

Proposed BP Service Station Redevelopment

The Proposal

The proposal is to redevelop the existing BP service station at 72-76 Gordon Road and expand onto the adjoining site at 70 Gordon Road by constructing a new BP Connect service station and car wash. The proposal is fully described in the resource consent application to the Dunedin City Council but in summary will involve the following:

Fuel Storage

The existing underground fuel tanks will be removed and two new underground tanks will be installed. These will consist of two 100,000 litre underground tanks storing 150,000 litres of petrol and 50,000 litres of diesel.

Forecourt

The tanks will supply fuel to eight dispenser locations in an eight lane configuration providing 16 filling positions. A canopy is proposed over the forecourt area. It will have a width of approximately 14m, a length of 32.0m and a height of approximately 6.0m to the top of the canopy. LED downlights will be located in the ceiling of the canopy to illuminate the facility to ensure safe operation at night time. The end two rows of lighting will be adjusted to ensure compliance with District Plan light spill requirements at night time.

Retail Shop

The service station retail shop will measure approximately 22.8m by 12.8m (292m² in area) and will have a height of approximately 4.9m. It will be a BP Connect store which will sell convenience foods as well as automotive supplies. It will also incorporate a Wild Bean Café, which offers hot drinks and café style food. A LPG bottle swap facility will also operate from the site. It is proposed to store LPG in two cages at the front of the shop. One cage will hold 24 bottles and one cage will hold 42 bottles (594kg total storage). These cages will be kept locked and bottles will be dispensed by staff trained for this purpose.

Carwash

A Superwash carwash will be constructed on the southern boundary of the site and will measure approximately 11.0m by 6.5m with a height of approximately 4.0m. The carwash service terminal will be located adjacent to the entry of the carwash. The air hose and vacuum will be located on the amenities island to the north of the car wash.

Signage

One main identification pylon sign is proposed to be erected within the garden area to the south of the southern most vehicle crossing. It will have a height of 9.0m and a width of 2.28m and will be an internally illuminated pylon sign. The sign will consist of the BP Helios logo, followed by panels stating "bp connect", "Wild Bean Café" and the usual product, fuel price and services information. The sign will be double sided and will have an area of 20.25m². The shop, canopy and car wash

signage is described in detail in the resource consent application and elevations are included on the attached plans.

Hours of Operation

The site will operate 24 hours a day and seven days per week. It is proposed that the car wash and vacuum will operate between 7:00am to 9:00pm Monday to Friday and 8:00am to 9:00pm Saturday, Sunday and statutory holidays.

Vehicle Crossings

There are currently five existing vehicle crossings onto Gordon Road, two associated with the existing service station, two associated with the gravel yard to the north of the service station and one for the residential site at 70 Gordon Road. Two new crossings are proposed, which are in the same general location as the existing service station crossings. The remaining three crossings will be closed. Both new crossings will have a width of 9m to allow for the tracking of fuel tankers and other large vehicles.

Traffic generation

A Transport Assessment has been undertaken. This estimates that traffic generation will not significantly increase as a result of the proposed redevelopment. The majority of trips to a service station are by vehicles which are already on the road network.

Noise

A Noise Assessment has been undertaken. This demonstrates general compliance with the noise limits of the District Plan. An exceedance of 1-2dB of the night time noise limit was predicted for 35C and 37A Irvine Street and 71, 73 and 75 Gordon Road, however such an exceedance is considered negligible as differences of 1-2 dB in noise levels are imperceptible to most observers.

Landscaping

Landscaping is proposed along the road frontage and along both side boundaries of the site. These areas will be planted with locally sourced low growing natives in order to maintain visibility at the vehicle crossings. A 2m high acoustic timber fence will be erected along all three internal boundaries of the site. The fence will drop to 1m in height from the north eastern corner of the shop to the road boundary in order to maintain visibility for vehicles exiting the site. Along the rear boundary of the site, a retaining wall will be constructed on the boundary and the acoustic fence will be setback 0.6m into the BP site. The fence is proposed to be 3m high on that part of the site adjoining 41A Irvine Street.

Stormwater Disposal

Stormwater will come from three different areas being the forecourt area, general site manoeuvring areas and roof areas. This stormwater will be collected, treated and discharged in accordance with Dunedin City Council requirements.

Construction

Construction activities, including earthworks and dewatering will be undertaken in accordance with an Environmental Management Plan and the redevelopment will take approximately 12-16 weeks to complete.

Dunedin City District Plan

The site is within the Residential 2 Zone of the District Plan. The existing service station activity was lawfully established on the site in the early 1980s and is subject to existing use rights. However, as it is proposed to expand onto the adjoining site to the south, consent is required as a non-complying activity pursuant to Rule 8.8.6 of the Residential 2 Zone. Consent is also required for the following aspects of the activity:

- Storage of liquid petroleum fuels in below ground tanks;
- Storage of LPG in cylinders;
- Volume and depth of proposed earthworks;
- Setback and recession plane non-compliances for that part of the fence adjoining 41A Irvine Street;
- Proposed signage associated with the redevelopment and a new main identification pylon sign;
- Minor transport non-compliances including parking spaces for people with disabilities, design of loading areas and number of vehicle crossings;
- Minor noise non-compliance; and
- Disturbance of soil pursuant to the NES for potentially contaminated sites.

A full description of the District Plan non-compliances is included in the resource consent application. The application also provides an assessment of the effects of the proposed redevelopment on the environment. Plans of the proposed redevelopment are attached.

**PRE & POST DEVELOPMENT
SERVICES ASSESSMENT**

FOR

**SEWER AND STORMWATER
DISCHARGE**

AT

**BP CONNECT MOSGIEL
72 GORDON ROAD
(State Highway 87)
MOSGIEL**

FOR

BP OIL NEW ZEALAND LIMITED

Project *B.P Connect Mosgiel*

Description *Pre & Post Development SFR*

AS/NZS 3500.1: 2003 Water Supplies

Flow Rates & Loading units

TABLE 3.1

FLOW RATES AND LOADING UNITS

Fixture/appliance	Flow rate, L/s	Flow rate, L/min	Loading units
Water closet cistern	0.10	6	2
Bath	0.30	18	8
Basin (standard outlet)	0.10	6	1
Spray tap	0.03	1.8	0.5
Shower	0.10	6	2
Sink (standard tap)	0.12	7	3
Sink (aerated tap)	0.10	6	2
Laundry tub	0.12	7	3
Washing/machine/dishwasher	0.20	12	3
Mains pressure water heater	0.20	12	8
Hose tap (20 nom. size)	0.30	18	8
Hose tap (15 nom. size)	0.20	12	4

NOTES:

- 1 In the case of valves and appliances where test information indicates that they will function satisfactorily with a flow rate less than that shown in Table 3.1, the tested flow rate may be substituted and the loading units adjusted accordingly.
- 2 Flow rates and loading units given above are taken with cold water flowing at each individual outlet.

Existing Site Gordon Road

House:

1 x WC	2
1 x W/HB	1
1 x SINK	3
1 x Bath/shower	8
1 x HWC	8
1 x WASH M	3
1 x HT.	4

29

Service Station:

2 x WC	4
2 x W/HB	2
2 x SINK	6
1 x HWC	8
1 x HT.	4

24 = 53

Table 3.3 PSFR

53 units = 0.64 l/s.



Project BP Connect Margul
Description Pre & Pos Development Sewer

Proposed BP Connect Shop

4	x	WC's	8
4	x	WHR	4
1	x	UNWHL	1
2	x	SINK	6
1	x	CSSINK	1
1	x	HWC	8

28 units

Table 3.3. PSFR @ 28 = 0.45 l/s

CAR WASH

① 15 WASHES per day Average

$$1 \times \text{CAR WASH} = 317 \text{ l}$$

60% recycle factor

$$\therefore 15 \times 317 = 4,755 - 60\% @ 2853 \text{ l}$$

$$= 1,141 \text{ l per 15 WASHES}$$

or 76 l/ per wash discharge @ 3 minutes

$$\therefore 76 \div 180 = 0.42 \text{ l/s}$$

BP Connect Shop + Car Wash

$$= 0.45 \text{ l/s} + 0.42 \text{ l/s} = 0.87 \text{ l/s}$$

$$\text{Site increase of } 0.87 - 0.64 = 0.23 \text{ l/s}$$

Project BP Connect Morigiel
Description SW Pre & Post Development.

Existing Site GORDON ROAD BH 87

$A = 3242 \text{ m}^2$ or 3.242 h

Site make up SW AREAS

- | | |
|-----------------------|---------------------|
| 1 Roof | 825 m ² |
| 2 Hard Stone Concrete | 1608 m ² |
| 3 Gravel unsealed | 809 m ² |

TOTAL $A = 3242 \text{ m}^2$

Rational Method F1/PM1 NZBC.
Estimated Surface water in of.
CIA / 360

1. Roof $825 \text{ m}^2 = 0.083 \text{ h}$
 $C = 0.90$
 $I = 48 \text{ mm/h}$

$0.90 \times 48 \times 0.083$
 $= 3.585 / 360$
 $0.0099 \text{ m}^3/\text{s}$

0.009

2. Hard Stone $1608 \text{ m}^2 = 0.161 \text{ h}$

$C = 0.80$
 $I = 48 \text{ mm/h}$

$0.80 \times 48 \times 0.161$
 $6.182 / 360$
 $0.017 \text{ m}^3/\text{s}$

0.017

Project BP Connect Mossiel
Description SW Pre & Post Development

3 GRAVEL unsealed $809 \text{ m}^2 = 0.081 \text{ L}$

$$C = 0.50$$

$$I = 48 \text{ mm/h}$$

$$\frac{0.80 \times 48 \times 0.081}{3.110 / 360}$$

$$0.0086 \text{ m}^3/\text{s}$$

0.0086

Total Site runoff $Q = \text{Roof} + \text{HSTAND} + \text{UNSEAL}$
 $Q = 0.009 + 0.017 + 0.0086$

$Q = 0.034 \text{ m}^3/\text{s} = \underline{34 \text{ L/s}}$

Proposed New BP Connect

$A = 3242 \text{ m}^2 \text{ or } 3.242 \text{ L}$

Additional GWF 16% Added to I

$I = 48 \times 1.16 = 55.68 \text{ mm/h}$

Roof $A = 863 \text{ m}^2 = 0.086 \text{ L}$

$Q = 0.90 \times 55.6 \times 0.086$

$= 4.303 / 360$

$Q = 0.0119 \text{ m}^3/\text{s} \text{ or } \underline{11.9 \text{ L/s}}$

GRASS $A = 391 \text{ m}^2 \text{ or } 0.039$

$Q = 0.40 \times 55.6 \times 0.039$

$= 6.867 / 360$

$Q = 0.002 \text{ m}^3/\text{s} \text{ or } \underline{2.0 \text{ L/s}}$

Asphaltic HARD STANDING $1988 \text{ m}^2 \text{ or } 0.199$

$Q = 0.80 \times 55.6 \times 0.199$

$= 8.851 / 360$

$Q = 0.024 \text{ m}^3/\text{s} \text{ or } \underline{24 \text{ L/s}}$

P.T.O.



Project BP Connect Mossiel
Description SW Pre & Post Development

Estimated Stormwater runoff

$$Q = 11.9 + 2.0 + 24$$

$$Q = 37.9 \text{ l/s}$$

$$Q = \text{Pre Development} \\ = 34 \text{ l/s}$$

$$\text{Post Development} \\ Q = 37.9 \text{ l/s}$$

$$Q \text{ Difference between pre \& Post Development} \\ Q = 37.9 - 34 = \underline{\underline{3.9 \text{ l/s}}}$$

High Intensity Rainfall System V3

Results for Gordon Road Mosgiel

Intensity-Duration-Frequency results (produced on Monday 19th of June 2017)

Sitename: Gordon Road Mosgiel

Coordinate system: NZMG

Easting: 2304178

Northing: 5477719

Rainfall intensities (mm/h)

$q_{WF} = 16\%$
 $48 \times 1.16 = 55.6 \text{ mm/h}$
Post-

48 mm/h
Pre

ARI (y)	aep	Duration									
		10m	20m	30m	60m	2h	6h	12h	24h	48h	72h
1.58	0.633	23.4	16.8	14.0	10.2	7.0	3.9	2.7	1.9	1.2	0.9
2.00	0.500	25.8	18.6	15.4	11.1	7.7	4.3	3.0	2.1	1.3	1.0
5.00	0.200	33.6	24.6	20.4	14.7	10.2	5.6	3.9	2.7	1.7	1.3
10.00	0.100	40.8	29.4	24.4	17.8	12.2	6.7	4.6	3.2	2.0	1.5
20.00	0.050	48.6	35.4	29.2	21.2	14.6	8.0	5.4	3.7	2.3	1.8
30.00	0.033	54.0	39.0	32.4	23.5	16.1	8.8	6.0	4.1	2.6	2.0
40.00	0.025	57.6	42.0	34.8	25.3	17.2	9.4	6.4	4.4	2.8	2.1
50.00	0.020	61.2	44.4	36.8	26.7	18.2	9.9	6.8	4.6	2.9	2.2
60.00	0.017	64.2	46.5	38.6	28.0	19.1	10.4	7.1	4.8	3.0	2.3
80.00	0.012	69.0	49.8	41.4	30.1	20.4	11.1	7.5	5.1	3.2	2.5
100.00	0.010	72.6	52.8	43.8	31.8	21.6	11.7	8.0	5.4	3.4	2.6

Coefficients

c1	c2	c3	d1	d2	d3	e	f
0.0006	-0.0063	-0.0001	0.5361	0.4710	0.3329	0.2479	2.3191

log(h(D))

10m	20m	30m	60m	2h	6h	12h	24h	48h	72h
1.792	1.099	0.693	0.000	-0.693	-1.792	-2.485	-3.178	-3.871	-4.277

Standard errors (mm/h)

ARI (y)	aep	Duration									
		10m	20m	30m	60m	2h	6h	12h	24h	48h	72h
1.58	0.633	7.0	3.5	2.4	1.2	0.6	0.2	0.1	0.1	0.0	0.0
2.00	0.500	7.0	3.5	2.4	1.2	0.6	0.2	0.1	0.1	0.0	0.0
5.00	0.200	7.1	3.6	2.4	1.2	0.6	0.2	0.1	0.1	0.0	0.0
10.00	0.100	7.2	3.7	2.5	1.3	0.7	0.3	0.2	0.1	0.1	0.1
20.00	0.050	7.4	3.9	2.7	1.6	0.8	0.4	0.2	0.2	0.1	0.1

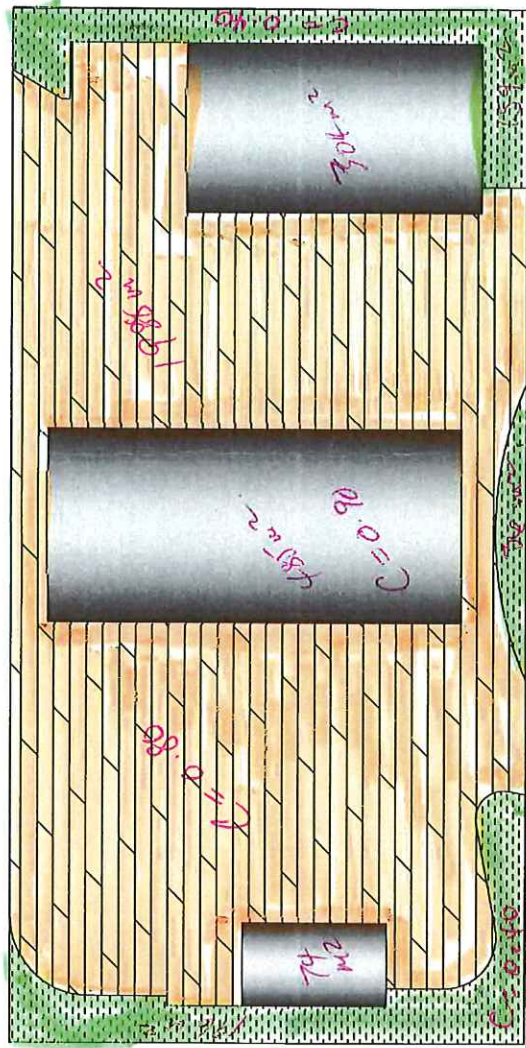
- Asphaltic / As. 1988 m^2
- Glass 391 m^2
- Roof 863 m^2

$$G_{WF} = \frac{1.16}{}$$

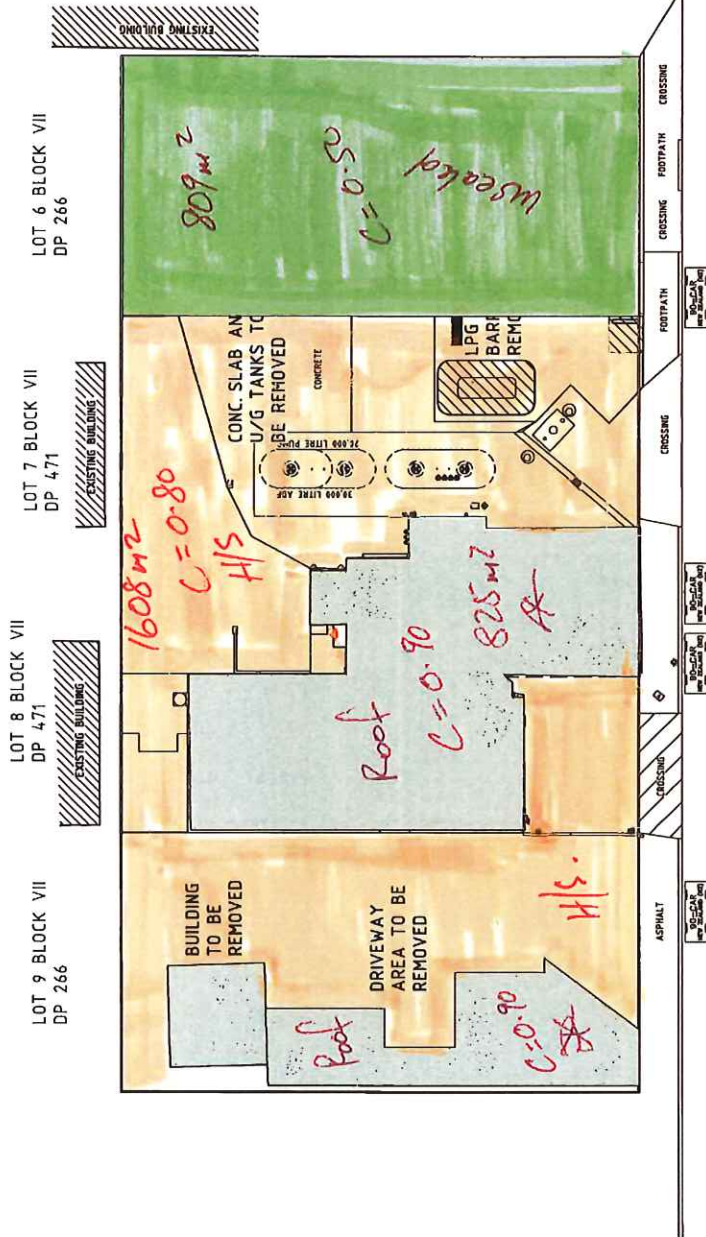
$$A = 3242$$

$$- \quad \textcircled{1254}$$

$$= \quad \textcircled{1988} \text{ m}^2$$



Q = 34.4%



D	SITE SURVEY ADDED	6/17	BB
C	LOT 9 INCLUDED IN REDEVELOPMENT	3/17	BB
B	LAYOUT REVISED	07/16	DN
A	FINAL ISSUE	04/16	DN
REV.	DESCRIPTION	DATE	INITIALS
PROJECT No.	52371	SCALE	AS SHOWN
DATE	APR 2016	DATE	APR 2016
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TITLE	BP CONNECT MOSGIEL MOSGIEL EXISTING SITE PLAN SHOWING DEMOLITION		

bp

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3ALC1-SN

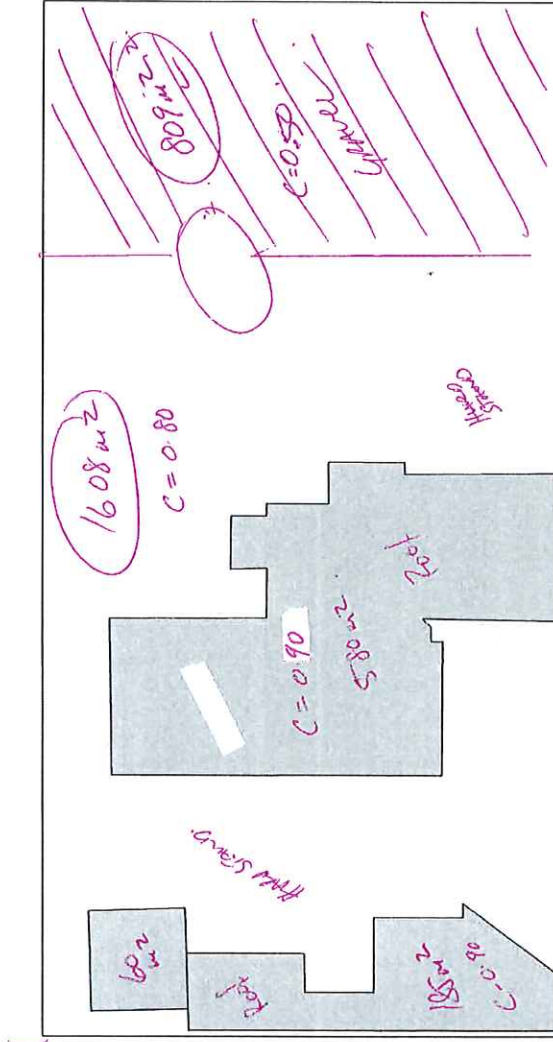
EXISTING SITE PLAN
SCALE 1:500 AT A1 (1:400 AT A3)

$$\left. \begin{aligned} \text{Roof} &= 825 \\ \text{Hard Stand} \\ \text{Concrete} &= 1608 \\ \text{Gravel} &= 809 \end{aligned} \right\} = 3242 \text{ Site Area}$$

2432

$$\frac{\text{Rate/m}^2}{C = C/A} = 1360$$

3242 A



$$\begin{aligned} \text{Roof @ } C &= 0.90 \\ \text{Hard Stand} &= C = 0.80 \\ \text{Concrete} &= C = 0.50 \\ \text{Gravel} &= C = 0.50 \end{aligned}$$

Roof Area

$$\begin{aligned} &= 60 + 185 + 580 \\ &= 825 \text{ m}^2 \end{aligned}$$

$$\text{Total Site Area} = 3242 \text{ m}^2$$

$$\text{Roof - Site} = 3242 - 825$$

$$A_i = 2417$$

$$A_i = 2417 - \text{Gravel}$$

$$\begin{aligned} &= 2417 - 809 \\ &= 1608 \end{aligned}$$

Connor Marner

From: Fiona Small <Fiona@incite.co.nz>
Sent: Tuesday, 18 July 2017 04:14 p.m.
To: Madeline Seeley
Subject: BP Mosgiel
Attachments: BP - Mosgiel - DCC AEE - Final with LPG volume changed.docx

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Maddy

Thanks for your time on the phone this afternoon. As discussed, we wish to make a minor change to the volume of 9kg bottles of LPG to be stored in cages at the front of the shop.

The application sought two cages with 24 x 9kg bottles of LPG in each. It is now proposed to have two cages, one storing 24 x 9kg bottles and one storing 42 x 9kg bottles. This results in an increase in the amount of LPG to be stored on the site from 432kg to 594kg. Consent is still required for the storage of LPG as a discretionary activity.

In updating the application (as attached), I have noted an error in the volume of LPG to be stored. We sought consent for two cages of 24 x 9kg bottles (432kg) but in the District Plan assessment, I have noted that 648kg is to be stored. Apologies for this inconsistency. It is now superseded by the new volume of 594kg.

Any questions, please do not hesitate to ask.

Thanks very much
Fiona

Fiona Small
Senior Planner



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14 August 2017

BP Oil New Zealand Ltd
c/- Fiona Small
Incite
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CHRISTCHURCH 8144
Via email: Fiona@incite.co.nz

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T 64 3 951 3009
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www.nzta.govt.nz

Dear Fiona

BP Oil New Zealand Ltd - BP Connect Mosgiel, 72-76 Gordon Road (SH87)

Thank you for forwarding the information of the above-mentioned proposal for our consideration and comment.

Our primary concern is to ensure that State Highway 87 in the vicinity of the proposal operates in an integrated, safe and sustainable manner. Accordingly, an evaluation of the proposal has been conducted to determine the likely adverse effects on the State highway and the following comments are made in light of that evaluation.

We understand the proposal is to redevelop the existing BP Service Station at 72-76 Gordon Road and expand onto the adjoining site at 70 Gordon Road. A BP Connect Service Station with a car wash and associated signage will be constructed. Two new accesses to the site are also proposed.

Our Senior Safety Engineer has considered the application and notes the reduction in the number of existing accesses would be positive and in this instance the proposed new accesses should be designed to the appropriate Dunedin City Council standard.

However as car parks will be removed from the State highway and no stopping lines are proposed the Transport Agency will also be required to consider the works under Traffic Controls on State Highways Bylaw 2017 in accordance with the Land Transport Act 1998. This process involves a substantial consultation process with various parties that the Transport Agency is required to undertake.

Therefore it should be noted the final outcome for the project will be based on the bylaw process where the Transport Agency is required to consider the feedback from a number of stakeholders. As a result the Senior Safety Engineer has noted the applicant may like to consider approaching Council (if you have not already) as one of the key stakeholders in both the RMA and bylaw process to identify their opinion on the proposal to remove car parks before progressing further.

In light of the preceding comments the Transport Agency would be in a position to consider giving written approval under the Resource Management Act if the following conditions are either included as a substantive part of the application or promoted to the consent authority as conditions to consent:

- *The NZ Transport Agency notes that the changes to the Traffic Control Devices required to implement the resource consent will require an amendment to the NZ Transport Agency (Traffic Controls on State Highways) Bylaw 2017. Any amendment to that Bylaw will be the subject of*

consultation in accordance with the Land Transport Act 1998 and decisions will be made by the Transport Agency on the proposed amendment in accordance with the statutory requirements and good administrative practice.

- *That the vehicle entry and exit points are clearly marked with painted lines and or signs for driver awareness;*
- *An application to carry out work within the State highway corridor road reserve and an appropriate traffic management plan shall be submitted to our network management contractor MWH (now part of Stantec), at least seven working days prior to the works commencing.*

Please do not hesitate to contact me if you have any further queries or require further information.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Julie', with a stylized flourish at the end.

Julie McMinn

Consultant Planner to the New Zealand Transport Agency

Connor Marner

From: Fiona Small <Fiona@incite.co.nz>
Sent: Tuesday, 5 September 2017 12:05 p.m.
To: Connor Marner
Cc: Campbell Thomson; Chandler, John
Subject: BP Mosgiel Update
Attachments: 3ALC1-11E12D13H14H15F16F17B (10 Aug 2017).pdf

Hi Connor

I am emailing to update you on progress on BP Mosgiel. Following consultation with adjoining neighbours to the rear of the site, the proposed plans have been amended to shift the rear boundary fence into the site by 0.6m. The height of the fence has also been increased to 3m adjoining 41A Irvine Street at the request of the owners of 2 Mure Street. I assume this will be an additional non-compliance so will address this when we resubmit the noise report. We are now in a position where we have two written approvals to the old plans and one written approval to the new plans but this approval is incomplete. So we will likely request limited notification to all affected parties.

I will be in touch again in the next couple days once we have the updated noise report.

Kind regards
Fiona

Fiona Small
Senior Planner



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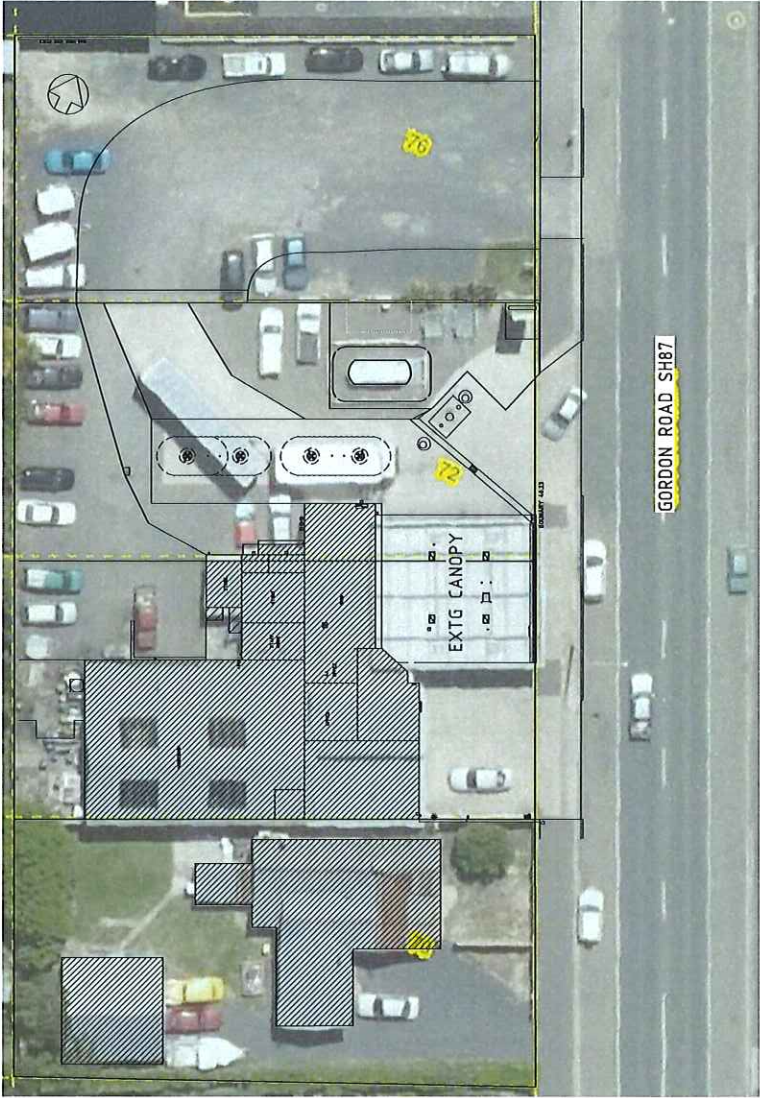
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BP CONNECT MOSGIEL

SITE REDEVELOPMENT BP CONNECT SHOP,
8 LANE CANOPY, CARWASH AND SITE WORKS

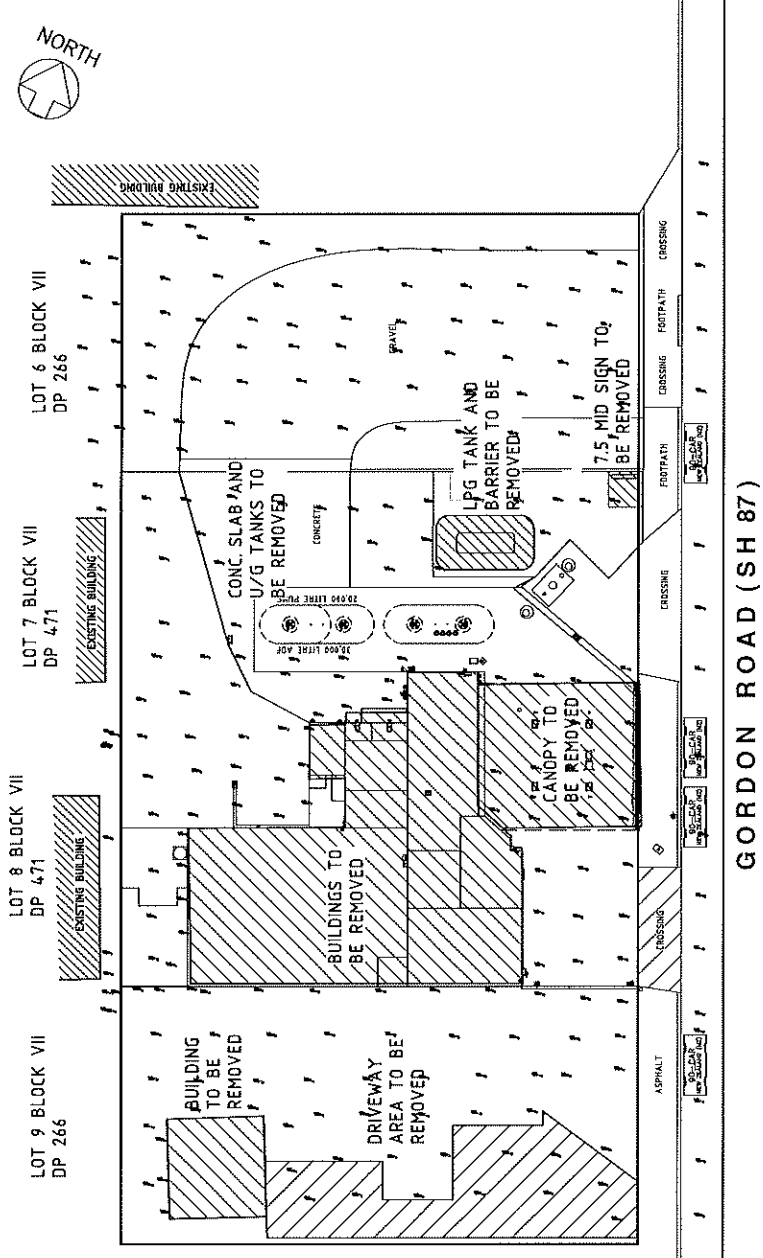
bp

DRAWING INDEX		
DRAWING	REVISION	DRAWING DESCRIPTION
3ALC1-11	E	SITE UPGRADING KEY PLAN AND DRAWING REGISTER
3ALC1-12	D	EXISTING SITE PLAN SHOWING DEMOLITION
3ALC1-13	H	PROPOSED SITE PLAN
3ALC1-14	H	PROPOSED TANKER TRACKING
3ALC1-15	F	PROPOSED AND EXISTING SITE OVERLAY PLAN
3ALC1-16	F	PROPOSED ELEVATIONS
3ALC1-17	B	INDICATIVE SERVICES PLAN



LOCALITY EXISTING SITE PLAN
SCALE 1:200 AT A3 (1:400 AT A3)

E	REGISTER UPDATED	8/17	BB	
D	REGISTER UPDATED	8/17	BB	
C	LAYOUT REVISED	07/16	DOH	
B	LAYOUT REVISED	07/16	DOH	
A	PORT ISSUE	04/16	DOH	
REV. DESCRIPTION		DATE INITIALS APPR		
PROJECT No.		SPEC. No.	SCALE	AS SHOWN
B2371				
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TITLE				
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MOSGIEL				
SITE UPGRADING				
KEY PLAN AND REGISTER				
BP OIL NZ LTD				
3ALC1-11				
E				



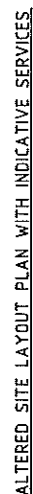
D	SITE SURVEY ADDED	6/17	BB
C	LOT 9 INCLUDED IN REDVELOPMENT	3/17	BB
B	LAYOUT REVISED	07/16	EDN
A	FIRST ISSUE	04/16	EDN
REC.	DESCRIPTION	DATE	INT'L APP'D
PROJECT No.	82371	SCALE	AS SHOWN
DATE	April 2016	DATE	April 2016
DESIGNED BY	BP OIL NZ LTD	DESIGNED BY	BP OIL NZ LTD
CHECKED BY	BP OIL NZ LTD	CHECKED BY	BP OIL NZ LTD
APPROVED BY	BP OIL NZ LTD	APPROVED BY	BP OIL NZ LTD
DATE	04/16	DATE	04/16
SCALE	AS SHOWN	SCALE	AS SHOWN
TITLE	BP CONNECT MOSGIEL MOSGIEL EXISTING SITE PLAN SHOWING DEMOLITION		

bp

BP OIL NZ LTD

3ALC1-12 D





BP OIL NZ LTD
3ALC1-17
REQ. B

Connor Marner

From: Fiona Small <Fiona@incite.co.nz>
Sent: Monday, 11 September 2017 03:18 p.m.
To: Connor Marner
Cc: Campbell Thomson; Chandler, John
Subject: BP Mosgiel - LUC-2017-319
Attachments: 3ALC1-11E12D13H14H15F16F17B (10 Aug 2017).pdf; 710.10262-L01-v1.0 BP Mosgiel Further Information Request Acoustics.pdf

Hi Connor

Please find attached a response to the further information request sent by Madeline Seeley on 16 August 2017.

As previously advised, BP have amended the proposed site layout by moving the rear acoustic boundary fence into the site by 0.6m. This is as a result of consultation with the affected neighbours on this boundary. The height of the fence has also been increased to 3m adjacent to 41A Irvine Street at the request of the owners of 2 Mure Street. These changes are shown on the attached amended plans which we seek replace the plans which were lodged with the application.

As a result of the increase of the fence height adjacent to 41A Irvine Street, this part of the fence will be considered to be a building, as it exceeds 2.5m in height and therefore requires a building consent. In terms of the rules of the Residential 2 Zone, this part of the fence will fail to comply with the 1m yard setback and recession plane requirements for buildings. In terms of the effects of these breaches, it is noted that the dwelling on adjoining property is setback approximately 2m from the proposed fence and the area of land between the dwelling and the fence is a side yard. The main outdoor living area is to the north. BP have discussed the increase in the fence height with Rosalie Cabral of 41A Irvine Street and she has indicated agreement to the amended fence height.

As you are aware, we have three written approvals to the proposed redevelopment of the service station, however two of these were provided to the plans which have been superseded and one is incomplete. Therefore, we seek that the Council limited notify the proposal to all of the parties that have been identified as potentially affected.

Could you please forward a copy of the s95 Planners Report when it is completed.

Thanks very much
Fiona

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Assessment of Environmental Effects For Dunedin City Council

BP Oil New Zealand Limited

Proposed Service Station Redevelopment
70-76 Gordon Road, Mosgiel

July 2017



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Appendix J – Operational Environmental Management Plan

Appendix K – Pre and Post Development Services Assessment

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Introduction

This assessment is provided in accordance with the requirements of section 88 of the Resource Management Act 1991 and the Fourth Schedule to the Act. It is in support of the resource consent application made by BP Oil New Zealand Limited (hereafter BP) to redevelop and extend the existing service station at 70-76 Gordon Road, Mosgiel.

Consent is required in terms of the Dunedin City Plan for the hazardous substance storage, signage, transport non-compliances, noise and earthworks. Consent will also be required for soil disturbance and removal of underground fuel storage systems under the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011, hereafter NES.

Consent is also required from the Otago Regional Council under the Regional Waste Plan to disturb a potentially contaminated site and the Regional Water Plan for dewatering activities. These consents have been applied for concurrently with this application.

Description of the Proposal

Plans and Documentation

The following plans and documentation are attached as appendices:

- Appendix A – Location Plan
- Appendix B – Certificate of Title
- Appendix C – Site Plans
- Appendix D – Environmental Management Plan
- Appendix E – Transportation Assessment
- Appendix F – Purceptor Calculations
- Appendix G – Noise Assessment
- Appendix H – Detailed Site Investigation
- Appendix I – Hydroguard Monitoring System
- Appendix J – Operational Environmental Management Plan
- Appendix K – Pre and Post Development Services Assessment
- Appendix L – Lighting Assessment

The Site and Surrounds

The site is located at 70-76 Gordon Road, within the township of Mosgiel. The legal description of the site is Lots 6 and 9 Block VII DP 266 and Lots 7 and 8 Block VII, DP 471 and is contained in Certificates of Title OT310/170, OT6C/142 and OT10D/327. The site is owned by Seddif Limited and will be leased and operated by BP. It is proposed to expand onto the adjoining site to the south.

The site is located in the Residential 2 Zone of the Operative Dunedin City District Plan. The existing site is zoned Commercial Principal Centre in the Proposed 2nd Generation Plan (Proposed 2GP) and the site onto which it is proposed to expand is zoned Residential 2. There are no special notations or designations over the site in the Operative Plan. The Proposed 2GP notations include Hazard 3 – Flood, infrastructure constraint layer, archaeological alert layer and a secondary pedestrian street frontage layer.

The site is relatively flat and occupies four parcels of land with access to Gordon Road. The existing service station is located on the middle two parcels of land, being 72 Gordon Road. The existing site layout is shown on Drawing No. 3ALC1-12, Rev D attached in Appendix C and includes a workshop, shop, forecourt with canopy, underground tanks, above ground LPG tank and signage. 70 Gordon Road was occupied by a residential dwelling and garage but this has recently been demolished and the site cleared. 76 Gordon Road is a vacant metalled yard which is currently used for parking and manoeuvring by heavy vehicles accessing the diesel pump adjacent to the shop.

The site is adjoined to the north by Vet-Ent Mosgiel and to the south and rear by residential dwellings. Land across the other side of Gordon Road is a mix of residential properties, a tyre shop, a church and community hall. This is typical of small towns in New Zealand which often contain a mix of activities in the town centre.

A Location Plan is attached as Appendix A and the Certificates of Title are attached as Appendix B. An aerial image of the location is shown below:



Source: DCC GIS

The Proposal

It is proposed to redevelop the existing BP service station at 72-76 Gordon Road and expand onto the adjoining site at 70 Gordon Road by constructing a new BP Connect service station and car wash. The proposed service station will consist of the following:

Underground Tanks

Two new double walled underground tanks are proposed as follows:

- 1 x 100,000 litre tank, split into 50,000 litres of diesel and 50,000 litres of petrol
- 1 x 100,000 litre tank, split into two compartments of 70,000 litres and 30,000 litres of petrol

The site will provide petrol 91, 95 and 98 but the exact breakdown of this has not yet been determined. Consent is sought for storage of 150,000 litres of petrol and 50,000 litres of diesel.

The underground tanks will have a total storage volume of 200,000 litres and will be located to the north west of the forecourt. The excavation for the tank pit will be stabilised by installing interlocking sheet piling prior to excavation, which will also prevent any land from outside of the tank pit from being disturbed. Approximately 600m³ of material will be excavated for the tank pit and

once the tanks are installed, the pit will be backfilled with pea gravel. All backfill will be sourced from a verified cleanfill supplier and the tanks will be installed as per the manufacturers specifications.

Any material to be taken away will first be tested before being directly loaded into trucks and disposed of at an appropriate facility. If temporary stockpiling of suspected contaminated material is required, this will be undertaken in accordance with the Environmental Management Plan (EMP) attached in Appendix D (see Section 5.6).

Two test pits have been undertaken on site and groundwater was encountered at 3.3m below ground level. Therefore, dewatering will be required when installing the proposed tanks. This will be undertaken in accordance with the dewatering procedure included in section 5.5 of the attached EMP and consent will be obtained from the Otago Regional Council for this activity. It is currently proposed to discharge dewatering water to the Council reticulated stormwater network and this is being further discussed with Council Water and Waste Services staff.

Forecourt

The tanks will supply fuel to eight dispenser locations in an eight lane configuration providing 16 filling positions. The dispensers will be protected from manoeuvring vehicles by bollards.

The delivery lines for the dispensing pipework and tanker fill lines will be double walled and all other pipework will be single walled. The remote fill points for the underground tanks will be located within the front island (closest to Gordon Road) so that tankers are able to drive in, re-fill the tanks and drive out again. The proposed Tracking Paths plan attached in Appendix C demonstrate that the tanker can park clear of the vehicle crossings while refilling the tanks.

A canopy is proposed over the forecourt area. It will have a width of approximately 14m, a length of 32.0m and a height of approximately 6.0m to the top of the canopy (approximately 4.5m to the underside of the canopy). LED downlights will be located in the ceiling of the canopy to illuminate the facility to ensure safe operation at night time. The end two rows of lighting will be adjusted to ensure compliance with District Plan light spill requirements at night time. This is further discussed in the District Plan section below.

Retail Shop

The service station retail shop will measure approximately 22.8m by 12.8m (292m² in area) and will have a height of approximately 4.9m. It will be a BP Connect store which will sell convenience foods as well as automotive supplies. It will also incorporate a Wild Bean Café, which offers hot drinks and café style food.

A LPG bottle swap facility will also operate from the site. ~~It is proposed to store 24 x 9kg bottles in each of two cages at the front of the shop (432kg total storage).~~ It is proposed to store LPG in two cages at the front of the shop. One cage will hold 24 bottles and one cage will hold 42 bottles (594kg

total storage). These cages will be kept locked and bottles will be dispensed by staff trained for this purpose.

Carwash

A Superwash carwash will be constructed on the southern boundary of the site and will measure approximately 11.0m by 6.5m with a height of approximately 4.0m. The carwash service terminal will be located adjacent to the entry of the carwash. The air hose and vacuum will be located on the amenities island to the north of the car wash. Approximately 60% of the water used in the carwash will be recycled and the remainder will be discharge to the sewer network via new double interceptors as shown on Indicative Services Plan in Appendix C (Drawing No. 3ALC1-17, Revision A).

Signage

One main identification pylon sign is proposed to be erected within the garden area to the south of the southern most vehicle crossing. It will have a height of 9.0m and a width of 2.28m and will be an internally illuminated pylon sign. The sign will consist of the BP Helios logo, followed by panels stating “bp connect”, “Wild Bean Café” and the usual product, fuel price and services information. The sign will be double sided and will have an area of 20.25m². A verge board will also be located within the garden area between the two vehicle crossings and in the garden area in front of the proposed new shop (two in total). These will have changeable marketing material and will have a height of 2.3m and a width of 1m, giving an area of 2.3m².

The canopy will have a green strip around the top and all elevations, except the rear elevation, will have the BP Helios button (0.6m² in area) and green bullnose cladding attached to the fascia of the canopy.

Signage on the BP Connect retail shop and carwash will include the following:

Sign	Location	Area
Shop		
bp connect	Shop frontage	8m ²
Wild Bean Café	Shop front elevation	1.7m ²
Wild Bean Café	Shop east elevation	1.7m ²
2 x Poster boards	Shop front elevation	2 x 0.7m ²
2 x Poster boards	Shop east elevation	2 x 0.7m ²
Helios button	Shop frontage	2.2m ²
Carwash		
Superwash	North elevation	5.5m ²
1 x Poster board	North elevation	0.7m ²
Enter	East elevation	2.4m ²
Exit	West elevation	2.4m ²

Carwash information board	East corner of building	2.0m ²
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The base colour of the fascias on which signage will be mounted will be either the “BP” corporate green colour or white.

The site will also contain other minor signage, including directional signage, dispenser signage and signage required under HSNO regulations.

The proposed signage is shown on the plan entitled “Proposed Elevations” attached in Appendix C.

Hours of Operation

The site will operate 24 hours a day and seven days per week. It is proposed that the car wash and vacuum will operate between 7:00am to 9:00pm Monday to Friday and 8:00am to 9:00pm Saturday, Sunday and statutory holidays.

Vehicle Crossings

There are currently five existing vehicle crossings onto Gordon Road, two associated with the existing service station, two associated with the gravel yard to the north of the service station and one for the residential site at 70 Gordon Road. Two new crossings are proposed, which are in the same general location as the existing service station crossings. The remaining three crossings will be closed. Both new crossings will have a width of 9m to allow for the tracking of fuel tankers and other large vehicles. The vehicle crossings will be constructed to a heavy duty standard. The refuelling tanker tracking paths are shown on the plan entitled Proposed Tanker Tracking attached in Appendix C. The vehicle crossings have been assessed in the Transportation Assessment for the BP service station prepared by Traffic Design Group (TDG). This is attached in Appendix E.

Traffic generation

Traffic generation has been estimated by TDG based on a survey of the existing driveway movements. The existing service station is currently generating approximately 86 vehicle movements (in + out) per hour during the morning peak period. This includes vehicles associated with the workshop activity and the vehicle licencing activity. The actual number of vehicle movements generated by the service station activity was around 80vph. The Transport Assessment notes that the majority of trips to a service station are by vehicles already on the road network, therefore it is considered that the increase in the number of fuel pumps is unlikely to result in a significant increase in the traffic generation of the service station. Likewise, the addition of the car wash is considered unlikely to attract additional movements during peak periods. The shop size is increasing however, from 80m² to 290m², therefore the increase in non-fuel related traffic is estimated to be approximately 20 vehicle movements per hour. This results in a traffic generation of approximately 100 vehicles per hour in the peak hour period.

Car parking

A total of 18 car parks are proposed. Nine car parks are proposed directly outside the front of the shop and these include one accessible park. A further three staff parks are proposed on the western boundary of the site. Six parks are proposed on the northern side of the Superwash adjacent to the amenities island which incorporates the car wash vacuum, air hose, rubbish bin etc. There is also sufficient area for four cars to queue while waiting to enter the Superwash. A loading space is available on the western side of the shop. Provision has also been made to the east of the shop for two bicycle stands.

Landscaping

Landscaping is proposed along the road frontage and along both side boundaries of the site. These areas will be planted with locally sourced low growing natives in order to maintain visibility at the vehicle crossings. A 2m high acoustic timber fence will be erected along all three internal boundaries of the site. The fence will drop to 1m in height from the north eastern corner of the shop to the road boundary in order to maintain visibility for vehicles exiting the site.

Stormwater Disposal

Site stormwater will come from three different catchment areas, being

1. hazardous areas,
2. non-hazardous areas i.e. general hardstand and vehicle movement areas and
3. building roof areas including the canopy.

Hazardous areas

Site stormwater that may contain hydrocarbons from filling activities will come from the forecourt containment slab which includes the remote fills. Stormwater from forecourt areas around the dispensers and tank fill points will be totally separated from general site stormwater.

Water from this forecourt area will be drained into separate sumps and a SPEL Purceptor. The SPEL Purceptor will be located in the garden area in the south east corner of the site and will discharge to the City Council stormwater network. It is proposed to add a new 300mm diameter extension to the existing Council main to serve the BP site and connect into the existing sump on the corner of Gordon Road and Mure Street. This is currently being discussed with Council Water and Waste Services staff.

The SPEL Purceptor has been sized for a simulated storm of 40.2mm/hr with a discharge rate of 1.53 l/s. The Purceptor is a specific designed interceptor to meet the requirements of the Ministry for the Environment, "*Environmental Guidelines for Water Discharge from Petroleum Industry Sites in New Zealand*", and will also meet the Auckland Regional Council (ARC) Guidelines for stormwater treatment, Oil and water separators, Technical Publication # 10.

The proposed Puraceptor has, under normal operating conditions, containment capacity of 2500 litres of fuel up stream of the automatic shut-off outlet valve allowing any spill to be contained, while mitigation measures are put in place.

The treated stormwater, which meets the discharge quality specified in the industry guidelines (15mg/l), will then be discharged to the City Council stormwater network. In the unlikely event of a large spill on site, the interceptor is isolated from the stormwater network by the automatic shut off valve as described above. The interceptor also has a product detection probe which is activated if a detectable level of separate phase hydrocarbon is contained within the interceptor. The Puraceptor stormwater calculations are attached as Appendix F.

Non hazardous areas

Areas unlikely to contain hydrocarbons include the open areas used for general vehicle manoeuvring and parking areas. This stormwater will be collected in trapped sumps with a capacity of 60 litres. It will discharge to the City Council stormwater network. This discharge will be no different than the discharge from any other parking/roading areas within the development.

Roof areas

Stormwater collected from roof areas will be recycled via a 10,000 litre recycling tank, with any overflow discharging to the stormwater network.

Construction

Existing tank removal

The removal of the existing tanks will be undertaken as described in section 5.3 of the EMP attached as Appendix D, and will involve the following steps:

- Remove all fuel from the tanks;
- Remove the concrete tank slab;
- Excavate around the tanks and fuel lines;
- Remove bedding material/soil as directed by the Environmental Consultant;
- Environmental Consultant will collect environmental benchmark samples in accordance with MfE Guidelines for assessing and managing petroleum hydrocarbon contaminated sites in New Zealand (revised 2011); and
- Backfill the tank pit with either reused or new imported fill.

As the majority of the material to be removed will be bedding material, it is estimated that approximately 200m³ of soil may be disturbed and removed.

Redevelopment

For the redevelopment, the following earthworks will be required:

- 400m³ for the new shop floor;

- 600m³ for the new tank pit area; and
- 800m³ for the remainder (e.g. drainage, interceptor and sumps and including 200m³ associated with the removal of the existing tanks)

As noted above the EMP is attached as Appendix D and this document details requirements to be followed by BP employees and contractors to ensure any environmental effects associated with construction are avoided or mitigated.

The construction period will be approximately 12-16 weeks with works planned to commence in late 2017.

Dewatering

As noted above, the tank pit will be stabilised by installing interlocking sheet piling (approximately 8m length) prior to excavation, which prevents any land from outside of the tank pit from being disturbed. The use of sheet piling will also restrict water ingress within the tank pit from a horizontal plane. This will mean that only vertical water ingress will need to be dealt with by dewatering. It is expected that it will be necessary to dewater during the installation of the new tanks. The method of dewatering is described in section 5.5 of the EMP attached in Appendix D.

Dunedin City District Plan

The District Plan rule interpretation in this application is that of Incite and is not in substitution of the Council's own assessment of the proposal, nor is it a restriction on the matters resource consent is being sought for. Resource consent is applied for the proposal described in the "Description of the Proposal" section, including any plans and other information submitted. Resource consent is applied for the rule infringements described in this application, and any other resource consents necessary, whether specifically identified or not, to allow the proposal to be established, maintained and operated.

The Dunedin City District Plan was made operative in 2006. The site is zoned Residential 2 in the Operative District Plan. Gordon Road is classified as a National Road, being State Highway 87 and is designated by the New Zealand Transport Agency. As noted above, the site is zoned Commercial Principal Centre in the Proposed 2GP and the site onto which it is proposed to expand is zoned Residential 2 (70 Gordon Road). The Proposed 2GP notations include Hazard 3 – Flood, infrastructure constraint layer, archaeological alert layer and a secondary pedestrian street frontage layer.

Pursuant to Section 86B(3) of the Resource Management Act, some of the rules and standards in the Proposed 2GP have immediate legal effect from the date of notification (26 September 2015). Following a review of the Proposed 2GP, none of the rules that have been identified as having 'legal effect' are relevant to this proposal. As such, the proposal has only assessed against the Operative Plan provisions.

Residential 2 Zone

The service station has existed on this site since the 1980s and before that operated as a new and used car sales yard. Resource consents for the service station activity date back to 1982, therefore the existing use has been lawfully established. As it is proposed to demolish all existing buildings and redevelop and expand the site onto the adjoining parcel of land at 70 Gordon Road, the proposal has been assessed against the conditions for permitted activities as follows:

Rule	Compliance
Rule 8.8.2(i) Yards (a) Front sites (i) Front yard - 3m (ii) All other yards 1m	Complies , the proposed BP Connect shop is setback 3.2m from the front boundary and 1.2m from the side boundary. The car wash easily complies with the yard requirements.
Rule 8.8.2(ii) Height Plane angle	Complies , recession planes are shown on Drawing No. 3ALC1-16, Rev E attached in Appendix C.

Rule 8.8.2(iii) Max Height – 9m	Complies , no building or structure will exceed 9m
Rule 8.8.2(iv) Max site coverage – 50%	Complies , buildings on site will not exceed 50% site coverage. It is noted that driveways, paths, paved areas, structures under 2.5m ² in area, fences and retaining walls are excluded from the definition of site coverage.

Although the service station activity has existing use rights and complies with the conditions for permitted activities, it is proposed to expand onto the adjoining site to the south zoned Residential 2 in the Operative District Plan and such activities are not permitted in this zone. Accordingly, the proposed expansion of the service station onto 70 Gordon Road is a non-complying activity in the Residential 2 Zone pursuant to Rule 8.8.6.

Section 17 Hazardous Substances and Earthworks

Hazardous Substance Storage

Rule 17.5.2(c) provides for the storage of liquid petroleum fuels in below ground tanks as a controlled activity. For LPG storage in cylinders, Table 17.1 permits 200kg of LPG to be stored outdoors in the Residential Zone. As it is proposed to store ~~648~~ 594kg of LPG in cylinders, consent is required as a discretionary activity pursuant to Rule 17.5.4.

Earthworks

All earthworks are permitted provided they comply with the performance standards for permitted activities. Rule 17.7.3(i)(c) requires that for retaining walls supporting a cut, the minimum setback to the boundary shall be at least equal to the maximum height of the retaining wall. Excavation will be required to approximately 4.5m in depth (but not exceeding 5m) for the pit for the underground tanks. It will be sheet piled to stabilise the excavation, it is considered that this will act like a retaining wall. As the tank pit is setback approximately 2m from the rear boundary, it will not then comply with this condition.

The volume of excavation and fill permitted in Rule 17.7.3(ii) is 100m³. As it is proposed to excavate approximately 1800m³ of soil, this condition cannot be complied with.

As required by Rule 17.7.3(v), the earthworks will be more than 1.5m from the centreline of any Council-owned stormwater or foul sewer line, and more than 2.5m from the centreline of any Council-owned water mains. The sewer line is approximately 5.5m from the site boundary and water main is approximately 16m from the site boundary. There is a water rider approximately 1.7m from the site boundary. Any earthworks will be undertaken in accordance with a ground disturbance certificate issued by a BP Control of Works permit issuer. A copy of BPs Ground Disturbance Procedure can be provided if required.

As it is proposed to excavate more than 250m³ of material (Rule 17.7.4(iii)), consent is required as a restricted discretionary pursuant to Rule 17.7.5.

Section 19 Signs

Rule 19.5.4 permits signage in the Residential 2 Zone associated with a permitted activity provided there is only one sign per site, it does not exceed 0.5m² in area and is not illuminated. Service stations are not a permitted activity in the Residential 2 Zone and the proposed signage will exceed the conditions for permitted signage. Proposed signage will be similar in nature and extent to the existing signage, however as the site is expanding and a BP Connect site is proposed, signage will be different to the existing.

The signage will comply with the conditions for all permitted signs set out in Rule 19.5.10 as follows:

- No signage will overhang the footpath;
- No sign will restrict visibility to or from any property access or road intersection; and
- No sign will resemble or conflict with traffic signs.

The proposed signage will be a restricted discretionary activity in accordance with Rule 19.5.11.

Section 20 Transportation

Section 7 of the Transportation Assessment prepared by TDG and attached as Appendix E provides a full assessment of the proposal against the Transport rules of the District Plan. The assessment considers there is a high level of compliance, however the following non-compliances are identified:

- Rule 20.5.5(iii) Parking Spaces for People with Disabilities;
- Rule 20.5.6(i) Design of Loading Areas; and
- Rule 20.5.7(i) Number of Vehicle Crossings.

The Plan does not provide an activity status for proposals which do not comply with the performance standards for permitted activities but it is understood they are considered as restricted discretionary activities.

Section 21 Environmental Issues

Noise

Section 4 of the Noise Assessment prepared by SLR Consulting NZ Limited (SLR) and attached as Appendix G provides a full assessment of the proposal against the Noise rules of the District Plan. The results indicate general compliance with the noise limits of the District Plan for all immediate

neighbours. An exceedance of 1-2dB of the night time noise limit was predicted for the properties across the other side of Gordon Road, however such an exceedance is considered negligible as differences of 1-2 dB in noise levels are imperceptible to most observers. As the predicted noise levels exceed the noise limits of the District Plan, consent is required as a restricted discretionary activity pursuant to Rule 21.5.6. However, as noted above, this is considered to be a technical non-compliance with less than minor effect.

Glare

Rule 21.5.4 requires that no activity shall result in greater than 16 lux of light on any other site in a residential zone and no greater than 8 lux onto any other site used for residential purposes during night-time hours, measured at the windows of any such building. A lighting assessment has been undertaken by Paul Gilbey of Lawrence Jones Partners Limited and this is attached as Appendix L. This assessment confirms that compliance can be achieved on the western boundary of the site by dimming the light output of three of the lights in the outer row to 30% and turning one light off completely. In the second row from the western boundary, one light will be reduced to 30% output. This reduced output is proposed for the end two rows of lighting in order to achieve compliance with Rule 21.5.4. All other lights can remain at 100% output. The lighting assessment confirms that the maximum light spill onto the windows of the adjacent property is calculated as 6.7 lux.

NES for Contaminated Sites

As the site is an existing service station and such activities are included within the Ministry for the Environment's Hazardous Activities and Industries List, NES regulations apply to the site. A detailed site investigation (DSI) has been undertaken by Separate Phase Limited and is attached as Appendix H. This investigation did not identify any evidence of petroleum hydrocarbons or heavy metal compounds in soil beneath the site. A conceptual site model is included in Appendix A: Figure 3 of this report which identifies potential sources of contamination, however the DSI concludes that *"based on the current soil contamination status, any human health and environmental receptors are unlikely to be at risk of exposure to unacceptable levels of these contaminants"* (page 14 DSI).

As a DSI exists which demonstrates that soil contamination does not exceed the applicable standard for industrial/commercial use in regulation 7 of the NES, consent is required for the replacement of the fuel storage system and disturbing of 1800m³ of soil as a controlled activity.

Summary

In summary, the status of the activity under District Plan is as follows:

- | | |
|-------------------------------------|-----------------------------------|
| • Section 8.8 Residential 2 Zone | Non-complying Activity |
| • Section 17.5 Hazardous Substances | Discretionary Activity |
| • Section 17.6 Earthworks | Restricted Discretionary Activity |
| • Section 19 Signs | Restricted Discretionary Activity |

- | | |
|-----------------------------|-----------------------------------|
| • Section 20 Transportation | Restricted Discretionary Activity |
| • Section 21.5.1 Noise | Restricted Discretionary Activity |
| • Section 21.5.4 Glare | Permitted Activity |
| • NES | Controlled Activity |

Overall, the proposal is a non-complying activity under the Operative Dunedin City District Plan.

Assessment of Environmental Effects

Service stations are a non-complying activity in the Residential 2 Zone and are subject to a number of other district wide rules. There are a number of non-compliances and these are assessed below.

Effects Assessment Baseline

At the outset, it is noted that the service station is the redevelopment of an existing lawfully established service station and although it is proposed to expand the service station onto the adjoining residentially zoned site, it is noted that there are a range of effects that are already part of the existing environment.

Visual Effects

Due to the proposed redevelopment, there will be a change in the visual appearance of the site. The site currently contains a large workshop, convenience shop, store rooms, a forecourt and canopy and an above ground LPG tank, all of which will be removed. The service station will expand onto the adjoining vacant site and buildings will be limited to a BP Connect shop, canopy and a carwash. The new site will provide a much larger forecourt and parking area than is currently the case. The increase site area also allows provision for the car wash to be installed and operated. The workshop activities will be discontinued on the site.

The new site will be a BP Connect site with the Wild Bean Café offering. A photo of a similar site is included below. The rubbish compound will be located behind the shop in the north west corner of the site and will be enclosed on three sides by a solid timber fence to screen it from public view. The location of the proposed landscaping is shown the Proposed Site Plan (Dwg No. 3ALC1-13, Rev G) and this landscaping will be locally sourced native plants where possible.



The buildings on site comply with the District Plan requirements in terms of setbacks, recession planes, height limits and site coverage. The activity itself has existing use rights on the existing service station site but the expansion on to the adjoining residentially zoned site at 70 Gordon Road is non-complying. The expansion onto the adjoining site is limited to the Superwash building and car parking so the scale of activity on the site will be low (compared to forecourt activities). A 2m high acoustic timber fence and a 2.8m wide landscape strip will screen the proposed car wash from the adjoining site.

It is considered that the proposed site upgrade and expansion will not generate adverse visual effects due to the existing activities occurring on the site and the fact that the redevelopment will result in an improvement in the layout and visual appearance of the site.

Signs

The proposed signage fails to comply with the area and number of signs permitted. The District Plan assessment matters include amenity, traffic safety, pedestrian access and safety and cumulative effects.

Amenity

The assessment matters for signage note that Council may not grant consent to any sign that detracts from the amenity values of the zone in which it is located or is visible from. The site is located in the Residential 2 Zone of the District Plan but is currently the site of the existing service station which includes free standing, canopy and shop signage. Service stations typically have a large amount of signage including a large freestanding pylon sign to notify traffic from a distance that they are approaching a service station. Historically, these signs were 6-7.5m high pole signs with a sign at

the top, however now these signs tend to be solid pylon signs of up to 9m in height. The new main ID sign for this site will be located to the south of the southern most vehicle crossing and will be 9m in height and 2.28m in width. Two verge board signs are also proposed by the vehicle crossings of 2.3m in area.

The site already has a high level of signage and the redevelopment of the sign will result in a similar level of signage. The freestanding pylon sign will be orientated perpendicular to the road frontage so that it faces the oncoming traffic on Gordon Road and the "narrow end" of the sign presents to the residential properties on the other side of the road. In terms of the canopy signage, the east elevation will face Gordon Road and this is also the "short end" of the canopy. Canopy signage has been kept to a minimum and consists only of the BP Helios button and the green bullnose cladding. This is considered to be aesthetically pleasing and of an appropriate scale. The shop frontage signage is also considered to be clear, simple and of an appropriate scale. The forecourt and dispenser signage is standard signage which aims to provide information and directions.

In terms of the illumination of the signage, it is noted that on the pylon sign only the BP logo, and the information on the sign will be illuminated. All signage, including BP Helios button on the canopy will be controlled by a PLC Lighting Controller therefore can be easily adjusted to ensure an appropriate level of glare and illumination. It is noted that consent was granted for an illuminated sign on the site in 1988 so illuminated signage has formed part of the existing environment for a number of years.

Given the large site size (3,236m² in area) and the existing service station activity on the site, the scale and area of the proposed signage is considered to be appropriate.

A permitted baseline for signage has already been established on the site and it is considered that the proposed signage will not result in adverse effects on the amenity of the adjoining commercial and residential activities or residential properties across the road which are presented with the narrow end of the freestanding sign.

Traffic Safety

In terms of the effects of traffic safety, the proposed free standing sign is located within the site boundary and will not obstruct sight distances, traffic signs or intrude into a driver's field of view. The signage also does not resemble a traffic sign or signal and is clear, simple and easily read. The information panels on the sign will be internally illuminated to ensure that they are easily read at night-time.

Pedestrian Access and Safety

The freestanding sign will not limit pedestrian access to a public space, impede access to bus stops or create a hazard for pedestrian traffic. The proposed pylon sign is located wholly within the site.

Cumulative Effects

A cumulative effect means the effect of the combination of effect "A" with effect "B" and effect "C" to create a combined effect "D". Other existing signage in the immediate vicinity is limited with the nearest signs, other than signs on the subject site, being the building signage on the adjacent Vet

clinic which is setback significantly from the road boundary. Signage across the road is limited to the Tyrepower Otago signage which is also building signage and set back from the road boundary. Therefore, cumulative effects are considered to be less than minor.

Overall, it is considered that the proposed signage will not generate adverse visual or amenity effects due to the existing environment in which it is located. The signage is also typical for a BP connect service station and is consistent with what is installed at such sites throughout New Zealand.

Roading/Traffic Effects

Service stations provide a service to the community and are by the nature of the product they sell, required to be strategically distributed throughout our cities and towns. They follow a set formula in terms of layout and design and are high traffic generating activities. In this case, the proposal is the redevelopment of an existing service station site, therefore retail activities and traffic generation already occurs within the site.

As noted above, a Transportation Assessment has been undertaken by Traffic Design Group (TDG) which assesses the internal parking and circulation features of the service station including access to and from the surrounding road network and concludes that the service will operate efficiently and safely.

Traffic generation rates have been based on the existing service station traffic generation plus an additional 20 vehicle movements per hour associated with non-fuel visits to the BP connect store. These additional movements represent one additional vehicle movement every three minutes and the assessment concludes that the existing road network has sufficient capacity to accommodate this additional traffic with no noticeable effects.

TDG have assessed the effect of the redevelopment of the service station on the performance of the vehicle crossings onto Gordon Road and concluded that this will be minimal. The Assessment notes that vehicle movements onto and off the site are not expected to create any queuing effects because of the additional fuel pumps and space within the forecourt area. Therefore, the vehicle crossings are expected to continue to operate safely and efficiently.

Rule 20.5.7(i) of the District Plan permits only one vehicle crossing on a site with a frontage length of 80m onto a road classified as a National Road. The existing service station site has four vehicle crossings, two into the forecourt and two from the metalled manoeuvring/parking area. The site onto which the service station is proposing to expand also has a vehicle crossing associated with the previous residential activity. While it is considered that existing use rights apply in terms of the service station vehicle crossings, it is noted that the number of crossings along this road frontage will reduce from five to two crossings. The Transport Assessment considers that this reduction will improve safety and efficiency.

The Transport Assessment considers the likelihood of delays as a result of the redevelopment of the site. Delays at the existing service station were recorded during a typical weekday, morning peak as an average of 7 seconds when turning right into the site and 18 seconds when turning right out of the site. This corresponds to a Level of Service (LOS) A and LOS C respectively. The Assessment notes that, *"right turn manoeuvres are expected to occur without any major issues as there is a signalised intersection further south on Gordon Road which creates platooned traffic flows along the road"* (page 15). The assessment considers that the additional right turns in and out of the site as a result of the redevelopment can be accommodated by the proposed arrangement.

In terms of car parking, the Transport Assessment considers that the 18 car park spaces proposed will easily accommodate any peak car parking demands. The peak parking demand is estimated to be 10 vehicles based on a previous survey of car park occupancy at a similar BP site. Only one accessible space is proposed which fails to comply with the requirements of Rule 20.5.5(iii) for two spaces, however the assessment considers this is sufficient to meet typical demand at a BP service station.

In terms of loading, Rule 20.5.6(i) requires that the removal of rubbish is provided for in such a way that it will not conflict with car parking arrangements or pedestrian movements. The rubbish truck loading area is located adjacent to the staff parking area so will temporarily obstruct the staff car parks. The Transport Assessment considers that given the rubbish truck will only visit a few times per week and can be managed to occur at off peak periods, this does not pose a significant issue in terms of safety or efficiency.

The fuel tanker loading space is adjacent to the first dispensing island so while the fuel tanker will occupy this area while refilling the tanks, there are seven other refuelling positions available so this will not cause an issue. Fuel tanker delivery times can also be managed to avoid peak times.

In terms of traffic safety, the Transport Assessment undertook a crash review over a five year period (see section 3.3 of the Assessment attached in Appendix E). Seven crashes occurred in the vicinity of the Inglis Street/SH87 intersection and three crashes occurred in the vicinity of the Ayr Street and Gordon Road intersection. There were no crashes adjacent to the existing BP service station or at the Mure Street and Gordon Road intersection. Therefore, this assessment demonstrates there are no safety issues with the existing site operation and given the minor increase in vehicles movements predicted for the site and the good visibility around the vehicles crossings, this means any potential adverse effect on pedestrian and cyclist safety will be less than minor. It is further noted that the redevelopment of the site provides a pedestrian path from Gordon Road to the shop entrance which will provide clear guidance to pedestrians and a separate space where they have priority over vehicle movements, that is, pedestrians will not be required to cross the forecourt when walking to the shop from the footpath on Gordon Road.

The TDG Transportation Assessment has considered the proposed redevelopment against the existing service station and concludes:

Overall, it has been concluded that the service station expansion can be supported from a transportation perspective because it will not create any noticeable effects on the road network.

The increase in the number of fuel pumps is not expected to increase the number of driveway movements because this is more directly influenced by the volumes of passing traffic. The increased size of the forecourt will provide more space for vehicles and will reduce queuing but again will have no effect on traffic effects outside of the service station. The additional services provided by the larger shop are likely to create a small increase in the traffic generation of the site. At peak times, an additional 20 driveway movements per hour across the whole site is anticipated. This represents one extra movement every few minutes and would not be noticeable to drivers because this level of variation occurs daily.

A full copy of the Transportation Assessment is attached in Appendix E.

Noise

A noise assessment has been undertaken by SLR Consulting NZ Ltd to consider the effects of noise emissions from the proposed development on surrounding sites. In particular the assessment considers noise from vehicle movements, the car wash and vacuum cleaning unit, the mechanical plant and fuel deliveries. The predicted noise levels at the most exposed surrounding properties are set out in Table 1 of the assessment.

The predicted noise levels, which take into account the proposed acoustic screening, intervening/adjacent buildings and site topography, shows that the proposal generally complies with the established noise limits of the District Plan. An exceedance of 1-2 dB of the night-time noise limit is predicted at four locations however the assessment considered this to be negligible because differences of 1-2 dB in noise levels are considered to be imperceptible. The noise assessment concludes:

Therefore, based on the subjectively imperceptible differences in levels, when compared to the noise limits, these predicted negligible night-time exceedances can be considered to be less than minor in effect.

A full copy of the Noise Assessment is attached in Appendix G.

Glare

The lighting assessment attached in Appendix L has demonstrated that reduced output is required in terms of the canopy lighting in the last two rows of downlights. This will ensure that the proposed lighting complies with the District Plan rules for light spill and that effects on adjoining residential neighbours are less than minor.

Hazardous Substance Storage

Design

The new tanks will be underground secondary contained Maskell or Greentank brand tanks, providing structural integrity and corrosion resistance. The installation will comply with:

- The Hazardous Substances and New Organism Act 1996;
- Hazardous Substances Regulations 2001;
- The Code of Practice for Below Ground Stationary Container Systems for Petroleum – Design and Installation (Environmental Protection Authority, May 2012); and
- The Code of Practice for Below Ground Stationary Container Systems for Petroleum Operations (Environmental Protection Authority, May 2012).

Monitoring

Two observation wells will be installed within the tank pit excavation at the corners. The design of the wells will comply with the Code of Practice for the Design Installation and Operation of Underground Petroleum Storage Systems.

The underground storage tanks will also be fitted with fiberglass composite manway covers. This removable manway system is designed to allow visible inspection of all tank fittings and pipework penetrations, and will be integral to contain any potential spillage.

Line leak detectors which are attached to the sites Veeder Root Automatic Tank Gauging control system minimises the potential for adverse environmental effects in the unlikely event of a pipeline leak. In the unlikely event a pipeline leak occurred, the line leak detector would “trip”, restricting flow at the dispenser to a “trickle”, indicating a potential integrity problem with a dispensing line. Any line fault is transmitted to BPs 24/7 BP maintenance service provider. The line leak detector meets USA Environmental Protection Agency standards for monitoring. Prior to backfilling the pipe trenches, the pipework is pressure tested with the pipe remaining on ‘test’ until the backfilling has been completed.

The Hydroguard Monitoring System will be used to monitor leaks in the primary or secondary walls of the tank. The interstitial space between the container and the secondary containment skin shall be filled with a brine solution which rises into a reservoir integral with the top of the tank. The reservoir is monitored by a probe which again sends a signal to the Veeder Root Automatic Tank Gauging Controller. Any fault (movement in the brine level) is transmitted to the BP service provider. This system is consistent with the Code of Practice for Below Ground Stationary Container Systems for Petroleum – design and installation (May 2012). Information on the Hydroguard Monitoring System is attached as Appendix I.

Spill Prevention

The site will operate a tank filling procedure to prevent spillage during a fuel delivery. This includes checking the level of the storage tank to ensure that the tanks have the capacity to receive the on

board fuel from the tanker. The tanks are filled via a fill point with a spill container. Any residual product in the spill container will be drained back to the underground storage tanks via an internal valve within the spill container.

As a “backup” to this procedure, an overfill valve will be fitted to the new tank fill points. In the event the tank cannot take the contents of the delivery tanker the overfill valve will close at 95% of the tank’s capacity limiting flow into the tank. The Veedor Root Tank Gauging system also generates a tank overfill alarm which is communicated to BPs maintenance service provider. The delivery vehicle fill point is fitted with a liquid tight coupling. This will prevent any spillage during hose connection and disconnection. The fill point also has secondary containment in accordance with the Environmental Protection Agency Code of Practice. Tank filling will also occur within a dedicated area that drains to the SPEL Puraceptor.

The tanker delivery vehicle will contain a spill kit and the drivers are trained on emergency response procedures. There will also be a spill kit located on site and staff on site are also trained for emergency response.

The site will operate under an Operational Environmental Management Plan which is attached as Appendix J to this application. This Plan includes spill management procedures and the immediate essential steps are listed in the “Emergency Flipchart” which is also attached.

LPG Storage

The 9kg bottles will be securely stored within two cage type enclosures, and the site will be managed in accordance with AS/NZS 1596 (The storage and handling of LP Gas). The cages will be securely locked to prevent unauthorised entry.

Construction Activities and Soil Management

Construction activities and soil disturbance are described above. A suitably qualified and experienced environmental consultant will be present on site during all earthworks and soil disturbance. Visual and olfactory assessment of exposed in-situ soils will be conducted at all known historic, existing and proposed underground tank locations. The EMP attached in Appendix D setouts the procedures for soil disposal and fill control, erosion and sediment control and stormwater control. This includes procedures should unexpected contaminated soil be found.

The earthworks rules require that for any excavation, the minimum setback to a property boundary is at least equal to the maximum depth of the cut. In this case the proposed tank pit excavation will be approximately 2m from the boundary. These rules relate to cuts for retaining walls while in this case the “cut” retained by sheet piling is to create a tank pit and will be temporary in nature. Once the tanks are installed, the excavation will be backfilled and existing ground level restored and sealed with an impervious surface. There are two reasons for locating the tanks in this position on site. The

first is that it allows the new tanks to be installed before the existing service station activity needs to cease for the redevelopment works. This minimizes disruption to customers and the length of time that the site needs to close. The second and more important reason is that this location means that the tanks are out of the main vehicle circulation route and vehicles will not drive over the manway lids. This makes dipping the tanks prior to refilling safer and allows any maintenance staff access to work in the manways without conflict with vehicles movements.

During construction, temporary effects such as noise and dust may occur. However, these effects will be very short term while site works are being undertaken, and will also only occur at reasonable hours during the day to minimise nuisance to other businesses and residents in the area.

Services Assessment

An assessment of the pre and post development demand has been undertaken for sewer and stormwater discharges by Philip McConchie of Spencer Holmes Limited.

In terms of the sewer discharge, the infrastructure demand of the existing site is 0.45 l/s (55m³). The proposed redevelopment with the addition of the carwash means the sewer flows increase to 0.87 l/s (75m³) which is an increase of 0.23 l/s or about 30%.

In terms of the stormwater, the pre-development discharge is estimated at 34 l/s and the post development discharge is estimated as 37.9 l/s. Therefore, the maximum discharge post development is an increase in 3.9 l/s or less than 10%. However, in reality there will not be an increase in discharge as the "extra" discharge will be stored and re-used in the 10,000 litre recycling tank.

Overall, it is considered that the proposed development will have a negligible effect in terms of additional demand on services and will in fact be less than if a new dwelling was built on the currently vacant site at 70 Gordon Road. A copy of the calculations used for this assessment are attached in Appendix K.

Positive Effects

The proposed redevelopment of the service station will result in a number of positive effects for the site and surrounding environment. These include:

1. Opportunity to assess and manage sub surface soil and groundwater quality in relation to historic land use;
2. Installation of new underground petroleum storage system with double skinned fibreglass tanks;
3. Double containment around remote fill and fuel dispensing areas;
4. Automated leak detection and remote monitoring;
5. Improved operational drainage and stormwater treatment;

6. Standardised emergency procedures and preparedness through BP approved supplier network; and
7. Containment and recycling of rainwater for use in the retail facility.

Summary

In summary, the service station redevelopment is located on a site which is currently operating as a service station and it is proposed to expand the site to continue to provide this key service for the community. Visual effects are considered to be less than minor and hazardous substance storage will be installed and maintained in accordance with current HSNO regulations. The site size is sufficient in area to provide for the service station, car wash and associated manoeuvring and parking requirements.

The Transportation Assessment concludes that it can be supported from a transportation perspective and the amount of signage is considered to be appropriate in terms of the site size and the existing consented environment. The effects of noise and glare have been assessed as less than minor and infrastructural demand is similar to the existing. Construction and soil disturbance activities will be short term in duration and will be managed to minimise disruption to adjoining residential and commercial neighbours.

Overall, it is considered that the effects of the proposed redevelopment of the existing site will be less than minor and will result in a new, modern service station with an improved layout and visual appearance.

Part 2 Matters

Section 5 in Part 2 identifies the purpose of the RMA as being the sustainable management of natural and physical resources. This means managing the use of natural and physical resources in a way that enables people and communities to provide for their social, cultural and economic well-being while sustaining those resources for future generations, protecting the life supporting capacity of ecosystems, and avoiding, remedying or mitigating adverse effects on the environment.

In this case, the activity will have a no more than minor adverse effects on the wider environment in relation to the proposed service station and car wash development. The proposal will not affect the life-supporting capacity of air, water, soil or ecosystems. The proposal will enable the redevelopment of an existing service station which will provide for the transportation needs of the community and will be constructed to the latest environmental standard. Therefore the proposal is consistent with Section 5 of the RMA in that it provides for the social, cultural and economic wellbeing of people while avoiding, remedying or mitigating adverse effects on the environment.

Section 6 of the RMA outlines matters of national importance that all persons shall have regard to in using, managing, developing and protecting natural and physical resources. It is considered that there are no matters of national importance relevant to this site.

Section 7 identifies a number of “other matters” to be given particular regard by a council in the consideration of any assessment for resource consent, including the efficient use of natural and physical resources, and the maintenance and enhancement of amenity values. As discussed in this assessment, it is considered that the proposal will not unduly adversely affect the overall character and amenity values of the area and will improve the visual appearance of the site.

Section 8 requires Council to take into account the principles of the Treaty of Waitangi. No issues are raised by this proposal with respect to the Articles of the Treaty.

Overall the application achieves the purpose of the RMA through sustainable management of natural and physical resources, and as a result satisfies Part II of the Act.

Objectives and Policies

Operative Dunedin City District Plan

Residential

Chapter 8 Residential is relevant to this proposal. This section recognises that residential areas may be suburbs, communities, towns or settlements and that these residential areas have different levels of servicing and amenity. The relevant objectives and policies are as follows:

Objective 8.2.1

Ensure that the adverse effects of activities on amenity values and the character of residential areas are avoided, remedied or mitigated.

Objective 8.2.2

Ensure that activities do not adversely affect the special amenity values of rural townships and settlements.

Objective 8.2.7

Recognise that some community support activities contribute to the maintenance and enhancement of residential character and amenity.

Policy 8.3.1

Maintain or enhance the amenity values and character of residential areas.

Policy 8.3.6

Ensure that development in rural townships does not exceed the limitations of the urban service infrastructure.

The proposed service station is located within the Residential 2 Zone of the Operative District Plan, however the Proposed 2GP recognises its established use as a service station by rezoning the site as Commercial Principal Centre. This zoning is intended to provide hubs for social and economic activity for suburban and rural communities. The explanation to Objective 8.2.7 recognises that some non-residential activities provide valuable community support and enable people and communities to provide for their social and cultural wellbeing and for their health and safety in close proximity to their place of residence. The explanation recognises that such activities may be appropriate but care needs to be taken to ensure that any adverse effects are avoided, remedied or mitigated. The explanation further notes that those already in existence are recognised by virtue of section 10 of the Act. The service station activity has existed on 72-76 Gordon Road since the 1980s and has existing use rights. It is proposed to expand onto the adjoining site to the south which is zoned Residential 2. In terms of effects, noise and traffic assessments have been undertaken which have determined that effects of noise and traffic will be less than minor. The noise assessment demonstrated compliance with the noise limits of the District Plan, except for a very minor (1-2dB) night-time non compliance at four properties. In terms of the visual effects of the redevelopment and proposed signage, this has been assessed above.

Hazardous Substances and Earthworks

Chapter 17 Hazards, Hazardous Substances and Earthworks is relevant to this proposal in particular the following objectives and policies:

Objective 17.2.2

Prevent or mitigate the adverse environmental effects and risks arising from facilities and activities involving the storage, use, or transportation of hazardous substances.

Objective 17.2.3

Earthworks in Dunedin are undertaken in a manner that does not put the safety of people or property at risk and that minimises adverse effects on the environment.

Policy 17.3.8

Control activities involving the storage, use, and transportation of hazardous substances, and identify sites where hazardous substance processes and facilities which require resource consent are located.

Policy 17.3.9

Control earthworks in Dunedin according to their location and scale.

It is proposed that petrol and diesel be stored in underground tanks as part of this service station activity. The design features of the tanks and the monitoring systems which will be in place, as noted in the effects assessment above will ensure that any potential environment effects are avoided, remedied or mitigated. The site will operate under an Operational Environmental Management Plan which will include emergency response procedures and spill management. In addition, stormwater

off the hazardous area which may contain hydrocarbons will be collected and treated in the SPEL Puraceptor prior to discharge to the stormwater network. Therefore, it is considered that the proposal is consistent with the objectives and policies of Chapter 17 Hazardous Substances.

The proposed earthworks will not affect the safety of people or property and are appropriate in terms of their location and scale.

Signs

Chapter 19 Signs is relevant to this proposal and the objectives seek to ensure adverse effects of signs on amenity values are avoided, remedied or mitigated along with any potential effects on the safe and efficient functioning of the road network. These objectives are supported by the following policies:

Policy 19.3.1

Ensure that signs do not detract from the amenity values of the area in which they are located and the amenity values of areas from where they are visible.

Policy 19.3.2

Control the design, location, size and number of signs erected at any given location to avoid, remedy or mitigate any adverse effects.

Policy 19.3.4

Promote simplicity and clarity in the form of the sign and the message the sign conveys.

As noted above, service stations typically involve a high level of signage, including a main identification sign of up to 9m in height. At this site, one main identification sign of 9m in height is proposed. This sign is necessary to identify the site to passing motorists. Such signs signal to drivers that they are approaching a service station so they can slow and prepare to enter the site. It is not considered that the proposed pylon sign will have an adverse effect on the visual amenity of the area as it is replacing an existing illuminated sign of similar size and scale. This sign will be orientated perpendicular to the road which means that the “narrow end” of the sign faces the residentially zoned land opposite the site and it is setback approximately 16m from the adjoining residential site at 68 Gordon Road.

Signage on the canopy fascia is limited to the BP Helios button and shop and car wash signage will also be simple and easily read.

The signage is on-site signage and will not adversely affect traffic safety by causing confusion or a distraction to motorists or pedestrians. Illumination has been kept to a minimum and will be controlled by dimmer switches to ensure the level of illumination is appropriate to the area.

The signage is considered to be consistent with the objectives and policies of the Signs section of the Plan. It is appropriate for the activity and will not adversely affect public safety, convenience or access, nor will it result in adverse effects on the visual amenity of the area.

Transportation

Chapter 20 Transportation is relevant to this proposal and the objectives seek to avoid adverse effects on the transportation network and maintain a safe and effective network. These objectives are supported by the following policies:

Policy 20.3.4

Ensure traffic generating activities do not adversely affect the safe, efficient and effective operation of the roading network.

Policy 20.3.5

Ensure safe standards for vehicle access.

As discussed above and in the Transportation Assessment attached in Appendix E, the proposal is considered to have minimal to no impact on the surrounding road environment. The vehicle crossings are anticipated to operate safely and without delays to through traffic and the reduction in the number of crossings will provide safety benefits to pedestrians on Gordon Road. Overall, the assessment concludes that the proposed development can be supported from a transport perspective because it will not create any noticeable effects on the road network.

Environmental Issues

Chapter 21 Environmental Issues is relevant to this proposal and the objectives seek to avoid adverse effects of noise, light sources and glare. These objectives are supported by the following policies:

Policy 21.3.3

Protect people and communities from noise and glare which could impact upon health, safety and amenity.

As discussed above and in the Noise Assessment attached in Appendix G, the proposal is in general compliance with the District Plan noise limits. No adverse effects are anticipated in terms of glare as the proposed pylon sign is internally illuminated by adjustable dimmer switches to ensure an appropriate level of illumination. Canopy lighting has also been demonstrated to comply with the permitted lux levels at the boundary with reduced output for the end two rows of lighting.

Summary

Overall, it is considered that the proposal is consistent with the objectives and policies of the Dunedin City District Plan.

The Proposed Dunedin Second Generation Plan

The Proposed Plan was notified on the 26th of September 2015 and the hearing of submissions and further submissions is nearly completed. Decisions are expected towards the end of this year and there are no currently no provisions affecting the proposal which have legal effect. The objectives

and policies of the Proposed Plan have been reviewed and the proposal is considered to be consistent with the relevant objectives and policies of Section 6 Transportation, Section 9 Public Health and Safety, Section 15 Residential and Section 18 Commercial and Mixed Use Zones.

Consultation

A service station has existed on this site since the 1980s and the proposal is to redevelop the existing site with expansion onto an adjoining residentially zoned site at 70 Gordon Road. Both the Transportation Assessment and the Noise Assessment attached to this application have assessed the effects of the redevelopment as less than minor.

A pre-application meeting was held on the 10th April 2017 with John Sule and Madeline Seeley of Dunedin City Council. Also attending the meeting were representatives from departments of Council including infrastructure, roading and urban design. No significant issues were identified regarding the proposed redevelopment and expansion of the service station. Council sought that any resource consent application include a noise assessment, transport assessment and an assessment of any likely increase in infrastructural demand on the sewer and stormwater networks. Reagan Knapp of Separate Phase Limited has had further discussions with David Dewhirst, John Eteuati and Frank O'Callaghan at Council regarding the temporary dewatering discharge and post development water supply and stormwater discharge.

A pre-application meeting was also held on the 10th April with the New Zealand Transport Agency (NZTA) who were generally supportive of the application, given it is an existing activity and on a low classification state highway. NZTA noted that early notification of the no stopping lines either side of the vehicle crossings would be required.

Richard Howard and Reagan Knapp of Separate Phase Limited have visited the immediately adjoining neighbours to advise them of the proposed redevelopment and obtain initial feedback. They have reported that neighbours were generally supportive of the proposal. Several neighbours were excited about the Wild Bean café included within the shop. The veterinary clinic adjoining the site to the north were supportive of the 24 hour operation which would provide additional security for staff working in the clinic after hours. One neighbour was pleased that the workshop activities would cease but commented on noise from tankers refilling the underground tanks at night. One neighbour was concerned about noise generally.

In terms of section 95A of the Resource Management Act, it is considered that the proposal will not have adverse effects on the environment that are more than minor and there are no special circumstances that would require public notification. Sections 95B and 95E require a Council to decide if there are any affected persons and give limited notification to those persons. In this case, it is considered that effects on any persons may be considered to be minor, given the expansion of the

site and the change to the visual appearance. The applicant requests that the application be limited notified to the immediately adjoining neighbours.

Conclusion

It is the applicant's view that there will be no adverse effects generated from this proposal that are more than minor. The proposal is the redevelopment of an existing service station and while it is proposed to expand onto the adjoining residential site, the increase in the area of the site will provide for a more efficient and modern site. It is considered that the proposal is consistent with the objectives and policies of the District Plan.

Given the expansion of the site and the change in the visual appearance, it is considered appropriate that the application be limited notified in terms of section 95B of the Resource Management Act 1991.

Appendix A

Location Plan

Appendix B

Certificates of Title

Appendix C

Site Plans

Appendix D

Environmental Management Plan

Appendix E

Transportation Assessment

Appendix F

Puraceptor Calculations

Appendix G

Noise Assessment

Appendix H

Detailed Site Investigation

Appendix I

Hydroguard Monitoring System

Appendix J

Operational Environmental Management Plan

Appendix K

Pre and Post Development Services Assessment

Appendix L

Lighting Assessment

8 September 2017

710.10262-L01-v1.0 BP Mosgiel Further Information Request Acoustics.docx

BP Oil NZ Limited
Watercare House
73 Remuera Road
Newmarket
Auckland 1050

Attention: John Chandler

Dear John

BP Mosgiel
Response to further information request

SLR prepared an acoustic assessment (the SLR report)¹ to support the resource consent application for a new service station at 70-76 Gordon Road in Mosgiel. Dunedin City Council has subsequently requested further information via their letter dated 16 August 2017 (the Council request).

This letter serves as an addendum to the SLR report in order to answer Council's requests.

The Council letter contained the following two requests related to noise:

- 1. Potential noise sources on-site are identified in the acoustic report, however, limited information is given regarding the predicted level of noise from these sources and how this level is proposed to change. As a result, it is unclear how the noise consultant got to the predicted noise levels set out in Table 1 of the SLR acoustic assessment, (described as the worst case scenario). The operation of the service station is proposed to change to a 24 hour service. Including detail as to the proposed increase in predicted noise levels is appropriate as this is pertinent to the assessment of who may be affected and to what degree. While there are noise limits for residential areas, the 'intrusiveness' or the nuisance noise can be defined as the degree by which the normally occurring ambient noise levels are exceeded, irrespective of what noise levels are outlined or permitted in the District Plan. Further information is required outlining the level of the noise predicted from all sources identified and assessing the potential for and mitigation of these noise sources. This may include information around predicted timing, duration and frequency and clearly indicating what the proposed increase will be. Please clearly indicate what is included in the 'worst case scenario' predicted levels provided in Table 1. Current ambient noise readings would be helpful (which I understand have been taken but not included in the acoustic report), as this will assist in determining the predicted change in noise levels and how that may affect neighbours compared to what they currently experience. Please also ensure that the predicted activity noise level at 2 Mure Street and 77 and 79 Gordon Road is also identified as it is unclear why these properties have been omitted from Table 1 of the acoustic report.*

¹ SLR report 710.10262-R02-v2.0 dated 13 June 2017

Following preparation of the SLR report it is understood that the property owners to the west of the site have requested the boundary fence to be altered (brought into the site by 600 mm and, in one location, increased in height to 3 m). Accordingly BP has made these alterations, as shown in Plan 3ALC1-14 Rev H (**Figure 1**).

[illegible]

Table 1 below presents the updated predicted noise levels based on the updated fencing location and heights, including the predicted levels at 2 Mure Street and 77 and 79 Gordon Road, as requested by Council.

Table 1 Predicted noise levels at surrounding receivers

Receiver	Predicted activity noise level, dB LA10			Expected outcome
	Daytime (Limit = 50)	Shoulder (Limit = 45)	Night-time (Limit = 40)	
2 Mure Street	45	43	33	Compliance
35 Irvine Street	42	42	42	General Compliance ¹
37 Irvine Street	43	41	40	Compliance
37A Irvine Street	44	42	41	General Compliance ¹
39A Irvine Street	44	42	40	Compliance
41A Irvine Street	40	38	34	Compliance
68 Gordon Road	47	45	38	Compliance
69 Gordon Road	46	44	40	Compliance
71 Gordon Road	46	44	42	General Compliance ¹
73 Gordon Road	45	43	42	General Compliance ¹
75 Gordon Road	44	42	41	General Compliance ¹
77 Gordon Road	43	41	40	Compliance
78 Gordon Road	37	37	37	Compliance
79 Gordon Road	41	39	38	Compliance

1. An exceedance of 1-2 dB would be considered negligible (imperceptible when compared to fully compliant levels), see SLR report for further detail.

As expected there are minor changes in the predicted activity noise levels – due to the updated site modifications – however, the findings of the SLR report remain unchanged.

SLR understands that, as is the case across New Zealand, the District Plan permitted activity noise limits are set based on what is considered reasonable for the zoning of the land and the anticipated uses of that land. General compliance with these limits is, therefore, considered sufficient to meet the requirements of both the District Plan and the overarching requirements of Section 16 of the Resource Management Act 1991 (i.e., that noise generated by an activity does not exceed a reasonable level). For this reason the results of a noise survey undertaken by SLR as part of the initial site investigation were not deemed necessary for inclusion in the SLR report.

Notwithstanding, as requested by Council, a summary of the ambient noise survey results is provided in **Table 2**. Monitoring was undertaken on 11 April 2017 using a Svan 957 sound level meter (serial number 20670) in general accordance with the NZS 6801: 1999 *Acoustics - Measurement of sound*. The calibration of the sound level meter was checked before and after the measurements and was found to be within an acceptable margin of the reference signal.

The survey was undertaken at the rear of the site close to the boundary with 41A Irvine Street; this position was selected to identify noise levels away from Gordon Road (i.e., the likely quietest locations around the site). The survey period encompassed evening and morning (shoulder) periods and a night-time period. Weather was suitable for such measurements (overcast, wind speed under 5 m/s and no precipitation). Free flowing traffic on Gordon Road was noted to be the principal source of noise in the area.

Table 2 Ambient noise survey results, dB

Period	Average LA10	Average LA90
Shoulder (7:00 am – 8:00 am and 6:00 pm – 9:00 pm)	52	40
Night-time (9:00 pm – 7:00 am)	41	28

To provide further information about noise levels surrounding the site (particularly at properties fronting onto Gordon Road), corresponding noise measurements were undertaken; these measurements found that noise levels were typically 10-15 dB higher at the front of the site on Gordon Road – as would be expected due to this location being closer to the road.

The noise survey results show that the predicted cumulative worst-case activity noise would be less than the existing average LA10 levels during the shoulder periods and consistent with the existing average night-time LA10 levels. On that basis, it would be reasonable to conclude that the activity noise levels would not result in an adverse impact during the sensitive night-time period.

2. *Clarification is sought demonstrating how the proposed mitigation will achieve the noise reduction at the residential boundaries. It is noted that the car wash exceeds the height of the proposed acoustic fence, yet it is unclear how the claimed noise mitigation is achieved, especially beyond the height of the fence. In terms of the potential source of noise emission during operation, is any mechanism contained in the upper roof section of the car wash or will it mainly be from vents of other mechanisms at or near to ground level. The Environmental Health Officer has also requested some detail regarding the rubbish compound and the proposed acoustic screen associated with it. The rubbish compound is proposed to contain the mechanical plant of the shop, which is identified as a noise source. This location is very close to the residential activity and therefore further detail is required demonstrating what the proposed screening around the compound will do and what the estimated effect on the residential neighbours is. Will the mechanical plant be making a constant 35-40 dBA noise emission or will this be intermittent? And will there be a combined effect of all 3 operating together?*

The key noise mitigation measures are the carwash doors and the acoustic boundary and mechanical plant screening.

The carwash doors prevent noise escaping via the entrance and exit openings. They open and close automatically as part of the car wash cycle, with the cycle not starting until doors are closed. A reduction of 10 dBA has been established during a previous assessment.

Acoustic screening works by forcing noise to take a longer path from the source to the receiver. The efficacy of the screening depends on the screen height relative to the source and the receiver and the distances from source to the screen and the screen to the assessment point²; therefore, no single figure which can be applied to the proposed screening. In this instance the efficacy of the proposed screening varies from a reduction of 5 dBA to 13 dBA, when compared with no screening. The reduction is calculated to be 6 dBA at 2 Mure Street and 68 Gordon Road and 12 dBA at 41A Irvine Street (closest to the carwash) and 13 dBA at 78 Gordon Road (adjacent to the proposed plant area).

SLR has been advised that there are no air vents or ventilation fans within the carwash, the structure being essentially naturally ventilated when the doors are opened between uses.

As identified above, the 'worst-case' assessment assumes all identified noise sources operating at the same time and that the mechanical plant (all three identified items) could operate 24/7. Whilst the mechanical plant is likely to cycle on and off as required, the on-time can frequently be longer than 15 minutes and so, in accordance with the guidance in the relevant standards, is not considered to have special audible characteristics.

² In accordance with the relevant assessment standard, SLR has undertaken the assessment at a receiver position 1.5 m above ground level (or at 1.5m above first floor level where applicable, at 37 Irvine Street).

We trust the above serves to answer the queries raised by, however, please do not hesitate to contact the undersigned should you have any further queries.

Yours sincerely

A handwritten signature in black ink, appearing to be 'P. Runcie', with a horizontal line extending to the right.

PETER RUNCIE
Associate

Checked/ Authorised by: MB
