



SARA reference: 2012-20251 SRA
Council reference: COM/2020/262
Applicant reference: 5941 (Stage 2 CMS)

10 February 2020

Chief Executive Officer
Gold Coast City Council
PO Box 5042
GCMC QLD 9729

Attention: mail@goldcoast.qld.gov.au

Dear Sir/Madam

SARA response—60 Stapylton Jacobs Well Road, Stapylton

(Referral agency response given under section 56 of the *Planning Act 2016*)

The development application described below was confirmed as properly referred by the State Assessment and Referral Agency on 15 December 2020.

Response

Outcome:	Referral agency response – with conditions.
Date of response:	10 February 2021
Conditions:	The conditions in Attachment 1 must be attached to any development approval.
Advice:	Advice to the applicant is in Attachment 2 .
Reasons:	The reasons for the referral agency response are in Attachment 3 .

Development details

Description:	Development Permit for Reconfiguring a Lot (Community title subdivision to create 1 into 7 industrial lots, common property, balance lot, stormwater lot and new road) and Development Permit for Operational Work (Change to ground level)
SARA role:	Referral Agency
SARA trigger:	Schedule 10, Part 9, Division 4, Subdivision 1, Table 1, Item 1 (Planning Regulation 2017) – Development application exceeding thresholds in Schedule 20 of the Planning Regulation 2017 Schedule 10, Part 9, Division 4, Subdivision 2, Table 1, Item 1

(Planning Regulation 2017) – Reconfiguration of a lot within proximity of a state-controlled road

SARA reference: 2012-20251 SRA

Assessment Manager: Gold Coast City Council

Street address: 60 Stapylton - Jacobs Well Road, Stapylton QLD 4207

Real property description: Lot 501 on SP295994

Applicant name: Frasers Property Australia Pty Ltd
c/- Gassman Development Perspectives

Applicant contact details: PO Box 392
Beenleigh QLD 4207
admin@gassman.com.au

Representations

An applicant may make representations to a concurrence agency, at any time before the application is decided, about changing a matter in the referral agency response (s.30 Development Assessment Rules). Copies of the relevant provisions are in **Attachment 4**.

A copy of this response has been sent to the applicant for their information.

For further information please contact Lorna Scally, Senior Planning Officer, on 07 5644 3221 or via email SEQSouthPlanning@dsdmip.qld.gov.au who will be pleased to assist.

Yours sincerely



Gareth Richardson
Manager, Planning and Development Services (SEQ South)

cc Frasers Property Australia Pty Ltd c/- Gassman Development Perspectives, admin@gassman.com.au

enc Attachment 1 - Referral agency conditions
Attachment 2 - Advice to the applicant
Attachment 3 - Reasons for referral agency response
Attachment 4 - Representations provisions
Attachment 5 - Approved plans and specifications

Attachment 1—Referral agency conditions

(Under section 56(1)(b)(i) of the *Planning Act 2016* the following conditions must be attached to any development approval relating to this application) (Copies of the plans and specifications referenced below are found at Attachment 5).

No.	Conditions	Condition timing
Development Permit for Reconfiguration a Lot		
Schedule 10, Part 9, Division 4, Subdivision 1, Table 1, Item 1 and Schedule 10, Part 9, Division 4, Subdivision 2, Table 1, Item 1 under Planning Regulation 2017 — The chief executive administering the <i>Planning Act 2016</i> nominates the Director-General of the Department of Transport and Main Roads to be the enforcement authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following condition(s):		
1.	The development must be carried out generally in accordance with Section 5 of the Site Based Stormwater Management Plan prepared by Gassman Development Perspectives, dated 18 November 2020, reference 5941 and version 1.	At all times.
2.	(a) The road works identified in Section 5.2 of the Traffic Impact Assessment, prepared by Rytenskild Traffic Engineering, dated 20 November 2020, reference 20337 and revision 1, comprising of the construction of the second approach lane on the northbound Pacific Motorway off ramp and the second departure lane on the Stapylton-Jacobs Well Road leg of the eastern interchange roundabout, must be provided generally in accordance with the following plans: i. Figure 5.3 – ‘Concept Design of The Proposed Interchange Improvements (Detail)’ (of Traffic Impact Assessment prepared by Rytenskild Traffic Engineering, dated 20 November 2020, reference 20337 and revision 1). (b) The road works must be designed and constructed in accordance with Road Planning and Design Manual (2nd edition), prepared by Department of Transport and Main Roads, 2016.	Prior to submitting the Plan of Survey to the local government for approval for Stage 2.
3.	(a) Impacts on the state-controlled road network must be managed generally in accordance with the recommendations of Section 5.2 of the Traffic Impact Assessment, prepared by Rytenskild Traffic Engineering, dated 20 November 2020, reference 20337 and revision 1, which includes the provision of new access intersection via Christensen Road. (b) The road works identified in (a) above must be constructed to a standard that accommodates the development trip distribution for the new Christensen Road intersection detailed in Section 4.3 of the Traffic Impact Assessment, prepared by Rytenskild Traffic Engineering, dated 20 November 2020, reference 20337 and revision 1.	Prior to submitting the Plan of Survey to the local government for approval for Stage 2.
4.	(a) The road access location is to be located generally in accordance with the ‘Figure 6.2 – Proposed Road Layout’ of Traffic Impact Assessment prepared by Rytenskild Traffic	Prior to submitting the Plan of Survey to the local government for

	Engineering, dated 20 November 2020, reference 20337 and revision 1. (b) Road access works comprising of the construction of a signalised intersection on Stapylton Jacobs Well Road must be provided at the road access location identified in (a) above. (c) The road access works must be designed and constructed in accordance with Road Planning and Design Manual (2nd edition), prepared by Department of Transport and Main Roads, 2016.	approval.
Development Permit for Operational Work		
Schedule 10, Part 9, Division 4, Subdivision 1, Table 1, Item 1 — The chief executive administering the <i>Planning Act 2016</i> nominates the Director-General of the Department of Transport and Main Roads to be the enforcement authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following condition(s):		
5.	The development must be carried out generally in accordance with Section 5 of the Site Based Stormwater Management Plan prepared by Gassman Development Perspectives, dated 18 November 2020, reference 5941 and version 1.	For the duration of works

Attachment 2—Advice to the applicant

General advice	
1.	Terms and phrases used in this document are defined in the <i>Planning Act 2016</i> its regulation or the State Development Assessment Provisions (SDAP), version 2.6. If a word remains undefined it has its ordinary meaning.
State transport networks	
2.	Public Utility Plant Pursuant to section 80 of the <i>Transport Infrastructure Act 1994</i>, the construction, augmentation, alteration or maintenance of public utility plant in a State-controlled road corridor must be undertaken in accordance with the Department of Transport and Main Roads' (DTMR) requirements and at the expense of the owner of the plant. The owner of the plant must also obtain approval from DTMR prior to commencement of any works. Applications for approval should be made to southcoast@tmr.qld.gov.au. Additional information regarding the installation of public utility plant can be obtained from DTMR's <i>Technical Note 163: Third Party Utility Infrastructure Installation in State Controlled Roads Technical Guidelines</i> (available at http://www.tmr.qld.gov.au/businessindustry/Technical-standards-publications/Technical-Notes/Road-design).
3.	Road Corridor Permits Under section 50(2) of the <i>Transport Infrastructure Act 1994</i>, an application for a Road Corridor Permit is required for any ancillary works and encroachments on the State-controlled road under Schedule 1 of the <i>Transport Infrastructure (State-controlled Roads) Regulation 2006</i>. A decision of approval may include conditions or restrictions. The development application materials demonstrate that the proposed development is likely to include ancillary works and encroachments over Stapylton-Jacobs Well Road. Ancillary works and encroachments include but are not limited to roadworks, stormwater management, paths, vegetation clearing, landscaping and planting, and any works that present a potential hazard to road users, including demolition activities and building scaffolding. Further information regarding ancillary works and encroachments is available at: http://www.tmr.qld.gov.au/Community-andenvironment/Planning-and-development/Other-matters-requiring-approval.aspx. Please contact the department (South Coast Region) on (07) 5563 6600 or at SouthCoast@tmr.qld.gov.au to make an application for a road corridor permit.

Attachment 3—Reasons for referral agency response

(Given under section 56(7) of the *Planning Act 2016*)

The reasons for the SARA's decision are:

- The proposed development complies with the relevant performance outcomes of State code 1: 'Development in a state-controlled road environment' and State code 6: 'Protection of state transport networks' of the State Development and Assessment Provisions (version 2.6), subject to the conditions included in this referral agency response.
- The proposed development will not result in a worsening of the safety, infrastructure condition or operating condition of the state-controlled road network, subject to the road upgrade works required by the conditions included in this referral agency response.
- The proposed development will not generate an actionable nuisance or worsening of stormwater, flooding or drainage impacts to the adjacent state-controlled road, subject to complying with the conditioned stormwater management plan.

Material used in the assessment of the application:

- The development application material and submitted plans
- *Planning Act 2016*
- Planning Regulation 2017
- The *State Development Assessment Provisions* (version 2.6), as published by the department
- The Development Assessment Rules
- SARA DA Mapping system
- State Planning Policy mapping system
- *Human Rights Act 2019*

Attachment 4—Change representation provisions

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Attachment 5—Approved plans and specifications

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TRAFFIC IMPACT ASSESSMENT

PROPOSED INDUSTRIAL ESTATE (STAGE 2)

60 STAPYLTON – JACOBS WELL ROAD, STAPYLTON

LOT 51 ON SP295994

Prepared for

FRASERS PROPERTY

20 NOVEMBER 2020

PLANS AND DOCUMENTS
referred to in the REFERRAL
AGENCY RESPONSE



SARA ref: 2012-20251 SRA

Date: 10 February 2021

5.0 ROAD NETWORK IMPACT

5.1 General

Traffic modelling using SIDRA software has been carried out to determine the performance of the proposed Stapylton Jacobs Well Road / Site Access and Christensen Road / Site Access intersections under opening year (year 2023) and the projected project future (year 2030) conditions of the overall estate. In accordance with Section 3.5 and Table 4 of the Guide to Traffic Impact Assessments (2017), the assessment is required to examine impacts for the anticipated year of opening of each stage and the final stage. For the purposes of this assessment it has been assumed that the second stage of development would be completed by the year 2023, and the full development by the year 2030.

The estate access intersection with the Stapylton – Jacobs Well Road will be constructed to its ultimate layout (two through lanes in each direction plus turning lanes / traffic signal control) as part of the approved works for Stage 1. An additional access intersection of Christensen Road is proposed to be constructed to provide direct access to Stage 2.

It is noted that an assessment of impacts at the Exit 38 interchange has been carried out as part of the DA for a Preliminary Approval over the site.

5.2 Modelling of Overall Estate

Based on the analysis of the overall estate (prepared under a separate application) the signalised intersection with the Stapylton – Jacobs Well Road will improve the operation of the eastern roundabout at the Exit 38 interchange by bunching the traffic flow in the westbound direction. The operation of the Interchange is therefore expected to improve as a result of the first stage of development.

The traffic impact of the overall estate has been carried out as part of a separate application. The results of the analysis indicate that the following works are required upon the completion of Stage 2:

- Construction of new intersection with Christensen Road;
- Construction of the second approach lane on the northbound off ramp (western side of Exit 38 interchange);
- Construction of second departure lane on the Stapylton – Jacobs Well Road leg of the eastern roundabout at the Exit 38 interchange.

A concept design of the proposed Stage 2 works are in Shown in Figures 5.1 – 5.3.

**PLANS AND DOCUMENTS
referred to in the REFERRAL
AGENCY RESPONSE**



SARA ref: 2012-20251 SRA

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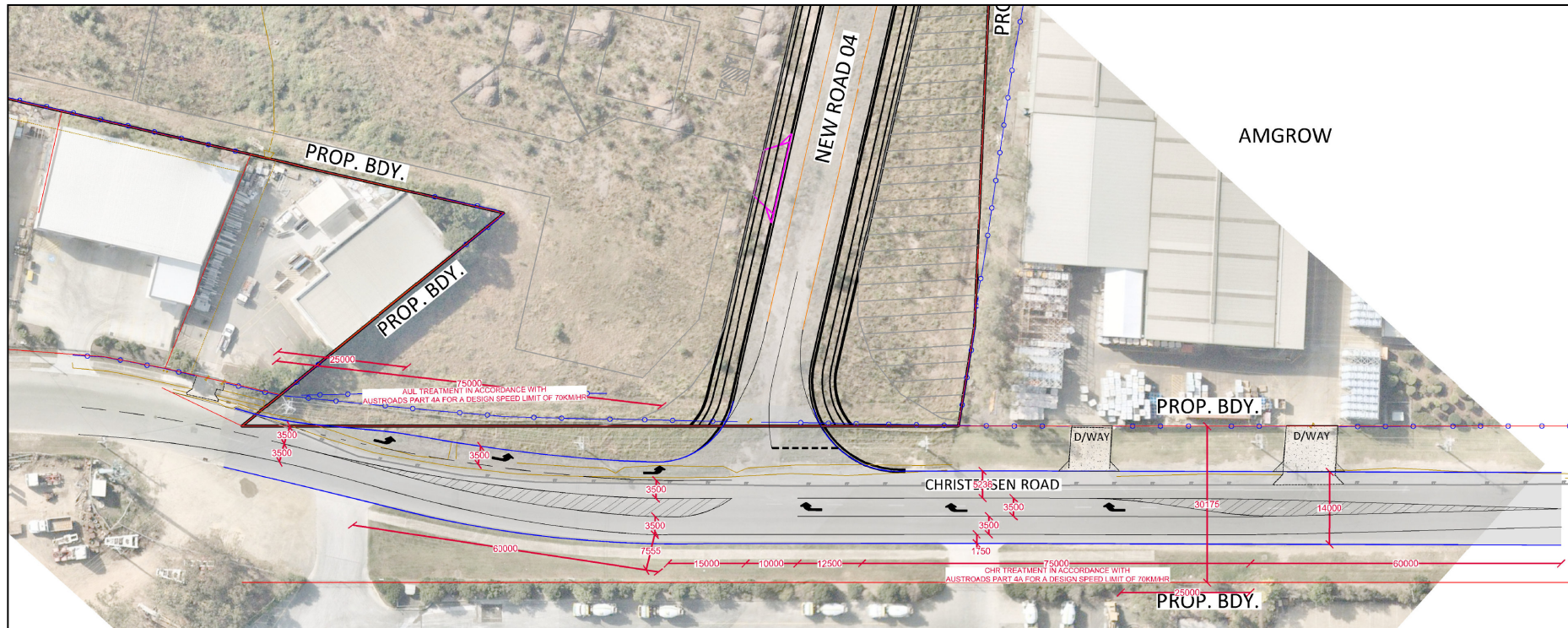


FIGURE 5.1 – CONCEPT DESIGN OF THE PROPOSED SITE ACCESS / CHRISTENSEN ROAD INTERSECTION



FIGURE 5.3 – CONCEPT DESIGN OF THE PROPOSED INTERCHANGE IMPROVEMENTS (DETAIL)

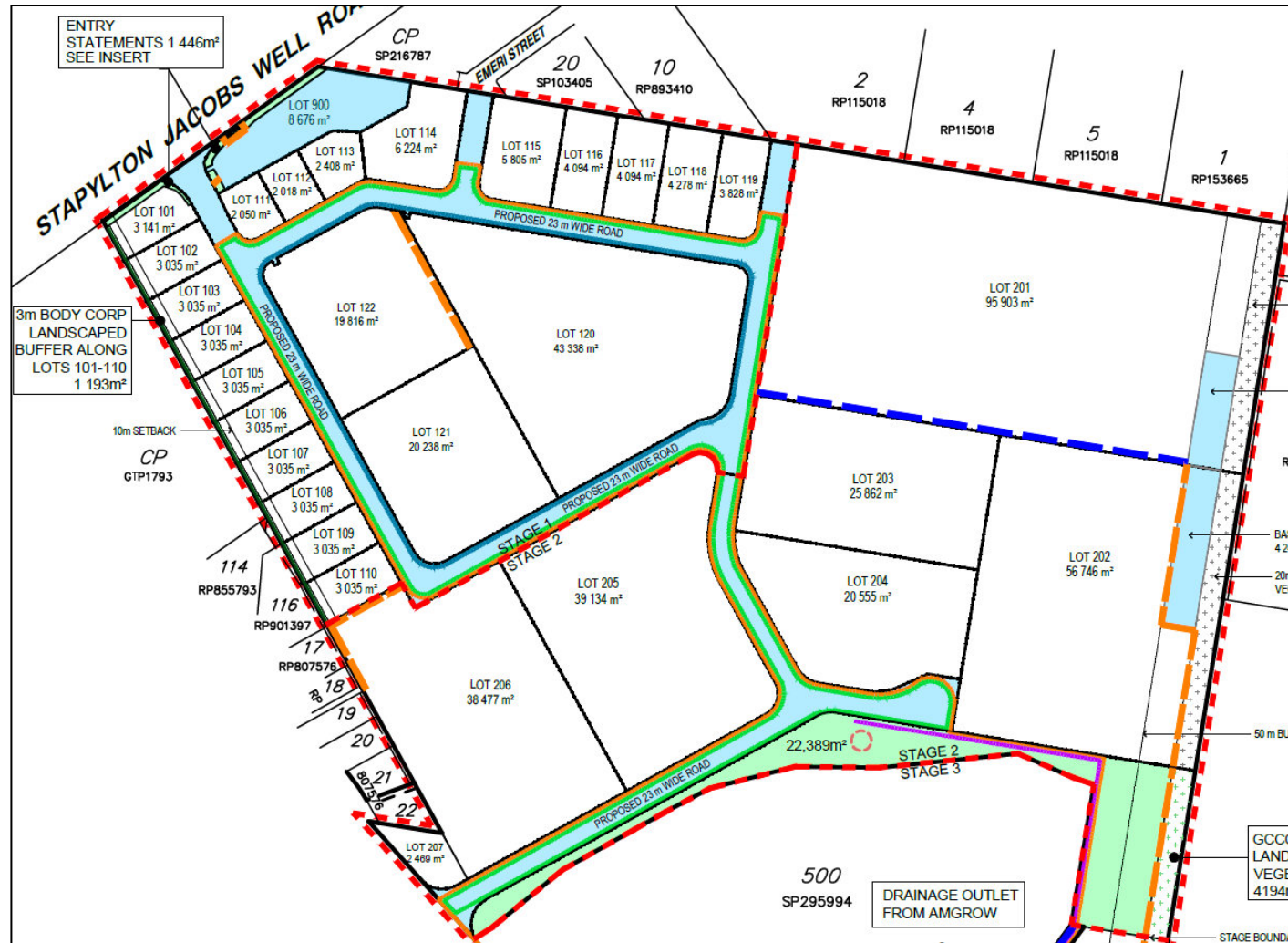


FIGURE 6.2 – PROPOSED ROAD LAYOUT

SITE BASED STORMWATER MANAGEMENT PLAN

VANTAGE YATALA – STAGE 2 DEVELOPMENT APPLICATION FOR RECONFIGURING A LOT

ADDRESS

60 Stapylton Jacobs Well Road, Stapylton

REAL PROPERTY DESCRIPTION

Lot 501 on SP295994

PREPARED FOR

Frasers Property (Australia) Pty Ltd

November 2020 (Rev. 1)

PLANS AND DOCUMENTS referred to in the REFERRAL AGENCY RESPONSE



SARA ref: 2012-20251 SRA

Date: 10 February 2021



gassman
development
perspectives

project coordination
urban + regional planning
landscape + urban design
engineering services
environmental management
visualisation + spatial services
surveying services
advisory services

5.0 STORMWATER QUANTITY, DETENTION & HYDRAULIC DESIGN

5.1 ATTENUATION OF DEVELOPED FLOWS

To ensure that the increased flow rates from the developed site have minimal impact on downstream property, the following hydrological objective has been set for stormwater exiting the subject site;

- *No increase in peak discharge flow rates from the developed site to downstream infrastructure.*

To achieve this objective, stormwater discharge from the development site must be detained to pre-development flow rates for all storms events up to and including the 1% AEP (equiv. to Q_{100}). The following sections provide a summary of the procedure used to design the onsite detention system at subject site.

5.2 METHODOLOGY

For the site catchment identified as having increase in peak flow rates when developed, a hydrologic model was created using XPSTORM. The model was then used to route post-development runoff through various proposed detention structures to determine the most efficient on-site detention system.

5.2.1 MODEL CONDITIONS

In XPSTORM three (3) hydraulic conditions were modelled in order to demonstrate the stormwater quantity, detention and hydraulic objective;

1. Existing Condition - Current condition of site with all the external catchments to assess the natural hydrology.
2. Developed Condition - Future condition of site when developed with all the external catchments. The main changes in hydrology as part of development include; increase in impervious area of the subject site due to the construction of the hardstand and other impervious areas and reduction in Manning's roughness coefficient for sections of the site to be developed.
3. Mitigated Condition - Future condition of site when developed with proposed detention structures in place with all the external catchments *where applicable*.

5.2.2 CRITICAL STORM EVENT AND DURATIONS

An analysis of storm events ranging from 63.2% AEP to 1% AEP was undertaken to determine the critical storm event and the critical storm duration per contributing catchment. The determined critical storm events for the pre developed and post developed condition are indicated in *Table 5.2.2* below.

MODEL CONDITION	CRITICAL STORM EVENT	PEAK DURATION	PEAK FLOW
Pre Developed	AEP / Storm Ensemble #	(mins)	(m ³ /s)
LPoD-1	1% / 1	60	19.4076

MODEL CONDITION	CRITICAL STORM EVENT	PEAK DURATION	PEAK FLOW
Post Developed	AEP / Storm Ensemble #	(mins)	(m ³ /s)
LPoD-1	1% / 9	10	23.2979

Table 5.2.2: Critical Storm Event and Duration Summary Table

Refer to **Appendix L** of this report which presents the detailed XPSTORM Box & Whisker plots for the above hydrological assessments.

5.2.3 DETENTION SYSTEM DESIGN

Detention devices capture and temporarily store stormwater runoff during major / critical storm events and release to the Lawful Point of Discharge (LPoD) at a controlled rate. Hence, detention devices act to mitigate potential downstream flooding impacts and also provide minor water quality treatment.

Therefore, to achieve the objective of zero post development flow rate increase to pre-developed 63.2% AEP (equiv. Q_1) to the 1% AEP (equiv. Q_{100}) flow rates at the downstream reporting location (outfall), on-site detention basins are introduced with low and high flow outlet configurations.

Table 5.2.3 includes the design details for the proposed on site detention system for Stage 2, being a regional basin.

Parameter	Value
Catchment	LPoD-1
Type	Detention basin (in ground)
Internal Batter Slope on Basin Sides	1 in 3
Basin Floor RL	10.470m AHD
Basin Embankment / Crown R.L	13.000m AHD
Basin Transverse Weir Crest RL	11.640m AHD
Freeboard to Crown (1% AEP WSL)	1.008m
Detention Volume Depth	1.522m to 1% AEP WSL (<i>measured from floor / IL of basin</i>)
Detention Volume to Crown	17,109m ³ to RL 13.000m (<i>deducting 0.30m extended detention</i>)
Detention Volume to 1% AEP WSL	7,824m ³ to RL 11.992m (<i>deducting 0.30m extended detention</i>)
Detention Volume to Weir Crest	5,139m ³ to RL 11.640m (<i>deducting 0.30m extended detention</i>)
Low Flow Outlets	5 / 900mm x 900mm grated field inlet pits connected to a low flow outlet pipe (450mm diameter at 0.62%) <i>Top of grate levels set at 0.300m above basin floor at RL10.77m AHD (typical and unless noted otherwise)</i>
High Flow Outlets	25 metre wide broad crested transverse weir <i>1.17m above basin floor at RL11.640m AHD</i> <i>1.70 discharge coefficient for transverse weir</i> 3 / 675mm RCP laid at max. grade of 1.324%

Table 5.2.3: Summary of Design Parameters of Proposed Detention System (Stage 2)

5.2.4 MODEL RESULTS

Table 5.2.4.1 presents the results obtained from XPSTORM modelling as a result of implementing the above detention system for flow mitigation.

PRE-DEVELOPED PEAK FLOWS FOR LPoD-1							
AEP	63.2%	0.5EY	20%	10%	5%	2%	1%
Peak Flow (m3/sec)	4.4845	6.4926	9.3301	11.1359	13.9592	16.3402	19.4076

POST-DEVELOPED PEAK FLOWS (MITIGATED) FOR LPoD-1							
AEP	63.2%	0.5EY	20%	10%	5%	2%	1%
Mitigated Flow (m3/sec)	3.1637	4.2134	7.0749	10.8745	13.3266	16.2640	18.4156
Max Water Elevation RL	11.458	11.611	11.737	11.812	11.875	11.944	11.992
Peak Duration (min)	25min	30min	30min	60min	60min	30min	30min
Depth to WSL (m)	0.988	1.141	1.267	1.342	1.405	1.474	1.522

Table 5.2.4.1: Summary of XPSTORM Hydrologic / Hydraulic Results Catchment LPoD-1

Table 5.2.4.2 sums the mitigated discharges and compares directly against the pre developed hydrology condition across a range of standard storm events.

MITIGATED DISCHARGE SUMMARY FOR PROPOSED DETENTION BASIN (LPoD-1)							
AEP	63.2%	0.5EY	20%	10%	5%	2%	1%
900 x 900mm F.I. (1) (m³/s)	0.0000	0.0141	0.1818	0.5175	0.5840	0.6499	0.6913
900 x 900mm F.I. (2) (m³/s)	0.0000	0.0141	0.1818	0.5175	0.5840	0.6499	0.6913
900 x 900mm F.I. (3) (m³/s)	0.0000	0.0141	0.1818	0.5175	0.5840	0.6499	0.6913
900 x 900mm F.I. (4) (m³/s)	0.0000	0.0141	0.1818	0.5175	0.5840	0.6499	0.6913
900 x 900mm F.I. (5) (m³/s)	0.0000	0.0141	0.1818	0.5175	0.5840	0.6499	0.6913
25m High Flow Weir (m³/s)	0.0000	0.0000	1.2907	3.0316	4.8428	7.1310	8.8652
3/675mm dia Outlet (m3/s)	3.1367	4.1429	4.8752	5.2554	5.5638	5.8835	6.0939
TOTAL (m³/s)	3.1367	4.2134	7.0749	10.8745	13.3266	16.2640	18.4156

Flow Mitigation from Existing Condition (m³/s)	1.3208	2.2792	2.2552	0.2614	0.6326	0.0762	0.9920
Attenuation Achieved (Y/N)	Y	Y	Y	Y	Y	Y	Y
Flow Mitigation Achieved	29.5%	35.1%	24.2%	2.3%	4.5%	0.5%	5.1%

Table 5.2.4.2: Summary of Mitigated Discharges from XPSTORM Hydrologic / Hydraulic Results

Important Note:

Due to the predicted water surface elevations and depths – it is proposed that the bio-retention basin be fenced at its perimeter to restrict public access for safety. Fencing is proposed as the City of Gold Coast Council's standard chain wire type fencing (or approved equivalent) at a height of 1.80 metres above finished ground level.

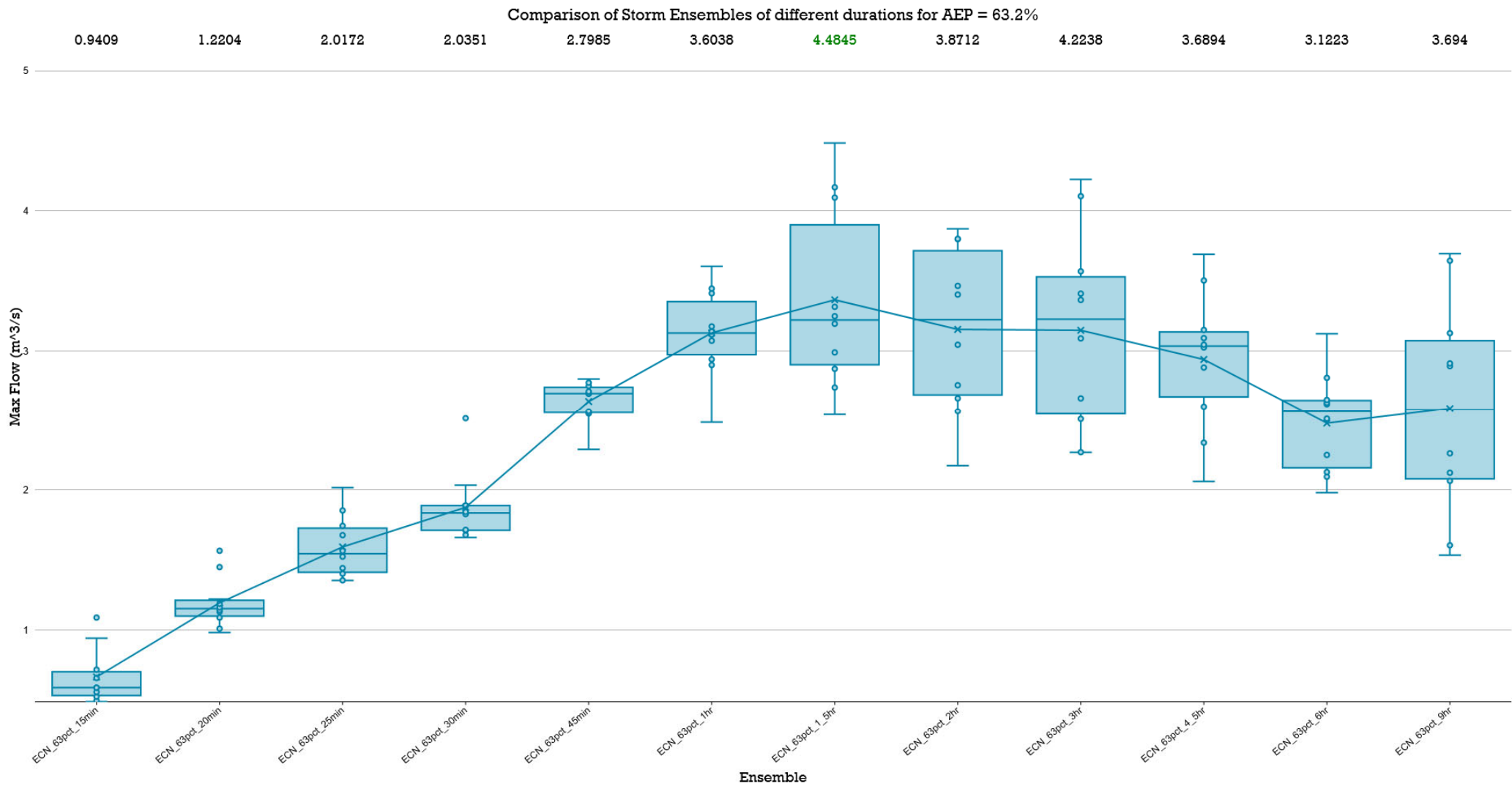
Details of the fence type, embellishments and colour will be confirmed at the detailed design phase. Provision shall be made for a master-keyed gate location to enable access for Council staff to the maintenance track/s.

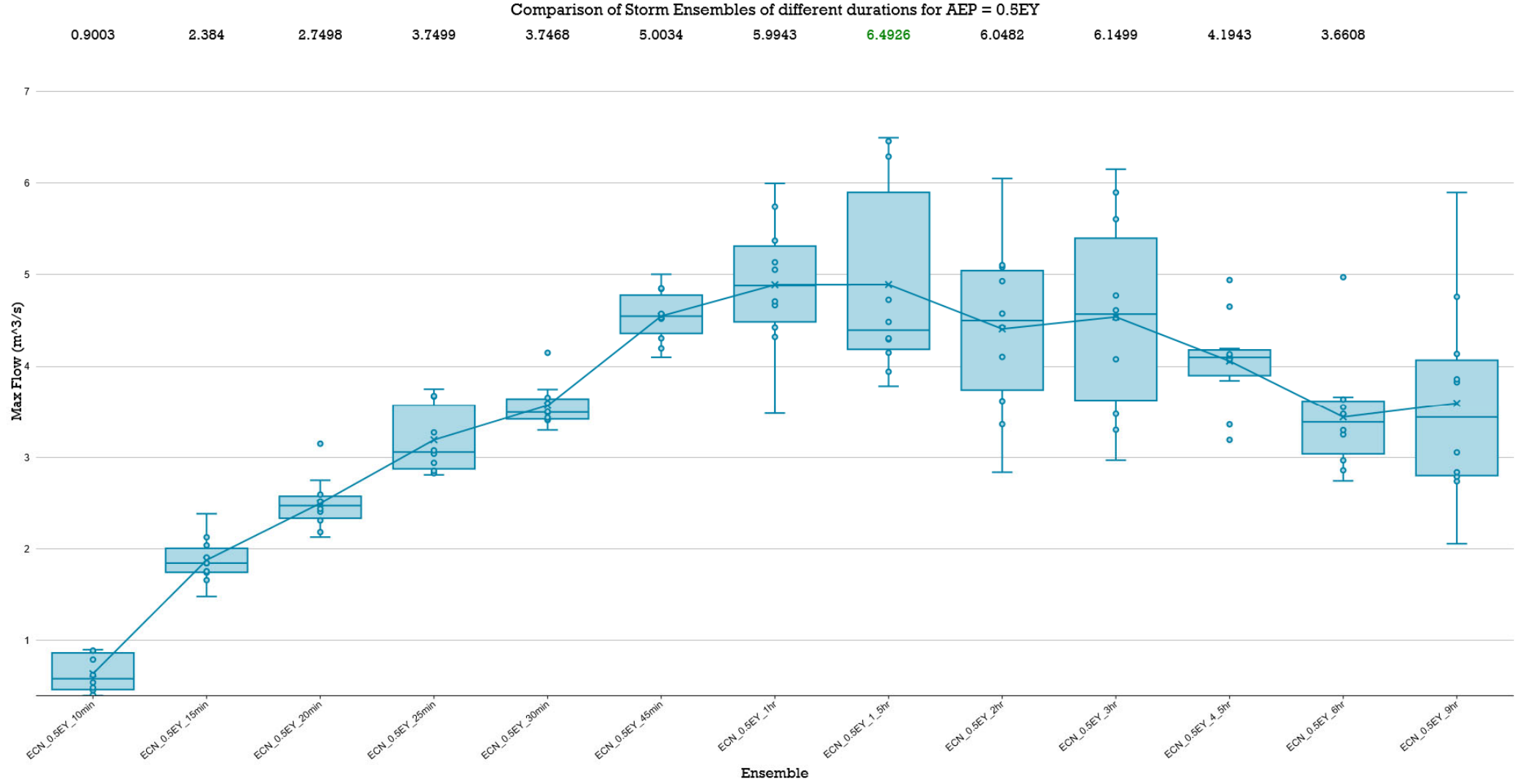
5.2.5 DISCUSSION ON MODELLING OUTCOMES

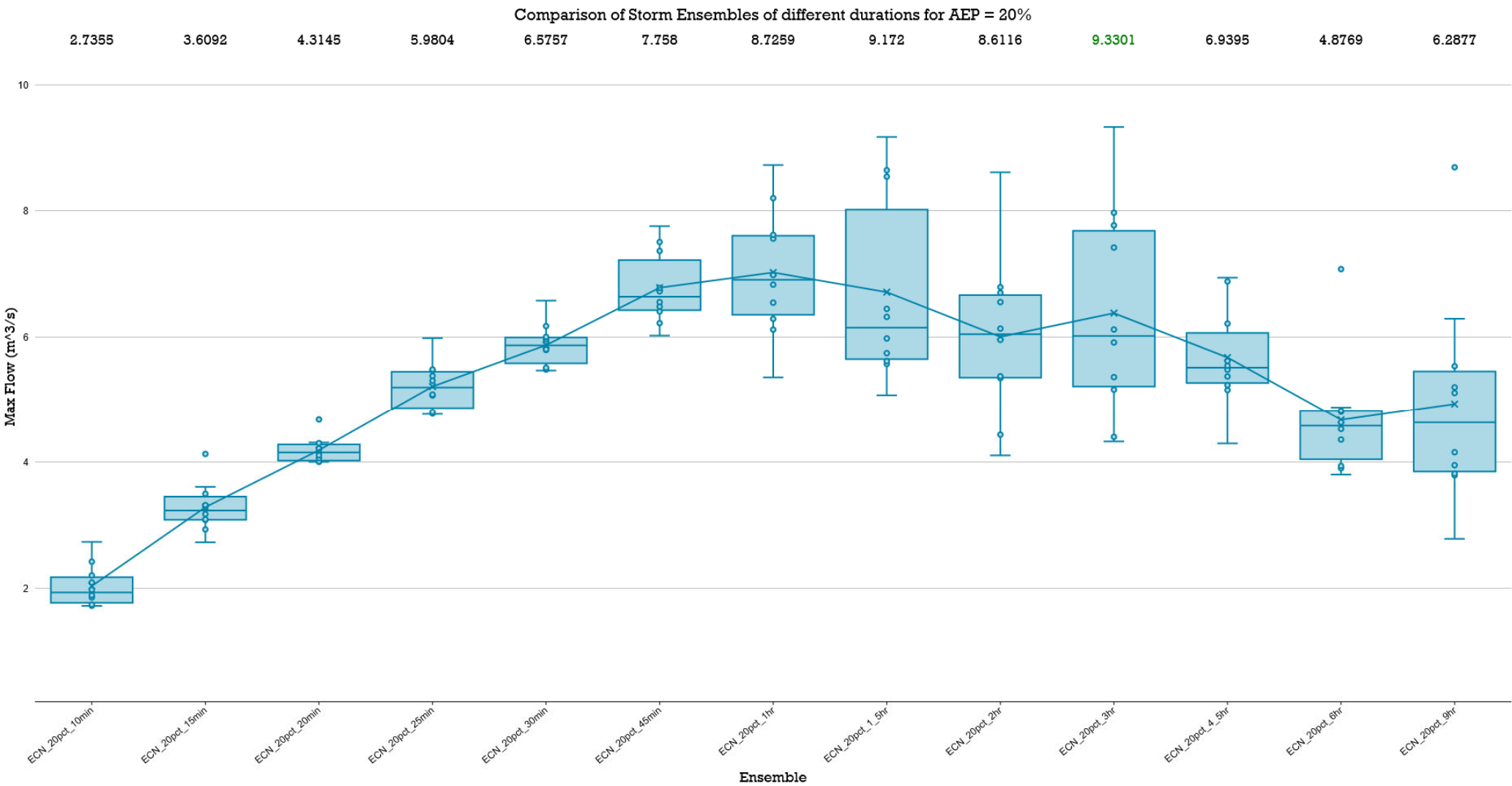
The above hydraulic modelling has confirmed that there is no increase in peak discharge flow rates from the development site to existing infrastructure or downstream / neighbouring properties by implementing the proposed designed detention measures.

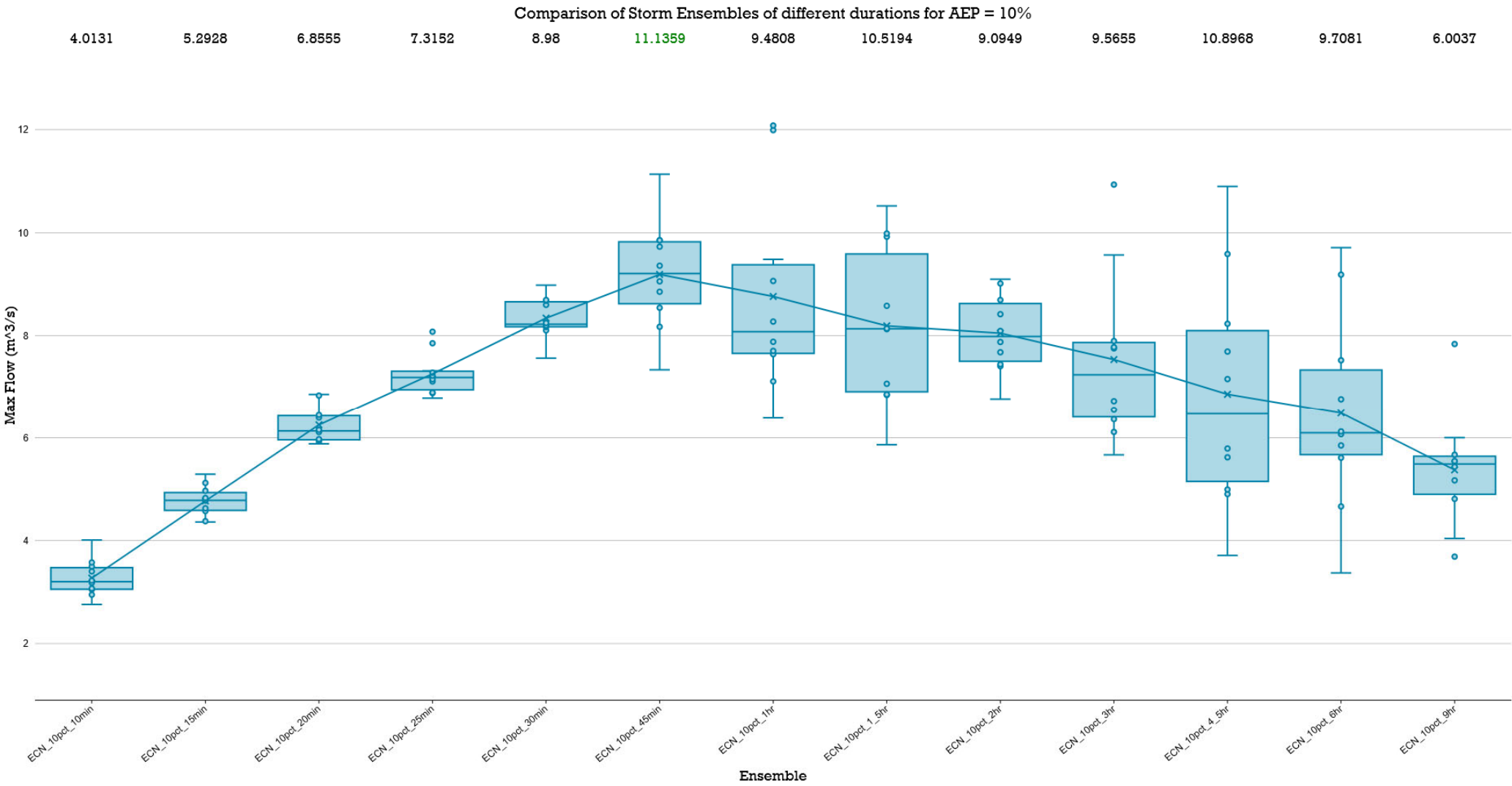
All AEP's ranging from 63.2% (equiv. Q_1) to 1% (equiv. Q_{100}) achieve mitigation.

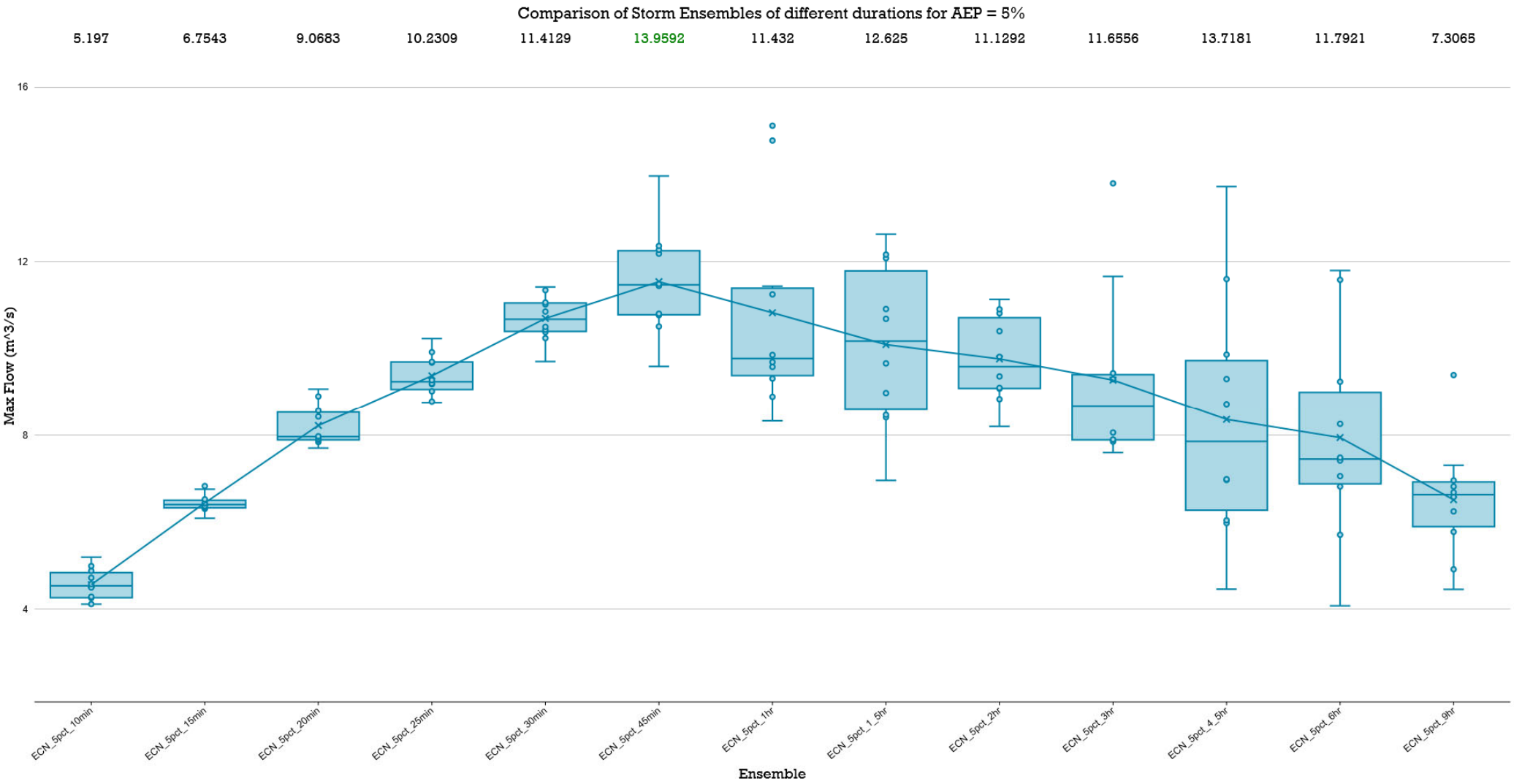
Appendix L – Peak Flow Box & Whisker Plots

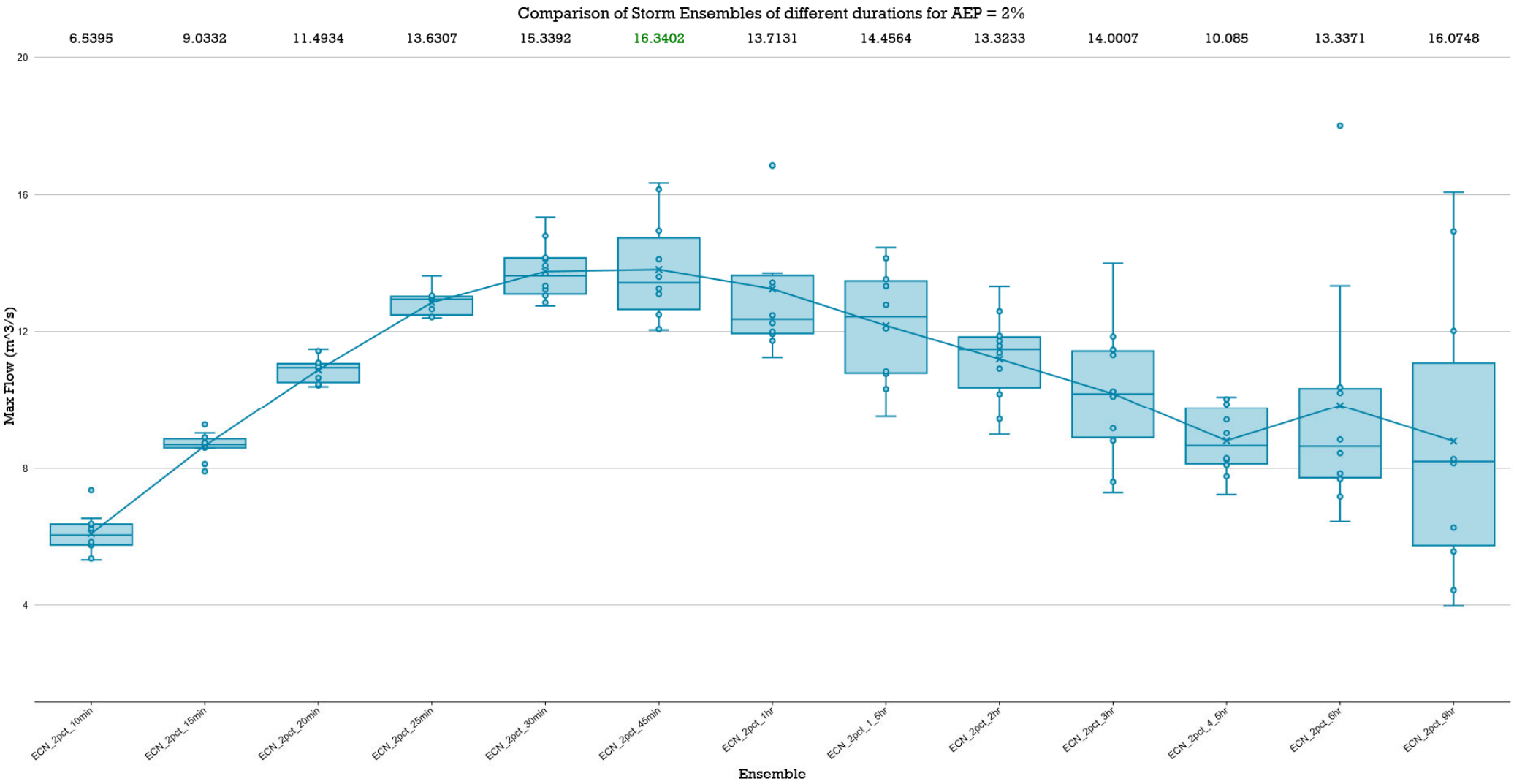


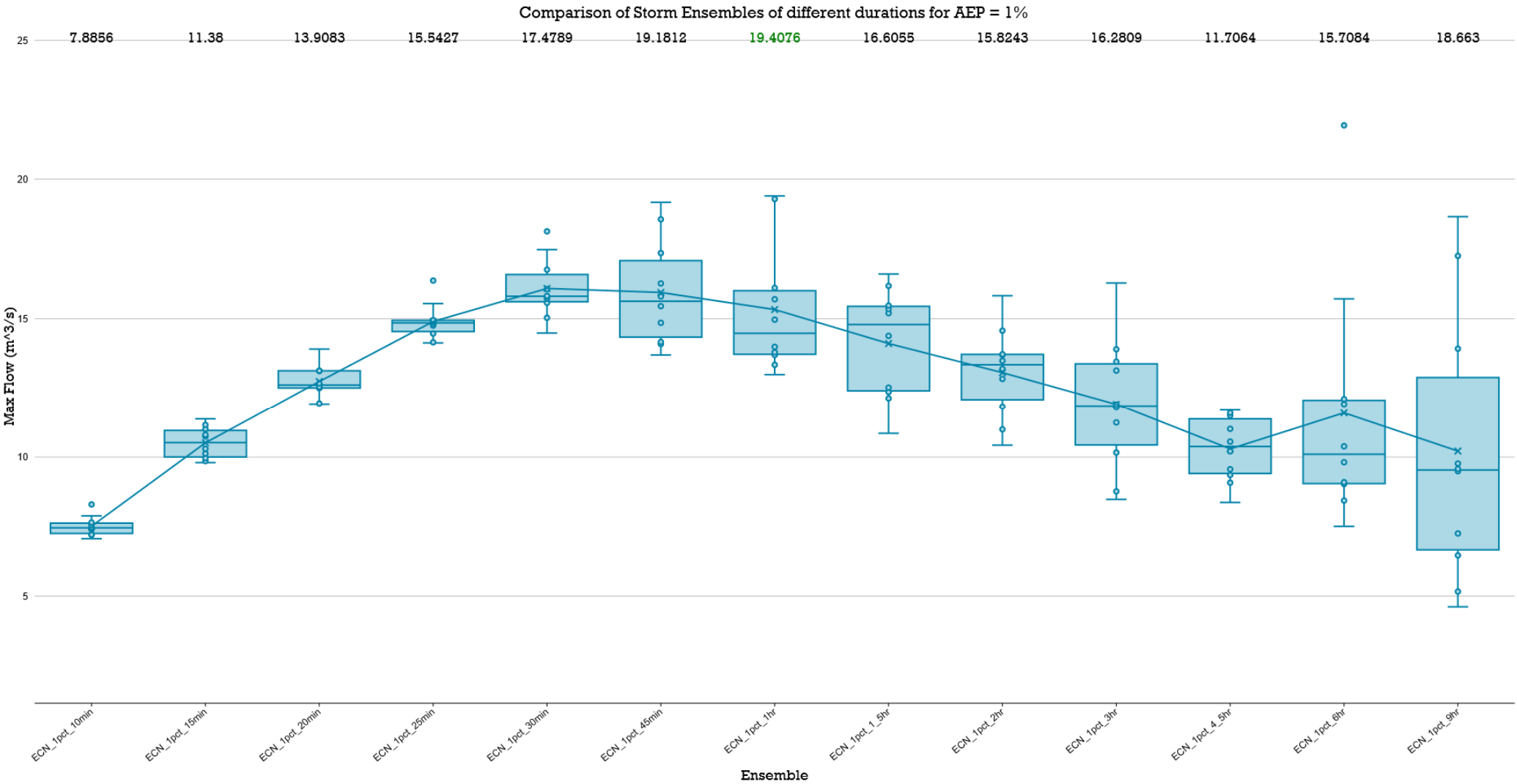


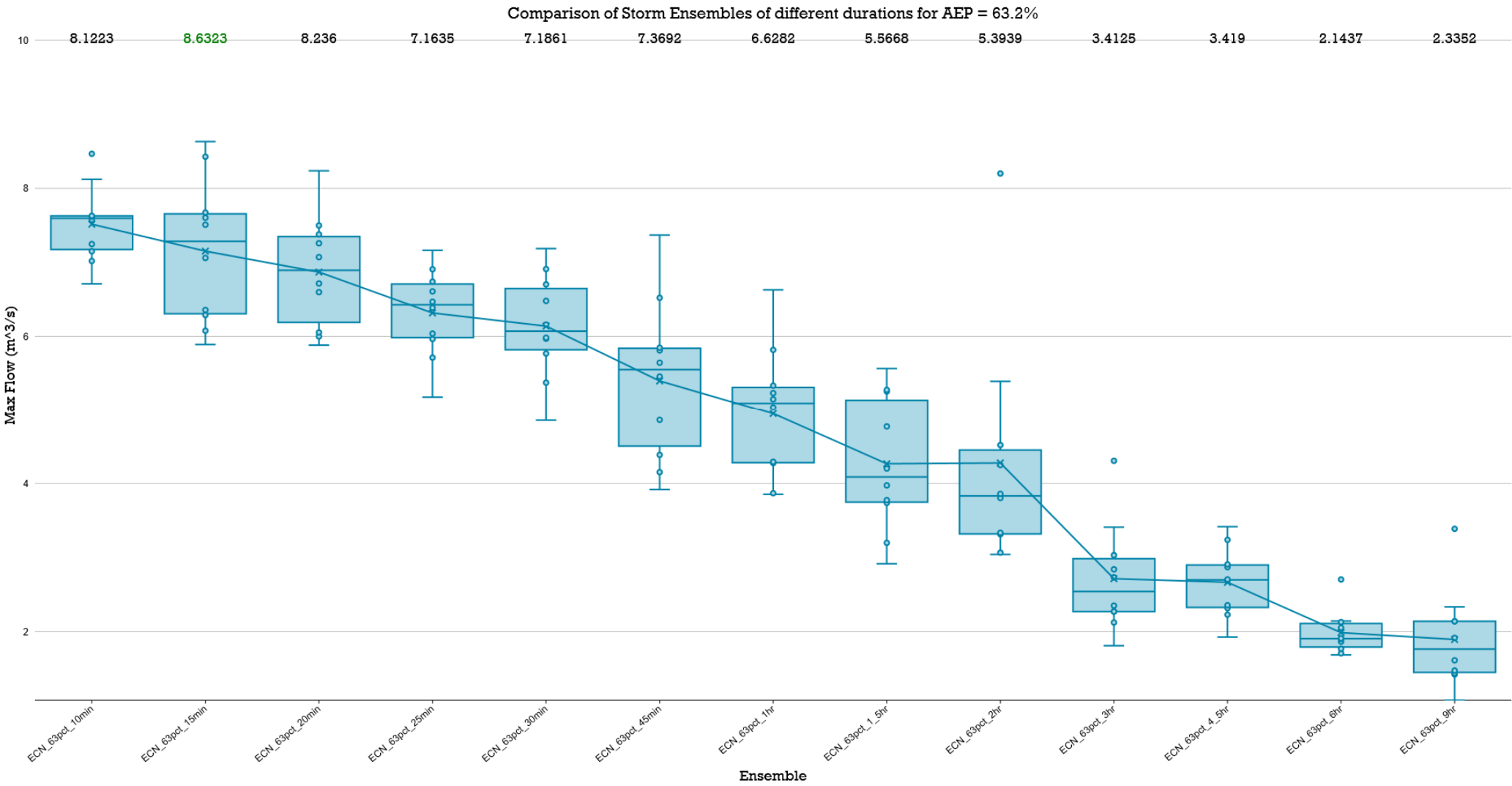


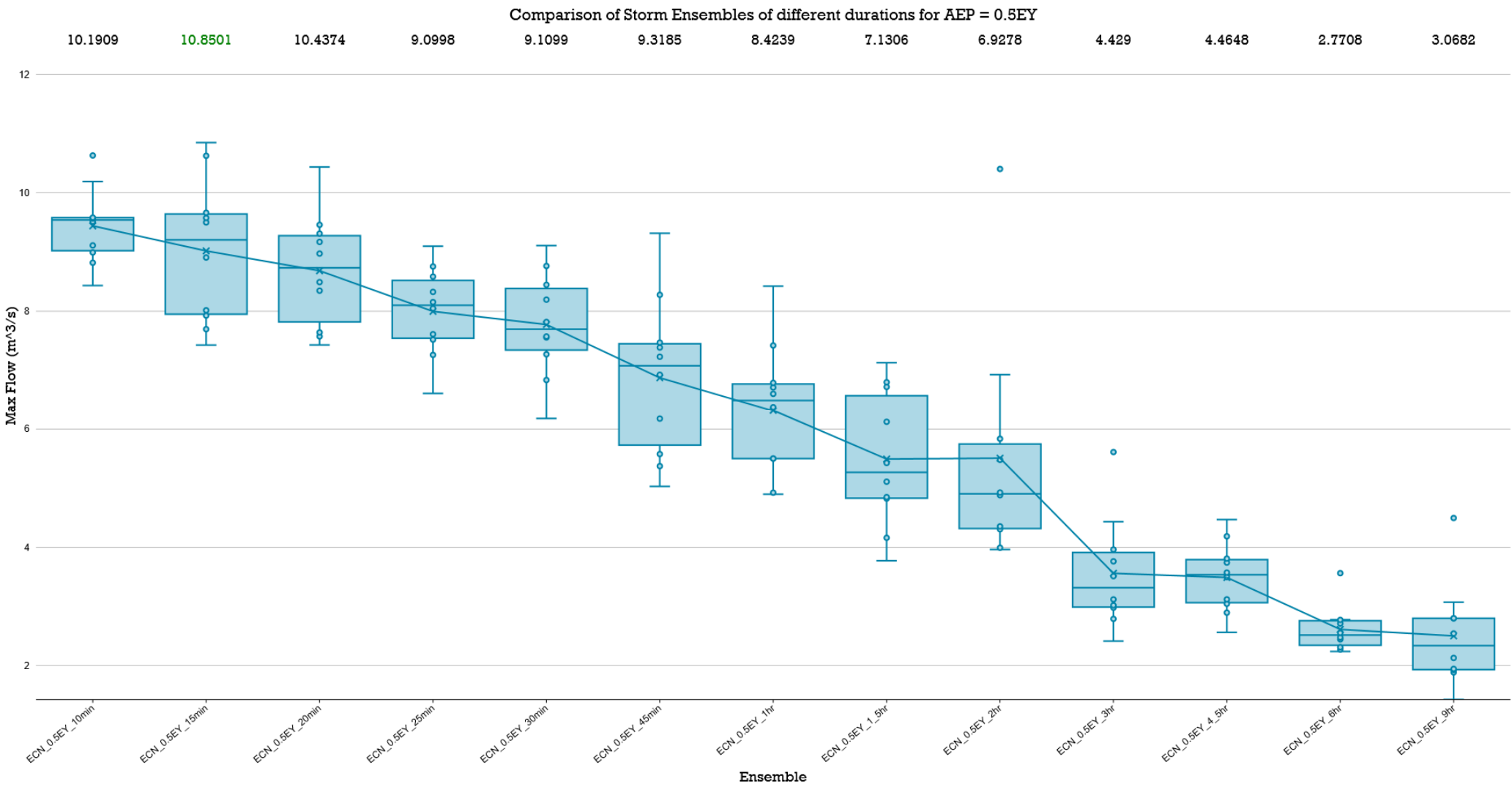


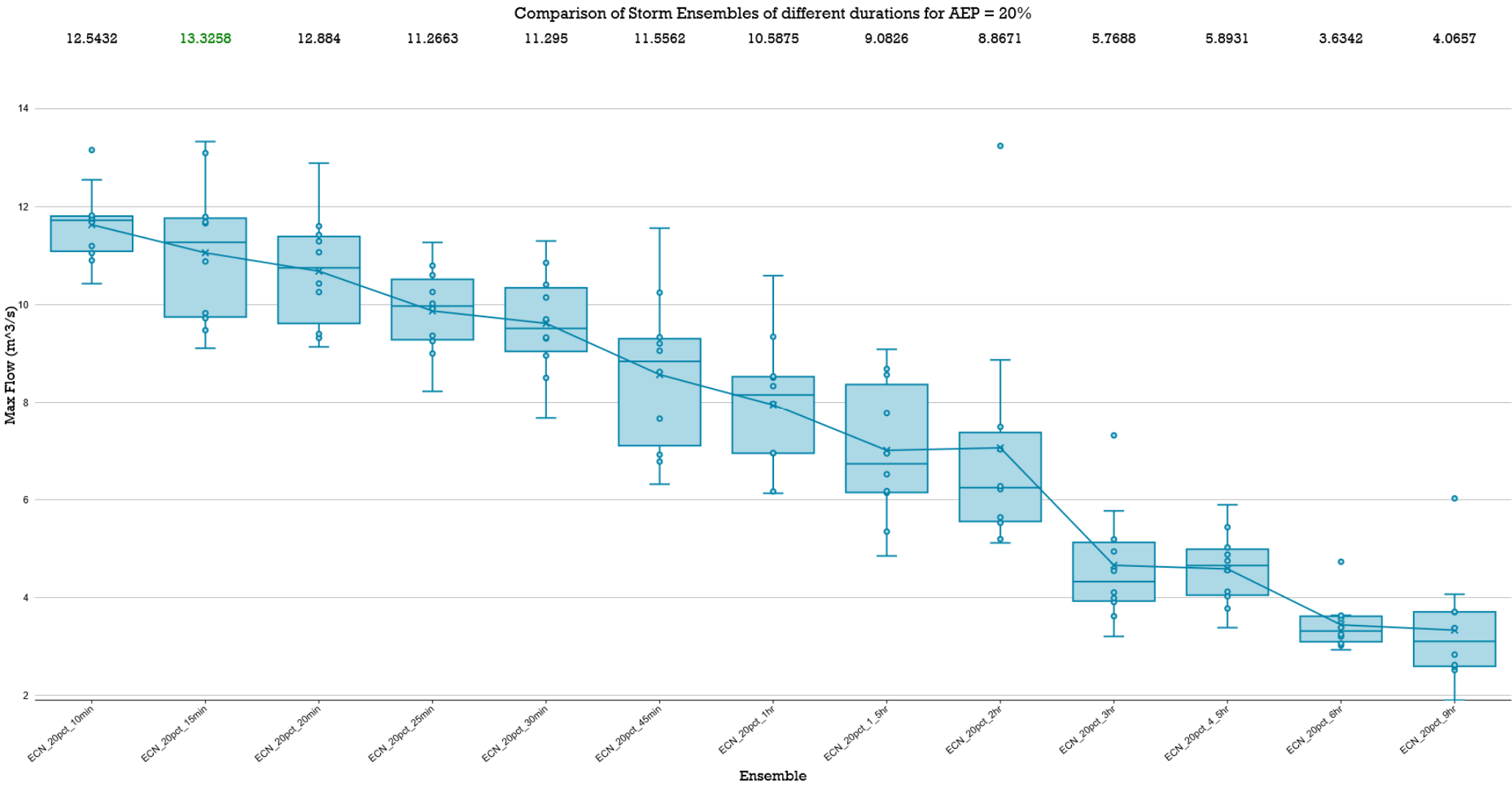


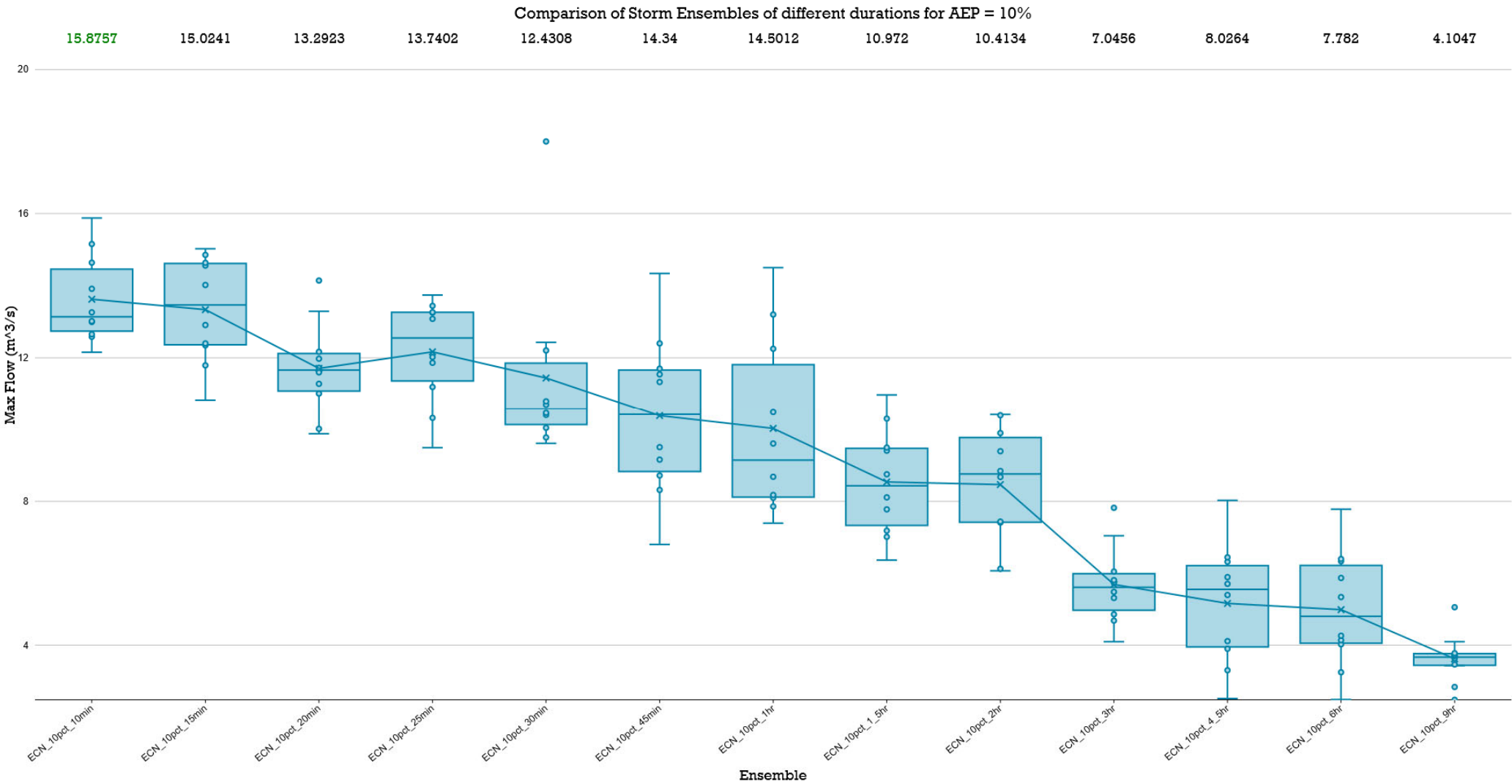


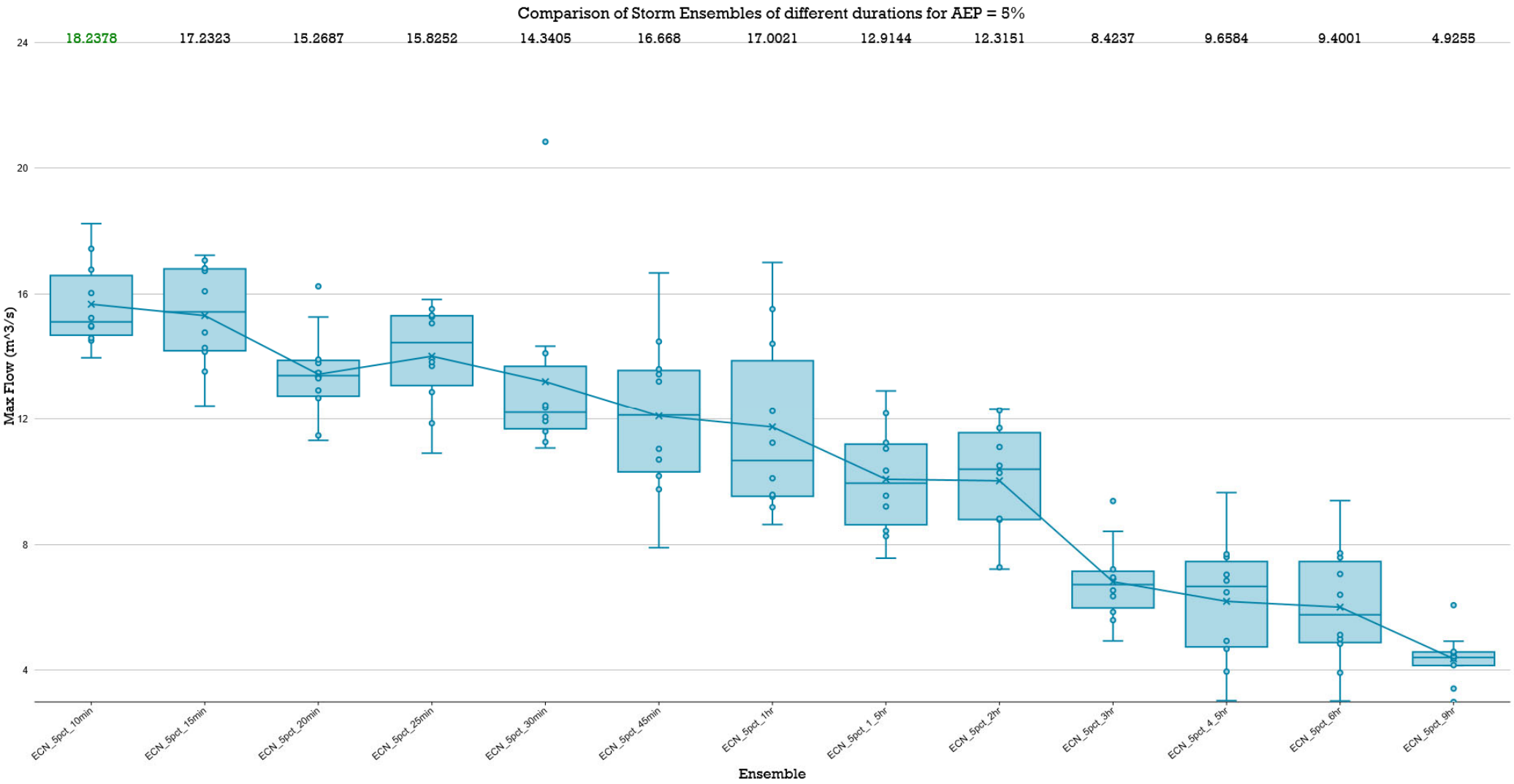


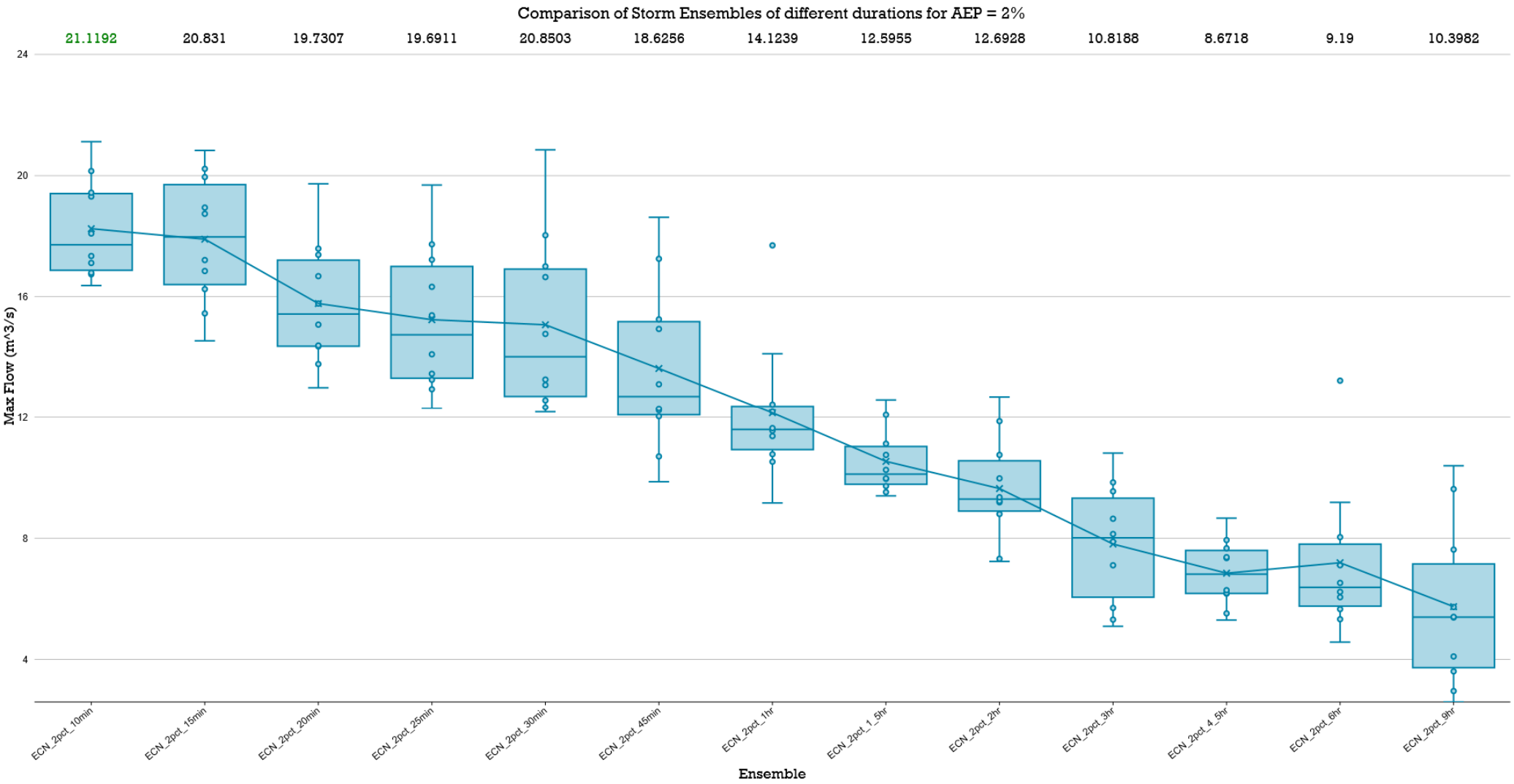






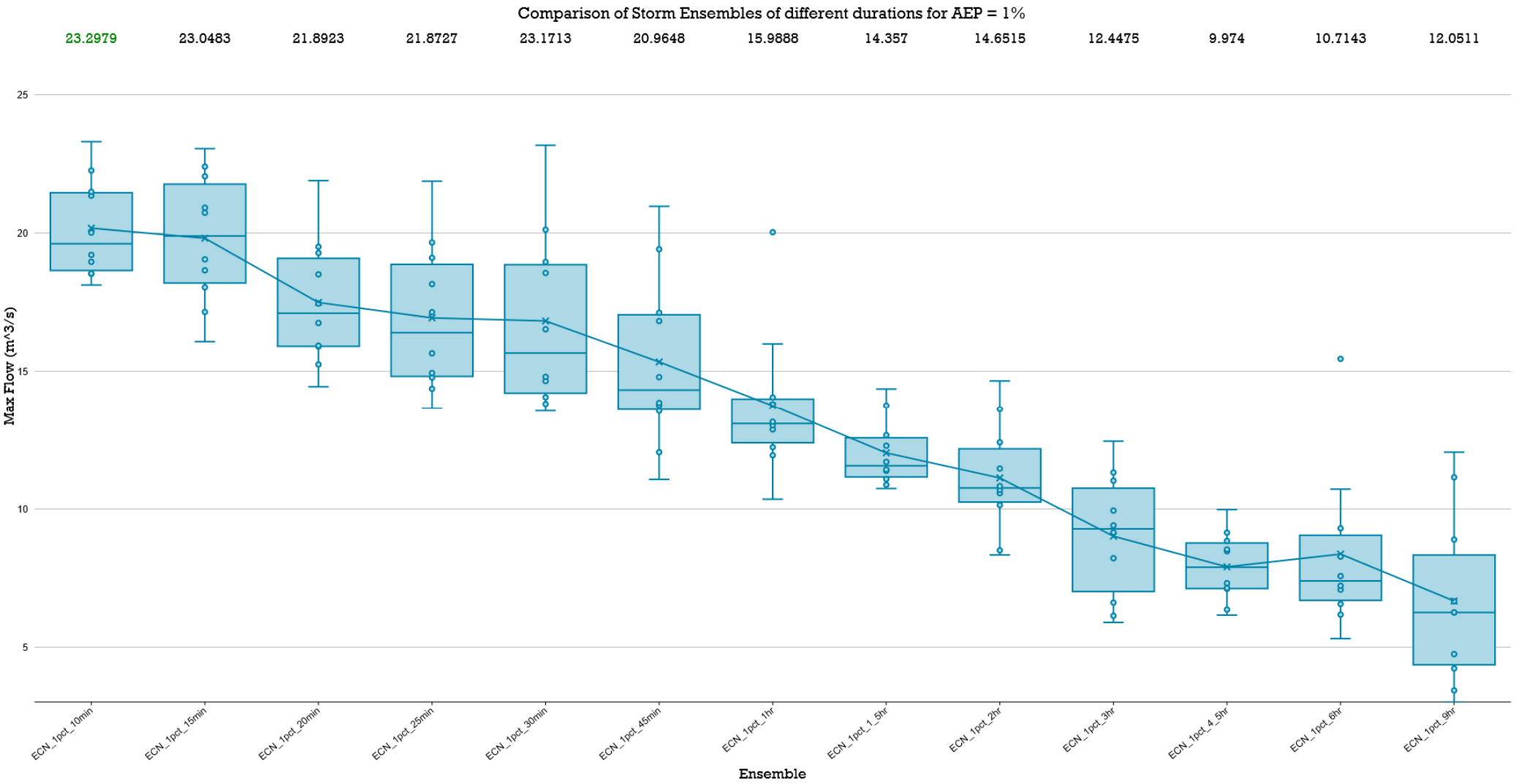






LPoD-1 POST Box & Whisker Plots

Peak Flow Highlighted Green



Development Assessment Rules—Representations about a referral agency response

The following provisions are those set out in sections 28 and 30 of the Development Assessment Rules¹ regarding **representations about a referral agency response**

Part 6: Changes to the application and referral agency responses

28 Concurrence agency changes its response or gives a late response

- 28.1. Despite part 2, a concurrence agency may, after its referral agency assessment period and any further period agreed ends, change its referral agency response or give a late referral agency response before the application is decided, subject to section 28.2 and 28.3.
- 28.2. A concurrence agency may change its referral agency response at any time before the application is decided if—
- (a) the change is in response to a change which the assessment manager is satisfied is a change under section 26.1; or
 - (b) the Minister has given the concurrence agency a direction under section 99 of the Act; or
 - (c) the applicant has given written agreement to the change to the referral agency response.²
- 28.3. A concurrence agency may give a late referral agency response before the application is decided, if the applicant has given written agreement to the late referral agency response.
- 28.4. If a concurrence agency proposes to change its referral agency response under section 28.2(a), the concurrence agency must—
- (a) give notice of its intention to change its referral agency response to the assessment manager and a copy to the applicant within 5 days of receiving notice of the change under section 25.1; and
 - (b) the concurrence agency has 10 days from the day of giving notice under paragraph (a), or a further period agreed between the applicant and the concurrence agency, to give an amended referral agency response to the assessment manager and a copy to the applicant.

¹ Pursuant to Section 68 of the *Planning Act 2016*

² In the instance an applicant has made representations to the concurrence agency under section 30, and the concurrence agency agrees to make the change included in the representations, section 28.2(c) is taken to have been satisfied.

Part 7: Miscellaneous

30 Representations about a referral agency response

30.1. An applicant may make representations to a concurrence agency at any time before the application is decided, about changing a matter in the referral agency response.³

³ An applicant may elect, under section 32, to stop the assessment manager's decision period in which to take this action. If a concurrence agency wishes to amend their response in relation to representations made under this section, they must do so in accordance with section 28.