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SUBJECT: DFC Status Report

Hemphill County UWCD
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INTRODUCTION

In 2010, the District established a Desired Future Condition (DFC)

The following actions have been taken to date:

1. Tracking procedures were developed
2. Initial conditions were calculated
3. Initial and subsequent annual status charts were prepared
4. A current status chart has been prepared; this report provides the current status of attaining the adopted DFC.

CURRENT STATUS

1. The baseline was established:
 - a. The 2010 saturated thickness was calculated, based on 2010 water level measurements and the 2009 red bed data
 - b. The 2010 water in storage was calculated using the 2010 saturated thickness and the Northern Ogallala GAM specific yield values. Initial calculated volume is 15,936,640 ac-ft. The 2060 Desired Future Condition is 80% of this volume, or 12,749,312 ac-ft.
 - c. An initial tracking chart was prepared and previously submitted.
2. Subsequent year values have been calculated:
 - a. The 2011 saturated thickness was calculated, based on 2011 water level measurements and the 2009 red bed data. The 2011 water in storage was calculated; this volume is 16,987,136 ac-ft
 - b. The 2012 saturated thickness was calculated, based on 2012 water level measurements and the 2009 red bed data. The 2012 water in storage was calculated; this volume is 16,490,624 ac-ft
 - c. The 2013 saturated thickness was calculated, based on 2013 water level measurements and the 2012 updated red bed data. The 2013 water in storage was calculated; this volume is 17,290,880 ac-ft

- d. A tracking chart is attached. An initial trend line was established. Based on that trend line, the District will meet the DFC condition in 2060.
3. An estimate of the water volume change, based on the average static change, was calculated. The change was approximately 19,000 acre feet, or about 1/3 of the MAG value.
4. Comparison:
 - a. 2013 water level measurements show a net calculated increase of 377,344 ac-ft of water in storage from the initial (2010) condition
 - b. 2013 water level measurements, combined with the 2012 updated red bed data, show a net calculated increase of 800256 ac-ft of water in storage from the 2012 condition. This primary reason for the increase is better red bed data, which reflects the drilling activity in the area since 2006.
 - c. The District is currently meeting the Desired Future Condition.

CONCLUSIONS / RECOMMENDATIONS

1. The District met the adopted DFC and current MAG value in the period 2012-2013
2. Continue the current water level monitoring program
3. Continue the volume based analysis and tracking
4. Maintain the current Desired Future Condition

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