

# From Spot-fires to Strategy

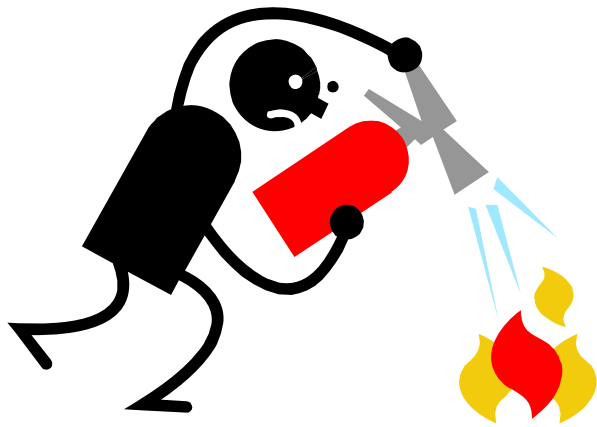
A better approach to Weed Management

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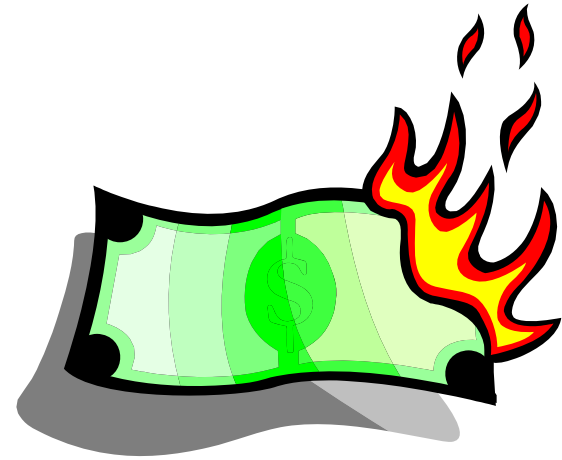


# Weed Management

– a common approach:



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“Spot-fire” control

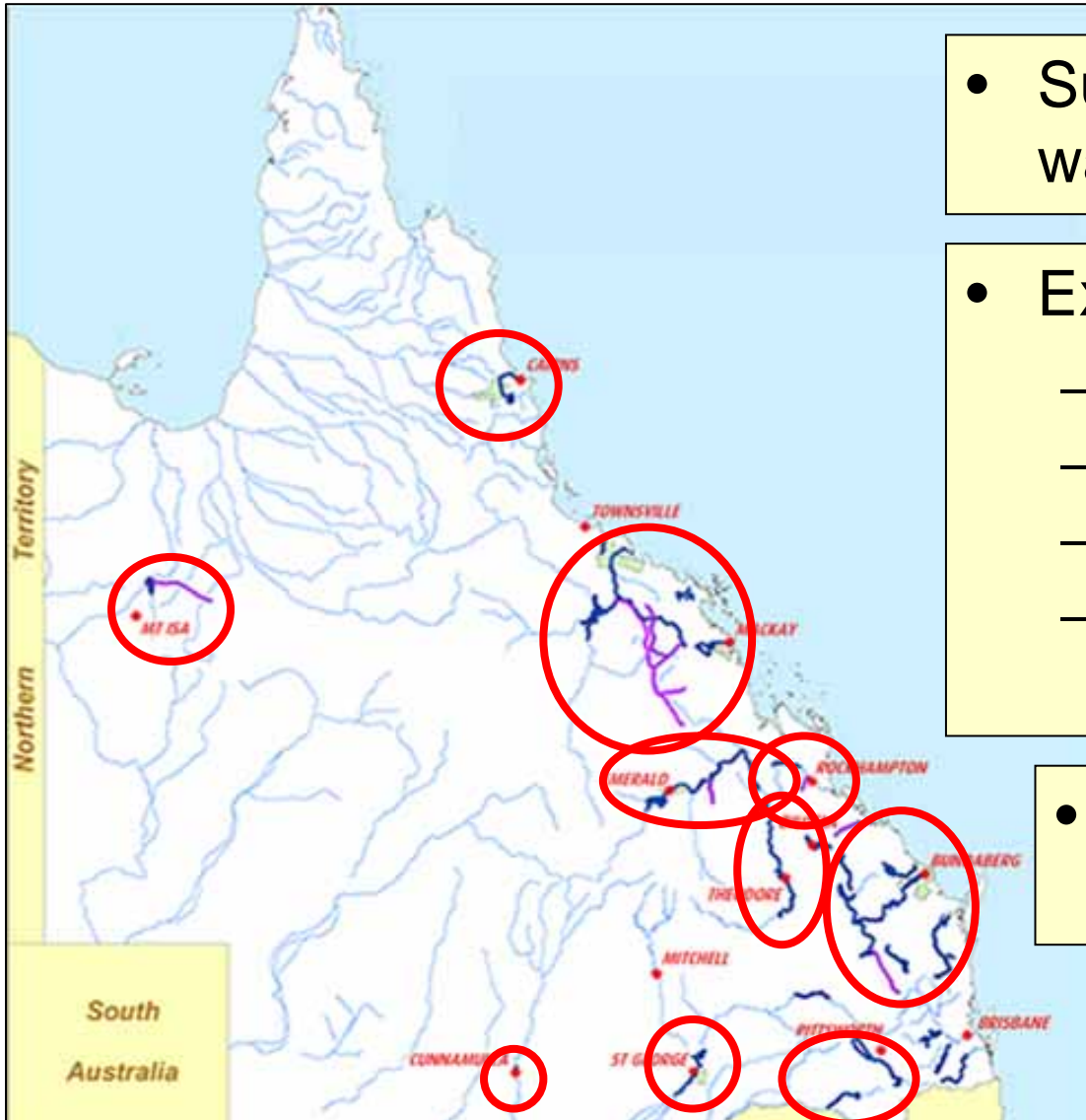
Wasted resources

# Strategic Weed Management:

- ✓ Better use of limited resources
- ✓ Meet legal responsibilities
- ✓ Better environmental outcomes



# SunWater Challenges:



- Supply and delivery of water throughout QLD
- Extensive infrastructure
  - 19 Dams,
  - 63 Weirs & Barrages,
  - 80 Pump Stations
  - 2500+ km Pipelines and Open Channels
- Vast tracts of land to manage with few staff



Water Delivery - Open channel



# Partnership:



- ① Develop Weed Management Plans for six (6) water supply schemes.

# 4-step Process:

1. Regional workshops
2. Prioritised weeds
3. Common Goal + 7 Strategies
4. Action Tables for each Strategy

# 1. Regional Workshops

- Field staff, supervisors, managers
- Discuss current issues
- Discuss treatment methods
- Prioritised weeds (**MATRIX**)
- Mapping

## 2. Prioritised Weeds:

	SCORE	ASSESSMENT FACTOR
A	30	Major Operational Weed
B	20	Medium Operational Weed
C	5	Minor Operational Weed
D	30	Class 1 weed
E	15	Class 2 weed
F	15	Class 3 weed (adjacent env. significant area)
G	30	Targeted for eradication under Council PMP
H	5	Poses immediate risk to a vulnerable environment ( <i>ecological, economic, social</i> )
I	10	Significant public pressure for control
J	10	Small infestation, easily controllable ( <i>and/or isolated from main infestation</i> ).
K	10	High risk of spread due to mechanical slashing, vehicular travel.
L	5	No known infestation occurring upstream ( <i>Aquatic only</i> )
M	10	Potential for inter-catchment transfer into presently 'clean' system ( <i>Aquatic only</i> )

- Fixed score assigned to each Assessment Factor

# Weed Prioritisation Matrix:

WEED SPECIES	A	B	C	D	E	F	G	H	I	J	K	L	M	SCORE
Chinee Apple			X		X									20
Parkinsonia			X		X									20
Rubber vine			X		X									20
Prickly Acacia			X		X		X	X						55
Bellyache Bush			X		X					X				30
Lantana			X				X			X				45
Snake Vine					X									15
Native Regrowth		X												20
Hymenachne	X				X			X	X					60
Water Hyacinth		X			X			X	X	X				60
Salvinia		X			X			X	X					50
Navua Sedge		X						X	X					35

## RESULT =

- List of weeds objectively ranked in order of priority
- Can be applied at different spatial scales  
(eg. weed species OR infestations)

# 3. Common Goal + 7 Strategies:

**To effectively manage and reduce the impacts of weeds on the economic, social and environmental values of areas managed by SunWater, within the boundaries of each Water Supply Scheme.**

1. Target/control high priority weeds; reduce/contain lower priority weeds.
2. Identify, map, report and monitor infestations.
3. Minimise spread of existing weeds; prevent introduction of new weeds.
4. Increase customer and adjacent landholder awareness; encourage coordinated approach to pest management;
5. Best practice pest management whilst minimising risk of adverse environmental impacts.
6. Encourage and support local government/catchment group activities.
7. Annually monitor and review the Weed Management Plan.

**→ ACTION TABLES for each Strategy (Who / What / When?)**



- Assessment Factors (consistent & objective) = a tangible structure against which weed management issues can be more readily assessed.
- **Workshops**
  - enabled staff to share their extensive knowledge and experience,
  - shared new ideas, treatment methods and approaches to weed management not possible when using a spot-fire control approach by individual teams.
  - Provided SunWater with the opportunity to gain a better understanding of current weed distribution, identify additional stakeholders and collaborative opportunities and recognise and document existing staff knowledge and local achievements.
- Weed Prioritisation Matrix = valuable process for deconstructing the problem into smaller surmountable challenges and enabled a more strategic approach to be applied, thus ensuring efforts are targeted toward critical weed species (i.e. most 'bang for buck').
- WMPs provide staff and management with a reference document outlining agreed actions to meet obligations under the *Land Protection (Pest and Stock Route Management) Act 2002*.
- Whilst SunWater recognises the long-term outcomes of this project are yet to be seen, early indications are that SunWater will be able to make better use of limited resources whilst meeting the company's legal obligations and achieving better outcomes for the environment.

# Achievements:

- Common Goal + 7 Key Strategies.
- Re-directing resources to highest priorities.
- Better understanding of weed distribution.
- Improved practices for minimising spread.
- Training needs identified.
- Improved communication with customers / adjacent landholders.
- Exploration of new/alternative treatment methods.
- Opportunities for partnership / collaboration.
- Monitoring of progress.
- Recognition and documentation of staff knowledge, local achievements
- Outlines SunWater's plan of action to manage Declared Pests

# Challenges:

- Early days yet
- Putting plans into practice
- New ways of doing things

# Weed Management Planning:

- ★ *Is there a more effective and sustainable way of managing weeds?*
- ★ *Recognise and Harness existing knowledge.*

# IMPROVEMENTS/ADVICE:

- Be more clear from the start on how this information will benefit them / what you want them to do with it.
- Eg. This is what we've done – obviously not the first ones to go through this process (eg. councils, council consultant) but this has worked for us.
- Feel free to use or modify the matrix tool to suit your own situation, or find a completely different way – just do whatever you need to do to ensure you get the best possible outcome with the resources at hand.
- The field of weed management (or the environment for that matter) is one that is easy for us to feel overwhelmed with the magnitude of what still needs to be done. The important thing we need to remember is to do the best we can with whatever resources we have. By taking a strategic approach towards our weed management activities, we can achieve this.