

ANNEXURE C3.2: SCOPE OF WORK

- **PURPOSE**

The purpose of this document is to set out the guidelines and procedure that will control the supply and delivery of environmental and horticultural site maintenance services at various Rand Water's sites, servitudes and properties on an as and when required basis for a period of three years.

- **BACKGROUND**

The Environmental Management Services departments have been tasked to ensure all Rand Water sites, servitudes and properties adhere to approved horticultural site and related legislative standards. Some of the Rand Water pumping stations include but are not limited to the Panfontein Sludge Disposal Site, Analytical Services, Process technology, Water wise at Vereeniging, Zwartkopjes, Mapleton, Eikenhof, Palmiet, Rietvlei and Nature area, Zuikerbosch waste dump, Driefontein Vereeniging ash/waste material, Rand Water Bulk Water, servitudes and reservoirs. The sites have landscaped and un-landscaped areas that require to be well maintained to assist with the smooth running of all operations to ensure Rand Water meets its demands.

ENVIRONMENTAL AND HORTICULTURAL SITE MAINTENANCE

Environmental and Horticultural maintenance entail but are not limited to different activities and the supply of related horticultural tools and plants to implement these related to lawn areas and well developed as well as undeveloped gardens, veld areas, all landscaped and un-landscaped areas, uncut veld area, verges between Rand Water properties and public spaces, fence line maintenance and clearance, implementations and maintenance of fire breaks, canal, spillways and embankments, earth and sludge dam embankments, control of alien and invasive plants, application of chemicals (Herbicides and pesticides), maintenance on gravel road, tar and paved roads and surfaces (ensure weed free) etc.

- **ENVIRONMENTAL AND HORTICULTURAL MAINTENANCE SERVICES AT VARIOUS RAND WATER SITES.**

The horticultural maintenance of the Rand Water properties and servitudes are to include but not limited to the following:

All existing lawn areas, flower beds, veld grass areas on properties and servitudes, reservoirs embankments, sampling points, around boreholes, canals, embankments, fire breaks, empty sludge dams, sludge dams access roads and pathways, dirt roads, perimeter fence maintenance, or any other maintenance or horticultural requirements.

The maintenance activities include the following:

Mowing of lawn, scarifying of lawns, watering, weeding/cultivation, edge trimming, veld grass cutting, pruning of shrubs and trees, control of newly germinated alien invasive plants, application of herbicides and pesticides, fertilizers and composts, planting of plants, pruning, sweeping of hard surfaces, supply and application top dressing of lawns, reconstruction of eroded embankments, mulching of plant beds, irrigation system installation and repairs, Indoor plants maintenance, plant pest control, removal and moving of refuse to a designated dump site/ boulders to areas pointed out, replacement and re-potting of plants, roads (paved, tarred and dirt roads), parameter fence inspection, fence clearance and repairs, maintenance of dirt, tar and paved roads and any other hard surfaces, horticultural landscapes and construction as and when required.

- **AREAS OF WORK**

a) See Item 2.

- **Panfontein Sludge Disposal Site**

Areas to be maintained are divided into sections as follows:

- Lawned areas and gardens
- Veld areas, all landscaped and un-landscaped areas
- Uncut veld area
- Verge between Rand Water properties and public Road
- Fence line maintenance
- Fire breaks creation and maintenance
- Canal, Spillway's and Embankments
- Earth and Sludge dam embankments
- Control of alien and invasive plants
- Application of Herbicides and pesticides
- Maintenance on dirt, tar and paved roads and surfaces
(Details of these areas are provided on section 6 -).

- **DETAILED SCOPE OF WORK**

.1 LAWNED AREAS AND GARDENS

a. Mowing of lawn

Lawn is to be cut using a cylinder or a rotary mower with a grass box or biochip decks. Should grass boxes not be used all cut grass clipping are to be raked up by the Contractor within 1 (one) day of being cut. The grass height is to be kept between 20 mm and 30 mm at all times (Height to be measured with steel gage). During summer the lawn is to be mowed at least once a week. During winter the lawn is to be mowed as deemed necessary by the Environmentalist: Rehabilitation or Manager: Horticulture to maintain the maximum/minimum height.

b. Trimming of edges

All plant edges must be smooth and neat. Grass edges must not encroach onto the lawn from their original position. The grass must not protrude more than 20 mm over the edge.

Edges are not to be trimmed in such a manner that will result in either the enlarging of the flower bed or the receding of the grass edge from the pavement or its original position. All edges are to be trimmed at least twice a month during summer and as required during winter. Use brush cutters to trim around the trees and edges. (Take note not to damage bark around tree stumps when using brush cutters)

c. Top dressing of lawns

The supply of necessary topdressing (approximately 30m³) for lawns around the office buildings will be supplied and determined by Rand Water. Top dressing is to be spread and raked thinly in August months and watered thoroughly. Uneven areas on lawn are to be levelled with top dressing. Stones in the lawn dressing to be raked out.

d. Maintenance of garden beds

All beds are to be maintained on a weekly basis. All weeds and unwanted plant debris are to be removed on a weekly basis. Mulches are to be applied to all exposed soil surfaces. Mulches are to consist of fallen leaves, compost grass clippings, bark chips and wood chips. Leaves, wood chips and grass clippings will be obtainable from the site. Perennials are to be split up in winter and replanted to fill the beds.

e. Maintenance of containerised gardens

This will include all planting, weeding, mulching, fertilizing/composting, weekly watering and when necessary total replacement of soil media. Containerised gardens will be situated outside office blocks, store areas, dining and ablution facilities. The number of containerised gardens may be altered at any time by Rand Water

f. Planting of plants

Where and when necessary, Rand water will supply plants, seedlings, bulbous type plants and Seedlings to the Contractor for planting in positions and according to instructions by the Project Manager. Positions of plants planted are not to be altered without prior permission. The Contractor will be notified 2 (two) weeks in advance of Rand Water's intentions. No plants may be purchased by the Contractor for planting on the site without the consent of the EMS Environmentalist-Rehabilitation. Mulches are to be applied to all exposed soil surfaces and around trees. Mulches are to consist of fallen leaves, compost grass clippings, bark chips and wood chips. Leaves, wood chips and grass clippings will be obtainable from the site.

g. Planting technique

A hole must be dug square in shape measuring one and half times the depth of the bag and twice the width. The hole shall be thoroughly watered on the same day but before planting.

Superphosphate fertilizer must be mixed with soil that is returned to the hole prior to planting at a rate of 20g/2 litre bag i.e. 40g / litre etc. compost must also be mixed with the soil that is returned to the hole, prior to planting. When available and applicable a combination wetting granules and/or watering retention granules supplied by Rand Water must be added and mixed with the soil to be

returned into the plant hole. Application rates will be provided on site by the Environmentalist Manager.

Soil removed must be replaced loosely yet firmly enough to ensure support and avoid subsidence around the plant.

Excess soil together with loose surrounding soil must be used to create a watering dam (to hold 20 litres of water) around each plant for individual and specific watering requirements.

Each plant is to be thoroughly watered after planting and covered with straw/grass or other suitable biodegradable mulch and around its base to minimize evaporation.

Large plants are to be stayed with a metal dropper and supported in such a way so as not to cause damage to the plant by rubbing against the dropper

h. Fertilizers and composts

Composts will from time to time be provided to the Contractor either by Rand Water or contractor to be applied and dug over into the shrubberies, to a depth of 150 mm. Compost will also be supplied for the planting of plants. The application rate of each fertilizer will be discussed with the Contractor prior to application.

i. Weeding

All hard surfaces, shrubberies, and grassed areas must be kept free of weeds, at all times. Either by means of physical or chemical treatment. Where chemical treatment is required, the product to be used will be supplied by the contractor, the type of chemical to be purchased it to be discussed with the Environmentalist: Rehabilitation before it is purchased for use on the site. Staff applying chemicals must be fully trained, competent and have a valid Pest Control Operator's certificate related to the scope of work. The MSDS sheets of chemicals will be kept on site as required. Chemical to be applied using the Knapsack sprayer, boom sprayer etc.

j. Watering

At all times the soil must be kept moist to maintain optimum growing conditions. Wasting of water will not be allowed. All garden beds are to be mulched using wood chips and fallen leaves from the site. Where ornamental mulches such as pebbles and bark chips have been used, these are to be regularly checked, cleaned and kept looking tidy and in place.

All containerised gardens and flowerbeds are to be watered weekly. When watering the following principles are to apply:

- Water run-off is to be prevented
- No watering of hard surfaces is to be done
- No watering by means of sprays or sprinklers between 10:00 and 15:00/ according to municipal by-laws.
- Watering is to be done well and deep (to a depth of about 200mm).
- Watering equipment's: irrigation system, water tanker, watering can, hose pipes etc.
- The current irrigation system to be maintained is approximately 460m. Fittings and sprinklers that needs to be replaced or repaired should be replaced with the same make/model (SABS approved). Watering equipment's: Water tanker, watering can, hose pipes etc.

k. Pruning of plants

Pruning must be done according to set horticultural practices. All plants are to be pruned to maintain a healthy even growth. All dead and damaged material must be removed. Creepers must, at all times be kept in trim and not left to outgrow their positions. Branches pruned up from tree stems are to be cut flush with the trunk.

Summer pruning of shrubs and trees growing into and over pathways and lawn is to be discussed with the Rand Water EMS Manager Horticulture or representative.

Winter pruning of plants i.e. shrubs and trees is essential. All pruning envisaged must first be discussed with the Environmentalist: Rehabilitation or representative.

Use chain saws, pole pruner, secateurs, lopper etc. to prune plants.

l. Removal of waste

All weeds, grass clippings and pruned materials must be removed from site, unless been used for mulching purposes and agreed upfront with the Environmentalist: Rehabilitation or Manager Horticulture. All fallen plant material (leaves and branches) on lawns and hard surfaces must be removed at least once a week or more often should it be required. All refuse is to be dumped on a register dump sites approved for garden waste disposal. All cut, weeded and fallen plant material is to be removed from site, no later than 1 (one) day after cutting. It will also be required that any refuse (paper, plastic, glass, metals, polystyrene and any other non-biodegradable product) found on site or along fence lines be removed by the Contractor.

A copy of signed register or weigh bridge receipts proving that dumping has taken place at a legal dump site will need to be handed in with the invoice at the end of each months.

m) Maintenance of containerised gardens

This will include all planting, weeding, mulching, fertilizing/composting, weekly watering and when necessary total replacement of soil media. Containerised gardens will be situated outside office blocks, store areas, dining and ablution facilities. The number of containerised gardens may be altered at any time by Rand Water.

n) Planting of plants

Where and when necessary, plants, bulbous type plants and seedlings will be supplied by Rand Water to the Contractor for planting in positions and according to instructions by the Environmentalist Rehabilitation or EMS Manager Horticulture or discussions with the Contractor. Positions of plants planted are not to be altered without prior permission. The Contractor will be notified 2 (two) weeks in advance of Rand Water's intentions. No plants may be purchased by the Contractor for planting on the site without the consent of the Environmentalist, EMS Manager Horticulture. Mulches are to be applied to all exposed soil surfaces and around trees. Mulches are to consist of fallen leaves, compost grass clippings, bark chips and wood chips. Leaves, wood chips and grass clippings will be obtainable from the site.

o) Top dressing of lawns

Should this be required the lawn dressing will be supplied and applied by Rand Water. The Contractor will be notified 2 (two) weeks in advance of Rand Water's intention.

p) Trimming of edges

All grass edges along roads, fences, around trees, road sign posts and other structures must at all times be cut to a height of no more than 100 mm. Use brush cutters and edge trimmers.

q) Removal of shrubs and trees

No shrubs or trees are to be removed by the Contractor without first consulting the EMS Manager Horticulture.

6.2 MAINTAINING VELD GRASS IN UNLANDSCAPED AREAS AND RAND WATER SERVITUDE

All grass to be cut to a maximum height of 10cm or 30cm only when rubble or rocks are present which makes it unsafe to cut to a height of 10cm and should be cut at least once a month (September – May) in the growing season or as specified by the Project Manager. All-inclusive price per square meter to include grass cutting, removal of newly grown alien vegetation, weeds, litter picking, rubble etc.

All grass, vegetation growing along the fence line, around the boreholes, driveways must be cut to a height of 10cm, must be removed from site and chemically treated with herbicide such as Glyphosate, Tumble Weed etc. and all the herbicides to be provided by either by Rand Water or a contractor. All grass to be cut within the demarcated area of each site.

No grass to be left in the fence or against structures e.g. boreholes or with-in drains / channels or other objects found within this or the edges of that area. This will include rubble, buildings structures or plants. No plants are to be ring barked by brush cutters when cutting around their bases. Trees and shrubs on site are to be protected while cutting. Rand Water at the cost of the Contractor will replace damaged plants.

The last cut should be completed by end May each year and the grass will be removed by the contractor. Grass may only and or, must be left on site as per Project Manager request.

The grass to be cut using a tractor slasher mower, brush cutters etc. and can be raked manually or with a tractor mounted rakes.

a. Trimming of edges

All grass edges along roads, fences, around trees, road sign posts and other structures must at all times be cut to a height of no more than 100 mm. Use brush cutters, edge trimmers.

b. Removal of branches and trees

The suppliers are required to trim, cut down trees preventing view and obstructing movement, broken branches, over hanging branches, fallen trees encountered in this areas are to be removed immediately.

c. Tree maintenance

There is an on-going system of planting trees on a yearly basis. After planting, trees need to be watered by cart for a further 2 (two) years to ensure they establish. All trees are to have a basin created at their base, suitable of holding minimum 20 litres water. All basins are to be covered by mulch (wood chip from removed alien invaders). Trees of 2 (two) years and younger must be watered.

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|---|--------------------|---|------------------|
| - | Once a month | - | October to April |
| - | every second month | - | May to September |

d. Removal of waste and disposal at Rand water properties and servitude sites

All cut, weeded and fallen plant material is to be removed from site, no later than 1 (one) day after cutting on Rand water properties such as around buildings, valve boxes, sampling points, fence line, canals, around boreholes, sludge dams access roads and walkways etc. It will also be required that any refuse (paper, plastic, glass, metals and polystyrene) found on site or maintained fence lines be removed by the Contractor. This must be done at least once a week.

e. Removal of grass off site

All grass must be removed from site and disposed of at legally registered disposal site or can be recycled.

It is noted that where a contractor would like to remove grass for his own requirements, this action may not affect the completion date of cutting grass, or the standard of the completed work. This means that veld grass harvested for bales or thatching activities would need to be cut down to 10cm on completion. Grass must be disposed of at a legally registered disposal site or recycled. Grass may only and or, must be left on site when requested by Rand Water and is arranged prior to the commencing of work.

A register signed by legal dumping site to be kept and a copy should be handed to EMS when invoicing.

6.3 UNCUT VELD AREAS

Uncut veld areas are to be maintained in such a way as not to become a fire hazard. Uncut veld areas is to be cut at least once a month (March – August, winter months). All other specifications applicable are to be adhered to. Fauna in these areas are to be protected at all times.

6.4 VERGE BETWEEN RAND WATER PROPERTIES FENCE LINE AND PUBLIC ROADS

This area is to be cut three (3) times a year (January, March and November). The third cut must be totally completed before the first expected fire in end April. Grass height is to be no more than 10cm, all refuse and rubble must be removed and all cut grass and weeds are to be removed from site or to a designated composting area. Use tractor slasher mower, brush cutters etc.

6.5 CANAL, SPILLWAY'S AND EMBANKMENTS

All canals and spillways must at all times be clean of any object, or materials (e g soil, sludge, grass clippings etc) that can damage or block the system. A minimum of once a month throughout the year.

Chemical control of biological pressure on concrete, joints and slabs, paved embankments etc must be done on a regular basis.

Embankments must be kept clean and accessible at all times. Specie control of vegetative growth on the canal embankments must be confined to allowing only prescribed vegetation (*Cynodon* species and *Rhodes* species).

Roads on top of these embankments must at all times be accessible and in good condition (Holes must be filled with suitable material and the roads graded as need, to keep it level/smooth). Storm water should always be controlled so as to ensure there are no damage to these roads and canals.

Machinery and equipment's required: brush cutters, knapsack etc.

6.6 EARTH AND SLUDGE DAM EMBANKMENTS

All earth embankments must be inspected after rain and whenever there was work done in those areas. This is to ensure that there is no damage to the surface of the embankment that can cause further deterioration or erosion of the embankment wall.

Vegetation on embankments must be kept under control to ensure that the specie prescribed (*Cynodon* species and *Rhodes* species) to cover and maintain the embankment can grow unhindered.

All damage (erosion gullies) must be repaired immediately after obtaining permission from Project Manager or Site Manager. A monthly report must be submitted to the Project Manager detailing what repairs has been done (format to be discussed with Project Manager or site Manager). Dam embankments must be inspected on the inside as well as on the outside. Vegetation on the inside walls must also be controlled in an environmentally accepted way. For a distance of 2 m (2 000 mm) from the edge of the inside embankment, inwards, all reeds (*Phragmites*) bulrushes (*Typha*), and *Papyrus* and other tall growing grass species must be removed.

6.7 MAINTENANCE OF DIRT, TAR AND PAVED ROADS AND SURFACE

6.7.1 Dirt roads

The main entrance road to Panfontein needs to be maintained at a high level. All dirt roads inside the premises should be kept accessible at all times, minor damage must be repaired on a regular basis. Scraping the roads must be done whenever necessary but limited to favourable conditions. It must be liaised with the site Manager prior to commencing. This includes all roads, roads on the embankments of the sludge dams and drying paddocks.

6.7.2 Paved roads

Paved roads and areas must be kept clean, free of weeds and damage; any damage should be fixed as soon as possible. Intended repairs must first be discussed with the Project Manager.

Machinery and equipment's required: Leaf blower, hard brooms, Knapsack sprayer, garden tools etc.

6.7.3 General

Vegetation on road edges must be controlled so as to ensure that biological pressure does not damage the roads or paved areas. This must be done chemically, at least 3 (three) times per year (should there be no residual effect) or once a year with the appropriate herbicide to ensure control.

6.8 CONTROL OF ALIEN AND INVASIVE PLANTS

Different veld maintenance practice will be used to control alien invader plants. All alien invader plants described in category 1 are to be removed from site. This process involves physically removing plants/trees by cutting them down and chemical treating these stumps to prevent re-growth. It will be expected of the contractor to be in possession of a valid *PCO license*. Plant debris must be chipped, using a wood chipper and the wood chip produced, must be used for mulching purposes on site. Trees/plants cut down should be between 0-30mm and chemically treated are to be cut at ground level (not higher than 100mm) so as to avoid damage to vehicle tyres. Avoid spray drift when applying chemicals.

The following are some common invader plants on Rand Water sites. Others not included here can be added to this list. The removal and control of these plants should be first discussed and approved by and Environmentalist Rehabilitation or EMS Manager Horticulture.

- (a) *Arundo donax*-Category1
- (b) *Cirsium vulgare*-Category1
- (c) *Datura stramonium*-Category1
- (d) *Sesbania pinicea*- Category1
- (e) *Acacia mearnsii*-Category2
- (f) *Acacia melanoxylon*-Category2
- (g) *Casuarina cunninghamiana*-Category2
- (h) *Eucalyptus camaldulensis*-Category2
- (i) *Eucalyptus grandis*-Category2
- (j) *Gleditsia triacanthos*-Category2
- (k) *Pinus patula*-Category2
- (l) *Pinus pinaster*-Category2
- (m) *Populus x canescens*-Category2
- (n) *Robinia pseudoacacia*-Category2
- (o) *Salix babylonica*-Category2
- (p) *Cotoneaster pannosus*- Category3
- (q) *Ligustrum lucidum*- Category3
- (r) *Melia azedarach*- Category3
- (s) *Morus alba*-Category3
- (t) *Pyracantha angustifolia* Category3
- (u) *Tamarix chinensis*-Category3
- (v) *Tagetia* (*Kakiebos*)
- (w) *Tamarisk hispida*-Category3
- (x) *Argemone ochroleuca*- Category1

(y) *Cortaderia selloana*- Category 1

(z) Any plants as identified in the (CARA) Conservation of Agricultural Resources Act, 1983 (Act No 43 of 1983)

6.9 HERBICIDES AND PESTICIDES

The indiscriminate use of herbicides and pesticides is undesirable. Control of insects by use of pesticides should only be used where absolutely necessary. Funguses on the lawned areas must be controlled where necessary. Equipment's required: knapsack sprayer, hand held sprayer etc.

All chemical to be used will be supplied by either Rand Water EMS departments or a contractor. A copy of the SDS (Safety data sheet), will be issued by EMS to the contractor. Application of any herbicide, fungicide or pesticide must be supervised by a person in possession of a valid PCO (Pest Control Operators) license.

6.10 FENCE LINE MAINTENANCE

6.10.1 Temporary repairs

All the fences including perimeter fence must be inspected at least twice every week, all broken fences should be repaired immediately. At Panfontein sludge site, this is to ensure that neighbouring farmer's animals don't enter the property, and get trapped in the sludge dams and die, resulting in claims against Rand Water.

6.10.2 Provision of material

All material is to be provided by Rand Water, to ensure that consistency exists on the fences.

6.10.3 Replacement of whole sections of fence

Should the Contractor notice during inspections that large sections of fence are requiring total replacement, due to age and continued breakages, this must be reported to Rand Water site office and Project Manager. Monthly feedback to be given to Project Manager during meetings or detailed report to be sent to Rand Water via email to Project Manager and Site Manager.

6.11 FIRE BREAKS CREATION AND MAINTENANCE

A fire break of 15 m or as specifically agreed on site with the Project manager or site Manager, must be maintained throughout the year along the perimeter of the site, and around buildings where applicable, to ensure that fire cannot escape from Rand Water property and cause liability to damage crops etc. and to ensure that fire do not enter the Rand Water properties. Vegetation along the fence line should be cleared and no overhanging branches over the fence line. Trimmed and removed are to be processed through a wood chipper to create mulch.

The fire breaks are to be done mechanically by cultivating the soil, burning and chemically in such a way as to ensure that it is environmentally acceptable. There will be a sterile area of 1.5 m underneath

the perimeter fence to ensure that fire cannot damage the fence lines (750 mm either side of the fence). Position the fire break where it is safe and feasible, to avoid damaging rare, endangered and or protected species.

Deviate the firebreak around trees, shrubs or other obstacles as required so as to achieve a continuous effective firebreak.

Firebreaks falls under the provision of the national Veld and Forest Act No 101 of 1998 together with all amendments and regulations promulgated thereunder at any time up to and including the date of completion of this contract. All specifications that apply to this Act must be adhered to.

6.11.1 Fire break options

The contractor may elect to use any effective method for creating a firebreak. The firebreak must be clean so as to be an effective barrier for fire not to cross over. Contractor are advice to start with a fire break as agreed with the Project Manager and should be completed end of April/May.

Burning – in line with the National Veld and Forest Fire Act of 1984.

- Chemical application – in line with the National Fertilizer and Farm Foods Act 1947 (Act 36 of 1947).
- Mechanical or Manual disking of soils – in line with objectives of NEMA and CARA.

(Where the contractor challenges during execution, they should notify EMS Project Manager or Site Manager).

6.11.2 Fire break dimension on Rand Water servitude

The firebreak on Rand Water Servitudes and reservoir sites should be 5m wide; 4m inside Rand Water land and 1m on the adjoining land if and where permitted by its land owner. Where it is not possible to go through the fence line, then the firebreak will be 5m inside the fence line. No payment will be made if the fire break does not meet this standard.

The fire breaks dimension will vary from site to site and shall be guided by National Veld and Forest Fire Act of 1984, however the Project Manager will discuss with the supplier the required dimension for that specific site.

6.11.3 Fire break precautions

The contractor to take into consideration the aspect of weather, climate, terrain, and vegetation of the area prior to burning. The contractor will be liable for run-away fires.

Ensure that the firebreak does not cause soil erosion.

Ascertain that the firebreak area is reasonably free of inflammable material capable of carrying a veldt fire across it.

Safety precautions and best practices to apply for herbicidal treatments.

If Rand Water Environmental Management Services or its appointed Contractor intends to prepare and maintain a firebreak by burning, Rand Water or its appointed Contractor must determine a mutually agreeable date or dates with the owners of adjoining land for doing so (14 days written notice), and inform the fire protection association of the area. The should submit the copy of the notification to the Project Manager.

If Rand Water Environmental Management Services or its appointed Contractor intends to prepare and maintain a firebreak using herbicide, the appointed Contractor shall notify in writing the adjoining

land owners of his intention to apply the herbicide on the site fourteen days prior to the intended date of application. This is to allow the adjoining landowner to take all necessary precautions to safeguard his personnel, property including the livestock.

6.11.4 Fire break and herbicide treatment

Apply a correct approved herbicide, registered for the remedy of suppressing growth of all annual and perennial grass and weed species on that specific site. All trees and shrubs to be treated with environmental friendly chemical added with visible colouring agent (Dye).

The team/person applying the herbicide must be under the direct supervision of a person in possession of the Pest Control Operator certificate in terms of the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947(Act No. 36 of 1947).

The contractor to inform the project Manager of the date to apply chemical two weeks prior the intended date of application.

The name of herbicides and procedures to be used, shall be furnished to the Project Manager or delegated Rand Water representative.

6.11.5 Fire break notification of relevant people

Burning:

For fire breaks constructed by burning the fire departments permission and procedure are required. All aspect of National Veld and Forest Fire Act of 1984 will apply. This includes the requirement to obtain in writing the permission of the local fire department permission to burn.

The neighbors need to be notified in writing, a minimum of 14 days' notice prior to commission.

The local Rand Water Site Manager needs to be notified prior to starting and on completion of any days burning. The contractor to notify Project Manager before commencing and after burning.

All paper work required for compliance should be available on site at all times and copied to the Project Manager on completion.

6.11.6 Spraying of reservoir embankment

An effective treatment of weeds and grass growing through the rock packed embankment is required for a minimum of six months.

The product used may not cause damage to the water table and surrounding environment.

6.12 LABOUR AND EQUIPMENT

The Contractor shall be liable at its own cost for the provision of labour, including all related costs, the provision of all tools and equipment required, the maintenance and repair of all tools, equipment and vehicles and the provision of miscellaneous stores other than those for which Rand Water is expressly liable in terms of this Agreement. Competency certificates should be available for all contract staff working on site. Medical certificates from an Occupational doctor should be available on a yearly basis for all employees working on this site. A qualified first aider, fire fighter and safety representative should also form part of staff complement.

6.12.1 Labour

The Contractor shall be liable for the provision of labour and project management at its own cost including all related costs. A minimum of the following of the following skills are required: tractor operators, brush cutter operators, Pest Control Operator, Un-skilled labourers, a site supervisor with horticultural experience (CV and relevant qualifications must be provided) to be full time on site.

The Contractor is to supply a suitable capable Supervisor that can both receive and give instructions. The Supervisor is to work in accordance with instructions from the Project Manager. The Supervisor is to report to the Project Manager or site Manager to receive instructions. Contractor will be responsible for all his staff's physical safety, disciplinary and other requirements.

A qualified first aider, fire fighter and safety representative should form part of your staff complement. It is expected of these employees to attend the appropriate meeting. Staff will have to undergo induction training via Rand Water SHEQ Officer. Staff will have to sign all SHEQ agreements required by site SHEQ officer.

Medical certificates from an Occupational doctor should be available on a yearly basis for all employees working on this site.

All appointments to be relevant at all times and contractor must keep them updated. All staff must have their induction cards with them at all times.

6.12.2 Recommended equipment for Rand Water sites to be utilized implementing horticultural activities.

All maintenance of tools and equipment will take place off site, or undertaken on site in an environmentally acceptable manner in order to prevent oil/lubricant and diesel/petrol spillages on site. All equipment as specified in the tender document must be available and good working condition at all times.

The work objectives should be achieved effectively with the following equipment as a minimum: industrial ride-on mowers, Walk behind lawn mowers, Bakkies for supervision, Equipment trailer, Brush cutters, Blower mower, Slasher mowers, Knapsacks, Pole pruners, Chainsaw, Tractors, Offset Disc, tractor mounted scraper, garden forks, steel rakes, rubber rakes, hand picks, wheel burrows, 50m horse pipes, water tanker and planting garden tool sets (Approximately 15-20 cm spade, shovel, fork) etc.

6.13 ACCOMMODATION OF TOOLS AND EQUIPMENT

The Site Manager will identify if storage area for tools and equipment is available or not, on site for use by the Contractor. Rand Water will not be held responsible for damage or loss to any equipment or tools.

Contractor will be liable for keeping this site tidy and esthetically pleasing at all time. Design and layout of site and structures to be discussed with site Manager prior to moving onto site.

6.13.1 Accommodation and transport of staff

No accommodation and transport from Rand Water will be made available for Contractors staff on Rand Water property.

6.14 WORKING HOURS

Normal Working Hours: 40 (forty) hour week. Time frame means e.g. 07:00 start work and 16:00 is stop work.

07:00 -16:00 Monday to Thursday. Tea time 09:00 - 09:15, lunchtime 12:00 - 12:40.

07:00 -14:00 Friday no tea-time, lunchtime 10:00 - 10:25.

Rietvlei site working hours:

40 (forty) hour week. Time frame means e.g. 08:00 start work and 16:30 is stop work.

07:00 -16:00 Monday to Friday. Tea time 10:00 - 10:15, lunchtime 13:00 – 14:00.

6.15 PRESERVATION OF THE SURROUNDING FAUNA AND FLORA

Should any flora or fauna be damaged or destroyed by personnel employed by the Contractor it will be replaced at the cost of the Contractor. Any interference with fauna will be reported to the Department of Nature Conservation. It is extremely important that all activities undertaken in this area must be kept in mind the environmental impacts that it will have on the area.

6.16 QUALITY OF SERVICE

The properties covered by the Agreement shall be inspected and quality of the service supplied by the Contractor shall be evaluated on a regular basis by the Project Manager or EMS Manager Horticulture or a designated official of Rand Water.

6.17 MONTHLY INVOICES

The Contractor shall furnish Rand Water with invoices detailing the service supplied accompanied with proof in the form of dated pictures. These invoices shall comply in all respect to the figures as provided in the price schedule of the submitted tender.

It is compulsory to submit before and after dated pictures for each site activity, as this will save time for inspection and submission of invoice.

6.18 ENVIRONMENT

The Contractor shall ensure that they are familiar with Rand Water site's activities and identified Significant Environmental Impacts. Ensure that all work is performed as per Site's Environmental

Management System Requirements. The Site Manager or SHEQ Officer, to ensure that Contractors activities/operations do not have a Significant Impact on the Environment and the Project Manager will monitor this. Rand Water reserves the right to conduct environmental audits on the contractor, as a supplier to Rand Water, as and when required. The scope of such audits will be discussed with the contractor.

Environmental Conservation Act

The contractor shall ensure that contamination of the Land (oil leaks/spills from equipment), Air (hazardous emissions into the atmosphere) and Water (herbicide/pesticide incorrectly used and disposed) are prevented at all times. The Contractor shall not discard, dump or leave any waste on any land or water surface, street, road or site in or any place to which the public has access, except at a place which has been especially indicated, provided or set apart for such purpose. On the removal of waste from the site the contractor shall ensure that a "Certificate of Safe Disposal" (indicating the quantity removed area and method of disposal) is issued either to Project Manager or the Site Manager or SHEQ Officer. The work falls under the provisions of the Environmental Conservation Act No 73 of 1989 together with all amendments and regulations promulgated there under at any time up to and including the date of completion of this

6.19 Training

All Contractors working on site or starting new shall undergo Induction Training on the first day before any work commences for a period of at least 4 (four) hours. Environmental Awareness Training will be attended at least once per year to ensure that the Contractors are familiar with the changes of Site's Environmental Management System. The appointed Contractor Site Representative has the responsibility to inform the Site Manager or SHEQ Officer when a new employee has been allocated to work at that specific site. This person must undergo induction on the same day before work commences. Personal Protective Equipment (PPE) will be worn on site at all times and will consist of appropriate shoes, overalls, headgear and gloves etc.

6.20 Meetings

Monthly site meeting is to be held on site between the Site Manager, Project Manager, SHEQ Officer and the Contractor. These site meetings and evaluation will be held at least once a month. Environmentalist Rehabilitation or Rand Water representative and contractor will sign site evaluation contents on a monthly basis. These will be filed for monitoring of progress.

7. OBJECTIVES OF THE WORK

- a) The aim is to appoint several suitable Service providers who assist Rand Water to meet its mandate.
- b) Adhere to legislation with regards to environmental and horticultural maintenance and implementation.
- c) Protect Rand Water assets and infrastructure.

8. OPERATIONAL AREAS AND RESPONSIBLE PERSONNEL

Item No	Rand Water Operational Area	Rand Water Responsible Section & Representative
1	Panfontein Sludge Disposal site	Panfontein: Mukondeleli Maselesele
2	Vereeniging Analytical services, Process Technology & Water Wise.	Corporate EMS: Mukondeleli Maselesele
3	ZKB waste dump	Corporate EMS: Mukondeleli Maselesele
4	Driefontein and VG by product site maintenance	Corporate EMS: Mukondeleli Maselesele
5	Rietvlei/Head Office	Rietvlei: Rudzani Mulea
6	Forest Hill Flats	Rietvlei: Rudzani Mulea
7	Palmiet Pumping Station	EMS Zwartkopjes: Wayne Borton
8	Eikenhof Pumping Station	EMS Zwartkopjes: Wayne Borton
9	Mapleton Pumping Station	EMS Zwartkopjes: Wayne Borton
10	Farm – Eikenhof	EMS Zwartkopjes: Wayne Borton
11	EMS Nursery	EMS Zwartkopjes: Wayne Borton
12	Emhlangeni – Zwartkopjes	EMS Zwartkopjes: Wayne Borton
13	Vereeniging Pumping Station	EMS Vereeniging: Lufuno Mulaudzi
14	Rand Water – Bulk Water Distribution – Depots & Servitudes.	EMS BWD: Phaniel Ngoben

9. APPROVAL OF SCOPE OF WORK

I have read the SCOPE OF WORK for the supply and delivery of environmental and horticultural site maintenance services at various Rand Water's sites, servitudes and properties on an as and when required basis for a period of three years. I acknowledge and accept the content of the scope of work and I have no other additions that need to be added.

No.	Rand Water Section	Responsible Person	Signature
1.	EMS-Rehabilitation	Mukondeleli Maselesele	
2.	EMS Rehabilitation	Vhangani Silima	
3.	Corporate EMS: Manager Horticulture	Annaline Prinsloo	