In 2003 Pine Rivers Shire Council commissioned AEC Group Ltd to conduct a review of its **fleet services**.

A number of recommendations were identified including the need to appoint an experienced Fleet Manager.

The recommendation to appoint a Fleet Manager was achieved in January 2004.
Opportunity for Improvement

Three main areas were identified as Opportunities for Improvement

- Fleet Management
- Workshop & Maintenance
- Small Equipment Management
Fleet Management Challenges

Fleet Management Deficiencies Identified

- Acquisition and disposal methods were antiquated and ineffective.
- There was no life cycle cost analysis and replacement of fleet was ad hoc.
- Poor consultation & specification development resulted in new vehicles not meeting operational needs.
- Limited Asset Management.
- Plant was over depreciated and under utilised with inaccurate cost recovery.
- No useable data was collected for the management of the fleet.
- Fleet was often used in wrong applications causing failure and downtime.
- The chart of accounts was complexed & hard for staff to follow.
Workshop and Maintenance Challenges

Workshop & Maintenance Deficiencies Identified

- 95% of workshop maintenance was reactive.
- No process in place for workshop operations.
- The costing out of repairs was not completed.
- Job sheets had not been implemented.
- Reporting of previous work carried out was poor.
- Staff had limited training, a ‘blame’ culture existed and poor customer service provided.
- There were “No Controls” on external service providers.
Small Mechanical Equipment Deficiencies Identified.

- Operational staff revealed a dissatisfaction with small plant and equipment due to regular failure and break down.
- Council owned over three (3) times the quantity of small plant that it thought it had (EST 200 actual 670).
- 90% of small plant was rated poor and past the optimum retainment period.
- No controls on makes or models or who could purchase equipment.
- No preventive maintenance & major repairs conducted on equipment that was worthless.
- There was a need to retain additional stocks to cover “downtime”.
- No training provided, operators or trade staff.
Where to Start?
Developed an action plan including:

- The purchase of **Fleet Management software** to assist with the management and maintenance of Council’s Fleet of vehicles, plant and equipment.

- Completion of a **Business Plan**.

- Implement a quality Scheduled **Preventive Maintenance** System

- Improved **communication mediums** including one point of contact, newsletter, customer surveys, customer discussions.

- **Benchmark** ourselves against other local authorities. Local Fleet (Connell Wagner)

- Reviewed **internal hire rate** calculations, analyse utilisation

- Investigated and reported upon every instance of **plant failure**.
Fleet Business Plan

‘The Business Plan needs to be **strategic** and include **long & short term goals** with strong focus on **customers & industry** Fleet Management **principals**.’
Pine Fleet Vision

‘To manage the provision of fleet, plant and equipment for Council in an innovative and cost effective manner’. 
Fleet Management Achievements

- Implemented a ten (10) year capital replacement program based on optimum retention periods for each type of plant.

- Developed a process for acquisition and disposal of plant and equipment ensuring full consultation with customers, including Supervisors, Drivers, WHSO, and Fleet Maintenance staff.

- Strengthened the specification and tender evaluation process.

- Meet with customers regularly to listen to issues and needs.

- Liaised with Finance to rectify accounting deficiencies.

- Introduced annual rates for all fleet, plant and equipment.

- Identified low utilised plant and disposed if the “Business Case” did not justify ownership.

- Organisational restructure.
Workshop & Maintenance Achievements

- Implemented a Quality Scheduled Preventive Maintenance system.
- Implement Job Sheets and costing out of repairs.
- Implemented Defect reporting and a process for fault rectification.
- Implement Pre Trip Inspection / Daily Maintenance system.
- Failure Investigation reporting for all reactive maintenance (why did it fail?).
- Reduced outsourcing and Trained Internal staff.
- Improved Communication with customers by creating mechanisms to obtain regular, reliable feedback about our performance and their needs.
- Reviewed & strengthened Procurement processes.
- Changed the culture of Pine Fleet to one of ‘Customer Relationships’ rather than a ‘Blame Culture’.
Small Equipment Achievements

✓ Implemented a **Small Equipment Hire Service**.

✓ Developed an Asset Management Strategy to register asset numbers, locations and responsible officers.

✓ Implemented a needs analysis. (kit for each team)

✓ Implemented a replacement program managed by Pine Fleet.

✓ Disposed of all “C” class items.

✓ Purchased new equipment in consultation with customers.

✓ Limited purchases to only two (2) brands of small equipment.

✓ Implemented scheduled maintenance system.

✓ Reduced quantity from 670 to 440. This trend is continuing.
Current Situation

- **Budget reduction of $550,000, 1st 12 months**
- **Customer Satisfaction**
- **Reactive V Scheduled at 70% Scheduled / 30% Reactive.** The underlying objective of Pine Fleet is to move towards a position where the majority of maintenance is “plan driven”.
- **Steep Decline in Downtime.**
- **Systems and processes for all operations**
Annual Customer Survey 2007

Small Equipment
- Very Satisfied
- Satisfied
- Adequate
- Needs some improvement
- Needs a lot of improvement

Heavy Vehicles
- Very Satisfied
- Satisfied
- Adequate
- Needs some improvement
- Needs a lot of improvement

Passenger Vehicles
- Very Satisfied
- Satisfied
- Adequate
- Needs some improvement
- Needs a lot of improvement
Key Factors To Success

- Strategic and Operational Support from Management.
- A Business Plan that provides direction.
- Empowered staff.
- Effective communication, get out amongst it, liaise at all levels, **LISTEN**
- Do the easy things first to “get runs on the board”.
- Use IPWEA Fleet Systems Plus Manual as a Guide / Service Delivery model
- Effective Process mapping, reporting and analysis, ‘If you can’t measure it you can’t manage it!’
Process Mapping

Reporting
Optimal Replacement
Servicing
Reactive v Scheduled
Downtime
Plant Failures
Fault rectification process

Vehicle/Plant

Fault Identified by Operator

Fill in defect book

Report fault to Fleet Coordinator

Pine Fleet inspect vehicle and determine remedial action needed.

Immediate Action Required?

Yes

Mechanic carries out repair.

No

Pine Fleet advises Field Operations Co-coordinator expected downtime.

Vehicle booked in and job card allocated.

Mechanic carries out repair.

Advise Field Operations Co-coordinator

Complete Documentation. Vehicle returned to field.

Road Test
Percentage of serviced vehicles during the month

2006 Progressive FLEET Maintenance Percentage Of Vehicle Services For Pine Fleet

- Jul-06: 93%
- Aug-06: 99%
- Sep-06: 95%
- Oct-06: 88%
- Nov-06: 94%
- Dec-06: 90%
- Jan-07: 91%
- Feb-07: 90%
- Mar-07: 87%
- Apr-07: 93%
- May-07: 96%
- Jun-07: 92%
- Jul-07: 87%
- Aug-07: 90%
- Sep-07: 91%
Reactive V Scheduled

![Reactive vs Schedule 05 Progressive Graph]

- **Month**:
  - Apr-05
  - May-05
  - Jun-05
  - Jul-05
  - Aug-05
  - Sep-05
  - Oct-05
  - Nov-05
  - Dec-05
  - Jan-06
  - Feb-06
  - Mar-06
  - Apr-06
  - May-06
  - Jun-06
  - Jul-06
  - Aug-06
  - Sep-06
  - Oct-06
  - Nov-06
  - Dec-06
  - Jan-07
  - Feb-07
  - Mar-07

- **Hours**:
  - 0%
  - 10%
  - 20%
  - 30%
  - 40%
  - 50%
  - 60%
  - 70%
  - 80%
  - 90%
  - 100%

- **Legend**:
  - Reactive
  - Scheduled
Annualized Reactive v Scheduled

- Reactive: 30%
- Scheduled: 70%
Downtime for Pine Fleet
Plant Failures Under Investigation For Pine Fleet

FAILURES TOTAL 05 PROGRESSIVE

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Series1
Linear (Series1)
2006/07 Failures

05 PROGRESSIVE PLANT FAILURES

- Lack of daily maintenance
- Mechanical workshop error
- Lack of schedule maintenance
- Vehicle age
- Operator training
- Vehicle design fault
- Used in wrong application
- Driver error unfair wear & tear
Service Private Firms

Service Private Firms

Service Private Firms Budget 04/05
Service Private Firms Actuals 04/05
Service Private Firms Actuals 03/04
2 per. Mov. Avg. (Service Private Firms Actuals 04/05)
Mechanics

Mechanics Budget 04/05
Mechanics Actuals 04/05
Mechanics Actuals 03/04
2 per. Mov. Avg. (Mechanics Actuals 04/05)
Control Totals

Control Totals

- Total Control Budget 04/05
- Total Control Actuals To Date
- Actuals 03/04
- 2 per. Mov. Avg. (Total Control Actuals To Date)
Case Study

Track Loader (Bulldozer) track assembly
Failure Reporting Case Study

Track Loader (Bulldozer) track assembly requires premature refurbishment. Cost $35,000. Why…

The Failure Investigation Identified

(1.) Bearings and bushes seized & severely warn
(2.) Lack of grease & adjustments.
(3.) It appeared there was a lack of regular maintenance.

Pine Fleet

(1.) Carried out an interview with operators.
(2.) Had operators inspect failed parts.
Failure Reporting Case Study

Findings

(1.) Operators had been conducting their Daily Maintenance however, had limited training.
(2.) They had been given a $25 grease gun to carry out the greasing on a $490,000 machine.
(3.) Grease used was cheap multi purpose (not suitable).

Recommendations

(1.) Arranged maintenance training for operators.
(2.) Purchased a quality mobile lubrication system.
(3.) Change grease to high quality heavy duty, high pressure and temperature, moly based grease.
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