## DROUGHT CONDITION EVALUATION PUBLIC WATER SUPPLY SYSTEM VILLAGE OF STRATTON

JULY 11, 2006

Stratton, Nebraska, located in Hitchcock County, is situated in the Republican River Valley at the confluence of the Republican River and Frenchman Creek. The water system is composed of three wells. Well #68-1, constructed in 1968, is located just north of the Republican River, and typically produced 130 gallons per minute. This well is under a regulatory requirement to be replaced by 12-31-06 for being deemed Groundwater under Direct Influence of Surface Water. Well #75-2, constructed in 1975, is located south of the Republican River and typically produces approximately 60 gallons per minute. This well is under a regulatory requirement to be replaced by 12-31-06 for being deemed Groundwater under Direct Influence of Surface Water. This well has occasionally produced air during usage when nearby irrigation wells are operating. Both wells #68-1 and #75-2 are located on rural table lands and loess hills. Well #92-1, constructed in 1992, is located north of the Republican River valley. This well is under a regulatory requirement to be replaced by 12-31-06 for being deemed Groundwater under Direct Influence of Surface Water. This well has occasionally produced air during usage when nearby irrigation wells are operating. When new, well #92-1 had an estimated capacity of 115 gallons per minute. Well capacity in well #92-1 dropped significantly during the past years and has never fully recovered. Currently, this well is producing approximately 80 gallons per minute.

The water table continually decreases during the summer due to natural precipitation shortfalls and associated impacts from nearby irrigation. The Village has imposed water use restrictions, limiting lawn watering to every other day and is monitoring water levels in the wells and in the elevated tank in order to maintain adequate pressures and fire protection capabilities. Stratton has been on the Nebraska Health and Human Services System drought impact report for the past several years. Estimated costs for needed improvements consisting of one well and associated transmission line are as follows:

## Needs Survey for 2006 Preliminary Opinion of Probable Construction Cost

Item		Description	Quantity	Unit	Unit Cost		Total	
	1	Municipal Well	1	each	\$	150,000	\$	150,000.00
	2	Test Well	1	each	\$	12,000	\$	12,000.00
	3	Transmission Main	1300	l.f.	\$	15.00	\$	19,500.00
	4	Electrical (3- phase)	1300	l.f.	\$	5.00	\$	6,500.00
	5	Controls	1	l.s.	\$	5,000		5,000.00
		Construction Total			tion	\$1	93,000.00	

Project Total	\$193,000.00

Estimated Costs by: Miller & Associates, Consulting Engineers, P.C. July 11, 2006

Respectfully submitted,

Jack L. Daniel, Administrator

Environmental Health Services Section

Department of Health and Human Services

Regulation and Licensure

JLD/RGF