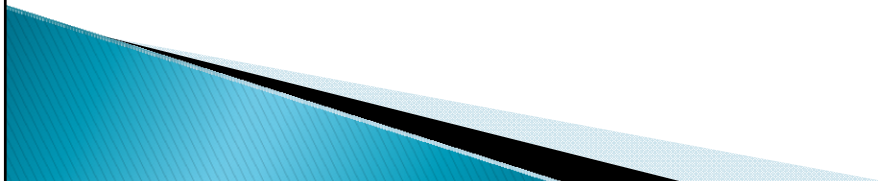


Here is the Good News!



<http://www.oprah.com/oprahs-life/class/Rules-for-Everyday-Senseless-Joy-Leigh-Newman>

It Could Be 30° Tomorrow!



▶ Red River Basin
Commission finished the
Halstad Upstream
Retention Report end of
December

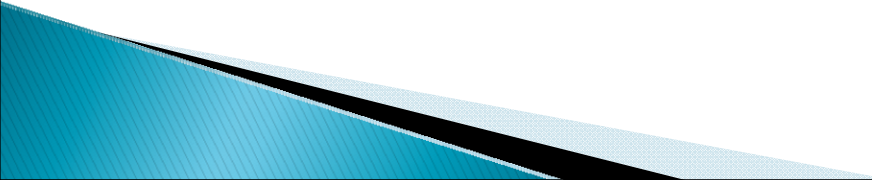
- ▶ This report was sponsored by the Diversion Authority

- ▶ Goal:
 - to see how distributed storage could affect flooding events in the basin by defining the amount and location of storage required to achieve 20% flow reductions on the tributaries to and on the main-stem Red River upstream of Halstad, MN

Findings:

- ▶ Flood volumes on the main-stem Red River can be reduced in excess of 20% through distributed storage
 - These storage sites would provide local benefits as well as greater regional benefits to the basin
- ▶ Peak flows on the Red River's tributaries can be reduced by as much as 35% (The RRBC LTFS set a goal of 20%)

Findings:

- ▶ 20% volume reduction translates to a crest below 40 ft in a 100 year flood event using the ACOE numbers
 - ▶ 20% volume reduction translates to a crest below 38 ft using FEMA's 100 year numbers
 - ▶ The 2009 flood, which is the period of record flood in F-M, would have crested at less than 38 ft with distributed storage in place
- 

- ▶ A 500 year flood event in the F–M area with distributed storage in place and the corresponding 20% volume reductions would translate to a crest of 41 ft using the latest ACOE and FEMA numbers.

- ▶ Moorhead levee work should be completed this year and will be built to a minimum height of 44 ft!
- ▶ Fargo's Comprehensive Flood Control Plan is to build levees to a height of 42.5 ft!
- ▶ **So... Why a diversion???**

Conclusion

- ▶ Fargo and Moorhead's first priority should be to complete their internal flood control projects
- ▶ With levees in place and \$\$ spent on distributed storage, there is little if any need for a diversion to protect the F-M area from a 100-500 year flood event

Conclusion cont.

- ▶ Distributed storage solves local watershed problems and protects the greater basin from future flood events
- ▶ An expensive diversion project has the capability of absorbing all available money for distributed storage projects which, in and of themselves, will benefit all people living in the basin