		DEPARTMENT:	POLICY NO.	
	OPERATIONS	REVISION:		
	Johnnesburg Johnnesburg ZOO	POLICY TITLE : TREE PLANTING POLICY	EFFECTIVE DATE:	
1.	a world class African city	Johannesburg City Parks and Zoo (JCPZ) are the custodians of the City of Johannesburg's green heritage and as such are responsible for enhancing and increasing the green image of the City. The City's claim to fame as an urban forest as well as disparities between the Northern and Southern regions and/or the Previously Advantaged Areas and Previously Disadvantaged Areas of the City are key aspects of the silent mandate afforded to Johannesburg City Parks and Zoo. What is done today can have a serious impact on tree maintenance activities for years to come. It is therefore imperative that tree planting be done with care and planning. Planning is critical to ensure that the final product is sustainable and aesthetically pleasing. Trees of similar shape but different species, if carefully selected, will provide the desired effect of tree arch over the streets and other City's facilities. The mix of species is essential to reduce the chances of insect epidemics, to guard against the spread of disease as trees are trimmed in efficient block treatments, to prevent widespread neighbourhood complaints and to eliminate extensive tree removal programs when single species plantings die.		
		To sustain long-term tree planting in parks and street trees, the City of Johannesburg must a tree management plan in place to encompassing constant reviews and analysis, planning, protection, management, safety and care to improve the quality and quantity of its trees.		
2.	LEGISLATION	In adopting this policy, it is recognic requirements to be met as well as Relevant major legislative requirer National Forest Act of 98. Society of Municipal Aborists of Municipal Financial Managem National Environmental Mana Heritage Resource Act. South African Heritage and Roccity of Johannesburg By-Law Johannesburg Metropolitan O The Constitution of the Repubbill of Rights. Water Services Act (No. 108 of Environmental Conservation Are Forest Act (No. 84 of 1998). Conservation of Agricultural Roccity is to implemented in comunicipal or Corporate Policies and Environmental Sector Plan. 2040 Growth and Development Flagship Programmes). 5 Year Strategic Management 2030 National Development Plan. Corridor Development Plan. Non-Motorized Transport Plan	other municipal or onent are the: documents. ent Act (No.56 of 2) gement Act (No. 10) esources Agency. s and Policies. pen Space System dic of South Africa, of 1997). Act (No. 73 of 1989) esource Act (No. 1) e (No. 15 of 1985). Injunction with other of Strategies including the Plan for JCPZ. Plan.	Corporate goals 003). 07 of 1983). (JMOSS). 1996. Chapter 2:). 07 of 1983). r relevant ing the:
3.	GDS ALIGNMENT	 Financial sustainability and re Agriculture and food security. Sustainable Human Settlemer SMME and entrepreneurial su Engaged and Active citizenry. Resource resilience. 	nts. pport.	

		Smart City.
		 Investment, attraction, retention and expansion. Green economy.
		Safer cities.
		For the purposes of this policy, the following definitions shall apply:
		Urban Forest Canopy : a group or set of trees making a canopy in an urban settlement.
		Indigenous Trees : trees that are of native to the country (of origin to South Africa.
		Endemic Trees: trees that thrive in a specific ecological area.
	DEFINITIONS	Exotic Trees: trees/ plants not native to the country.
		Alien Invasive Trees: trees that invade and out compete native trees and resulting in a rapid spread and occupation of a geographical area.
4.		Regions : geographical borders set out by the City of Johannesburg Metropolitan Municipality.
		Wards: geographical borders found within the Regions.
		SMME Development: Small Medium, Micro Enterprises.
		Preservation Tree Order : A tree preservation order (TPO) is set out by the Municipality to protect specific tree species, or a particular area from deliberate damage and destruction. The TPO addresses matters relating to the felling, lopping, topping, uprooting or other tree management related activities.
		Integrated Development Plan (IDP): The framework for specific service delivery related targets established by the Municipality.
		CoJ: City of Johannesburg.
		JCPZ: Johannesburg City Parks and Zoo.
	POLICY STATEMENT	To develop a policy framework that establishes Johannesburg City Parks and Zoo (JCPZ) commitment and strategic direction for the procurement, propagation, planting, maintenance, protection and management in designated open spaces and streets.
		The City of Johannesburg values the contribution of trees to achieving a high quality urban environment and will seek to plant trees whenever there is an opportunity to do so within the urban design outcomes for the area. Such planting will complement any
		 heritage building facades. A diverse range of tree species will be used to reinforce street identity, attract a variety of bird life to the City, create visual interest and enhance the amenity of the public realm.
		Trees will be planted to form green corridors.
5.		Historic trees and avenues will be preserved and replaced in recognition of their cultural significance and benefits to the City. Adjacent future plantings will be placed to preserve the integrity of
		 these trees. All trees planted in street trees and parks will be managed to maintain them in a healthy state and minimize any adverse
		impacts of these trees.While indigenous trees will be the most common group of trees
		used, every attempt will be made to use exotic, fruit and nut trees to reflect and support the growing diverse nature of the City's community.
		While trees will always be selected that have minimal impact on services such as electricity and water, the City of Johannesburg strongly encourages municipal entities and other government agencies to minimize the impact of their operations on the street
		trees of the City.

	T	T
6.		 To plant and protect urban trees, to help them grow and multiply especially in the more densely built-up central boroughs, to preserve and/or recreate the seamless flow of the forest cover from one City neighbourhood to the next, to support and harmonize the green-based endeavours of the boroughs, and to inform and involve the citizenry in preserving and enhancing these precious allies of vital and symbolic importance. To place trees at the heart of the City of Johannesburg cityscape,
	POLICY OUTCOME	the aim being to provide the City with a viable and sustainable future while supporting the identity of the City's landscape and enhancing citizen quality of life. To place troop as important components of City of Johannesburg's
		 To place trees as important components of City of Johannesburg's green heritage, urban trees are not only living beings but also serves as neighbours and allies. It is in the collective interest of everyone including elected officials, municipal employees, citizens, institutional partners, etc. to respect, protect and support the growth and expansion of the urban tree cover.
		The municipal administration is committed to taking all action as required to ensure the on-going development and sustainability of the City's rich arboreal heritage with view to making the City of Johannesburg a truly greener, more pleasant and healthier place to live.
		 To create and maintain a balance in the green environment between the developed and previously advantaged areas within the City of Johannesburg, with specific to the planting of trees in previously disadvantaged communities both in the Southern and Northern regions. To identify, register and preserve Champion Trees in the City and to ensure these trees become of significant value to the future generations.
	POLICY OBJECTIVES	In order to achieve this balance, the following objectives have been identified:
		To promote greening and maximize tree planting and maintenance in an integrated city-wide approach in order to secure the multiple environmental and social benefits for the now and future generations of the City of Johannesburg in accordance to best arboricultural practices. To encourage public participation and enpultations before during
		To encourage public participation and consultations before, during and after tree planting programmes. To encourage public participation and consultations before, during and after tree planting programmes.
7.		 To encourage tree planting in containers where there are insufficient tree planting spaces in the City. To ensure integrated planning with other utility companies and state agencies in order to prevent unnecessary damages to trees during constructions (i.e. way-leave application and approval). Identify and register one carbon credit project in 2014 with the Department of Mineral and Energy.
		 To promote and encourage mass tree planting in the City active involvement in the Annual Arbour Week or Month programme and also to partake in the annual Arbour City Award Competition. To promote tourism by beautifying and enhancing the existing urban canopy by beautifying protocol and scenic routes and gateways to and the City by planting trees.
		To ensure 95% tree survival rate on newly planted trees through the tree after-care programmes. The selection of the Oith and account of the Oith ac
		 To enhance the reputation of the City as a custodian and manager of an expanding man-made urban forest. To determine and benchmark the urban forest canopy of CoJ.
		 To determine and benchmark the dibarriorest carbopy of cos. To promote the planting of indigenous and drought resistant trees. To assist in poverty alleviation programmes, fruit and nut trees
		 To assist in poverty alleviation programmes, that and that trees can be introduced and donated in community gardens, public open spaces and private institutions. To develop and maintain a CoJ urban tree profile via a tree
L		To develop and maintain a Coo urban tree profile via a tree

		concus and GIS manning
		 census and GIS mapping. To encourage the planting of Ceremonial trees in Cemeteries. To increase the number of trees in the public open spaces based on regional and ward requirements. To maintain and improve the existing urban forest canopy through the application of sustainable asset management methodologies. To plant trees in CoJ using the project management methodologies, tools and techniques. To establish norms, standards and criteria for the planting of indigenous and exotic trees. To provide guidelines for the procurement of trees through a balanced approach of SMME and Cooperatives development, agencies and tree nurseries. To optimize JCPZ tree nurseries as capable suppliers of trees to meet internal planting requirements, as well as for sale externally. To apply the CoJ policies and by-laws on the protection and removal of trees in the public open spaces and on streets. To facilitate the removal of alien invasive trees in collaboration with relevant government and non-governmental entities. To influence and to achieve goals on tree planting and maintenance as per the IDP and Environmental Sector Plan of the CoJ. To provide tree planting and maintenance services to State and Municipal owned entities. To provide guidelines on the prescription of tree requirements for development applications. To establish criteria for the donation of trees for use in non-designated public open space. To establish internal and external partnerships in the development of Forest Park in each Region of the City. To establish rules and practices relating to the protection, management and appropriate maintenance of the urban forest, while supporting applied research in the field. To step up information, publication and awareness initiatives with a view to involving everyone including citizens, municipal employees, institutional and association partners, large land owners, etc.
		involved in arboricultural activities and land-use planning.
		Key Elements:
		The approach for implementing the Policy is based on:
8.	IMPLEMENTATION STRATEGY (GUIDING PRINCIPLES)	 Role: identifying the role of each street or designated public open space in the City's activities and assigning a street category so that all streets having similar roles share common themes in terms of street trees used. Design: determining the particular design parameters impacting on tree selection that are relevant for each street or park. Selection: having established the role of the street or park, and the particular design parameters for an individual street or park the most appropriate tree species will be selected. Consultation: the proposed species selected for a street or park must be conformed through public consultation. Registration: when the selected species has been confirmed, it will be entered on a Tree Master Plan or Tree Planting Register that will be available for public information. Planting: all planting will follow the species set down in the Register, which have been selected because they are in accord with the individual urban design requirements for the street. Maintenance: once established the street trees will be maintained to ensure the health and longevity. Where tree dies it will be replaced by a particular species listed in the Register for the street. Training: All relevant officers will be made aware of the policy and those concerned with its implementation will receive training and

the maintenance specifications as they apply to trees planted in parks and streets. Corporate Communication: a communication strategy to be developed so that officials, Councillors and communities are aware of the policy and how they might access it. The following measures or instruments shall be utilized in order to gauge progress and success of this policy: A long-term street and park trees master plan developed and implemented. Number of fruit and nut trees sourced and distributed. Number of Forest Parks developed annually. Number of quality tree seedlings propagated annually. Number of Disease Management Programmes implemented. Trees protected through the application of the "Preservation of Tree Order" and the policies and the By-Laws of CoJ. An increase in the size of the urban tree canopy in line with targets established through the Environmental Sector Plan. Trees selection and planting based on a ratio of 80% indigenous and 20% exotics (Number of indigenous and exotic trees planted annually). Comprehensive trees register in place and continually updated and mapped on GIS. Establish a Tree Planting and Maintenance Steering Committee to operate on the same basis as the Project Steering Committee. The Committee to be chaired by the General Manager for Urban Agriculture, Forestry and Nurseries. Fully operational tree nurseries and tree farm able to meet the planting needs of the various JCP regions, with a minimum installation size of 100l and 300mm stem girth. Encourage, empower active citizenry and stakeholder participation by the establishment of tree committees in each ward. Decline in stressed and dead trees; and also in number of tree complaints per ward per Region. Decline in the area of coverage of alien invasive trees. Twice per year conduct tree evaluation or audits exercises in CoJ to determine the health conditions of newly planted and old planted trees, compare and contrast tree statistics, determine the impact of newly planted and old trees through tree census and carbon sequestration programmes. A predetermined or 95% tree survival rate achieved on newly planted trees. Decline in power outages due to trees under power lines. Agreed upon tress preventative: reactive maintenance tactics applied using the Asset Management System of JCPZ. Response and turnaround times on various tree maintenance and emergencies achieved. Communities consulted on newly and established tree removals, pruning and planting activities. Identifying and entering tree planting competitions such as Arbour City Award. Increase in the number of tree entrepreneurship programmes through SMME and Cooperative development initiatives. Increase in the number of learnerships and internships trained through JCPZ Academy. Risks: A number of the City's street trees are reaching the end of their useful life cycle, for example trees planted in the Previously Advantaged Areas such as Sandton, Rosebank, Houghton, etc. **INTERNAL CONTROLS, RISKS** 9. JCPZ will monitor the health of these trees and replace them **AND GUIDELINES** accordingly. A strategic programme of tree replacement will be

developed in 2014.

Request for street trees are received from residents and these will

Reinforce existing street tree planting by infilling or inter-planting

be considered in relation to any street planting proposals.

- where possible and replacing poor specimen. Most of the trees planted in the Previously Advantaged Areas are pre-dominantly exotic trees; therefore replacing them with indigenous trees will create a short urban canopy and have in impact in the man-made urban forest.
- Use of municipal water to water the trees. JCPZ to make an application to the Department of Water Affairs to be granted a permission to withdraw water from the rivers.
- Monoculture planting practices as in the past five years the only tree species that have been planted are Celtis spp, Combretum spp, Searsia spp. etc. A variety of tree species should be introduced to minimize the risks of one tree species being wiped out by diseases such mealy bug infestations, etc.
- Tree Planting Master Plans or Registers are not supported or accompanied by sketch plans or lay-out plans.
- Inability of the nurseries to propagate and produce the required tree species and their specification.
- Inability to achieve the mission, vision, goals, outcomes and benefits in relation to tree planting in streets and parks.
- Loss of trees due fraud and vandalism of trees planted in street and parks.
- Damages and loss of trees due to service delivery protests and vehicles.
- Non-maintenance of newly planted trees due to lack of resources such as water-tankers, staff, etc.
- Lack of arboricutural skills, knowledge and capabilities in the organisation. Trees not maintained in accordance to the best arboricultural practices.
- Tree maintenance contractors not having the relevant arboricultural expertise, experience and qualifications.
- Damage to trees due to veld-fires.
- Tree or arboricultural maintenance not receiving the same attention as grass cutting or horticultural maintenance. Horticultural maintenance to be synchronized with arboricultural maintenance.
- Incorrect tree species selection and planting in Regions.
- Planting of poisonous or declared invader trees such as Ligustrum licudum trees planted in Thokoza Park in Soweto to celebrate the Madiba's 90th birthday.
- Tree Planting Register not updated regularly and trees not mapped out in the GIS system.
- Third Party Claims due to property damages caused by falling trees and tree roots.
- Tree planting by other municipal entities without informing JCPZ.
- Removal or felling of trees illegally by residents without logging a call through the City' Call Centre.
- Urban Management Inspectors not recognizing the values and benefits on trees in streets. Always chasing targets on logged calls especially on trees.
- Communities not consulted on future tree planting programmes in their wards.
- Damages of trees by Traditional Healers for traditional medicines.
- No Disease Management Programme in place to treat infested or sick trees in parks and street trees.

Internal Controls:

The following measures or instruments shall be utilized in order to manage, gauge progress and success of trees planted:

- ACC Asset Management System (i.e. Pro-active tree maintenance).
- Tree Complaints Management System (Track and Trace System).
- Introduction of bar-code or chip system to track trees when they leave the nurseries to be planted in parks or streets.
- Tree audits and tree verification exercises conducted by the Internal Auditors and Internal Service Monitoring.
- Tree Oversight Management System (i.e. Oversight Tours).
- Tree Planting and Maintenance Steering Committee.
- Stakeholder Management.
- Hire two qualified Arboriculturists for both the North and South

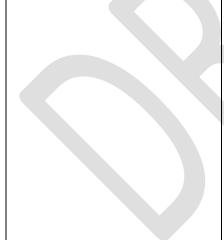


quadrants.

- Mapping of trees on GIS System.
- Annual Tree Census and Carbon Sequestration Programme.
- External Audits by Tree Specialists.
- Performance Management System (Manage By Objective and Walking Around)

Tree Planting Guidelines:

- When considering design principles thought must be given to the aesthetics and cultural character of the areas. Considerations should be width of the sidewalk, access requirements, and quantity of pedestrian and vehicular traffic.
- Placement of trees should be determined in relation to underground and overhead services such as gas pipes, Telkom lines, etc.; adjacent land uses, and other significant features, views, buildings and drive-way entrances, street and pedestrian lighting, existing street character, ensure safe vehicular and pedestrian movements, and street trees should be located in footpaths at least 1800mm in width and at least 600mm in from the kerb. Planting distance will be determined by the species selected. Tree planting in sidewalks or main arterials should be in liaison with other municipal entities and government departments (i.e. tree planting in Provincial Roads).
- The regulations under Section 29 of Conservation of Agricultural Resources Act 1983 (Act No. 43 of 1983) will be adhered to (i.e. plants declared as weeds may not all be planted, while the others that have been declared as invaders must be controlled).
- On request from private and public institutions such as schools, churches, etc.; and Community Greening Projects, trees may be donated in according to the policy on donation.
- Tree species will be selected for planting depending on their suitability for site, their growth performance and maintenance requirements, and their potential to contribute to the overall landscape or designs. Specie selection will be used to reinforce the street identity and promote ecological diversity. The criteria for selection of trees to be planted in parks and street trees includes the ability to:
 - Tolerate harsh growing conditions including drought, heat, poor aeration and drainage.
 - Have a rooting system that is unlikely to lift the kerbs and driveways.
 - Does not have leaves, fruits and seeds that is likely to create hazard and is not toxic to humans.
 - Tolerates pruning to attain the required clearances whilst maintaining a good structure and form.
 - Trees sizes that provide an immediate visual impact.
 - o High tolerance to root damage and disturbance.
- Public consultation on the proposed species of tree for a particular street or park, tree removals, tree planting, pest and disease management will be undertaken as required by the JCPZ's Communication and Consultation Policy. All proposed changes to established species in streets will be conveyed to all Councillors together with reasons for the proposed change before proceeding with public consultations.
- A register will be maintained of the species selected for each street or park. The information will be readily available to the public.
- Each new planting or replacement tree will be provided with optimum planting conditions in the form of a Tree Planting Manual which will be developed and implemented in 2014.
- Maintenance of trees
 - Regular audits will be undertaken of all trees planted in parks and streets. The information collated will be kept within the current asset management system.
 - Daily, monthly and quarterly maintenance programmes will be developed reflecting on the requirements of street trees
 - Pruning of trees will be in accordance with the best aborticultural maintenance standards.
 - Regularly bench-marking of tree maintenance standards to ensure they reflect World's Best Practices will be undertaken.



		 Dead or unsafe trees will be removed and replaced as soon as possible depending on the availability of tree species stocks at the nurseries and also on budget availability. Poor performing trees will be removed and replaced as soon as possible depending on the availability of tree species stocks at the nurseries and also on budget availability. Research into biological pest and diseases that threaten urban trees will be monitored and information provided to the Research Department within JCPZ. World's Best Practice will be incorporated into the all work practices to assist in controlling the spread of these agents. A tree management plan will be developed. This plan is to include existing and currently approved tree varieties designated in the Tree Planting Master Plan or Register for each street or park, locations planted and procedures relating to replacement planting, tree removal, tree procurement, planting, maintenance and pruning (formative and maintenance). New Development and Way-Leave Applications Trees will be protected from developments and other activities that threaten their removal or health. JCPZ will always give existing trees priority when considering applications for new developments. OSIM Department will ensure provide guidance to this process. Stringent procedural guidelines will be provided and enforced to protect and preserve trees, for any event or development close to trees. Investigate means of obtaining compensation for trees lost or damaged due to developments Tree Propagation Reports Tree Propagation Reports
10.	MONITORING AND EVALUATION	 Tree Propagation Reports. Daily, weekly, monthly and quarterly tree planting reports. Project Management tools and techniques (Pro-active tree maintenance Gantt Charts). Plan – Do – Check Approach. External and Internal Audit Reports. Internal Service Monitoring Reports. Urban Forestry and Nurseries Reports. Tree Census Reports. Carbon Sequestration Reports. Weekly, Monthly and Quarterly Meetings. Oversight Reports and Presentations. Performance Management Information and Pre-Determined Objectives. Feedback Reports from the Regional Service Delivery Forums and Reports (Regional Directors).
11.	SCOPE AND APPLICATION	This policy applies to all managers, staff and all activities in relation to trees in designated public open spaces, including parks, streets and private areas through development applications.
12.	GOVERNING & REPORTING	Accountability: The Managing Director, as the Accounting Officer of JCPZ, is the principal custodian of the organization's resources and asset; in this case the CoJ trees under management of JCPZ; shall be responsible for ensuring this policy as adhered to. Responsible: The Executive for Operations through the General Manager for Urban
		Agriculture, Forestry and Nurseries shall be responsible for approving and communicating appropriate procedures and guidelines for the implementation of this policy, including but not limited to:

- Trees protection, preservation, replacement and removal.
- Trees planting and selection.
- Trees procurement and propagation.
- Trees asset management.
- Community consultation, training and awareness.
- Trees stipulation through development applications; and
- Trees management processes incorporating JCPZ regions.

Coordination:

Department of Urban Agriculture, Forestry and Nurseries is responsible for the development and coordination of the applicable procedures and processes, as well as for the procurement and propagation of trees and the overall trees strategy development.

Management:

- Department of Parks and Street Trees through Regional Managers are responsible for the implementation of all planting, maintenance, replacement, protection and management of trees processes and procedures.
- Department of Cemeteries and Crematoria through Cemetery Managers are responsible for the implementation of all planting, maintenance, replacement, protection and management of trees processes and procedures.
- Department of Environmental and Conservation through its Managers is responsible for the implementation of all planting, maintenance, replacement, protection and management of trees processes and procedures

Asset Recording:

The Asset Care Centre (ACC) is responsible for ensuring the application of all trees asset management procedures and processes via the Computerized Asset Management System, as well as through the use of the Geographic Information System (GIS).

The ACC will manage and report on the Tree Register.

Monitoring:

The Service Monitoring Unit will conduct regular inspections of the urban canopy, particularly on the survival rate of newly planted trees and the conditions of mature trees.

- National Forest Act of 98.
- · Society of Municipal Aborists documents.
- Municipal Financial Management Act (No.56 of 2003).
- National Environmental Management Act (No. 107 of 1983).
- Heritage Resource Act.
- South African Heritage and Resources Agency.
- City of Johannesburg By-Laws and Policies.
- Johannesburg Metropolitan Open Space System (JMOSS).
- The Constitution of the Republic of South Africa, 1996. Chapter 2: Bill of Rights.
- Water Services Act (No. 108 of 1997).
- Environmental Conservation Act (No. 73 of 1989).
- Forest Act (No. 84 of 1998).
- Conservation of Agricultural Resource Act (No. 107 of 1983).
- Land Use Planning Ordinance (No. 15 of 1985).
- Urban Forestry
- Environmental Sector Plan.
 - 2040 Growth and Development Strategy (including 5 Mayoral

13. | RELATED DOCUMENTS

17.	POLICY OWNER(S)	
10.	APPROVAL AND REVIEW DATES	This policy will be reviewed annually by end of March
16.	CONCLUSION:	The Tree Planting Policy be approved for implementation at Johannesburg City Parks and Zoo (JCPZ)
15.	APPROVAL	The Board of Directors maintains an oversight and support role in respect of the implementation of this policy.
14.	APPENDICES	3 Year Tree Planting Programme.
		 2030 National Development Plan. Urban Agriculture Plan. Corridor Development Plan. Non-Motorized Transport Plan. Johannesburg City Parks' Tree Management Policy. City of Cape Town's Tree Planting Policy. City of Beaverton's Tree Planting and Maintenance Policy. City of Adelaide's Street Tree Planting Policy. City of London's Street Tree Planting Policy.
		Flagship Programmes). • 5 Year Strategic Management Plan for JCPZ.