

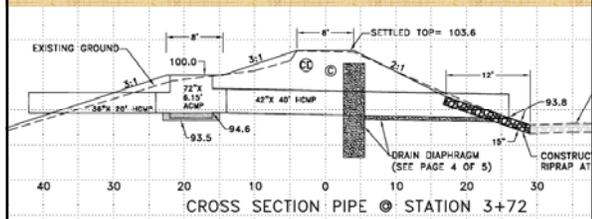
CMP ISSUES

Presented by Jim Dusek, AE, Ben Ellefson, CET
 USDA-NRCS
 March 22, 2011

CMP ISSUES

- Connecting Bands
- Anti-Seep Diaphragm
- Pipe Fabrication

DAM REHABILITATION
 Replace half-round riser with full-round stop-log riser



New Hydrology - Replaced existing 21 " dia to 42" dia barrel.

OLD HALF-ROUND RISER



NEW FULL-ROUND STOP-LOG RISER



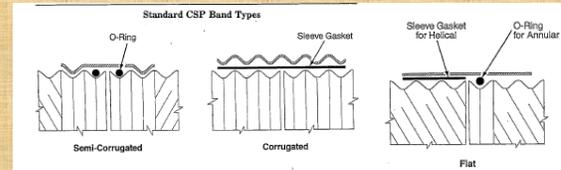
Pipe Ends



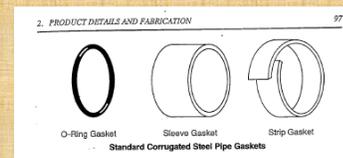
Annular Corrugations –
 Riveted Pipe Lips Up



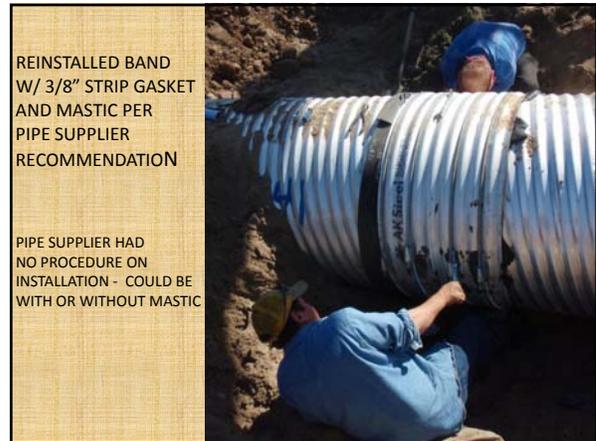
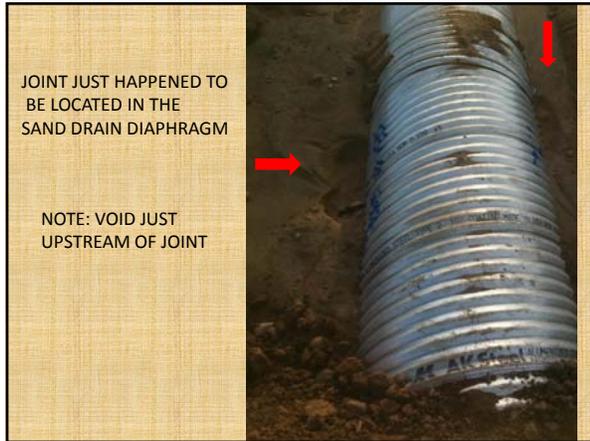
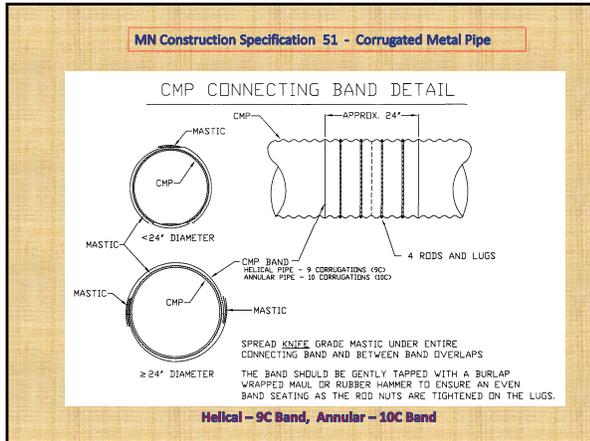
Helical Corrugations –
 Re-Rolled Ends Section
 Spiral Pipe Lips Down

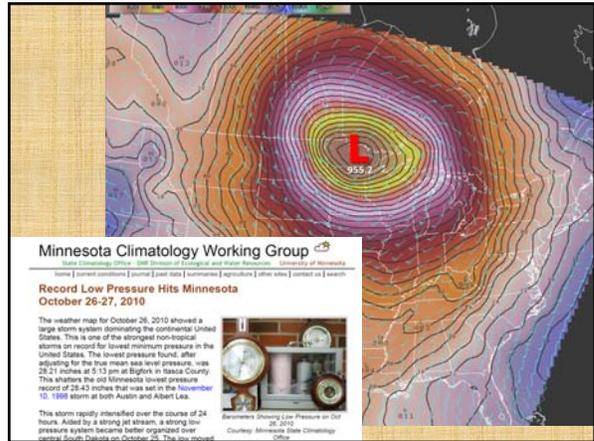
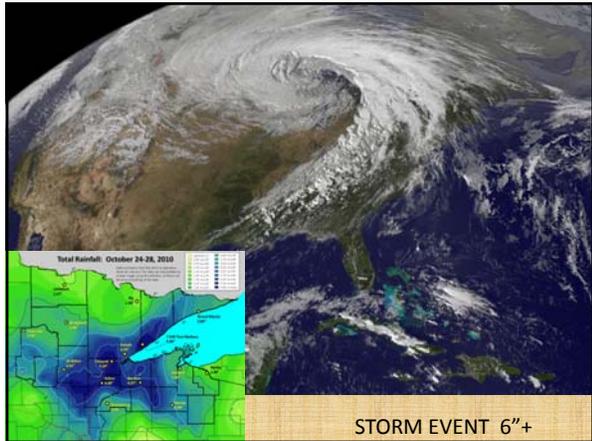


BAND TYPES



GASKET TYPES







Connecting Band Issue

- Re-rolled End Section on Helical pipe

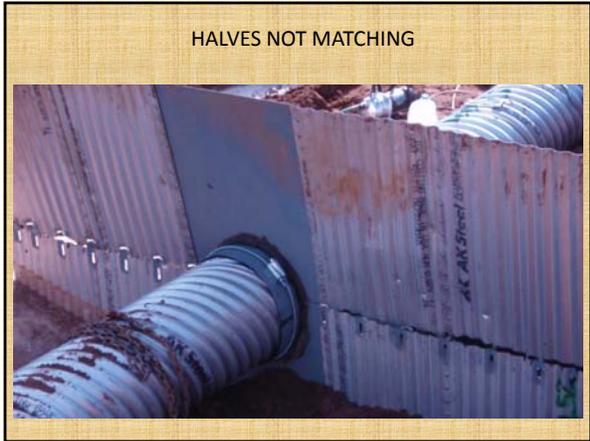
4 FULL CORRUGATIONS

PROPOSAL –INSTALL WITH ADDITIONAL INTERNAL CONNECTING BAND AND STRIP GASKET

Anti-Seep Collar Issue

- Yoke – fabrication

24"X 5'-9" ACMP RISER
 18"X 30" HCMP
 18"X 28" HCMP
 SLOPE= 5.00%
 TOE DRAIN
 ANTI-SEEP COLLARS (2)
 H= 6", WIDTH= 10'-3"
 16 GAUGE
 CROSS SECTION PIPE @ STATION 2+75
 10" CMP



"FIELD FABRICATION" WITH PLASMA TORCH YOKE



MODIFIED YOKE PLATE - POOR GROUNDING



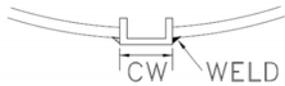
14 GA 9C BAND ON 14 GA 18 INCH PIPE
REQUIRED HYDRAULIC JACK TO INSTALL



Fabrication Issue

- Stop-log Channel
- Re-Rolled End Sections

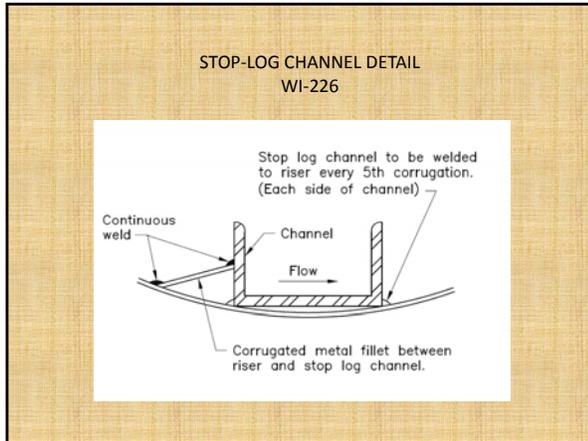
SPECIFIED STOP-LOG CHANNEL DETAIL



DETAIL OF RISER AND CHANNEL CONNECTION

RISER FABRICATION





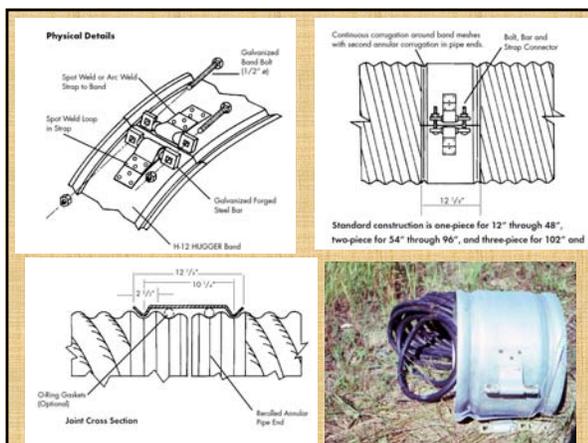
Results and Conclusions

Pipe Supplier

- Rebuilding re-rolling machine
- Change of plant personnel???

NRCS

- for helical pipe, consider using:
12 inch Hugger band with o-rings, bar bolt and strap with rod and lug



THE END