National Inland Desalination Research Center
Executive Committee 60% Design Review Meeting

New Mexico Water Resources Research Institute
Las Cruces, New Mexico
February 12, 2004

Participants

Lorenzo Arriaga - USBR/El Paso	Vanessa Aguayo – USBR
Bobby Creel – WRRI	Karl Wood - WRRI
Mike Fahy – El PasoWU	Del Holz – USBR/Denver
Tom Jennings – USBR/Denver	Andrea Mendoza – State Engineers Office
Mike Hightower – Sandia	Rick Huff – USGS/Las Cruces
Paul Kinshella – City of Phoenix	Jim Sizemore – State Engineers Office
Brian McGuire - Alamogordo	Glenn Howard – USBR/Denver
Coy Webb – Holloman AFB	Bruce Johnson – City of Tucson

Meeting Goals and Objectives- Mike Hightower

Mike welcomed members of the Executive Committee (EC) to the meeting. Mike reviewed the meeting agenda, and presented the following meeting goals and objectives:

- Update on facility groundbreaking activities,
- Discussion of facility issues,
- Coordination of EC comments for facility 60% design review.

Updates on the National Inland Desalination Research Facility – Glenn Howard, Tom Jennings

Glenn brought up several issues with the EC that have been identified by the facility design team. Glenn handed out a summary of several site, construction, and design issues.

1. Water supply well constituent analysis.
    a. The initial testing of the water from the drilled water supply wells showed some organics, i.e. toluene, etc. at relatively low concentrations, a few to tens of ppb. A second set of water quality testing has shown these constituents at the non-detect level. It is thought that the contamination is from the material used to lubricate the pipe joints, which is supposedly biodegrageable. There were concerns that the contaminants were from the land fill across the street from the site, but the contaminant analysis does not show typical range of contaminants from a landfill. Also, the site subsurface stratigraphy suggests a large clay zone between the landfill and the water area where the nearest wells will be pumping.
    b. Based on these discussions, it was decided that the wells should be cleaned up of any excess pipe lubricants and care should be taken to closely monitor the water quality for the facility to insure that landfill contaminants do not show up.
    c. It was suggested that a nested monitoring well system be considered and placed on the east boundary of the facility site to help insure water quality.
    d. It was also suggested that Well #1, the most eastern well be pumped sparingly to minimize the potential mobilization of contaminants from the landfill.
2. Additional water supply wells.
    a. Based on the yields of the existing wells, we will not quite be able to provide the water needed for the first military unit expected for testing. It is expected that an additional shallow well will be needed. It was agreed to drill another well on site and to look at the same time at drilling a shallow well west of the site for a high TDS well. The costs will be evaluated.
    b. The west well will be looked at in cooperation with the Air Force. It is expected that this well could provide water of 10,000 -12,000 ppm TDS. This level of TDS will probably not

be a common constituent to look at, but a shallow well with a nominal yield of 20-30 gpm could provide us with a level of flexibility needed for a research facility. The facility already has designed in a storage tank for this quality of water.

3. Building Design Concept Options
    a. Malcolm Pirnie has gone back with a smaller central sulfuric acid handling area and a separte caustic handling area. These were required for safety issues. This has forded some redesign of the shop and the need to add a small mezzanine to the facility. The exact design concepts will be discussed with the detailed design comments.
4. Water Rights Issues
    a. Andrea Mendoza mentioned that the paper put in a wrong description of the wells in the public notice so that the notice will have to be republished.
    b. There were three protests for the water rights application for the site. This will take anywhere from 6-12 months to resolve. Jim Sizemore suggested that we request an expedited hearing.
    c. It was agreed that WRRI would contact the three protestants and discuss.
    d. Any hearing will require legal counsel, so BOR is developing a contracting method through Sandia to fund NMSU legal counsel for the possible protest hearing/s.

Discussions of Facility Groundbreaking – Mike Hightower

Mike led a discussion on the coordination of the facility groundbreaking. It looks like mid-April is the best time for Senator Domenici. Glenn Howard mentioned that the site construction is expected to begin about April 1, so the timing is just about right for a ground breaking. The EC discussed the general invitees for the groundbreaking and a suggested list was generated. Mike has been coordinating the ground breaking efforts with Ed Carr of the Otero County Economic Development. All invitations and activities will be sent out and coordinated through that office in cooperation with Reclamation, Sandia, and the City of Alamogordo.

1. Mike agreed to provide the potential list to both Reclamation and Otero County by early the week of 2/16.
2. It was agreed that Otero County and Alamogordo would coordinate the event, taking responsibility for announcements, stage, event planning, etc.
3. Reclamation will work with Malcolm Pirnie and Laguna Construction to have a site board and site rendering available for the ground breaking.
4. Paul Kinshella will address the Multi-State Salinity Coalition and identify how many southwestern cities or states may want to be invited and attend the groundbreaking.

60% Design Review- Glenn Howard

Glenn lead the 60% design review by the EC. The EC provided general and specific comments on landscaping, architectural, mechanical, structural, electrical, instrumentation, and site piping and grading. These extensive comments will be written up by Reclamation and made available for documentation and review.

90% Design Review and Meetings and Comments

We discussed the general level of activities for design reviews for the next month. The EC agreed to the following design review focus and efforts. All drawings can be downloaded off the web. All EC members have a username and password. If you do not have or have forgotten your username and password contact Glenn Howard at 303-445-2259.

1. 90% Design Review For Water Conveyance and Site Grading
    a. Drawings available for review and downloading from the web on Friday February 20th.
    b. Comments due to Glenn by Friday February 27th. These comments need to be typed in Word and sent via email.
    c. EC review on Monday, March 1st at the NM WRRI in Las Cruces.
    d. This will be the final EC review and the EC is to look for "fatal flaws" relative to the

design objectives as well as any issues they identify in this set of drawings.

e. Glenn will provide E size drawings at the meeting for discussions.

2. 90% Design Review for Site Buildings and Facilities
    a. Drawings available for review and downloading from the web on Friday, March 19th.
    b. Comments due to Glenn by Friday, March 26th. These comments need to be typed in Word and sent via email.
    c. EC review on Monday, March 29th and 30th at the NM WRRI in Las Cruces.
    d. This will be the final EC review and the EC is to look for "fatal flaws" relative to the design objectives as well as any issues they identify in this set of drawings.
    e. Glenn will provide E size drawings at the meeting for discussions