Journey to GFP

- We have spent time figuring out what we believe is the best approach for farmers to make changes on-farm,

- Worked with industry to trial original methods (Schedule 1) and found some fatal flaws including over-precriptiveness, lack of flexibility, “point-source solution to diffuse pollution”,

- From these activities believe that farmers need the first 10 years to learn, adjust and implement the ‘best’ actions on-farm (for them),

- Noting of a much longer journey for all, this being the very first step that a lot of rural community have consciously made towards protecting water quality

Good Farming Principle's

- After our work, we believe that GFP's alleviate a lot of our concerns.

Following presentation will;

- Give examples of what we might see on-farm today
- Provide examples of what we would like to see improved through this process
- Examples of the conversation we think would occur
- How this links with the initial review (12months later)

Objective 4: To minimise losses of sediment, microbial pathogens, phosphorus and nitrogen to waterways.

Principle 10: Locate and manage farm tracks, gateways, water troughs, self-feeding areas, stock camps, wallows and other sources of run-off to minimise risks to water quality.

- Conversation: Practice already good on lower parts of race. How are risks reduced on slopes? What practices could be used on these parts? What sort of maintenance is appropriate to ensure ongoing effectiveness?
- Potential actions:
  - Install cut-offs directing water away from race into paddocks at 7m spacing on slopes and 15m spacing on flats
  - Contour and camber tracks to divert water (and contaminants) away from waterways
  - Plant downhill slopes/buffer areas to increase stability of tracks and filter contaminants from water
  - Install soakage points/sediment traps in paddock especially near low points or entrances to stock crossings

Initial Review (12 months after FEP/consent)

Expect to see	Not expect/conversation prompts
Cut-off drains installed on slopes,	No cut-offs
Plans for fenced off/isolated filtering zones	Fencing not thought about or planned
Plan for ongoing maintenance of raceways	Raceways condition getting worse
Planning for planting where necessary (quotes, approaches to councils etc)	Evidence of sediment in waterways or ponding on races
Potential LOC: High-Medium	***Potential grading: Medium to Low***

Next audit scheduled from this: 2-3 years

Next audit scheduled from this: 1 year- 6 months

Objective 6: To minimise contaminant losses to waterways from soil disturbance and erosion.
Principle 13: Manage or retire erosion-prone land to minimise soil losses through appropriate measures and practices.

- Conversation: Potential for erosion increased with track placement. How are these slopes used? During what time of the year? Frequency of usage? Impact of system if track isn't used (or cannot be used).
- Potential actions:
  - Establish poplar poles on erosion prone soils (in this case, the whole slope)
  - Avoid grazing heavy stock (above 250kgLW) on these slopes
  - Graze only lighter stock (below 250kgLW) in summer months
  - Consider retirement of unproductive and actively eroding soils
  - Consider retirement/dis-use of track for moving stock or heavy machinery

Initial Review (12 months after FEP/consent)

Expect to see	Not expect
Planting or protection of hillslopes	Stock to be present on or around slopes
Retirement of raceway and potential short-term retirement of slopes below raceways (proven by rank grass, lack of obvious stock movement)	Vehicular access to be maintained
Alternative routes established	Hard structures being put in place to ‘stop’ slipping
Plan or evidence of stock being grazed on slopes above raceway during certain times of the year	No action to be taken
Consider water controls from track	
Potential LOC: High-Medium	***Potential grading: Medium to Low***

Next audit scheduled from this: 2-3 years

Next audit scheduled from this: 1 year- 6 months

Objective 5: To exclude stock from waterbodies and minimise stock damage to the beds and margins of wetlands and riparian areas.

Principle 11: Exclude stock from waterbodies to the extent that it is compatible with land form, stock class and stock intensity. Where exclusion is not possible, mitigate impacts on waterways.

- Conversation: Stock exclusion required under Schedule C of PC1 (bottom-line). Why are stock no currently excluded? Further questions include appropriateness of exclusion widths, pressure on sensitive stream-banks, mitigation options.
- Potential actions include;
  - Exclude cattle, horses, deer and pigs from waterbodies that continually contain surface water as defined in Schedule C
  - Ensure setback from waterways is appropriate for the slope,
  - Provide alternative stock water away from waterways,
  - During high risk periods i.e winter grazing, fawn weaning; actively manage stock to prevent slumping, pugging, or erosion within the margins of waterbodies
  - Planting of willows at 10m spacing (inside excluded area) to strengthen stream-banks and assist with soaking up water
  - Consider water controls and sediment filters to manage overland flow especially during winter

Initial Review (12 months after FEP/consent)

Expect to see	Not expect
Stock to be excluded (if only through temporary fencing)	Stock to still be able to access waterways
Willow poles to stabilise banks	Further or increase slumping or bank damage
Protection of wetter area through wider buffer margins	No stock water system
Planning for stock-water to be reticulated to points away from waterways	No plan/quotes/costings for stock water
Possibility to address tracking issues by building purpose-made raceways	
Potential LOC: High to Medium	***Potential grading: Medium to Low***

Next audit scheduled from this: 2-3 years

Next audit scheduled from this: 1 year- 6 months

Objective 6: To minimise contaminant losses to waterways from soil disturbance and erosion.

Principle 14: Select appropriate paddocks for growing crops and intensive grazing, recognising and mitigating possible nitrogen and phosphorus, faecal, and sediment loss from critical source areas.

- Conversation: Acknowledging the already present ‘buffer” and cultivation, still need to address the need for larger buffers or potentially changing of cultivation practices. Use of vegetated buffers/headlands. Return to paddock for cultivation? Cover crops/use after harvest?
- Potential actions include:
  - Plant deep rooted species of crops or pasture,
  - Cultivate along the paddock contour
  - Utilise appropriate vegetated cultivation setbacks for the slope
  - Establish autumn pastures/crops early
  - Reduce soil cultivation by appropriate establishment methods minimum/zero tillage
  - Use cover crops to minimise periods of bare soil
  - Avoid cultivation of overland flow paths

Initial Review (12 months after FEP/consent)

Expect to see	Not expect
Wider buffer margins in-line with cultivation setbacks	Cultivation setbacks narrow
Detainment/sediment traps	No sediment traps present
Plan in place for maintenance of structures	No plan to manage fallow periods
Rotational information, what is grown, when, for how long	
Cover crops in post harvest?	
Potential LOC: High to Medium	***Potential grading: Medium to Low***

Next audit scheduled from this: 2-3 years

Next audit scheduled from this: 1 year- 6 months

Objective 6 : To minimise contaminant losses to waterways from soil disturbance and erosion

Principle 9:Manage or retire erosion-prone land to minimise soil losses through appropriate measures and practices.

- Conversation: Planting of stabilising trees throughout paddocks. Ongoing maintenance? How about stocking policy? Weights? When? Wet areas obvious in the paddock, how are these going to be addressed?
- Potential actions might include:
  - Graze heavy stock off farm during winter
  - Avoid grazing heavy stock on steeper or more erosion prone soils
  - Establish poplar poles on erosion prone soils
  - Maintenance work including re-ramming, pruning and assessment of stock damage to occur yearly in December
  - Consider retirement of unproductive and actively eroding soils
  - Consider the use of sediment traps, detention bunds, flumes, and other structures to minimise soil losses and divert overland flows
  - Actively monitor potential for further slips on slopes and adjust management practices accordingly

Initial Review (12 months after FEP/consent)

Expect to see	Not expect
Protection of actively eroding areas	Increased erosion or opening up of new erosion areas
Evidence of poplar pole maintenance	Poplar poles being impacted of affected by stock
Consideration of retirement of land for periods of the year	Stock grazed throughout the year (and especially during high-risk periods)
Protection of wet gully bottoms through temporary stock exclusion	
Potential LOC: High to Medium	***Potential grading: Medium to Low***

Next audit scheduled from this: 2-3 years

Next audit scheduled from this: 1 year- 6 months


5/APR/2017

Objective 6: To minimise contaminant losses to waterways from soil disturbance and erosion

Principle 12: Manage periods of exposed soil between crops / pasture to reduce risk of erosion, overland flow and leaching.

- Conversation: Paddock selection appropriate, what's gone wrong? What might be done better? Appropriate measures if it goes wrong again?
- Potential actions might include:
  - Utilise appropriate vegetated cultivation setbacks for the slope
  - Establish autumn pastures/crops early
  - Reduce soil cultivation by appropriate establishment methods minimum/zero tillage
  - Use cover crops to minimise periods of bare soil
  - Avoid cultivation of overland flow paths
  - If cultivation is required, cultivate along the contour
  - Temporary stock exclusion might be necessary during times stock are grazing
  - Consider sediment fences until pasture cover is adequate to act as filter

Initial Review (12 months after FEP/consent)

Expect to see	Not expect
Pasture/cover established ASAP	Continual cultivation of this area
Plans around appropriate paddocks, appropriate crops, appropriate cultivation techniques	No plan in place, ad hoc decision making around cropping/cultivation
Buffer strips around intermittent waterway	Sediment obvious in waterway
Protection of erosion prone cuttings/areas	Ongoing or worsening of erosion areas
Sediment traps/sediment fencing	
Potential LOC: High to Medium	***Potential grading: Medium to Low***

Next audit scheduled from this: 2-3 years

Next audit scheduled from this: 1 year- 6 months