

Watershed Permit Expiration Dates March 2004

Currently, the DEQ/WQD is evaluating the potential to implement a watershed permitting approach for the NPDES program. This approach can be advantageous because it involves a holistic evaluation of a targeted area, identifies all potential contributors of pollution to the area, and recognizes the designated uses within the area. This holistic approach will provide for more efficient permitting of point-source discharges.

One of the initial steps to implement a watershed permitting approach is to identify the targeted areas as specific sub-basins. Once the sub-basins have been identified, existing and new permits within the sub-basin should be issued and expire on a common schedule. This will provide for more consistent permitting within each sub-basin. The NPDES program currently issues permits within common sub-basins for the oil industry. For many years, the oil industry was the primary industry in the State of Wyoming and had the largest number of NPDES permits which initially facilitated the need to implement a sub-basin permitting schedule. However, with the expansion of the coal bed methane (CBM) industry in the late 1990s, the number of NPDES permits issued to the CBM industry surpassed the oil industry.

CBM development is primarily contained within the greater Powder River Basin, which consists of the Powder, Little Powder, Tongue, Belle Fourche, and Cheyenne River Basins. Considering the consolidated location, it was clear that sub-basins could be identified and a permit expiration date schedule developed. An evaluation of the number of total permits issued within the greater Powder River Basin was conducted. This evaluation considered all NPDES permits within the greater basin, including industrial, municipal and oil discharges. Below is a summary of the major drainages within the greater basin and the number of outfalls and permits within each drainage.

The evaluation demonstrated that the majority of outfalls within the greater basin were associated with the CBM industry. It also showed that development is highly concentrated within certain drainages. Below are two tables that summarize the permit expiration date schedule for drainages within the greater basin.

The primary emphasis used when developing the schedule was the number of permits within the sub-basins and ensuring a consistent workload for NPDES permitting staff. This schedule can be used for all NPDES permits issued within the greater basin, including non-CBM permits. However, it must be recognized that there are other non-CBM discharges that exist outside of the greater basin. In addition, due to the unpredictable nature of CBM development, only the current permitted outfalls were considered. However, in the future it may be necessary to consider future development if the proportion of permits within specific sub-basins becomes skewed. In addition, when developing the schedule, the specific uses, such as irrigation, within the drainage were not considered. To identify the uses within a sub-basin can be complex and may require significant research. In order to implement a watershed permitting approach, the uses within a watershed must eventually be identified. However, for this first step, it was determined not to be necessary.

The development of a permit expiration date schedule is merely one of many steps that will be taken when implementing a watershed permitting approach. It is recognized that the sub-basins identified below may have to be redefined based upon uses and other characteristics within the sub-basin. However, implementing a permit expiration date schedule as defined below may help to assist with implementing watershed permitting in the future.

NPDES Permits within the Greater Powder River Basin

| Drainage | Number of Outfalls | Number of Permits |
|---------------------------------|--------------------|-------------------|
| LX Bar Creek (Powder) | 99 | 23 |
| SA Creek (Powder) | 118 | 19 |
| Clear Creek (Powder) | 92 | 26 |
| Spotted Horse Creek (Powder) | 96 | 20 |
| Wildhorse Creek (Powder) | 583 | 90 |
| Fortification Creek (Powder) | 7 | 2 |
| Dear Gulch (Powder) | 10 | 1 |
| Crazy Woman Creek (Powder) | 11 | 11 |
| Barber Creek (Powder) | 19 | 4 |
| Flying E Creek (Powder) | 12 | 2 |
| Dead Horse (Powder) | 109 | 24 |
| Burger Draw (Powder) | 31 | 2 |
| Van Houten Draw (Powder) | 5 | 1 |
| Beaver Creek (Powder) | 76 | 20 |
| Pumpkin Creek (Powder) | 59 | 12 |
| Willow Creek (Powder) | 2 | 2 |
| Ninemile Creek (Powder) | 1 | 1 |
| Dry Fork Powder (Powder) | 26 | 7 |
| Teapot Creek (Powder) | 6 | 5 |
| Castle Creek (Powder) | 3 | 3 |
| Horse Creek (Little Powder) | 319 | 51 |
| Wildcat Creek (Little Powder) | 186 | 26 |
| Rawhide Creek (Little Powder) | 292 | 47 |
| Tongue River Basin | 193 | 43 |
| Little Thunder Creek (Cheyenne) | 211 | 63 |
| Porcupine Creek (Cheyenne) | 142 | 36 |
| Horse Creek (Cheyenne) | 8 | 3 |
| Spring Creek (Cheyenne) | 145 | 80 |
| Bates Creek (Cheyenne) | 55 | 8 |

| Drainage | Number of Outfalls | Number of Permits |
|-----------------------------------|---------------------------|--------------------------|
| Ninemile Creek (Cheyenne) | 29 | 5 |
| Antelope Creek (Cheyenne) | 437 | 93 |
| Donkey Creek (Belle Fourche) | 208 | 58 |
| Tisdale Creek (Belle Fourche) | 23 | 9 |
| Bluegate Creek (Belle Fourche) | 67 | 13 |
| Caballo Creek (Belle Fourche) | 761 | 179 |
| Hoe Creek (Belle Fourche) | 198 | 43 |
| Coal Creek (Belle Fouche) | 28 | 7 |
| Rattlesnake Creek (Belle Fourche) | 73 | 8 |
| Hay Creek (Belle Fourche) | 265 | 57 |
| Threemile Creek (Belle Fourche) | 91 | 19 |
| Wild Horse Creek (Belle Fourche) | 140 | 25 |
| Mud Spring Creek (Belle Fourche) | 34 | 7 |
| All Night Creek (Belle Fourche) | 38 | 9 |

**NPDES Permit Expiration Date Schedule
Powder, Little Powder and Tongue River Drainages**

| Year | Sub-Basin | Number of Outfalls | Number of Permits | Permit Expiration Date |
|---|--|---------------------------|--------------------------|-------------------------------|
| 2004 | Willow Creek Drainage (Powder River) | 2 | 2 | 3/31/04 |
| | Wildcat Creek Drainage (Little Powder) | 186 | 26 | 6/30/04 |
| | Clear Creek Drainage (Powder River) | 92 | 26 | 9/30/04 |
| | Tongue River Basin (Entire Basin) | 193 | 43 | 12/31/04 |
| 2004 totals: 473 Outfalls from 97 permits (average of 8.0 permits per month) | | | | |
| 2005 | Salt Creek Drainage (Powder River) | 29 | 29 | 3/31/05 |
| | Teapot Creek Drainage (Powder River) | 6 | 1 | 3/31/05 |
| | Ninemile Creek Drainage (Powder River) | 1 | 1 | 3/31/05 |
| | Pumpkin Creek Drainage (Powder River) | 59 | 12 | 6/30/05 |
| | Deadhorse Creek Drainage (Powder River) | 221 | 47 | 11/30/05 |
| | Barber Creek Drainage (Powder River) | 31 | 6 | 12/31/05 |
| 2005 totals: 347 Outfalls from 96 permits (average of 8.0 permits per month) | | | | |
| 2006 | LX Bar Creek Drainage (Powder River) | 217 | 42 | 6/30/06 |
| | Rawhide Creek Drainage (Little Powder) | 292 | 47 | 12/31/06 |
| 2006 totals: 509 Outfalls from 89 permits (average of 7.4 permits per month) | | | | |
| 2007 | Spotted Horse Creek Drainage (Powder) | 96 | 20 | 3/31/07 |
| | Castle Creek Drainage (Powder River) | 3 | 3 | 6/30/07 |
| | Crazywoman Creek Drainage (Powder) | 11 | 11 | 6/30/07 |
| | Fortification Creek Drainage (Powder) | 17 | 4 | 6/30/07 |
| | Dry Fork Drainage (Powder River) | 26 | 7 | 6/30/07 |
| | Horse Creek Drainage (Little Powder) | 319 | 51 | 12/31/07 |
| 2007 totals: 472 Outfalls from 96 permits (average of 8.0 permits per month) | | | | |
| 2008 | Wildhorse Creek Drainage (Powder River) | 583 | 90 | 12/31/08 |
| 2008 totals: 583 Outfalls from 90 permits (average of 7.5 permits per month) | | | | |

**NPDES Permit Expiration Date Schedule
Cheyenne and Belle Fourche River Drainages**

| Year | Sub-Basin | Number of Outfalls | Number of Permits | Permit Expiration Date |
|---|--|---------------------------|--------------------------|-------------------------------|
| 2004 | Wildhorse Creek Drainage (Belle Fourche River) | 303 | 60 | 12/31/04 |
| 2004 totals: 303 Outfalls from 60 permits (average of 5.0 permits per month) | | | | |
| 2005 | Little Thunder Creek Drainage (Cheyenne River) | 211 | 62 | 6/30/05 |
| | Donkey Creek Drainage (Belle Fourche River) | 208 | 58 | 12/31/05 |
| 2005 totals: 419 Outfalls from 120 permits (average of 10.0 permits per month) | | | | |
| 2006 | Hay Creek Drainage (Belle Fourche River) | 366 | 72 | 12/31/06 |
| 2006 totals: 366 Outfalls from 72 permits (average of 6.0 permits per month) | | | | |
| 2007 | Antelope Creek Drainage (Cheyenne River) | 437 | 93 | 12/31/07 |
| 2007 totals: 437 Outfalls from 93 permits (average of 7.8 permits per month) | | | | |
| 2008 | Caballo Creek Drainage (Belle Fourche River) | 467 | 244 | 12/31/08 |
| 2008 totals: 583 Outfalls from 90 permits (average of 20.3 permits per month) | | | | |