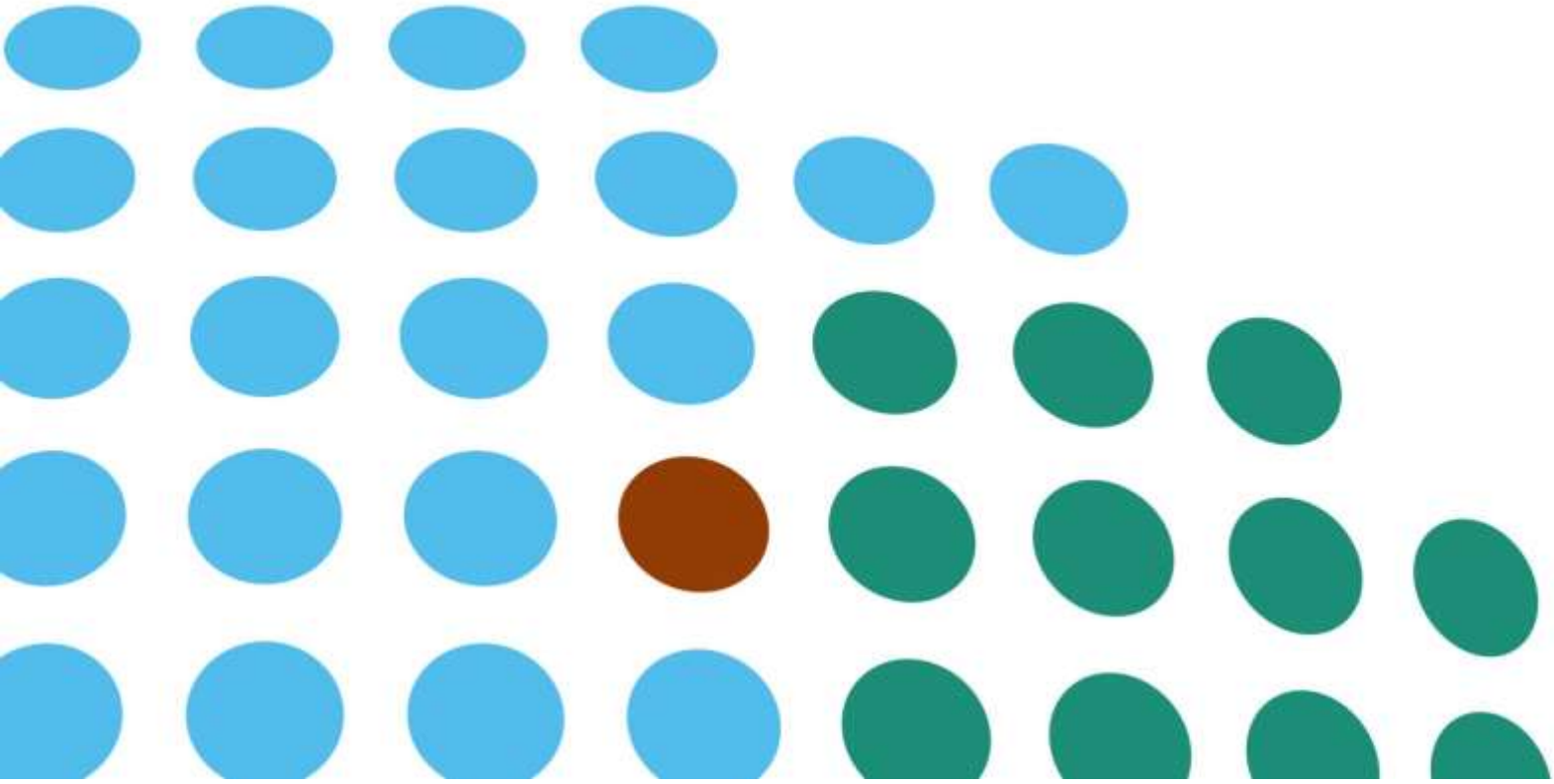
Turning environmental problems
into enterprising solutions

Climate VISION

Leaf Litter Project Toolkit

February 2015



Cornwall Community Flood Forum

CORNWALL COUNCIL

Department for Environment, Food & Rural Affairs

Turning environmental problems into enterprising solutions

Climate VISION

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1 Introduction

1.1 Increasing Flood Risk

According to the Met Office in the UK we are seeing an increase in both the intensity of rainfall events and the total rainfall overall in response to climate change. This is leading to an increase in flood risk from rivers and surface water runoff, with 3 million properties currently at risk from flash flooding across England. Flash flooding is rapid flooding of an area that occurs in response to a single rainfall event, with or without a river. Surface water flooding does not involve rivers at all, but a temporary watercourse is created by water flowing over the land without significantly soaking into it.

All types of flooding have increased in the UK due to land management practices and higher rainfall levels increasing the amount of surface runoff. The land has become less able to soak up heavy rain as it falls so it flows over the surface of the land, finding its way more rapidly into rivers by creating temporary watercourses as those found in surface water flooding. Relatively small rain events can also trigger surface water and flash flooding if the ground is particularly saturated from persistent rainfall in the preceding weeks or months. This was the case across the South West of England during the 2012 / 2013 flooding where surface water caused significant damage to communities across the region.

The risks of these types of flooding are greatly reduced by clearing leaf litter from roads. This increases the effectiveness of roadside drainage systems, allowing rain water to drain freely and quickly away from the community. However, with current reduced government spending it is difficult to enhance the current service economically to provide necessary, additional, time and location critical clearing activities within the existing contracts, especially in expansive rural parts of the country. However, this work is essential to reduce risk from surface water flooding. Without this important service communities are being left more vulnerable to this increasing surface water flood risk and this toolkit offers an affordable, low-carbon and sustainable alternative to minimize flood risk on a local level.

1.2 Initial Idea

Climate Vision approached the Probation Service about their Community Payback Scheme to find labour for leaf clearance. However, we also saw an engagement opportunity to inspire and empower low-risk offenders to help local communities with new knowledge and certified training on how to alleviate flood risk through the lens of climate change. We could communicate the importance of the work in a changing climate during the project and offenders could help offer a low cost solution to some of the flooding issues within these communities. The Probation Service would find high-impact work streams for the Community

Payback Scheme and the Highway Authority would get expensive work done that they are economically challenged to deliver themselves. The people would see offenders working as a team to reduce flood risk in their community and have a chance to engage, if they wished, with them and thank them for a job well done.

Climate Vision has now successfully lead a leaf clearance project in 3 communities during Autumn 2013/4 in Cornwall, using offenders from the Probation Service's Community Payback Scheme.

Case study

Before doing this work 75% of the workforce said that they would not have volunteered to help reduce flood risk in their community. After completing the work 60% said that they would volunteer to reduce flood risk in their local community and the remainder would consider it.

(Survey data from 2013/4 pilot project)

1.3 Involve the Community: a Community-Driven Model

The work done to date using the using this toolkit has been done using a Probationer-Driven Model (PDM) with the help of the Devon and Cornwall Probation Trust (until 2014) and then The Dorset, Devon & Cornwall Community Rehabilitation Company after for the 2015/15 leaf clearances. However, there are a number of factors dictating whether the Probation Service in other areas of the UK will be able to provide the labour needed for this work as they are run by different companies depending on region and they may have different pressures driving the exact nature of the services they deliver. Therefore, it is important to consider this work as deliverable by trained volunteers from the community in place of probationers in a "Community-Driven Model" (CDM).

1.4 Tried and Tested:

The project work outlined in this toolkit has been project-managed by the risk management consultancy: Climate Vision with excellent results. During the original pilot, six Met office 'Yellow' (be aware) alerts were issued, for two events, one of which became an 'Amber' (be prepared) alert. While it is essential to note that Lostwithiel, during these times, unlike neighboring areas, ***did not flood***, there are many causes and contributions to flooding events. However, the following week the Lostwithiel community began to visit the offenders while at work and thanked them, telling them about their flooding experiences. This was unexpected and made a significant difference to offenders and other staff working on the project.

Case study

"Lostwithiel is grateful that the leaf litter project is returning this autumn. It proved a great success when trialled in 2011. In between times our town has been flooded twice, in November & December of last year. The project is of great assistance in minimising any future flooding risks that may occur over the winter period. A considerable amount of leaf mulch was created last time which was utilised by nearby town council and grateful allotment tenants".

(John Pegg, Lostwithiel Resident, ex-Town Councillor, Vice-Chair National Flood Forum)

This toolkit provides examples from a Probationer-Driven Model (PDM) where probationers from the Community Payback Scheme offered labour for the project, with offenders removing and composting the leaf litter. Climate Vision also worked with residents from the communities, the Local Councils, Waste Management contractors, local Highway Authority and the Highways Agency to make this project possible. The work solved policy demands for all of the professional partners whilst adding additional value by including 3 nearby communities with similar flooding issues in the project. They could all be serviced simultaneously by the same project team. Also, each of these communities had flood plans and this work significantly reduced the work needed by the community to reduce flood risk in their area. In a Community-Driven Model (CDM), we would recommend that volunteers already involved in any such community flood plans are to be the first individuals approached to provide the workforce needed for successful execution of this toolkit. They may volunteer themselves or have local contacts that may become willing volunteers from other community volunteer schemes such as a local emergency plan. Ideally a part time project manager role could be sourced from these volunteers too; they could fulfil the role played by our Climate Vision consultants in the initial year/years of the project and carry it through as part of the legacy of the project. A possible of remuneration for this role could be sourced from the sale of the mulch although this is yet to be tested.

1.5 Sustainability:

The communities and environmental consultants helped Climate Vision find appropriate sites for composting the leaf letter. This would later become a useful locally produced-resource that was once a flood risk to the community. This was also a low-carbon solution to clearing leaf litter as no machinery was needed other than to transport the workforce and the leaf litter was made into mulch for use as soil conditioner in amenity areas. It is also possible that the leaves *could* provide mulch useable for food production but more data is currently needed to confirm that heavy metal contamination from road surface water runoff is not an issue.

This scheme also found offenders wanting to use their new skills and knowledge on climate change and flood prevention by putting them to use by volunteering in their own communities.

2 Delivery: Increasing Flood Resilience

This toolkit is designed to identify key steps needed to reduce flood risk in communities at risk from surface water flooding caused by leaf litter obstructing proper drainage. Starting in July, with effective engagement with the community and strong working relationships with professional partners: getting offenders or community volunteers trained and ready to start work on routine and emergency leaf litter clearance during the autumn is highly achievable.

2.1 Getting Started: Scope of the Project

As communities are usually the first to identify the need for local flood prevention, community engagement is essential. We can use our experience to manage the project and work with communities to start reducing flood risk. Local knowledge from the community is necessary so, when we bring together all the outside expertise and manpower, we have clearly identified the initial scope of the project to effectively improve drainage and reduce their flood risk.

Pool Local Knowledge:

- Communities can give valuable insight into flood risk and help find ways to add value to the project that suit the community's needs.
- Attending (PDM) or holding (CDM) a local flood-group event or community meeting is a great way to involve as much of the community as possible at the outset and quickly aggregating local knowledge in one go.
    - To increase attendance it is productive to have these as close to a recent flood event as possible: people will have fresh knowledge of exactly where the problem areas are located.
    - We can facilitate the session and answer any questions about the effect of climate change and the changing nature of flood risk and in the community.
- Informal workshop style meetings can be easily organised and crowding round a large map of the area and adding annotations works well to record information from attendees.
- A dedicated meeting is usually 90 minutes with 10 minutes for the workshop at the end to pool local knowledge on any issues related to flooding.

Pool Local Knowledge:

- As the democratically elected body, the Local Council are usually central to the process and they will hold an essential role in supporting and promoting such evets and also the delivery process within the local community.
- In the Probationer-Driven Model (PDM): a project manager will attend site to clarify the picture of flood risk once information gathering is complete from the community.
- Timing is important: Starting the process in July will give enough time to gather together the local knowledge and work with professional partners to ensure all resources are in place ready for autumn leaf fall.
- Determining the potential scope of the project here is also important as this will impact on all decision making regarding necessary resources and timing needed for successful execution.
- This could be the perfect opportunity to gather community volunteers CDM

Professional Partners

These partners would either be engaged with by the consultants or community members managing the delivery of the project.

- Highway Authority (Local Council)
  - Training
  - Equipment
- Environmental Consultants
  - Consultation on viability of composting site (The consultant managing the project should coordinate on this; Climate Vision conducted all such engagement with the consultant and community in pilot projects)
  - Composting training (Preferably a local composting group so investment is made in the local area.)
- Probation Service
  - Workforce for drain clearance
  - Supervision of workforce

2.2 Costs

If lead by Climate Vision, the only cost would be our consultancy fees for 6 days of project management which will include engagement with the community in question in the initial phase during the flood risk assessment. All parties see value added by Climate Vision or other similarly qualified professional partner bringing resources together to perform this work.

Adding Value

- Highway Authority:
  - If they provide the training at no cost they see their roads being cleared using free labour.
- Probation Service:
  - Gain a work stream for the Community Payback Scheme offering the following:
    - It can be positively publicised, easily to improve the image of the Probation Service.
    - Both the workers and the results are clearly visible and tangible for the local community.
    - Get offenders get out into the public eye where they can be engaged with by the local public and be seen to be giving back to communities.
- Probationers (Offenders):
  - Can receive immediate thanks for their work and hear about the difference that work has made to people's lives first hand, helping their rehabilitation.
  - Empower them to see that they can give back to their own communities and see the benefit of doing so, the sense of achievement.
- Community:
  - Local flood risk is dramatically reduced.
  - As taxpayers they see a tangible benefit from the government with a human face with which they can engage

Training from the Highway Authority was £500 during the 2013/4 Pilot, but Climate Vision suggests training be provided free of charge due to the savings being made to them by not having to complete the work themselves.

With our experience and expertise this project can offer a high level of service to a community with as little expense to the taxpayer as possible and also pay for itself within months of commencement. A similarly qualified professional partner may also be able to manage the project at similar cost.

1. Identifying the Sites, Feasibility and Risk Assessment

This is where local knowledge is key to the project's success: once areas prone to flooding have been identified by the community the project manager (consultancy or community members) can work with project partners to determine the logistics and potential scale of the leaf litter clearance needed. An appropriate site for composting the leaf litter is also found at this point.

In the PDM multiple communities can be serviced by the same workforce, this can represent a significant cost saving for the project.

Examining the Evidence: Site Inspections

- Flood-prone sites identified in the community meeting must be surveyed by the project team and the community to assess their suitability for manual leaf clearance, they are then prioritised according to their impact on flood risk.
- Road works should be considered, whether they are scheduled or ongoing as they will have an obvious impact on leaf clearance schedules and priorities.
- Composting site
    - Near to the areas needing leaf clearance is preferable to reduce the need for vehicles.
    - Also be identified by consulting the community for location and environmental consultant for suitability regarding environmental impact.
- Risk assessments and a Method Statement must be completed before the work begins using the knowledge from the surveys on the ground (Found in Appendix 2)

Other Useful Sources of Information

- In some cases the project manager (consultancy or community members) may use the following resources to help prioritise which flood prone areas for clearance before others:
    - Detailed flood maps for surface water
        - These have been recently updated and are available from the Environment Agency on request
    - Detailed Drainage maps:
        - Provided by The Highways Agency, who can provide plans for the drainage systems of the local roads, also on request

2.3 Assembling the Workforce

Here we will need the help of the Probation Service or community volunteers to provide the workforce. They will require training from the Highway Authority, so that they can work on the roadside and clear the leaf litter safely and from an environmental consultant so that the leaves can be successfully converted to mulch for use in soil conditioner. If project managed by Climate Vision, they will also receive flood prevention and climate change training.

Gathering the Workforce

- In the PDM, consultants can work with the Probation Service to obtain a group of trained, low-risk offenders from the Community Payback scheme to do the work with Probation staff to supervise them on the ground.
    - Numbers or workers will vary based on the workload and their availability
    - Sundays have been selected previously as many offenders have weekday jobs
- In the CDM the probation service will not be needed but the workforce gathered from within the community.

Training the Workforce

- Training will be needed in both CDM and PDM
- Consultants or the community volunteer project manager can coordinate with professional partners to ensure delivery of a single session of accredited training for offenders to do the work:
    - Highways Authority
        - To provide Working on the Highway Margins training to offenders or community volunteers (an accredited qualification)
    - Environmental Consultants
        - Composting training
- After numbers of workers needed have been identified, deciding on extra numbers for contingency is prudent to deal with sickness or offenders not being able to finish this particular project.

Offender Supervision (PDM)

- Offenders, although low risk will be supervised by trained staff from the Probation Service while on site. (All Supervisors are BSC Health and Safety Risk Assessment Qualified to Level 2)
- All offenders are given an H&S briefing prior to commencing the Unpaid Work Orders. This is followed up by a Tool Box Health and Safety briefing before the start of each working day which offenders have to sign an acknowledgement form as having received it.
- The offenders will receive 1:1 flood prevention and climate change training from a Climate Vision consultant in the field while completing the work.
- The community will also benefit from Climate Vision's expertise as we will be able to answer questions about the nature of the project, climate change and flood risk in the area.

2.4 Leaf Litter Clearance

Once trained a task force of low-risk offenders, overseen by Probation Service staff and a consultant will go into the community to ensure leaf litter is cleared from the sites identified in stage 2. In the CDM, this will, of course, be carried out by the community. Leaf litter volumes can vary greatly from year to year, sediment washed into and contained within the leaf litter is a significant driving factor but wind direction bringing leaves from different directions can also have an influence. This should be thought about when considering future years of clearance.

Equipment

- This should be available free of charge as the labour is being done for free (CDM/PDM).
- In the PDM the Probation Service should be approached for equipment first and anything they are not able to provide should be obtainable from the local Highway Authority. Using the CDM only the Highway Authority need be approached. Necessary equipment will include:
    - Wheelbarrows
    - Forks
    - Spades / Shovels
    - High Vis jackets
    - Brooms
    - Wheel barrows
    - Road signs
    - Sandbags (to secure road signs)
- And also Cory Environmental Waste Management Contractors (May find a similarly helpful contractors locally)
    - Bin bags

Schedule

- Having studied the catchment area, photographed and discussed all sites with the stakeholders, the schedule is based on:
    1. Area of the road most likely to have drains covered in leaves
    2. Ability to clear all (e.g. three) sites and deposit leaves to compost site in one day
    3. Ease of transporting workers safely from site to site
    4. Ability to respond outside of normal clearing schedule
    5. Safety of carrying out schedule

Transport: PDM

- The Probation Service will bring offenders to site
- All other parties will be responsible for their own transport
- Transport of leaves will be done with wheelbarrows wherever possible to reduce the carbon footprint of the work.
    - A map of wheelbarrow routes should be created as routes to composting sites for two reasons:
        - to maintain health and safety standards regarding potential risks of any routes
        - to determine timescales for leaf clearance and delivery to compost sites

Transport: CDM

- This will be organised, if needed, through the volunteers within the community.
    - Wheelbarrow roots will still be beneficial for the same reasons as above

2.5 Emergency Response

Communities in need of this leaf clearance work are chosen due to their likelihood of surface water flooding. As this is rapid in nature the scheduled leaf clearance may not always be relied upon to keep the roads clear when needed. This means an emergency clearance plan is also important ready for implementation in response to triggers such as Amber Alerts from the Met Office forecasting heavy rain in the area.

In the PDM Met Office Alerts should be monitored by the project managers (in previous cases: Climate Vision) who would contact the Probation Service to see if the work force could be assembled in time for emergency clearance. The CDM would have community members monitoring weather warnings and leaf litter situations to inform the need for reactive emergency leaf clearance.

Community Flood / Emergency Plan

- The community may already have a Community Flood Plan or Emergency Plan.
- These will have a pre-existing structure of volunteers already protecting the community.
- They could be called upon for local knowledge and a volunteer workforce for emergency clearance if probationers are not available.

PDM: Community Volunteers Working with the Probation Service

- During engagement at the initial meeting to identify local flood risk in the PDM, consultants can liaise with any community volunteers to explain how they can help increase the community's flood resilience by working with the Probation Service in some aspects of project work.
- Ideally they could disseminate information to the Probation Service to warn them of the need for leaf clearance in the event of:
    - Particularly heavy recent leaf fall
    - The forecast of heavy rain
- **If resources from the Probation Service allow** then low risk offenders may be made available for emergency leaf clearance.

CDM:

- The community would perform the following:
    - All leaf emergency leaf clearance
    - All monitoring
        - Weather warnings
        - Leaf litter levels

2.6 Disposal / Composting

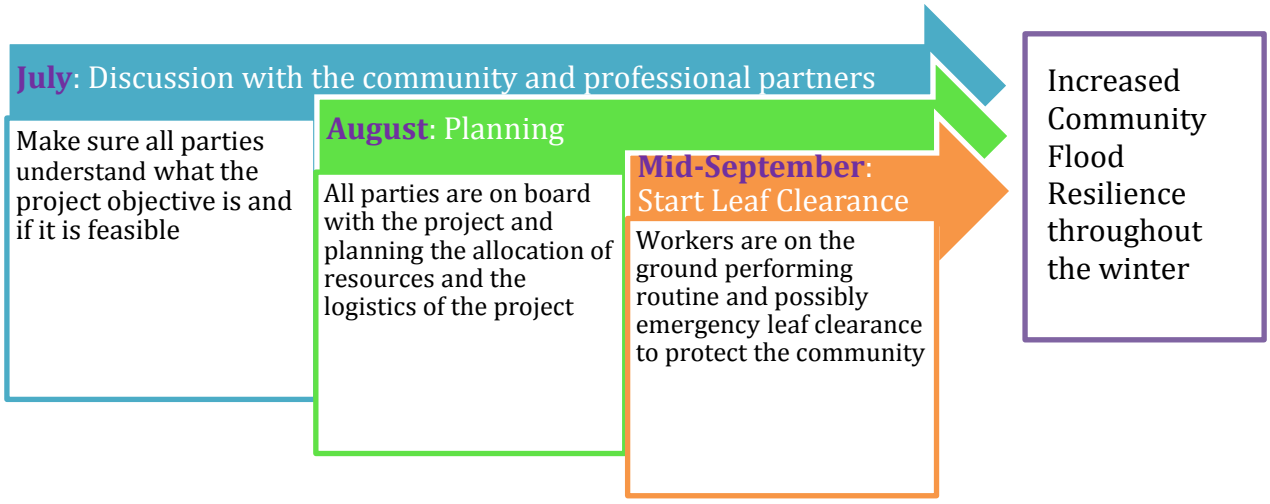
This is a major environmental benefit of the project: as all the leaf litter is collected by hand and disposed of, creating soil conditioning mulch as a waste product. The project maintains a small carbon footprint while also generating a useful local resource which will reduce the need to buy and transport commercially produced mulch. However, should the mulch not be needed it is also safe for it to degrade back into the soil naturally.

Disposal / Composting

- The leaves will be gathered up by the offenders or community volunteers and transported to the composting site in plastic bin bags. At both Pilots, the Composting Consultant advised Biodegradable bags would not be strong enough, nor last long enough for this process. The best method would be to use strong black plastic bags and remove them after a year, with a view to souring a recycling outlet. (method for transport is dependent on sites for leaf clearance and composting but to keep low carbon emissions wheelbarrows are preferred)
    - Using strong bin bags can dramatically reduce time for leaf clearance as more litter can be held in each reducing the number of units for transportation and time lost to bag breakages.
- Climate Vision will gain exemptions for transport and disposal of the leaf litter from the Environment Agency for composting.
- Bags will need to be punctured with forks for the composting process to take place properly.
- Bags will be left at the composting site for at least a year:
    - A site should be chosen where the leaves can be left to decompose fully should they not ever be needed for any soil conditioning purposes.
    - Timescales for full breakdown into good quality mulch will vary depending on the species of trees producing the leaf litter, but 12 months is recommended based on the two Pilots.
    - Bags will be removed by the waste contractor for recycling after the process is complete

2.7 Timeline

It is essential to have the community and all the partners on board early enough to be ready to start work in mid-September and the first leaf fall. Climate Vision had great success using the following:



2.8 Lessons Learned

PDM: The Community and the Offenders

To see the emergent social benefits of this type of project it is important to look at some of the accounts of those involved:

Case study

"It feels good to know we have helped the people in Lostwithiel and some resident have even come out to thank us."

"It has made me think a lot about things I have and I have decided that I would really like to do some voluntary work in the future to help more people." (Phillip, 19, offender from Padstow)

The community passing on their appreciation for the work done to protect their community has also given offenders inspiration to exercise their knowledge and experience gained on the project by volunteering in their own communities:

Case study

In Lostwithiel the community had not been prompted to, but thanked the offenders at the end of the program. This had a huge impact: one offender was particularly hard to motivate and work with; however, after returning to work in the community after some leaf clearance they had done in the previous weeks he was talked to by a local family. They chatted for half an hour as the family thanked him for his efforts, telling him that they felt it had directly protected their home from flooding in the last rain event. They told him how important his work had been in preventing flooding in their home. This particular offender, formerly intimidating and difficult to work with, was moved to tears from their thanks telling Luci Isaacson and a local journalist: "nobody has ever thanked me for anything in my entire life".

Furthermore, at planning stage of the 2013/4 Pilot, "The workers were very proud, especially having been thanked by the community, the Probation Manager had said 'no-one has yet re-offended from the first pilot'"

Case study

"This is a fantastic opportunity to combine important work to reduce the risk of flooding in three vulnerable communities with very meaningful activity for offenders serving sentences within the community. At the same time the initiative is benefitting gardeners through the production of compostable material rather than sending additional waste to landfill – everyone wins".

(Martyn Alvey, Community Flood Resilience Manager for Cornwall Council)

In past projects this scheme has provided offenders with training on flood risk alleviation, composting, awareness about climate change and a feeling of empowerment in their role in society. This project represents a great opportunity to create more flood resilient communities and help to rehabilitate offenders. This toolkit should provide all the information needed to execute another leaf clearance project in other communities.

Case study

"At first they hated the work, working in the rain every Sunday. After a few weeks they started to become interested and discussing the absolute logic of the work they were doing. 'If the drains are blocked, course it's going to flood.' Eventually they became very proud of their work and could understand the cycle through learning about composting the leaves. By the final week, they were considering themselves super heroes as they knew that had stopped flooding, this they discussed alongside discussions about 'atmospheric rivers' and all sorts of interesting stuff" (Luci Isaacson, Director, Climate Vision)

2.9 Evaluation

It is useful to gather figures on the project for ongoing evaluation of the project and to identify areas for improvement. Also, noting project success in leaf clearance and reducing flood risk for publication in local news media, as Climate Vision has done throughout the project, will; help promote the success of this kind of work, raise the profile of all professional partners involved and help proliferate low-cost, partnership-driven projects in future:

- Physical quantity of leaf litter removed (with photos)
- Quality and level of contamination of the leaf litter (in case it can be used at as a higher grade soil conditioner as more data is gathered in future)
- Anecdotal evidence of residents
- Pictures of before and after clearance
- Workforce Baseline questionnaire/interview

Climate Vision would welcome the opportunity to collate such data, as the creators of the project we would be keen to monitor future performance, whether the project be executed by Climate Vision, local authorities or community volunteers.

2.10 Legacy

Unless there is significant change in public funding for such work leaf clearance delivered by community members, the Probation Service or other similarly resourced professional partners may be a long term solution to flood alleviation under these circumstances. Once the preparation has been done once, contacts made and sites identified: maintaining the project year on year will require less resource. However, continued evaluation of project success and recording lessons learned will be important in ensuring that following this toolkit can continue to help make communities more resilient to surface water flash flooding in the future.

3 Appendix

3.1 Some Considerations: Community-Driven Model (CDM) vs Probationer-Driven Model (PDM)

Under the Community-Driven Model: community members may effectively undertake the project management workload of the professional partner (in the case of this toolkit: Climate Vision), becoming part of and managing the project team. The community would organise other professional partners to deliver resources and services, or maintain those already in place from the project setup by the consultant performing this role. Also, as in section 1.4, possible remuneration for the part time Project Manager could come from the sale of the mulch, although Climate Vision would like to assess this further in future iterations of the project.

There may be no choice in the affected community but these are some factors to consider when exploring both options:

Factor	Community-Driven (CDM)	Probationer-Driven (PDM)
Leaf-litter Workforce: Emergency Clearance	Emergency Clearance could be done more quickly in response to extreme weather forecasts by community volunteers	Can have one workforce ready to service the emergency clearance needs of several nearby communities
Leaf-litter Workforce: Cost	Free: Community Volunteers	Free: Community Payback Probationers
Organisation: Delivery	Needs reliable community members to do the project management work each year	Qualified and experience professional partner would ensure delivery of the service consistently year on year
Organisation : Cost	Reduced cost: no need for qualified professional partner to paid to undertake project management workload	Greater cost: project managed by professional partners
Contact Time: Community Flood Plan Volunteer force	**More**: possibly more cohesive as a result could have positive impact on the effectiveness of the Community Flood Plan	**Less**: maintain the same level of cohesion between volunteers as before leaf litter clearance
Workload: Community Flood Plan Volunteer force	**Increased**: Possibly harder to get volunteers due to increased flood risk management workload	**No Change:** Volunteers busy lives are not further interrupted by increased labour
Volunteer Opportunity	More volunteer opportunities for community members	Reduced volunteer opportunities within the

		community but elements of compost work still deliverable by community members
Social Impact	Community can have and increased sense of achievement in local flood risk reduction	Probationers can have and increased sense of achievement: they are given the opportunity to deliver important services to recipients they may actually engage with
Experience: Project Delivery	Community members will have first-hand knowledge of the community members, potential workforce and flood risk areas within the community	Experienced consultants can add value by using experience from managing leaf clearance projects in other communities and pre-existing relationships within professional partner organisations
Experience: Flood Risk	Detailed understanding of local flood risk	Consultants will have experience of flood risk in many other communities and could share useful knowledge relating to flood risk in your area.

3.2 Composting Checklist

Composting Site:	This must be selected before any work begins, good to have a site where leaf litter can remain in case it is not used for a specific purpose, avoiding transporting again.
Mulching Sites:	
Owner Name:	
Signed:	
Date:	

Site Checklist

- ☐ Must not be for use in the food chain/allotments.
- ☐ Keep away from SSSi and water course
- ☐ Don't move it
- ☐ Keep segregated
- ☐ Won't be mixed with other compost waste
- ☐ Use as a mulch at the end
- ☐ Can you stab the bags to give small air holes?

Usage Checklist

- ☐ Engage with the community- offer to Town Council Parks, gardens & amenity areas
- ☐ Used for amenity areas as a benefit to the community
- ☐ Mulch shrub borders, to feed your plants along with nourishing the soil as the leaf litter returns much-needed nutrients to the ground.
- ☐ Using the proximity principle to compost it close to its creation
- ☐ To prevent flooding
- ☐ To alleviate the affects of climate change

3.3 Health and Safety and Training

3.3.1 PILOT Staff Information Sheet

The following method statement has been developed to provide a safe system of work and must be adhered to at all times, any significant deviation from this system must first be authorised by the Project Manager. **Please read the entire sheet before beginning the procedure, if you have any questions please contact your manager or safety representative.**

The main hazards to your safety and health are;

a) Injury from incorrect Manual handling.
b) Injury from slips trips and falls.
c) Contact dermatitis from exposure to wet leaf litter and dust.
d) Disease from standing/stagnant water.
e) Injury from the incorrect actions of other contractors on site.
f) Injury to members of the public during operations.

Preventative Measures you must take;

a) You must be "competent" to carry out the task.
b) You must NOT carry out this task alone
c) Barriers and signage erected appropriately around the work area if deemed necessary by the safety officer to motorists and workers.
d) You must not lift beyond your capabilities, get help if necessary.
e) You must undergo the 'Works in the Highway Margins' training programme, which includes wheelbarrow management.

Personal Protective Equipment you must wear;

a) High visual vest
b) Gloves
c) Safety boots
d) Other equipment that might be desired, masks etc.

Environmental Protection Measures you must take;

a) You must dispose of waste and leaf litter to the designated areas.

Quality Control

a) Adhere strictly to the following procedure to ensure quality of service
b) If in doubt contact your manager for clarification before proceeding.

Task Description

This method statement describes the work process for the removal of existing leaf litter covering highway drain covers, the measuring of leaf litter found, and the transportation of the leaf litter to the designated area.

Staff & Training

The projects will be carried out by staff from Community Payback, trained by Cornwall Council Highways Authority, Cormac Ltd. A Community Payback site supervisor will be appointed who will be responsible for quality and safety and is BSC Health & Safety Risk Assessment Qualified to Level 2. Workers will be supervised and are not allowed to carry out tasks for which they have not been trained, unless supervised closely by a supervisor who has undergone the above mentioned training.

PPE

All site workers will wear Safety boots Hi Visibility Vests, other items of PPE such gloves are available to be worn as and when necessary.

Preparation & Induction

A risk assessment will be carried out for all tasks which will be discussed with members of staff and the sub-contractors, any queries or concerns will be raised with the contract manager who will ensure it is dealt with.

Welfare

The principal contractor is responsible for providing adequate washing, toilet, facilities for staff, staff and contractors are responsible for ensuring that such welfare facilities, in this case, being the public conveniences.

First Aid

It is the responsibility of the Community Payback Supervisor to ensure adequate first aid provision for its staff. Adequate means provision of a trained first aider, suitable first aid equipment and/or the provision of an appointed person at the minimum.

A trained first aider will be a suitable person who has attended an HSE approved course of at least four days' duration and he/she will re-train at least every three years on a course of not less than two days.

The Community Payback Supervisor is appointed to take charge of the situation (e.g. to call an ambulance) if a serious injury/illness occurs in the absence of a first aider. The Appointed Person can render emergency first aid if trained to do so.

Material Handling

Leaf litter and waste litter will be removed and placed in the designated areas to comply with exemption granted by the Environment Agency.

Removal of leaf litter from drain covers from designated streets and taken to designated area.

Step by step procedure

Start of works.

1. Community Payback Supervisor will ensure site is safe to commence work.
2. Staff and contractors will put on Personal Protective Equipment
3. Ensure that signage, cones and access are safe to work on, according to the highways authority training.
4. Collect and remove leaf litter, measure and take to waste area

3.4 HIGHWAY SAFETY & SIGNING (NON-WORKS / VOLUNTEERS)

COURSE DURATION 3.0 HOURS MAX TRAINEES 10

A training session for people carrying out activities within the Highway boundaries but principally not within the carriageway.

INTENDED LEARNING OUTCOMES

At the end of the training session the trainee will:-

- Understand when signs are necessary
- Be aware of the basic measures to employ when placing signs
- Understand the legal implications of what is being done
- Be able to carry out hazard identification and risk evaluation
- Be able to implement risk reduction methods
- Have knowledge of the Traffic Signs Regulations & General Directions 2002
- Understand how to place, maintain and remove signs safely
- Have demonstrated knowledge of the above by completing an assessment
- Appreciate basic site safety procedures

PROGRAMME

Introduction and Documentation

Health & Safety Requirements

Civil Responsibilities

Hazard Identification, Risk Assessment and Control

Manual Handling Techniques

Conspicuity of Personnel

Conspicuity of Vehicles

Supervision of Volunteers

COFFEE BREAK

Types of Signs (Traffic Sign Regs & General Directions 2002)

In-situ Driving and Manoeuvring

Sign Placement

Sign Maintenance

Sign Removal

Problem Areas

Assessment

Results & Close

JOB NAME/ NUMBER: LOCATION: ……Probation Services Gully clearance

List of Significant Safety, Health & Environmental Hazards

Human Behaviour Consider if there are any issues which could be significant in assessing this activity which relates to possible increased risk due to human behaviour *Eg members of public ignoring signage and barriers*	Operatives not familiar with task or working environment. Close supervision necessary to ensure compliance with risk assessment.	Vulnerable Staff Are there any staff who may be particularly vulnerable and at risk eg young persons (under 18); new and expectant mothers, staff with disabilities or health conditions that might increase risk?	List these: Note - personal risk assessment should be carried out
Occupational Health Consider if there are any issues which could be significant in relation to occupational health *eg hearing loss, stress and musculoskeletal damage*	List these	Other Vulnerable Persons Are there service users or visitors who may be particularly vulnerable and at risk eg children or adults with physical or learning disabilities?	Note – A personal risk assessment should be considered.

	Hazard	Persons at Risk	Initial Risk Rating	Control Measure	Residual Risk	Additional Measures Necessary (Yes / No)
	Traffic	Operatives and Public	High	Adequate traffic management training for all operatives working on site, and all work operations supervised. High visibility clothing	Low	No

				provided to be worn at all times. Basic chapter 8 signage to be used.		
	Manual Handling.	Operatives	Medium	Manual Handing training given in advance of works starting in techniques to prevent injury. Provide correct equipment for operations i.e. Wheeled bin and broom with shovel.	Low	No
	Slips and Tips	Operatives	Medium	When working on steep sections of carriageway / kerb line Adequate footwear to be worn when carrying out operation, take extra caution when working in adverse weather for slips and trips.	Low	No
	Sharps	Operatives	High	Training will be provided on procedures when dealing with sharps. Awareness of the dangers associated with sharps and the correct procedure when finding them. Agree procedure for disposal of sharps before commencing work. Establish emergency procedure and ensure all operatives are aware of it prior to works commencing.	Low	No
	Bio Hazards	Operatives	Medium	Wash hands before breaks and at end of shift, and ensure welfare facilities are available as necessary. Suitable gloves will provide protection, but good working practices and personal hygiene must be observed. Training provided before works commence.	Low	No

Date Prepared:	Prepared By:	Signed:
Review date:	Reviewed By:	Signed:
Review date:	Reviewed By:	Signed:

Enter the Initial and Residual Risk Ratings using the Matrix overleaf. If significant new hazards are identified during review, a new assessment must be prepared