

Stormwater and other related problems within the ETA

Over the years we have had numerous problems related to stormwater issues within the ETA. Most of these problems were a result of an inadequate City of Bismarck stormwater ordinance, lack of enforcement (by the City of Bismarck) of the stormwater ordinance during construction and the lack of enforcement post construction (related to the City of Bismarck's jurisdictional concerns). Since the City of Bismarck insisted on controlling development within the ETA the County had little or no authority to regulate development activities and to deal with potential stormwater problems before they became a problem.

In the last 7-10 years the number of stormwater problems within the ETA have been greatly reduced due to changes to the Stormwater ordinance, and the addition of new personnel within the City Engineering and Planning departments that have worked more closely with the County. In addition, the County Highway Department has been much more assertive in identifying, and requiring potential problem areas to be addressed before the developer and City leave/turn over the subdivision to the County to maintain.

In spite of these changes to the stormwater review process, the County has been stuck dealing with these historical problem areas. The following list details the problem areas:

<u>Subdivision:</u>	<u>Problem:</u>
<u>Apple Creek:</u>	
Copper Ridge	Drainage problems east of 6219 Copper Ridge Lane – required additional drainage work.
Copper Ridge	Erosion problems throughout the subdivision – required a lot of shoulder and ditch reconstruction.
Copper Ridge	Drainage problems at Copper Ridge Lane and Woodrow Dr – required us to acquire additional stormwater easement and add stormwater drainage structures in order to solve the problem.
Faimans Sunrise Addition	Drainage problems along Palimino Dr – required re-ditching and regrading of the roadway and ditch.
Leisure World Estates	Drainage along Northgate Drive has always been a problem and the construction of Leisure World just increased the problem. We are now required by the Burleigh Water Board to add additional culverts under Northgate Drive.
Apple Meadows 1 st	Drainage problems along Beacon Loop – required us to add stormwater drainage structures with in the subdivision to drain water out to the ditch along Highway 10.
Apple Meadows	Drainage problems with in the subdivision required us to re-ditch several areas.
WDH	Drainage problems with in the subdivision required us to do additional re-ditching.
Prairiewood Estates	The subdivision created drainage problems along 48 th Ave requiring the County and the residents to re-ditch and pump water during the year.
<u>Burnt Creek:</u>	
Prairiecrest 2 nd	Drainage problems at 914 Violet Lane – required additional drainage work.

Harvest Grove	Drainage problems along North Washington street – required us to replace culverts and perform major ditch repairs (which included a large ditch block) and rip-rap.
Harvest Grove	Drainage problems along the south and west sides of 8400 Northwood Drive – required us to re-ditch along 84 th Ave and Washington St.
Brentwood Estates	Drainage problems at 9030 Plainview Dr – required us to replace culverts and perform major ditch work through 9101 Wentworth Dr.
Hay Creek Pines	Major drainage problems along both Forest Drive and Oak Drive – resulted in the reconstruction of both roadways with the addition of a number of culverts and the re-ditching of much of the area.
Rustic Acres	Major drainage problems throughout the subdivision – required the reconstruction of both Shamrock Place and Clover Place.
Four K’s Estate	Additional runoff from the subdivision required the replacement and up sizing of culverts under 26 th Street – which should have been done as part of the subdivision construction.
Shamrock Acres	Poor drainage design throughout the subdivision (in particular along 26 th Street) has resulted in the County replacing several culverts and repairing the roadway numerous times.
Sunny Meadow Estates	Poor drainage throughout the subdivision has resulted in the County spending a lot of money on repairs to both Mirage Place and Desperado Place.

Fort Rice:

Twin Buttes	Poor drainage through the subdivision has resulted in flooding of several building structures – this has required the County to work with property owners on removing trees and re-ditching some of their property.
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Gibbs:

Country Creek	Numerous drainage problems along Runnel Road and Shoal Drive have caused the major problems in the area – this resulted in the re-drainage of water through the subdivision and the replacement of many culverts/approaches. The County now needs to snow blows the new drainage ditch each year to ensure spring runoff stays within the ditch.
Country Ridge	Because of the problems with in Country Creek, Country Ridge’s runoff needed to be delayed within the subdivision to allow Country Creek runoff to occur before more water was added to the system.
Country Creek	Drainage problems around 7331 and 7315 Runnel Road resulted in the county building several underground structures and stormwater drainage piping in order to deal with the problem.
Rock Creek	Drainage problems have will result in the County needing to replacing culverts and re-ditching this subdivision in the near future in order to meet the property owner’s needs.
East Meadows Estates	Drainage problems throughout the subdivision have resulted in the County installing subsurface drain tile along 80 th Street.
Brookfield Estates	Major drainage was allowed to go through the subdivision from the north. As a result of water problems within the subdivision, the residents built a berm (and drainage ditch) around the subdivision to divert the water – this has resulted in the County setting up an O&M agreement with the residents to clean, snow blow and maintain the new bypass ditch.
Rainbow Acres	Major water problems within the subdivision has caused the roadway to breakup – County and Township have had to spend extra money in this subdivision to improve the roadway and ditches.

TJ Ranch Estates	Drainage problems at 7245 Russell Road has resulted in the County changing culverts and improving the drainage in the area.
<u>Hay Creek:</u>	
Northridge Estates	We have had several drainage problems within the subdivision. So far, the County has had to have several meetings with residents to deal with the problems but have not had to make any changes to the existing structures.
State Street Office Park	Major drainage problems with in the subdivision required the County to re-ditch the main ditch within the subdivision and replace/reset several culverts.
Sunny-View Acres	Poor drainage within the subdivision has required the County to clear snow from ditches in order to enhance drainage in the spring. Some culverts have been replaced but every spring requires us to blow snow from the ditches.
Sunny-View Acres	Because the subdivision was not designed to deal with all the water from the area, the culverts on 84 th Ave have been replaced to reduce/delay the amount of water that enters the Sunny-View Acres Subdivision.
Crescent Ridge	Water problems along 78 th Ave have required the County to rebuild that roadway.
Grande Prairie Estates	Water coming from the east was not designed to go through this subdivision (between 4028 Rawhide Drive and 4041 Heartland Drive). The County needed to install drainage structures to divert the water to the north of the Grande Prairie Estates subdivision.
Green Acres	Major drainage problems along 57 th Ave NW, because of the Green Acres Subdivision, has required the County to re-ditch and place culverts along 57 th Ave.
Foxhaven 3 rd	The construction of Oakland Subdivision has caused drainage problems with in Foxhaven. County needed to replace culverts and do some re-ditching.
Breens	Drainage problems with in the subdivision required the County to replace some culverts and do some re-ditching.
Sabots	Drainage problems with in the subdivision required the County to replace some culverts and do some re-ditching.
<u>Lincoln:</u>	
Timberlane Place	Drainage leaving Timberlane Place was not accounted for when Whispering Bay was constructed. So the County was required to build drainage structures at 2882 Woodland Dr to ensure that residents to the east where not flooded during high Missouri River flows.
Fox Island	The subdivision design did not deal with high water tables that resulted in flooding in Timberlane Place and Fox Island subdivisions, so the County needed to constructed drainage structures adjacent to 3002 and 3005 Deer Lodge Drive.
Fox Island	Major flooding around the whole area required the County to construct the Tavis Road Pump Structure. Additional construction was required because a private developer was allowed to place flood control items on a public roadway.
Spiritwood Estates	Drainage problems within the subdivision required the County to do additional ditching and replace several culverts.
Metro Industrial Park	Poor drainage everywhere within the subdivision required the County to regrade the ditches and reset all of the culverts.

Apple Creek Industrial Park Poor drainage everywhere within the subdivision required the County to regrade all of the ditches and roadways and reset many of the culverts throughout the subdivision.

Secluded Acres The construction of Southbay resulted in drainage problems within Secluded Acre. This resulted in the County re-ditching several areas.

Riverview:

Sundown Acres Poor drainage between 14900 and 14844 Sand Dune Lane has required the County to reconstruct the drainage between the two properties.