

# **THE AMP PROCESS FOR INTERMITTENT DISCHARGES: A PARTNERSHIP APPROACH**

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## **Introduction**

The paper looks at the approach the Environment Agency has taken with Yorkshire Water regarding the AMP 2 capital spend intermittents. It looks at the lessons learned using this approach and how they can be built on in the next round of expenditure 2000-2005 AMP 3.

The lessons learned included only one CSO being delivered in the first year of AMP 2 and even though the programme is now on target then delivery of AMP 3 must be more streamlined. One of the key issues in developing an intermittents programme is establishing which intermittents are unsatisfactory. Failure of Mandatory Standards are the highest priority e.g. Bathing Water compliance. Lists of intermittents which cause aesthetic deficiencies and water quality failures were produced for AMP 2. For AMP 3 more work has been carried out to highlight the deficiencies using F.R.0466 for aesthetics and river quality using RQO failures, GQA biological and chemical downgradings. The DETR guidance to the Director-General of Water Services has outlined that out of the 4000 unsatisfactory discharges nationwide then at least 2/3 should be improved by 2005. The benefits of a partnership approach will become more crucial as the number of outputs could potentially be multiplied significantly comparing AMP 2 to AMP 3. The delivery of the programme will only be achieved by ownership of the programme by regulator and regulated and a commitment to ensure delivery within AMP 3.

## **AMP 2 intermittents**

- (i) A list of unsatisfactory CSOs was prepared in early 1995.
- (ii) AMP 2 guidelines for CSOs defined what was considered as unsatisfactory.
- (iii) The ten year programme would remedy 60% of the numbers at 40% of the cost.
- (iv) A finalised list was agreed in March 1995 to deliver 30% of the numbers at 20% of the cost.
- (v) Yorkshire Water's allocation was £47 million and Northumbria £18 million.
- (vi) The then NRA was closely involved in developing the programme. Regular meetings to review progress of total programme.
- (vii) The programme will deliver 190 unsatisfactory CSOs by April 2000.
- (viii) Major schemes already completed include Driffield, Bridlington in East Yorkshire and Keighley in West Yorkshire.

## **Lessons Learned in AMP 2**

- (i) The partnership approach has delivered 75% of the AMP 2 CSO programme.
- (ii) The rest of the programme will be delivered on time.
- (iii) The money was spent as if it was ours. Savings being invested in other schemes.
- (iv) We have endeavoured to ensure the programme has delivered the best environmental value for money. No more Gold-Plated schemes.
- (v) Scheme prioritisation was based on limited information.

- (vi) One stop shop at region has ensured accountable decision making CSO 1a form represents agreed scheme signed up to by both parties.
- (vii) Value Management Studies involvement.
- (viii) AMP 3 must hit the ground running at April 2000 to have any chance of delivering. Only one CSO delivered in the first year of the AMP2.
- (ix) Consideration of the siting of outfalls was as important as aesthetics and water quality issues.

## **DETR Guidance to Director General of Water Services**

### **Raising the Quality**

- (i) The number of unsatisfactory intermittents nationwide by the year 2000 will be 4,000.
- (ii) The current rate of improvement would lead to programme completion by 2015.
- (iii) Acceleration of the programme to complete 2/3 of the unsatisfactory by 2005.
- (iv) Better prioritisation of schemes based on sound costs and benefits.
- (v) Better scheme costs tracking.
- (vi) Reduction in RQO failures by 50%.

### **Legislation**

- (i) Urban Waste Water Treatment Directive - requirement to limit pollution caused by unsatisfactory storm-water discharges using Best Technical Knowledge Not Entailing Excessive Cost. Commitment under EU Directive but no timescale.
- (ii) Water Framework Directive - Future of water quality planning. Biological Monitoring and objectives.
- (iii) Bathing Water Directive - High priority schemes. Limits based on bacterial parameters.  
Potential to cause failures when spending on continuous coastal discharges is complete.
- (iv) Freshwater Fisheries Directive. No new designations. Sampling occurring to develop operational standards.
- (v) Shellfish Waters Directive new designations. Potential for severe increase in costs to achieve the bacterial standards.
- (vi) Dangerous Substances Directive - Persistent Synthetic Substances.

### **Identifying What's Broken**

- (i) Aesthetic issues - AMP 2 criteria History of Justified Public Complaint. F.R. 0466 is a much better assessment of aesthetics pollution. Used extensively to decide whether an intermittent is broken. Reproducible, technical assessment. Public complaint is notoriously fickle and can change depending on the perception of a scheme being agreed. Inaction can also lead to a reduction in complaints.
- (ii) Water quality - a combination of RQO failure and GQA chemistry and biology downgrading. AMP 2 was delivered using UPM standards. AMP 3 has been costed on UPM 1 derived standards. Using the different standards in UPM 2, i.e. fundamental standards and percentile standards. Particularly the latter may cause orders of magnitude increase in costs without any perceived benefit.
- (iii) M.A.T. has been used to prioritise the schemes in Yorkshire. This tool enables schemes to be ranked based on level of benefit. The development of this

prioritisation tool is now entering phase 2 which will address the benefit weightings and possibly introduce further impact criteria based on cost.

- (iv) 4,000 intermittents have been identified as being unsatisfactory nationwide. Two thirds of these should be addressed in AMP 3.

### Conclusions

- (i) AMP 2 is delivering cost effective schemes as per the agreed programme.
- (ii) The management of meetings may need to be streamlined for AMP 3 if we have to deliver increased outputs.
- (iii) F.R.0466 will be used to identify aesthetic deficiencies for intermittents.
- (iv) M.A.T. will be used to prioritise schemes.
- (v) Combination of F.R.0466 and MAT will ensure we fix what's broken.
- (vi) F.R0466 offers a measure of aesthetic pollution and a satisfactory designation could offer a means of surrogate compliance with the Dangerous Substances Directive (Persistent Synthetic Substances).
- (vii) Ownership of the programme is a key to delivery and it relies on a one-stop shop at the Agency, regular communication flexibility and trust.
- (viii) Revised technical approach version 3 sets out details of project management functions to build on lessons learned in AMP 2. Much more prescriptive approach across Yorkshire. F.R.0466 becomes an integral component in D.A.S.
- (ix) Overall AMP 3 intermittents programme represents a challenge to regulator and regulated. We do not know what OFWAT will allow to be spent on intermittents but it is obvious to deliver an accelerated programme then more outputs will be required to be delivered in AMP 3.

We can gather valuable lessons from AMP 2 and without a partnership approach AMP 2 would have struggled to deliver therefore the key to have any chance of AMP 3 delivery must be a continuation of this approach.

### Glossary

|                             |   |
|-----------------------------|---|
| AMP 2                       | Expenditure on Unsatisfactory Combined Sewer Overflows 1995-2000.   |
| AMP 3                       | " " " Intermittent Discharges 2000-2005.  |
| CSO                         | Combined Sewer Overflow.  |
| Intermittent Discharges     | CSOs, Emergency Overflows, Overflows at Sewage Treatment Works F.R.0466, Federation of Water Research Assessment of the impact of CSOs. |
| RQO                         | River Quality Objective - Target for River Quality based on R.E. system.  |
| R.E.1 (Good) - R.E.5 (Poor) | Quality.  |
| GQA                         | General Quality Assessment - Chemistry & Biology Snapshot of River Quality.   |
| MAT                         | Multi Attribute Technique - Assessment of the benefits based on impact.   |

## **DISCUSSION**

**Question Paul Davies Entec UK Ltd**

There is possibly an overlap between FR0466 and GQA assessment of aesthetics have there been attempts to rationalise the two ?

**Answer**

GQA aesthetics is more general to apply. FR0466 is a tool for a specific overflow

**Question John Blanksby Sheffield Halam University**

With both FR0466 we spend most of our time formulating improvements in the sewerage system and investigating , with GQA we are more focussed on the river system.

**Answer**

GQA aesthetics is not widely used in the EA Northern Region. I do take your point though.