

Appendix 1

WATER USER ASSESSMENT FOR THE MOOI RIVER CATCHMENT

1. **Upstream from the Railway bridge (Point1)**
 - No water users are present.
 - Property belongs to Rand Gold.
2. **Between the railway bridge and Azaadville bridge (Between points 1 and 2)**
 - Possibility exists that children from Kagiso can play in the water.
3. **Between the Azaadville bridge and Attenuation dam (Between points 2 and 3)**
 - Possibility exists that children can play in the water.
 - The Municipality (Rietvallei, Lusaka) provides informal settlements with water from Rand Water.
4. **Between the Attenuation dam and Doornkop road (Between points 2 and 3)**
 - Dairy farm: Cattle drink water from the stream.
 - Irrigation of vegetables (spinach, carrots and beetroot).
 - Workers are provided with water from boreholes and most of the workers stay in Bekkersdal.
5. **Donaldson dam (Between point 3 and 4)**
 - Dam is used for recreation such as swimming and fishing.
 - Permanent residents get water from the Municipality of Westonaria.
 - People from Bekkersdal use the water for religious rituals.
 - A new informal settlement upstream of Donaldson dam may use water for domestic purposes.
6. **Moses's borehole (point 24)**
 - Water is used for irrigation of vegetables.
 - REGM is currently supplying the people with water for domestic use.
 - Please note that other people in the area are using boreholes.
7. **Between Donaldson dam and beginning of 1m pipeline (Between point 3 and 4)**
 - Water could be used for domestic use such as washing of clothes and bathing.
 - No information on water used for drinking purposes.
 - Children can swim at this point.
8. **Venterspost (Point 23)**
 - Water pumped from underground is used in the process.
9. **Beginning of the 1m pipeline – end of 1m pipeline (Between point 4 and 5)**
 - Ten people at an old school extract water from the pipeline for domestic purposes.
 - Water is used for cattle.
10. **End of 1m pipeline (Point 5 and between 5 and 7)**
 - People live next to the canal that conveys process water from West Driefontein Gold Mine.
 - These people use fissure water from the Bank Canal for household purposes.

- Approximately 150 people (60 adults and 90 children).
- Fish are caught in both the process and the fissure water canals (this is not their only source of protein).
- Children play and swim in the canals in summer.
- Mr. Jaap Greyling rents the property.
- Far West Rand Dolomitic Association provides the workers with water.

11. Stock Theft unit (point 32)

- Borehole is used for domestic use.
- Only source of water.
- Water is not used for cattle and irrigation of crops.

12. Toxopeus (Point 31)

- Borehole water is used in the piggery and for domestic purposes.

13. End of 1m pipeline- Harry's dam (Between point 5 and 8/ Point 7-8)

- At Harry's dam a family of 15 people (ten adults and five children) use the water from the dam as their only source of water for domestic purposes such as drinking, washing of clothes and bathing.
- Vegetables for own consumption are irrigated with the water (this is not their only source of vegetables).
- Fish are caught in the dam (this is not their only source of protein).
- Children play downstream of the dam in the water.
- Auction grounds are situated next to the dam where cattle are sold. The cattle that are brought, but not removed from the premises are allowed to graze next to the river and dam.

14. Between Harry's dam and Abe Bailey (Between points 5-8/ 7-8)

- Horse stables
 - ◆ Approximately 50 people stay on the premises.
 - ◆ The owner of the stables provides workers at the stables with water from the Carletonville Municipality on a daily basis. (Provides them with 2 X 25l drums of water for drinking purposes).
 - ◆ Water from the canal is used for the horses and other domestic purposes such as bathing and washing of clothes.
 - ◆ Water from the canal can be used if no other water is available for drinking and cooking purposes.
 - ◆ Three/ four fish are caught weekly (this is not the only source of protein),
 - ◆ Horses are the only animals who use the water.
 - ◆ A doctor suspected that the water was responsible for one of the workers being sick (it is not known what was wrong with the person).
- Mooitooi Nursery (Between point 5 and 7)
 - ◆ Mr. Jacobs provides his family and workers with borehole water for all domestic purposes.
 - ◆ Water is also used to irrigate the plants.
- Dairy (Between points 5-8/ 7-8)
 - ◆ The Far West Rand Dolomitic Association supplies the farmer with water from Rand Water for domestic purposes.
 - ◆ Cattle are provided with water in troughs and cannot reach the canals.

- Montrose farm (Between points 5-8/ 7-8)
 - ◆ Ten adults and four children.
 - ◆ The workers are provided with water from boreholes or Rand Water for domestic purposes including drinking, bathing and cooking).
 - ◆ Canals are used for fishing, washing of clothes and the water used for growing vegetables.
 - ◆ Children are not allowed to play in the canals since 3 children were washed away by the water.

- Second set of houses on the farm (Between points 5-8/ 7-8)
 - ◆ Two adults and three children.
 - ◆ Water from boreholes and Rand Water is used for domestic purposes.
 - ◆ Water in the canal is used for washing of clothes.
 - ◆ No fish were caught for the last couple of months.
 - ◆ A remark was made that no vegetables were grown because of the water.

- Houses between Offices and the Midstream Canal (Between points 5-8/ 7-8)
 - ◆ Six adults and four children.
 - ◆ Montrose farm provides water for domestic use.
 - ◆ Water in the Wonderfonteinspruit is used for the washing of clothes.
 - ◆ Children are not allowed to play in the canals.
 - ◆ No crops are irrigated.

- Montrose Offices (Between points 5-8/ 7-8)
 - ◆ No vegetables are currently grown.
 - ◆ Water from Rand Water is provided to workers.
 - ◆ Water tanks provide the workers on the fields with water.

- Lintia piggery
 - ◆ Fifty adults and forty eight children
 - ◆ People are provided with water from a borehole for domestic use.
 - ◆ Pigs are the only animals and are provided with water from the boreholes.
 - ◆ People do not fish in the Wonderfonteinspruit.

- Alie du Buys (Dairy) (Between points 5-8/ 7-8)
 - ◆ Rand Water is used to provide water to fulfil the needs of the people and the cattle.
 - ◆ Cattle could drink the water in the Wonderfonteinspruit if they graze in the vicinity.

- Laubsher (Between points 5-8/ 7-8)
 - ◆ Water is provided from Rand Water for domestic use.

- Salie Petoors (Between points 5-8/ 7-8)
 - ◆ Animals graze in the vicinity of the Wonderfonteinspruit and have access to the water in the river.
 - ◆ The possibility exists that the workers drink the water from the stream

- Modibedi's (Between points 5-8/ 7-8)
 - ◆ Approximately 4 families.

- ◆ Rand Water is used for domestic purposes.
- ◆ People from Khutsong catch fish in the Wonderfonteinspruit.
- ◆ Animals are provided with water from Rand Water.
- ◆ Animals have access to the river when grazing in the vicinity of the river (17 cattle and 25 sheep).
- ◆ Cattle produce 15 litres of milk per day that is divided amongst the families.
- ◆ Cattle are not slaughtered.

15. Abe Bailey - Blaaubank

- Abe Bailey Nature Reserve (Point 8)
 - ◆ Guests and workers are provided with water from the Municipality.
 - ◆ Workers catch fish, mainly carp and barbel on a regular basis but this is not their only source of protein.
 - ◆ The river is extensively used for water sport and water activities for children who attend camps at the nature reserve.
 - ◆ Water is supplied to various water points for game.
- Shop at Khutsong next to the river (Between points 8-9)
 - ◆ The municipality provides workers with water from Rand Water.
 - ◆ Goats, cattle and sheep are looked after so that they are not allowed to drink the water from the river.
 - ◆ Troughs at the shop provide the animals with water from the municipality.
- Khutsong- Welverdiend road Yellow house next to the road. (Between points 8-9)
 - ◆ Twelve adults and three children
 - ◆ Water for domestic purposes are received from a farm. Problems are experienced with the availability of the water, therefore water from the stream can be used.
 - ◆ Water from the river is used for washing of clothes and bathing.
- Khutsong sewage works. (Between points 8-9)
 - ◆ Five adults
 - ◆ The municipality provides water for domestic use.
 - ◆ Fish are caught on a regular basis for own consumption (4 fish are caught at a time). This is not their only source of protein.
 - ◆ These workers stay at the Welverdiend Water Care Works.
- Brick Works
 - ◆ Approximately 14 –20 families stay here (between points 8-9).
 - ◆ Water from the stream is used for domestic purposes as well as a borehole on the property.
 - ◆ Currently problems are experienced with the borehole.
 - ◆ Therefore water from the stream is mainly used for domestic purposes.
 - ◆ People fish on occasions, but this is not their only source of protein.
- Mr. Douw Pretorius. (Between points 8-9)
 - ◆ Mr. Pretorius does not use water from the river.
 - ◆ His workers, household and animals are supplied with water from boreholes.
 - ◆ Fodder is irrigated with water from a borehole.
- Mr. Erich Stoch

- ◆ Mr Stoch's animals have access to the river.
- ◆ Complaints have been received on numerous occasions that the water in the river caused his animals to die or become ill.
- Welverdiend Sewage Works
 - ◆ Workers regularly catch fish.
 - ◆ Water for domestic purposes is supplied by the Municipality of Carletonville.
- Paddadam (Between points 8-9)
 - ◆ A survey was done on the weekend of 10/5/97.
 - ◆ Approximately 20 people visited the dam on this day.
 - ◆ Fifty percent of the people catch fish on a regular basis at the dam.
 - ◆ Main species of fish caught at this dam include carp, barbel and bass, average weight 2-10 kg.
 - ◆ The fish are used for their own consumption or sold to the local people from Khutsong.
 - ◆ Permanent residents at the dam catch 2-3 fish on a daily basis for their own consumption but this is not their only source of protein.

16. **Blaaubank- Muiskraal**

- Blaubank (Point 9)
 - ◆ Nine families (26 adults and 14 children).
 - ◆ Mr. Coetzee provides the workers with water for domestic use via a water tanker from a borehole.
 - ◆ Fish are seldom caught in the river for own consumption.
- Mr. Coetzee's farm (Between point 9 and 13)
 - ◆ Water is supplied to the workers and his family from boreholes.
 - ◆ Fish are seldom caught for own consumption.
 - ◆ Approximately 100 ha of maize are irrigated from the river and boreholes.
 - ◆ Cattle have access to the river.
 - ◆ These cattle are mainly beef cattle and sold on the market in Johannesburg.
 - ◆ A few cows provide milk for the owner and the workers.
- Mr. Visser' borehole (Point 28 and between 9 and 13)
 - ◆ Mr. Visser and his workers are supplied with water from boreholes for domestic purposes.
 - ◆ Workers regularly catch fish for their own consumption. (The fish is not their only source of protein).
 - ◆ Maize, used for feeding the cattle, is irrigated with water from the river as well as the boreholes.
 - ◆ The cattle have access to the river when they graze in the vicinity.
 - ◆ The cattle form part of a stud but are slaughtered on occasions for own consumption.
 - ◆ Vegetables for own use are irrigated from the boreholes and the river.
- Turffontein eye (Point 29)
 - Annetjie and Gideon Wiese (Point 29)
 - ◆ Water for domestic use is supplied by a borehole on the farm situated 50m from the river.

- ◆ The concern was raised that the water in the borehole is the same as that of the river since it is situated close by.
 - ◆ The pool at the Turffontein eye is used for recreational purposes including fishing and swimming.
 - ◆ Cattle, goats and sheep have access to the river and the Turffontein eye. The cattle are mainly sold as beefers.
 - ◆ Until recently Ms. Wiese had farmed with exotic water birds. This was stopped because of the rumour that the water was radioactive and this resulted in eggs that did not hatch.
- Mr. Chris Bezuidenhoud.
 - ◆ Boreholes are used to supply the workers, families and school on the farm with water for domestic purposes.
 - ◆ Fodder is irrigated from the river for 400 dairy cows.
 - ◆ The milk is supplied to Kraaukamp in Randfontein.
 - ◆ Water from the eye and river is used for drinking water for the cattle.
- Gerhard Minnebron (Point 30)
 - ◆ The eye provides the family with 200 kilo-litres of water per hour for domestic purposes.
 - ◆ An angling club has access to the eye to catch trout.
 - ◆ Water from the eye is used to irrigate more or less 12 ha of maize for the cattle. Ninety cattle are supplied with water for drinking purposes from the eye and a borehole.
 - ◆ The cattle are sold to a local butcher.

17. Bovenste Eye –Boskopdam

- The Bovenste eye of the Mooi River (Point 34)
 - ◆ Three adults and 3-4 children.
 - ◆ Water from the eye is used for all domestic purposes.
 - ◆ Cattle that graze here belong to Mr Piet Pienaar.
 - ◆ They have access to the water in the river.
 - ◆ The area is popular for camping or a picnic.
- Klerkskraal dam (Between points 34 and 14)
- Police station
 - ◆ Water for domestic purposes is supplied from a borehole.
 - ◆ In summer the nature reserve is a popular fishing area.
 - ◆ Workers from the Department of Water Affairs and Forestry who look after the canal system have approximately 10 cattle on the property.
 - ◆ Water for domestic use and drinking water for the cattle is supplied by a borehole.
- Informal settlement in the area of Rooidraai
 - ◆ People from the informal settlement get water from the irrigation canals from the Klerkskraal dam.
 - ◆ In the area are approximately 60 farmers who irrigate crops from the canals.
- Welverdiend –Rysmierbult road
 - ◆ Farmers in the area have water tanks, windmills, crops and cattle.

- ◆ The conclusion can be made that farmers are dependant on boreholes for water for domestic use and irrigate from the river or irrigation canals.
- ◆ No intensive investigation was done in this area to identify the users.

18. Varkenslaagtespruit

- Doorndraai dam in the Varkenslaagtespruit.
 - ◆ The dam belongs to an angling club and only club members are allowed to fish here.
 - ◆ No persons were encountered during the days the survey was done.
 - ◆ It is known that a family of 3-5 people stays in the vicinity of the dam.
 - ◆ Mr. Jan Nell supplies water to these workers.
 - ◆ Mr. Chris Bezuidenhoud rents the farming lands from Doornfontein Gold Mine for grazing lands.
- Deelkraal dam (Point7)
 - ◆ People are allowed to catch fish in the dam.
 - ◆ However, these fish are not allowed to be removed because of elevated levels of radioactivity in the dam.
 - ◆ Notices around the dam prohibit people from removing the fish.
- Elandsrand – Nursery dam (Point 16)
 - ◆ Water is supplied by Rand Water for domestic use
 - ◆ Twelve cattle are provided with Rand Water water.
 - ◆ No fishing by the public is allowed on the property since this is private property.
 - ◆ Property belongs to Western Deep Levels.
 - ◆ Fodder for the cattle are irrigated from the borehole.

19 Process water canal from West Driefontein (Between points 7A – 7)

- De Freitas Vegetable's stall next to the Carletonville-Potchefstroom road upstream from point 7.
 - ◆ Workers in the fields are supplied with drinking water from the Carletonville Municipality.
 - ◆ Process water is pumped from West Driefontein no 5 shaft into the Brink dam from where the water is used to irrigate vegetables.
 - ◆ Workers that sleep on the property are supplied with water from the Municipality.
- Montrose Grass Enterprises near settling ponds.
 - ◆ 100 people work on these lands.
 - ◆ Water is supplied from the Montrose offices, as it is required.
 - ◆ Industries are approached during the day if drinking water is not available.
- Village where workers from Montrose Grass Enterprises stay (C2H063).
 - ◆ Water is supplied from the offices to the workers.
 - ◆ Children are not allowed to play in canals.
 - ◆ No irrigation is done from the canals.
- Mr. AC van Wyk (downstream of point7)

- ◆ Water is supplied by the Far West Rand Dolomitic Association.
- Houses downstream of C2H63
 - ◆ People are provided with water from Montrose Enterprises for domestic use.
 - ◆ Water in the canal is used for washing of clothes and bathing.
 - ◆ Children are not allowed to play in the canals.