Managing Risk and Building Confidence in Shellfish

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Risk* ...

“means a function of the probability of an adverse health effect and the severity of that effect, consequential to a hazard”

Risk analysis* ...

“means a process consisting of three interconnected components: risk assessment, risk management and risk communication”

Risk Analysis

Risk Assessment
Science-based

Risk Management
Policy & Values

Risk Communication
“Reports that say that something hasn’t happened are always interesting to me, because as we know, there are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns – the ones we don’t know we don’t know.”

Donald Rumsfeld
WARNING

It is not safe to eat shellfish from these waters unless they have been boiled continuously for 3 minutes

Exeter Port Health Authority
The statutory objective of the Food Standards Agency is to protect the health of the public and the interests of consumers in relation to food and drink.

Our core values are based on:

- putting the consumer first;
- being open and transparent;
- being an independent voice;
- acting on the best available evidence.
Applying Key Principles

1. Getting the facts right
2. Keeping an open mind
3. Applying rigour
4. Acting openly
5. Involving stakeholders

Stages of Food Risk Management

1. Setting the agenda
2. Assessing the risk
3. Deciding what action to take
4. Implementing the decision
5. Monitoring and reviewing the impact of the decision
Categories of microbiological pollution sources

- Human
- Point source discharges
- Direct inputs
- Animal
- Diffuse pollution
- Remote inputs
Point source discharges

- **Continuous**
  - Crude / Primary / Secondary / Tertiary

- **Intermittent**
  - Storm / Surface water / Emergency / Combined

- **Phased**
  - Tidal / Batch process / Periodic
Non-point source discharges

- Sewage sludge
- Animal manures
  - Farm animals
  - Birds
  - Dogs
- Ships and boats
Influences on the significance of pollution sources

- Relative contribution of each source
- Effectiveness of sewage treatment process
- Population fluctuations, e.g. tourism
- Season, temperatures, wind
- Rainfall effects on the contribution from each source, e.g.
  - River flow
  - Direct land run-off
  - Farming activity
  - Tides and currents
Summary of Sanitary Surveys

- growing areas may be subject to multiple sources of pollution
- systematic desk-based review is necessary
- aim to identify undocumented sources of pollution
- ultimate aim to inform the sampling plan
Risk Management

- No foodstuff is risk-free
- Management of risk is complex
- Food safety has to be assessed on the best possible scientific evidence
- The process should be open and transparent to all
Confidence in Shellfish?

Regulator
Official Controls

Industry
HACCP
End Product Testing

Consumer Confidence in Shellfish
“I would not say that the future is necessarily less predictable than the past. I think the past was not predictable when it started.”

Donald Rumsfeld
Future Risks?

- Global warming?
- Viruses?
- Monitoring programmes?
Risk – telling everyone that you’ve been working hard at the ICMSS in New Zealand!