

The one factor when implementing river restoration projects that probably has the biggest influence on all the others is beyond the control of any of us here: but it is important to be clear about the impact.

The number one factor for me is uncertainty; client uncertainty about funding and uncertainty about getting consents means that nobody can commit: this is squeezed against the certainty that the project must be finished by a particular date. For the contractor, the issue, which does not always seem to be appreciated by upstream contributors to the project, is that contractors have finite resources available at any given time - certainly finite competent resources, to do specialist work.

I can tell you, for example, that today we have an ongoing significant project here in the New Forest, which will probably last another month or two. Before we have finished here we need to start another two significant projects that must be finished before the onset of winter, and finish off one that the client deferred from the spring due to last minute neighbour liaison issues. That sounds like a healthy order book - but no client can give us a contract, because they all still have issues outstanding. If we are to complete within our client's timeframes I need to train more staff, and confirm the hire of, or buy, more equipment; but I cannot take that risk without some certainty myself that at least most of the jobs will get the go-ahead. The alternative is that we all wait until the last minute, and then we haven't got the resources when required; nor has anybody else at short notice, and the client may be let down.

That one factor - uncertainty - underlies many of the other issues that can go wrong.

When asked to talk about lessons to be learned, it is very easy to end up having a comprehensive moan. So let's talk about what goes right; contracts such as this one with the Forestry Commission have many of the ingredients of success;

Firstly we have a client who knows what they want, and with whom we can have discussions. River restoration, although it often uses engineering techniques, I suggest is not an engineering operation; it is an art informed by science, and that means we need to work together to get the most satisfying results. One to one discussion, with a willingness to listen to and respect the other perspective is the best way of getting good results. Conversely, the less frequent but occasional hard-work projects are where either the client is not interested in the outcome (and is doing work purely to discharge a planning or other condition), or when a poor consultant is involved. We work with some very good consultants, but we also encounter from time to time those with tunnel vision; that minority who are not interested in doing the best job possible; they just want a robot to follow their blueprint regardless of its merits. I suspect in many cases the issue is that the consultant is frightened of being exposed as less competent than the contractor

(foolishly, as there is no reason why they should be more expert than us in our specialist field).

In those cases the consultant gets frustrated with the contractor for questioning his design; and the contractor gets frustrated that the consultant is not allowing us to incorporate the quality and value in which we take pride.

If friction is allowed to develop the consultant seeks to demonstrate that the problem is with the contractor by drawing attention to any deviation from the written specification, and so compliance to the documentation becomes the project objective; not the river restoration. Both the client and the job lose out.

The best jobs are those where all parties; client, consultant and contractor through discourse share a vision of what is to be achieved; and then get on with it, using the specification as a structure and a check list; not as a constraint.

That said I can understand that when, for whatever reason, the contract is awarded to a less involved contractor, there is a need to be less flexible, and accept a more constrained output. The point is that just as no two clients are the same, so too no two contractors are the same, We all have our own strengths, weaknesses and characters. Client and consultant will get best value and best quality by working to the contractor's strengths, not to a lowest common denominator.

The RRC brief for today included reference to "understanding the designs" and "converting the client concept through the consultant design to on the ground works by the contractor". In these two areas especially, there will be a wide range of capabilities between contractors. Those projects which we have completed which I would rate as outstanding in terms of quality and value are those where the client has analysed their requirement, the consultant has analysed how it might be delivered and drawn up a design, but has worked with us on the mechanics of implementation. In those cases, of necessity we have had to understand fully the design concept and evolution; we will have had the chance to discuss it with the client and the consultant, and, having been pivotal in the proposals, are fully engaged with the implementation. In management speak: early involvement.

I go back to my earlier statement: River restoration, although it often uses engineering techniques, I suggest is not an engineering operation; it is an art informed by science. As such a successful outcome requires client, consultant and contractor to share the vision.

Conversely, much of what goes wrong can be attributed to those who do see river restoration as an engineering operation, to be imposed on the landscape by a dumb contractor following a rigid prescription. If you approach it with that attitude then there is no need for the contractor to understand the design, nor even to have any feel for

restoration, or motivation other than profit. Project management becomes a compliance issue rather than a shared experience, and when problems occur the priority is apportioning blame and cost, rather than overcoming them. This is an approach which, like an invasive species, hitched a ride on the engineering equipment from the civil engineering mindset, and is now common in many catchments.

The last problem to mention today are those specific interest groups or individuals who seek to promote their own agendas at the expense of any other benefits - often all too riding a right of 'empowerment', and in the future, worse still, 'localism'. They are a nuisance to the client and the contractor by forcing detrimental change to a scheme after it has been agreed with all the other people and groups. As contractors we can help the clients with these individuals by delivering a product that wins widespread approval; it undermines the troublemaker's capacity to garner support. Work such as river restoration nearly always has a significant interface between site operatives and the public: this is an opportunity to win friends, supporters, and indeed the backing for project extensions that we certainly aim to make use of, as well as winning local support for our clients to stand up against the special interest lobby.

Once again it boils down to a shared vision and common purpose; aspects that go beyond a specification and costed Bill of Quantities.

And finally, the RRC question "is there enough information on how to restore?". I suggest a better question would be whether people use the information already available. For those just starting out there is a lot of information available, if they feel sufficiently involved for it to be worthwhile. If their suggestions are simply over-ridden by the specification there is no point in the trying to learn. But for those who do find their team receptive, yes there is always scope for more information, and specifically, more sharing of information because most of us learn more from discussion than from reading a text. That, after all, is why people are meeting today and discussing how to make the system work better.