

California High-Speed Rail Authority



RFP No.: HSR 14-32

**Request for Proposal for Design-Build
Services for Construction Package 4**

**Reference Material, Part F.1 – North Kern
Water Storage District Conflict Report**

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NORTH KERN WATER STORAGE DISTRICT

June 30, 2014

Ms. Diana Gomez, Central Valley Regional Director
California High-Speed Rail Authority
2550 Mariposa Mall, Suite 3015
Fresno, CA 93721

Subject: California High-Speed Rail (HSR) Project
Agreement No. HSR 13-11
Letter Report

Dear Ms. Gomez:

In January of 2014, North Kern Water Storage District (“District”) entered into the subject Agreement with the California High-Speed Rail Authority to identify and document conflicts between the proposed rail alignment and the District’s facilities and operations (“Project”). Pursuant to Section 2 of that Agreement, this Letter Report is to transmit all deliverables for the subject Project. Following is a description of the Scope of Work, the Approach, and the Deliverables.

SCOPE OF WORK

The scope of work set forth in the Agreement has been completed and includes the following: 1) identification of conflicts between the proposed rail alignment and North Kern Water Storage District (District) facilities, as well as operational conflicts; 2) identification of conflicts between the proposed rail alignment and future proposed District facilities; 3) research of prior rights records with respect to the identified conflicts; 4) compilation of record drawings (as-built drawings) of the District facilities that are in conflict; and 5) preparation of an inventory (i.e. facility type, pipe material and size etc.) of the District facilities that are impacted.

APPROACH

To facilitate identification of conflicts between the proposed rail alignment and the District facilities, conflict maps were prepared. In this regard, the District’s Engineering Consultant (GEI Consultants, Inc.) requested and received GIS files from the HSR, which were overlaid with the District’s GIS files. With preliminary work maps in hand, a field inspection of potential conflict areas was

conducted for the purpose of confirming the indicated conflicts and identifying and documenting additional potential conflicts. It is noted that the identified conflicts reflect only the District facilities that fall within the HSR alignment footprint which, for the most part, is approximately 100 feet in width. In accordance with direction provided by HSR, the District facilities lying inside a 600-foot wide strip, identified as the limits of “Environmental Clearance” on the conflict maps, were not identified as conflicts. In addition to present-day conflicts, prospective conflicts were identified and documented.

The information provided by HSR for the proposed railway alignment extended to the south to Seventh Standard, which corresponds to the southern boundary of the District’s service area. In this regard, it is noted that the District has facilities located outside of its service area which are potentially in conflict with the railway alignment. HSR has indicated that identification of potential conflicts with District facilities located outside of its service area will be part of a separate contract between the HSR and the District.

Once the conflicts (both present-day and prospective) were identified, title reports for the affected parcels were ordered and reviewed to determine what easements or rights-of-way encumber the lands. With this information, the District was able to complete documentation of the prior rights research with respect to the identified conflicts.

DELIVERABLES

Based on the above-described work, the following project deliverables were prepared and are transmitted herewith:

- ✓ Figure 1 – Map showing location of the proposed rail alignment with respect to the District’s boundary.
- ✓ Figure 2A and 2B – Map showing the conflicts between the rail alignment and the existing District facilities.
- ✓ Figure 3A and 3B – Map showing the conflicts between the rail alignment and the existing District facilities, overlaid on an aerial photo.
- ✓ Figure 4A and 4B – Index map showing the locations where potential conflicts exist, and the key map for Figure 5-1 thru Figure 5-6.
- ✓ Figure 5-1 thru Figure 5-6 – Figures showing location-specific conflicts (aerial-based), and identification of conflicts related to the proposed railway alignment and/or proposed roadway work.
- ✓ Figure 6-1 thru Figure 6-8 – “On-the-ground” pictures of District facilities which would be impacted.

- ✓ Figure 7 – Map showing conflicts with prospective District facilities, consisting primarily of interties being considered with the facilities of adjacent districts and with the Friant-Kern Canal.
- ✓ Figure 8A, 8B and 8C – Identification of “operational” conflicts.
- ✓ Summary of Conflicts – Inventory of conflicts with detailed information of District facilities impacted (i.e. facility type, pipe material, size, etc.); identification of as-built drawings for impacted facilities; and documentation of prior rights regarding the site for each conflict.

With regard to the identification of prospective conflicts (refer to Figure 7), the following supporting documentation is also transmitted herewith:

NKWSD and SWSD Interconnection:

- ✓ Memo dated September 12, 2009, documenting the principal components of the project to expand the capability to move water between the two districts.

Multi-District Conveyance Facility:

- ✓ Project Brochure describing the project elements for the proposed Concept Study.
- ✓ Preliminary Report Memorandum, dated December 1, 2003, which defines the concept alternatives to facilitate regional water banking.
- ✓ Sketches of the proposed project alternatives, and associated concept-level cost estimates.
- ✓ Project Abstract describing the purpose, project alternatives and cost estimates of the project.
- ✓ It is noted that this project is considered a “first-priority” project in the Poso Creek Integrated Regional Water Management Plan, which was adopted by seven water districts in 2007, and subsequently updated in 2014. Copies of excerpts of the Plan can be provided upon request.

With regard to the documentation of prior rights research, a list of all underlying documents is summarized in the project list which is attached, and a copy of all underlying documents is available upon request.

If a meeting would be helpful between District staff, its Engineering Consultant, and representatives from the HSR, to discuss the information provided, please feel free to contact me to arrange the meeting. Also, if you have any questions or require any additional information or

documentation, please call me (at 661-393-2696) or Ms. Isela Medina, with GEI Consultants (at 661-327-7601).

Very truly yours,

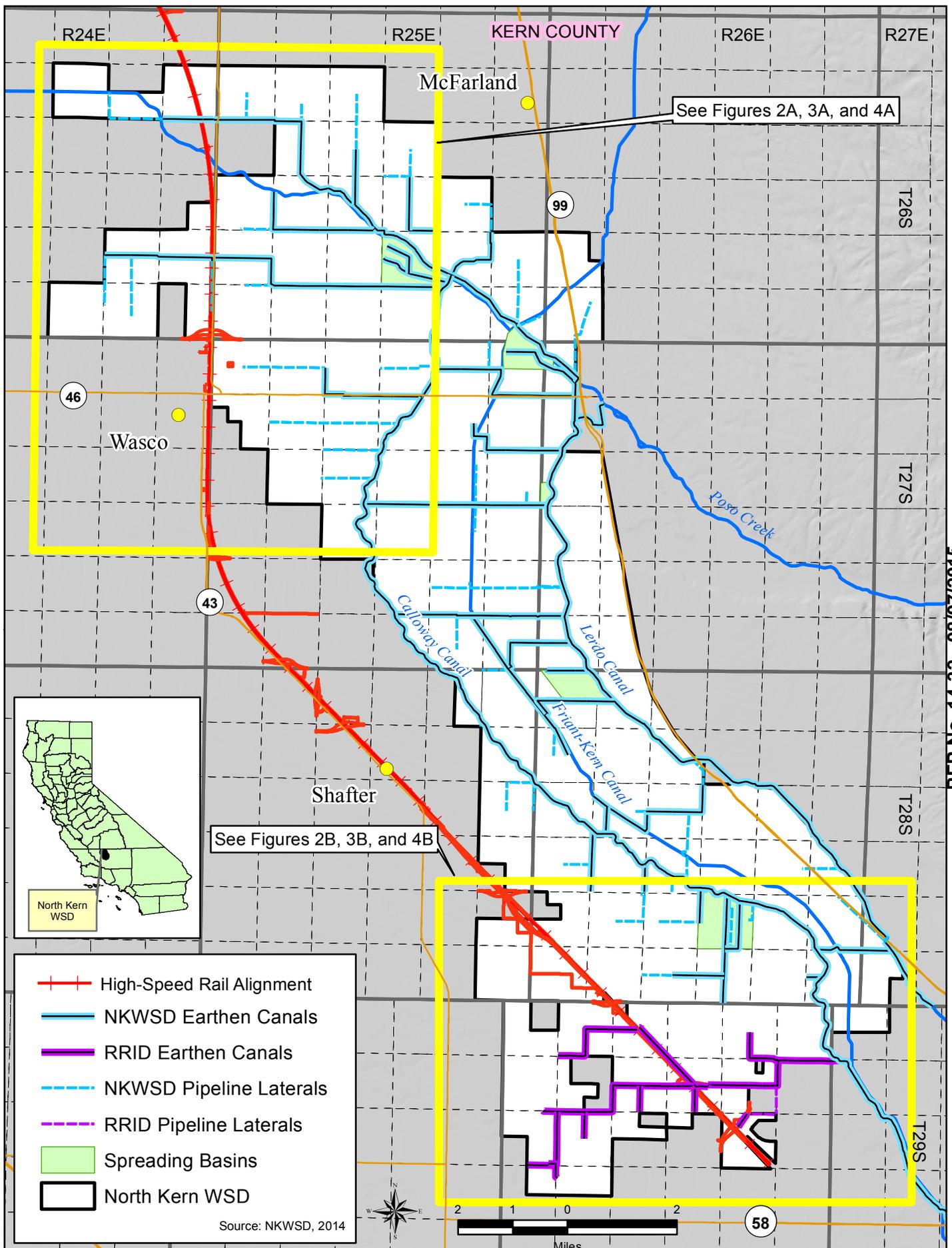


RICHARD A. DIAMOND
General Manager

CC: Isela Medina, GEI Consultants, Inc.

Enclosures

Conflict Maps



See Figures 2A, 3A, and 4A

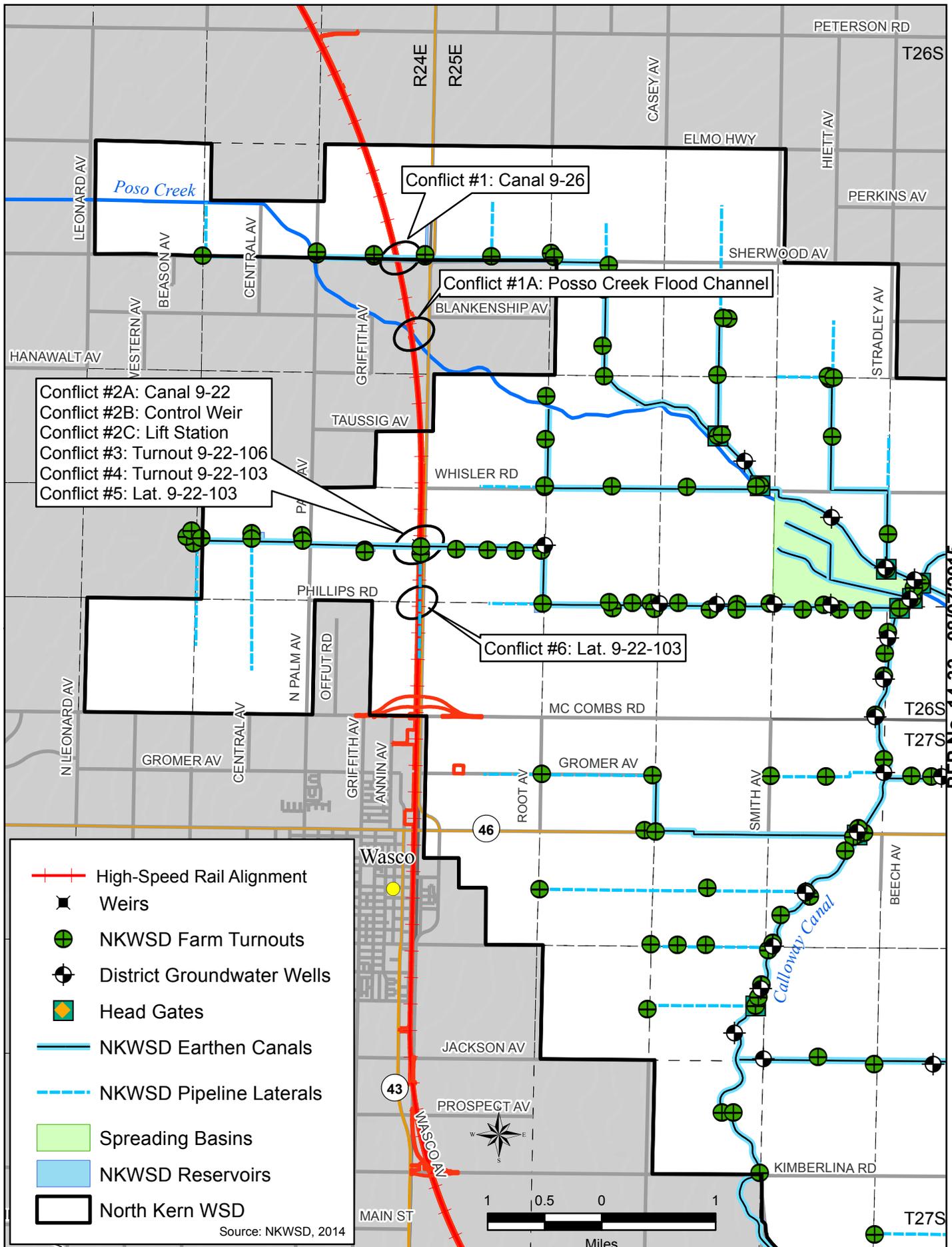
See Figures 2B, 3B, and 4B



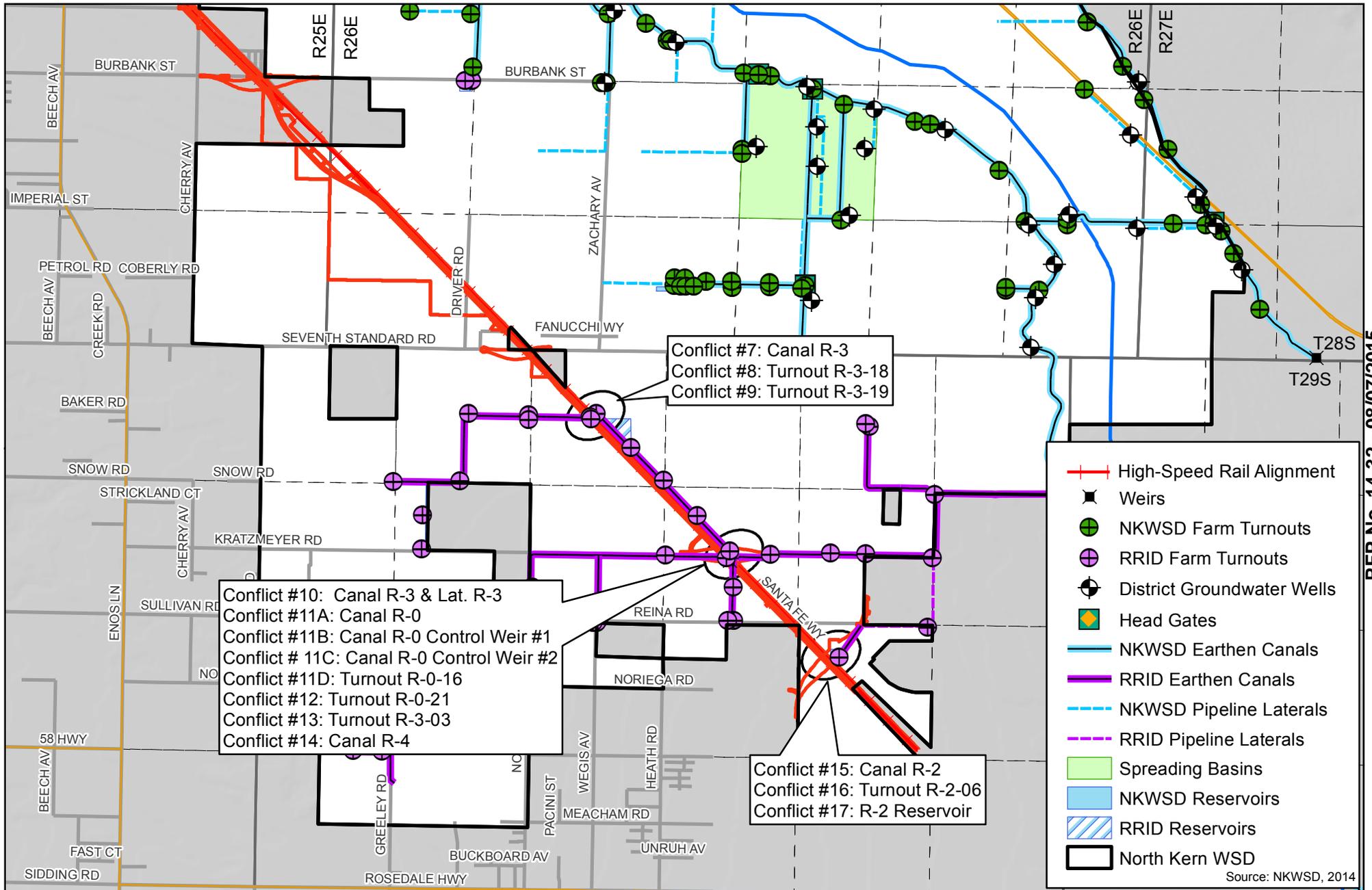
	High-Speed Rail Alignment
	NKWSD Earthen Canals
	RRID Earthen Canals
	NKWSD Pipeline Laterals
	RRID Pipeline Laterals
	Spreading Basins
	North Kern WSD

Source: NKWSD, 2014

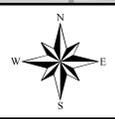
RFP No. 14-32 - 08/07/2015



RFP No. 14-32 - 08/07/2015



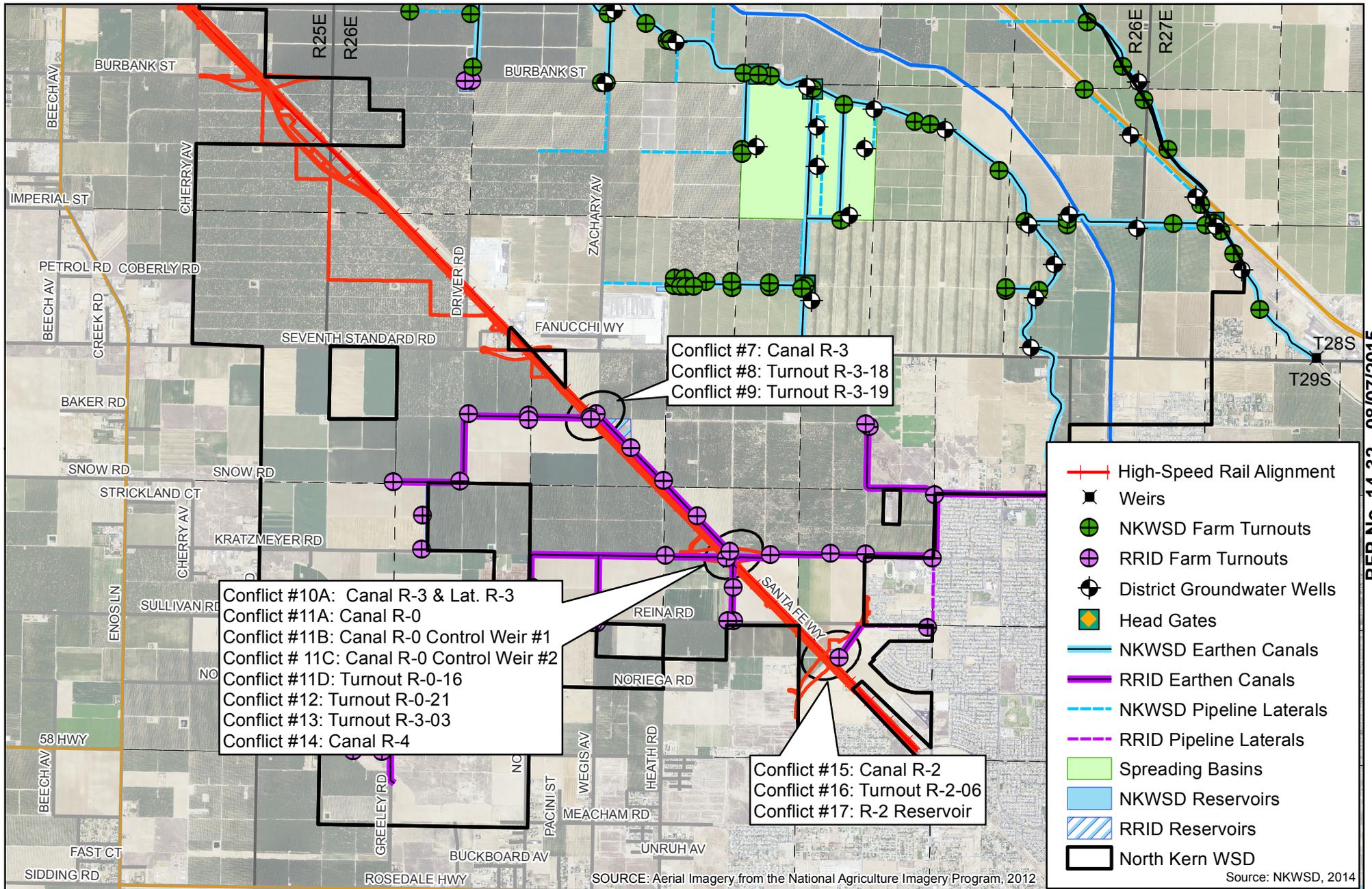
RFP No. 14-32 - 08/07/2015



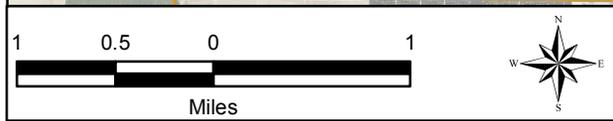
High-Speed Rail
 Kern County, California
 North Kern Water Storage District



PROJECT LOCATION - SOUTHERN SYSTEM
 MAY 2014
 FIGURE 2B



RFP No. 14-32 - 08/07/2015



High-Speed Rail
Kern County, California

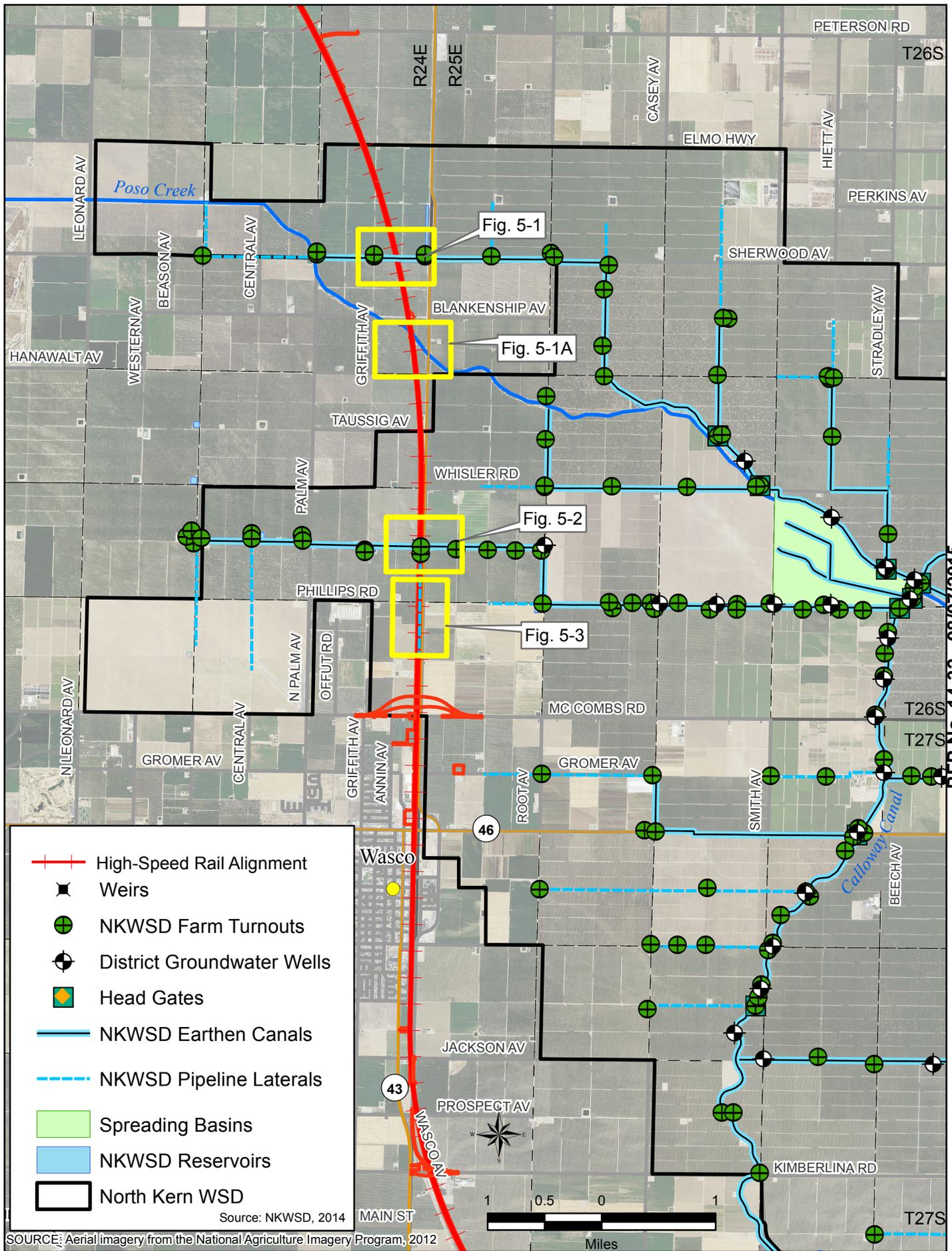
North Kern Water Storage District



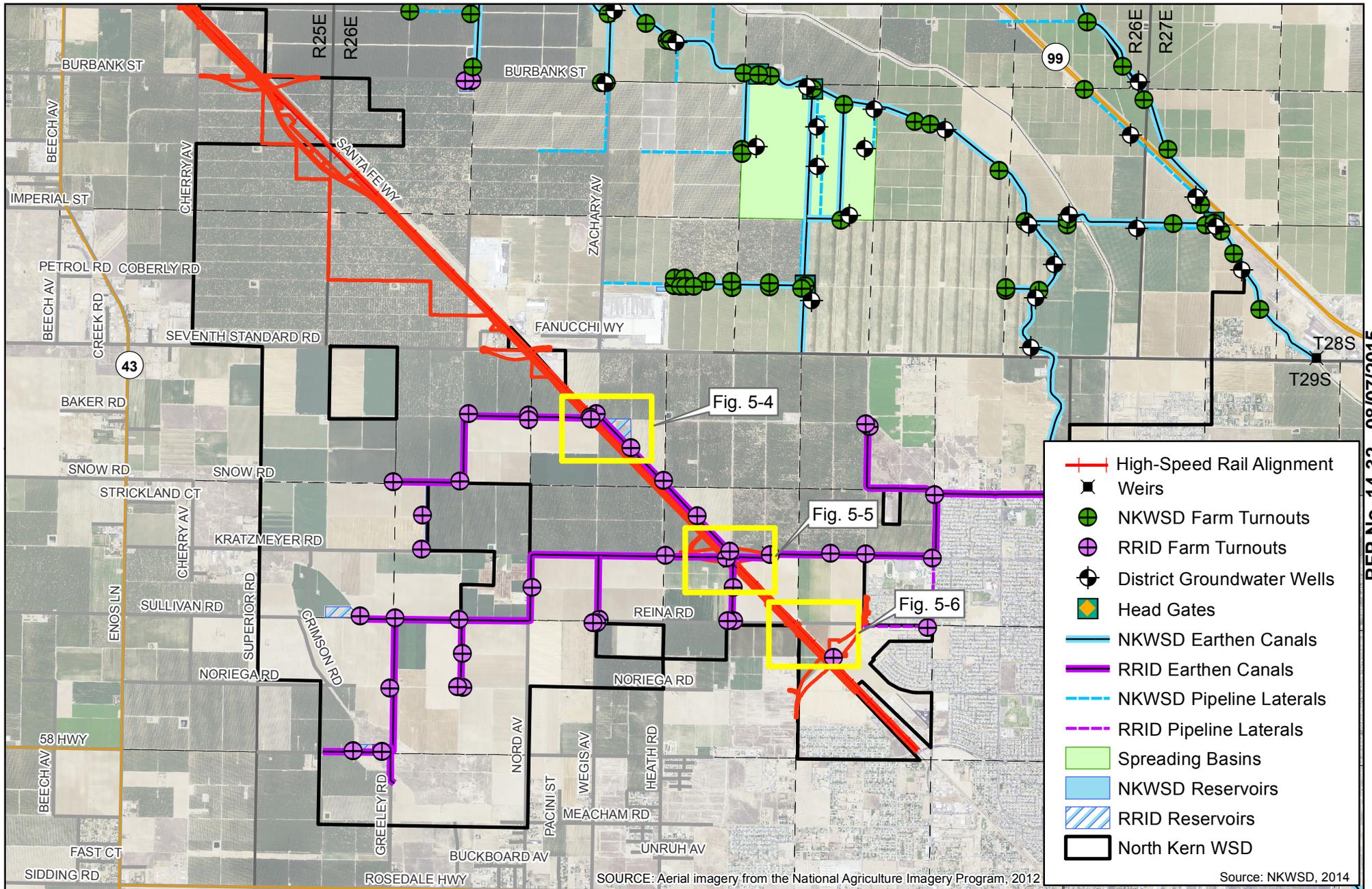
PROJECT LOCATION - SOUTHERN SYSTEM

MAY 2014

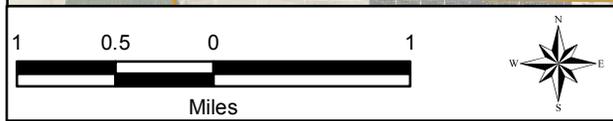
FIGURE 3B



RFP No. 14-32 - 08/07/2015



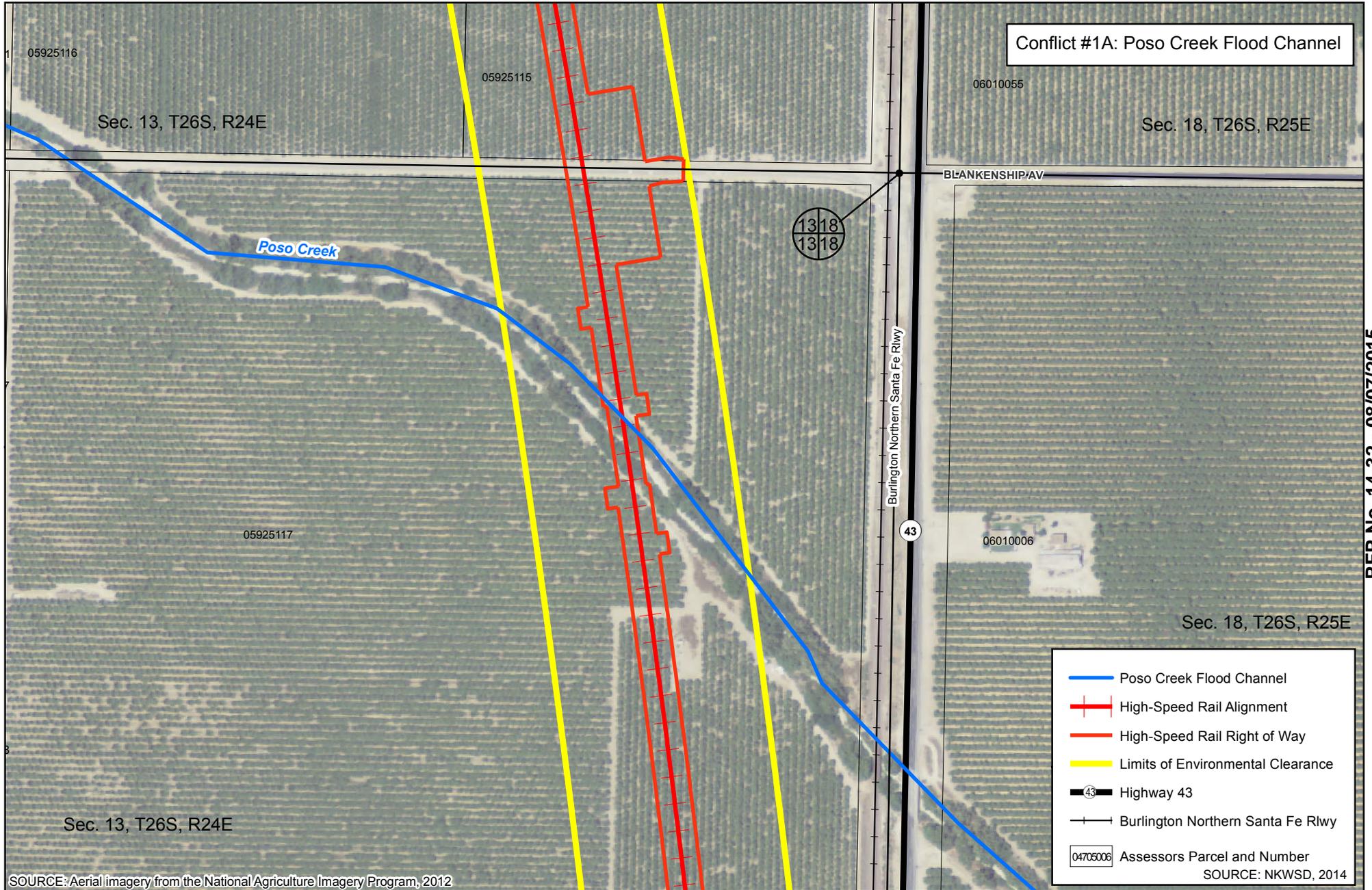
RFP No. 14-32 - 08/07/2015



High-Speed Rail
Kern County, California
North Kern Water Storage District

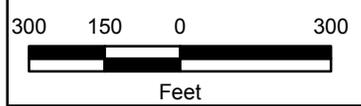


CONFLICT INDEX MAP - SOUTHERN SYSTEM
MAY 2014
FIGURE 4B



SOURCE: Aerial imagery from the National Agriculture Imagery Program, 2012

- Poso Creek Flood Channel
 - + + High-Speed Rail Alignment
 - High-Speed Rail Right of Way
 - Limits of Environmental Clearance
 - 43 Highway 43
 - Burlington Northern Santa Fe Rlwy
 - 04705006 Assessors Parcel and Number
- SOURCE: NKWSD, 2014



High-Speed Rail
Kern County, California

North Kern Water Storage District



MAY 2014

CONFLICT MAP 1A

FIGURE 5-1A

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Sec. 25, T26S, R24E

Sec. 30, T26S, R25E

Conflict #6: Lateral 9-22-103

05928026

06014032

Sec. 36, T26S, R24E

Sec. 31, T26S, R25E

05928056

2530
3631

06014016

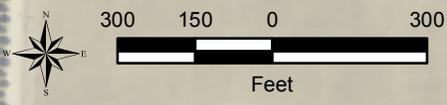
05928057

Lateral 9-22-103

Burlington Northern Santa Fe Rlwy

43

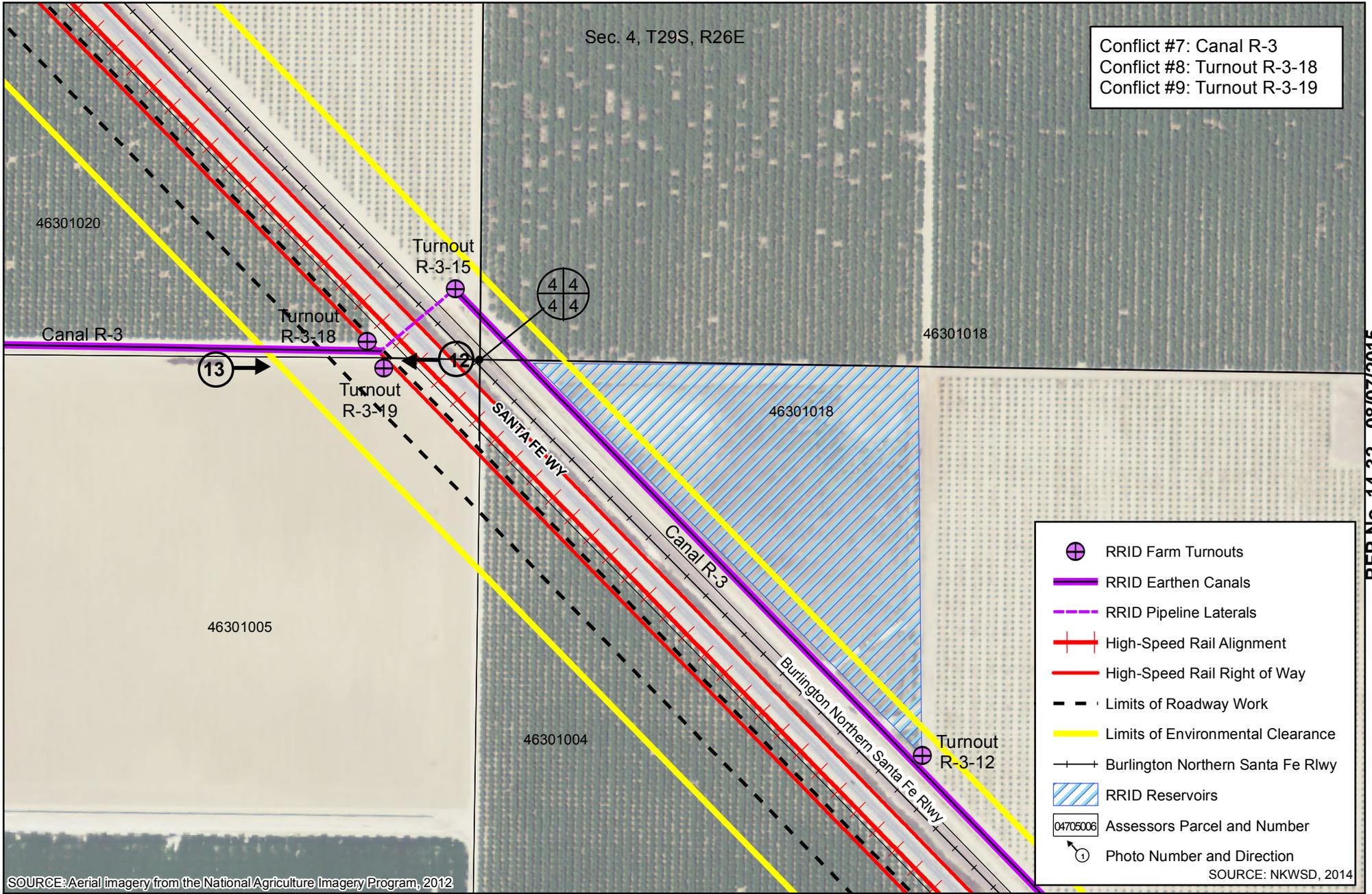
-  NKWSD Pipeline Laterals
-  High-Speed Rail Alignment
-  High-Speed Rail Right of Way
-  Limits of Environmental Clearance
-  Highway 43
-  Burlington Northern Santa Fe Rlwy
-  Assessors Parcel and Number
-  Photo Number and Direction



SOURCE: Aerial imagery from the National Agriculture Imagery Program, 2012

SOURCE: NKWSD, 2014

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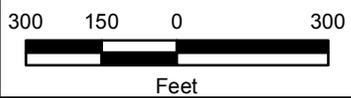


Conflict #7: Canal R-3
 Conflict #8: Turnout R-3-18
 Conflict #9: Turnout R-3-19

- RRID Farm Turnouts
- RRID Earthen Canals
- RRID Pipeline Laterals
- High-Speed Rail Alignment
- High-Speed Rail Right of Way
- Limits of Roadway Work
- Limits of Environmental Clearance
- Burlington Northern Santa Fe Rlwy
- RRID Reservoirs
- Assessors Parcel and Number
- Photo Number and Direction

SOURCE: Aerial imagery from the National Agriculture Imagery Program, 2012

SOURCE: NKWSD, 2014



High-Speed Rail
 Kern County, California

North Kern Water Storage District

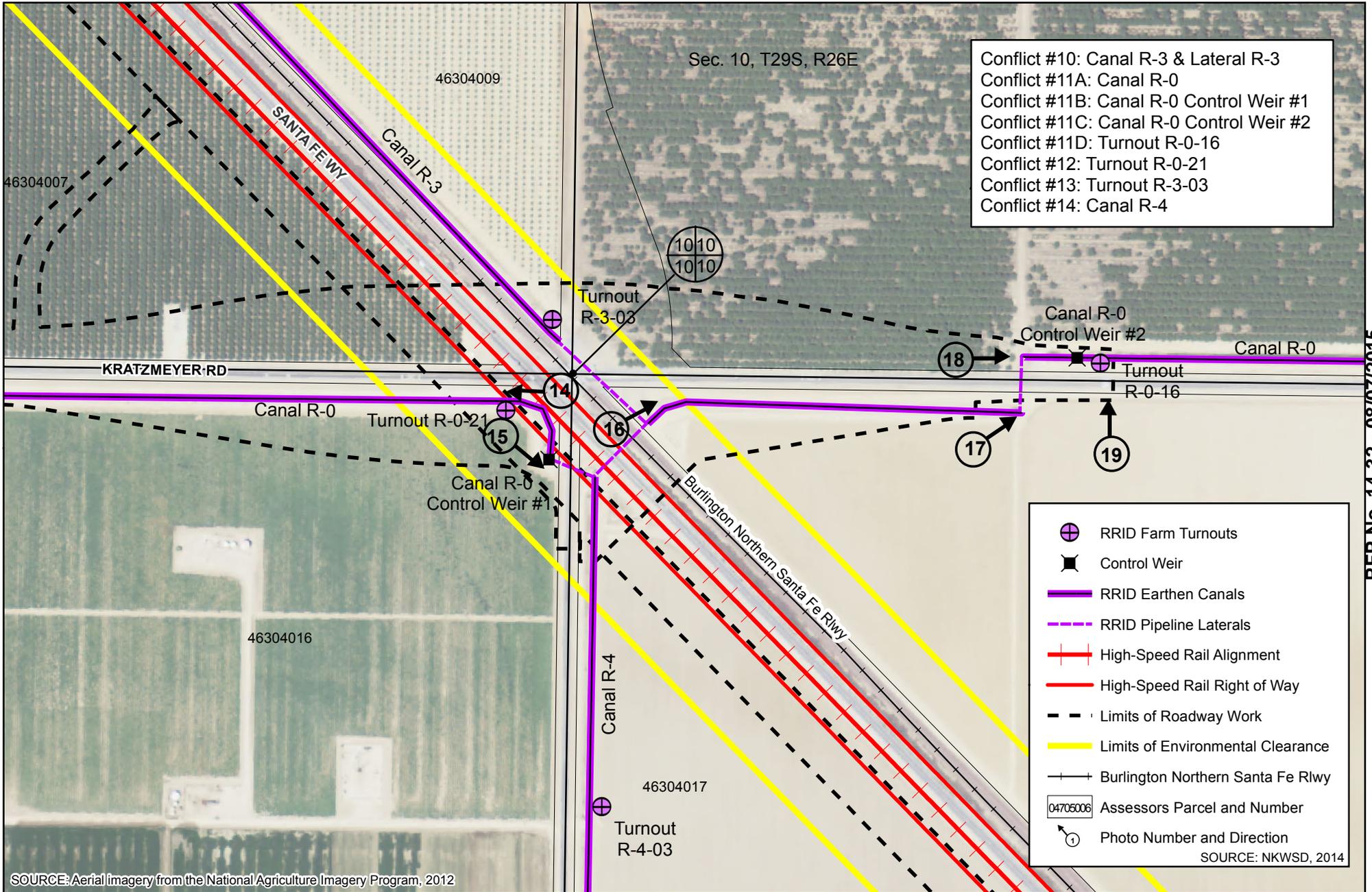


MAY 2014

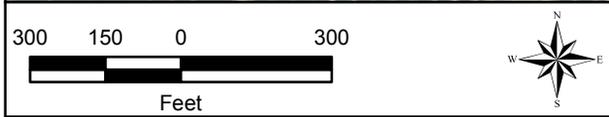
CONFLICT MAP 4

FIGURE 5-4

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High-Speed Rail
 Kern County, California

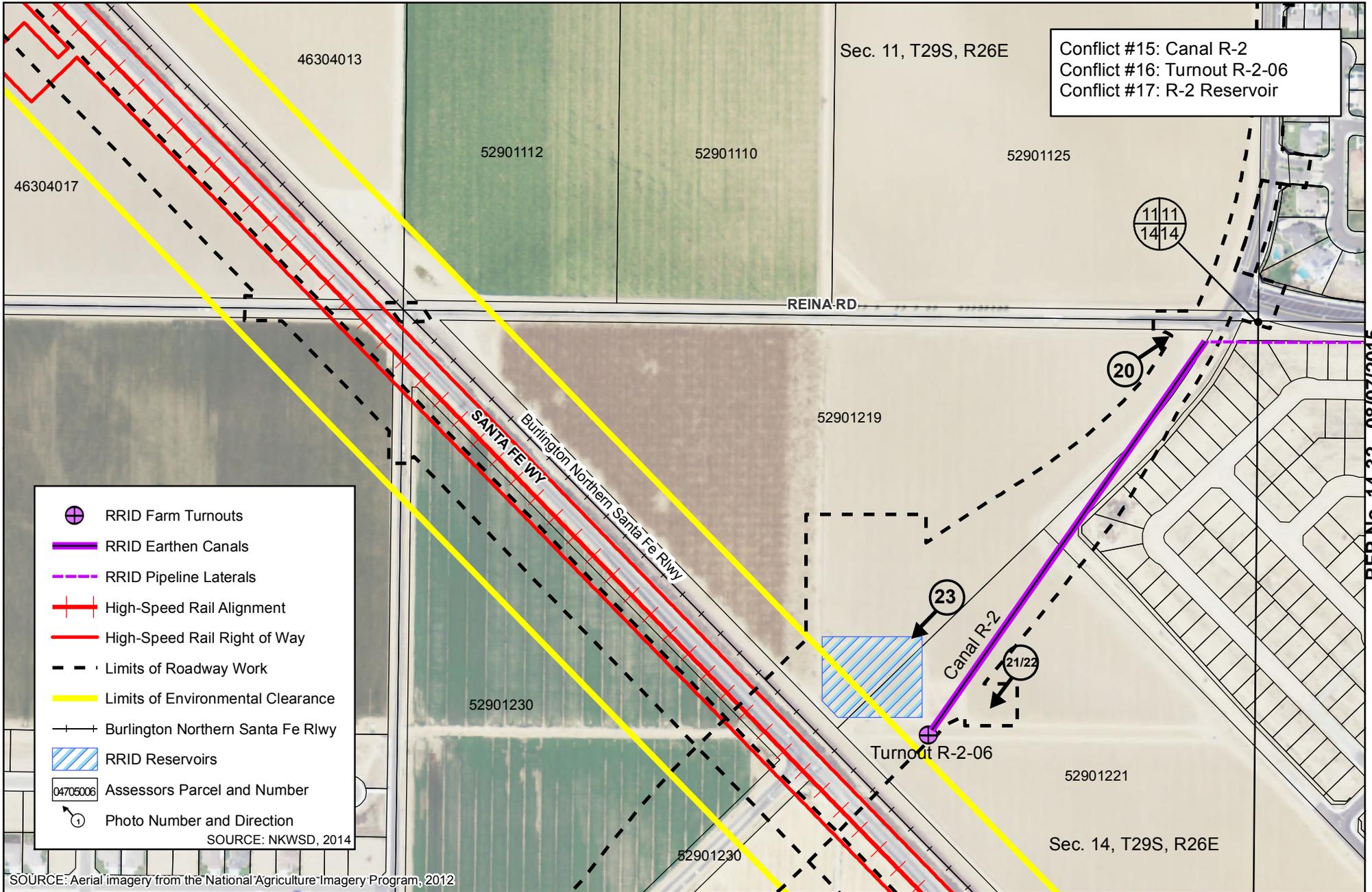
North Kern Water Storage District



MAY 2014

CONFLICT MAP 5

FIGURE 5-5



Site Photographs



Photo #1: Canal 9-26 looking West.



Photo #2: Canal 9-26 looking East.



Photo #5: Lift station looking North.



Photo #6: Canal 9-22 and Turnout 9-22-103.

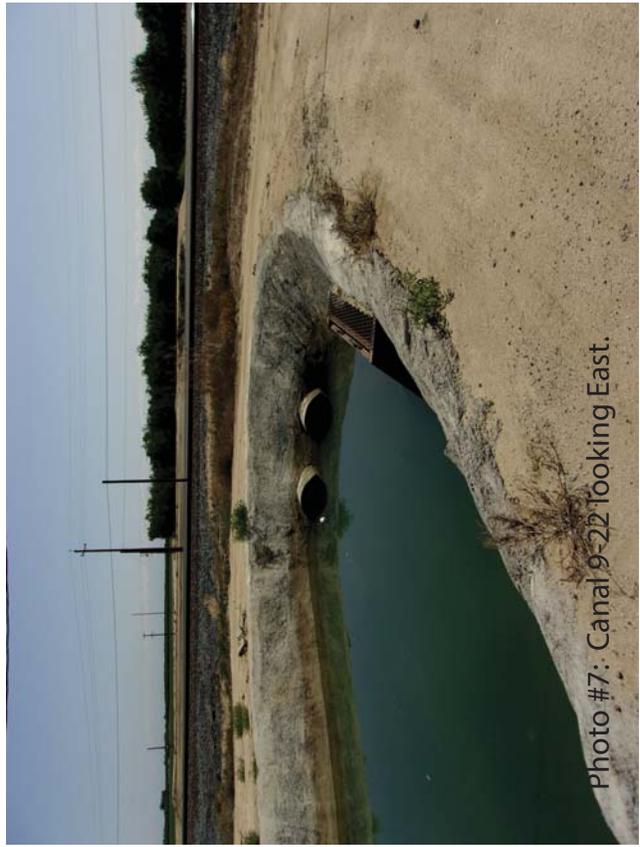


Photo #7: Canal 9-22 Looking East.



Photo #8: Canal 9-22 and Turnout 9-22-106.

High-Speed Rail
 Kern County, California
 North Kern Water Storage District



May 2014

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Site Photos - Conflicts #2A, 2B, 2C, 3,4, and 5

Figure 6-2



Photo #9: Canal 9-22 and Control Weir looking West.



Photo #10: Canal 9-22 and Control Weir looking East.



Photo #11: Canal 9-22 looking West.

High-Speed Rail
 Kern County, California
 North Kern Water Storage District



Site Photos - Conflicts #2A, 2B, 2C, 3, 4, and 5

May 2014

Figure 6-3

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Photo #3: Lateral 9-22-103 looking North.



Photo #4: Lateral 9-22-103 looking North.

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Photo #12: Canal R-3 and Turnouts R-3-18 and R-3-19.



Photo #13: Canal R-3 looking East.

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High-Speed Rail
Kern County, California

North Kern Water Storage District



Site Photos - Conflicts #7, 8, and 9

September 2012

Figure 6-5

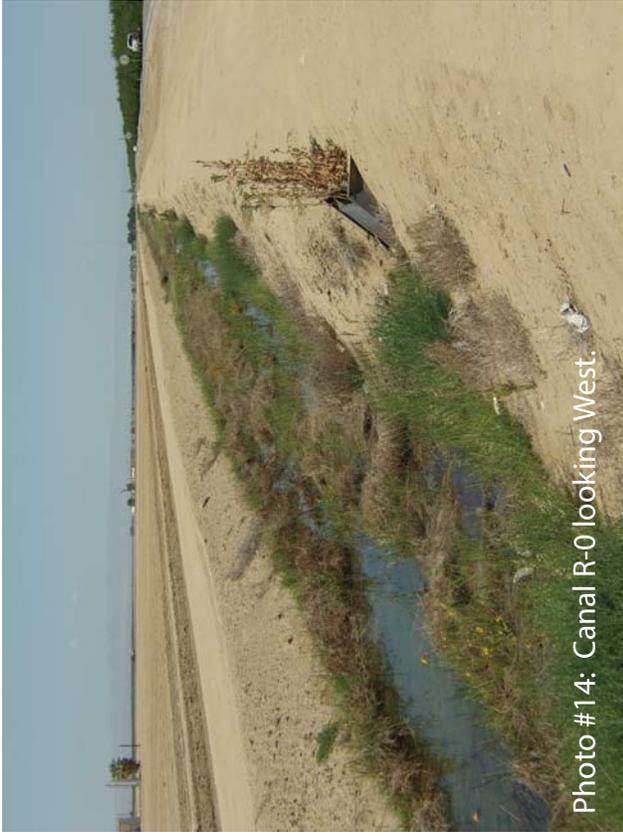


Photo #14: Canal R-0 looking West.

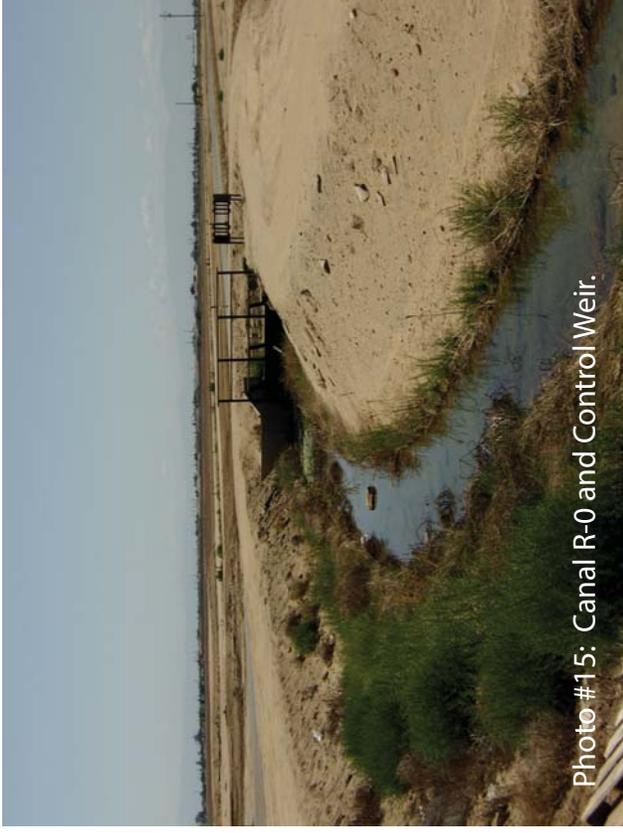


Photo #15: Canal R-0 and Control Weir.

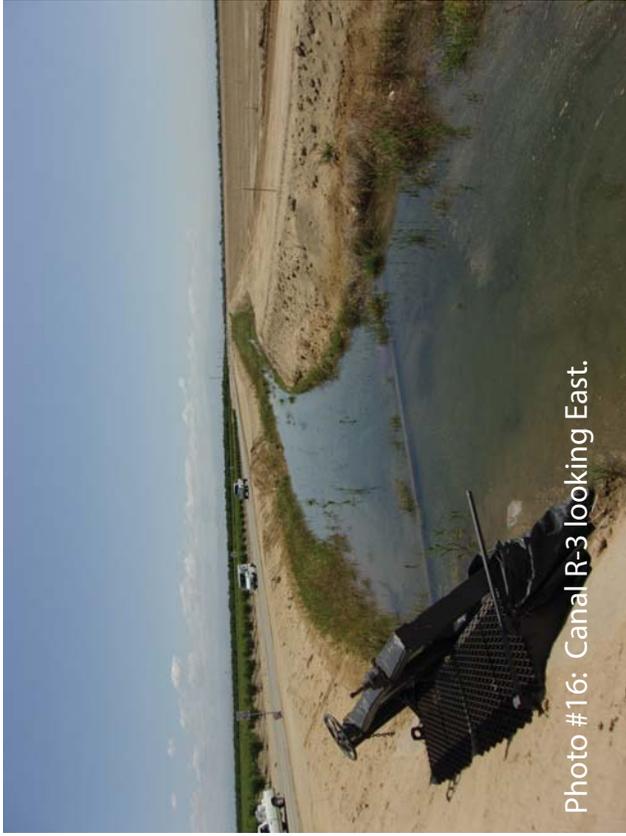


Photo #16: Canal R-3 looking East.

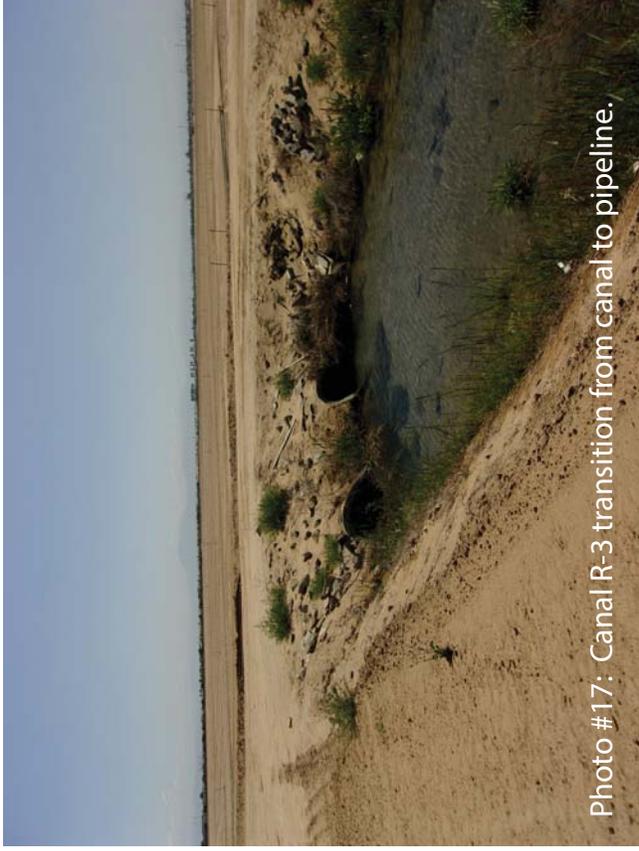


Photo #17: Canal R-3 transition from canal to pipeline.



Photo #18: Canal R-0 and Control Weir.



Photo #19: Canal R-0 and Turnout R-0-16.

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Photo #20: Canal R-2 looking Northeast.



Photo #21: Canal R-2 and Turnout R-2-06.



Photo #22: Turnout R-2-06.

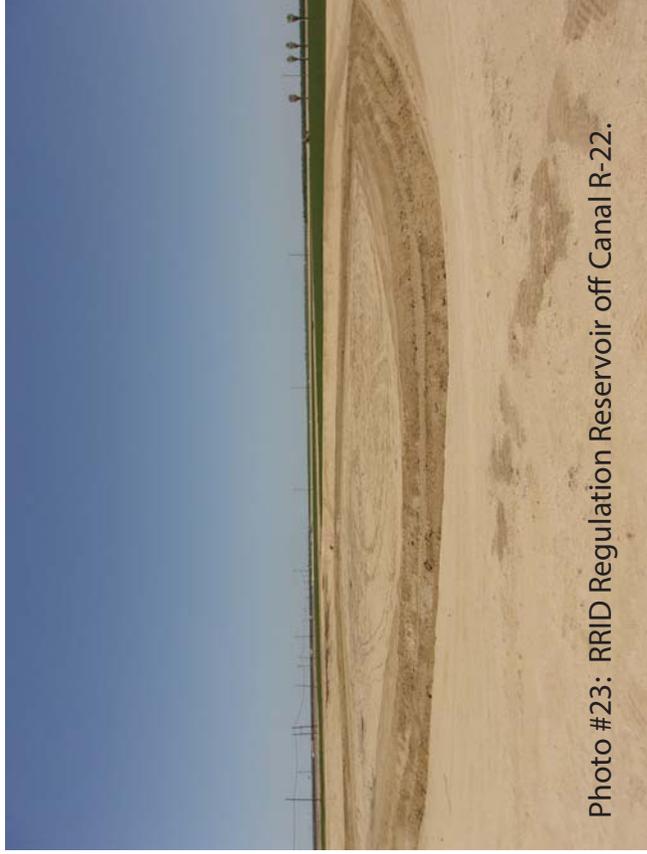
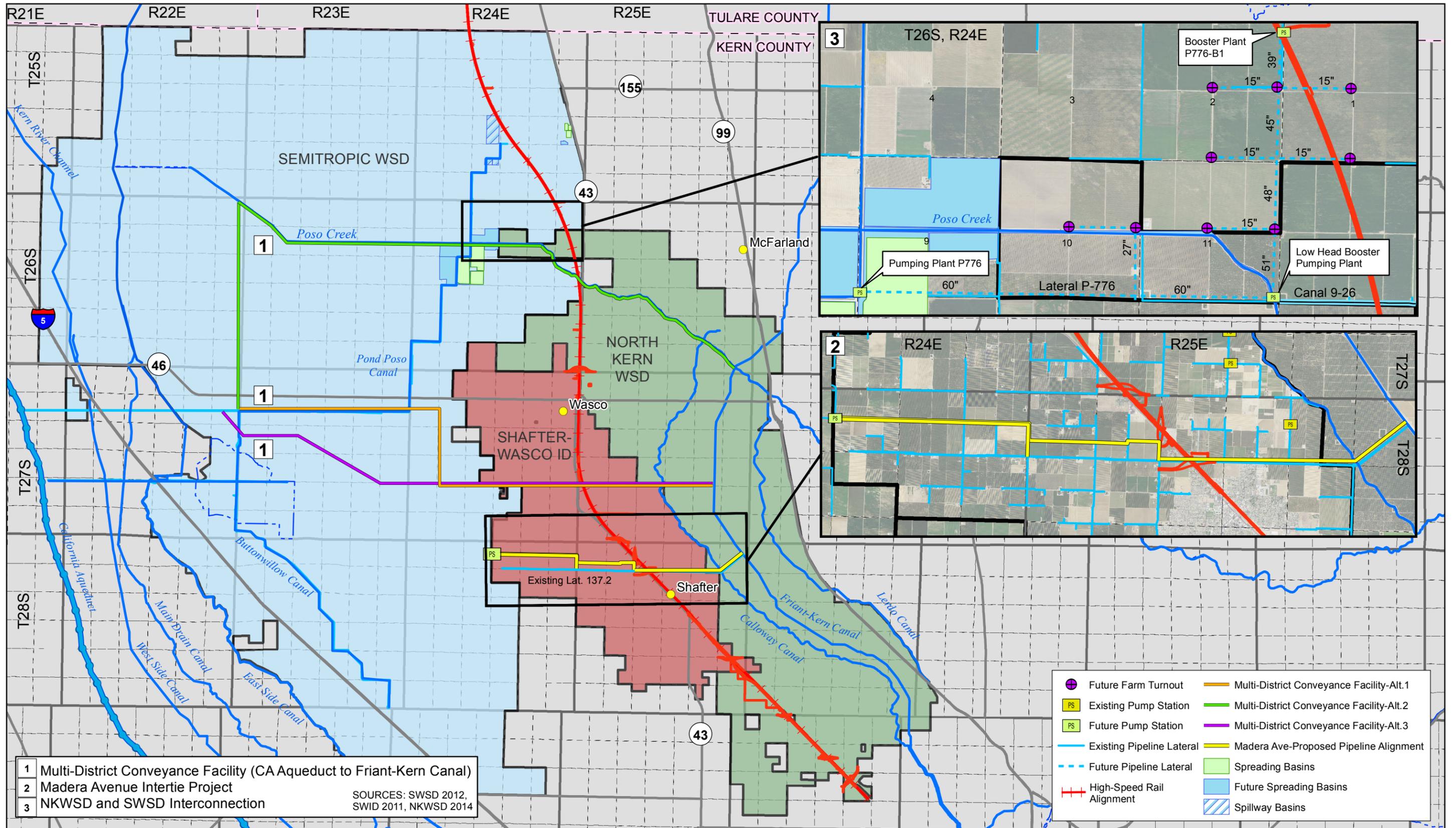


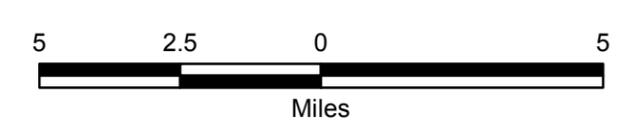
Photo #23: RRID Regulation Reservoir off Canal R-22.

Prospective Conflicts Map



1 Multi-District Conveyance Facility (CA Aqueduct to Friant-Kern Canal)
 2 Madera Avenue Intertie Project
 3 NKWSD and SWSD Interconnection

SOURCES: SWSD 2012, SWID 2011, NKWSD 2014



High-Speed Rail
 Kern County, California
 Semitropic WSD, North Kern WSD,
 Shafter-Wasco ID



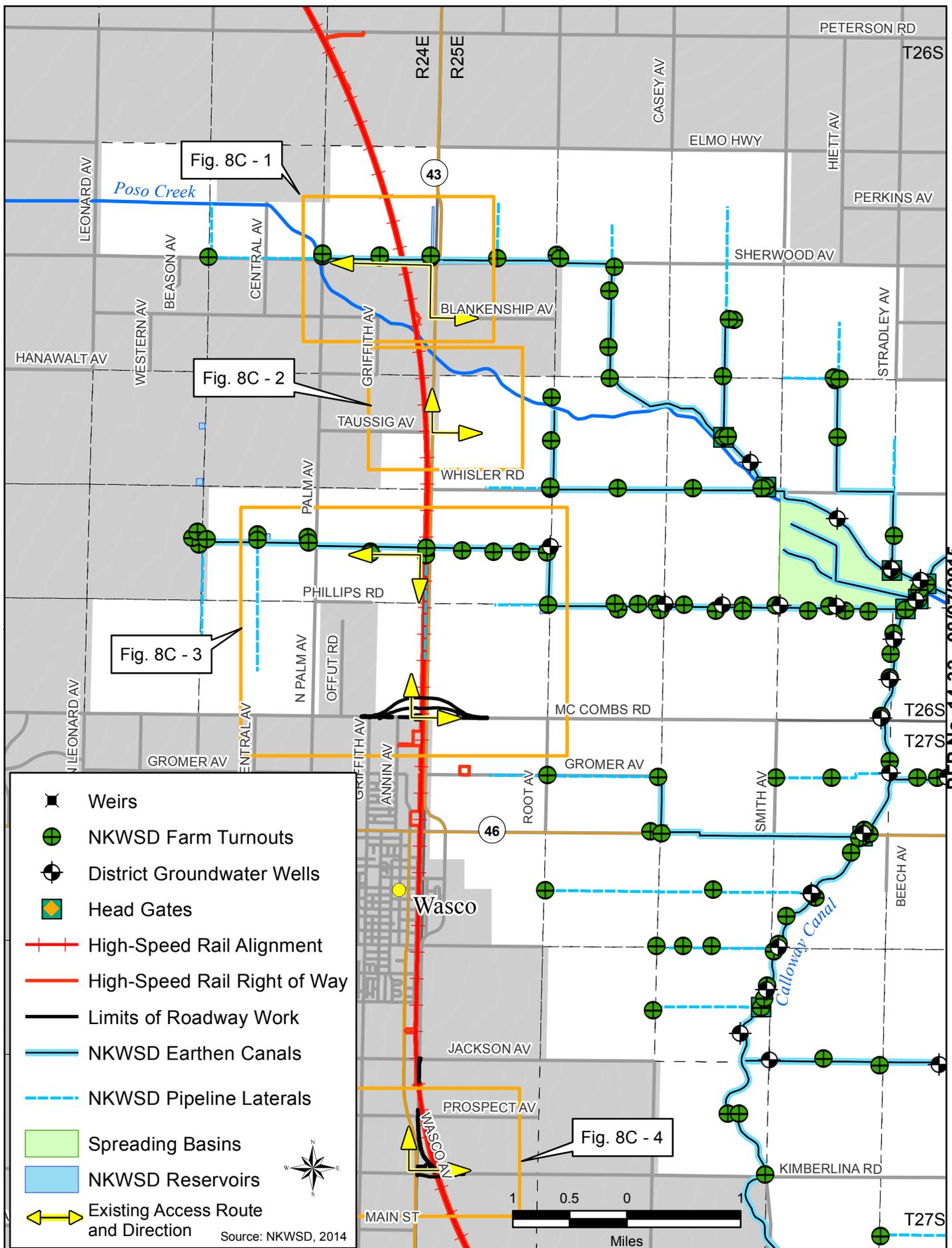
POTENTIAL CONFLICTS WITH
 FUTURE FACILITIES

JUNE 2014

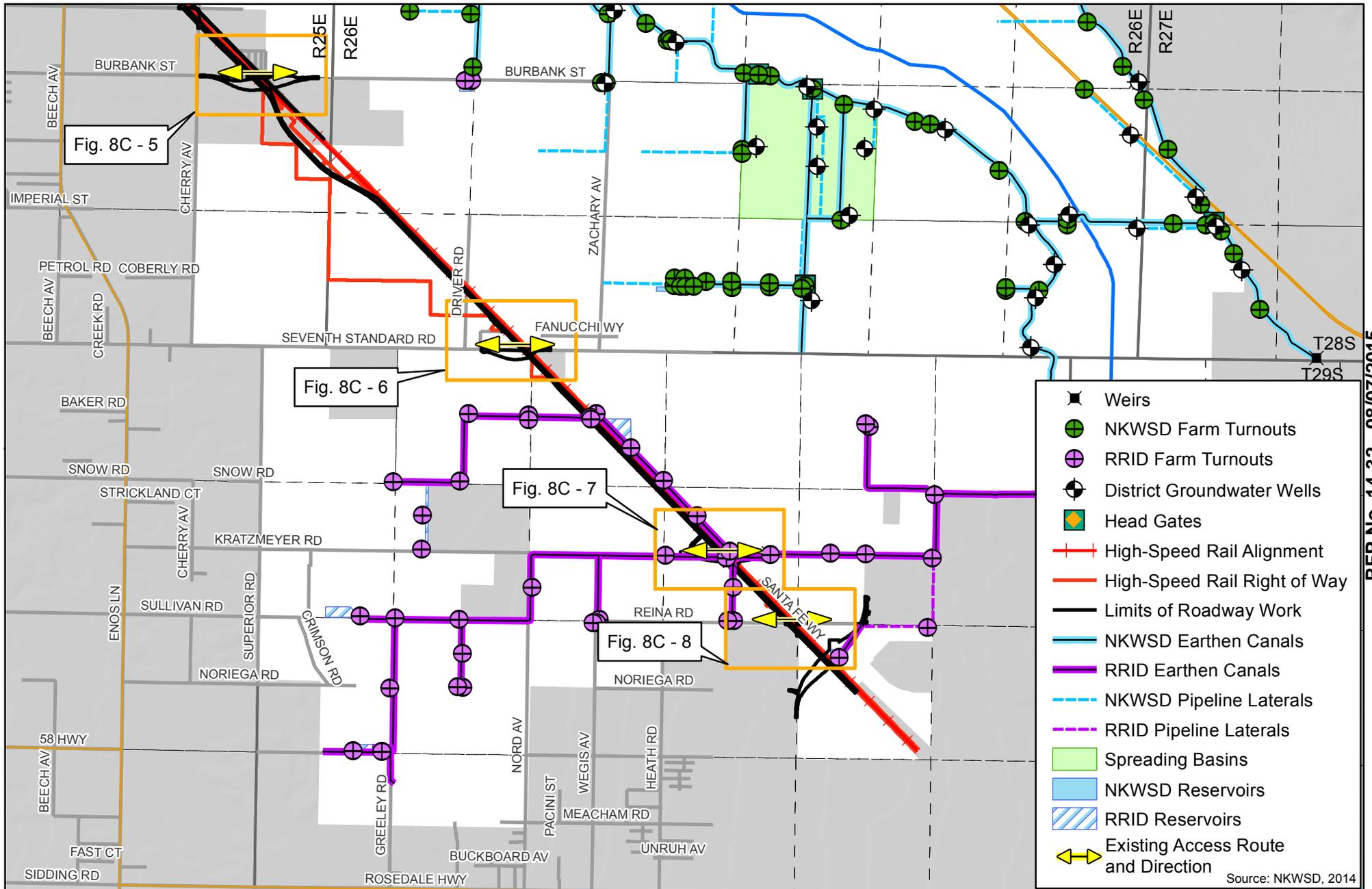
FIGURE 7

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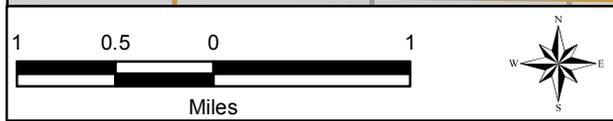
Operational Conflicts Map



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High-Speed Rail
Kern County, California

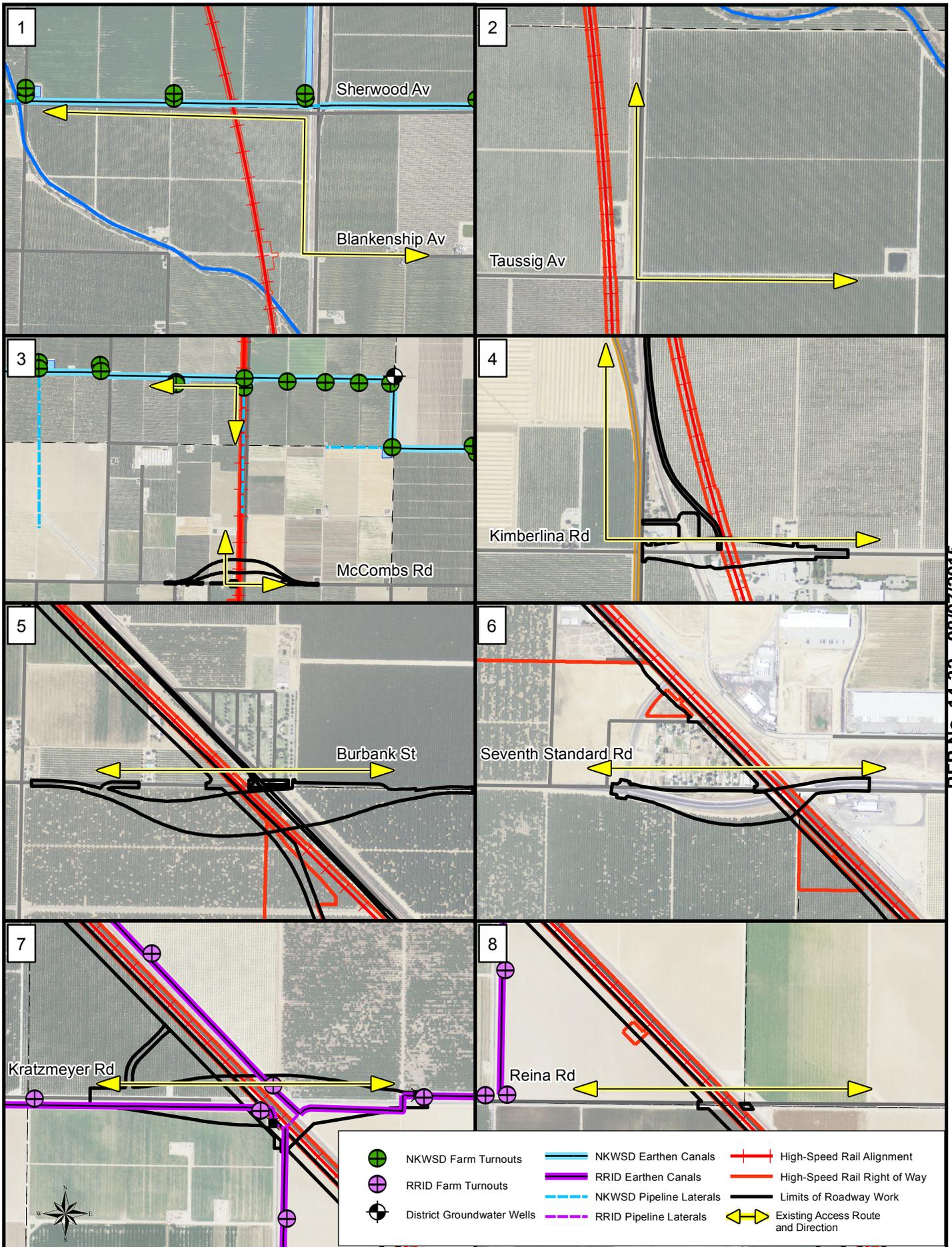
North Kern Water Storage District



POTENTIAL OPERATIONAL CONFLICTS

JUNE 2014

FIGURE 8B



Summary of Conflicts

North Kern Water Storage District
High Speed Rail Project
Potentially Impacted District Facilities

Item No.	System Name	Facility Name	Facility Impacted by HSR or Road Realignment	HSR Alignment, Exhibit Page No.	HSR Alignment Station	Nearest Major Cross Streets	Facility Type and Size (Year Installed)	Facility Location	As-Built Drawing No.	Easement Type	Easement Document No. (Year, Width)
1	Lateral 9-26	Canal 9-26	HSR	"L1" Line, #2	5190+00	Sherwood Ave. and Hwy. 43	Earthen Canal	Sec. 12, T26S, R24E	N/A	Permanent Easement	0205249850 (2005, 70 ft.)
1A	N/A	Poso Creek Flood Channel	HSR	"L1" Line, #3	5226+00	Blankenship Ave. and Hwy. 43	Poso Creek Flood Channel	Sec. 13, T26S, R24E	N/A	Permit	Poso Creek Permit #21051
2A	Lateral 9-22	Canal 9-22	HSR	"WS1" Line, #1	5425+00 through 5429+00	Hwy. 43 and Phillips Road	Earthen Canal	Sec. 25, T26S, R24E	N/A	Permanent Easement	Book 2912, Page 558 Book 3672, Page 416 (1958, 90 ft.)
2B	Lateral 9-22	Canal 9-22 and Control Weir	HSR	"WS1" Line, #1	5425+50	Hwy. 43 and Phillips Road	Control Weir	Sec. 25, T26S, R24E	N/A	Permanent Easement	Book 2912, Page 558 Book 3672, Page 416 (1958, 90 ft.)
2C	Lateral 9-22	Lateral 9-22-103 and Lift Station	HSR	"WS1" Line, #1	5429+50	Hwy. 43 and Phillips Road	Lift Station	Sec. 25, T26S, R24E	N/A	Permanent Easement	198015672 (1998, 10 ft.)
3	Lateral 9-22	Turnout 9-22-106	HSR	"WS1" Line, #1	5425+50	Hwy. 43 and Phillips Road	Canal Turnout	Sec. 25, T26S, R24E	N/A	Permanent Easement	Book 2912, Page 558 Book 3672, Page 416 (1958, 90 ft.)
4	Lateral 9-22	Turnout 9-22-103	HSR	"WS1" Line, #1	5429+00	Hwy. 43 and Phillips Road	Canal Turnout	Sec. 25, T26S, R24E	N/A	Permanent Easement	Book 2912, Page 558 Book 3672, Page 416 (1958, 90 ft.)
5	Lateral 9-22	Lateral 9-22-103	HSR	"WS1" Line, #1,2	5429+00 through 5478+00	Hwy. 43 and Phillips Road	18" RCP	Sec. 25, T26S, R24E	N/A	Permanent Easement	0198015672 (1998, 10 ft.)
6	Lateral 9-22	Lateral 9-22-103	HSR	"WS1" Line, #1,2	5429+00 through 5478+00	Hwy. 43 and Phillips Road	18" RCP	Sec. 36, T26S, R24E	N/A	Permanent Easement	0198015672 (1998, 10 ft.)
7	Rosedale Canal System	Canal R-3	HSR and Road Realignment	"WS1" Line, #34	6330+00	Hwy. 43 and 7th Standard Road	Earthen Canal (1980)	Sec. 4, T29S, R26E	Sheet 18: Rosedale Canal System R-3 STA.77+00.00-130+65.13	Permanent Easement	Book 5353, Page 2414 (1980, 60 ft.)
8	Rosedale Canal System	Turnout R-3-18	HSR and Road Realignment	"WS1" Line, #34	6329+50	Hwy. 43 and 7th Standard Road	Canal Turnout (1980)	Sec. 4, T29S, R26E	Sheet 18: Rosedale Canal System R-3 STA.77+00.00-130+65.13	Permanent Easement	Book 5353, Page 2414 (1980, 60 ft.)
9	Rosedale Canal System	Turnout R-3-19	HSR and Road Realignment	"WS1" Line, #34	6330+50	Hwy. 43 and 7th Standard Road	Canal Turnout (1980)	Sec. 4, T29S, R26E	Sheet 18: Rosedale Canal System R-3 STA.77+00.00-130+65.13	Permanent Easement	Book 5353, Page 2414 (1980, 60 ft.)
10	Rosedale Canal System	Canal R-3 and Lateral R-3	Road Realignment	"WS1" Line, #37	N/A	Kratzmeyer Road and Rudd Ave	Earthen Canal and Pipeline (1980)	Sec.10, T29S, R26E	Sheet 16: Rosedale Canal System R-3 STA.0+00-38+50.00	Permanent Easement	Book 5353, Page 2414 (1980, 20 ft., 60 ft.)
11A	Rosedale Canal System	Canal R-0	HSR and Road Realignment	"WS1" Line, #37	6405+50 through 6408+00	Kratzmeyer Road and Rudd Ave	Earthen Canal (1980)	Sec.10, T29S, R26E	Sheet 8: Rosedale Canal System R-0, STA. 137+12.00 to STA.193+49.87	Permanent Easement	Book 5353, Page 2414 (1980, 70 ft.)
11B	Rosedale Canal System	Canal R-0 Control Weir #1	HSR and Road Realignment	"WS1" Line, #37	6407+00	Kratzmeyer Road and Rudd Ave	Control Weir (1980)	Sec.10, T29S, R26E	Sheet 8: Rosedale Canal System R-0, STA. 137+12.00 to STA.193+49.87	Permanent Easement	Book 5353, Page 2414 (1980, 70 ft.)
11C	Rosedale Canal System	Canal R-0 Control Weir #2	Road Realignment	"WS1" Line, #37	N/A	Kratzmeyer Road and Rudd Ave	Control Weir (1980)	Sec.10, T29S, R26E	Sheet 8: Rosedale Canal System R-0, STA. 137+12.00 to STA.193+49.87	Permanent Easement	Book 5353, Page 2414 (1980, 70 ft.)
11D	Rosedale Canal System	Turnout R-0-16	Road Realignment	"WS1" Line, #37	N/A	Kratzmeyer Road and Rudd Ave	Canal Turnout (1980)	Sec.10, T29S, R26E	Sheet 8: Rosedale Canal System R-0, STA. 137+12.00 to STA.193+49.87	Permanent Easement	Book 5353, Page 2414 (1980, 80 ft.)

North Kern Water Storage District
High Speed Rail Project
Potentially Impacted District Facilities

Item No.	System Name	Facility Name	Facility Impacted by HSR or Road Realignment	HSR Alignment, Exhibit Page No.	HSR Alignment Station	Nearest Major Cross Streets	Facility Type and Size (Year Installed)	Facility Location	As-Built Drawing No.	Easement Type	Easement Document No. (Year, Width)
12	Rosedale Canal System	Turnout R-0-21	HSR and Road Realignment	"WS1" Line, #37	6405+50	Kratzmeyer Road and Rudd Ave	Canal Turnout (1980)	Sec.10, T29S, R26E	Sheet 8: Rosedale Canal System R-0, STA. 137+12.00 to STA.193+49.87	Permanent Easement	Book 5353, Page 2414 (1980, 70 ft.)
13	Rosedale Canal System	Turnout R-3-03	Road Realignment	"WS1" Line, #37	N/A	Kratzmeyer Road and Rudd Ave	Canal Turnout (1980)	Sec.10, T29S, R26E	Sheet 16: Rosedale Canal System R-3 STA.0+00-38+50.00	Permanent Easement	Book 5353, Page 2414 (1980, 20 ft., 60 ft.)
14	Rosedale Canal System	Canal R-4	HSR and Road Realignment	"WS1" Line, #37	6408+00 through 6409+00	Kratzmeyer Road and Rudd Ave	Earthen Canal (1980)	Sec.10, T29S, R26E	Sheet 20: Rosedale Canal System R-4 STA. 0+00-23+31.74	Permanent Easement	Book 5353, Page 2414 (1980, 70 ft.)
15	Rosedale Canal System	Canal R-2	Road Realignment	"WS1" Line, #39	N/A	Reina Road and Renfro Road	Earthen Canal (1980)	Sec.14, T29S, R26E	Sheet 15: Rosedale Canal System R-2 STA.28+96.79-79+46.46	Permanent Easement	Book 5353, Page 2414 (1980, 60 ft.)
16	Rosedale Canal System	Turnout R-2-06	Road Realignment	"WS1" Line, #39	N/A	Reina Road and Renfro Road	Canal Turnout (1980)	Sec. 14, T29S, R26E	Sheet 15: Rosedale Canal System R-2 STA.28+96.79-79+46.46	Permanent Easement	Book 5353, Page 2414 (1980, 60 ft.)
17	Rosedale Canal System	Reservoir R-2	Road Realignment	"WS1" Line, #39	N/A	Reina Road and Renfro Road	Reservoir (1980)	Sec. 14, T29S, R26E	Sheet 4: Rosedale Canal System Reservoirs	Permanent Easement	Book 5353, Page 2414 (1980, 27 ft.)