F ue	Deindus Des landing, uddi@eek2enseensk.com
From:	Deirdre Des Jardins <ddj@cah2oresearch.com></ddj@cah2oresearch.com>
Sent:	Thursday, March 10, 2016 2:37 PM
To:	amy.aufdemberge@sol.doi.gov; Mizell, James@DWR; CWFhearing
Cc:	abl@bkslawfirm.com; aferguson@somachlaw.com; ahitchings@somachlaw.com;
	amy.aufdemberge@sol.doi.gov; apeltzer@prlawcorp.com; 'Wearn, Anna';
	barbara@restorethedelta.org; barbarav@aqualliance.net; barry@solagra.com;
	bdalymsn@citlink.net; bjohnson@tu.org; blancapaloma@msn.com; bobker@bay.org;
	bradpappa@gmail.com; brettgbaker@gmail.com; bwright@friendsoftheriver.org;
	Wilcox, Carl@Wildlife; caroleekrieger7@gmail.com; colin@ejcw.org; connere@gmail.com; daladjem@downeybrand.com; daniel@kaydix.com;
	dcooper@minasianlaw.com; dcoty@bpmnj.com; dean@hprlaw.net; deltaactioncommittee@gmail.com; deltakeep@me.com; dkelly@somachlaw.com;
	dorth@davidorthconsulting.com; empappa@gmail.com; evielma@cafecoop.org;
	fetherid@ebmud.com; fmorrissey@orangecoveid.org; friendsofsfestuary@gmail.com;
	gadams@fclaw.com; info@californiadelta.org; jbuckman@friantwater.org;
	jennifer@spalettalaw.com; Herrick, John @aol.com; Minton, Jonas;
	john.luebberke@stocktonca.gov; Rubin, Jon@sldmwa.org; jph@tulareid.org;
	jrobinson@cityofsacramento.org; jsagwomack@gmail.com; jsalmon@ebmud.com;
	kelweg1@aol.com; kharrigfeld@herumcrabtree.com; kkeller@neumiller.com;
	kobrien@downeybrand.com; 'Poole, Kate'; kyle.jones@sierraclub.org;
	lcaster@fclaw.com; matlas@jmatlaslaw.com; mbeichenberg@volkerlaw.com;
	mbently@countyofcolusa.org; mhagman@lindmoreid.com; michael@brodskylaw.net;
	mjatty@sbcglobal.net; mkropf@countyofcolusa.com; mlarsen@kdwcd.com;
	mlennihan@lennihan.net; mnikkel@downeybrand.com; Van Zandt,
	Michael@hansonbridgett.com; office@ecosacramento.net; Meserve,
	Osha@semlawyers.com; Pogledich, Philip@yolocounty; pminasian@minasianlaw.com;
	porgansinc@sbcglobal.net; psimmons@somachlaw.com; pweiland@nossaman.com;
	pwilliams@westlandswater.org; rbernal@ci.antioch.ca.us; rmaddow@bpmnj.com;
	rdenton06@comcast.net; rmburness@comcast.net; roland@ssjmud.org;
	rsb@bkslawfirm.com; ryan.hernandez@dcd.cccounty.us; rzwillinger@defenders.org;
	sae16@lsid.org; sdalke@kern-tulare.com; sgeivet@ocsnet.net; smorris@swc.org;
	srothert@americanrivers.org; ssaxton@downeybrand.com;
	ssdwaterfix@somachlaw.com; Shapiro, Scott @downeybrand.com;
	stephen.siptroth@cc.cccounty.us; sunshine@snugharbor.net; svolker@volkerlaw.com;
	tara.mazzanti@stocktonca.gov; tgohring@waterforum.org;
	thomas.esqueda@fresno.gov; tim@restorethedelta.org; torr@earthjustice.org;
	towater@olaughlinparis.com; vkincaid@olaughlinparis.com; Femlen,
Subject:	William@solanocounty.com; wirthsoscranes@yahoo.com; dobegi@nrdc.org Followup to request for modelling information
Attachments:	Requested information tables.pdf; Requested further information about CALSIM II
	model versions, runs, comparisons.pdf
	הסעבו אבואסווא, ועווא, נטוויףמואסווא.ףעו

Dear Ms. Aufdemberge and Mr. Mizell

Attached is a followup and clarification of my previous request that DWR and USBR provide information about computer models used in support of the WaterFix hearing petition.

All parties on the WaterFix Hearing service list have been electronically served via this email.

Sincerely,

Deirdre Des Jardins California Water Research ddj@cah2oresearch.com 831 423-6857 v



Deirdre Des Jardins 145 Beel Dr Santa Cruz, CA 95060

ddj@cah2oresearch.com

March 10, 2016

To: James Mizell and Amy Aufdemberge

Representing: California Department of Water Resources and US Bureau of Reclamation

Cc: <u>CWFhearing@waterboards.ca.gov</u> and service list of hearing participants.

Subject: DWR/USBR response to request for modelling information

Dear Mr. Mizell and Ms. Aufdemberge

Please thank the DWR and USBR agency staff for posting notices of availability of WaterFix modelling data on the California WaterFix website, and for making the models available via a download link. Following the directions in the notices, I emailed a request to Reclamation for the CALSIM II models for the Biological Assessment, and received a download link with the requested models. I also emailed a request to DWR for the CALSIM II for the Final DEIR/SDEIS and received a download link. This is a major improvement over prior distribution practices for the BDCP / WaterFix modelling data, and allows for much more timely review of the modelling data.

I would note, however, that the modelling data I received still has almost no documentation. I wanted to ask that you provide a basic README file with the data. Information should include the model version, short description of model assumptions and input data, as well as the locations of the input and output data. Currently the reviewer is left to infer this information from the file and directory names in the model distribution.

I do still need information about the different versions of the BDCP / WaterFix models, and availability of runs for different climate change scenarios and outflow scenarios. I also need information about the revision history of the models and differences between the various versions.

I have created some draft tables of basic information on model versions, version comparisons, and model runs with different climate change and outflow assumptions. Please fill the tables out and send them to the WaterFix hearing service list. Feel free to modify my draft tables as necessary, as long as it does not delete any requested information.

Sincerely,

PA

Deirdre Des Jardins California Water Research

Requested information about CALSIM II model versions, runs, comparisons

WATERFIX Hearing

Model versions

Please fill in this table with the CALSIM II model version.

	CALSIM II		EBC w/future	NAA No	NAA	NAA	ALT 4	ALT 4	ALT 4	ALT 4A	ALT 4A	ALT
Model	version	EBC	Dev	CC	ELT	LLT	No CC	ELT	LLT	No CC	ELT	4A LLT
DWR 2009 DRR				-	-	-	-	-	-	-	-	-
BDCP preliminary										-	-	-
2013 DEIR/DEIS										-	-	-
2015 RDEIR/SDEIS												
2016 FDEIR/FDEIS												
ВА												

Please also indicate which models will be used for the WaterFix hearing.

Model Quality assurance / Quality control spreadsheets & analysis

Please indicate whether the following comparisons were made

	Output		Output	
	differences	Output	differences /	
	/ prev	differences /	Existing	Comparison
Model	version	USBR 2008	Conditions	w/historic
DWR 2009 DRR				
Preliminary				
modelling				
2013 DEIR/DEIS				
2015 RDEIR/RDEIS				
2016 FDEIR/FDEIS				
BA				

Code revision information

Please indicate the availability of the following information about revisions to the CALSIM II code

	List of code changes from prev	WSI/DI curve
Model	versions	comparison
DWR 2009 DRR		
BDCP preliminary		
2013 DEIR/DEIS		
2015 RDEIR/RDEIS		
2016 FDEIR/FDEIS		
BA		

Model runs with different outflow scenarios

Please indicate whether model runs exist for these scenarios for EBC, NAA, Preferred Alternative (PA) models

Model	Existing Conditions (no Fall X2)	Existing Conditions pre BO	Existing Conditions High Outflow (Sunding)	C5	Existing Conditions w/Fall X2	Existing Conditions w/Fall X2 and extra Spring outflow	BA H3+
BDCP preliminary							
2013 DEIR/DEIS							
2015 RDEIR/RDEIS							
2016 FDEIR/FDEIS							
BA							

Please also indicate which models/outflow scenarios will be used to support your exhibits for the WaterFix hearing.

Model runs with different climate change scenarios

Please indicate whether model runs exist for these scenarios for EBC, NAA, Preferred Alternative (PA) models

	Historic	Climate	Climate	Climate	Climate	Climate
Model	Hydrology	change Q1	Change Q2	Change Q3	Change Q4	Change Q5
BDCP preliminary						
2013 DEIR/DEIS						
2015 RDEIR/RDEIS						
2016 FDEIR/FDEIS						
ВА						

Model runs for potential levee failure / Isolated Conveyance operations

Please indicate whether model runs exist for these scenarios

Model	Isolated Conveyance (5 intakes)	Isolated Conveyance (3 intakes)	Isolated Conveyance w/ Multiple Island Failure
BDCP preliminary			
2013 DEIR/DEIS			
2015 RDEIR/RDEIS			
2016 FDEIR/FDEIS			
BA			