GLENN COUNTY WATER ADVISORY COMMITTEE

Glenn County Department of Agriculture 720 North Colusa St., Willows, CA 95988 Phone: 530.934.6501 FAX: 530.934.6503 Email: wateradv@countyofglenn.net Website: http://www.glenncountywater.org/

AGENDA

MEETING DATE:

Tuesday, June 11, 2013

TIME:

1:30 P.M.

PLACE:

Glenn-Colusa Irrigation District

344 East Laurel Street Willows, CA 95988

I. INTRODUCTIONS:

Water Advisory Committee Members:

David Alves Central River Irrigation Districts

Kelly Boyd East County Reclamation and Irrigation Districts
Ted Trimble East County Reclamation and Irrigation Districts

Sandy Willard Denn Glenn-Colusa Irrigation District
Larry Domenighini Glenn County Farm Bureau

Ken Sullivan Orland Unit Water Users Association
Donnan Arbuckle Resource Conservation District

Mike Vereschagin Tehama Colusa Canal Authority Districts
Mike Alves Tehama Colusa Canal Authority Districts

Mark Lohse At-Large Private Pumpers (Agricultural/Municipal/Industrial)
Bruce Roundy At-Large Private Pumpers (Agricultural/Municipal/Industrial)
Darin Titus At-Large Private Pumpers (Agricultural/Municipal/Industrial)
John Garner At-Large Private Pumpers (Agricultural/Municipal/Industrial)

Technical Advisory Committee Members:

Lance Boyd At-Large, South Area

Roy Hull Department of Water Resources
Allan Fulton UC Cooperative Extension

John Linhart Glenn County Planning and Public Works Kevin Backus Glenn County Environmental Health

Ben Pennock At-Large, Central Area

Jim Donnelly Glenn County Department of Agriculture

Anjanette Shadley Martin At-Large, East Area
George Wilson At-Large, North Area

Leigh McDaniel Board of Supervisor (ex-officio)

II. APPROVAL OF MINUTES:

Consider approval of the Minutes from the meeting of February 12, 2013.

III. AGENDA ITEMS:

A. Public Comment:

Any person wanting to address the Water Advisory Committee on any item <u>NOT ON TODAY'S AGENDA</u> may do so at this time. The Water Advisory Committee will not be making decisions or determinations on items brought up during Public Comment.

B. Discussion and/or Action Items:

- 1. TAC Report
- 2. Announcements
 - a) Policies and Procedures Board of Supervisors approval
 - b) Glenn County Groundwater Reliability and Recharge Pilot Project completion
- 3. Potential Water Transfers for 2013
 - a) RD 1004
 - b) GCID
- 4. Spring Groundwater Levels
- 5. Western Glenn County Water Level Declines

C. Communications:

D. Member Reports:

At this time WAC members are encouraged to discuss upcoming or ongoing activities that may be of interest to the committee.

IV. <u>NEXT MEETINGS:</u>

The next WAC meeting will be tentatively scheduled at this meeting.

The next TAC meeting will be June 25, 2013 at 1:30 p.m. at the Glenn County Department of Agriculture, 720 N. Colusa St, Willows, CA 95988.

Glenn County Water Advisory Committee June 11, 2013 II. APPROVAL OF MINUTES

Subject: Consider approval of the February 12, 2013 Minutes.

GLENN COUNTY WATER ADVISORY COMMITTEE

Glenn County Department of Agriculture

720 North Colusa St., P.O. Box 351, Willows, CA 95988

Phone: (530) 934-6501 Fax: (530) 934-6503

E-mail: wateradv@countyofglenn.net Web Page: www.glenncountywater.org

MINUTES

Meeting Date: February 12, 2013

Time: 1:30 pm

Place: Glenn-Colusa Irrigation District

344 East Laurel Street Willows, CA 95988

Water Advisory Committee Members Present:

Mike Alves KWD & GWD (TCCA)

Kelly Boyd
Sandy Denn
Colusa Irrigation District
Column Colusa Irrigation District
Column Column Sarm Bureau
At-Large Private Pumper

Mark Lohse BOS District 5 Private Pumpers (At-Large PP)
Bruce T. Roundy City of Orland (At-Large Private Pumper)

Ted Trimble WCWD (East Co Rec & Irr Dist)

Water Advisory Committee Members Absent:

David Alves Central River Irrigation Districts
Donnan Arbuckle Resource Conservation District
Ken Sullivan Orland Unit Water Users Association

Darin Titus At-Large Private Pumper

Mike Vereschagin Tehama Colusa Canal Authority District

Technical Advisory Committee Members Present:

Roy Hull DWR

Jim Donnelly Glenn Co. Ag Dept. Anjanette Shadley Martin WCWD (East Area)

Ben Pennock Central Area George Wilson North Area

Others in Attendance:

Tina Brothers Glenn Co. Ag Dept.
Lisa Hunter Glenn Co. Ag Dept.
Rosanna Marino City of Willows

Lester Messina Cheryl Hull

- I. INTRODUCTIONS: Those in attendance introduced themselves.
- II. <u>APPROVAL OF MINUTES:</u> The minutes for January 8, 2013 were approved as mailed.
- III. AGENDA ITEMS:
 - A. Public Comment: None.
 - **B.** Discussion and/or Action Items:
 - 1. TAC Report-None.

- 2. **Discussion and possible selection of Vice Chairperson (term ending 2013)-**Thad Bettner was the Vice Chairman; however, he is no longer a WAC member. Ted Trimble said since Sandy Denn replaced Thad from his duties the logical decision would be to have her be Vice Chairperson to the end of the term. Ted Trimble made a motion and seconded by Mike Alves to appoint Sandy as Vice Chairperson. All present were in agreement.
- 3. **Review of Groundwater-Glenn County by DWR-**Roy Hull, DWR, gave a PowerPoint presentation on groundwater, geology, precipitation, and land use. A copy of the presentation has been posted to the WAC website at: www.glenncountywater.org/meetings.aspx

This presentation brought about discussion regarding declining groundwater levels in western Glenn County. More discussion regarding groundwater levels will occur at the summer WAC meeting.

4. **Review and discussion on modifications of Bylaws of the Glenn County Water Advisory Committee-**A draft copy of the revised Bylaws were mailed out for review with the meeting agenda packet. Sandy suggested under Miscellaneous Provisions, numeral I to change the period to a comma and insert "and shall comply with all applicable California open meeting laws."

Under Meetings, Quorum, and Rules of Order numeral V, it states, "the agenda and supporting materials will generally be distributed at least one week prior to a scheduled meeting." The consensus was even seventy two hours is generally enough time.

Numeral VII, it was changed from Robert's to Rosenberg's Rule of Order. A copy of the Rosenberg's Rule of Order is in the Agenda Packet for review.

A motion was made by Ted Trimble and seconded by Sandy Denn to accept all the changes including Sandy's amendment. All present were in agreement.

- 5. Reminder-Any outstanding applications for committee members must be completed and turned in to the Clerk of the Board of Supervisors-Lisa mentioned that all applications at this time have been turned in.
- C. Communications: None.

D. Member Reports:

Bruce Roundy mentioned he belongs to League of Cities and at their last meeting it was mentioned that Southern California is looking for ways to recapture storm water.

The next WAC meeting will be scheduled for June or July.

The next TAC meeting will be February 28, 2013 at 1:30pm at the Glenn County Department of Agriculture, 720 N. Colusa Street, Willows, CA 95988.

Meeting adjourned at 3:01pm

Respectfully submitted by, Tina Brothers

Glenn County Water Advisory Committee June 11, 2013 Agenda Item 2

Subject: Announcements

a) Policies and Procedures Board of Supervisors approval

Policies and Procedures of the Glenn County Water Advisory Committee were approved at the February 12, 2013 meeting of the WAC and presented and approved by the Board of Supervisors April 2, 2012.

b) Glenn County Groundwater Reliability and Recharge Pilot Project completion

The Glenn County Groundwater Reliability and Recharge Pilot Project is complete. The Final Report, newsletters, and landowner monitoring guide have all been posted to the WAC website at: www.glenncountywater.org

Policies and Procedures of The Glenn County Water Advisory Committee

Goal

It is the desire of the people of Glenn County that sufficient and affordable water of good quality be available on a sustainable basis to meet the needs of agricultural, industrial, recreational, environmental, residential and municipal users within the county, both now and in the future.

Purpose

The purpose of these policies and procedures is to prescribe the terms and conditions by which the business and affairs of the Glenn County Water Advisory Committee shall be managed.

Powers and Duties

- I. The Glenn County Water Advisory Committee shall have the authorities and obligations set forth in the Glenn County Ordinance Number 1237.
- II. The Glenn County Water Advisory Committee shall operate as a standing committee of the Glenn County Board of Supervisors and shall operate in accordance with the open meeting laws of the State of California.

Members

Members of the Glenn County Water Advisory Committee shall be appointed by and serve at the pleasure of the Board of Supervisors and will be composed of representatives of the following areas and interests:

- 1. At-large Private Pumpers (Agricultural/Municipal/Industrial) 4
- 2. Resource Conservation District 1
- 3. Glenn County Farm Bureau-1
- 4. Orland Unit Water Users Association Area 1
- 5. Tehama Colusa Canal Authority Area Districts 2
- 6. Glenn-Colusa Irrigation District Area 1
- 7. Central River Irrigation District Area -1
- 8. East County Reclamation and Irrigation Districts 2

Committee Members should have background, experience or general knowledge in the area of water, domestic water use or irrigation, especially relative to local groundwater issues. Members should be residents of Glenn County, and/or be employed in Glenn County, and have an economic interest in the preservation, protection and enhancement of the groundwater resources of Glenn County.

A Technical Advisory Committee composed of ten (10) persons shall be appointed by and serve at the pleasure of the Board of Supervisors and shall represent the following interests:

- 1. Glenn County Agricultural Commissioner
- 2. Glenn County Environmental Health Department
- 3. Glenn County Planning and Public Works Department
- 4. University of California Cooperative Extension Service
- 5. California Department of Water Resources
- 6. Southern Area of Glenn County
- 7. Eastern Area of Glenn County
- 8. Northern Area of Glenn County
- 9. Central Area of Glenn County
- 10. Board of Supervisors (ex-officio)

Meetings, Quorum, and Rules of Order

- I. The Water Advisory Committee shall meet at least three times per year or more frequently as decided by the majority of the Committee.
- II. The Committee shall designate the time and place of meetings. Regular meetings will typically be scheduled for the second Tuesday of the month.
- III. A majority of the total appointed voting Committee members shall constitute a quorum.
- IV. Any member of the Committee may request an item be placed on the agenda.
- V. The agenda and supporting materials will generally be distributed at least one week prior to a scheduled meeting.
- VI. Technical Advisory Committee members and any public guests may not vote on issues but may enter into discussions of the Committee.
- VII. Committee proceedings shall be conducted according to Rosenberg's Rules of Order.

Election and Duties of Officers

- I. A Chairperson and Vice-Chairperson shall be elected every two years at the last regular meeting of the Committee and shall assume the duties of such office at the first regular meeting of the next year.
- II. No member shall hold the office of Chairperson or Vice-Chairperson for more than two consecutive terms.
- III. An officer may be removed from office and relieved of duties by a majority of the membership.
- IV. The Chairperson shall preside at all meetings of the Committee and perform duties consistent with the procedures outlined herein.
- V. In the absence of the Chairperson, or in the event of his/her inability to act, the Vice-Chairperson shall act as Chairperson.
- VI. The presiding Officer shall call the meeting to order, maintain order and decorum and decide questions of procedure subject to the right of the Committee to appeal.
- VII. The Chairperson is authorized to call additional meetings of the Committee as he/she may deem necessary to conduct business.

Committees

The Water Advisory Committee may create standing and working committees. The Chairperson shall appoint Committee members with the concurrence of the individual appointed and with prior notification to the Water Advisory Committee.

Miscellaneous Provisions

- I. All meetings of the Water Advisory Committee and all meetings of the Committees appointed by the Chairperson shall be open to the public, and shall comply with applicable California open meeting laws.
- II. The Technical Advisory Committee reports and makes recommendations to the Water Advisory Committee. The Water Advisory Committee reports and makes recommendations to the Glenn County Board of Supervisors.
- III. These bylaws may be altered, amended, suspended, or repealed by a two-thirds majority of the Committee, upon approval of the Board of Supervisors.

Approved by WAC February 12, 2013 Approved by BOS April 2, 2013

Glenn County Water Advisory Committee June 11, 2013 Agenda Item 3

Subject: Potential Water Transfers for 2013

- a) RD 1004
- b) GCID

Two districts partially located within Glenn County have submitted proposals to transfer water out of basin during the 2013 season from July to September. GCID has posted their environmental documents which can be found on their website at: www.gcid.net.

Reclamation District No. 1004 Petition for Change Involving Water Transfers can be found at:

http://www.waterboards.ca.gov/waterrights/water issues/programs/applications/transfers tu notices /index.shtml



GILBERT COSIO, JR., P.E. MARC VAN CAMP, P.E. WALTER BOUREZ, III, P.E. RIC REINHARDT, P.E. GARY KIENLEN, P.E. DON TRIEU, P.E. DARREN CORDOVA, P.E. NATHAN HERSHEY, P.E., P.L.S.

Angus Norman Murray 1913-1985

CONSULTANTS:
JOSEPH I. BURNS, P.E.
DONALD E. KIENLEN, P.E.

May 13, 2013

Via Electronic Submittal

Nancy Quan Department of Water Resources State Water Project Analysis Office P.O. Box 942836 Sacramento, CA 94236-0001 Brad Hubbard U.S. Bureau of Reclamation 2800 Cottage Way Sacramento, CA 95821

Subject: Reclamation District No. 1004 Proposal for 2013 Water Transfer

Dear Ms. Quan & Mr. Hubbard:

On behalf of Reclamation District No. 1004 (RD 1004), the purpose of this letter is to detail RD 1004's proposal to participate in a water transfer to the San Luis & Delta-Mendota Water Authority (Authority) during 2013 (2013 Water Transfer). Growers within RD 1004 participating in the 2013 Water Transfer propose to pump up to 7,175 AF of groundwater for use within RD 1004's boundaries during July through September, in lieu of surface water diversions from the Sacramento River. The quantity of water made available by RD 1004's groundwater substitution program would net up to 6,314 AF after accounting for assumed depletion losses (12% of amount pumped) and would be transferred to the Authority.

As you are aware, RD 1004 participated in the Department of Water Resources' (DWR) 2009 Drought Water Bank (2009 DWB), which involved submittal of extensive information by RD 1004 and its participating growers for review by DWR and the U.S. Bureau of Reclamation (Reclamation). In an effort to avoid duplicating the efforts from the 2009 DWB, and to assist in an efficient review of the updated information for RD 1004's proposed 2013 Water Transfer, we have incorporated the relevant transfer details from RD 1004's participation in the 2009 DWB in Exhibit 1 to the form of the storage and conveyance agreement relied upon by DWR for other water transfers during 2012; and we have also included the details associated with RD 1004's proposed 2013 Water Transfer. Accordingly, and consistent with our discussions, enclosed is RD 1004's Draft 2013 Water Transfer Groundwater Pumping Proposal, Monitoring and Reporting Plan (Draft Plan). The Draft Plan is labeled as Exhibit 1 for the storage and conveyance agreement to be executed between RD 1004, DWR, and the Authority. In addition, this letter identifies new information required by the Draft Technical Information for Preparing Water Transfer Proposals (Draft Technical Information) dated February 2013, relative to RD 1004's groundwater substitution program from the time of its participation in the 2009 DWB. Also, this letter identifies observations from RD 1004's monitoring and mitigation efforts for the 2009 DWB.

Updates Included in the Draft Plan:

- Monthly quantities of water made available by growers participating in RD 1004's groundwater substitution program for its proposed 2013 Water Transfer, up to a total of 6,314 AF during July through September, after accounting for depletion losses of 12%.
- The groundwater wells approved by DWR and Reclamation for use during the 2009 DWB will be utilized for RD 1004's proposed 2013 Water Transfer. The locations of these wells are identified on the map included in the Draft Plan.
- In addition to the groundwater wells previously approved by DWR and Reclamation, there is one additional groundwater well proposed to participate in the 2013 Water Transfer, specifically the Southam Sartain Well. The location of this additional production well is identified on the map included in the Draft Plan. A copy of the well log for this groundwater well listing the available well construction details, including the approximate capacity of this additional well will be provided as soon as possible.
- Five of the proposed groundwater production wells were operated during July through September 2012 (baseline groundwater pumping). Documentation of the quantities of groundwater pumped during July through September 2012 at each of these participating groundwater wells will be provided to DWR and Reclamation as soon as possible. No groundwater pumping at the remaining wells proposed for participation in the 2013 Water Transfer occurred during July through September 2012.
- The Draft Plan includes the necessary monitoring elements identified in the Draft Technical Information. RD 1004 is not aware of any contaminated areas that could be affected by the proposed 2013 Water Transfer. In addition RD 1004 is not aware of any concerns regarding land subsidence in the surrounding area.

New information required by the Draft Technical Information:

- The Draft Technical Information requires written certification that a flow meter at a groundwater well participating in a water transfer is properly installed, supported by photographs. This documentation will be provided to DWR and Reclamation staff for each of the participating groundwater production wells when it becomes available.
- The groundwater production wells for 2013 Water Transfer will be operated to provide groundwater for use within the respective participating growers' properties.
- There are groundwater wells operated by diesel engines within Colusa County. Copies of the diesel engine registrations from the Colusa County Air Pollution Control District will be provided when they become available.

Additional Relevant Information:

- In accordance with the Draft Technical Information, RD 1004 has informed the Colusa County Board of Supervisors, Glenn County Board of Supervisors, and Sutter County Board of Supervisors of the proposed 2013 Water Transfer by providing a copy of RD 1004's Petition for Change Involving Water Transfers filed with the State Water Resources Control Board, Division of Water Rights pursuant to Water Code section 1726(c). RD 1004 is coordinating with Colusa County's Groundwater Management Commission (Commission) and the Glenn County Water Advisory Committee (Committee) in order to obtain consent for RD 1004's proposed 2013 Water Transfer. The appropriate documentation from the Commission and Committee will be provided to DWR and Reclamation when it becomes available.
- The flow meters for each of the production wells participating in the 2013 Water Transfer will be recalibrated as soon as possible and the appropriate documentation will be provided to DWR and Reclamation when it becomes available.
- Enclosed is a draft 2013 Water Transfer Groundwater Mitigation Plan identifying the proposed actions that will be undertaken by RD 1004 for the purpose of responding to claims of adverse impacts to third parties that occur due to groundwater pumping at participating groundwater wells for the proposed 2013 Water Transfer.

Observations from Participation in 2009 DWB:

- Based on the groundwater level data collected by RD 1004 pursuant to its Agreement with DWR for the 2009 DWB, groundwater levels at all wells included in RD 1004's monitoring program recovered to pre-transfer levels.
- RD 1004 is not aware of any adverse impacts from its participation in the 2009 DWB and received no claims or comments concerning any alleged adverse impacts.

Obviously, time is of the essence to complete your review of the Draft Plan; and if necessary, request additional information from RD 1004. We urge you to contact us as soon as possible relative to these details in order that RD 1004 may timely rely upon these approved documents for its proposed 2013 Water Transfer, which is proposed to begin on July 1, 2013. RD 1004 understands that the additional information, as noted above in this letter, will need to be submitted in advance of the transfer for review and approval by DWR and Reclamation; and RD 1004 will endeavor to provide all the additional information as soon as reasonably possible.

Please call if you have any questions or require additional information.

Sincerely,

MBK ENGINEERS

Darren Cordova

DC/

Enclosures

cc: Kelly Boyd, Reclamation District No. 1004

Dustin Cooper, Legal Counsel for RD 1004

Frances Mizuno, SLDMWA

Benjamin Reische, Colusa County Groundwater Management Commission

Lisa Hunter, Glenn County Water Advisory Committee

GROUNDWATER PUMPING PROPOSAL, MONITORING AND REPORTING PLAN RECLAMATION DISTRICT No. 1004

GROUNDWATER PUMPING PROPOSAL

Seller is located in Colusa, Glenn, and Sutter Counties as shown on the map attached as Figure 1 in this Exhibit. Seller proposes to make water available for transfer by pumping groundwater for irrigation in lieu of diverting surface water under its post-1914 Appropriative Water Right License 3165 and its Sacramento River Settlement Contract with the United States (Contract No. 14-06-200-890A-R-1). Seller executed a Purchase Agreement with Transfer Water Buyer effective May _____, 2013. Unless otherwise notified by Buyer, Seller will make Transfer Water available from July 1, 2013 through September 30, 2013 by pumping approved wells listed in Table 1 (Wells Approved for Transfer Agreement) of this Exhibit 1 and shown on Figure 1. The net amount of Transfer Water the Seller will make available by groundwater substitution will be up to the gross pumping amount of 7,175 acre-feet less 12% assumed depletion losses of 861 acre-feet, for an estimated net amount of Transfer Water of up to 6,314 acre-feet. The Seller's Point of Transfer will be at the points of diversion authorized under the Seller's post-1914 Appropriative Water Right and its Settlement Contract for diversion from the Sacramento River.

Seller shall ensure that all groundwater pumped pursuant to this Agreement shall be pumped from DWR and USBR approved wells as provided in Table 1 of this Exhibit. This groundwater shall be for reasonable use for irrigation on lands that would otherwise have been served with surface water within Seller's service area during the Transfer Period. Groundwater pumping shall be in addition to the quantity pumped from each well during July 1 through September 30, 2012 for use within Seller's service area (baseline pumping). Seller's diversion of surface water in 2013 and the quantity of surface water provided by Seller pursuant to this Agreement shall not exceed the maximum amount provided under its post-1914 Water Right or its Settlement Contract. The amount of surface water provided by the Seller shall not exceed the maximum amount specified in the SWRCB's order approving the water transfer from the Seller to the Buyer during 2013.

The Seller at its own cost shall be responsible for the distribution of water pumped under this Agreement within the boundaries of Seller's service area. By the 10th day of every month, the Seller shall report to DWR and USBR the gross quantities of groundwater pumped, to the nearest one tenth (0.1) acre-foot, from each well under this Agreement for the previous month. Seller shall send these reports to the contacts listed under Article 24.b (Notices).

Within 30 days of receipt of all information requested by DWR and USBR, DWR and USBR will provide: (1) to Buyer and Seller, the net amount of Transfer Water made available at the Point of Transfer, as defined above, subject to verification in Article 7 (Verification); and (2) to Buyer, the amount of Transfer Water delivered to Buyer's

GROUNDWATER PUMPING PROPOSAL, MONITORING AND REPORTING PLAN RECLAMATION DISTRICT No. 1004

turnouts, after deduction of losses noted in Articles 9 (Storage) and 10 (Conveyance). DWR and USBR shall report all amounts of Transfer Water to the nearest acre-foot.

TABLE 1
Wells Approved for Transfer Agreement

Well Name	Power Source	Latitude	Longitude
Behring Ranch 10 Field Well No. 496441	Diesel	39.32887° N	-121.94961° W
Behring Ranch Club House Well No. 496461	Electric	39.33983° N	-121.93358° W
Behring Ranch West Well No. 97863	Electric	39.33997° N	-121.94950° W
East Morgan Well #1 No. 374667	Diesel	39.32106° N	-121.94746° W
East Morgan Well #2 No. 498195	Diesel	39.32139° N	-121.95597° W
Gardener No. 374672	Diesel	39.34331° N	-121.94268° W
Gardener No. 498178	Diesel	39.35016° N	-121.94245° W
Mohammad No. e0084085	Electric	39.36174° N	-121.94387° W
Myers Well #1 No. 3457	Electric	39.38716° N	-121.96557° W
Myers Well #2 No. 340884	Electric	39.39030° N	-121.95665° W
Rancho Caleta No. 726883	Diesel	39.20427° N	-121.94776° W
Sikes & Parachini Well #1 WS No. 93124	Diesel	39.31084° N	-121.96320° W
Sikes & Parachini Well #2 WS No. 374682	Diesel	39.31433° N	-121.96004° W
Southam Sartain Well	Diesel	39.38997° N	-121.94705° W
Stone Well #6	Electric	39.38257° N	-121.96324° W

TABLE 2

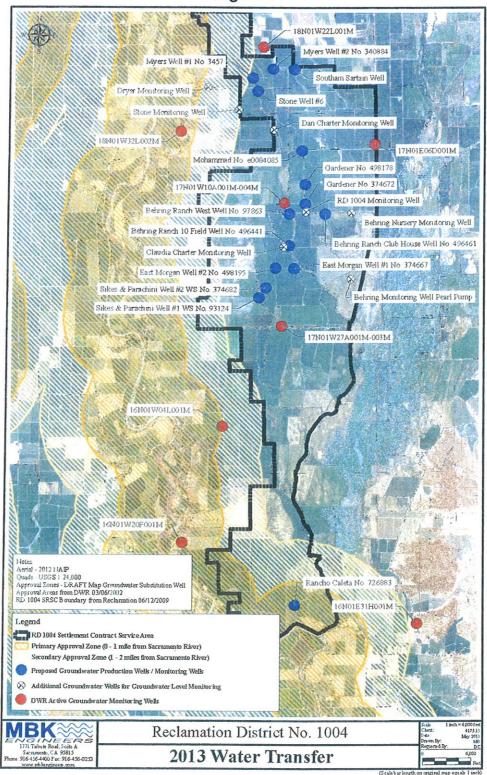
Estimated Monthly Total Groundwater Pumping *
From All DWR and USBR Approved Wells in Table 1 (acre-feet)

	July	August	September	Total
Total pumping				
Baseline				
Gross pumping	3,100	2,200	1,875	7,175
Depletions @ 12%	372	264	225	861
Net pumping	2,728	1,936	1,650	6,314

^{*} Final pumping amounts should be reported by Seller to the nearest one tenth (0.1) acre-foot.

GROUNDWATER PUMPING PROPOSAL, MONITORING AND REPORTING PLAN RECLAMATION DISTRICT No. 1004

Figure 1



GROUNDWATER PUMPING PROPOSAL, MONITORING AND REPORTING PLAN RECLAMATION DISTRICT No. 1004

MONITORING AND REPORTING PLAN

1. Flow Meters:

Seller at its own cost shall ensure that it acquires, properly installs, calibrates and maintains any flow-measuring devices required under this plan. A California state licensed professional engineer or professional geologist experienced in groundwater and wells shall certify each flow meter is properly sized, positioned and calibrated in-place and in conformance with the manufacturer's specifications prior to use. Flow meter calibration must be no older than January 1, 2011, or as recommended by the manufacturer, whichever time period is less. Seller shall provide DWR and USBR with a copy of the written certification for each flow meter installed and proposed for use prior to the start of transfer pumping. Written certification shall include:

- Certifier's name and license number
- Date of inspection
- Description of the pump and well including:
 - State well number/Seller's identifier/latitude & longitude coordinates
 - Depth and diameter
 - o Inflow screen depth(s) below surface level
 - Cap and casing lengths and depths below surface level
 - o Pump make (mfg), serial number, size (hp/kw), rating (gpm), and power source.
- At least two digital photos showing the pump in close-up view and a view of the well installation including piping to and from the well area.
- If a pump efficiency test was conducted, include the test results and report.
- Certifier's statement that the flow meter is properly installed and calibrated in-place in conformance with manufacturer's specifications.
- Certifier's signature

Seller shall ensure that its operation of any flow measuring devices installed at the wells listed in Table 1 allow for accurate accounting of the discharge from these approved wells. When Seller is pumping wells listed in Table 1 (Wells Approved for Transfer Agreement) pursuant to this Agreement, Seller shall record instantaneous and cumulative flow meter values using a properly sized and calibrated flow meter on each well. Seller shall start measurements at the initiation of pumping to replace Transfer Water and continue recording measurements once each month through the end of pumping to replace Transfer Water. Seller shall use the printed form of the DWR supplied Excel spreadsheet

GROUNDWATER PUMPING PROPOSAL, MONITORING AND REPORTING PLAN RECLAMATION DISTRICT No. 1004

file named "Seller Groundwater Data Collection Form 4-5-12.xlsx" for recording flow meter measurements; then transfer the data to electronic format using the DWR supplied spreadsheet titled "Seller Groundwater Data Electronic Reporting Form 4-5-12.xlsx". All data shall be provided on a single spreadsheet. Seller shall submit the completed electronic flow meter data report as an email attachment to the DWR and USBR contact listed under Article 24.b (Notices) by the 10th day of each succeeding month through the month following the end of the transfer period.

2. Power Consumption:

For participating wells utilizing electric power, Seller shall record electric meter readings in *kilowatt-hours* on a monthly basis. For participating wells utilizing diesel or natural gas power, Seller shall record meter readings in *hours of operation* on a monthly basis. Seller shall submit the electric meter readings and the hours of operation meter readings along with the electronic flow meter data report by email to the DWR and USBR contact listed under Article 24.b (Notices) by the 10th day of each succeeding month through the month following the end of the Transfer Period.

3. Groundwater Level Measurements:

Seller shall measure water levels in all wells listed in Table 1, (Wells Approved for Transfer Agreement) and all monitoring wells (excluding DWR monitoring wells) identified in Table 3 (Groundwater Level Monitoring Wells) on the following schedule:

- a. <u>Prior to transfer:</u> Groundwater levels will be measured monthly from June of the transfer year until the start of transfer.
- b. **Start of transfer:** Groundwater levels will be measured on the same day that the transfer begins, prior to the pump being turned on.
- c. <u>During transfer:</u> Groundwater levels will be measured once every two weeks throughout the transfer period.
- d. <u>Post-transfer:</u> Groundwater levels will be measured monthly until water levels in the pumping and monitoring wells recover to the pre-transfer level measured during the period identified in item 3.b above or through March 2014, whichever comes first.

GROUNDWATER PUMPING PROPOSAL, MONITORING AND REPORTING PLAN RECLAMATION DISTRICT No. 1004

Seller shall measure water levels from a reference point clearly marked on the well by the Seller. Seller shall measure water levels from the reference point to the water surface in the well to the nearest tenth of a foot (0.1 feet).

The Seller shall download data collected monthly by DWR as part of the regional groundwater level monitoring network and incorporate and archive that data with the Seller's collected data. DWR's data is available online through the California Statewide Groundwater Elevation Monitoring (CASGEM) database (http://www.water.ca.gov/groundwater/casgem/). Seller shall provide the combined data in monthly monitoring reports and in the final report (see item 6, below) as part of the groundwater monitoring program for the transfer wells and all Seller and DWR monitoring wells as identified on Tables 1 and 3, respectively.

Seller shall use the printed form of DWR supplied Excel spreadsheet file named "Seller Groundwater Data Collection Form 4-5-12.xlsx" for recording water level measurements in the field; then transfer the data to electronic format using the DWR supplied spreadsheet titled "Seller Groundwater Data Electronic Reporting Form 4-5-12.xlsx". All data shall be provided on a single spreadsheet. Seller shall submit the completed electronic data report with water level measurements as an email attachment to the contact listed under Article 24.b (Notices) by the 10th day of each succeeding month and continuing monthly through the end of the monitoring period or March 2014.

GROUNDWATER PUMPING PROPOSAL, MONITORING AND REPORTING PLAN RECLAMATION DISTRICT No. 1004

TABLE 3
Groundwater Level Monitoring Wells

	Data Collection		
Well ID or State Well Number	Agency	Latitude	Longitude
Behring Monitoring Well Pearl Pump	RD1004	39.31715° N	-121.92204° W
Claudia Charter Monitoring Well	RD1004	39.32856° N	-121.95197° W
Behring Nursery Monitoring Well	RD1004	39.34007° N	-121.92180° W
RD 1004 Monitoring Well	RD1004	39.34063° N	-121.94219° W
Dan Charter Monitoring Well	RD1004	39.36920° N	-121.95638° W
Dryer Monitoring Well	RD1004	39.38417° N	-121.98541° W
Stone Monitoring Well	RD1004	39.37627° N	-121.97169° W
16N01E31H001M	DWR	39.19763° N	-121.89258° W
16N01W04L001M	DWR	39.26635° N	-121.97934° W
16N01W20F001M	DWR	39.22645° N	-121.99641° W
17N01E06D001M	DWR	39.36374° N	-121.91010° W
17N01W10A001M	DWR	39.34370° N	-121.95190° W
17N01W10A002M	DWR	39.34370° N	-121.95190° W
17N01W10A003M	DWR	39.34370° N	-121.95190° W
17N01W10A004M	DWR	39.34370° N	-121.95190° W
17N01W27A001M	DWR	39.30099° N	-121.95299° W
17N01W27A001M	DWR	39.30099° N	-121.95299° W
17N01W27A001M	DWR	39.30099° N	-121.95299° W
18N01W22L001M	DWR	39.39796° N	-121.95971° W
18N01W32L002M	DWR	39.36891° N	-121.99661° W

4. Water Quality Monitoring:

Seller shall use calibrated equipment to measure the field parameter Specific Conductance in samples from each production well when Seller first initiates pumping (within the first hour of pumping), at monthly intervals during the Transfer Period, and when the pumping for the transfer is terminated. Specific Conductance should be measured at the same time water level measurements are collected. Seller will record in the data collection form, meter calibration information, water quality measurements, and other site-specific information relevant to water quality. Seller will use the printed form of the DWR supplied Excel spreadsheet file named "Seller Groundwater Data Collection Form 4-5-

GROUNDWATER PUMPING PROPOSAL, MONITORING AND REPORTING PLAN RECLAMATION DISTRICT No. 1004

12.xlsx" for recording water quality data; then transfer the data to electronic format using the DWR supplied spreadsheet titled "Seller Groundwater Data Electronic Reporting Form 4-5-12.xlsx". Seller shall submit the completed electronic data report with water quality measurements as an email attachment to the contact listed under Article 24.b (Notices) by the 10th day of each succeeding month and continuing monthly through October 2013. If Specific Conductance field results exceed 700 microSiemens/centimeter (µS/cm), additional water quality field testing and laboratory analysis may be required, at the Seller's expense. When requested by DWR and USBR, Seller or its agent shall collect samples for laboratory analysis using the sampling protocols specified by DWR and USBR at the time of the request and submit the samples for analysis to a certified water quality testing laboratory. Seller shall timely provide DWR and USBR with a complete report from the testing laboratory. The samples may be analyzed for major, minor, and trace ions, physical parameters, and stable isotopes of oxygen and hydrogen.

5. Subsidence:

Groundwater extraction associated with this Agreement constitutes a small fraction of the seasonal groundwater extraction for this area and is not considered to pose a significant potential risk of land subsidence. DWR will continue to monitor the potential for land subsidence within the project area through evaluation of hourly data from nearby extensometers and periodic resurveying of the Sacramento Valley GPS Land Subsidence Network.

6. Final Report:

Seller shall submit a final report to the contact listed under Article 24.b (Notices) within 60 days after the pumping and monitoring well(s) reach full recovery, (water levels in all the project monitored wells recover to the measured pretransfer level) but no later than May 31, 2014. The final report shall include, at the least, the following items:

- a. A summary of the water transfer project, including regional and local maps of the project area.
 - (1) At a minimum, the project summary should include:
 - (a) an overview of project operations,
 - (b) pumping capacities and volume for each of the extraction wells,

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- (c) explanation of the groundwater level and water quality monitoring grid,
- (d) frequency and duration of monitoring,
- (e) the pumping and monitoring well construction, and
- (f) pumping well power supply.
- (2) Project area maps should include:
 - (a) pumping well(s),
 - (b) monitoring wells,
 - (c) location of the pumping well point of use (field, irrigation canal, etc),
 - (d) surface water features
- (3) Groundwater level contour maps for the area shown in Figure 1, showing pre-transfer water levels, water levels at the end of the transfer, and final recovered water levels.
- b. All water level and water quality data prepared in graphic display indicating any exceedence of current water quality criteria for agricultural use identified in Item 4 above.
- c. An evaluation of the effects of the water transfer program, identifying program-related impacts to groundwater and surface water (both during and after pumping), and the extent and significance, if any, of impacts to local groundwater users.
- d. A hard copy of the report with an attached DVD that includes electronic versions of the report in Adobe and Word format, and all of the project-related field data summarized in Excel spreadsheets tables and graphs, and organized according to data collection point and subject matter.
- e. Scanned images of all handwritten field notes and data collection forms for production and monitoring wells, which includes water levels, water

GROUNDWATER PUMPING PROPOSAL, MONITORING AND REPORTING PLAN RECLAMATION DISTRICT No. 1004

quality, and field meter calibration information, and should be included as attachments to the final report.

RECLAMATION DISTRICT NO. 1004 2013 WATER TRANSFER GROUNDWATER MITIGATION PLAN

The purpose of this Groundwater Mitigation Plan (Third-Party Impacts Action Plan) is to describe actions that will be undertaken by Reclamation District No. 1004 (RD 1004) to respond to any claims of significant adverse impacts to Third Parties that occur due to groundwater pumping for RD 1004's proposed 2013 Water Transfer at participating groundwater wells. Third Parties may include local groundwater users that claim to be affected by changes in groundwater levels or quality because of groundwater pumping performed for the 2013 Water Transfer. RD 1004 agrees that prompt responses to and mitigation of any significant adverse impacts to Third Parties are an important requirement for the 2013 Water Transfer and any similar transfers that may occur in the future.

RD 1004 has participated in a past groundwater substitution transfer of a similar scope and experienced no claims of adverse impacts; and its monitoring and reporting demonstrated no adverse impacts. Based on this past experience, RD 1004 anticipates that the results from its proposed 2013 Water Transfer would be similar. However, this action plan includes a series of steps that will be taken to address any claims of adverse impacts that groundwater pumping performed for the 2013 Water Transfer may cause (unmitigated impacts to Third Parties). Under this action plan, groundwater pumping must not produce significant unmitigated impacts on Third Parties, impacts must be identified and mitigated within a timely manner, and there must be ongoing, open communications with the potentially affected Third Parties. Because not all potential impacts can be known in advance, this plan provides a process for responding to concerns expressed by local groundwater users who reasonably determine that their water production facilities are being or will be impacted by increased groundwater pumping as a result of this water transfer.

RD 1004 will identify a contact person or persons who will be responsible for initially responding to a notification of a potential Third Party impact, and take the other action specified in this section. Upon RD 1004 receiving notification of a potential Third Party impact, RD 1004 will contact the Third Party within 5 business days and obtain all available information regarding the nature and extent of the potential impact, and provide that information to the Department of Water Resources (DWR) and the U.S. Bureau of Reclamation (Reclamation) within 10 business days. RD 1004 will regularly update DWR and Reclamation on the status of Third Party impact concerns.

After the Third Party has been contacted and the relevant information regarding the potential impact has been received, RD 1004 will develop an approach to: (a) determine whether the Third Party has actually been impacted by groundwater pumping performed by participating growers within RD 1004 for the 2013 Water Transfer, and, if so; (b) promptly mitigate for the impact. RD 1004 will coordinate with DWR and Reclamation to strive in developing the foregoing approach as quickly as reasonably possible, and in no event longer than 20 business days after being contacted the Third Party.

RD 1004 will promptly mitigate any Third Party impacts that are reasonably likely to have been caused by groundwater pumping from its participating growers' groundwater wells for the 2013 Water Transfer. RD 1004 will be responsible for the implementation of mitigation actions.

RECLAMATION DISTRICT NO. 1004 2013 WATER TRANSFER GROUNDWATER MITIGATION PLAN

Due to the limitation of RD 1004's groundwater monitoring well network, if a Third Party claim is reasonably likely to have been caused by groundwater pumping for its 2013 Water Transfer, RD 1004 may have to immediately implement actions including the discontinuation of groundwater pumping for an indefinite period of time (during the transfer period) at one or more participating transfer wells, until the claim can be validated or mitigated by RD 1004. Actions that may be taken to mitigate an impact include, but are not limited to: reduction in hours of groundwater pumping per day at one or more participating wells, cessation of groundwater pumping at one or more participating groundwater wells, or other reasonable measures determined to be appropriate by RD 1004. In the case that an impact is determined to have occurred, RD 1004 is committed to avoiding or mitigating such impacts during a future water transfer.

If there are any Third Party impacts that are not reasonably likely to have been caused by increased groundwater pumping from the participating groundwater wells, then RD 1004 will provide the Third Party, DWR, and Reclamation with information to reasonably demonstrate the reasons that there were no impacts.





County of



Jim Donnelly, Agricultural Commissioner
Sealer of Weights & Measures

Department of Agriculture

Jean S. Miller, Assistant Agricultural Commissioner Sealer of Weights & Measures

Darren Cordova MBK Engineers 1771 Tribute Road, Suite A Sacramento, CA 95815

Dear Mr. Cordova,

Thank you for submitting the Reclamation District 1004 Proposal for 2013 Water Transfer (Proposal). We appreciate your cooperation with the County to more effectively manage our water resource.

As you are aware, Glenn County incorporated Export Water Transfer Guidelines as Exhibit C into the Glenn County Code 20.003. It is essential to the management of water to follow these guidelines. The majority of the Proposal meets or exceeds the requirements in the Guidelines.

The Export Water Transfer Guidelines (Guidelines), under Part 4: Water and Technical Advisory Committee's Roles and Responsibilities states "During the export/transfer program, the County will inform the WAC and TAC the weekly amounts of groundwater extracted from each well, ..." Page 4 and Page 5 of the Draft Exhibit 1, Groundwater Pumping Proposal, Monitoring and Reporting Plan, states the "seller shall start measurements at the initiation of pumping to replace Transfer Water and continue recording measurements once each month..." which is in conflict with the Guidelines. These measurements should be recoded on a weekly basis.

With regards to the 2013 Water Transfer Groundwater Mitigation Plan, Glenn County has identified Conflict Resolution procedures that shall be used as part of the Guidelines in which the County WAC should be the contact person for any disputes in Glenn County. Below is a copy of the text regarding Conflict Resolution in the Guidelines.

Conflict Resolution

In the event of a conflict, the procedure for dispute resolution is the procedure incorporated by reference into County Code 20.03 (Appendix A of Exhibit A), which shall be used under these Guidelines. The process begins when a report is received and reviewed by the TAC who then prepares an initial investigation report and notifies the local sub-watershed WAC member(s). Local groundwater information is assembled and committee representatives make site visits, collect and assemble additional data, and prepare and present their findings and recommendations to the Board for action. County Code 20.03 and the adopted Basin Management Objective (BMO) concept have provisions for the County's authority to intervene in a tiered fashion that include the implementation of an adaptive management program. (Ord. 1237 § 1, 2012)

The Glenn County Technical Advisory Committee will meet Tuesday, May 28, at which time this proposal will be discussed.

720 N. Colusa Street P.O. Box 351 Willows, CA 95988

Phone: (530) 934-6501 Fax: (530) 934-6503

Email: agcommr@countyofglenn.net

If you have any questions or comments, please do not hesitate to contact me by phone at (530) 934-6501 or by email at lhunter@countyofglenn.net.

Sincerely,

Lisa Hunter

Water Resource Coordinator

County of



Jim Donnelly, Agricultural Commissioner Sealer of Weights & Measures

Department of Agriculture

Jean S. Miller, Assistant Agricultural Commissioner Sealer of Weights & Measures

Zac Dickens Glenn-Colusa Irrigation District PO Box 150 Willows, CA 95988

Dear Mr. Dickens,

Thank you for submitting the Notice of Preparation of Initial Study and Proposed Negative Declaration for 2013 Water Transfer to San Luis & Delta-Mendota Water Authority (NOP). We appreciate your cooperation with the County to more effectively manage our water resource.

As you are aware, Glenn County incorporated Export Water Transfer Guidelines as Exhibit C into the Glenn County Code 20.003. It is essential to the management of water to follow these guidelines. The majority of the NOP meets or exceeds the requirements in the Guidelines.

Upon review of the NOP, some inconsistencies were noted on whether GCID owned well will be used exclusively or if landowner wells will also be used. On the NOP title page, the first paragraph states "both GCID and private landowners' wells", whereas page 2-2 states GCID-owned wells. Page 2-7, paragraph 4 discusses coordination with well owners, and again on page 4-28, paragraph 1 mentions wells being operated by willing landowners. It appears from the maps that only GCID-owned wells will be used, but please clarify throughout the document.

Page 4-22 discusses well locations. In the first paragraph under Table 4-3, it notes "Please Note: Stony Creek is defined as neither a major nor minor surface water tributary to the Delta per Appendix B. Well Acceptance Criteria in DWR's Draft Technical Information for Preparing Water Transfer Proposals – February 2013." According to Table A-1, Well Acceptance Criteria included in the report on page A-4, Stony Creek is listed as a major surface water tributary to the Delta. Please clarify this discrepancy.

Beginning on page 3-6, Section 3.4.1 contains information that is inconsistent with the County's data under the Regulatory Background section. Portions of this section appear to be out-of-date. The Regulatory Background section must be revised to incorporate the correct information regarding the Glenn County Water Advisory Committee, Ordinance 1237 (County Code 20.003), and Export Water Transfer Guidelines (2012).

Appendix A: Groundwater Minimization Measures for Reclamation Transfer Approval discusses the Monitoring Plan. The majority of the section meets or exceeds the requirements in the Guidelines. The portion regarding flow measurements states "readings will be recorded upon initiation of pumping and at designated times, but no less than monthly, during the duration of the transfer." This is in conflict with the Guidelines which states under Part 4: Water and Technical Advisory Committee's Roles and Responsibilities "During the export/transfer program, the County will inform the WAC and TAC the weekly amounts of groundwater extracted from each well …" Amounts of groundwater extracted should be recorded weekly.

720 N. Colusa Street P.O. Box 351 Willows, CA 95988

Phone: (530) 934-6501 Fax: (530) 934-6503

Email: agcommr@countyofglenn.net

Page A-3 of the NOP describes the mitigation plan. Glenn County has identified Conflict Resolution procedures that shall be used as part of the Guidelines in which the County WAC should be the contact person for any disputes in Glenn County. Below is a copy of the text regarding Conflict Resolution in the Guidelines.

Conflict Resolution

In the event of a conflict, the procedure for dispute resolution is the procedure incorporated by reference into County Code 20.03 (Appendix A of Exhibit A), which shall be used under these Guidelines. The process begins when a report is received and reviewed by the TAC who then prepares an initial investigation report and notifies the local sub-watershed WAC member(s). Local groundwater information is assembled and committee representatives make site visits, collect and assemble additional data, and prepare and present their findings and recommendations to the Board for action. County Code 20.03 and the adopted Basin Management Objective (BMO) concept have provisions for the County's authority to intervene in a tiered fashion that include the implementation of an adaptive management program. (Ord. 1237 § 1, 2012)

In addition, in the Required Water Transfer Proposal Information dated May 17, 2013, on page 3 states that the Glenn County Board of Supervisors are slated to discuss the proposal on June 1. This statement is incorrect. This proposal has not yet been forwarded to the Board of Supervisors for discussion.

The Glenn County Technical Advisory Committee will meet Tuesday, May 28, at which time this NOP will be discussed.

If you have any questions or comments, please do not hesitate to contact me by phone at (530) 934-6501 or by email at lhunter@countyofglenn.net.

Sincerely,

Lisa Hunter

Water Resource Coordinator

Glenn County Water Advisory Committee June 11, 2013 Agenda Item 4

Subject: Spring Groundwater Levels

The spring groundwater levels for the Basin Management Objective wells have been compiled and will be presented.

	GLENN COUNTY SPRING BMO'S STAGE ALERTS																			
State Well Number	Subarea	Current Year Measurement Date	Current Year RP to WS	Current RP Elevation	GS Elevation	2013 WSE	2012 WSE	2011 WSE	2010 WSE	2009 WSE	2008 W/SE	2007 WSE	Stage 1 & 2	Stage 3 Alert	Difference from 2012 to 2013	Difference from 2011 to 2012	Difference from 2010 to 2011	Diffrence from 2009 to 2010	Diffrence from 2008 to 2009	Diffrence from 2007 to 2008
21N03W33A04M	10; BOS Dist 3	3/20/2013	68.36	176.45	176.45	108 00	120.900	121.5	120.5	123.7	132.2	137.3	131	119.5	-12.8	-0.6	1.0	-3.2		
21N02W31M01M	10; BOS Dist 3	3/21/2013	40.6	164.53	163.43	123.93		121.3	126.2	127.3	133.8	137.2	131.2	123.8	-6.0		3.2	-1.1	-6.5	
20N03W12C01M	10; BOS Dist 3	3/21/2013	38	162.43	161.43	124.43		123.5	124.3	127.5	131.0	130.5	124.6	117	-3.1	4.0	-0.8	-0.7	-6.0	
20N03W23G02M	10; BOS Dist 3	3/18/2013	27.45	149.43	148.43	121.98		123.2	123.2	121.6	125.6	125.0	118	112	-1.2		0.0	1.6		
20N03W33J01M	10: BOS Dist 3	3/20/2013	11.72	139.74	138.44	128.02		130.8	130.0	126.8	131.0	126.5	113.6	104.7	-0.3		0.8	3.2		
CALWater 002-01	10; BOS Dist 3	mid-mar, 2013	16	134	134	118		120	122.0	114	122.0	122.0	116.1	111.4	4.0	-6.0	-2.0	8.0		
		2/21/2212																		
21N02W02B02M	9; BOS Dist 5	3/21/2013	26.44	163.01	162.56	136.57	137.01	142.5	138.2	137.9	139.6	139.1	136.1	130.23	-0.4		4.3	0.3		0.5
21N02W09M02M	9; BOS Dist 5	3/19/2013	41.1	181.92	181.42	140.82	143.52	142.5	141.3	140.1	142.0	144.3	142	132.8	-2.7		1.2	1.2		
21N02W23G01M	9; BOS Dist 5	3/21/2013	NM	154.9	154.4	NIVI	128.5	127.9	125.8	125.3	127.9	129.0	125.1	118.7	NA	0.6	2.1	0.5	-2.6	-1.1
21N01W04N01M	8; East Corning Ba	3/18/2013	20.3	137.68	137.38	117.38	NM	123.1	116.7	112.8	117.8	116.8	115.6	112.2	NA	NA	6.4	3.9	-5.0	1.0
22N02W11Q01M	8; East Corning Ba	3/19/2013	29.37	166.8	166.4	137.43	140.9	145.8	140.7	140.2	142.0	138.4	139.6	133.8		-4.9	5.1	0.5		
22N01W29K01M	8; East Corning Ba	3/18/2013	18.36	144.88	144.38	126.52	126.88	132.4	125.9	125.7	125.6	124.9	119.9	112.7	-0.4	-5.5	6.5	0.2	0.1	0.7
0410000004110414	C. Orland/Artain	2/24/2042	00.0	400.04	400.40	407.04	445.54	440.0	444.5	400.0	400.0	400.0	400.0	400.0	7.0	0.0	4.0	7.0	44.5	0.0
21N03W31H01M 20N03W07K03M	5; Orland/Artois 5; Orland/Artois	3/21/2013 3/20/2013	82.3 44.4	189.94 168.46	189.46 168.46	107.64	115.54 128.160	113.3 129.7	114.5 128.8	122.3 132.3	133.8 143.7	139.8 138.6	123.8 118.5	106.3 99.9	-7.9 -4.1	2.2 -1.5	-1.2 0.9	-7.8		
20N03W17P01M	5; Orland/Artois	3/18/2013	33	156.95	155.45	124.06		138.8	139.1	136.6	143.7	142.9	125	110.2	-4.1 -12.2		-0.3	-3.6 2.5		
20N03W17F01W 20N04W12F02M	5; Orland/Artois	3/18/2013	57.28	189.97	189.47	132.69		137.6	138.9	145.8	163.8	163.5	136.3	115.2	-5.2		-1.3	-6.9		
21N03W18B02M	5; Orland/Artois	3/20/2013	NM	224.48	224.08		103.960	109.2	108.8	118	132.9	136.3	132.7	113.2	_	-5.2	0.4	-9.2		
21N04W24A02M	5; Orland/Artois	Discontinued	NM	230.5	230		NM	NA	NA	NA	NA	136.9	125.1	107.4			-	NA S.E	NA	NA O. 1
21N04W24A03M	5; Orland/Artois	3/20/2013	135.88	231.5	230		105.350	108.1	108.3	120.6	129.5	NA	125.1	107.4	-9.7		-0.2	-12.3		
22N02W31C01M	5; Orland/Artois	3/21/2013	23.01	206.43	205.43	183.42		187	187.0	184.6	185.6	176.7	180.1	171.7	1.7		0.0	2.4		
21N03W12C02M	5; Orland/Artois	3/21/2013	35.6	206.44	204.44	170.84		172.3	167.1	164.6	171.1	173.9	171	163	0.8		5.2	2.5		
21N03W11G01M	5; Orland/Artois	3/21/2013	36.12	202.74	202.44	166.62	166.64	171.3	166.3	165.9	NM	168.4	170.1	161.5	0.0	-4.7	5.0	0.4	NM	NM
22N03W34A01M	5; Orland/Artois	3/21/2013	15.11	235.95	235.45	220.84	217.74	220.5	222.0	218.8	220.0	220.6	217.8	213.5	3.1	-2.8	-1.5	3.2	-1.2	-0.6
21N03W22H01M	5; Orland/Artois	3/21/2013	58.9	204.45	204.45	145.55	149.55	143.9	145.4	138.3	151.5	159.1	149.9	139.1	-4.0	5.7	-1.5	7.1	-13.2	-7.6
21N02W09M02M	5; Orland/Artois	3/19/2013	41.1	181.92	181.42	140.82		142.5	141.3	140.1	142.0	144.3	142	132.8	-2.7	1.0	1.2	1.2		
21N03W24P01M	5; Orland/Artois	3/21/2013	51.5	181.08	180.43	129.58	134.28	134.4	130.3	128.3	140.3	NM	135.8	123.7	-4.7	-0.1	4.1	2.0	-12.0	NM
22N03W03D01M	4; Orland Unit Wa	3/19/2013	80.19	270.97	270.47	190.78	193.37	192.6	190.3	188.6	192.0	194.4	188.7	182.5	-2.6	0.8	2.3	1.7	-3.4	-2.4
22N03W17E01M	4; Orland Unit Wa	3/19/2013	14.8	284.99	285.49	270.19		271.79	NM	271.69	NM	265.8	267.2	263.7	4.8			NM	NM	NM
22N03W12Q03M	4; Orland Unit Wa	3/19/2013	36.59	232.94	232.44	196.35		200.7	199.2	198.8	197.6	190.0	195.1	188.3	-0.9		1.5	0.4		
22N03W21F02M	4; Orland Unit Wa	3/19/2013	22.15	265.47	264.47	243.32		241.6	242.8	240.2	241.7	237.3	238.7	234.5	4.9		-1.2	2.6		
22N03W30C01M	4; Orland Unit Wa	3/19/2013	113.2	287.99	287.49	174.79	178.19	180.19	185.9	189.89	192.8	191.1	186.6	176.8	-3.4	-2.0	-5.7	-4.0	-2.9	1.7
22N02W20Q01M	4; Orland Unit Wa	3/21/2013	15.65	201.93	201.43	186.28	184.71	188.1	186.7	183.1	186.6	184.0	183.8	179.2	1.6	-3.4	1.4	3.6	-3.5	2.6
22N02W21D01M	4; Orland Unit Wa	3/21/2013	26.46	200.92	200.42	174.46	174.63	177.4	174.8	174.2	172.6	172.2	170.8	164.9	-0.2	-2.8	2.6	0.6	1.6	
22N03W34A01M	4; Orland Unit Wa	3/21/2013	15.11	235.95	235.45	220.84	217.74	220.5	222.0	218.8	220.0	220.6	217.8	213.5	3.1	-2.8	-1.5	3.2	-1.2	-0.6
40010000000404	44. Clara Calusa	2/40/2042	4.45	00.40	00.40	00.07	00.07	00.0	00.7	00.4	07.7	00.4	05.4	75.4	4.4	4.4	1.0	0.0	4.0	4.0
19N02W29Q01M	11; Glenn-Colusa	3/18/2013	4.15	92.42	92.42	88.27	89.67	88.3	86.7	86.4	87.7	86.1	85.1	75.1	-1.4		1.6	0.3		
19N03W26P01M	11; Glenn-Colusa	3/18/2013	3	103.43	100.43	100.43		98.6	98.1	98	98.6	98.7	94.7	89.2	0.0		0.5	0.1		
	11; Glenn-Colusa	3/18/2013 3/18/2013	10.42 10.02	127.9 125.9	127.4 125.4	117.48 115.88		117.7 120.9	114.3 166.6	115.7 117.1	114.7 115.2	116.5 115.5	115.9 114.6	112.4 108	-3.3 -0.8		3.4 -45.7	-1.4 49.5		
	11; Glenn-Colusa	3/18/2013	13.83	125.9	125.4	111.57		113.7	110.0	110.9	111.4	110.7	108.7	88.8			2.8	0.0		
	11; Glenn-Colusa	3/18/2013	21.51	125.9	125.4	104.39		111.3	105.7	105.4	106.2	105.3	96.5	72.7	-2.9		5.6	0.3		
	11; Glenn-Colusa	3/18/2013	5.74	115.8	115.4	110.06		109.9	108.8	108.5	108.5	108.2	107.5	105.6			1.1	0.3		
	11; Glenn-Colusa	3/18/2013	6.8	119.92	119.42	113.12		111.2	110.3	109.6	110.7	110.5	109.2	107.5			0.9	0.7		
401000444010414	40. Barrist 115	0/40/00:5	10.11	20.53	22.22	== c=	75.00	04.4	70.0	75.0	75.0	70.1								
	12; Provident ID	3/18/2013	13.14	88.99	88.39	75.85		81.4	76.2	75.6	75.9	73.4	78	72			5.2	0.6		
	12; Provident ID	3/18/2013	12.7 6.21	76 86.9	75.4	63.3		68	64.8	62.7	64.2	62.7	65 79	60 76			3.2	2.1	-1.5	
	12; Provident ID 12; Provident ID	3/18/2013 3/18/2013	11.39	84.79	85.4 83.79	80.69		81.5 79.7	79.6 74.6	79.2 73	80.0 73.9	78.4 71.9		76 70			1.9 5.1	0.4 1.6		
1311027730001101	12, FIOVIDENTID	3/10/2013	11.38	04.79	03.79	73.4	13.23	19.1	74.0	73	13.8	11.9	13	10	0.2	-0.5	3.1	1.0	-0.9	2.0
19N02W13J01M	14; Princeton-Cod	3/18/2013	13.14	88.99	88.39	75.85	75.83	81.4	76.2	75.6	75.9	73.4	78	72	0.0	-5.6	5.2	0.6	-0.3	2.5
18N02W36B01M	14; Princeton-Cod	3/18/2013	12.7	76	75.4	63.3	69.89	68	64.8	62.7	64.2	62.7	65	60	-6.6	1.9	3.2	2.1		
19N02W34F01M	14; Princeton-Cod	3/18/2013	6.21	86.9	85.4	80.69	81.99	81.5	79.6	79.2	80.0	78.4	79	76	-1.3	0.5	1.9	0.4	-0.8	

GLENN COUNTY SPRING BMO'S STAGE ALERTS																				
State Well Number	Subarea	Current Year Measurement Date	Current Year RP to WS	Current RP Elevation	GS Elevation	2013 WSE	2012 WSE	2011 WSE	2010 WSE	2009 WSE	2008 WSE	2007 WSE	Stage 1 & 2 Alert	Stage 3 Alert	Difference from 2012 to 2013	Difference from 2011 to 2012	Difference from 2010 to 2011		Diffrence from 2008 to 2009	
19N02W36H01M	14; Princeton-Cod	3/18/2013	11.39	84.79	83.79	73.4	73.25	79.7	74.6	73	73.9	71.9	75	70	0.2	-6.5	5.1	1.6	-0.9	2.0
KWD-1 KWD-2 KWD-3	7; Kanawha Watel 7; Kanawha Watel 7; Kanawha Watel	4/2/2013 4/2/2013 4/2/2013	13 12 17	154.3 161.35 140.4	154 160 139	141.3 149.35 123.4	144.3 151.35 130.4	144.3 152.35 132.4	140.3 151.4 128.4	139.3 153.35 128.3	144.3 156.4 130.3	143.3 148.4 123.3	None	None None None	-3.0 -2.0 -7.0	-1.0	4.0 1.0 4.0	-2.0	-3.0	8.0
GWD-1 GWD-2 GWD-3	6; Glide Water Dis 6; Glide Water Dis 6; Glide Water Dis	4/2/2013 4/2/2013 4/2/2013	28 20 20	156.75 158.2 174.75	156 158 174	128.75 138.2 154.75	128.75 140.2 146.75	132.75 143.2 159.75	126.8 140.2 156.8	127.75 132.2 152.15	137.8 140.2 159.2	138.8 141.2 157.2	None	None None None	0.0 -2.0 8.0	-3.0	6.0 3.0 3.0	8.0	-8.0	-1.0
19N01W27R01M	15 & 16; RD 2106 15 & 16; RD 2106 15 & 16; RD 2106 15 & 16; RD 2106	3/18/2013 3/18/2013	NM 12.1 17.74 NM	95.73 83.88 81.39 72.89	93.38 83.38 81.39 72.39	71.78 63.65	82.03 70.58 63.04 66.09	86.3 74.8 72.9 65.7	80.1 73.1 64.0 70.50	80.6 69 62 63.8	80.9 71.8 62.8 63.7	78.8 68.7 61.5 62.2	67 61	63 55			6.2 1.7 8.9 -4.8	4.1 2.0	-2.8 -0.8	3.1 1.3
18N01E05D01M 19N01W13Q01M 18N02W18K01M	17; Western Cana 17; Western Cana 13; Willow Creek I	3/18/2013 3/26/2013 3/18/2013	4.22 5 7.8	77.66 85.9 83.22	77.36 85.9 83.42	73.44 80.9 75.42	NM 81.9 76.02	71.6 83.4 77.32	72.2 83.9 75.4	NM 76.22	70.4	69.5 75.3	64 65 72.2	60	NA -1.0 -0.6		-0.6 -0.5	83.9		
														Max decreas	-12.8 8.0					

Glenn County Water Advisory Committee June 11, 2013 Agenda Item 5

Subject: Western Glenn County Water Level Declines

Continuation of the discussions regarding declining groundwater levels in western Glenn County. A presentation will be given.

Recommendation: Consider options for further investigation:

- a. Create an ad-hoc committee of WAC and TAC members
- b. Provide direction to the TAC to prepare a report of investigation
- c. Consider recommendations from the TAC regarding outreach and education