8.2.10 Extractive resources overlay code

8.2.10.1 Application

1. This code applies to assessing development in the Extractive resources overlay, if:
2. assessable development where this code is an applicable code identified in the assessment benchmarks column of a table of assessment for an overlay (section 5.10); or
3. impact assessable development.
4. Land in the Extractive resources overlay is identified on the Extractive resources overlay map and is included in the following key resource area (KRA) sub-categories:
5. KRA resource/processing area sub-category;
6. KRA separation area sub-category;
7. KRA transport route separation area sub-category;
8. When using this code, reference should be made to section 1.5 and section 5.3.3.

Note—The following purpose, overall outcomes, performance outcomes and acceptable outcomes comprise the assessment benchmarks of this code.

Note—Where this code includes performance outcomes or acceptable outcomes that relate to:

* air quality assessment, guidance is provided in the Air quality planning scheme policy;
* noise impact assessment, guidance is provided in the Noise impact assessment planning scheme policy.

8.2.10.2 Purpose

1. The purpose of the Extractive resources overlay code is to:
2. Implement the policy direction in the Strategic framework, in particular:
3. Theme 1: Brisbane’s globally competitive economy and Element 1.2 – Brisbane’s industrial economy;
4. Theme 3: Brisbane’s clean and green leading environmental performance and Element 3.1– Brisbane’s environmental values.
5. Provide for the assessment of the specific suitability of development in the Extractive resources overlay.
6. The purpose of the code will be achieved through the following overall outcomes:
7. Development does not impede the undertaking of an existing or future extractive industry development and ensures that both existing key resource areas and potential future extractive resource areas of State or regional significance, including resource/processing areas and transport routes, are protected from encroaching development that is not compatible with an extractive industry use.
8. Development for a residential, other sensitive use or potentially incompatible land uses maintains an effective separation from a key resource area and does not encroach within the separation area from a key resource area and its transport route separation area.

8.2.10.3 Performance outcomes and acceptable outcomes

Table 8.2.10.3.A—Performance outcomes and acceptable outcomes

|  |  |
| --- | --- |
| Performance outcomes | Acceptable outcomes |
| PO1  Development in the KRA resource/processing area sub-category, the KRA separation area sub-category or in the KRA transport route separation area sub-category protects the key resource area by not increasing the number of people living within proximity to these areas. | AO1.1  Development does not increase the number of dwellings or involve the introduction of the following activities to land in the KRA resource/processing area sub-category, the KRA separation area sub-category or KRA transport route separation area sub-category:   1. hospital; 2. multiple dwelling; 3. relocatable home park; 4. retirement facility; 5. residential care facility; 6. rooming accommodation; 7. short-term accommodation; 8. tourist park. |
| AO1.2  Development does not result in an increase in the number of lots on land in the KRA resource/processing area sub-category, the KRA separation area sub-category or the KRA transport route separation area sub-category. |
| PO2  Development for a use other than an extractive industry is compatible with the operation of an extractive industry, and does not introduce or increase other uses that are sensitive to the impacts of an extractive industry in the area unless the development mitigates the impacts generated by the haulage of extractive materials. | AO2  Development:   1. not associated with extractive industry does not increase the number of people working or congregating in the KRA separation area sub-category or KRA transport route separation area sub-category; or 2. does not involve a childcare centre or educational establishment. |
| PO3  Development will not adversely affect the safe and efficient operation of vehicles transporting extractive materials. | AO3  Development does not increase the number of properties with access points to the KRA transport route. |
| PO4  Development is located, designed and constructed to achieve the air quality (planning) criteria in Table 8.2.10.3.B at the development, to protect a sensitive use from adverse air quality impacts from activities on land in the KRA resource/processing area sub-category or a KRA transport route.  Note—An air quality impact report prepared in accordance with the Air quality planning scheme policy can assist in demonstrating achievement of this performance outcome. | AO4  No acceptable outcome is prescribed. |
| PO5  Development is located, designed and constructed to achieve the noise (planning) criteria in Table 8.2.10.3.C at the development, to protect a sensitive use from adverse noise impacts from activities on land in the KRA resource/processing area sub-category or a KRA transport route.  Note—A noise impact assessment report prepared in accordance with the Noise impact assessment planning scheme policy can assist in demonstrating achievement of this performance outcome. | AO5  No acceptable outcome is prescribed. |

Table 8.2.10.3.B—Air quality (planning) criteria

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Pollutant | Averaging time | Health outcome protected | Criteria including background (µg/m³) | Criteria including background (ppm) |
| Nitrogen dioxide | 1 hour | Health and wellbeing | 250 | 0.12 |
| Annual | Health and wellbeing | 62 | 0.03 |
| Sulfur dioxide | 1 hour | Health and wellbeing | 570 | 0.2 |
| 24 hours | Health and wellbeing | 230 | 0.08 |
| Annual | Health and wellbeing | 57 | 0.02 |
| Particulate matter (PM) as total suspended particulates (TSP) | Annual | Health and wellbeing | 90 | - |
| PM less than 10µm (PM10) | 24 hours | Health and wellbeing | 50 | - |
| PM less than 2.5µm (PM2.5) | 24 hours | Health and wellbeing | 25 | - |
| Annual | Health and wellbeing | 8 | - |
| Carbon monoxide | 8 hours | Health and wellbeing | 11,000 | 9 |
| Dust deposition as insoluble solids | Annual | Protecting aesthetic environment | 4g/m2/month | - |
| 1,3-butadiene | Annual | Health and wellbeing | 2.4 | 0.001 |
| Acetaldehyde | 1 hour | Odour | 42 | 0.023 |
| Ammonia | 1 hour | Health and wellbeing | 330 | 0.46 |
| Antimony and compounds | 1 hour | Health and wellbeing | 9 | - |
| Arsenic and compounds (as total metal content in PM10) | 1 hour | IARC Group 1 carcinogen (known human carcinogen) | 0.09 | - |
| Annual | Health and wellbeing | 6ng/m³ | - |
| Benzene | Annual | Health and wellbeing | 10 | 0.003 |
| Benzo(a)pyrene (as marker for PAH) | Annual | Health and wellbeing | 0.3ng/m³ | - |
| Beryllium and compounds | 1 hour | IARC Group 1 carcinogen (known human carcinogen) | 0.004 | - |
| Cadmium and compounds (as total metal content in PM10) | Annual | Health and wellbeing | 5ng/m³ | - |
| Carbon disulfide | 1 hour | Odour | 183 | 0.0055 |
| 24 hours | Health and wellbeing | 110 | 0.032 |
| Chromium III compounds | 1 hour | Health and wellbeing | 9 | - |
| Chromium VI compounds | 1 hour | IARC Group 1 carcinogen (known human carcinogen) | 0.09 | - |
| Copper dusts and mists | 1 hour | Health and wellbeing | 18 | - |
| Copper fumes | 1 hour | Health and wellbeing | 3.7 | - |
| Cumene (isopropyl benzene) | 1 hour | Odour | 21 | 0.004 |
| Dioxins and furans (as TCDD TEF) | 1 hour | IARC Group 1 carcinogen (known human carcinogen) | 0.000002 | - |
| Ethylbenzene | 1 hour | Health and wellbeing | 8000 | 1.8 |
| Formaldehyde | 1 hour | Protecting aesthetic environment | 96 | 0.07 |
| 24 hours | Health and wellbeing | 54 | 0.04 |
| Hydrogen chloride | 1 hour | Health and wellbeing | 140 | 0.09 |
| Hydrogen cyanide | 1 hour | USEPA extremely toxic | 200 | 0.18 |
| Hydrogen sulfide | 24 hours | Health and wellbeing | 160 | 0.11 |
| 1 hour | Odour | 6.5 | 0.0043 |
| Lead and compounds (as total metal content in TSP) | Annual | Health and wellbeing | 0.5 | - |
| Manganese and compounds (as total metal content in PM10) | Annual | Health and wellbeing | 0.16 | - |
| Mercury inorganic | 1 hour | Health and wellbeing | 1.8 | - |
| Annual | Health and wellbeing | 1.1 | - |
| Mercury organic | 1 hour | Health and wellbeing | 0.18 | - |
| Nickel and compounds (as total metal content in PM10) | Annual | Health and wellbeing | 0.02 | - |
| Sulfuric acid | 1 hour | Health and wellbeing | 18 | - |
| Toluene | 1 hour | Odour | 958 | 0.23 |
| 24 hours | Health and wellbeing | 4,100 | 1 |
| Annual | Health and wellbeing | 410 | 0.1 |
| Vanadium and compounds (as total metal content in PM10) | 24 hours | Health and wellbeing | 1.1 | - |
| Xylenes (as a total of ortho, meta and para isomers) | 24 hours | Health and wellbeing | 1,200 | 0.25 |
| Annual | Health and wellbeing | 950 | 0.2 |
| Zinc chloride fumes | 1 hour | Health and wellbeing | 18 | - |
| Zinc oxide fumes | 1 hour | Health and wellbeing | 90 | - |

Note—

* Criteria that are stated in µg/m³ are to be referenced to 0°C.
* Criteria that are stated in ppm are to be expressed as volume/volume.
* Averaging times of 1 hour or less are to be presented using the 99.9th percentile concentration of the total site impact from dispersion modelling and background concentration for all pollutants in the above table, or the maximum concentration from dispersion modelling if no background concentration is available.
* Averaging times of greater than 1 hour are to be presented using the maximum concentration of the total site impact from dispersion modelling and background concentration.
* Dust deposition is the maximum allowable level from new and existing sources, calculated from annualised modelling data.
* Polycyclic aromatic compounds (PAH) are assessed as benzo(a)pyrene equivalent using potency equivalency factors as listed in the Air quality planning scheme policy.
* Dioxins and furans are assessed as 2,3,7,8-tetrachlorodibenzodioxin equivalent (TCDD) using toxic equivalency factors (TEF) as listed in the Air quality planning scheme policy.
* ng – nanograms

Table 8.2.10.3.C—Noise (planning) criteria

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Location where the criteria applies inside a sensitive use | Adjusted equivalent continuous sound pressure level (LAeq,adj,T) to be achieved during day, evening and night time periods | | | Maximum sound pressure level (LAmax) to be achieved during the night time period |
| Day 7am–6pm  LAeq,adj,11hr | Evening 6pm–10pm  LAeq,adj,4hr | Night 10pm–7am  LAeq,adj,9hr | Night 10pm–7am |
| Sleeping areas | 35dB(A) | 35dB(A) | 30dB(A) | 45dB(A) |
| Other habitable rooms | 35dB(A) | 35dB(A) | 35dB(A) | N/A |
| Low-frequency noise criteria for specified sources | | | | |
| Noise intrusion into habitable rooms | 60dB(C) | 60dB(C) | Sleeping areas:  55dB(C)  Other habitable rooms:  60dB(C) | N/A |

Note—

* LAeq,adj,T: The adjusted A-weighted equivalent continuous sound pressure level of the development during the time period T, where T is an 11-hour day (7am-6pm), 4-hour evening (6pm-10pm) and 9-hour night (10pm-6am), determined in accordance with the methodology described in the Noise impact assessment planning scheme policy.
* LAmax: The A-weighted maximum sound pressure level determined in accordance with the methodology described in the Noise impact assessment planning scheme policy.
* dB(A): A-weighted decibels
* dB(C): C-weighted decibels