



## Meeting Notes



### Noise Liaison Group Meeting No. 15

6 September 2012, 10:00 to 13:00

Venue: FRC Project Office, Rosyth

#### Attendees:

David Climie	FRC Employer's Delivery Team (EDT) (Chair)
Steven Brown	FRC Employer's Delivery Team (EDT)
Andrew Mackay	FRC Employer's Delivery Team (EDT)
Martin Butterfield	FRC Employer's Delivery Team (EDT)
David Condie	FRC Employer's Delivery Team (EDT)
Andy Brechin	FRC Employer's Delivery Team (EDT)
Dermot Connolly	City of Edinburgh Council (CEC)
Colin Megginson	Marine Scotland (MS)
David Redden	Fife Council (FC)
Tracy Wyllie	Fife Council (FC)
Thomas Nilsson	Forth Crossing Bridge Constructors (FCBC)
Colin Goodsir	Forth Crossing Bridge Constructors (FCBC)
Neil Abraham	Forth Crossing Bridge Constructors (FCBC)
Martin Wilson	Forth Crossing Bridge Constructors (FCBC)
Paraic McCarthy	SRB Civil Engineering Ltd (SRB)
Micheal O'Connell	SRB Civil Engineering Ltd (SRB)

#### Apologies for Absence:

Richard Greer	FRC Employer's Delivery Team (EDT)
Brian Carmichael	West Lothian Council (WLC)
David Brewster	West Lothian Council (WLC)
Niall Corbet	Scottish Natural Heritage (SNH)
Carolyn Clark	Scottish Natural Heritage (SNH)
Mike Bland	Marine Scotland (MS)
Rory McFadden	John Graham (Dromore) Ltd (JG)

Item	Subject	Description	Action
1	Introductions and Apologies	EDT welcomed all parties to the meeting. Apologies were received from those parties listed above.	
2	Safety Procedures	EDT advised regarding safety and evacuation procedures.	
3	Minutes and Actions from Previous Meeting	The minutes of Meeting No. 14 held on 2 August 2012 were agreed.  Actions from the previous meeting are as noted in items 4(a) to 4(c) below.	
4(a)	Principal Contract	<u>Actions from Previous Meeting No. 14</u>	
	(i)	FCBC to provide amended NVMP to EDT for circulation to the NLG members and upload to the project website.	FCBC/EDT
	(ii)	EDT confirmed that they had received PCNV 20 covering marine foundation works and that comments had been returned to FCBC to be addressed. FCBC advised that a revised PCNV would be issued shortly for approval.	FCBC

	(iii)	EDT confirmed that they had received monitoring information relating to noise due to marine works indicating what the noise levels were before construction started and then after construction started.	
	(iv)	EDT confirmed that PCNV 11 rev 2 had been approved.	
	(v)	FCBC advised that they were investigating the optimum start and finish times for concreting works in order to minimise disruption and would set this out for consideration by the NLG in the PCNV 21.	FCBC
	(vi)	FCBC advised that PCNV 21 Rev 02 would be submitted within the next few weeks.	FCBC
	(vii)	EDT confirmed that a modified PCNV had been approved to allow blasting to take place at Whinny Hill.	
	(viii)	FCBC advised that on-site assessment of noise levels was to be carried out in order to assess the appropriateness of carrying out milling at Pier S4.	FCBC
	(ix)	EDT confirmed that vibration monitoring reports covering the period from November 2011 to January 2012 were currently under review. EDT noted that at the previous meeting significant improvement was identified as being necessary in relation to provision of vibration monitoring reports and that this remained the case. The EDT expressed concern again regarding monitoring and reporting relating to vibration. The NLG advised that improvement was expected by the next NLG meeting.	EDT  FCBC
	(x)	NLG noted that noise matters were continuing to be reviewed at the weekly marine operations conference call. A site visit had been held at which the NLG had recommended that FCBC provide additional mitigation to mitigate against noise from dredging works. FCBC advised that they were arranging for additional matting for the split barge.	FCBC
	(xi)	EDT noted that FCBC had issued an underwater noise report but that it was not issued sufficiently in advance to allow review by the NLG members. FCBC to arrange a separate meeting with SNH to review the report.	FCBC
	(xii)	FCBC advised that work was continuing in relation to noise insulation at properties and that additional suppliers were being contacted with a view to carrying out further surveys and discussions with property owners regarding the feasibility of providing the additional mitigation. EDT asked that updates continue to be provided at the weekly marine operations call.	FCBC
	(xiii)	FCBC confirmed having issued the attended monitoring information carried out at the south shore during works at Pier S1 and the South Tower to the NLG.	
		<u>Noise and Vibration Management Plan</u>	
	(xiv)	Refer to item (i) above.	
		<u>Plans for Control of Noise and Vibration</u>	
	(xv)	FCBC provided a summary of submitted and upcoming PCNVs. PCNV 15, PCNV 20 and PCNV 21, were discussed covering blasting at Whinny Hill/North Abutment, Marine Foundation Works and South Earthworks respectively.	

		<p>In relation to blasting at Whinny hill, the EDT noted that a rock slip had occurred adjacent to Castlandhill Road following the previous blast and the slip was cleared during the pre-arranged road closure. The EDT queried whether a reduction in the charge weight was required in order to reduce the risk of rock slips at this location occurring during future blasts. FCBC advised that the agreed PPV limit had not been breached and that the rock slip had occurred due to the weather rock face. FCBC confirmed that there were no noise and vibration issues, however they advised that the blasting methodology was being reviewed in order to minimise the risk of rock slips in the future.</p> <p>In relation to PCNV 0020, FCBC advised that they had received comments from the EDT and that the final PCNV would be submitted to the Employer for approval shortly (see item ii).</p> <p>In relation to PCNV 0021, FCBC advised that commencement of the construction of the south abutment had been delayed by approximately 1 month and that it was now anticipated that works would start in late November/early December (see item vi).</p> <p>EDT/CEC requested an update on timescales for the submission of a PCNV covering the quayside strengthening works at the Port of Rosyth and including an assessment of underwater noise. FCBC to liaise with their construction team to confirm timescales and confirmed that the PCNV would be in place before the works commenced.</p>	FCBC
		<u>Monitoring</u>	
	(xvi)	<p>FCBC provided an update on the monitoring that had been carried out during August.</p> <p>FCBC advised they had started building up an extensive 'measured plant library' and explained that the measured levels generally agreed with the levels provided in the current calculation spreadsheet. FCBC advised that the measured values would be used in future PCNVs.</p> <p>FCBC advised that attended monitoring had been carried during the picking activity at Pier S6 and that they predict that the noise levels generated by picking at S5 would not breach the appropriate thresholds at the closest receptors. FCBC advised that they plan to carry out further monitoring on Sunday to confirm the predictions and then propose to proceed with picking at S5 on Sundays. CEC advised that they would not normally approve picking operations on Sundays and that generally this type of operation would be limited to Monday to Saturday working. CEC requested that picking did not occur on Sundays if possible. FCBC to investigate whether picking on Sundays is necessary and advise the NLG.</p>	FCBC
	(xvii)	<p>EDT expressed their disappointment at the underwater noise assessment not being circulated to the NLG members in sufficient time to allow a full and meaning full discussion to take place at the NLG meeting. FCBC advised that underwater noise would be covered in their presentation and that they would offer a separate meeting to SNH to discuss the report and that MS were welcome to attend the meeting also.</p> <p>EDT noted that the underwater noise charts presented generally covered periods of less than 1 hour. EDT advised that a fuller underwater noise report would most likely be necessary to demonstrate compliance with the Environmental Statement and Appropriate Assessments, rather than just a snap-shot of information</p>	FCBC/SNH

		<p>ie additional data and an explanation of why the monitoring periods are representative of conditions within the construction period would be necessary.</p> <p>EDT advised that they would provide written comments on the underwater noise assessment report in due course.</p>	<p>FCBC</p> <p>EDT</p>
	(xviii)	<p>The EDT noted the presence of a pod of pilot whales in the Forth Estuary and queried whether FCBC had taken any particular action in relation to this. FCBC advised that their Environmental Management Plan states that a Marine Mammal Observer (MMO) is to be deployed for marine piling works, however no particular precautions had been taken in relation to the pod of whales in question. EDT suggested that a toolbox talk covering what to do if marine mammals are sighted could be provided to staff working in the vicinity of the estuary. FCBC agreed to consider the implementation of this.</p> <p>MS requested a copy of previous MMO logs for information. FCBC agreed to provide via email.</p>	<p>FCBC</p> <p>FCBC</p>
	(xix)	<p>FCBC presented a list detailing all construction related exceedances that occurred between 03/08/12 and 15/08/12. FCBC advised that a Noise and Vibration Incident Report had been prepared for each construction related exceedance, detailing the nature of the exceedance and the mitigation measures that had been implemented. FCBC advised that a number of the exceedances were the result of 3rd party utility diversion works taking place on site. FCBC advised that the 3rd party contractor had been informed of the exceedances, the relevant threshold levels from the CoCP and provided advice on mitigation measures that could be adopted.</p>	
	(xx)	<p>FCBC reiterated their plans for future vibration monitoring. This included differing levels of monitoring depending on whether or not a vibration impact is predicted in the PCNV; if no impact was predicted, vibration would be reviewed on a weekly basis; if any vibration thresholds were exceeded there would be a review of activities, correlation with other monitors and an increase in the frequency of downloading and reviewing monitoring data. Additional reviews would be undertaken in response to complaints.</p> <p>EDT advised that the above approach was not acceptable as it may mean that some activities would not be monitored for vibration which is not acceptable under the project Code of Construction Practice (CoCP). EDT suggested that FCBC should be prepared to increase the frequency of the monitoring and requested that the proposals are updated to conform with the CoCP in advance of the next NLG meeting.</p> <p>EDT confirmed that vibration monitoring reports covering the period from November 2011 to January 2012 were currently under review (see item iv). EDT stressed the importance of FCBC making significant improvements in their vibration monitoring and requested that the vibration monitoring records were brought up to date in advance of the next NLG meeting.</p>	<p>FCBC</p> <p>FCBC</p>
	(xxi)	<p>CEC suggested that it may be beneficial for the NLG to attend more site visits in order to experience more works being carried out first hand. The EDT suggested that the visits could be arranged to coincide with the start of each new operation on site or perhaps following the first enquiry by a member of the public. NLG to consider and liaise with FCBC as required.</p>	NLG
	(xxii)	<p>Exceedences of thresholds were discussed, particularly in relation to</p>	

		those measured during marine operations. It was noted that the exceedences occurred predominantly at the Fisheries and that monitoring by FCBC indicated that due to the reduction in noise that would occur to adjacent built up areas, no exceedences would be likely to occur at nearby residential locations eg Linn Mill etc. It was noted that there have been only a small number of exceedences recorded at Clufflat or Inchgarvie due to marine operations. The NLG is content that despite there being exceedences of the thresholds set in the Contract (which are 5dB lower than those in the CoCP) the noise environment is not of a nature that causes concern to the degree where actions to constrain working further than the controls set out in the PCNV are necessary at this time.	
		<u>Community Engagement</u>	
(xxiii)		<p>FCBC advised two complaints and two enquiries had been received in relation to noise and vibration during August.</p> <ul style="list-style-type: none"> <li>• Complaint 1 - Noise and vibration from works in Echline Field</li> <li>• Complaint 2 - Drilling and blasting north of the Forth</li> <li>• Enquiry 1 - Dredging at south shore</li> <li>• Enquiry 2 – Vibration from King Malcolm Drive works</li> </ul> <p><u>Complaint 1</u></p> <p>FCBC advised that they had received a complaint from a resident of South Queensferry on 9 August 2012 relating to both noise and vibration emanating from the construction of a drainage pond in Echline Field. The resident explained that they felt that the noise and vibration caused by the works may be above an acceptable level and requested that monitoring be carried out to confirm the noise and vibration levels. The resident was concerned that works of this nature may continue at this location for several months. The resident also requested that prior warning be given in advance of such works taking place. FCBC advised that the complaint was investigated immediately, carrying out additional noise and vibration monitoring at the receptor. The investigations found that the noise levels and vibration levels at the receptor were within the threshold levels set out in the CoCP. FCBC advised that they explained to the resident that the activity in question would be completed in approximately two weeks rather than a number of months, and that the resident was reassured by this. FCBC advised that the use of additional acoustic screening as mitigation was investigated, however their use was found to be impractical. FCBC advised that their Community Liaison Officer would ensure that the residents in the vicinity would be informed of forthcoming works at this location by flyer and on the project website.</p> <p>FCBC noted that a number of exceedences recorded at the Clufflat Brae Noise Monitor (although not at the receptor) were a result of plant horns being used a signalling method. EDT queried the need for horns to be used in this manner and suggested that the use of a banksman would be preferable if it was safe to do so. FCBC agreed to investigate this practice and report back to the NLG.</p> <p><u>Complaint 2</u></p> <p>FCBC advised that a complaint was received on 28 August 2012 from a resident of Inverkeithing in relation to what the resident described as noise from drilling and vibration from blasting. FCBC advised that they visited the resident and investigated the noise and vibration levels in the vicinity. FCBC advised the resident that the complaint related to a time period when no drilling or blasting works were being carried out, Also, information from previous blasts at Whinny Hill indicate that</p>	<p>FCBC</p> <p>FCBC</p>

		<p>levels would be significantly lower that would be required to cause any damage to the property. FCBC advised that they explained to the resident that given that the property is approximately 500m away from the blast site, the risk of damage from blasting is very low. It was also explained to the residents that it was normal to feel and hear the blasts which are carried out on a fortnightly basis. The visit to the property indicated that there was an audible noise at the property but that it appeared to be coming from the vicinity of the property rather than from the construction site.</p> <p><u>Enquiry 1</u></p> <p>FCBC advised that an enquiry was received from a resident of South Queensferry on 8 August 2012. The resident contacted FCBC requesting information in relation to noise levels recorded at a specific monitor in the vicinity of their house during the previous night. The resident also noted two banging noises from the previous night and enquired if they had been logged on the noise monitor. FCBC advised that on the night in question two exceedance of the noise level threshold were recorded at the noise monitor, however these are unlikely to have resulted in exceedances at the resident's house. FCBC advised that both exceedances resulted from rock falling onto the split barge during the night time dredging operation. FCBC advised that they responded to the resident explaining the various mitigation measures that had been put in place in order to lessen the noise impact from activities on the estuary.</p> <p>EDT queried whether the rubber matting had been installed on the split barge in order to mitigate against such exceedances as agreed. FCBC advised that the mats were to be installed next week and that the NLG would be informed when this was complete.</p> <p>EDT advised that they had also met with local residents to discuss noise and vibration associated with marine working. EDT provided a summary of the discussions to the NLG. Residents are particularly concerned regarding disturbance at night and the length of time work will be continuing at night. EDT advised that they had sought to provide reassurance to the residents, particularly in relation to the role of the NLG in monitoring and reviewing the ongoing works and reviewing monitoring reports, investigations of exceedances and enquiries and complaints. EDT also indicated that they had advised that the noisier works would tend to be the ongoing dredging/ excavation works which were anticipated to continue for around two months.</p> <p><u>Enquiry 2</u></p> <p>FCBC advised that an enquiry was received from a resident of Rosyth on 24 August 2012. The enquiry was in relation to the duration of a specific section of utility diversion works and whether the works in question would have any adverse impact on the structure of the property. FCBC advised that they explained that the works would be completed within 5 weeks and that the vibration levels associated with the works were not of a sufficient level to cause damage to the property.</p>	FCBC
		<u>Forward Programme</u>	
(xxiv)		FCBC provided an overview of their forward programme and indicated that marine operations continued to be their main priority.	

4(b)	M9 Junction 1a	<u>Actions from Previous Meeting No. 13</u>	
	(i)	SRB advised that a detailed gantry erection programme was currently being finalised before being submitted to the NLG for review. However, they advised that it is no longer intended to carry out gantry and pavement works simultaneously due to logistical reasons.	SRB
	(ii)	SRB tabled pavement works plans and programme and the proposals were discussed at length (see item vi)	
	(iii)	EDT advised that an updated cumulative noise assessment covering the month of September was received on 05/09/12 and that comments on the submission would be provided in due course.	EDT
	(iv)	EDT confirmed that an early draft of the pavement sketches had been provided to the NLG members for information in advance of the NLG meeting.	
	(v)	EDT confirmed that the noise monitoring data for June had been uploaded to the project website.	
		<u>Plans for Control of Noise and Vibration</u>	
	(vi)	SRB issued a revised PCNV schedule which was reviewed. SRB advised that PCNVs currently under development covered the erection of ITS gantries to the west of M9 Junction 1a and online pavement works.	
	(vii)	<p>The pavement works plans and programme associated with PCNV 33 were discussed. SRB advised that the plans and programme were being developed to minimise any conflicts with the local community and the travelling public. SRB also advised that it was currently anticipated that the works would be carried out during 4 weekends over a period of 6 weeks in order to provide sufficient respite to local residents and also allow for adverse weather conditions. SRB noted that the duration of the works had been initially estimated to be 10 weeks, however they have been able to shorten the programme and reduce the disruption to the travelling public by incorporating night time working during the week.</p> <p>CEC asked about the methodology for the planing operation. SRB advised that the planing would be carried out per section and that once a section was started in would be followed through to completion. It was noted that it was preferable that planing works are not continuous for long periods into the night. However, it was recognised that this may be unavoidable due to the need to plane and prepare the road for the new surfacing and then complete the surfacing work within a tight programme. EDT advised that the community notification of the pavement works would be important and should cover sufficient detail to inform residents of the likely noisy activities.</p> <p>EDT asked whether the current plans removed the need for sacrificial surfacing. SRB advised that sacrificial surfacing was still required.</p> <p>CEC asked why SRB were planning to carry out pavement works both during weekday nights and at weekends. SRB advised that this approach would be faster, more efficient and would reduce the impact on the travelling public.</p> <p>EDT suggested that it would be useful to if the plans could be annotated by 'weekend number' for clarity. SRB agreed to action.</p> <p>SRB advised that the proposals included a closure of the southbound</p>	SRB

		<p>carriageway of the M9 Spur from Friday night until Sunday morning for each of the affected weekends and that a meeting had been arranged with the local authority's road team to discuss.</p> <p>EDT asked whether a mobile temporary acoustic barrier could be used as noise mitigation. SRB agreed to investigate and report back to the NLG.</p> <p>The timing of the pavement works was discussed. SRB advised that it was likely that the traffic management system for night time working would be implemented at 8pm, however it may be possible to start earlier than this depending on the traffic flows on the day. EDT advised that road users would need to be given adequate notice of any closures.</p> <p>EDT asked if tonal or non-tonal reversing alarms would be used for the pavement works. SRB advised that they were still working with their sub-contractor to assess whether non-tonal alarms can be provided and that an update would be provided to the NLG when the issue had been resolved. SRB advised that a banksman would be used for night time working instead of the usual horn signals in order to reduce night time noise levels.</p>	<p>SRB</p> <p>SRB</p>
	(viii)	EDT requested that amended pavement plans and a more detailed programme be issued in advance of the next NLG meeting. It was agreed that SRB would issue an amended package of information by 21 September 2012.	SRB
		<u>Monitoring</u>	
	(ix)	EDT advised that comments had been provided in relation to the noise and vibration monitoring information for July and that these were currently being addressed by SRB. SRB to submit amended July noise and vibration monitoring data for upload to the project website.	SRB
	(x)	SRB advised that there were no construction related exceedances in July.	
		<u>Community Engagement</u>	
	(xi)	<p>SRB advised that 9 complaints were received in August in relation to noise and that 7 of the 9 complaints related to works on the M9 Spur on 28 August 2012. SRB advised that the works in question included moving the varioguard as part of a traffic management 'switch over' on the M9 Spur.</p> <p>EDT asked whether the source of the 7 complaints was from installation of the varioguard or whether it was in relation to noise from the workforce. SRB advised that they understood it was primarily from the installation of the varioguard. CEC advised that they understood from a complaint that they had received directly that the workforce and roadsweeper had contributed to the disturbance</p> <p>SRB indicated that they would, in future, try and schedule works adjacent to properties earlier in the evening/night period. EDT expressed significant concern regarding the performance that generated so many complaints, particularly as there are future night works associated with pavement and gantries. NLG requested that the lessons learned from the traffic management works be communicated effectively to the pavement and gantry teams.</p> <p>The remaining 2 complaints were in relation to:</p>	SRB

		<p>1. Traffic management works on 4 August at Gateside</p> <p>2. A telephone call from a resident of Buie Rigg on 16 August enquiring what time drainage and verge works would be completed on that particular day.</p>	
		<u>Forward Programme</u>	
	(xii)	<p>SRB provided the following information regarding planned works for September:</p> <ul style="list-style-type: none"> <li>• Complete riprap at Swine Burn and Niddry Burn</li> <li>• Install mammal ledge at Niddry Burn Culvert</li> <li>• Complete topsoiling and seeding in remaining areas</li> <li>• Continue attenuation pond finishes</li> <li>• Erection of safety barrier</li> <li>• Median works to be completed</li> <li>• Drainage works to continue in central reserve</li> <li>• M905E snagging works ongoing</li> <li>• M908E complete parapets and backfilling</li> <li>• M906E complete median painting and south backspan</li> <li>• Gantry erection works</li> </ul>	
4(c)	Fife ITS	EDT advised they had agreed with JG in advance of the meeting that their attendance was not necessary on this occasion due to the limited works currently being carried out on the Fife ITS site and the fact that there were no significant issues to report. EDT advised that JG had provided them an update report, that matters relating to Fife ITS would be discussed and that they would relay any comments from the NLG to JG.	
		<u>Actions from Previous Meeting No. 13</u>	
	(i)	EDT confirmed that the noise monitoring report covering existing gantry removal had been uploaded to the project website	
	(ii)	JG advised in their update report that the 2 <sup>nd</sup> night programmed for sign installation will take place following the erection of each gantry.	
	(iii)	JG advised in their update report that the gantry erection programme is to be confirmed on 7th September. Currently the gantry installation is programmed to commence with G10 and G11 on 12 September 2012.	JG
		<u>Plans for Control of Noise and Vibration</u>	
	(iv)	JG's update report advised that no PCNVs or modifications had been submitted in the period. EDT confirmed that all PCNVs submitted to date had been approved.	
		<u>Monitoring</u>	
	(v)	JG's update report advised that no compliance monitoring was carried out in August in relation to noise and vibration.	
	(vi)	JG's update report advised that no non-conformance reports were raised in August in relation to noise and vibration.	
		<u>Community Engagement</u>	
	(vii)	JG advised in their update report that no complaints or enquiries were received during the month of August in relation to noise and vibration.	

		<u>Forward Programme</u>	
	(viii)	See item (iii) above.	
5	Next Meeting	The next meeting (No. 16) will be held on 4 October 2012, 10am, Ferrytoll site office.	
6	Any Other Business	Nothing to report	