

**From:** [Kapla, James/SEA](#)  
**To:** [Greenwood, Marin](#)  
**Cc:** [Lecky, Jim](#); [Briard, Monique](#); [Tull, Robert/SAC](#)  
**Subject:** RE: Agenda for 5/16 Meeting  
**Date:** Tuesday, May 21, 2019 12:42:15 PM

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Yes Marin, the description for the Delevan Intake/Discharge Facilities in the DEIR/S appears to be consistent with the 2018 USBR NODOS report wherein releases to the River are via the proposed intake screen structure for Alternatives A, C and D. While not explicitly stated in the documents, my expectation is that the 1.75 mm intake screen panels would have to be removed during discharge operations. Reverse flow through wedge wire and profile bar screens can quickly accumulate small debris, leading to increased head loss and eventual failure of the screen panels. NMFS criteria for diffuser-type exclusion barriers would pertain to the discharge operations. As such, a separate set of picket panels would likely be required. Clear openings between pickets should be 1 inch maximum for anadromous salmonids or 3/4 inch for Pacific Lamprey. An approach velocity of 1 fps maximum is required; however, if all intake screen panels are replaced with pickets the discharge velocity would be on the order of 0.25 fps for 1,500 cfs. A trashrack located on the forebay side of the intake structure may be required for the removal of larger debris during discharge operations.

- James

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**From:** Greenwood, Marin <Marin.Greenwood@icf.com>  
**Sent:** Tuesday, May 21, 2019 10:17 AM  
**To:** Kapla, James/SEA <James.Kapla@jacobs.com>  
**Cc:** Lecky, Jim <Jim.Lecky@icf.com>; Briard, Monique <Monique.Briard@icf.com>; Tull, Robert/SAC <Robert.Tull@jacobs.com>  
**Subject:** [EXTERNAL] RE: Agenda for 5/16 Meeting

Hi James, if I recall correctly, on last week's call you spoke of the diffuser grating size to exclude lampreys. I've looked at the project description and it doesn't have much on this. What I've found related to water releases is (this is from the DEIR/S, p.3-65, but similar to the draft BA's project description being developed):

*Water that passes through the fish screen would be pumped up approximately 150 feet vertically through two 12-foot-diameter concrete pipes to Holthouse Reservoir. Water would also be able to flow back from Holthouse Reservoir, by gravity, to the Sacramento River. Reverse flow water would flow through the turbines to generate electricity. The water would then flow through the forebay pond and fish screen at a velocity of 1 fps into the Sacramento River. The 1-fps exit velocity is based on NMFS criteria for adult salmon diffusers to allow the water to exit the screen without extending a false attraction flow to the salmon.*

Could you please pass me the additional information that you've been working with? I want to characterize the near-field effect appropriately. From the above it would seem that the released flow goes through the intake screen, in which case the opening on the river side would be 1.75 mm, correct? Thanks in advance.

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**From:** Herrin, Jeff [<mailto:jeff.herrin@aecom.com>]  
**Sent:** Monday, May 13, 2019 12:18 PM  
**To:** Tull, Robert/SAC <[Robert.Tull@jacobs.com](mailto:Robert.Tull@jacobs.com)>; Dietl, Michael <[mdietl@usbr.gov](mailto:mdietl@usbr.gov)>; Rob Thomson

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Lambert, Ileisa <[ileisa.lambert@aecom.com](mailto:ileisa.lambert@aecom.com)>; Greenwood, Marin <[Marin.Greenwood@icf.com](mailto:Marin.Greenwood@icf.com)>

**Subject:** Agenda for 5/16 Meeting

All,

The meeting for this Thursday is still on and the agenda is attached.

Per last week's meeting, there is one item for Marin and we would also like his input on the mapping tool by Jacobs.

Thank you,

**Jeff Herrin**

Water Resources Planner, Water Business Unit, Sacramento, CA

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-----Original Appointment-----

**From:** Tull, Robert/SAC [<mailto:Robert.Tull@jacobs.com>]

**Sent:** Tuesday, January 15, 2019 12:28 PM

**To:** Tull, Robert/SAC; Herrin, Jeff; Dietl, Michael; Rob Thomson; [jim.lecky@icf.com](mailto:jim.lecky@icf.com); John. Spranza@hdrinc.com ([John.Spranza@hdrinc.com](mailto:John.Spranza@hdrinc.com)); Kapla, James/SEA; Leaf, Rob/SAC; Brian Hughes - USBR Planning ([bhughes@usbr.gov](mailto:bhughes@usbr.gov)); 'Johns, Jerry ([jjohnswater@gmail.com](mailto:jjohnswater@gmail.com))'; Buchholz, Gwendolyn/SAC; Lambert, Ileisa

**Subject:** Sites Reservoir Coordination

**When:** Thursday, May 16, 2019 9:00 AM-11:00 AM (UTC-08:00) Pacific Time (US & Canada).

**Where:** SWR/SAC Conf Merryfield [8-10] 6th Flr

Call in

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Jacobs' Energy, Chemicals and Resources business is now part of Worley