

## **ENVIRONMENT IMPROVEMENT PLANS – GOING BEYOND COMPLIANCE TO ACHIEVE SUSTAINABILITY**

Toni E. Meek  
EPA Victoria

(Currently on a twelve-month secondment to Melbourne Water until March 2005)

[toni.meek@melbournewater.com.au](mailto:toni.meek@melbournewater.com.au)

### **ABSTRACT**

Traditional environmental regulation has generally been prescriptive, primarily relying on statutory approaches to resolve environmental problems. In Victoria, Australia, EPA Victoria, a State Government environmental regulator has adopted an innovative voluntary approach that it uses in conjunction with its statutory activities. This approach has seen many industries EPA regulates actually achieve results that go far beyond compliance and achieve more than statutory approaches alone.

In the early 1990s, faced with some growing tensions between poorly performing industries and their community neighbours, EPA was finding that a traditional regulatory approach was having limited success. Many enforcement actions often resulted in small penalties and the environmental problems still existed. EPA spent considerable resources for little gain.

The groundswell of community concern continued to grow and EPA decided to try something different. This involved getting everyone with an interest in the issue together in one place, to start listening to each other's concerns and to make plans to improve things. Thus the concept of an environment improvement plan (EIP) came to be. An EIP, the product of a participatory and collaborative process between a company and its community neighbours, becomes a public commitment by the company to improve its environmental performance and to be a better neighbour.

Many companies that have developed EIPs have been able to achieve some impressive outcomes, working in much more sustainable ways. The benefits of EIPs may include considerable operating cost savings, reduced emissions and waste, improved community confidence, improved corporate reputation, and above all, significant environment improvements. These are all important aspects of operating sustainably. What started out an approach to solve problems has become an approach that businesses have increasingly adopted as good practice, even where no problems exist in the first place.

This paper describes the evolution of EIPs and what have been critical success factors. Case study examples are used to illustrate the benefits and describe the journey taken by EPA, community and industry participants.

### **INTRODUCTION**

This paper begins with a true story about how a white cat turned black. One may ask what that has to do with environmental regulation but strangely it has a lot to do with it, which will become evident as the story unfolds.

This event was in part responsible for EPA doing something completely different to what it usually did to resolve environmental problems using its regulatory powers alone. It also led to the genesis of EIPs.

The lessons from this story are many. There are perhaps two that stand out. One is about how technical and scientific experts need to learn to become more comfortable with uncertainty – that sound scientific approaches are as much about managing uncertainty as they are about managing certainty. Another is to appreciate what can be achieved through true collaboration and co-operation.

Now back to the story of the cat. This cat lived in Altona, a beachside suburb of Melbourne in the early 1990s. Altona is host to a range of large manufacturing industries including an oil refinery, carbon black manufacturer and the Altona Chemical Complex, the largest petrochemical complex in the southern hemisphere. Some of these industries were established in the early to mid 1950s and others in the early 1960s. EPA Victoria, the environmental regulator was formed in the early 1970s.

Interestingly in the late 1950s when the local community became aware of a carbon black manufacturer's intention to build an industrial plant, a newspaper report from that time shows that the local community was particularly vocal in its opposition to the establishment of such a facility in the area. People expressed concern about environmental and health impacts. The plant was built anyway with the assurance that all would be well.

Things did not go all that well unfortunately. When the plant began operating it became a source of regular annoyance to its neighbours with regular carbon black dust fallout and noise problems. Across the road the oil refinery was often noisy, odorous and had regular catalyst dust fallout incidents. Down the road the petrochemical complex had its share of issues – unplanned chemical releases (a vinyl chloride monomer release was one notable incident), odours, noise and on at least one occasion a serious explosion and subsequent fire. In those days communication was not the best and any efforts by the community to find out what had gone on was met with silence or what they considered false assurances from the companies they approached. EPA was not too communicative either. Not surprisingly as a result of all these events, many people in the local community had no confidence that the industries were operating responsibly. The community also had very little trust in EPA as the environmental regulator.

The early 1990s were a time of economic growth. Some of these companies had reached a stage where there was a strong push to expand and upgrade. They made approaches to the State Government, EPA and the local council to discuss their intentions. They suggested the proposed expansion and upgrade would be good economically for the State, creating more jobs and would attract more business to the area. The State Government saw the value as did the local council but the idea was not well received by the local community once they found out about it. As a result of these past issues, the community did not want to see these businesses expand. In fact they had every intention of shutting them down.

The typical approach to dealing with the issues at the time was this: People would complain to EPA about the pollution, EPA would investigate and follow up with the industries suspected of causing the pollution and then provide feedback to the people who complained. On the occasions where EPA was in a position to prove the source of the pollution, infringement notices were issued or prosecutions were undertaken. The community was not always happy with the outcomes of these actions. Indeed, whilst most prosecutions undertaken were successful, they resulted in fines that were to the lower end of the scale of what was provided for in the legislation at the time. As a result the community often directed more criticism towards EPA than to the industries.

EPA continued to attempt to address community concerns in an increasingly tense environment. Not only would EPA be at the receiving end of community anger but it also bore the brunt of industry anger if it dared to allege that a particular industry could have polluted the environment.

The story of the white cat that turned black perhaps best describes the challenges faced by EPA Victoria. This cat lived close to two particular industries - the carbon black plant and the oil refinery. EPA officers got to hear regularly about the plight of this cat from its concerned owners. It was not uncommon for the cat to return home black, coated with a fine black dust. On other days it would be a whitish colour (but not its natural colour, rather it was coated with a fine white dust). EPA would, in its investigations visit the particular industries it thought might be the source of the problem. A typical response was "It's them not us".

With EPA caught up in the middle of this and the Altona Chemical Complex wanting to expand its operations things reached a critical point.

The government of the day decided something needed to be done and a local Member of Parliament tried to resolve the situation. The local Member convened public meetings in the hope of trying to gain community support for the proposals. Out of these meetings the community reluctantly agreed to be part of a consultative process that saw the establishment of the Altona Complex Neighbourhood Consultative Group (ACNCG). However the message was clear from the community at that time – "We are going to shut you down".

The approach taken by the State Government at the time was a novel one where people could see the "whites of each others' eyes", a term used by a colleague at the time to illustrate the value of this approach. The consultative process began but it soon became evident that there was not much interest in continuing to meet without a sense of purpose and particularly if there was no action on improving things. Besides, the community still had its agenda of shutting down the companies.

EPA Victoria was a key participant from the beginning of these consultation meetings. It soon became evident to EPA that it was important that some kind of focused approach that was outcome and action-oriented would be critical to the success of this process. The community was not going to accept coming along to meetings if they did not think their concerns were being addressed and things weren't changing. The idea of EIPs came to be.

An interesting journey then began for EPA on how to convince the companies and the community that this could work but it has been worth it. The Altona Chemical Complex, the carbon black manufacturer and the oil refinery today enjoy a very productive relationship with the local community. All proposals, developments and improvements are discussed fully with local community members who participate in the various consultative committees that now operate. Issues and concerns are discussed openly in these forums; all the companies have EIPs which see close community collaboration in their development and the companies' environmental performance has steadily improved over the years. Around \$1.8 billion was invested by the Altona Chemical Complex - unopposed, between 1992 and 1995 - a dramatic change when compared to the late 1980s when the local community objected to even a bicycle shed being built at one of the plants.

Having set the scene with some story telling about the genesis of EIPs, what now follows is a more detailed overview of what is in an EIP. This is followed by a description of the best way to go about developing them to ensure their success.

### **WHAT IS AN ENVIRONMENT IMPROVEMENT PLAN?**

An EIP is an effective tool to guide a company's environmental management through a process of continuous improvement. EIPs may be prepared at the initiation of the company or may be required as a licence condition to replace detailed prescriptive conditions in licences issued in accordance with the *Environment Protection Act 1970*.

An EIP enables an organisation to improve environmental performance through a comprehensive approach to environmental management. It includes an action plan with goals and timelines, together with provision for ongoing monitoring and reporting of environmental performance. Progress against the plan is regularly reviewed and reported to the public.

EPA encourages the development of EIPs that deal with all aspects of a company's environmental performance. The preparation of an EIP is required as a condition of works approval for new developments and must be completed prior to the commissioning of works. An EIP can also be an important component of an environmental management system.

One of the fundamental principles underpinning the development of an EIP is that people have a right to know about decisions that may affect them. Developing an EIP is a dynamic process and putting the plan together requires effective collaboration with all those involved. Equally important are the consultative processes set up within which the EIP actions are negotiated and monitored by interested parties including the community and regulatory agencies.

When EIPs were first developed and implemented they were not featured in any environmental legislation in Victoria. In recent years the concept of EIPs has been enshrined in legislation to provide greater certainty for industry and extra assurance to the community. Since the legislation has been changed EPA has only used its statutory powers once to require an EIP. Environment improvement plans have been embraced by many industries in a very positive way as the benefits of having them have been clearly demonstrated over time.

A further innovation introduced by EPA since the introduction of EIPs has been the development of more flexible regulatory requirements and reduced licence fees to reward companies that are good environmental performers. This is EPA's Accredited Licensee Program. Companies seeking an accredited licence need to have completed an environmental audit of their operations, have in place an environmental management system and have developed an EIP with their local community.

From starting out as a way to solve difficult problems between industries and their community neighbours, EIPs are now viewed as a very positive undertaking by industry and local communities where they have been developed and have been recognised as an essential part of good business practice. More than fifty EIPs developed between industries and their community neighbours now exist. Many are now into their third edition. The first EIP, developed by Mobil at its Altona Refinery is now into its sixth edition.

### **CONTENTS OF AN ENVIRONMENT IMPROVEMENT PLAN**

Any EIP will be unique to the particular site involved. The actions are documented and will incorporate specific issues of interest to all parties. They should ideally include the following components:

- undertakings to comply (or even go beyond compliance) with licences and regulations
- emission and waste production standards
- monitoring of compliance
- audits and assessments
- improvement project details including what needs to be done, how it will be done and by when
- provision for upgrading of plant
- assessment of new and emerging technology
- emergency and contingency plans
- enhanced response to community complaints
- community relations, health and safety issues
- community reporting requirements on progress

Implicit in the EIP development process is the willingness of the company and regulators to provide information and undertake action to address community concerns. There needs to be actions undertaken by the company to improve its environmental performance. These actions need to be outcome-oriented and considered by all to be reasonable and timely.

There will sometimes be constraints in terms of commercial confidentiality around disclosure of some information. It is EPA's experience however that the community respects and recognises this.

The EIP document itself should be written as clearly as possible, avoid the use of technical jargon and include site maps and diagrams of production processes to assist in describing the particular industry's operations. A glossary is also an important

component, as is having the program of improvements documented in summary form for easy reference.

### **HOW ENVIRONMENT IMPROVEMENT PLANS ARE DEVELOPED**

The process of consultation in developing an EIP, if done well, provides for openness between the various parties that might otherwise be very difficult to achieve. It can also lead to greater mutual understanding and resolution of concerns.

The time it takes to develop an EIP will be very much dependent upon the nature of any prior relationships between the company and the community, and the efforts put into the production of the EIP document. Most EIPs generally take about 12 months to complete.

Above all, the process should allow for a truly combined effort in identifying issues and developing plans for improvement. The combined effort comes from the group of people formed to develop and monitor the EIP. This group, frequently referred to as a community liaison committee (CLC), usually comprises company representatives, residents, local government, EPA and other government regulators as appropriate. Described below are the key steps EPA advises a company to consider when developing an EIP.

### **IDENTIFY THE NEED**

Typically a company would be making some internal decisions about the value of undertaking an EIP in consultation with its local community. Clearly, if there is the potential for, or if there have been some environmental impacts on the surrounding community, then some form of dialogue with the community is likely to be beneficial, not only in dealing with any potential concerns but also in demonstrating that the company is a good corporate citizen and is serious about being a better neighbour.

### **MAKING CONTACT WITH THE COMMUNITY**

This can be done in a variety of ways. The company may have ongoing contact with its community neighbours about environmental pollution reports, or EPA or the local council may have had reports made directly to them.

In the development of many EIPs, EPA may act as a broker, bringing interested parties together. This has usually involved contacting people who have made pollution complaints to EPA directly to see if they would be interested in meeting with the company to develop an EIP and then organising an initial meeting. The local council is also invited to participate as are other government agencies that may have an interest. At this initial meeting, it is useful to ask community members if they may know of other interested people who might be interested in participating. It has been EPA's experience that this approach has usually been quite successful.

Other means of attracting interested members of the community include letter box drops, advertising in the local paper or the company holding an open day and seeking interest from people who attend. Public meetings are also another option. If that option is considered, careful planning will be required. If some community concern about the company's environmental performance exists and these meetings are not managed carefully, more frustration and anger in the community can be the result.

Once people have indicated an interest in participating in the development of an EIP it is important not to assume that they will represent the wider community. Sometimes of course, some people will attend on behalf of others, but it is important to recognise from the outset a truly representative group is not possible. The group that comes together is a group of people who have a common interest – to see the particular industry improve its environmental performance. What is more important, is for the group to ensure that the wider community is regularly kept informed of what is happening, thus providing opportunities for any other comments or feedback. This raises the need for some kind of communications plan, which is discussed later.

## **THE FIRST MEETINGS**

### **Building up trust**

In initial meetings, people need to get to know each other and find out what an EIP actually is. Views can sometimes be expressed very strongly particularly if there have been some long-standing problems. If these problems have not been resolved, the community often comes to the first meeting with little reason to trust that things will change. People see this as their one and only opportunity to express their concerns. More often than not however, it has been EPA's experience that the community has welcomed such initiatives from industry, and people have been willing to be constructive. It is critical for these meetings to be skilfully facilitated. Meetings are initially held at least monthly to enable people to become familiar with all the issues and to get to know each other.

### **Dealing with technical issues**

A common point raised at these initial meetings is that community members sometimes feel they do not necessarily have the required technical expertise to be able to contribute to the development of the EIP. It is therefore important for industry and regulator representatives to communicate clearly and without the use of jargon and industry specific language.

Community members can effectively contribute to these discussions. They live in the area, may experience the problems and may therefore be able to help in tracking down sources of off-site emissions if they are not immediately obvious in the plant itself. In initial meetings it is often very useful to have a site tour. This helps put things into some sort of context for everyone.

## **THE SUBSEQUENT MEETINGS**

### **Setting the boundaries**

In the early stages of the consultation process, it is important to look at some 'ground rules' such as who will chair meetings, where they will be held, who will take and distribute meeting notes, and how decisions will be reached.

Decision-making is a particularly important aspect to consider. The process of developing an EIP is a consultative one but there are clear boundaries around who makes the final decision on things. The company will ultimately make the operational and financial decisions when it commits to particular environment improvements. The regulator will be making specific regulatory decisions. The company and the regulator(s) seek input from the local community involved in the community liaison committee to assist with their decision-making. Ideally decisions should be reached

by consensus, and, universally, this has been the way community liaison committees developing EIPs have operated.

Numbers in the group can also be an issue. Ideally about 12 people are a good number, although it is important to have as much resident participation as possible. Participation can be variable, so having a core group and opportunity for observers to attend can help deal with any number in excess of the optimum.

### **Listen carefully**

What is critical, particularly in the early stages and really for the life of the consultation process, is to do a lot of listening and to attempt to see the situation from the local community's point of view. This is particularly important when attempting to scope what actions will be addressed in the EIP. Hearing people out and responding openly and honestly to questions are important behaviours to adopt for industry and regulator alike.

It is also important to discuss how any improvements will be funded and/or what funding limitations exist. In the initial stages of EIP development some companies have expressed reservations that they will not be able to fund or meet all the expectations of the community. As a rule however, residents have not been unreasonable in their requests and understand that there are limited resources. What becomes the challenge often, is how issues are prioritised, how improvements will be implemented, and what commitment the company really has to the process. People will quickly identify if the company (or for that point the regulators) are not treating the issues seriously.

### **INVOLVE THE RIGHT STAFF**

In terms of commitment to the EIP and its development, it is important that senior company staff and key decision-makers are involved in the discussions. This is another way of demonstrating to the community that the company is serious about its commitment to the EIP.

As well as senior staff, it is important to also think about involving other employees who actually operate the plant. This provides another level of assurance to the community that the EIP is well understood at all levels in the company. Staff should also be good communicators who listen readily, do not use jargon and overly technical terms or who are defensive.

### **BE WILLING TO BE OPEN TO SCRUTINY**

To further build on credibility it is important that there is openness about having any information scrutinised for its environmental soundness. If this ever becomes an issue, someone who has the confidence of all parties should ideally check the information. Interestingly, as the dialogue builds up and trust begins to develop, this has never become an issue with EIP development. In most cases EPA as the environmental regulator has been called upon to provide comment and this has generally satisfied the community. As the trust grows even further, information provided by the company has been more readily accepted as well.



## **DEVELOP A COMMUNICATIONS PLAN**

It is important to recognise that not all the surrounding community will be involved, or want to be involved, in the development of the EIP. Thought therefore needs to be given about how the wider community will be kept informed. What has worked well in many groups is the regular circulation of a newsletter, documenting progress with the EIP or circulating a media release to the local media, particularly newspapers and radio in country areas of Victoria. Web sites are proving increasingly popular as well. Some companies have also had periodic open days, and many companies have organised a public launch of the EIP once it has been finalised. This is an important way of recognising everyone's efforts.

Over time, using this approach, community comments and suggestions have led to effective solutions to long-standing problems. At the carbon black manufacturing plant in Altona mentioned earlier in this paper some nearby residents experienced vibrations and loud noise in their homes from the plant's operation, as well as carbon black dust fall-out.

After negotiations with the residents and using their feedback, the company was able to find the source of the noise problem and fix it, installing a noise barrier near neighbouring houses. For the carbon black dust fall-out the company also changed work practices as it attempted to permanently fix the cause of the problem, which it ultimately did. An extra bonus was that the white cat no longer turned black!

## **COMPLETING THE ENVIRONMENT IMPROVEMENT PLAN - BACK TO THE BEGINNING**

Having produced an EIP, it is easy to think that the process has come to an end. In fact, it is only the beginning. The EIP is a dynamic document that will become integrated into a company's day-to-day operations.

The next stage is for the EIP to be monitored and the CLC needs to determine how this will occur. Generally the CLC meets less frequently and the company reports on specific items in the plan as required. This approach has worked quite well and if any other issues emerge, groups can reconvene more frequently as required.

An interesting outcome of the EIP process has been in how some companies have implemented community right to know principles in other community interactions. Some companies now plan for regular open days, others invite neighbours to visit the plant to attempt to pinpoint particular problems and have even involved local residents in environmental audits. The EIP process has also been successfully adapted into other company operations, for example engaging its workforce to develop improved occupational health and safety procedures.

Overall, the net result where a company has developed an EIP is that there has been an overwhelmingly positive shift in community confidence about that company's operations and the role of the regulators, so in this way, everyone wins.

## **CASE STUDY – EASTERN TREATMENT PLANT**

### **Introduction**

The Eastern Treatment Plant at Bangholme in Melbourne processes about 370 million litres of sewage daily, from Melbourne's eastern and south-eastern suburbs. This is about 42 per cent of Melbourne's sewage.

The Eastern Treatment Plant opened in 1975 and at the time was a world leader in sewage treatment. The 1,000-hectare plant uses a treatment method known as the activated sludge process. Sewage is treated to a secondary standard and the effluent is chlorinated. It is then discharged into Bass Strait at Boags Rocks on the Mornington Peninsula, under an EPA Victoria licence, some 56 kilometres from the treatment plant. A small amount of secondary-treated effluent is recycled. The major environmental impacts from the plant at Bangholme are odour. At the outfall there can sometimes be plume discolouration, foaming, grease balls, litter and odour.

### **Eastern Treatment Plant CLC**

Melbourne Water formed a CLC in 1998 to oversee the operations of the treatment plant. This CLC has been instrumental in providing Melbourne Water with a reference point to ensure it is operating the treatment plant in a way that is meeting community expectations. A major plant upgrade is currently in preparation. The CLC has been involved in many discussions about this, providing valuable guidance to Melbourne Water in its consultation with the wider community about the upgrade.

The CLC has people from diverse backgrounds - local and State government, residents living near the treatment plant, residents living near the outfall, flora and fauna interest groups, the Gunnamatta Surf Life Saving Club, the Surfidiers' Foundation, retail water companies and EPA Victoria. Interestingly the treatment plant has two communities of interest – one in the immediate vicinity of the treatment plant and the other some 56 kilometres away where the effluent discharges to the ocean.

### **Eastern Treatment Plant Proposed Upgrade**

In July 2002, Melbourne Water received approval from EPA Victoria to undertake a major upgrade of the Eastern Treatment Plant. This upgrade will significantly improve the quality of effluent leaving the plant through tertiary filtration, enhanced disinfection and ammonia reduction and will also increase water recycling opportunities. EPA Victoria has also required an outfall extension as part of the proposed upgrade. The current outfall is close to the shoreline and as such the mixing zone is too shallow to effectively deal with the effects of such large volumes of fresh water going into the marine environment. This latter requirement has been a source of concern to some CLC members and the local community living near the outfall but people on the CLC continue to work together to see if alternatives such as increased water recycling could ultimately eliminate the need for any outfall extension in the future.

### **Eastern Treatment Plant EIP**

Since early 2003 the Eastern Treatment Plant CLC has been working with Melbourne Water to develop an EIP for the plant that will also incorporate the proposed upgrade program. This EIP was finalised in early 2004.

The process used to develop the EIP saw Melbourne Water working with the CLC to identify everyone's concerns with the plant's operations. Once this was done, specific issues were discussed in some detail with CLC members. Issues were then ranked according to importance using a risk-based approach and this is how priorities were then determined. Next, a two-year action plan was developed. All CLC members supported this process. A clear goal of the EIP was to ensure compliance with all relevant legislation and to explore opportunities to go beyond compliance if feasible. A major focus for Melbourne Water now that the EIP is in place is to regularly report on progress with actions.

Whilst all CLC members agreed with most of the actions in the EIP, as with any consultation process there will still be areas of difference. One major concern, as mentioned earlier is in relation to the proposed upgrade, in particular the need for the outfall to be extended. The CLC continues to debate this.

### **CLC Communications**

Another successful initiative has been how the CLC has been able to make sure the wider community gets to hear about its activities and can become involved. The CLC has developed a variety of communication approaches to inform the wider community. A quarterly newsletter is produced, media releases are regularly issued and there is a speakers program. All meeting minutes are available from Melbourne Water's web site as relevant studies and research undertaken by Melbourne Water as part of its ongoing management responsibilities with the plant.

### **Key successes**

Working with and respecting people's differences has been a cornerstone of the success of how the CLC has worked. Another positive outcome has been in how the CLC members have been able to discuss with Melbourne Water, any proposed actions or activities in the planning and scoping stages of projects. CLC meetings have become a good forum where much listening takes place, where ideas are discussed and explored, and leading ultimately to better decisions.

The CLC in the near future will be reviewing its efforts and membership to ensure it continues to achieve what it sets out to do.

### **CONCLUSION**

Historically EIP approaches have proven successful at dealing with complex environmental issues that have been difficult to resolve. Increasingly such approaches have been seen by industry as good business practice – an effective “triple bottom line” approach. Businesses have seen substantial cost savings and have enjoyed an improved reputation in the community. Regulators have seen significant reductions in environmental impacts and there has been less community opposition to development proposals.

A critical success factor has been the recognition by companies that they operate within a community and have an obligation to be a good neighbour. With such an attitude and with effective co-operation, EIPs have been successfully developed to achieve enduring and positive change for the better for the community, regulators and business.

## **REFERENCES**

EPA Publication 520: Ten Steps to Successful Community/Industry Consultation, 1993.

EPA Publication 740: Guidelines for Running Community Liaison Committees, November 2001.

EPA Publication 739: Guidelines for the Preparation of Environment Improvement Plans, June 2002.

## **ACKNOWLEDGEMENTS**

I would like to dedicate this paper to the late Dr Brian Robinson AM who passed away in April 2004. Brian was Chairman of EPA Victoria from 1986-2002 when he retired. He worked at EPA much longer than that and was responsible for developing some ground breaking and innovative approaches to environmental regulation during his time at EPA. I was fortunate enough in my community liaison work at EPA to be able to work closely with Brian over many years to develop the concept of environment improvement plans. Numerous people in industry, the community and EPA over that time have been and continue to be willing to use and further develop this approach. It was through Brian's work in encouraging innovative, and often very lateral approaches to resolving some complex issues that the concept of environment improvement plans came to be.

I would also like to thank Melbourne Water for its generosity in allowing me to discuss some of its work in this paper as a case study.