

Prioritising projects for Trout in the Town (TINTT)

This document is intended to outline a selection scheme that will enable the Wild Trout Trust (WTT) to identify and support restoration projects that correspond to the objectives of the Trout in the Town (TINTT) programme. Making the document publicly available serves the dual purpose of providing an entirely transparent selection procedure as well as providing a self-help guide to setting up a successful project. The broad range of factors that are captured in this scheme is designed to account for individual variability across projects. Projects that are very strong in one area may score more modestly in a separate area – and this is to be expected. No single project will perfectly fulfil all criteria to the highest level. The range of criteria available is intended to give the greatest opportunity for positive aspects to be identified in each project. Individuals and groups who want to set up a TINTT project should use this document to assess the potential strengths and shortcomings of their own situation. Following this assessment, key personnel can begin to be assembled and preliminary plans for suitable community engagement initiatives can be drawn up. The WTT can then use this scheme to produce a profile of each potential project and select the best portfolio of projects according to available resources. This will help the WTT to achieve the maximum practical benefit to our valuable urban streams and the communities that care for them.



Fry release day on the River Wandle



Ashe Hurst on his rounds on the Cray

Because of the trout's requirement for clean, well oxygenated water and its position as a predator of a wide variety of invertebrate and vertebrate prey; successful conservation of trout also results in wider biodiversity benefits. The presence of trout is indicative of a healthy ecosystem and trout in urban watercourses can readily be promoted as an emblem of valuable, high-quality green space in our towns and cities. This is the basis of the TINTT initiative.

Stated objectives of TINTT:

- Improve river habitat resulting in increased biodiversity in the urban environment
- Promote education and awareness of the value of healthy urban rivers
- Generate community involvement in the local environment



Cooling hands before fish photo in Colne



Brightly painted Colne brownie

It is proposed that, in order to meet these objectives, criteria are developed and implemented to identify the projects most appropriate to TINTT. Initial criteria are proposed here under three headings; Watercourse Characteristics, Key Personnel and Community Links. A fourth section that addresses potential risks associated with projects is also included. Whilst specific selection criteria may evolve according to lessons learnt, the four overarching headings represent fundamental requirements and should capture any future modifications. A framework for assessing potential projects against specific criteria is provided at the end of this document. Selecting and implementing projects according to this framework is aimed to encourage increased populations of wild trout in urban environments.

Watercourse characteristics

The watercourse is the medium in which habitat restoration will take place. Since the WTT achieves its aims via habitat management, watercourses with problems that cannot be solved by physical habitat manipulation are unsuitable for TINTT.



Sewage outfall on the River Cray



Series of low weirs and walled channel on the River Sheaf

For example, if water quality is too poor to support salmonid fish, then no amount of habitat manipulation could encourage a healthy population of wild trout. Further, the watercourse must have at least the **potential** to provide access to suitable habitat for trout at all life stages from ova, to juveniles to adult fish. This could be by direct provision of specific habitat types within a project reach. Alternatively, **potential** access to these different habitat types should exist or be provided by during restoration. Therefore, advisory visits (AVs) to prospective TINTT sites must indicate that tractable solutions exist that can provide: i.) suitable habitat and ii.) sufficient linkage between the full range of habitat types to sustain wild trout populations. Finally, there should be expected benefits (either directly and/or indirectly) to a stretch of river in an urban environment to be eligible for TINTT. In line with the selection rationale above, direct benefits would include habitat improvement within an urbanised reach. Conversely, indirect benefits might be improved provision of (and linkage to) spawning areas directly upstream of an urban reach. Therefore, criteria identified for watercourse characteristics are:

- Evidence of good water quality OR plausible solutions to existing water quality issues
- Demonstrable opportunity to provide:
 - Good quality habitat for all life-stages of wild trout within project reach

AND/OR

 - Demonstrable connectivity to good quality habitat for all life stages
- Benefits to urban reaches of watercourse

Key Personnel

In order for a project to be successfully carried out on a suitable watercourse, a number of key roles must be taken on by people involved. It will be necessary for someone to take on an overall leadership and co-ordination role (N.B. responsibility for one role does not preclude a person from contributing to other roles). Without the steering, guidance and motivation of a strong leader, projects are unlikely to succeed because of the relatively lengthy and complex negotiations and arrangements that are involved. Similarly, the lead person on a project must have support from other key personnel and/or angling club members. The burden of running a project to completion is unacceptably great if it falls onto one person and presents a severe risk of project failure if that single person is unable to continue in the leadership role.



Willow spiling on working party

Secondly, it is important that a person is available to take responsibility for liaison with the multiple individuals and organisations that will be involved with each project. Typically, links will have to be established and maintained between separate departments within the Environment Agency (e.g. Flood risk management, Fisheries and Biodiversity etc.) as well as between separate organisations (e.g. local business sponsorship partners, schools/community groups, conservation organisations and trusts, the Wild Trout Trust etc.).

Projects must also identify a workforce to physically carry out the restoration work itself. The Wild Trout Trust can offer practical instruction and demonstration of suitable restoration techniques, but cannot provide an entire workforce to deliver the project through to completion. Furthermore, there must be a commitment for proper long term maintenance of any restoration measures. Long term maintenance therefore requires the formation of a robust exit strategy for each project. This could take a number of forms and will vary according to each project, but may consist of the formation of a rivers trust or town angling club or other local community body. There is possible scope, in some cases, for landowners to maintain improvements following installation. In all cases the appointed body will assume ownership of the sustainability (and future liability) for each project.

In addition to technical and practical restoration assistance, the Wild Trout Trust can also provide support and advice in obtaining and managing funding. However, as with restoration workforces, individual projects must take responsibility for day to day funding management and record keeping. Clearly, effective use of funding and accurate financial records are absolutely fundamental to any project that is in receipt of sponsorship.

Ideally, in order to begin to assess the effects of restoration efforts, projects will need to contribute (at least to a specified minimum degree) towards collecting and reporting of basic physical and biological monitoring data. This is the best way to judge whether restorative benefits have been achieved. The various tiers to which projects are willing to undertake monitoring activities are set out in the scheme at the end of this document. Increasing priority will be given to schemes undertaking higher tier monitoring activities. As a minimum, fixed point photography and comparable catch returns pre and post project that identify fish size and angling effort (rod-hours) should be adopted (see appended example catch return format). Of course, electrofishing survey data would provide the ideal pre and post restoration assessment of fish stocks, but will often be unavailable.



Invertebrate monitoring

Additional monitoring that would be welcomed would be pre and post restoration assessments of invertebrate communities. Invertebrates are widely used to assess water quality and, of course, are the food supply of predatory fish, birds and bats. In addition, invertebrates are also known to respond to changes in flow and physical habitat conditions (i.e. LIFE index¹). In these ways, invertebrates are an important indicator of water quality, habitat quality and have direct and indirect (e.g. resource for predators) biodiversity value. Restoration projects that take advantage of the Riverfly Partnership² training and resources (or perform invertebrate monitoring to family or even species level by other means) will be stronger projects in their own right – as well as strengthening the rationale for inclusion in TINTT.

Further monitoring may include an assessment of social benefits attached to urban projects. Simple examples would include a noticeable reduction in fly tipping or an increase in social usage of the river corridor (e.g. an increase of workers taking their lunch on the riverbank). Documenting these changes will aid future support of proposed restoration and protection projects. Suggested formats for simple invertebrate and fish monitoring sheets are appended to this document. These could be filed along with photographic records and documentation of social benefits for each project.

Finally, there is also a need for projects to manage PR and local community events to publicise the good works being done in their local river. This ties in closely with the next section (Community involvement) below.

To summarise key personnel roles:

- Overall leadership
- Liason
- Delivery workforce
- Financial management and fundraising
- Biological monitoring
- PR & Events

¹ Monk *et al.* 2006 "Flow variability and macroinvertebrate community response within riverine systems", River Research and Applications, 22: 595–615

² <http://www.riverflies.org/>

Community involvement

Engaging, educating and involving communities with TINTT projects form one of the fundamental objectives of this initiative. The promotion of the value of urban green spaces and clean rivers that support good biodiversity can only be achieved through involvement of the local community. Therefore, when considering projects for selection, evidence of the potential for community involvement will be sought. Such potential may include (but is not restricted to) examples below:

- In-school programmes such as
 - Mayfly/Trout in the classroom
 - River cleanups/habitat days
 - Invertebrate sampling
 - River festivals involving “bugs and grubs” stalls, river art and carrying out practical work in the river
- Local wildlife/conservation organisation involvement
- Adoption of schemes by local neighbourhood/community action groups
- Social development schemes such as Angling For Youth Development (AFYD)
- Sponsorship, resource or labour contributions by local businesses

Project Risks

The acknowledgement and treatment of risks associated with projects are subdivided into three main areas:

- i. Project selection/reputational
- ii. Personnel/Health and Safety
- iii. Unintended consequences

These are considered separately below.

Project selection/reputational

The risks to the reputation of the WTT associated with project failure are largely captured and addressed via the project selection criteria outlined above. Identifying the correct selection criteria yields the best chances of identifying successful projects. However, there must be a balance struck between the resources committed versus the magnitude of potential gains of particular projects. The trust cannot afford to dismiss projects that have the greatest potential gains solely on the existence of risk to resources committed. It is, therefore, proposed that a diverse portfolio of projects spanning from “minimal input/easy success” to “longer term/ambitious” projects is adopted.

Personnel

The characteristics and wellbeing of key project personnel are all vital to the success of individual projects³. Therefore, as acknowledged in the selection criteria for assessing appropriate role allocation,

³ “Saving your stream and your sanity”: *Salmo trutta* volume 7

it is imperative that the WTT meets and works closely with key project personnel. This applies continually throughout a project's lifespan. Regular communication also enables the early identification of problematic issues related to personnel (as well as operational problems). Morale and participant satisfaction are important "lead indicators" of project success and should be monitored closely by all contact points within the WTT.

Similarly, it is vital that appropriate codes of safe working practices are insisted upon by the WTT. Proper risk assessments, personal protective equipment and accreditation of operational personnel are mandatory. As an example, no chainsaw work will be allowed to be undertaken unless operatives can produce up to date recognised accreditation.

Unintended consequences

These are risks associated with implementation of restoration measures that could have undesirable results. Typical examples may be an increased flooding risk to properties in urban river reaches or the acceleration of bank erosion in sensitive areas. Given the innovative and novel nature of TINTT in particular, it will often be appropriate to seek specialist help in predicting the impacts of restoration measures. A specific example would be the involvement of the River Restoration Centre to perform complex hydrological modelling that is outside current WTT capabilities. The results of such models would be invaluable in Environment Agency flood risk management assessments of restoration interventions. The role of WTT personnel in managing these risks, therefore, is to counsel project personnel appropriately in the need for specialist assessments and regulatory approval.

Project selection framework

A formalised framework of evidence for project selection is included over the page. The framework criteria are used to produce a long list of potential projects. Attendant risks should subsequently be assessed for long-listed projects. An appropriate portfolio of projects can then be assembled.

Insert rationale for expected benefits to urban river reach to be considered for TINTT:

WATERCOURSE	Good Y/N	Evidence			Comments		
Water quality							
Potential to improve water quality							
Potential habitat in restoration reach (Y/N)	Spawning	Juvenile	Adult	Identified restoration measures			
Potential to link to existing good quality habitat (Y/N)							
PERSONNEL	Lead	Liase	Finance	Workforce	Biological monitoring		
Named person							
Named group							
Role allocation Realistic?					Fish only	Fish + Riverfly	Fish + LIFE families
COMMUNITY	School	County Council	Local action group	Business partners	Conservation organisation	Other:	
Indicate Y/N :							
Classroom aquarium							
AFYD							
Labour provision							
Sponsorship							
Expertise							
Adoption programme							
Comments / further development potential							

TROUT IN THE TOWN ANGLERS - CATCH RETURN

DATE	BEAT	SIZE OF TROUT CAUGHT IN INCHES							Trout KILLED (number)	SIZE OF GRAYLING CAUGHT IN INCHES							Grayling KILLED (number)	HOURS FISHED	GUEST Y/N						
		5	6-8	9	10	11	12	13		14	14+	5	6-8	9	10	11				12	13	14	14+		
15/07/2008	RB		4	8	2	3	1	1	1	RT*											0	5	N		

INVERTEBRATE SAMPLING RECORD SHEET

(fill in and tick boxes as necessary)

LOCATION: AT:	NGR:	DATE:
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NAMES OF PERSONS SAMPLING:

WATER CONDITIONS	LOW		NORMAL		HIGH	
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INVERTEBRATE TYPE	PRESENT?		HOW NUMEROUS?		
	YES	NO	1-9	10-99	100 plus
1. MAYFLY NYMPHS – OLIVE (Baetidae)					
2. MAYFLY NYMPHS – FLAT (Heptageniidae)					
3. MAYFLY NYMPHS – CREEPER (Ephemerellidae)					
4. MAYFLY NYMPHS – OTHERS List Families present:					
5. STONEFLY NYMPHS – DARK TYPES					
6. STONEFLY NYMPHS – LIGHT TYPES					
7. CADDIS – CASE LESS TYPES List Families present:					
8. CADDIS CASED TYPES List Families present:					
7. SHRIMPS					
8. HOG LICE					
OTHER GROUPS (list)					

OTHER NOTES AND COMMENTS: On reverse