

THE VALE OF GLAMORGAN COUNCIL

CABINET: 22ND MARCH, 2021

REFERENCE FROM ENVIRONMENT AND REGENERATION SCRUTINY
COMMITTEE: 16TH FEBRUARY, 2021

“427 FLOODING EVENT ON 23RD DECEMBER 2020 (REF) –

Cabinet, on 8th February, 2021 had referred the report to the Scrutiny Committee for its consideration.

The Director of Environment and Housing introduced the reference and wished to highlight the Council’s response, its legal duties and the plans that the Council had in place. He also wished to outline that there was some misunderstanding of the Council’s role during a flood emergency.

On 23rd December, 2020, the Vale of Glamorgan experienced an extreme rainfall incident, which led to a currently estimated average of 33mm of rain over an 11 hour period, albeit this was likely to change as investigation of the event was ongoing. During this extreme rainfall incident residential and business properties across the Council’s area experienced devastating internal property flooding. Both residential and business properties in Dinas Powys, Sully and Penarth were adversely affected by the rainfall incident. Other areas affected by the flooding incident to varying degrees included: Barry (including St. Richard Gwyn School), Wenvoe, Rhoose, Cowbridge, Bonvilston, Llantwit Major, Llandow, St. Andrews Major, St. Athan, Ewenny, Monkash, Peterston-Super-Ely, Llanmaes and Trerhyngyll.

Due to the high number of flooding incidents on 23rd December, 2020 and the impact of Covid-19 adversely affecting the Council’s ability to investigate face to face, officers issued over 800 letters (Appendix A referred) including flood incident report forms (Appendix B referred) to all residents who lived within the flooded areas on 18th January 2021. Once the responses to these forms had been received the Council would have greater knowledge of the properties affected by the flooding incident.

The report indicated that more than 100 properties were affected mainly in the Sully and Dinas Powys area. Flooding had occurred right across the Vale but primarily the most affected were Sully and Dinas Powys. Through a combination of surveys and hardship claim forms, to date, responses had been received from 102 properties internally flooded, 95 of these were residential, 7 commercial. 69 of these were in Dinas Powys, 2 of which were commercial. It was expected that the final figure for residential properties to be in the region of 120 and approximately 20 commercial. So, this was a significant event.

The Council had allocated additional resources to inspect and where necessary cleanse all highway drainage in areas affected by flooding. Further, to help support residents affected by the flooding, the Council subsequently provided over 1,300 sandbags and 64 skips, as well as issuing regular updates on the situation via the Council's website and social media channels. After writing to all Town and Community Councils to seek their interest in storing and distributing sandbags, the Council had provided sandbags to be stored and made available in Penarth, Sully, Dinas Powys, St. Athan and Llanmaes.

Legal duties of the Council come under Section 19 of the Flood and Water Management Act 2010 (FWMA). This meant that the Vale of Glamorgan Council, as the Lead Local Flood Authority (LLFA), had a duty to investigate and publish reports on flood incidents that occurred within its area to the extent that it considered it necessary or appropriate. A Section 19 flood investigation report was a public statement of the circumstances of a flood event and details of the parties that had a role in managing the risks. It contained details of the parties that had relevant flood risk management functions and investigated whether those risk management authorities had exercised, or planned to exercise, those functions in response to the flood.

The Director highlighted that it was important to recognise that the Council was not an emergency service and its role was to review what had happened and to provide a public report. Therefore, an independent consultancy firm had been brought in to technically assist Council officers in investigating the flooding event as part of the Section 19 FWMA report. Information was therefore still being gathered. The report would be published by 31st March, 2021 and brought to this Scrutiny Committee for consideration.

In terms of future plans, the Director advised that the Council would look at mitigating measures, but these would require Welsh Government funding. It was also important to recognise that a solution was not always possible. Since the Cabinet report had been prepared, the Council had written to all Town and Community Councils asking them if they wished to hold a supply sandbags for distribution in case of a future flood emergency. This approach would be better than the Council distributing sandbags from Barry and would ensure that there were local supplies. So far, Penarth, St. Athan, Llanmaes, Sully and Dinas Powys had taken a supply. The Director stated that he would contact again those Town and Community Councils which had yet to respond.

The Director then referred to Welsh Government grant monies which were available. To date 42 claims had been put in which had resulted in a total payment of £24.5k. The Council had ensured that a contact email address and telephone number were available for people to claim. Door to door contact with elderly residents may also be considered if that was deemed necessary, but it was hoped that contact would be made with all those affected.

The Chairman then welcomed a Mrs. Wendy Gilligan, the first public speaker. The Chairman advised that she would be allowed 3 minutes speaking time.

Mrs. Gilligan began by stating that she wanted to speak on behalf of the residents in Dinas Powys who were affected by the flooding of their properties on 23rd December, 2020. The residents were very upset on why this came about and did not believe that it was solely due to the high volume of rain that we had on that day but a combination of other factors as well. The factors included:

- Drains not maintained and cleaned.
- Riverbeds through village not maintained and cleaned and not dredged.

Mrs. Gilligan went on to state that what happened was now in the past, but what the resident did not want was to have to go through this again. She was grateful that the National Flood Forum (NFF) was coming to Dinas Powys to help residents, however what she wanted to know was what the Council was going to do in the short, medium and long term to help. The Council had a duty of care to the residents in Dinas Powys and if the Council did not deliver and help then as Councillors, they should not be representing residents who elected them.

Mrs. Gilligan added that we were still living with this 7 weeks after the flooding and she was guessing that her property would not be back to pre-flood until May. She was living at home, but it was like a building site, others were not so lucky and had to find other accommodation. This was having a huge effect on people's Mental Health and Wellbeing dealing with this and the pandemic. There had been three flood warnings since and living with the fear that this was going to happen again. Mrs. Gilligan asked - Where were you after the devastation? Could you not come and visit and see the devastation?

Mrs. Gilligan queried why work relating to NRW's Dinas Powys Risk Management Scheme outline business case dated 4th May, 2020 had not been started. Over 100 properties were flooded and the forecast from the NRW was that potentially 420 properties could be flooded going forward so she asked for that work to be commenced as a priority. She stated that what was needed now was for the Council to work with NRW, Welsh Water and the community together with the residents' group to put things in place and help residents protect their properties with a Property Level Flood Resilience Grant.

She also sought reassurance of the following:

- That the cleaning of drains and maintaining the roads in Dinas Powys would be undertaken quarterly;
- Work with NFF, NRW, Welsh Water and the residents to put in place actions to assist with flooding in Dinas Powys – short/medium/long term and before Autumn 2021 for provide reassurance to residents;
- Work with the residents to develop a Community Flood Plan.

Finally, Mrs Gilligan questioned the Council's response around:

- Emergency arrangements;
- Condition of the roads;
- Flood warning signs on the highways;
- Road closures or traffic diversions;

- Blockages on the highway drainage systems; and
- Action to protect property from flooding by water from the highway due to the highway draining system.

The second public speaker was Dr. Max Wallis who was advised that he would have 3 minutes. The main points raised by Dr. Wallis could be summarised as follows:

- The storm was not extreme rainfall;
- In respect of Cosmeston, close to Cogmoors, the rainfall measure from Welsh Water was 45mm, which compared to a standard 4 hour flood of 65mm;
- An extreme storm was 65mm not 45mm;
- Society was supposed to plan for climate change, for which, an extreme storm would be 90mm if there was a 4 hour storm. For a longer storm the figure would be higher;
- Therefore, regarding planning to tackle climate emergency, assumptions should be for a storm twice as heavy as the one experienced on 23rd December, 2020;
- Flood Maps Wales used to predict floods was new, and for Cosmeston and Sully and a 100 year event, the water was predicted to flood over the golf course. On 23rd December, 2020, this did not happen, and the flood water came down Lavernock Road which NRW predicted would flood less than once every 100 years – NRW prediction maps were wrong;
- NRW maps also predicted that the flood would never reach Cosmeston park car park, but it came over the car park and into the lake. Completely different to what the flood maps indicated;
- The cause of the flooding was not Sully Brook as claimed by NRW but was drains which became completely full;
- Sewer overload, whether down to the pump capacity at Cogmoors being under capacity, was unknown;
- Some of the drains were bubbling up from the sewers, and the next day it left a smell of sewage which was a health hazard that had not been acknowledged;
- Welsh Water did not admit there was sewer overload and they keep permitting more connections of houses to their sewers;
- The Vale Council approved the attenuation ponds, these were overtopped and the new one at Culverhouse Cross was also overtopped and flooded the road;
- The attenuation ponds approved for the Cosmeston Housing development were sized according to average rain fall and not the storm rain fall. This needed to be looked into.

In reply to a point of clarification regarding whether drains were possibly blocked in Dinas Powys, Dr. Wallis stated that the drains were not able to cope with the level of water. He did not believe that blockages of drains all over the place caused the problem as most were clear. The problem was not maintenance of drains, the problem was that the sewers were not capable of taking the amount of water at 5pm at the end of the storm, it all suddenly disappeared because the drains started to function.

In response to a second point of clarification, Dr. Wallis stated that NRW had responded by saying that an extreme storm would be 65mm not 45mm. This was without climate uplift which took it up to 85 or 90mm in a 4-hour storm. NRW confirmed an extreme 4 hour storm was 65mm of rainfall. The worst part of the storm must have been in Cosmeston / Dinas Powys and NRW, in their briefing, explained that the rainfall over 11 hours was 57mm.

The second public speaker was a Mrs. Ruth Brennan, who again was allocated 3 minutes. She began by stating that she felt that there possibly could have been a specific reason why this event occurred, as the majority of houses that were affected had been built over 52 years ago and had never suffered anything like that before – having 11 inches of water in their homes for the first time.

Mrs. Brennan then asked:

1. Was it simply a build-up of obstructions, debris, vegetation, and silt and rubble etc. which was due to a lack of maintenance over many years by the three bodies mentioned? NRW, who admitted that the channel had not been cleared / dredged for over 10 years, the Vale Council, for the lack of maintenance of the drains, sewers etc. and Welsh Water.
2. Had it been proved that the Cadoxton Tidal Outlet at the Bendricks was left working as it should have / could have been, over the Christmas break.
3. When did the Dyer & Butler contractors leave the site prior to the Christmas break?
4. How long was the site left unmanned? Was their use of remote monitoring, (rather than being physically onsite), diligently adhered to?
5. Was the exceptional amount of rainfall on that day programmed into their system – in order for the pumps to be able to deal with.
6. Had NRW received the data logs for that period from Dyer & Butler, to show how effectively the pumps were working or not maybe and were they even capable of coping with such an unpredicted amount of water.

Mrs. Brennan stated that she found it unacceptable that the company had simply 'told' NRW that all was in order. She stated that the community, that had suffered so much, must be shown the evidence and she asked why this Flood Defence System work was more than 2 years behind schedule.

In addition, Mrs. Brennan queried whether it had been proven that the tank at the Hexion plant on the Chemical site, was working, and again asked for evidence to show this. It was simply not good enough to take the 'word' of these two companies, they must prove to all concerned, with 'hard evidence', that everything was in order.

Finally, Mrs. Brennan commented that many of the residents would like to know if NRW would consider revisiting the possibility of a dam being built further upstream, especially since the unprecedented event of 23rd December, 2020. NRW also suggested building walls along the riverbanks for those properties directly in danger of being flooded, as they had already done so for the properties in St. Cadocs Close. The houses in St. Lythan Close bore the brunt of the recent flood for the first time ever, since they were built, and would very much welcome any flood defences put in place, which hopefully would help to avoid this in the future. She added that the she

was not looking for blame, just simply a reason or cause, in order to prevent this from ever happening again.

Councillor R.A. Penrose, local Ward Member for Sully, was then asked to address the Committee. Councillor Penrose outlined that:

- On the afternoon and evening of the flooding, both Councillor Penrose and his co-Ward Member, Councillor K. Mahoney, were involved with assisting the residents of over 30 residential properties to prevent flooding where in some instances the water depth exceeded 2 feet;
- Both Councillors assisted the emergency services by trying to secure sandbags and with the evacuation of vulnerable residents;
- Unfortunately, in most instances the efforts of both Councillors and the residents were thwarted by the volume of water and so extensive damage had been caused to a large number of residential properties;
- There was also extensive damage caused to businesses on Sully Moors Road, estimated to be £250k;
- In addition, Sully Moors Road was closed for 48 hours and Hayes Road closed for 4 days;
- Emergency response lines to the Council and NRW were somewhat inadequate including the provision of sandbags;
- Subsequently, there had been three meetings between the Council, Taylor Wimpey and NRW, but Welsh Water had failed to attend despite being invited to all three meetings;
- The outcomes of the meetings was that a Section 19 report would be submitted to Welsh Government, better provision of sandbags, improved communication and control at the Council, analysis of the cause for the flooding and future provision to prevent flooding, and the Council and NRW would check all drains, culverts and water courses and would be cleaned and fully operational;
- All these measures were welcomed, but they did not alleviate the fears of residents of future flooding;
- What was needed was the Council to begin a full Flooding Prevention Programme in the areas affected and for this matter to be prioritised and progressed as a matter of urgency;
- Areas of flooding in Sully had previously been reported by the local Ward Members on three previous occasions since 2013 with no improvements.

The Chairman thanked the speakers for their contributions and asked the Director to respond to the points raised. The Chairman also expressed disappointment that Welsh Water had failed to attend any of the follow up meetings.

In responding to the main points, the Director advised that:

- The Section 19 report would look at how the flooding occurred. There were a number of theories put forward by residents such as was it the highway drains, river flows or a combination of both. The Section 19 report would be undertaken by an independent consultancy firm to identify the issues with the

assistance of the residents. This was why it was so important for all residents to fill in the questionnaires;

- With regard to Dinas Powys, this was different to other areas as the majority of drains in Dinas Powys drained into the river or the combined sewer system. This meant that as the river was full, the water had nowhere to go. The drains in Dinas Powys were therefore affected as the river was in spate;
- The Vale's current drain cleaning regime was for drains to be cleaned between every 15 and 20 months. This appeared a long period but there was only two gully emptiers which had to cover the entire Vale, so resources were limited;
- If the absence of a more frequent drain cleaning regime was the main reason for flooding in Dinas Powys, the Director posed the question – why weren't other areas of the Vale similarly affected as gullies Vale wide were cleaned at the same frequency;
- It was clear that the drain / gully cleaning regime was 'linear' and was not dependent on flood risk. So, before the Section 19 report was finalised, there was a commitment to review the frequency of cleaning, particularly for those areas most susceptible to flooding. However, the Director could not commit to quarterly cleaning as it would be very expensive and may not be appropriate to the risk posed;
- In relation to short, medium and long-term plans, in the short term, there was a need to gather the evidence to make sure that whatever solutions were decided upon were the right solutions for the problem. The short term was the Section 19 report, as well as providing sandbags to the Community Council and updating the Council's website with more information. Medium to long-term plans would be the outcomes to the Section 19 report. NRW had put forward an attenuation scheme for Dinas Powys. This was shelved last June as, according to NRW, the upstream flood storage provisions was the most viable solution but there was a number of negative local comments against the scheme that NRW had been proposing. NRW had indicated that the scheme could have benefited up to 197 homes and 19 businesses in Dinas Powys. The Director therefore felt that NRW were duty bound to revisit this. The attenuation scheme that had been proposed was similar to a scheme developed at Colbrook in Barry;
- Another important consideration was Individual Property Protection. This had already been installed in Llantwit Major and Llanmaes and comprised sluice gates which were slid into channels by the property owners at times of heavy rainfall to protect accesses to properties. Properties could also be tanked to a certain level to prevent water coming through the brickwork;
- In the medium to longer-term for Dinas Powys, the Director felt that some form of attenuation scheme coupled with individual property protection, as well as a comprehensive Flood Risk Management Plan, would be necessary;
- There was full acceptance around the fears of residents that this could happen again, and the Council had the NFF coming in to Dinas Powys and would also be working with NRW and Welsh Water on community resilience;
- With regards to the effectiveness of the Council's response, it was important to remember that the Council was not an emergency service, and its vehicles were also stuck in traffic due to the floods. The Council did not have any special permission to push through traffic, and there were some roads that the

Council would have liked to have closed sooner but Council staff could not gain access to them;

- It was accepted that certain roads should have been shut earlier but as the Council could not get to certain places in time assistance of the Police was sought;
- The Council recognised that it needed to update its website to ensure better information was available and this work had already commenced. It also recognised that the Council needed to increase its telephone lines so that residents could make contact and receive advice;
- In relation to whether the event was an extreme storm, this was dependent on the locations of the storm gauges. The Council had taken the advice of NRW, but the level of rainfall would be covered in the Section 19 report.
- The Council did not control NRW's flood risk maps, but Dr. Wallis' comments would be fed back. NRW could review their flood risk maps as part of the Section 19 report as this would provide NRW with new data;
- With regard to Planning and new housing developments, there were now new regulations in place which meant that as the Sustainable Drainage Approval body, the Council, could reject applications if there was not effective drainage;
- There was a legacy of building on flood plains over many years, which was something that the Council could not change but had to now manage;
- The Council would be happy to look at the attenuation ponds mentioned to see if they were within the design specifications and functioning correctly;
- Highway drains were designed to take a 1 in 30-year flood event, but if they became full then the highway could flood. In most cases the floods would not affect private properties meaning that roads may become impassable or passable with care;
- In terms of sewer overload, Welsh Water had indicated that they had some overload issues. Certain sewer covers were therefore "popping up" as they had rainwater going into them too, while some sewers were old and perhaps needed to be re-designed;
- It was not unusual for water to dissipate quickly, so when the rain stops the overloading reduces and the water would dissipate very quickly. This was not because a blockage had been dislodged;
- Specific reasons for floods would come out from the Section 19 report.
- In terms of possible lack of maintenance as a cause, before 23rd December, 2020, 11 streets in Dinas Powys were cleaned. This began on 15th December, 2020 and by 12th February, 2021 a further 40 streets had cleaned. 71 were still remaining;
- Generally, areas recently affected by floods would always be prioritised after the event as flood water would usually bring debris which could block drains. However, a review of the cleaning schedules would be undertaken.
- With regards to the Dyer & Butler works, the Director had met with NRW, Hexion and others to talk about this and whether the pumps were working. NRW had given a commitment to provide a report on Dyer & Butler's role which would be fed into the Council's report. Hexion had advised that the pumps were working but indicated that they had never seen the volume of water like that before. NRW would also report on why the outfall work had taken so long. This report would be shared with Members;

- Finally, in terms of solutions, it was important to consider that there was not a solution that would solve flooding. The only commitment that the Council could make was to try to reduce or to mitigate the risk. The Council, with the assistance of Welsh Government, would do everything it could to mitigate risks. Schemes were expensive to implement which was why the Council had been having ongoing discussions with Welsh Government Ministers.

The Chairman then asked Members of the Committee to make comments.

Councillor Driscoll began and stated that the Council's response could be improved. He suggested that for the distribution of sandbags, the Council could introduce a similar system as used for gritters. In relation to road closures, Councillor Driscoll commented that closing roads such as Greenfield Avenue, would've made a huge difference as each time a vehicle drove through affected streets, large waves of water were pushed towards residential properties. He queried the frequency of drain cleaning and whether every 15 to 20 months was enough and asked why there were not similar floods when the river was also in spate during February. With regards to the cleaning up operation after the floods, Councillor Driscoll offered thanks to the Council's Operational Manager for Neighbourhood Services and Transport who responded to all requests made of him, and he also thanked all those who were out and about helping. Looking forwards, Councillor Driscoll was of the view that NRW needed to dredge the river and he stated that NRW had not made any commitment to do so. He stated that the decision to develop a new dam (attenuation), should be revisited. Although the scheme previously proposed had been unpopular, the decision around any new scheme should be made by the 200 homes affected. Councillor Driscoll recommended that there should be a change to the drain cleaning policy for those affected, with these drains to be cleaned more frequently and every 6 months.

Councillor Morgan then queried whether other wards not as adversely affected, such as Peterson-Super-Ely, would be considered as part of the Section 19 report.

Councillor John wished to confirm the Director's comments regarding flood gates. The gates put up in Llantwit Major and Llanmaes were very effective, although some people had been reluctant due to the belief the gates affected their property value. Councillor John urged anyone affected by flooding to consider the installation of flood gates, which could be fitted by NRW or the Council. Councillor John then highlighted the issue of drainage, and he referred to the impact of heavy rain to the older parts of Llantwit Major which resulted in flooding because the drains were not big enough and unable to take the amount of water. When the rain stopped, the flood water would quickly wash away. In Boverton, where there was a situation of drains running into the river, the river used to flood. This issue had been improved by the Council changing the direction of the highway drainage. Councillor John commented on the amount of land that had been built upon especially hard standing on lawns and driveways which meant that water would not be able to soak away into the ground. He therefore urged people to think before they put a hard standing down. Finally, Councillor John thanked Council staff for their hard work and efforts especially to those that had cleaned the drains just prior to the floods, but the issue was that the drains could not handle the amount of water.

Councillor Robertson outlined the concerns of residents around the Council remaining vigilant, even after a period of a few years with no similar event occurring.

Councillor Bailey issued thanks to all who assisted with the floods on 23rd December, 2020. He then referred to some residents who had taken measures to protect their own homes, but in most cases, this would lead to more problems for residents in another part of a street. Councillor Bailey agreed with Councillor Driscoll's recommendation for the drains and gullies to the affected properties to be cleaned every six months and he suggested for the Scrutiny Committee to write to the NRW in order to find out the remedial actions that they were considering. The Committee agreed that it would be better for a representative from NRW to be invited to attend a future Committee meeting.

In reply to the comments and queries raised by some of the Committee Members, the Director stated the following points:

- It was accepted that certain roads should have been closed sooner. The issue was that Council vehicles were stuck at various parts across the Vale. The response was further hampered because a frost was predicted for the following day, so many of the winter maintenance staff could not be utilised and this affected the level of resources available;
- In terms of cleaning drains more frequently, this would be reviewed and targeted more to those areas where risk was highest;
- As to why there had not been another flood event in February when there was similar rainfall, this would come out through the Section 19 report;
- With regard to the role of NRW, the Director issued a word of caution around flood risk management and the clearing of watercourses and river channels, that a problem solved in one area may cause problems in another. Simply moving flood water faster to lower ground was rarely the solution;
- Attenuation was seen as one of the key ways to mitigate the risks of flooding;
- The Section 19 report would only look at those wards / areas affected by the flooding on 23rd December, 2020. This would not include Peterson-Super-Ely;
- The issue of old drains in Dinas Powys which needed to be upgraded would again be picked up by the Section 19 report. Mitigating measures would also likely require Welsh Government funding as they were usually very expensive;
- With regards to the Council remaining vigilant to future flood events, it was the view of the Director that a Flood Risk Management Group be set up in Dinas Powys in order to keep the community engaged. This was what had happened at Coldbrook, with that Group helpful in securing funding from Welsh Government. Such a group would also provide challenge to the Council, NRW and Welsh Water;
- Measures taken by individual residents needed to be co-ordinated which was why it was important for households to apply for funding through the Council.

In being asked for provide comment, Councillor. King, Cabinet Member for Neighbourhood Services and Transport, stated that in terms of what had been recommended so far by the Committee, it was important to consider that all parts of the Vale would likely expect more drain/gully cleaning. With regard to road closures, the Cabinet Member stated that he would like to see more electronic signs around

the Vale which could provide information and important messages. The Cabinet Member also expressed concern with the behaviour of some drivers, driving through flooded areas with excess water. Driver education was therefore also an issue. Councillor King also expressed his understanding and anguish to all residents who had been affected by the flooding event on 23rd December, 2020. He encouraged residents to consider mitigating measures. It was also important to outline that Cabinet had not yet formed a judgement, and findings of the Section 19 report would be closely considered.

The Chairman echoed sentiments about the anxiety caused to residents and the Chairman placed on record the Scrutiny Committee's support and thoughts for residents. Solutions had to be joined-up and well thought out by all agencies, and the Chairman expressed disappointment that Welsh Water had failed to attend community meetings.

There being no further comments and having fully considered the reference it was subsequently

RECOMMENDED –

(1) T H A T Cabinet review the Council's drain cleaning scheduled, with a suggestion that drains in those areas affected by the floods on 23rd December, 2020 be cleaned on a six monthly basis.

(2) T H A T a representative from Natural Resources Wales be invited to attend a meeting of the Environment and Regeneration Scrutiny Committee in order to outline the flood risk mitigation measures being considered for the Vale of Glamorgan.

Reasons for recommendations

(1) In order that drains for those areas affected by the floods on 23rd December, 2020 are cleaned on a six monthly basis.

(2) To allow the Scrutiny Committee to consider flood risk mitigation measures being considered for the Vale of Glamorgan.”