

TABLE A2.1 EIA APPROVAL CONDITIONS FOR PUTRAJAYA (cont'd)

CONDITIONS	ANALYSIS	COMPLIANCE BY
<p>8. Approval from the Director-General of the DOE should be obtained before the installation of combustion engines e.g. generators, etc. in accordance with the Environmental Quality (Clean Air) Regulations, 1978.</p>	<p>Applicable. Approval has to be obtained for fuel burning equipment that is rated to consume pulverised fuel or any solid fuel at 30 kg or liquid/gaseous matter more than 15 kg/hr.</p>	<p>PP</p>
<p>C. Project Management and Monitoring</p>	<p>Applicable.</p>	<p>PIH (development stage) Perbadanan (operation stage) PIH/PP</p>
<p>1. A Unit responsible for environmental management has to be set-up within the organisational structure of the administrative body responsible for the Putrajaya Federal Administrative Centre.</p>	<p>Applicable.</p>	
<p>2. An Environmental Management Plan (EMP) has to be prepared. One copy has to be submitted to the Department of Environment (DOE), Selangor and another to DOE Headquarters.</p>	<p>Applicable. PIH is responsible for submission of a master EMP to DOE. PP is responsible for submission of EMP to Perbadanan for the individual project as part of the LCP submission.</p>	

TABLE A.2.1 EIA APPROVAL CONDITIONS FOR PUTRAJAYA (cont'd)

CONDITIONS	ANALYSIS	COMPLIANCE BY
<p>The EMP has to be in accordance with the needs of the project and has to contain among others the following items :</p> <p>(a) Before site clearing for the project action plan to protect, save or relocate the flora and fauna that has intrinsic value in the project area has to be prepared and implemented, in consultation with the pertinent experts in the Jabatan Perlindungan Hidupan Liar dan Taman Negara (PERHILITAN), Forest Research Institute of Malaysia (FRIM) and the Forestry Department.</p>	<p>Applicable in the master EMP only.</p>	<p>PIH</p>
<p>(b) Lake Management Plan to control activities that will have negative impact on the water quality in the lake, including from the surrounding areas like from the existing Semenyih Water Treatment Plant.</p>	<p>Applicable in the master EMP only.</p>	<p>PIH</p>

TABLE A2.1 EIA APPROVAL CONDITIONS FOR PUTRAJAYA (cont'd)

CONDITIONS	ANALYSIS	COMPLIANCE BY
<p>(c) An environmental audit report has to be prepared during the stages of completion of the project and the steps taken to ensure the effective implementation of the requirements of the EMP. The audit report has to be submitted to the DOE, Selangor, every 3 months, starting from the time of the commencement of the earthworks for the project. The terms of reference of the audit has to be submitted to the DOE, Selangor, for its prior approval.</p>	<p>Applicable. PJH is responsible for submission of master audit report to DOE. PP is responsible for submission of audit report for individual project to PJH.</p>	<p>PJH/PP (construction stage)</p>
<p>(d) An 'Emergency Response Plan (ERP)' has to be prepared to respond to any accident or emergency during the course of the project, such as dam break or accidental spillage of dangerous substance. The plan should take into account ways to evacuate affected persons and should be prepared in consultation with the Jabatan Polis, Jabatan Perkhidmatan Bomba, Local Authority and lands adjacent to the dam site.</p>	<p>Applicable. (A copy of the approved plan has to be submitted to Pertubuhan).</p>	<p>PJH</p>

TABLE A2.1 EIA APPROVAL CONDITIONS FOR PUTRAJAYA (cont'd)

CONDITIONS	ANALYSIS	COMPLIANCE BY
(c) A project abandonment plan, including a plan to rehabilitate the project site and stabilise any slopes has to be prepared and submitted to the DOE, Selangor, with a copy sent to the DOE, Headquarters, not later than 6 months before stopping work on a project site.	Applicable. (A copy of the approved plan has to be submitted to Pertuadaman).	PIH
(d) A safety management plan to ensure the structural integrity of the dam has to be prepared and submitted to the JKR, with a copy submitted to the DOE, Selangor.	Applicable. (A copy of the approved plan has to be submitted to Pertuadaman).	PIH
3. An inventory of insect and vectors for waterborne diseases should be carried out before the development of the lake and wetlands.	Applicable	PIH
4. An area 10m x 10m should be provided for air quality monitoring by the DOE. A signpost stating the use of the monitoring site should be erected. The criteria for the selection of the site are :	Applicable	PIH
(a) The site should be located not less than 5m from the roadside.		
(b) No structure that will inhibit air movement is allowed within 5m of the borders of the site.		

TABLE A2.1 EIA APPROVAL CONDITIONS FOR PUTRAJAYA (cont'd)

CONDITIONS	ANALYSIS	COMPLIANCE BY
(c) The site should be located in an open area with no restrictions at 120 degrees angle from above.		
(d) The site should be located near a power source, preferably a TNB substation.		
3. The DOE, Selangor, has to be informed of the actual date of commencement of the project and the date of expected completion of the project not later than 14 days after the start of the project. The developer is also required to inform the DOE, Selangor, the actual date of completion of project not later 14 days after the completion of the project.	Applicable	PHH
4. The developer has to inform in writing the DOE, Selangor, with a copy to the DOE, Headquarters, any changes in the ownership of the land or its management.	Applicable	PHH
7. All the mitigation and control measures described in the EIA Report for the Putrajaya Federal Administrative Centre has to be complied with.	Applicable	PP

TABLE A2.1 EIA APPROVAL CONDITIONS FOR PUTRAJAYA (cont'd)

CONDITIONS	ANALYSIS	COMPLIANCE BY
8. The developer has to include all the EIA Approval Conditions and the recommendations made in the EIA report into all tender and contract documents for works during the construction and operation phase of the project.	Applicable. In certain issues, Perbadanan may have imposed a higher requirements.	PP
9. The developer has to submit to the DOE, Selangor, regular compliance reports to the EIA Approval Conditions, in accordance with Section 34A(7), Environmental Quality Act, 1974.	Applicable	PJH
10. The developer has to comply with all the directives of the DOE concerning any issues that may arise concerning the implementation of the project.	Applicable	PP
11. All the conditions above has to be fully complied with. Failure to do so may result in the developer not complying with Section 34A, Environmental Quality Act, 1974 and may result in a fine not exceeding RM10,000 or a jail term not exceeding 2 years, or both, and an additional fine of RM1000 for every day that the non-compliance is continued.	Applicable. Amendment in the EQA in 1996 have increased the fine to RM100,000 and the jail term to 5 years.	PJH

TABLE A2.1 EIA APPROVAL CONDITIONS FOR PUTRAJAYA (cont'd)

CONDITIONS	ANALYSES	COMPLIANCE BY
II. CONSTRUCTION STAGE		
A. Site Clearing		
<p>1. The developer has to submit 3 copies of the latest layout plan, that includes all the conditions of approval of the State Authorities, including that of the DOE, to the DOE, Selangor, before commencement of site clearing works.</p>	Applicable.	PHH
<p>2. Construction should proceed according to phases and site clearing for a new phase should only be carried out on the completion of the earlier phase.</p>	Applicable	PP
<p>3. Clearing of vegetation and earthworks are to be restricted to only areas where site preparation are needed.</p>	Applicable	PP
<p>4. Site clearing should proceed from cleared areas towards the forested or planted areas so as to allow the escape of wild animals. A wildlife corridor has to be provided to connect isolated forested areas.</p>	Applicable	PP

TABLE A2.1 EIA APPROVAL CONDITIONS FOR PUTRAJAYA (cont'd)

CONDITIONS	ANALYSIS	COMPLIANCE BY
5. All cleared land that will not be worked on immediately after clearing are to be covered with turf as soon as possible.	Applicable	PP
6. Open burning of vegetation and construction materials is prohibited.	Applicable. Cut vegetation is to be disposed at the designated bio-mass dump site provided by PJH. Construction waste is to be disposed at an approved dump site outside Putrajaya.	PP
7. Cut vegetation should be collected for composting. They should be stored in non-peaty areas, far away from drainage areas.	Applicable. Cut vegetation is to be disposed at the designated bio-mass dump site provided by PJH. All PP have in line with PJH on this matter.	PP

TABLE A2.1 EIA APPROVAL CONDITIONS FOR PUTRAJAYA (cont'd)

CONDITIONS	ANALYSIS	COMPLIANCE BY
<p>B. Earthworks</p> <p>1. The name of the project manager, main contractor, consultant and resident engineer, together with 2 copies of the earthworks construction plan have to be submitted to the DOE, Selangor, before the commencement of any earthworks.</p>	<p>Applicable.</p> <p>PJH is responsible for the submission to DOE. Under the Perbadanan's By-laws all PP are required to make the necessary submission to Perbadanan.</p>	<p>PP</p>
<p>2. The stability of slopes should be ensured in the earthworks design and during construction. Work to stabilise slopes should be carried out as soon as possible. The method of turfing and hydroseeding should be carried out for any exposed slopes and open areas as soon as the cut and fill for the slope formation is complete.</p>	<p>Applicable</p>	<p>PP</p>
<p>3. Silt traps, surface drains, detention and sedimentation ponds should be prepared prior to earthworks. Discharges from silt traps etc. must not exceed 50 mg/l. The silt traps are to be properly maintained.</p>	<p>Applicable</p>	<p>PP</p>

TABLE A2.1 EIA APPROVAL CONDITIONS FOR PUTRAJAYA (cont'd)

CONDITIONS	ANALYSIS	COMPLIANCE BY
<p>Monthly laboratory analysis reports on the silt trap discharges have to be submitted to the DOE, Selangor, commencing from the date of the start of earthworks. The laboratory analysis should be carried out, as far as possible, by a SIRIM accredited laboratory.</p>	<p>Applicable.</p>	<p>PHH</p>
<p>4. Earthworks and construction activities, should as far as possible, be carried out during the dry season to reduce erosion and sedimentation.</p>	<p>Applicable</p>	<p>pp</p>
<p>5. The disposal of any excess earth from the Putrajaya site is prohibited. All excess earth should be compacted and properly landscaped within the Putrajaya project site.</p>	<p>Applicable. PP will liaise with PHH who is responsible for the coordination of the disposal of the excess earth to the designated areas within Putrajaya.</p>	<p>pp</p>
<p>6. All roads within the project site, including the access roads to public roads, have to be paved before the start of work. The roads have to be continually maintained to be clean and free from dust.</p>	<p>Applicable</p>	<p>pp</p>

TABLE A2.1 EIA APPROVAL CONDITIONS FOR PUTRAJAYA (cont'd)

CONDITIONS	ANALYSIS	COMPLIANCE BY
7. The watering of the grounds within a project site, especially the areas of movement of construction vehicles, should be carried out to minimise dust. Enough water should be provided for this purpose.	Applicable	PP
8. The wheels of earthworks machines and vehicles should be cleaned before being allowed to go onto public roads.	Applicable	PP
C. Construction Management		
1. A copy of the EIA Approval Conditions, together with a copy of any document that forms part of the approval conditions have to be displayed in a suitable place within the project site and be clearly seen.	Applicable	PHH

TABLE A2.1 EIA APPROVAL CONDITIONS FOR PUTRAJAYA (cont'd)

CONDITIONS	ANALYSIS	COMPLIANCE BY
<p>2. Monitoring of water quality of the main rivers should be undertaken at both upstream and downstream locations of the project site, including in the lake. This monitoring should be conducted for both the construction and operational phases of the project.</p> <p>The parameters which will require monitoring are: dissolved oxygen (DO), biological oxygen demand (BOD), chemical oxygen demand (COD), suspended solids (SS), oil and grease, ammoniacal-nitrogen (AN), pesticides, nitrate, phosphates, E. coli and pH.</p> <p>The monitoring program, stations locations plan, sampling methods and sampling frequency has to be submitted to the DOE before the commencement of earthworks. The water quality data of the rivers have to be submitted to the DOE, Selangor, every month, starting from the time of the commencement of earthworks, together with a statement on the work progress so date. The water quality analysis has to be carried out by a SERIM accredited laboratory.</p>	<p>Applicable</p>	<p>PJH (construction stage) Perbadanan (operational stage)</p>

TABLE A2.1 EIA APPROVAL CONDITIONS FOR PUTRAJAYA (cont'd)

CONDITIONS	ANALYSIS	COMPLIANCE BY
3. Heavy vehicle movements should be planned so as to reduce nuisance to surrounding communities and on main public roads. Traffic movements in residential areas should be reduced wherever possible.	Applicable	PP
4. Lorries transporting goods should be covered.	Applicable	PP
5. Piling works should use methods that do not create excessive noise and air pollution. Diesel piling is prohibited from use within the project site.	Applicable	PP
6. During construction, noise levels at the site boundary should not exceed 65 dB(A) in the daytime and 55 dB(A) during the night.	Applicable	PP
7. Vehicles and construction plant should be maintained to prevent excessive noise levels.	Applicable	PP
8. A solid waste management plan should be formulated. Non-scheduled wastes should be disposed at Local Authority Approved disposal sites.	Applicable	PP

TABLE A2.1 EIA APPROVAL CONDITIONS FOR PUTRAJAYA (cont'd)

CONDITIONS	ANALYSIS	COMPLIANCE IV
<p>9. Temporary totems built to the specifications of Jabatan Perkhidmatan Pembebasan should be prepared for any temporary site quarters, and in the workers camp, prior to the commencement of any construction works.</p>	<p>Applicable</p>	<p>PP</p>
<p>D. Lake and Wetland Construction</p> <p>1. The river maintenance flow or minimum flow for Sg. Chua and Sg. Langat should be maintained throughout the period of filling the lake.</p> <p>2. The use and management of pesticides should be in accordance with the Department of Agriculture (DOA) Guidelines. Dosages and usage should be in accordance with that recommended by the manufacturers. The pesticides used should be selected for the target pest species, organic and biodegradable in character.</p>	<p>Applicable</p> <p>Applicable</p> <p>Applicable</p>	<p>P/H</p> <p>P/H (construction stage) Perbadanan (operation stage)</p>
<p>III. OPERATION STAGE</p>		
<p>1. Approval from the Director-General of the DOE should be obtained before the installation of combustion engines e.g. generators, etc. in accordance with the Environmental Quality (Clean Air) Regulations, 1978.</p>	<p>Applicable.</p> <p>Approval has to be obtained for fuel burning equipment that is rated in consume pulverised fuel or any solid fuel at 30 kg or liquid/gaseous matter more than 15 kg/hr.</p>	<p>PO</p>

TABLE A2.1 EIA APPROVAL CONDITIONS FOR PUTRAJAYA (cont'd)

CONDITIONS	ANALYSIS	COMPLIANCE BY
<p>2. All effluent discharge, including sludge, must be treated to meet Standard A of the Third Schedule, EQA (Domestic and Industrial Effluents) 1979.</p>	<p>Applicable</p>	<p>PO</p>
<p>Monthly report on the effluent discharge quality has to be submitted to the DOE, Selangor, starting from the time of the operation of the wastewater treatment system. The laboratory analysis of the effluent should be carried out by a SIRIM accredited laboratory.</p>	<p>Superseded by Perbadaman's requirements. The lake water quality has to meet the standard imposed by Perbadaman's By-law.</p>	<p>Perbadaman</p>
<p>3. The water quality of the lake and its discharge into the Sg. Langat must be maintained at Class II of the Malaysian National Interim Water Quality Standard and Criteria.</p>	<p>Applicable</p>	<p>Perbadaman</p>
<p>4. Monitoring of water quality of the main rivers should be undertaken at both upstream and downstream locations of the project site, including in the lake.</p>	<p>Applicable</p>	<p>Perbadaman</p>
<p>5. Scheduled wastes, such as discarded oils from boat maintenance works are prohibited from disposal into any drainage channels or lakes. Instead they should be disposed off in accordance with the methods stated in the Environmental Quality (Scheduled Wastes) Regulations, 1989.</p>	<p>Applicable</p>	<p>PO</p>

TABLE A2.1 EIA APPROVAL CONDITIONS FOR PUTRAJAYA (cont'd)

CONDITIONS	ANALYSIS	COMPLIANCE BY
6. An inventory of insect and vectors for waterborne diseases should be carried out after the development of the lake and wetlands.	Applicable	Perbadanan
7. Methods to control waterborne diseases and their vectors should be implemented in accordance with the requirements of the Ministry of Health (MOH), Malaysia.	Applicable	Perbadanan
8. The control of pests or aquatic weed should use the concept of integrated pest management, that involves the use of biological control.	Applicable	Perbadanan
9. The use and management of pesticides should be in accordance with the Department of Agriculture (DOA) Guidelines. Dosages and usage should be in accordance with that recommended by the manufacturers. The pesticides used should be selected for the target pest species, organic and biodegradable in character.	Applicable	Perbadanan

Key : Perbadanan * Perbadanan Putrajaya
 PH - Putrajaya Holdings Sdn Bhd
 JP * Project Proponent
 PO * Project Operator

APPENDIX 3 EXTRACTS FROM TOWN AND COUNTRY PLANNING ACT (1976)	Revision : 1.0
Date : 18 November 1998	
<p>Section 20 Prohibition of development contrary to planning permission</p> <p>No person shall commence, undertake, or carry out any development otherwise than in conformity with the planning permission granted to him under section 22 in respect of the development or with the conditions of the planning permission.</p> <p>Section 21 Application for planning permission</p> <p>(1) An application for planning permission in respect of a development shall be made to the local planning authority and shall be in such form and shall contain such particulars and be accompanied by such documents, plans, and fees as may be prescribed.</p> <p>(2) If the applicant is not the owner of the land on which the development is to be carried out, the written consent of the owner thereof to the proposed development shall be obtained and endorsed on the application.</p> <p>(3) Where the development involves the erection of a building, the local planning authority may give written directions to the applicant in respect of any of the following matters, that is to say</p> <ul style="list-style-type: none"> (a) the level of the site of the building; (b) the line of frontage with neighbouring buildings; (c) the elevations of the building; (d) the class, design, and appearance of the building; (e) the setting back of the building to a building line; (f) access to the land on which the building is to be erected; and (g) any other matter that the local planning authority considers necessary for purposes of planning. 	
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APPENDIX 3 EXTRACTS FROM TOWN AND COUNTRY PLANNING ACT (1976)	Revision : 1.0 Date : 16 November 1998
<p>(4) The applicant to whom any written directions are given under subsection (3) shall amend the plan submitted with his application accordingly and resubmit the plan within such period or extended period as the local planning authority may specify.</p> <p>(5) If the plan is not resubmitted within the specified period or extended period, the application for planning permission shall be deemed to have been withdrawn but the applicant may submit a fresh application.</p> <p>(6) If the proposed development is located in an area in respect of which no local plan exists for the time being, then, upon receipt of an application for planning permission, or, where directions have been given under subsection (3), upon compliance with the directions, the local planning authority shall, by notice in writing served on them, inform the owners of the lands adjoining the land to which the application relates of their right to object to the application and to state their grounds of objection within twenty-one days of the date of service of the notice.</p> <p>(7) If objections are received pursuant to subsection (6), the local planning authority shall, within thirty days after the expiry of the period within which objections may be made, hear-</p> <ul style="list-style-type: none"> (a) the applicant for planning permission; and (b) any person who has lodged an objection pursuant to subsection (6) and who, in lodging the objection, has requested a hearing. 	
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APPENDIX 3 EXTRACTS FROM TOWN AND COUNTRY PLANNING ACT (1976)	Revision : LH Date : 16 November 1998
<p>Section 21A Development Proposal Report</p> <p>(1) In addition to the documents and plans required to be submitted under section 21 (1) for planning permission, the applicant shall submit a development proposal report which shall contain the following:</p> <ul style="list-style-type: none"> (a) the development concept and justification; (b) a location map and a site plan; (c) particulars of land ownership and restrictions, if any; (d) (i) a description of the land including its physical environment, topography, landscape, geology, contours, drainage, water bodies and catchments and natural features thereon; (ii) a survey of the trees and all forms of vegetations; and (iii) particulars of a building, which may be affected by the development; (e) a land use analysis and its effect on the adjoining land; (f) layout plans, the details of which are specified in section 21B; and (g) such other matters as may be prescribed by the local planning authority. <p>(2) The State Authority may, by rules, exempt any development or class, type or category of development from submitting -</p> <ul style="list-style-type: none"> (a) a development proposal report under subsection (1); or (b) a development proposal report containing any of the matters specified in paragraphs (a) to (g) of subsection (1). 	
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APPENDIX 3 EXTRACTS FROM TOWN AND COUNTRY PLANNING ACT (1974)	Revision : L0 Date : 16 November 1998
<p>Section 21B. Layout Plans</p> <p>(1) The layout plans under paragraph (f) of section 21A (1) shall show the proposed development and in particular-</p> <ul style="list-style-type: none"> (a) where the development is in respect of any land - <ul style="list-style-type: none"> (i) measures for the protection and improvement of its physical environment; (ii) measures for the preservation of its natural topography; (iii) measures for the improvement of its landscape; (iv) measures for the preservation and planting of trees thereon; (v) the location and species of trees with a girth exceeding 0.8 metre and other vegetation thereon; (vi) the making up open spaces; (vii) the proposed earthworks, if any; and (viii) a description of the works to be carried out; and (b) where the development is in respect of a building with special architecture or historical interest, particulars to identify the building including its use and condition; and its special character, appearance, make and feature and measures for its protection, preservation and enhancement; and (c) where the development involves a building operation, particulars of the character and appearance of buildings located in the surrounding area. <p>(2) The local planning authority may give directions to an applicant for planning permission in respect of matters concerning his layout plans as the local planning authority considers necessary.</p>	
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APPENDIX 3 EXTRACTS FROM TOWN AND COUNTRY PLANNING ACT (1976)	Revision : 1.0 Date : 16 November 1998
<p>(3) The applicant to whom directions are given under subsection (2) shall amend the layout plans accordingly, and resubmit the layout plans within such period or extended period as the local planning authority may specify.</p> <p>(4) If the layout plans are not resubmitted within the specified period or extended period, the application for planning permission shall be deemed to have been withdrawn but the applicant may submit a fresh application.</p> <p>Section 21C Preparation of Plan, etc. By a Qualified Person</p> <p>All plans, particulars, layout plans and other documents required to be submitted under this Act shall be prepared by -</p> <p>(a) a person whose qualifications are prescribed under paragraph (b) of section 58 (2); or</p> <p>(b) a person who is entitled to do so under any other written law.</p> <p>Section 22 Treatment of Applications (Subsection 5)</p> <p>(5) Conditions imposed under subsection (3) may include any or all of the following conditions, that is to say, conditions -</p> <p>(a) to the effect that planning permission granted in respect of any change of use of land or building is only for a limited period and that, after expiry of that period, the use of the land or building as authorized by the planning permission shall cease and the land or building shall be reverted to its original use;</p> <p>(b) to require -</p> <p>(i) the development and use of any other land under the control of the applicant that adjoins the land in respect of which the planning permission is granted; and</p>	
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APPENDIX 3 EXTRACTS FROM TOWN AND COUNTRY PLANNING ACT (1976)	Revision: 1.0 Date: 16 November 1998
<p>(ii) as may appear to the local planning authority to be expedient for the development for which planning permission is granted, the works that may be carried out on such other land and the manner in which and the extent to which such works may be carried out;</p> <p>(c) for securing the development of the land in accordance with the approved layout plans;</p> <p>(d) prohibiting damage to the land, its physical environment, natural topography and landscape;</p> <p>(e) prohibiting the removal or alteration of any of the natural features of land;</p> <p>(f) prohibiting the felling of trees of a certain size, age, type or species at any particular location unless it is to comply with any written law; and</p> <p>(g) for securing the planting or replanting of trees of a certain size, age, type or species at any particular location in such manner as may be determined by the local planning authority;</p> <p>(h) for securing the making up of open spaces in accordance with the approved layout plans;</p> <p>(i) where the development involves the erection of a new building, or the re-erection or extension of a building or part thereof, conditions to ensure its compatibility with the architecture, character or appearance depicted in the buildings located in the surrounding area, which the local planning authority intends to protect, preserve or enhance;</p> <p>(j) where the development involves any addition or alteration to an existing building with special architecture or historical interest, conditions to ensure that the facade and other external character of the building is retained; and</p>	
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Revision : 1.0

**EXTRACTS FROM TOWN AND COUNTRY
PLANNING ACT (1976)**

Date : 16 November 1998

- (k) where the development involves the re-erection of a building with special architecture or historical interest or the demolition thereof and the erection of a new building in its place, conditions to ensure that the facade and other external character of the demolished building is retained.

Section 28 Enforcement in the Case of Contravention of Section 20

- (1) This section shall apply where it appears to the local planning authority that any development has been or is being undertaken or carried out in contravention of section 20.
- (2) If the local planning authority is satisfied that, had the application for planning permission indicated that the development was to take or result in its present form or state, it would have, in the proper exercise of its powers under section 22, refused to grant planning permission for the development, then the local planning authority shall -
- (a) if the development has not been completed, serve on both the owner and occupier of the land a notice in the prescribed form requiring both of them to comply, within the period specified in the notice or within such further period as the local planning authority may allow, with such requirements, to be specified in the notice, as the local planning authority thinks fit in order that the development is brought into conformity with the planning permission and the conditions thereof or, where this is not possible, in order that the land be restored as far as possible to the condition it was in before the development was commenced;

APPENDIX 3 EXTRACTS FROM TOWN AND COUNTRY PLANNING ACT (1974)	Revision : 1.0 Date : 16 November 1998
<p>(b) If the development has not been completed, serve on the owner of the land and the person who, in the opinion of the local planning authority, is carrying out the development, a notice in the prescribed form requiring both of them to discontinue the development forthwith and to comply, within the period specified in the notice or within such further period as the local planning authority may allow, with such requirements, to be specified in the notice, as the local planning authority thinks fit in order that the development is brought into conformity with the planning permission and the conditions thereof or, where this is not possible, in order that the land be restored as far as possible to the condition it was in before the development was commenced.</p> <p>(3) If the local planning authority is not satisfied as provided in subsection (2), it shall serve on the owner, occupier, or the person who, in the opinion of the local planning authority, is carrying out the development, as the case may be, a notice informing him of the contravention and calling on him to apply for a fresh planning permission in respect of the development, as it is in its present form or state, within the period specified in the notice or within such further period as the local planning authority may allow.</p> <p>(4) In any case falling under subsection (3), the local planning authority shall also, if the development has not been completed, serve on both the owner and the person who, in the opinion of the local planning authority, is carrying out the development, a notice in the prescribed form requiring them to discontinue the development forthwith.</p>	
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<p>(5) The giving of a notice under subsection (3) shall not be construed as an indication of willingness to grant planning permission and shall be without prejudice to the power of the local planning authority to refuse planning permission; and the notice shall contain a statement to that effect.</p> <p>(6) Any person who continues to carry out any development after being required to discontinue it by a notice served on him under subsection (2) (b) or (4) commits an offence and is liable, on conviction, to a fine not exceeding fifty thousand ringgit and to a further fine which may extend to one thousand ringgit for each day during which the development is carried out after the first conviction for the offence.</p>	
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**PERBADANAN PUTRAJAYA**

PERMOHONAN KEBENARAN MERANCANG BAGI KELULUSAN SUSUNATUR
(Sekyen 21 Akta 172 Akta Perancangan Bandar dan Desa, 1976)

Projek :

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Tarikh Penerimaan :

SENARAI SEMAKAN PERMOHONAN

	Sila Tandakan (✓)	Untuk Keputusan Pegawai
1. Permohonan bersekolah disertakan dengan surat rasmi (cover letter) daripada Jurusantung bertulis.	<input type="checkbox"/>	<input type="checkbox"/>
2. Terima Barang A, Jadual Pertama Kaedah Kawalan Perancangan Air)	<input type="checkbox"/>	<input type="checkbox"/>
3. Satu (1) salinan surat hak milik.	<input type="checkbox"/>	<input type="checkbox"/>
4. Satu (1) salinan surat perbitiran pemungut	<input type="checkbox"/>	<input type="checkbox"/>
5. Satu (1) salinan profil syarikat pemungut	<input type="checkbox"/>	<input type="checkbox"/>
6. Mengemukakan Laporan (B) salinan Laporan Cadangan Pemajuan (Kandungan serta format Laporan yang dikemukakan hendaklah mengikut format Senarai Semakan S41) Laporan Cadangan Pemajuan perlu disediakan dan disahkan oleh Jurusantung Bandar Bertulis)	<input type="checkbox"/>	<input type="checkbox"/>
7. Mengemukakan laporan (B) salinan pelan-pelan berikut: (Pelan-pelan yang dikemukakan hendaklah mengikut format berikut: a) Sempadan Precinct bagi semua Pelan hendaklah berdaraskan dasar kontrol, 'bearing' dan jarak b) Sempadan lot (berdasarkan nombor PT) hendaklah ditunjukkan c) Media tujuh (7) salinan kertas dan satu (1) salinan linen serta transparency untuk Pelan Inventor Pokok Senja Ase (Rujuk para 7.4) d) Skala: 1:2000 e) Pelan-pelan tersebut hendaklah disahkan oleh ahli profesional yang berkekuatan f) Pelan-pelan tersebut perlu dikemakan dan dijilid bersepari)	<input type="checkbox"/>	<input type="checkbox"/>

- | | | | |
|-----|--|--------------------------|--------------------------|
| 7.1 | Pelan Susun Atap
Pelan tersebut perlu memperincikan Pelan Kuali (keseluruhan Putrajaya), Pelan Lokasi (Pecind berkenaan dan Pecind bersebelahan), Pelan Susun Atap dan Jajal Cadangan Generator (Pelan-pelan perlu diakhiri oleh Jurutera Bertauliah) | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.2 | Pelan Analisa Kecekapan
Merangkumi perkara seperti Senarai Senarai SA1, para 3.10, (Pelan perlu diakhiri oleh Jurutera Bertauliah) | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.3 | Pelan Kerja Tanah
Merangkumi perkara seperti Senarai Senarai SA1, para 5.2, (Pelan perlu diakhiri oleh Jurutera Bertauliah) | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.4 | Pelan Infrastruktur dan Utiliti (Pelan Jajal)
(Pelan-pelan perlu diakhiri oleh Jurutera Bertauliah) | <input type="checkbox"/> | <input type="checkbox"/> |
| | 7.4.1 Pelan Sistem Bekal Air (Trafik, Isuair Bekal & posidun kaji) | <input type="checkbox"/> | <input type="checkbox"/> |
| | 7.4.2 Pelan Saliran & Pampasan | <input type="checkbox"/> | <input type="checkbox"/> |
| | 7.4.3 Pelan Pembeostangan | <input type="checkbox"/> | <input type="checkbox"/> |
| | 7.4.4 Pelan TNB | <input type="checkbox"/> | <input type="checkbox"/> |
| | 7.4.5 Pelan Bekal Air | <input type="checkbox"/> | <input type="checkbox"/> |
| | 7.4.6 Pelan Telekomunikasi | <input type="checkbox"/> | <input type="checkbox"/> |
| | 7.4.7 Pelan Gas Ad | <input type="checkbox"/> | <input type="checkbox"/> |
| | 7.4.8 Pelan GDC | <input type="checkbox"/> | <input type="checkbox"/> |
| | 7.4.9 Pelan Kemudahan Sisa Pepejal | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.5 | Pelan Inventor Pokok-Seda Aila/Peintah Pemeliharaan (Pepak)
Merangkumi perkara seperti Senarai Senarai SA1, para 3.8 (Pelan perlu diakhiri oleh Arkitektur Bertauliah) | <input type="checkbox"/> | <input type="checkbox"/> |
| 7.6 | Pelan Konsep Landskap
Merangkumi perkara seperti Senarai Senarai SA1, para 6.5.1(g) (Pelan perlu diakhiri oleh Arkitektur Landskap Bertauliah) | <input type="checkbox"/> | <input type="checkbox"/> |
| 8 | Satu (1) sikon lukisan perspektif (bird eye view),
(format penyediaan ngak Laporan A) | <input type="checkbox"/> | <input type="checkbox"/> |
| 9 | Model cadangan pembangunan, sika kemukakan salah satu dari berikut: | <input type="checkbox"/> | <input type="checkbox"/> |
| 9.1 | Model isuan atar
(format penyediaan ngak Laporan B) | <input type="checkbox"/> | <input type="checkbox"/> |
| 9.2 | Model komputer (3D simulation ataupun virtual reality) | <input type="checkbox"/> | <input type="checkbox"/> |
| 10 | Surat-surat dan sikon bersewa (pelan-pelan) pengesahan agensi/nyekat utiliti berkaitan - | | |

10.1	Bekas Air (Jabatan Bekas Air Selangor)	<input type="checkbox"/>	<input type="checkbox"/>
10.2	Telekomunikasi (Telekom Malaysia Berhad)	<input type="checkbox"/>	<input type="checkbox"/>
10.3	Chilled Water (GDC) – P1, P2, P3, P4, P5, P7 & P8 (Sub Commercial Centre)	<input type="checkbox"/>	<input type="checkbox"/>
10.4	Sisa Pepejal (Aman Flow Sdn. Bhd.)	<input type="checkbox"/>	<input type="checkbox"/>
10.5	Pembinaan (Jabatan Perkhidmatan Pembinaan)	<input type="checkbox"/>	<input type="checkbox"/>
10.6	Bekas Gas (Sas Malaysia)	<input type="checkbox"/>	<input type="checkbox"/>
10.8	Bekas Elektrik (Tenaga Nasional Berhad)	<input type="checkbox"/>	<input type="checkbox"/>
10.9	Bomba (Jabatan Bomba, Ite Perdana)	<input type="checkbox"/>	<input type="checkbox"/>
11.	Lima Setas (15) salinan Ringkasan Laporan Cadangan Pemajuan bentuk A3 bag tajuk Mesyuarat JKKP	<input type="checkbox"/>	<input type="checkbox"/>
12.	Satu salinan Foto Susun Atur dan Satu salinan Lukisan Perspektif (bird's eye view) dipasang di atas mounting board dan menggunkan saiz yang berselesaian untuk telimat.	<input type="checkbox"/>	<input type="checkbox"/>
13.	Format digital, pelan-pelan, lukisan, perspektif dan laporan cadangan pembangunan:	<input type="checkbox"/>	<input type="checkbox"/>
13.1	Satu (1) salinan Laporan Cadangan Pembangunan seperti di para 6.	<input type="checkbox"/>	<input type="checkbox"/>
13.2	Satu (1) salinan pelan-pelan/lukisan (ACAD r15/14) seperti di para 7.	<input type="checkbox"/>	<input type="checkbox"/>
13.3	Satu (1) salinan lukisan perspektif seperti di para 8.	<input type="checkbox"/>	<input type="checkbox"/>
13.4	Satu (1) salinan model cadangan pembangunan seperti di para 9.	<input type="checkbox"/>	<input type="checkbox"/>
	Format digital tersebut hendaklah dikemukakan dengan media CD.	<input type="checkbox"/>	<input type="checkbox"/>

Nota:

Perkara 1 hingga 6

Kepatuhan kepada dokumen, pelan, laporan dan lukisan perlu dikemukakan sewaktu mengemukakan permohonan perancangan.

Perkara 9 hingga 11

Kepatuhan di para tersebut sekurang-kurangnya lima hari sebelum tarikh mesyuarat JKKP.

Perkara 12

Kepatuhan di para tersebut semasa mesyuarat JKKP.

Perkara 13

Digital Format untuk kesemua pelan, perspektif dan laporan pembangunan perlu dikemukakan sebelum Senat Keluasan Kebajikan Merancang Bag Fuzilian diwujudkan.



SA1

PERBADANAN PUTRAJAYA

PERMOHONAN KEBENARAN MERANCANG BAGI KELULUSAN SUSUNATUR
(Sekyen 21 Akta 172 Akta Perancangan Bandar dan Desa, 1976)

Projek : _____

Tarikh Penerimaan : _____

SENARAI SEMAKAN PERMOHONAN

(For Manual Submission)

KANDUNGAN LAPORAN CADANGAN PEMAJUAN

Laporan Cadangan Pemajuan hendaklah dikemukakan sebanyak (5) salinan dan mengikut format berikut:

Laporan Cadangan Pemajuan hendaklah mengikut format seperti berikut:

- Satah Laporan : A4
- Satah Pelan : A3
- Binding : Fail berkulat tebal serta berombor sil
- Pertegasan Fotokopi: Bagi perkara 1 hingga 4 hendaklah disediakan dan disahkan oleh Jururancang Bertauliah dan perkara 5 hendaklah disediakan dan disahkan oleh profesional berkaitan
- Kandungan setiap perkara perlu menyertakan dengan ringkas mengenai perakuan dengan Jawatankuasa Gais Pemandu Raka Berbut Bandar

		Sila Tandakan (✓)	Uraik Kegunaan Prajait
1.	Tajuk permohonan/pengiraan	<input type="checkbox"/>	<input type="checkbox"/>
2.	Pelan Lokasi dan Pelan Tajuk (perancangan hendaklah disediakan secara kepada Kawasan Putrajaya sahaja)	<input type="checkbox"/>	<input type="checkbox"/>
3.	Laporan keadaan semasa dan analisa tapak	<input type="checkbox"/>	<input type="checkbox"/>
	3.1 Topografi dan Rupa Bumi	<input type="checkbox"/>	<input type="checkbox"/>
	3.2 Geoteknik Batilata	<input type="checkbox"/>	<input type="checkbox"/>

3.3	Faktor Min <ul style="list-style-type: none"> • Arah Angin • Sun Orientation • Taburan Hujan • Kelembapan • Datar 	<input type="text"/>	<input type="text"/>
3.4	Selain Seniwand	<input type="text"/>	<input type="text"/>
3.5	Jenis Tanah	<input type="text"/>	<input type="text"/>
3.6	Geologi & Air Bawah Tanah	<input type="text"/>	<input type="text"/>
3.7	Fauna	<input type="text"/>	<input type="text"/>
3.8	Flora (Peringkat Pemeliharaan Pokok)	<input type="text"/>	<input type="text"/>
	Penetapan kawasan (blok-blok) yang perlu spesifik dan kategori		
3.9	Pemandangan dan Vista	<input type="text"/>	<input type="text"/>
3.10	Analisis Kecekapan Menerangkan kecekapan berdasarkan kelas berikut: <ul style="list-style-type: none"> • $< 5^\circ$ • $5^\circ - 30^\circ$ • $30^\circ - 45^\circ$ • $\geq 45^\circ$ 	<input type="text"/>	<input type="text"/>
3.11	Analisis Kualiti Alam Sekitar Semasa <ul style="list-style-type: none"> • Kualiti Air • Kualiti Udara • Kebisingan 	<input type="text"/>	<input type="text"/>
3.12	Sesuai Ekonomi meliputi tapak dan kawasan sekitar	<input type="text"/>	<input type="text"/>
3.13	Analisis Potensi dan Halangan <ul style="list-style-type: none"> • Kawasan yang telah dibangunkan 	<input type="text"/>	<input type="text"/>
4	Cadangan Pembangunan	<input type="text"/>	<input type="text"/>
4.1	Maklumat, Objektif, Strategi Pembangunan Projek	<input type="text"/>	<input type="text"/>
4.2	Konsep Pembangunan Persekitaran Menerangkan tanggapan pembangunan dari aspek: <ul style="list-style-type: none"> • Pelekat Pengurusan • Konsep Zon Kepedatan • Konsep Reka Bentuk Bandar <ul style="list-style-type: none"> • Identiti Tempatan • Organisasi • Access Point • Vertical Treatment • Horizontal Treatment • Talian Pelancang • Public Realm • Rangkaian Utiliti • Rangkaian Pengangkutan <ul style="list-style-type: none"> • Siklus Kenderaan 	<input type="text"/>	<input type="text"/>

	<ul style="list-style-type: none"> • Skripsi bukan Kerdensan • Pengangkutan Awan • Tempat tidak Kerdensan 	<input type="checkbox"/>	<input type="checkbox"/>
	<ul style="list-style-type: none"> • Kerdensan Ruang Lantai • Geografi Hidrologi • Perancangan Arah Sekitar (Perumahan Sysel EA) 	<input type="checkbox"/>	<input type="checkbox"/>
4.3	Cadangan Pelan Susun Atur Menunjukkan bulatan terpendek berikut:	<input type="checkbox"/>	<input type="checkbox"/>
4.3.1	Pecahan gusa tanah (pecahan gusa tanah yang penting perumahan, perdagangan, kerdensan, kesihatan kawasan lapang, kemudahan amek, kemudahan utiliti dan kemudahan infrastruktur)	<input type="checkbox"/>	<input type="checkbox"/>
4.3.2	Aspek-aspek densiti (kepadatan, rintang pta, pinda awat, keteguhan bangunan, gerasan arsitek)	<input type="checkbox"/>	<input type="checkbox"/>
4.3.3	Langkah-langkah bagi melindungi dan memperelok akan sekitar dari segi fizikal	<input type="checkbox"/>	<input type="checkbox"/>
4.3.4	Langkah-langkah bagi melindungi topografi semulajadi	<input type="checkbox"/>	<input type="checkbox"/>
4.3.5	Langkah-langkah bagi memperelok lanskap	<input type="checkbox"/>	<input type="checkbox"/>
4.3.6	Langkah-langkah bagi memelihara dan merenakan pokok-pokok	<input type="checkbox"/>	<input type="checkbox"/>
4.4	Pandangan Perspektif Cadangan Susun Atur (Birds Eye View)	<input type="checkbox"/>	<input type="checkbox"/>
E	Laporan-laporan teknikal - rujuk dan implikasi aspek aspek berikut:	<input type="checkbox"/>	<input type="checkbox"/>
5.1	Laporan Geoteknikal (perlu disediakan oleh Jurutera Bertauliah)	<input type="checkbox"/>	<input type="checkbox"/>
5.1.1	Geologi Tanah	<input type="checkbox"/>	<input type="checkbox"/>
5.1.2	Kerja-kerja Penyelidikan Tanah	<input type="checkbox"/>	<input type="checkbox"/>
5.1.3	Kesihatan Sub-pemukaan dan Penebaran Lubang Gered	<input type="checkbox"/>	<input type="checkbox"/>
5.1.4	Analisis Kebolehgunaan Gered	<input type="checkbox"/>	<input type="checkbox"/>
5.2	Laporan Kerja Tanah (perlu disediakan oleh Jurutera Bertauliah)	<input type="checkbox"/>	<input type="checkbox"/>
5.2.1	Kontor sedia ada	<input type="checkbox"/>	<input type="checkbox"/>
5.2.2	Cadangan awal pemotongan dan penambahan	<input type="checkbox"/>	<input type="checkbox"/>
5.2.3	Aras Muktamad	<input type="checkbox"/>	<input type="checkbox"/>
5.2.4	Garis Muktamad	<input type="checkbox"/>	<input type="checkbox"/>
5.2.5	Kontor Cadangan	<input type="checkbox"/>	<input type="checkbox"/>
5.2.6	Punca Tanah Persekitaran	<input type="checkbox"/>	<input type="checkbox"/>
5.2.7	Kematan lapak dan aras	<input type="checkbox"/>	<input type="checkbox"/>
5.3	Laporan Pemetaan Kemua Lokutmas (TIA) (perlu disediakan oleh Jurutera Pengangkutan Bertauliah)	<input type="checkbox"/>	<input type="checkbox"/>

5.3.1	Perencanaan lokalitas	<input type="checkbox"/>	<input type="checkbox"/>
5.3.2	Analisa dampak lokalitas (jendela mata & visualisasi)	<input type="checkbox"/>	<input type="checkbox"/>
5.3.3	Catangan seluruh trafik, sistem pejalan kaki, lokasi busikal ddb.	<input type="checkbox"/>	<input type="checkbox"/>
5.4.1	Kepuasan Masyarakat Hetrotopi	<input type="checkbox"/>	<input type="checkbox"/>
	a) Saluran Utama	<input type="checkbox"/>	<input type="checkbox"/>
	b) Saluran Sederhana/Kecil	<input type="checkbox"/>	<input type="checkbox"/>
	c) Lengkung IDF bagi Pustaka untuk basis' perkiraan rekabentuk salitan	<input type="checkbox"/>	<input type="checkbox"/>
5.4.2	Perkiraan rekabentuk salitan (kuz, bentuk salitan dan sebagainya)	<input type="checkbox"/>	<input type="checkbox"/>
5.5	Kemudahan URB (perlu disahkan oleh Jendela Bertakrif)	<input type="checkbox"/>	<input type="checkbox"/>
5.5.1	Pembangunan	<input type="checkbox"/>	<input type="checkbox"/>
5.5.2	Bekalan Air	<input type="checkbox"/>	<input type="checkbox"/>
5.5.3	Bekalan Elektrik	<input type="checkbox"/>	<input type="checkbox"/>
5.5.4	Telokomunikasi	<input type="checkbox"/>	<input type="checkbox"/>
5.5.5	Bekalan Gas	<input type="checkbox"/>	<input type="checkbox"/>
5.5.6	Bekalan GDC	<input type="checkbox"/>	<input type="checkbox"/>
5.5.7	Kemudahan Sisa Pepejal	<input type="checkbox"/>	<input type="checkbox"/>
5.6	Landscape (perlu disahkan oleh Pihak Landscape Bertakrif)	<input type="checkbox"/>	<input type="checkbox"/>
5.6.1	Lapasan Konsep Landscape	<input type="checkbox"/>	<input type="checkbox"/>
	a) Hierarki Tema dan Kawasan Lapang	<input type="checkbox"/>	<input type="checkbox"/>
	b) Kategori Pembangunan Landscape	<input type="checkbox"/>	<input type="checkbox"/>
	c) Wawasan dan Objekif	<input type="checkbox"/>	<input type="checkbox"/>
	d) Konsep Sintesis Landscape	<input type="checkbox"/>	<input type="checkbox"/>
	e) Isu-isu Rekabentuk Mengambil kira:	<input type="checkbox"/>	<input type="checkbox"/>
	• Pokok Seda rimb	<input type="checkbox"/>	<input type="checkbox"/>
	• Kontinuiti Ruang	<input type="checkbox"/>	<input type="checkbox"/>
	g) Pelan Konsep landscape Yang merangkumi konsep-konsep berikut:	<input type="checkbox"/>	<input type="checkbox"/>

- Semesta Tanaman
- Hard Landscape
 - Perancah Ketinggian Jalan
 - Fasilitas Rekreasi
 - Lanskap Bersih Air
 - Sistem Sirkulasi Pipaan Kaki/Besek
- Lanskap Perumahan
- Pagar

g) Program Implementasi

h) Program Pengajaran dan Peningkatan Lanskap

5.7 Petan Pengurusan Alam Sekitar
(perlu diisikan oleh Perancang Alam Sekitar Bertauliah)

5.7.1 Pengajaran

5.7.2 Perancangan Alam Sekitar

i. Impak Guna Tanah ke Atas Alam Sekitar

a. Impak Ke atas Alam Semulajadi

- Struktur Tanah
- Topografi
- Saliran Semulajadi dan Air Sewah Tanah
- Flora
- Fauna

b. Impak Ke atas Kualiti Udara

c. Impak Ke atas Kualiti Air

ii. Koordinasi Alam Sekitar

iii. Perantaraan Kepala Kementakan Alam Sekitar

5.7.3 Pengurusan Alam Sekitar Pasa Pembinaan

i. Impak Pembinaan Ke atas Alam Sekitar

ii. Langkah-langkah Kawalan

a. Petan pengurusan Hakisan dan Pemeliharaan Tanah

- Kawalan Kerja-Kerja Tanah
 - Langkah-langkah kawalan
 - Jumlah masa dan pengaliran kerja tanah
 - Papan penimbunan dan pemantapan tanah
 - Kaedah pengurusan dan jeda masa "top soil"
 - Petan jalan baji

- Pengukuran Kawalan Kebisingan, Klorodan dan Benji
 - Langkah-langkah kawalan
 - Analisis risiko
 - Kaedah perlindungan tanah dan penanaman corak
 - Pelengkap yang membolehkan lokasi corak-cetak
 - Papan lokat dan bilangan urut "sit top", "sit fence" dan "temporary drain" serta kawalan-kehadiran dan kekerapan penyelenggaraan

b. Petan Pengurusan Kerja Kerja Pembinaan

- Kawalan Pencemaran Air
 - Langkah-langkah kawalan
 - Papan lokat pusat servis
 - Kemudahan sanitasi pekerja
- Kawalan Pencemaran Udara
 - Langkah-langkah kawalan
 - Papan lokat "washing trough"
- Kawalan Kebisingan
- Kawalan Bahan Buangan
 - Buangan padat
 - Buangan cecair
- Kawalan Bahan Agrokimia
- Kawalan Kuchuan

E.7.4 Pengurusan Alam Sekitar Fasa Operasi

i. Impak Aktiviti-aktiviti Operasi Ke Atas Alam Sekitar

ii. Langkah-langkah Kawalan

- a. Kawalan Pencemaran Air
- b. Kawalan Pencemaran Udara
- c. Kawalan Pencemaran Bunyi/Bising
- d. Kawalan Pencemaran Bahan Buangan
 - Kawalan Air Kumbahan
 - Kawalan Sisa Pepejal
 - Kawalan Bahan Toksik dan Berbahaya

d.	Kawalan Kesihatan Awam	<input type="text"/>	<input type="text"/>
e.	Kawalan Bahan Agrokimia	<input type="text"/>	<input type="text"/>
f.	Kawalan Binai	<input type="text"/>	<input type="text"/>
5.7.5	Program Pengawasan dan Pemantauan Alam Sekitar	<input type="text"/>	<input type="text"/>
i.	Pengawasan Kualiti Air	<input type="text"/>	<input type="text"/>
j.	Pengawasan Kualiti Udara	<input type="text"/>	<input type="text"/>
k.	Pengawasan bunyi Bising	<input type="text"/>	<input type="text"/>
5.7.6	Program Pengauditan Alam Sekitar	<input type="text"/>	<input type="text"/>
l.	Kriteria/Cheklis Pengauditan	<input type="text"/>	<input type="text"/>
5.7.7	Tanggungjawab dan Peranan	<input type="text"/>	<input type="text"/>
i.	Senarai Tugas Perunding, Pemasu dan Kontaktor.	<input type="text"/>	<input type="text"/>
a.	Penyediaan Pelan penerbitan Proposal	<input type="text"/>	<input type="text"/>
b.	Pelaksanaan Program pengawasan dan Pengauditan	<input type="text"/>	<input type="text"/>
c.	Penyediaan Laporan Pemakluman kepada Kelendak Alam Sekitar	<input type="text"/>	<input type="text"/>
j.	Carta Organisasi	<input type="text"/>	<input type="text"/>
5.7.8	Lain-lain Hal	<input type="text"/>	<input type="text"/>
6.	Jadual Fasa Pembangunan	<input type="text"/>	<input type="text"/>
7.	Jadual Anggaran Harga Juston Premis	<input type="text"/>	<input type="text"/>

LAMPIRAN A

**JABATAN PERANCANGAN BANGUNAN
Perbadanan Putrajaya**

 Fesyen Perspektif Lukisan Perspektif Untuk
Pembinaan Kawasan Kiblatan Merentang

52cm

3cm

**LUKISAN PERSPEKTIF
(SAIZ A3)**

45cm

3cm

3cm

5cm

 CADANGAN PEMBANGUNAN FLAT PONTON BERAN
 PERDEKUTUAN PUTRAJAYA PRECINCT II, NEKAM DENGGIS,
 DAERAH KAWASAN PEMBANGUNAN PUTRAJAYA, ISLANDOR
 DARUL KHAYRAN
 UNTUK TETUAN PUTRAJAYA HOLDINGS SDN. BHD.
 30m

Nama & Alamat Arkitek Perunding

 No. Rujukan:
 DPYPe/1A - P111

2.5cm

2.5cm

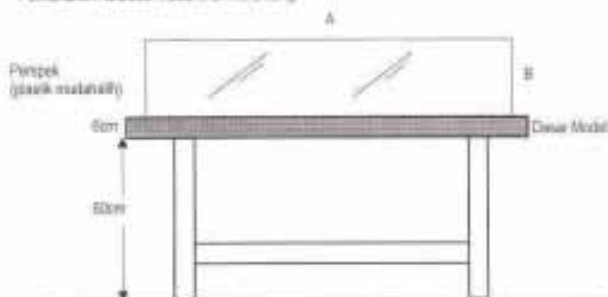
Mounting Board

Syarat-Syarat Am

1. Lukisan perspektif hendaklah diwartakan dan diletakkan di dalam saiz A3 (1 salinan)
2. Tajuk perspektif hendaklah mengandungi -
 - i. Jenis cadangan pembangunan
 - ii. Alamat tapak cadangan
 - iii. Nama perilik
3. Lukisan perspektif hendaklah diwartakan nama dan alamat perunding dan nombor syarikat Perbadanan Putrajaya
4. Rujukan tajuk lukisan perspektif hendaklah ditulis dengan tulisan hitam dan latar belakang putih.
5. Lukisan perspektif hendaklah diekalkan di atas 'mounting board' hitam dan ukuran sisi kelingkingnya ialah 3cm lebar.
6. Gelap lukisan yang digunakan pada tajuk ialah 1 cm dan hendaklah lebih besar daripada nama dan alamat perunding
7. Lukisan perspektif yang dikemukakan adalah hakmilik Perbadanan Putrajaya.

JABATAN PERANCANGAN BANDAR
PERBADANAN PUTRAJAYA

Penduaan Penyediaan Model Untuk
Pemerintahan Kolusi-kolusi Kebenaran Merancang



A & B – Lebar dan tinggi perseki bergantung kepada saiz model bangunan

Syarat-Syarat Am (Model)

1. Skala 1 : 3,000
2. Kut sempadan Peringkat
3. Model & dasar mesti boleh diangkat (mudah alih)
4. Model hendaklah hendaklah merupakan semua perkara yang diorang berdasarkan pelan silas termasuk pelat susun atur, landkap, 'topografi' bangunan awam, kenderaan, perabotan dan infrastruktur.
5. Perseki yang dibuat dari plastik hendaklah dari jenis mudah alih
6. Dewan model hendaklah dibuat dari kayu
7. Model hendaklah disediakan oleh perkuasa model yang dititik oleh perbadanan bag-bagian penyediaan pengedaran penggunaan waktu, bahan & raka berak supaya boleh ditambur-cantumkan.
8. Model yang diwarikan adalah hakmilik Perbadanan Putrajaya.

JADUAL PERTAMA

KADAMUKHIDAN PENGAWALAN PERANCANGAN (KAP) (KAWASAN PERBADANAN PUTRAJAYA) 1997

BICRANG A PERMIDHIAN UNTUK KESIHATAN MERAJANG (Kawad 217)

Kawad Perbadanan Putrajaya

Bayaran

(Nama penuh pembayar adalah wajib)

Kawat

No. APN _____ dengan ini membolehkan anda melakukan mesyuarat berbilang
dengan pembayar yang berikut:

- (a) untuk menghadiri mesyuarat perjawatan di atas tanah yang dibayarkan di bawah ini
untuk pengiraan dengan bilangan bilik atau bilik-bilik yang dibayarkan.
- (b) untuk melakukan kerja lain yang dibayarkan di bawah ini mengikut plan yang
dibekalkan.
- (c) untuk menyediakan fasiliti lain yang dibayarkan di bawah ini mengikut plan yang
dibekalkan.
- (d) untuk membuat perantara yang tidak boleh dipisahkan tanah yang dibayarkan di
bawah ini mengikut plan yang dibekalkan.
- (e) untuk membuat pembaikan yang mungkin akan diperlukan daripada di atas tanah
yang dibayarkan di bawah ini mengikut plan yang dibekalkan.
- (f) untuk melakukan pembaikan/ pembaikan ke atas tanah daripada di atas tanah yang
dibayarkan di bawah ini mengikut plan yang dibekalkan.

Penggunaan tanah yang anda ada

Penggunaan bangunan yang anda ada (jika ada) di atas tanah

Kepentingan perkhidmatan atas tanah

Tuan punya perkhidmatan/ perkhidmatan perkhidmatan lain

2. Sewa yang dibekalkan akan kadar 20% kepada KADAMUKHIDAN PENGAWALAN PERANCANGAN (KAP) (Kawad Perbadanan Putrajaya) 1997, syarikat dengan ini membolehkan semua dokumen dan plan yang berkaitan sebagaimana dibekalkan akan melalui 214/10 dan 218/10-AAA.

3. Sewa yang dibekalkan akan kadar 4% kepada KADAMUKHIDAN PENGAWALAN PERANCANGAN (KAP) (Kawad Perbadanan Putrajaya) 1997, apabila semua ini membezakan antara lain _____ (Kawad Putrajaya) _____ sebagaimana yang ditetapkan dalam Jadual Kedua.

Tarikh

(Tandatangan/amplop)

+ Diletakkan tanda dalam kotak yang berkenaan.

+ Peting masa yang tidak berkesan.

PUSAT TAMA

Pendaftaran Peserta:
No. Pendaftaran:
No. Lot:
Jenis Pengiraan:
Masa:

Uraian mengenai peraturan pertandingan
atau peraturan pertandingan lain yang
berkuatkuasa pada tarikh ini.

PENDALAMAN TUAN PUSAT TAMA

Daya:
Nama dan alamat:
Jumlah:
Tarikh:
(Dalam tempoh 30 hari sebelum)

[Tahap Pengiraan]

Uraian mengenai peraturan pertandingan
atau peraturan pertandingan lain yang
berkuatkuasa pada tarikh ini.

DAFTAR NAMA TUAN PUSAT TAMA BERSEKUTUHAN

- (1) Nama, No. Lot, Alamat
(2) Nama, No. Lot, Alamat
(3) Nama, No. Lot, Alamat
(4) Nama, No. Lot, Alamat

* Nota: (1) dan (2) berkuatkuasa dengan undang-undang pertandingan

UNTUK KEDUA-DUA HAJAT SAHAJA

No. pendaftaran pertandingan:
Tarikh pertandingan:
No. Rancangan:
No. Rancangan Tersebut:
Jenis pengiraan dalam Rancangan Tersebut:
Masa pertandingan:
Tarikh pertandingan:

DAFTAR NAMA PERMOKOHAN

Pendaftaran pertandingan dengan ini merupakan perjanjian
antara:
Nama yang No. Pendaftaran:
Nama Mula/Darat:
No. pertandingan pertandingan:
No. pertandingan:

Tarikh: METERA:
Ditutupi dengan:



PB

PERBADANAN PUTRAJAYA**PERMOHONAN KEBENARAN MERANCANG BAGI PENDIRIAN BANGUNAN**
(Seksyen 21(3)Mengenai Perintah Bangunan, Akta Perancangan Bandar dan Desa 1976)

Tajuk Projek :

.....

.....

Tarikh Penerimaan:

SENARAI SEMAKAN PERMOHONAN

	Sila Tandakan (✓)	Untuk Keputusan Pegawai
1. Permohonan hendaklah disertai dengan surat semu (cover letter) kepada Jawatankuasa Bertulis.	<input type="checkbox"/>	<input type="checkbox"/>
2. Terima Borang A (Lajur Pertama Kaedah Kawalan Perancangan Am)	<input type="checkbox"/>	<input type="checkbox"/>
3. Satu (1) salinan surat hak milik.	<input type="checkbox"/>	<input type="checkbox"/>
4. Satu (1) salinan surat pertanjaran perunding.	<input type="checkbox"/>	<input type="checkbox"/>
5. Satu (1) salinan plan syarikat perunding.	<input type="checkbox"/>	<input type="checkbox"/>
6. Satu (1) salinan Surat Keputusan Kebenaran Merancang untuk Pelan Susun Atur.	<input type="checkbox"/>	<input type="checkbox"/>
7. Mengemukakan (satu/suatu) salinan Pelan-pelan berikut-	<input type="checkbox"/>	<input type="checkbox"/>

(Pelan-pelan yang dikemukakan hendaklah berdasarkan kepada format seperti berikut)

- Konsep pelan kejurul Pelan-pelan Bangunan hendaklah bersepadu kepada Pelan Pa-Miliran (site comp plan) yang mengandungi faedah koordinat, arah, bearing dan menunjukkan luas tapak.
- Medan tapak (7) salinan kertas dan satu (1) salinan lain.
- Satu Pelan : A7
- Pelan-pelan tersebut hendaklah ditandatangani oleh ahli profesional yang berkecuali.
- Pelan-pelan tersebut hendaklah dibenarkan dan dipin bersemasa.

l) Lukisan perspektif seperti di para 7.2.3 (Berasas A3) perlu ditampal di atas kertas berasas A1 bersama tapak projek sebagai kuit luar plan-pelan/lebaran yang dipin bersama.)

7.1	PELAN TAPAK (Pelan-pelan perlu ditandakan oleh Jurutera/Bertauliah)	<input type="checkbox"/>	<input type="checkbox"/>
7.1.1	Pelan Tapak Pelan tapak perlu mengandungi pelan kasar, pelan lokasi dan pelan tapak cadangan pembangunan. Maklumat ringkas cadangan pembangunan perlu dicatatkan dalam bentuk jadual di Pelan Tapak	<input type="checkbox"/>	<input type="checkbox"/>
7.1.2	Jadual Maklumat Cadangan Pembangunan (Borang Maklumat Cadangan Pembangunan)	<input type="checkbox"/>	<input type="checkbox"/>
7.2	PELAN BANGUNAN (Pelan-pelan perlu ditandakan oleh Arkitek/Bertauliah)	<input type="checkbox"/>	<input type="checkbox"/>
7.2.1	Pelan Lantai	<input type="checkbox"/>	<input type="checkbox"/>
7.2.2	Pelan Sambung	<input type="checkbox"/>	<input type="checkbox"/>
7.2.3	Pandangan Sisi (sekurang-kurangnya 4 pandangan sisi)	<input type="checkbox"/>	<input type="checkbox"/>
7.2.4	Kemalaran Rentas (sekurang-kurangnya 2 kemalaran rentas)	<input type="checkbox"/>	<input type="checkbox"/>
7.2.5	Lukisan Perspektif (Bird's Eye View) Siz Lukisan Perspektif A3. Lukisan perspektif perlu ditampal mengikut saiz warna yang dicadangkan dan selaras dengan Pelan Tapak, Pelan Bangunan dan Pelan Lantai.	<input type="checkbox"/>	<input type="checkbox"/>
7.2.6	Lukisan Perspektif sudut tinggi bahagian bersempun yang menarik (sekurang-kurangnya 2)	<input type="checkbox"/>	<input type="checkbox"/>
7.3	PELAN KERJA TANAH (Pelan perlu ditandakan oleh Jurutera/Bertauliah) Yang mengandungi perkara-perkara berikut:	<input type="checkbox"/>	<input type="checkbox"/>
a.	Kontor beda ada	<input type="checkbox"/>	<input type="checkbox"/>
b.	Cadangan awal penanaman dan perantaraan	<input type="checkbox"/>	<input type="checkbox"/>
c.	Arahan Mukamat	<input type="checkbox"/>	<input type="checkbox"/>
d.	Genar Mukamat	<input type="checkbox"/>	<input type="checkbox"/>
e.	Koridor Cadangan	<input type="checkbox"/>	<input type="checkbox"/>
f.	Punca Tanah Perantaraan	<input type="checkbox"/>	<input type="checkbox"/>
g.	Kondisi tapak dan aras	<input type="checkbox"/>	<input type="checkbox"/>
7.4	PELAN-PELAN TAPAK INFRASTRUKTUR DAN UTILITI (Pelan-pelan perlu ditandakan oleh Jurutera/Bertauliah)	<input type="checkbox"/>	<input type="checkbox"/>
7.4.1	Pelan Jalan dan Perparkiran	<input type="checkbox"/>	<input type="checkbox"/>
7.4.2	Pelan Pembekalan	<input type="checkbox"/>	<input type="checkbox"/>

7.4.3	Pelan Bekalan Air	<input type="checkbox"/>	<input type="checkbox"/>
7.4.4	Pelan Bekalan Elektrik	<input type="checkbox"/>	<input type="checkbox"/>
7.4.5	Pelan Telekomunikasi	<input type="checkbox"/>	<input type="checkbox"/>
7.4.6	Pelan Bekalan Gas	<input type="checkbox"/>	<input type="checkbox"/>
7.4.7	Pelan Gas District Cooling (GDC)	<input type="checkbox"/>	<input type="checkbox"/>
7.5	PELAN LANDSKAP (Pelan-pelan perlu diwujudkan oleh Agensi Landskap Bersekutu)	<input type="checkbox"/>	<input type="checkbox"/>
7.5.1	Pelan Induk Lanskap yang mengandungi perkara-perkara berikut	<input type="checkbox"/>	<input type="checkbox"/>
	a) Senarai Tanaman	<input type="checkbox"/>	<input type="checkbox"/>
	b) Landskap Faisr <ul style="list-style-type: none"> • Penutup Kelengkapan Jalan • Kemudahan Rekreasi • Landskap Berseki Air • Sistem Saliran Pajalor Kuli/Besok 	<input type="checkbox"/>	<input type="checkbox"/>
	c) Landskap Pencapaian	<input type="checkbox"/>	<input type="checkbox"/>
	d) Pengajaran	<input type="checkbox"/>	<input type="checkbox"/>
	e) Jadual Pelan Induk Landskap (perkara a-d)	<input type="checkbox"/>	<input type="checkbox"/>
7.5.2	Foto, imej dan Lakaran setiap komponen/element landskap	<input type="checkbox"/>	<input type="checkbox"/>
7.5.3	Dua (2) Ketatan Rantan keseluruhan tapak pembangunan	<input type="checkbox"/>	<input type="checkbox"/>
7.5.4	Pelan Atas / Tampek Sisi / Hadapan setiap Komponen / element landskap	<input type="checkbox"/>	<input type="checkbox"/>
8.0	Mengemukakan lima belas (15) salinan Ringkasan Laporan Cadingan Persejuaan. (Kandungan serta format laporan yang diwujudkan hendaklah mengikut format Senarai Senarai PBT)	<input type="checkbox"/>	<input type="checkbox"/>
9.0	Surat-surat selayan beserta pelan-pelan pergesahan agensi/organisasi utiliti berkaitan :-		
9.1	Bekalan Air (Jabatan Bekalan Air Selangor)	<input type="checkbox"/>	<input type="checkbox"/>
9.2	Telekomunikasi (Telekom Malaysia Berhad)	<input type="checkbox"/>	<input type="checkbox"/>
9.3	District Water (GDC) – PT, PG, PS, PN, PS, PF & PE (SUA Commercial Centre)	<input type="checkbox"/>	<input type="checkbox"/>
9.4	Sisa Pepejal (Aman Flora Sdn. Bhd.)	<input type="checkbox"/>	<input type="checkbox"/>
9.5	Pemborongan (Jabatan Perkhidmatan Pembentangan/ Pembinaan Jayu Bumi Sdn. Bhd.)	<input type="checkbox"/>	<input type="checkbox"/>
9.6	Bekalan Gas (Gas Malaysia)	<input type="checkbox"/>	<input type="checkbox"/>
9.8	Bekalan Elektrik (Tenaga Nasional Berhad)	<input type="checkbox"/>	<input type="checkbox"/>
9.9	Bomba (Jabatan Bomba, Ibu Pejabat)	<input type="checkbox"/>	<input type="checkbox"/>

- 10.0. Satu (1) salinan Pelan Tapak dan satu salinan lukisan perspektif (bird's eye view) yang di terpasang di atas 'mounting Board' berukuran A1.
- 11.0. Model cadangan pembangunan, sila kemukakan salah satu dari berikut
- 11.1. Model bangunan mengikut format berikut:
- Mengikut skema warna yang dicadangkan dan hendaklah selaras dengan Pelan Tapak, Pelan Servis dan Pelan Lantai.
 - Bersaiz 1:500 atau saiz lain yang dicadangkan oleh Perbadanan Putrajaya bersama layout projek, bar saiz, arah utara dan arah aliran.
 - Hendaklah disertakan kuki (2 kuki) Eimo (Inggi) dan bertukar dengan perspek jernih.
- 11.2. Model berkomputer (3D simulation ataupun virtual reality)
- 12.0. Format digital: plan, plot, lukisan, perspektif dan rangkaian lapisan cadangan perumahan.
- 12.1. Satu (1) salinan zebra-plan lukisan (ACAD r13/14) seperti di para 7.0
- 12.2. Satu (1) salinan Lapisan Cadangan Pembangunan seperti di para 9.0
- 12.3. Satu (1) salinan lukisan perspektif seperti di para 10.0
- 12.4. Satu (1) salinan model cadangan pembangunan seperti di para 11.0
- Format digital tersebut hendaklah dikemukakan dengan media CD.

Nota:

Perkara 7 hingga 7

Keperluan seperti dokumen, plan, laporan dan lukisan perlu dikemukakan sewaktu mengemukakan permohonan perancangan.

Perkara 9, 9 & 11

Keperluan di para tersebut selow-lewsthrs tiga hari sebelum tarikh mesyuarat JKPP.

Perkara 10

Keperluan di para tersebut semasa mesyuarat JKPP.

Perkara 12

Digital Format untuk kesemua plan, perspektif dan laporan pembangunan perlu dikemukakan sebelum Senat Keluasan Kementerian Merancang Bagi Penerimaan dilaksanakan.

**PB1****PERBADANAN PUTRAJAYA**

PERMOHONAN KEBENARAN BERANCANG BADI PENDIRIAN BANGUNAN
 (Sekyen 21(3)Mengenai Pendirian Bangunan, Akta Perancangan Bandar dan Desa 1976)

Tajuk Projek :

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Tarikh Perimaran

SENARAI SEMAKAN PERMOHONAN**HANDIKAP BERIKUTAN LAPORAN CADANGAN PEMALUKAN**

Laporan Ringkasan Cadangan Pembangunan hendaklah dibekalkan sebanyak lima baki (5) salinan dan mengikut format berikut

- Salin Laporan A3
- Salin Pelan A3 dan perlu diemakam
- Pengesahan Profesional: Disahkan oleh ahli profesional berkaitan
- Kandungan setiap perkara perlu menerangkan dengan jelas mengenai pematuhan dengan kehendak Garis Panduan Reka Bentuk Bandar

	Sila Tandakan (✓)	Untuk Keputusan Rajabat
1. CADANGAN PEMBANGUNAN (perlu disahkan oleh Arancang Berkeahlian)	<input type="checkbox"/>	<input type="checkbox"/>
1.1. Matlamat dan Objektif	<input type="checkbox"/>	<input type="checkbox"/>
1.2. Petak & Analisis Tapak	<input type="checkbox"/>	<input type="checkbox"/>
1.2.1. Petak Kuar	<input type="checkbox"/>	<input type="checkbox"/>
1.2.2. Petak Lokal	<input type="checkbox"/>	<input type="checkbox"/>
1.2.3. Analisis tapak	<input type="checkbox"/>	<input type="checkbox"/>
1.3. Konsep Cadangan Pembangunan	<input type="checkbox"/>	<input type="checkbox"/>
1.3.1. Petak Konsep Cadangan Pembangunan	<input type="checkbox"/>	<input type="checkbox"/>
1.4. Isu-isu Pembangunan	<input type="checkbox"/>	<input type="checkbox"/>
1.5. Cadangan Pelan Pembangunan (Pelan Tapak yang menunjukkan perkara seperti Senarai Semakan PB para 7.1.1)	<input type="checkbox"/>	<input type="checkbox"/>

1.6	Jadwal material Cadangan Pembangunan (barang material Cadangan Pembangunan) Materi dan Anggaran Proyek (tabel bentuk jadwal/pertandingan) dengan memuat kebutuhan-kebutuhan Genset Pabrik Reaktor dan Bandar Puluaya (UDG) dan Pelan Susun Air project berkenaan.	<input type="checkbox"/>	<input type="checkbox"/>
1.7	Jadwal dan Program Implementasi serta Skop Kerja	<input type="checkbox"/>	<input type="checkbox"/>
2.	PELAN BANGUNAN (perlu disahkan oleh Arsitek Bertanggungjawab)	<input type="checkbox"/>	<input type="checkbox"/>
2.1	Materi dan Objektif	<input type="checkbox"/>	<input type="checkbox"/>
2.2	Konsep Garis-bina	<input type="checkbox"/>	<input type="checkbox"/>
2.3	Isu-isu Pembangunan	<input type="checkbox"/>	<input type="checkbox"/>
2.4	Pelan-pelan dan Lukisan Bangunan	<input type="checkbox"/>	<input type="checkbox"/>
2.4.1	Pelan Lantai	<input type="checkbox"/>	<input type="checkbox"/>
2.4.2	Pelan Bangun	<input type="checkbox"/>	<input type="checkbox"/>
2.4.3	Pandangan Sisi	<input type="checkbox"/>	<input type="checkbox"/>
2.4.4	Keratan Rombak	<input type="checkbox"/>	<input type="checkbox"/>
2.4.5	Lukisan Perspektif (Bird's Eye View)	<input type="checkbox"/>	<input type="checkbox"/>
	Soal Lukisan Perspektif A3. Lukisan perspektif penamat mengikut skem warna yang dicadangkan dan selaras dengan Pelan Tapak, Pelan Bangunan dan Pelan Lantai.		
2.4.6	Lukisan Perspektif sudut bagi bahagian bangunan yang menarik/kekang-kurangannya.]	<input type="checkbox"/>	<input type="checkbox"/>
2.5	Jadwal dan Program Implementasi serta Skop Kerja	<input type="checkbox"/>	<input type="checkbox"/>
3.	PELAN KERJA TANAH (Pelan perlu disahkan oleh Jurutera Bertanggungjawab)	<input type="checkbox"/>	<input type="checkbox"/>
3.1	Laporan Kerja Tanah bagi perkara seperti Senara Gambaran PSL para 7.2	<input type="checkbox"/>	<input type="checkbox"/>
3.2	Jadwal dan Program Implementasi serta Skop Kerja	<input type="checkbox"/>	<input type="checkbox"/>
4.	CADANGAN INFRASTRUKTUR & UTILITI (perlu disahkan oleh Jurutera Bertanggungjawab)	<input type="checkbox"/>	<input type="checkbox"/>
4.1	Laporan cadangan penyediaan infrastruktur dan utiliti	<input type="checkbox"/>	<input type="checkbox"/>
4.2	Pelan-pelan tapak infrastruktur dan utiliti	<input type="checkbox"/>	<input type="checkbox"/>
4.2.1	Pelan Jalan dan Perempatan	<input type="checkbox"/>	<input type="checkbox"/>
4.2.2	Pelan Pembekalan	<input type="checkbox"/>	<input type="checkbox"/>
4.2.3	Pelan Bekalan Air	<input type="checkbox"/>	<input type="checkbox"/>
4.2.4	Pelan Bekalan Elektrik	<input type="checkbox"/>	<input type="checkbox"/>

	4.2.5	Plan Telekomunikasi	<input type="checkbox"/>	<input type="checkbox"/>
	4.2.6	Plan Bekalan Gas	<input type="checkbox"/>	<input type="checkbox"/>
	4.2.7	Plan Gas District Cooling (GDC)	<input type="checkbox"/>	<input type="checkbox"/>
	4.3	Jadual dan Program Implementasi serta Skop Kerja	<input type="checkbox"/>	<input type="checkbox"/>
B	CADANGAN LANDSKAP (perlu disahkan oleh AWK/ek Landskap Bertauliah)		<input type="checkbox"/>	<input type="checkbox"/>
	5.1	Hisari Kawasan Lipang	<input type="checkbox"/>	<input type="checkbox"/>
	5.2	Kategori Landskap	<input type="checkbox"/>	<input type="checkbox"/>
	5.3	Materai dan Objektif	<input type="checkbox"/>	<input type="checkbox"/>
	5.4	Konsep Senarai Landskap	<input type="checkbox"/>	<input type="checkbox"/>
	5.5	Isu-isu Pertimbangan	<input type="checkbox"/>	<input type="checkbox"/>
	5.6	Jadual dan Program Implementasi serta Skop Kerja	<input type="checkbox"/>	<input type="checkbox"/>
	5.7	Jadual dan Program Penjawar dan Penyelenggaraan Landskap serta Skop Kerja	<input type="checkbox"/>	<input type="checkbox"/>
	5.8	Strategi Implementasi (Pungutan Kiriak, Spesifikasi Kerja dan Bilang Tugan)	<input type="checkbox"/>	<input type="checkbox"/>
	5.9	Implikasi Kos	<input type="checkbox"/>	<input type="checkbox"/>
	5.10	Plan induk Landskap yang mengandungi perkara seperti Senara Semakan PB, para 7.5.1	<input type="checkbox"/>	<input type="checkbox"/>
	5.11	Lukisan/kenanlakan yang mengandungi perkara seperti Senara Semakan PB, para 7.5.2 hingga 7.5.4	<input type="checkbox"/>	<input type="checkbox"/>
C	PENGURUSAN ALAM SEKITAR (perlu disahkan oleh Perunding Alam Sekitar Bertauliah)		<input type="checkbox"/>	<input type="checkbox"/>
	6.1	Kenyataan mengenai pengurusan alam sekitar yang mengandungi perkara-perkara berikut	<input type="checkbox"/>	<input type="checkbox"/>
	6.1.1	Merangka syarat kelulusan Kajian Perlesenan Kawasan Alam Sekitar (EA) Puraaya dan Plan Pengurusan Alam Sekitar ("Environmental Management Plan") seperti yang terkandung di dalam Laporan Cadangan Pemuaian (LOP) serta sara-sara Pertambahan Puraaya bagi Perlesenan Kiboraran Merancang untuk Sasuarat dipatui di setiap peringkat pembangunan.	<input type="checkbox"/>	<input type="checkbox"/>



PBS

PERBADANAN PUTRAJAYA

PERMOHONAN KEBENARAN MERANCANG BAGI PENDIRIAN BANGUNAN SEMENTARA
(Sekalyn 21(2)Menggaisal Pendirian Bangunan, Akta Perancangan Bandar dan Desa 1976)

Tajuk Projek :

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Tarikh Penerimaan

SENARAI SEMAKAN PERMOHONAN

		Dile Tandukan (✓)	Untuk Keputusan Pegawai
1.	Permohonan hendaklah disertakan dengan surat rasmi (cover letter)	<input type="checkbox"/>	<input type="checkbox"/>
2.	Mengemukakan Borang A/Cadast Pertama Kawalan Kawasan Perancangan (A)	<input type="checkbox"/>	<input type="checkbox"/>
3.	Mengemukakan satu (1) salinan suratlah hak milik.	<input type="checkbox"/>	<input type="checkbox"/>
4.	Mengemukakan satu (1) salinan Surat Kelulusan Kebenaran Merancang Pelan Sahan Atar (jika berkaitan).	<input type="checkbox"/>	<input type="checkbox"/>
5.	Mengemukakan 5 salinan plan-plan berikut: (Pelan-plan yang dikemukakan hendaklah bertepatan kepada format seperti berikut:	<input type="checkbox"/>	<input type="checkbox"/>
	1. Kiasanuar plan hendaklah berzsanatur kepada Pelan Pro -Mungan (pre-comp plan) yang mengpendung bucaan koordinat, jawk, bearing dan area kakuam.		
	2. Modis: empat(4) salinan kertas dan satu (1) salinan linen.		
	3. Saiz Pelan: A1		
	4. Pelan-pelan/kuam hendaklah disahkan oleh ahli profesional yang berkaitan.		
	5. Pelan-pelan/kuam hendaklah diwarakan dan dijilid bersama.		
	6. Luakan peritakif seperti di para 5.2.5 (bersalz A2) perlu diiluat di atas kertas bersalz A1 bersalz tajuk projek sebagai rull sur pelan-pelan/kuam yang dijilid bersama.)		

5.1	PELAN TAPAK/PELAN SUSUN ATUR (Pelan pelan perlu disahkan oleh Jurancang Bertauliah jika berkenaan)	<input type="checkbox"/>	<input type="checkbox"/>
5.1.1	Pelan Tapak Pelan tapak perlu mengandungi pelan lantai, pelan ekwai, garis kitaran suapan dan pelan tapak cadangan pembangunan.	<input type="checkbox"/>	<input type="checkbox"/>
5.1.2	Judul Maklumat Pembangunan (Maklumat Ringkasan Projek dalam bentuk judul perancangan) dengan memulau kehendak-kehendak Gens Perlesenan Rehatan/ku Bandar Putrajaya (LOD) dan Pelan Susun Atur presond berkenaan yang telah dituluskan yang menangkapi perkara-perkara berikut: a) Reklaman Tapak / Salar Plot b) Reklaman Lantai Keras (GFA) dan ketinggian c) Kawasan Plinth d) Nisbah Plot e) Bilangan Tempat Meletak Kenderaan f) Kertaulahan-kemudahan yang dituluskan	<input type="checkbox"/>	<input type="checkbox"/>
5.2	PELAN BANGUNAN (Pelan pelan perlu disahkan oleh Arkitek Bertauliah)	<input type="checkbox"/>	<input type="checkbox"/>
5.2.1	Pelan Lantai	<input type="checkbox"/>	<input type="checkbox"/>
5.2.2	Pelan Bangun	<input type="checkbox"/>	<input type="checkbox"/>
5.2.3	Pandangan Sisi (sekurang-kurangnya 4 pandangan sisi)	<input type="checkbox"/>	<input type="checkbox"/>
5.2.4	Keratan Rentas (sekurang-kurangnya 2 keratan rentas)	<input type="checkbox"/>	<input type="checkbox"/>
5.2.5	Lukisan Persekitar(Bird's Eye View)	<input type="checkbox"/>	<input type="checkbox"/>
5.3	PELAN-PELAN INFRASTRUKTUR DAN UTILITI (Pelan-pelan perlu disahkan oleh Jurang Bertauliah)	<input type="checkbox"/>	<input type="checkbox"/>
5.4.1	Pelan Jalan dan Persekitaran	<input type="checkbox"/>	<input type="checkbox"/>
5.4.2	Pelan Pembekalan	<input type="checkbox"/>	<input type="checkbox"/>
5.4.3	Pelan Bekalan Air	<input type="checkbox"/>	<input type="checkbox"/>
5.4.4	Pelan Bekalan Elektrik	<input type="checkbox"/>	<input type="checkbox"/>
5.4.5	Pelan Telekomunikasi	<input type="checkbox"/>	<input type="checkbox"/>
5.4.6	Pelan Pembuangan Gas Pelepas	<input type="checkbox"/>	<input type="checkbox"/>
5.4	PELAN KERJA TANAH (sekiranya berkenaan) (Pelan perlu disahkan oleh Jurang Bertauliah)	<input type="checkbox"/>	<input type="checkbox"/>
5.5	PELAN INDIK LANDSKAP (Pelan-pelan perlu disahkan oleh Arkitek Landskap Bertauliah)	<input type="checkbox"/>	<input type="checkbox"/>
5.5.1	Cadangan pokok-pokok sedia ada	<input type="checkbox"/>	<input type="checkbox"/>
5.5.2	Cadangan jenis tanaman dan bahan binaan untuk tereskap kerusi	<input type="checkbox"/>	<input type="checkbox"/>

5.3.3 Rancangan

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5.3.4 Perencanaan

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6. Mengemukakan lima butir (5) salinan Laporan Ringkas Cadangan Pemajuan (jika berkaitan).

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Laporan tersebut perlu dikemukakan selawa-kuatnya tiga hari sebelum tarikh mesyuarat JKPP.

(Laporan yang dikemukakan hendaklah mengikut format berikut.)

- Salir Laporan: A3 dan dijilat
- Salir Pelat: A3 dan perlu diwarnakan
- Pengesahan Profesi/ah. Pelat-pelat hendaklah dibedakan dan dititikan oleh profesional berkaitan yang bertandatangan.

6.1 Lantikan perspektif cadangan pembangunan keseluruhan (bird's eye view)

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6.2 Pelat Kano dan pelat lokasi

--	--

6.3 Pelat tapak / pelat susunatar

--	--

6.4 Pelat bangunan

--	--

6.5 Pelat-pelat infrastruktur dan utiliti

--	--

6.6 Laporan Pelat Intak, senbikap dan Penyelenggaraan

--	--

6.7 Laporan pemotihan kehendak alam sekitar

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7. Mengemukakan satu (1) salinan Pelat Tapak dan satu(1) salinan lukisan perspektif bangunan (bird's eye view) yang ditampal di atas 'mounting board' berukuran A1 untuk dibawa di Mesyuarat JKPP.

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8. Mengemukakan satu (1) salinan format digital pelat-pelat, lukisan, perspektif dan laporan cadangan pembangunan. Format digital dan perlu dikemukakan sebelum Surai Kekayaan Kebenaran Merancang Bagi Persekitaran Bangunan Sementara dikeluarkan.

8.1 Pelat-pelat lukisan (ACAD/H3/14) seperti di para 6.0

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8.2 Laporan Cadangan Pemajuan seperti di para 6.0.

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8.3 Lukisan perspektif seperti di para 6.

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APPENDIX 7 RECOMMENDED EMP FORMAT

1. INTRODUCTION

- 1.1 Project Description
- 1.2 Existing Environment that may be affected
- 1.3 Environmental Consultant

2. CONDITIONS OF LAYOUT PLAN APPROVAL (IF APPLICABLE)

- 2.1 List of Conditions of Approval

3. ENVIRONMENTAL PLANNING

- 3.1 List of Projects covered by this EMP (applicable to layout plan)
- 3.2 Project Components (based on contract work packages)
- 3.3 Environmental Planning Compliance Tables (see Table A7.1)

4. ENVIRONMENTAL MANAGEMENT - CONSTRUCTION STAGE

- 4.1 Environmental Pollution Control Tables - Construction Stage (see Table A7.2)
- 4.2 List of likely emergencies (for each project component)

5. ENVIRONMENTAL MANAGEMENT - OPERATION STAGE

- 5.1 Environmental Pollution Control Tables - Operation Stage (similar to Table A7.2)
- 5.2 List of likely emergencies (for each project component)

6. ENVIRONMENTAL MONITORING AND AUDIT

- 6.1 Monitoring Programs
 - 6.1.1 Water Quality (if applicable)
 - 6.1.2 Air Quality (if applicable)
 - 6.1.3 Noise Levels (if applicable)
- 6.2 Audit Checklists
- 6.3 Audit Compliance Tables (see Table A7.3)

7. ROLES AND RESPONSIBILITIES

- 7.1 Organisation Chart
- 7.2 Project Proponent
- 7.3 Contractor

8. LIST OF APPENDICES

- 8.1 CV of Environmental Consultant
- 8.2 Environmental Planning Compliance Details
- 8.3 Environmental Pollution Control Details - Construction Stage
- 8.4 Environmental Pollution Control Details - Operation Stage
- 8.5 Monitoring Location Plan
- 8.6 Audit Compliance Details

TABLE A7.1 TYPICAL ENVIRONMENTAL PLANNING COMPLIANCE TABLE
(FOR EACH PROJECT COMPONENT)

ENVIRONMENTAL CONCERNS	COMPLIANCE REFERENCE	PLANNING DESIGN COMPLIANCE
A. IMPACT ON PHYSICAL ENVIRONMENT 1. Land Structure (a) (b) 2. Topography (a) (b) 3. Natural streams/ground water (a) 4. Flora (a) (b) 5. Fauna (a)		
B. IMPACT ON AIR QUALITY 1. 2. 3.		
C. IMPACT ON WATER QUALITY 1. 2.		

TABLE A7.2 TYPICAL ENVIRONMENTAL POLLUTION CONTROL TABLE
(FOR EACH PROJECT COMPONENT)

PROJECT ACTIVITIES	COMPLIANCE REFERENCE	CONTROL MEASURES
1. Earthworks (a) (b)		
2. Erosion, sedimentation and flood (a) (b)		
3. Water pollution (a) (b)		
4. Air pollution (a) (b)		
5. Noise pollution (a)		
6. Liquid waste (non-scheduled) (a)		
7. Solid wastes (non-scheduled) (a)		
8. Scheduled wastes (a)		
9. Appliances (a)		
10. Health (a)		

TABLE A7.3 TYPICAL ENVIRONMENTAL AUDIT TABLE
(FOR EACH PROJECT COMPONENT)

AUDIT ITEMS	COMPLIANCE REFERENCE	COMPLIANCE REQUIREMENTS
<p>A. CONSTRUCTION STAGE</p> <p>1. Environmental Management System (a) (b)</p> <p>2. Erosion, Sediment, and Flood Control (a) (b)</p> <p>3. Traffic Control (a) (b)</p> <p>4. Waste Management (a) (b)</p> <p>5. Site House-keeping (a)</p> <p>6. Water Quality Control (a) (b)</p> <p>7. Air Quality Control (a) (b)</p> <p>8. Noise Levels Control (a)</p>		

TABLE A7.3. TYPICAL ENVIRONMENTAL AUDIT TABLE (cont'd)
 (FOR EACH PROJECT COMPONENT)

AUDIT ITEMS	COMPLIANCE REFERENCE	COMPLIANCE REQUIREMENTS
B. OPERATIONS STAGE		
1. Environmental Management System (a) (b)		
2. Waste Management (a) (b)		
3. Waste Quality (a) (b)		
4. Air Quality (a) (b)		
5. Noise Levels (a) (b)		

APPENDIX 8 RECOMMENDED EMR FORMAT

1. INTRODUCTION

- 1.1 Project Description
- 1.2 Existing Environment that may be affected

2. CONDITIONS OF LAYOUT PLAN APPROVAL

- 2.1 List of Conditions of Approval

3. ENVIRONMENTAL PLANNING

- 3.1 Project Components (based on contract work packages)
- 3.2 Environmental Planning Compliance Tables (see Table A7.1)

4. ENVIRONMENTAL MANAGEMENT - CONSTRUCTION STAGE

- 4.1 Environmental Pollution Control Table - Construction Stage (see Table A7.2)
- 4.2 List of likely emergencies (for each project component)

5. ENVIRONMENTAL MANAGEMENT - OPERATION STAGE

- 5.1 Environmental Pollution Control Table - Operation Stage (similar to Table A7.2)
- 5.2 List of likely emergencies (for each project component)

6. ENVIRONMENTAL MONITORING AND AUDIT

- 6.1 Monitoring Programs
 - 6.1.1 Water Quality (if applicable)
 - 6.1.2 Air Quality (if applicable)
 - 6.1.3 Noise Levels (if applicable)
- 6.2 Audit Checklist
- 6.3 Audit Compliance Table (see Table A7.3)

7. LIST OF APPENDICES

- 7.1 Environmental Planning Compliance Details
- 7.2 Environmental Pollution Control Details - Construction Stage
- 7.3 Environmental Pollution Control Details - Operation Stage
- 7.4 Monitoring Location Plan
- 7.5 Audit Compliance Details

APPENDIX 9 RECOMMENDED EMCP FORMAT

1. INTRODUCTION

- 1.1 Environmental Project Manager/Officer
- 1.2 Project Description
- 1.3 Construction Programme

2. COMPLIANCE REQUIREMENTS

- 2.1 List of Environmental Compliance Requirements
- 2.2 Environmental Pollution Control Table for the Project

3. POLLUTION CONTROL

- 3.1 Title of each Specific Implementation Procedure
- 3.2 _____

4. EMERGENCY PREPAREDNESS AND RESPONSE

- 4.1 List of Likely Emergencies
- 4.2 Title of each Specific Emergency Procedure
- 4.3 _____

5. MONITORING AND AUDIT

- 5.1 Monitoring Programs
 - 5.1.1 Water Quality (if applicable)
 - 5.1.2 Air Quality (if applicable)
 - 5.1.3 Noise Levels (if applicable)
- 5.2 Audit Checklist for the Project
- 5.3 Audit Compliance Table for the Project
- 5.4 Title of each Specific Audit Requirement
- 5.5 _____

6. REPORTING

- 6.1 External Reports
- 6.2 Internal Reports

7. RECORDS

- 7.1 Records Management System

8. ROLES AND RESPONSIBILITIES

- 8.1 Organisation Chart
- 8.2 Project Manager

- 8.3 Environmental Project Manager/Officer
- 8.4 Other Supervisory Staff

9. LIST OF APPENDICES

- 9.1 Site and Location Plan
- 9.2 Construction Programme
- 9.3 Monitoring Location Plan

APPENDIX 10 - Environmental Audit Checklist

(To be prepared for each project component)

1. CONSTRUCTION STAGE

SUBJECT	Mark ✓ where applicable
1.0 Environmental Management System (EMS)	
1.1 Changes in the EMS	
1.2 Effective discharge of environmental monitoring responsibilities	
1.3 Compliance with reporting requirements	
1.4 Compliance with record-keeping requirements	
2.0 Erosion, Sediment and Flood Control	
2.1 Silt traps maintenance	
2.2 Silt fence maintenance	
2.3 Detention ponds maintenance	
2.4 Catch drains maintenance	
2.5 Earth bank maintenance	
2.6 Slope protection	
2.7 Open area protection	
3.0 Traffic Control	
3.1 Traffic management system	
3.2 Conditions of roads leading to EOP	
3.3 Conditions of roads leading out of site	
3.4 Vehicle maintenance - noise and air pollution control	
3.5 Vehicle operations - wheel cleaning, effective cover and proper operations	
3.6 Wash trough maintenance	
4.0 Waste Management	
4.1 Business management system	
4.2 Builders waste management system	
4.3 Domestic waste management system	
4.4 Scheduled (toxic) waste management system	
4.5 Site toker waste management system	
4.6 Effluent waste management system	
5.0 Site house-keeping	
5.1 Earth stockpile	
5.2 Liquids stockpile	
5.3 Building materials stockpile	
5.4 Canteen/Site Office	
5.5 Working area	

Continued...

Continued...

SUBJECT		Mark ✓ where applicable
6.0	Water Quality Control	
6.1	Silt trap discharge	
7.0	Air Quality Control	
7.1	Vehicle emission	
7.2	Machinery emission	
8.0	Noise Levels Control	
8.1	Vehicle noise	
8.2	Machinery noise	
8.3	Human activities noise	

II. OPERATION STAGE

SUBJECT		Mark ✓ where applicable
1.0	Environmental Management System (EMS)	
1.1	Changes in the EMS	
1.2	Effective discharge of environmental monitoring responsibilities	
1.3	Compliance with reporting requirements	
1.4	Compliance with record-keeping requirements	
2.0	Waste Management	
2.1	Biomass management system	
2.2	Solid waste management system	
2.3	Scheduled (hazardous) waste management system	
2.4	Effluent waste management system	
3.0	Water Quality	
3.1	Effluent discharge	
4.0	Air Quality	
4.1	Vehicle emission	
4.2	Machinery emission	
5.0	Noise Levels	
5.1	Vehicle noise	
5.2	Machinery noise	
5.3	Human activities noise	

APPENDIX 11 - Recommended EMAR Format

Project Proposal	
Project Name	
Project Location (Project No.)	
Project Contractor	
Report No (Month/Year Serial No) e.g. 1/06.1	
Audit Date/Time e.g. 18.5.06 10 am	
Weather Condition	
Submitted by (Name of officer)	

I. Compliance Audit Checklist

SUBJECT	Please mark ✓			Not Relevant
	Comply	Not Comply		
		Minor	Major	
1.0 Environmental Management System (EMS)				
1.1 Changes in the EMS				
1.2 Effective discharge of environmental monitoring responsibilities				
1.3 Compliance with reporting requirements				
1.4 Compliance with record-keeping requirements				
2.0 Erosion, Sediment and Flood Control				
2.1 Silt traps maintenance				
2.2 Silt fence maintenance				
2.3 Detention ponds maintenance				
2.4 Catch drains maintenance				
2.5 Earth bank maintenance				
2.6 Slope protection				
2.7 Open area protection				

Continued

SUBJECT	Please mark ✓			
	Comply	Not Comply		Not Relevant
		Minor	Major	
3.0 Traffic Control				
3.1 Traffic management system				
3.2 Conditions of roads leading to site				
3.3 Conditions of roads leading out of site				
3.4 Vehicle maintenance - noise and air pollution control				
3.5 Vehicle operations - wheel cleaning, effective cover and proper operation				
3.6 Wash trough maintenance				
4.0 Waste Management				
4.1 Business management system				
4.2 Builders waste management system				
4.3 Domestic waste management system				
4.4 Scheduled (hazard) waste management system				
4.5 Site inlet waste management system				
4.6 Effluent waste management system				
5.0 Site house-keeping				
5.1 Earth stockpile				
5.2 Liquid stockpile				
5.3 Building materials stockpile				
5.4 Canteen/site office				
5.5 Working area				
6.0 Water Quality Control				
6.1 Silt trap discharge				
7.0 Air Quality Control				
7.1 Vehicle emission				
7.2 Machinery emission				
8.0 Noise Level Control				
8.1 Vehicle noise				
8.2 Machinery noise				
8.3 Human activities noise				

II. Monitoring Results and Copies of Documents/Records

1. Monitoring Results

- (a) Water Quality
- (b) Air Quality
- (c) Noise Levels

2. Copies of Documents/Records

- (a) Changes in EMS. If there are changes, the appropriate revised documents should be submitted.
- (b) Copies of receipts (such as waste disposal receipts, etc) and self-audit checklists pertinent to the items in the compliance audit checklist.

3. Photo Records

Provide 6 selected colour photos (2 photos per A4 page), with appropriate captions. The photos should indicate the site conditions for selected items in the compliance audit checklist.

III. Non-Compliance Reports (NCR)

1. List of Non-Compliance Reports

For every non-compliance indicated in the checklist above a non-compliance report has to be prepared. A list of the non-compliance for the current audit and a chronological list of previous non-compliance should be prepared as indicated below.

No.	Audit Item	NCR No.	Date issued
CURRENT			
1.	Silt traps maintenance	NCR 1/98-5(17)	18.5.98
5.	Machinery Noise	NCR 5/98-5(21)	18.5.98
PREVIOUS			
1.	Record Keeping compliance	NCR 2/98-2(3)	13.2.98
13.	Vehicle Noise	NCR 4/98-4(13)	14.4.98

2. Compilation of current NCR

For every non-compliance an NCR has to be prepared in accordance with the recommended NCR format given in Appendix 13. The NCR should be compiled here and submitted as part of the EMAR.

APPENDIX 12 - RECOMMENDED NCR FORMAT

NON-CONFORMANCE REPORT (NCR)	
NCR Ref: <i>NCR 5/98-5(7)</i>	Dated Issued: <i>25 May 1998</i>
Name of Contractor: ABC Construction Sdn Bhd	
Site Location: Precinct 16	
Audit Area: Silt Traps Maintenance	
Description of Non-Compliance: 1. Silt trap river clogged. 2. Silt trap needs deslting.	
Issued by:	Acknowledged by:
Corrective Actions (CA): 1. To unclog river. 2. To desilt silt-trap.	
CA Agreed by:	Target Completion Date:
Follow-Up/Verification of CA:	
Verified By:	Date:

APPENDIX 13 - PAP/PCP Checklist

SUBJECT	Mark ✓ where applicable
1.0 Erosion, Sediment and Flood Control	
1.1 Silt traps	
1.2 Silt fence	
1.3 Detention ponds	
1.4 Catch drains	
1.5 Earth bank	
1.6 Slope protection	
1.7 Open area protection	
2.0 Waste Management	
2.1 Biomass waste	
2.2 Bulked waste	
2.3 Domestic waste	
2.4 Scheduled (hazard) waste	
2.5 Site outlet waste	
2.6 Effluent waste	
3.0 Aesthetics	
3.1 Landscaping	
3.2 Barrier Erection	
3.3 Signboards	
3.4 Cleanliness of site	

APPENDIX 14

PUTRAJAYA LAKE WATER QUALITY STANDARDS

LAKE WATER QUALITY PARAMETER	UNIT	PUTRAJAYA AMBIENT LAKE WATER QUALITY STANDARDS
Alkalinity	mg/l	<math> < 3.00 \text{ @ pH} < 6.5 </math> $> 3.1 \text{ @ pH} > 6.5$
Ammoniacal Nitrogen	mg/l	0.5
Ammonia	mg/l	0.02 - 0.10
Arsonic	mg/l	0.05
Arsenite	mg/l	0.05
Boron	mg/l	1
Borofluor	mg/l	0.005
Brom	mg/l	1
Calcium	mg/l	0.002
Free Chlorine	mg/l	1.5
Chlorides, Total	mg/l	0.05
Copper	mg/l	0.02
Cyanide	mg/l	0.02
Fluoride	mg/l	1.1
Iron	mg/l	1
Lead	mg/l	0.05
Manganese	mg/l	0.1
Mercury	mg/l	0.0001
Nickel	mg/l	0.02
Nitrate (NO ₃ -N)	mg/l	7
Nitrite (NO ₂ -N)	mg/l	0.36
Total Phosphate	mg/l	0.05
Silica	mg/l	50
Sulfates	mg/l	0.01

LAKE WATER QUALITY PARAMETER	UNIT	PUTRAJAYA AMBIENT LAKE WATER QUALITY STANDARDS
Alum	mg/l	0.05
Ammonia	mg/l	0.05
Ammonium	mg/l	150
Zinc	mg/l	3
BOD	mg/l	3
COD	mg/l	25
Colour	TUC	150
Conductivity	µS/cm	1000
Salinity	ppt	1
Total suspended solids	mg/l	50
Turbidity	NTU	50
Transparency (Secchi)	m	0.8
Hardness	mg/l	250
Taste		No Detectable Taste
Dissolved Oxygen	mg/l	3 - 7
Ozone		No Detectable Ozone
pH		6.5 - 9.0
Temperature	°C	Between 12
Oil & Grease	mg/l	1.5
Chlorophyll-a	mg/l	0.7
Phosphorus		No Visible Phosphorus
Microbiological Constituents		
Faecal coliform	units/100 ml	100
Total coliform	units/100 ml	5000
Salmonella	units/l	0
Enterococcus	PFU/l	0

LAKE WATER QUALITY PARAMETER	UNIT	PUTRAJAYA AMBIENT LAKE WATER QUALITY STANDARDS
Bioactivity		
Chlorophyll	µg/l	0.1
Gross-PPM	µg/l	1
Nitrate-N	µg/l	<0.1
Nitrate-NO	µg/l	<1
Organics		
Carbon Chloroform Extract	µg/l	500
MHADRAS	µg/l	500
DE & Geom (general)	µg/l	40,000
DE & Geom (controlled effluents)	µg/l	700,000
PCB	µg/l	0.1
Phenol	µg/l	10
Aldrin/Dieldrin	µg/l	0.02
BHC	µg/l	2
Chlordane	µg/l	0.02
DDDT	µg/l	0.1
Endosulph	µg/l	10
HeptachlorEpoxide	µg/l	0.02
Lindane	µg/l	2
2,4-D	µg/l	30
2,4,5-T	µg/l	10
2,4,5-TP	µg/l	4
Fenopar	µg/l	10

APPENDIX E1

PROPOSED INTERIM NATIONAL WATER QUALITY STANDARDS FOR MALAYSIA

Parameter	Unit	Class I	Class IIa	Class IIb	Class III	Class IV	Class V
Ammonical Nitrogen	mg/l	0.1	0.2	0.3	0.5	2.0	3.0
Biological Oxygen Demand	mg/l	1	2	3	5	10	12
Chemical Oxygen Demand	mg/l	30	20	25	50	100	100
Dissolved Oxygen	mg/l	7	5.7	5.1	3.5	3	1
pH		6.5-8.5	6.0	6.0	5.0	5.0	-
Calcium	mg/l	15	150	150	-	-	-
Electrical Conductivity ^a	µmhos/cm	1000	1000	-	-	6000	-
Fluoride		NV	50	50	-	-	-
Glass		300	300	300	-	-	-
Salinity ^a	‰	0.2	1	-	-	2	-
Total		NOT	NOT	NOT	-	-	-
Total Dissolved Solids	mg/l	300	300	-	-	400	-
Total Suspended Solids	mg/l	20	50	50	100	300	300
Temperature	°C	-	Normal +1/2	-	Normal +1/2	-	-
Turbidity	NTU	5	50	50	-	-	-
Total coliform ^b	Counts/100 ml	10	100	400	3000	3000	-
Total coliform	Counts/100 ml	100	300	3000	3000	3000	3000
A1	mg/l	-	-	-	0.050	0.5	-
A2	mg/l	+	0.05	50	0.045	0.1	**
B1	mg/l	+	1	50	-	-	**
C1	mg/l	+	0.05	50	0.045	0.01	**

Parameters	Unit	Class I	Class IIa	Class IIb	Class III	Class IV	Class V
Cr ⁺	mg/l	*	0.05	NR	0.050	0.1	**
Cr ⁶⁺	mg/l	*	-	NR	-	-	**
Cu	mg/l	*	1	NR	0.01	0.2	**
Hexane	mg/l	*	100	NR	-	-	**
Cd	mg/l	*	-	NR	-	-	**
Mg	mg/l	*	0.05	NR	-	-	**
Na	mg/l	*	-	NR	-	35.00	**
K	mg/l	*	-	NR	-	-	**
Pb	mg/l	*	0.1	NR	1	1 (Lead) 5 (Other)	**
Fe	mg/l	*	0.05	NR	0.01	0	**
Mn	mg/l	*	0.1	NR	0.1	0.2	**
Hg	mg/l	*	0.001	NR	0.0001	0.002	**
Ni	mg/l	*	0.05	NR	-	0.2	**
Zn	mg/l	*	0.01	NR	0.027	0.02	**
Ag	mg/l	*	0.05	NR	-	-	**
Ba	mg/l	*	NR	NR	0.05	2	**
Li	mg/l	*	NR	NR	-	-	**
Se	mg/l	*	3	NR	-	2	**
R	mg/l	*	1	NR	1.4	0.75	**
Cl	mg/l	*	100	NR	-	70	**
Co	mg/l	*	-	NR	0.022	-	**
V	mg/l	*	0.02	NR	0.0021	-	**
NH ₃ -N	mg/l	*	1.3	NR	0.028	3	**
F	mg/l	*	0.1	NR	0.1	-	**
Si	mg/l	*	30	NR	-	-	**
NO	mg/l	*	200	NR	-	-	**
B	mg/l	*	0.05	NR	0.005	-	**
Cl ₂	mg/l	*	-	NR	-	-	**

Class IA	Water Supply II - conventional treatment required Fishery II - sensitive aquatic species
Class IB	Recreational use with body contact
Class III	Water Supply III - extensive treatment required Fishery III - common, of economic value and tolerant species, limited drinking irrigation
Class IV	
Class V	None of the above
NY	No visible, floatable material or debris
NCO	No objectional odour
NOT	No objectional taste
+	Relaxed parameters, only low recommended for use
00	No recommendations
01	Dike average and maximum (fractional) concentrations are shown
02	Free from visible film, sludge, discoloration and deposits
03	Free from visible litter, discoloration and deposits
04	Lowest class
0	Natural levels

ENVIRONMENTAL QUALITY ACT 1974
ENVIRONMENTAL QUALITY (PERBADANAN PUTRAJAYA)
(WATER POLLUTION CONTROL)
REGULATIONS, 1998

ENCL 1 In exercise of the powers conferred by Section 51 of the Environmental Quality Act 1974, the Minister, after consultation with the Environmental Quality Council, makes the following regulations:

PART I
PRELIMINARY

Enactment commencement 1. These regulations may be cited as the Environmental Quality (Perbadanan Putrajaya) (Water Pollution Control) Regulations, 1998 and shall come into force on the date of their publication in the Gazette.

Interpretation 2. In these regulations, unless the context otherwise requires:-

"effluent" means sewage, industrial effluent, or wastewater produced from any construction activity or site;

"environmentally hazardous substances" means any natural or artificial substances including any raw material, whether in a solid, semi-solid or liquid form, or in the form of gas or vapour, or in a mixture of at least two of these substances, or any living organism intended for any environmental protection, conservation and control activity, which can cause pollution;

"household" includes any house, flat, shed or roofed enclosure that is used or to be used for the purpose of human habitation;

"household effluent" means any liquid wastes, wastings or wastewater produced or discharged by any activity in a household;

"industrial effluent" means any liquid waste or wastewater produced by reason of the production processes taking place at any industrial premises within Kawasan Perbadanan Putrajaya;

"inland waters" means any reservoir, pond, lake, canal, stream, canal, ditch, spring or well, or any part of the sea along the low water line along the coast, or any other body of natural or artificial surface or subsurface water;

ENCL 2 "Kawasan Perbadanan Putrajaya" means the area as described in Section 10 of the Perbadanan Putrajaya Act 1995;

"lake area" means the area in Kawasan Perbadanan Putrajaya as identified and shaded "lake" in Plan No. _____ and Gazetted as PLJA/ No. _____ and include all inland waters which may flow directly into the lake;

"parameter" means any of the factors shown in the first column of the Second Schedule;

"Perbadanan" means the Perbadanan Putrajaya established under Section 3 of the Perbadanan Putrajaya Act 1995.

"sewage" means any liquid waste or wastewater discharge containing human, animal or vegetable matter in suspension or solution and may include fluids containing chemicals in solution but does not include industrial effluent;

"sewers" means any line of pipes or channels with their appurtenances designed and used to convey sewage;

Sewerage

"sewerage system" means a system incorporating sewers and all other structures, devices, equipment and appurtenances intended for the collection, conveyance, pumping, treatment or disposal of sewage;

"treatment plant" means any facility for the conditioning of effluent to effect reduction or partial reduction of its potential to cause pollution.

3. These regulations shall apply to all discharges of effluents into any inland waters of the lake area within Kawasari Pematasari Putrajaya.

**PART 3
NEW SOURCES OF DISCHARGE**

Prohibition against new and altered sources of effluent discharge

4. Notwithstanding any other provisions of these regulations, no person shall without the prior written permission of the Director General -

- i) carry out any work on any premises in the Kawasari Pematasari Putrajaya that may result in a new source of effluent discharge or cause a material change in the quantity or quality of the discharge from an existing source; or
- ii) construct on any land any building designed or used for a purpose that may cause the land or building to result in a new source of effluent discharge.

**PART 4
ACCEPTABLE CONDITIONS OF DISCHARGE INTO
INLAND WATERS**

Prohibition of discharge of effluent containing certain substances

5. No person shall discharge or cause or permit the discharge of any of the following substances into the lake area or any inland waters within the Kawasari Pematasari Putrajaya:

- i) any inflammable solvent or chemical;
- ii) any oil or other fluids immiscible with water;
- iii) any environmentally hazardous substances;
- iv) refuse, garbage, saw-dust, timber, furian- or animal waste or solid matter.

Prohibition of discharge of effluent

6. (1) No person shall discharge or cause or permit the discharge of any effluent into the lake area without the prior written permission of the Director General.

(2) No person shall discharge or cause or permit the discharge of any household effluent into any roadside drains, pipes or channels that drain into the lake area.

(3) Without prejudice to the provisions of paragraph (1) and paragraph (2) of this regulation, all sewage and household effluent shall be directed to a sewerage system.

Methodology of testing of effluent 7. For the purpose of these regulations, the effluents discharged within the Kawasan Perindustrian Putrajaya shall be analysed in accordance with the latest edition of the methods specified in the First Schedule, as amended from time to time, or in accordance with such other methods of analysis as the Director-General thinks fit.

Parameter limits of effluent in effluent treatment system (Industrial Discharge) 8. (1) No person shall discharge effluent into the lake area, analysed in accordance with regulation 7, which contains substances in concentrations greater than those specified as parameter limits in the first column of the Second Schedule.

(2) No person shall discharge effluent into any sewerage system, analysed in accordance with regulation 7, which contains substances in concentrations greater than those specified as parameter limits in the fourth column of the Second Schedule.

(3) Where the Director-General deems it necessary, he may by notice in writing specify the acceptable conditions of discharge including the parameter limits of effluent, with respect to any or all of the parameters not specified in the Second Schedule.

PART IV DISCHARGE ONTO LAND

Discharge on the surface of effluent and ground or surface 9. No person shall discharge or cause or permit the discharge of any environmentally hazardous substances, effluent, any solid waste or sludge that is generated from any production or manufacturing processes or from any effluent treatment plant onto any soil or surface of any land within the Kawasan Perindustrian Putrajaya, that may allow it to flow or leach into the lake area, without the prior written permission of the Director-General.

PART V POINT OF DISCHARGE

Point of discharge 10. **Point of discharge**

(1) The position and the design of the point or points of discharge of effluent shall be determined by the Director-General.

(2) The position and design of the point of discharge shall not be altered or changed without the prior written approval of the Director-General.

(3) Wherever the concentration of any parameter of effluent discharged or to be discharged is mentioned in these Regulations, the reference, unless the context otherwise requires, is to the concentrations as at the point of discharge determined in paragraph (1).

Status of effluent 11. No person shall cause, or cause or permit to be done, any effluent at any time or point after it is produced at any premises unless prior written authorisation of the Director-General has been obtained for the dilution and the dilution is done according to the terms and conditions of the authorisation.

**PART VI
LICENCE FOR CONTRAVENTION OF ACCEPTABLE CONDITIONS**

**LICENCE FOR
CONTRAVENTION OF
ACCEPTABLE
CONDITIONS**

12. Licence for contravention of acceptable conditions

(1) In accordance with the provisions of section 23 (1) of the Act, application for a licence may be made for the purpose of the contravention of acceptable conditions of effluent discharge specified in regulation 8.

(2) An application for a licence shall be made in accordance with the procedures specified in the Environmental Quality (Licensing) Regulations, 1977 and shall be accompanied by such fees as the Director-General may determine.

(3) The Director-General may refuse to grant his application for a licence if he is satisfied that the granting of application for such a licence is likely to cause a worsening of condition in the lake area or cause pollution in any segment or element of the environment within the Hawaiian Parliament Pūnahaia.

(4) Without prejudice to the generality of paragraph (3) of this regulation, the Director-General may grant his application for a licence with conditions if he is satisfied that:

- a. the design and construction of any treatment plant or other control equipment and their commissioning requires longer period for compliance with these regulations; or
- b. changes in the design, construction and operation of a treatment plant is required to comply with these regulations and these changes require a period to be completed; or
- c. a sewerage system is to be provided and the effluent is permitted to be admitted into the sewerage system.

(5) The licence shall be valid for the period that is specified in the licence and may be renewed not more than once.

(6) Where a person becomes the occupier of the licensed premises in succession to another person who holds a yet unexpired licence in respect of the premises, the conditions and restrictions of the licence shall become immediately binding on the new occupier of the licensed premises.

**PART VII
MISCELLANEOUS**

**ACCIDENTAL SPILLS OR
DISCHARGES**

13. Accidental spills or discharges

(1) In the event of the occurrence of any accidental spill or discharge of effluent or any environmentally hazardous substances into the lake area, the person or persons responsible for such occurrence shall immediately notify the Director-General of the occurrence.

(2) The person or persons responsible for the occurrence of the accidental spill or discharge referred to in paragraph (1) shall be required, to every reasonable extent, to contain, cleanse or abate the spill or accidental discharge or to recover the substances involved in the spill or accidental discharge in a manner satisfactory to the Director-General.

- (3) The Director-General shall estimate any damage caused by the accidental spill or discharge and may recover all costs and expenses from the person or persons responsible for the occurrence of the spill or accidental discharge.
- (4) The Director-General may take such action to remove, dispose, destroy or mitigate the pollution and shall certify the costs and expenses incurred in connection therewith and the certificate of the Director-General shall be conclusive proof of the sum to be recovered from the person or persons responsible for causing the accidental spill or discharge.
- Pollution by discharges**
14. Any person who discharges effluent into the lake area or onto any land shall, in connection with such discharge, install such sampling test point or points, inspection chambers, flow meters, and recording and other apparatus as the Director-General may from time to time require.
- Occupier's duties and record-keeping obligations**
15. An occupier of any premises shall provide the Director-General or any other officer duly authorized in writing by him every reasonable assistance or facility available at premises, including labour, equipment, appliances, and instruments that he may require for the purpose of taking any samples from the point or points of discharge.
- Compliance report**
16. An occupier of any premises which is a source of effluent shall be required to submit a compliance report with regards to the effluent discharged to the Director-General on a quarterly basis or at such intervals that the Director-General may determine.

PART VII PENALTY AND FEES

17. Penalty

(1) Any person who discharges effluent in contravention of regulation 6 without a licence issued under section 23(1) of the Act shall be guilty of an offence and shall be liable to a fine not exceeding one hundred thousand ringgit or to a term of imprisonment not exceeding five years or to both and to a further fine not exceeding one thousand ringgit a day for every day that the offence is continued after a notice by the Director-General requiring him to cease the act specified therein has been served upon him.

(2) An omission or neglect to comply with, and an act done or attempted to be done contrary to the provisions of these Regulations other than paragraph (1) shall be an offence and the offender shall on conviction be liable to a fine not exceeding five thousand ringgit or to a term of imprisonment not exceeding one year or to both.

18. Fees

(1) Every application for approval or registration prescribed by these Regulations shall be accompanied by the necessary processing fee in the Third Schedule.

(2) Payment shall be made by cash, money order, postal order or bank draft to the Director-General who shall issue a receipt upon realization of the payment.

(3) Payment shall not be required in respect of grant or facilities wholly owned by the Government of Malaysia.

**PART IX
COMPOUNDING OF OFFENCES**

18 Compoundable Offences

The following offences are offences which may be compounded by the Director-General under section 45(1) of the Act:

Offences against regulations 4, 5, 6, 8, 9, 10, 11, 12, 14, 15 and 16

20 Compounding Procedure

The compounding of any of the offences specified in regulation 18 shall be in accordance with the procedure set down in the Environmental Quality (Compounding of Offences) Regulations, 1978.

FIRST SCHEDULE

ENVIRONMENTAL QUALITY (PERBADANAN PUTRAJAYA)
(WATER POLLUTION CONTROL)
REGULATIONS, 1998
[Regulation 7]

1. "Standard Methods of the Examination of Water and Wastewater" published jointly by the American Public Health Association, the American Water Works Association and the Water Pollution Control Federation of the United States; or
2. "Analysis of Raw, Potable and Wastewaters" published by the Department of the Environment of the United Kingdom.

SECOND SCHEDULE
ENVIRONMENTAL QUALITY ACT, 1974

ENVIRONMENTAL QUALITY (PERBADANAN PUTRAJAYA)
(WATER POLLUTION CONTROL)
REGULATIONS, 1988
[Regulations 8(1), 8(2)]

PARAMETER LIMITS OF EFFLUENT

Parameter		Unit	Standard for discharge into the lake area or onto land	Standard for discharge into sewers
i)	Temperature	°C	30	43
ii)	pH value	-	8.0 - 9.0	5.0 - 9.0
iii)	BOD ₅ at 20°C	mg/l	10	400
iv)	COD	mg/l	30	1000
v)	Suspended Solids	mg/l	30	400
vi)	Mercury	mg/l	0.001	0.10
vii)	Cadmium	mg/l	0.01	1.0
viii)	Chromium, Hexavalent	mg/l	0.05	2.0
ix)	Arsenic	mg/l	0.05	2.0
x)	Cyanide	mg/l	0.02	2.0
xi)	Lead	mg/l	0.05	2.0
xii)	Chromium, Trivalent	mg/l	0.20	10
xiii)	Copper	mg/l	0.50	10
xiv)	Manganese	mg/l	0.20	10
xv)	Nickel	mg/l	0.20	10
xvi)	Tin	mg/l	0.20	10
xvii)	Zinc	mg/l	1.0	10
xviii)	Boron	mg/l	1.0	10
xix)	Iron (Fe)	mg/l	1.0	5.0
xx)	Phenol	mg/l	0.001	2.0
xxi)	Free Chlorine	mg/l	1.0	
xxii)	Sulphide	mg/l	0.5	2.0
xxiii)	Oil and Grease	mg/l	Not detectable	100
xxiv)	Ammoniacal Nitrogen	mg/l	1	
xxv)	Nitrate Nitrogen	mg/l	10	
xxvi)	Sulphate	mg/l	300	
xxvii)	Chloride	mg/l	500	
xxviii)	Cobalt	mg/l		
xxix)	Colour	TCU	450	
xxx)	MBAS/PAS	mg/l	1	
xxxi)	Fluoride (as F)	mg/l	2	
xxxii)	Molybdenum			
xxxiii)	Total Phosphate (as P)	mg/l	0.5	
xxxiv)	Polychlorinated Biphenyls	µg/l	0.1	
xxxv)	Selenium	mg/l	0.01	
xxxvi)	Silver	mg/l	0.05	
xxxvii)	Beryllium	mg/l	0.004	
xxxviii)	Vanadium			
xxxix)	Radioactive Material	Bq/l	Not detectable	

PARAMETER LIMITS OF EFFLUENT (Continued)

Parameter		Unit	Standard for discharge into the lake area or onto land	Standard for discharge into sewers
ii.	Faecal Coliform	Counts/100 ml	2,000	
iii.	Total Coliform	Counts/100 ml	10,000	

THIRD SCHEDULE
PROCESSING FEES PAYABLE TO OBTAIN LICENCE
(Regulation 13)

- | | |
|---|------------|
| 1. Application for written permission under regulations 4, 6(1), 9 and 11 | ... 100.00 |
| 2. Application for licence under regulation 12 | ... 200.00 |

Dated the _____, August, 1998.

Minister of Science, Technology and Environment

APPENDIX 17

MALAYSIAN AIR QUALITY GUIDELINES

RECOMMENDED MALAYSIAN GUIDELINES
(at 25 degree Celsius and 101.3 kPa)

Pollutant and Method	Averaging Time	Malaysia Guidelines		Target Year for Compliance
		(ppm)	($\mu\text{g}/\text{m}^3$)	
Ozone As 1328	1 Hour 8 Hour	0.10 0.06	200 120	1995
Carbon Monoxide As 2835	1 Hour 8 Hour	30 9	154 108	1995
Nitrogen Dioxide As 2447	1 Hour	0.17	120	1990
Sulfur Dioxide As 2323	10 Minutes 1 Hour 24 Hour	0.10 0.10 0.04	90 150 205	1990
Particulate TSP As 1724.3	24 Hour 1 Year		200 60	1995
PM10 As 2724.0	24 Hour 1 Year		150 30	1995
Lead As 2800	1 Month		1.5	1991

$\mu\text{g}/\text{m}^3$

RECOMMENDED MALAYSIAN SECONDARY GUIDELINES

Pollutant and Method	Averaging Time	Malaysia Guidelines ($\text{ng}/\text{m}^3/\text{day}$)	Target Year for Compliance
Dustfall As 2724.1	1 Year	133	1995

APPENDIX 18

WHO RECOMMENDED NOISE EXPOSURE LIMITS

Recommended Noise Exposure Limits (dB(A))	Remarks
Less than 75 (8-hr exposure per day)	No identifiable risk of hearing damage. Higher levels at prolonged exposure cause hearing impairment and loss.
Less than 45 (background noise)	For good speech intelligibility indoors.
55 or less	Desirable daytime outdoor noise levels which will not likely cause annoyance in community.
45 or less	Desirable night-time outdoor noise levels.
35 or less (bedroom noise limit)	No likelihood of sleep disturbance.

APPENDIX 19

ENVIRONMENTAL RELATED LEGISLATION
AND IMPLEMENTING AGENCY
IN PENINSULAR MALAYSIA

LEGISLATION	IMPLEMENTING AGENCY/AUTHORITY
<p>I. Air Quality/Noise</p> <p>a) Environmental Quality Act, 1974 and regulations as follows:</p> <ul style="list-style-type: none"> - E.Q. (Clean Air) Regulations, 1978 - E.Q. (Control of Lead Contamination in Motor Gasoline), 1985 - E.Q. (Prohibition on the use of chlorofluorocarbons and Other Gases in Propellants and Blowing Agents) Order, 1993 - E.Q. (Control of Emission from Diesel Engines) Regulations, 1996 - E.Q. (Control of Emission from Petrol Engines) Regulations, 1996 - Environmental Quality (Motor Vehicle Noise) Regulations, 1997 	- Department of Environment
<p>b) Road traffic Ordinance, 1956</p> <ul style="list-style-type: none"> - Motor Vehicle (Control of Smoke and Gas Emission), 1977 	- Department of Road Transport
<p>c) Factories and Machinery Act, 1967</p> <ul style="list-style-type: none"> - F.M. (Noise Exposure) Regulations, 1985 	- Department of Environment/Police - Department of Occupational Safety & Health

2. Environmental Planning	
a) Environmental Quality Act, 1974 - E.Q. (Potential Activities) (Environmental Impact Assessment) Order 1987	- Department of Environment
3. Land Use and Land Conservation	
a) Town and Country Planning Act, 1974 - Planning Control (General) Order, 1955	- Department of Town and Country Planning - Local Authorities
b) Land Conservation Act, 1982	- State Land Office
c) National Land Code, 1980	- State Land Office
d) Sewer Discharge and Building Act, 1974 - (Berkas) By-laws	- Local Authorities
4. Natural Resources Protection and Management	
a) National Parks Act 1980	- Department of Wildlife and National Parks
b) Protection of Wildlife Act, 1972	- Department of Wildlife and National Parks
c) National Forestry Act, 1984	- Department of Forestry
d) Water Supply Statute No. 3 of 1958	- Public Council of State
e) Geological Survey Act., 1974	- Department of Geological Survey
f) Town and Country Planning Act, 1974 - Tree Preservation Order, 1965	- Local Authorities
5. Solid Waste Management	
a) Local Government Act, 1976	- Local Authorities
b) Sewer Discharge and Building Act, 1974	- Local Authorities
6. Use of Hazardous Substances/Activities	
a) Pesticides Act, 1974	- Pesticide Board (Department of Agriculture)
b) Atomic Energy Licensing Act, 1986	- Atomic Energy Licensing Board (Dep. of Health)
c) Poisons Act, 1932	- Department of Health
d) Factories and Machinery Act, 1967	- Department of Occupational Safety & Health

<ul style="list-style-type: none"> - F.M. (Land) Regulations, 1984 - F.M. (Adverse Impact) Regulations, 1986 - E.M. (Mineral) Regulations, 1989 	
<ul style="list-style-type: none"> c) Environmental Quality Act, 1974 and Regulations as follows : <ul style="list-style-type: none"> - E.Q. (Scheduled Wastes) Regulations, 1985 - E.Q. (Prescribed Processes) (Scheduled Wastes Treatment and Disposal Facilities) Order 1989 - E.Q. (Prescribed Processes) (Scheduled Wastes Treatment and Disposal Facilities) Regulations 1989 	- Department of Environment
<ul style="list-style-type: none"> d) Occupational Safety & Health Act, 1994 <ul style="list-style-type: none"> - O.S.H. (Control of Industrial Major accident Hazards) Regulations, 1996 - O.S.H. (Classification, Packaging and Labeling of Hazardous Chemicals) Regulations, 1997 	- Department of Occupational Safety & Health
<ul style="list-style-type: none"> g) Explosives Act, 1957 <ul style="list-style-type: none"> - Explosives Rules, 1957 	- Royal Malaysian Police
<ul style="list-style-type: none"> h) Water Quality <ul style="list-style-type: none"> a) Local Government Act, 1976 b) Street Drainage and Building Act, 1974 c) Waste Treatment Ord. 146, (Amendment) 1970 	- Local Authorities
<ul style="list-style-type: none"> d) Environmental Quality Act, 1974 and regulations as follows : <ul style="list-style-type: none"> - E.Q. (Prescribed Processes) (Crude Palm Oil) Regulations 1977 - E.Q. (Prescribed Processes) (Raw Natural Rubber) Regulations 1978 	- Department of Environment

<ul style="list-style-type: none"> - E.Q. (Sewage & Industrial Effluent) Regulations 1979 - E.Q. (Prohibition On The Use of Controlled Substances In Soap, Synthetic Detergents and Other Cleaning Agents) Order 1993 	
<ul style="list-style-type: none"> c) Mining Enactment, 1920 - Mining Rules, 1934 	<ul style="list-style-type: none"> - Department of Mines
<ul style="list-style-type: none"> d) Sewerage Services Act, 1983 	<ul style="list-style-type: none"> - Department of Sewerage Services

EXISTING LEGISLATIVE CONTROLS FOR POLLUTION ABATEMENT

ENVIRONMENTAL CONCERN	SOURCE	LEGISLATIVE CONTROLS CURRENTLY AVAILABLE*	IMPLEMENTING AGENCY/AUTHORITY
<ul style="list-style-type: none"> • Diesel and/or back smoke 	<ul style="list-style-type: none"> • Site clearing/grubbing • Piling/demolishing • Building construction • General construction • Demolition/renovation • Open burning • Industry workshops 	EB, Piling/demolishing - LGA, Sec. 73(3)(b) Building - EP, LGA's general job of employees SCBA - Sec(47)(2), depositing of dirt on streets CBL SCBA - Sec(47)(2), depositing of dirt on streets LGA - Sec. 81(1), nuisance acts to be dealt with SCBA - Sec(47)(2), depositing of dirt on streets CAT - Reg. 11 (control of open burning) LGA - Sec. 72(1)(b), powers to safeguard public health SCBA - Sec. 37, notice by local authority to prevent grass fire CAT - Reg. 14, 24, 25	Perbadanan Putehaya Perbadanan Putrajaya Perbadanan Putrajaya Perbadanan Putrajaya Perbadanan Putrajaya Perbadanan Putrajaya Department of Environment Perbadanan Putrajaya Perbadanan Putrajaya Department of Environment

* See index to symbols

ENVIRONMENTAL CONCERN	SOURCE	LEGISLATIVE CONTROLS CURRENTLY AVAILABLE ^a	IMPLEMENTING AGENCY/AUTHORITY
	<ul style="list-style-type: none"> • Transportation motor vehicles • Traffic on unpaved roads or construction sites • Open burning • Industry/ventilators • Service stations • Pesticide application • Waste management (collection, storage, disposal) 	CECE - Reg. 10 (non mobile emissions control) EBL CAR - Reg. 11 (control not specific for colour) CAR - Reg. 13 (statement of offensive colour) CAR - Reg. 30 (no colour if it is applicable) None presently. Proposed LGA None presently. Proposed LGA	Department of Environment Parliament Palestine Department of Environment Department of Environment Department of Environment Parliament Palestine Parliament Palestine
3. Greenhouse emissions	<ul style="list-style-type: none"> • Transportation/motor vehicles 	CECE - for petrol engines CECE - for diesel engines	Department of Environment Department of Environment
4. Noise and Vibration	<ul style="list-style-type: none"> • Saw dusting/machineries • Pile-driving/beating • Building construction • General construction • Demolition/renovations • Industry/workshops • Transportation terminal • Commercial areas • Residential areas • Motor vehicles 	EGA - No specific laws enforced yet LGA - Sec. 72 (11), applies to subsequent public roads	Parliament Palestine Parliament Palestine Department of Environment

^a See index to appendix

ENVIRONMENTAL CONCERN	SOURCE	LEGISLATIVE CONTROLS CURRENTLY AVAILABLE*	RECOMMENDATIONS
1. Silt and Sediment	<ul style="list-style-type: none"> • Site clearing/works • Building construction • General construction • Demolition/renovation 	<p>SDL - By-law 1551 (requirements for silt traps and sediment control facilities)</p> <p>Guidelines for control of pollution and erosion issued by the DOE</p>	<p>Parkinson Fisheries</p>
2. Suspended solids of silt, grass, organics and inorganics	<ul style="list-style-type: none"> • Industry/workshop • Service stations • Transportation terminals • Commercial areas • Residential areas • Other public facilities • Other non-industrial sources 	<p>SEER - Limits of discharge may not apply to small discharges (< 60 cu m/day)</p> <p>SSSA - Sec. 25(2), discharge of trade effluent to river, canal, pond, lake, etc.</p> <p>LOA - Part VII (control of pollution of streams but no limits set)</p> <p>SSA - provision of sewerage system and services and control of sewerage systems</p> <p>SEER - Limits of discharge do not cover some parameters</p> <p>None specified. Proposed TOPA and SSQA</p>	<p>Parkinson Fisheries</p> <p>Metropolitan Police</p> <p>Dept. of Sewerage Services</p> <p>Department of Environment</p> <p>Parkinson Fisheries</p>
* See table to symbol	<ul style="list-style-type: none"> • Sewage treatment plants • Surface runoff 		

ENVIRONMENTAL CONCERN	SOURCE	LEGISLATIVE CONTROLS CURRENTLY AVAILABLE*	IMPLEMENTING AGENCY/AUTHORITY
1. Solid Wastes (non-scheduled)	<ul style="list-style-type: none"> • Construction sites • Industrial workshops • Public areas • Commercial areas • Residential areas 	LDA - Sec. 72 and 73 (relating to sanitation and nuisances)	Peraturan Puriptiya
2. Scheduled Wastes	<ul style="list-style-type: none"> • Industrial workshops • Service stations • Fleet control in residential and public areas 	BWR - Addresses control for handling through transportation and disposal. None specified. Proposed LDA.	Department of Environment Peraturan Puriptiya
3. Smoky	<ul style="list-style-type: none"> • Parking of heavy vehicles within residential zones • Parking on road curbs, etc. • Open steam engine 	SCDA - Sec. 46(1)(g) vehicle loading on factory Planning Controls under TCPA or the SCDA.	Peraturan Puriptiya Peraturan Puriptiya

* See index to symbols

ENVIRONMENTAL CONCERN	SOURCE	LEGISLATIVE CONTROLS CURRENTLY AVAILABLE*	IMPLEMENTING AGENCY/AUTHORITY
T1: Aesthetics	<ul style="list-style-type: none"> <li data-bbox="179 797 215 991">• Maintenance of garden, walkway, house frontage <li data-bbox="303 744 339 1030">• Building material or deposition waste storage <li data-bbox="427 744 495 1030">• Inadequate parking for gross walkway, within housing areas, etc.) 	<p data-bbox="174 492 189 736">None specified, Proposed LGA</p> <p data-bbox="288 433 376 736">S23BA - Sec. 47(2), control of fire depositing of wastes in public areas, or Sec. 47, notice requiring statement of nuisance</p> <p data-bbox="427 433 474 736">S23BA - Sec. 46(1)(3) vehicle nesting on footway</p>	<p data-bbox="174 171 189 350">Peraturan Purnasari</p> <p data-bbox="288 171 303 350">Peraturan Purnasari</p> <p data-bbox="427 171 443 350">Peraturan Purnasari</p>

INDEX TO SYMBOLS

CEI - Environmental Quality (Clean Air) Reg. 1978
 CEDE - Environmental Quality Control of Emission from Diesel Engines Reg. 1986
 CEPE - Environmental Quality Control of Emission from Petrol Engines Reg. 1986
 DEK - Dewan Rendahaya Kuala Lumpur
 EA - Employees Act, 1953
 EA - Earthworks By-Laws 1985
 ECA - Environmental Quality Act, 1974
 LGA - Local Government Act, 1976

MCA - Environmental Quality (Motor Vehicle Noise) Reg. 1987
 MCB - Street, Drains & Sewing Act, 1974
 MCH - Environmental Quality (Oil-waste & Inclusive Effluents) Reg. 1979
 MSA - Sewerage Services Act, 1982
 MWA - Environmental Quality (Scheduled Wastes) Reg. 1988
 TQPA - Town & Country Planning Act, 1976

APPENDIX 21

ENVIRONMENTAL QUALITY ACT, 1974
(CLEAN AIR) REGULATIONS 1978

SUBSTANCES EMITTED		STANDARDS			
1.	Solid particles concentration in the heating of metals	Standard A: 0.1 gm/100m ³ Standard B: 0.25 gm/100m ³ Standard C: 0.2 gm/100m ³			
2.	Solid particles concentration in other operations	Standard A: 0.1 gm/100m ³ Standard B: 0.2 gm/100m ³ Standard C: 0.1 gm/100m ³			
3.	Metals and metallic compounds:	Std. A	Std.B	Std.C	
		gm/100m ³	gm/100m ³	gm/100m ³	
		Mercury	0.02	0.01	0.01
		Cadmium	0.025	0.015	0.015
		Lead	0.04	0.025	0.025
		Antimony	0.04	0.025	0.025
		Arsenic	0.04	0.025	0.025
		Zinc	0.13	0.1	0.1
Copper	0.13	0.1	0.1		
	Substances Limited	Source of Emission	Standards		
(ii)	Acid gases	Maintenance of sulphuric acid	1. Emission of: Standard A: 7.5 Standard B: 40 Standard C: 3.5 grams of sulphur trioxide/100m ³ of effluent gas 2. Effluent gas free from poisonous acid		
(iii)	Sulphuric acid gas or sulphur trioxide or both	Any source other than combustion process and plant for maintenance of sulphuric acid as is set above	1. Emission of: Standard A: 0.4 Standard B: 0.25 Standard C: 0.2 grams of sulphur trioxide/100m ³ of effluent gas		
(iv)	Chlorine gas	Any source	Standard A: 05 Standard B: 0.25 Standard C: 05 grams of hydrogen chloride/100m ³		

	Substance Emitted	Source of Emission	Standards
(a)	Hydrogen chloride	Any source	Standard A : 0.4 Standard B : 0.5 Standard C : 0.4 gram of hydrogen chloride/m ³
(b)	Fluoric, hydrofluoric acid or aqueous fluoric compound	Manufacture of aluminium from alumina	Equivalent of : Standard C : 0.03 gram of hydrofluoric acid/No ₂ of effluent gas
(d)	Fluoric, hydrofluoric acid or aqueous fluoric compound	Any source other than manufacture of aluminium from alumina as in (b) above	Equivalent of : Standard A : 0.13 Standard B : 4.73 Standard C : 0.100 gram of hydrofluoric acid /No ₂ of effluent gas
(g)	Hydrogen sulphide	Any source	Standard A : 0.25 Standard B : 3.00 Standard C : 2.00 part per million volume for volume
(h)	Oxides of nitrogen	Manufacture of nitric acid	Equivalent of : Standard A : 4.00 Standard B : 4.00 Standard C : 1.7 and effluent gas substantially colourless- gram of nitrogen dioxide/No ₂
(i)	Oxides of nitrogen	Any source other than combustion process and manufacture of nitric acid	Equivalent of : Standard A : 5.0 Standard B : 2.2 Standard C : 2.0 gram of nitrogen dioxide /No ₂
X.	Dust and solid particles		Std. A : 30.0 Std. B : 30.0 Std. C : 30.0 g/m ³ , g/m ³ , g/m ³
	ASPHALT CONCRETE PLANT Sewerage Plant Municipal Plant		0.4 : 0.4 : 0.3 0.7 : 0.7 : 0.4

	Substance Emitted	Source of Emission	Standards		
	PORTLAND CEMENT PLANT kilns stacks, cooler fans, grinding and others		0.4	0.2	0.2
			0.4	0.2	0.1
K	Automotives and other sites		0.4	0.2	0.10

APPENDIX 22 - The 17 Elements in the ISO14001 EMS

- 1. Environmental Policy**
An organisation has to develop a policy statement of its commitment to the environment. The statement is then used as a framework for planning and action.
- 2. Environmental Aspects**
An organisation has to identify the environmental attributes of its products, activities and services. They are then assessed to determine those that could have significant impacts on the environment.
- 3. Legal and Other Requirements**
An organisation has to identify and ensure access to the relevant laws and regulations that it has to comply.
- 4. Objectives and Targets**
An organisation has to establish environmental goals in line with its policy, environmental impacts, views of interested parties and other factors.
- 5. Environmental Management Program**
An organisation has to plan actions to achieve its environmental objectives and targets.
- 6. Structure and Responsibility**
An organisation has to establish roles and responsibilities for its staff and provide resources to support its environmental management system.
- 7. Training, Awareness and Competence**
An organisation has to ensure that its staff are trained and capable of carrying out their environmental responsibilities.
- 8. Communication**
An organisation has to establish processes for its internal and external communications on environmental

management issues.

9. **EMS Documentation**
An organisation has to maintain information on its EMS and related documents.
10. **Document Control**
An organisation has to ensure effective management of procedures and other system documents.
11. **Operational Control**
An organisation has to identify, plan and manage its operations and activities in line with its policy, objectives and targets.
12. **Emergency Preparedness and Response**
An organisation has to identify potential emergencies and develop procedures for preventing and responding to them.
13. **Monitoring and Measurement**
An organisation has to monitor key activities and track its environmental performance.
14. **Nonconformance, Corrective and Preventive Action**
An organisation has to identify and correct problems to prevent recurrences.
15. **Records**
An organisation has to keep adequate records of its EMS performance.
16. **EMS Audit**
An organisation has to periodically verify that its EMS is operating as intended.
17. **Management Review**
An organisation has to periodically review its EMS with an eye to continual improvement.

APPENDIX 23 - PUTRAJAYA DESIGN AND MANAGEMENT GUIDES

1.0 Putrajaya Stormwater Management Design Guide

1.1 Introduction

To ensure that the drainage concepts and systems defined in the UDG are properly implemented during the engineering design phase a Stormwater Management Design Guide (SMDG) has been prepared. The objective of the Guide is to provide guidance on the development and implementation of the best practice in stormwater management in Putrajaya.

The Guide is not prescriptive as the formulation of an integrated urban stormwater management strategy involves the matching of appropriate structural and non-structural management measures to the actual site conditions and management objectives, including public safety, drainage economics and water quality standards.

The SMDG comprises of the following subject Chapters:

- Developing stormwater management strategies
- Design Checklist
- Designing stormwater drainage systems
- Design of stormwater gross pollutant traps
- Design of stormwater oil, grease and grit traps
- Design of stormwater retarding basins
- Design of stormwater sedimentation ponds and constructed wetlands
- Best practice in environmental management of construction activities

1.2 Stormwater Management Strategies

This Chapter of the SMDG provides a broad discussion on the approaches to developing stormwater management strategies and selection of design standards.

1.3 Drainage Design Checklist

This Chapter of the SMDG provides a checklist for the design of stormwater drainage systems.

1.4 Drainage Systems Design

This Chapter of the SMDG provides an explanation of the theoretical basis behind hydrological and hydraulic procedures for computing design flows and the behaviour of hydraulic structures.

1.5 Gross Pollutant Traps (GPT) Design

This Chapter of the SMDG provides information on the function of the Gross Pollutant Traps (GPT), their design considerations and their appropriate application. To facilitate the maintenance of the GPT a number of standard GPT designs have been recommended. Worked design examples for the GPT were also presented.

1.6 Oil, Grit and Grease Traps (OGGT) Design

This Chapter of the SMDG provides information on the function of the Oil, Grit and Grease Traps (OGGT), their design considerations and their appropriate application. To facilitate the maintenance of the OGGT a number of standard OGGT designs have been recommended. Worked design examples for the OGGT were also presented.

1.7 Retarding Basins Design

This Chapter of the SMDG provides information on the function of the retarding basins, their design considerations and their appropriate application. To facilitate the maintenance of the retarding basins a number of standard retarding basin designs have been recommended. Worked design examples for the retarding basin were also presented.

1.8 Sedimentation Ponds and Constructed Wetlands

This Chapter of the SMDG provides information on the function of the sedimentation ponds and constructed wetlands, their design considerations and their appropriate application. To facilitate the maintenance of

the sedimentation ponds and constructed wetlands a number of standard pond designs have been recommended. Worked examples for the pond design were also presented.

1.9 Best Management Practice of Construction Activities

This Chapter of the SMDG provides information on the Best Management Practice (BMP) of construction activities. It presents a framework for the formulation of an Environmental Management Plan (EMP) as part of the project construction plan. It also contains an appendix of the BMP (i.e. non-structural and structural measures) proposed for the construction industry.

2.0 Utility Masterplan Review Study for Putrajaya

2.1 Introduction

Due to the changes to the land-use as the Putrajaya Masterplan is translated into the UDG, and subsequently into the Detail Layout Plan, the Utility Masterplan has also changed. Thus, a review of the Utility Masterplan was carried out for the land-use status up till 23 October, 1996. The information contained in the Utility Masterplan Review Study Report is essential for the proper planning, design and implementation of the detail engineering of the utility systems for the individual projects in Putrajaya.

2.2 Scope of Review

Master plans and commercial proposals prepared by utility consultants and potential concessionaires have been reviewed for their suitability of application to the Putrajaya development. Various options and alternatives were discussed and investigated for the different utilities. The full extent of the results of the review were not reported. Instead, the report concentrates on the conceptual design for each utility which the review consultant recommends to be developed in detail prior to implementation.

2.3 Utilities Reviewed

The utilities reviewed in the report are as follows:

- Water Supply
- Drainage
- Wastewater
- Solid Waste
- Electricity
- Telecommunications
- Gas Supply
- District Cooling

2.4 Main Points Addressed for Each Utility

The main points which have been addressed for each utility are:

- the requirements for each utility
- the estimated loads
- the design and its criteria for each service
- the provision of an adequate and reliable back-up system
- the proposed routing of transmission and distribution systems
- the number, size and location of utility buildings and ancillary items
- the phasing implications of the utilities with respect to the development programme

3.0 Putrajaya Transport Design Guide

3.1 Introduction

To ensure that the transportation concepts and systems defined in the UDG are properly implemented during the engineering design phase a Transport Design Guide has been prepared. The Guide is aimed at those involved in the development of any transport-related facility in Putrajaya.

3.2 Scope of Guide

The Guide is intended to:

- Define the transport policies adopted for Putrajaya.
- Provide project proponents with specific guidelines and standards.

- Illustrates what the Perbadanan expects to see in terms of good design.
- Highlight the need for comprehensiveness and integration of travel by all modes.
- Explain what is required of project proponents in making their submissions to the Perbadanan.

4.0 Putrajaya Lake Management Guide

4.1 Introduction

To ensure that Putrajaya Lake is properly managed a Management Guide for the Lake has been developed. It is intended to support the work of the Lake Management and Wetlands Management Units in the Perbadanan. The following are the subject Chapters in the Guide:

- Lake Quality Management Policy
- Lake Quality Management Strategy
- Lake Administration
- Lake System
- Operation and Maintenance
- Lake Monitoring Programme
- Data Management and Reporting
- Research and Development

4.2 Lake Quality Management Policy

This Chapter of the Guide provides information on the public perception of the Lake and defines the policy objective for the management of the Lake.

4.3 Lake Quality Management Strategy

This Chapter of the Guide provides information on the Lake Water Quality Targets and Standards. It also defines the water quality targets expected for the external catchment sources, such as from the catchments upstream of the Wetlands (UPM, MARDI and IOI Resorts). It also outlines, briefly, the management measures for the control of water quality from the internal catchment sources. The water quality targets for the Wetland sources

are also defined and a discussion on how to involve the public in the management of the Lake is also discussed.

4.4 Lake Administration

This Chapter of the Guide provides information on the responsibilities of the various parties involved in the management of the Lake and their interfacing requirements.

4.5 Lake System

This Chapter of the Guide provides information on the physical layout of the Lake, the function and modelling of the Putrajaya Wetlands, the hydrological inputs and the likely pollutant inputs into the Lake.

4.6 Operation and Maintenance

This Chapter of the Guide outlines the criteria to be used in the operation and maintenance of the integrity of the lake system. It is largely based on the lake design and modelling assumptions and shall be revised as more information on the lake performance are collected over time.

4.7 Lake Monitoring Programme

This Chapter of the Guide provides information on the monitoring requirements for the surface runoff water, groundwater and lake water. It defines the monitoring stations, sampling depths, frequency and sampling parameters and analysis required.

4.8 Data Management and Reporting

This Chapter of the Guide provides information on the management of the data collected from the monitoring programme and their reporting requirements.

4.9 Research and Development

This Chapter discusses the development and research needs to support decision making on the management of the lake system.

APPENDIX 24 - LAND USE-CLASS ORDER IN PUTRAJAYA

SENARAI AKTIVITI KEGUNAAN TANAH
BAGI KAWASAN PERBADANAN PUTRAJAYA,
SEKELAS DENGAN KEPERLUAN PENYEDIAAN RANCANGAN TEMPATAN
MENURUT SEK. 32, AKTA 172

USE CLASS ORDER*	ACTIVITY
CLASS (I) RESIDENTIAL	
	1. Single
	2. Semi detached
	3. Terrace
	4. Town House
	5. Cluster House
	6. Flat
	7. Apartment
	8. Condominium
	9. Other Housing
CLASS (II) GOV. INSTITUTIONAL	
Class (IIa) Government	
	1. Government Office
	2. Semi-government Office
	3. Parliament Office
	4. Parliament Reserve
	5. Diplomatic Reserve
	6. Archive
	7. Art Gallery
	8. Convention and Exhibition Centre
	9. Sport and Training Complex
	10. Court of Law
	11. Museum
	12. VRF Hotel
	13. VRF Resort
	14. Government Reserve
Class (IIb) Education	
	1. Primary School
	2. Secondary School
	3. School Complex (Primary & Secondary)
	4. Religious School
	5. Reserve School (for special)
	6. Institute of Higher Learning
Class (IIc) Health	
	1. Hospital
	2. Health Centre
	3. Medical Home
	4. Handicapped Centre <ul style="list-style-type: none"> + Dementia + ADD
	5. Geriatric Home
Class (IId) Religious	
	1. Mosque
	2. House
	3. Other religious <ul style="list-style-type: none"> + Church/Chapel + Temple + Hindu temple + Other

USE CLASS ORDER	ACTIVITY
Class Order: Police Services	
	1. Police Station
	• Police HQ
	• Town Police Station
	• Home Police Office
	• Mounted Police
	2. Fire & Rescue Services
	• Fire & Rescue HQ
	• Fire & Rescue Station
	3. Libraries
	• Main Library
	• Neighbourhood Library
	4. Community Hall
	5. Multi purpose Hall
	6. Information Centre
	7. Club & Leisure Facilities
	8. Public Toilet
	9. Public Market
	10. Post Office
Class 101: Public Utilities	
	1. Electricity supply
	• Reside TNB
	• PMS
	• PPS
	• PE
	• Power Filter
	2. Water supply
	• Water treatment plant
	• Water reservoir
	• Water Tank
	• Water pump station
	3. Sewerage
	• Sewerage Treatment Plant
	• Main Sewerage Pump Station
	• Sewerage Pump station
	4. Solid waste
	• Transfer Station
	• Drop off Centre (recyclable)
	• Bin House (Drop off point)
	5. Telecommunication
	• Telecom Exchange
	• Satellite Earth Station
	• Radio Base Tower
	• Fibre Distribution House
	• Street Cabinet
	6. Gas
	• Main Pressure Reducing Station
	• Domestic Gas Pressure Reducing
	• Domestic Gas Station
	• Area Gas Station
	7. Gas supply control
	• Gasometer Control Station
Class 102: Public Recreation Club	
	1. Gymnasium
	2. Sport and athletic field
	3. Stadium
	4. Indoor Sport Facilities
	5. Swimming
	6. Swimming Complex
	7. Race Track
Class 103: Cemetery	
	1. Cemetery
	2. Crematorium

USE CLASS ORDER	ACTIVITY
CLASS 18 : OPEN SPACES	
Class 18a) : Parks	
	1. Metropolitan Park
	• Green Street
	• Green Park Parklets
	• Green Parks Area
	• Green Walkway Network
	• Green Walkway
	• Green Network
	• Green 24 Hours
	• Green (outdoor)
	• Green Office
	• Green Area Desk
	• Green Spaces Area
	• Green Walkway
	• Green Public Spaces
	• Green Pedestrian
	2. Urban Park
	• Urban Parks
	• Pedestrian Walk
	• Green Park
	• Urban Park
	• Lake Valley Park (Pedestrian Paths)
	• Hilltop Park
	• Green Network
	• Buffer zones
	• Landscape Buffer
	• Road Buffer
	• Through Buffer
	• Urban Buffer
	3. City Park
	• Community Park
	• Neighborhood Park
	• Pocket Park
	• Plaza/Square
	4. Local Park
	• Playground
	• Play (Activity) Field/Play lot
	• Fitness Station
	• Other
Class 18b) : Open Area	
	1. Boulevard
	• Boulevard
	• Boulevard Intersection
	• Boulevard Pedestrian
	• Boulevard Habitat
	• Boulevard Kinesthetic
	2. Promenade
	• Type A (soft edge)
	• Type B (hard edge)
	• Type C (soft & hard edge)
Class 18c) : Waterbody	
1. Lakes	1. Wetland
	2. San Canals
	3. Reservoir
	4. Other
2. Wetlands	1. Wetland
	2. Other
3. Wetland pond	1. Reservoir
	2. Other
4. River	1. Reservoir

"USE CLASS ORDER"	2 CLASS ACTIVITY
CLASS IV - COMMERCIAL	
Class 17(a) - Retail Commercial	
	1 Agency (Exporting, Shipping, News, Courier, Advertising & General Contractors)
	2 Agency Car Rental
	3 Amusement Park
	4 Apparel Goods, Sales
	5 Art Gallery
	6 Auto Equipment, Sales
	7 Bar & Snack Bar
	8 Barber & Hairdress Salon
	9 Bicycle, Sales
	10 Book Store
	11 Bookery
	12 Bowling, Billiard & Snooker Centre
	13 Car & Motor Vehicle Showrooms, Sales
	14 Candy & Milk, Sales
	15 Clothing & Fashion Products, Sales
	16 Confection
	17 Cocktail & Club House
	18 Computer Products, Sales
	19 Construction Products (Bricks), Sales
	20 Cyber Cafe
	21 Dental
	22 Dessert
	23 Educational & Tutorial Centre
	24 Electrical Products, Sales
	25 Groceries, Sales
	26 Financial & Banking Institute
	27 Fashion Couture, Sales
	28 Food & Beverage, Sales
	29 Florist, Sales
	30 Furniture, Sales
	31 General Post Office
	32 Grocery Goods, Sales
	33 Hair Care Products, Sales
	34 Health & Beauty Centre
	35 Health Club
	36 Hotel
	37 Interior Design & House Furniture, Sales
	38 Jewellery & First Showroom, Sales
	39 Jewellery, Sales
	40 Laundrette
	41 Leather & Animal Hide, Sales
	42 Locksmith, Sales
	43 Make Up & Makeup Centre, Sales
	44 Medical Centre
	45 Medical Clinic
	46 Mobile Telephone & Pager, Sales
	47 Money Changer
	48 Nursery, Florist, Sales
	49 Office
	50 Optician
	51 Petrol Station with M.O.V
	52 Petrol Station without M.O.V
	53 Petrol Goods, Sales
	54 Pharmacy, Medicine Shop and/or Drug Store
	55 Photo Studio
	56 Plastic Goods, Sales
	57 Postal Services
	58 Petitory, veterinary and other well-known
	59 Private Institution of Higher Learning
	60 Professional Office
	61 Restaurant
	62 Coffee House
	63 Retail Meat, Sales
	64 Retailer Products, Sales
	65 Scientific Instruments, Sales
	66 Security & Driveway House

USE CLASS ORDER	ACTIVITY
CLASS IV - COMMERCIAL	
Class IV(A) - Main Commercial	
	67. Shoes, Sales 68. Sports Products, Sales & Repair 69. Stationery, Sales 70. Sarcophagi 71. Tailor's Shop 72. Textiles, Sales 73. Tobacco Products, Sales 74. Toys, Sales 75. Treatment Machines, Sales 76. Veterinary Clinic 77. Videos, CDs, Cassettes, Sales 78. Weapons, Sales 79. Watch Shop, Sales 80. Workshop Service Centre
Class IV(B) - Sub-Commercial	
	1. Agency (Exporting, Imports, News, Tourism, Advertising & General Exhibition) 2. Agency Car Rental 3. Amusement Park 4. Antique Goods, Sales 5. Apparel & Pet Shop, Sales 6. Art & Craft Shop, Sales 7. Bar & Snack Bar 8. Barber Shop/Hair Salon 9. Books, Sales 10. Book Store 11. Booklet 12. Bowling, Billiard & Snooker Centre 13. Car & Motor Vehicle Showroom, Sales 14. Cakes & Mints, Sales 15. Children's Playing Products, Sales 16. Cinema 17. Medical Clinic 18. Cocktail & Gift Shop 19. Computer Products, Sales 20. Confectionery Products Showroom, Sales 21. Cyber Cafe 22. Dental 23. Dress 24. Educational & Tutorial Centre 25. Electrical Products, Sales 26. Entertainment, Sales 27. Financial & Banking Institution 28. Fishing Equipment, Sales 29. Food & Beverage, Sales 30. Fruits, Sales 31. Groceries Goods, Sales 32. Health & Beauty Centre 33. Hotel 34. Interior Design & House Furniture, Sales 35. Jet Ski & Boat Showroom, Sales 36. Jewellery, Sales 37. Laundrette 38. Leather & Accessory, Sales 39. Locksmith 40. Mobile Telephone & Pager, Sales 41. Money Changer 42. Nursery, Florist, Sales 43. Pawn Shop 44. Petrol Station with M.G.V. 45. Petrol Station without M.G.V. 46. Petrol Goods, Sales 47. Professional Office

Class A)(b) - Sub - Commercial	
	44. Pharmacy, Medicine Shop and/or Drugs Store
	45. Photo Studio
	46. Photo Studio, Sales
	47. Post Office
	48. Postal Services
	49. Potters, working and other craftsmen
	50. Private School
	51. Private Welfare Home
	52. Restaurant / Coffee House
	53. Retail Meat Sales
	54. Retail Products, sales
	55. Scientific Instruments, Sales
	56. Shoes, Sales
	57. Tailors
	58. Tents, Products, Sales & Repair
	59. Tailors, Sales
	60. Taxi, Sales
	61. Supermarket
	62. Sales
	63. Textiles, Sales
	64. Trolley Products, Sales
	65. Tunn, Sales
	66. Traditional Medicine, Sales
	67. Veterinary Clinic
	68. Wines, CDS, Cigarettes, Sales
	69. Wash Shop, Sales
	70. Wholesale General Goods
Class A)(c) - Neighborhood Center	
	1. Aquarium & Pet Shop, Sales
	2. Barber Shop/Bar Salon
	3. Bakery, Sales
	4. Books, Sales
	5. Bookshop
	6. Clinic
	7. Cyber Cafe
	8. Day Care Center
	9. Electrical Products, Sales
	10. Embroidery
	11. Equestrian Club
	12. Food & Beverage, Sales
	13. Florist, Sales
	14. Furniture, Sales
	15. Grocery Goods, Sales
	16. Hair Care Products, Sales
	17. Health & Beauty Center
	18. Laundrette
	19. Make up & Beauty Salon, Sales
	20. Medical Clinic
	21. Mini Market
	22. Mobile Telephone & Paper, Sales
	23. Nursery, Plants, Sales
	24. Petal Station with N.C.V
	25. Retail Station without N.C.V
	26. Pharmacy, Medicine Shop and/or Drugs Store
	27. Photo Studio
	28. Picture Framing
	29. Photo Studio, Sales
	30. Petal Club
	31. Post Office
	32. Postal Services
	33. Potters, working and other craftsmen
	34. Private Recreational Club
	35. Private School
	36. Private Welfare Home
	37. Professional Offices
	38. Restaurant & Coffee House
	39. Retail Meat, Sales
	40. Retail Products, sales
	41. Shoes, Sales
	42. Tents, Trolley Products, Sales & Repair

	<ul style="list-style-type: none"> 43. Stationery Sales 44. Kiosks/Gates (Taxis) 45. Toy Products Sales 46. Toys Sales 47. Traditional Medicine Sales 48. Videos, CDs, Cassettes Sales 49. Photocopy Service Centre
Class IVB - Local Centre	
	<ul style="list-style-type: none"> 1. Barber Shop/Bar Saloon 2. Beauty Salons & Parlors 3. Clinic 4. Confectionery Store 5. Cycle Cafe 6. Day Care Centre (Taxis) 7. Food & Beverage Sales 8. Fruit Sales 9. Grocery Goods Sales 10. Landscaping 11. Locksmith 12. News Agency 13. Nursery, Florist Sales 14. Photo Studio 15. Restaurant/Cafe 16. Stationery Sales 17. Kiosks/Gates (Taxis) 18. Tailor's Shop 19. Toy Products Sales 20. Tutor Centre 21. Video Centre
Class IVB - Other Area	
	<ul style="list-style-type: none"> 1. Government Office 2. Day Care Centre (Taxis) 3. Landscaping 4. Kiosks/Gates (Taxis) 5. Private Residential Club 6. Private School 7. Private Welfare Home 8. Postal Services 9. Printing Service 10. Clinic 11. Pharmacy 12. Office
CLASS V - SERVICE BUSINESSES	
Class V(a) - Motor Repair & Services	
	<ul style="list-style-type: none"> 1. Motor Vehicle Equipment, Accessories and Spare Part (Sales and Installation) 2. Battery (Charge and Fixing) 3. Brakes (Sales, Storage and Repair) 4. Car Wash and Polish (Services) 5. Tyre Service Centre, Including Wheel Balancing and Wheel Alignment (Sales, Storage and Services) 6. Workshops for Car, Motorcycle and Machinery (Repair) 7. Installation of Air Conditioners in Motor Vehicles (Sales and Services)
Class V(b) - Furniture	
	<ul style="list-style-type: none"> 1. Furniture (Assembling, Sales and Storage) 2. Rattan (Sales and Storage)
Class V(c) - Frame Motor	
	<ul style="list-style-type: none"> 1. Frame Motor (Sales, Storage and Manufacture) 2. Glass Cutting and Plate Fitting (Sales and Storage)

Class VII : Food and Beverage Manufacturing	
	<ol style="list-style-type: none"> 1. Bread (Storage and Manufacture) 2. Bakery (Storage and Manufacture) 3. Meat (Preparation, Storage and Storage) 4. Milling of Grains (Storage and Manufacture) 5. Other Food Products (Storage and Manufacture)
Class VIII : Warehousing and Storage	
	<ol style="list-style-type: none"> 1. Acrylics, Styrenes and (PS) exceeding 25kg (Sales and Storage) 2. Alloy and Alloys including other metal treatment (Sales and Storage) 3. Animal - Fish Meal (Dry and Pellets) (Sales and Storage) 4. Animal Feed (Sales and Storage) 5. Cotton and Fibre (Sales and Storage) 6. Chemical, Coal and other Related Material (Sales and Storage) 7. Detergent, soap products and other related items (Sales and Storage) 8. Extrudate (Flour) over exceeding 200 sq. m. (Sales and Storage) 9. Fibreglass Products (Sales and Storage) 10. Flammable Gas (Sales and Storage) 11. Gypsum (Flour) over exceeding 200 sq. m. (Sales and Storage) 12. Hardware and Construction Products (Sales and Storage) 13. Inorganic and Agricultural Chemicals (Sales and Storage) 14. Plywood (Sales and Storage)
Class IX : Services (Retail Service Industry Area)	
	<ol style="list-style-type: none"> 1. Advertising, Sales And Marketing Of Signposts And Related Products (Services) 2. Book Binding and Printing Press (Retail) (Retail) (Services) 3. Dry Cleaning (Services) 4. Electrical Appliances, Repair (Services) 5. Foot Clothing (Services) 6. Framing (Services)
Class X : Services (Other Area)	
	<ol style="list-style-type: none"> 1. Burying Plot (Services) 2. Bus Depot (Services) 3. Motor Station with M.V. 4. Petrol Station without M.V. 5. Postoffice Depot (Services)
Class XI : Others	
	<ol style="list-style-type: none"> 1. General Manufacturing 2. Metal Materials (Sales - Repair) 3. Scientific Instrument (Sales and Repair) 4. Text, Metal Goods and other Related Items (Sales and Storage) 5. Vehicle Works (Sales and Storage)

CLASS IV: INFRASTRUCTURE	
Class IV(a) Transportation	
	1. Road Reserve
	2. EPL Reserve
	3. Bridge
	4. Transportation Hub/Terminal
	5. Lift Station
	6. Park & Ride Station
	• Surface Parking
	• Mulchway Parking
	• Rampment
	7. Car Pool
	• Surface Parking
	• Mulchway Parking
	• Rampment
	8. Bus Station
	9. Taxi Station
	10. Bus & Taxi Loop
Class IV(b) Drainage	
	1. Stormwater Treatment
	2. Grease Pockets/Trap Area
	3. Oil and Grease Trap Area
	4. Detritage - Pump Area

APPENDIX 25 ENVIRONMENTAL MONITORING GUIDELINES FOR CONTRACTORS	Revision: 1.0 Date: 15 December 1998
<p>Putrajaya Holdings Sdn Bhd (PHSB) is responsible to the Perbadanan Putrajaya for the overall coordination of the environmental monitoring in Putrajaya. All contractors are required to liaise with the Environmental Management Unit (EMU) of PHSB on the environmental monitoring requirements for their respective project site (see Item 2.1.4.2 for the contact details of EMU).</p> <p>The EMU is responsible for reviewing the adequacy of the monitoring programme whereas the Environment Unit (EU) of Perbadanan Putrajaya is the approving authority for the programme.</p> <p>1.0 NOISE</p> <p>1.1.1 Parameters</p> <p>Construction noise levels shall be measured in terms of the A-weighted equivalent continuous sound pressure level (L_{eq}). L_{eq} (30 min) shall be used as the monitoring parameter for the time period of construction activity in any one day.</p> <p>As supplementary information for the data auditing process, statistical results such as L_{10} and L_{50} shall also be obtained for reference.</p> <p>1.1.2 Monitoring Equipment</p> <p>Sound level meters in compliance with the International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1) specifications shall be used for carrying out the noise monitoring. Immediately prior to and following each noise measurement event or period the accuracy of the sound level meter shall be checked using an acoustic calibrator generating a known sound pressure level at a known frequency.</p>	
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APPENDIX 25 ENVIRONMENTAL MONITORING GUIDELINES FOR CONTRACTORS	Revision : 1.0 Date : 15 December 1998
<p>Noise measurements shall not be made in rain or wind with a steady speed exceeding 5 ms^{-1} or with gusts exceeding 10 ms^{-1}. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in ms^{-1}.</p> <p>1.1.3 Monitoring Locations</p> <p>Under existing Department of Environmental (DOE) guidelines for monitoring, noise levels should also be measured at site boundary. Readings should also be taken at each site located adjacent to sensitive receptors (residential areas, roads, schools, any place where people congregate for business, pleasure or other purpose).</p> <p>If there is a problem with access to the normal monitoring position, an alternative position may be chosen, and a correction to the measurement shall be made. For reference, a correction of $\pm 3 \text{ dB(A)}$ shall be made to the free field measurements. Once the positions for the monitoring stations are chosen and agreed upon between the EMU and ER, the baseline monitoring and impact monitoring shall be carried out in the same position.</p> <p>1.1.4 Baseline Monitoring</p> <p>The Contractor shall carry out the baseline noise monitoring prior to the commencement of the construction works. A schedule on the baseline monitoring shall be submitted to the EMU for approval before the monitoring starts. There shall be no construction activities in the vicinity of the stations during the baseline monitoring.</p> <p>1.1.5 Noise Impact Monitoring</p> <p>A monitoring strategy has been devised for the development. Two level monitoring has been established:</p> <ol style="list-style-type: none"> overall boundary monitoring of noise levels to be conducted on a monthly basis, and 	
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<p>2. internal precinct monitoring to be conducted on a fortnightly basis.</p> <p>Noise monitoring shall be carried out at the all designated monitoring stations. The monitoring frequency shall depend on the scale of the construction activities. Monitoring duration when noise generating activities are underway is one set of measurements between 0600-2000 hours on normal weekdays.</p> <p>Sampling should be conducted as per DOE requirements (see Section 1.1.3).</p> <p>1.1.6 Laboratory Analysis</p> <p>The laboratory chosen for the monitoring works shall be accredited by SIRIM. The laboratory shall submit to the EMU the method statements for the monitoring and equipment calibration. The laboratory must submit to the EMU the maintenance and laboratory quality programme.</p> <p>2.0 AIR QUALITY MONITORING</p> <p>2.1.1 Parameters</p> <p>As per DOE environmental monitoring requirements, total suspended particulates (TSP), nitrogen oxides (NO_x) and sulphur oxides (SO_x) shall be measured to ensure that any significant deterioration in air quality is readily detected and action shall be taken to rectify the situation.</p> <p>All relevant data including temperature, pressure, weather conditions, elapsed time meter reading for the start and stop of the sampler, identification and weight of the filter paper, construction activities being undertaken and other special phenomena shall also be reported.</p>	
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2.1.2 Monitoring Equipment

High volume samplers (HVS) shall be used. Sufficient number must be available depending on the number of monitoring locations. The HVSs shall be equipped with an electronic mass flow controller and be calibrated against a traceable standard at regular intervals.

Initial calibration of dust monitoring shall be conducted upon installation and thereafter at fortnightly intervals. The calibration data shall be properly documented for future reference. All data shall be converted into standard temperature and pressure condition.

The flow rate of the sampler before and after the sampling exercise with the filter in position shall be verified to be constant and be recorded.

2.1.3 Laboratory Analysis

A clean laboratory with constant temperature and humidity control, and equipped with the necessary measuring and conditioning instruments, to handle the samples collected, shall be available for sample analysis, equipment calibration and maintenance.

Twenty four (24)-hour TSP amounts shall be measured to indicate the impacts of construction dust on air quality. TSP monitoring methodology shall be measured using a standard high volume sampler and concentrations determined using the standard specification APHA 111.1-01-70T. NO_x and SO_x shall be monitored using an air sampling pump with pollutant analysis capability while their concentrations shall be determined using the standard specification APHA 42603-01-70T and APHA 42401-01-69T respectively.

Sample collection and analysis shall be conducted by the laboratory(s) chosen to undertake the monitoring and approved by the EMU. The laboratory must be accredited by SIRIM as per DOE requirements.

All collected samples shall be kept in good condition for 1 month before disposal.

2.1.4 Monitoring Locations

Generally, monitoring locations must be selected based on the following criteria:

- a) At the site boundary or locations that are close to the major pollutant source
- b) Close to the identified sensitive receptors.
- c) Take into account the prevailing meteorological conditions.

When positioning the samplers, the following factors shall be observed:

- a horizontal platform with appropriate support to secure the samplers;
- no two samplers shall be placed less than 2 meters apart;
- the distance between a sampler and an obstacle must be at least twice the height that the obstacle protrudes above the sampler;
- airflow around the sampler is unrestricted.

2.1.5 Baseline Monitoring

The Contractor shall carry out the baseline air quality monitoring prior to the commencement of the construction works. A schedule on the baseline monitoring shall be submitted to the EMU for approval before the monitoring starts.

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<p>There shall be no construction activities in the vicinity of the stations during the baseline monitoring. In exceptional cases, when insufficient baseline monitoring data or questionable results are obtained, the EMU shall liaise with DOE to agree on appropriate set of data to be used as a baseline reference and submit to the ER for approval.</p> <p>2.1.6 Air Quality Impact Monitoring</p> <p>A monitoring strategy has been devised for the development. Two level monitoring has been established:</p> <ol style="list-style-type: none"> 1. overall boundary monitoring of air quality to be conducted on a monthly basis, and 2. internal precinct monitoring to be conducted on a fortnightly basis. <p>Air quality monitoring shall be carried out at all designated monitoring stations. The monitoring frequency shall depend on the scale of the construction activities. Monitoring duration when generating activities are underway is one set of measurements between 0600-2000 hours on normal weekdays.</p> <p>The specific time to start and stop monitoring shall be clearly defined for each location and be strictly followed by the operator.</p> <p>3.0 WATER QUALITY MONITORING</p> <p>3.1.1 Water Quality Parameters</p> <p>Three levels of water quality monitoring should be carried out with three sets of parameters. The first set of parameters (Set A) is monitored to provide information on compliance of the construction activities and are to be measured on a fortnightly basis for the silt traps within the site. The parameters are:</p>	
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<p style="text-align: center;">Total suspended solids (TSS) Dissolved oxygen (DO)</p> <p>Set B is to be monitored on locations other than the silt traps. The parameters which are to be measured on a monthly basis are:</p> <ul style="list-style-type: none"> Water flow* Temperature* pH* Biological Oxygen Demand (BOD₅ at 20°C) Chemical Oxygen Demand Dissolved oxygen Total suspended solids Oil & grease Total coliform E. coli Ammoniacal Nitrogen Nitrogen Phosphorus Potassium Pesticides** <p>Note: * to be measured in situ ** consists of organochlorine pesticides</p> <p>Set C is the expansion of the parameters to be monitored for the samples collected for Set B monitoring. The parameters which are to be measured on a six monthly basis are:</p> <ul style="list-style-type: none"> Water flow* Temperature* pH* Dissolved Oxygen* Turbidity* Biological Oxygen Demand (BOD₅ at 20°C) Chemical Oxygen Demand 	
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Total Suspended Solids
 Oil & grease
 Total coliform
 E. coli
 Ammoniacal Nitrogen
 Arsenic
 Boron
 Cadmium
 Chromium, Hexavalent
 Chromium, Trivalent
 Cyanide
 Copper
 Free Chlorine
 Iron
 Lead
 Manganese
 Mercury
 Nickel
 Phenol
 Sulphide
 Tin
 Zinc
 Pesticides**

Note: * to be treated at site
 ** consists of organochlorine pesticides

This is carried out to ensure that any deteriorating water quality could be easily detected and timely action is taken to rectify the situation.

In association with water quality parameters, other relevant data such as monitoring location/position, time, water depth, weather conditions, and any special phenomena and work underway at the construction site shall also be recorded.

3.1.2 Monitoring Equipment

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All in situ monitoring instrument shall be checked, calibrated and certified by laboratories accredited under SIRIM before use, and subsequently re-calibrated at 3 monthly intervals throughout all stages of the water quality monitoring. Responses of sensors and electrodes should be checked with certified standards solutions before use. Wet bulb calibration for DO meters shall be carried out before measurement at each monitoring location.

For the on site calibration of field equipment, the BS 127:1993 'Guide to Field and On site Methods for the Analysis of Waters' or any other international standard should be observed.

Sufficient stocks of spare parts should be maintained for replacements when necessary. Backup monitoring equipment shall also be made available so that monitoring can proceed uninterrupted even when some equipment is under maintenance, calibration, etc.

The EMU will review proposals for the use of monitoring equipment to ensure that they are suitable. Monitoring equipment proposals must be accepted by EMU prior to commencement of the monitoring programme.

All samples must be labelled, a sampling collection and a chain of custody schedule shall be designed for use.

Dissolved oxygen and temperature measuring equipment.

The instrument should be portable, weatherproof and complete with cable, sensor, comprehensive operation manuals and use of a DC power source. It should be capable of measuring:

- a) a dissolved oxygen level in the range of 0 - 20 mg/l and 0 - 200% saturation, and

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- c) a temperature of 0 - 45°C.

It should have a membrane electrode with automatic temperature compensation complete with a cable. Sufficient stocks of spare electrodes and cables should be available for replacement where necessary (eg. YSI model 59 meter, YSI 5739 probe, YSI 5795A submersible stirrer with reel and cable or an approved similar instrument).

Suspended solids:

A water sampler comprises of a transparent PVC cylinder with a capacity not less than 2 litres, and can be effectively sealed with latex cups at both ends. The sampler shall have a positive latching system to keep it open and prevent premature closure until released by a messenger when the sampler is at the selected water depth (eg. Kahlstro Water Sampler or an approved similar instrument).

Water samples for suspended solids measurement should be collected in high density polythene bottles, packed in ice (cooled at 4°C without being frozen), and delivered to the laboratory as soon as possible after collection.

Water depth detector:

A portable battery-operated echo sounder should be used for the determination of water depth at each designated monitoring station. This unit can either be handheld or affixed to the bottom of the work boat, if the same vessel is to be used throughout the monitoring programme.

Location of the monitoring site:

It is important to ensure that the monitoring location is clearly marked to ensure that sampling is at the correct location.

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<p>3.1.3 Laboratory Analysis</p> <p>The laboratory must be accredited by SIRIM. Analytical protocols should be conducted in accordance with the "Standard Methods for the Examination of Water and Wastewater" published jointly by the American Public Health Association, the American Water Works Association and the Water Pollution Control Federation of the United States, or "Analysis of Raw, Potable, and Wastewater" published by the Department of Environment, United Kingdom, in accordance with the Second Schedule of the Environmental Quality (Sewage and Industrial Effluents) Regulations, 1979.</p> <p>Analysis protocols should be submitted to the EMU for approval prior to appointment of the laboratory.</p> <p>If a site laboratory is to be set-up for carrying out the laboratory analysis, the laboratory equipment, analytical procedures, and quality control shall be approved by the DOE prior to commencement of monitoring programme. If in-house or non-standard methods are proposed, the details of the method verification may also be required to submit to DOE. In any circumstances, the sample testing should have comprehensive quality assurance and quality control programme. The laboratory should be prepared to demonstrate the programmes to EMU when requested.</p> <p>3.1.4 Monitoring Locations</p> <p>Control stations shall be located within the site as the impact monitoring stations but should be outside the area of influence of the works and, as far as practicable, not affected by any other works.</p> <p>Water should be taken mid-depths.</p>	
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3.1.5. Baseline Monitoring

The purpose of baseline monitoring is to establish ambient conditions prior to the commencement of the works and to demonstrate the suitability of the proposed impact, control and reference monitoring stations.

The baseline conditions shall normally be established by measuring the water quality parameters specified in Section 3.1.1. The measurements shall be taken at all designated monitoring stations including control stations. Set C should be used for the determination of baseline conditions.

There shall not be any construction activities in the vicinity of the station during the baseline monitoring.

3.1.6 Water Quality Impact Monitoring

Water quality impact monitoring shall be carried out at all designated monitoring stations. The monitoring frequency shall depend on the scale of the construction activities. However as an initial guide on the regular monitoring frequency for each station, it is recommended that sampling be undertaken weekly with sampling/measurement at the designated monitoring stations.

The interval between two sets of monitoring shall not be less than 36 hours except where there is avoidance of Action and/or Limit levels, in which case the monitoring frequency will be increased.

Upon completion of construction activities, a post project monitoring exercise on water quality shall be carried out for weeks in the same manner as the impact monitoring.

APPENDIX 26 - EMU (PHSB)'S MAIN RESPONSIBILITIES

The following is a list of the main responsibilities of the EMU (PHSB) for environmental management in Putrajaya:

- (a) To review and endorse a project proponent's EMP to ensure its compliance to all pertinent environmental legislation and environmental management requirements in Putrajaya, including the EIA Approval Conditions.
- (b) To review and approve a contractor's EMCP to ensure that its implementation procedures and plans meet with the environmental pollution control measures, monitoring and auditing requirements specified in the project's EMP.
- (c) To review a contractor's PAP to ensure that they are adequate for the project.
- (d) To review a contractor's PCP to ensure that they are adequate for the project.
- (e) To conduct the required environmental monitoring, record keeping and report submission to the DOE and the Perbadanan.
- (f) To conduct monthly environmental audits to ensure a contractor's compliance to the implementation plans and procedures described in its EMCP.
- (g) To submit a quarterly report to the Perbadanan on the environmental management activities that have been carried out during the quarter in the prescribed format given in Appendix 26.
- (h) To ensure that the necessary corrective measures related to any non-compliance detected during the environmental audits are implemented.
- (i) To investigate, follow-up with all pertinent parties and document all environmental-related complaints arising from any project activities within Putrajaya.

APPENDIX 27 – FORMAT OF THE EMU (PHSB) QUARTERLY REPORT TO THE PERBADANAN AND THE DOE

The following is the recommended format for the content of the EMU (PHSB)'s quarterly report to the Perbadanan and the DOE:

- Table of Contents
- List of Tables
- List of Figures
- List Abbreviations

1.0 UPDATE OF CONSTRUCTION PROGRESS

EMU (PHSB) is to provide a list of all the projects in Putrajaya and give an update on the progress of work for each of them.

2.0 ENVIRONMENTAL MONITORING

- EMU (PHSB) is to provide an update on the environmental monitoring carried out for the quarter, for every monitoring stations within Putrajaya. The report should be organised under the following topics:

- 2.1 Air Quality
- 2.2 Noise Levels
- 2.2 Water Quality
 - 2.2.1 Silt Trap Monitoring
 - 2.2.2 River Water Monitoring

3.0 ENVIRONMENTAL AUDIT

- EMU (PHSB) is to provide a brief update on the environmental audit carried out for the quarter, for every project within Putrajaya. The report should be organised under the following topics:

- 3.1 Project Title No. 1
 - 3.1.1 Overall Observations
 - 3.1.2 Non-Compliance and rectification

-
- 3.5 Project Title No. 5
 - 3.5.1 Overall Observations
 - 3.5.2 Non-Compliance and rectification
-

4.0 OVERALL ENVIRONMENTAL MANAGEMENT STATUS

- EMU (PHSB) is to provide an update on the environmental management status for the quarter, for the following topics:

4.1 Silt Traps

- Provide a list of all silt traps together with location maps. The report should provide an update on the maintenance status of the silt traps.

4.2 Site Clearance and Turfing

- Provide a list of all project areas together with location maps. The report should provide an update on the site clearance, earthworks status, building erection status or project closure/abandonment status. It should also report on the turfing status to date for any cleared area.

4.3 Solid Waste Management

- Provide an update on the overall solid waste management issues during the quarter, if any.

4.4 Scheduled Waste Management

- Provide an update on the overall management of scheduled waste for all project sites within Putrajaya.

4.5 Wastewater Management

- Provide an update on the overall wastewater management for all project sites within Putrajaya.

5.0 CONCLUSIONS

6.0 APPENDICES