RRMDA

November 17, 2003 Neb Rep. River Management District Assoc.

★ Print copies for Board Members - "Imperial Mtg" of MMA slides for 3 NRDs

Johnson Community Center - Alma, NE

Tri-Basin - Approved well transfer from Gosper County to Town of Arapaho in the LRNRD

LRNRD - 50% water use reports have been returned
- Well Metering picking up 1-12 secs. need to be installed by 1-1-04
- Irrig. Acres Cert. process is being addressed by LRNRD board cmte.
- Also approved Arapaho city well transfer from Tri-B NRD

MRNRD - ~1700-1800 mailings
- Field Inspection of Meters continuing
  some problems w/ Micromotor meters on diesel engines
- Cert. Acre rules & expansion limits take effect Nov. 17, 2003 - Now farmers must go through a formal certification process which is reviewed by the board.
- ArcView digitizing of field boundary continues

URNRD - 3200+ meters are read for this year
  Reports go out by end of Dec.
  - 415 fall & spring reading

Handouts - Tree ring evidence of extended drought in great plains
- University research paper

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Neb RR MDA cont.

Bostwick I.D. -
- Looking for relief for customers - 1½" predicted
- LB99 documents waiting in USBR in G.I.
- "Tracts" filing soon

FV-H+RW - less than 50% of normal
- doing maintenance in hope of water to deliver
- River dried up in August
- Working w/ USBR, but Enders water looks bleak for '04

Fr.-Camb. - Meeker, R.W., Bartley - 4" } prediction for '04
Cambridge 8" } unless the "rain" comes
- burying pipe & doing maintenance
- were able to get a decent crop in '03 w/ 7" delivery
- Gage at Cambridge has come up .3' to .4' recently

County Report -
Not happy about water running off fields & down the ditch.
Clements says runoff complaints are down
Smith - Counties have enforceable runoff rules
so, if Co. Atty is willing, immediate response

Ron Frich - If canal only runs 3 weeks, reducing acres is not that useful, since you can't get your whole volumn <u>when</u> you need it for the reduced acres.

Recreation - Corps has been putting in ramps for boaters

Power Districts - Twin Valley P.P.D. - no comments today

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Neb. R. R. MOA cont.

Agenda Item 7

BCCP - see additional notes on handout titled: "Republican River Basin Compact Compliance Plan"

Hipple - have the predictive tools been compared to historical water supply with those rules of prediction to see what the results would be.

Hipple - concerned about annual changes in in/acre (URNRD does 5 year allocations)

Madsen - asked about what happens if NRD efforts don't keep NE Gw use in compliance -
Cookson: state can take over, pass. legislative action

Thorburn - Adopt BCCP formally or use as a template + create an individual District Version + reference the BCCP.

Hipple, Clements + Smith - Not sure if a formal adoption of the BCCP is necessary. The boards should be brought up to speed + asked to decide what course to take.

Thorburn - wants a more "substantive" discussion of the forecasting process.

Delka → wants forecasting fully explained by Jan. '04 mtg
Wooley →

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Neb RR MDA cont.

Agenda Item 9 - Bob Betger
- Wants to support outreach + education to help RR irrigators
- wants to get suggestions for possible inclusion in Farm Bill
- soliciting ideas to utilize UNL research potential
- Working w/ Steve Chick for new 10yr dryland comm. mgt

Agenda 8 - Modeling Report - Ann Substitute for Chuck Spalding

Agenda 10 - Neb. RR. Management District Association Committee Report

Agenda 11 Officer Election

Agenda 12 - Next Mtg: McCook Monday Jan. 12 10AM

Chad Kudym 11-26-2003

SW + Canal Delivery

① Canal seepage

Inputs - Landon's USGS models and ls on CD's
- Line work w/ buffers
- Intercect with model cells + get % of cell area
- Distributes seepage evenly
- converts poly to point w/ a textfile that has a cell in each row with a volume
- "Postelwood" is the final canal coverage that [redacted] was used through whole history. Before Elwood was installed, the seepage for those cells were "zeroed"
- Johnson reservoir had too much seepage so the size of Reservoir was reduced to match the observed losses from Johnson.
- "DAT" files - 5 year periods - .dbf exported from excel files

monthly seepage by canal

Table_tools_for_yearly export

① .apr project - add 20 dbf files into ArcView

② run canal Tbl_to_PeriodTbl to create (see canal_annual_reformat.xls)

③ Resultant PeriodTbl → clxx.dbf → takes annual value only

we may want to do this by hand

canal_annual_reformat.xls has canal codes

cl00.dbf

④ Report Table.AML → crchxx.dat

each .dat file eventually would be put together into one giant text file for model (see chuck)

year

⑤ canal_rch_acft_elwood.aml

model cells "rowcol" id

↓ last step into Jbase

☆ probably should be → clxx.dbf

c:\workspace\canal_seep

DNR 017766

one year of recharge values for Canal

⑥ new clxx.dbf (xx = year) into ArcView & then run "Dbase To text" script
(We need to add a full path into script)
↓
To preprocessor

Field Deliveries — see next page for details

- "Tot_del_acft_yr.aml" ≈ does similar function as aml in step 5 above
- output of Field Deliveries is in acre feet of water applied, no recharge. Recharge was done by Chuck's programs
- Chuck's programs also did the county distribution
- Marc would get some output from Chad for the purpose of updating comingled data

Pumpers — several year groups & groups by priority

"Compact SW Div (other .xls)" → Trib_sw.dbf => different annual info about pumpers including total volume by sub-basin

"Monthly Dist. of River Pumpers.xls" pump_poly - coverage
(Trib_ID somewhat the same as Canal_id in other aml)
- used pro_grant to get % of all pumpers that an individual pumper was

Field Delivery to Districts

Coverage: sw00in from Landon's USGS Model and Chad added the canal ID value

① del00.dbf is the input file of "delivered to field" values

② last_del_acft_yr.aml (last_del_monthly.aml for monthly)

ⓐ creates del3year%.dat which:
creates data files by 5 year blocks with canal ID + delivery acre-feet

ⓑ calcs the depth of applic per acre (acre-feet/acre)

ⓒ cell by cell it multiplies by total # of acres in each cell to get acre-feet per cell

ⓓ ★ added a field per cell (ia_"yr""mo") to store # of irrigated acres by cell for Marc Groff
He can use "ID" field to translate back + get row-column id. by cell ★ (This is sw__.pat)

(e) Take sw__.pat and join to moded coverage so you get the full set of row columns, so you can do the grid to point to dbase aml, so the output text file has the correct # of lines. *Marc took the text file + worked with it in VB to do his commingled magic.
output is ld__.dbf

③ Avenue Script dbase to text.avl

★★★ – If you wanted to do Districts + Pumpers together, just add a new set of polygon to sw00in coverage + give it a canal id. code → 528 to all the pumper polygons.

River Pumpers

coverage watersheds_revised has sub-basin breakdown to assign Trib. id's to pumpers

Inputs: ① trib_sw.dbf → has Trib. Names + application Volumes by year - has data from pumpers (excel file) → trib_sw.xls from work by Larry Land
It lumps all together

② pump_poly Coverage

AML - (pumpers_acft_prior.aml for monthly) yearly_pumpers.aml

① Trib_sw.dbf

② uses year priority values from pump_poly (prior_yr field) Coverage to see if it should have a value. Priority date takes precedence. This aml does not use 5 year blocks.

③ :) - See field Delivery To Districts on previous page

④ :3

⑤ output is p_"yr".dbf (parallel to ld_"yr".dbf in districts)

⑥ Avenue Script dbase to text.aml to create pre processor text files