

86-68560
ADM-12.00

MEMORANDUM

To: Director, Native American and International Affairs Office
Attention: 96-43000

Through: Bruce C. Muller, Jr.
Acting Director, Technical Resources

From: Tom Gill
Hydraulic Engineer, Water Resources Research Lab Group

Subject: Trip Report – Taipei, Taiwan – Control Numbers: 043, 044, 045, 046, and 047

1. Travel period: April 28 through May 5, 2007.
2. Places or offices visited: The Tseng Wen Project Office in Chyia Shen, the Water Resources Agency (WRA) Southern Region Office, site visits to the Lao Nong Chi Weir site, the nearby East Portal of the East Tunnel, the East Portal of the West Tunnel at the Quishan River, the Tseng Wen Dam and Reservoir, and the WRA Headquarters office in Taipei.
3. Purpose of trip: The purpose of the travel was to meet with the Southern Region of WRA and their representatives to discuss the weir and tunnel projects, the planned modifications for Tseng Wen Dam for raising the reservoir level, and concepts for sediment sluicing from Tseng Wen Reservoir.
4. Synopsis of trip: Mr. Rick Ehat, Dr. Dave Gillette and Mr. Mark McKeown (Engineering Geologist, Consultant), who had been part of the team doing work for the WRA Central Bureau during April 22-28, 2007, joined up with Dr. Blair Greimann, Mr. Tom Gill, and Mr. John Trojanowski who had been part of the team doing work for the WRA Northern Bureau during April 23-28, 2007. On Monday, April 20, 2007, the team flew from Taipei to Southern Taiwan for briefings and site visits related to the transbasin diversion project. On the morning of Friday, May 4, 2007, we made presentations of our preliminary reviews to the WRA Southern Region staff and project contractors. That afternoon, we flew back to Taipei where we made a summary presentation on findings of all three teams to the WRA staff at the WRA headquarters. We returned from Taiwan to the United States on Saturday, May 5, 2007.

Background

This effort was the result of Appendix 6 work requested by the Taiwan WRA. Notice of approval for this work was received in a memorandum from Richard H. Ives, Director, Native American and International Affairs Office, transmitted on April 20, 2007.

Saturday, April 28, 2007

We traveled to Taipei following a Saturday morning presentation to the WRA Northern Bureau by the Bureau of Reclamation Northern Bureau Team in Jiaan Village.

Sunday, April 29, 2007

Non-work day. (Overnight at Leader Hotel)

Monday, April 30, 2007

Fly from Songshan Airport (Taipei City) to Kaohsiung Airport (Kaohsiung City), and travel by van from Kaohsiung City to the Chyia Shen office. Briefings at the Chyia Shen office included an overview on the Transbasin Diversion Project, followed by more detailed presentations on the Diversion Tunnel Project, and on the Lao Nong Weir Project. Following the briefings, we traveled to the Tseng Wen Reservoir Hibiscus Hotel for the first of a four-night stay.

Tuesday, May 1, 2007

The team traveled to the planned Lao Nong Weir site and the near-by East Portal of the East Tunnel on Lao Nong Creek. We then traveled to the site of the East Portal of the West Tunnel and planned invert siphon site on Qishan Creek. After viewing the Qishan Creek sites, we returned to the Hibiscus Hotel for the evening.

Wednesday, May 2, 2007

The team traveled to Tseng Wen Dam where we were provided with an overview of planned dam and spillway modifications associated with a raise of operating level of the reservoir from 227m to 230m. While at the dam, we were given a tour of the underground power plant facility. After viewing the Dam, the team was taken to the WRA Southern Region office near the Hibiscus Hotel where we were given briefings on the proposed dam modifications and on ongoing investigations into the feasibility of sluicing sediments from Tseng Wen Reservoir.

Thursday, May 3, 2007

At the WRA Southern Region office on Thursday morning, the team participated in discussions on the Tunnel Project with WRA staff and representatives of the contractor, (a Joint Venture of the Nishimatsu and Ta-Chen firms). In the afternoon, the team participated in discussions on the Dam Modification Project with WRA staff and representatives of the contractor, (Sinotech Engineering Consultants, Ltd.). The team participated in discussions on sedimentation investigations, which are currently in the concept development stage. Following the three rounds of discussions, the group was taken on an inspection of Tseng Wen Reservoir by boat

Friday, May 4, 2007

The team made presentations of preliminary findings on each of the subset projects, (Tunnel

Project, Weir Project, Dam Modification Project, and Sedimentation Investigations) to WRA staff, contractors, and researchers at the WRA Southern Region office. Following the presentations, we traveled by van to the Tainan Airport (Tainan City), and flew to the Songshan Airport (Taipei City). From the Songshan Airport, we were transported to the WRA Headquarters office in Taipei where the team made a summary closeout presentation to the WRA upper-management team on activities of the three Reclamation teams in Taiwan during the April 23 – May 4, 2007, travels.

Saturday, May 5, 2007

The team returned from Taiwan to duty stations in Colorado.

5. Conclusions: The various aspects of the Tseng Wen Transbasin Diversion Project each pose challenging conditions. The WRA Southern Region staff and consultants recognize the scope of the challenges they face, and have developed good plans and designs for meeting these challenges. After viewing field sites and receiving briefings on the project, the Reclamation Team has compiled a list of comments suggestions, many of which focus on strategies that could enhance contingency options, should problems be encountered during construction of the project.
6. Action correspondence initiated or required: The Team has compiled Final Technical Reports for the four sub-projects that are being prepared for transmission to the WRA.

cc: 86-43100 (Principe), FCCD-100 (Ehat), 86-68313 (Gillette), 86-68130 (Trojanowski, Hepler), 86-68540 (Greimann), 86-68560 (Gill)

WBR:TGill:PBurk:5/30/07:303-445-2201

(I:Hyduser/Secretary/Travel/ForeignTravel/TripRpt_TGill May'07.doc)

REVISED:avigil:6/5/07

