

ENVIRONMENT CONTROLS PART OF JKL

INVASIVE WEED CONTROL

AQUATIC WEED CONTROL

AMENITY WEED MANAGEMENT

CONTAMINATED GROUND REMOVAL



CASE STUDY: HIGHWAY WEED CONTROL

Our contract with Gwynedd County Council to carry out urban weed control to the urban highway network, the NWTRA network and the urban pernicious weeds throughout the County.



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MANAGEMENT PLAN | SURVEY | TREATMENT | REMOVAL | TRAINING RESOURCES

ABOUT GWYNEDD CC

Gwynedd County Council is the governing body for the principal area of Gwynedd, one of the subdivisions of Wales. As a council, this makes them responsible for a range of civil functions and vital services for people and businesses. Among them are well known functions such as social care, schools, housing and waste collection. But many councils are responsible for much more - including business support, pest control and maintenance of council owned land and adopted roadways. Gwynedd County Council released a tender for the control of Japanese knotweed and Pernicious weeds in three areas under their management. We were successful with our tender, and work was to commence almost immediately.

THE PROBLEM

Gwynedd county council are responsible for the management of various highways and the maintenance of its urban areas. Weeds are a pervasive problem that comes up every year. Weeds are capable of damaging highways and footpaths by creating cracks in the tarmac or uneven ground as they grow. Weeds can also block off access to amenity spaces and there are many toxic species that can pose a problem to people and animals. This is why it is important for councils to have a management strategy in place that provides treatment and control for all the areas of responsibility.

THE BRIEF

We were instructed to apply a Glyphosate based herbicide to all kerb line, backline and paved surfaces in line with best practice guidance. We would apply the herbicide in a targeted manner to plants that were actively growing at the time of application.

It was agreed at the pre-site meeting a start time of 05.30 within busy high footfall areas to allow accurate application of the herbicide, the support vehicle was parked closely to the area to minimise noise within urban areas before 07.30.

At the pre-start meeting we also requested the waste collection routes to aid the planning of the treatment programme to not coincide with the refuse collection days. Maps of the area split into zonal areas were provided to us before the contract start and used to cross reference against tracker data to ensure accurate treatment.

Operator details including mobile telephone numbers were exchanged at the pre-start meeting and it was agreed that on day one the operatives would meet the lead client to discuss the treatment, regular liaison was agreed for the duration of the contract.

THREE LOCATIONS

All paved areas including internal footways, rear alleyways usually of a cobbled stone were to be treated. The contract for Gwynedd is split into three areas, Arfon, Dwyfor and Meirionnydd, all areas have their own budget and raise separate purchase orders for the works, the area covers 277 pernicious weed locations covering approximately 3,465 M2. Also included is 298Km of High-speed network (NWTRA) and 1000 km of Urban network.

This would be a two-treatment program for 2022.

OUR CHALLENGES

As with all herbicide contracts weather plays an important factor, the use of an adjuvant assisting in the efficacy and timing within this contract, also vehicles parked half on and half of paving this limits access and then requires handheld treatment but still leaves areas that may not have the full application of herbicide.

The Gwynedd area is vast, so planning was required to limit travel and fuel consumption and operator fatigue. Weed growth was prevalent due to contract award timing many weeds had set seed so regrowth would be an issue within some areas and difficulty in reaching weeds below the canopy of suppressed weeds was also an issue.

OUR SOLUTION

We utilised Gallup Biograde 360, MAPP: -17612 and Trusty Amenity Glyphosate MAPP:- 17697. These herbicides were applied at the manufacture's guidelines and in accordance with the product label. With Roundup Pro-Vantage MAPP:-15534 for all pernicious weed treatments. Gallup Biograde is the herbicide of choice for highway operations but due to the availability within the early part of the 2022 season alternatives were assessed and then currently utilised within the contract, at every point the decision regarding the herbicides was discussed with the client and prior to the contract start date a list of our approved herbicides including all safety data sheets was submitted to Gwynedd County Council for approval.

The quad bikes worked throughout the County, starting in Meirionnydd then Dwyfor and then into Arfon, with the Pernicious weed treatment to follow. Operating at speeds of 5 to 8km/per hour. The quads would sit on the pavement treating the kerb edge via a ceramic low drift 80-degree angle nozzle, this nozzle accurately applies the herbicide to the 30cm of kerb edge and ensures the herbicide is applied to the join of the lower kerb edge and the tarmacadam road surface and accurately treats this edge even when vehicles are parked adjacent to the kerb set.

INTEGRATED WEED MANAGEMENT APPROACH

Herbicide was only applied to weed growth that was actively growing at the time of application. The backline again was treated by use of the ceramic 80-degree nozzle, because each nozzle has independent controls each nozzle can be turned on and off whilst the operator is in full control of the vehicle. The paved areas and linking footways were also treated, accurate application via centrally located nozzles on the front frame of the quad which are height adjustable allow pathways even running through or adjacent to grass can be treated with no drift or overspray damage to the area.

Accurate racking data from the vehicles sent to the client on a daily basis clearly depicts the areas treated per day, the target speed and hours worked within that site area. This allows us and the client to cross reference these areas to ensure all areas are treated to the contract specification.



TREATMENT 1

Treatment one was a mix of, in some area's minimal kerbside growth but high backline growth and in other areas even weed growth throughout the areas. The areas had been treated on previous years via a glyphosate-based herbicide and no weed growth had set seed so the risk of seedbank regermination following treatment one was kept to a minimum, through working closely with the client we ensured the application was carried out on time and on the first treatment no complaints from members of the public were reported to us from the client.

The treatment of 1,000km of road and footway network throughout Gwynedd took 17 days to complete treatment one, with two operatives working together. We decided and with due consultation with the client to use an adjuvant. The Pernicious weed took 8 days with enhanced mapping provided to the client and the NWTRA routes took five days under traffic management provided by Gwynedd CC in the form of stop and go works.

All areas inaccessible to the quad bikes such as areas where vehicles are parked upon pavements restricting the width of the pavement area were either treated whilst the quad was onsite either via the lance and the four-metre hose reel or by the use of the handheld spray unit carried on the quad.

Any areas deemed to large or unsafe to leave the quad were treated at the end of each day by use of knapsacks carried within the support vehicle. The use of the "strava" app on the operator's mobile phone ensured all areas walked also had tracking data to cross reference against the client's overview map of the area.

THE OUTCOME

- All safety to the public and herbicides applied as per "best practice guidelines.
- High footfall areas and 40 mph roads were treated with the consent of the client early in a morning, thus minimising the disruption to road users at peak times.
- All precautions were undertaken such as designated treatment times for near schools, health centres, hospitals and town centres to ensure public safety was a premium concern. All vehicles would stop when members of the public were in 3 metres of a knapsack operation and 5 metres of any quad bike treatment.
- The use of ultra-low drift nozzles, targeted weed control and the use of an adjuvant helped to reduce the herbicide used throughout the duration of the contract.
- We worked closely with the client, areas of high weed growth were treated first upon request from the client and close communication was kept throughout the duration of the contract.