



PUBLIC

Minister for Education; Tourism

28-20268/1-D10/0580815



Hon Brian Ellis MLC
Chairman
Standing Committee on Environment and Public Affairs
Parliament House
PERTH WA 6000

Dear Mr Ellis *Brian*

Thank you for your correspondence concerning Petition No 68 - Air Conditioning in State Government Schools.

I am able to provide the following information for your committee:

- A copy of the Department of Education's guidelines for air conditioning/air-cooling and maps indicating the existing air conditioning/air-cooling zone are attached (*attachments 1, 2 and 3*).
- The review of the Department's *Air-Cooling* policy is being undertaken by officers from the Facilities Program Delivery Branch. I anticipate that the review will be completed by 31 December 2010. Arrangements will be made for a copy to be forwarded to your committee as soon as possible after that date.
- All schools within the current air conditioning/air-cooling zone are fully air-cooled. A list of schools is attached as requested (*attachment 4*).
- The majority of schools outside of the air conditioning/air-cooling zone will have minimal to total air conditioning/air-cooling provided through school based funds. The extent of air conditioning/air-cooling is not readily available as these are school-based decisions and data is not held centrally.
- The Department does not have a priority list of schools for air conditioning/air-cooling. Only new schools within the existing air conditioning/air-cooling zone will be air conditioned.
- All new schools built in recent years have been constructed with a number of environmental design considerations which reflect the highest level of passive natural air conditioning/air-cooling available. The Department has also provided additional shade structures in schools and encourages the planting of shade trees in school grounds. Principals and teachers are able to modify learning programs during the periods of extreme temperatures.
- New schools built since 2008 that have been air conditioned: Bletchley Park Primary School.

- o New Schools which have opened since 2008 that have not been air conditioned are as follows:

2008:

Ellen Stirling Primary School
Hocking Primary School
South Halls Head Primary School
Cape Naturaliste College
Atwell College
Mount Barker Community College

2009:

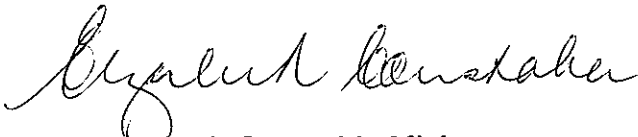
Kingston Primary School
Madeley Primary School
Sommerly Primary School
Success Primary School
Manea Senior College
Ashdale Senior College
Dalyellup College

2009-2010 Replacement Schools:

Craigie Heights Primary School
Roseworth Primary School
Greenwood Primary School
Hudson Park Primary School

Thank you for interest in this matter.

Yours sincerely



Dr Elizabeth Constable MLA
MINISTER FOR EDUCATION; TOURISM

Att.

21 OCT 2010

PUBLIC

POLICY FOR THE PROVISION OF AIR COOLING SYSTEMS IN SCHOOLS

Definition

Air-Cooling is defined as refrigerated air conditioning or evaporative cooling.

Background

This policy outlines the Department of Education and Trainings criterion for air-cooling systems in schools.

The Department's air-cooling policy is based on an assessment of climate in respect to the stress it imposes upon people. The 25 day relative strain index line is considered to be a general guide (rather than a fixed demarcation line) that indicates schools to the north and east of this line being eligible for the cooling. The Bureau of Meteorology has provided the factual data to enable this line to be plotted.

The relative strain index incorporates the effect of net radiation on the body, insulating value of moist air and clothing, air temperature, metabolic heat rate, air movement and humidity. This is the level at which a normal person is uncomfortable. Locations which have more than 25 days when conditions are considered uncomfortable are deemed to be within the air cooling zone.

Maps indicating the air cooling zone are attached.

In the air-cooling zone, buildings are evaporatively cooled unless climatic conditions (combination of wet and dry bulb conditions), poor water quality etc prevent satisfactory use. Where evaporate cooling cannot provide adequate comfort, refrigerated air conditioning will be installed.

Transportable Buildings

All transportable school buildings throughout the state are air cooled.

Education Support Classrooms

Education Support Centres and Education Support Units, irrespective of location receive air cooling.

Energy Efficient Buildings

In new schools and all refurbishments environmental consideration and best practice passive design criteria are used to achieve thermal comfort.

Schools not in the Air-Cooling Zone

Schools located outside the air cooling zone may choose to air-cool their school using their own school based funding. (e.g. minor works; Parents and Citizens' Association Funding; or other community sources.) The Department of Housing and Works representatives will assist schools in their planning and installation of air-cooling.

PUBLIC

SCHOOLS THAT ARE AIR CONDITIONED OR AIR-COOLED

DISTRICT NAME

SCHOOL NAME

ALBANY

ALBANY SECONDARY EDUCATION SUPPORT
CENTRE (ED SUP CTRE)
SPENCER PARK ED SUP CTRE

BUNBURY

COLLEGE ROW SCHOOL
NEWTON MOORE ED SUP CTRE
SOUTH BUNBURY ED SUP CTRE

CANNING

ARMADALE ED SUP CTRE
ARMADALE PRIMARY SCHOOL
ARMADALE SENIOR HIGH SCHOOL
ASHBURTON DRIVE PRIMARY SCHOOL
BECKENHAM PRIMARY SCHOOL
BLETCHLEY PARK PRIMARY SCHOOL
BRAMFIELD PARK PRIMARY SCHOOL
BYFORD PRIMARY SCHOOL
CALADENIA PRIMARY SCHOOL
CAMPBELL PRIMARY SCHOOL
CANNINGTON COMMUNITY ED SUP CTRE
CARSON STREET SCHOOL
CECIL ANDREWS SNR HIGH SCHOOL
CHALLIS EARLY C'HOOD ED CENTRE
CHALLIS PRIMARY SCHOOL
CLIFTON HILLS PRIMARY SCHOOL
CLOVERDALE ED SUP CTRE
DAWSON PARK PRIMARY SCHOOL
EAST KENWICK PRIMARY SCHOOL
EAST MADDINGTON PRIMARY SCHOOL
EAST VICTORIA PARK ED SUP CTRE
EXCELSIOR PRIMARY SCHOOL
FALLS ROAD PRIMARY SCHOOL
FOREST CRESCENT PRIMARY SCHOOL
FORRESTDAL E PRIMARY SCHOOL
FORRESTFIELD PRIMARY SCHOOL
GOOSEBERRY HILL PRIMARY SCHOOL
GOSNELLS PRIMARY SCHOOL
GROVELANDS PRIMARY SCHOOL
GWYNNE PARK ED SUP CTRE
GWYNNE PARK PRIMARY SCHOOL
HUNTINGDALE PRIMARY SCHOOL
KALAMUNDA ED SUP CTRE
KALAMUNDA PRIMARY SCHOOL
KALAMUNDA SENIOR HIGH SCHOOL
KALAMUNDA SHS ED SUP CTRE
KELMSCOTT PRIMARY SCHOOL
KELMSCOTT SENIOR HIGH SCHOOL
KENSINGTON SECONDARY SCHOOL
KENWICK SCHOOL
KINGSLEY PRIMARY SCHOOL
LESMURDIE PRIMARY SCHOOL
LESMURDIE SENIOR HIGH SCHOOL
MADDINGTON ED SUP CTRE
MADDINGTON PRIMARY SCHOOL
MAIDA VALE PRIMARY SCHOOL
MARRI GROVE PRIMARY SCHOOL
NEERIGEN BROOK PRIMARY SCHOOL

PUBLIC

ORANGE GROVE PRIMARY SCHOOL
PICKERING BROOK PRIMARY SCHOOL
QUEENS PARK PRIMARY SCHOOL
ROLEYSTONE DISTRICT HIGH SCHOOL
ROLEYSTONE PRIMARY SCHOOL
SEAFORTH PRIMARY SCHOOL
SOUTH THORNIE PRIMARY SCHOOL
SOUTHERN RIVER COLLEGE
THORNIE PRIMARY SCHOOL
THORNIE SENIOR HIGH SCHOOL
WALLISTON PRIMARY SCHOOL
WATTLE GROVE PRIMARY SCHOOL
WESTFIELD PARK PRIMARY SCHOOL
WILLANDRA PRIMARY SCHOOL
WIRRABIRRA ED SUP CTRE
WIRRABIRRA PRIMARY SCHOOL
WOODLUPINE PRIMARY SCHOOL
YALE PRIMARY SCHOOL
YULE BROOK COLLEGE

ESPERANCE

ESPERANCE SHS ED SUP CTRE

FREMANTLE-PEEL

CASTLEREAGH SCHOOL
ENDEAVOUR ED SUP CTRE
HALLS HEAD CC ED SUP CTRE
JANDAKOT ED SUP CTRE
KIM BEAZLEY SCHOOL
KOORANA ED SUP CTRE
LEDA ED SUP CTRE
LEEMING SHS ED SUP CTRE
MALIBU SCHOOL
NORTH MANDURAH ED SUP CTRE
RIVERSIDE ED SUP CTRE
RIVERTON ED SUP CTRE
ROCKINGHAM BEACH ED SUP CTRE
ROCKINGHAM SHS ED SUP CTRE
WARNBRO COMMUNITY HIGH SCHOOL ES
CTRE

GOLDFIELDS

BLACKSTONE CAMPUS
BLACKSTONE REMOTE COMMUNITY SCHOOL
BOULDER PRIMARY SCHOOL
COOLGARDIE PRIMARY SCHOOL
COSMO NEWBERRY CAMPUS
EAST KALGOORLIE PRIMARY SCHOOL
EASTERN GOLDFIELDS COLLEGE
EASTERN GOLDFIELDS ES CTRE
GOLDFIELD CAMP SCHOOL
HANNANS PRIMARY SCHOOL
JAMESON CAMPUS
KALGOORLIE PRIMARY SCHOOL
KALGOORLIE SCHOOL OF THE AIR
KALGOORLIE-BOULDER COMMUNITY HIGH
KAMBALDA PRIMARY SCHOOL
KAMBALDA WEST DISTRICT HIGH SCH
KIWIRRKURRA CAMPUS
LAVERTON PRIMARY SCHOOL
LEINSTER PRIMARY SCHOOL
LEONORA DISTRICT HIGH SCHOOL

PUBLIC

MENZIES REMOTE COMMUNITY SCHOOL
MOUNT MARGARET REMOTE COMMUNITY
SCHOOL
MULGA QUEEN ANNEX
NORTH KALGOORLIE PRIMARY SCHOOL
O'CONNOR ED SUP CTRE
O'CONNOR PRIMARY SCHOOL
SOUTH KALGOORLIE PRIMARY SCHOOL
SOUTHERN CROSS DIST HIGH SCH
THE NGAANYATJARRA LANDS SCHOOL
TJIKKARLI CAMPUS
TJUNTJUNJARA REMOTE COMMUNITY
SCHOOL
TJURKURLA CAMPUS
WANAKURNA REMOTE COMMUNITY SCHOOL
WARBURTON REMOTE COMMUNITY SCHOOL
WARNARN CAMPUS
WILUNA REMOTE COMM SCHOOL
WINGELLINA REMOTE COMMUNITY SCHOOL
YINTARRI REMOTE COMMUNITY SCHOOL

KIMBERLEY

BAYULU REMOTE COMMUNITY SCHOOL
BROOME CAMP SCHOOL
BROOME PRIMARY SCHOOL
BROOME SENIOR HIGH SCHOOL
CABLE BEACH PRIMARY SCHOOL
DAWUL REMOTE COMMUNITY SCHOOL
DERBY DISTRICT HIGH SCHOOL
DJUGERARI REMOTE COMMUNITY SCHOOL
FITZROY CROSSING DIST HIGH SCH
HALLS CREEK DISTRICT HIGH SCH
JUNGDRANUNG REMOTE COMMUNITY
SCHOOL
KALUMBURU REMOTE COMMUNITY SCHOOL
KIMBERLEY SCHOOL OF THE AIR
KUNUNURRA DISTRICT HIGH SCHOOL
LA GRANGE REMOTE COMMUNITY SCHOOL
LOOMA REMOTE COMMUNITY SCHOOL
MULUDJA REMOTE COMMUNITY SCHOOL
NGALAPITA REMOTE COMMUNITY SCHOOL
ONE ARM POINT REMOTE COMMUNITY
SCHOOL
OOMBULGURRI REMOTE COMMUNITY
SCHOOL
ROEBUCK PRIMARY SCHOOL
WANANAMI REMOTE COMMUNITY SCHOOL
WANGKATJUNGKA REMOTE COMMUNITY
SCHOOL
WYNDHAM DISTRICT HIGH SCHOOL

MID WEST

BADGINGARRA PRIMARY SCHOOL
BINNU PRIMARY SCHOOL
BUNTINE PRIMARY SCHOOL
BRRINGURRAH REMOTE COMMUNITY
SCHOOL
CARNAMAH DISTRICT HIGH SCHOOL
CARNARVON PRIMARY SCHOOL
CARNARVON SCHOOL OF THE AIR
CARNARVON SENIOR HIGH SCHOOL

PUBLIC

CHAPMAN VALLEY PRIMARY SCHOOL
COOROW PRIMARY SCHOOL
CUE PRIMARY SCHOOL
DANDARAGAN PRIMARY SCHOOL
EAST CARNARVON PRIMARY SCHOOL
ENEABBA PRIMARY SCHOOL
EXMOUTH DISTRICT HIGH SCHOOL
GASCOYNE JUNCTION REMOTE COMMUNITY
SCH
KALBARRI DISTRICT HIGH SCHOOL
LATHAM PRIMARY SCHOOL
MEEKATHARRA DISTRICT HIGH SCH
MEEKATHARRA SCHOOL OF THE AIR
MINGENEW PRIMARY SCHOOL
MORAWA DISTRICT HIGH SCHOOL
MOUNT MAGNET DISTRICT HIGH SCHOOL
MULLEWA DISTRICT HIGH SCHOOL
NORTHAMPTON DISTRICT HIGH SCH
PERENJORI PRIMARY SCHOOL
PIA WADJARRI REMOTE COMMUNITY
SCHOOL
SANDSTONE PRIMARY SCHOOL
SHARK BAY SCHOOL
THREE SPRINGS PRIMARY SCHOOL
USELESS LOOP PRIMARY SCHOOL
WA COLLEGE OF AGRICULTURE - MORAWA
WALKAWAY PRIMARY SCHOOL
WATHEROO PRIMARY SCHOOL
YALGOO PRIMARY SCHOOL
YULGA JINNA REMOTE COMMUNITY SCHOOL
YUNA PRIMARY SCHOOL

MIDLANDS

AVONVALE ED SUP CTRE
AVONVALE PRIMARY SCHOOL
BABAKIN PRIMARY SCHOOL
BAKERS HILL PRIMARY SCHOOL
BALLIDU PRIMARY SCHOOL
BEACON PRIMARY SCHOOL
BENCUBBIN PRIMARY SCHOOL
BOLGART PRIMARY SCHOOL
BRUCE ROCK DISTRICT HIGH SCHOOL
CADOUX PRIMARY SCHOOL
CALINGIRI PRIMARY SCHOOL
CENTRAL MIDLANDS SNR HIGH SCH
CUNDERDIN DISTRICT HIGH SCHOOL
DALWALLINU DISTRICT HIGH SCHOOL
DOWERIN DISTRICT HIGH SCHOOL
GOOMALLING PRIMARY SCHOOL
KALANNIE PRIMARY SCHOOL
KELLERBERRIN DISTRICT HIGH SCH
KOORDA PRIMARY SCHOOL
MECKERING PRIMARY SCHOOL
MERREDIN SENIOR HIGH SCHOOL
MILING PRIMARY SCHOOL
MOORA PRIMARY SCHOOL
MOORINE ROCK PRIMARY SCHOOL
MUKINBUDIN DISTRICT HIGH SCHOOL
NAREMBEEN DISTRICT HIGH SCHOOL
NORTH MERREDIN PRIMARY SCHOOL
NORTHAM PRIMARY SCHOOL

PUBLIC

NORTHAM SENIOR HIGH SCHOOL
NUNGARIN PRIMARY SCHOOL
QUAIRADING DISTRICT HIGH SCHOOL
SOUTH MERREDIN PRIMARY SCHOOL
TAMMIN PRIMARY SCHOOL
TOODYAY DISTRICT HIGH SCHOOL
TRAYNING PRIMARY SCHOOL
WA COLLEGE OF AGRICULTURE -
CUNDERDIN
WEST NORTHAM PRIMARY SCHOOL
WESTONIA PRIMARY SCHOOL
WONGAN HILLS DIST HIGH SCHOOL
WUNDOWIE PRIMARY SCHOOL
WYALKATCHEM DISTRICT HIGH SCH
YERECOA PRIMARY SCHOOL
YORK DISTRICT HIGH SCHOOL

NARROGIN

BEVERLEY DISTRICT HIGH SCHOOL
BROOKTON DISTRICT HIGH SCHOOL
HYDEN PRIMARY SCHOOL

PILBARA

BALER PRIMARY SCHOOL
CASSIA ED SUP CTRE
CASSIA PRIMARY SCHOOL
DAMPIER CAMP SCHOOL
DAMPIER PRIMARY SCHOOL
HEDLAND SENIOR HIGH SCHOOL
JIGALONG REMOTE COMMUNITY SCHOOL
KARRATHA ED SUP CTRE
KARRATHA PRIMARY SCHOOL
KARRATHA SENIOR HIGH SCHOOL
MARBLE BAR PRIMARY SCHOOL
MILLARS WELL PRIMARY SCHOOL
NEWMAN PRIMARY SCHOOL
NEWMAN SENIOR HIGH SCHOOL
NGURRAWAANA REMOTE COMMUNITY
SCHOOL
NORTH TOM PRICE PRIMARY SCHOOL
NULLAGINE PRIMARY SCHOOL
ONSLow PRIMARY SCHOOL
PANNAWONICA PRIMARY SCHOOL
PARABURDOO PRIMARY SCHOOL
PEGS CREEK PRIMARY SCHOOL
PORT HEDLAND PRIMARY SCHOOL
PORT HEDLAND SCHOOL OF THE AIR
ROEBOURNE PRIMARY SCHOOL
SOUTH HEDLAND PRIMARY SCHOOL
SOUTH NEWMAN PRIMARY SCHOOL
TAMBREY PRIMARY SCHOOL
TOM PRICE PRIMARY SCHOOL
TOM PRICE SENIOR HIGH SCHOOL
WICKHAM PRIMARY SCHOOL
YANDEYARRA REMOTE COMMUNITY
SCHOOL

SWAN

BULLSBROOK DISTRICT HIGH SCHOOL
BURBRIDGE SCHOOL
CHIDLOW PRIMARY SCHOOL
CLAYTON VIEW PRIMARY SCHOOL

PUBLIC

CYRIL JACKSON SR CAMPUS ES CTRE
DARLINGTON PRIMARY SCHOOL
DURHAM ROAD SCHOOL
EASTERN HILLS SNR HIGH SCHOOL
GIDGEGANNUP PRIMARY SCHOOL
GLADYS NEWTON SCHOOL
GLEN FORREST PRIMARY SCHOOL
GREENMOUNT PRIMARY SCHOOL
HELENA VALLEY PRIMARY SCHOOL
HERNE HILL PRIMARY SCHOOL
MIDDLE SWAN PRIMARY SCHOOL
MIRRABOOKA SHS ED SUP CTRE
MOUNT HELENA PRIMARY SCHOOL
MUNDARING PRIMARY SCHOOL
PARKERVILLE PRIMARY SCHOOL
ROSEWORTH ED SUP CTRE
SAWYERS VALLEY PRIMARY SCHOOL
SIR DAVID BRAND SCHOOL
SOUTH BALLAJURA ED SUP CTRE
SWAN VIEW PRIMARY SCHOOL
SWAN VIEW SENIOR HIGH SCHOOL
UPPER SWAN PRIMARY SCHOOL
WESTMINSTER ED SUP CTRE
WOOROLOO PRIMARY SCHOOL

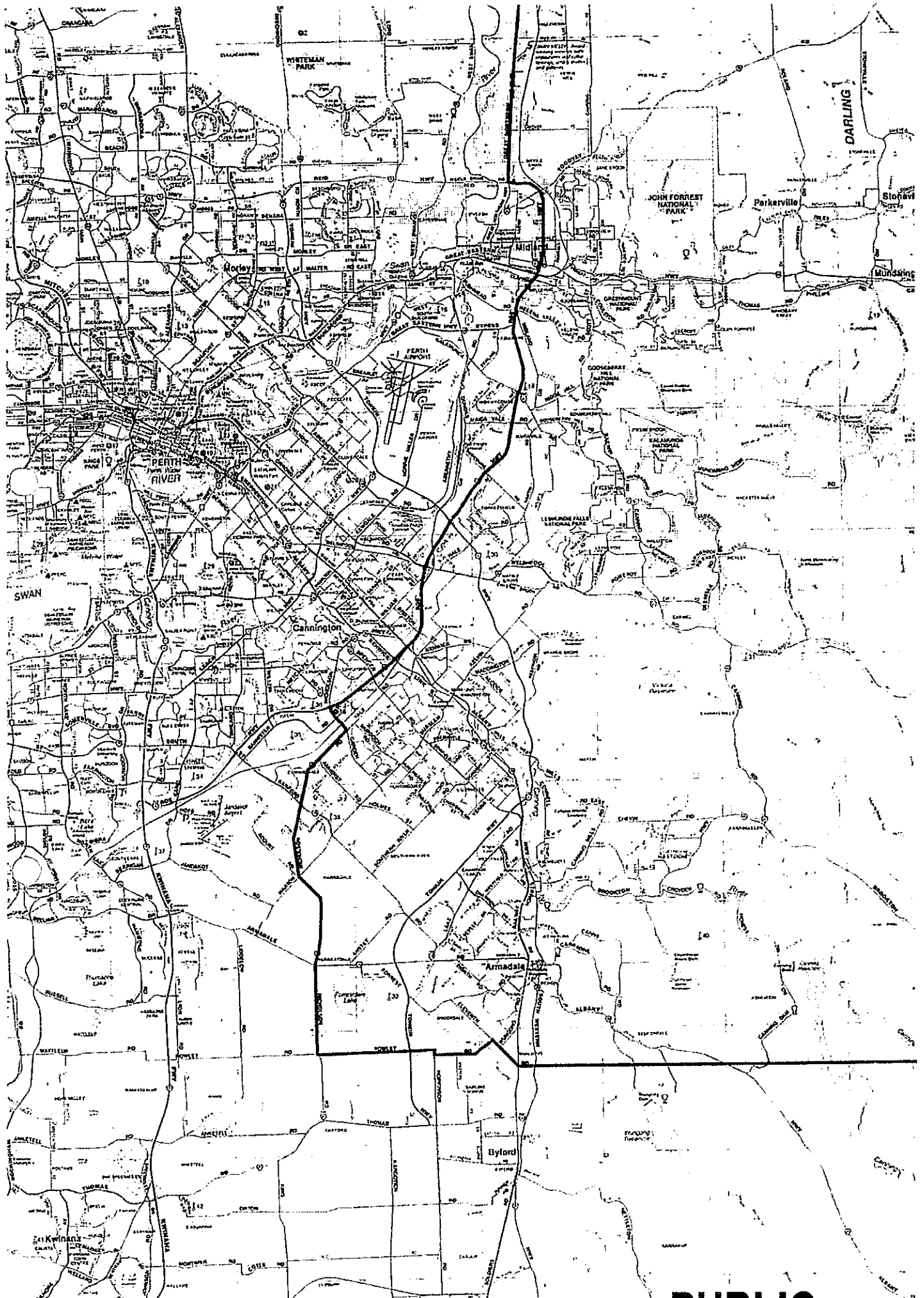
WARREN-BLACKWOOD

GEOGRAPHE ED SUP CTRE
MANJIMUP ED SUP CTRE

WEST COAST

BELDON ED SUP CTRE
BELRIDGE ED SUP CTRE
BINDOON PRIMARY SCHOOL
CHRISTMAS ISLAND DIST HIGH SCH
COCOS ISLAND DISTRICT HIGH SCH
CREANEY ED SUP CTRE
DUNCRAIG SHS ED SUP CTRE
GINGIN DISTRICT HIGH SCHOOL
JOONDALUP ED SUP CTRE
MERRIWA ED SUP CTRE
MOUNT HAWTHORN ED SUP CTRE

PUBLIC



PUBLIC

