Legislative Frameworks

Session Objectives

- To highlight the need for a clear and comprehensive legislative framework for the water sector as a means of promoting its effective functioning.
- To describe the mechanisms for establishing legislation and outline the basic content of water sector legislation.
- To stress the need to view surveillance and quality control of water supply in a broader context and recognise the value of such programmes beyond simple compliance monitoring.
- To emphasise the risks of over-reliance on legalistic approaches to water quality and to promote greater openness regarding water quality information.

Legislative Frameworks

Introduction

A comprehensive and effective legislative framework is essential for the smooth operation of the water sector and for it to meet its goal of providing an adequate water supply. The key principle that should underlie the legislative structure of the drinking-water sector should be to protect and improve public health through the sustainable provision of drinking-water of adequate quality in sufficient quantities to all the population continually at a price which is affordable.

Water sector legislation is likely to be a collection of acts, codes of practice and regulations under a general water law which as a whole govern the functioning of the sector. It is unlikely that a single document would cover all aspects referred to within this paper and indeed this would not be advisable as it would make the legislation unwieldy and difficult to update. Legislation should be flexible and dynamic and respond to developments within the sector rapidly and coherently.

Within the legislative framework which governs the sector, some key areas must be addressed to provide the sector with the structure it requires to function efficiently and effectively. It is essential that the institutions undertaking different functions within the sector - supply, resource management and surveillance - are clearly identified. For each institution, the roles, responsibility and remit must clearly stated and the type and level of interaction between each body must apparent.

Legislation is a tool to incorporate water policy within the national political-legal framework and should aim to protect both individual and communal water rights issues. Water quality is therefore only one aspect of water legislation which should cover aspects such as quantity of water supplied, access assurances, continuity provisions and limits set on costs charged to consumers. The legislation will empower the surveillance bodies, both financial and healthbased, to closely monitor the water supplier to ensure that they met statutory functions which guarantee the supply of wholesome drinking-water.

However, it is also important to keep legislation within perspective and not allow an overlylegalistic approach to be developed towards water quality and supply. For instance, it is clear that surveillance of drinking-water supply has a value independent of legislation or enforcement of compliance. As it should be an activity primarily designed to identify risks, the primary concern should be to influence management decision making to reduce risks to public health.

The lack of provision in the legislation or lack of will to prosecute water suppliers for noncompliance should never be used as a pretext for abandoning surveillance activities. Some authors have suggested that surveillance is pointless without the political will to enforce legislation. Such an approach fails to recognise the wider role of surveillance and the link to improved decision making. It is vital that legislation is seen as a tool which facilitates water supply improvement and not as an end in itself.

Establishing legislation

It is common to find that much of the water legislation in a country has historically been incorporated within other acts and elements of legislation, such as Public Health Acts or Natural Resources Acs. Whilst these may address water, it is limited to specific impacts and fails to provide a comprehensive framework for the sector. It is therefore desirable that all water legislation be brought under an umbrella Water Act which has an array of associated addenda, regulations and codes of practice.

A complicating factor in establishing water legislation will be the current level of water supply coverage and the plans for extending coverage of the total population with access to an adequate water supply. In particular, the legislative framework should take into account that a significant proportion of water supplies may be community managed and operated whilst others may rely on a water supply agency. Furthermore, in many countries there may be a mix of piped water supply with a high level (in-house) of service and communal point source or shared tap water supplies.

The standards which cover these different types of supply must be carefully considered - for instance to insist on the same standards of supply from a community-managed hand-dug well and a sophisticated treated and piped water supply based on tariff collection is unlikely to be feasible. Furthermore where the community is the water supplier, the implications for legislation are very different from situations where a revenue-generating agency operates a water supply.

It is therefore essential that national water legislation recognises the variation in water supply types and establishes a range of regulations and codes of practice which can be used as a flexible method of promoting water supply quality. In these circumstances, therefore, although the same legislation will cover all water supplies, the standards set for each type of supply will be different.

Key elements of legislation

Policy statement

The legislation must clearly outline the policy principles which underlie the development of comprehensive water laws which govern the sector and also gives clear indications to the long-term goal for the sector. Thus, the principle of equitable access to water sources and supplies for the whole population and establishment of guiding principles for the levels of service and quality of services provided should be outlined.

The policy statement should also clearly highlight source protection, minimum treatment requirements and water supply monitoring that is expected from the different institutions. The policy statement should also clearly state the different but complementary roles of the supplier and the surveillance agencies. It should be made clear that independent, health-based surveillance is essential and entails the routine monitoring of suppliers performance with respect to nationally and regionally accepted norms of practice.

The policy statement should also clearly state the underlying health related rationale for water supply in the country and the primacy of drinking-water supply in use of water resources. This should also clearly state the need for source protection and distribution maintenance as well as outlining the need for minimum treatment requirements for water supplies of all types.

Institutional roles

The different institutions, their remit and responsibility should be clearly defined within the legislative framework. Failure to provide this will lead to long-term problems within the sector from overlapping responsibilities, duplication of effort, unclear reporting lines and difficulties in enforcement.

By preference, the number of institutions active within the sector should be limited and not allowed to become overly complex. The actual responsibility of suppliers and surveillance agencies must be very precisely defined and the interaction between the two and the process of dialogue, direction and enforcement transparent. It is important that the need for an ongoing and effective inter-agency dialogue and co-operation is essential for the effective functioning of the sector. The legislation should provide the framework for dialogue and cooperation by establishing minimum acceptable procedures in terms of information sharing and action. However, the legislation should also try to encourage greater dialogue than merely the basic minimum.

For further information on the institutional framework of the sector, please refer to the session on Institutional Frameworks and to Volume 3 of the GDWQ.

Service levels

Service levels in this context are taken to mean the parameters such as quantity, continuity and accessibility of the water supply to the user community. These issues are as important was water quality aspects of water sector legislation and must be included within a policy statement or reference within the legislation.

Service levels will have to be addressed at several levels and may therefore be referenced at various points in the legislation. For instance, at a national level, service should be addressed through the statement of position regarding the basic right of all the inhabitants to have access a water supply of sufficient quality and quantity to meet all their needs. In the first instance this may only be included as the goal of the sector within the legislation, but it should act as the fundamental basis for water sector legislation.

Within the areas supplied by water supply companies, the minimum acceptable and optimal quantities of water to be supplies should be outlined as well as the continuity of supply and the coverage of supply. This is essential if suppliers are to be governed by a framework which allows to function effectively and efficiently.

Where water supplies are community managed, the legislation should provide a framework for the acceptable population using point water supplies or communal facilities and the maximum acceptable distances to water supplies allowable. The latter may not refer to the entire population of a community but, for instance, the 90 or 95 percentile in dispersed communities. This legislation is essential if NGOs and Government agencies are active within community water supply in the country.

Source protection, sanitary norms and minimum treatment requirements

The details of source protection measures expected at different types of water supply and dealing with immediate source surrounds and broader measures should be clearly outlined in standards and regulations. Thus information regarding sanitary completion of wells, boreholes and springs, land-use control within the immediate vicinity of the water source and within the broader recharge area should be included within the legislation governing water supplies.

The information should include the details of standard designs of point source water supplies and the acceptable sanitary norms to be enacted within the immediate vicinity of the source. This will include aspects such as the grouting of the upper levels boreholes, size and thickness of aprons and headwalls, pump fittings and fencing. For groundwater sources, the legislation should also reference the need the acceptable types of pumps (including make and model), acceptable pumping and lining materials in different conditions and training for operators in community based water supplies.

The need for broader protection measures of sources should also be covered and should include reference to groundwater protection policies and strategies at local and aquifer levels and the principles and broad categorisation of land-use zones surrounding groundwater and surface water sources given.

Minimum treatment requirements should be referenced and the requirements for different water sources clearly outlined. The importance of maintaining a free residual when chlorinating is practised should be emphasised. The need for maintenance of distribution systems should also be referenced, particularly with regard to maintaining chlorine residuals and the frequency and use of sanitary inspection outlined. Again, training requirements should be outlined.

Liability

The question of liability with respect to water supplies may arise from a variety of scenarios, including an outbreak of water-related illness, insufficient supply or discontinuity of supply. Liability will be an issue when an agency or company provide water to tariff paying consumers. In these circumstances, water supply is acting in part as an economic good and as such, a certain level of service and quality of service should be expected by the consumers. In these circumstances, failure to meet acceptable levels of service or failures in water quality leading to outbreaks of disease should make the water supplier liable for prosecution from either the surveillance agency or consumer groups.

However, whilst the above can be seen as being an fair position with regard to liability, caution must be exercised when pursuing a liability-based approach to enforcement of water supply standards. In all circumstances, the emphasis on liability will tend to make water suppliers both more defensive in accepting blame for water supply failure, thus possibly leading to a reluctance to undertake remedial work that is required as this may be interpreted as an admission of guilt. Furthermore, in the cases of an infectious disease outbreak, it may

become more difficult to identify sources of contamination and routes of disease transmission as water suppliers become reluctant to cooperage fully with investigation teams. In many countries, where liability has been successfully pursued, a net result has actually been the reduction in availability of water supply quality data from suppliers who increasingly will only provide the minimum required.

Issues regarding liability should not arise when community water supplies are dealt with as in these circumstances, the consumers are also the operators and managers of the water supply. No attempt should be made in these circumstances to assign liability on a water supply basis. However, there may be a case of assigning liability to whichever Government agency responsible for extending water supply coverage within the country and where this agency fails to provide support to certain areas for non-justifiable reasons, appropriate action may be followed.

The surveillance agency also clearly has a responsibility to keep the users of water supplies informed about any deterioration in water quality or any events which may compromise health because of water supply problems. Failure to carry out these functions should make this agency liable, although again a common sense approach is required to judge whether failure to inform the public results from justifiable reasons (lack of resources, lack of available information etc.) rather than wilful dereliction of duty.

Liability is a difficult issues in the water sector and the degree to which the rules of liability apply will vary between countries. However, it must be recognised that whilst liability may be a final solution for achieving action to improve water supplies - whether from an individual supply agency or Government Department responsible for water supply coverage - it is rarely the most effective way of achieving improvements.

Monitoring and surveillance aspects

The legislative framework should clearly outline the responsibility for monitoring and assessment procedures and activities to be undertaken by suppliers and surveillance agencies. The regulations and standards which support legislation should cover the numbers of samples both agency should take routinely, the numbers of samples to be taken for non-routine assessments (for instance during source selection, periodic quality assessment of sources etc.) and the numbers of samples to be taken in the event of suspected failure in water quality.

The analytical range to be covered in routine monitoring, non-routine assessment and in outbreak investigations should also be outlined in the regulations. The definition of the parameters is best left out of the legal instrument itself but should be included as an addendum or similar document which can be easily updated on a regular basis. In addition, the regulations should also clearly reference standard analytical methods acceptable for different circumstances and also the sampling techniques etc. to be employed.

Where community-based water supplies are the norm, there will be no need to establish supplier monitoring requirements, but surveillance agency responsibilities should still be outlined. The legislation covering surveillance of community based supplies should be less demanding than supplier operated supplies unless sufficient resources will be made available to the surveillance agency to conduct routine monitoring activities on a regular basis.

Where community based supplies are widely used, these are likely to involve many small water supplies scattered over a wide geographical area. Thus to expect a similar level of surveillance activity as in piped supplier operated water supplies. Furthermore, this would be likely to divert resources required for funding improvements of water supplies or supporting community based development.

In community based supplies, the surveillance agency should have a requirement to promote and conduct sanitary inspection and critical parameter water quality analysis and have a clear remit to conduct water use and hygiene education. Legislation should emphasise the need for management-linked monitoring aimed at building capacity and not data collection for its own sake.

Reporting requirements and data access

The inter-institutional reporting of monitoring and assessment data and the public access to water supply quality information should also be clearly highlighted in the legislative framework of the sector. The requirements of suppliers to report water quality data both routinely and in the event of failure must be clearly stated. It must also be clearly stated to whom such reports must go to. The latter is particularly important in water quality failures as there may be other bodies (such as local health boards, national public health agency etc.) which require information in addition to the surveillance agency.

The feedback of information from the surveillance body to suppliers and communities is equally important and the requirements and procedures for doing this need to be at least referenced within the legislative framework, although the detail may be held within appropriate regulations.

Clear guidelines for reporting to the general public and general policies towards public access to water quality data should be outlined within the legislation. It is important that both surveillance agency and water suppliers function in a open and transparent manner which encourages public awareness. The general public, whether using supplier-operated or community-based water supplies, clearly have a right to water supply quality information in an comprehensible format. Thus, data should not presented in a form which is confusing to non-specialist readers as this will foster a belief that suppliers and surveillance agencies are hiding the true situation.

In addition to public access to water quality data, the legislation should outline or reference, issues regarding the access and use of raw data. In some countries, notably the USA, there is a strong belief in the right of access to raw data for the public to view and use. In many other countries, access to raw data is strictly controlled and very few people outside of the supply or surveillance agency can access or use such data and then only in certain ways set down in legislation. There are advantages and disadvantages to both approaches and the route followed is a national decision based, in part, on relevant national legislation on the freedom of information. It is, however, an important area to legislate for as a lack of a strong position may cause unnecessary confusion.

Water quality standards

Whilst it is usually preferable not to include the actual standards within the legal instrument,

clear reference should be made to the process of establishing standards and make provision for regular updating of standards by the appropriate bodies. The approach of inclusion of standards within the legal instrument is often adopted as it is felt that this is the most effective way of ensuring that standards have a legal force. The problem with this approach is that it makes the process of standards revision time-consuming and unwieldy. This has implications for countries trying to progressively improve water quality through the use of interim standards and with respect to the increasing large and diverse range of pollutants found in drinking-water which are of health concern.

In less wealthy countries, where trying to achieve WHO Guideline levels of substances may not be feasible for some time and there is a need to progressively improve the water supply situation, an unwieldy legal framework may be counterproductive. As interim standards may be established which are progressively upgraded, the system for establishing these must be flexible. Equally, a rigid legal approach to standards may result in resources being used for inappropriate levels of compliance monitoring, rather than the use of monitoring to improve water supplies.

The increasing range and diversity of pollutants of health concern has implications for all countries, no matter what their level of socio-economic development. There are a great many substances, including many synthetic organics, which are now being found in drinking-water and whose impact on health is not conclusively proved. The acceptable limits for concentrations of these substances in water may change considerably as more information becomes available and therefore the legal instrument establishing these in the national legislation must be responsive to these likely changes.

A mechanism for overcoming these problems is to clearly refer to the process of standard setting, with the Minister responsible named and also clearly stated that this Minister will provide the national legislative body with the standards that their experts deem necessary for safeguarding the well-being of the population. Furthermore, it is important that standards are not set for substances for which no conclusive evidence exists of a risk to health. For these substances, guidelines are more appropriate and a research programme initiated to quantify the level of risk posed.

Interim standards and exemptions

Within the legislative framework, clear provision should be made for the establishment of interim standards where these will be adopted in the short or medium term. However, if interim standards are to be set, there must be clear rationale established for the need and desirability for interim standards and some indication given for the final standards being aimed for. It is unwise to reference standards as interim unless clear indication is given of the final standard as this will in all likelihood lead to inertia in updating standards and to pressure from suppliers to maintain sub-optimal standards, even when higher standards could be achieved.

An alternative to interim standards is the use of exemptions from meeting certain standards. These may be of particular value when the failure is restricted to certain geographical areas or affect a relatively small proportion of the population.

Within the legislation, the process for establishing exemptions should be clearly outlined and

time limits set for the duration of an exemption. The whole purpose of exemptions is to allow for short-term deviations from proscribed water quality limits which are permitted whilst remedial work is carried out on a water supply or source with the aim to meet national standards. Therefore, when an exemption is issued, it should be clearly linked to a programme of work within a specified time which has clear aims and objectives. There is little point in issuing exemptions which are *de facto* permanent. In these cases it is more effective to establish either an interim national standard, establish a regional or supply type interim standard or establish tiered standards.

Exemptions should clearly relate to specific substances and should indicate the concentration of a particular substance which is being allowed and for what period. It should be clear that when an exemption is granted that this does not imply that the water quality is allowed to deteriorate beyond the stated limit of the exemption or for substances other than those indicated within the exemption. Thus, granting an exemption must not be interpreted as being a licence to provide poor quality water. It is merely a temporary relaxation of particular standards which is clearly linked to remedial action being carried out to meet the specified standard.

It is more effective to prepare a series of interim standards which are relevant to particular water supply types or geographical and which clearly link to a process of water supply improvement to meet microbiological standards within as short a time as is feasible.

The issuing of exemptions on microbiological grounds should be avoided for public health reasons and as this may establish a dangerous precedent on non-compliance with microbiological standards. If it is know that microbiological standards in some types of water supply or in particular geographical regions cannot be met, it is more sustainable to establish interim or tiered standards rather than an exemption. If, for instance, a standard to set which cannot be met in a small community piped water supply and these are provided with an exemption, this may be seen as a precedent for large supplier-operated water systems to also apply for an exemption.

Conclusion

The legislative framework of the water sector is a vital component in improving and maintaining water supply quality within a country. However, it is only one of several tools which facilitate this and the limitations of legalistic and liability-based approaches to water supply improvements must be recognised.

Legislation should be flexible and comprehensive in its coverage of the water sector and it should be easy to update standards governing the sector. Due consideration should be given to the nature of water supply within the country and the implications this has for legislative framework. However, it is essential that any water laws clearly identify the goals of the water sector and provide it with a framework within which these are achievable.

The institutional framework of the sector should be incorporated within the legislation and the roles, responsibilities, remit and accountability of each institution clearly outlined. Failure

to this is likely to result in considerable overlap, duplication of effort and inefficient implementation of water policies.

Legislative Frameworks

Presentation Plan

Section	Key points	OHP
Introduction	• there is a great diversity of approaches to legislation world- wide	
	• a comprehensive and effective legislative framework is essential for sector	
	• legislation should be underpinned by the principle of protecting public health through the provision of drinking-water	
	• legislation is likely include a basic water law supported by a collection of codes, regulations and standards which outline institutional responsibilities, remit of agencies, sampling frequencies, information sharing etc.	
	• key aspects such as institutional responsibility and inter- institutional co-operation are key for the sector performance	
	 legislation incorporates the water policy within the political- legal framework of the country and should guarantee communal and individual water rights 	
	• legislation should be kept in perspective and care must be taken not to develop an overly-legalistic approach to monitoring	
	• surveillance has a value independent of compliance monitoring and is an important tool to promote water supply improvement	
	• a lack of legislation or political will to enact legislation should not be used as a pretext for abandoning surveillance activities	
Establishing legislation	 historical legislation often included in other legislation (e.g. public health act) 	
	• however, it is desirable to have an umbrella water act which governs the sector	
	• establishing legislation may be complicated by community managed schemes and mixture of supply service level	
	• standard and legislation covering different types of supply should be carefully considered and different conditions set for different types and levels of water supply	

Section	Key points	OHP
Section Key elements of legislation	 Key points policy statement legislation must clearly outline policy principles underlying the development of water laws - this includes equitable access to water supply and service indicators source protection, minimum treatment requirements and water supply monitoring should all be highlighted the need and role of independent, health-based surveillance should be emphasised <i>institutional roles</i> the institutions and their responsibilities and remit should be outlined in legislation the number of institutions active in the sector should be minimised to prevent overlap and duplication of effort 	OHP 1
	 service levels includes: quantity, continuity and accessibility these should be addressed at national, regional and local levels and the legislation should clearly outline the principle of the right of all the population to have access to an adequate water supply water suppliers should be required to meet minimum levels of services community-based approaches should highlight issues such as minimum acceptable distance to the supply and numbers of people per water point 	2
	 source protection, sanitary norms and minimum treatment requirements source protection requirements for all types of sources should be included in legislation standard designs and acceptable sanitary norms around point sources should be clearly outlined in the legislation the need for broader protection measures should also be covered, including protection zones and land-use control minimum treatment requirements should be clearly outlined and the importance of maintaining disinfectant residuals emphasised 	3,4

Key elements <i>liability</i> of legislationIiability may result from a number of scenarios including disease outbreak, temporary interruption of supply or insufficient supplycontinuedwhere a water supplier levy water charges, they will become liable for failure to meet proscribed service levelshowever, a liability approach alone will not necessarily lead to water supply improvement and may lead to a reduction in access to information	Key elements <i>liability</i> of legislationIiability may result from a number of scenarios including disease outbreak, temporary interruption of supply or insufficient supplyontinuedwhere a water supplier levy water charges, they will become liable for failure to meet proscribed service levels
 liability should not be ascribed for community managed water supplies <i>monitoring and surveillance</i> monitoring and surveillance procedures should be clearly outlined these should include sampling frequency, numbers of samples, sample locations and analytical range for both supply and surveillance agencies for community-based supplies no supplier requirements need be set, but surveillance agency requirements should be established for community-based water supplies, greater emphasis should be placed on using monitoring to improve water supplies <i>reporting requirements and data access</i> inter-institutional reporting and public access to water quality information are key aspects to be addressed by legislation this should include routine monitoring data, reporting when failures occur and to whom reports should be sent clear statement of principles concerning public access is required and where possible as much information as possible should be made available 	 however, a liability approach alone will not necessarily lead to water supply improvement and may lead to a reduction in access to information liability should not be ascribed for community managed water supplies monitoring and surveillance monitoring and surveillance procedures should be clearly outlined these should include sampling frequency, numbers of samples, sample locations and analytical range for both supply and surveillance agencies for community-based supplies no supplier requirements need be set, but surveillance agency requirements should be established for community-based water supplies, greater emphasis should be placed on using monitoring and public access to water quality information are key aspects to be addressed by legislation this should include routine monitoring data, reporting when failures occur and to whom reports should be sent clear statement of principles concerning public access is required and where possible as much information as possible should be made available

Section	Key points	OHP
Key elements	water quality standards	6
of legislation continued	• don't include actual values of standards in legislation, but do clearly reference mechanism of establishing standards	
	 including values in legal instrument makes updating of legislation difficult and makes legislation unwieldy 	
	• important for countries which adopt interim standards to be able to update these progressively	
	 also important as many new pollutants recognised which must be covered by legislation 	
	• possibly use an addendum or a regulation to cover actual values of standards	
	interim standards and exemptions	7
	• where interim standards used, these should be covered in legislative framework,	
	• make sure some reference is made to desired final standards	
	 also may use exemptions where problems with meeting standards is restricted to defined geographical areas or particular technologies 	
	• exemptions should only be granted where a short-term deviation is to be permitted and should be allowed to become permanent	
	• exemptions should relate to specific substances and clearly indicate the substance and the concentration covered by the exemption	
	• exemptions should not be granted for microbiological quality - use interim standards instead	
Conclusion	• legislative framework of the water sector is a vital component in improving water supplies	8
	 enforcement powers must be included in legislation and penalties punitive if they are to be successful 	
	• however, it is one of several tools to achieve this and over- reliance on legalistic approaches should be avoided	
	 legislation must be comprehensive but flexible to allow updating as required 	
	• the institutional framework of the sector must be covered by legislation	

Major Elements of Drinking-water Legislation

- Policy Statement
- Definition of agencies:
 - functions
 - responsibilities
 - authority
- Source protection, sanitary protection and minimum treatment requirements
- Service levels
- Monitoring surveillance
- Water quality standards
- Liability and compliance
- Interim standards and exemptions



Service Levels

- Minimum quantity of water to be supplied
- Continuity of water to be supplied
- Coverage by supplier within their area of operation
- Cost of water supplied
- Penalties required for failure to meet minimum service levels



Source Protection

- Statement of Principles:
 - sustainable levels of use
 - precedence for use as drinking water
 - levels of protection required
- Local scale:
 - sanitary completion measures
 - abstraction permits
- Regional scale:
 - land-use planning
 - catchment protection
 - groundwater protection zones
 - management of water resources



Minimum Treatment Requirements

- Must emphasis the multiple barrier principle
- Emphasise the need for all non-community operated piped water supplies to be chlorinated
- Must emphasise the need for adequate record keeping and information sharing



Monitoring and Surveillance

- Identify responsible agencies
- Identify acceptable monitoring frequency for all agencies
- Identify reporting mechanism for water quality data
- Identify accepted analytical and quality control procedures
- Describe process of compliance monitoring



Water Quality Standards

- These should not be recorded in the actual water act
- Separate legal instrument should be established to allow easy updating
- The basis of standards should be identified
- Priority given to microbiological standards
- Describe process for establishing and reviewing standards



Interim Standards, Compliance and Exemptions

- Interim standards may be required where quality is poor and resources scarce
- Better to establish interim standards that have standards which cannot be met
- When setting interim standards, set time limits on them and identify final standard
- Surveillance should assist in achieving standards
- Compliance monitoring sometimes required where there is wilful disregard to meet standards
- Exemptions may be granted where problems are limited by space and time
- Exemptions should be temporary and never set for microbiological standards



Enforcement Powers

- These should be defined in the water legislation establishing the surveillance agency
- Legislation should define the protocol or procedures to be followed when enforcement action is undertaken
- Legal penalties **must** be punitive to be credible and **must** be achievable in a court of law
- The establishment of legal enforcement powers requires that::
 - legislation exists concerning water quality and pollution control
 - the surveillance agency has specialist legal staff to advise on and initiate legal proceedings

