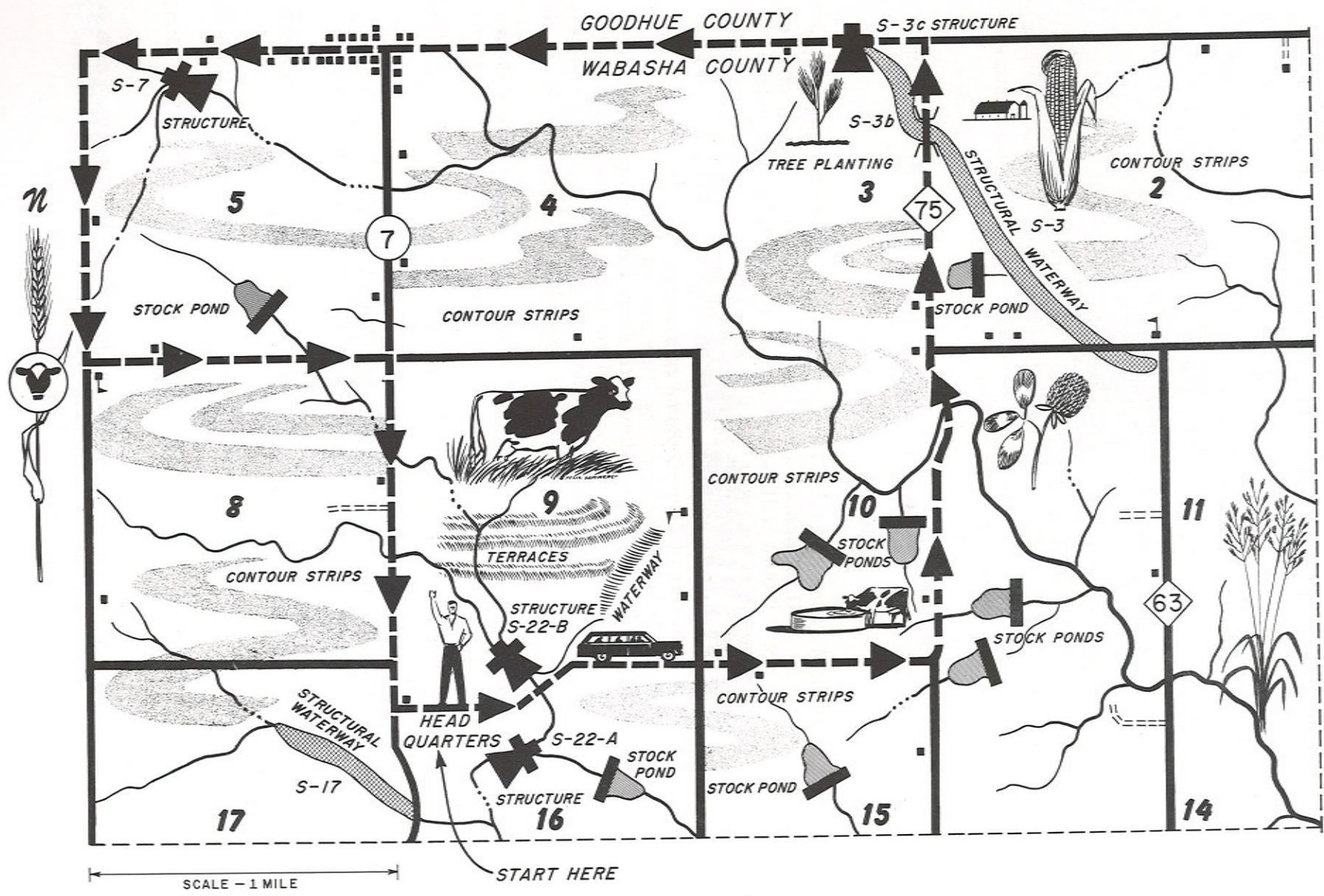


# BEAR VALLEY WATERSHED . . MINNESOTA DAM-O-RAMA 1964 TOUR ROUTE





# The Bear Valley Watershed Story . . .

By HAROLD SEVERSON, Kenyon, Minnesota

*Chairman, Dam-O-Rama Publicity Committee*

Dam-O-Rama '64 — more formally known as the Minnesota Field Days — will focus attention on a section of farmland known as the Bear Valley Watershed.

The watershed covers an area of nearly 46 square miles, or approximately 30,000 acres, and is located in southeastern Goodhue and northwestern Wabasha counties in the southeastern part of Minnesota.

Up until this past year, it had been a section plagued by heavy damages resulting from major floods in 1942, 1943, 1954, 1957 and 1957. Erosion and sediment damages due to gullying had been a major problem. The gullies in the watershed kept eating into the fields and pastures. Sediment washed out from the gullies was causing damage to cropland and pastures, roads, bridges, and farmsteads.

Clearly, something was needed to stop the damage. Otherwise it would be just a matter of time until the gullies had grown in size to such an extent they would seriously cripple the earning capacity of each farm.

The "something" that finally linked the farmers in the Bear Valley Watershed with two major erosion-fighting groups came when the supervisors of the soil and water conservation districts of Wabasha and Goodhue counties organized a steering committee to develop general interest in a watershed project. This was an important forward step for it marked the start of a 10-year campaign to whip the erosion problem.

After five years of hard work and many meetings, the two Soil and Water Conservation Districts applied for assistance under Public Law 566. Technicians from the Soil Conservation Service developed a work plan. To carry out this plan, a watershed district was organized under Minnesota.

This was the first watershed in Minnesota where contracting was done and a plan installed by a watershed district.

The first meeting was held in the rear of the Village Hall at Zumbro Falls 10 years ago. There were only five farmers present at the meeting, representing only a small percentage of the total number of land-owners invited to hear a discussion of the watershed project.

The turnout was somewhat discouraging. However, the handful of farmers decided to call another meeting. This one was much better attended for there were about 70 farmers present.

A steering committee was elected with Leonard Bartholome of Bellechester named as chairman and Alfred Starz of Zumbro Falls as secretary.

"This group did all the pushing for organization of a watershed district," explains W. M. Roberts of Rochester, area conservationist for the U. S. Soil Conservation Service. "It was very pleasing to see about 90 per cent of the farmers in the watershed attending a series of meetings arranged by members of the steering committee. To emphasize the extent to which gullies were causing heavy damage, the steering committee called on Gail Sickeler, work unit conservationist for the Wabasha County Soil and Water Conservation District, to show slides at the meetings. These slides vividly pictured the way gullies were eating into good farmland."

The discussion at the various meetings had emphasized the point that local people would not be able to control the larger gullies under existing programs. It was just too big a job for the average farmer to tackle by himself. The only way to undertake the monumental task of halting the gullies would be through building of dams and other land treatment measures such as terraces and contour strip cropping. This was to be accomplished through formation of a community project on a watershed basis.

The project was set up in accordance with the Minnesota Watershed Act, with the power of assessment and eminent domain. The district would encompass the entire Bear Valley watershed, not just a farm here and a farm there. The structural measures were to be operated and maintained by the watershed district.

The cost of the land treatment measures for watershed protection was estimated at \$211,180. The work plan, as prepared by the Goodhue and Wabasha Soil and Water Conservation Districts, called for a five-year installation period for the protection and development of the watershed at a total estimated cost of \$364,398. The Public Law 566 share of the cost was \$176,906 and the other local share was \$187,492.

The land-owners in the Bear Valley Watershed selected three men to serve on the Board of Managers. Alfred Starz of Zumbro Falls became chairman, a job for which he was well suited for he was thoroughly familiar with the problems and needs of the farmers in the watershed. Fred Hunecke of rural Goodhue was named secretary and Art Dammon, another Zumbro Falls farmer, became treasurer and contracting officer.

Working closely with the board of managers were the boards of supervisors of the two soil and water con-

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Mr. and Mrs. Math Miller, on whose farm the platform will be located and where an array of exhibits will be set up.



servation districts and the various technicians of the U. S. Soil Conservation Service and the U. S. Forest Service. At Zumbrota, James Goettl and his staff were responsible for the Goodhue County portion of the watershed while Gail Sickeler, work unit conservationist of the Wabasha County Soil and Water Conservation District, and his aides tackled the Wabasha County part of the project.

Wabasha County, it should be explained, was organized originally as two separate soil conservation districts. These were consolidated in April, 1960. The Lake Pepin Soil Conservation District, in which the lower part of the Watershed is located, was organized in 1941 and consists of all of Wabasha County north of the Zumbro River, South Wabasha Soil Conservation District, consisting of the balance of the county, was organized in 1942. The upper reaches of the Bear Valley Watershed lies in the part of Goodhue County which was organized as the North Goodhue Soil Conservation District in 1940. The Soil Conservation Service, an agency of the U. S. Department of Agriculture, is providing technical assistance to these districts. The Soil conservation districts have agreements with 103 farmers in the watershed to install soil conservation practices on their farms.

Technicians from the area office of the Soil Conservation Service at Rochester and from the regional office at Milwaukee, Wis., also were called in to give assistance with the more detailed phases of the program.

Work proceeded slowly during the first few years with the farmers discussing the proposal at a variety of meetings. In the fall of 1962, a hearing was conducted at the Bellechester American Legion Hall to hear testimony on the Bear Valley Watershed plan. The hearing was conducted by Virgil Herrick, executive secretary of the Water Resources Board of the State of Minnesota, and Frank Murray, representing the state attorney general's office.

At this meeting, Gail Sickeler outlined the plan which he described as including 11 projects, 17 structures and five miles of waterways. He described the road damage, flooding of low lands, and the deposition of silt and sand at the lower end of the watershed during a recent spring runoff. Fred Hunecke, secretary of the Board of Managers, summarized the development of the plan.

Herrick asked whether there would be any conflict between plans of the Agricultural Stabilization and Conservation Service plans and the watershed proposal. Dave Roberson, speaking for the Wabasha County ASCS, said there would be none.

Also testifying at this 1962 meeting were Everett Freiheit, supervisor of the Wabasha County Soil and Water Conservation District; Harry Diercks, Goodhue County commissioner and member of the advisory board; Arnold Wiebusch, Red Wing, and Matt Metz, Wabasha County extension agent.

In March, 1963, the steering committee headed by Leonard Bartholome of Bellechester called a meeting to outline the flood control project. Alfred Starz of Zumbro Falls, as chairman of the board of managers, explained the work plan in detail. He said the three-phase program was to start in the summer of 1963. Plans called for completing 12 concrete grade stabilization structures containing 500 cubic yards of concrete, three detention dams with 50,000 cubic yards of earth fill, and about five miles of grass waterways.



Mr. and Mrs. Gerald Tomfohrde and family pose beside a tractor. Visitors will find a large earthen dam and numerous corn demonstration plots of especial interest.

The farmers were told at this meeting that the Federal Government would provide the entire cost of construction which, with engineering costs was expected to be about \$176,000. The districts would furnish the necessary land easements and also operate and maintain the improvements through a one-mill tax levy.

By July, 1963, work had progressed to the point where it was possible to organize a tour. About 50 persons representing the Rochester City Council, Dodge County Board of Commissions, the Dodge and Upper Zumbro Soil and Water Conservation Districts, and the steering committee of the South Zumbro Watershed toured the Bear Valley Watershed on a Sunday afternoon.

The tour group was accompanied by W. Marion Roberts, area conservationist, and Frank Hoeft, area engineer of the U. S. Soil Conservation Service.

The group viewed detention dam sites on the Francis Musty, Gerald Tomfohrde and Henry Hinck farms in Chester Township in Wabasha County. In addition, they visited the concrete stabilization structures and water improvements at the farms of Ted Poncet, John Zorn and Ray Kehren, also in Chester Township.

At the Alfred Starz farm near Zumbro Falls, the group viewed "before" pictures of the damage done by erosion. A series of pictures had been taken of a gully "head" on the Starz farm. The 20-foot gully had caused the land to become unsuited for farming. Then the Soil Conservation Service and the ASC came to the rescue. Work was started on building a long, low diversion which permitted the water to flow more slowly. Finally, the same gully was converted into a gently sloping hayfield. A dam was built which impounds the water, thus preventing the usual head-long surge of water after a heavy rain.

Today, the Bear Valley Watershed strikes out in striking contrast to its appearance only two years ago. Where gullies once existed, dams have been built and the deep gashes in the earth's surface smoothed out. Contour strips of green corn and alfalfa contrasted vividly this summer with the "amber waves of grain" ready for harvest.



"There's no comparison between the condition of my farm today and what it was like a few years ago," says Matt Miller, one of the three host farmers.

"I wouldn't farm without my contour strips, observes Leroy Tomfohrde, another of the cooperating farmers.

Gerald Tomfohrde, also a host farmer, says the combination of terracing and strip cropping has worked wonders on his farm. When a driving rain falls on a summer night, Gerald no longer has to worry about all the topsoil, together with expensive fertilizer, being washed down into Bear Creek.

You'll hear similar expressions from other farmers whose land lies in the Bear Valley watershed.

The conservation program on the Math Miller 240-acre farm includes 148 acres of crop land, 148 acres of strip cropping, a four-year rotation of row crop, grain, meadow, and 81 acres of permanent pastures. There also are one acre of wildlife area and an acre of windbreaks. Under the watershed program, two waterways have been constructed and one concrete stabilizer constructed. The headquarters will be located on his land.

Gerald Tomfohrde has a 240-acre farm with 205 acres of cropland, 35 acres of permanent pasture, 3,800 feet of terraces, 140 acres of contour strips and a four-year rotation consisting of row crop, grain, meadow. There are five acres of waterways and a stock watering pond.

The following are the landowners in the Bear Valley watershed who gave easements for \$1 each to make the project possible:



Mr. and Mrs. Leroy Tomfohrde and their four sons will find their hay strips turned into the "state's largest parking lot" as a result of their decision to cooperate with the Central Committee of Dam-O-Rama officials.

Nardinger Estate, Ray Majerus, Fred Huneke, Leonard Bartholome, Lu Vern Bartholome, Frank Heppleman, Matt Poncelet, Emil Gray, Damon Frieheit, Ray Kehrens, John Zorn, Gerald Freiheit, Mrs. Corleus, John Gamm, Henry Hinck, Lane Brothers, Murray Jones, Ole LeSueur, Claus Dettmer, Alvin Black, Francis Musty, Alvin Glander, A. P. Schuler, Math Miller, Florian Redding, Gerald Tomfohrde, Leroy Tomfohrde and Earl Jamerus.



Members of the Central Committee posed for this picture early in the planning period of Dam-O-Rama '64. Seated, left to right: Wallace Hildebrandt, Kenyon, Rice County, treasurer; Everett Freiheit, Zumbro Falls, Wabasha County, vice president; Joe Solberg, Kenyon, Goodhue County,

chairman, and Carlyle Gossard, Dodge Center, Dodge County, secretary. Standing, same order: Harold Searles, Jr., Byron, Olmsted County, director; Ed Wright, Chatfield, Fillmore County, director, and W. M. Roberts, Rochester, area conservationist, U.S. Soil Conservation Service, liaison man. 9



	Structure Type	Drainage Area Ac.	Purpose	Structure Size	Approximately Quantities	Approx. Cost	Remarks
S-22	Waterway	1980		32' Bottom	2182 ft. long	2294.00	1610 ADA controlled by S-22B
S-22 A	R/C Drop Spillway	1980	Grade Stabilizer	3'-6" X 30' Notch 8' overfall	57 c.y. concrete 5569 # Steel. 22c.y. Rip-rap. 10 c.y. sand filter 49' fiber drain pipe.	\$5762.50	See above
S-22 B	Box Drop Inlet	1610	Detention	Box Inlet 8' X 8' X 8' overfall. 48" Hooded Inlet.	16490 c.y. earth fill 17 c.y. concrete 2343 # steel 334' - 6" dia. toe drain 114 c.y. sand filter 114' -48" Dia. Conduit. Asbestos bonded, bituminous coated, fully paved. Alum. guard rail assembly.	\$16,455.10	Total cost of series S-22, S-22 A, S-22 B \$24,511.60
S-3	Waterway	1395	Improved Channel alignment & Stab.	35' - 40' Bottom width	9715 lineal ft. 37467 c.y. excavation 11687 c.y. earth fill	\$9042.00	
S-3 B	Cattle Ramp & floor to exist. bridge	860	Cattle Pass & Stabilizer	4' overfall 15' wide X 17'-9" long ramp 23' long floor and outlet	35 c.y. concrete 3240 # steel. 19 c.y. Riprap 36'-4" dia. fiber drain 6 c.y. sand filter	\$3590.00	Total cost of series S-3, S-3, S-3 C \$15,618.13
S-3 C	R/C Inlet for exist. culvert	680	Grade Stabilizer	3' overfall Twin 10' wide X 11'-9" long Inlet sections	12 c.y. concrete 1142 # steel 4 c.y. sand & gravel drain	\$2986.13	
S-7 A	R/C Drop Spillway	1055	Grade Stabilizer	4'-3" X 24' wide Notch; 3'-6" overfall, 20' length outlet	69 c.y. concrete 8385 # steel 101'-4" fiber drain. 13 c.y. sand & gravel drain material 25 c.y. Rip-rap	\$6473.00	