At the stream -Introduction/Discussion

The following are suggestions of questions that can be put to the group to provoke some discussion:

- ***What is the significance of water on your property and to farming generally? (alternatively, you could focus on the property that the group is on and ask: what is the significance of water to this property or business?)***

If you need to prompt for responses, the following may be useful:
Isn't it vital for stock, crops, pasture, family?
What is it used for (on the farm; downstream)?
Does the quality of water for stock, crops, etc., matter?
Why, or why not?
How much is there? What do you do if there isn't enough? What about floods – do they occur? Are they a problem? Why?
Water storage – dams, ponds, tanks…

- ***What do you know about your water?***

Where does it come from?
e.g., wells, springs, somewhere up in the catchment, lakes.

- ***Do you know what the quality of your water is? Is it better or worse than it has been in the past?***

Think about your house supply, stock supply, irrigation, streams and ponds.

- ***Where does your waste go? Does anything that is potentially harmful get into the water?***

This could be from: the house; stock (especially from intensively used areas – yards, dairy sheds, etc.); chemical containers, wash water, chemical residues (left-overs, etc.); septic tanks, offal pits, silage pits.

- ***Do you know what the quality of the water is that leaves your place and goes to the downstream neighbours?***

If you know what the quality is, how do you know?
This could be from: testing; the appearance of the water (is it murky, muddy, or is it clean, looking good?); the presence of weeds; in the past kids used to swim/play in it – not safe, or not attractive, now; fishing/whitebaiting not as good as in the past, or better than in past.



What other inputs do you use on your farm? What do you know about the quality and/or health of these before you use them?

- stock – health, genetics, disease;
- seed – quality;
- fertiliser – contents, quality;
- pesticides, herbicides – safety, effectiveness.

If at a stream site, get the group to have a look around, and ask:
What do you THINK might be affecting this stream – good or bad? Some examples:

Good	**Reason**
suitable riparian planting	shade, food for fish; reduce runoff
stock not able to get in water	avoid direct pollution and disturbance
banks not eroded	reduce sediment in stream
Bad	**Reason**
stock in water or have access to water	directly polluting water, bank erosion
crop close to stream bank	sprays, etc., high risk of getting into water; in high rainfall may get sediment washed into stream
untreated or partly treated discharges (e.g., dairy sheds)	
problems upstream	may be hard to do anything about this

The facilitator can use this discussion to lead into the second topic for the demonstration:

How can we measure what is happening to the health of our streams, and understand what is affecting it?

You might say something like:
"Well, you seem to have plenty of ideas about what farm activities MIGHT be affecting the stream, but it seems that the linkages might not always be very straightforward, and it's clearly not easy to determine just by looking how BIG or IMPORTANT particular things might be. In these days of the Resource Management Act and competitive marketing of our clean, green image to domestic and international markets land managers are increasingly being asked to SHOW that what they are doing doesn't degrade the environment.
"The SHMAK monitoring kit has been specifically designed for farm streams, i.e., freshwater streams that you can wade in. It is not suitable for big rivers, or streams with any tidal effects.
"The methods are scientifically robust, the equipment is easy to use and easy to maintain. The data will give good information on changes in stream health.
"So, now we'll get [name of trainer] to show us what is actually involved in collecting the data, and what it tells us."