

Parks & Gardens - *Sustainable Management*

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Introduction

Traditionally, the multi-discipline activities of local government have been undertaken as a conglomerate of individual units, with little consultation between departments, divisions and work teams. Quite often, the achievements of one department have been compromised by subsequent work of another team.

The introduction of multi-skilling, corporatisation and communication technology has improved this scenario in recent years, but there is still room for improvement. The channels of communication through tiered departmental structures are quite effective, however, there is a need to improve the lateral communications at all levels of local government.

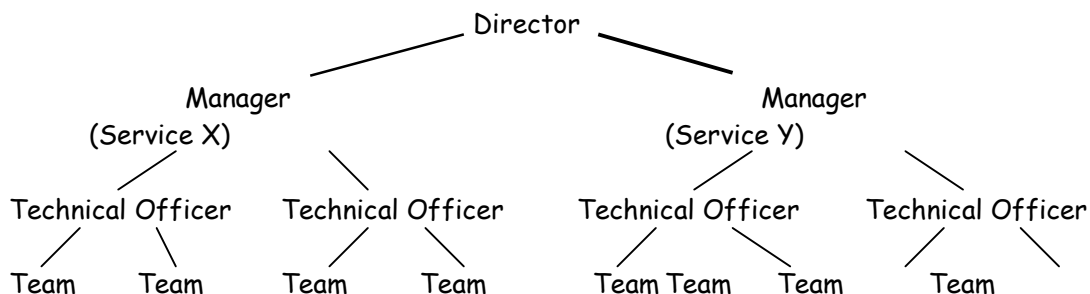
The purpose of this paper is to promote lateral communications and to discuss low maintenance strategies that will assist teams in achieving work targets and quality assurance programs.

1) Promoting Lateral Communication

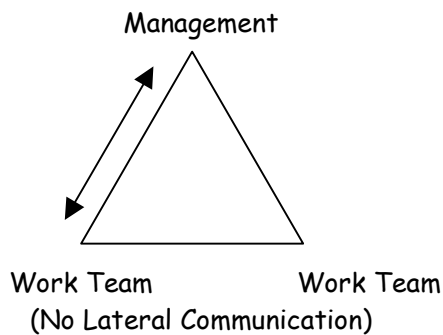
Organisational Structures - Tiered Departmental Structure

(Product / Service Based)

Most local government organizations have some form of tiered departmental structure with 3 – 4 levels of management.



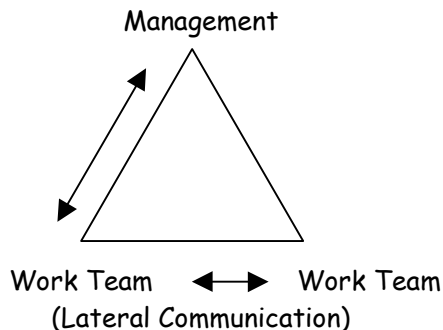
- **Lines of Communication**



The main emphasis on communications being in two directions, up and down.

- There is often a lack of communication between work teams
- Achievements of one department are often compromised by subsequent work of another team

- **Lateral Communication**



By promoting lateral communication at each level of the organisation:

- Work Teams can share information on proposed work schedules
- Work Schedules can be coordinated to compliment each other
- Conflict / problems can be resolved by planning solutions
- Job satisfaction can be enhanced
- Organisational goals can be achieved efficiently

Vehicles for Effective Communication

- Regular Meetings (Each level of the organisation to discuss proposed works)
- Distribution of Works Schedules
- Communication Technology (mobile phones, e-mail, 2-way radios)

- Social gatherings can also promote lateral communications by removing the 'meeting atmosphere' and opening up communication channels.

The main idea of lateral communication is to talk openly and consider other work teams and how efficient work goals can be achieved together.

2) Low Maintenance Strategies

Urban Tree Maintenance

- **Quantity V's Quality**

Each year, local government authorities undertake extensive tree planting programs with assistance from community groups:

- Planet Ark
- World Environment Day
- Landcare
- Rivercare
- Adopt-a-Road / Park
- Environment Grants
- Streetscape Planting
- Parks & Gardens

While these programs are responsible for planting thousands of trees to help the environment, often these trees are left to fend for themselves, with no after-care.

This can result in:

- A high percentage of loss
- Generally poor quality trees
- Multiple stems or trunks
- Poor quality root systems
- Disease
- Injury from tree ties and other foreign objects
- High maintenance costs in the long term
- Unsightly streetscapes
- Liability claims

- **Plant Establishment**

Urban trees have special requirements to ensure that they grow into healthy specimens. In the first few years of tree establishment, staff should conduct regular maintenance inspections to nurture the trees:

- Selection of quality plants essential. Plants should be inspected for inferior root systems, general health and good form

- Care should be taken when planting to ensure the trees have the best start possible
- Regular water supply in the first years is an essential requirement, however, too much water can render the trees water dependent
- Mulching around the root zone will assist with moisture retention and suppression of weeds
- Tree stakes should only be used to offer protection. Trees should not be tied to the stakes, but allowed to move in the wind to strengthen the trunk
- Tree guards offer protection from animals, weeds, act as markers and assist with moisture retention
- Formative pruning may be required at an early age to maintain good form, including a single trunk. This can become an expensive maintenance exercise if left for 10 – 20 years (exercise – estimate the cost of correcting multiple trunks on a small tree using secateurs. Then estimate the cost of removing multiple trunks on a mature tree 40 metres tall. Which is most cost effective?)

- **Long Term Aftercare**

Following the establishment period of the trees, they will require occasional inspection to ensure that their health is maintained and potential safety hazards are rectified:

- Under-logging of lower branches above head height for pedestrians
- Directional pruning of canopies above traffic height
- Removal of tree stakes and ties
- Cutting of tree grates to prevent trunk damage
- Control of pests and diseases
- Installation of guards to protect from cars
- Pruning to remove cross-over branches

Next time you are driving on a long trip, take note of the number of problems with urban trees that could easily have been, or still can be corrected with some simple maintenance. Encourage your staff to report these simple faults, to reduce our maintenance costs and protect our urban tree cover.

Urban Weed Maintenance

- **Use of Glyphosate Herbicide**

For over two decades, glyphosate herbicide has been widely used for vegetation control in urban areas.

The use of glyphosate is:

- Economical
- Has a relatively low toxicity
- Provides adequate maintenance intervals

Repeated use of glyphosate over several years can reduce the effectiveness of vegetation maintenance programs:

- Resistance may develop (this has occurred in some ryegrass species)
- Selection for broadleaf plant species can occur
- Urban landscapes can become unsightly

- **Developing a Vegetation Maintenance Program**

- Ensure that all staff are qualified to use pesticides
- Pesticides Rotation - using pesticides from different chemical groups to avoid resistance and selection problems.
- Use a combination of cultural and chemical maintenance methods
- A single species of grass is easier to maintain

After several applications of glyphosate, grass species such as couch, kikuyu and buffalo cannot re-establish in the sprayed area as quickly as broadleaf weeds. By using a broadleaf herbicide for several applications, the seed bank of broadleaf weeds will be depleted.

- Grass species will gradually grow back without the broadleaf weeds
- The area can be easily maintained with mowers and brushcutters for some time.
- When the cultural methods become uneconomical, the glyphosate cycle can commence.

- **Park / Sporting Field Maintenance**

In large lawn areas such as parks and sports fields, a single grass species is desirable:

- Mowing cycles can be extended – more economical
- The aesthetics of the area will be enhanced
- Insect problems such as bees on clover flowers can be avoided
- Liability claims can be reduced (slipping on clover)

It can be difficult to maintain a single grass species in large areas, particularly if sports fields are on a flood plain where foreign seeds are imported regularly.

- Keeping the grass healthy with regular irrigation and correct fertiliser application can prevent weed growth by choking them out
- Mow the fields regularly and as low as possible to reduce seed set on weeds
- Inspect fields / parks regularly for germinating weeds and assess the need to use chemical control
- Apply a broadleaf chemical when weed populations warrant removal and time the application for maximum effect (rosette stage)

By implementing the above methods, recording results and continually monitoring the weed situation, single grass species can be maintained.