

23 January 2002

MEMORANDUM

To: [SJR TMDL SC, File](#)
From: Jim Curtis
Subject: Aeration Subcommittee 11 January 2002 Meeting
Meeting Notes

I. In attendance:

- Ava Langston-Kenney, City of Stockton
- Jay Jahangiri, Port of Stockton
- Mike Lubsic – Port of Stockton
- Russ Brown, Jones & Stokes
- Jeff Lafer, Jones & Stokes
- Jim Curtis, Kennedy/Jenks

II. Presentation by Jones & Stokes on preliminary draft report on aeration

Jones & Stokes updated the committee on their progress on the Aeration Technology Performance Evaluation report. Jones & Stokes provided committee members with an updated version of the draft report at the start of the meeting.

Jones & Stokes summarized their findings from testing the Army Corp jet aerator in September 2001. The data collected showed a considerable amount of variability creating a high level of uncertainty in any conclusions. Nonetheless, the south and north jets of the aerator appear to be operating at approximately 75 and 18 percent, respectively, of the aerator's design value for the aerator. The jet aerator design is to input 1,250 pounds of O₂ per day per jet. Based on the limited field data, Jones & Stokes estimated the south aerator input to be 925 lbs O₂/day for the south jet and 225 O₂/day for the north jet.

Only limited portions of the testing of the Army Corps aerator were accomplished due to difficulties in coordinating the work with the Army Corp. Jim Curtis noted that members of the Steering Committee were planning to approach local elected representatives for assistance in obtaining the Army Corps participation in testing the aerator.

Jones & Stokes presented an update on information gathered from their literature review on other methods of aeration. These included:

- Waterfalls or Cascades
- Air or oxygen diffusers
- Water bubble jet diffusers (this is what the Army Corp jet aerator is)
- Pressurized side stream aerator systems

MEMORANDUM

SJR TMDL SC, File

23 January 2002

Page 2

- Water fans

Jones & Stokes presented an assumed DO demand to use as a mean for comparison of the alternatives. The DO demand is based on the minimum and maximum DO at Rough & Ready Island monitoring station for 2001. Based on the efficiencies of the alternatives as determined from the literature search, water fans and waterfalls appear to hold the most promise.

As the committee members had not had time prior to the meeting to review the draft report, further discussion of the report, alternatives, cost comparison and further evaluation of the apparent preferred alternatives was tabled until the next meeting.

The Committee requested Jones & Stokes more fully develop a cost/benefit analysis of each alternate aeration method using the assumed DO demand as a basis of the evaluation.

III. Testing of the Port's Aerator

The Port of Stockton has designed and constructed a micro aerator for their use. Jones & Stokes and the Port are planning to conduct an evaluation test of the Port's device some time in February 2002.

IV. Upcoming Committee Activities

The next committee meeting is scheduled for 25 January 2002.

Committee members are to review the draft Jones & Stokes report in detail and be prepared to discuss the report in depth with Jones & Stokes at the next meeting. Redirected effects for each alternative need to be discussed and addressed in the report or in subsequent pilot studies.

Jones & Stokes will continue work on their report, developing for each alternative a cost/benefit basis and analysis for comparison/selection of a favored alternative(s).

On the basis of the preferred alternatives, the committee will begin development of scope of work to be developed into a Request for Proposal for an evaluation field study during the summer of 2002.

V. New Committee Chair

Jay Jahangiri has agreed to serve as the new chair for the Aeration Committee. Our thanks to Jay and the Port of Stockton for making his time available.