CDWA & RD2040

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June 26, 2006

Via Facsimile (925) 686-2187
email: alternativeintake@ccwater.com

Samantha Salvia
CCWD Project Manager
P. O. Box H2O
Concord, CA 94524

Re: Draft EIR/EIS for Contra Costa Water District's Alternative Intake Project

Dear Samantha:

These comments are submitted on behalf of both the Central Delta Water Agency and Reclamation District No. 2040.

The Central Delta Water Agency encompasses approximately 120,000 acres in the western portion of San Joaquin County and includes Victoria Island, Woodward Island, Bacon Island, and Mandeville Island which border Old River. The Agency continues to work to assure that the quality and supply of water in the channels of the Delta are adequate to meet the needs for all beneficial uses within the Agency and assists landowners and Reclamation Districts in flood control and reclamation matters. Reclamation District No. 2040 operates and maintains the reclamation works on Victoria Island which includes the levees, drainage canals and drainage pumping plants.

Water quality in the portions of Old River along Victoria, Woodward, Bacon and Mandeville Islands is to a great extent controlled by the water quality objectives for the Contra Costa Water District intake at Rock Slough. The proposed action represents a substantial retreat by the Contra Costa Water District from its historical interest in protecting water quality in the Delta and could lead to substantial degradation of water quality in the entire region. Municipal use is viewed as deserving greater protection than agricultural use and in particular the reduced dependence upon the intake at Rock Slough will signal a diminished need for the Water Quality Objective at such location. The DEIS does not reflect the real impact of the proposed action.

CDWA & RD2040-1

Our view has been that the Alternative Intake Project should not go forward until all reasonable efforts to improve the water quality at or from the existing CCWD intakes have been exhausted or failed. CDWA & RD2040-2

Another concern is the precedent of moving intakes from Old River farther into the interior of the Delta. Both the SWP and CVP export pumps divert water from Old River and they have consistently endeavored to construct a peripheral canal or other isolated facility to connect the export pumps to the Sacramento River. Although Victoria Canal is not the Sacramento River, the proposed action is a move in the wrong direction for protection of the Delta. It will surely lead to the argument "if they did it why can't we do it." CDWA & RD2040-3

DEIS Exhibit ES-2 shows that for many months of the years Old River water quality is better than that at Victoria Canal. Could the CCWD objectives be better fulfilled by simply exercising Area of Origin (WC 11460, et seq.) priorities to divert more water during the periods of good water quality at Old River? This could eliminate the expense for a new intake on Victoria Canal. CDWA & RD2040-4

In terms of protection of water quality during emergencies such as droughts, delta levee breaks, earthquakes, terrorist acts and even non-emergency events such as sea level rise, establishing a fourth diversion point in the Delta would not appear to be the best investment. Desalination capability would appear to be a much more effective addition to your facilities. A desalination plant at the location of the "transfer facility" or even closer to Los Vaqueros would appear to allow for direct service or blending throughout your system and would provide needed redundancy in your system. CDWA & RD2040-5

Agricultural Land Impacts

Victoria Island is located within the Primary Zone of the Delta Protection Commission. The future land use is planned mainly for agriculture. The restriction on use and impact on value has apparently made it a target for location of facilities which serve development outside the Primary Zone. The CCWD facilities including the proposed intake on Victoria Canal are primarily for the purpose of serving development outside the Primary Zone. The net effect is that the Primary Zone suffers the detriment while the Secondary Zone reaps the benefit. This of course is a circumvention of the purpose of the Delta Protection Commission which was to protect the Primary Zone from development. It should be an essential feature of your project that the impacts on lands and agricultural uses in the Primary Zone be minimized. The proposed action and Alternates 2 and 3 do not minimize or even mitigate the impacts to agriculture on Victoria Island. CDWA & RD2040-6

Depth of Pipeline

The 5 feet of minimum cover (DEIS 4.8-7) over the pipeline is inadequate to allow for proper operation and maintenance and replacement of the agricultural drains and will greatly increase the already significant impact to agricultural lands of 6-8 acres. The typical field drains are 8 to 10 feet deep and the canals 10 to 12 feet deep and must periodically be deepened and/or relocated to account for subsidence of soils or changes in cropping. Mitigation for this concern in connection with the Lower Northwest Interceptor Yolo Force Main project of the Sacramento Regional County Sanitation District provided for maintenance at least seven (7) feet between the top of the pipe coating and the ground surface and at least eight (8) feet of distance between the top of a pipe protection concrete slab and the invert of any canal or ditch crossed by the pipeline. The Yolo Force Main was in an area without peat soil. Due to the presence of peat soils which will oxidize and subside, the proposed pipeline depth should be maintained at least ten (10) feet below the ground surface and at least ten (10) feet below the invert of the canals and drains. If protective slabs are used at the drains, then the ten (10) feet should be to the top of the slab. Attached is a copy of the Permit Agreement between the Sacramento Regional County Sanitation District and Reclamation District No. 307 which includes mitigating conditions for some significant impacts similar to those resulting from the Alternative Intake Project. Siphoning drains under the proposed pipeline (DEIS 4.5-9) will greatly increase the ditch and canal maintenance burden and will greatly limit the flexibility to alter fields and drains.

CDWA & RD2040-7

Pipeline Alignment

The proposed pipeline will constitute a major physical feature in the geology of Victoria Island and will constitute a physical dividing line for farming operations on the island. Groundwater flow will be blocked or obstructed by the pipeline and certainly altered by the fill. The natural soil profile will be forever altered. The pipeline alignment will become the new demarcation for the individual fields. Squared fields of relatively uniform soil are most desirable for preservation of farming. Although not perfect, the area crossed by the proposed pipeline consists mostly of squared fields many of which have relatively uniform soil. The Proposed Action (Alternative 1) will diagonally cross many of the fields thereby unnecessarily disrupting an area of over 1000 acres. Squaring the pipeline alignment so that it will best follow the existing field lines will help mitigate both the temporary and permanent disruption and damage to the farmland and farmability of the land. Attached hereto are two alternative alignments which should be considered. Alternative A could be a version of the DEIS Alternative 2. Alternative B which is preferable to preserve farming is located farther to the west than the other alignments and therefore isolates or separates a smaller portion of the island.

CDWA & RD2040-8

Flood Risk

The DEIS appears to overlook the change in local flooding potential as a result of utilizing tunneling techniques for crossing Old River and the west levee of RD 2040. Protective coffer dams will be required at the entry and exit points of such tunneling and the plan and

CDWA & RD2040-9

process will require careful review. The attached copy of the Permit Agreement between the Sacramento Regional County Sanitation District and Reclamation District No. 307 includes representative conditions related to tunneling.

CDWA & RD2040-9 Cont'd

Disposal of Dewatering Water

Reclamation District No. 2040 operates the canals and drainage pumps serving Victoria Island. The District does not have a discharge permit for the water that will be removed to dewater trenches and other areas for construction of the proposed project. To the extent such water is ponded, any portion that seeps into the ground or escapes will enter the RD 2040 drainage system. The proposed project must included provisions to assure that such water will not enter the RD 2040 system and will be covered by an appropriate NPDES permit to allow for direct discharge by the project to Old River or Victoria Canal. RD 2040 will not issue a permit which could change the character of its discharge.

CDWA & RD2040-10

Water Quality and Water Levels

Concern continues that the proposed diversion from Victoria Canal will result in lowering of water levels and degradation of quality. The DEIS reflects that expected changes are relatively small, however, existing conditions already suffer as a result of SWP and CVP operations and the proposed project will add to those problems. Low water conditions cause siphons to lose prime or reduce flow such that irrigation is disrupted and delayed. There should be a clear commitment not to divert during the low water periods which adversely affect diversions in the area or replace affected siphons with pumps. Criteria for application of such commitment can and should be developed as a part of the local permitting process.

CDWA & RD2040-11

CDWA & RD2040-12 Cont'd

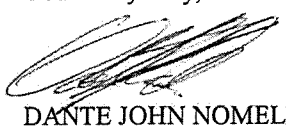
It is apparent from the DEIS that if an intake is established on Victoria Canal that the amount to be diverted will grow, i.e. shift from Rock Slough and Enlarged Los Vaqueros.

CDWA & RD2040-13

The impact of the proposed diversions on water quality and water levels is shown by the models to be negative. The assumption is made that the modeling results which are small correctly reflect what will actually occur and that the impact is insignificant. The problem with this approach is that significant impacts are already occurring and the proposed action unless properly mitigated will add to such significant impacts. Such addition is significant.

CDWA & RD2040-14

Yours very truly,



DANTE JOHN NOMELLINI
Attorney for Central Delta Water Agency and
Reclamation District No. 2040

DJN:ju
Enclosures

Recording Requested By:
Sacramento Regional County Sanitation District and,
Reclamation District No. 307

NO FEE DOCUMENT
Per Government Code 6103

Return to:

Reclamation District No. 307
c/o Nomellini, Grili & McDaniel
Professional Law Corporations
235 East Weber Avenue
P.O. Box 1461
Stockton, CA 95201-1461

YOLO Recorder's Office
Freddie Oakley, County Recorder
DOC- 2005-0008908-00
REQD BY SACRAMENTO REGIONAL CO SANITAT
Friday, FEB 25, 2005 11:55:00
Ttl Pd $0.00 Nbr-0000546642
FRT/R6/1-36

DOCUMENT TITLE(S)

PERMIT AGREEMENT
FOR
YOLO FORCE MAIN

Affects Assessor Parcel Numbers
044-060-30
044-060-21
044-060-18
044-050-19
044-050-18
044-050-20
044-030-10

008908 FEB 25 05

36

PERMIT AGREEMENT
FOR
YOLO FORCE MAIN

PARTIES:
RECLAMATION DISTRICT NO. 307, formed pursuant to Water Code section 50000 et seq. (hereinafter referred to as "RD-307"), and SACRAMENTO REGIONAL COUNTY SANITATION DISTRICT, a county sanitation district formed pursuant to and operating under the authority of the County Sanitation District Act, commencing at Health and Safety Code section 4700 (hereinafter referred to as "SRCSD").

AFFECTED PROPERTY:
The real property to which this permit agreement applies is described as follows: Those certain levees, dredger cuts and drainage canal areas within the boundaries of RD 307 on and along Lisbon Island, Yolo County, State of California.

AGREEMENT

Permission is hereby granted by RD-307 to SRCSD and their contractors for their sewer system improvement work ("LNWI Project") to construct and maintain two seven (7)-foot diameter tunnels under the south levee of Babel Slough, a permanent access road on the south levee of Babel Slough, and one permanent access road crossing and two six and one-half (6.5)-foot diameter pipe crossings under six (6) other RD-307 ditches and canals as described in the contract documents for the Lower Northwest Interceptor, Yolo Force Main, Contract Number 3797, dated July 2004 and as described in Exhibit "A".

This permission is granted upon the following conditions, the failure to comply with which shall cause this permit to terminate at the election of RD-307.

1. SRCSD shall obtain the necessary easements and rights of way from the landowners upon whose land the LNWI Project work is to be performed. Fee title to the real property at the above-described location is not vested in RD-307 but is vested in private parties. SRCSD shall obtain the necessary permits and approvals from all other governmental authorities with jurisdiction over the work and shall comply with all applicable regulatory requirements.

2. SRCSD shall comply with all the "recommendations" and safeguards as contained in the Permit Agreement Special Conditions, attached hereto as Exhibit "B".

3. SRCSD shall at SRCSD's expense repair any seepage or other damage that may result from SRCSD's activities, including those of its contractors and agents. Plans for any such repair shall be submitted to the RD-307 Engineer for approval prior to commencement of

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the repair work, and such approval shall be forthcoming within one week of the date of submittal by SRCSD to the RD 307 Engineer. If approval is not so given, any and all reasons therefore shall be detailed in writing and delivered to SRCSD within 48 hours of such rejection, together with descriptions of what would be acceptable to the RD-307. Approval shall not be unreasonably withheld by RD 307.

4. SRCSD shall notify in writing the RD-307 Engineer, Christopher Neudeck of Kjeldsen, Sinnock & Neudeck, P. O. Box 844, Stockton, California 95201, (209) 946-0268, not less than one (1) week before initiating any work authorized hereunder on or near the RD-307 levees, dredger cuts or canals, and, when there is no activity for a period of five (5) working days, then in writing not less than twenty-four (24) hours prior to resumption of excavation or other construction operations near the RD-307 levees, dredger cuts or canals.

5. In the event the RD-307 Engineer deems the safety of the RD-307 levee is being jeopardized and that the safety concern is an immediate threat to the integrity of the levee or public safety, he may order all or any portion of the work stopped, in which case SRCSD agrees to immediately comply with the order. RD-307 and SRCSD will immediately engage in collaborative measures to address RD-307's safety concern. RD-307 will allow SRCSD to resume work on the stopped activities once the safety concern has been reasonably addressed.

In the event of such an order the RD-307 Engineer shall immediately provide SRCSD with a written confirmation of the order setting forth the reasons for the order. If SRCSD desires to appeal the order to the RD-307 Board of Trustees, it may do so by notifying RD-307 in writing or the RD-307 Secretary orally or in writing in which case the RD-307 Secretary shall forthwith notice a special meeting of the RD-307 Board of Trustees to consider such appeal. The special meeting shall be held after 24 hours after posting of the notice of the meeting but not later than 30 hours after receipt of the notification of appeal from SRCSD unless otherwise agreed upon by SRCSD.

In the event the RD-307 Engineer deems the safety of the RD-307 levee is being jeopardized and that the safety concern is not an immediate threat to the integrity of the levee or public safety, RD-307 and SRCSD will immediately engage in collaborative measures to reasonably address RD-307's safety concern.

RD-307 will not unreasonably order work stopped or withhold permission allowing SRCSD to resume the stopped work activities once the safety concern has been reasonably addressed.

6. SRCSD's activities shall not unreasonably interfere with access along the levee crown road.

7. Indemnification and Insurance, etc.:

SRCSD agrees to fully indemnify, defend and save harmless RD-307 including its

governing board, trustees, partners, officers, agents, employees and contractors, herein collectively referred to as RD-307, against any and all loss, damage, liability, claim, demand, litigation, expense, including reasonable attorney's fees, resulting from injury or harm to any person or property arising out of SRCSD's facilities and operations regardless of the active or passive negligence of RD-307 excepting only such injury or harm caused by sole negligence or willful misconduct of RD-307.

When SRCSD defends RD-307 within the scope of this indemnification, SRCSD agrees to use defense counsel with experience defending similar claims and shall secure agreement with RD-307 on the choice of defense counsel, which agreement shall not be unreasonably withheld by either party.

Except as provided herein below concerning self-insurance, SRCSD shall secure the naming of RD-307 as additional insured as to claims arising out of SRCSD's facilities and operations on the liability policies and to the limits as required by SRCSD of its contractors during the period of the contractor's work with limits of not less than $20,000,000.00 per occurrence. Parties acknowledge that SRCSD is a self-insured public entity. SRCSD has and shall maintain during the term of this permit adequate funding to pay all claims, demands, actions, losses, liabilities, damages, and costs that may arise out of the performance of this agreement and within the scope of the indemnification. SRCSD, at its option and its expense, may purchase insurance to meet its obligations under this permit. SRCSD, at its sole cost and expense, shall carry the insurance or shall self-insure its activities in connection with this permit and obtain, keep in force and maintain insurance or equivalent programs of self-insurance for general liability, workers compensation and business automobile liability adequate to cover its potential liabilities hereunder. SRCSD shall annually on or before July 1st provide RD-307 with a letter of self insurance confirming the adequacy of SRCSD's self insurance program.

SRCSD acknowledges that the premises could be flooded from many causes, including without limitation, the following:

a. Levee overtopping and levee failure due to natural causes such as winds, tides, barometric pressure changes, rainfall, rainfall runoff, earthquakes, levee settlement and rodents.

b. Levee overtopping and levee failure due to man-related causes including negligence of the landowner, any reclamation district and any other governmental agency such as inadequate or improper levee maintenance, flood fighting and/or patrol, dredging, water releases, obstructing water flows and water diversions.

c. Failure of the drainage system due to natural or man-related causes, including negligence of the landowner, any reclamation district, and any other governmental agency.

d. Failure to construct, repair, maintain or operate levees, drainage or irrigation facilities or other facilities whether due to limited funding or otherwise.

SRCSD hereby expressly assumes the risk of damage to property and the related direct and indirect losses to SRCSD, its contractors, employees and agents arising out of the above and hereby waives the right, including the right on the part of any insurer through subrogation, to make any claim pertaining to the same as against RD-307. SRCSD agrees to hold RD-307 free and harmless from and indemnify it for inverse condemnation of and for damages to property belonging to SRCSD or used in connection with SRCSD's operations including, without limitation, damage to equipment, improvements, site preparation, borings and appurtenances caused by flooding due to the causes set forth above. The parties intend that this indemnity shall extend as broadly as legally permitted and shall apply regardless of whether the loss results from the negligence of RD-307.

8. SRCSD shall reimburse RD-307 for its out of pocket costs including administrative, engineering and legal costs incurred in reviewing, preparing and processing this permit and the oversight herein contemplated as per the terms of that Cost Reimbursement Agreement between the parties dated June 9, 2004. RD-307 invoices shall be sent to the address provided in Section 16 herein.

9. SRCSD does hereby agree that at all times during and after the construction of the proposed improvements that SRCSD shall, upon written demand by RD-307 perform at SRCSD's own cost and expense and within the time limits set by RD-307 all rehabilitation, maintenance or repair work ordered to be performed by RD-307 which arises as a result of SRCSD's improvements. Customary levee maintenance and improvement work shall not be a requirement of this paragraph unless the work is required as a result of SRCSD's improvements or unless the work area is within twenty-five (25) feet of SRCSD's improvements provided however, SRCSD shall within thirty (30) days of invoice reimburse RD-307 for any increased cost of performing levee maintenance and improvement work due to the presence of SRCSD's LNWI Project.

10. SRCSD shall within ninety (90) days of completion of the construction of the LNWI Project contemplated hereby supply RD-307 with approved "as-built" drawings of the construction.

11. This permit shall be subject to termination by the Board of Trustees of RD-307 upon failure of SRCSD to adhere to the terms and conditions provided herein and shall automatically terminate upon non-use of the permitted facility for the permitted purpose for a period of thirty-six (36) months. Commencing within sixty (60) days following termination, weather permitting, SRCSD shall expeditiously and properly remove or abandon the pipeline tunnel and other improvements in a manner approved by the RD-307 engineer and The Reclamation Board. SRCSD's indemnifications, obligations to repair and obligations to reimburse RD-307 shall survive the termination of this Permit.

12. If and in the event that in the sole discretion of the Board of Trustees of RD-307 work needs to be performed on the levee, banks, slopes, or other RD-307 facilities within twenty-five (25) feet of SRCSD's proposed LNWI Project and such work requires

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the repair, removal or replacement of any of the works or appurtenances of the LNWI Project or any excavation, then RD-307 will not perform such work without first giving notification to SRCSD and providing SRCSD a reasonable opportunity to perform the necessary work at its own expense. SRCSD agrees that in the event the work is needed to address an emergency, the notification may be oral or by telephone, fax or e-mail; SRCSD's election to perform or not perform the work must be immediate; and if SRCSD elects to perform the work the performance must be immediate. If SRCSD elects not to perform the work or does not accomplish the work within a reasonable period of time, then RD-307 shall have the right to perform the work at SRCSD's expense. SRCSD does hereby hold RD-307, its governing board, agents, employees and contractors, harmless from any and all liability arising out of or by reason of said proposed works including without limitation any and all liability arising out of SRCSD's proposed works having been approved, constructed, undertaken, damaged or removed as aforesaid. SRCSD shall within thirty (30) days from date of written demand by RD-307 reimburse RD-307 for (1) all costs and expenses incurred in the repair or removal and replacement of said works or any appurtenances thereto by RD-307 as per the above, including reasonable attorney's fees and interest and (2) for all costs and expenses incurred by RD-307 in performing levee, bank, slope, and waterway rehabilitation, maintenance or repair work which is reasonably necessary and caused by the presence of the LNWI Project. In the event enforcement action is required, the prevailing party shall be entitled to recover, in addition to such costs and expenses, the costs of suit together with reasonable attorney's fees to be fixed by the Court.

13. SRCSD agrees that to the extent its easements and improvements benefit from the operations of RD-307 that it will be subject to annual benefit type assessments and fees and charges. SRCSD agrees that until such time as a revised assessment roll or engineer's benefit report is adopted for RD-307 that it will pay each year to RD-307, a payment in lieu of assessment as per the following calculation. Each acre of the SRCSD easement within the jurisdiction of RD-307 will be given an assumed benefit valuation or assessment valuation per acre equal to ten (10) times that of the typical agricultural land used for field and row crops. If the currently used benefit or assessment roll reflects the benefit valuation or assessment valuation per acre for other utility facilities, then such valuation shall be used in lieu of the above multiple. The number of acres of the SRCSD easement times such assumed valuation times the annual RD-307 assessment rate will establish the amount to be paid by SRCSD in lieu of the RD-307 assessment. Said amount shall be paid to RD-307 annually within sixty (60) days of invoice for the same.

14. All covenants of SRCSD herein shall also be deemed conditions of this Permit.

15. The terms and conditions herein shall bind the heirs, assigns, executors, administrators and transferees of SRCSD and shall run with the permit. SRCSD agrees as a condition of any transfer to obtain from the transferee its written agreement to comply with the terms of this agreement. SRCSD shall notify RD-307 of the name and address of

any transferee and provide to RD-307 a copy of said transferee's agreement within ten (10) days of the transfer. Any such transfer shall not relieve SRCSD of its obligations herein.

16. Unless changed by written notice to RD-307, the mailing address for all notices to SRCSD shall be:

During Construction:
LNWI Program
1550 Harbor Blvd., Suite 212
West Sacramento, CA 95691
Telephone (916) 830-7810, fax (916) 371-9104

After Construction:
Sacramento Regional County Sanitation District
10545 Armstrong Avenue, Suite 101
Mather, California 95655
Telephone (916) 876-6000, fax (916) 876-6160

17. This permit shall not be valid until an original which is fully signed and acknowledged in recordable form by all named parties is returned to, Reclamation District No. 307, P. O. Box 518, Clarksburg, CA 95612, telephone (916) 371-2351, fax (916) 371-0356.

18. SRCSD agrees to execute any and all additional documents reasonably necessary to secure the recordation of this agreement or a memorandum thereof in the County of Yolo, State of California.

19. Time is of the essence in this agreement.

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RD-307:
RECLAMATION DISTRICT NO. 307

APPROVED AS TO FORM:

Dante Nomellini
RD-307 Counsel

Dated: FEB 23, 2005

By:

Peter G. Dwyer, Jr.
Secretary

SRCSD:
SACRAMENTO REGIONAL COUNTY
SANITATION DISTRICT

APPROVED AS TO FORM:

John Dodds
Deputy County Counsel

Dated: 2-16-05

By:

Robert F. Shanks
District Engineer

Permit for LNWI Yolo Force Main Project

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CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

STATE OF California)

COUNTY OF Sacramento)

On Feb 18, 2005 (date) before me, Steve Roth, Notary Public (name of notary officer)

personally appeared Robert F. Shanks, District Engineers (name(s) of signer(s))

☒ personally known to me - OR - ☐ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Steve Roth
Signature of Notary

STEVE ROTH
Commission # 1337831
Notary Public - California
Sacramento County
My Comm. Expires Jan 6, 2006

----------OPTIONAL SECTION----------

CAPACITY CLAIMED BY SIGNER

Though statute does not require the Notary to fill in the data below, doing so may prove invaluable to persons relying on the document.

☐ INDIVIDUAL
☐ CORPORATE OFFICER(S)

Title(s)
☐ PARTNER(S) ☐ LIMITED ☐ GENERAL

☐ ATTORNEY-IN-FACT
☐ TRUSTEE(S)
☐ GUARDIAN/CONSERVATOR
☐ OTHER: _____

SIGNER IS REPRESENTING:
Name of Person(s) or entity(ies)

OPTIONAL SECTION:

DATA REQUESTED HERE IS NOT REQUIRED BY LAW.

TITLE OR TYPE OF DOCUMENT: _____

NUMBER OF PAGES _____ DATE _____

SIGNER(S) OTHER THAN NAMED ABOVE _____

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CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

STATE OF CALIFORNIA)

COUNTY OF YOLO)

On FEB 23. 2005 (date) before me, Loyd C BAUMANN (name of notary officer),

personally appeared PETER G. DWYER JR (name(s) of signer(s)),

☐ personally known to me - OR - ☑ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature of Notary

LOYD C. BAUMANN
COMM. # 1395242
NOTARY PUBLIC-CALIFORNIA
SACRAMENTO COUNTY
COMM. EXP. FEB. 9, 2007

----------OPTIONAL SECTION----------

CAPACITY CLAIMED BY SIGNER

Though statute does not require the Notary to fill in the data below, doing so may prove invaluable to persons relying on the document.

☐ INDIVIDUAL
☐ CORPORATE OFFICER(S)

Title(s)
☐ PARTNER(S) ☐ LIMITED ☐ GENERAL

☐ ATTORNEY-IN-FACT
☐ TRUSTEE(S)
☐ GUARDIAN/CONSERVATOR
☐ OTHER: _____

SIGNER IS REPRESENTING:
Name of Person(s) or entity(ies)

_____

_____

OPTIONAL SECTION:

DATA REQUESTED HERE IS NOT REQUIRED BY LAW.

TITLE OR TYPE OF DOCUMENT: _____

NUMBER OF PAGES _____ DATE _____

SIGNER(S) OTHER THAN NAMED ABOVE _____

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CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California
County of SAN JOAQUIN } ss.

On 2-24-05 (Date) before me, JEAN MARIE URBANI (Name and Title of Officer (e.g., "Jane Doe, Notary Public"))

personally appeared DANTE JOHN NOMELLINI (Name(s) of Signer(s))

☒ personally known to me
☐ proved to me on the basis of satisfactory evidence

to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

JEAN MARIE URBANI
COMM. #1459478
NOTARY PUBLIC - CALIFORNIA
SAN JOAQUIN COUNTY
My Comm. Expires Dec. 30, 2007

WITNESS my hand and official seal.

Jean Marie Urbani
Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: _____

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer

Signer's Name: _____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

☐ Individual
☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Attorney-in-Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____

Signer Is Representing: _____

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EXHIBIT A

PERMITTED WORK:

Sacramento Regional County Sanitation District, Lower Northwest Interceptor Yolo Force Main project Stations:

Pipeline Crossing, Permanent Access Road Crossing (including culvert installation)

220+10 to 221+40

Pipeline Crossings

238+00 to 238+30

255+10 to 256+20

286+60 to 287+60

288+20 to 289+10

326+10 to 327+50

Tunneled Pipeline Crossing and Permanent Access Road

350+80 to 354+15

as described in 1) Volume 1 Contract Specifications issued for bid and as further described in Volume 3 Contract Plans issued for bid. The Volume 1 Contract Specifications and Volume 3 Contract Plans documents were two volumes of the bid documents for Contract Number 3797, Lower Northwest Interceptor Yolo Force Main, and were dated July 2004.

Temporary Dewatering Conveyance Pipeline

as described in the attached drawings titled "Dewatering Conveyance Pipeline", sheets 1 through 6 and under the LNWI Yolo Force Main contract specifications in Section 02240, DEWATERING. These sheets describe the approximate location and general provisions of the temporary dewatering conveyance pipeline and its installation and operation. The portions of the dewatering conveyance pipeline work permitted by this agreement only include RD-307 ditch crossings and road crossings which may impact RD-307's ability to operate and access their facilities. Permission to construct and operate the dewatering conveyance pipeline has been obtained from all underlying property owners through the right of way acquisition process.

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EXHIBIT B

SPECIAL CONDITIONS
FOR
YOLO FORCE MAIN

1. Prior to start of construction, SRCSD shall provide to the RD-307 engineers for review and comment:
   - A set of conformed Contract Documents (plans, specifications, geotechnical reports, and appendices etc.) signed by a civil engineer registered in the state of California.
   - A list of Contractor submittals. RD-307 may choose which submittals from the list they would like to receive. SRCSD will provide the requested documents for RD-307 as the documents become available.
   - For the Babel Slough tunnel crossing:
     - Contractor's "Frac-Out Plan". The plan shall specifically address the issue of grouting of cracks in the overburden caused by hydraulic fracturing.
     - Contractor's "Abandonment Plan".
     - Contractor's Instrumentation Plan.
     - Contractor's Contact Grouting Plan.
2. During construction of the Babel Slough tunnel crossing, SRCSD shall:
   - Provide RD-307 with the settlement monitoring data and interpretation regarding the south levee of Babel Slough.
   - Provide RD-307 with micro-tunnel monitoring data in a timely manner during excavation of the tunnel.
   - Recommend a maximum allowable settlement or heave of 1 inch on the south Babel Slough levee and 2 inches off of the toe on the landside of the south levee.
3. SRCSD shall construct and maintain all pipelines within RD-307 to provide at least seven (7) feet between the top of the pipe coating and the ground surface. At least eight (8) feet of distance is required between the top of the pipe protection concrete slab and the invert of any canal or ditch, which is crossed by such pipelines.
4. SRCSD shall at all times mark the centerline of the tunnel and pipeline crossings of waterways by way of appropriate signs. Said signs shall be readable from the waterway and levee. SRCSD shall at all times clearly mark the pipeline location at slough, canal and ditch crossings with permanent markers on both banks of each of such slough or canal crossings.
5. Following completion, SRCSD shall submit a set of "as-built" construction plans of the crossing, certified by a civil engineer registered in the state of California,

showing final plans and profiles of the sewer line, and all field changes or other modifications to the plans as approved for construction.

6. SRCSD shall comply with the requirements set forth in letter from John Buttz to Chris Neudeck dated June 15, 2004.
7. All temporary and permanent access roads shall be limited to private access. No public access shall be allowed on such roads.
8. Gates shall be constructed with a locking mechanism to allow for at least three separate locks. Gates shall be maintained closed and locked except during passage. Permittee may install electric gate openers and/or other security features subject to the approval of RD-307, which shall not be unreasonably withheld.
9. Subject to the landowner's consent Permittee may install a temporary gate landward of the landside levee toe on the temporary construction access road connection to South River Road. No permanent gates are planned to be installed as part of the work permitted by this agreement.
10. The existing gate at the permanent access road connection to Babel Slough Road shall be maintained closed and locked except during passage. Permittee shall provide a copy of this Permit Agreement to each of its contractors using said gate and shall require such contractors to coordinate with RD-307 regarding the enforcement of this provision and maintenance and repair of the gate during the contractor's use of the gate. Contact information is below:

Yolo Force Main Project Contact Information

RD-307:
Pete Dwyer, Project Coordinator
H: (916) 371-2351

Construction Manager:
Harris & Associates
Sam McClellan, Project Manger
C: (916) 439-2742

LNWI Program Manager:
MWH
Steve Chavez, Project Coordinator
C: (916) 869-8989

Contractor:
Las Vegas Paving
Bill Wellman, Project Manger
W: (702) 251-5800
C: (702) 379-3906

SECTION 02240
DEWATERING

PART 1 GENERAL

1.1 SUMMARY

A. The Contractor shall carry out work specified in this SECTION including design, installation, operation, maintenance and removal of groundwater dewatering systems for pipelines, structures and at the tunnel receiving shaft site and the establishment of a groundwater level monitoring program and related ground surface settlement monitoring program. At the jacking shaft, the use of dewatering wells is not permitted as groundwater control method, and requires that alternative methods for groundwater cut-off be used.

B. General:

1. Except as modified herein, the Work shall conform to SECTION 10-5 of the Standard Construction Specifications.

2. The Contractor shall design, furnish, install, operate, and maintain the dewatering systems under this Contract and shall provide all labor, materials, and equipment so as to lower and maintain the groundwater table a minimum of 2 feet below the bottom of the excavation for structures or the bottom of the pipe trench and a minimum of 5 feet below the bottom of the receiving shaft excavation and as necessary for construction of structures, installation of pipe and appurtenances and backfilling of excavations, all to be carried out under dry, no standing water, conditions in conformance with the minimum requirements specified in Paragraph 1.3 and 3.1 herein. Care shall be taken to prevent migration of natural soils and softening of the bottom of excavations due to formation of "quick" conditions and/or "boils." Care should also be taken to avoid "over pumping" that creates excessive drawdown beyond the 2 feet required.

3. The Contractor shall dispose of water from dewatering operations so as not to cause injury or damage to adjacent property and shall at all times remain in compliance with National Pollution Discharge Elimination System (NPDES) requirements and the Stormwater Pollution Prevention Plan (SWPPP).

4. Disposal of dewatering operations shall only be at the Dewatering Treatment Facility (DTF), located adjacent to the South River Pumping Station. The maximum allowable flow that can be discharged by the dewatering system to the DTF is 8 million gallons per day for this Project.

5. Contractor shall lower the groundwater table for pipeline trenches for a period of at least 3 weeks prior to construction in accordance with paragraph 1.3-A.4, to allow poorly draining soils to dewater.

6. No groundwater dewatering discharge to the DTF will be allowed between November 1 and April 1 of any given year.

7. The Contractor shall be responsible for obtaining all required permits, unless indicated to be provided by the Owner, and shall follow all requirements of all permits.

C. Alternate Dewatering Systems for Pipeline Excavations: The basis of bid shall be based on a dewatering well system consisting of vertical dewatering wells, well pumps, and a collection and conveyance system. This system shall conform to the minimum requirements of Paragraphs 1.3 and 3.1 herein. Alternate dewatering system approaches will only be considered after award of the contract, in accordance with the requirements of Section 9-3 of the County Standard Specifications.

1.2 RELATED WORK SPECIFIED ELSEWHERE

A. SECTION 02051, CONTAMINATED SOILS/MATERIALS AND WATER HANDLING, REMOVAL, AND DISPOSAL

B. SECTION 02070, GEOTEXTILES.

C. SECTION 02210, EARTHWORK.

D. D. SECTION 02260, EXCAVATION SUPPORT.

E. SECTION 02411, MICROTUNNELING.

F. SECTION 02445, GEOTECHNICAL INSTRUMENTATION AND MONITORING.

1.3 DEWATERING APPROACH

A. The limitations associated with dewatering on the Project are of sufficient magnitude that they will directly affect the cost of dewatering and will indirectly affect the cost of pipeline installation by limiting the production rate. The information presented below is provided to Bidders to establish the dewatering parameters on which all Bidders can rely for their basis of bid:

1. **Discharge Locations** – Due to water quality issues, the NPDES permit only allows dewatering discharges from the Project to the DTF as defined in Paragraph 1.1.B.4.

2. **Well Capacity** – To help mitigate potential subsidence from excessive dewatering, the maximum dewatering well discharge rate shall be as needed to maintain ground water drawdown and the maximum well spacing shall be 50ft on center as recommended in the Geotechnical Baseline Report (GBR). The assumed well depth is 50 ft below ground surface. The well discharge rate shall be measured individually during the well development phase and collectively during the dewatering production phase, using an average flow per active well.

3. **Production Rate** – The Project includes approximately 25,000 ft of open-cut trench and includes a total of twelve calendar months of production for the pipeline installation (5/1/05 to 11/1/05 and 4/1/06 to 10/1/06), except as limited by the MMRP in SP-26. The minimum production rate for pipeline installation is therefore the total pipe length divided by the total working days available (25,000 ft divided by approximately 255 working days, 5 day per week basis) which results in a minimum production rate of approximately 98 ft/day.

4. **Dewatering Zone** – For the purpose of establishing baseline dewatering parameters, the 'dewatering zone' is hereby defined as the total length of alignment that has active dewatering pumps (the pumps are discharging) at any one time for each pipe heading. The design intent is to have sufficient dewatering wells active ahead of the excavator, through the pipe-laying zone, and behind the backfill operation to ensure that soil conditions are conducive to an efficient construction operation. To meet this intent, the Engineer has estimated that the number of required active wells should be based on 5 weeks of pipeline production. The rational for this estimate is to provide for 3 weeks of water table draw-down ahead of the excavator, 1 week of open-trench between the excavation operation and the backfill operation, and 1 week of buffer zone behind the backfill operation. Therefore, for the purpose of establishing a baseline dewatering parameter, the minimum length of dewatering zone for each pipeline heading would be 2,450 ft of alignment to accommodate the minimum production rate of 98 ft/day for the 5 week dewatering zone period.

5. **Conveyance Capacity** – To meet the above baseline dewatering parameters (well capacity, production rate, and dewatering zone) and establish soil conditions conducive to an efficient construction operation, the discharge volume from all active dewatering wells must be conveyed to the discharge location specified herein. The maximum length of conveyance pipeline for the Project is approximately 25,000 ft. As the maximum conveyance distance is pre-determined, the selection of the conveyance pipe(s) size and the pump head dedicated to dynamic losses will determine the maximum flow rate to the discharge location. For example, to convey the dewatering discharge rate established above, the conveyance pipeline and pump head would need to be

sized for 2,940 gpm (dewatering zone of 2,450 ft, wells at 50 ft on-center, and flows of 60 gpm/well). The Contractor shall select pipe diameters and booster pump heads that will convey the dewatering flows required by the production rate established in their baseline schedule.

6. **Conveyance Routing and Outfall Challenges** – All dewatering water must be conveyed to the location identified in Paragraph 1.1.B.4. The following describes the challenges faced by the Contractor at critical locations in placing a conveyance pipeline along the alignment and some of the options available at those locations. Most of the alignment follows open fields, the PG&E easement or the Yolo Shortline Railroad corridor and the conveyance pipeline can be placed on the ground surface along the edge of the temporary construction easement. The following locations present challenges:

   a. At Babel Slough the 66-inch pipes will be microtunneled under Babel Slough and Babel Slough Road. The dewatering pipeline must be placed below grade under the Road. The Contractor must obtain an encroachment permit from Yolo County and meet County requirements for placing the pipe, backfill and repaving.

   b. Across the Slough, the Owner has obtained permission to place a dewatering pipeline along the Yolo Shortline Railroad ROW. The Contractor is responsible for meeting Railroad requirements for encroachment including flagmen. Access must be maintained to residents adjacent to the dewatering conveyance pipeline alignment.

7. **Treatment of Well Development and Well Operation Discharge**

   a. Well Development Pre-Treatment Requirements Prior to Discharging to the dewatering conveyance pipeline:

      1) All dewatering well discharge during well development shall be pre-treated through the utilization of 2 painted steel sand tanks operating in parallel, as specified herein, prior to discharging into the dewatering conveyance pipeline. Each sand tank shall be sized for an operating volume of 6,000 gallons and shall have the approximate dimensions of 4 feet high x 8 feet wide x 30 feet long. The tank shall include:

         a) A 12-inch baffled inlet pipe to prevent flow short-circuiting.

         b) An outlet weir that extends the full tank width to optimize settling.

         c) A 12-inch weir outlet pipe.

         d) A 12-inch decant outlet pipe at tank midpoint, with an isolation valve, for removal of supernatant, and

e) A 12-inch sludge outlet pipe near tank, bottom with an isolation valve, for removal of sludge. The sludge shall be removed from the sand tank after each well has been developed.

b. Well Development Pre-Treatment Water Quality Criteria

1) Well development shall be considered complete once influent flow to the sand tank meets the following two criteria:

a) A minimum of two hours of pumping time has elapsed.

b) Three consecutive turbidity influent sand tank readings, spaced at five minute intervals, have a turbidity value of 100 NTU or less.

2) Only after the well development has been successfully completed, shall the well be placed into dewatering operation and discharged to the conveyance pipe without the pre-treatment provisions specified for well development.

c. Sand Tank Sludge Disposal

1) The Contractor is responsible for the disposal of sand tank sludge in a manner that meets all permit requirements and all regulatory criteria. At his option, beginning April 1, 2005, the Contractor may dispose of sand tank sludge at the LNWI Dewatering Treatment Facility (DTF), located on South River Road, adjacent to South River Pumping Station. If the Contractor disposes sludge into the DTF, sludge from 1 in every 10 wells will be analyzed. At a minimum, this analysis shall consist of all testing described in CFR Part 503.

d. Well Operation

1) The Contractor shall monitor all wells twice daily (calendar day), once each in the morning, and once each in the afternoon, to ensure that each pump is operating correctly and is not clogged or pumping sand.

2) Water quality and flow rates for the dewatering system will be monitored by the Engineer at the DTF on a daily basis. Nonconformance with the water quality parameters and maximum flow rate defined earlier will require the Contractor to modify dewatering activities so that the dewatering is in compliance with the specified water quality requirements.

8. **Dewatering Discharge Monitoring And Reporting Requirements**

a. Well Development

1) The Contractor shall take samples and record all turbidity measurements necessary to meet well development pre-treatment water quality criteria described above. Data logs shall include

turbidity measurements of the sand tank influent, sand tank effluent, and time of measurements.

2) Sand tank sludge disposal logs are required and shall include disposal location, volume of sludge, and date of disposal. In addition, if the Contractor chooses to dispose sludge into the DTF, report CFR Part 503 analysis for 1 in every 10 wells.

3) Turbidity measurements shall be taken using a portable turbidimeter, VWR Catalog No. 66120-352 (Orbeco Hellige No. 966-01), or equal.

4) Well development and sand tank disposal logs shall be submitted to the Construction Manager (CM) on a daily (working day) basis. The Contractor shall use the well development and sand tank disposal log templates provided by the Engineer for reporting purposes.

5) Flow Meter – Dewatering conveyance pipeline flow will be measured at the DTF by the Engineer.

b. Well Operation

1) All dewatering well discharge during the well operational periods shall be discharged to a dewatering conveyance pipeline.

2) All water quality monitoring and dewatering flow rates will be performed by the Engineer at the DTF. Nonconformance with the water quality parameters and maximum flow rate defined earlier will require the Contractor to modify dewatering activities so that the dewatering is in compliance with the specified water quality requirements.

1.4 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

A. Where conflicts between these specifications and the referenced specification, code, or standard occur, the more restrictive specification shall govern. The publications are referenced in the text by basic designation only. Where a date is given for referenced standards, that edition shall be used. Where no date is given for referenced standards, the latest edition available on the date of issue of Contract Documents shall be used.

B. American Society for Testing and Materials (ASTM).

1. D442 Specification for Particle Size Analysis.

2. C778 Standard Specification for Standard Sand.

C. Safety Codes:

1. Cal/OSHA, State of California Administrative Code, Title 8, Industrial Relations, Chapter 4, Division of Industrial Safety, Subchapter 20, Tunnel Safety Orders.

2. Occupational Safety and Health Administration (OSHA) Regulations and Standards for Underground Construction, 29 CFR Part 1926, Subpart S, Underground Construction, and Subpart P, Excavations.

D. Manuals:

1. Ground Water Manual, Chapter 1X, "Methods of Determining Aquifer Characteristics", published by U.S. Department of Interior, 1981.

1.5 SUBMITTALS

A. Submittals shall be made in accordance with SP-12, CONTRACTOR'S SUBMITTALS.

B. Provide sufficient detail to allow the Engineer to judge whether the proposed equipment, materials, and procedures will meet the Contract requirements. All drawings shall be legible with dimensions accurately shown and clearly marked in English. Drawings and photographs transmitted by a facsimile will not be accepted. The Engineer's review of submitted details and data will be based on consideration of requirements for the completed work, protection of existing utilities, and the possibility of unnecessary delays in the execution of the Work to be constructed under this Contract.

C. Qualifications:

1. Provide the name of the dewatering contractor and their designer that will perform the work and written qualification documentation as referred to in Part 1.6 below.

D. Water Control Plan.

1. The Contractor shall submit a Water Control Plan (WCP) six (6) weeks prior to the start of dewatering to allow review, revisions, and approval by the Engineer. Include the details and schedules for all pump tests in the WCP. Engineer's review of the WCP shall not relieve the Contractor from the responsibility to provide a system that meets all permit requirements and enables work to be performed in the dry. No dewatering operations are allowed until the Engineer approves the WCP.

2. The WCP shall include at a minimum descriptions of proposed groundwater and surface water control facilities in conformance with the requirements of Section 02240, Paragraph 1.3, including, but not limited to, equipment, installation, operation, and removal methods; standby equipment and power

supply, silt removal and treatment facilities, pollution control facilities, discharge locations to be utilized, anticipated dates and flows, monitoring and reporting plan, and any other information required by the NPDES permit.

3. The WCP shall contain provisions for measuring discharge flow from the dewatering system, a program for measuring groundwater level during dewatering system operations, and a program for sampling and testing ground water quality, in accordance with the minimum requirements of Section 02240, Paragraph 1.3.

4. The Contractor shall be required to demonstrate the systems proposed in the WCP and to verify that adequate equipment, personnel, and materials are provided to dewater the excavations at all locations and times required.

5. The WCP shall include projected pumping rates based on information established in the GBR for the Project. The WCP shall also include projected drawdown curves, recharge rates, and other hydro-geologic information and calculations developed to support the proposed dewatering systems and methods.

6. WCP shall include locations receiving discharges and anticipated dates and flows and any other information required by the NPDES permit, and incorporate schedule constraints identified in SP-14 into the WCP.

7. WCP shall include contingency plans for collection of water from local seeps that drain into the trench.

8. The WCP shall include proposed locations, and well details for monitoring wells and step-out monitoring wells, as defined in this Section.

9. All dewatering water generated by the Contractor as part of this Project shall be disposed into a temporary pipeline, sized and provided separately by the Contractor that transports all dewatering water to the DTF at the south end of the Project, adjacent to the South River Pumping Station construction site. **No other dewatering discharge locations will be allowed.**

10. Contractor shall provide an Alternate Water Supply Plan (AWSP) for properties where the existing well is impacted by the construction dewatering. The AWSP shall include providing bottled water within 4 hours at the minimum and a long-term water supply which could include a tank or new well. (MMRP 5-4).

E. Settlement Monitoring and Remediation Plan.

1. The Contractor shall submit a Settlement Monitoring and Remediation Plan (SMRP) in a timely manner to allow review, revisions and approval by the Engineer prior to the start of dewatering operations.

2. The SMRP shall identify any movement sensitive structures likely to be affected by any dewatering induced settlement. The SMRP shall include a description of the proposed settlement monitoring locations to be positioned in the vicinity of each of the shaft dewatering operations and also adjacent to any identified movement sensitive structures.

3. The settlement monitoring points shall be of the same type, and with the same survey control, and at a minimum, the same number as those specified in SECTION 02445, GEOTECHNICAL INSTRUMENTTION AND MONITORING.

4. The SMRP shall detail the actions to be taken and the methods proposed to mitigate any settlement in excess of that indicated in the GBR and as required for the protection of any sensitive structures.

5. The SMRP shall outline the settlement monitoring program including method and frequency of monitoring and action levels.

F. Shop Drawings.

1. The Contractor shall submit shop drawings showing locations, dimensions and relationships of elements of each dewatering system. The submittal shall include design calculations demonstrating adequacy of proposed dewatering or isolation systems and their components. The Contractor shall provide manufacturer's literature describing installation, operation and maintenance procedures for all components of the dewatering system.

2. The Contractor shall provide installation records of all components of the dewatering systems proposed in the WCP. The drawings shall include as a minimum:

   a. Locations, depths, layout, sizes and installation materials for wells and monitoring wells, discharge headers and disposal lines based on the well design calculations.

   b. Types, sizes, quantities, capacities and other identifying characteristics for pumps, well points, standby equipment, power systems, well screens, filter material, monitoring equipment and other dewatering system components.

   c. Methods and procedures for installation, testing, operation, maintenance, monitoring, and removal of the dewatering system and reinstatement and decommissioning of the wells, including personnel, schedules, drilling methods, well development techniques, interruption prevention and correction, system supplementation or revision, and other operations related to the trench, shaft and structure dewatering.

d. Design calculations and supporting data upon which the dewatering system design is based, including a description and profile of the geology, soil, groundwater conditions, interpretation of pump test data, and other pertinent characteristics at the site.

3. Dewatering efforts shall be shown in the Contractor's detailed construction schedule as required in SP-23 CRITICAL PATH METHOD NETWORK SCHEDULE (CPM).

G. Quality Control Submittals.

1. The Contractor shall submit weekly to the Engineer, tabulated water level elevations recorded daily in observation wells and piezometers. Also included should be background water levels for each piezometer established daily over a 1-week period prior to the system startup.

2. The Contractor shall submit to the Engineer, water quality and sediment measurement results recorded from discharge locations and individual wells, in accordance with the minimum requirements of Section 02240, Paragraph 1.3.

1.6 QUALITY CONTROL

A. Contractor Qualifications.

1. The Contractor shall be or shall employ a specialty dewatering Contractor with experience in the field of large dewatering system design, installation, operation and maintenance. The Contractor shall document successful completion of at least five (5) projects in soils and ground water conditions similar to the project.

2. The Contractor's dewatering system and pump tests shall be designed by a civil engineer or engineering geologist registered in the State of California and experienced in the design, installation and operation of dewatering systems, including the planning, execution, and interpretation of pump tests.

3. Installation and operation of the dewatering system shall be under the direct supervision of qualified personnel. The dewatering representative shall be responsible for ensuring that all materials, equipment, methods and procedures utilized in the installation, operation and maintenance of the dewatering system conform to the requirements of:

a. The approved WCP,

b. The approved SMRP, and

c. All State and local statutes; conducting all required testing, inspection and monitoring of the dewatering system.

1.7 SYSTEM DESCRIPTION

A. Design Criteria:

1. Design dewatering systems such that the dewatering system is sufficient to render and maintain the required trench, shaft and structure excavations in a dewatered and hydrostatically relieved condition, with the groundwater table a minimum 2 feet below the bottom of each trench or structure excavation and a minimum 5 feet below the bottom of the receiving shaft excavation, and to allow the required construction operations to be performed in a stable condition.

2. Design dewatering systems consistent with sound engineering principles and practices, in accordance with best modern practice.

3. Design the dewatering systems based on the results of the pump tests, data in the GDR and requirements of the GBR.

4. Include provisions for additional water volumes such as precipitation and surface run-off into the system volume capacity.

5. The dewatering systems shall be installed and operational with the required full groundwater level drawdown to be achieved per 1.3-A.4 herein prior to the commencement of trench excavation, and a minimum of two weeks prior to the commencement of shaft and structure excavation operations. The dewatering systems shall be in operation throughout the entire period of the trench, shaft and structure construction, backfill, and compaction and shall not be turned off until the construction materials have strength capable of withstanding the full hydrostatic load.

6. Dewatering discharge shall be to the Dewatering Treatment Facility as indicated on the Plans. Discharge to local drainage ditches and to Babel Slough is prohibited.

7. Water derived from dewatering shall not be used for dust control.

PART 2 PRODUCTS

2.1 MATERIALS

A. Dewatering equipment and materials, where required, shall meet the requirements of Section 02240, Paragraphs 1.3 and 3.1. It may include the use of or the combination of well pumps, monitoring wells, and vibrating wire piezometers or observation wells, temporary pipelines for water disposal, temporary hose, manifolds, rock or gravel placement, containment basins, sediment traps, settling tanks, cut-off or curtain walls and/or other means. Standby pumping equipment,

including self-contained emergency power generators, piping, and valving equipment shall be maintained on the site at all times.

B. The dewatering system for trenches and pipeline appurtenance construction may include submersible pumps, as recommended by the dewatering system design engineer.

1. Dewatering wells shall have the provision to allow direct measurement of pumped sediment during pumping. Such a system should include provision for a "t" and quick disconnect coupling to allow the use of a Rossum sand tester, or equivalent. Contractor shall include a detail of this measurement system as part of the WCP submittal. The sand tested shall be supplied by the Contractor.

2. For trench construction, observation wells, electronic piezometers or manual piezometers shall be installed at locations, intervals or spacing as recommended by the dewatering system designer; however, such intervals or spacing shall not exceed approximately 500 feet. Observation wells or piezometers shall be equidistant between adjacent dewatering wells, well points, eductors or similar equipment. Square tube steel lockable protective covers shall be provided for all monitoring wells and piezometers, and shall be compatible with the well casing diameter as manufactured by Boart & Longyear Company or equivalent. Locks shall be keyed such that 1 key operates all the locks. Contractor shall provide keys to the Engineer. Observation wells or piezometers shall be installed to a depth equal to the maximum depth of the dewatering wells.

3. Sump pumps in the pipe trench shall not be an acceptable means of trench dewatering. Sump pumps will be allowed in emergency situations only to remove small quantities of accumulated stormwater run-off. Discharge of any sump pump shall be subject to all the provisions of dewatering permits and plans.

C. The dewatering system for the Valve and Interconnect Facility construction may include submersible pumps, well points or eductors as recommended by the dewatering system design engineer.

1. For construction of these structures, a minimum of four groundwater level monitoring wells, being observation wells, electronic piezometers or manual piezometers shall be installed around the construction site at locations, intervals or spacing as recommended by the dewatering system designer. The monitoring wells shall be located within a radius of less than 500 feet from the nominal center of the Valve and Interconnection Facility site.

2. Sump pumps in structural excavations shall not be an acceptable means of this structural excavation dewatering. Sump pumps will be allowed in emergency situations only to remove small quantities of accumulated

stormwater run-off. Discharge of any sump pump shall be subject to all the provisions of dewatering permits and plans.

D. The dewatering system for the tunnel receiving shaft excavation shall utilize submersible pumps and shall have a minimum casing size of 8 inches.

1. A minimum of four groundwater level monitoring wells, being observation wells, electronic piezometers or manual piezometers shall be installed around the receiving shaft site at locations, intervals or spacing as recommended by the dewatering system designer.

2. Sump pumps in the shaft excavations shall not be an acceptable primary means of dewatering. Discharge of any sump pump shall be subject to all the provisions of dewatering permits and plans.

E. The dewatering system for the tunnel jacking shaft excavation shall utilize alternative methods for groundwater cutoff as specified in Section 02260. Collection of groundwater shall be limited to seepage and storm drain runoff, and discharge shall be in accordance with the provisions of the dewatering permit and specifications herein.

PART 3 EXECUTION

3.1 GENERAL

A. The Contractor shall provide, install, operate and maintain dewatering systems of sufficient size and capacity to permit trench, shaft and structure excavation and subsequent construction in dry conditions. Unless otherwise approved by the Engineer, the dewatering system shall lower and maintain groundwater at levels not less than 2 feet below the base of trench and structural excavations and at a level not greater than 5 feet below the base of the receiving shaft excavation. Maintain the water level at such lower elevations until no danger can occur because of buildup of excessive hydrostatic pressure. Excavations shall be maintained continuously free of water, regardless of source until shaft construction is complete.

B. A pump test shall be performed at the receiving shaft excavation where dewatering methods are proposed for groundwater control. The test shall not proceed prior to the drilling and completion of the 3 observation wells required for dewatering of a shaft excavation. The pump test shall conform to the procedures outlined in the manual referenced in article 1.4.D of this SECTION. An initial step-drawdown test shall be performed to determine the sustainable yield of the well, followed by a long-term pumping test at the selected yield. Test duration will depend on aquifer characteristics; the long-term test shall not commence until the normal water level in the pumping well shall have recovered to 90% of its initial level after conducting the step-down test.

C. Wells used for dewatering shall be adequately spaced to provide the necessary dewatering and shall be sand packed and/or filtered by other means used to prevent

pumping of fine sands or silts from the subsurface. A continual check by the Contractor shall be maintained to ensure that the subsurface soil is not being removed by the dewatering operation.

D. For trench and pipeline appurtenance construction, provide berms, ditches and/or temporary piping that spans the pipe trench or other means to protect excavations from erosion due to surface water runoff or stream flooding.

E. For the construction of shafts and structures, site grading shall promote drainage at all times. Surface runoff shall be diverted from excavations. Water entering the excavation from surface runoff shall be collected in shallow ditches around the perimeter of the excavation, drained to sumps and be pumped or drained by gravity from the excavation to maintain a bottom free from standing water.

F. For shaft construction, observation wells or piezometers shall be installed to measure the level of the groundwater within the soils being dewatered and shall be installed to a depth of at least 7 feet below the base of the shaft excavation. The observation wells shall be located at approximately 30 feet, 60 feet, and 150 feet from the center of each shaft or as determined by the accessibility constraints of the site.

G. For shaft construction, the collar elevation of the pump wells and groundwater monitoring wells shall be surveyed and the water levels recorded referenced to the relevant site datum.

H. For shaft construction, ground surface settlement will be monitored regularly during the temporary dewatering operations. Where measured settlement approaches or exceeds the allowable settlement limits or action levels as specified in the GBR or as specified for any local settlement sensitive structures remediation action shall be taken. The remedial actions shall be as outlined in the SMRP.

I. System redundancy shall be provided as required to keep the trench, shaft and structure excavations free of water in event of failure of well point, pump, eductor or other component.

J. Provide 100 percent emergency pump and power backup with automatic startup and switchover in event of electrical power failure.

K. Provide supplemental ditches and sumps only as necessary to collect water from local seeps.

L. The Contractor shall provide competent workmen and supervision for the operation of the pumping equipment. Workmen shall be available 24-hours a day during dewatering to perform emergency maintenance on system components.

M. Dewatering shall at all times be conducted in such a manner as to preserve the undisturbed bearing capacity of the sub-grade soils at the bottom of trenches and structural excavations at the proposed base of the receiving shaft excavation.

N. If foundation soils at trenches or structures are disturbed or loosened by the upward seepage of water or an uncontrolled flow of water, the affected areas shall be excavated and replaced with drain rock in accordance with the provisions of SECTION 02210, EARTHWORK wrapped with geotextiles in accordance with the provisions of SECTION 02070, GEOTEXTILES.

O. Foundation soils at shaft excavations shall be protected against being disturbed or loosened by the upward seepage of water or an uncontrolled flow of water, by the installation of a concrete shaft base slab and including a drainage layer in accordance with the provisions of SECTION 2260, EXCAVATION SUPPORT, SECTION 02070, GEOTEXTILES, and drain rock in accordance with the provisions of SECTION 02210, EARTHWORK.

P. The Contractor shall maintain the water level a minimum of 2 feet below the bottom of trench and structure excavations and a minimum of 5 feet below the bottom of shaft excavations in all work areas where groundwater occurs during excavation, construction, and up to acceptance of work in such a manner to guarantee the stability of the excavation invert against boiling or quick conditions.

Q. On the completion of the trench, shaft or structure construction the dewatering systems shall be turned off and the groundwater level allowed to return to original level. The pumps, well points or eductors shall be removed and the wells decommissioned in accordance with the WCP and State water resources protection requirements.

R. The Contractor shall provide alternative water sources to owners of wells that have been identified as "wells at risk of draw down" on the Construction Drawings. Water quality shall be equal to or greater than the quality of the water found in the well. Alternative water sources may include, but not be limited to, the following in accordance with MMRP 5-4:

    1. Potable water delivery equal in volume to the preconstruction water volume usage by the land user.

    2. Contractor shall provide potable water for all locations where water quality is impacted as soon as possible and in all occurrences within 24 hours of water quality impact as identified by the Engineer.

S. Wells installed by the Contractor for dewatering, monitoring, or potable water shall be abandoned in accordance with the following provisions, and as required by Yolo County:

    1. Pull all well casing and remove any surface completion.

    2. Remove all filter material using a vacuum truck or auger to the bottom of the upper clay layer, as defined for the applicable section in the Geotechnical Baseline Report, or to 15 feet, whichever is the least.

3. Place CDF conforming to the requirements of SECTION 02100, CONTROLLED DENSITY BACKFILL (CDF) to the ground surface. If water is present in the borehole, the CDF shall be tremied into the borehole and the water displaced.

3.2 SETTLEMENT

A. Dewatering-Induced Settlement shall be instrumented and monitored in accordance with SECTION 02445 GEOTECHNICAL INSTRUMENTATION AND MONITORING.

B. The Contractor shall repair without additional cost to the Owner any damage due to cracking or settlement that may result from his negligence, inadequate or improper installation, maintenance, or operation of the dewatering system, including but not limited to mechanical or electrical failures. The repair of settlement affected areas shall begin within 1 month of completion of work in the affected locations in accordance with MMRP 5-5.

3.3 DISPOSAL OF WATER

Water from ground dewatering operations is subject to the requirements of Paragraph 1.3 and the following:

A. All dewatering discharge water shall be disposed of through a common pipeline, sized by the Contractor, to convey all dewatering water to a DTF located at the south end of the Project, adjacent to the South River Pumping Station Project construction site. The DTF will be operated by the Owner and the size of the pipe connection provided for this Project is 24-inch diameter.

B. The Contractor shall dispose of water from the Work without damage to adjacent property. No water shall be drained into work built or under construction without prior written authorization of the Engineer.

C. The release of groundwater to its static level shall be performed in such a manner as to maintain the undisturbed state of the natural foundation soils, prevent disturbance of compacted backfill and prevent flotation or movement of structures, pipelines, and sewers.

D. The permit for discharging water from groundwater dewatering to surface water will be obtained by the Owner from the California Regional Water Quality Control Board Central Valley Region. The Contractor shall obtain a site specific National Pollution Discharge Elimination System (NPDES) permit and shall prepare and file an Erosion and Sediment Control Plan (ESCP) with the Yolo County Department of Water Resources.

E. See Section 02051 for handling of contaminated groundwater disposal.

END OF SECTION

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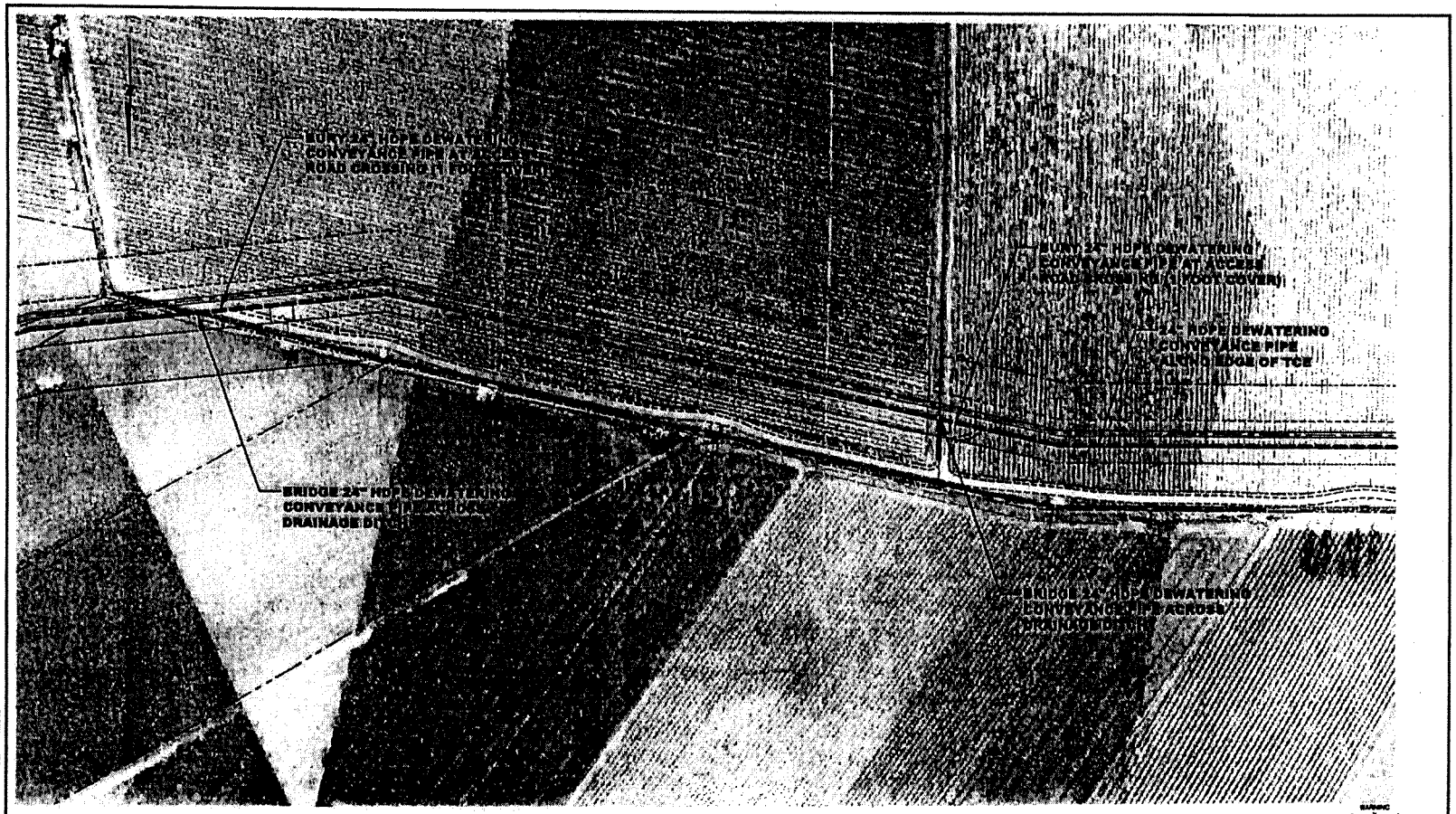

REVISIONS			
REV.	DESCRIPTION	BY	DATE

SURVEY
B.M.: ELEV.:
DESC.:
PLANS: F.B.:
PROFILE: F.B.:
DATUM:

SRCSD
Consulting Engineers

DEPARTMENT OF WATER QUALITY
SEWER SYSTEM ENGINEERING AND DESIGN
SUBMITTED: _____ DATE: _____
SUBMITTAL ACCEPTED: _____ DATE: 6-22-04

LNWI – YOLO FORCE MAIN

DEWATERING CONVEYANCE PIPELINE

CONTRACT NO. 3797
FILE NAME 92852-DWTR-02
DRAWN N. CLEMENZA
DESIGNED J. GOODWIN/P. FUSS
CHECKED W.F. HELMICK
SHEET DATE NOV 17, 2004
SCALE HOR: 1"=100' VER:
SHEET 2 OF XX SHEETS

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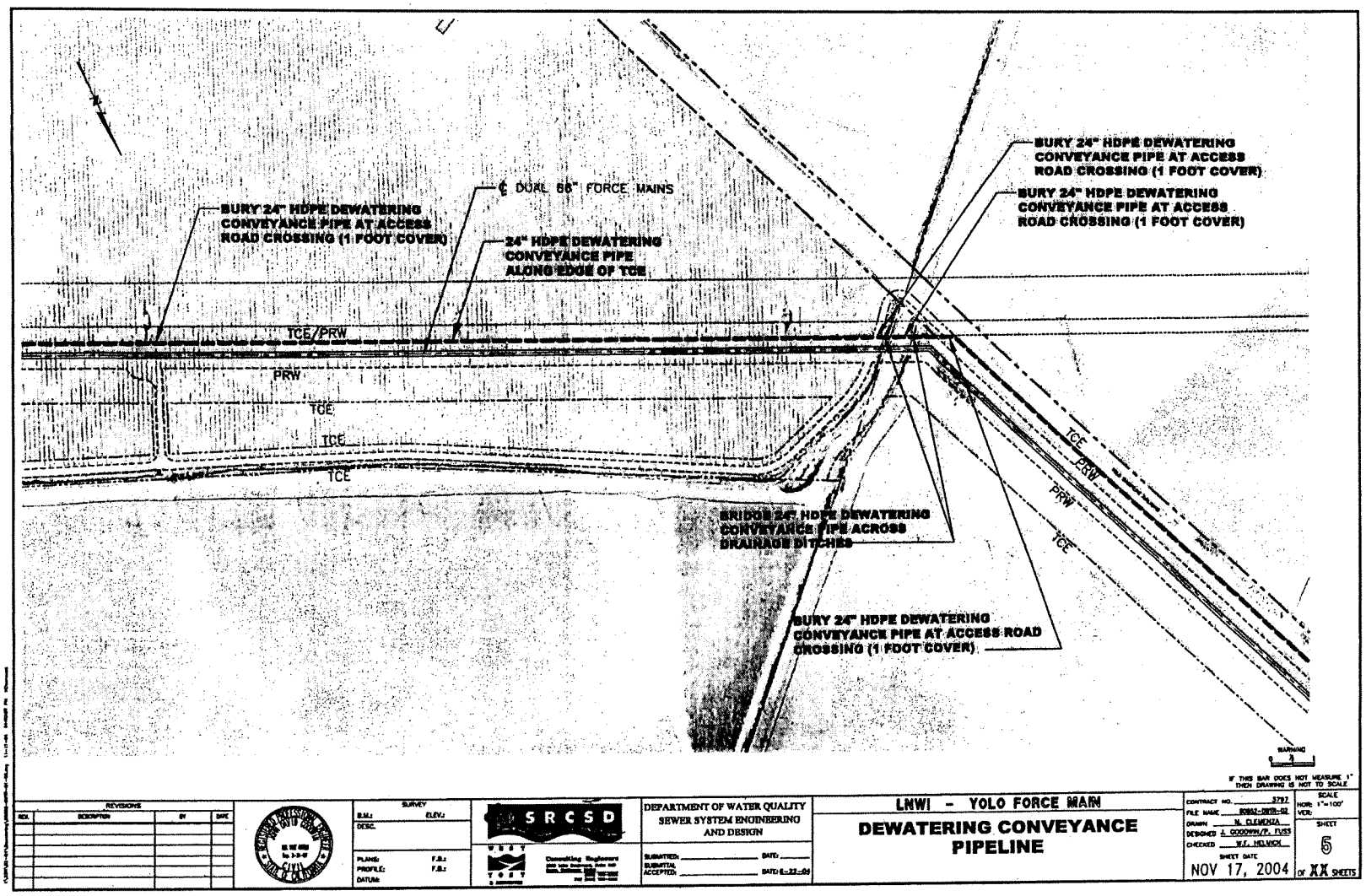

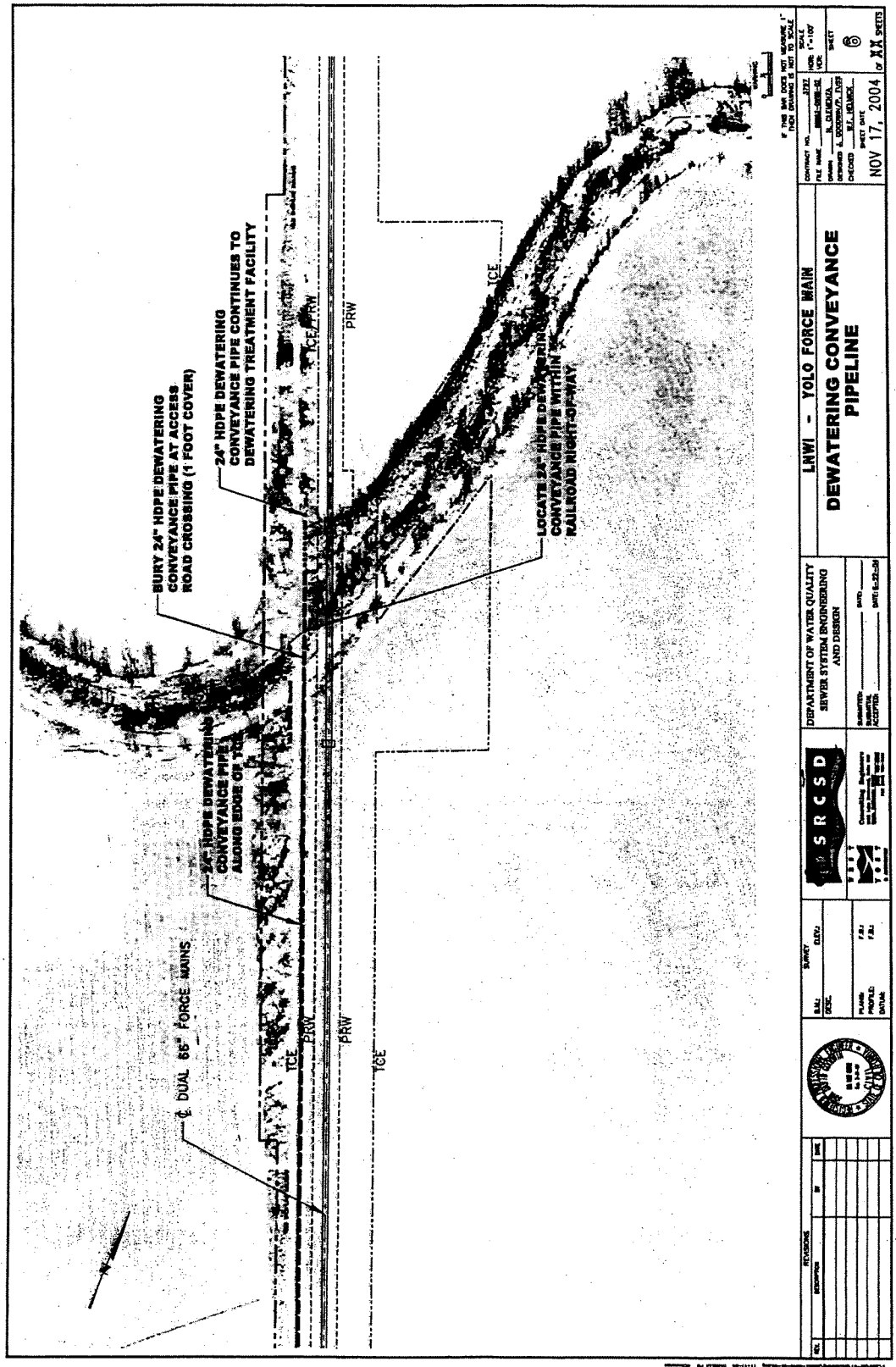

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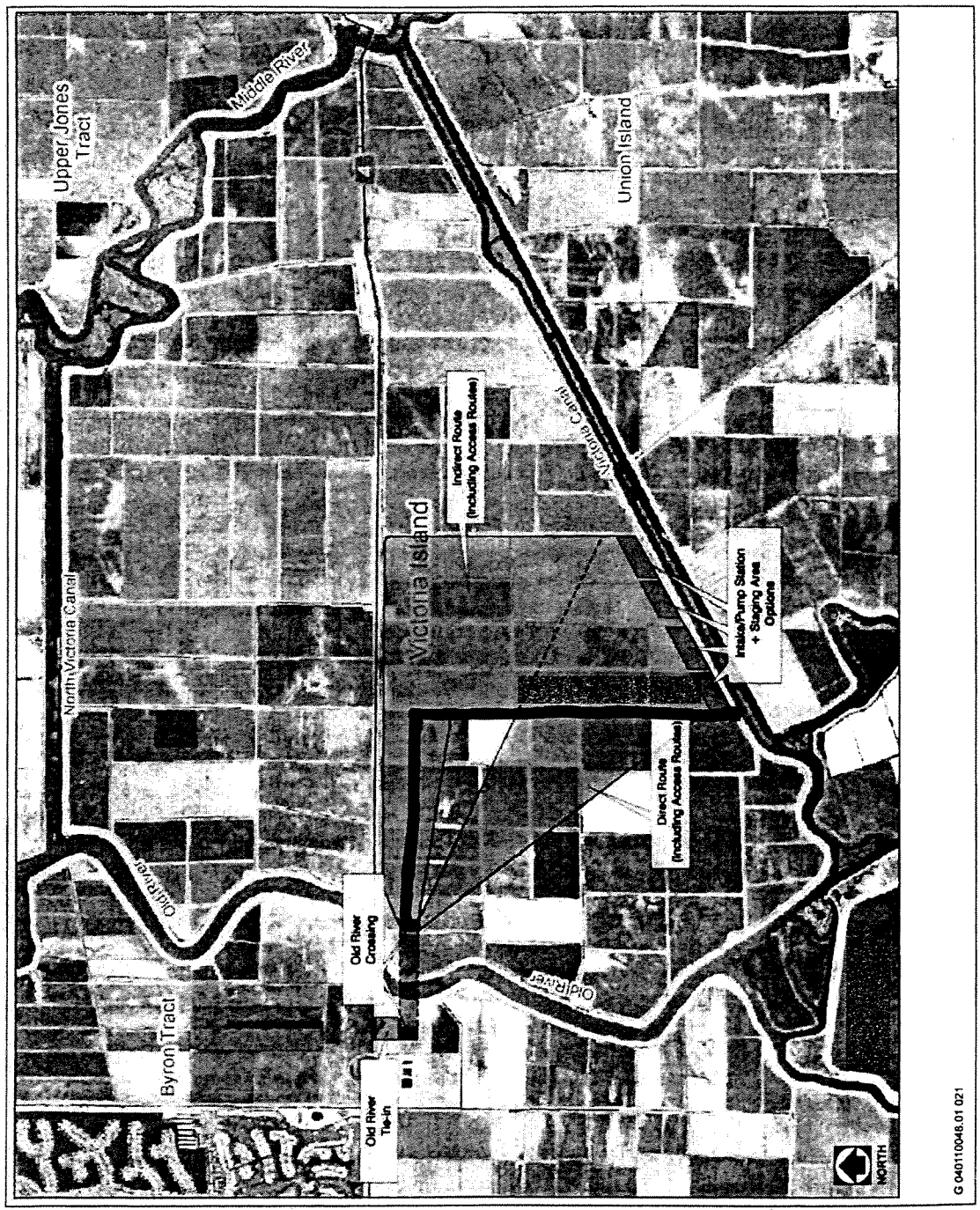


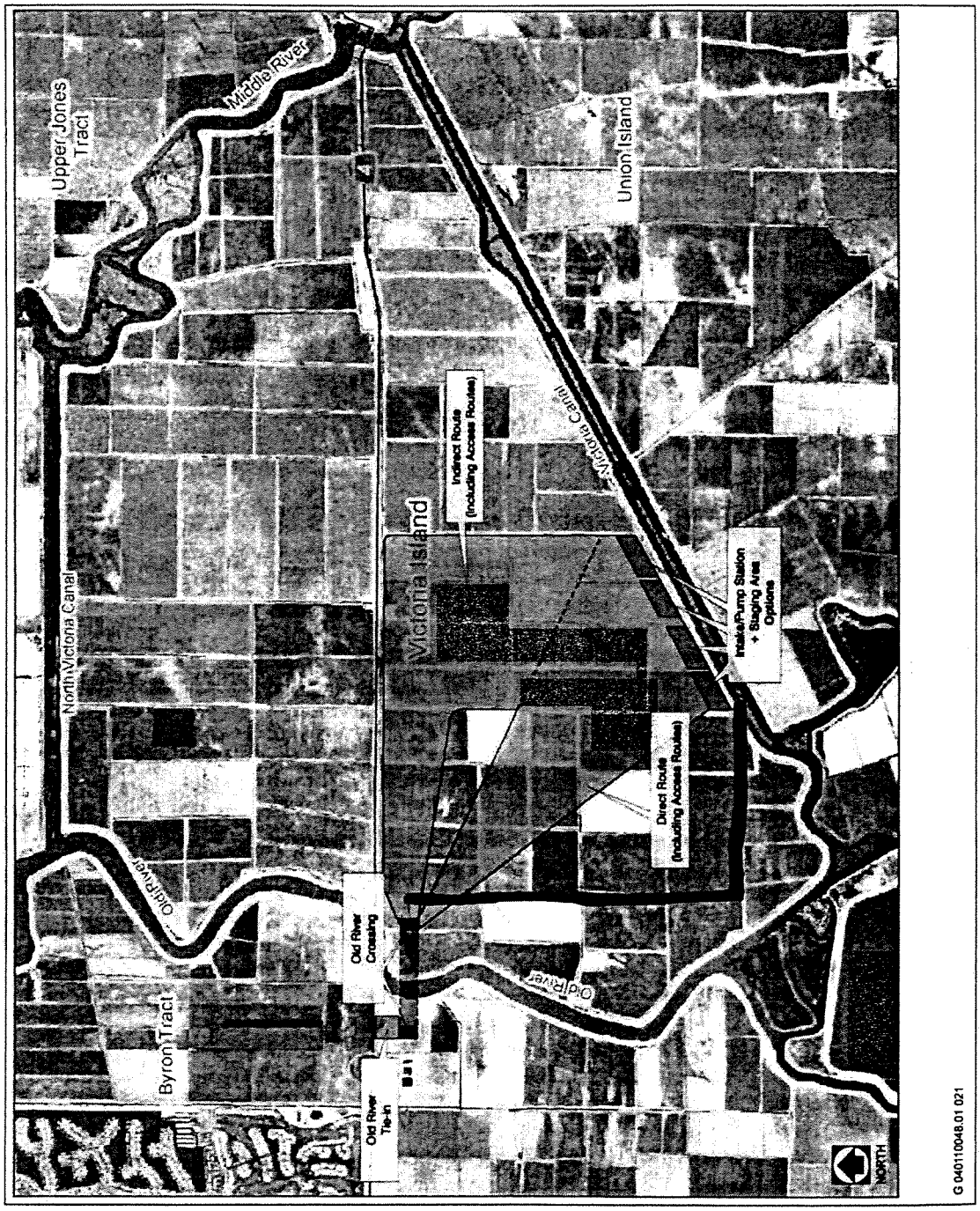
Source: CCWD Data

Conceptual Alignments for Alternative1 (Proposed Action) and Alternative 2 Alternative A

EXHIBIT ES-3

CCWD Alternative Intake Project EIR/EIS
P 04110048.01 01/06

EDAW



Source: CCWD Data

Conceptual Alignments for Alternative1 (Proposed Action) and Alternative 2

Alternative B

EXHIBIT ES-3

CCWD Alternative Intake Project EIR/EIS
P 04110048.01 01/06

EDAW

* * * COMMUNICATION RESULT REPORT (JUN. 23. 2006 11:11AM) * * *

FAX HEADER 1: NOMELLINI GRILLI MCD
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E-3) NO ANSWER
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From:	**Dante John Nomellini, Esq.**	**FAX #:**	**(209) 465-3956**
Date:	**June 23, 2006**	**Pages:**	**43, including this cover sheet**
Subject:	**DJN Comments - Draft EIR/EIS for CCWD's Alternative Intake Project**		

Comments: See attached for your review.