning this project.

## II. OVERVIEW OF THE PETITION FOR DROUGHT RELIEF.

A. Drought conditions threaten the continued operation of the HDPP. This is no surprise.

## III. JUST THE FACTS AS WHY HDPP CANNOT GET A RUBBER STAMP APPROVAL TO CHANGE THE MANDATED AND ADJUDICATED CONDITIONS FOR SOIL AND WATER – SIMPLE AND STRAIGHT FORWARD.

In HDPP's own words, the following 24 reasons, are the exact reasons that the HDPP's cannot be approved in an Administrative Proceeding. Each and every one of these issues were fully addressed 12 – 14 years ago over numerous Workshops and Evidentiary Hearings, several Written and Verbal Stipulations are all embodied in the record. The HDPP has the Option of Constructing Dry or a Wet/Dry Cooling System if they start now, that would prevent a full "Shut Down". Words in ***Bold Italics and Underlining***, are added by Intervener.

1. The proposed modifications are necessary to prevent HDPP's energy production from being curtailed and perhaps completely shut down due to drought-related water shortages, ***unless the Dry or Wet/Dry Cooling options as approved in the Soil and Water Condition Condition 1(c) is implemented***.

> ***"c. If there is no water available to be purchased from the MWA and there is no banked water available to the project, as determined pursuant to***

***SOIL&WATER-5, no groundwater shall be pumped, and the project shall not operate. At the project owner's discretion, dry cooling may be used instead, if an amendment to the Commission s decision allowing dry cooling is approved.***"

2. The need for additional water supplies is driven by the current extreme drought and unreliability of recycled water supplies, ***and the failure of HDPP to fully implement the conditions of approval over the last twelve years, specifically the placing of 13,000 acre feet of water into a water bank to address Drought Conditions***.

3. The drought is in the third consecutive year of below-normal precipitation in California and severely diminishes the amount of SWP water available to serve HDPP, ***which was fully addressed in the Evidentiary Hearings***.

4. To the extent the drought continues into 2015 and beyond, it is expected the amount of SWP water available will continue to be severely diminished, ***affecting how the MWA will manage its own resources in the Basin***.

5. HDPP is currently authorized to use ***only*** two sources of water for operations:

    i. State Water Project ("SWP") water obtained by the project owner consistent with the provisions of the Mojave Water Agency's ("MWA") Ordinance 9, which may be used directly or ***must be*** treated and then banked (i.e., injected) into an underground aquifer for later use, **of 13,000 acre feet to address only drought conditions**, and

    ii. Recycled wastewater produced by the Victor Valley Water Reclamation Authority ("VVWRA") or by the City of Victorville Water District's Industrial Wastewater Treatment Plant (the "City IWWTP").

iii. Both of these sources are seriously constrained.

iv. ***Recycled Water, which has many other uses was never to be used in this Power Plant, the unreliability of the Recycled Water will be fully disclosed as the "Study" that HDPP was supposed to provide two years ago and has not and is now supposed to provide in November. When it is provided and the Public has the ability to provide comments on, will demonstrate why Recycled Water in the Mojave Basin should not be used for Power Plant Cooling.***

6. SWP supplies are highly tenuous, ***as was fully described in the conditions and all of the supporting testimony in the record***.

7. The California Department of Water Resources ("DWR") administers the SWP. DWR's allocation of SWP water to contractors, including MWA, was reduced from five percent (5%) to zero percent (0%) on January 31, 2014 due to extreme water shortage. On April 18, 2014, DWR increased the allocation to contractors back to five percent (5%), ***the record is abundantly clear – take your chances***.

8. MWA recently informed HDPP that it will deliver only 212 acre-feet of SWP water to HDPP for the remainder of 2014 due to the low SWP allocation and HDPP's status as a junior priority user, ***As Norm Couette Acting General Manager of the MWA testified in the hearings – it was pretty much a "take your chances"***.

9. SWP water quality also varies seasonally, with the SWP water having higher impurities and other impairments during certain runoff events and periodically during the irrigation season, ***the record is also clear on this issue***.

10. The highly variable SWP water quality can:

    i. lower the facility water treatment system's efficiency,

ii. require more frequent water treatment system equipment maintenance,

iii. cause plant operational derates or curtailments, and

iv. **Prohibit** groundwater banking when constituents such as dissolved solids exceeds certain allowable limits.

11. ***Recycled water supplies are unreliable***. ***There is no surprise here.***

12. At the time of the original certification, HDPP was ~~allowed~~ **Mandated** to use only SWP water and was ***expressly prohibited from using recycled water.***

13. Of its own volition, HDPP petitioned and successfully obtained an amendment to the original certification to allow for the use of recycled water, ***even though it knew the risks involved***.

14. However, since that amendment was approved, the supply of recycled water available to HDPP has been intermittent on a day-to-day basis, has been unavailable for long periods of time, or has not met the quality requirements of the recycled water supply contract despite substantial fees paid by HDPP to the City of Victorville to improve the City's and VVWRA's recycled water infrastructure.

15. Recycled water typically contains high levels of total dissolved solids ("TDS") and high concentrations of silica, ***all addressed in the original HDPP Hearings***.

16. These constituents impact the performance of the HDPP water treatment system (for example, by clogging the microfilter system) to the detriment of the overall efficiency and operation of the HDPP. ***Addressed by testimony in the proceedings.***

17. The drought has forced HDPP to accept recycled water that does not meet the water quality limits specified in the recycled water supply contract. ***Had HDPP injected the water it agreed to 13,000 acre***

***feet, it might have been able to bridge the drought – depending on the length. Ledford attempted to get JPL Laboratories evidence into the record that three years was not enough time – but was rejected by the commission.***

18. HDPP has learned through its operating experience that the "out of spec" recycled water must be blended with high quality banked groundwater in order to be used by the facility, ***however the "Banked" water is not allowed to be used for "Blending", it is only to be used when SWP is unavailable due the aqueduct being offline for a month or so during a given year, or during drought periods, the conditions of approval require 13,000 acre feet to be banked and that has not been done***.

19. These conditions are currently inhibiting HDPP's reliance on recycled water as a reliable source of water for the facility, ***As they were told – they were implementing this plan – "at their Peril"***

20. Banked water supplies are rapidly depleting, ***because HDPP failed to comply with the condition to place 13,000 acre feet in storage during the first five years and thereafter has used banked water for "blending", which is not an allowed use of the banked water***.

21. As noted above, HDPP is also ~~authorized~~ ***mandated*** to bank SWP water, ***only as specified in the conditions for down time of the aqueduct or during drought***.

22. However, due to SWP curtailments and the need to use large quantities of banked water to blend with less-than-adequate quality recycled water, the banked water supplies are rapidly depleting, ***because HDPP is in violation of the conditions of approval, had they done what was mandated, they may or may not be able to bridge the gap time – however this was fully addressed in the Evidentiary Proceeding as previously briefed***.

23. Without new supplies and depending on **the reliability** of the recycled water supply, HDPP projects that it could run out of banked groundwater sometime during the first half of 2015 if current SWP curtailments continue***, and the project would not be able to operate as promised in the conditions of approval***.

24. HDPP requests the use of ***Alternative Water cannot be approved without reopening this case with full Evidentiary Hearings, and then it is likely it still cannot be approved as the basis of the conditions were made with the full understanding of the Risks.***

As was previously provided, but reiterated here, In the hearing on January 27th, 2000 Hearing Office Valkoski clarified the record, at page 47 Lines 16 – 25.

> "Now, if you have a more severe drought, or you've got an extended drought, and no water goes into the bank, under those conditions, as I understand it, the penalty for that falls on the applicant. Because they have no water for their cooling towers, **therefore they do not operate**. But it's basically to their **peril**."
>
> The attorney Mr. Thompson for HDPP states, "That is an excellent summary of our understanding"
>
> And;
>
> CEC Staff Testimony October 8, 1999, by Linda Bond at page 122 lines 1-8. The Public was assured:
>
> MR. LEDFORD: "**So that I'm really clear on this**. In the event that you go below a thousand acre feet of water in the water bank, **the project would have to shut down, is that correct**?"
>
> MS. BOND: "**Yes**. They cannot withdraw any more water once they reach the point that there's only a thousand acre feet of that buffer in the groundwater system."

This Intervener requests that current request by HDPP for administrative approval to change these significant conditions that were well litigated over three years and many hearings be denied, or at the very least continued

until after hearings on the **Recycled Feasibility Study,** that HDPP was conditioned to have done more than a year ago, be put before the Public for further comment. That Study was supposed to show how the Plant could run on 100% Recycled Water and it is now unlikely that can happen.

Further that if consideration is to be given to the request that it only be done by reopening the case and having Evidentiary Hearings on a comprehensive plan that can be fully disclosed and worked through that all parties have adequate time to prepare and comment on.

The issue of the use of Water for Cooling in this Power Plant cannot be summarily swept under the rug in an Administrative Hearing.

Steve Buell – Project Manager for HDPP – was quoted in a dissertation on the water issue, See Exhibit "B" but in summary it says:

> "Now we come to the serious part:
>
> The State Energy Staff is concerned about the long-term availability of SWP water to the project, . . ."
>
> "Both the VVWD (1998) and the City of Victorville (Roberts 1998) indicated to the MWA that they will serve as an independent source of water for the project when imported water is not available."
>
> We [the HDPP] voted out two MWA board members who tried to conserve our water supply and believed everything we were told about the project. At least, now you have the information straight from the licensing arm of our state government. **Now you know the truth**."
>
> Full text online at: http://www.home.earthlink.net/~hermit4/water2.htm

**CURE** who looks at the issues of power projects entered into a stipulation with HDPP See Exhibit "C", but in short it says:

> "As a result of this agreement. **HDPP has agreed** to the following measures to protect the environment:
>
> **B. WATER RESOURCES**
>
> 1. "The **Project shall either use dry cooling technology or shall obtain water from the State Water Project** and establish a water banking system for use when State Water Project water is not available. The banking

system shall meet all of the following criteria" [omitted find in exhibit] also available online:

http://www.sbctc.org/cure/pdf/high_desert_power_project.pdf

The **FACTS** are that HDPP has constructed an **unreliable** power plant, at its own Peril, when these facts were clearly disclosed during the siting process. Dry or Wet/Dry Cooling will make this plant reliable for the Citizens of California and not place the valuable water resources for 100% consumptive wasteful use in an over drafted water basin at risk.

Respectfully submitted:

September 8, 2014

GARY A. LEDFORD
PARTY IN INTERVENTION
IN PRO PER

# Exhibit "A"

# Water Banking

# For

# High Desert Power

# Source – Online MWA Records

# There is no reduction for Dissipation

EXHIBIT "A"

# High Desert Power Project Water Bank
## Victor Valley Water District

| Year | Start | End | Beginning Balance | | Additions | Losses | Spillage | | Extractions | | Balance |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6/1/2002 | 10/1/2002 | - | | 1,043.30 | - | - | | - | | 1,043.30 |
| 2 | 6/1/2002 | 10/1/2003 | 1,043.30 | | 952.72 | - | - | | 0.37 | | 1,995.65 |
| 3 | 6/1/2002 | 10/1/2004 | 1,995.65 | | 495.87 | - | - | | 0.47 | | 2,491.05 |
| 4 | 6/1/2002 | 10/1/2005 | 2,491.05 | | 1,367.31 | - | - | | - | | 3,858.36 |
| 5 | 6/1/2002 | 10/1/2006 | 3,858.36 | | 548.65 | - | - | | - | | 4,407.01 |
| 6 | 6/1/2002 | 10/1/2007 | 4,407.01 | | 444.71 | - | - | | 341.19 | | 4,510.53 |
| 7 | 6/1/2002 | 10/1/2008 | 4,510.53 | | 505.33 | - | - | | 974.00 | | 4,041.86 |
| 8 | 6/1/2002 | 10/1/2009 | 4,041.86 | | 476.16 | - | - | | 87.91 | | 4,430.11 |
| 9 | 6/1/2002 | 10/1/2010 | 4,430.11 | | 468.13 | - | - | | 48.33 | | 4,849.91 |
| 10 | 6/1/2002 | 10/1/2011 | 4,849.91 | | 851.47 | - | - | | 87.05 | | 5,614.33 |
| 11 | 6/1/2002 | 10/1/2012 | 5,614.33 | | 536.22 | - | - | | 1,149.13 | | 5,001.42 |
| 12 | 6/1/2002 | 10/1/2013 | 5,001.42 | | - | - | - | | 2,000.00 | ** | 3,001.42 |
| 13 | 6/1/2002 | 10/1/2014 | 3,001.42 | | - | - | - | | - | | 3,001.42 |
| 14 | 6/1/2002 | 10/1/2015 | 3,001.42 | | - | - | - | | - | | 3,001.42 |
| | | | **Totals** | | **7,689.87** | - | - | | **4,688.45** | | |
| | **No Losses have ever been calculated** | | | | | | | | | | |
| | **** Wild Guess** | | | | | | | | | | |

**APPENDIX F** MARCH 24, 2004

**STORAGE AGREEMENT ACCOUNTING AND BALANCES**
**2002-03 WATER YEAR**
**(ALL AMOUNTS IN ACRE-FEET)**

| | STORAGE AGREEMENT | | | | ACTIVITY | | | | |
|---|---|---|---|---|---|---|---|---|---|
| STORER | INITIATION DATE | EXPIRATION DATE | MAXIMUM AMOUNT | AMOUNT STORED AS OF 10/1/02 | ADDITIONS | LOSSES | SPILLAGE | EXTRACTIONS | BALANCE AS OF 9/30/03 |
| VICTOR VALLEY WATER DISTRICT | 06/01/2002 | 06/01/2007 | 13,000 | 0.00 | 1,043.30 | TBD | 0.00 | 0.00 | 1,043.30 |

April 22, 2003
online producing power

**NOTES:**

LOSSES INCLUDE SHRINKAGE, RECHARGE LOSSES AND MIGRATION LOSSES. LOSSES HAVE NOT BEEN DETERMINED AS OF THIS REPORT.

SPILLAGE INCLUDES AMOUNTS LOST TO BASIN DISCHARGE.



Year 1

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**APPENDIX F**

**STORAGE AGREEMENT ACCOUNTING AND BALANCES**
**2003-04 WATER YEAR**
**(ALL AMOUNTS IN ACRE-FEET)**

| | STORAGE AGREEMENT | | | | ACTIVITY | | | | |
|---|---|---|---|---|---|---|---|---|---|
| STORER | INITIATION DATE | EXPIRATION DATE | MAXIMUM AMOUNT | AMOUNT STORED AS OF 10/1/03 | ADDITIONS | LOSSES | SPILLAGE | EXTRACTIONS | BALANCE AS OF 9/30/04 |
| VICTOR VALLEY WATER DISTRICT | 06/01/2002 | 06/01/2007 | 13,000 | 1,043.30 | 952.72 | TBD | 0.00 | -0.37 | 1,995.65 |

**NOTES:**

LOSSES INCLUDE SHRINKAGE, RECHARGE LOSSES AND MIGRATION LOSSES. LOSSES HAVE NOT BEEN DETERMINED AS OF THIS REPORT.

SPILLAGE INCLUDES AMOUNTS LOST TO BASIN DISCHARGE.



Year 2

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p3

APPENDIX F

MARCH 22, 2006

**STORAGE AGREEMENT ACCOUNTING AND BALANCES**
**2004-05 WATER YEAR**
**(ALL AMOUNTS IN ACRE-FEET)**

| | STORAGE AGREEMENT | | | | ACTIVITY | | | | |
|---|---|---|---|---|---|---|---|---|---|
| STORER | INITIATION DATE | EXPIRATION DATE | MAXIMUM AMOUNT | AMOUNT STORED AS OF 10/1/04 | ADDITIONS | LOSSES | SPILLAGE | EXTRACTIONS | BALANCE AS OF 9/30/05 |
| VICTOR VALLEY WATER DISTRICT | 06/01/2002 | 06/01/2007 | 13,000 | 1,995.65 | 495.87 | TBD | 0.00 | -0.47 | 2,491.05 |

NOTES:

LOSSES INCLUDE SHRINKAGE, RECHARGE LOSSES AND MIGRATION LOSSES. LOSSES HAVE NOT BEEN DETERMINED AS OF THIS REPORT.

SPILLAGE INCLUDES AMOUNTS LOST TO BASIN DISCHARGE.



Year 3

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**APPENDIX F**

MARCH 28, 2007

**STORAGE AGREEMENT ACCOUNTING AND BALANCES**
**2005-06 WATER YEAR**
**(ALL AMOUNTS IN ACRE-FEET)**

| | STORAGE AGREEMENT | | | | ACTIVITY | | | | |
|---|---|---|---|---|---|---|---|---|---|
| STORER | INITIATION DATE | EXPIRATION DATE | MAXIMUM AMOUNT | AMOUNT STORED AS OF 10/1/05 | ADDITIONS | LOSSES | SPILLAGE | EXTRACTIONS | BALANCE AS OF 9/30/06 |
| VICTOR VALLEY WATER DISTRICT | 06/01/2002 | 06/01/2007 | 13,000 | 2,491.89 | 1,367.31 | TBD | 0.00 | 0.00 | 3,859.20 |

**NOTES:**

LOSSES INCLUDE SHRINKAGE, RECHARGE LOSSES AND MIGRATION LOSSES. LOSSES HAVE NOT BEEN DETERMINED AS OF THIS REPORT.

SPILLAGE INCLUDES AMOUNTS LOST TO BASIN DISCHARGE.



Year 4

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**APPENDIX F**

MARCH 26, 2008

**STORAGE AGREEMENT ACCOUNTING AND BALANCES**
**2006-07 WATER YEAR**
**(ALL AMOUNTS IN ACRE-FEET)**

| | STORAGE AGREEMENT | | | | ACTIVITY | | | | |
|---|---|---|---|---|---|---|---|---|---|
| STORER | INITIATION DATE | EXPIRATION DATE | MAXIMUM AMOUNT | AMOUNT STORED AS OF 10/1/05 | ADDITIONS | LOSSES | SPILLAGE | EXTRACTIONS | BALANCE AS OF 9/30/06 |
| VICTORVILLE WATER DISTRICT, ID#1 | 06/01/2002 | 05/31/2012 | 13,000 | 3,859.20 | 548.65 | TBD | 0.00 | 0.00 | 4,407.85 |

**NOTES:**

LOSSES INCLUDE SHRINKAGE, RECHARGE LOSSES AND MIGRATION LOSSES. LOSSES HAVE NOT BEEN DETERMINED AS OF THIS REPORT.

SPILLAGE INCLUDES AMOUNTS LOST TO BASIN DISCHARGE.



Year 5

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**APPENDIX F**

MARCH 25, 2009

**STORAGE AGREEMENT ACCOUNTING AND BALANCES**
**2007-08 WATER YEAR**
**(ALL AMOUNTS IN ACRE-FEET)**

| | STORAGE AGREEMENT | | | | ACTIVITY | | | | |
|---|---|---|---|---|---|---|---|---|---|
| STORER | INITIATION DATE | EXPIRATION DATE | MAXIMUM AMOUNT | AMOUNT STORED AS OF 10/1/07 | ADDITIONS | LOSSES | SPILLAGE | EXTRACTIONS | BALANCE AS OF 9/30/08 |
| VICTORVILLE WATER DISTRICT, ID#1 | 06/01/2002 | 05/31/2012 | 13,000 | 4,407.85 | 444.71 | TBD | 0.00 | -341.19 | 4,511.37 |

NOTES:

LOSSES INCLUDE SHRINKAGE, RECHARGE LOSSES AND MIGRATION LOSSES. LOSSES HAVE NOT BEEN DETERMINED AS OF THIS REPORT.

SPILLAGE INCLUDES AMOUNTS LOST TO BASIN DISCHARGE.



Year 6

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P7

**APPENDIX F**

MARCH 24, 2010

**STORAGE AGREEMENT ACCOUNTING AND BALANCES**
**2008-09 WATER YEAR**
**(ALL AMOUNTS IN ACRE-FEET)**

| | STORAGE AGREEMENT | | | | ACTIVITY | | | | |
|---|---|---|---|---|---|---|---|---|---|
| STORER | INITIATION DATE | EXPIRATION DATE | MAXIMUM AMOUNT | AMOUNT STORED AS OF 10/1/08 | ADDITIONS | LOSSES | SPILLAGE | EXTRACTIONS | BALANCE AS OF 9/30/09 |
| VICTORVILLE WATER DISTRICT, ID#1 | 06/01/2002 | 05/31/2012 | 13,000 | 4,511.37 | 505.33 | TBD | 0.00 | -974.00 | 4,042.70 |

**NOTES:**

LOSSES INCLUDE SHRINKAGE, RECHARGE LOSSES AND MIGRATION LOSSES. LOSSES HAVE NOT BEEN DETERMINED AS OF THIS REPORT.

SPILLAGE INCLUDES AMOUNTS LOST TO BASIN DISCHARGE.



Year 7

Ex A
P8

APPENDIX F

APRIL 08, 2011

STORAGE AGREEMENT ACCOUNTING AND BALANCES
2009-10 WATER YEAR
(ALL AMOUNTS IN ACRE-FEET)

| | STORAGE AGREEMENT | | | | ACTIVITY | | | | |
|---|---|---|---|---|---|---|---|---|---|
| STORER | INITIATION DATE | EXPIRATION DATE | MAXIMUM AMOUNT | AMOUNT STORED AS OF 10/1/09 | ADDITIONS | LOSSES | SPILLAGE | EXTRACTIONS | BALANCE AS OF 9/30/10 |
| VICTORVILLE WATER DISTRICT, ID#1 | 06/01/2002 | 05/31/2012 | 13,000 | 4,042.70 | 476.16 | TBD | 0.00 | -87.91 | 4,430.95 |

NOTES:

LOSSES INCLUDE SHRINKAGE, RECHARGE LOSSES AND MIGRATION LOSSES. LOSSES HAVE NOT BEEN DETERMINED AS OF THIS REPORT.

SPILLAGE INCLUDES AMOUNTS LOST TO BASIN DISCHARGE.



Year 8

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P9

APPENDIX F

MARCH 28, 2012

**STORAGE AGREEMENT ACCOUNTING AND BALANCES**
**2010-11 WATER YEAR**
**(ALL AMOUNTS IN ACRE-FEET)**

| | STORAGE AGREEMENT | | | | ACTIVITY | | | | |
|---|---|---|---|---|---|---|---|---|---|
| STORER | INITIATION DATE | EXPIRATION DATE | MAXIMUM AMOUNT | AMOUNT STORED AS OF 10/1/10 | ADDITIONS | LOSSES | SPILLAGE | EXTRACTIONS | BALANCE AS OF 9/30/11 |
| VICTORVILLE WATER DISTRICT, ID#1 | 06/01/2002 | 05/31/2012 | 13,000 | 4,430.95 | 468.13 | TBD | 0.00 | -48.33 | 4,850.75 |

NOTES:

LOSSES INCLUDE SHRINKAGE, RECHARGE LOSSES AND MIGRATION LOSSES. LOSSES HAVE NOT BEEN DETERMINED AS OF THIS REPORT.

SPILLAGE INCLUDES AMOUNTS LOST TO BASIN DISCHARGE.



Years

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P10

**APPENDIX F**

MARCH 27, 2013

**STORAGE AGREEMENT ACCOUNTING AND BALANCES**
**2011-12 WATER YEAR**
**(ALL AMOUNTS IN ACRE-FEET)**

| | STORAGE AGREEMENT | | | | ACTIVITY | | | | |
|---|---|---|---|---|---|---|---|---|---|
| STORER | INITIATION DATE | EXPIRATION DATE | MAXIMUM AMOUNT | AMOUNT STORED AS OF 10/1/11 | ADDITIONS | LOSSES | SPILLAGE | EXTRACTIONS | BALANCE AS OF 9/30/12 |
| VICTORVILLE WATER DISTRICT, ID#1 | 05/23/2012 | 05/31/2017 | 13,000 | 4,850.75 | 861.47 | TBD | 0.00 | -87.05 | 5,625.17 |

**NOTES:**

LOSSES INCLUDE SHRINKAGE, RECHARGE LOSSES AND MIGRATION LOSSES. LOSSES HAVE NOT BEEN DETERMINED AS OF THIS REPORT.

SPILLAGE INCLUDES AMOUNTS LOST TO BASIN DISCHARGE.



Year 10

Ex A
P11

**APPENDIX F**

MARCH 26, 2014

**STORAGE AGREEMENT ACCOUNTING AND BALANCES**
**2012-13 WATER YEAR**
**(ALL AMOUNTS IN ACRE-FEET)**

| | STORAGE AGREEMENT | | | | ACTIVITY | | | | |
|---|---|---|---|---|---|---|---|---|---|
| STORER | INITIATION DATE | EXPIRATION DATE | MAXIMUM AMOUNT | AMOUNT STORED AS OF 10/1/12 | ADDITIONS | LOSSES | SPILLAGE | EXTRACTIONS | BALANCE AS OF 9/30/13 |
| VICTORVILLE WATER DISTRICT, ID#1 | 05/23/2012 | 05/31/2017 | 13,000 | 5,625.17 | 536.22 | TBD | 0.00 | -1,149.13 | 5,012.26 |

**NOTES:**

LOSSES INCLUDE SHRINKAGE, RECHARGE LOSSES AND MIGRATION LOSSES. LOSSES HAVE NOT BEEN DETERMINED AS OF THIS REPORT.

SPILLAGE INCLUDES AMOUNTS LOST TO BASIN DISCHARGE.



Year 11

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# Exhibit "B"

Water, Water Everywhere

Last week I finished my report on my investigation into the continued availability of California Aqueduct water to supply the proposed High Desert Power Project and the comparison between the assurances from the HDPP that all cooling water would come from the aqueduct and no native ground water would be used; and the real world of what their actual plan of operation was going to be. I gave some comparisons and finished with receiving testimony from the Staff of the California State Energy Commission who are evaluating the request for an operation permit from the HDPP...

My comparisons are in italics and the bold sections are my calling your attention to important passages. The complete report is 57 pages. I'll give an address where it can be obtained at the end of this article.

Extract from Staff Testimony -- California State Energy Commission, October 1999.

It should be noted that the applicants (Flour Daniel 1998) revised annual water demand figures in Tables 3.4-5 and 3.4-6 assumes maximum operation of 8,223 hours per year with the resulting total of 3,597 acre-feet for the "F" class configuration and 3,102 acre-feet for the "G" class configuration (Groundwater supply).

The water supply for the proposed project is to be a combination of surface and groundwater. As noted above, ground water essentially supplies all water used within the Mojave River area.

**********

HDPP (Bookman-Edmonson 1998a) proposes that seven wells, constructed and operated by the Victor Valley Water District be located starting approximately three miles south of the of the power plant site. These wells will connect to a VVWD 16-inch pipeline being built to provide to the SCIA. Six of the new wells would serve as primary well and the seventh would serve as backup.

It is estimated that each of the wells could have a production rate of 550 gpm or approximately 4,000 acre-feet per year. This would represent approximately a 4.6 percent increase in groundwater pumping in the Alto Subarea compared to 1995/1996 water production by major producers.

Supplying HDPP with 4,000 acre-feet of water would also represent an increase of almost 25 percent over the district's existing water demands. Furthermore, the proposed well field is located within Pressure Zone 2, a VVWD planning area that has seen the greatest population growth over the last ten years of any area within the VVWD boundary (So 1998).

In 1994 - 1995, water demand within pressure zone 2 was 10,458 gpm while supply was only 7.207 gpm. Furthermore, this is the area the district anticipates the largest growth over the next 15 years.

There are a total of 33 production wells within the vicinity of the proposed HDPP well field.

Neighboring production wells include one VVWD well located within a one mile radius of the proposed well field while ten VVWD wells are within a two mile radius of the well field. Two wells that were installed for the still under construction Bureau of Prisons Facility on the SCIA are also within a two mile radius of the proposed well field. These two wells have been abandoned due to water quality concerns (Hill 1999). Eight additional VVWD wells are within a three mile radius of the proposed well field as well as six City of Adelanto wells and six George Air force Base wells.

As part of the base closure, these latter six wells are to be turned over to the City of Adelanto. In light of the high number of existing production wells within a three mile radius of the proposed well field, the applicant (Bookman Edmonston 1998b) and others (Geomatrix 1998; Fox 1998) conducted an analysis that estimated the effects of operating the proposed HDPP wells.

Doesn't sound quite like the stuff you've been reading in the papers, does it? As we get deeper into this, just remember, it took only two letters of inquiry to get the information directly from the energy department.

The Geomatrix (1998) study did as well, but pointed out that this time estimate does not reflect the full effect of groundwater pumping over the life of the project. Outside the Mojave River Alluvial Aquifer, groundwater extraction exceeds recharge resulting in lowered groundwater levels over time.

Without additional on-site recharge, even intermittent pumping by the project would be additive, leading to a long term drawdown of the

aquifer, because of incomplete groundwater level recoveries (Geomatrix 1998, Fox 1998, Martin 1998).

At the very least, HDPP will be pumping groundwater one month each year while repairs are made to the California Aqueduct. With no other interruptions in SWP deliveries, this still represents two and half years of pumping over the assumed 30-year life of the project. Additional pumping will be dictated by the availability of SWP water.

Geomatrix (1998) concluded that the aquifer drawdown estimates are reasonably correct given the assumptions and that alternative methods of calculating drawdown returned similar results.

They can't recharge the Mojave River Alluvial Aquifer because it's open at both ends and a onetime recharge, just like a heavy rain just flows downstream and out of our usage area.

To insure that the project receives SWP water, the City of Victorville in October 1998 applied on the project's behalf to the MWA for 4,000 acre-feet per year of water for the year 2002 (MWA 1998a). The application requests approximately 298 acre-feet per month for all months except June, July and August when the requested amount increases to approximately 447 acre-feet.

Ordinance No. 9 of the MWA stipulates that contracts for State Water Project water are for a single year. Furthermore, as discussed above, SWP deliveries are not firm.

The ability of the SWP to deliver water in a given year depends on rainfall, snowpack, runoff, water in storage, pumping capacity in the Delta and regulatory constraints.

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The third run (Scenario C) is based upon the assumption that 70,000 acre-feet per year of SWP would be required by MWA to address the adjudication before the project could receive SWP water. This 70,000 acre-foot figure is again based upon the figure in the 1994 plan that shows 58,000 acre-feet of replacement water being required by 2005 in addition to the 12,000 acre-feet identified in the original run.

Based upon this simulation, HDPP would receive no SWP water (Fox 1998). The time groundwater pumping would be required by the project was used by Fox (1998) to estimate the well interference effects of the proposed project. The unknown factor in these

simulations is the actual amount of SWP water MWA will require for addressing the overdraft.

This scenario is based upon the normal anticipated growth rate, residential, commercial and industrial calculated in a 1994 plan...OOPS!

The availability of such water in the future is not known.

In case of reduced SWP water deliveries, Section 3.03 of MWA Ordinance No. 9 indicates that, "All applications shall be evaluated and deliveries authorized based on the following priority uses: municipal, 2) industrial, 3) agricultural..." Ordinance No. 9 also states during SWP shortages, all parties will be proportionately reduced. The ordinance does go on to allow MWA to allocate the water, if there is no shortage in SWP supply, to ensure domestic sanitation, sewage and firefighting needs are met.

In light of the lack of a water treatment facility, municipal demands for direct use of SWP water in the near future are not likely. None-the-less, in the future, HDPP may be in competition for SWP water with other users when deliveries are reduced. The MWA accepted for processing the application for SWP water for the HDPP on November 10, 1998, Section 3.05 of the Ordinance No. 9 states that SWP cannot be the sole source of water for the project and that a reliable source of water must be obtained prior to approval of any application to the MWA.

Both the VVWD (1998) and the City of Victorville (Roberts 1998) indicated to the MWA that they will serve as an independent source of water for the project when imported water is not available

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Staff is concerned about the long-term availability of SWP water to the project, since future conditions may change, there is no guarantee that this water will be allocated to the project. Court decisions about the adjudication, or competition for SWP water may limit the availability of this water. SWP water must be applied for each year. Clearly, Ordinance No. 9 was adopted to provide water on a single year basis to allow decision makers as much flexibility in allocating what may become a scarce resource as possible.

This then becomes; however, a reliability question, not one of environmental impacts. Given the nature of the competitive market, one assumes that the liability of the project not operating due to no water rests with the project owner and not with society.

Now we come to the serious part:

The State Energy Staff is concerned about the long-term availability of SWP water to the project, but I'm concerned about the fact that never in any press release were we informed that,

"Both the VVWD (1998) and the City of Victorville (Roberts 1998) indicated to the MWA that they will serve as an independent source of water for the project when imported water is not available."

We voted out two MWA board members who tried to conserve our water supply and believed everything we were told about the project. At least, now you have the information straight from the licensing arm of our state government. Now you know the truth.

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To get the complete testimony of the staff, write:
Richard K. Buell
California Energy Commission
1516 Ninth Street, MS 15
Sacramento, CA 95814-5512
(916) 653-1614

# Exhibit "C"

## JOINT STATEMENT OF THE HIGH DESERT POWER PROJECT AND THE CALIFORNIA UNIONS FOR RELIABLE ENERGY

April 1999

The High Desert Power Project. LLC (HDPP) and the California Unions for Reliable Energy (CURE) are pleased to announce that they have reached an agreement to resolve all of the outstanding environmental issues raised by CURE concerning HDPP's proposed electric generating plant in Victorvil1e. California. Except for issues relating to a 32 mile long natural gas pipeline. HDPP and CURE will jointly propose to the California Energy Commission that the applicable portions of their agreement be adopted as conditions of certification on the Commission's Facility Certification.

As a result of this agreement. HDPP has agreed to the following measures to protect the environment:

**B. WATER RESOURCES**

1. The Project shall either use dry cooling technology or shall obtain water from the State Water Project and establish a water banking system for use when State Water Project water is not available. The banking system shall meet all of the following criteria:

(a) The Project shall treat and inject twelve thousand (12,000) acre, feet of water from the SWP and an additional one thousand (1,000) acre• feet from the SWP (the "Additional Water") in accordance with Sections B.I.(b) and (c) of this Agreement as quickly as technically feasible after Project operations commence;

(b) All water injected into the groundwater system (i.e., "banked" water) on behalf of the Project shall be treated prior to injection to reduce all organic and inorganic constituents in the treated water to background levels and to eliminate all microbial contaminants;

(c) All banked water shall be injected at the same location from which Project• related groundwater withdrawals will occur;

(d) The Project may withdraw water deposited in the bank, provided that at no time shall cumulative Project• related groundwater pumping exceed the cumulative amount of water previously treated and banked in accordance with Sections S,1.(b) and (c) of this Agreement, and further provided that the Additional Water deposited in the bank shall never be withdrawn by the Project;

(e) Except during the last three years of operation, whenever Project related groundwater pumping occurs, the Project shall expeditiously restore the water bank by treating and injecting an amount of water equal to the amount of water pumped in accordance with Sections B,I.(b) and (c) of this Agreement; and

(l) Victor Valley Water District Wells 21. 27, 32, 37, Adelanto Wells 4, BA, and all Project groundwater wells shall be monitored quarterly for water level and water quality. Monitoring of the water levels and gradient in the Mojave River alluvial aquifer and riparian zone shall also be conducted quarterly.

2. Not later than commencement of construction, the Project shall make a $50,000 payment to the City of Victorville, California for development and implementation of a program to convert existing irrigation located on the site of the former George Air Force Base to using reclaimed water for irrigation.