NOTES ON HISTORY OF LONE TREE SPILLWAY CONTROVERSY

December 10, 1979

1. Previous to 1955, Special Deputy to the Colo. State Engineer, Clark Schnurr, warned Supt., Lon Hagler, concerning no spillway at Lone Tree Reservoir. No action was taken by the State or by Home Supply.

2. During November 1973, three letters were received from the State Engineer:
   
   (a) Nov. 14 - Asking that an emergency 'blow-off' valve be installed in the underground outlet pipe at Lon Hagler Res. (To provide for a quicker reservoir drawdown in case of emergencies) (Not done)

   (b) Nov. 27 - Company must determine the source, quantity and chemical content of seepage waters passing under the north 1/3 of the Mariano Res. dam. (This was done and furthermore a deep cut off trench was dug along the inner toe of the dam within the problem area. This trench was filled with compacted clay. Seepage was not reduced.

   (c) Nov. 28 - State placed a 21.6 ft. filling hold order on Lone Tree. This action reduced Home Supply's water storage capacity by 1,600 A.F.

State Soil Conservation Service and later, Bruns Engineers of Longmont, were requested to make a complete study of the situation and report to the Board.

During Nov. 1974 - State Engineer asked that safety of Lone Tree outlet tunnel be improved by lining the wooden floor of said tunnel with metal or concrete. A heavy gauge aluminum floor (in lapped sheets) was installed in the tunnel during fall of 1976.

During Nov. of 1975, State Engineer tentatively approved Home Supply's flood control plans for Lone Tree and, in May 1976, the hold order was temporarily removed with the warning it could be re-instated if final work was not State Approved.

After Handy's Welch Lake was inspected, Handy placed a demand on Town of Berthoud to remove the dike which carried Berthoud's raw water main across the S.W. sector of Lone Tree. Berthoud complied. Also the dividing dike between Lone Tree and Welch was heightened
Lone Tree Spillway Controversy

and strengthened.

On Oct. 20, 1973 Lone Tree was inspected by Bovay Engineers of Spokane, Wash., under contract let by U.S. Corps of Engineers. Dated June 28, 1979, Bovay's report stated that eleven additional works of safety improvement must be done at Lone Tree. Estimated cost: $1 1/2 million dollars. To carry out some of these eleven points would invite economic suicide - to carry out some others, would have destroyed Home Supply's ability to manage its waters.

Previous to Aug. 31, 1979, Home Supply provided the State Engineer with a detailed analysis of each of Bovay's eleven points and with the help of Engineer, Ken Dickey, suggested a minimum of measures which could be taken to make Lone Tree reasonably flood safe in the event of a "probable maximum precipitation" (21" in 6 hours) storm.

On Oct. 18, 1979, State Engineer's office approved, with certain modifications, Home Supply's appeal. Estimated cost to implement these Lone Tree flood safety projects: $100,000.00 to $125,000.00.

December 5, 1979 - Colo. Water Conservation Board, officially approved Home Supply's application for a $50,000.00 State of Colo. loan. Terms: 20 years @ 3% service charge. This loan, if State Legislature approves, must be matched dollar for dollar with Company funds.

W. R. Keirnes, Secretary
12-10-77

Notes on History of Lone Tree Irrigation Controversy:

1. Prior to 1955, Special Deputy to the Col. State Engineer, Clark Schmeeckle
   warned Supt. F. J. Hagler concerning no spillway at Lone Tree Res. no
   action was taken by the State or by Home Supply.

2. During November 1973 - 3
   letters were received from the State
   Engineer:
   (a) Nov. 14. - asking that an emergency
      flow of water be installed in the
      underground outlet pipe at Lone Hagler Res.
      (to provide for a quick drawdown in case of emergency) - (not done)
   (b) Nov. 24. - must determine the
      source, quantity, and chemical content of
      seepage waters passing under the South
      1/2 of the Markins Res. dam. This
      was done and furthermore, a series of
      trenches was dug along the inner
      face of the dam within the problem
      area. This trench was filled with
      compacted clay. Seepage was not
      reduced.
   (c) Nov. 28. - state placed a 21 1/2-ft.
      filling Holland on Lone Tree. This
      action reduced home supply water.
Storage capacity by 1686 A.D., State Soil Conservation Service and later, Board Engineers & Longmont were requested to make a complete study of the situation and report to the Board.

During May 1974, State Engineer asked that safety of Lone Tree outlet tunnel be improved by lining the wooden floor of said tunnel with metal or concrete, a heavy gauge aluminum floor (in lapped sheets) was installed in the tunnel during fall 1975.

During Nov. of 1975, State Engineer tentatively approved home supply flood control floor for Lone Tree and in May 1976, the hold order was temporarily removed with the warning it could be re-installed if final work was not State approved. After Hardy's Watch Lake was inspected, Hardy placed a demand on Town of Berthoud to remove the line which carried Berthoud raw-water main across the S. W. sector of Lone Tree. Berthoud complied, also the dividing shle between Lone Tree and Welch was lightened and strengthened.

(Cont.)
On Oct. 20, 1979, Lone Tree was inspected by Boeing Engineers of Spokane, Wash., under contract let by U.S. Corps of Engineers. On June 27, 1979, Boeing's report stated that 11 additional works of safety improvement must be done at Lone Tree, at a cost of $1.2 million dollars. To carry out some of these 11 points would invite economic suicide — to carry out some of these would have destroyed Home Supply's ability to manage its water.

Previously to Aug. 31, 1979, Home Supply provided the State Engineer with a detailed analysis of each of Boeing's 11 points and, with the Chief of Engineer, Ken Nisley, suggested a minimum of measures which would be taken to make Lone Tree reasonably flood safe in the event of a "probability maximum precipitation" (27" in 6 hours) storm.

On Oct. 18, 1979, State Engineer's Office, approved, with certain modifications, Home Supply's appeal. Estimated cost to implement the Lone Tree flood safety project $100,000 to $125,000.

Dec. 5, 1979, Cold Water Conservation Board officially approved Home Supply's application for a 5-9,000" State of Cold Water loan. Terms: 20 years @ 3.75% service charge. This loan, if State Legislature approves, must be matched dollar for dollar with Company funds.