Savage and Bill DeBoer. DeBoer had replaced Clarence Carter. We did set up an assessment program to fund a new tank and another well on the 14 acres well site.

The county is now calling for 1,500 gallons a minute of fire hydrant water for five hours of supply. Most of our main pipelines are not big enough and our tanks are not big enough to meet these minimum amounts at this time. We try so hard to get a better system, but seldom do we win.

We had Malcom Boring Company in to go under Highway 2 for the Wild Horse Canyon route. Our CPA, Mr. Wright, has passed away, but we will continue with his company for our bookkeeping. Manager Ross has pressure problems in certain sectors where the pipelines are not looped together. He is asking us to make funds available to complete these areas for pressure minimums. The number three well was ready for the pumping system. It had been tested at eight hundred gallons per minute, so we ordered a 60 horse power pump for this unit.

The 1982 Board of Directors were John Lovett, Clarence Carter, Marianne Smith, Curtis Roach, Louis Foglia and Chuck Veneman. Curtis Roach was the manager of Olsen Ranches. Mr. Foglia and Mr. Veneman were attorneys at law. Mr. Ross was defeated by the shareholders as being a director and manager so our new board got a suburban bent with Foglia and Veneman on board.

We did bring the shareholders up to date on the Power Plants being offered by Bondiman and Associates, the well #3 production, and the overall gains that we had made in 1981/2. The past five years had seen major strides in all areas of the water company.

The shareholders decision to have a non-board member as manager came back on us by the end of the month of May as Bob Ross was no longer the manager. We had Clarence Carter available to fill in while we searched for another one. The County of San Bernardino would have Zone L check the monitoring well twice a year now that it was in place.

We hired Mr. Roger Chaplin as our new manager in July. He was to get his credentials as soon as possible and would have Clarence Carter to help him get accustomed to the system. Clarence and I were out one evening watching the system work, and he said it was like playing with a toy train that was ten miles long and four miles wide.

On September 18, 1982 there was a new board election due to several members leaving. The new board were Chuck Veneman, Clarence Carter, Curtis Roach, John Lovett, C. W. "Bud" Howard and Ron Petersen. The high school had decided not to have a water tank on their property, but Mr. Zimmerman had offered a site on his parcel

to the South. Electrical generators were still being talked about, but nothing done about them.

In 1983, the Board of Directors of Sheep Creek were Chuck Veneman, Clarence Carter, Curtis Roach, C. W. "Bud" Howard, Ron Petersen and Bill Luckenbill. The new board had decided to purchase a John Deere backhoe and a Chevrolet truck so they could do their own pipeline repair and place new pipelines also.

The 40 acre Bureau of Land Management parcel that Sheep Creek's reservoir is on was getting notice once more. Bud Howard wanted John Lovett to work with Congressman Jerry Lewis and see if they could purchase the property. Bud wanted to put in a recreation park at that location.

The 1984 board were Ron Peterson, C. W. "Bud" Howard, Chuck Veneman, Curtis Roach, Clarence Carter and Bill Luckenbill. They were still going ahead with the Zimmerman tank and were ready to get prices. The BLM parcel was now ready to close in a few weeks. Chuck Veneman withdrew from the board on August 16, 1984. The board appointed Sam Reeder to the vacancy.

C. W. "Bud" Howard withdrew from the board on January 17, 1985. The board in February finally received their deed of trust from the BLM and it was recorded at the County of San Bernardino. The members of the board wanted a surge tank located in the 14 acres of the well property. They also wanted to continue their tank site on the Zimmerman parcel. On March 7, 1985, Bill Luckenbill withdrew from the Board of Directors. The final board of 1984/85 were Clarence Carter, Ron Petersen, Curtis Roach, William Storeman, Sam Reeder and Walter Warren.

In the Phelan area we were building a new middle school north of the high school. A new bank was soon to go up on the north side of Phelan Road along with some shops and a new gas station at the intersection with Sheep Creek Road. Now Sheep Creek Water Company would have to finally close the loop on Sheep Creek Road.

The shareholders meeting of May 4, 1985 had Mr. Richard Bell of Boyle Engineering who gave a detailed plan of the Sheep Creek Water Company conditions and what we should do to have a better water company.

He recommended the surge tank at the 14 acre site, better pipe work on tank #3 for online supply, repair of tank #2, upgrade of the business district and school facilities for better fire protection and a water quality study of the well area and a tank study for future supply.

The new board were Kathy Schafer, Sam Reeder, Clarence Carter, Walter Warren, Ron Zimmerman and Bill Storeman. This was a board

who would be around for five years and had some new ideas for funding of tanks, wells and appurtenances. They did place a million gallon tank on the Zimmerman property and a large line from the tank to the water company office on Sunnyslope. Another well was drilled on the 14 acre site in Sheep Creek and a number of loops were installed to regulate pressure.

They helped the staff when they came up with raises, better medical, dental and vision insurance for all employees. They had to make a decision on the big line from the new tank on Zimmerman property to Phelan Road, so that the fire flow would meet a thousand gallons per minute for the schools and the new businesses now coming on line.

The 100,000 gallon surge tank was purchased and erected on the 14 acre parcel in Sheep Creek. Sue Thomson was hired as office manager in December of 1985. Bill Storeman resigned from the board in January of 1986 and was replaced with Mr. Leonard Valdependa. The Marshall Pipeline Company was redoing 8 inch pipe on the Phelan Road and now they wanted to realign another thousand feet towards Campanulla.

At the May shareholders meeting, the board talked about another tank, another well, more pipelines and appurtenances, but nothing was finalized since the funds were not in place. The board remained the same. They did reduce the cubic feet per share to 2,000.

They did get through the summer without any major water problems. The drilling began on #4 well by McDougall's of Lucerne Valley. Gary Stark, the crew foreman had a heart attack and was recovering in St. Mary's hospital on October 13, 1987. December 3, 1987 saw the #4 well down to four hundred feet and Bob McDougall was ready to test pump. January 16, 1988 had Gary Stark back on board and ready to go.

The May shareholders meeting showed the maintenance staff at five men and two women in the office. The board noted that they had put in almost 7,000 feet of pipe his year and the one new well at four hundred gallons per minute. They did note that the #1 well was now dry and well #2 was reduced in consumption. The tunnel had been dropping also in production, but the general feeling was that we would be all right.

The Board of Directors remained the same, Kathy Shafer, Clarence Carter, Sam Reeder, Walter Warren, Leonard Valdepenia and Ron Zimmerman.

In June 1988 the Board of Directors were approached by the property owner of the bluff just north of the tunnel portal for a water meter connection. They agreed to take a study of the site. The

site of his mobile home is about 200 feet higher than the water main at that point. They also are prepared to take bids for grading of tank #6.

The connection of tank #6 to the main line in Wild Horse Canyon was agreed upon in January of 1989. They also agreed to grade four more tank sites but have not decided where. The grading work still hasn't been done and now they proposed two tanks of 1,000,000 gallons each on the Zimmerman parcel. It was graded and ready for the #6 tank to be constructed at the end of April of 1989. The pipe line for well 3 still wasn't completed at this time.

The May 6, 1989 shareholders meeting returned the present board of Kathy Shafer, Sam Reeder, Clarence Carter, Walter Warren, Leonard Valdepena and Ron Zimmerman. The May 20, 1989 meeting had a hold up on tank #6 due to some sort of foundry problem. Well 4 still wasn't completed. And well 3 had a collapsed shaft above the pump and the pump will have to be replaced. McDougalls recommended a 40 horse pump.

The well 3 pump was in place and well 4 was pumping and the tanks were beginning to fill up. The tunnel is producing about 200 gallons per minute. Total product was about 1,000 gallons per minute. Manager Chaplin said the water users were being careful. This was July 22, 1989. He also expected the tank #6 to start going up soon. The end of the year of 1989 saw the tank #6 in place and full. The wells were producing less water and the tunnel was at about 150 gallons per minute. We were in a prolonged drought and the winter was dry.

The wells continued to pump but the production was slowly getting less. The tunnel stayed about the same but nothing was done for any more drilling in the 14 acre well site. The board was talking, but not doing anything about more water. They had money in the bank at that time but just couldn't agree to spend any of it. The new engineer, Mr. Hans Hanson of Albert Webb and Associates of Riverside, California, was trying to get the board to produce a new master plan and a hydro geologic study of the fourteen acre well site. He gave a speech at the shareholders meeting asking for the money for both programs.

The May 5, 1990 meeting was well attended by shareholders. The board was after the Master Plan and the Hydro Geologic Study funding that Hans Hanson was still pushing. I personally believed the engineer was setting the board up to drilling a well in the El Mirage water shed and moving the water south with pumps. I felt that the 14 acre site still contained water and our tunnel had more water if we could clean it out. The Board of Directors were reelected, but three other shareholders came very close to winning the election. The funding for the Master Plan was approved.

On June 6, 1990, Manager Roger Chaplin reported to the board that all three wells were showing a drop in volume of water to be pumped. Well 2 was pumping white water and sand at about 200 gallons per minute. Well 3 was pumping 450 gallons per minute and well 4 was having pump problems and was not in service at this time. The tunnel was flowing at 150 gallons per minute.

Tank #5 was empty, tank #2 and tank #3 were less than half full at that date of June 22, 1990. The drought was in full control and Sheep Creek Water was about to go under. Zone L was showing some drop in water, but were all right at this time. Southern California Water at Wrightwood was having to be very careful and Mountain High Ski Area was getting ready to transport by truck and trailer loads from their new well in the El Mirage watershed.

As the time continued, the water streams continued to fall. They found a forty horse power pump at McCalla Bros. in Redlands and they came the next morning to exchange the pumps in well 4. Manager Chaplin submitted his resignation to the board at the end of July 1990. He would stay on until they could get him replaced.

The board was in deep trouble as they were trying to find a way out of the lack of water. All well drillers were busy and they could not think of anything that might bring them more water except the tunnel. And that was a gamble from where they sat a this time. The well that hadn't been dug was about to put them under. The State of California was going to place a moratorium on the Sheep Creek Water Company.

The July 5 meeting had five directors, manager Chaplin, Sue Thompson, Bud Howard and engineer Fred Hanson. Manager Roger Chaplin gave the status report as follows. Wells were decreasing steadily. Well 4 was at three hundred gallons per minute. Well 3 was at three hundred gallons per minute also. Well 2 was at one hundred fifty gallons per minute and pumping white water and sand and the tunnel was down to one hundred gallons per minute.

Engineer Hanson made the following remarks. Place extra protection at wells 3 and 4. Tell the high school to cut their water use by switching to Zone L. The Board of Directors was to reduce the water shares to five hundred cubic feet per month and add two dollars per month on each share for an additional well. They discussed a new well location.

The July 21, 1990 meeting was on a Saturday morning on the Sheep Creek Water Company front yard. All directors were there, engineer Hanson, engineer Bill Gedney of the State Health Dept., water manager Bill Smillie of Zone L, three newspaper reporters and two fifty to three hundred shareholders of the water company.

The first speaker was engineer Fred Hanson of Alfred Webb and

Associates. The shareholders wanted to know how to get more water? Hanson said another well or the aqueduct water. He pointed to the hydro study that said no more wells in the 14 acres site. But he did note that the new well would be for next year, not now. When the shareholders asked if we had property in the northern water basis, Mrs. Shafer said no.

There was some comment on the share system that we worked under and then engineer Gedney was allowed to speak. He kept his words simple and to the point. We were severely low on water. But we had enough if everyone was careful. We would have to get the water volume up this winter. We could not depend on "Mother Nature" to provide more water if the rains did not come. So the question was the same, drill another well, but where?

One of the shareholders asked manager Bill Smillie of Zone L if they would provide more water to Sheep Creek Water Company. He noted that we had 960 gallons per minute coming down the pipe. At 500 cubic foot per share the water is enough if the large shareholders would reduce their volumes.

When asked if the county would buy Sheep Creek Water Company he said, a negotiated price would be set on the system now in operation. This would be paid to the shareholders, then the county would tax all of the new customers for fifteen years to pay for a new system. That didn't sound so good and the question was dropped. The meeting was ended when the directors decided to reduce the \$100.00 fine on share overages to a \$10.00 fine.

The board meeting on August 2, 1990 was mostly about a recall election that was coming up on August the twenty-fifth to recall the Board of Directors. That meeting was at the multi-purpose room of the Phelan, California elementary school on Phelan Road. By the end of that meeting, the new board was John Lovett, Jim Watson, L. Valdepena, Clarence Carter, Sam Reeder and Walter Warren. Lovett tried to keep the staff and the manager on board, but both Mr. Chaplin and Mrs. Thompson resigned. Lovett agreed to Albert Webb as engineer if they would replace Hanson. Webb resigned also. Lovett also agreed to keep the same attorney and bookkeeper and they agreed to stay. So one out of three wasn't bad.

Bud Howard had picked up a miner from Bakersfield by the name of Max Schmelling and we decided to have him update the tunnel work shaft and scope the tunnel so he could make some estimates for us. On August 30, 1990 we met to get going on a manager and an office manager. The directors were John Lovett, Clarence Carter, Sam Reeder, Leonard Valdepena, Jim Watson and Walter Warren. We set in motion an advertised program for a manager. Roger Chaplin was still helping us when needed, but a good manager was paramount in getting ahead. We were able to pick up a Mrs. Beck for the office manager and she was a good one.

The minutes of the shareholders meeting on August 25, 1990 were 54 pages long. It started at 10:00 a.m. and it ended at 5:10 p.m. of the same day. The first speaker was attorney Ernie Riffenburgh who spoke about a program that could bring our mutual water company up to date or even change it to a community services district with our own board of directors. His talk was to inform our shareholders so they could vote at the next meeting in May of 1991.

The next speaker was Fred Hans Hanson, engineer from Albert Webb and Associates of Riverside, California. His program was where water was and wasn't. He used the Leighton Report, a hydro geologic study, as proof that the 14 acre well site in Sheep Creek was not a good water source. He and Leighton both recommended that our firm go north into the El Mirage alluvial area and drill a well in the known water basin, put in pumps and storage tanks and pump the water some six miles to the Zimmerman tank at Snowline Road. He also would increase the storage tanks, put in bigger pipelines, more pressure regulators and whatever else would be required.

The next speaker was Bill Gedney, engineer from the Department of Health Services, State of California. He spoke about the water situation as it was at that time. According to the staff at Sheep Creek Water Company, the tunnel and the three wells now pumping had a total of 705 gallons per minute coming down the pipe. All the tanks were full each morning and as far as Gedney was concerned, the water system was within the minimums; except that we did not have any backup for fire. With that in mind, he was going to inform the State that no more buildings would be allowed within the Sheep Creek Water Company area and no new meters until our company could put 1600 gallons per minute down the main pipeline.

Gedney noted that Sheep Creek had a connection at the Zimmerman tank that, in an emergency, could provide additional water if we had a fire or some other emergency through County Zone L. It was hooked up and ready at any time. But Sheep Creek Water Company was still short of the emergency fire flow required and could not build any more buildings until the 1,600 gallons per minute could come down the line for five hours of time. Gedney did not know the exact date, but a letter to Sheep Creek would be coming soon.

Now I want to place myself in the mix of people and places that were part of the program that day. C. W. "Bud" Howard had been on my case to get me back on the board. Things were getting worse and not better, so I finally agreed. In the time that I had been off the board, I had become a good friend of Bill Smillie, the Zone L manager. He had given me several books to read about the El Mirage, Sheep Creek Water shed and in fact used the Horne Report of the watershed as his well drilling guide to keep Zone L in water as it continued to grow. And he had learned a lot about the water table of the El Mirage Basin.

My time with the Horne Report convinced me that there were streams of water in Sheep Creek, not a basin, but streams of water along the bedrock. He believed the average flow was 4,500 gallons per minute, which was a hell of lot of water for Sheep Creek Water Company. Bud and I agreed to clean out the tunnel, drill a new well, and get another one million gallon tank. The vote was finally taken and according to the vote counting, we did not win. But the shareholders were in such a head of steam that they ran Kathy Shafer and Ron Zimmerman right out of the meeting and they resigned. So John Lovett and Jim Watson were elected and Clarence Carter, Sam Reeder, Leonard Valdepena and Walter Warren stayed on the Board of Directors.

So there I sat, as president of the new board, two board members that were against me, one that was for me and one that was somewhere in the middle. I had a friend who was as big as a bear and twice as ugly coming to meetings and before long, we had a vacancy on the board. It made things a lot easier and overall, they pulled together and we got things done.

Board selected Mr. Robert Nadeau as the new manager of Sheep Creek Water Company.

The new manager, Bob Nadeau, put the things done as follows:

- 1. Work shaft and tunnel repair.
- 2. Construct an additional well on the fourteen acre site in Sheep Creek.
- 3. Begin preliminary studies of availability of water sources to the north.

Bud Howard located a miner (Cal-Nevada Mining Company of Frazier Park, California) to survey the work shaft and the tunnel. Miner to assess and advise the board with initial recommendations with assistance from C.W. "Bud" Howard.

Received notice of a building moratorium being placed on the Sheep Creek Water Company service area by the State of California, Department of Health Services (September 14, 1990).

President of the board declares the Sheep Creek Water Company to be in the state of emergency.

Board hired an engineering firm from Apple Valley, California. Wilson So and Associates will handle the engineering for Sheep Creek Water Company.

Board of Directors notifies County Service Area 70-L of possible need for emergency water supply as they shut the tunnel down and transfer the water to the reservoir in Horse Canyon. (This water not potable during repair work.)

Board of Directors requests written opinion from County Service Area 70-L as to the availability of: (1) Sheep Creek Water Company leasing a portion of existing county water transmission mains to transport Sheep Creek Water. Contract with County Service Area 70-L to supply water during peak demand time? County will return with answer.

President of the Board of Directors invites seven shareholders to participate as an advisory board for the purpose of evaluating: (1) restructuring the company to serve each customer on a metered volume only; (2) if the company by-laws are so amended, how shall it develop funds for capitol improvements; (3) how to consummate our participation with the aqueduct turnout and the Mojave Water Agency; and (4) the financing and construction of Micro Hydro-Electric units for our gravity supply system.

State of California, Department of Industrial Safety representative tours the work shaft and the water tunnel. Requests minor changes and commends Mr. Watson on the level of safety being provided. Request for changes are complied with.

Well #5 site is selected, engineered and bids requested. Initial bids are far above the funds available. We find Bob McDougalls available to meet our funding and the well is drilled. Initial test pumping 420 gallons per minute indicates a good well.

Tunnel and work shaft repairs are completed. Tunnel blockage is removed and re-shored. Bulkhead is constructed at flow chamber. Gallery is cleaned, collection weirs constructed and gallery is chlorinated.

A flow metering device is installed in the outlet weir of the tunnel. The device meets State of California Metering Standards and when in total operation, will provide accurate production records. Initial measurements show tunnel flow has been increased by approximately 200 gallons per minute over August of 1990 flows.

Wells #2, #3 and #4 are fitted with modern air activated sounding devices that provide accurate and immediate water level information needed for production control during peak demand.

County Service Area 70-L responds to Sheep Creek Water Company's request for a written opinion on a joint use of water transmission mains and/or water supply during peak demand time. The answer supplied by San Bernardino County Counsel is "NO" to both questions.

Board of Directors agree to have the company engineer accurately locate the water supply tunnel length, grade and compass alignment. Engineer shall then duplicate this work on the surface and record this information. The Sheep Creek Water Company can now begin to



MAX SCHMELLING and CREW



JAMES WATSON